Fourth Quarter 2024 Monitoring Report Two-Mile Pond Complex Riparian Survey

City of Santa Fe, New Mexico



prepared by



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FOURTH QUARTER 2024 MONITORING REPORT TWO-MILE POND COMPLEX RIPARIAN SURVEY, CITY OF SANTA FE, NEW MEXICO

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FOURTH QUARTER 2024 MONITORING REPORT TWO-MILE POND COMPLEX RIPARIAN SURVEY, CITY OF SANTA FE, NEW MEXICO

PROJECT SUMMARY

The purpose of the 2024 Two Mile system riparian area monitoring was to determine if eliminating the diversion of Santa Fe River flows through Two Mile Pond system would result in stresses on the established riparian area.

The 2024 Two Mile Pond riparian assessment included the following:

- 1. Monthly assessments of moisture and vegetation index imagery to assess changes in water stress and riparian area canopy health.
- 2. Monthly riparian area monitoring for biotic and abiotic metrics.
- 3. Soil moisture monitoring.
- 4. Continuous monitoring of streamflow at five locations.
- 5. Collection of field water quality data.

Summary of findings are the following:

- As indicated by streamflow monitoring, the primary water source for the Two Mile Pond system from Old Stone Dam to Two Mile Pond is shallow groundwater discharging at the base of Old Stone Dam. The origin of this groundwater is from infiltration of streamflow, snowmelt, and storm-water runoff to alluvium upstream of Old Stone Dam.
- The average flow emanating from the base of Old Stone Dam and flowing through the Two Mile system is 0.3 cfs (135 gpm), which is enough to offset evapotranspiration from the riparian system and keep Two Mile Pond full (to the current stand pipe setting) and flushed.
- In 2024, approximately 259 ac-ft of water flowed through the system, 31.4 ac-ft were lost to evapotranspiration and the remaining 227.6 ac-ft flowed through Two Mile Pond and discharged to the Santa Fe River below Two Mile Pond.
- Losses from the Santa Fe River channel adjacent to the Two Mile Pond system were minimal. One seep (< 1 gpm) was noted on the southeast side of Two Mile Pond that may originate from the Santa Fe River channel.
- Two Mile Pond did not change in size during 2024; however, all stream and groundwater systems are transient and the flow rate though the system will vary from changes in climate.
- Flow at the base of Old Stone Dam maintained an average temperature of 10 $^{\circ}$ C, specific conductance of 185 μ S/cm, and pH of 7.0; indication of excellent water quality for the aquatic and riparian habitats.
- Monthly Biotic metric surveys ranked from good to excellent in 2024.
- A health diversity of flora and fauna were documented.
- Monthly Abiotic metric surveys ranked from good to excellent in 2024.

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• Soil moisture monitoring indicated good soil moisture in the riparian system until September 2024, when drought conditions started to show significant reduction in soil moisture along the outer fringes of the riparian area. Changes in soil moisture on the fringes of the riparian area are expected to vary with changes in climate.

- The landscape context, biotic, and abiotic metrics for each monthly investigation are ranked and scored using a modified NMRAM. Monthly riparian rankings alternated between A (excellent condition) and B (good condition).
- The main water stressed area in 2024 appear to be directly up gradient of Old Stone Dam, primarily affecting shallow rooted vegetation (<10 ft) such as coyote willow.

In conclusions, eliminating the diversion of Santa Fe River flows through Two Mile Pond system did not result in significant stresses on the established riparian area. Groundwater discharging from the base of Old Stone Dam sustained streamflow through the Two Mile Pond system.

During 2024, winter, spring, and summer precipitation events provided recharge to the Two Mile Pond system and assist with maintaining soil moisture in the riparian area. Drought conditions took hold on the fall and winter. Water was bypassed to the Santa Fe River as part of the Santa Fe Living River target year flow of 1,000 ac-ft and bypass of water due to repairs to the Nicholas Reservoir dam from July through December 2024. With persistent drought forecasted for 2025, it is likely the flow regime will be drought dominated. For 2025, it is recommended to continue monitoring the flows through Two Mile Pond system and condition of the riparian area.

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Appendix A. Historical Google Earth Images of Two Mile Pond Complex

Appendix B. NDMI Images for Two Mile Pond Complex

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Appendix F. Santa Fe, New Mexico, Mosquito Study Two Mile Pond and The Natural Conservancy Flora and Fauna info

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FOURTH QUARTER 2024 MONITORING REPORT TWO-MILE POND COMPLEX RIPARIAN SURVEY, CITY OF SANTA FE, NEW MEXICO

1.0 INTRODUCTION

John Shomaker & Associates, Inc. (JSAI) was contracted by City of Santa Fe Public Works Department to provide monthly monitoring of the Two Mile Pond Complex riparian area from the Restoration Channel staff gage to decommissioned Two Mile Dam (Figs. 1 through 3). The monitoring area is focused on the riparian area associated with the Restoration Channel and Two Mile Pond Complex. Six monitoring transects have been identified for assessment of riparian conditions (Fig. 3). JSAI utilized standardized riparian monitoring and assessment methods described by New Mexico Rapid Assessment Method (NMRAM) Field Guide prepared by the New Mexico Environment Department Surface Water Quality Bureau (NMED SWQB) (Muldavin et al., 2022). The NMRAM field guide provides procedures for conducting a rapid ecological assessment of wetlands and riparian areas in the Montane Riverine Wetland Subclass that occur along unconfined mountain streams and rivers at elevations between 6,000 and 8,500 ft above mean sea level (ft amsl).

1.1 Project Background

The Santa Fe River begins in the Sangre de Cristo Mountains and flows to the Rio Grande. The Two Mile Pond Complex is in the upper reach of the Middle Santa Fe River hydrologic system (Fig. 1). Reservoirs were established in the Middle and Upper Santa Fe River hydrologic system as a result of securing and developing water supply for the City of Santa Fe (Fig. 2). The City of Santa Fe reservoirs include:

- Old Stone Dam constructed in 1880, but silted in by 1904
- Two Mile Dam and Reservoir constructed in 1893 and decommissioned in mid 1990s
- Granite Point (McClure) Dam and Reservoir constructed in 1926
- Nichols Dam and Reservoir constructed in 1943

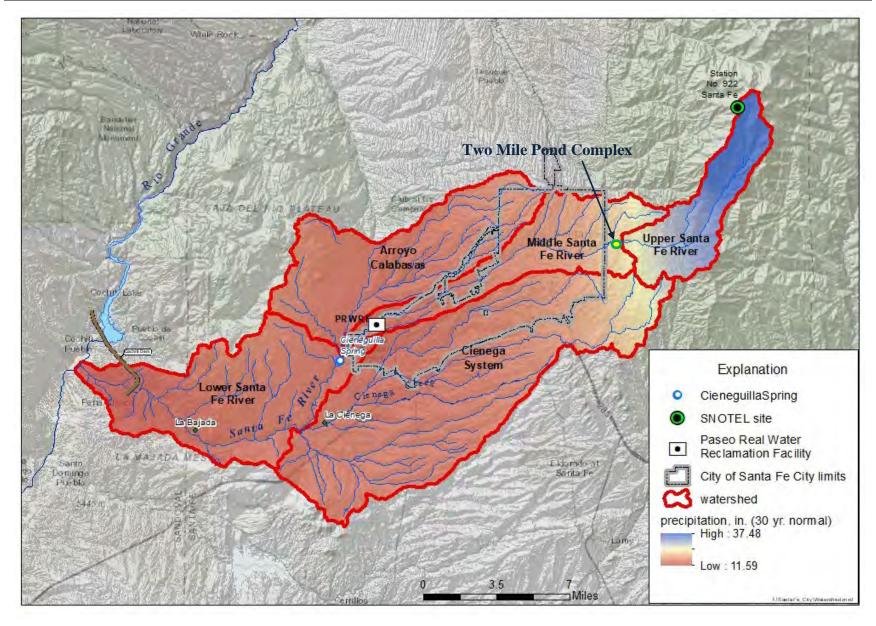


Figure 1. Map of Santa Fe watershed showing location of Two Mile Pond Complex.

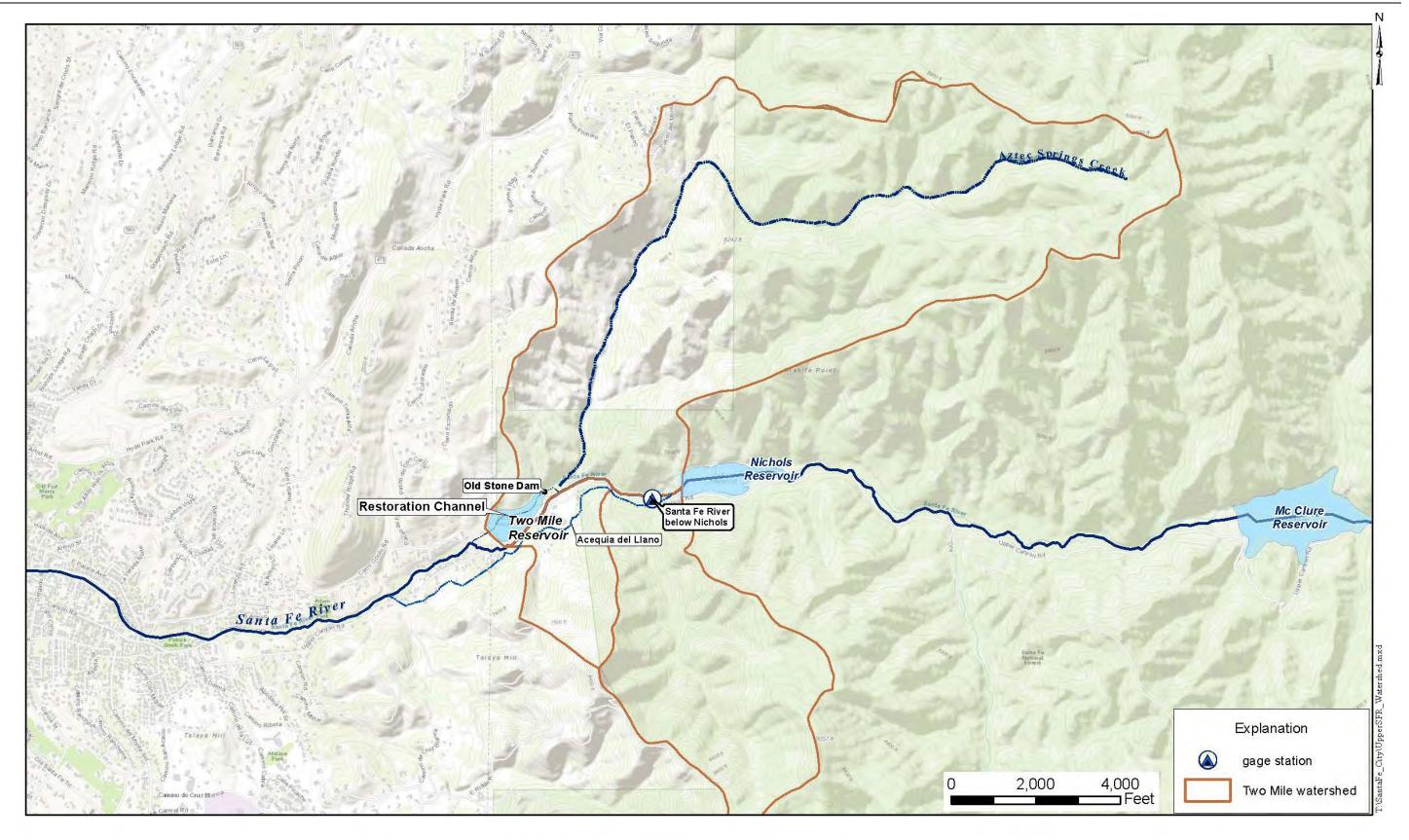


Figure 2. Map showing locations of City of Santa Fe reservoirs, Santa Fe River, and Two Mile Pond receiving watershed.

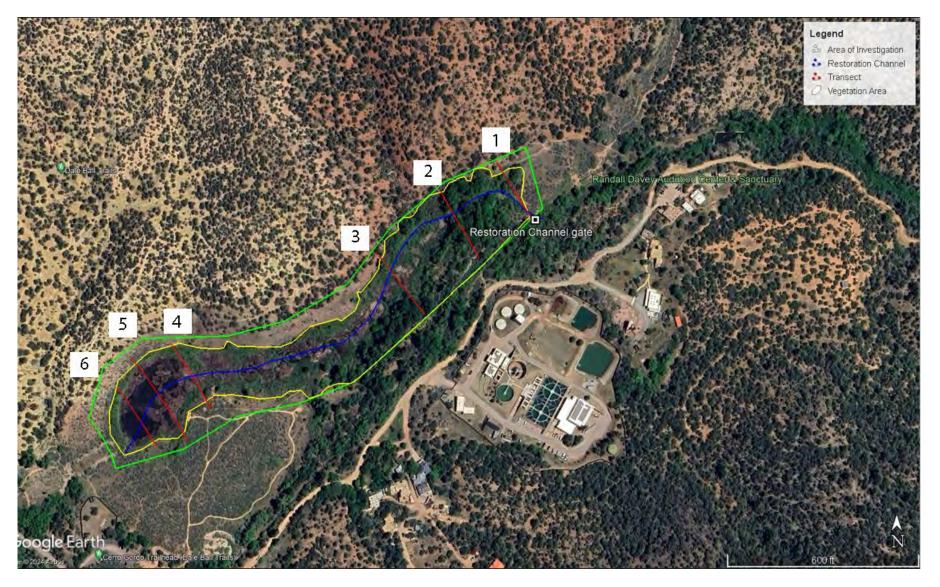


Figure 3. Landscape map showing June 7, 2023 aerial photograph and the Two Mile Pond Complex and area of investigation.

The Two Mile Pond Complex is the result of restoration of the decommissioned Two Mile Dam that was constructed in the Santa Fe River canyon. The Two Mile Pond Complex was donated to The Nature Conservancy (TNC) in 2000, which converted it into the "Santa Fe Canyon Preserve." Features of the Two Mile Pond Complex include:

- Restoration Channel
- Remnants of Old Stone Dam
- Remnants of decommissioned Two Mile Dam
- Established riparian area along the Restoration Channel in the former footprint of Two Mile Reservoir

The City of Santa Fe Ordinance 2012-10 established the Santa Fe River target flows for a Living River Initiative. Target flows are Santa Fe River flows originating from above McClure Reservoir that are bypassed (water that flows past a diversion or storage facility) and released to Santa Fe River at the base of Nichols Dam. Since 2012, target flows have run through Two Mile Complex via the Santa Fe River and Restoration Channel. Other bypass flows include those for court-ordered acequia deliveries downstream of the Two Mile Complex.

Santa Fe River bypassed flows are waters of the State. In 2023, the New Mexico Office of the State Engineer (NMOSE) determined that Restoration Channel diversions from the Santa Fe River and storage in Two Mile Pond had no supporting water right permit, and ordered a stop to these diversions and storage of water. There are concerns that these changes in streamflow conditions through the Two Mile Pond Complex will alter the established riparian system. The primary objective of assessing the Two Mile Pond Complex riparian area is to determine current conditions and health of the system, and affects due to changes to the hydrologic regime.

1.2 Scope of Work

The intentions of the quarterly monitoring reports are to provide a summary of the project, to present data collected to date, to provide an assessment of the collected data, and to present observations and findings. The quarterly monitoring reports are to include:

- Field datasheets (Appendix D)
- landscape map (Fig. 3)
- > sampling rank and score and assessment summary (Table 4)
- stressor checklist (Appendix D)
- > sampling area rank and score and assessment summaries (Table 8)
- water flows and budget from the streamflow monitoring network
- b observed changes in surface water and soil moisture conditions (Appendix G)

2.0 SUMMARY OF EXISTING DATA AND INFORMATION

Available existing data and information were compiled for the Two Mile Pond Complex, which were limited to NMED riparian habitat mapping, historical imagery, and streamflow monitoring performed for Santa Fe Water Division.

2.1 NMED SWQB

The NMED SWQB has prepared a riparian habitat map of the Two Mile Pond Complex portion of the Santa Fe River (Fig. 4). Each colored section represents a different habitat in the Two Mile Pond area. These habitats were used as a guideline in completing Worksheet 5 and B1 of the Montane Riverine Wetlands field worksheets. It should be noted that Habitat IA1 in this model appears to be exaggerated and was not included in the field observations.

2.2 Google Earth Images

Google Earth historical aerial imagery for the Two Mile Pond Complex were available for 1991 to 2023. Historical imagery can be referenced from Appendix A. The Restoration Channel and area of investigation were placed on each image for reference. A summary of the historical images reviewed is presented in Table 1. The Two Mile Pond Complex riparian area begins around 1996, and significant tree canopies are observed by 2005. Since Two Mile Dam and Reservoir were decommissioned, the riparian area was established and ponded water has been observed in Two Mile Pond.

Table 1. Summary of the historical images for Two Mile Pond Complex

Google Earth image date	approximate combined area of riparian and surface water (acres)	observations	
May 25,1991	na	Two Mile Reservoir operational	
October 8, 1996	8.86	4 years after Two Mile decommissioned	
December 6, 2002	9.52	significant drought period	
May 10, 2004	8.32	prior to SFR target flows	
April 26, 2005	9.67	established tree canopies	
May 8, 2009	9.39	water present in Two Mile Pond	
June 16, 2011	8.38	beaver ponds present	
October 2, 2013	9.96	beaver ponds present	
November 1, 2015	10.00	water present in Two Mile Pond	
June 10, 2017	9.64	water present in Two Mile Pond	
March 2, 2021	9.38	water present in Two Mile Pond	
June 7, 2023	10.40	water present in Two Mile Pond	

SFR - Santa Fe River

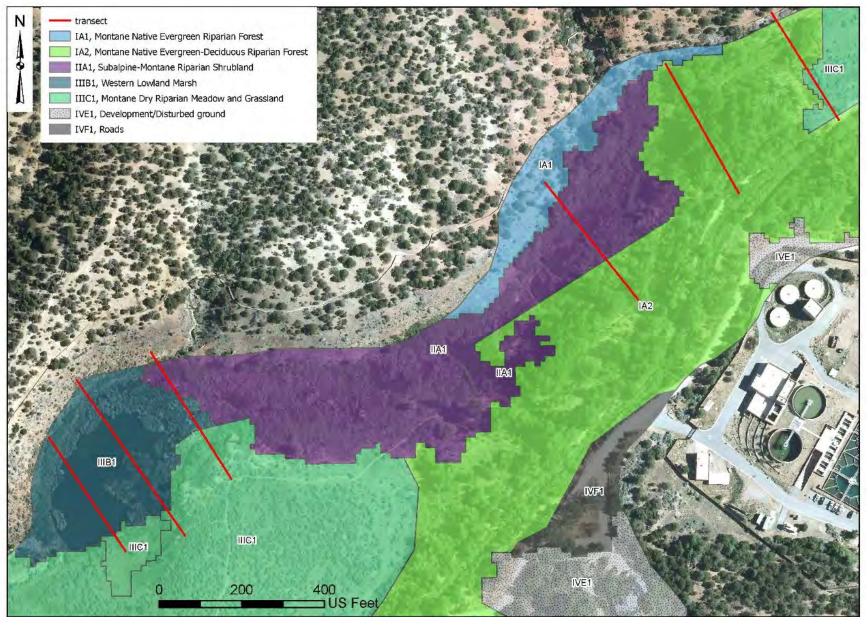


Figure 4. Map showing NMED SWQB defined riparian habitat zones for Two Mile Pond Complex.

The combined riparian and surface-water area was estimated from each historical image after 1996. Over the last 28 years, the combined riparian and surface-water area has varied between 8.32 and 10.40 acres. For 2013 to current, the average area has been about 10 acres. The primary change in the riparian area has been the development of the tree canopy, particularly from 2005 to current.

2.3 NDMI Images

Normalized Difference Moisture Index (NDMI) from Modified Copernicus Sentinel Data (2024) is used to determine vegetation water content and monitor droughts. The values range from -1 to 1 with negative values representing barren soil, values around zero correspond to water stress or dormancy of deciduous vegetation, and positive values represent vegetative canopy without water stress or snowpack cover. NDMI images for January through December 2024 can be referenced from Appendix B, and a summary of observations is presented as Table 2. The quality of the imagery depends on degree of cloud cover.

Table 2. Summary of NDMI images for Two Mile Pond Complex

image date	Two Mile Pond Complex observations	
January 16, 2024	NDMI 1.00 to 0.10, snowpack covered, barren soil	
February 5, 2024	NDMI 0.20 to -0.10, high soil moisture to dormancy	
March 3, 2034	NDMI -0.03 to -0.50, indicating water stress or dormancy	
April 10, 2024	NDMI -0.01 to -0.20, indicating water stress or dormancy	
May 17, 2024	NDMI 0.20 to -0.01, indicating water stress	
June 16, 2024	NDMI 1.00 to 0.00, high canopy without water stress	
July 16, 2024	NDMI 0.8 to -0.03, high canopy without water stress	
August 13, 2024	NDMI 0.8 to 0.00, high canopy without water stress	
September 12, 2024	NDMI 0.8 to 0.03 high canopy without water stress	
October 9, 2024	NDMI 0.8 to -0.03 high canopy without water stress	
November 13, 2024	NDMI 0.24 to -0.03 indicating water stress or dormancy	
December 13, 2024	NDMI 0.10 to -0.10 indicating water stress or dormancy	

NDMI - Normalized Difference Moisture Index

2.4 NDVI Images

Normalized Difference Vegetation Index (NDVI) from Modified Copernicus Sentinel Data (2024) is used to quantify green vegetation. It is a measure of the state of vegetation health based on how plants reflect light at certain wave lengths. The values range from -1 to 1 with negative values representing water; values around zero correspond to barren areas of rock, sand, snow, or dormant vegetation, low positive values represent shrubs, grasses, or new growth; and high positive values represent forested areas. NDVI images for January through December 2024 can be referenced from Appendix C, and a summary of observations is presented as Table 3.

Table 3. Summary of NDVI images for Two Mile Pond Complex

image date	Two Mile Pond Complex observations
January 16, 2024	NDVI 0.4 to -0.1, snowpack, dormant vegetation
February 5, 2024	NDVI 0.4 to 0.0, snowpack, dormant vegetation
March 3, 2034	NDVI 0.4 to 0.1, shrubs, grasses, new growth
April 10, 2024	NDVI 0.4 to 0.0, soil, water, shrubs, grasses, new growth
May 17, 2024	NDVI 1.0 to 0.2, shrub, grassland, temperate forest
June 16, 2024	NDVI 1.0 to -1.0, water, shrub, temperate forest
July 16, 2024	NDVI 1.0 to -1.0, water, shrub, temperate forest
August 13, 2024	NDVI 1.0 to -1.0, water, temperate forest
September 12, 2024	NDVI 1.0 to -1.0, water, temperate forest
October 9, 2024	NDVI 1.0 to -1.0, water, shrub temperate forest
November 13, 2024	NDVI 1.0 to -1.0, water, shrub temperate forest
December 13, 2024	NDVI 0.3 to 0.1, dormant vegetation

NDVI - Normalized Difference Vegetation Index

2.5 Streamflow Monitoring

The City of Santa Fe Water Division has contracted JSAI to install and maintain several continuous streamflow monitoring points in the Two Mile Pond Complex area (Fig. 5). Hydrographs for the Santa Fe River monitoring stations are presented as Figure 6 through 9, and hydrographs for the Restoration Channel and Two Mile return are presented as Figures 10 and 11. Hydrograph for Cerro Gordo acequia diversions is presented as Figure 12.

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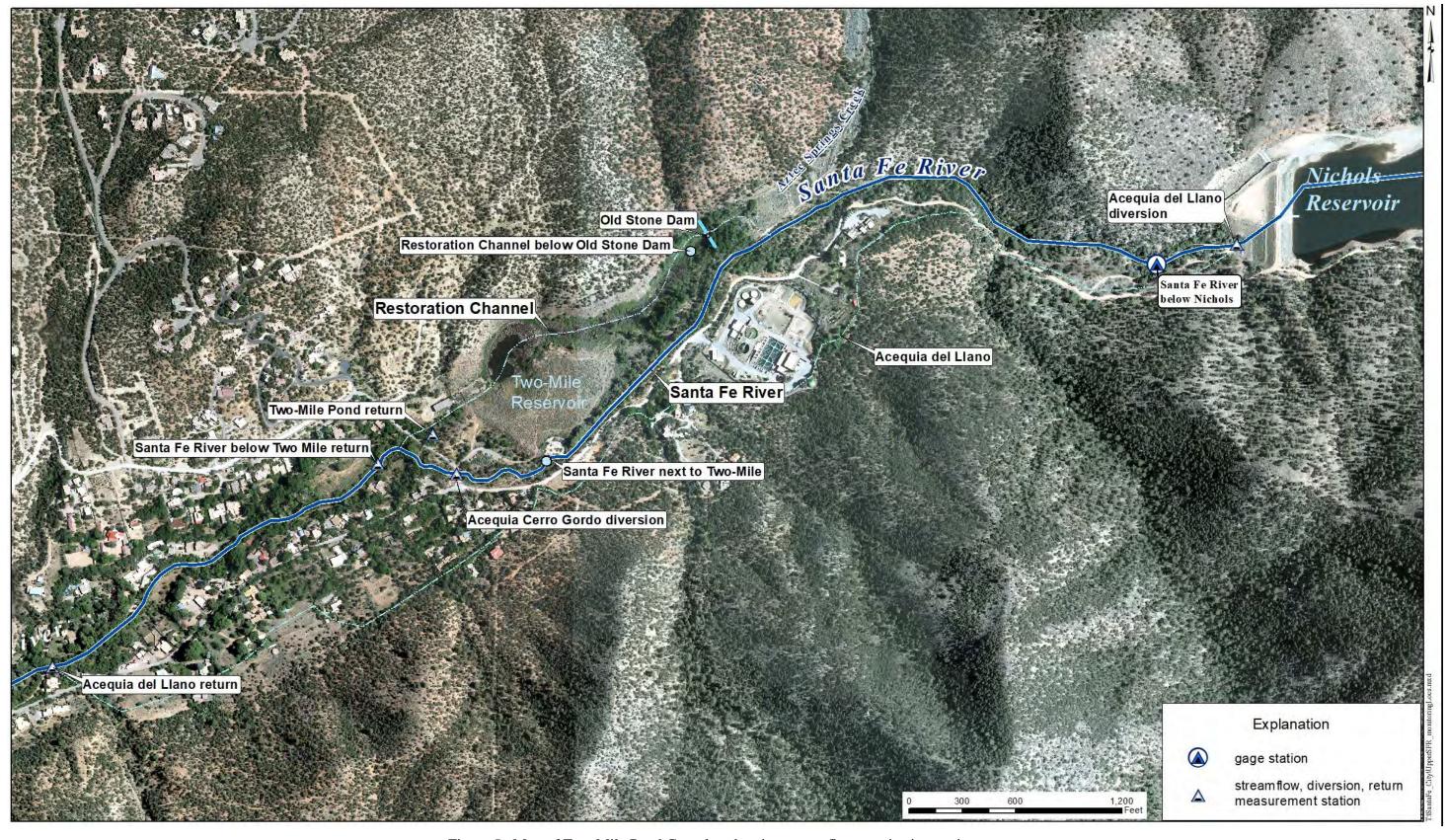


Figure 5. Map of Two Mile Pond Complex showing streamflow monitoring stations.

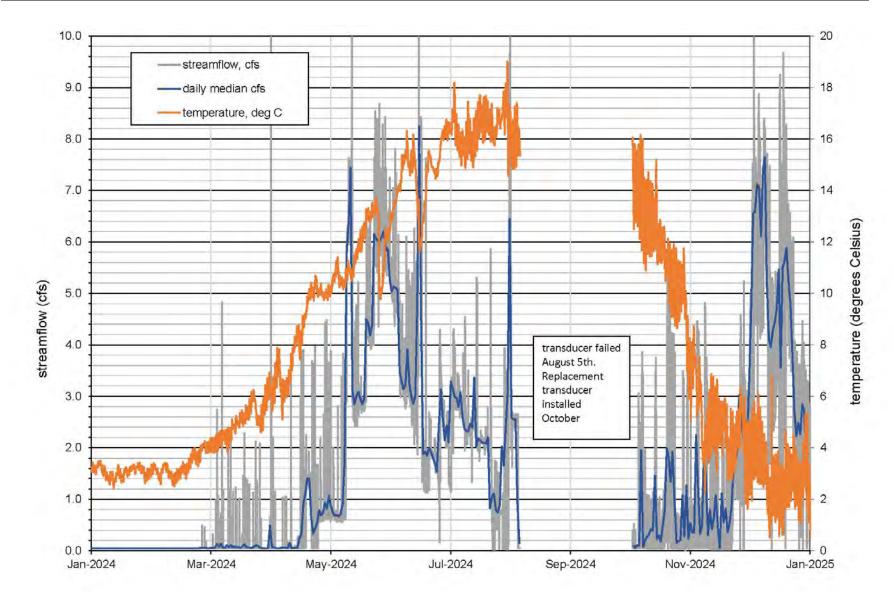


Figure 6. Graph of 2024 streamflow data for Santa Fe River below Nichols.

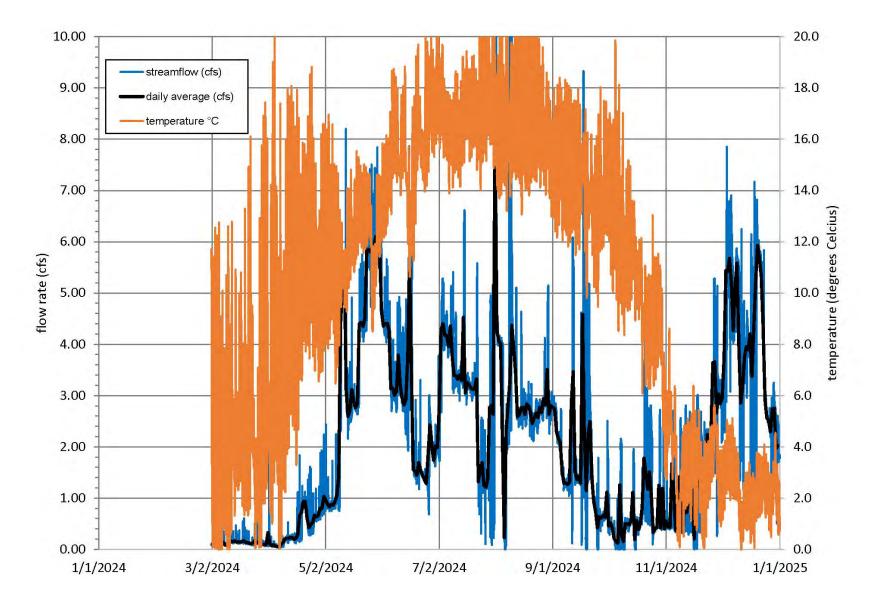


Figure 7. Graph of 2024 streamflow data for Santa Fe River next to Two Mile Pond.

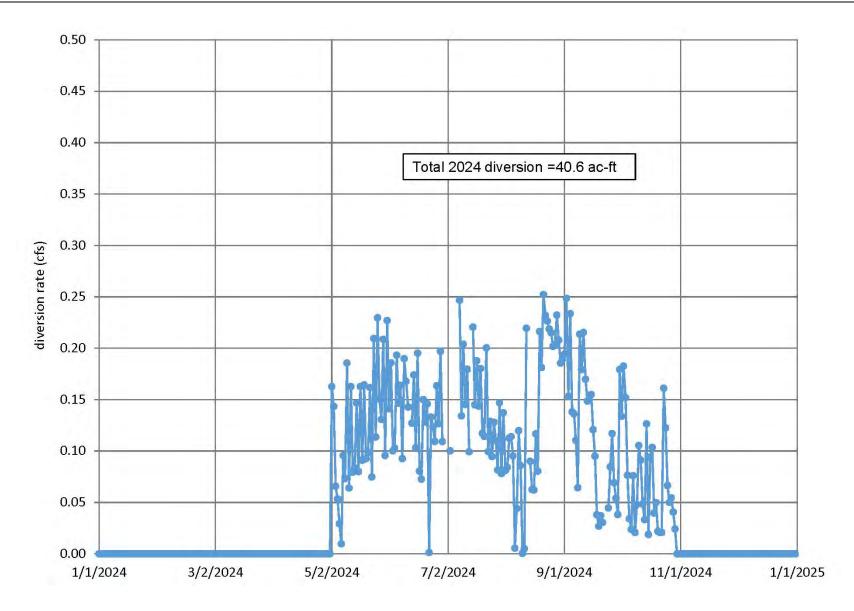


Figure 8. Graph of 2024 Cerro Gordo Diversions from Santa Fe River.

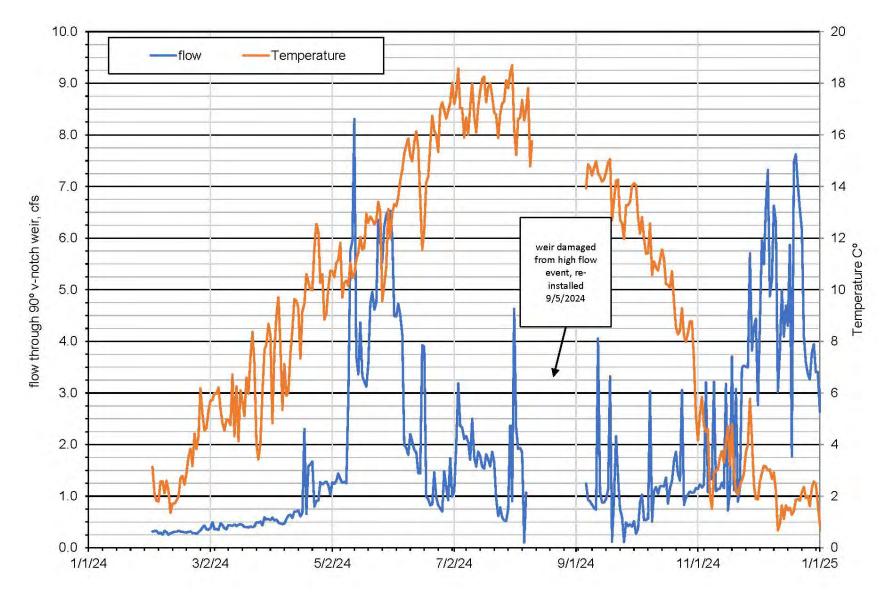


Figure 9. Graph of 2024 streamflow data for Santa Fe River below Two Mile Return.

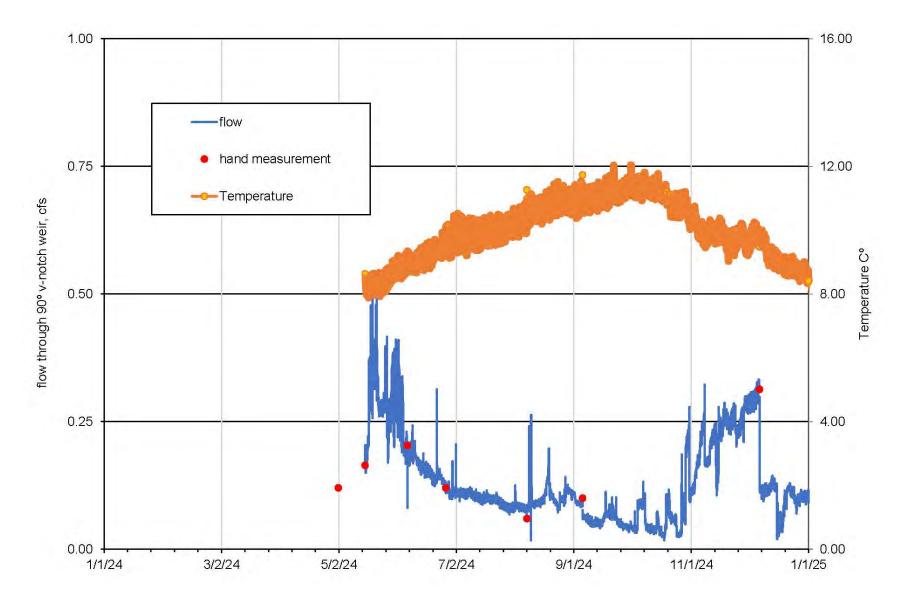


Figure 10. Graph of 2024 streamflow for Restoration Channel below Old Stone Dam.

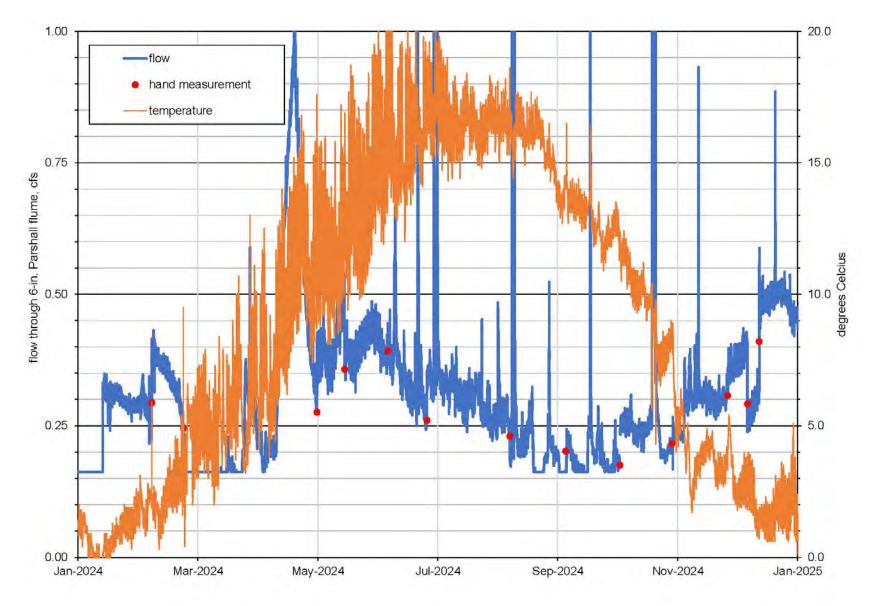


Figure 11. Graph of 2024 streamflow for Two Mile Pond return.

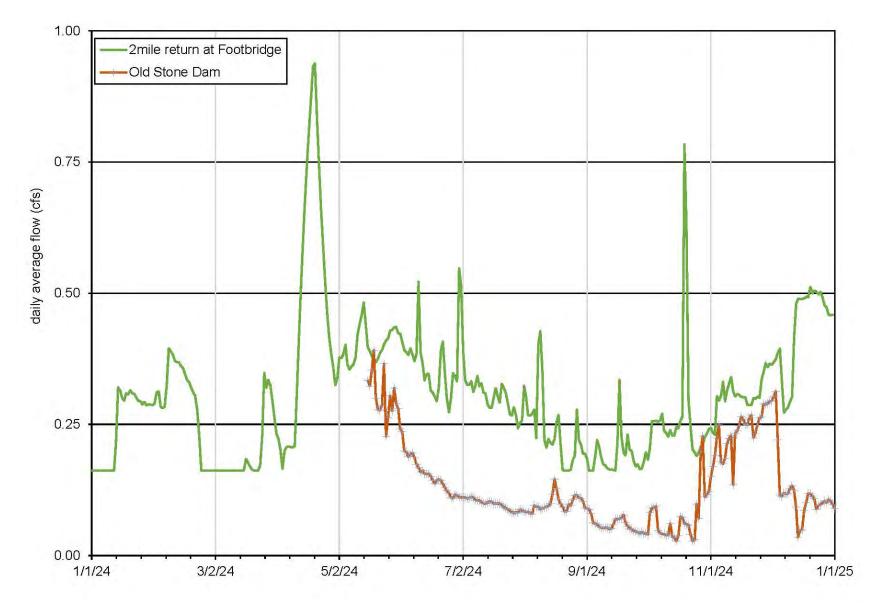


Figure 12. Graph comparing measured 2024 daily flow Below Old Stone Dam and at Two Mile Pond return.

2.5.1 Santa Fe River

The gage Santa Fe River below Nichols monitors all bypass flows below Nichols Dam. The river channel at the gage Santa Fe River below Nichols was clogged with fallen trees during this last winter. Recorded streamflow data corrected using a water balance analysis of Nichols Reservoir (JSAI, 2025). Corrected flow data and water temperature are presented on Figure 6. From January to about mid-April, streamflow at Santa Fe River below Nichols was less than 0.1 cubic feet per second (cfs). Bypass flows for irrigation deliveries and targeted flows for Living River Initiative started around mid-April (Fig. 6). Spring pulse occurred mid-May. Additional bypass flows occurred during the summer into the fall as a result of repairs to Nichols Dam. During the middle of August, it was discovered that the transducer had failed and a replacement transducer was installed by October 3. Santa Fe River bypass flows during 2024 averaged 1.65 cfs and ranged between 0.1 and 10 cfs.

An existing 90° V-notch weir in the Santa Fe River next to Two Mile Pond (Fig. 5) was modified by expanding the weir dimensions. At the beginning of March 2024, the V-notch weir was built up and equipped with a stilling well and transducer and recorded streamflow for the remainder of 2024 (Fig. 7). The Santa Fe River streamflow next to Two Mile Pond mimicked Santa Fe River below Nichols flows.

At the beginning of February 2024, a temporary 90° V-notch weir was installed in the Santa Fe River below the confluence of Two Mile Pond return and Santa Fe River (Fig. 5). The weir was equipped to provide continuous monitoring of flows in the Santa Fe River below Two Mile Pond return. Recorded streamflow and water temperature can be referenced from Figure 9. Spring pulse, sporadic reservoir releases, and storm-water runoff events repeatedly damaged the weir. Attempts were made to repair the weir after each high-flow event.

Diversions from Acequia Cerro Gordo are graphically illustrated on Figure 8. These diversions were included the water budget for the Santa Fe River from below Nichols to below Two Mile Pond confluence. Diversion rates appear to average 0.3 cfs for scheduled water delivery days during the irrigation season.

Santa Fe River flows from below Nichols, around Two Mile Pond, and downstream of Two Mile Pond confluence show a base flow of 0.1 cfs during the First Quarter of 2024, sustained flows above 3 cfs during the Second Quarter of 2024, flows varying between <0.1 and above 6 cfs during the Third and Fourth quarters (Figs. 6, 7, and 9). Sustained flows occurred from mid-April to October, and from mid-November through December. Analysis of the Santa Fe River streamflow data indicated seepage losses occur above Old Stone Dam but are within the 2024 dataset measurement error (JSAI, 2025).

Santa Fe River below Nichols water temperature increased from winter (3 °C) to summer (18 °C), and then decreased during the Fourth quarter about 3 °C (Fig. 6). Flows at Santa Fe River next to Two Mile showed larger daily fluctuations in water temperature ranging from 0 to greater than 20 °C (Fig. 7) due to the shallow concrete lined channel and periods of low flow with slow water velocity. Santa Fe River water temperature below Two Mile confluence ranged from 2 to 18 °C (Fig. 9).

2.5.2 Two Mile Pond System

There are two streamflow monitoring stations for the Two Mile Pond system: 1) Restoration Channel below Old Stone Dam, and 2) Two Mile Pond return (Fig. 5).

The Restoration Channel below Old Stone Dam monitors seepage from the base of Old Stone Dam (Fig. 10). The only available location to install the weir was on top of an old beaver dam. Due to potential underflow and lack of channel on top of old beaver dam, the measured flows below Old Stone dam represent a portion of flow entering the Two Mile Pond system. Measured flows below Old Stone Dam averaged 0.13 cfs in 2024, with flows ranging from 0.04 cfs (18 gallons per minute; gpm) to 0.50 cfs (224 gpm). Water was constantly flowing below Old Stone Dam to Two Mile Pond in 2024 (see Figs. 10, 11, and 12).

The Two Mile return 6-in. Parshall flume monitors all streamflow exiting the Two Mile Pond Complex (Fig. 11). JSAI has been monitoring this flume for the past few years. There have been issues with maintaining the flume, such as suspended sediment and organic debris clogging the ports for the stilling well and flume entrance. Returns from Two Mile Pond Complex increase to about 0.8 cfs during April snow-melt runoff, and remained between 0.15 and 0.50 cfs during most of 2024 (Fig. 10). The occasional spikes in flow are believed to be a result of precipitation events. Sustained increases in flow (<0.2 cfs) at Two Mile Pond return coincide with Santa Fe River spring pulse and December bypass flow releases.

Figure 12 is a graph comparing flows measured below Old Stone Dam and at Two Mile Pond return. Streamflow measured below Old Stone Dam is less than the Two Mile return, likely due to underflow in the beaver pond structure that is not measured. The analysis of flow through Two Mile system is based on flows measured below Old Stone Dam and flows measured at Two Mile Return. Monthly riparian area field inspections during 2024 did not reveal any significant flows diverted from Santa Fe River to the Restoration channel above Old Stone Dam or any significant seeps of flow to the Two Mile system from the Santa Fe River below Old Stone Dam. One seep (< 1 gpm) was noted near the south side of Two Mile Pond. Therefore, all flows into Two Mile Pond originated from the flow at the base of Old Stone Dam and from captured precipitation within the Two Mile Pond system.

Temperature data of flow below Old Stone Dam is consistently colder than Santa Fe River surface water during the summer months and warmer in the winter months. Figure 13 is a time-series graph of surface-water temperature measured at Santa Fe River below Nichols and at below Old Stone Dam. The narrow range of seasonal temperature and constant daily temperature of flows below Old Stone Dam are indicative of groundwater recharge resembling local recharge. There were no observed instant jumps in water temperature due to rapid infiltration of Santa Fe River water.

As analyzed by JSAI (2025), the groundwater flow under Two Mile Dam is likely insignificant, given the underlying low-permeability bedrock and lack of alluvial thickness. Therefore, all flow exiting Two Mile Pond is measured at the return.

The total Two Mile Pond system inflow can be calculated by adding measured outflows at Two Mile Pond Return and estimated evaporative losses from the Riparian system. A summary of the monthly water budget for the Two Mile Pond system can be referenced from Table 4. Monthly evapotranspiration was calculated from OpenET online application considering a riparian area of 12.4 acres. Total Two Mile Pond system inflow was considered as flow measured at Two Mile Pond return plus losses due to evapotranspiration. Total inflow varies from 14 to 31.6 acrefeet (ac-ft) per month, and totals 259 ac-ft for 2024. The highest rate of inflow occurred in April during spring snowmelt runoff before the spring pulse in May.

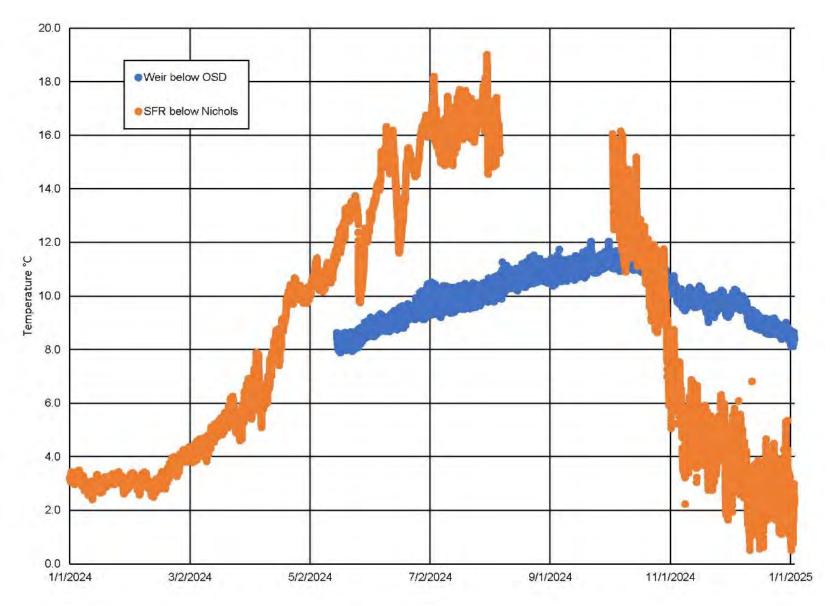


Figure 13. Time-series graph of 2024 measured water temperature below Old Stone Dam and at Santa Fe River below Nichols.

Table 4. Monthly water budget for Two Mile Pond system

month	ensemble ET (in.)	ET * (ac-ft)	Two Mile return (ac-ft)	total inflow (ac-ft)
January-24	0.689	0.711	14.8	15.5
February-24	1.147	1.184	17.8	19.0
March-24	1.669	1.723	12.3	14.0
April-24	2.657	2.743	28.9	31.6
May-24	3.803	3.926	24.6	28.5
June-24	4.542	4.689	22.1	26.8
July-24	4.709	4.862	19.1	24.0
August-24	4.091	4.224	14.8	19.0
September-24	3.265	3.371	11.7	15.1
October-24	2.116	2.184	16.0	18.2
November-24	1.058	1.092	19.1	20.2
December-24	0.662	0.684	26.4	27.1
		31.4	227.6	259.0

^{*} based on 12.4 acre riparian area

ET - evapotranspiration

ac-ft - acre-feet

Based on the analysis by JSAI (2025), it appears that about 60 percent of the inflow to Two Mile Pond system is from slow infiltration along Santa Fe River channel above Old Stone Dam, and about 40 percent of Two Mile Pond system total inflow is from a separate source of water that the Santa Fe River, such as the receiving watershed (includes Aztec Spring drainage). Lines of evidence for these conclusions are:

- 1) Groundwater issuing from the base of Old Stone Dam, snowmelt events, and storm-water runoff are the sources of water flowing through the Two Mile Pond system in 2024. No other significant seeps or sources of water entering the Two Mile Pond system were observed during the monthly riparian survey.
- 2) Temperature of groundwater issuing from the base of Old Stone Dam was steady, at thermal equilibrium, and not influenced by increased flows in the Santa Fe River.
- 3) Santa Fe River mass balance suggests only a portion of the 259 ac-ft entering Two Mile Pond system can be attributed to seepage upstream of Old Stone Dam.

About 800 ft upstream of Old Stone Dam is a defunct concrete irrigation box on the Santa Fe River. There are several pipes and valves associated with the irrigation box, in which one of the pipes is reportedly buried and terminates at the base of Old Stone Dam. It has been thought that streamflow draining into this pipe flows into the Two Mile Pond system. Observations during the 2024 Riparian survey indicated that most all of the flow originating from the base of Old Stone Dam was from seeps and not the irrigation pipe. Some flow was observed from the irrigation pipe, but water temperature indicated the source was groundwater rather than diverted streamflow at the irrigation box.

Other considerations of the conceptual hydrologic model for the Two Mile Pond system would include alluvial storage capacity and potential seepage rate from Santa Fe River. The alluvial system above Old Stone Dam is about 800 ft in length, 200 ft in width, and about 25 ft in thickness; capable of storing about 25 ac-ft of groundwater. Considering a seepage rate of 1 cfs per mile of river channel (JSAI, 2019), the Santa Fe River seepage capacity would be 0.15 cfs for 800 ft of river channel upstream of Old Stone Dam. This estimated Santa Fe River seepage rate is about 40 percent of the total input to the Two Mile Pond system.

Collection and analysis of water chemistry data could help further refine the sources of water to the Two Mile Pond system and associated conceptual model.

3.0 RIPARIAN MONITORING

The monitoring period is January to December 2024. Field investigations are performed monthly during the growing season between March and November. This Fourth Quarter report includes monthly field investigations from March through October 2024.

3.1 Field Investigations To Date

The New Mexico Rapid Assessment Method (NMRAM) Montane Riverine Wetlands data sheets for assessment of Two Mile Pond on March 7, 2024; April 9, 2024; May 15, 2024; and June 11, 2024; July 16, 2024; August 13, 2024; September 11, 2024; October 9, 2024; can be referenced from Appendix D, including the stressor checklist. Field photographs are presented in Appendix E.

Category scores are graded on a scale from 1 to 4 (higher numbers are more desirable indicating better health and riparian condition). Table 5 is a summary of the scoring and ranking method. Each transect is graded independently and the resulting grades are multiplied against a weighted ratio and combined to give each transect a wetland condition score.

rankscoredescriptionA $\geq 3.25 - 4.0$ excellent conditionB $\geq 2.5 - \langle 3.25|$ good conditionC $\geq 1.75 - \langle 2.5|$ fair conditionD $1.0 - \langle 1.75|$ poor condition

Table 5. NMRAM scoring and ranking description

NMRAM - New Mexico Rapid Assessment Method

3.1.1 Landscape Context

Landscape maps (Figs. 3 and 4, Appendix A) and field observations were used to evaluate the landscape context metrics, such as surrounding land use and riparian connectivity. A summary of the landscape context metric scoring is presented as Table 6. Landscape context remains the same throughout the investigations because it is performed remotely and ahead of all investigations. For the year of 2024, it was determined that the landscape context has a score of 3.25, as can be seen in Table 6.

Table 6. Average scores for landscape context metrics

landscape context metric	average score 2024
buffer integrity index	3.00
riparian corridor connectivity	4.00
relative wetland size	4.00
surrounding land use	2.00
total	3.25

3.1.2 Biotic Metrics

Biotic metric scores were calculated using the Montane Riverine Wetlands Field Guide method of ranking a riparian area. Each category has a set of biotic measurements and observations that are recorded in the field and then combined to result in a final ranking for the riparian area. Table 7 shows the average of all six transects for the total biotic component of Two Mile Reservoir. Results from all transects can be found in Appendix D.

Table 7. Average scores for biotic metrics

biotic metrics	March 7 average scores	April 9 average scores	May 15 average scores	June 11 average scores
relative native plant community composition	2.83	3.17	3.00	3.33
vegetation horizontal patch structure	2.83	3.00	3.00	3.00
vegetation vertical structure	2.83	2.83	2.83	2.67
native riparian tree regeneration	3.00	3.50	3.17	2.83
invasive exotic plant species cover	2.83	3.00	3.17	3.00
total	2.87	3.10	3.03	3.33
biotic metrics	July 16 average scores	August 13 average scores	September 11 average scores	October 9 average scores
biotic metrics relative native plant community composition	average	average	average	average
	average scores	average scores	average scores	average scores
relative native plant community composition	average scores	average scores	average scores	average scores
relative native plant community composition vegetation horizontal patch structure	average scores 3.33 3.33	average scores 3.33 3.17	average scores 3.33 3.17	3.67 3.17
relative native plant community composition vegetation horizontal patch structure vegetation vertical structure	average scores 3.33 3.33 3.00	average scores 3.33 3.17 3.00	average scores 3.33 3.17 3.00	3.67 3.17 3.17

Each monthly investigation biotic factors including flora and fauna are documented. The NMRAM focuses on the flora aspect of the riparian environment and can be seen in the rankings of each transect. The visible fauna of the environment include mammals, birds, reptiles, fish, insects, and so forth.

Birds and insects were the most abundant fauna observed. Merlin Bird ID (a trusted bird identification app) is used in areas where the birds can be heard but are not seen and cross referenced with data from the Audubon Society Davey Randell Center (Appendix F). Identified birds and their expected occurrence are summarized in Table 8.

Table 8. Summary of birds identified during the monthly field investigations

common *	uncommon *	rare *
Red Wing Blackbird	American Crow	Yellow Breasted Chat
Mallard Ducks	Rufous-sided Towhee	
Violet Green Swallow	Black-Headed Grosbeak	
Black Chinned Hummingbird	Pinyon Jay	
Broadtail Hummingbird	Pine Siskin	
House Finch	Red Breasted Nuthatch	
American Robin	Coopers Hawk	
Warbling Vireo	Bushtit	
Song Sparrow		
Western Wood Pewee		
Lesser Goldfinch		
White Breasted Nuthatch		
Northern Flicker		
Black Capped Chickadee		
Common Raven		

^{*} From Audubon New Mexico where Common is usually seen on each visit, uncommon is seen on most visits but not every visit, and rare is seen only a few times over five seasons

Traces of animals including tracks, droppings, and other sounds are also documented when they are observed in the field. Observed mammals included deer, grey mouse, and raccoon.

Photographs of some of the observed species along with check lists from the Davey Randell Center and The Nature Conservancy Santa Fe Canyon Preserve can be found in Appendix E. A list of fauna observed by date of monthly investigation can be referenced from Table 9.

Notable aquatic fauna included tadpoles, frogs, water striders, Dragon Flies, ducks, and Goldfish. There are numerous beaver dams, but no beavers were observed during the monthly field inspections.

Table 9. Summary of fauna observed in Two Mile Pond riparian area

date	observed species
3/7/2024	Red Wing Black Bird
	Small Gnats
	Goldfish
	Deer droppings/tracks
4/9/2024	Tadpoles
	Bees
	Mallard Ducks
5/15/2024	Pinyon Jay
	Garter Snakes (6)
	Rufous-Sided Towhee
	Black Chinned Hummingbird
	Frog Croaks
	Whiptail Lizards
	American Robin
	Pinacate Beetles (3)
	Swallowtail Butterfly
	Box Elder bugs
	Water Striders (Gerridae)
6/11/2024	Whiptail lizards
	Mule deer
	Black- Headed Grosbeak
	Rufous-Sided Towhee
	American Robin
	House Finch
	Pine Siskin
	Yellow Breasted Chat
	Warbling Vireo
	Lesser Goldfinch
	Western Wood Pewee
	Box Elder Bugs
	Water Striders (Gerridae)
	Beatles (Melolonthinae)



7/16/2024	Whiptail Lizards		
	Garter Snakes (4)		
	Rufous-Sided Towhee		
	Redwing Blackbird		
	Song Sparrow		
	Broadtail Hummingbird		
	Yellow Breasted Chat		A PLATE
	Robin	= x	441
	Warblin Vireo		
	Red Breasted Nuthatch		建
	Violet Green Swallow	AVA MOSSI	THE STATE OF THE S
	Dragon Fly		Contract of the second
	Frog Croaks		
	Ants		
	Butterflies/Moths		
8/13/2024	Racoon Tracks		
	Lesser Goldfinch		
	Mosquitos		
	Bees		
	Coopers Hawk		
	Fence Post Lizard		
	Pine Siskin		
	American Crow		Jan Transport
9/11/2024	Dragon Fly	10/9/2024	Butterflies/Moths
	Wasps		Black Bee
	White Breasted Nuthatch		Amber Bee
	Northern Flicker		Bee fly
	Broadtailed Hummingbird		Northern Flicker
	Black Capped Chickadee		Crickets
	Lesser Goldfinch		Toads
	Racoon Tracks		Grey mouse
	Water Striders (Gerridae)		Bushtit
	Deer Track		Song Sparrow
	Bluetail Lizard		Rufous-Sided Towhee
	Broadtail Hummingbird		Red Breasted Nuthatch
			Common Raven
			Mallard Ducks
			House Finch

The City of Santa Fe, New Mexico Integrated Pest Management conducted their own Two Mile Pond mosquito survey on June 18, 2024. The results of their field collection can be found in Table 10. Sixty mosquitos were caught and among them 18 (Culex tarsalis) are common vectors for the West Nile Virus in New Mexico. The entire report can be found in Appendix F.

species count percent of total sample Aedes increpitus 1 1.52% Aedes trivittatus 11 16.67% Anopheles freeborni 6 9.09% Culex tarsalis 18 27.27% Culiseta incidens 4 6.06% Culiseta increpitus 1 1.52% Culiseta inornata 25 37.88%

Table 10. Summary of mosquito survey

3.1.3 Abiotic Metrics

Scores were calculated using the Montane Riverine Wetlands Field Guide method of ranking a riparian area. Each category has a set of abiotic measurements and observations that are recorded in the field and then combined to result in a final ranking for the riparian area. There are four abiotic metrics that reflect the physical status of the riparian area:

- 1. Physical Patch Complexity, which is a measure of the physical structural complexity of a site that contributes to ecological richness.
- 2. Channel Equilibrium, which is the assessment of the degree of channel aggradation or degradation relative to reference equilibrium conditions.
- 3. Steam Bank Stability and Cover, which is a measure of stream bank soil/substrate stability and erosion potential that reflect overall stream bank stability.
- 4. Soil Surface Condition reflects anthropogenic soil disturbance impacts within the sampling area

Due to the circumstances, Two Mile Pond "Floodplain Hydrologic Connectivity" was not accounted for since its results could be misleading and its importance is not relevant to this particular investigation. Table 11 shows the average of all six transects for the total abiotic component of Two Mile Reservoir. Results from all transects can be found in Appendix D.

Table 11. Average scores for abiotic metrics

abiotic categories	March 7 April average average scores scores		May 15 average scores	June 11 average scores	
physical patch diversity	2.50	2.33	2.33	2.33	
channel equilibrium	4.00	4.00	4.00	3.83 4.00 3.33	
stream bank stability and cover	4.00	4.00	4.00		
soil surface condition	3.67	3.50	3.50		
total	3.54 3.46		3.46	3.38	
abiotic categories	July 16 average scores	August 13 average scores	September 11 average scores	October 9 average scores	
physical patch diversity	2.33	2.67	2.67	2.67	
channel equilibrium	3.83	3.67	3.67	3.50	
stream bank stability and cover	4.00	4.00	4.00	4.00	
soil surface condition	3.67	3.83	3.83	3.83	
total	3.46	3.54	3.54	3.50	

Two Mile Pond is preparing for fall as the flora give their final blooms and the leaves begin turning yellow. The canopy and density of the high forest thrived through the summer. The channels and waterways themselves are surrounded by thick walls of willows and cattails that keep the banks from eroding. The streams themselves appear to be in a state of equilibrium and there are no signs of active degradation or aggradation that were noticeable at this time. The anthropogenic disturbance also appears low considering the popularity of the area's trails. Overall, the abiotic components of the riparian area appear to rank on the higher end of the scoring throughout Two Mile Pond Complex.

Field water-quality data were measured from March to October 2024, and a summary of the field water-quality data can be referenced from Table 12. Monitoring points included Santa Fe River adjacent to Two Mile Pond system, seeps at the base of Old Stone Dam, Transect 3, Beaver Dam at the Restoration Channel below Old Stone Dam, and Transect 6 (Fig. 3). Measured field water quality parameters included water temperature, pH, specific conductance, dissolved oxygen, and turbidity.

Table 12. Summary of field-measured water-quality data for Two Mile Pond system

field pH results along Two Mile Pond								
	Santa Fe River	Old Stone Dam		Transect 6				
4/9/2024	6.75	6.96	7.23	6.86	6.89			
5/15/2024	6.69	6.48	6.60	6.50	6.67			
6/11/2024	7.60	7.02	7.32	6.72	6.71			
7/16/2024	6.84	6.08	6.85	6.71	7.10			
8/13/2024	7.72	7.08	7.12	6.91	6.91			
9/11/2024	7.57	6.76	7.33	6.90	6.85			
10/9/2024	8.12	6.99	7.46	7.41	7.05			
	specific cond	uctance results alo	ng Two Mile Po	nd (μS/cm)				
	Santa Fe River	Old Stone Dam	Transect 3	Beaver Dam	Transect 6			
4/9/2024	77	160	170	244	246			
5/15/2024	63	187	249	350	285			
6/11/2024	61	181	193	371	358			
7/16/2024	49	152	179	363	306			
8/13/2024	79	186	216	308	308			
9/11/2024	65	202	212	245	439			
10/9/2024	88	222	244	283	359			
	temper	ature results along	Two Mile Pond	l (°C)				
	Santa Fe River	Old Stone Dam	Transect 3	Beaver Dam	Transect 6			
4/9/2024	7.7	7.9	6.2	11.5	4.50			
5/15/2024	14.0	9.3	9.1	13.5	10.2			
6/11/2024	16.8	8.4	10.7	14.4	14.2			
7/16/2024	17.2	10.0	12.3	16.2	16.4			
8/13/2024	17.4	11.2	13.9	16.9	16.9			
9/11/2024	14.5	11.1			12.5			
10/9/2024	10.7	12.1	9.9	9.9	10.0			
	dissolved (oxygen results alon	g Two Mile Pon	d (mg/L)				
	Santa Fe River	Old Stone Dam	Transect 3	Beaver Dam	Transect 6			
5/15/2024	7.87	3.70	7.50	4.15	2.60			
9/11/2024	7.62	2.42	4.86	3.48	1.99			
10/9/2024	7.15	2.89	4.20	5.60	2.64			
	-	ity results along Tv		1	1			
	Santa Fe River	Old Stone Dam	Transect 3	Beaver Dam	Transect 6			
6/11/2024	6.1	4.4	7.8	8.5	16.2			
7/16/2024	4.5	6.1 18.5		45.6	27.5			
8/13/2024	15.5	5.0 7.9 9.8		9.8	9.8			
9/11/2024	31.9	4.2	6.5	10.2	22.0			
10/9/2024	10.5	4.1	11.5	14.5	18.5			

μS/cm - microsiemens per centimeter

mg/L - milligrams per liter

NTU - nephelometric turbidity units

It is important to notice the Santa Fe River is not directly connected to the Two Mile Pond system, and the primary difference between them is water temperature, dissolved oxygen, and specific conductance (Table 12; Fig. 8). The Santa Fe River is characteristic of surface water with low specific conductance, high dissolved oxygen, and varying temperature. The Two Mile Pond system water source emanating from the base of Old Stone Dam resemble groundwater with slightly high specific conductance, lower dissolved oxygen, and fairly constant temperature.

Two Mile Pond system water temperature changes seasonally and increases down-stream from Old Stone Dam. Figure 14 is a time series graph of water temperature for each measuring station. New Mexico Water Quality Control Commission (NMWQCC) has established designated uses of coolwater aquatic life and wildlife for the Santa Fe River below Nichols to downstream past Two Mile Pond system (20.6.4.121 NMAC). The water temperature standard for coolwater aquatic life is 20 °C or less (20.6.4.900 NMAC), in which water temperatures for Santa Fe River and Two Mile Pond system were below 20 °C in 2024.

The pH range for coolwater aquatic life is 6.6 to 8.8 (20.6.4.900 NMAC). With the exception of two measurements (based of Old Stone Dam and Beaver pond), all measured pH values were within the range of 6.6 to 8.8 (Table 12).

The specific conductance of the water increases as the water moves through the Two Mile Pond riparian system particularly between Transect 3 and 3.5 during the summer months (Fig. 15). This is likely caused by evapo-concentration. Specific conductance of Two Mile Pond is about 3 to 4 times greater than Santa Fe River, but still consider low with low total dissolved solids.

Decreasing dissolved oxygen and increasing turbidity through the Two Mile Pond system is likely indicative of increasing organic matter. Dissolved oxygen in the Two Mile Pond system ranged from 2 to 7.5 mg/L, with an average of 3.8 mg/L. Relatively low dissolved oxygen in the Two Mile Pond system is likely a result of high organic matter content (cattail thickets) and beaver ponds slowing down the flow of water and limiting aeration.

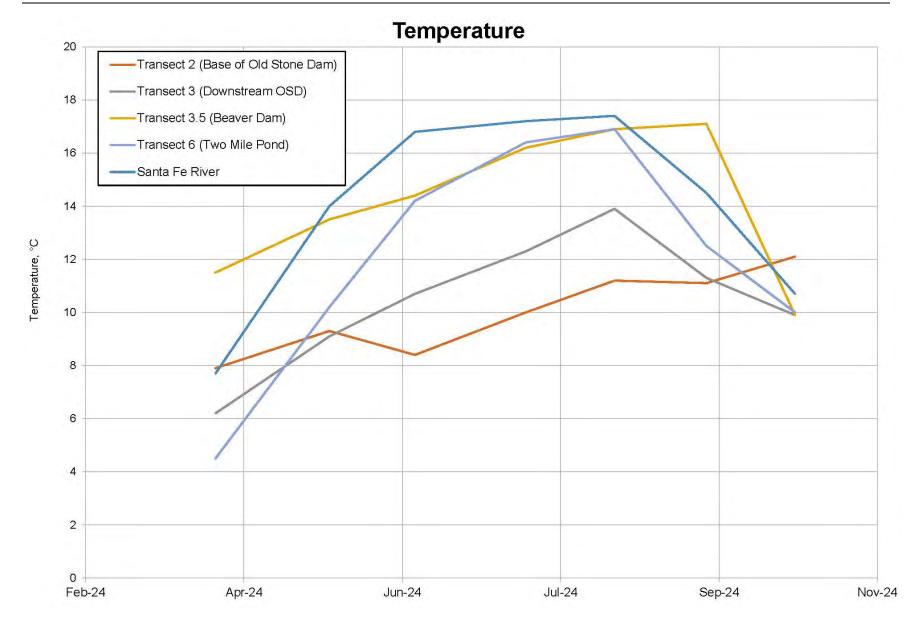


Figure 14. Graph showing the relationship of time and temperature from April 9 2024, through October 9 2024.

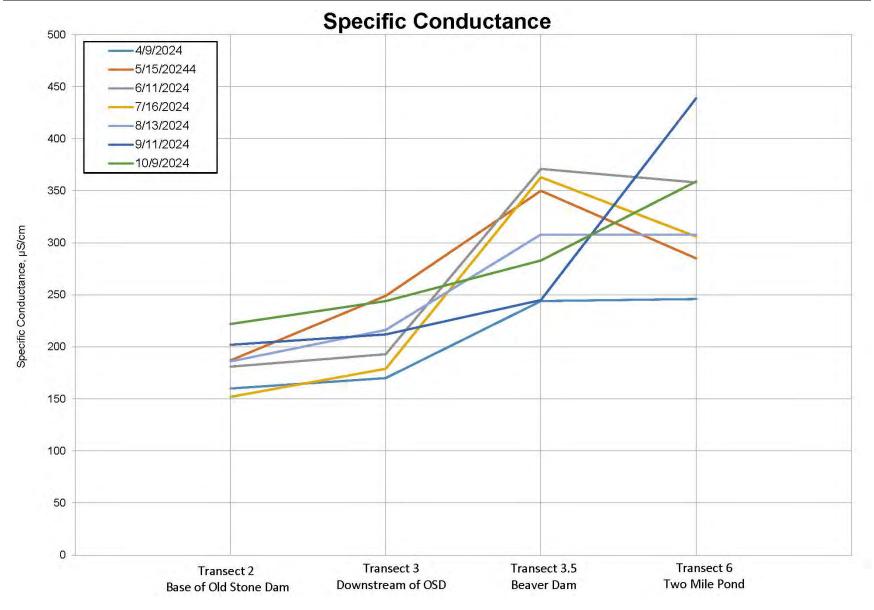


Figure 15. Graph showing specific conductance of different locations of the pond during each field investigation from April 9 2024, through October 9 2024.

3.1.4 Summary Riparian Metrics Ranking

The landscape context, biotic, and abiotic metrics for each monthly investigation are ranked and scored using a modified NMRAM. The weighted average for each metric is calculated, tabulated, and ranked using the scoring method summarized in Table 4. The Two Mile Pond Complex riparian area rankings from March through November are summarized in Table 13. All individual transect grades can be found in Appendix D along with a graph showing each transect progress over time. Table 13 shows the averages of all six transects for each given month. This way the overall health of the pond can be seen over time without extensive details on individual transects. Each investigation is based on monthly field observations, with the exception of landscape context. Landscape context remains the same throughout the investigations because it is performed remotely and ahead of all investigations. For more detail as to why a particular month did better or worse, the individual transect rankings for each month can be found in Appendix D. Common changes can include things like exotic species becoming more proliferate, land coverage and new growth struggling/striving, new stressors introduced into the environment, or expansion/destruction of existing flora. Table 13 shows the 2024 results the rank for each month can be seen at the bottom.

3.1.5 Soil Moisture

Soil moisture was measured every 15 ft from the southeast end of transect to the northwest end. Moisture was measured using a conductance-style moisture meter, which had a probe depth of 6 in. The moisture meter gives results from a scale of 1 to 10, which is a relative indicator of moisture based on conductivity of water in the soil. This device helps get a general idea of where water might be concentrated in the ground and over time, and ability to see how this parameter changes. The northwest side of these transects are not always accessible due to thick willows but readings are made until water is reached or until willows become too thick to enter. Willow thickets indicate high moisture areas. Field notes from the soil monitoring can be found in Appendix D.

The soil moisture data for monthly visits from March through October 2024 were contoured. Images of soil moisture distribution can be referenced from Appendix G. Interpretations were made between data points using imagery.

Table 13. Summary of Two Mile Pond Complex riparian area metrics ranking

NMRAM	weight	monthly investigations								
metric description		3/7/2024	4/9/2024	5/15/2024	6/11/2024	7/16/2024	8/13/2024	9/11/2024	10/9/2024	
landscape context										
buffer integrity index	0.25	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
riparian corridor connectivity	0.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
relative riparian size	0.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
surrounding land use	0.25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
biotic										
relative native plant community	0.20	2.83	3.17	3.00	3.33	3.33	3.33	3.33	3.67	
vegetation horizontal patch structure	0.20	2.83	3.00	3.00	3.00	3.33	3.17	3.17	3.17	
vegetation vertical structure	0.20	2.83	2.83	2.83	2.67	3.00	3.00	3.00	3.17	
native riparian tree regeneration	0.20	3.00	3.50	3.17	2.83	3.17	3.17	2.33	1.67	
invasive exotic plant species cover	0.20	2.83	3.00	3.17	3.00	2.67	3.00	3.00	3.00	
abiotic										
physical patch diversity	0.25	2.50	2.33	2.33	2.33	2.33	2.67	2.67	2.67	
channel equilibrium	0.25	4.00	4.00	4.00	3.83	3.83	3.67	3.67	3.50	
stream bank stability and cover	0.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
soil surface condition	0.25	3.67	3.50	3.50	3.33	3.67	3.83	3.83	3.83	
major attribute										
landscape context	0.30	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	
biotic	0.35	2.87	3.10	3.03	2.97	3.10	3.13	2.97	2.93	
abiotic	0.35	3.54	3.46	3.46	3.38	3.46	3.54	3.54	3.50	
RIPARIAN CONDITION SCORE	Σ	3.22	3.27	3.25	3.19	3.27	3.31	3.25	3.23	
RIPARIAN RANK		В	A	A	В	A	A	A	В	

4.0 SUMMARY OF FINDINGS

The Two Mile Pond Complex riparian area started after the decommissioning of Two Mile Dam and Reservoir in 1992, and has been about the same size for over the last 20 years. The riparian area was well established by 2002. Large tree canopies above and below Old Stone Dam became evident around 2005 (See historic imagery in Appendix A).

The ecosystem benefits of the Two Mile Pond system are recreational, educational, and quality of life for the local citizens and community. The purpose of the 2024 Two Mile system riparian area monitoring was to determine if eliminating the diversion of Santa Fe River flows through Two Mile Pond system would result in stresses on the established riparian area.

The 2024 Two Mile Pond riparian assessment included:

- 1. Monthly assessments of Moisture and Vegetation index imagery to assess changes in water stress and riparian area canopy health.
- 2. Monthly riparian area monitoring for Biotic and Abiotic metrics
- 3. Soil moisture monitoring.
- 4. Continuous monitoring of streamflow at five locations
- 5. Collection of field water quality data

Summary of findings are:

- As indicated by streamflow monitoring, the primary water source for the Two Mile Pond system from Old Stone Dam to Two Mile Pond is shallow groundwater discharging at the base of Old Stone Dam. The origin of this groundwater is from infiltration of streamflow, snowmelt, and storm-water runoff to alluvium upstream of Old Stone Dam.
- The average flow emanating from the base of Old Stone Dam and flowing through the Two Mile system is 0.3 cfs (135 gpm), which is enough to offset evapotranspiration from the riparian system and keep Two Mile Pond full (to the current stand pipe setting) and flushed.
- In 2024, approximately 259 ac-ft of water flowed through the system, 31.4 ac-ft were lost to evapotranspiration and the remaining 227.6 ac-ft flowed through Two Mile Pond and discharged to the Santa Fe River below Two Mile Pond.

• Losses from the Santa Fe River channel adjacent to the Two Mile Pond system were minimal. One seep (< 1 gpm) was noted on the southeast side of Two Mile Pond that may originate from the Santa Fe River channel.

- Two Mile Pond did not change in size during 2024; however, all stream and groundwater systems are transient and the flow rate though the system will vary from changes in climate.
- Flow at the base of Old Stone Dam maintained an average temperature of 10 °C, specific conductance of 185 μS/cm, and pH of 7.0; indication of excellent water quality for the aquatic and riparian habitats.
- Monthly Biotic metric surveys ranked from good to excellent in 2024
- A health diversity of flora and fauna were documented.
- Monthly Abiotic metric surveys ranked from good to excellent in 2024
- Soil moisture monitoring indicated good soil moisture in the riparian system until September 2024, when drought conditions started to show significant reduction in soil moisture along the outer fringes of the riparian area. Changes in soil moisture on the fringes of the riparian area are expected to vary with changes in climate.
- The landscape context, biotic, and abiotic metrics for each monthly investigation are ranked and scored using a modified NMRAM. Monthly riparian rankings alternated between A (excellent condition) and B (good condition).
- The main water stressed area in 2024 appear to be directly up gradient of Old Stone Dam, primarily affecting shallow rooted vegetation (<10 ft) such as coyote willow.

5.0 RECOMMENDATIONS

During 2024, winter, spring, and summer precipitation events provided recharge to the Two Mile Pond system and assist with maintaining soil moisture in the riparian area. Drought conditions took hold on the fall and winter. Water was bypassed to the Santa Fe River as part of the Santa Fe Living River target year flow of 1,000 ac-ft and bypass of water due to repairs to the Nichols Reservoir dam from July through December 2024. With persistent drought forecasted for 2025, it is likely the flow regime will be drought dominated. For 2025, it is recommended to continue monitoring the flows through Two Mile Pond system and condition of the riparian area. The following are recommended:

- 1. Perform one more year of riparian monitoring for biotic and abiotic metrics. In particular perform more in-depth survey of the area above Old Stone Dam.
- 2. Increase soil moisture monitoring distribution around riparian area
- 3. Continue to maintain and monitor streamflow at the following established stations: Santa Fe River below Nichols, Santa Fe River next to Two Mile, below Old Stone Dam, and Two Mile Pond return
- 4. Include climate data (air temperature, precipitation, humidity etc) from local monitoring stations (Audubon?) and consider continuous monitoring of temperature within the riparian area and outside.

 \mathbf{JSAI}

6.0 REFERENCES

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- [JSAI] John Shomaker & Associates, Inc., 2025, Analysis of 2024 Upper Santa Fe River Streamflow Data: consultant's report prepared by JSAI for City of Santa Fe Water Division, 33 p.
- Modified Copernicus Sentinel Data, (2024) https://www.sentinel-hub.com/ Modified Copernicus Sentinel data [2024]/Sentinel Hub
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- Muldavin, E., Milford, E., Triepke, J., Gonzalez, C., Urbanovsky, A., McCartha, G., Kennedy, A., Chauvin, Y., Smith, J., Leonard, J., Elliot, L., Hanberry, P., Diamond, D., and Clark, A.E., 2022, New Mexico Riparian Habitat Map (NMRipMap): Version 2.0 Plus. New Mexico Natural Heritage, Museum of Southwestern Biology, University of New Mexico; USDA Forest Service, Southwest Region; Missouri Resource Assessment Partnership (MoRAP), University of Missouri, and USDA Forest Service, Geospatial Technology and Applications Center (GTAC), Salt Lake City, UT, Accessible at nhnm.unm.edu/riparian/nmripmap.

APPENDICES

Appendix A.

Historical Google Earth Images of Two Mile Pond Complex

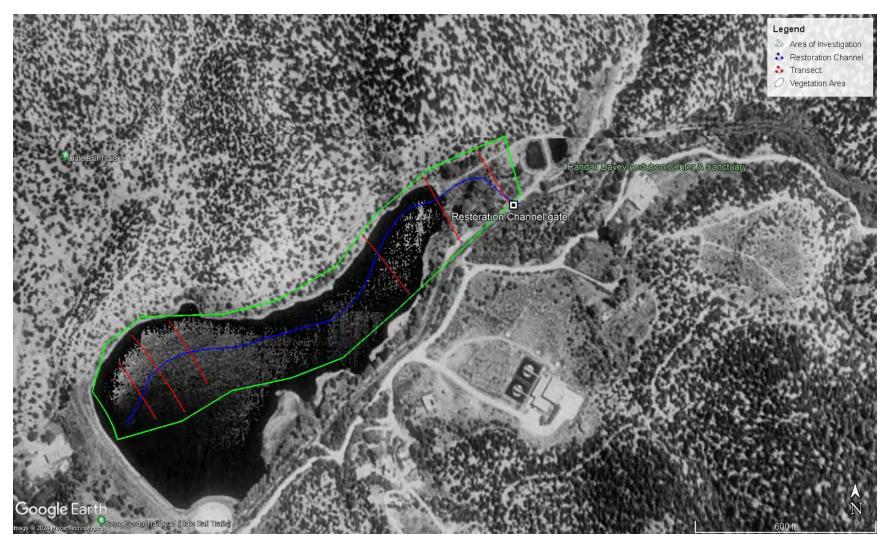


Figure A1. Historical image of Two-Mile Pond Complex dated May 25, 1991.

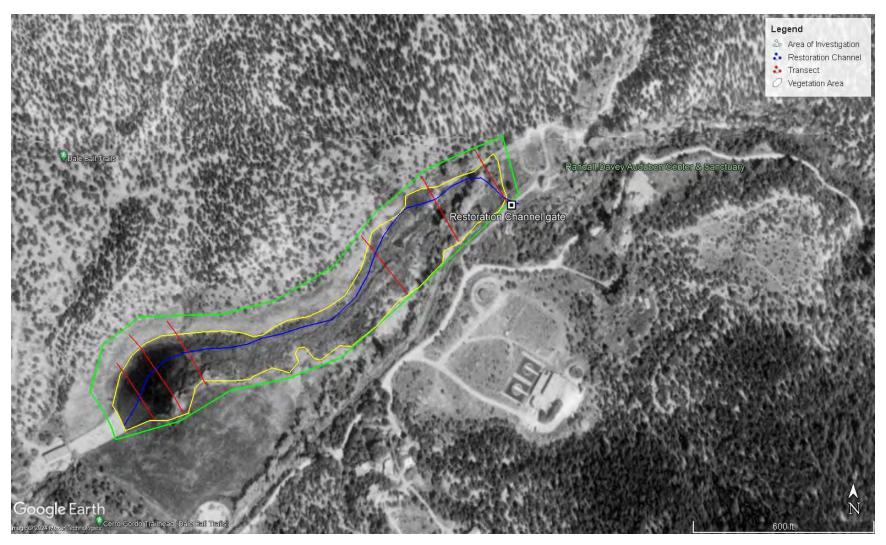


Figure A2. Historical image of Two-Mile Pond Complex dated August 10, 1996.

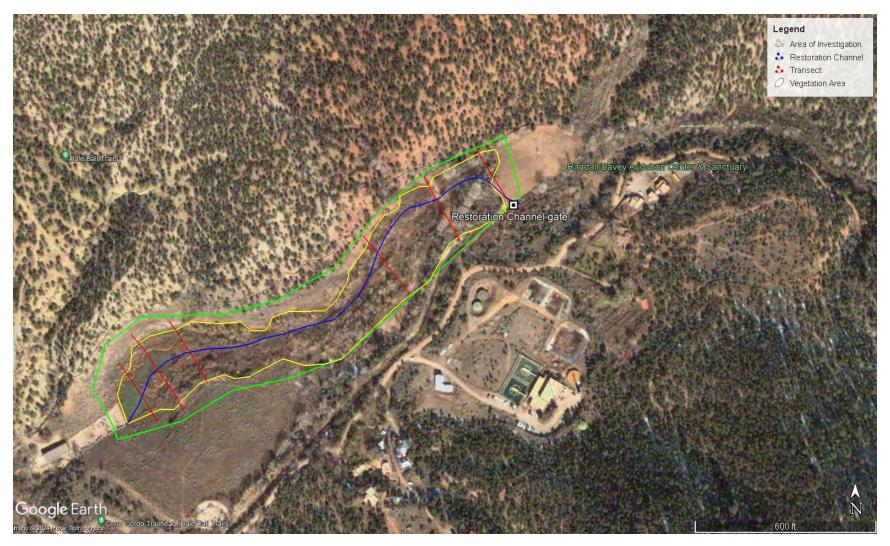


Figure A3. Historical image of Two-Mile Pond Complex dated December 6, 2002.

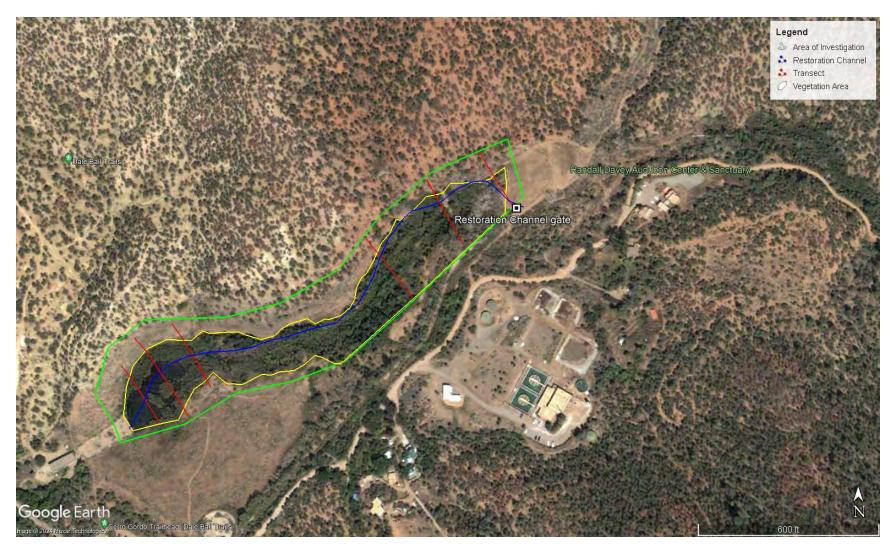


Figure A4. Historical image of Two-Mile Pond Complex dated May 10, 2004.



Figure A5. Historical image of Two-Mile Pond Complex dated April 26, 2005.

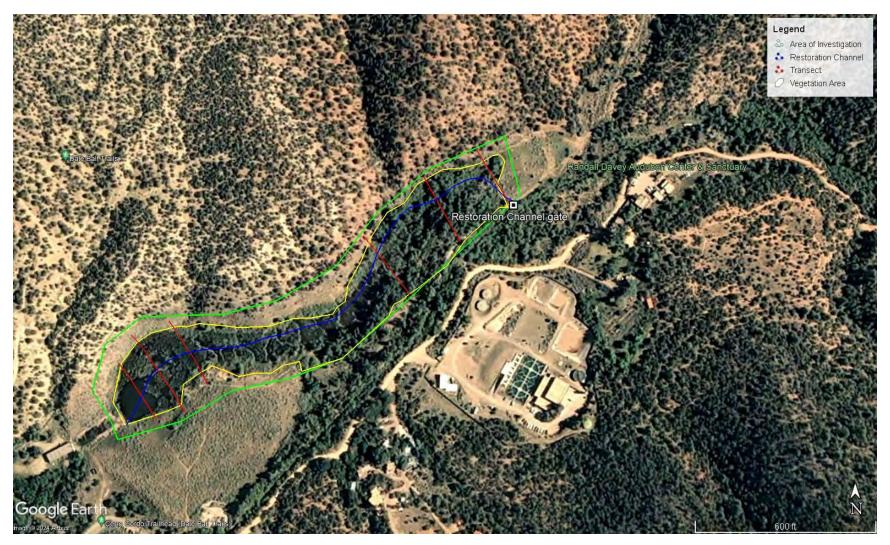


Figure A6. Historical image of Two-Mile Pond Complex dated May 8, 2009.

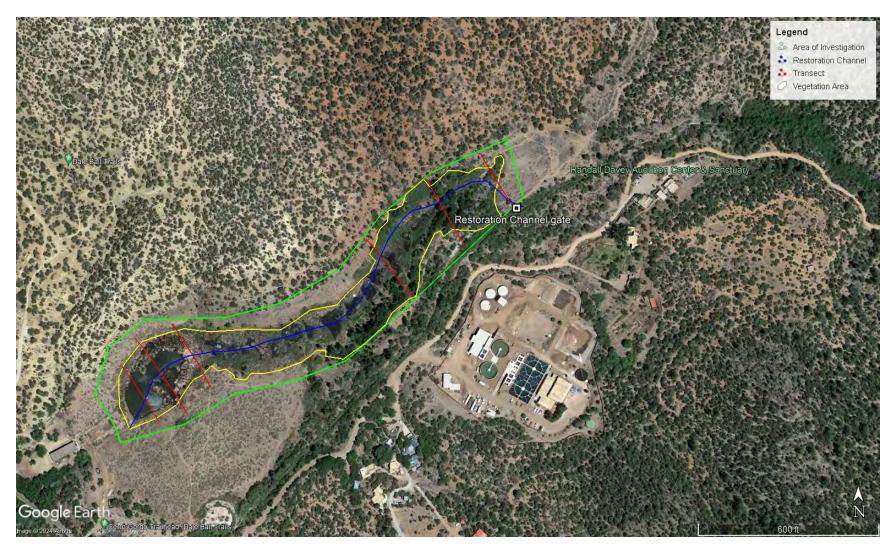


Figure A7. Historical image of Two-Mile Pond Complex dated June 16, 2011.

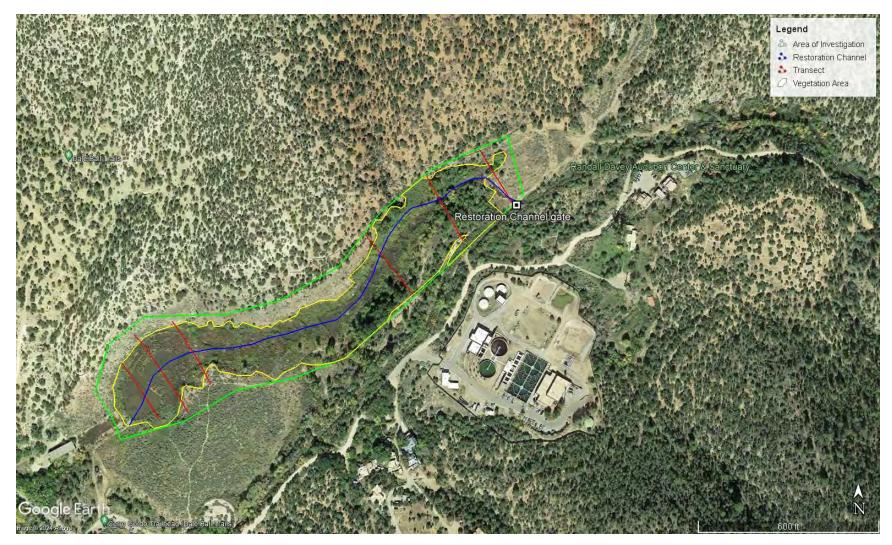


Figure A8. Historical image of Two-Mile Pond Complex dated October 2, 2013.

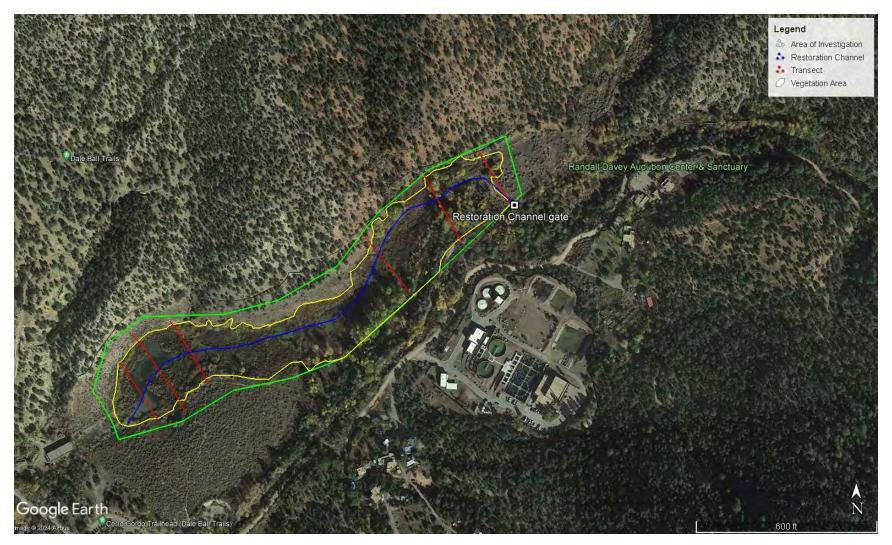


Figure A9. Historical image of Two-Mile Pond Complex dated November 1, 2015.

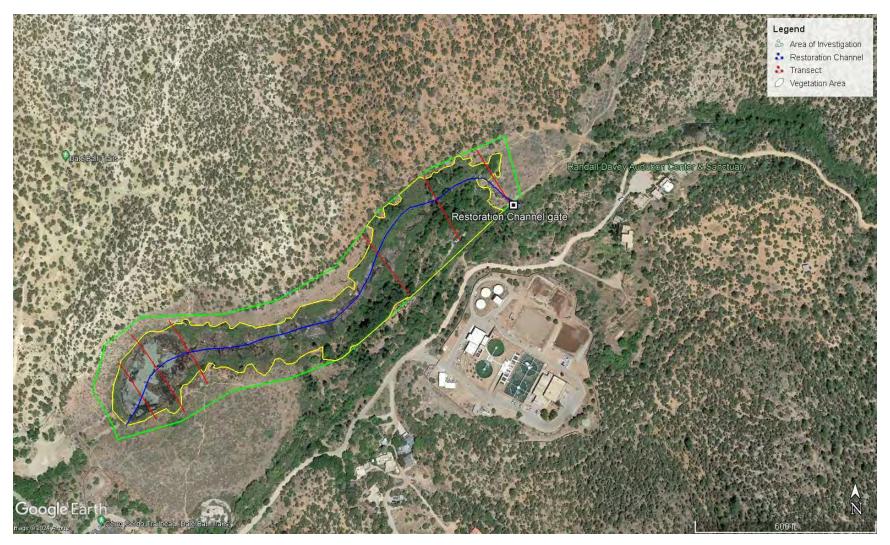


Figure A10. Historical image of Two-Mile Pond Complex dated June 10, 2017.

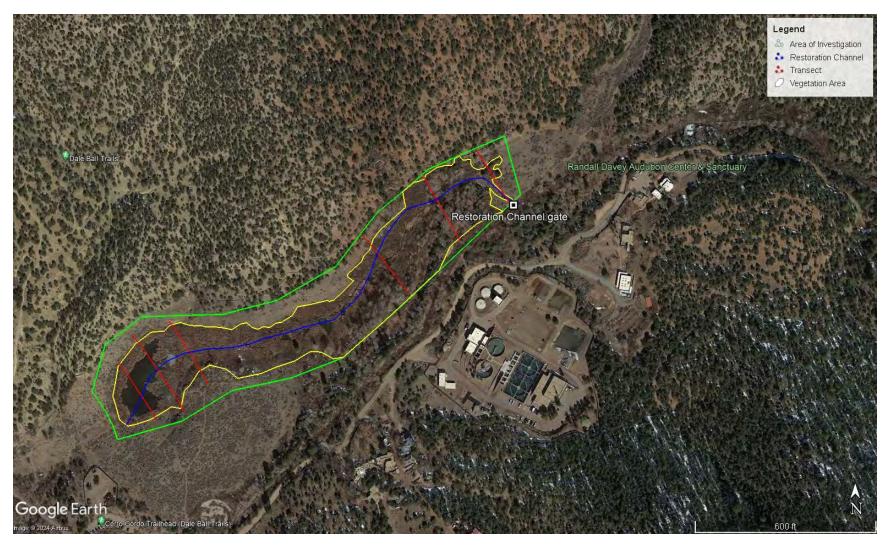


Figure A11. Historical image of Two-Mile Pond Complex dated March 2, 2021.

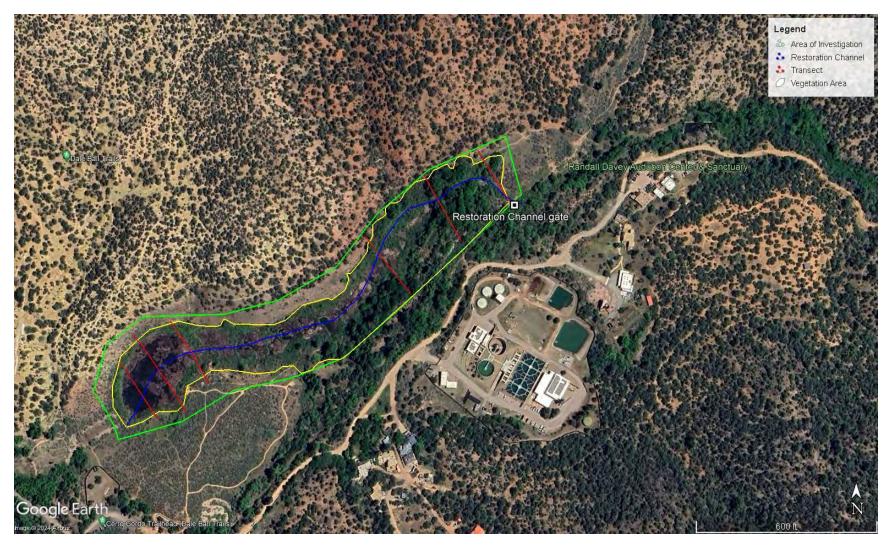


Figure A12. Historical image of Two-Mile Pond Complex dated July 6, 2023.

Appendix B.

NDMI Images for Two Mile Pond Complex

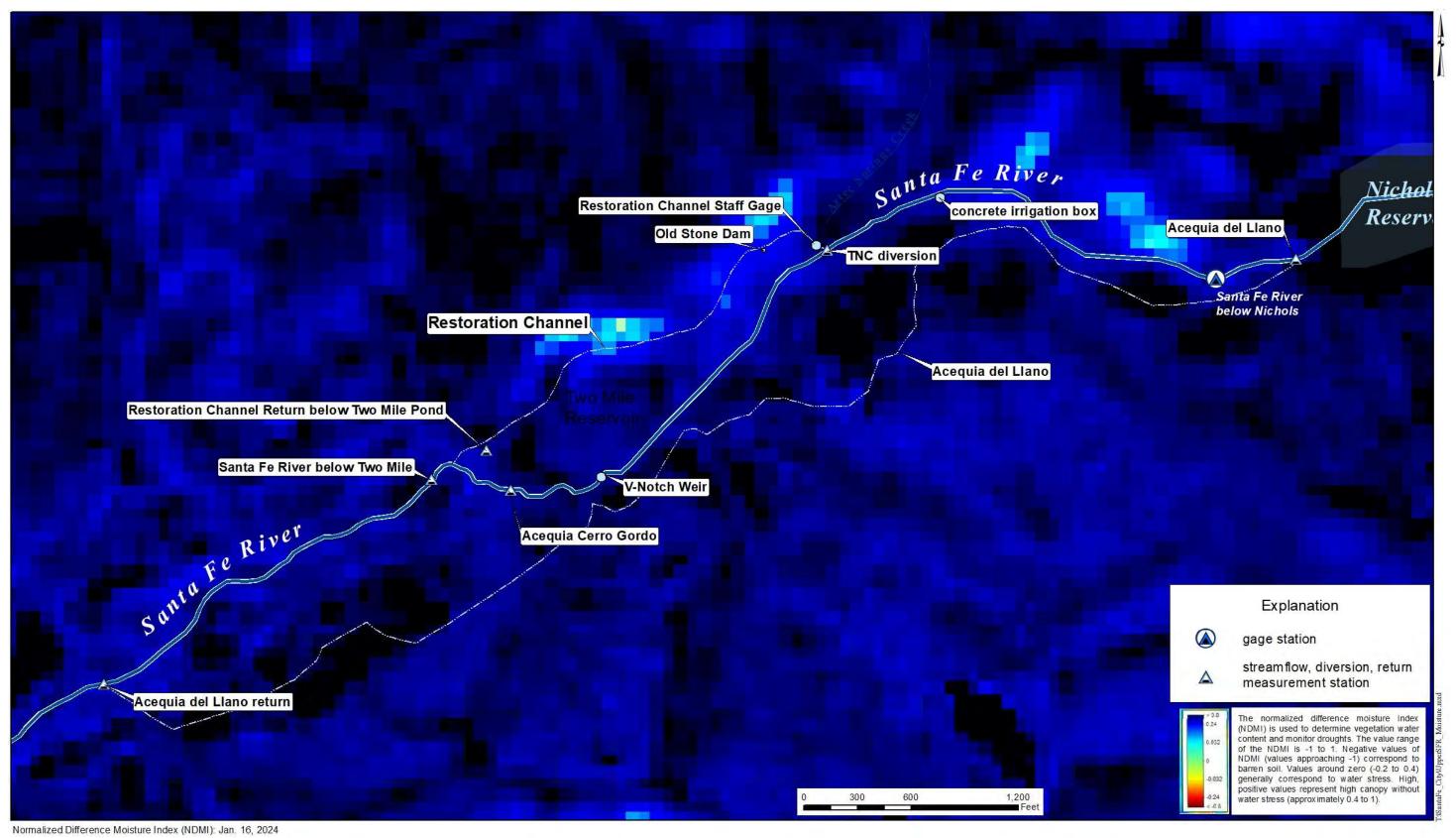


Figure B1. NDMI image of Two Mile Pond Complex for January 16, 2024.

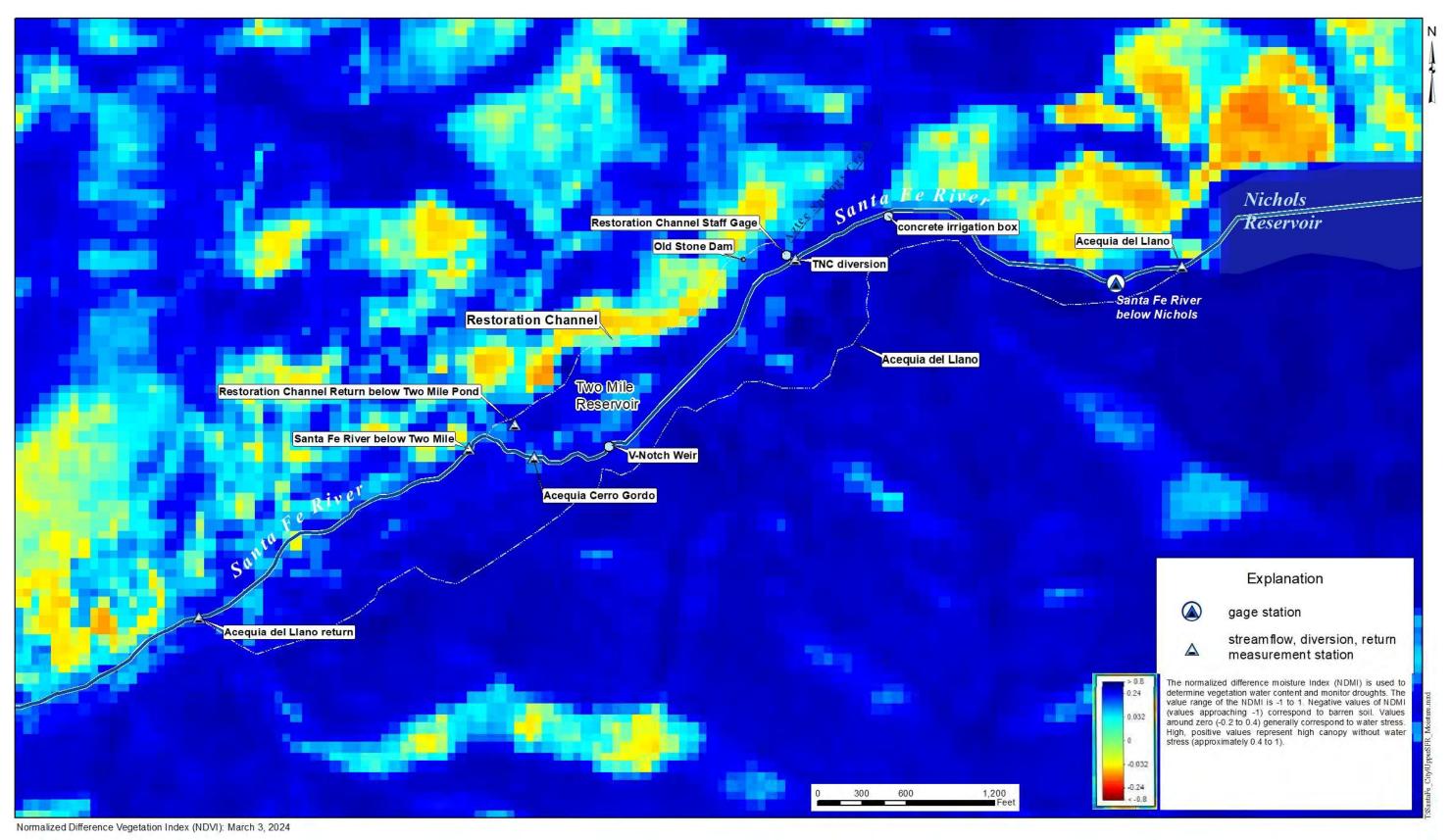
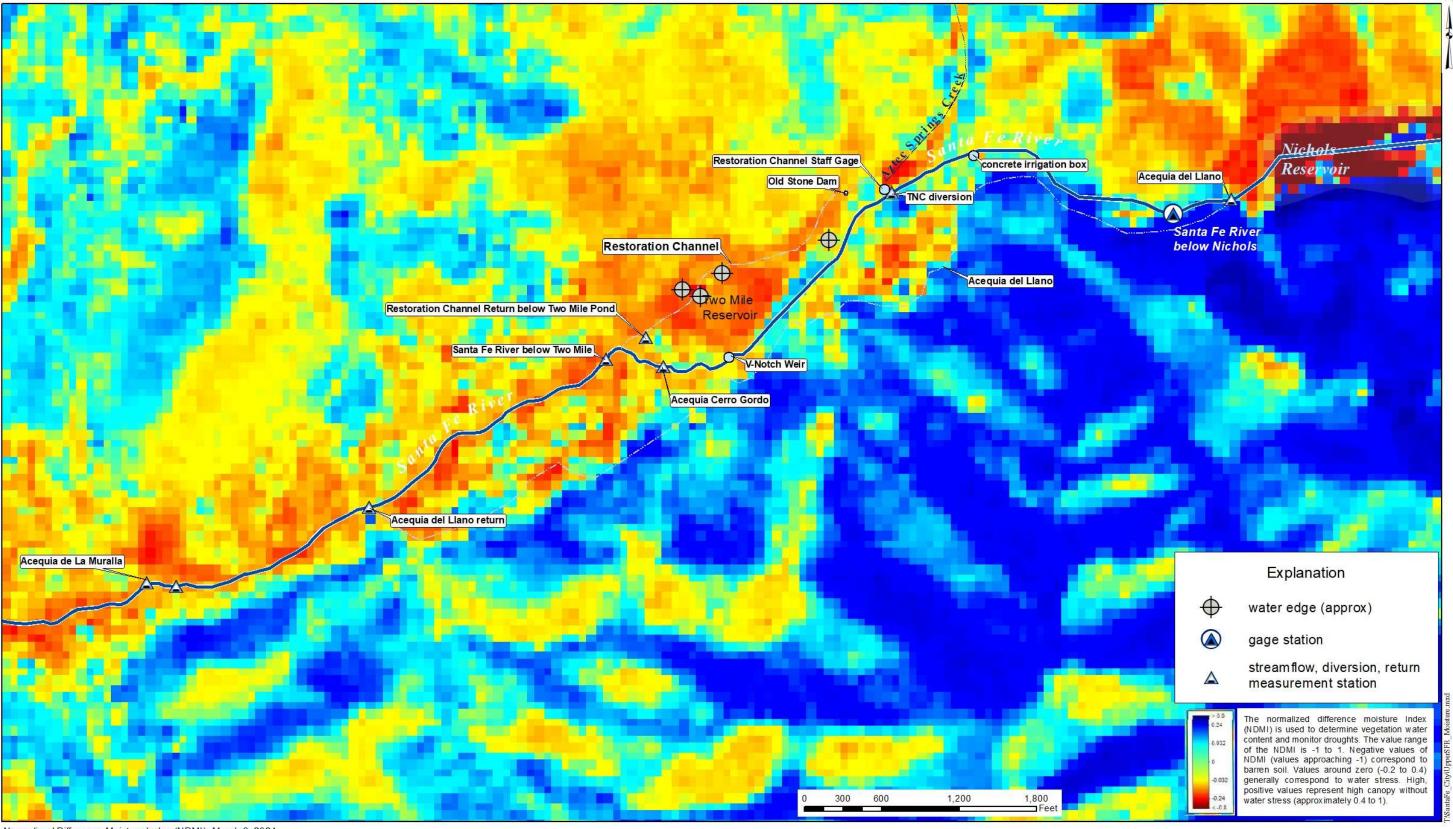


Figure B2. NDMI image of Two Mile Pond Complex for February 5, 2024.



Normalized Difference Moisture Index (NDMI): March 3, 2024

Figure B3. NDMI image of Two Mile Pond Complex for March 3, 2024.

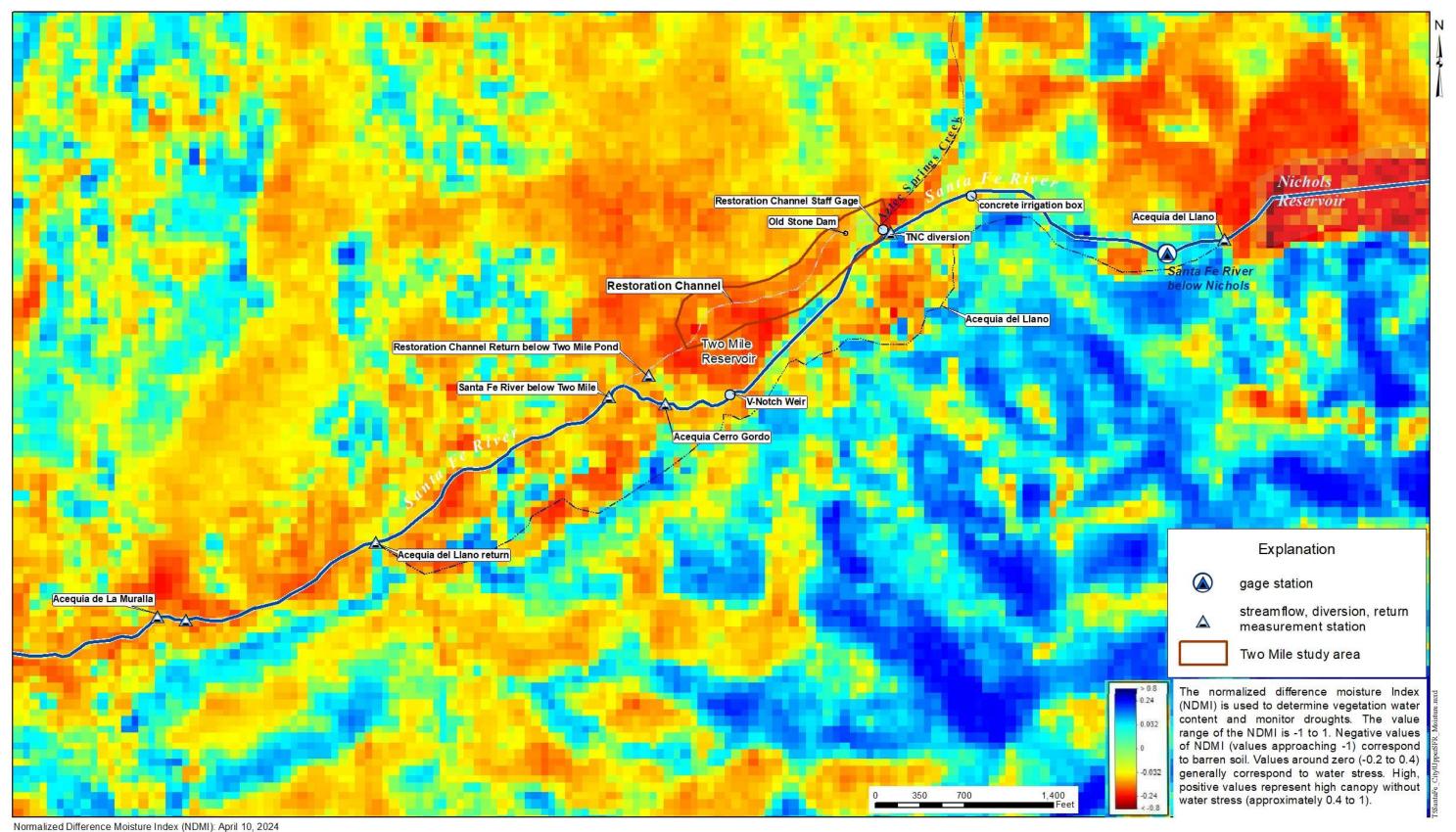


Figure B4. NDMI image of Two Mile Pond Complex for April 10, 2024.

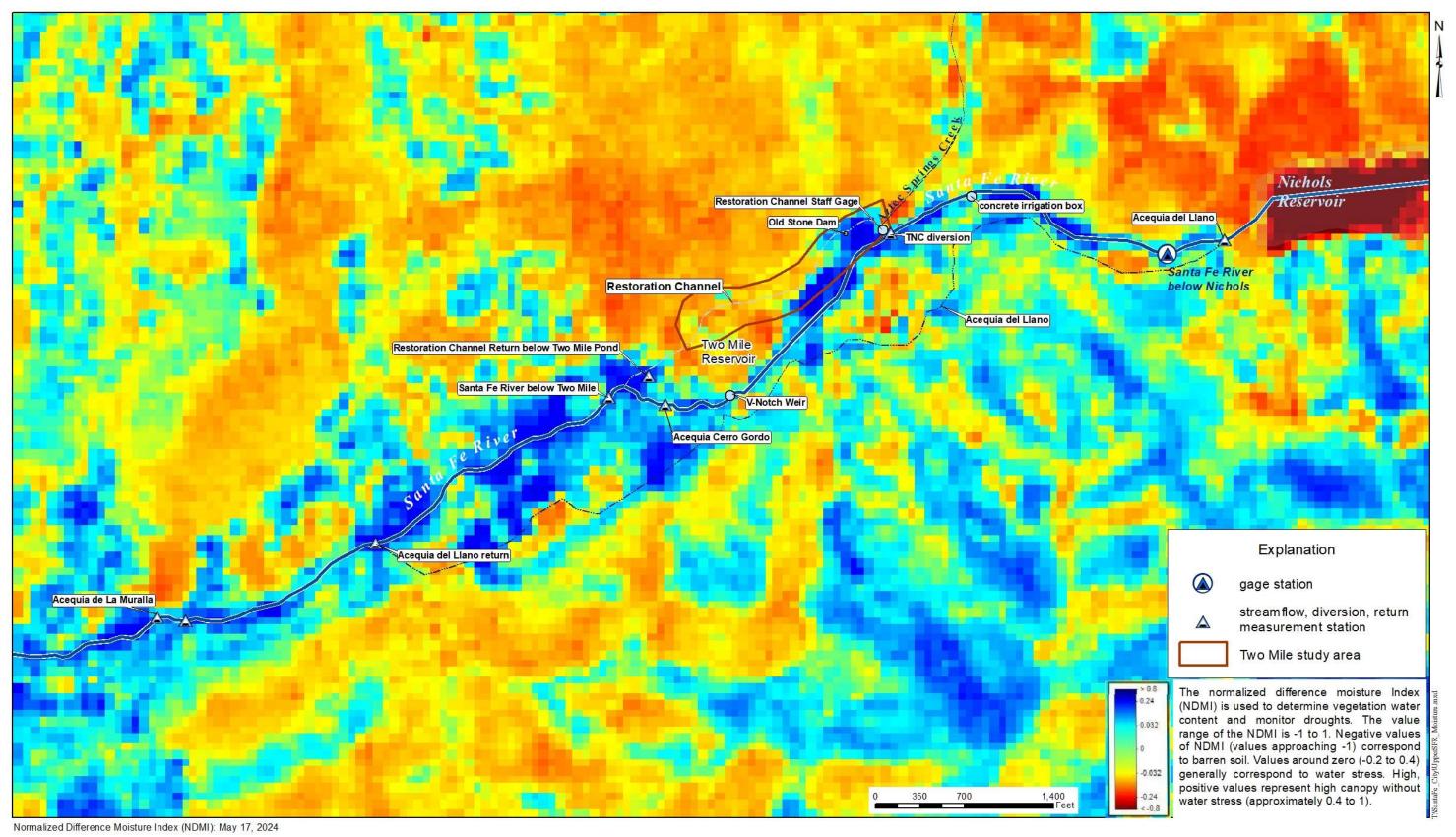


Figure B5. NDMI image of Two Mile Pond Complex for May 17, 2024.

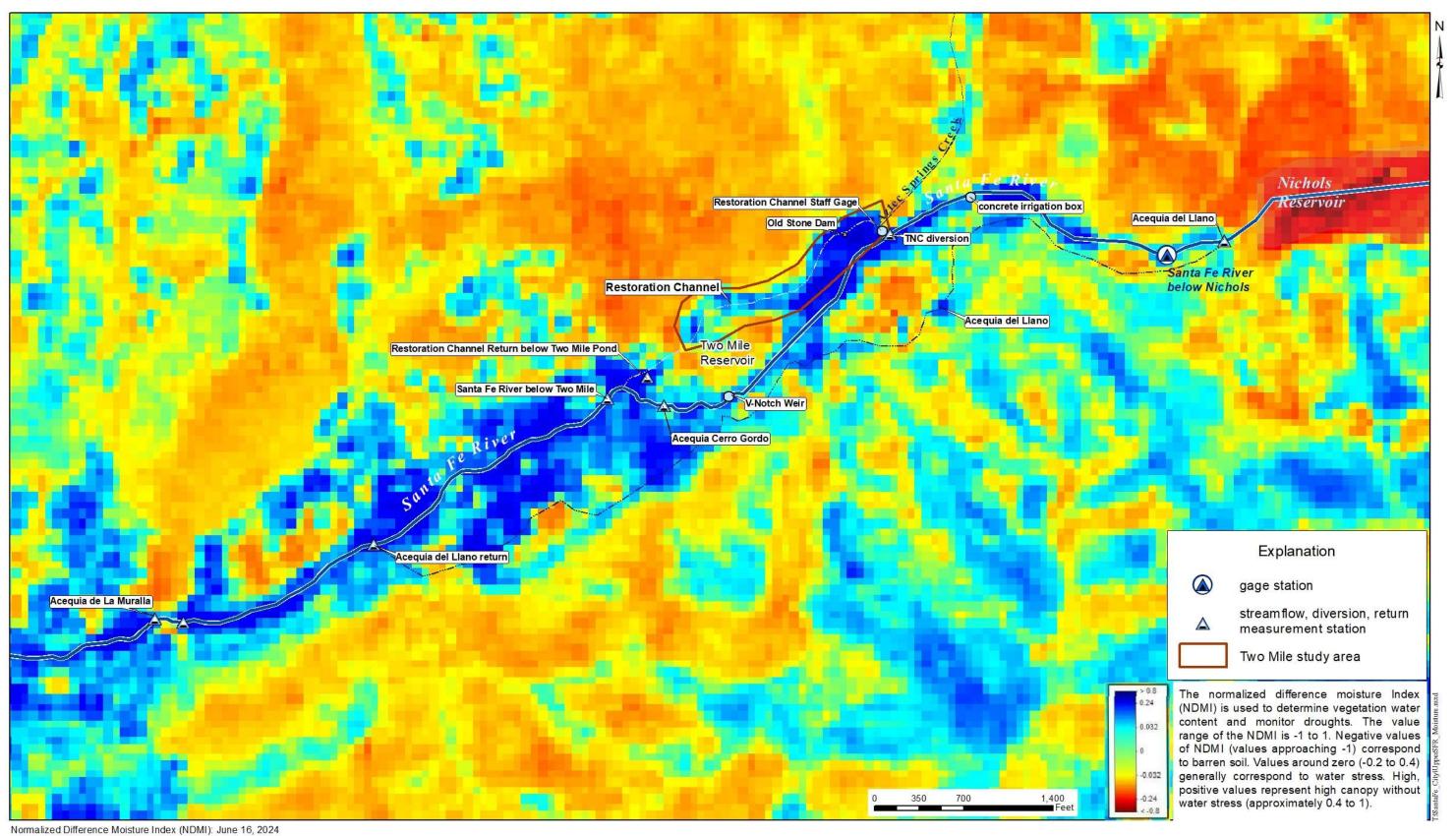


Figure B6. NDMI image of Two Mile Pond Complex for June 16, 2024.

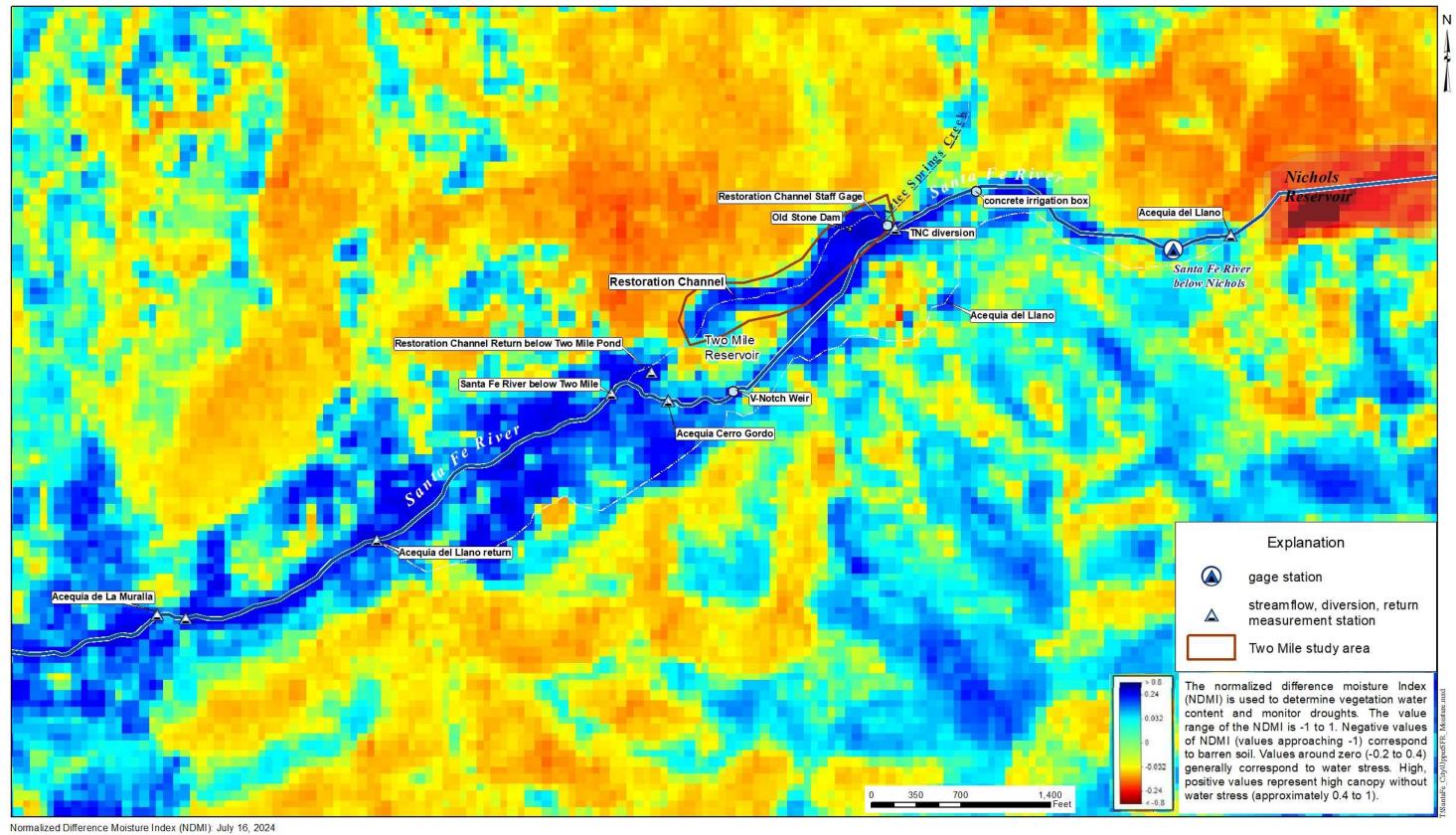


Figure B7. NDMI image of Two Mile Pond Complex for July 16, 2024.

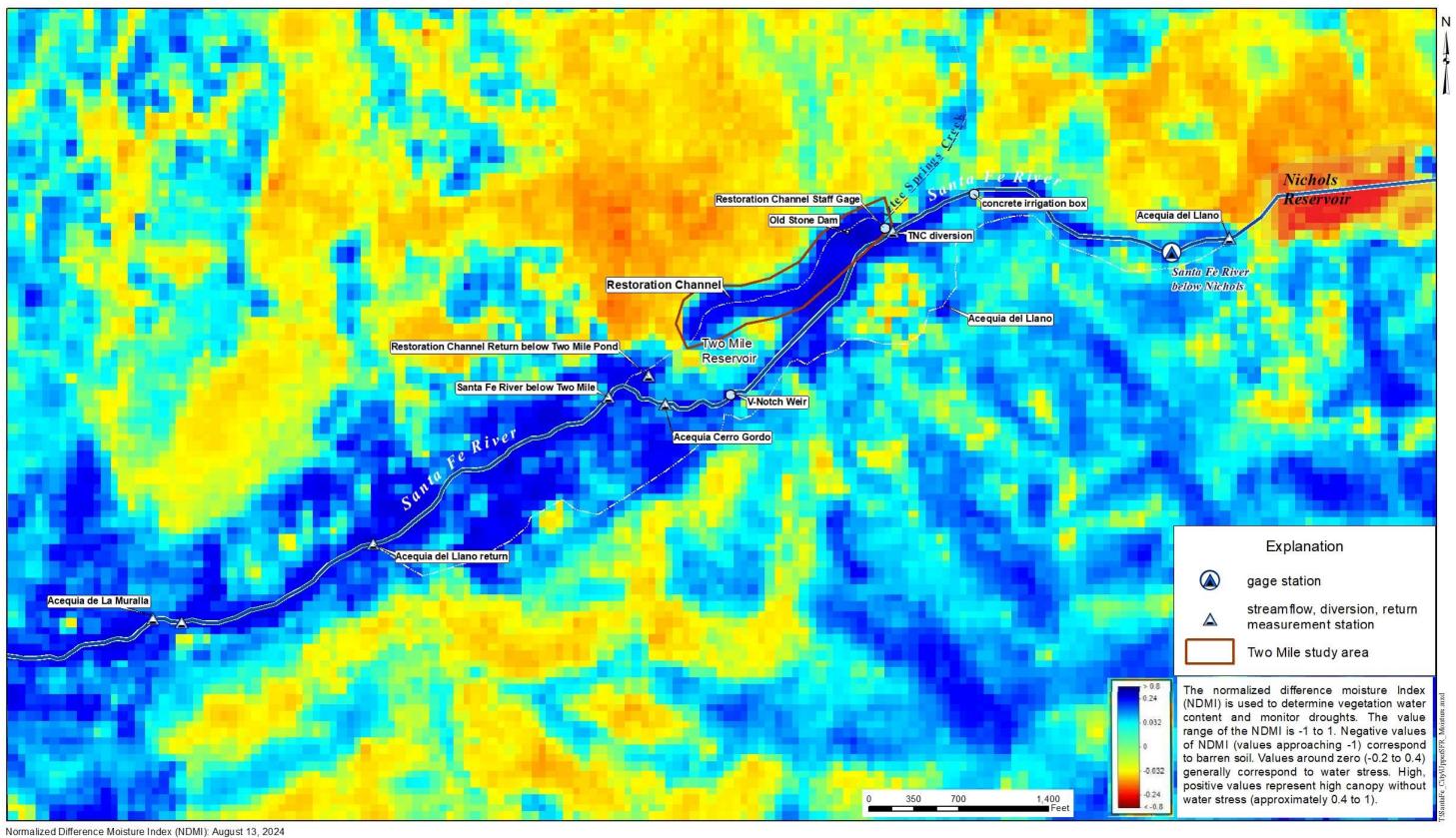


Figure B8. NDMI image of Two Mile Pond Complex for August 13, 2024.

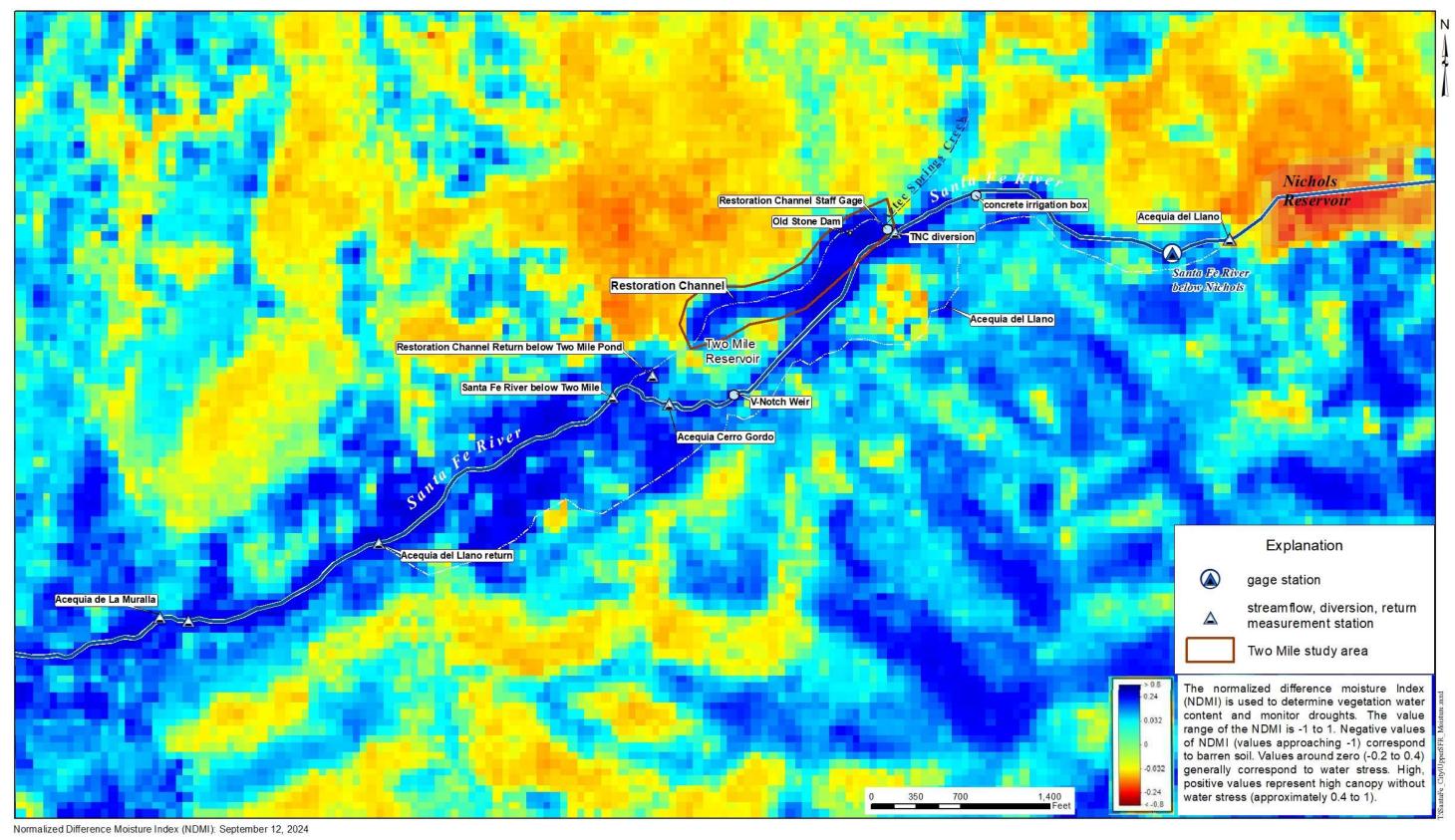


Figure B9. NDMI image of Two Mile Pond Complex for September 12, 2024.

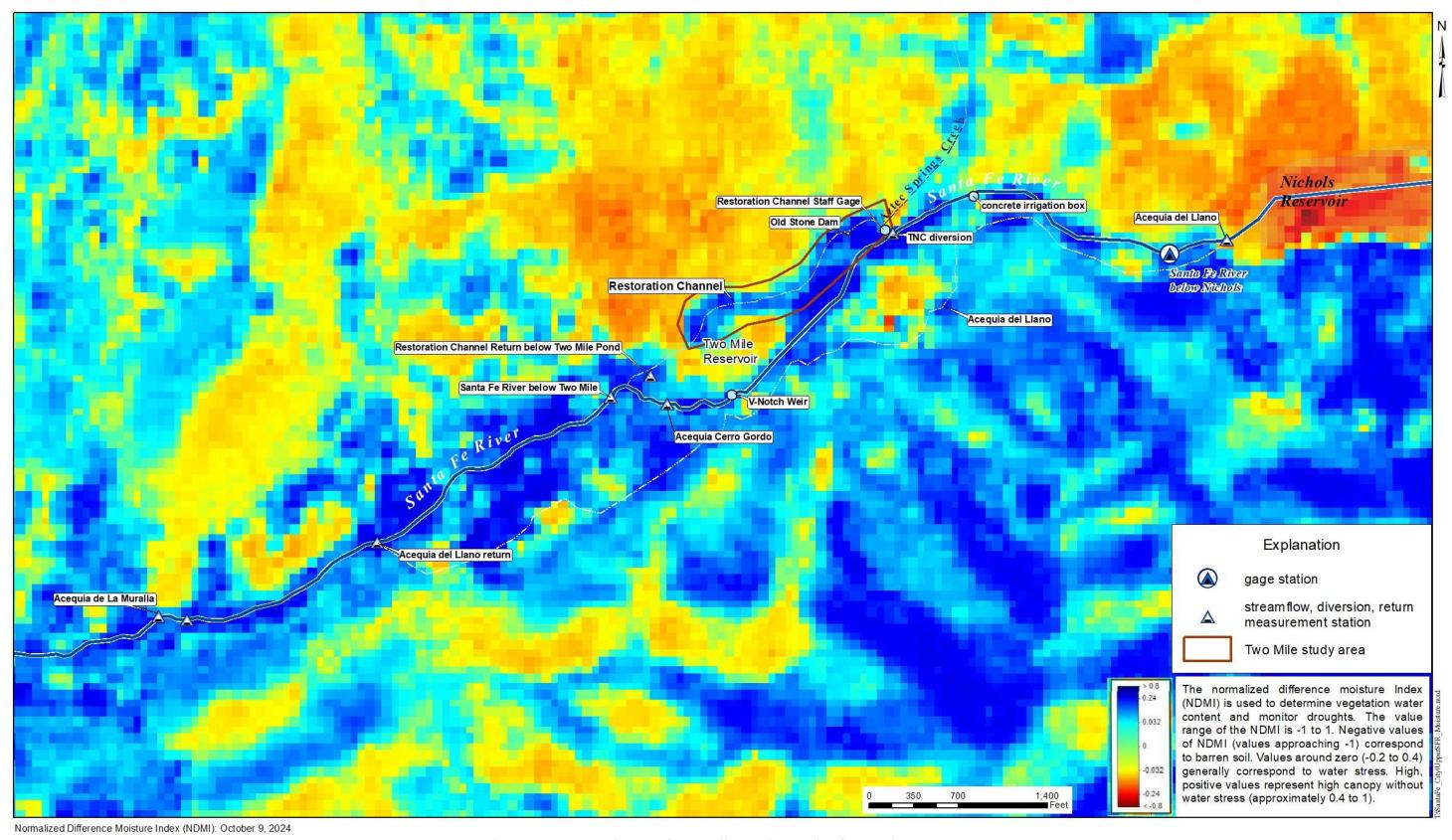


Figure B10. NDMI image of Two Mile Pond Complex for October 9, 2024.

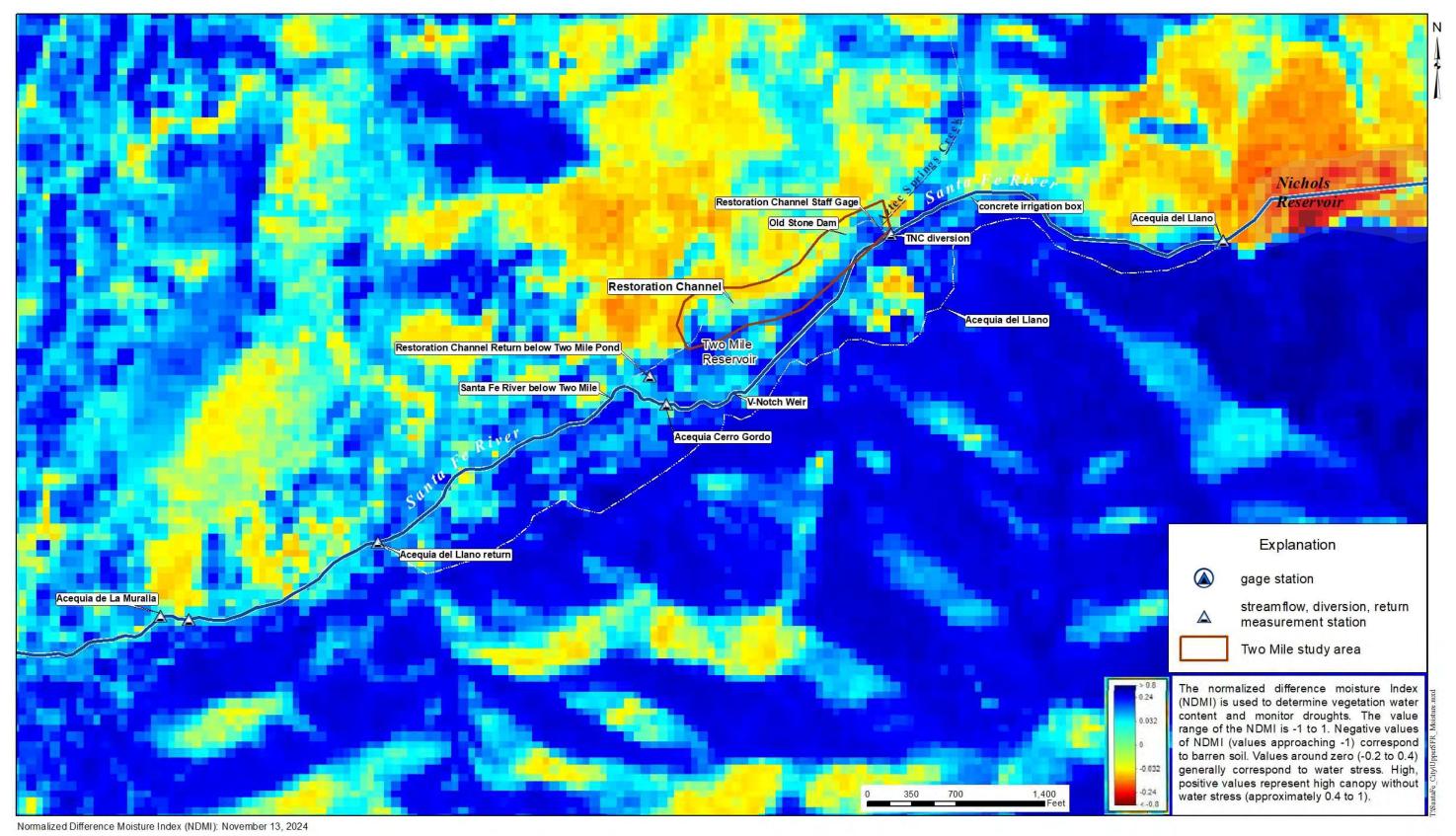


Figure B11. NDMI image of Two Mile Pond Complex for November 13, 2024.

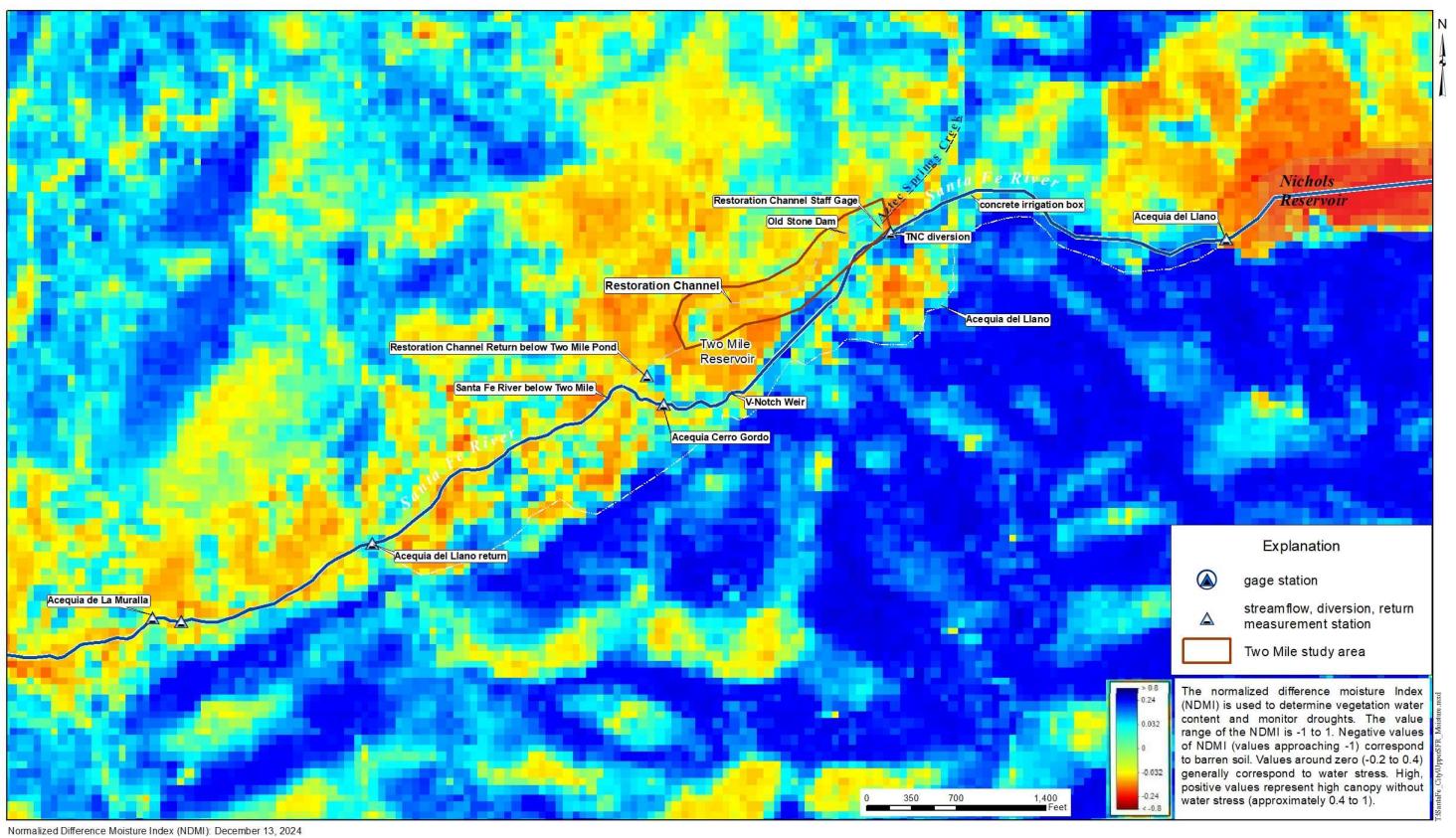


Figure B12. NDMI image of Two Mile Pond Complex for December 13, 2024.

Appendix C.

NDVI Images for Two Mile Pond Complex

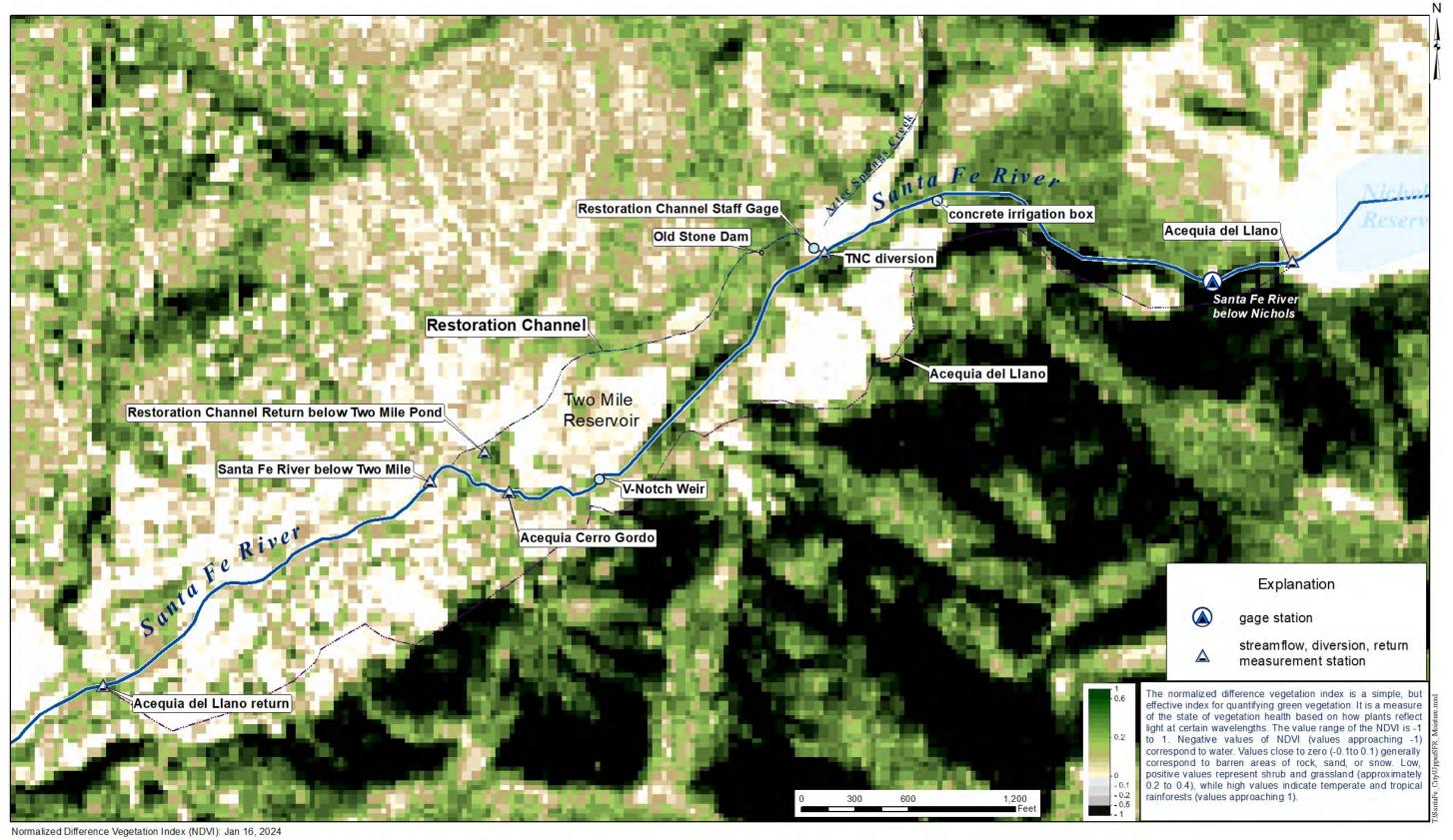


Figure C1. NDVI image of Two Mile Pond Complex for January 16, 2024.

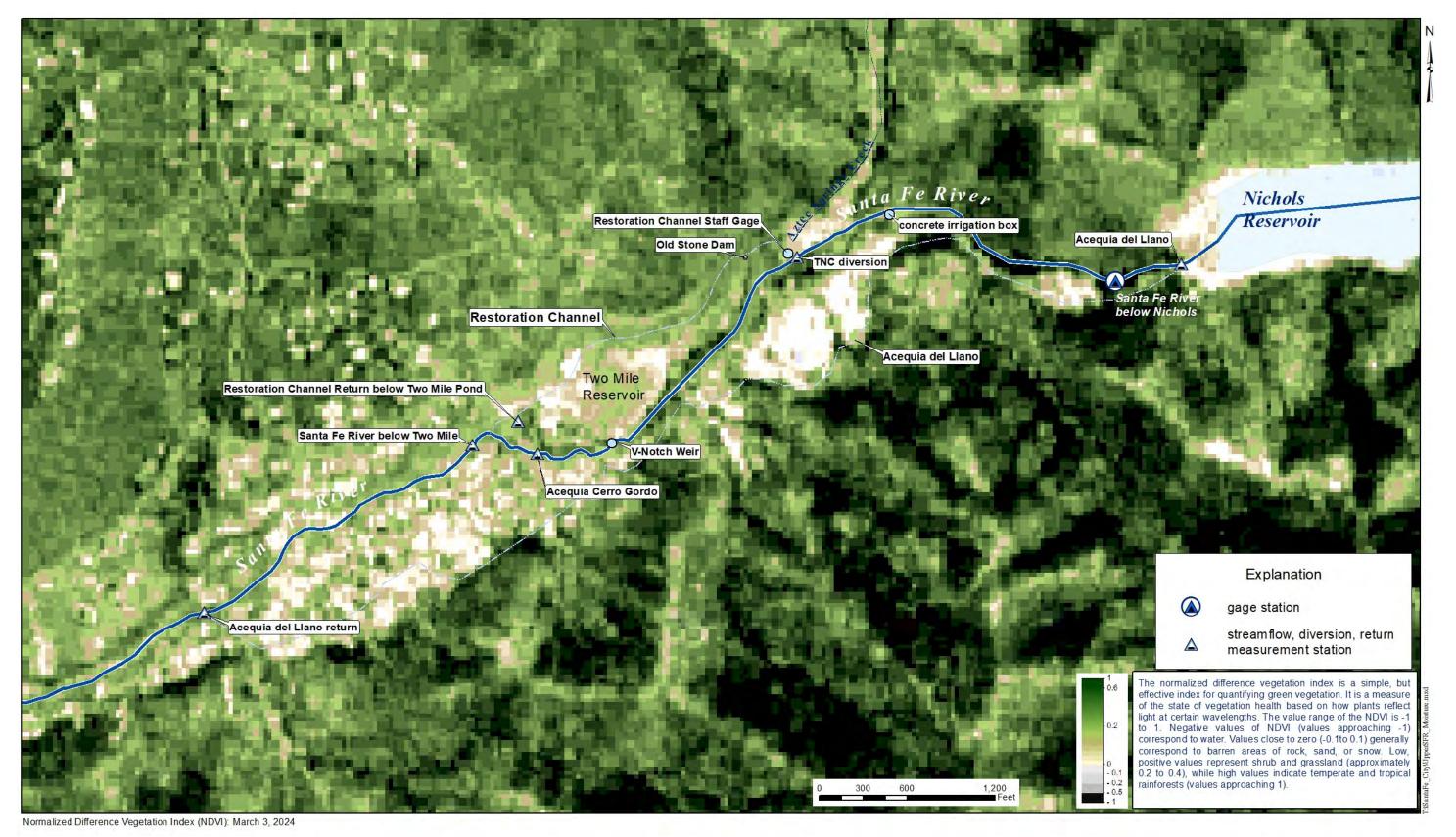


Figure C2. NDVI image of Two Mile Pond Complex for February 5, 2024.

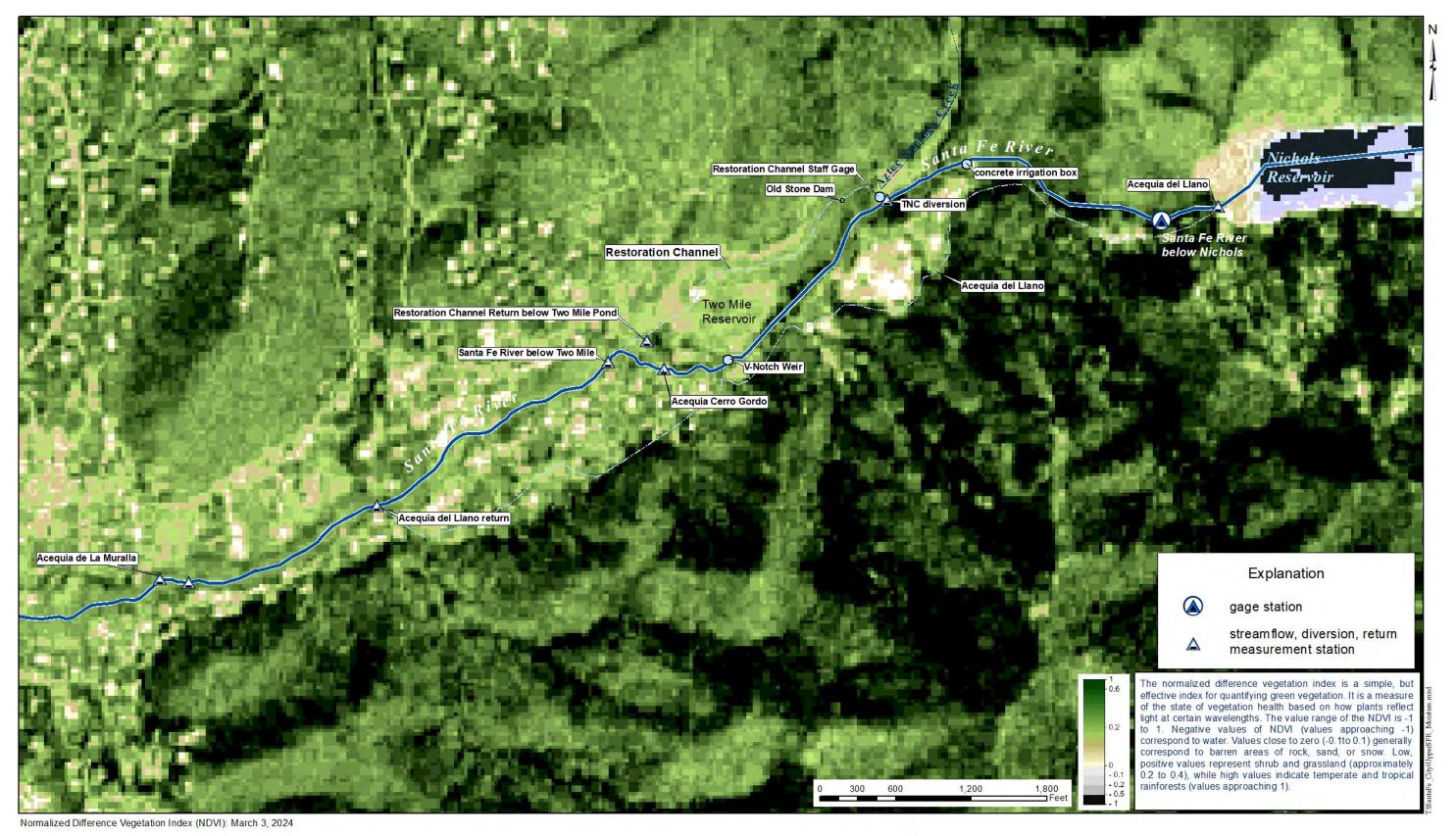


Figure C3. NDVI image of Two Mile Pond Complex for March 3, 2024.

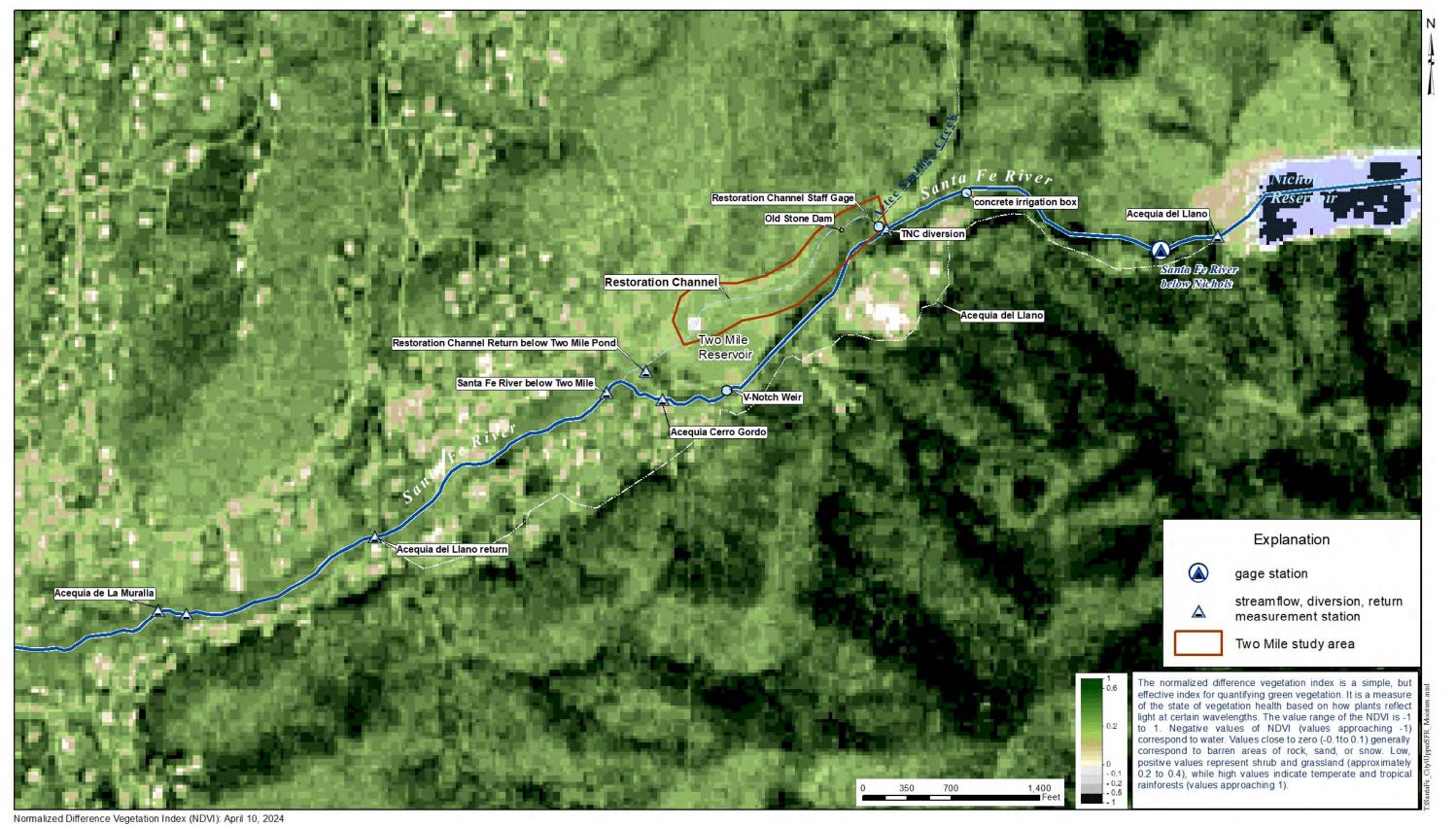


Figure C4. NDVI image of Two Mile Pond Complex for April 10, 2024.

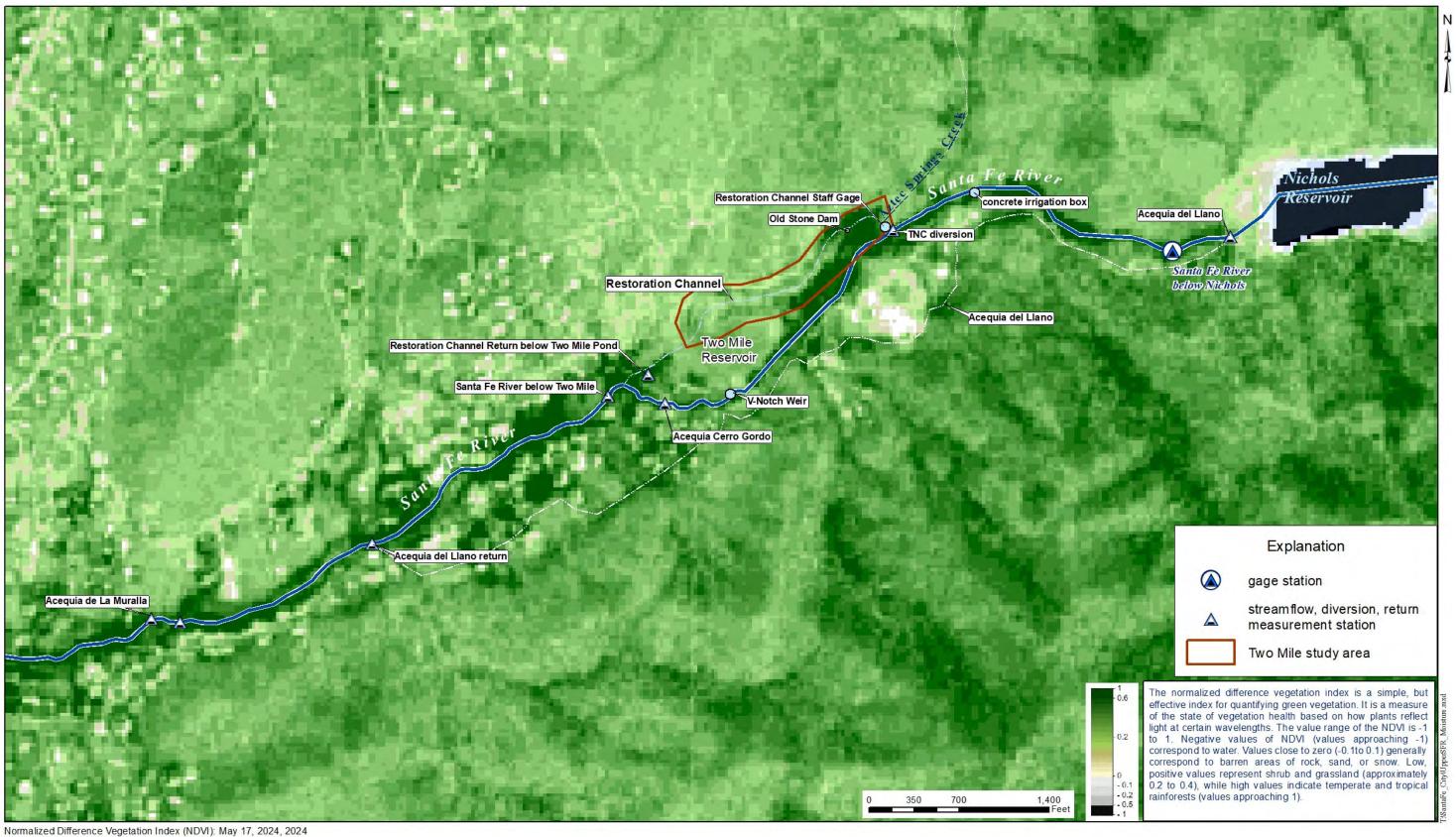


Figure C5. NDVI image of Two Mile Pond Complex for May 17, 2024.

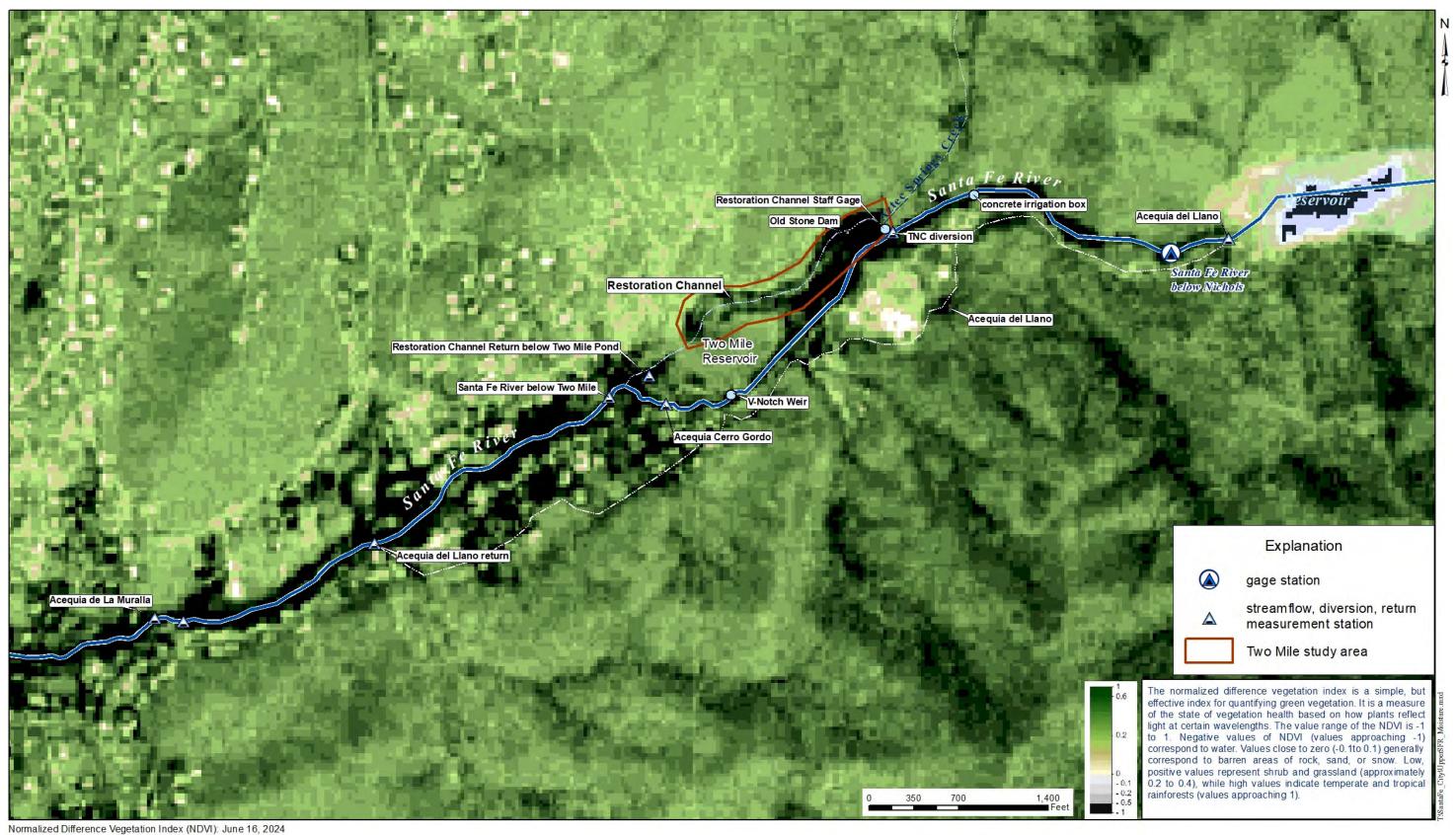


Figure C6. NDVI image of Two Mile Pond Complex for June 16, 2024.

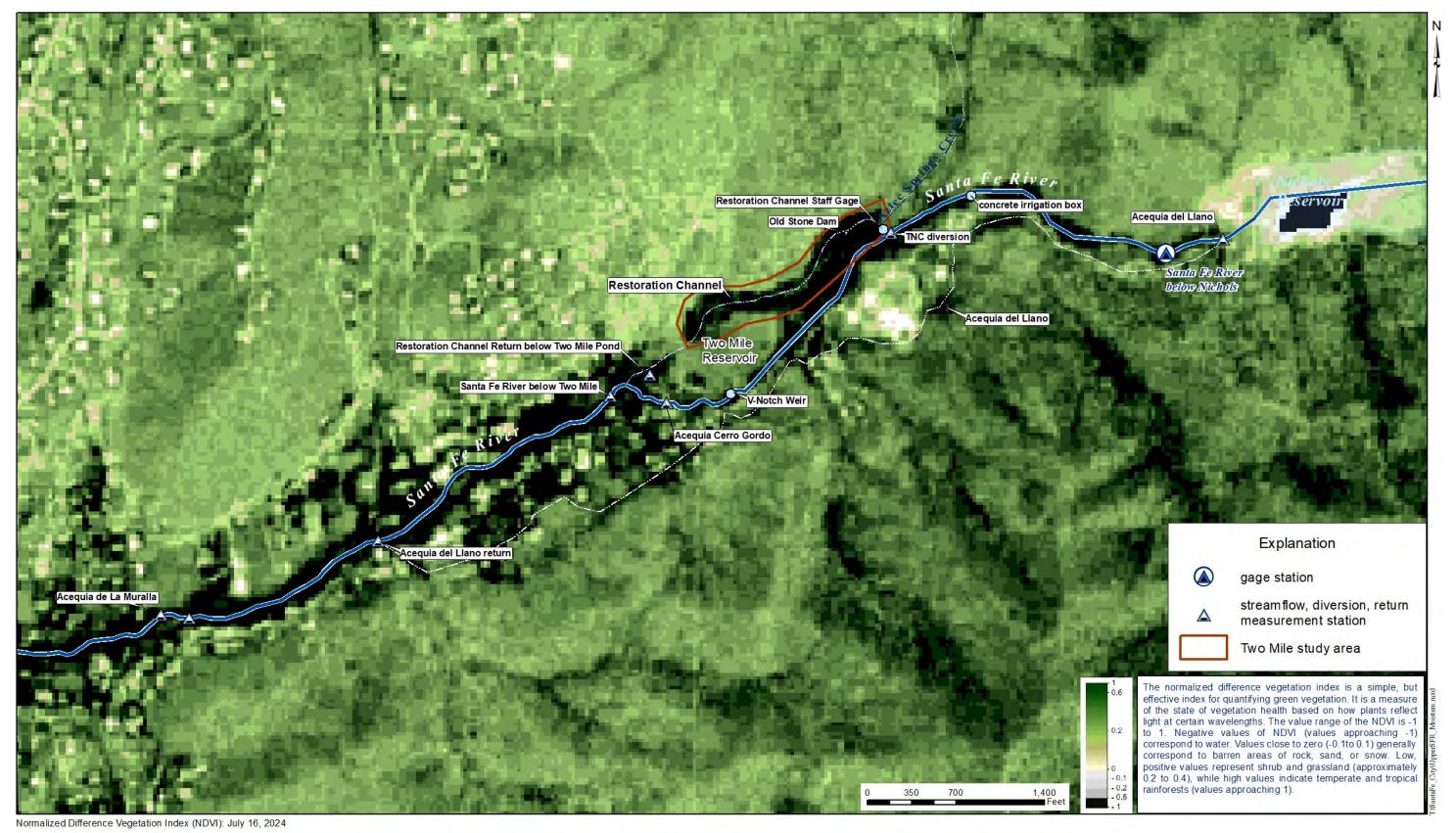


Figure C7. NDVI image of Two Mile Pond Complex for July 16, 2024.

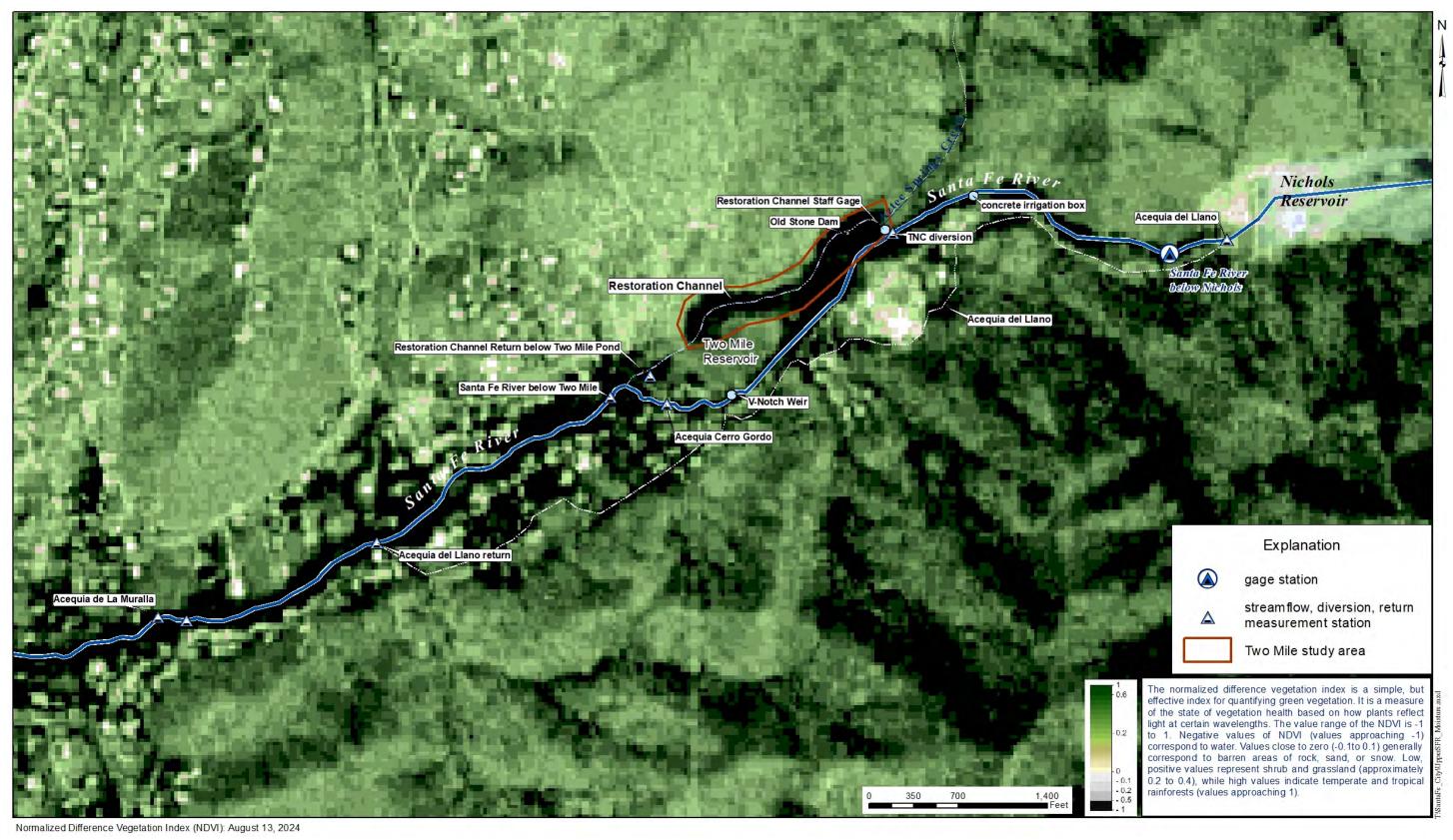


Figure C8. NDVI image of Two Mile Pond Complex for August 13, 2024.

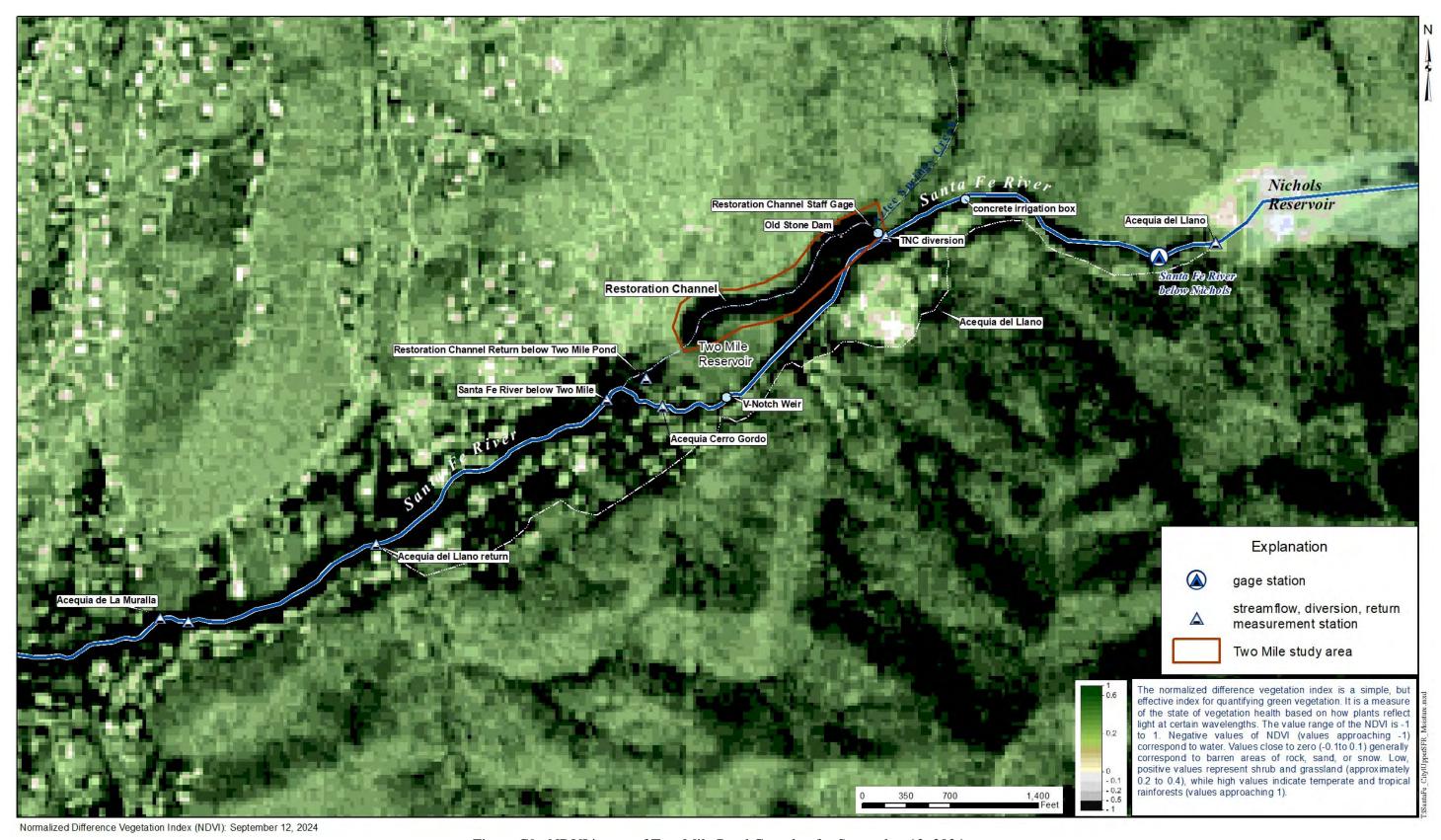
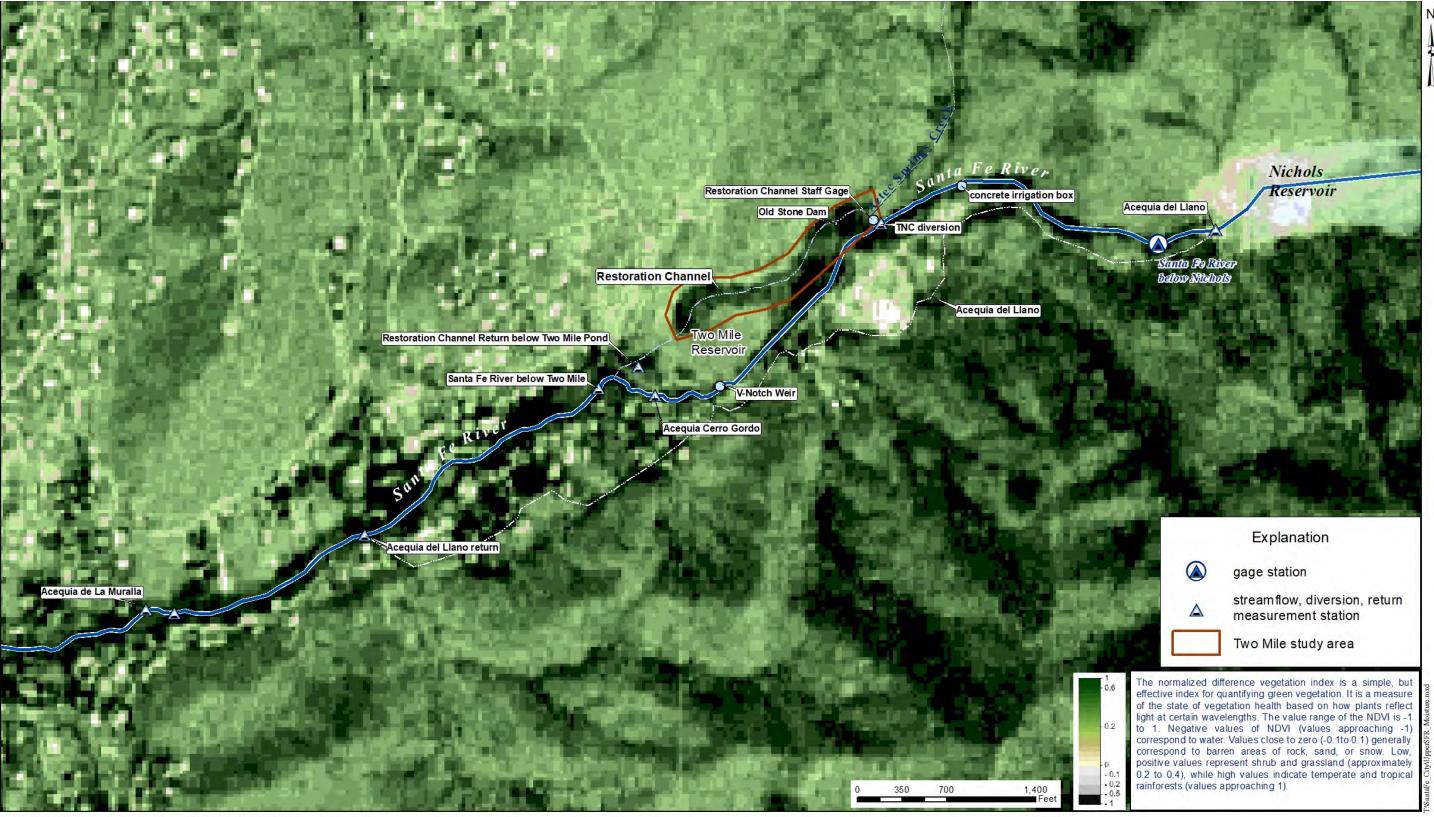


Figure C9. NDVI image of Two Mile Pond Complex for September 12, 2024.



Normalized Difference Vegetation Index (NDVI): October 9, 2024

Figure C10. NDVI image of Two Mile Pond Complex for October 9, 2024.

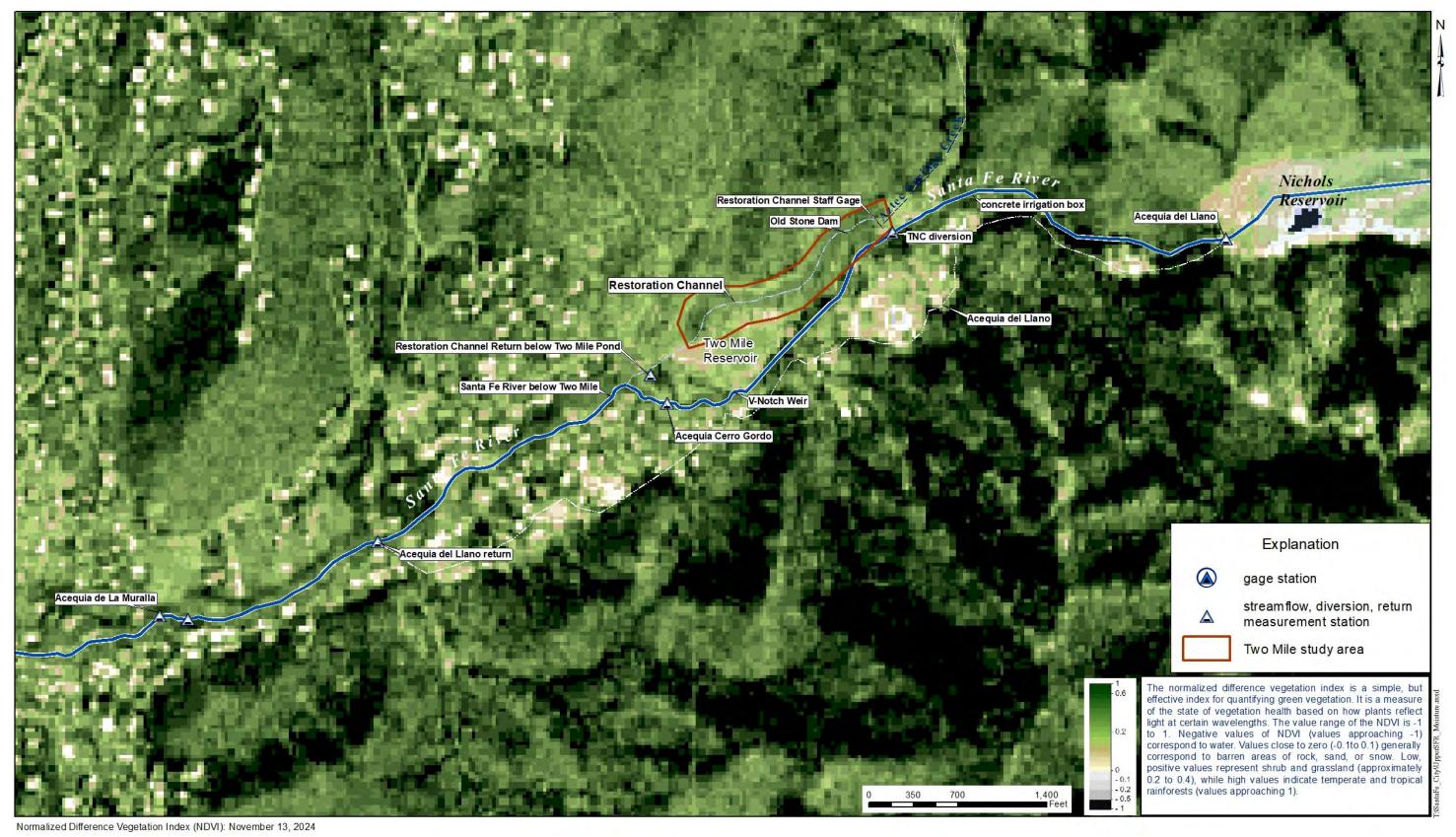


Figure C11. NDVI image of Two Mile Pond Complex for November 13, 2024.

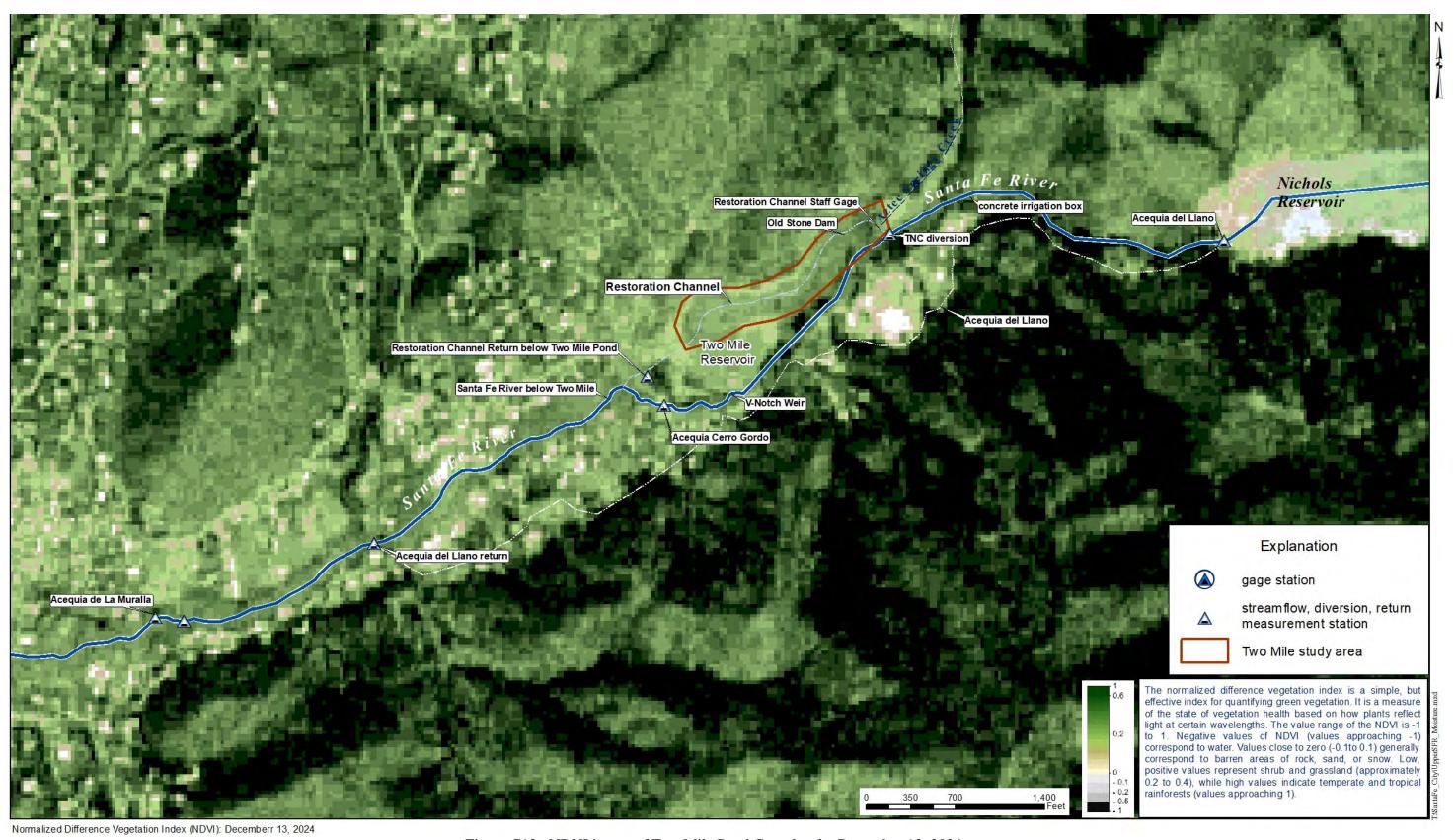


Figure C12. NDVI image of Two Mile Pond Complex for December 13, 2024.

Appendix D.

Field Investigations Forms

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	er Worksheet		
SA Code SF2MI [1	-] SA Name : Two !	Mile Pond Reservoir	<u> 2010, 10 255 (2) </u>	Project : Riparia	an Assesement
A de Tsct [1]] AU Name : Trans	sect []		WOI : Two Mile	Pond Reservoir
County Santa Fe		vaters Santa Fe River	Elevation (ft) 7299	(m) 2224.7	Ecoregion 6.0 NWFM
A riparian system decommissioned of water rights. Driving Directions Driving to Santa	and Boundary (Rationale, n that leads into a pond lo d due to safety concerns re Fe from Albuquerque you til you reach the reservoir	ecated on the east side egarding the reservoir	and a water diversion to ecos Trail. Then head east	the area was rece	nal Forest. This reservoir was ently shut down due to lack Monte Sol and right on
Ownership The Natur	re Conservative and The S	anta Fe National Fores	st Data Sharing Result Restrictions only.	ts to client Fis	h Observed in Wetland?
Surveyor Role		ere i de la como de la companya de	eyor Name		Surveyor Initials
Landscape	Dustin a	nd Annie		Section 1	DSTAM
Biotic	4/		64		" "
Abiotic	11		(1		//
Stressors	11		11		// 10
Easting (m)	Northing (m)	Zone	Datum	Latitude (DD	Oft) Longitude (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD-83 UTM	35.689722	-105.89
Survey Date	4/9/24	Start Time	09:18	End Time	13:05
En	ext (summarize the wetlar viron ment is win ter, Se, Very impa	still ver me small g	y dry and growth appea	recovering but	s From Nothing
SA Biotic Condition	(vegetation patterns, com		e evotics and invasives, d	listurhance evider	as fire and harbivany
	Some baby 1				
	Not much o green,	ther life.	Currant and	m'llors	starting to
SA Abiotic Condition disturbance and other	n (hydrological alterations er site impacts; explain the	(e.g., dams, walls etc.)	; flooding characteristics	and evidence of o	overbank flooding; soil
St	till very dr	y landscape	e recovering 1	From Winn	ter. Some
	nstruction can				
	ry (Overall site condition s				
	Environment is just slightly	almost iden	ntical to las) les and sproi	t Months wats begin	investigation ining.
rovisional eld Score <u>3,01</u> Ran	sk Surveyor(s)	DCS/AM Final Score	30/ Rank <u>B</u> Ini	itials $D \leq$	Date 4/9/24

SA CODE: SF2MI[1]

Date: 4/9/24

SA Name: Two Mile Pond Reservoir Transect [1]

Surveyor Initials: DS

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	Z	0.2	
B2. Vegetation Horizontal Patch Structure	2	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	Z	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	Z	0.2	
A3. Channel Equilibrium	4	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition	Ÿ	0.1	

SA Condition	n Scoring Su	mmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic		0.35	
Abiotic		0.35	
SA WETLAN	3.01		
SA WETLAN	D RANK =	1	B

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	Construction
			2	No flow in channel
			3	Trails

Stressor Comments (Evaluation of risk)

No water could affect the willows from growing back

SA CODE: SF2MI[1]

3

3

/2=

SA Name : Two Mile Pond Reservoir Transect [\mathcal{I}]

Date: 4/9/24

Surveyor Initials:

≤1.5

Landscape Context

	e excluded and of ear of imagery).		Check of elemen	off land cover ts that disrup	elemen t ecosy:	ts with stem co	in the buffe onnectivity.	r area Indica	or RCC co	orridors that are either allow nagery type and date (season	
lmage	ery Google	Earth KMZ. file			lmage	Date	6/23	6/23			
		and cover elements			Exclud	led nor	1-buffer/RC	Cland	cover el	ements	
Buffer	RCC				Buffer				COVETCI	ement?	
X		or semi-natural veget	-		X	X	Commerci dams, brid	al/resi ges, re	dential d	evelopments, parking lots, s, and other structures	
X		igation ditches witho	ut levee:	5	$1 \Box$	П				s, sports fields	
	Old field	ls, unmaintained				H	Railroads	-, 5-		, sports ricius	
	Open ra	nge land					Maintained materials, s	l levee	es, sedime	ent piles, construction	
X	Foot trai	ils, horse trails, unpavo v)	ed bike t	rails (low				*		norse paddocks, feedlots	
X		nnel open water	nel open water				Intensive a	e agriculture: maintained pastures, hay fields, os, orchards, and vineyards			
X	X Non-funnaturally	ctioning abandoned v occurring levees	oning abandoned vegetated levees, or Paved roads or developed second order upon								
1		two tracks roads			X	X	Open water structure	r bounded by a levee or other manmade			
ᆜᆜ	Other						Other				
, bein	merer combose	Percent Sub-metric. d of allowed buffer ele	omante o	and antariate	Alex Design	n			Tab	le L1a. Buffer Percent	
N DEI	ow. nate the sur	o-metric using Table L	1a and e	nter the ratin	g on the	Buffe	r		Rating	Buffer Percent	
tegnt	y Summary Wor	ksneet ra.							4	100%	
		Buffer Percer		85%				R	3	≥80% - <100%	
rkshe	eet 1c. Buffer W	idth Sub-metric. Me	asure the	e length of ea	ch buff	er line i	n meters in	1	2	≥50% - <80%	
. 4.5 0	" On the map, A	verage the line length mary Worksheet 1d.	is and ra	te using Table	L1b. Er	iter the	rating on	\Box	1	<50%	
ine	Buffer Width	Buffer Width		Buffer W	idth	Buff	fer Width		Tab	le L1b. Buffer Width	
	(m)	(ft)	Line	(m)			(ft)	R	ating	Average buffer width	
A	164.26	538.91	E	161.93		53	31.26		4	≥190m	
В	125.25	410.92	F	231.48		75	9.44	R	3	≥130 - <190m	
C	115.39	378.57	G	121.25			7.80	\sim	2	≥65 - <130m	
5	111.07	364.40	Н	155.87			1.38	\Box	1	<65m	
	Average	148.31 (m)		486.58		(ft)	1.50	Tak	le i 1c S	ummary Rating for Buffer	
rkshe	et 1d. Ruffer I		-441					'-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Integrity	
4 6 10 0	anove to calcula	ntegrity Summary. Ente the Buffer Integrity	Indev S	core using th	a farm	-الد! - ا	- 1 1	Ra	ating	Score	
OVV. US	sing the Buffer I ne SA Summary	ntegrity index Score. 6	enter rati	ng for Buffer	Integrit	y in Tab	ole L1c	\overline{C}	4	>3.5	
P	· · · · · · · · · · · · · · · · · · ·		T					R	3	>2.5 - ≤3.5	
TOP VA	Rating +	Buffer Width Rating	/2=	Buffer I					2	>1.5 - ≤2.5	

3

SA CODE: SF2MI[/]

SA Name: Two Mile Pond Reservoir Transect [|]

Date: 4/9/27

Surveyor Initials:

DS

2 - Riparian Corridor Connectivity (RCC)

Vorksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for xcluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter he summed values in meters for excluded element lengths for each bank within each egment upstream and downstream of the SA. Sum the values for each segment and alculate % Segment Disruption for the upstream side and the downstream side. Add the otal disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and he data from this worksheet. Enter rating on the SA Summary Worksheet.

110 0000					
Segments	Upstrear	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
ጓ) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)	0		0		
C) % Segment Disruption = (B/1000)*100	0		0		
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero dis	Zero disruption noticeable along the ba			

Table L2. RCC Rating					
Rating	Description				
(x 4	0% total disruption on both segments combined.				
C 3	<15% total disruption on both segments combined.				
C 2	≥15% - <40% total disruption on both segments combined.				
C 1	≥40% total disruption on both segments combined.				

3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksh

	RSR			RWSI							
Current Size	1	Historic Size	=	RSR	1	-	RSR	Х	100	The The	RWSI (%)
0	,	10	=	0.9	1	-	0.1	X	100	=	10

Table L3. Relative Wetland Size Rating						
Rating RWSI Score Description						
(X 4	≤10%	Wetland is at or only minimally reduced from its full natural extent				
C 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size				
C 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size				
C 1	>70%	Wetland has been reduced by more than 70% its natural size				

SA CODE:

SF2MI[|]

Date: 4/9/2 4
Surveyor Initials:

SA Name:

Two Mile Pond Reservoir Transect [|]

L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1		0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.1	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads) Ski area	0.3	0	0
	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, having and haling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surr	ounding Land Use Rating
Rating	LUI Score
○ 4	≥95 - 100
C 3	≥80 - <95
∞ 2	≥40 - <80
C 1	<40

SA CODE: SF2MI []

SA Name: Two Mile Pond Reservoir Transect | |

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Biotic Metrics

Species Cover (BS) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features. number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant

olygon	Polygon B3 Vertical Structure No Type	84 Tree Regeneration % Cover	B4 Tree B5 Invasive Regeneration Exotic % Cover Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1				
2	IA2	10%	No exertics	None	Maple River, Juniper, Chimisa, Prickly Pear
т	IIA1				
4	IIIB1				
5	IIIC1	0 %	72%	Malloin	Chimisa, Willow dry grass
9	IVEI				
7	IVF1				
∞					
6					
10					
=					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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Date: 4/9/29 Surveyor Initials: 🕰

B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in J. 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top % SA5 12% 12% CT Score 4 Raw4 2,0 Final Weighted Score⁷ Bho Herbaceous/Sparse Stratum 3 Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. Species 5 Š \geq \geq ш Z 3. E. 3. Ch. 1991 35 Species 4 Short Woody Stratum 2 2 Species 3 E Chilmi Say 3 ш 2 Species 2 Piner Tall Woody Stratum 1 \geqslant Maple Species 1 Polygon Nos. S ⋖ Δ ш ט I ¥ Σ z 0

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. ⁴Raw Score is from Table B1a (Appendix B); ⁵%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Two Mile Pond Reservoir Transect [|] SA Name:

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Table B1. Relative Native Plant Community Composition Rating				
Rating	CT Final Weighted Score			
<u>4</u>	≥ 3.75	<10% non-native		
ີ້ 3	≥ 3.25 and <3.75	10% ≤20% non-native		
γ 2	> 2.0 and <3.25	20% ≤50% non-native		
1	≤2.0	>50% non-native		

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch Structure pattern A,B,C, or D:

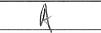


	Table B2. Rating for Vegetation Horizontal Patch Structure				
Rating	Description				
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.				
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.				
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.				
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.				

3 - Vegetation Vertical Structure

Jorksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
! !	High Structure Forest	Forest	Tall Shrubland	Short Shrubland	Herbaceous Wetland	Herbaceous Vegetation	Sparse Vegetation
Total % of SA		40%		60%			

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the ow that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for ne rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the ating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
` 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
/ ₃	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	65		- 13410414
1	6H		
	7		

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B4 - Native Riparian Tree Regeneration

34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description				
C 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
C 1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
C 4 X	0%			
3	>0% - <1%			
ι 2	≥1% - <10%			
C 1	≥10			

Ad	ditional	CTs and	Biotic Metric	Comments:

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
	X		Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	M		Terraces
			Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Table A2. Rating for Physical Patch Complexity						
Rating		Description				
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).				
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).				
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).				
Ø	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.				

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		図		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		D)		There is leaf litter, thatch, or wrack in most pools.
Indicators of		赵		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		M		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ą		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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	Table A3. Rating for Channel Equilibrium						
Ratin	Description						
< 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.						
С 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.						
C 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.						
<u> </u>	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.						

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

	g on the SA Summary Worksheet.				
Condition	Condition Upper Middle Lower Segment Segment Segment		Lower Segment	Field Indicators	
	□4	⊠4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.	
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.	
Soil Stability	□ 2	□2	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.	
	<u> </u>	1	1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.	
	<u></u> 4	⊠ 4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.	
	<u></u> 3	_3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.	
Indicators of Stream Bank Erosion Potential	□ 2	<u></u> 2	□ 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.	
	<u></u> 1	1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.	

Average Indicator Sco	re
J	

Table A4. Stream Bank Stability and Cover Rating					
Rating	Description				
≪ 4	>3.5 - 4.0				
C 3	>2.5 - ≤3.5				
C 2	>1.5 - ≤2.5				
C 1	1.0 - ≤1.5				

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A5 - Soil Surface Condition

reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment Middle Segment Lower		Lower Segment	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
	X		Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
		Grading or plowing		
		Fill		
		Gravel pits		
		Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	
-----------------------------	--

	Table A5. Soil Surface Condition Rating							
Rating	Description							
C 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.							
№ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.							
<u> </u>	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.							
(1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.							

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orksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign tegories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknown the Major Stressors in Dominant Stressor column (Pick up to 3)

nk	Major	Minor	Absent	Unknown	Stressor Group/Stressor	Comments
	iviajoi	TVIII OI	ADSCIIC	OTKHOWII	Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
			Ø		Extended high flow dam releases	
			Ø		Agriculture/Urban flow diversion upstream	
	100				Adverse sediment management	
					Adverse sediment retention by dams	
			Ø		Sediment loss by dredging	
			Ø		Adverse sediment input (roads/development)	
	E				Artificial water additions	
			Ø		Sewer treatment effluent	
					Point source urban runoff	
			Ø		Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
			6 256500 0		Ground water pumping	
					Urban depletions	
					Fracking	
			Ø		Agriculture irrigation wells	
		- 1			Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
			Ø		Livestock/wildlife overgrazing	
	Zuge gest.		and the second	a suite siid	Local biodiversity impacts	
			Ø		Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	
ditional Comments Dry Light					desert no water flow	ing through old channel

rsion Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

		- Tanas VC131011 2				
SA Code SEZANI			r Worksheet	The other	= 17 - 72	and the second of
SA Code SF2MI[Mile Pond Reservoir		Project : Rip	oarian Asse	esement
A de Tsct [[]	AU Name : Tra	nsect []		WOI : Two I	Mile Pond	Reservoir
County Santa Fe	HUC 12 Head	lwaters Santa Fe River	Elevation (ft) 7299	(m) 2224.7	Ecc	pregion 6.0 NWFM
decommissioned of water rights. Driving Directions Driving to Santa	and Boundary (Rationale n that leads into a pond l d due to safety concerns Fe from Albuquerque yo til you reach the reservo	ocated on the east side or regarding the reservoir a	and a water diversi	on to the area was r	recently sh	ut down due to lack
	re Conservative and The	Santa Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obse Wetla	
Surveyor Role		Survey	or Name		Hozala	Surveyor Initials
Landscape	Dustin	+ Annie			771	
Biotic	"	11				DS+AM
Abiotic	"		11			11 - 11
Stressors	-		(I			a.
Easting (m)	Northing (m)	Zone	Datum	Latitude ((DD 64)	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM		mercapie -	Longitude (DD ft)
Survey Date	5/15/24	Start Time	09:15	End Ti		13:07
		SA Desc				10.0
Environ me	ent appears	to be great	dscape; include cor	ndition and impacts) <u> </u>	5 5 1/11
pretty	dry. Area	is border	between	high deser	rtand	forest
	vegetation patterns, com					
New Mexico	Whip tail D.	Alone Bout a	A/	es, disturbance evid	lence, fire	and herbivory)
1. dita	whip tail, fra	VICE REAL DOVINE	ra Narrow le	ear W. How, LI	imisa,	Salt 6454
gree	butterflies, fleab	and, globe mallow,	golden ast	ter, Willow	s beg.	naing to
	n more, maple (hydrological alterations site impacts; explain the	THE CLAME WATER OF CITY	0001100-1-1			
	1	injurioring to Breaks of Ott	ier ractors that der	ine the SA limits)		
	istraction going	g on near	road by	Andobon Faci	ility,	Very
0,	y high o	lesert area	,			
			2			
5	(Overall site condition s	unimary and comments	after the field data	is collected.)		
) Sm	Finally	recovering F	rom wint	er, Willows	appo	ar to be
J. Our	Overall site conditions	lespite no m	rater, oth	er plants in	qrea	appear achoted.
d Score 3,08 Rank	Surveyor(s)	Final Score 3.0	& Rank B	Initials DS		,
	<u></u>	Page 1 of	17			te 5/15/24

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SA Name: Two Mile Pond Reservoir Transect [|]

Date: 5/15/24

Surveyor Initials: 05

MRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

MRAM - SA Rank Summary Worksheet, Montaine Metric Description	Rating	Wt	Final Score
		Σ 1.0	3.25
andscape Context	3	0.25	0.75
1. Buffer Integrity Index	4	0.25	1.0
2. Riparian Corridor Connectivity			1.0
3. Relative Wetland Size	4	0.25	0.5
4. Surrounding Land Use	2	0.25	0.5
liotic		Σ	
11. Relative Native Plant Community Composition	2	0.2	
22. Vegetation Horizontal Patch Structure	3	0.2	
33. Vegetation Vertical Structure	3	0.2	
34. Native Riparian Tree Regeneration	3	0.2	
35. Invasive Exotic Plant Species Cover	4	0.2	
		Σ	
Abiotic		0.3	
A1. Floodplain Hydrologic Connectivity	1	0.2	
A2. Physical Patch Diversity	1/	0.2	
A3. Channel Equilibrium	9		
A4. Stream Bank Stability and Cover	9	0.2	
A5. Soil Surface Condition	3	0.1	

SA Condition	Scoring Sur	nmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic		0.35	
Abiotic		0.35	
SA WETLANI	CONDITIO	N SCORE Σ	3,08
SA WETLANI	D RANK =		B

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	Construction
			2	Trails
			3	No Water

valuation of risk)
valuation of risk

Willows appear to be slightly behind the willows below the dam

SA CODE: SF2MI[]

SA Name: Two Mile Pond Reservoir Transect [)]

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>1.5 - ≤2.5 ≤1.5

Landscape Context

and y	e excluded ear of im	d and con agery).	y Index and RCC Checklist sidered non-buffe	. Check o	off land cover its that disrup	elemen ot ecosy:	nts withi stem co	n the buffe nnectivity.	r area or RCC o	orridors that are either allo nagery type and date (seasc			
lmage	1		rth KMZ. file			lmage	e Date	6/23					
Allow	ed buffer	/RCC lan	d cover elements			Exclud	ded non	-buffor/PC	C land cover el				
Buffer	r RCC					Buffer	RCC	Danelync	c iand cover ei	ements			
X	X	latural or	semi-natural vege	ation pa	tches	X	[V]	Commercia	al/residential d	evelopments, parking lots, s, and other structures			
x	X S	mall irriga	ation ditches witho	ut levee	S	$+$ \Box							
		ld fields,	unmaintained			十片		Railroads	ks, golf courses, sports fields				
		pen rang	e land					Maintained	l levees, sediment piles, construction				
X	X in	oot trails, tensity)	horse trails, unpav	ed bike t	rails (low				staging areas vestock areas, horse paddocks, feedlots				
X	X No	on-chann	el open water					ntensive ag	griculture: maintained pastures, hay fields, prchards, and vineyards				
X	x na	on-function turally oc	oning abandoned v curring levees	egetate/	d levees, or	X	[V] F		s or developed second-order unpayed but				
			o tracks roads			x			bounded by a levee or other manmade				
		her						ther					
		แหนวอน เว	rcent Sub-metric. f allowed buffer ele	amonte a	nd ontoulus.		rr —	of the	Tab	e L1a. Buffer Percent			
	ow. Kate 1 y Summa	THE SUD-II	ietric using jable i	1a and e	nter the ratin	g on the	e Buffer		Rating	Buffer Percent			
		,	Buffer Percer	nt (06)	85%				O 4	100%			
									(₹) 3	≥80% - <100%			
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GISO		Hap. Avei	aue me me ienam			cii buile	er line ir	i increis iii		230% - <80%			
	i integrit	y Julillilai	ry Worksheet 1d.	is and ra	te using Table	L1b. Er	er line in iter the	rating on	<u> </u>	<50%			
Buffe	Buffer	Width	Buffer Width	Line	Buffer W	L1b. Er	Buffe	rating on er Width	<u>C 1</u>				
Buffe ne		Width 1)	Buffer Width (ft)	Line	Buffer W (m)	L1b. Er	Buffe	rating on er Width (ft)	<u>C 1</u>	<50% le L1b. Buffer Width			
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Buffe ne A B rkshe L1b a bw. Us pn th	Buffer (n 164.2 125.2 115.3 111.0 Average eet 1d. Bu	Width 1) 6 5 7 Iffer Intercalculate of the control of the con	## Suffer Index Score of the Buffer Index	E F G H	Buffer W (m) 161.93 231.48 121.25 155.87 486.58 sub-metric Racore using the ng for Buffer	idth tings fromulategrity	53 759 397 511. (ft) om Table in the y in Table	er Width (ft) 1.26 0.44 .80 .38	Tab Rating A B Table L1c. S Rating	<50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m ummary Rating for Buffe Integrity Score			

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SA CODE: SF2MI[|]

Date: 5/15/24

SA Name: Two Mile Pond Reservoir Transect [|]

Surveyor Initials:

2 - Riparian Corridor Connectivity (RCC)

Forksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for Accluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each beginnent upstream and downstream of the SA. Sum the values for each segment and alculate % Segment Disruption for the upstream side and the downstream side. Add the otal disruption for upstream and downstream segments and then calculate the % Total disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

De data Holli tills worksheet, Eliter rating on					
Segments	Upstream	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)		0		0	
C) % Segment Disruption = (B/1000)*100		0	C)	
D) Total Disruption both segments			0		
E) % Total Disruptions = (D/2000)*100	Zero dis	ruption notic	eable along	the banks.	

	Та	ble L2. RCC Rating					
Ra	ating	Description					
(X)	4	0% total disruption on both segments combined.					
0	3	<15% total disruption on both segments combined.					
0	2	≥15% - <40% total disruption on both segments combined.					
0	1	≥40% total disruption on both segments combined.					

3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksher

RSR					RWSI						
1	Historic Size	=	RSR	1	-	RSR	X	100	=	RWSI (%)	
			0.9	1		0.1	X	100	=	10	
	1	RSR / Historic Size / 10	/ Historic Size =	/ Historic Size = RSR	/ Historic Size = RSR 1	/ Historic Size = RSR 1 -	/ Historic Size = RSR 1 - RSR	/ Historic Size = RSR 1 - RSR X	/ Historic Size = RSR 1 - RSR X 100	/ Historic Size = RSR 1 - RSR X 100 = 100	

Table L3. Relative Wetland Size Rating							
RWSI Score	Description						
≤10%	Wetland is at or only minimally reduced from its full natural extent						
>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size						
	Wetland has been reduced by more than 40% its natural size						
	Wetland has been reduced by more than 70% its natural size						
	≤10% >10% - ≤40% >40% - ≤70%						

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Two Mile Pond Reservoir Transect [|]

Surveyor Initials: DCS

L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score	
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0	
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0	
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and resorvoirs)	0.1			
Filling or dumping of sediment or soils		0	0	
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.1	0	0	
RIP-rapped Channel (highly modified channel with soverely light to the channel channel (highly modified channel with soverely light).	0.3	0	0	
human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads) Ski area	0.3	0	0	
	0.4	0	0	
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0	
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5	
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14	
Developed/Managed trail system (high use trail)	0.8	5	4	
Agriculture - active tilled crop production	0.2	0	0	
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0	
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0	
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, ussian thistle, mustards, annual vegetation)	0.5	0	0	
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures e.g., perennial vegetation cover)	0.7	0	0	
estoration areas in process to natural conditions (re-conversion in process)	0.0			
aying of native grassland (e.g., no tillage, baying and baling and	0.8	65	52	
eavy logging or tree removal with >50% of large trees (o. z. > 20 11	0.9	0	0	
moved, woodland/shrub vegetation conversion (chaining, cabling, rotochopping) pmmercial tree plantation, Christmas tree farms	0.3	0	0	
elective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height)	0.6	0	0	
	8.0	0	0	
ature restoration areas returned to natural conditions (re-converted)	0.9	0	0	
atural area, land managed for native vegetation - No agriculture, logging, development	1	0	0	
LUI Score= Coefficient * % LUZ Area		100	75	

Table L4. Surrounding Land Use Rating	
Rating	LUI Score
O 4	≥95 - 100
○ 3	≥80 - <95
⊗ 2	≥40 - <80
<u>O 1</u>	<40

SA CODE: SF2MI [|]

SA Name: Two Mile Pond Reservoir Transect | |

Biotic Metrics

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List-1-1-69 aster golden O Appendix D). Use the comments box for documenting and describing vegetation community patch features. himis 1 Comments 1901 Invasive Exotic Species (List Code(s)) My/1017 S 600 Not dead Species % Cover contro 72% B5 Invasive Exotic B4 Tree Regeneration E % Cover 30% 10% Polygon B3 Vertical Structure 11 IVEI INF1 **IIIB**1 Type IA1 IA2 IIA1 20 19 18 15 16 17 12 13 14 10 1 6 ∞ 9 3 2 7

SA Name: Two Mile Pond Reservoir Transect [/]

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B1 - Relative Native Plant Community Composition

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Raw⁴ |% SA⁵ |Wt Score⁶ 1.75 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and > 25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 46 30% 12.5 70% CT Score 4 Herbaceous/Sparse Stratum 3 Species 6 8/2c ster which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 2 Species 5 E 2 7055 Whent Species 4 E Chinist 1 Short Woody Stratum 2 Species 3 E S. J. S. J. Species 2 Tall Woody Stratum 1 Species 1 Maple Polygon Nos. كا V ⋖ മ Ü Δ ш ш G ェ \checkmark Σ 0 z

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Two Mile Pond Reservoir Transect [|] SA Name:

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Table B1. Relative Native Plant Community Composition Rating									
Rating	CT Final Weighted Score								
4	≥ 3.75	<10% non-native							
3	≥ 3.25 and <3.75	10% ≤20% non-native							
2	> 2.0 and < 3.25	20% ≤50% non-native							
1	≤2.0	>50% non-native							

Vegetation Horizontal Patch Structure

rksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch tern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

zontal	Patch	Structure	pattern	A,B,C,	or (D:
LUIILUI	1 46611	21.00.0.0				

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description Complexity A dominant patch type would
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present, nowever, a single,
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

- Vegetation Vertical Structure

orksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with me VST) x 100. Enter the total %SA for each VST below.

me VST) x 100	. Enter the total '	%SA for each VS	i below.		VET CM	VST 6H	VST 7
	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	Herbaceous Vegetation	Sparse Vegetation
Total % of SA	. 5. 55	50		50			

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the ow that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for he rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the ating on the SA Rank Summary Worksheet.

	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
Rating	John Mark Vol.	5	6W and/or 6H
l	1		
4	1	6W	614 - 4/- 611
	2 or 1 and 2	5	6W and/or 6H
	1		
	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		•
2	5		
	6W		
	65		
1	6H		
	7		

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Date: 5/15/24

SA Name:

Two Mile Pond Reservoir Transect [/]

Surveyor Initials: DLS

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31	12	33	31	V۴	: 1	18	8.0	£	-3	91	ĸ.	и	-	н	Ŧ	a	-	Ŧ	a)	36	86	Q	2	Ω	28	a.	0		r	v	σ	-	æ	ì.	21	꿦
á		Α.	200	oda	S.	X.o	ā.	Us.				d.	ы	aid.	å,	ä.,	8.4	Д.	ž.,	37.	Æ	.52			3		-	М.	100	ш	S	а		ш		B

1	
1	4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from
W	orksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

		, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.
Rating		Description
ဂ	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
X	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
\circ	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
\circ	1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)	
--------------------	--

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
O 4 X	0%			
C 3	>0% - <1%			
2	≥1% - <10%			
O 1	≥10			

Ad	ldit	ional	CTs	and	Biotic	Metric	Comments:
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Date: 5/15/24

SA Name: Two Mile

Two Mile Pond Reservoir Transect [/]

Surveyor Initials:

DCS

Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

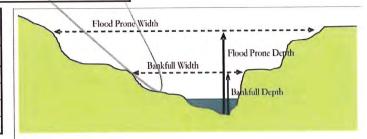
Method 1

Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description	Cross-section:	1	2	3					
1: Bankfull width	his is a critical step requiring familiarity with field indicators of the bankfull contour. Measure the distance between the right and left bankfull contours with a tape.									
2: Maximum bankfull depth	Geeping the tape level between the right and left bankfull contours, measure the height of the line above the thalweg (the deepest part of the channel). A pocket line level can belp here.									
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.									
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.									
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Ste	ep 1).								
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-secusing Table A1a. Enter the rating in the A1 box on the SA Rank	tions. Enter the average her Summary Worksheet.	re and	rate						

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems						
Rating	Description					
O 4	Average entrenchment ratio is ≥ 2.2;					
C 3	Average entrenchment ratio is ≥1.9 - <2.2					
\bigcirc 2	Average entrenchment ratio is ≥1.5 - <1.9					



Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Worksheet in conjunction with Table A1c. Check the boxes for all that apply to each segment.

Average entrenchment ratio is < 1.5

segme	ent.	,	
U	M	L	Indicator
		D	Bankful is slightly below bank height
	Þ		Bankful is well below bank height and channel is incised
			Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
		Ø	Stream is straightened/channelized
			Inset floodplain formation
			Decreased peak flows due to hydrologic modification
			Bankfull indicators at point of incipient flooding of the floodplain
			Indicators of overbank flow on floodplain

Floodplain inundation due to beaver activity

10.000	Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems					
Ra	ting	Description				
0	4	Average entrenchment ratio is ≥ 1.9				
\circ	3	Average entrenchment ratio is ≥1.4 - <1.9				
\circ	2	Average entrenchment ratio is ≥1.2 - <1.4				
\circ	1	Average entrenchment ratio is < 1.2				

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Surveyor Initials:

Method 2

1. .e A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

Rating	Description
C 4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.
C 3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
O 2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
<u> </u>	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1						
2				· ·		
3						

Floodplain Hydrologic Connectivity Comments:

	Not	04	JSAI	Assessment	
:					

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SA Name: Two Mile Pond Reservoir Transect [/] Surveyor Initials: DCS

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
	X		Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	X		Terraces
			Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tabl	able A2. Rating for Physical Patch Complexity							
Ratir	ng	Description						
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).						
\cap	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).						
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).						
×	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.						

SA	CODE	•	SF2MI[1	1
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Surveyor Initials:

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)	
		X		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.	
		M		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.	
		X		There is leaf litter, thatch, or wrack in most pools.	
Indicators of		X		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.	
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.	
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).	
		X		Channel and point-bars consist of well-sorted bed material.	
		Ø		neither mid-channel bars or point bars).	
				There are channel pools at meander bends and some deep pools within the reach.	
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.	
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.	
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.	
Indicators of Active Degradation			. 🔲 📗	Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.	
				There are active headcuts within the channel.	
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.	
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.	
				There are partially buried living tree trunks or shrubs along the banks.	
ndicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.	
				here are partially buried or sediment-choked culverts.	
				here are avulsion channels on the floodplain or adjacent valley floor.	

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	Table A3. Rating for Channel Equilibrium					
Rating	Description					
% 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.					
, () 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.					
∩ 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.					
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.					

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	X 4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Soil Stability	<u></u> 2	□2	<u>2</u>	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	<u></u> 1	_1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	X)4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	□3	3	3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	<u></u> 2	<u></u> 2	<u></u> 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	<u></u> 1	□1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	

Table A4. Stream Ba	ank Stability and Cover Rating
Rating	Description
4	>3.5 - 4.0
<u></u>	>2.5 - ≤3.5
C 2	>1.5 - ≤2.5
C 1	1.0 - ≤1.5

					1
SA	CODE	:	SF2MI	[,	/]

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Surveyor Initials :

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A5 - Soil Surface Condition

rksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	×		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	
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	Table A5. Soil Surface Condition Rating
Rating	Description
C 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
% 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill,gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

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orksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign egories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknow" has been been been as "Unknow" as

ınk	-	Aff	ect		Stressor Group/Stressor	Comments
IIIK T	Major	Minor	Absent	Unknown	Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
					-	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
		Γ		ı	Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
					Adverse sediment input (roads/development)	
					Artificial water additions	
					Sewer treatment effluent	
					Point source urban runoff	
			Ø		Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
				100	Ground water pumping	
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
					Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
					Local biodiversity impacts	
			Ø		Evidence of excessive grazing (local)	
	Z				Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	

dditional Comments

ersion Date: 04/25/2022

Schema: Montane 2.5

		SA Cove	r Worksheet			
SA Code SF2MI[SA Name: Two	o Mile Pond Reservoir		Project : F	Rinarian Acco	omant
Fode Tsct [/] AU Name : Tra	ansect []			Project : Riparian Assesement WOI : Two Mile Pond Reservoir	
County Santa Fe	HUC 12 Head	dwaters Santa Fe River	Elevation (ft) 729			
decommissione of water rights. riving Directions Driving to Santa		e, comments) located on the east side of regarding the reservoir a	of Santa Fe borde and a water divers	ring the Santa Fe N sion to the area was	lational Forest s recently shu	t down due to lac
		Santa Fe National Forest		Results to client only.	Fish Observ	ed in
Surveyor Role		Survey	or Name		wettand	
Landscape	Dustin Schwar					Surveyor Initia
Biotic	Annie McCoy					DS
Abiotic	Dustin Schwar	rtz				AM
Stressors	Dustin Schwar					DS
Easting (m)	Northing (m)	Zone				DS
05° 53' 24" W	35° 41' 23" N	13	Datum	Latitude		Longitude (DD
		1 13 1	NAD- 83 UT	M 35.68972	na 1	-105.89
Survey Date Landscape Conte	6/11/24 ext (summarize the wetla	Start Time SA Desc	9:00	End 1	Time	15:00
Landscape Conte	ext (summarize the wetla	Start Time SA Descrind and surrounding land	9:00	End 7	ime	15:00
Landscape Conte	ext (summarize the wetla offs of water over flow	Start Time SA Description of the sanda of t	9:00 ription scape; include co	end Today b	ts)	15:00 5:9n
Landscape Conte	ext (summarize the wetla offs of water over flow	Start Time SA Description of the sanda of t	9:00 ription scape; include co	end Today b	ts)	15:00
Biotic Condition (9 lob malle s Salt bush	ext (summarize the wetland) oto of water over flow vegetation patterns, com we golden es green and dense	Start Time SA Description and surrounding land. From santa The channe Apposition and structure, exister willow This plais	9:00 ription scape; include co fe river / exotics and invasiv bush seems seems	es, disturbance ev	ts) ut Ns	15:00
Biotic Condition (glob mallow Salt bash Abiotic Condition urbance and other T 16,88	vegetation patterns, com golden es green and dense (hydrological alterations site impacts; explain the	Start Time SA Description and surrounding land in the channe cha	9:00 ription scape; include co fe firer xotics and invasiv bush seems seen ever, cooding characterier factors that de	res, disturbance every full where	idence, fire ar	15:00
Biotic Condition (glob maller Salt bush Abiotic Condition Urbance and other T 16,8°	ext (summarize the wetland of sof water over flow over flow over flow over flow over flow over flow golden es green and dense over flow	Start Time SA Description and surrounding land From santa The channe Apposition and structure, easter willow Whip tails Ge.g., dams, walls etc.]; fle hydrologic breaks or other 7.60 p. 44 over flowed in	9:00 ription scape; include co fe river / exotics and invasiv bush seems seen ever cooding characterier factors that de 6.10 nta	res, disturbance every full where stics and evidence fine the SA limits)	idence, fire ar	15:00
Biotic Condition (glob maller Salt bash Abiotic Condition urbance and other T 16,89	ext (summarize the wetland of soft water over flow over flow over flow over flow over flow over flow golden es green and dense over flow	Start Time SA Description and surrounding land. From santa Into channe position and structure, e ster willow whip tails Ge.g., dams, walls etc.]; fle hydrologic breaks or other 7.60 p H over flowed into	9:00 ription scape; include co fe river / exotics and invasive bush seems seen ever, cooding characterier factors that de 6.10 ntac to change/	res, disturbance every full where stics and evidence fine the SA limits)	idence, fire ar	15:00 Sign Ind herbivory) and Ilooding; soil
Biotic Condition (glob maller Salt bash Abiotic Condition urbance and other T 16,8° No	ext (summarize the wetland of soft of water over flow over flow vegetation patterns, come golden es green and dense (hydrological alterations site impacts; explain the 60.7 M3 water has	Start Time SA Description and surrounding land. From santa in to channe position and structure, e ster willow whip tails Ge.g., dams, walls etc.]; fle hydrologic breaks or othe 7.60 p H over flowed in ummary and comments a hy with lize reening willows Lasts tun Plants tun	9:00 ription scape; include co fe river / exotics and invasive bush seems seen ever, cooding characteri er factors that de 6.10 ntm de channel	res, disturbance every full where stics and evidence fine the SA limits)	idence, fire ar	15:00 5:5n and herbivory) and looding; soil

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MRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5	Rating	Wt	Final Score
Metric Description		Σ 1.0	3.25
andscape Context	. 3	0.25	0.75
1. Buffer Integrity Index	4	0.25	1.0
2. Riparian Corridor Connectivity	4	0.25	1.0
.3. Relative Wetland Size	2	0.25	0.5
_4. Surrounding Land Use		Σ	
Biotic		0,2	
B1. Relative Native Plant Community Composition	3	0.2	-
B2. Vegetation Horizontal Patch Structure		0.2	
B3. Vegetation Vertical Structure	2		
B4. Native Riparian Tree Regeneration	2	0.2	_
B5. Invasive Exotic Plant Species Cover	4	0.2	-
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity		0.2	
A3. Channel Equilibrium	4	0.2	
	4	0.2	
A4. Stream Bank Stability and Cover A5. Soil Surface Condition	3	0.1	

Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic			
Abiotic		0.35	
SA WETLAND	CONDITIO	N SCORE Σ	3.08

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	Construction
			2	Trails
			3	No water

1100	water	going the	ough chann	el and	wanh
trails	but	Willows	appear	to be	Flowering

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Landscape Context

		er Integrity Index							
or are	exclu ear of	ta. Buffer and RCC Checklist. Check off land cover ded and considered non-buffer elements that disrup imagery).	elemen ot ecosy	nts wir	hin the buffer connectivity. I	area or RCC co	orridors that are either allowed agery type and date (season		
lmage	Imagery Google Earth KMZ. file		lmag	Image Date					
Allowed buffer/RCC land cover elements					L	land cover ele			
Buffer	uffer RCC			RCC	Janei/Nec	iand cover ele	ements		
X	X	Natural or semi-natural vegetation patches	X	X	Commercia	l/residential de	evelopments, parking lots, s, and other structures		
X	X	Small irrigation ditches without levees	十一	1					
		Old fields, unmaintained	一一	一百	Railroads	rks, golf courses, sports fields			
		Open range land			Maintained	ed levees, sediment piles, construction , staging areas			
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)				e livestock areas, horse paddocks, feedlots			
X	X	Non-channel open water			Intensive agr	agriculture: maintained pastures, hav fields			
X	x	Non-functioning abandoned vegetated levees, or naturally occurring levees	×	X		v crops, orchards, and vineyards ved roads or developed second-order unpaved but			
		unpaved two tracks roads	X	X		pen water bounded by a levee or other manmade			
		Other	\Box	П	Other				
Vorksh	eet 1	D. Buffer Percent Sub-metric. Measure or estimate to		==					
						Table	L1a. Buffer Percent		
ox below. Rate the sub-metric using Table L1a and enter the rating on the Buffer ntegrity Summary Worksheet 1d.						Rating	Buffer Percent		

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

	Buffer Width	Buffer Width	Т		
Line	(m)	(ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c don't be SA Summary Worksheet.

Buffer % Rating + Buffer Width Rating		/2 =	Buffer Integrity Index Score	
3	+	3	/2 =	3

Table L1a. Buffer Percent				
Rating	Buffer Percent			
O 4	100%			
⊗ 3	≥80% - <100%			
C 2	≥50% - <80%			
O 1	<50%			

Table L1b. Buffer Width					
Rating Average buffer widt					
O 4	≥190m				
⊗ 3	≥130 - <190m				
O 2	≥65 - <130m				
O 1	<65m				

Table L1c. Summary Rating for Buffer Integrity					
Rating	Score				
O 4	>3.5				
② 3	>2.5 - ≤3.5				
C 2	>1.5 - ≤2.5				
O 1	≤1.5				

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Surveyor Initials:

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.2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments		n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)	0 0		0		
C) % Segment Disruption = (B/1000)*100	100 0		()	
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable alo			the banks.	

Та	ble L2. RCC Rating
Rating	Description
	0% total disruption on both segments combined.
O 3	<15% total disruption on both segments combined.
O 2	≥15% - <40% total disruption on both segments combined.
O 1	≥40% total disruption on both segments combined.

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksheet.

		RSR						R	WSI		
Current Size	1	Historic Size	=	RSR	1	-	RSR	Х	100	=	RWSI (%)
Current Size				0.0			0.1	X	100	=	10
9	1	10	=	0.9	1	-	0.1	X	100	=	

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
02	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size
01	>70%	Wetland has been reduced by more than 70% its natural size

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Γ	This is a second of the second			
	Land Use Element	Coef	% LUZ Area	LUI Score
	aved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, pen pit, strip mining), railroads	0	0	0
L	inpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
	redging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1		0
F	illing or dumping of sediment or soils	0.1	0	0
lr	tense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.1	0	
R h tr	p-rapped channel (highly modified channel with severely limited vegetation zone that is altered by uman activities but not a completely concrete channel [that goes under paved roads]), junkyards, ash dumps, disturbed ground (not including roads)	0.3	0	0
-		0.4	0	0
	am sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
A	pandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
A	tificial/Constructed wetlands, irrigation ditches	0.7	20	14
	eveloped/Managed trail system (high use trail)	0.8	5	4
Á	riculture - active tilled crop production	0.2	0	0
AC	riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
IVI	inicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
OI Ru	d fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, ssian thistle, mustards, annual vegetation)	0.5	0	0
1	ture old fields and other fallow lands with natural composition, introduced hay field and pastures g., perennial vegetation cover)	0.7	0	0
Re:	storation areas in process to natural conditions (re-conversion in process)	0.8	65	52
Ha	ying of native grassland (e.g., no tillage, having and haling only)	0.9	0	0
	noved, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
J	innercial tree plantation, Christmas tree farms	0.6	0	0
	ective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height)	0.8	0	0
Mat	cure restoration areas returned to natural conditions (re-converted)	0.9	0	0
ıval	ural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
	LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surr	ounding Land Use Rating
Rating	LUI Score
O 4	≥95 - 100
O 3	≥80 - <95
⊗ 2	≥40 - <80
O 1	<40

SA CODE: SF2MI [|] SA

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Date: 6/11/24

Biotic Metrics

Norksneet 5. Vegetation Community Fater Fully on is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant Inumber assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique

B5 Invasive Ir		
ecies % Cover	Invasive Exotic Species (List Code(s))	Comments
Few exerting	golder Astor	globe mallow
None seen		Saltbush, chimisa

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SA COF SF2MI[|]

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B1 - Relative Native Plant Community Composition

The physical content of the					1	21.71.7	The same composition of a serial assignment of the same composition of a new CT is created for the polygon	Ido CIIC Sall		2 2 2 2 2			11111					
Polygon No. Species 1 No. Species 3 Species 5 Species 6 Species				<u> </u>	all Woody	y Stratur	n 1	Short Woo	dy Stratu	ım 2		Herbaceou	Js/Sparse	Stratum	_	CT Score	4	
2		olygon Nos.	-	<u>S</u>		ш Z						Species 5	ш Z	Species 6			% SA5	Wt Score ⁶
S William Wi				_	laple	>	Pine		5			Solden	11)			5.7	35%	1.31
	8	5						W, //n		G.W.S	1	8/4e					1029	V 5
Linal Meight of Cond.	U									``)	Stern	2				<i>(</i> 0))
Einal Mikriphot George	۵																	
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	L																	
First Wichted Cook	ŋ																	
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First Weighted Coard																		
First Weighted Coard	-																	
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First Weithed Coast	Σ																	
Constitution Const	z																	
0	0																	
													Final	Moichtod	C.0207			- 1

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE: SF2MI[|]

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Surveyor Initials: DS/AM

Table B1	Relative Native Plant	Community Composition Rating
Rating	CT Fi	nal Weighted Score
√ 4	≥ 3.75	<10% non-native
<u> </u>	≥ 3.25 and <3.75	10% ≤20% non-native
C 2	> 2.0 and <3.25	20% ≤50% non-native
C 1	≤2.0	>50% non-native

32 - Vegetation Horizontal Patch Structure

Vorksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch pattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

avizantal	Datch	Structure	nattorn	Δ	RC	or I	٦.
OFIZUILLAI	rattii	Julucture	Dalleiii	~		UI I	•

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		Table B2. Rating for Vegetation Horizontal Patch Structure
R	ating	Description
	4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
Ϋ́	3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
C	2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
C	1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

33 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with same VST) x 100. Enter the total %SA for each VST below.

•							
	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
	High Structure	Low Structure	Tall Shrubland	Short	Herbaceous	Herbaceous	Sparse
	Forest	Forest	,	Shrubland	Wetland	Vegetation	Vegetation
Total % of SA		30%	700/0				

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
C 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
/	2 or 1 and 2		
2	5		
	6W		
	6S		
C 1	6H		
	7		

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	SA Name:	Two Mile Pond Reservoir Tra	nsect [/]	Surveyor Initials :	DS/AM
B4 -	Native Ri	parian Tree Regeneration			
T Worl	B4. Nativ	e Riparian Tree Regeneration rating	Using the polygon per	cent cover of native trees	eedlings, saplings and poles from
- 1	ating	e the SA based on polygon percent co	Descript		Rank Summary Worksheet.
0	4 Na	tive poles, sapling, and seedlings tree	well represented, obvio		tches or polygons with >5%
	3 Na	ver, typically multiple size (age) classe tive poles, saplings and/or seedlings c	ommon, scattered patch	nes or polygons with 1% -5	5% cover, size classes few.
Ø	₂ Nat	tive poles, saplings and/or seedlings p % cover, little size class differentiatior	resent but uncommon,	restricted to one or two pa	atches or polygons with typically
0		tive poles, saplings, and/or seedlings a			
B5 - I	nvasive E	xotic Plant Species Cover			
Work belov	r sheet 9. Ba v. Rate using	sed on Worksheets 5 and 6, calculate g Table B5 and enter the rating on the	or estimate the percenta SA Rank Summary Work	ge cover of invasive exotics	c species for the SA and enter
	Rating Me	ethod	Invasive cov	ver (%)	calculate
Γ					
		ngs for Invasive Exotic Plant Specie	Cover		
	Rating 4 $^{\prime\prime}$	Invasive Species Cover %			
	3	>0% - <1%			
	1	≥1% - <10% ≥10			
		210			
Addi	itional CTs a	nd Biotic Metric Comments:			
					`
				•	

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Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

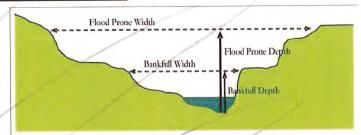
SA Name :

Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description Cross-section:	1	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bankfull contour. Measure the distance between the right and left bankfull contours with a tape.			
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, measure the height of the line above the thalweg (the deepest part of the channel). A pocket line level can help here.			
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.			
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.			
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).			
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Enter the average her using Table A1a. Enter the rating in the A1 box on the SA Rank Summary Worksheet.	e and r	ate	

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems				
Rating Description				
O 4	Average entrenchment ratio is ≥ 2,2;			
O 3	Average entrenchment ratio is ≥1.9 - <2.2			
O 2 Average entrenchment ratio is ≥1.5 - <1.9				



		conju	inction with Table A1c. Check the boxes for all that apply to each
segme U	M	L	Indicator
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
			Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
			Inset floodplain formation
			Decreased peak flows due to hydrologic modification

Indicators of overbank flow on floodplain

Floodplain inundation due to beaver activity

Bankfull indicators at point of incipient flooding of the floodplain

Average entrenchment ratio is < 1.5

Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this

Rating	Description
O 4	Average entrenchment ratio is ≥ 1.9
O 3	Average entrenchment ratio is ≥1.4 - <1.9
0 2	Average entrenchment ratio is ≥1.2 - <1.4
0 1	Average entrenchment ratio is < 1.2

Table A1b. Rating for Floodplain Hydrologic



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Method 2

ble A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

	The second of the recorded in Table Ard.
Rating	Description
O 4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.
С 3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
O 2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
O 1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1		And the state of t				
2		San Marian Comment				
3						

Floodplain Hydrologic Connectivity Comments:

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
	X		Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	N		Terraces
			Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
	<u> </u>		No. of unique Patch Types

Ratir	ng	Description
\subset	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).
\cap	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).
\subset	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).
X	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

	Linner	AA: Jalla		
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
				The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
				There is leaf litter, thatch, or wrack in most pools.
Indicators of		囟		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		X		Channel and point-bars consist of well-sorted bed material.
		Ż		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
			T	here are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				here is abundant fresh splays of coarse sediment covering the floodplain bove the natural point bar elevation.
			Т	here are partially buried living tree trunks or shrubs along the banks.
ndicators of Active aggradation			□ T p	he channel bed is planar overall. The stream lacks well-defined channel ools at meander bends, or pools are filled with sediment.
			П	here are partially buried or sediment-choked culverts.
				here are avulsion channels on the floodplain or adjacent valley floor.

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Two Mile Pond Reservoir Transect [1

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	Table A3. Rating for Channel Equilibrium					
Rating	Description					
4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.					
С 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process; aggradation or degradation.					
∩ 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.					
<u> </u>	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.					

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Taking on the 37 July	ating on the SA Summary Worksheet. Unner Middle Lower Sight Indicators					
Condition	Upper Segment	Middle Segment	Segment	Field Indicators		
	□4	<u>[X]</u> 4	□4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.		
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.		
Soil Stability	<u></u> 2	<u>2</u>	<u></u> 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.		
	1	1	<u></u> 1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.		
	<u></u> 4	[∑]4	□4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.		
	□3	□3	_3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.		
Indicators of Stream Bank Erosion Potential	<u></u> 2	□2	□2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.		
	<u></u> 1	1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.		

Average Indicator Score	
/// Clage	l li

Table A4. Stream Bank Stability and Cover Rating				
Rating	Description			
K 4	>3.5 - 4.0			
C 3	>2.5 - ≤3.5			
C 2	>1.5 - ≤2.5			
C 1	1.0 - ≤1.5			

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A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	·Lower Segment	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
	X		Multiple livestock and other (fishing, hiking) trails,	
	\boxtimes		Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	
Average % Soil Disturbance:	
	ł

	Table A5. Soil Surface Condition Rating					
Rating	Description					
O 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
% 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

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Vorksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign ategories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknow ank Major Stressors in Dominant Stressor column(Pick up to 3)

ank	Affect			Stressor Group/Stressor	Comments	
ank	Major	Minor	Absent Unknown		·	
					Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
					Adverse sediment input (roads/development)	
		#F #			Artificial water additions	
					Sewer treatment effluent	
					Point source urban runoff	
					Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
					Ground water pumping	
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
				T	Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
				erus (1900)	Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	

Additional Comments

Version Date: 04/25/2022 Schema: Montane 2.5

		SA Cove	r Worksheet				
SA Code SF2MI[2] SA Name: T	wo Mile Pond Reservoir		Project : R	iparian Ass	esemen	
A de Tsct [Z] AU Name : 7	All Namo : Transact I O 1			Project : Riparian Assesement WOI : Two Mile Pond Reservoir		
County Santa Fe	HUC 12 He	eadwaters Santa Fe River	Elevation (ft) 7299	(m) 2224.			
decommissione of water rights. Driving Directions Driving to Santa	Fe from Albuquerque	ale, comments) ad located on the east side on the reservoir a	of Santa Fe bordering t and a water diversion to	he Santa Fe N o the area was	ational Fore	est. This nut dow	n due to lack
		voir located to the North. ne Santa Fe National Forest		lts to client	Fish Obse	erved in	ight on
Surveyor Role		Survey	or Name		Wetla	34 American	
Landscape	"Dust in					ne profesorablesco	/eyor Initia
Biotic	11	1,				1	5+AM
Abiotic	11	\1				"	
Stressors	10	· VI				11	***
Easting (m)	Northing (m)	Zone	Datum				
·105° 53' 24" W	35° 41' 23" N	13		Latitude	(DD ft)	and the state of the	itude (DD f
					_		
Survey Date	4/9/24		NAD- 83 UTM	35.68972	- North Control of the Control		05.89
Landscape Conte	Ly 4/9/24 Ext (summarize the wet	Start Time SA Desc	69:18 ription Iscape; include condition	End T	ime	13%	05
A Landscape Conte Abov I earch A Biotic Condition (This bush Fores: Abiotic Condition turbance and other The	ext (summarize the weter the dam) se the dam, cotton wood vegetation patterns, co Area has a for section ar the area (hydrological alterations ite impacts; explain the section area)	Start Time SA Described SA Des	ription Iscape; include condition Iscape; incl	end T End T on and impact the be then see end in	ime s) nches, trees idence, fire a not	13:	oivory) 'llow
A Landscape Conte Abov I earch Biotic Condition (This bush Fores; Abiotic Condition turbance and other The and essment Summary	ethe dam, ethe dam, es are sta cotton wood vegetation patterns, co Area has a for section are the area (hydrological alterationsite impacts; explain the standon so is layerical (Overall site conditions)	Start Time SA Description Common Like Thing to be composition and structure, e sizes t area the connot the char ans {e.g., dams, walls etc.]; fle the hydrologic breaks or oth the still size great stil	ription Iscape; include condition Iscape; incl	end T on and impact the be willow isturbance evi then soc and in and evidence ne SA limits) ign of	ime ss) nches, trees idence, fire a not of overbani Flowin	and her has her has k flooding w	e pivory) 'Ilow 'g h
A Landscape Conte Abov I earce Biotic Condition (This bush Fores; Abiotic Condition turbance and other The and essment Summary	ext (summarize the weter the dam) so are star cotton wood vegetation patterns, co Area has a for section are the area (hydrological alterationsite impacts; explain the shandon	Start Time SA Described SA Des	ription Iscape; include condition Iscape; incl	isturbance evidence and evidence in examination of	ime s) mches, trees dence, fire s to anot of overban	and her	e Divory) 'Ilow 'g h

SA CODE: SF2MI[7]

SA Name: Two Mile Pond Reservoir Transect [2]

Date: 4/9/24

Surveyor Initials: 05

MRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score	
		Σ 1.0	3.25	
andscape Context	3	0.25	0.75	
1. Buffer Integrity Index	4	0.25	1.0	
2. Riparian Corridor Connectivity				
3. Relative Wetland Size	4	0.25	0.5	
4. Surrounding Land Use	2	0.25	0.5	
Biotic		Σ		
31. Relative Native Plant Community Composition	7	0.2		
32. Vegetation Horizontal Patch Structure	Z	0.2		
33. Vegetation Vertical Structure	3	0.2		
84. Native Riparian Tree Regeneration	Ч	0.2		
B5. Invasive Exotic Plant Species Cover	3	0.2		
Abiotic		Σ		
A1. Floodplain Hydrologic Connectivity	X	0.3		
	2	0.2		
A2. Physical Patch Diversity	4	0.2		
A3. Channel Equilibrium	4	0.2		
A4. Stream Bank Stability and Cover	1			
A5. Soil Surface Condition		0.1		

Major Attribute	Score	Wt.	Wt. Score	
Landscape Context 3.25		0.3	0.975	
Biotic	3.2	0.35		
Abiotic	2.75	0.35		
SA WETLAN	3,058			
SA WETLAN	D RANK =		B	

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	Construction
			2	Low Water
			3	Trail use

Stressor Co	mments (Evaluation o	of risk)								- 1	-
	Trails	and	park	usage	as	well	95	no	water	affects	
	this	avea	the most	+,							

SA CODE: SF2MI[2]

SA Name: Two Mile Pond Reservoir Transect [2]

Surveyor initials:

Landscape Context

	F-55000						
0.0	. D.						
-		une	TOO	Pitt	, I.	2000	
1116	- Bi		na.		羅目目	uex	- 11
	· · · · · · · · · · · · · · · · · · ·	H-99070550	SAMO			finis Santas	SW

mage		Google Earth KMZ. file			thin the buffer area or RCC corridors that are either allo connectivity. Indicate the imagery type and date (seaso
llow	ed bu	ffer/RCC land cover elements	lmag	ge Dat	e 6/23
uffer	RCC	nei/Nee land cover elements	Exclu	ıded n	on-buffer/RCC land cover elements
	1		Buffe	er RCC	salely need and cover elements
X	X	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots,
X	X	Small irrigation ditches without levees	$+_{\vdash}$	+	dams, bridges, revetments, and other structures
		Old fields, unmaintained	+-	1 =	Lawns, parks, golf courses, sports fields
		Open range land	<u> </u>	<u> </u>	Railroads Maintained levees, sediment piles, construction
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			materials, staging areas Intensive livestock areas, horse paddocks, feedlots
X		Non-channel open water			Intensive agriculture: maintained pastures, hay fields
K	X	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	row crops, orchards, and vineyards Paved roads or developed second-order unpaved but graded roads
The second of th		unpaved two tracks roads	X	x	Open water bounded by a levee or other manmade structure
<u> </u>		Other			Other

Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d. Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width	Buffer Width
A	164.26			(m)	(ft)
	10-1.20	538.91	E	161.93	531.26
В	125.25	410.92	F	231,48	
C	115.39	378.57			759.44
D	444		G	121.25	397.80
<u> </u>	111.07	364.40	Н	155.87	511.38
1	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

D. C. a.							
Buffer % Rating	+ Buff	fer Width Rating	/2 =	Buffer Integrity Index Score			
	+	3	/2 =	3			

Table L	Table L1a. Buffer Percent				
Rating	Buffer Percent				
C 4	100%				
(x 3	≥80% - <100%				
C 2	≥50% - <80%				
\bigcirc 1	<50%				

Table L1b. Buffer Width					
Average buffer width					
≥190m					
≥130 - <190m					
≥65 - <130m					
<65m					

Table L1c. Summary Rating for Buffer Integrity Rating Score 4 >3.5 R 3 >2.5 - ≤3.5 2 >1.5 - ≤2.5 ≤1.5

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SA Name: Two Mile Pond Reservoir Transect [2]

Surveyor Initials:

- Riparian Corridor Connectivity (RCC)

orksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for cluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter e summed values in meters for excluded element lengths for each bank within each gment upstream and downstream of the SA. Sum the values for each segment and slculate % Segment Disruption for the upstream side and the downstream side. Add the otal disruption for upstream and downstream segments and then calculate the % Total isruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and ne data from this worksheet. Enter rating on the SA Summary Worksheet.

ne data from this worksheet. Enter rating on			Downstrea	m Segment
Segments		n Segment	V/ 1-1-2-3	
Banks	Left Bank	Right Bank	Left Bank	Right Bank
a) Total Bank Disruption (m)	0	0	0	0
3) Total Disruption by Segment (m)		0		0
C) % Segment Disruption = (B/1000)*100		0		0
D) Total Disruption both segments	0			
E) % Total Disruptions = (D/2000)*100	Zero di	sruption notic	ceable along	the banks.

Та	ble L2. RCC Rating
Rating	Description
(x 4	0% total disruption on both segments combined.
C 3	<15% total disruption on both segments combined.
C 2	≥15% - <40% total disruption on both segments combined.
C 1	≥40% total disruption on both segments combined.

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksho

		DCD						R	WSI		
1		RSR		200	1		RSR	Х	100	=	RWSI (%)
urrent Size	1	Historic Size	=	RSR		-	Non			1 - S - S - M	10
		10	-	0.9	1	-	0.1	X	100	=	10

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X 4	<10%	Wetland is at or only minimally reduced from its full natural extent
(3	>10% - <40%	Wetland remains equal to or more than 60% of its natual size
(3	>1070 - 34070	Wetland has been reduced by more than 40% its natural size
100	>40% - 570%	Wetland has been reduced by more than 70% its natural size
C1	>70%	Wetland has been reduced by more than 7 0 70 to the

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Surveyor Initials :

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L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads			
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0	0	0
Dredging, borrow pits, abandoned mines, water filed a visit with the control of t	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs) Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use camping popular C. L.)	0.1	0	0
	0.3	0	0
human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads) Ski area	0.3	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.4	0	0
Abandoned artificial impoundments (ponds and recent it)	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones Artificial/Constructed wetlands, irrigation ditches	0.5	10	5
Developed/Managed trail system (high use trail)	0.7	20	14
griculture - active tilled crop production	0.8	5	4
griculture - permanent crop (vineyards, orchards, purcories, beauty)	0.2	0	0
and golf courses: urban manicured parks	0.3	0	0
Id fields and other disturbed fallow lands dominated to	0.3	0	0
3 • • • • • • • • • • • • • • • • • • •	0.5	0	0
ature old fields and other fallow lands with natural composition, introduced hay field and pastures	0.7	0	0
estoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
aying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
moved, woodland/shrub vegetation conversion (chaining, cabling, rotochopping) moved, tree plantation, Christmas tree farms	0.3	0	0
lective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height)	0.6	0	0
ture restoration areas returned to natural conditions (re-converted)	0.8	0	0
tural area, land managed for native vegetation - No agriculture, logging, development	0.9	0	0
	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surr	ounding Land Use Rating
Rating	LUI Score
← 4	≥95 - 100
C 3	≥80 - <95
(₹) 2	≥40 - <80
\bigcirc 1	<40

SA CODE: SF2MI [2]

Biotic Metrics

Date: 4/9/27

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List -Appendix D). Use the comments box for documenting and describing vegetation community patch features.

Append	Appendix D). Use the comments box for documening and described the comments box for documents by the comments by the	nents box ror	documenting		
Polygon No	B3 Vertical Structure Type	B4 Tree Regeneration % Cover	B4 Tree B5 Invasive Regeneration Exotic % Cover Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1	۲	(Possible Vine	
2	IA2	gumpos No Mess	. < 5	Elm: unknown	
3	IIA1	growth			
4	IIIB1	Cetton we	Cetton wood elm		
2	IIIC1		2011		
9	IVEI				
7	IVF1				
∞					
6					
10					
1					
12					
13					
14					
15					
16					
17					
18					
19					
20					
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B1 - Relative Native Plant Community Composition

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Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the

Species 2 N. Species 2 N. Species 3 N. Species 5 N. Species 6 N. M.	CT Polygon Nos.	Tall Woo	dy Stratum		Short \	Short Woody Stratum 2	um 2	new CT is	created for the	ne polygon.	. ~		מופ אנו	atum in
B College N Elm C with N Proving N P		Species	ıZ						10 10 mm	Varse Stratu	ر ا	CT Score 4	'e 4	
1		S. S	X	1						Specie			% SA5 V	Wt Score6
			R	+	\ \ \ \		Je a spert	_				3,75	105%	N R
			-											
stratum cover 48aw scoon is the stratum cover; 2. Trees and shrubs s6m (20 feet) and shrups s6m (20 feet) and s6m (20	a snrubs > 6 m (20 fer	et) and > 25% total	tratum cov	er; 2. Trees a	ınd shrubs ≤6r	n (20 feet)	, vac v buc		Fina	Weighted	Score 7		0077	000

				_
cΛ	CO	NE	•	2

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Two Mile Pond Reservoir Transect [🔞] SA Name:

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able B1.	Relative Native Plant Co	ommunity Composition Rating
ating	CT Fina	l Weighted Score
4	≥ 3.75	<10% non-native
4	≥ 3.25 and <3.75	10% ≤20% non-native
3		20% ≤50% non-native
2	> 2.0 and <3.25	>50% non-native
1	≤2.0	>30% (1011-11ative

- Vegetation Horizontal Patch Structure

rksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch ern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

izontal Patch Structure pattern A,B,C, or D:

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would
	Most closely matches Pattern A. SA has a diverse patental and the same of the
4	be difficult to determine. Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may Pattern B. SA has a moderate degree of patch diversity (3 patch types presented and have more than one occurrence in the SA.
	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. This is a part than one occurrence in the SA.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. Pattern B. SA has a moderate degree of patch diversity and represented and have more than one occurrence in the SA. be present, although the other patch diversity and complexity. Two or three patch types may be present; however, a single, Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single,
	The state of the s
2	Pattern C. SA has a low degree of patch diversity and small portion of the SA. dominant patch type exists with the others occupying a small portion of the SA is dominated by a single patch type. Other patch
	B. CA become in the little to no patch diversity of complexity. The system of the syst
1	types, if present, occur infrequently and occupy a small portion of the SA.
	types, if present, occur infrequently and occupy comments

3 - Vegetation Vertical Structure

Forksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SAom Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

ame VST) x 100.	VST 1	%SA for each VS VST 2	VS1 5	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA	50			90		A bread on the	riteria in Table B

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the ow that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

ting on the SA Ra	ank Summary Worksheet.	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%		
Rating	Dominant VST		6W and/or 6H		
-	1	5			
	1	6W	6W and/or 6H		
4	2 or 1 and 2	5	6W and/or on		
	1				
,	2 or 1 and 2	5			
3	2 or 1 and 2	6W			
	5	6W			
	2 or 1 and 2				
2	5				
_	6W				
	6S				
~ 1 	6H				
·	7				

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Ta. 34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

	The same of the SA Rank Summary Worksheet.
Rating	Description
	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
○ 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
17: 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	
ting method	1

Invasive cover (%)

< 1%

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover							
Rating	Invasive Species Cover %						
C 4	0%						
7 3 X	>0% - <1%						
(2	≥1% - <10%						
\bigcirc 1	≥10						

Additional C	.Ts and	Biotic	Metric	Comments:
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SA CODE:	SF2IVII ()		7 1 11

SA Name: Two Mile Pond Reservoir Transect [2] Surveyor Initials:

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Enter the rating on the Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
			Abandoned channels
	$-\overline{\Box}$		Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	70		Terraces
			Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
	<u> </u>		No. of unique Patch Types

Ratir	ting Description				
C 4		High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).			
C 3		Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).			
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).			
X	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.			

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		₩		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		\square		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		沟		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		×		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		囟		Channel and point-bars consist of well-sorted bed material.
		囟		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		囟	[7]	There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
ndicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
Í				here is abundant fresh splays of coarse sediment covering the floodplain bove the natural point bar elevation.
			П П	here are partially buried living tree trunks or shrubs along the banks.
ndicators of Active ggradation			☐ T	he channel bed is planar overall. The stream lacks well-defined channel ools at meander bends, or pools are filled with sediment.
			_	here are partially buried or sediment-choked culverts.
			Т	here are avulsion channels on the floodplain or adjacent valley floor.

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Table A3. Rating for Channel Equilibrium						
Rating	Description					
. /	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or					
፟ ズ 4	degradation based on the field indicators listed in Worksheet 12.					
	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an					
	equilibrium condition. Circle primary process; aggradation or degradation.					
	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary					
C 2	process: aggradation or degradation.					
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.					

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition Upper Middle Lower Segment Segment Segment			Field Indicators	
	□ 4	∑ 4	□4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Soil Stability	<u>2</u>	□2	□ 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	<u></u> 1	<u></u> 1	□1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	□4	\∑4	□ 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	□3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	□2	□2	□ 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	<u></u> 1	1	_1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	

Rating	Description		
4	>3.5 - 4.0		
3	>2.5 - ≤3.5		
2	>1.5 - ≤2.5		
1	1.0 - ≤1.5		

SA CODE: SF2MI[7]

SA Name: Two Mile Pond Reservoir Transect [2]

Date: 4/9/29

Surveyor Initials :

05

A5 - Soil Surface Condition

reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	per Segment Middle Segment Lower Segment		Field Indicate (C)	
		Juginent	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
	X		Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	
-----------------------------	--

	Table A5. Soil Surface Condition Rating							
Rating	Description							
<u> </u>	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.							
7 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.							
2	staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.							
<u> </u>	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.							

SA CODE: SF2MI[2]

SA Name: Two Mile Pond Reservoir Transect [2]

Date: 4/9/24

Surveyor Initials:

05

rksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign egories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknov as Major Stressors in Dominant Stressor column(Pick up to 3)

Affect			Stressor Group/Stressor	Comments		
nk ⊩	Major	Minor	Absent	Unknown		
			Appellment of		Adverse water management	
	M		Z		Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
			Q		Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
					Adverse sediment input (roads/development)	
			- 15 mm		Artificial water additions	
			Q		Sewer treatment effluent	
					Point source urban runoff	
			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
					Ground water pumping	All properties and the second
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
	100				Watershed alteration	
			Q		Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
	111		1000000		Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	
lditio	onal Comi	ments	No	Wo	ter is going to the	in area

Version Date: 04/25/2022

Schema: Montane 2.5

SA Code SF2MI[2		SA Cove	r Worksheet	F III	1000
-6	SA Name : Tw	o Mile Pond Reservoir		D	The East Person
de Tsct [2]				Project : Riparia	
ounty Santa Fe			-1	WOI : Two Mile	Pond Reservoir
A General Location	and Boundary (Patienal	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Elevation (ft) 7299	(m) 2224.7	Ecoregion 6.0 NWFM
decommissioned of water rights. riving Directions Driving to Santa	due to safety concerns	located on the east side of regarding the reservoir a	3.70131011	o trie area was recer	ntly shut down due to lac
wnership The Natur		Santa Fe National Forest		lts to client Fish	Observed in Wetland?
Surveyor Role		Survey	or Name		
Landscape	Dustin a	and Annie			Surveyor Initia
Biotic	4	/inn,e			DS+AM
Abiotic	"	11			11
Stressors	11	· ·	1		1
Easting (m)	Northing (m)	Zone			11
05° 53' 24" W	35° 41' 23" N		Datum	Latitude (DD f	t) Longitude (DD (
Survey Date	Clabul	13	NAD- 83 UTM	35.689722	-105.89
)	2/12/17	Start Time		End Time	
land a		SA Desc	ription		
Stream "	t (summarize the wetland	nd and surrounding land	scape; include condition	on and impacts)	
Blue bind	Mar (position and structure, e	xotics and invasives, di		e, fire and herbivory)
hillon trae	a) julio gran	(2) Sporter 101	nee.		
	avdrological alt-	{e.g., dams, walls etc.]: flo	oding character's		
Abiotic Condition (If urbance and other si	ite impacts; explain the	hydrologic breaks or other	er factors that define the	and evidence of over	rbank flooding; soil
1212	Area still	l has to	. decors that define th	ie SA limits)	
This	Area still	l has to	. decors that define th	ie SA limits)	
This the	Area still channel an	has no .	sign of i	nater going trian Gilled	
This the essment Summary (Area still channel an Overall site condition su	has no and is the	sign of a most pedes	nater going trian Gilled	g through part of the part
This the essment Summary (Tiree area.	Area still channel and overall site condition sure flow Appears to	I has no and is the immary and comments a vering and lot be turning in	sign of a most pedes	nater going trian Gilled	g through part of the park
ssment Summary (Tree area. telen	Area still channel and Overall site condition sure flow Appears to water	I has no and is the immary and comments a vering and lot be turning in	sign of most pedes fter the field data is co	lected.) ecosyste	g through part of the part

SA CODE: SF2MI[Z]

SA Name: Two Mile Pond Reservoir Transect [2]

Date: 5/15/24

Surveyor Initials:

MRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5	Rating	Wt	Final Score
Metric Description		Σ 1.0	3.25
ndscape Context	3	0.25	0.75
. Buffer Integrity Index	4	0.25	1.0
. Riparian Corridor Connectivity	4	0.25	1.0
. Relative Wetland Size	2	0.25	0.5
. Surrounding Land Use		Σ	
otic	4	0.2	
I. Relative Native Plant Community Composition	2	0.2	
2. Vegetation Horizontal Patch Structure	3	0,2	
3. Vegetation Vertical Structure	- J	0.2	
4. Native Riparian Tree Regeneration	4	0.2	
5. Invasive Exotic Plant Species Cover		Σ	
biotic		0.3	
1. Floodplain Hydrologic Connectivity)	0.2	
2. Physical Patch Diversity	- J	0.2	
A3. Channel Equilibrium	7	0.2	
A4. Stream Bank Stability and Cover	4	0.1	
	7	0.1	

SA Condition	Scoring Sui	mmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape 3.25		0.3	0.975
Biotic		0.35	
Abiotic		0.35	
SA WETLAN	D CONDITIO	N SCORE Σ	3.12
SA WETLAN	ID RANK =		B

A5. Soil Surface Condition

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
C	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	Con struction
			2	No water
			3	Pedestrians

N_0	luation of risk)	coming	through	old c	hannel	doesnt	appear
, 00		/		- 11	1		
1	- Float	the	wall or	f wil	ONS		

SA CODE: SF2MI[2]

3

SA Name: Two Mile Pond Reservoir Transect [2]

Date: 5/15/ 24

Surveyor Initials:

05

Landscape Context

	Buffer Integri				•							
or ard	ksheet 1a. Buffer e excluded and co year of imagery).	and RCC Checklis nsidered non-buffe	t. Check er eleme	off land cover nts that disrup	elemer ot ecosy	nts withi stem co	n the buffe nnectivity.	er area or RCC Indicate the i	corridors that are either allo magery type and date (seaso			
lmag		arth KMZ. file			lmage	e Date	6/23					
Allow	ed buffer/RCC lar	nd cover elements			Evelu	dod non	h					
Buffe	r RCC				Buffer	RCC	-buller/RC	C land cover e	elements			
×	X Natural or	r semi-natural vege	tation p	atches	X	[X]	Commerci	al/residential	developments, parking lots,			
x	X Small irrig	ation ditches with	out levee	!S	+ $$	-	l awns nar	des, revetiner	nts, and other structures			
	Old fields,	unmaintained			+		Railroads	ks, goir course	es, sports fields			
	Open rang	ge land						levees, sediment piles, construction				
X	Foot trails, intensity)	horse trails, unpav	ed bike	trails (low					horse paddocks, feedlots			
X		nel open water				lr	ntensive a	griculture: ma	riculture: maintained pastures, hay fields, orchards, and vineyards			
X	Non-functi naturally o	oning abandoned ccurring levees	vegetate	d levees, or	X	_[V] P		s or develope	or developed second-order unpaved but			
- Andrews	unpaved tv	vo tracks roads			X	(X) O			a levee or other manmade			
	Other						ther					
orksl	neet 1b. Buffer Pe	ercent Sub-metric.	14				trier [
		of allowed buffer el netric using Table L					of the ent		ole L1a. Buffer Percent			
tegrit	y Summary Works	heet 1d.	i a and e	inter the ratin	g on the	e Buffer		Rating	Buffer Percent			
		Buffer Percei	nt (%)=	85%				O 4	100%			
rkshe	eet 1c. Buffer Wid	th Cub matric M						(₹) 3	≥80% - <100%			
		th Sub-metric. Me rage the line length	asure th	e length of ea to using Table	ch buffe	er line in	meters in	$\frac{O}{2}$	≥50% - <80%			
Buffe	r Integrity Summa	ry Worksheet 1d.	is and ta	te using rapie	LID. EN	iter the r	ating on	<u>C</u> 1	<50%			
ne	Buffer Width (m)	Buffer Width (ft)	Line	Buffer W (m)	idth	1	r Width (ft)		ole L1b. Buffer Width			
١	164.26	538.91	E	161.93		531		Rating	Average buffer width			
	125.25	410.92	F	231.48				<u>O 4</u>	≥190m			
;	115.39					759.	.44	⊗ 3	≥130 - <190m			
		378.57	G	121.25		397.	80	O 2	≥65 - <130m			
	111.07	364.40	Н	155.87		511.3	38		<65m			
kshe	Average et 1d. Buffer Inte	148.31 (m)	ator the	486.58		(ft)		Table L1c. :	Summary Rating for Buffe Integrity			
w. Us	sing the Buffer Inte	arity Index Score 4						Rating	Score			
n th	e SA Summary Wo	orksheet.	iner rati	ng for Buffer l	ntegrity	/ in Table	1 1	O 4	>3.5			
-								⊗ 3	>2.5 - ≤3.5			
/0	······································	ffer Width Rating	/2 =	Buffer I	ntegrity	/ Index S	Score	C 2	>1.5 - ≤2.5			

3

/2 =

1

≤1.5

SA CODE: SF2MI[2]

SA Name: Two Mile Pond Reservoir Transect [7]

Date: 5/15/24

Surveyor Initials: DS

: - Riparian Corridor Connectivity (RCC)

orksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for scluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter e summed values in meters for excluded element lengths for each bank within each agment upstream and downstream of the SA. Sum the values for each segment and alculate % Segment Disruption for the upstream side and the downstream side. Add the stal disruption for upstream and downstream segments and then calculate the % Total isruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments		n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
.) Total Bank Disruption (m)	0	0	0	0	
s) Total Disruption by Segment (m)		0		0	
c) % Segment Disruption = (B/1000)*100		0	()	
D) Total Disruption both segments			0		
E) % Total Disruptions = (D/2000)*100	Zero dis	ruption notic	eable along	the banks.	

Та	ble L2. RCC Rating
Rating	Description
∞ 4	0% total disruption on both segments combined.
O 3	<15% total disruption on both segments combined.
O 2	≥15% - <40% total disruption on both segments combined.
O 1	≥40% total disruption on both segments combined.

3 - Relative Wetland Size

Norksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Netland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Workshe

RSR					RWSI						
Coursent Cizo	1	Historic Size	=	RSR	1	4	RSR	Х	100	=	RWSI (%)
Current Size		THISCOTIC SIZE			1		0.1	X	100	=	10
9	1	10	=	0.9	1	-	0.1	٨	100		

Table L3. Relative Wetland Size Rating							
RWSI Score	Description						
≤10%	Wetland is at or only minimally reduced from its full natural extent						
	Wetland remains equal to or more than 60% of its natual size						
>40% - <70%	Wetland has been reduced by more than 40% its natural size						
	Wetland has been reduced by more than 70% its natural size						
	≤10% >10% - ≤40% >40% - ≤70%						

SA Name:

SF2MI[2]

Two Mile Pond Reservoir Transect [2]

Date: 5/15/24

L4 - Surrounding Land Use

Surveyor Initials:

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Paved roads, parking late day at	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	+	
preaging, borrow pits, abandoned mines, water-filled artificial impoundments (result in the control of the cont	0.1	0	0
is a camping of sediment of solls		0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.1	0	0
""P Tupped Clighther (Didniv modified character)	0.3	0	0
human activities but not a completely concrete channel [that goes under paved roads]), junkyards, bit area by trash dumps, disturbed ground (not including roads)	0.3	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.4	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	0	0
Artificial/Constructed wetlands, irrigation ditches	0.5	10	5
Developed/Managed trail system (high use trail)	0.7	20	14
griculture - active tilled crop production	0.8	5	4
riculture - permanent crop (vineyards, orchards, pursories, barrent la	0.2	0	0
lanicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
ID TIEIDS and other disturbed fallow lands dominated to	0.3	0	0
- Journal of the second of the	0.5	0	0
ature old fields and other fallow lands with natural composition, introduced hay field and pastures			
	0.7	0	0
estoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
lying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
havy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) moved, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)			
mmercial tree plantation, Christmas tree forms	0.3	0	0
ective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height)	0.6	0	0
noved turn restauration	0.8	0	0
ture restoration areas returned to natural conditions (re-converted)	0.9		0
cural area, land managed for native vegetation - No agriculture, logging, development	1		0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surr	Table L4. Surrounding Land Use Rating			
Rating	LUI Score			
O 4	≥95 - 100			
○ 3	≥80 - <95			
⊗ 2	≥40 - <80			
\bigcirc 1	<40			

SA CODE: SF2MI [2]

Biotic Metrics

SA Name: Two Mile Pond Reservoir Transect 1

SA Biotic Map. Enter data for each polygon under a unique

Polygon No	B3 Vertical Structure Type	B4 Tree Regeneration % Cover	B5 Invasive Exotic Species % Cover	Polygon B3 Vertical Structure Regeneration Exotic No Type B4 Tree B5 Invasive Invasive Exotic Species No Type Roover Species No Type	Comments
-	IA1				1
	IA2	16%	None noted	Nove	- 4
ı m	llA1				
4	IIIB1				
5	IIIC1				
9	IVEI				
7	IVF1				
∞					
6		Y		3	
10					
=					
12					
13					
14					
15					
16					
17	7				
18	8				
19	6				
			_		

SA Name: Two Mile Pond Reservoir Transect [\gtrsim]

Date: $5/\sqrt{5/2^4}$ Surveyor Initials:

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B1 - Relative Native Plant Community Composition

SA CODE: SF2MI[2]

Polygon is either assigned to the same CT if it has the same composition or a new CT is created for the contract of the species to the stratum in	gon is either assigne	d to the same CT if	it has the same	composit	ion or a n	s appears ew (T is o	In more tha Peated for H	in one stra	ta, assigr	the spe	scies to th	e stratum in
Polygon Nos	Tall Woody Stratum 1	m 1	Short Woody Stratum 2	Stratum	2	Her	Herbaceous/Sparse Stratum 3	re polygor				
	Species 1 E	Species 2 E	Species 3 E	Spe	Species 4 E		Cioc F	valse Strat	En En	<u></u>	CT Score 4	
A 2	Norwest, 1						N C Sanado	Species 6	as 6 L	Rav	Raw4 % S/	% SA5 Wt Score6
	Cetterward 19	Elba	15007	>	W	2	Horse tail	Joseph Lillar		7.	4.00 100%	2,00
									-	+	-	
										-		
- Topics				_								
Final Weighted Score7	> 25% total stratum c	Over: 7 Trees and	.LL				Fini	al Weighte	d Score	7		

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating Page 7 of 17

SA Name:

SF2MI[2]

Two Mile Pond Reservoir Transect [[

Date: 5/15/24

Surveyor Initials:

able B1.	ble B1. Relative Native Plant Community Composition Rating				
tating	CT Fina	l Weighted Score			
. <u>4</u>	≥ 3.75 <10% non-native				
3	≥ 3.25 and <3.75	10% ≤20% non-native			
	> 2.0 and <3.25 20% ≤50% non-native				
1	≤2.0	>50% non-native			
·					

- Vegetation Horizontal Patch Structure

rksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch tern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

zontal Patch	Structure patte	n A,B,C, or D:

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would
	be difficult to determine.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. be present, although the other patch types would be well represented and have more than one occurrence in the SA. Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single,
2	Pattern C. SA has a low degree of patch diversity and complexity. Two of three patents, patch years, and complexity. Two of three patents, patch years, and dominant patch type exists with the others occupying a small portion of the SA. Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch
1	Pattern D. SA has essentially little to no patch diversity of complexity. The syris dominate years types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

Torksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	. Enter the total ' VST 1	VST 2	VST 5	Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA	りも			50	1 10 to the C	A based on the	criteria in Table B

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the ow that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

ting on the 3A Ka	ank Summary Worksheet.	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
Rating	Dominant VST		6W and/or 6H
	1	5	
`	1	6W	CW and/or 6H
^ 4	2 or 1 and 2	5	6W and/or 6H
	1		
	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	6S		
~ 1	6H		
	7		

SF2MI[2]

Date: 5/15/24

SA Name:

Two Mile Pond Reservoir Transect [2]

Surveyor Initials:

B4 - Nativa Riparian Tree De-		
B4 - Native Riparian Tree Reg	eneration	Ì

34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Ta. Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

R	ating	Description
92	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
\circ		Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
\cap		Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically cover, little size class differentiation.
0		Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method			
5	Invasive cover (%)	6	cal culate

Table B5. Rating	s for Invasive Exotic Plant Species Cover
Rating	Invasive Species Cover %
O 4 ×	0%
$\bigcap_{a} 3$	>0% - <1%
(2	≥1% - <10%
0 1	≥10

Additional CTs and Biotic Metric Commen	ts:
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Abiotic Metrics

11 - Floodplain Hydrologic Connectivity

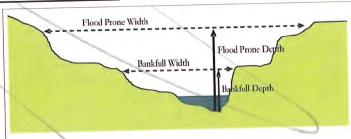
Method 1

Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA (Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Rank Summary Workshee	t. Photographs of each cross-section are required arrangement		1	2	3
Steps	Description	Cross-section:	'		
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the ban Measure the distance between the right and left bankfull contours with	la tape.			
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, more of the line above the thalweg (the deepest part of the channel). A pockhelp here.	ket line level can			
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.				
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the from Step 3 to where it intercepts the right and left banks.	flood prone depth			
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).	A with a puerage box	ro and	rate	
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Enusing Table A1a. Enter the rating in the A1 box on the SA Rank Summa	ary Worksheet.	and	late	

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems				
Rating	Description			
O 4	Average entrenchment ratio is ≥ 2.2;			
\bigcirc 3	Average entrenchment ratio is ≥1.9 - <2.2			
0 2	Average entrenchment ratio is ≥1.5 - <1.9			
0 1	Average entrenchment ratio is < 1.5			
*				



Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Worksheet in conjunction with Table A1c. Check the boxes for all that apply to each segment.

U M L Indicator

U	M	L	Indicator
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
		古	Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
			Inset floodplain formation
			Decreased peak flows due to hydrologic modification
			Bankfull indicators at point of incipient flooding of the floodplain
П	П		Indicators of overbank flow on floodplain

Floodplain inundation due to beaver activity

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems				
Rating Description				
O 4	Average entrenchment ratio is ≥ 1.9			
\bigcirc 3	Average entrenchment ratio is ≥1.4 - <1.9			
0 2	Average entrenchment ratio is ≥1.2 - <1.4			
0 1	Average entrenchment ratio is < 1.2			

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Method 2

e A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

Surveyor Initials:

1	Rating	
H		Description
C		Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.
0	7	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
0	2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
C	1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1				A Company of the Comp	and the second s	
2						
3			And the state of t	, part of the same		

Floodplain Hydrologic Connectivity Comments:

Not in	JSAI	Assesment	

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Surveyor Initials:

05

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	X		Terraces
			Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Ratin		ating for Physical Patch Complexity Description
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).
\cap	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).
X	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ŕ		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		X		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ą		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		网		Channel and point-bars consist of well-sorted bed material.
		內		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ņ		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
ndicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
			Т	here are avulsion channels on the floodplain or adjacent valley floor.

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	Table A3. Rating for Channel Equilibrium				
Rating	Description				
4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.				
	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.				
<u> </u>	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.				
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.				

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4		<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank	□3	<u></u> 3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Soil Stability	<u></u> 2	<u></u> 2	<u></u> 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	1	1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	[∑]4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	3	3	3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	<u></u> 2	<u></u> 2	<u></u> 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	1	1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	

Table A4. Stream Bank Stability and Cover Rating				
Rating	Description			
6 4	>3.5 - 4.0			
C 3	>2.5 - ≤3.5			
<u> </u>	>1.5 - ≤2.5			
C 1	1.0 - ≤1.5			

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Surveyor Initials: 05

A5 - Soil Surface Condition

brksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	X		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	
-----------------------------	--

	Table A5. Soil Surface Condition Rating				
Rating	Description				
O 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.				
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.				
2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10%, of the SA.				
∩ 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.				

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rksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign egories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknov ak Major Stressors in Dominant Stressor column(Pick up to 3)

	k Affect			Stressor Group/Stressor	Comments		
ıĸ	Major	Minor	Absent	Unknown			
			T		Adverse water management Extended low flow dam releases		
			Ø		Timing of flow releases not concordant		
			Ó		Extended high flow dam releases		
					Agriculture/Urban flow diversion upstream		
		ra selil sa li sa			Adverse sediment management		
					Adverse sediment retention by dams		
					Sediment loss by dredging		
			Ø		Adverse sediment input (roads/development)		
				n - College	Artificial water additions		
					Sewer treatment effluent		
					Point source urban runoff		
					Factory, feedlot outfall		
					Agricultural irrigation ditch returns		
					Mining waste		
	100				Ground water pumping		
					Urban depletions		
			Ø		Fracking		
					Agriculture irrigation wells		
					Watershed alteration		
			Ø		Extensive recent fires in watershed		
					Extensive recent timber harvest		
					Extensive open pit mining in watershed		
					Livestock/wildlife overgrazing		
	100				Local biodiversity impacts		
					Evidence of excessive grazing (local)		
					Excessive noise affecting wildlife		
	0	0		0	Counts by Intensity		
ditio	onal Comm	ents	Na	W	ater is going d	s this from	

ersion Date: 04/25/2022 Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

CA Cada (Farma **)		SA Cove	er Worksheet			
SA Code SF2MI [2	orthanic: Two	o Mile Pond Reservoir		Project : R	iparian Acc	esement
ode Tsct [2]	Fode Tsct [2] AU Name : Transect [2] WOI : Two Mile Pond F					
County Santa Fe	HUC 12 Head	dwaters Santa Fe River	Elevation (ft) 729			
A General Location A	and Roundany (Daties at			, ,		oregion 6.0 NWFN
Oriving Directions Driving to Santa	Fe from Albuquerque vo	e, comments) Illipia on the east side regarding the reservoir ou head north on Old Peir located to the North.		ion to the area was	recently sr	nut down due to lac
		ir located to the North. Santa Fe National Fores	Data Sharing	Results to client	Fish Obse	erved in
Surveyor Role		Survey	or Name	only.	Wetla	
Landscape	Dustin Schwar		, or name			Surveyor Initi
Biotic	Annie McCoy					DS
Abiotic	Dustin Schwar	tz				AM
Stressors	Dustin Schwar	tz				DS
Easting (m)	Northing (m)	Zone	_			DS
105° 53' 24" W	35° 41' 23" N	13	Datum	Latitude	(DD ft)	Longitude (DD
Survey Date	6/11/24	Start Time	NAD- 83 UTN	35.689722	2	-105.89
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			9:00	End Ti	me	15:00
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Landscape Contex	it (summarize the wetlar	SA Desc	cription			
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Landscape Contex The before hum	Channel Soli	SA Desc and and surrounding land is a sitti	dscape; include cor	ndition and impacts	s) dryish	just
before ham	Channel and in wood	SA Descend and surrounding land is a sitting very wet Water com-	dscape; include cor	ndition and impacts	dryish	just and
before ham Biotic Condition (v.	channel has in med	SA Descend and surrounding land is a sitting very wet Water composition and structure of	discape; include cor ing mud for area, Tra	ndition and impacts and goes a acks of a Pipe belo	s) dryish annals an che	and nhol
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before hum Biotic Condition (v. Saw a De Willows out s	egetation patterns, com er and swallow are tarning Bame amount o	SA Descend and surrounding land is a sittle very wet wet water composition and structure, expension spotted for the structure of the structur	discape; include cor ing mud po area, Tra ing out of exotics and invasive extensions and invasive to where work	ndition and impacts and goes a places of a Pipe belo es, disturbance evic have bumps blig Vireo. 9	dryish ninals on the dence, fire a on lear rasson	and herbivory)
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SA CODE: SF2MI[2]

SA Name: Two Mile Pond Reservoir Transect [2]

6/11/24 Date:

> Final Score 3.25 0.75 1.0 1.0 0.5

Surveyor Initials: DS/AM

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5	Rating	Wt
Metric Description		Σ 1.0
Landscape Context	3	0.25
L1. Buffer Integrity Index	4	0.25
L2. Riparian Corridor Connectivity	4	0.25
L3. Relative Wetland Size	2	0.25
L4. Surrounding Land Use		Σ

Biotic 0.2 B1. Relative Native Plant Community Composition 2 0.2 B2. Vegetation Horizontal Patch Structure 0.2

B3. Vegetation Vertical Structure 4 0.2 **B4. Native Riparian Tree Regeneration** 0.2

B5. Invasive Exotic Plant Species Cover Abiotic 0.3 A1. Floodplain Hydrologic Connectivity 0.2 A2. Physical Patch Diversity 0.2 4

A3. Channel Equilibrium 0.2 4 0.1

A4. Stream Bank Stability and Cover A5. Soil Surface Condition

0.3	0.975
0.35	
0.35	
SCORE Σ	3.04
	0.35

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

SA WETLAND RANK	=	_	В	
Stressor Summary	Major	Minor	Top Three	
	0	0	1	Construction
			2	Trails
			3	Pedostrians

Stressor Comments (Evaluation of risk) Pedestrians walking through the mud impacts the trail significantly but not really any where else,

SA CODE: SF2M[2]

SA Name: Two Mile Pond Reservoir Transect [2]

Date:

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Surveyor Initials: DS/AM

Landscape Context
- Buffer Integrity Index

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and y	ear of i										
Image	·		rth KMZ. file			lmag	e Date		6/23		
Allow	ed buff	er/RCC land	d cover elements			Exclu	ded no	on-buff	er/RC0	Cland cover	elements
Buffer	rIRCC					Buffe	r RCC			- Idiid Cover	riements
X	X		semi-natural vege			X	X	Com	mercia	al/residential	developments, parking lots, nts, and other structures
х	X	Small irriga	ntion ditches witho	ut levees		\perp_{\Box}	\vdash_{\sqcap}				es, sports fields
		Old fields,	unmaintained			十片	$+ \exists$	Railro		vs, gon cours	es, sports fields
		Open range	e land					Maint	tained	levees, sedir taging areas	nent piles, construction
×	X	Foot trails, intensity)	horse trails, unpav	ed bike tr	ails (low						horse paddocks, feedlots
×	X	Non-chann	el open water					Intens	ive ag	riculture: ma	intained pastures, hay fields.
X	X	Non-function naturally oc	oning abandoned v curring levees	vegetated	l levees, or	X	×		roads	orchards, and or develope	vineyards d second-order unpaved but
		inpaved tw	o tracks roads					.1			a levee or other manmade
<u> </u>		•				X	X	Structi	ırα		
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SA CODE: SF2MI[2]

Date: 6/11/24

SA Name: Two Mile Pond Reservoir Transect [7]

Surveyor Initials: DS/AM

L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

the data from this worksheet. Litter rating or			Les established	Commont
Segments	Upstream	n Segment	Downstrea	m Segment
Banks	Left Bank	Right Bank	Left Bank	Right Bank
A) Total Bank Disruption (m)	0	0	0	0
B) Total Disruption by Segment (m)		0	0	
C) % Segment Disruption = (B/1000)*100		0	C)
D) Total Disruption both segments			0	
E) % Total Disruptions = (D/2000)*100	Zero dis	ruption notic	eable along	the banks.

	Та	ble L2. RCC Rating
R	ating	Description
Ø	4	0% total disruption on both segments combined.
0	3	<15% total disruption on both segments combined.
0	2	≥15% - <40% total disruption on both segments combined.
0	1	≥40% total disruption on both segments combined.

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksheet.

		RSR						RI	NSI		
Current Size	1	Historic Size	=	RSR	1	ma m	RSR	Х	100	=	RWSI (%)
current size						1	0.1	V	100	=	10
9	1	10	=	0.9	1	-	0.1	Χ	100		

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
		Wetland has been reduced by more than 40% its natural size
01	>70%	Wetland has been reduced by more than 70% its natural size

SF2MI[2]

Date:

SA Name:

Two Mile Pond Reservoir Transect [2]

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	able L4. Suri	rounding Land Use Rating
R	ating	LUI Score
\circ	4	≥95 - 100
\circ	3	≥80 - <95
®	2	≥40 - <80
0	1	<40

SA CODE: SF2MI [Z]

SA Name: Two Mile Pond Reservoir Transect [\angle]

Date: 6/11/24

Surveyor Initials: DS/AM

Biotic Metrics

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed Listnumber assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant Appendix D). Use the comments box for documenting and describing vegetation community patch features.

Polygon No	B3 Vertical Structure Type	B4 Tree Regeneration % Cover	35 Invasive Exotic Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1				
2	IA2	909	Nonesaen	Nonc	Avea is sprouting many they now growths o'us to record rain
м	IIA1				
4	IIIB1				
2	IIIC1				
9	IVEI				
7	IVF1				
∞					
6					
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SA Name: Two Mile Pond Reservoir Γ -ect [<]

Date: 6/11/24

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B1 - Relative Native Plant Community Composition

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\top				I all woody Stratum	y stratui	- - - -		Short Woody Stratum ²	dy Stratı	um 2		Herbaceou	ıs/Sparse	Herbaceous/Sparse Stratum ³		CT Score 4	e 4	
2	Polygon Nos.	-	-	Species 1	υZ	Species 2	uZ	Species 3	шΖ	Species 4	ш Z	Species 5	ш 2	Species 6	ш 2	Raw4	% SA5	Wt Score6
∢				Nevicul leaf	>	130x 150cz	\geq	Willow	\sim	Angole trees	2	Horse.	\geq	Readon	>	arh	(0)	20,7
														Tanks.		- 1))	3
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ш																		
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U																		
エ																		
			-															
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Σ																		
z																		

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE: SF2MI[≥]

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Table B1	. Relative Native Plant C	ommunity Composition Rating
Rating	CT Fina	al Weighted Score
Ø 4	≥ 3.75	<10% non-native
C 3	≥ 3.25 and <3.75	10% ≤20% non-native
C 2	> 2.0 and <3.25	20% ≤50% non-native
\bigcap 1	≤2.0	>50% non-native

2 - Vegetation Horizontal Patch Structure

Vorksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch pattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

lorizontal Patch Structure pattern A,B,C, or D	Iorizontal	Patch	Structure	pattern	A,B,C,	or D:
--	------------	-------	-----------	---------	--------	-------

	Table B2. Rating for Vegetation Horizontal Patch Structure					
ating	Description					
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.					
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.					
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.					
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.					

33 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with same VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA	V 2			50			

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
C 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
	2 or 1 and 2	5	
☆ 3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
C 2	5		
	6W		
	6S		
	6H		
	7		

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	SA Nam	e: Two Mile Pond Reservoir Transe	ct [긴]	Surveyor Initials :	DS/AM
В4	- Native	Riparian Tree Regeneration			
Ī	B4. Na	tive Riparian Tree Regeneration rating. Us	ing the polygon pe	rcent cover of native tree	seedlings, saplings and poles from
1		rate the SA based on polygon percent cover a	and patch density.	Enter the rating on the SA	Rank Summary Worksheet.
F	Rating		Descrip		
X		Native poles, sapling, and seedlings trees wel cover, typically multiple size (age) classes.			1
\circ	3	Native poles, saplings and/or seedlings comm	non, scattered patc	hes or polygons with 1% -	5% cover, size classes few.
\circ	2	Native poles, saplings and/or seedlings prese <1% cover, little size class differentiation.	nt but uncommon,	restricted to one or two p	atches or polygons with typically
\circ		Native poles, saplings, and/or seedlings abse	nt (0% cover).		
Wor	ksheet 9.	Exotic Plant Species Cover Based on Worksheets 5 and 6, calculate or essing Table B5 and enter the rating on the SA F	stimate the percent Rank Summary Wor	age cover of invasive exot ksheet.	ic species for the SA and enter
	Rating	Method	Invasive co	over (%)	calculate
Ta	able B5. R Rating	atings for Invasive Exotic Plant Species Co	ver		
C	4 ×	0%			
	3	>0% - <1%			
- -	<u>)</u> 2	≥1% - <10%			
\Box	1	≥10			
Ado	ditional CT	s and Biotic Metric Comments:			

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Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

SA Name:

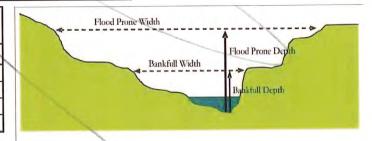
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description Cros	ss-section:	1	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bankfull of Measure the distance between the right and left bankfull contours with a tap	contour. e.			
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, measure of the line above the thalweg (the deepest part of the channel). A pocket line help here.	e the height e level can			
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.				
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the flood from Step 3 to where it intercepts the right and left banks.	prone depth			
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).				
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Enter thusing Table A1a. Enter the rating in the A1 box on the SA Rank Summary Wo	e average her orksheet.	e and r	ate	

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems

meanacing	
Rating	Description
O 4	Average entrenchment ratio is \geq 2.2;
O 3	Average entrenchment ratio is ≥1.9 - <2.2
O 2	Average entrenchment ratio is ≥1.5 - <1.9
O 1	Average entrenchment ratio is < 1.5



Worksheet 10b. Floodplain H	ydrologic Connectivity Indicat	ors. Use this
Worksheet in conjunction with	Table A1c. Check the boxes for a	ll that apply to each
segment.		

		-	
U	M	L	Indicator
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
	D		Channel widening due to bank failure
	立	A	Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
		D	Inset floodplain formation
			Decreased peak flows due to hydrologic modification
			Bankfull indicators at point of incipient flooding of the floodplair
			Indicators of overbank flow on floodplain
			Floodplain inundation due to beaver activity

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems Rating Description ○ 4 Average entrenchment ratio is ≥ 1.9 ○ 3 Average entrenchment ratio is $\geq 1.4 - < 1.9$ ○ 2 Average entrenchment ratio is $\geq 1.2 - < 1.4$

Average entrenchment ratio is < 1.2

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Method 2

le A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

-	•	
	Rating	Description
0	4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.
0	3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
0	2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
C	1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1	Anna de la companya del companya de la companya del companya de la		A Company of the Comp	and the second s	and the second s	
2			L			
3						

Floodplain Hydrologic Connectivity Comments:

·	Not in	JSAI	Assosment

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
	×		Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	A		Terraces
			Channel pools
			Beaver ponds
		. 🗆	Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Table	Table A2. Rating for Physical Patch Complexity					
Rating		Description				
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).				
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).				
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).				
×	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.				

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

	1 11	2 44 1 11	T	
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		囟		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		ĽŻ		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		南		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ŋ		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Þ		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		A		Channel and point-bars consist of well-sorted bed material.
		囟		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
Ç.		Į.		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
			ר 🗆	There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
			☐ T a	here is abundant fresh splays of coarse sediment covering the floodplain bove the natural point bar elevation.
			Т	here are partially buried living tree trunks or shrubs along the banks.
ndicators of Active Aggradation			□ T	he channel bed is planar overall. The stream lacks well-defined channel ools at meander bends, or pools are filled with sediment.
			П	here are partially buried or sediment-choked culverts.
			<u> </u>	here are avulsion channels on the floodplain or adjacent valley floor.

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Table A3. Rating for Channel Equilibrium					
Rating	Description				
4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.				
C 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.				
∩ 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.				
<u> </u>	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.				

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	<u></u> 4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Soil Stability	<u></u> 2	<u></u> 2	<u></u> 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	<u></u> 1	<u></u> 1	<u></u> 1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	A	□4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	□3	□3	3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	<u></u> 2	□2	<u></u> 2	>25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	<u></u> 1	□1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	İ
,.veruge	

Rating	Description
6 4	>3.5 - 4.0
C 3	>2.5 - ≤3.5
C 2	>1.5 - ≤2.5
C 1	1.0 - ≤1.5

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A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	ĮŽĪ		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	
-----------------------------	--

	Table A5. Soil Surface Condition Rating					
R	ating	Description				
C	4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.				
0	3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.				
\cap	2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.				
K.	1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.				

Mud is tearing up walking path.

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Vorksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign ategories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknow" and Major Stressors in Dominant Stressor column(Pick up to 3)

		Aff	ect		Stressor Group/Stressor	Comments
ank	Major	Minor	Absent	Unknown	•	
					Adverse water management Extended low flow dam releases	
		Ш				
					Timing of flow releases not concordant	
			ď		Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
					Adverse sediment retention by dams	
	□ ,		Q		Sediment loss by dredging	
	П	ПП			Adverse sediment input (roads/development)	
					Artificial water additions	
					Sewer treatment effluent	
					Point source urban runoff	
					Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
			Q		Mining waste	
					Ground water pumping	
					Urban depletions	
					Fracking	
······					Agriculture irrigation wells	
					Watershed alteration	
			Ø		Extensive recent fires in watershed	
			Tp		Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
	10.00			racia de estado	Local biodiversity impacts	Emples Care of the Control of the Co
					Evidence of excessive grazing (local)	
	ď				Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	
Additi	onal Comn	nents	Ma	No to	is going to	his orea

Version Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	er Worksheet		All Banette Leaving Co.		
SA Code SF2MI[ろ] SA Name: Tw	o Mile Pond Reservoir		Project : Riparian As	sesement		
de Tsct [3] AU Name : Tra	AU Name : Transect []]			WOI : Two Mile Pond Reservoir		
County Santa Fe	HUC 12 Hea	dwaters Santa Fe River	Elevation (ft) 7299		coregion 6.0 NWFM		
A riparian syste decommissione of water rights. Driving Directions Driving to Sant	n and Boundary (Rational om that leads into a pond ed due to safety concerns a Fe from Albuquerque y ntil you reach the reserve	located on the east side regarding the reservoir ou head north on Old Pe	and a water diversion to	ne Santa Fe National Fo o the area was recently s	rest. This reservoir was shut down due to lack		
	ure Conservative and The		Data Sharing Resul		served in		
Surveyor Role	至 在 是 法 计 计	Surve	yor Name	April 20 (Ot	Surveyor Initial		
Landscape	Dustin Se	1	inie McCoy		DS LM C		
Biotic	"	171	Inte / Iccoy		USFIIC .		
Abiotic	4		(1		11		
Stressors	N			¥	//		
Easting (m)	Northing (m)	Zone	Datum	Latitude (DD ft)	Longitude (DD f		
-105° 53' 24" W	35° 41' 23" N	13	NAD-83 UTM	35.689722	-105.89		
Survey Date	4/9/24	Start Time		End Time			
		SA Des	scription				
Avea	appears st.	and and surrounding lar	from winter	on and impacts) Some gree	n grasses		
A Biotic Condition Boe Fly Aside	replears st. In ground. (vegetation patterns, co Is and elder From environt But (hydrological alteration	mposition and structure buss curron small buds for very beginnin	from winter lots of d , exotics and invasives, c at blooming a raing on willow g of growt flooding characteristics	disturbance evidence, find buzzlag v s and cotton w	re and herbivory) with bees		
A Biotic Condition Boe Fly Aside A Abiotic Condition Sturbance and other The green	replears st. In ground. I (vegetation patterns, co Is and elder From environt But In (hydrological alteration er site impacts; explain the	mposition and structure buss curron small buds for very beginnin as {e.g., dams, walls etc.]; e hydrologic breaks or o	exotics and invasives, of defining on willow got growt flooding characteristics ther factors that define the deaves	disturbance evidence, find buzzlag vand cotton was and cotton was and evidence of overbathe SA limits)	re and herbivory) with bees ands ank flooding; soil		
A Biotic Condition Boe fly Aside A Abiotic Condition Sturbance and other The graver	replears st.	mposition and structure buss curron small buds for very beginnin as {e.g., dams, walls etc.]; e hydrologic breaks or o holds the walls	from winter lots of d , exotics and invasives, on the blooming a ming on willow g of growt flooding characteristics ther factors that define the lead leaves after 27"	disturbance evidence, find buzzling was and cotton with and evidence of overbathe SA limits)	re and herbivory) with bees ands ank flooding; soil		
A Biotic Condition Boe fly Aside A Abiotic Condition Sturbance and other The graver Sessment Summa	replears st. In ground. I (vegetation patterns, co Is and elder From environt But In (hydrological alteration er site impacts; explain the	mposition and structure buss curron small buds for very beginnin as {e.g., dams, walls etc.]; e hydrologic breaks or o holds the wall summary and comment Recovering	exotics and invasives, of the flooding characteristics ther factors that define the field data is constructed.	disturbance evidence, file and buzzlag was and cotton when the SA limits) and branch above outside onlected.)	ank flooding; soil		

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Date: 4/9/24

Surveyor Initials:

MRAM	- SA Rank Summar	y Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
andscape Context	Σ 1.0	3.25	
1. Buffer Integrity Index	3	0.25	0.75
_2. Riparian Corridor Connectivity	4	0.25	1.0
_3. Relative Wetland Size	4	0.25	1.0
_4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	3	0.2	
B2. Vegetation Horizontal Patch Structure	4	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	3	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	4	0.2	
A3. Channel Equilibrium	4	0.2	
A4. Stream Bank Stability and Cover	Ч	0.2	
A5. Soil Surface Condition	4	0.1	

SA Condition	n Scoring Su	mmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic		0.35	
Abiotic		0.35	
SA WETLAN	D CONDITIO	N SCORE Σ	
SA WETLAN	D RANK =	=	

SA Wetland Rank		
Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three
	0	0	1
			2
			3

Stressor Comments (Evaluation of risk)	essor Comments (Evaluation of risk)						

SA Name: Two Mile Pond Reservoir Transect [| 3]

Date: 4/9/24

Surveyor Initials: DC

Landscape Context

Lı - Buffer Integrity Index

٦

 \Box

Other

Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery). Google Earth KMZ, file **Imagery** Image Date 6/23 Allowed buffer/RCC land cover elements Excluded non-buffer/RCC land cover elements Buffer RCC Buffer RCC Commercial/residential developments, parking lots, X Natural or semi-natural vegetation patches X Х dams, bridges, revetments, and other structures X Small irrigation ditches without levees Lawns, parks, golf courses, sports fields Old fields, unmaintained Railroads Maintained levees, sediment piles, construction \Box Open range land materials, staging areas Foot trails, horse trails, unpaved bike trails (low X X П Intensive livestock areas, horse paddocks, feedlots intensity) Intensive agriculture: maintained pastures, hay fields, X X Non-channel open water row crops, orchards, and vineyards Non-functioning abandoned vegetated levees, or Paved roads or developed second-order unpaved but X \mathbf{x} Х X naturally occurring levees graded roads Open water bounded by a levee or other manmade unpaved two tracks roads Х X structure

Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
A	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
c	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent					
R	lating	Buffer Percent				
\cap	4	100%				
Œ	3	≥80% - <100%				
\cap	2	≥50% - <80%				
\bigcirc	1	<50%				

Table L1b. Buffer Width Rating Average buffer width						
(X)	3	≥130 - <190m				
\overline{C}	2 ·	≥65 - <130m				
\cap	1	<65m				

 Table L1c. Summary Rating for Buffer Integrity

 Rating
 Score

 C
 4
 >3.5

 (X
 3
 >2.5 - ≤3.5

 C
 2
 >1.5 - ≤2.5

 C
 1
 ≤1.5

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Surveyor Initials: DC5

2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0 0		
B) Total Disruption by Segment (m)	0 0)		
C) % Segment Disruption = (B/1000)*100	0 0				
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable along the banks.			he banks.	

	Table L2. RCC Rating					
Rating		Description				
(X	4	0% total disruption on both segments combined.				
\subset	3	<15% total disruption on both segments combined.				
C	2	≥15% - <40% total disruption on both segments combined.				
(1	≥40% total disruption on both segments combined.				

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Workshe

		RSR						R	WSI		
Current Size	1	Historic Size	=	RSR	1	-	RSR	Х	100	= //	RWSI (%)
9	1	10	=	0.9	1	-	0.1	X	100	=	10

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
(3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
C 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size
C1	>70%	Wetland has been reduced by more than 70% its natural size

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Two Mile Pond Reservoir Transect [\supset]

Surveyor Initials:

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L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating					
R	ating	LUI Score				
C	4	≥95 - 100				
\bigcap	3	≥80 - <95				
(X)	2	≥40 - <80				
\subset	1	<40				

SA CODE: SFZMI [5]

SA Name: Two Mile Pond Reservoir Transect [>]

Surveyor initials:

Biotic Metrics

number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List – Appendix D). Use the comments box for documenting and describing vegetation community patch features.

Polygon No	B3 Vertical Structure Type	B4 Iree Regeneration % Cover	B4 Iree B5 Invasive Regeneration Exotic % Cover Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1	7			
2	IA2	9,55	72%	Mullein	Ground Pull of dead leavest branches, Currant graning
3	IIA1	400%	NIA	None	brosses, currant, elderbugs, one like bird
4	IIIB1		,		
5	IIIC1				
9	IVEI				
7	IVF1				
∞					
6					
10					
1					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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SA Name: Two Mile Pond Reservoir Transect [arnothing]

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ond Reservoir Transect [$ec{S}$]. Date: 4/9/29 Surveyor Initials:

B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in 527 77 I. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top % SA5 N 2.4 50 CT Score 4 Raw4 5,2 Final Weighted Score⁷ Species 6 Herbaceous/Sparse Stratum 3 95878 Mendow which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. للا 2 Species 5 E られた。 Species 4 Short Woody Stratum 2 Species 3 E 2 Species 2 Dich B. A. Tall Woody Stratum 1 2 2 Species 1 E Cottomod Polygon Nos. Ե Δ ш щ G ェ ¥ _ Σ 0 z

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. ⁴Raw Score is from Table B1a (Appendix B); ⁵%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE:

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SA Name:

Two Mile Pond Reservoir Transect [3]

Date:

Surveyor Initials:

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Table B1	. Relative Native Plan	t Community Composition Rating
Rating	CTF	inal Weighted Score
4	≥ 3.75	<10% non-native
5 3	≥ 3.25 and <3.75	10% ≤20% non-native
2	> 2.0 and <3.25	20% ≤50% non-native
1	≤2.0	>50% non-native

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch Structure pattern A,B,C, or D:



	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
` 3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
` 2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
` 1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

/orksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
	High Structure	Low Structure	Tall Shrubland	Short	Herbaceous	Herbaceous	Sparse
	Forest	Forest		Shrubland	Wetland	Vegetation	Vegetation
Total % of SA	50			50			

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the low that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the lable down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the lating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
^ 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
₹ 3	2 or 1 and 2	5	
7 3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	6S		
1	6H		
İ	7		

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B4 - Native Riparian Tree Regeneration

Ta. 34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
C 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
<i>(</i> 7∕′ 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
C 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Dodina Madaa	
Rating Method	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
C 4		0%		
7 3	X	>0% - <1%		
ι 2	1	≥1% - <10%		
C 1		≥10		

Additional CTs and Biotic Metric Comments:

Bee flys over flowing causing green grasses current has bees.

SA CODE:	SF2MI[³]	Date :	4/9/24
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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
	Ď		Active side channels
	区		Abandoned channels
	X		Backwater/eddy
			Riffles or rapids
	[X]		Shoals, sparely-vegetated bars
	风		Channel boulders
			Oxbow lakes/ponds on floodplains
	文		Vegetated island and side bars
	[X]		Terraces
	(X)		Channel pools
	区		Beaver ponds
	Ø		Swales, depressional features on floodplains
	Ø		Debris jams in channel
	Ø		Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
	Ž.		Downed logs
	Ø		Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tabl	Table A2. Rating for Physical Patch Complexity					
Rati	ng	Description				
K	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).				
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).				
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).				
C	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.				

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		À		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ď		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		×		Channel and point-bars consist of well-sorted bed material.
		[X]		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		M	П	There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
ndicators of Active Aggradation				There are partially buried living tree trunks or shrubs along the banks.
				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				here are partially buried or sediment-choked culverts.
			Т	here are avulsion channels on the floodplain or adjacent valley floor.

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Surveyor Initials: D65

	Table A3. Rating for Channel Equilibrium				
Rating	Description				
4 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.				
C 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.				
C 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.				
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.				

A4-Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	[]4	□4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Soil Stability	□2	<u></u> 2	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	1	1 _.	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
Indicators of Stream Bank Erosion Potential	<u></u> 4	⊅ 4	□4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	□3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
	□2	<u></u> 2	□2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	1	1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	4

Rating	Description	
× 4	>3.5 - 4.0	
3	>2.5 - ≤3.5	
C 2	>1.5 - ≤2.5	
C 1	1.0 - ≤1.5	

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A5 - Soil Surface Condition

reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	\boxtimes		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

	Table A5. Soil Surface Condition Rating						
Rating	Description						
% 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
○ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
<u> </u>	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
C 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

SA	COD	E :	SF2MI [<u>ا</u> (

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orksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign tegories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknowink Major Stressors in Dominant Stressor column(Pick up to 3)

ank		Aff	ect		Stressor Group/Stressor	Comments
alik	Major	Minor	Absent	Unknown	•	Comments
	1 a major i		plis.		Adverse water management	
					Extended low flow dam releases	
			Ď		Timing of flow releases not concordant	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
			Q		Adverse sediment retention by dams	
					Sediment loss by dredging	
					Adverse sediment input (roads/development)	
					Artificial water additions	
					Sewer treatment effluent	
					Point source urban runoff	
					Factory, feedlot outfall	
					Agricultural irrigation ditch returns	1
			Q		Mining waste	
	7 CH 18 CH	and the co	100 PM	ander all and	Ground water pumping	
					Urban depletions	
			Ž		Fracking	
					Agriculture irrigation wells	
					Watershed alteration	
			Q		Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
			Q		Livestock/wildlife overgrazing	
	per File	Parish and			Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	

ditional Comments

ersion Date: 04/25/2022 Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	er Worksheet			100				
SA Code SF2MI[3] SA Name: Tw	o Mile Pond Reservoir		Proie	ct : Riparian <i>A</i>	ssesement				
de Tsct [3] AU Name : Tra	ansect [3]	1-1-		Two Mile Po					
County Santa Fe	Tied 12 Tied	dwaters Santa Fe River	Elevation (ft) 729			Ecoregion 6.0 NWFM				
decommission of water rights. Driving Directions Driving to Sant	n and Boundary (Rational em that leads into a pond ed due to safety concerns ta Fe from Albuquerque y until you reach the reservo	located on the east side of regarding the reservoir a	and a water diversi	ing the Santa on to the area	Fe National F was recently	orest. This reservoir wa shut down due to lack				
	ure Conservative and The	and the Holli.	Data Sharing	Results to clie	nt Fish O	bserved in				
Surveyor Role		Survey	or Name	omy.	VVE	Surveyor Initial				
Landscape	Pustin +	Annie	A SHARING SHAR							
Biotic	11	1)				DS+ AM				
Abiotic	- 11		1,			11				
Stressors	"		11			the many				
Easting (m)	Northing (m)	Zone	Datum	Lati	tude (DD ft)	,				
-105° 53' 24" W	35° 41′ 23" N	13	NAD- 83 UTA			Longitude (DD ft				
Survey Date	5/15/24	Start Time	Survey Date 6/17/24 Co. 17							
A Landscape Cont	text (summarize the wetla	SA Desc	dscape: include co	adition and in	npacts)					
A Landscape Cont Willow hear	text (summarize the wetla	and and surrounding land	dscape: include co	adition and in		spronting				
hear	text (summarize the wetland trees , Malles a water cu	and and surrounding land and Narrow leaf arrant, mullein	dscape; include con	ndition and in horse	npacts)					
hear A Biotic Condition	text (summarize the wetland) trees / William a water cu (vegetation patterns, cor	and and surrounding land nd Narrow lead reant, mullein mposition and structure,	dscape; include con cotton wood (yz g	ndition and in	npacts)	ire and herbivory)				
A Biotic Condition	text (summarize the wetland trees , Malles a water cu	and and surrounding land nd Narrow lead reant, mullein mposition and structure, (garter) seen	dscape; include con	res, disturbance	npacts) A. 1/5	ire and herbivory)				
A Biotic Condition Humm Fly:	text (summarize the wetland trees, May a water cu	and and surrounding land nd Narrow lead reant, mullein mposition and structure, (garter) seen rees and lead see dams walls etc.	exotics and invasion	res, disturbance Some	re evidence, f	ire and herbivory) seen beaver pena				
A Biotic Condition Fly Abiotic Condition Abiotic Condition	text (summarize the wetland the es formation and ex cu le (vegetation patterns, cor le (vegeta	mosition and structure, (garter) seen see, dams, walls etc.]; fe hydrologic breaks or oth	exotics and invasive horse to, /s	res, disturbance Some sprout	npacts) the ils the wheeling hear ence of overboits)	ire and herbivory) seen beaver penalemank flooding; soil				
A Biotic Condition Fly Abiotic Condition Abiotic Condition Abiotic Condition Co	text (summarize the wetled trees) water a water cu (vegetation patterns, consideration of the consideration of t	mposition and structure, (garter) seen (garter) seen (see, dams, walls etc.]; fe hydrologic breaks or oth distance, G slightly	exotics and invasive horse to; /s	rass, res, disturbance sprout stics and evidence the SA lim	npacts) the ils the wheeling hear ence of overboits)	ire and herbivory) seen beaver peno				
A Biotic Condition Fly Abiotic Condition Sturbance and other Condition Condition Condition Condition Condition	text (summarize the wetled the est for	mosition and structure, (garter) seen sees and leak seen wees and leak as le.g., dams, walls etc.]; for hydrologic breaks or oth distance, G shightly summary and comments	exotics and invasive horse to, /s looding characteriner factors that defined services and services after the field data	res, disturbance sprout stics and evidence the SA lime till confinence to the SA lime till co	re evidence, for the heer than heer the	ire and herbivory) seen beaver penal rank flooding; soil and leaves				
A Biotic Condition Fly A Abiotic Condition Sturbance and other Sessment Summan	text (summarize the wetled the est of the es	mposition and structure, (garter) seen sees and leak sees, dams, walls etc.]; fe hydrologic breaks or oth distance, G shightly summary and comments	exotics and invasive horse to 1/3 looding characteriner factors that definition of the field data	res, disturbance sprout stics and evidence the SA lim till con lowing, is collected.)	re evidence, for the heer than heer the	ire and herbivory) seen beaver penal rank flooding; soil and leaves				
A Biotic Condition Fly A Abiotic Condition Sturbance and other Sessment Summan	text (summarize the wetled the est for	mposition and structure, (garter) seen sees and leak sees, dams, walls etc.]; fe hydrologic breaks or oth distance, G shightly summary and comments	exotics and invasive horse to 1/3 looding characteriner factors that definition of the field data	res, disturbance sprout stics and evidence the SA lim till con lowing, is collected.)	re evidence, for the heer than heer the	ire and herbivory) seen beaver pend rank flooding; soil and leaves				

SA Name : Two Mile Pond Reservoir Transect [\geqslant]

Date: 5/15/24

Surveyor Initials: DCS

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
		Σ 1.0	3.25
-andscape Context	3	0.25	0.75
1. Buffer Integrity Index	4	0.25	1.0
.2. Riparian Corridor Connectivity			
_3. Relative Wetland Size	4	0.25	1.0
_4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	4	0.2	
B2. Vegetation Horizontal Patch Structure	4	0.2	
B3. Vegetation Vertical Structure	.3	0.2	
B4. Native Riparian Tree Regeneration	3	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	4	0.2	
	¥	0.2	
A3. Channel Equilibrium	,/	0.2	
A4. Stream Bank Stability and Cover	4		
A5. Soil Surface Condition	Ч	0.1	

SA Condition	Scoring Sur	mmary			
Major Attribute	Score	Wt.	Wt. Score		
Landscape Context	3.25	0.3	0.975		
Biotic	3.4	0.35			
Abiotic	4	0.35			
SA WETLAND CONDITION SCORE Σ					
SA WETLAN	D RANK =	3.565			

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	
			2	
			3	-

SF2MI[3] SA CODE:

SA Name: Two Mile Pond Reservoir Transect [3]

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Landscape Context

L. Æ	3uffe	r Integrity Index		•					
or are	exclud	1a. Buffer and RCC Checklist. Check off land cover edded and considered non-buffer elements that disrupt magery).	element t ecosys	ts withi	in the buffer a	rea or RCC cor dicate the imag	ridors that are either allowed, gery type and date (season		
Image		Google Earth KMZ. file	Image Date 6		6/23				
		fer/RCC land cover elements	Exclud	ded nor	n-buffer/RCC I	land cover elen	nents		
Buffer	RCC		Buffer						
X	x	Natural or semi-natural vegetation patches	X	X			velopments, parking lots, and other structures		
x	X	Small irrigation ditches without levees			Lawns, parks	, golf courses, s	sports fields		
		Old fields, unmaintained			Railroads				
		Open range land			1	Maintained levees, sediment piles, construction materials, staging areas			
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive live	Intensive livestock areas, horse paddocks, feedlots			
X		Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards				
X		Non-functioning abandoned vegetated levees, or naturally occurring levees	x	X	Paved roads of graded roads	•	econd-order unpaved but		
		unpaved two tracks roads	x		Open water bounded by a levee or other manmade structure				
		Other			Other				
Vorksł	neet 1	b. Buffer Percent Sub-metric. Measure or estimate t	the ner	centag	e of the				
SA perii	meter (composed of allowed buffer elements and enter into	o the Bu	uffer Pei	rcent	Table	L1a. Buffer Percent		
Box bel	ow. Ra	ate the sub-metric using Table L1a and enter the ratin	ıg on th	ıe Buffe	er	Rating	Buffer Percent		
ntegni	y Surm	mary Worksheet 1d.)		O 4	100%		
		Buffer Percent (%)= 85%		ⓒ 3	≥80% - <100%				

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

	The state of the s							
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)			
A	164.26	538.91	E	161.93	531.26			
В	125.25	410.92	F	231.48	759.44			
C	115.39	378.57	G	121.25	397.80			
D	111.07	364.40	Н	155.87	511.38			
	Average	148.31 (m)		486.58	(ft)			

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Tabl	e L1a. Buffer Percent
R	ating	Buffer Percent
	4	100%
Ø	3	≥80% - <100%
\circ	2	≥50% - <80%
\bigcirc	1	<50%

Tab	Table L1b. Buffer Width							
Rating	Average buffer width							
O 4	≥190m							
(₹) 3	≥130 - <190m							
○ 2	≥65 - <130m							
O 1	<65m							

Table L1c.	Summary Rating for Buffer Integrity
Rating	Score
C 4	>3.5
(₹ 3	>2.5 - ≤3.5
C 2	>1.5 - ≤2.5
O 1	≤1.5

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L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment				
Banks	Left Bank	Right Bank	Left Bank	Right Bank			
A) Total Bank Disruption (m)	0	0	0	0			
B) Total Disruption by Segment (m)		0	(0			
C) % Segment Disruption = (B/1000)*100		0	0				
D) Total Disruption both segments							
E) % Total Disruptions = (D/2000)*100	Zero disi	ruption notice	eable along t	he banks.			

Table L2. RCC Rating							
Rating	Description						
	0% total disruption on both segments combined.						
O 3	<15% total disruption on both segments combined.						
O 2	≥15% - <40% total disruption on both segments combined.						
O 1	≥40% total disruption on both segments combined.						

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Workshe

		RSR						RV	VSI		
Current Size	1	Historic Size	п	RSR	1	-	RSR	Х	100		RWSI (%)
9	1	10	=	0.9	1	-	0.1	Х	100	=	10

	Table L3. Relative Wetland Size Rating						
Rating	RWSI Score	Description					
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent					
O 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size					
○ 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size					
01	>70%	Wetland has been reduced by more than 70% its natural size					

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L4 - Surrounding Land Use

prksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	8.0	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating								
R	ating	LUI Score							
\circ	4	≥95 - 100							
\bigcirc	3	≥80 - <95							
Ø	2	≥40 - <80							
$\overline{\bigcirc}$	1	<40							

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SA Name: I wo Mile Pond Reservoir I ransect [≤]

Surveyor initials: //C

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Biotic Metrics

number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features. Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique

andd.			6	6 6	
Polygon No	B3 Vertical Structure Type	B4 Tree Regeneration 6 % Cover	35 Invasive Exotic Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1				marking
2	IA2	%09	>2%	Mullein	Currant, this leaked cotton tails, rye grass
3	IIA1	80%	None	None	Cat tails, Horse tails some willow trees
4	IIIB1				
5	IIIC1				
9	IVEI				
7	IVF1				
∞					
6					
10					
11					
12			ş.		
13					
14					
15					
16					
17					
18					
19					
20					

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B1 - Relative Native Plant Community Composition

% SA⁵ Wt Score⁶ 2,00 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in I. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top CT Score 4 Raw4 3,5 2.0 Final Weighted Score⁷ Herbaceous/Sparse Stratum 3 Species 6 Horse, 2000 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. [I] Species 5 E てたが Species 4 E V Carriery Short Woody Stratum 2 Species 3 E W.1/0mg | 2, 1/00 Species 2 Willow trees Villar. Tall Woody Stratum 1 GHanca/ Species 1 Norrowlast 6ther sear Polygon Nos. Δ ш G ェ Σ z 0

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number, the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE:

SA Name:

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Two Mile Pond Reservoir Transect [\(\frac{1}{2} \)]

Date: 5/15/21/

Surveyor Initials:

DC.

Ta	Table B1. Relative Native Plant Community Composition Rating								
Ra	ating	CT Final Weighted Score							
	4	≥ 3.75	<10% non-native						
<i>'</i> ''	3	≥ 3.25 and <3.75	10% ≤20% non-native						
<i>(</i> '	2	> 2.0 and < 3.25	20% ≤50% non-native						
\supset	1	≤2.0	>50% non-native						

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch Structure pattern A,B,C, or D:



	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

Forksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
	High Structure	Low Structure	Tall Shrubland	Short	Herbaceous	Herbaceous	Sparse
	Forest	Forest		Shrubland	Wetland	Vegetation	Vegetation
otal % of SA	50			50			

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the low that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the lating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		N
 → ¬	2 or 1 and 2	5	
(3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	6S		
1	6H		
	7		

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SA Name:

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B4 - Native Riparian Tree Regeneration

4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

R	Rating	Description			
0	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >50 cover, typically multiple size (age) classes.				
Ø	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1%-5% cover, size classes few.			
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.			
\circ	1	Native poles, saplings, and/or seedlings absent (0% cover).			

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating Invasive Species Cover %					
O 4	0%				
$C \setminus 3 \mid \chi$	>0% - <1%				
(∮ 2	≥1% - <10%				
O 1	≥10				

Additional CTs and Biotic Metric Comments:

lots of horse tails spronting around beaver dam. Some Water striders, Garter Snakes seen (2)

SA Name: Two Mile Pond Reservoir Transect [3]

Date: 5/15/24

Surveyor Initials: DCS

Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

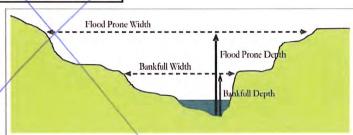
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description	Cross-section:	1 /	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bar Measure the distance between the right and left bankfull contours with				
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, most the line above the thalweg (the deepest part of the channel). A pochelp here.				
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.				
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the from Step 3 to where it intercepts the right and left banks.	flood prone depth			
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).				
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Er using Table A1a. Enter the rating in the A1 box on the SA Rank Summa		e and ra	ate	

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in
meandering single-channel riffle-pool systems

Rating	Description
O 4	Average entrenchment ratio is \geq 2.2;
\bigcirc 3	Average entrenchment ratio is ≥1.9 - <2.2
O 2	Average entrenchment ratio is ≥1.5 - <1.9
O 1	Average entrenchment ratio is < 1.5



Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Worksheet in conjunction with Table A1c. Check the boxes for all that apply to each segment.

U	M	L	Indicator
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
			Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
			Inset floodplain formation
			pecreased peak flows due to hydrologic modification

Indicators of overbank flow on floodplain

Floodplain inundation due to beaver activity

Bankfull indicators at point of incipient flooding of the floodplain

Rating Description				
O 4	Average entrenchment ratio is ≥ 1.9			
O 3	Average entrenchment ratio is ≥1.4 - <1.9			
O 2	Average entrenchment ratio is ≥1.2 - <1.4			
O 1	Average entrenchment ratio is < 1.2			

Table A1b. Rating for Floodplain Hydrologic

SA CODE:

SA Name:

SF2MI[3]

Two Mile Pond Reservoir Transect [3]

Date: 5/15/24

Surveyor Initials: DCS

Method 2

A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

Rating	Description				
O 4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.				
O 3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.				
O 2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).				
O 1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.				

Tal. A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1						
2			*			1
3		and the same of th				

Floodplain Hydrologic Connectivity Comments:

)		

Date: 5/15/24

SA Name: Two Mile Pond Reservoir Transect [$\stackrel{>}{>}$]

Surveyor Initials: DC5

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment Middle Segment Lower Segment		Lower Segment	Field Indicators (check all existing conditions)
	风		Active side channels
			Abandoned channels
	\Box		Backwater/eddy
			Riffles or rapids
	\square		Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	\boxtimes		Terraces
	Ø		Channel pools
	攵		Beaver ponds
	X		Swales, depressional features on floodplains
	X		Debris jams in channel
	X		Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
	Y		Downed logs
	Ø		Natural levees
	Ø		Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Table	e A2. Rating for Physical Patch Complexity						
Ratin	ıg	Description					
X	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).					
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).					
C _i	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).					
C	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.					

SA CODE:

SA Name:

SF2MI[3]

Two Mile Pond Reservoir Transect [3]

Date: 5/15/2 4

Surveyor Initials: 0c5

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		\square		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		ĹΣI		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		×		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		风		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
•				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
ndicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE:	SF2MI[3]	Date:	5/15/	24
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SA Name: Two Mile Pond Reservoir Transect [3] **Surveyor Initials:** $D \subseteq S$

Table A3. Rating for Channel Equilibrium					
Rating	Description				
4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.				
∩ 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.				
∩ 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.				
O 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.				

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

	Upper	Middle	Lower	Fl. I.I. Bartone
Condition	Segment	Segment	Segment	Field Indicators
	(m) 4	∆ 4	□4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank	□3	3	3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Soil Stability	<u> </u>	<u>2</u>	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	1	_1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	₫4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	3	3	3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	<u></u> 2	<u></u> 2	□ 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	1	1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	

Table A4. Stream Bank Stability and Cover Rating					
Rating	Description				
尺 4	>3.5 - 4.0				
○ 3	>2.5 - ≤3.5				
C 2	>1.5 - ≤2.5				
C 1	1.0 - ≤1.5				

SA Name: Two Mile Pond Reservoir Transect [3]

Date: 5/15/24

Surveyor Initials: DC5

A5 - Soil Surface Condition

brksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	Ø		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

	Table A5. Soil Surface Condition Rating						
Rating	Description						
X 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
<u> </u>	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

Date: 5/15/24

SA Name: Two Mile Pond Reservoir Transect [3]

Surveyor Initials:

orksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign tegories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknow nk Major Stressors in Dominant Stressor column(Pick up to 3)

ank	Affect		Stressor Gi				Stressor Group/Stressor	Comments
ulify [Major	Minor	Absent	Unknown	·			
					Adverse water management Extended low flow dam releases			
	Ш				Timing of flow releases not concordant			
					Extended high flow dam releases			
			Ø		Agriculture/Urban flow diversion upstream			
	1.54			1 1	Adverse sediment management			
			Q		Adverse sediment retention by dams			
			Ø		Sediment loss by dredging			
			Ø		Adverse sediment input (roads/development)			
					Artificial water additions			
					Sewer treatment effluent			
			Q		Point source urban runoff			
			Ø		Factory, feedlot outfall			
					Agricultural irrigation ditch returns			
					Mining waste			
					Ground water pumping			
					Urban depletions			
					Fracking			
					Agriculture irrigation wells			
	Г	i i i i i i i i i i i i i i i i i i i		Ī	Watershed alteration			
					Extensive recent fires in watershed			
					Extensive recent timber harvest			
			Ø		Extensive open pit mining in watershed			
			Ø		Livestock/wildlife overgrazing			
		1		T	Local biodiversity impacts			
					Evidence of excessive grazing (local)			
					Excessive noise affecting wildlife			
	0	0		0	Counts by Intensity			

dditional Comments

ersion Date: 04/25/2022 Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	er Worksheet				
SA Code SF2MI[SA Name : Two	o Mile Pond Reservoir		Project : R	iparian Asse	Sement	
Gode Tsct [3]	AU Name : Tra	insect [3]				and Reservoir	
County Santa Fe	HUC 12 Head	dwaters Santa Fe River	Elevation (ft) 7299				
A rinarian system	and Roundany (Bational			, , , ,		region 6	.0 NWFM
Oriving Directions Driving to Santa	n that leads into a pond lead to safety concerns The from Albuquerque you til you reach the reservo	Nu head north an Old D	a water diversion	on to the area was	recently sh	ut down d	lue to lac
	re Conservative and The		t Data Sharing R	esults to client nly.	Fish Obse	rved in	
Surveyor Role		Survey	or Name	•	Wetlar		
Landscape	Dustin Schwar						yor Initia
Biotic	Annie McCoy					DS	
Abiotic	Dustin Schwar	tz				AM	
Stressors	Dustin Schwar	tz				DS	
Easting (m)	Northing (m)	Zone				DS	
105° 53' 24" W	35° 41' 23" N	13	Datum	Latitude		Longitude (DI	
		'3	NAD- 83 UTM	35.689722) !	-104	.89
Survey Date	6/11/24	Chaut Ti					
Landscape Contex	et (summarize the wetlar	Start Time SA Description and and surrounding land	9:00	End Ti	ime	15:00	
Deaver been . A	et (summarize the wetlar Jam is over flo Jew Changels Form	sa Descend and surrounding land swing, vater ing, Lots of	9:00 cription dscape; include cond level 15 hig downed trees	dition and impacts her than a	ime s) it ha dense	15:00 3 ever	of on
Deaver been, A Biotic Condition (v	et (summarize the wetlar fam is over fle Jew Changelo Form regetation patterns, com	sa Description and structure, e	9:00 discape; include condition his downed trees	dition and impacts her then he has and very s, disturbance evident	ime s) it ha dense dence, fire a	15:00 S ever	of or
Biotic Condition (v Horse Lots Abiotic Condition (v	regetation patterns, com Les Champels form regetation patterns, com Les Champels form regetation patterns, com Les Champels form regetation patterns, com Les Champels form Les	position and structure, early cotton wo see app) Mag	9:00 cription dscape; include cond level 15 hig downed trees exotics and invasive area, Villows ods dropp. llein is	dition and impacts her than a b and very s, disturbance evi and cotton ing fuzzy getting b,	dence, fire a	15:00 Sever Vegeliand herbiv	ory)
Biotic Condition (v Horse Lots Abiotic Condition (urbance and others T 10.7°C	regetation patterns, com Le Willows Le W	position and structure, e and cetter wo see app Mag {e.g., dams, walls etc.]; fl hydrologic breaks or oth	9:00 cription dscape; include condition downed trees exotics and invasive arca, Villows ods dropp. llein 13 looding characterist mer factors that defin	s, disturbance evil	dence, fire a materia	15:00 Sever Sever Ind herbiv	ory)
Biotic Condition (v Horse Lots Abiotic Condition (v urbance and others T 10.7°C	regetation patterns, com Le Willows Le W	position and structure, e and cetter wo see app Mag {e.g., dams, walls etc.]; fl hydrologic breaks or oth	9:00 cription dscape; include condition downed trees exotics and invasive arca, Villows ods dropp. llein 13 looding characterist mer factors that defin	s, disturbance evil	dence, fire a materia	15:00 Sever Sever Ind herbiv	ory)
Biotic Condition (v Horse filling Lots Abiotic Condition (to urbance and others T 10.7°C	regetation patterns, com The wellow form regetation patterns, com The is taking or Up willows A birds Com hydrological alterations ite impacts; explain the language of downer over flowing	position and structure, and cotton wo see app) Manager	9:00 cription descape; include conditions of the second the seco	s, disturbance evidence contents of the sand way	dence, fire a materia	15:00 Sever Sever Ind herbiv	ory)
Biotic Condition (v Horse filling Lots Abiotic Condition (to the condition (to the	regetation patterns, com The wellow form regetation patterns, com The is taking or Up willows A birds Com hydrological alterations ite impacts; explain the language of downer over flowing	position and structure, and cotton wo see app) Manager	9:00 cription descape; include conditions of the second the seco	s, disturbance evidence contents of the sand way	dence, fire a materia	15:00 Sever Sever Ind herbiv	ory)
Biotic Condition (v. Horse lots Abiotic Condition (d. Horse lots) Abiotic Condition (d. Horse lots)	regetation patterns, com The is taking or The	position and structure, ever reparter wo see app) Manager of the provided of t	9:00 cription dscape; include cond level 15 hig downed trees exotics and invasive area, Villows ods dropp. looding characterist her factors that defin 7.83 nta vioratily log after the field data is	s, disturbance evidence of the SA limits)	dence, fire a woods of overbank	15:00 Sever Veselond herbive flooding;	ory)
Biotic Condition (v Horse filling lots Abiotic Condition (lurbance and others T 10.7°C lots Area and	regetation patterns, com The wellow form regetation patterns, com The is taking or Up willows A birds Com hydrological alterations ite impacts; explain the language of downer over flowing	position and structure, and cotton wo see app) Manager of the provided of the	9:00 cription descape; include conditions of the end	s, disturbance evidence one the SA limits)	dence, fire a woods a materia	15:00 Sever Vegeliand herbive flooding;	ory)

SA Name: Two Mile Pond Reservoir Transect [3]

Date: 6/11/24

Surveyor Initials: DS/AM

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5	Rating	Wt	Final Score
Metric Description		Σ 1.0	3.25
andscape Context	3	0.25	0.75
1. Buffer Integrity Index	4	0.25	1.0
2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	2	0.25	0.5
L4. Surrounding Land Use	2	5	
Biotic	U	0.2	
B1. Relative Native Plant Community Composition		0.2	
B2. Vegetation Horizontal Patch Structure	2	0.2	
B3. Vegetation Vertical Structure	2	0.2	
B4. Native Riparian Tree Regeneration	3	0.2	
B5. Invasive Exotic Plant Species Cover)		
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity	,	0.3	
A2. Physical Patch Diversity	4	0.2	_
A3. Channel Equilibrium	. 4	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A4. Stream Dank Stability and Cover	И	0.1	/

SA Condition	Scoring Sum	imary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	3,4	0.35	
Abiotic	4	0.35	
SA WETLAN			
SA WETLAN	3,565		

A5. Soil Surface Condition

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1	Hiking trails
			2	Over Flowing
			3	

ressor Comments (Evaluation of risk)		

SA Name: Two Mile Pond Reservoir Transect [β]

Date:

6/11/24

>1.5 - ≤2.5

≤1.5

Surveyor Initials: DS/AM

Landscape Context

Work or are	Buffer In sheet 1a. I excluded a rear of imag	uffer a	nd RCC Checklist	. Check o	off land cover ts that disrup	elemen ot ecosys	ts withi	in the buffe onnectivity.	er area Indica	or RCC co	orridors that are either allow agery type and date (season	
lmage	ery Go	gle Ear	th KMZ. file		lmage	Date	6/23					
		CC land	cover elements			Exclud	led nor	L n-buffer/RC	Cland	Coverale	monte	
Buffe	RCC					Buffer	RCC		Ciario	COVEL EIG	inents	
X	X Nat	ural or s	emi-natural veget	ation pa	tches	X	X	Commerci dams, brid	al/resi ges, re	dential d	evelopments, parking lots, s, and other structures	
X			tion ditches witho	ut levees	,						, sports fields	
	Old	fields, u	ınmaintained					Railroads	-, 3 -		, sports ricids	
		n range							l leve	es, sedime	ent piles, construction	
X	X Foo	t trails, h nsity)	orse trails, unpav	ed bike tı	rails (low						orse paddocks, feedlots	
X			el open water					Intensive ac row crops, c	griçult orchar	ure: mair	tained pastures, hay fields,	
X	X Non	functio rally occ	ning abandoned v curring levees	/egetated	d levees, or	X			ds or developed second-order unpaved b			
	unp	ved two	o tracks roads			×	X s	Open water Structure	r bounded by a levee or other manmade			
	Othe							Other				
/orksl	neet 1b. Bu	ffer Per	cent Sub-metric.	Measure	or estimate t	the perc	entage	of the		T-1-1	-14. P. # -	
v ben	ווופנפו לטווון	iosea oi	allowed buffer ele etric using Table L	omente a	nd antarinta	* + h ~ D 4	K D		-		e L1a. Buffer Percent	
tegrit	y Summary	Worksh	eet 1d.		inci die fatili	y on the	Buller		<u> </u>	Rating	Buffer Percent	
			Buffer Percer	nt (%)=	85%				<u> </u> ⊗	3	100%	
orksh	eet 1c. Buff	er Widt	h Sub-metric. Me	acuro the	Jonath of	-l l cc			٦١٥	2	≥80% - <100%	
- 015 0	יו טוו נוופ ווופ	p. Aver	ide the line lenatr	asure trie	e ierigin of ea te using Table	ICN DUTTE	er line ii Stertbe	n meters in		1	≥50% - <80%	
Buffe	i integrity.	ullillar	y Worksheet 1d.		is doming rabit	10, -	itel the	rating on		· · · · · · · · · · · · · · · · · · ·	<50%	
ine	Buffer W (m)	idth	Buffer Width (ft)	Line	Buffer W (m)	idth	Buff	er Width	 		e L1b. Buffer Width	
A	164.26		538.91	E	161.93		52	(ft) 31.26	R	lating	Average buffer width	
В	125,25									4	≥190m	
			410.92	F	231.48		759.44		8	3	≥130 - <190m	
C	115.39		378.57	G	121.25		397	7.80	00	2	≥65 - <130m	
D	111.07		364.40	Н	155.87		511	.38		<u> </u>	<65m	
	Average		148.31 (m)		486.58		(ft)		Tak	ole L1c. S	ummary Rating for Buffer Integrity	
rk sn e d L1b	above to ca	iculate t	grity Summary. El the Buffer Integrity	/ Index S	core using th	a farmu	المالمال أ		Ra	ating	Score	
										-	26016	
OVV. U	ang the bu	ier inte	grity index Score, (enter rati	ng for Buffer	Integrit	y in Tab	ole L1c		4	>3.5	
ow. o	sing the Bu he SA Sumr • Rating 4	nary Wo	grity index Score, (enter rati	ng for Buffer	Integrit	y in Tab	ole L1c	○ ⊗			

Buffer Integrity Index Score

0

/2 =

/2 =

3

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L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstream	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)		0	0		
C) % Segment Disruption = (B/1000)*100		0	0		
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable alon			the banks.	

Table L2. RCC Rating								
Rating	Description							
	0% total disruption on both segments combined.							
O 3	<15% total disruption on both segments combined.							
O 2	≥15% - <40% total disruption on both segments combined.							
O 1	≥40% total disruption on both segments combined.							

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksheet.

RSR					RWSI						
Current Size	1	Historic Size	=	RSR	1		RSR	X	100	=	RWSI (%)
0		10	=	0.9	1		0.1	X	100	=	10

Table L3. Relative Wetland Size Rating								
Rating	RWSI Score	Description						
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent						
O3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size						
O2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size						
01	>70%	Wetland has been reduced by more than 70% its natural size						

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score	
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0	
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0	
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0	
Filling or dumping of sediment or soils	0.1	0	0	
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0	
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0	
Ski area	0.4	0	0	
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0	
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5	
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14	
Developed/Managed trail system (high use trail)	0.8	5	4	
Agriculture - active tilled crop production	0.2	0	0	
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0	
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0	
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0	
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0	
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52	
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0	
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0	
Commercial tree plantation, Christmas tree farms	0.6	0	0	
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0	
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0	
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0	
LUI Score= Coefficient * % LUZ Area		100	75	

Table L4. Surrounding Land Use Rating	
Rating	LUI Score
O 4	≥95 - 100
O 3	≥80 - <95
⊘ 2	≥40 - <80
O 1	<40

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Biotic Metrics

				Marie Marie 18 2 Marie	
Works numbe Specie: the Tak Appen	ineet 5. Vegetation er assigned from the s Cover (B5) metrics. bles in Appendix B ai	Community SA Biotic May Enter the Ver nd the Field G	raten rolygon 5. Each polygon tical Structure T iuide for metric documenting	is evaluated with respect Type (VST) for B3, tree regionstructions. Enter the spend describing vegetation	Morksheet 5. Vegetation Community Fatch Purguin Data 10 Biograms 12 Biograms 12 Biograms 12 Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic species for B5. Use Species Cover (B5) metrics. Enter the Vertical Structure Type (V5T) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features.
Polygon No	B3 Vertical Structure Type	B4 Tree Regeneration % Cover	B5 Invasive Exotic Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1	~	3		
7	IA2	70%	15%	Mullein	current Norven leated cotton wood yyeguss
м	IIA1	85%	None	None	Cat toils, Horse tails, Paisys, willow trees,
4	IIIB1				
7.	IIIC1				
9	IVEI				
7	IVF1				
∞	ř				
6					
10					
11					
12					
13					
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Date: 6/11/24

Surveyor Initials: / \M

B1 - Relative Native Plant Community Composition

Work domir which	sheet 6. CT Pl. lant species in	Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species for the two top dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum which it is more abundant. Each polygon is given a species to the stratum.	Polygon Ass at appears in	ignmen the polyc	ts. Starting v	with CT / tnotes fo	A, enter the	number	of the first	polygon es appe	TA, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top s for special instructions. If a species appears in more than one strata, assign the species to the stratum in	sheet 5. E	nter the sp strata, ass	oecies α ign the s	odes for t	the two	top atum in
		God	Tall Woody Stratum 1	V Stratur	n 1	ב ב כ	Chort Wood	e compc	Sition or a	new C.I.	Chart Woods Carette 2	r the pol	ygon.				
1	And the second second) Julium			רו ב	ay stratu			Herbaceous/Sparse Stratum 3	/Sparse 5	tratum ⁵		CT Score 4	4	
	Polygon Nos.		Species 1	1 Z	52	υZ		<u>о,</u> ц Z	Species 4	ш Z	Species 5 E	S Z	Species 6	w Z	Raw4	√ SA5 \	Wt Score ⁶
∢			Novowlest Gittorised	>	riller trees	2	5.76 2.5	2	Curant	2	Mollow	L)	Dadow Sms	>	VS Ori	20	175
ω			Cotton was	7	willow	2	Willows	Z			Cattonits	-	Horsek	,	2,0	S	202
U					7 10,34							>		2)
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0						·											
												Final W	Final Weighted Score7	Core7			X
1. Tree	s and shrubs >	1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover: 2. Trees and shrubs <6m (20 feet) and < 35% total stratum	d > 25% tota	stratum	Cover: 2. Tre	s pue sec	thrube <6m	100 feet	1 204 \ 750%	40 10404				- : - -			

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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T	able B1	. Relative Native Plant C	Community Composition Rating
, Ra	ating	CT Fina	al Weighted Score
K	4	≥ 3.75	<10% non-native
C	3	≥ 3.25 and <3.75	10% ≤20% non-native
\overline{C}	2	> 2.0 and <3.25	20% ≤50% non-native
C	1	≤2.0	>50% non-native

2 - Vegetation Horizontal Patch Structure

Vorksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch pattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal	Patch	Structure	nattern	A.B.C	. or D

A

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
С 3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
<u> </u>	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
∩ 1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

33 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with same VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA		TOICSC		50		-9	

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
-	1	5	6W and/or 6H
C 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
0 3	2 or 1 and 2	5	
% 3 ├	2 or 1 and 2	6W	
-	5	6W	
	2 or 1 and 2		
C 2	5		
	6W		
	6S		
C 1	6H		
	7		

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B4 - Native Riparian Tree Regeneration

Rating	Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.
	Native poles and the Description
7 4	cover the in the seedlings trees well represented obvious regeneration
7 3	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% Native poles, saplings and/or and life.
<u> </u>	
) 2	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few. Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typical
	1 The size class differentiation
) 1	Native poles, saplings, and/or seedlings absent (0% cover).

Rating Method		
below. Rate using Table B5 and enter th	nd 6, calculate or estimate the percentage cove e rating on the SA Rank Summary Worksheet.	er of invasive exotic species for the SA and enter
Worksheet 9. Based on Worksheets 5 a	nd 6. calculate or estimate at	

Rating Method	

nvasive cover (%)	>1%
	_

calculate

	gs for Invasive Exotic Plant Species Cove
Rating	Invasive Species Cover %
0 4	0%
3 X	>0% - <1%
2	≥1% - <10%
	≥10

Additional CTs and Biotic Metric Comments:

Black - headed Grosbeak, spotted Towhee, American Robin House Finch, Pine Siskin, Yellow-breasted Chat Warbling Viveo, Lesser Gold, Western Wood Perse Cedar Waxwing

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Abiotic Metrics

11 - Floodplain Hydrologic Connectivity

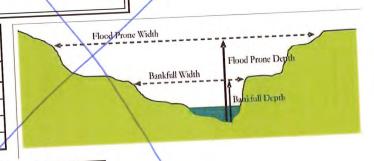
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three crosssections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Method 2) and Choose th	t. Photographs of each cross-section are required and recorded in rac	Cross-section:	1	2	3
Steps	Description "In field indicators of the ba	ankfull contour.			
: Bankfull width	Measure the distance between the right and to be bankfull contours.	neasure the height		,	
2: Maximum bankfull depth	of the line above the thalweg (the deepest part of ship	cket line level can	/		2
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2. Using a tape, measure the length of a level line at a height equal to the state of the s	he flood prone depth			
4: Flood-prone width	from Step 3 to where it intercepts the right and re-				
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1). Calculate the average for Step 5 for all three replicate cross-sections.	Enter the average n	ere and	rate	+
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections using Table A1a. Enter the rating in the A1 box on the SA Rank Sum	mary Worksheet.			

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems

meandering :	neandering single-channel riffle-pool systems								
Rating	Description								
O 4	Average entrenchment ratio is ≥ 2.2;								
0 4	Average entrenchment ratio is ≥1.9 - <2.2								
O 3	Average entrenchment ratio is ≥1.5 - <1.9								
O^2	Average entrenchment ratio is < 1.5								
O_{1}	Average entrenement tass								



Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this

Worksheet in conjunction with Table A1c. Check the boxes for all that apply to each segment.

segme	nt.		Indicator
U	M	L	
			Bankful is slightly below bank height
	П		Bankful is well below bank height and channel is incised
片			Channel widening due to bank failure
1	H		Constructed levees preclude floodplain inundation
H	H	H	Stream is straightened/channelized
H	H		Inset floodplain formation
H	+	旨	Decreased peak flows due to hydrologic modification
부	무	1	Bankfull indicators at point of incipient flooding of the floodplain
		$X \sqcup$	Dankiun maraasa

Indicators of overbank flow on floodplain Floodplain inundation due to beaver activity

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems

Rating	Description
Rating	Average entrenchment ratio is ≥ 1.9
O 4	Average entrenchment ratio is ≥1.4 - <1.9
O_3	Average entrenchment ratio is ≥1.2 - <1.4
O 2	Average entrenenment ratio is < 1.2
\bigcirc 1	Average entrenchment ratio is < 1.2

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Method 2

le A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

		Fully connected to the
0	4	over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows the identification of bankfull indicate.
)	3	connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports also be present.
)		Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian channelization, or flow modification, and the natural floodplain does not support riparian relatively long-lived phreat or house.
	1	relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.). Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross ection	Easting (Latitude)	Northing	Upstream	for additional details. Downstream		
1				Jownstream	Bank Right	Bank Left
2						
3						

Floodplain Hydrologic Connectivity Comments:

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Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description.

nter the rating on t	he SA Rank Summary	Lower Segment	Field Indicators (check all existing conditions)		
Jpper Segment	Middle		Active side channels		
	\square		Abandoned channels		
			Backwater/eddy		
		 	Riffles or rapids		
		 	Shoals, sparely-vegetated bars		
	図	<u> </u>	Channel boulders		
		 	Oxbow lakes/ponds on floodplains		
		 	Vegetated island and side bars		
		1	Terraces		
	X		Channel pools		
	区	 	Roaver nonds		
	\square	<u> </u>	Swales, depressional features on floodplains		
$\overline{\Box}$			Debris jams in channel		
	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		Woody wrack piles on the floodplain		
	X		Floodplain micro-topography (mounds, pits)		
			Downed logs		
	X		Natural levees		
	X				
├ 	X		Standing snags Variegated, convoluted, or crenulated foreshore		
H			Undercut banks in channels		
			No. of unique Patch Types		

able A2. Rating for Physical Patch Complexity Description								
atin	ıg	The state of the s						
1	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, (mounds and pits, woody wrack piles, etc.), and riffles, large woody debris, undercut banks, etc.). As a guide, 12 etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.).						
		segments).						
\cap	3	present, several fluvial geomorphic satural presents).						
C	2	Limited physical patch complexity scattered across the floodplain. There are 5 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 some fluvial geomorphic surfaces, and there is limited in-channel complexity.						
C	1	unique indicators present in the SA (only a few on multiple segments). Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators present in the SA.						

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Date: 6/11/24

SA Name: Two Mile Pond Reservoir Transect [3]

Surveyor Initials:

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition		Upper	Middle	E Lov	wer	
	36	gment	Segme	nt Segr	nent	g conditions)
			X]	The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
			Ø]	Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
			À			There is leaf litter, thatch, or wrack in most pools.
Indicators of Channel			\boxtimes]	The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Equilibrium			×			There is little or no active undercutting or burial of riparian vegetation.
					, l'	There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
			区		-+	Channel and point-bars consist of well-sorted bed material.
]				7	The channel bed is not planar and without an abundance of fine materials illing the interstitial spaces between larger stream substrate.
					re	There are channel pools at meander bends and some deep pools within the each.
					T.	he channel is characterized by deeply undercut banks with exposed living pots of trees or shrubs.
					TI	here are abundant bank slides or slumps, or the lower banks are uniformly coured and not vegetated.
la li a					Ba	ank vegetation is declining in stature or vigor, or many riparian trees and urubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation					- JCr	nannel bed is scoured to large cobbles or boulders and entrained bank aterial is filling the cobble interstices and pools.
					1	ere are active headcuts within the channel.
					An	obvious historical floodplain has recently been abandoned, as indicated the age structure of its riparian vegetation.
					The	ere is abundant fresh splays of coarse sediment covering the floodplain ove the natural point bar elevation.
					_	ere are partially buried living tree trunks or shrubs along the banks.
ndicators of Active Aggradation					The	channel bed is planar overall. The stream leaders it is a
					 	ols at meander bends, or pools are filled with sediment. re are partially buried or sediment-choked culverts.
					1	re are avulsion channels on the floodplain or adjacent valley floor.

SF2M1[3]

Two Mile Pond Reservoir Transect [3]

Date: 6/11/24

Surveyor Initials:

DS/AM

SA Na	ame:	Two Mile Pond Reservoir Transect [5]
		Table A3. Rating for Channel Equilibrium
<u></u>	ating	Description
r	ating	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or
X	4	degradation based on the field indicators listed in Worksheet 12. There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an or degradation.
C	3	There is some evidence of excessive aggradation of degradation, and equilibrium condition. Circle primary process: aggradation or degradation. There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary
C	2	There is evidence of severe aggradation of degradation throughout most of the SA. The channel is artificially hardened, channelized, or is concrete throughout most of the SA.
10	1	The channel is artificially hardened, channelized, or is concrete through

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the

Condition	mary Worksho Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	 4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
u d Bank	<u></u> 3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
ndicators of Bank Soil Stability	<u>2</u>	<u></u> 2	<u>2</u>	Significant raw banks and loose soil, 25%-50% of stream banks
		1	1	Raw banks almost continuous with greater than 30% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is a stifficially bardened or concrete along most of its length.
	<u>4</u>	4	<u></u>	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	□3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potentia	□ 2	<u>□</u> 2	<u></u> □2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation of stabilized by roots, are covered by materials or vegetation that girllimited protection.
	1	1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	
Average manuare	

Table A4. Stream Bank Stability and Cover Rating			
Rating	Description		
4	>3.5 - 4.0		
3	>2.5 - ≤3.5		
C 2	>1.5 - ≤2.5		
C 1	1.0 - ≤1.5		

SA CODE: SF2MI[3]

Date: 6/11/24

SA Name: Two Mile Pond Reservoir Transect [\supset]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	×		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
ᆜ			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	·

		Table A5. Soil Surface Condition Rating
Rating		Description
χ'n	4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
<u> </u>	3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 18% and 18% and 18% and 18%.
)	2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific area or other anthropogenic degradation to the soil surface, including erosion, impervious surfaces, fill, gravel mining
)	1	or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA. Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

SA CODE:	SF2MI[3]		

DS/AM

Name: Town Alls Daniel Bearing Transact [3]

Name: Town Alls Daniel Bearing Transact [3]

SA Name: Two Mile Pond Reservoir Transect [] |

In the processor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign egories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknown to be Major Stressors in Dominant Stressor column(Pick up to 3).

Date: 6/11/24

ories u Major	using d · Stresso	irect evid ors in Dor	ence whe ninant Sti	essor colur	e or your best professional judgement otherwise nn(Pick up to 3)	
k L		Aff	ect		Stressor Group/Stressor	Comments
Ma Ma	ajor	Minor	Absent	Unknown	Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
			Ø		Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
					Adverse sediment retention by dams	
			Q		Sediment loss by dredging	
T					Adverse sediment input (roads/development)	The property constitution of the second seco
					Artificial water additions	
					Sewer treatment effluent	
					Point source urban runoff	
1			10		Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
					Ground water pumping	
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
<u> </u>					Watershed alteration	
					Extensive recent fires in watershed	
				Í C		d
] [] [
				a La Lavida (i)	Local biodiversity impacts	
] [] [] [
] [] [Excessive noise affecting wildlife	
	o	C		0	Counts by Intensity	

Additional Comments

Version Date: 04/25/2022

NMRAM Montane Riverine Wetlands Version 2.5

16 V C ~ ~ ~ C C J V VI L ~	/ 1			The state of the s	
SA Code SF2MI[4		o Mile Pond Reservoir		Project : Riparia	n Assesement
A de Tsct [4]		•		WOI : Two Mile	Pond Reservoir
County Santa Fe	HUC 12 Head and Boundary (Rational	dwaters Santa Fe River	Elevation (ft) 7299	(m) 2224.7	Ecoregion 6.0 NWFM
decommissioned of water rights. Driving Directions Driving to Santa	n that leads into a pond I due to safety concerns	located on the east side of regarding the reservoir a	and a water diversion to	the area was recer	al Forest. This reservoir was ntly shut down due to lack onte Sol and right on
		Santa Fe National Forest	Data Sharing Resul Restrictions only.		Observed in Wetland?
Surveyor Role		Survey	or Name		Surveyor Initials
Landscape	Dustin				$ \uparrow$ \land $<$ $-$
Biotic	Annie				A M
Abiotic	Dustin				1/5
Stressors	Both				105
Easting (m)	Northing (m)	Zone	Datum	Latitude (DD	ft) Longitude (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722	-105.89
	l .	, ,,	1 1470-02 0 1141		1 100,09
Survey Date	4/9/24	Start Time	14AD- 83 01W	End Time	-103.69
		Start Time SA Desi	cription	End Time	-103.69
SA Landscape Conte	Xt (summarize the wat):	Start Time SA Desc	cription	End Time	
SA Landscape Conte	Xt (summarize the wat):	Start Time SA Desc	cription	End Time	
SA Landscape Conte	Xt (summarize the wat):	Start Time SA Desi	cription	End Time	
SA Landscape Conte A rca F r	ext (summarize the wetle Appear	Start Time SA Description of the start of t	cription dscape; include condition be recovery appears	end Time on and impacts) coving to be a	dry
SA Landscape Conte	ext (summarize the wet). Appear for the (vegetation patterns, con	Start Time SA Design and and surrounding lands to still winter Sea	cription dscape; include condition be recovery appears exotics and invasives, description	end Time on and impacts) to be a	ee, fire and herbiyory)
SA Landscape Conte	ext (summarize the wetle Appear on the (vegetation patterns, con	Start Time SA Design and and surrounding lands to Still winter Sea mposition and structure, a cent Flowe	exotics and invasives, d	End Time on and impacts) ieving to be of	e, fire and herbivory)
SA Landscape Conte	ext (summarize the wetle Appear on the (vegetation patterns, con	Start Time SA Design and and surrounding lands to Still winter Sea mposition and structure, a cent Flowe	exotics and invasives, d	End Time on and impacts) ieving to be of	e, fire and herbivory)
SA Landscape Conte	vegetation patterns, con lows Still inder No rant Stard. (hydrological alteration	Start Time SA Design of the start of the st	exotics and invasives, de sirds in green.	end Time on and impacts) to be of listurbance evidence yet in this pari	ee, fire and herbivory) recovery licular area
SA Landscape Conte Arca Fy SA Biotic Condition (From u Chr SA Abiotic Condition listurbance and other	vegetation patterns, con lows Still index (hydrological alteration site impacts; explain the	Start Time SA Design of SA Des	exotics and invasives, de sinds in green. Flooding characteristics her factors that define the service of the	end Time on and impacts) for be of listurbance evidence yet in this para	e, fire and herbivory) recovery licular area rerbank flooding; soil
SA Landscape Conte Arca Fy SA Biotic Condition (From u Chr SA Abiotic Condition listurbance and other	vegetation patterns, con lows Still index (hydrological alteration site impacts; explain the	Start Time SA Design of SA Des	exotics and invasives, de sinds in green. Flooding characteristics her factors that define the service of the	end Time on and impacts) for be of listurbance evidence yet in this para	ee, fire and herbivory) recovery dicular area
SA Landscape Conte	vegetation patterns, con lows Still inder No rant Stard, (hydrological alteration site impacts; explain the	Start Time SA Designation and surrounding lands to still winter Sea mposition and structure, Arem Plower Noticeable 15 to turn 15 (e.g., dams, walls etc.); to the hydrologic breaks or other cracked	exotics and invasives, de sirds in green. flooding characteristics her factors that define to a record and a	end Time on and impacts) yet in this pari and evidence of overhe SA limits)	e, fire and herbivory) recovery licular area rerbank flooding; soil
SA Landscape Conte Arca Fr SA Biotic Condition (From a Chr SA Abiotic Condition disturbance and other Seep	vegetation patterns, con the vegetation patterns, con the vegetation patterns, con the vegetation patterns, con the vegetation patterns, con the vegetation of the vegetation	Start Time SA Design of the standard surrounding lands of the standard structure, areast flower standard flow	exotics and invasives, de sinds in green. Flooding characteristics her factors that define to after the field data is considered.	end Time on and impacts) for be of a listurbance evidence yet in this part and evidence of overhe SA limits) ollected.)	e, fire and herbivory) recovery dicular area rerbank flooding; soil still recovery
SA Landscape Conte Arca Fr SA Biotic Condition (From a Chr SA Abiotic Condition disturbance and other Seep	vegetation patterns, con the vegetation patterns, con the vegetation patterns, con the vegetation patterns, con the vegetation patterns, con the vegetation of the vegetation	Start Time SA Designation and surrounding lands to still winter Sea mposition and structure, Arem Plower Noticeable 15 to turn 15 (e.g., dams, walls etc.); to the hydrologic breaks or other cracked	exotics and invasives, de sinds in green. Flooding characteristics her factors that define to after the field data is considered.	end Time on and impacts) for be of a listurbance evidence yet in this part and evidence of overhe SA limits) ollected.)	e, fire and herbivory) recovery dicular area rerbank flooding; soil still recovery

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect [\mathcal{V}]

Date: 4/9/24

Surveyor Initials:

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NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
_andscape Context		Σ 1.0	3.25
1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	4	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	4	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity	,	0.3	
A2. Physical Patch Diversity	3	0.2	
A3. Channel Equilibrium	Ч	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition	y	0.1	

Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	3,4	0.35	212
Abiotic	3.75	0.35	
SA WETLAN	D CONDITION	SCORE Σ	3,472
SA WETLAN	D RANK =		A

SA Wetland Rank		
Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1 Recovery from winter	
			2 less noter	
			3 steep edage	

Stressor Comments (Evaluation of risk)

No Water coming from seep

SA CODE: SF2MI[4]

SA Name : Two Mile Pond Reservoir Transect [$\frac{\checkmark}{}$]

Date: 4/9/24

Surveyor Initials :

Landscape Context

	Buffe											
or are	exclud	la. Buffer ar led and cons magery).	nd RCC Checklist. idered non-buffer	Check off land elements that	d cover e t disrupt	elemen ecosys	ts withi tem co	n the buffer nnectivity. I	area or RCC condicate the im	orridors that are either allowed agery type and date (season		
lmage	ery	Google Eart	h KMZ. file			Image Date 6/23						
Allow	ed buff	er/RCC land	cover elements			Exclud	led nor	<u>L</u> n-buffer/RCC	land cover ele	ements		
Buffer	RCC		110			Buffer		Taken in the cover elements				
X	x	Natural or s	emi-natural vegeta	ition patches		X	X			evelopments, parking lots, s, and other structures		
X	X	Small irrigation ditches without levees						Lawns, park	s, golf courses	, sports fields		
		Old fields, u	nmaintained					Railroads				
		Open range	land						levees, sedimo	ent piles, construction		
X	X	Foot trails, h intensity)	orse trails, unpave	d bike trails (I	ow			Intensive liv	estock areas, h	orse paddocks, feedlots		
X	X	Non-channel open water							riculture: mair orchards, and v	ntained pastures, hay fields, ineyards		
X			ning abandoned v curring levees	egetated leve	es, or	X		Paved roads or developed second-order unpaved but graded roads				
		unpaved tw	o tracks roads			X	1211	Open water bounded by a levee or other manmade structure				
		Other						Other				
Works	heet 1	b. Buffer Per	cent Sub-metric.	Measure or es	timate t	he per	entage	e of the	Tab	le L1a. Buffer Percent		
oa peri Box bel	lmeter (low. Ra	composed of te the sub-m	f allowed buffer ele etric using Table L	ements and er La and enter t	nter into the ratin	the Bu a on th	ffer Pei e Buffe	rcent	Buffer Percent			
ntegrit	ty Sumi	mary Worksh	eet 1d.			-			Rating 4	100%		
			Buffer Percent (%)= 85%						1.			
									(x) 3	≥80% - <100%		
orksh/	eet 1c.	Buffer Widt				ch buf	er line	in meters in				
ne GIS o	or on th	ne map. Aver	h Sub-metric. Mea	asure the lend	ath of ea	ch buff L1b. E	fer line	in meters in e rating on		≥80% - <100%		
ne GIS o	or on th er integ	ne map. Aver grity Summa	th Sub-metric. Meage the line length ry Worksheet 1d.	asure the leng s and rate usi	gth of ea	e L1b. E	nter th	e rating on	C 2	≥80% - <100% ≥50% - <80% <50%		
ne GIS o	or on the or integ	ne map. Aver grity Summa fer Width (m)	h Sub-metric. Mea	asure the leng s and rate usi	ath of ea	e L1b. E	nter th	in meters in e rating on ffer Width (ft)	C 2	≥80% - <100% ≥50% - <80% <50%		
ne GIS o	or on the or integ	ne map. Aver grity Summa <mark>fer Width</mark>	th Sub-metric. Me age the line length ry Worksheet 1d. Buffer Width	asure the leng s and rate usi	gth of ea ng Table	L1b. E	But	e rating on fer Width	C 2 C 1 Tak	≥80% - <100% ≥50% - <80% <50%		
ne GIS one Buffo	or on the grant Buf	ne map. Aver grity Summa fer Width (m)	th Sub-metric. Me age the line length ry Worksheet 1d. Buffer Width (ft)	asure the leng s and rate usi	gth of ea ng Table Suffer W (m)	e L1b. E	But	e rating on fer Width (ft)	C 2 C 1 Tak	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width		
ne GIS one Buffo	or on the er Integ Buf	ne map. Aver grity Summa fer Width (m) 54.26	th Sub-metric. Me age the line length ry Worksheet 1d. Buffer Width (ft) 538.91	asure the leng s and rate usi Line	gth of ea ng Table Buffer W (m) 161.93	e L1b. E	Buf	e rating on fer Width (ft) (31.26	C 2 C 1 Take Rating C 4	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m		
ne GIS one Buffor Line A B	er Integ Buf 16	ne map. Aver grity Summar fer Width (m) 64.26	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91	asure the lengers and rate usi	gth of earing Table Buffer W (m) 161.93	e L1b. E	Bul 5 7. 39	fer Width (ft) 31.26	C 2 C 1 Take Rating C 4 (× 3	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m		
ne GIS one Buffor Line A B	er Integ Buf 16	ne map. Aver grity Summar fer Width (m) 64.26 25.25	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57	Line E G H	gth of ea ng Table Buffer W (m) 161.93 231.48	e L1b. E	8uf 5 7 3 3 5 1	fer Width (ft) 31.26 59.44	C 2 C 1 Tak Rating C 4 Ø 3 C 2 C 1	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m		
ne GIS one Buffor Line A B C	or on the er Integer Buf 16 12 11 Avera	ne map. Aver grity Summar fer Width (m) 64.26 25.25 15.39	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m)	Line E F G H	gth of ea ng Table Buffer W (m) 161.93 231.48 121.25 155.87 486.58	idth	5 7. 39 51 (ft)	Fer Width (ft) 31.26 59.44 97.80 1.38	C 2 C 1 Tak Rating C 4 Ø 3 C 2 C 1	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m		
ne GIS one Buffor Line A B C D	Property of the property of th	ne map. Aver grity Summar fer Width (m) 64.26 15.39 1.07 ge	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m)	Line E F G H	gth of ea ng Table Buffer W (m) 161.93 231.48 121.25 155.87 486.58	idth atings f	5 7. 39 51 (ft)	Fer Width (ft) (31.26 (59.44 (97.80 (1.38	C 2 C 1 Tak Rating C 4 Ø 3 C 2 C 1	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m		
Line A B C D Vorksh nd L1b elow. U	Buf 16 12 11 Avera seet 1d above Using the	ne map. Aver grity Summal fer Width (m) 64.26 25.25 15.39 1.07 ge	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) grity Summary. Ethe Buffer Integrity grity Index Score,	Line E F G H Inter the sub-ry Index Score	gth of ea ng Table Buffer W (m) 161.93 231.48 121.25 155.87 486.58 metric R using th	ridth atings form	But 5 7 39 51 (ft)	fer Width (ft) 31.26 59.44 97.80 1.38	C 2 C 1 Tab Rating C 4 Ø 3 C 2 C 1 Table L1c.	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m Summary Rating for Buffer Integrity		
Line A B C D Vorksh nd L1b elow. U	Buf 16 12 11 Avera Leet 1d above Jsing the SA	ne map. Aver grity Summal fer Width (m) 64.26 25.25 15.39 1.07 ge 1. Buffer Inter to calculate the Buffer Inter Summary Wo	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) grity Summary. Ethe Buffer Integrity grity Index Score,	Line E F G H Inter the sub-ry Index Score	gth of ea ng Table Buffer W (m) 161.93 231.48 121.25 155.87 486.58 metric R using th	ridth atings form	But 5 7 39 51 (ft)	fer Width (ft) 31.26 59.44 97.80 1.38	C 2 C 1 Table Rating C 4 (ℜ 3 C 2 C 1 Table L1c. Rating C 4 (ℜ 3	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m Summary Rating for Buffer Integrity Score >3.5 >2.5 - ≤3.5		
Line A B C D Vorksh nd L1b elow. U	Buf 16 12 11 Avera seet 1d above Using the	ne map. Aver grity Summal fer Width (m) 64.26 25.25 15.39 1.07 ge 1. Buffer Inter to calculate the Buffer Inter Summary Wo	th Sub-metric. Meage the line length ry Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) grity Summary. Ethe Buffer Integrity grity Index Score,	Line E F G H Therethe sub-rolling for the rating for the sub-rolling for the sub-	gth of ea ng Table (m) 161.93 231.48 121.25 155.87 486.58 metric R using the	atings f	Buf 5 7 39 (ft) rom Ta ula in ti	fer Width (ft) 31.26 59.44 97.80 1.38	C 2 C 1 Table Rating C 4 Ø 3 C 2 C 1 Table L1c. Rating C 4	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m Summary Rating for Buffer Integrity Score >3.5		

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SA Name: Two Mile Pond Reservoir Transect []

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L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment				
Banks	Left Bank Right Bank		Left Bank	Right Bank			
A) Total Bank Disruption (m)	0	0	0	0			
B) Total Disruption by Segment (m)		0	0				
C) % Segment Disruption = (B/1000)*100		0	0				
D) Total Disruption both segments	0						
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable along the ba						

Table L2. RCC Rating								
Rating	Description							
(x 4	0% total disruption on both segments combined.							
C 3	<15% total disruption on both segments combined.							
C 2	≥15% - <40% total disruption on both segments combined.							
C 1	≥40% total disruption on both segments combined.							

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksh

		RSR						RV	VSI		
Current Size	1	Historic Size	=	RSR	1	-	RSR	Х	100	=	RWSI (%)
9	1	10	=	0.9	1	-	0.1	Х	100	=	10

	Table L3. Relative Wetland Size Rating									
Rating RWSI Score Description										
(X 4	≤10%	Wetland is at or only minimally reduced from its full natural extent								
C 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size								
C 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size								
C1	>70%	Wetland has been reduced by more than 70% its natural size								

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L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area	T	100	75

Table L4. Surrounding Land Use Ratin					
Rating	LUI Score				
C 4	≥95 - 100				
C 3	≥80 - <95				
(₹ 2	≥40 - <80				
<u> </u>	<40				

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Biotic Metrics

Species Cover (BS) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features. number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant

					birds														Y	
					growing not as many	pers 15017 bush / Chimisa														
	Comments				Current soon	Some Gun,	/													
6	Invasive Exotic Species (List Code(s))		1		None	Mustord Muller														
	35 Invasive Exotic Species % Cover				None	%01 =														
	B4 Tree Regeneration 16 % Cover				%09	100%														
	Polygon B3 Vertical Structure No Type	IA1	IA2	llA1	IIIB1	IIIC1	IVEI	IVF1												
	Polygon No	1	2	ю	4	5	9	7	∞	6	10	11	12	13	14	15	16	17	18	

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B1 - Relative Native Plant Community Composition

Raw4 |% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 4.0 10% 20 CT Score 4 Final Weighted Score⁷ $\mathcal{N} \mid b$ lue ston $\mid \mathcal{N} \mid$ Species 6 E Herbaceous/Sparse Stratum 3 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. Species 5 E Meadow 5 > Species 4 E Chimise 145 Short Woody Stratum 2 5 5 Species 3 E Salthus Willow! Species 2 Tall Woody Stratum 1 ш Z Species 1 Polygon Nos. T ⋖ മ U Δ ш щ G ェ ¥ Σ 0 Z

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Table	Table B1. Relative Native Plant Community Composition Rating									
Ratin	g	CT Final Weighted Score								
7 4		≥ 3.75	<10% non-native							
3		≥ 3.25 and <3.75	10% ≤20% non-native							
^ 2		> 2.0 and <3.25	20% ≤50% non-native							
<u> </u>		≤2.0	>50% non-native							

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

izontal	Patch	Structure	pattern	A.R.C.	or D:
ILVIILGI	Laten	Jucture	pattern	$\Lambda, D, C,$	VI D.

D	
1.7	
\checkmark	

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
` 4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
∛ 3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
` 2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

Vorksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA			50		50		

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the low that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the ating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
` 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
3	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	6\$		
1	6H		
	7		

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B4 - Native Riparian Tree Regeneration

4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description				
A 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
<u> </u>	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
C 4	0%			
7 3 X	>0% - <1%			
2	≥1% - <10%			
C 1	≥10			

Additional CTs and Biotic Metric Comments:

Current growing down by Water. magnorts seen in transect. Shady sid of hill very moist.

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SA Name: Two Mile Pond Reservoir Transect [$\frac{4}{3}$]

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
	Ø		Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
	\wp		Shoals, sparely-vegetated bars
	1		Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	\boxtimes		Terraces
			Channel pools
	[XI		Beaver ponds
			Swales, depressional features on floodplains
	X		Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
	X		Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tab	le A2.	Rating for Physical Patch Complexity						
Rating		Description						
	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).						
sk)	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).						
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).						
C	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.						

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		M		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		內		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Þ		There is leaf litter, thatch, or wrack in most pools.
Indicators of	` □	Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		A		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
				Channel and point-bars consist of well-sorted bed material.
		図		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		\square		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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	Table A3. Rating for Channel Equilibrium				
Rating	Description				
7 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.				
C 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.				
C 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.				
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.				

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

g 5c 5/1 5d1	ating on the SA Summary worksheet.				
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators	
	□4	<u> </u> 4	□ 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.	
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.	
Soil Stability	□2	□2	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.	
	<u></u> 1	<u></u> 1	<u></u> 1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.	
	□4	<u>\</u> 34	□ 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.	
	□3	_3	<u></u> 3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.	
Indicators of Stream Bank Erosion Potential	□ 2	□ 2	□2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.	
	<u></u> 1	<u></u> 1	□1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.	

Average Indicator Score	

Table A4. Stream Bank Stability and Cover Rating				
Rating	Description			
% 4	>3.5 - 4.0			
C 3	>2.5 - ≤3.5			
C 2	>1.5 - ≤2.5			
C 1	1.0 - ≤1.5			

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A5 - Soil Surface Condition

reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)			
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).			
	X		Multiple livestock and other (fishing, hiking) trails,			
			Vehicle tracks including off-road and construction, etc.			
			Impervious compacted surfaces or pavement			
			Grading or plowing			
			Fill			
			Gravel pits			
			Anthropogenic levees and berms			
			Irrigation-driven salinity and mineral crusts			
			Fire pits			
			Other:			
			Estimate % soil disturbance by segment area			

Average % Soil Disturbance:

< 1%

	Table A5. Soil Surface Condition Rating								
Rating	Description								
% 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.								
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.								
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific area and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.								
C 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Wate is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.								

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orksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign at the stressor is uncertain, which is a stressor is uncertain, which is a stressor is uncertain, which is a stressor in Dominant Stressor column(Pick up to 3).

lank		Affect			Strossor Group/Strossor	6
ank	Major	Minor	Absent	Unknown	Stressor Group/Stressor	Comments
			<u>n sa sa sa sa sa sa sa sa sa sa sa sa sa </u>		Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
		T			Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
			[Z]		Adverse sediment input (roads/development)	
			Perikasa Pilip		Artificial water additions	
			\(\beta\)		Sewer treatment effluent	
					Point source urban runoff	
					Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
			Ф		Mining waste	
		e a marajan san			Ground water pumping	
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
				i.	Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
					Local biodiversity impacts	
					Evidence of excessive grazing (local)	
			Ď		Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	

ditional Comments

rsion Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

may be a series		SA Cove	r Worksheet	A STATE OF THE STATE OF		The Table
SA Code SF2MI[SA Name : Two	Mile Pond Reservoir		Project : R	iparian Asse	esement
/)de Tsct [4]] AU Name : Trai	nsect [4]	Α,		Mile Pond	
County Santa Fe	HUC 12 Head	waters Santa Fe River	Elevation (ft) 72			pregion 6.0 NWFM
decommissioned of water rights. Driving Directions Driving to Santa	and Boundary (Rationale in that leads into a pond le d due to safety concerns Fe from Albuquerque yo ntil you reach the reservoi	c, comments) ocated on the east side or regarding the reservoir a	of Santa Fe borde and a water diver	ering the Santa Fe Na	ational Fore recently sh	est. This reservoir was out down due to lack
	re Conservative and The		Data Sharing Restrictions	Results to client only.	Fish Obse Wetla	
Surveyor Role		Survey	or Name			Surveyor Initials
Landscape	Dustin					ne
Biotic	Annie +	Dastin				06
Abiotic	Dusth					1/2
Stressors	Both					00
Easting (m)	Northing (m)	Zone	Datum	(DD ft)	Longitude (DD ft)	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U			-105.89
Survey Date	5/15/24	Start Time		End T	OFFICE AND ADDRESS OF THE PARTY	
		SA Desc	ription			
SA Landscape Conte	ext (summarize the wetla			andition and impac	15 300	
A Biotic Condition (eques budd,	nposition and structure.	exotics and invas	sives disturbance ou	idonas firs	
Spotted	Full of leaves, Towher, Stink June bugs	by pond	winged b	lack bird,	Amoric	an Robin
A ADIOLIC CONDICTION	(hydrological alterations site impacts; explain the	lea dams walls atc 1. f	looding charact	ut-41 1 11	of overban	k flooding; soil
The	area ho	the hi	ishtly	moist an	the	Shaded
	y (Overall site condition s					1,1
	•		arter the new ac	ita is conected.		
visional 2/	Surveyor(s)	Final 3.4				

SA CODE: SF2MI [\mathcal{Y}]

SA Name: Two Mile Pond Reservoir Transect [4/]

Date: 5/15/24

Surveyor Initials:

IMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
andscape Context	Σ 1.0	3.25	
	3	0.25	0.75
1. Buffer Integrity Index	4	0.25	1.0
.2. Riparian Corridor Connectivity		0.25	1.0
_3. Relative Wetland Size	4		
_4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	4	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	3	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	3	0.2	
	Ц	0.2	
A3. Channel Equilibrium	L	0.2	
A4. Stream Bank Stability and Cover			
A5. Soil Surface Condition		0.1	

SA Condition Scoring Summary								
Major Attribute	Score	Wt.	Wt. Score					
Landscape Context	3.25	0.3	0.975					
Biotic	3,2	0.35						
Abiotic	3.75	0.35						
SA WETLAND	3.40							
SA WETLAND	SA WETLAND RANK =							

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three				
	0	0	1	Not	05	much	nater
			2				
			3				

Still	no water	of from	seep	but	
Plants	budding	Ground	it,		

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect [\checkmark]

Date: 5/15/24

Surveyor Initials: DS

Landscape Context

Ĺ, .	Buffe	er Integrit	v Index		Lang	cape	COII	text				
Worl or are	csheet e exclu	1a. Buffer a	and RCC Checklist	Check or r elemen	off land cover ts that disrup	elemen ot ecosy:	its with	in the buffe onnectivity.	er area	a or RCC c	orridors that are either a nagery type and date (sea	llowed ason
	L						mage Date 6/23					
		fer/RCC lan	d cover elements			Exclud	ded noi	 n-buffer/RC	Clan	d cover el	ements	
Buffe	r RCC					Buffer	RCC	Janeime	- luii	a cover en	ements	
X	x		semi-natural vegetation patches				X	Commerci dams, brid	mmercial/residential developments, parking lots, ms, bridges, revetments, and other structures			
X	X		ation ditches without levees				П		rks, golf courses, sports fields			
		Old fields,	unmaintained	一百	一	Railroads						
		Open rang	e land					Maintained materials, s	ed levees, sediment piles, construction			
X	X	Foot trails, intensity)	horse trails, unpaved bike trails (low								norse paddocks, feedlots	
X	X		el open water					Intensive ag	griculture: maintained pastures, hay fields, orchards, and vineyards			ds,
X	X	Non-function naturally oc	oning abandoned vegetated levees, or ccurring levees			×	[V]		ds or developed second-order unpaved but			
		unpaved tw	o tracks roads	X	X	Open water structure	vater bounded by a levee or other manmade re					
		Other						Other				
, ben	meter i	composed o	rcent Sub-metric. f allowed buffer ele	amentc a	nd enter inte	tha Du	۲۲ مر D			Tab	le L1a. Buffer Percent	
N DG	Ow. na	te the sub-m mary Worksh	ietric using Table L	1a and e	nter the ratin	g on the	e Buffe	r		Rating	Buffer Percent	
	•		Buffer Percer	nt (%)-	85%	***************************************			0	4	100%	
									X	3	≥80% - <100%	
GISC	eet 1c.	Buffer Wid	th Sub-metric. Me	asure the	e length of ea	ich buff	er line i	n meters in	70	2	≥50% - <80%	
0.5	71 011 (1	ic map. Avei	age the line length	is and rai	te using Table	≥ L1b. Er	nter the	rating on		1	<50%	
ne		er Width (m)	Buffer Width (ft)	Line	Buffer W	/idth	Buff	fer Width			le L1b. Buffer Width	
Α	16	4.26	538.91	E	(m) 161,93			(ft)		Rating	Average buffer wid	th
В	12	5.25			231.48			31.26	<u></u>	4	≥190m	
c		5.39	410.92	F				9.44	8	2	≥130 - <190m	
			378.57	G	121.25		39	7.80		1	≥65 - <130m <65m	
)	11	1.07	364.40	Н	155.87		51	1.38		•		
	Avera		148.31 (m)		486.58		(ft)		Та	ble L1c. S	ummary Rating for Buf Integrity	fer
ห รถ ป 1 h	above	buπer inte	grity Summary. En	nter the	sub-metric Ra	atings fr	om Tab	les L1a	 	Pating		—

3	below. Using the	o calculate to Buffer Integ ummary Wor	he Buffer Integrity I Irity Index Score, er	ndex Scor	o-metric Ratings from Tables L1a re using the formula in the box g for Buffer Integrity in Table L1c
3 + 3 /2= 3	Buffer % Rating + Buffer Width Rating			/2 =	Buffer Integrity Index Score
,-	3	+	3	/2 =	3

l		Integrity
	Rating	Score
	○ 4	>3.5
	(₹ 3	>2.5 - ≤3.5
	C 2	>1.5 - ≤2.5
	O 1	≤1.5

SA CODE: SF2MI[]

SA Name: Two Mile Pond Reservoir Transect [

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2 - Riparian Corridor Connectivity (RCC)

Vorksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each egment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the otal disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

ile data from this worksheet and				
Segments	Upstream	n Segment	Downstrea	m Segment
Banks	Left Bank	Right Bank	Left Bank	Right Bank
A) Total Bank Disruption (m)	0	0	0	0
B) Total Disruption by Segment (m)		0	(0
C) % Segment Disruption = (B/1000)*100		0	C)
D) Total Disruption both segments			0	
E) % Total Disruptions = (D/2000)*100	Zero dis	ruption notic	eable along t	the banks.

Table L2. RCC Rating						
Rating	Description					
	0% total disruption on both segments combined.					
O 3	<15% total disruption on both segments combined.					
C 2	≥15% - <40% total disruption on both segments combined.					
O 1	≥40% total disruption on both segments combined.					

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Workshe

		RSR						R	WSI		
Current Size	1	Historic Size	=	RSR	1	-	RSR	Х	100	=	RWSI (%)
Q	,	10	=	0.9	1	-	0.1	X	100	=	10

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
○ 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
<u></u>	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size
O1	>70%	Wetland has been reduced by more than 70% its natural size

SA Name:

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Two Mile Pond Reservoir Transect [4]

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L4 - Surrounding Land Use

prksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Suri	ounding Land Use Rating
Rating	LUI Score
O 4	≥95 - 100
O 3	≥80 - <95
⊗ 2	≥40 - <80
O 1	<40

SA CODE: SFZMI [/]

Biotic Metrics

SA Name: Two Mile Pond Reservoir Transect [\(\qqrap \)]

Surveyor initials:

Date: 1/1/2/

number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features.

olygon	Polygon B3 Vertical Structure No Type	B4 Tree Regeneration % Cover	B4 Tree B5 Invasive Regeneration Exotic % Cover Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1				
2	IA2				
м	IIA1				
4	IIIB1	%59	None	None	Cat tails starting to grow around edge
5	IIIC1	40%	None	None	Not much now like but gething greener.
9	IVEI				
7	IVF1				
∞					
6					
10					
11					
12					
13					
14					
15				ž	
16					
17					
18					
19					
20					

Page L

SA CODF · SF2MI [⊅]

SA Name: Two Mile Pond Reservoir Transect [+]

Date: Signature Surveyor Initials:

B1 - Relative Native Plant Community Composition

	Tall Woody Stratum ¹	Tall W	oody 5	Tall Woody Stratum 1	1		Short Woody Stratum ²	dy Stratu	um 2		Short Woody Stratum 2 Herbaceous/Sparse Stratu	s/Sparse	Herbaceous/Sparse Stratum 3		CT Score 4	4 0	
Polygon Nos.	Nos.	Species 1	es 1 E		Species 2	ш 2	Species 3	`ш;	Species 4	ш :	Species 5	Ш	Species 6	Е	Raw4	× <45	Wt Score
S					200	2			See. X	z 2	Messbul	z 2	bloceton		- 1	()	1000
コー					2000		N. W.	all control	to	2 2	C. Taring	-		2, 3	S -	5 00	
								9				<u>.</u>	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	7	2	2	
												-					
													The state of the s				
																:	
												Final	Final Weighted Core7	Crore7			017

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. Page 7 of 17 SA CODE: SF2MI[4]

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Surveyor Initials: 🔎 🔿

T	able B1	. Relative Native Plant C	ommunity Composition Rating
R	ating	CT Fina	l Weighted Score
· .	4	≥ 3.75	<10% non-native
(3	≥ 3.25 and <3.75	10% ≤20% non-native
7	2	> 2.0 and <3.25	20% ≤50% non-native
· ·	1	≤2.0	>50% non-native

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch Structure pattern A,B,C, or D:	
•	

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
` 4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

Forksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with time VST) x 100. Enter the total %SA for each VST below.

	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
	High Structure	Low Structure	Tall Shrubland	Short	Herbaceous	Herbaceous	Sparse
	Forest	Forest		Shrubland	Wetland	Vegetation	Vegetation
Fotal % of SA			58		50		

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the low that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the lating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%		
	1	5	6W and/or 6H		
4	1	6W			
	2 or 1 and 2	5	6W and/or 6H		
	1				
√ 3	2 or 1 and 2	5			
, ,	2 or 1 and 2	6W			
	5	6W			
	2 or 1 and 2				
2	5				
	6W				
	6S				
1	6H				
	7				

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Date: 5/15/24

SA Name:

Two Mile Pond Reservoir Transect [4] Surveyor Initials:

B4 - Native Riparian Tree Regeneration

34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
C / 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
<u></u> 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
0 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating Invasive Species Cover %				
C 4	0%			
C 3+	>0% - <1%			
2	≥1% - <10%			
C 1	≥10			

Additional CTs and Biotic Metric Comments:

Currant is full of green leaves same as

4.2	CODE:	SF2MI[1
MC	CODE:	JI ZIVII L	J

Date:

SA Name:

Two Mile Pond Reservoir Transect [

Surveyor Initials:

Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

UML

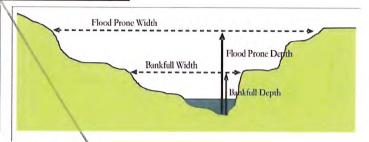
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description	Cross-section:	1	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the b Measure the distance between the right and left bankfull contours w	ankfull contour. ith a tape.			
2: Maximum bankfull depth Keeping the tape level between the right and left bankfull of the line above the thalweg (the deepest part of the chelp here.					
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.				
4: Flood-prone width Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.					
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).				
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. using Table A1a. Enter the rating in the A1 box on the SA Rank Summ	Enter the average her	e and r	ate	

Rating Method

meandering single-channel riffle-pool systems		
Rating Description		
O 4	Average entrenchment ratio is ≥ 2.2;	
C 2	Average entrenchment ratio is > 10 (2.2)	

Rating	Description /		
0 4	Average entrenchment ratio is ≥ 2.2;		
O 3	Average entrenchment ratio is ≥1.9 - <2.2		
O 2	Average entrenchment ratio is ≥1.5 - <1.9		
0 1	Average entrenchment ratio is < 1.5		



Norksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Norksheet in conjunction with Table A1c. Check the boxes for all that apply to each segment.

Indicator

	Bankful is slightly below bank height	
	nkful is well below bank height and channel is incised	
	Channel widening due to bank failure	
	Constructed levees preclude floodplain inundation	
	Stream is straightened/channelized	
	Inset floodplain formation	
	Decreased peak flows due to hydrologic modification	
	Bankfull indicators at point of incipient flooding of the floodplain	
	ndicators of overbank flow on floodplain	
	oodplain inundation due to beaver activity	

Table A1b. Rating for Floodplain Hydrologic	
Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems	,

Rating		Description
0	4	Average entrenchment ratio is ≥ 1.9
0	3	Average entrenchment ratio is ≥1.4 - <1.9
\circ	2	Average entrenchment ratio is ≥1.2 - <1.4
0	1	Average entrenchment ratio is < 1.2

SA CODE:		SF2MI[]		Date:			
S	A Name :	Two Mile Pond Res	ervoir Transect []	Survey	or Initials :		
leth	od 2						
hydr othe flow Selec	rologic col er hydrolog and flood ct a rating	nnectivity. At each cro gic evidence that wou Iplain inundation. Rec from the table below	ss-section, use Workshee Id preclude natural flood ord whether beaver activ	Rating. Select the narrative t 10b to record channel incipliain inundation. Converselity is obscuring bankful indicts 10b to help select rating. I in Table A1d.	sion, bank modification, ir y, assess indicators and ev cators due to inundation o	nset floodplain or vidence for overbank of the floodplain.	
R	ating			Description		,	
0	4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and precluc the identification of bankfull indicators and the active floodplain width.					
<u>ი</u>	3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.					
0	2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).					
O	, ı	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.					
ken lo oss-so oto l	ooking Up ection. Le board wit in the dire	ostream and Downstre lave the cross-section h SA name and cross-section of flow or down ing Northing	eam from the thalweg and tape and flags indicating	For each cross-section reco d looking Bank Right* and E bankful in the ground wher pful. (*The bank of a stream for additional details.	Sank Left* across the strea taking the Bank Right an	m from each side of d Bank Left photos.	
1					24	Bank Left	
- 1						Bank Left	
2					24	Bank Left	
					249	Bank Left	
3	plain Hyd	rologic Connectivity C	omments:			Bank Left	
3	plain Hyd	rologic Connectivity C	comments:			Bank Left	
3	plain Hyd	rologic Connectivity C				Bank Left	

SA CODE: SF2MI [✓]

SA Name: Two Mile Pond Reservoir Transect [\mathcal{L}]

Date: 5/15/24

Surveyor Initials:

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
	<u>X</u>		Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
	囟		Shoals, sparely-vegetated bars
	X		Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
	\Box		Terraces
			Channel pools
	X		Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
	X		Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tabl	le A2. Ra	ating for Physical Patch Complexity						
Rati	ng	Description						
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).						
A	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).						
\cap	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).						
\cap	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.						

SA CODE: SF2MI[4]

SA Name:

Two Mile Pond Reservoir Transect [//]

Date: 5/15/24

Surveyor Initials: DCS

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Q		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
				Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ď		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ĭ		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium				There is little or no active undercutting or burial of riparian vegetation.
		Ž		There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Q		Channel and point-bars consist of well-sorted bed material.
		Q		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Q		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SF2MI[4] SA CODE:

Two Mile Pond Reservoir Transect [/] SA Name:

Date: 5/15/2/
Surveyor Initials: DC5

	Table A3. Rating for Channel Equilibrium						
Rating	Description						
7 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.						
○ 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.						
<u> </u>	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.						
<u> </u>	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.						

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

rading off the 3A 3di	r <u>-</u> -	,		
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	⋈ 4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank Soil Stability	<u></u> 3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Jon Stability	<u></u> 2	<u></u> 2	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	1	1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	<u></u> 4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	<u></u> 3	□3	3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	□ 2	<u></u> 2	<u> </u>	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	<u> </u>	□1	<u> </u>	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

	<u></u>
Average Indicator Score	

Table A4. Stream Ba	ink Stability and Cover Rating
Rating	Description
₹ 4	>3.5 - 4.0
C 3	>2.5 - ≤3.5
C 2	>1.5 - ≤2.5
∩ 1	1.0 - ≤1.5

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect [4]

Date: 5/15/24

Surveyor Initials: 065

A5 - Soil Surface Condition

orksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	[2]		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

:	>	4	
		7	

1		Table A5. Soil Surface Condition Rating
Ra	ating	Description
C	4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
0	3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
0	2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
റ	1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect [4]

Date: 5/15/24

Surveyor Initials:

Jorksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign ategories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknown ank Major Stressors in Dominant Stressor column(Pick up to 3)

Rank -	<u> </u>	Aft	fect		Strassov Cva - 15t	
iui IK	Major	Minor	Absent	Unknown	Stressor Group/Stressor	Comments
	History of the	11.			Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
					Adverse sediment input (roads/development)	
					Artificial water additions	
					Sewer treatment effluent	
					Point source urban runoff	
					Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
	100	1000			Ground water pumping	
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
					Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
					Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0 (Counts by Intensity	
ditions	al Comment	tc				

ditional Comments

sion Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover	· Worksheet	12246			
SA Code SF2MI [4	'] SA Name : Tw	o Mile Pond Reservoir			Project : R	iparian Asso	esement
Code Tsct [4]	AU Name : Tra	ansect [4]				Mile Pond	
County Santa Fe	HUC 12 Hea	dwaters Santa Fe River	levation (ft) 72		(m) 2224.		
decommissioned of water rights. Driving Directions Driving to Santa	Fe from Albuquerque v	e, comments) located on the east side of regarding the reservoir at	f Santa Fe borde nd a water diver	ering the S	anta Fe Na e area was	ational Fore	nut down due to lac
Ownership The Natur		oir located to the North.		Results t		Fish Obse	erved in
Surveyor Role		Surveyo	or Name		100	Wella	Surveyor Initia
Landscape	Dustin Schwa	rtz					
Biotic	Annie McCoy						DS AM
Abiotic	Dustin Schwa	rtz					DS
Stressors	Dustin Schwa	rtz					DS
Easting (m)	Northing (m)	Zone	Datum	I	Latitude	(DD4)	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UT	ГМ	35.68972		Longitude (DD)
		1			JJ,00J/Z	_	103.03
Survey Date	6/11/24	Start Time SA Descr			End T		15:00
A Biotic Condition (v	st (summarize the wetland from Raily) Jesert Las Some Const Vegetation patterns, con	SA Description and structure of	ciption Scape; include co	the stem	nd impact powd then	la st	tine.
A Biotic Condition (v	set (summarize the wetland from Raily desert has Some construction patterns, con why black and and Brome Be	SA Description and surrounding lands a lot green a little process a little process a little process a little process a little process a little process and lizards green and lizards green and lizards green and lizards	ription scape; include compre black exotics and invasing sound compre cound y cound compre country countr	ives, disturs	nd impact powd then rbance evi ye, lay	idence, fire	and herbivory)
A Abiotic Condition (sturbance and others	set (summarize the wetland from Rain) Jesert Las Some Const Jegetation patterns, con why black and and Brome Chydrological alterations site impacts; explain the	SA Description and surrounding lands a lot green a little friction mposition and structure, existed wheat graded lizards get fly see fly see fly see fly see hydrologic breaks or other	experiment black compare black control compare black control compare c	ives, disturies	nd impact food then rbance evi	idence, fire	and herbivory)
A Abiotic Condition (sturbance and others	set (summarize the wetland from Raily desert has some constructions) regetation patterns, con why black and and and Berome Berome Berome Berome water	SA Description and surrounding lands a lot green a little process a little process a little process a little process and lizards grade of lizards and lizards are fly as leagh, dams, walls etc.]; flow the hydrologic breaks or other is getting dams.	experience of the scape; include control of the scape of	ives, disturistics and efine the S	nd impact Powd Then rbance evi ye, 183 13 evidence is a limits)	idence, fire	and herbivory)
A Abiotic Condition (sturbance and others	desart has some constructions site impacts; explain the water	SA Description and surrounding lands a lot green a little of truction and structure, exist a lizards of the hydrologic breaks or other is getting lands	experience of the control of the con	ives, disturistics and efine the S	nd impact Powd Then rbance evi ye, (3) evidence (A limits)	idence, fire	and herbivory)
A Abiotic Condition (sturbance and others	desart has some constructions site impacts; explain the water	SA Description and surrounding lands a lot green a little process a little process a little process a little process and lizards grade of lizards and lizards are fly as leagh, dams, walls etc.]; flow the hydrologic breaks or other is getting dams.	experience of the control of the con	ives, disturistics and efine the S	nd impact Powd Then rbance evi ye, (3) evidence (A limits)	idence, fire	and herbivory)

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect []

Date: 6/11/24

Surveyor Initials: DS/AM

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5	Rating	Wt	Final Score
Metric Description	Rating		
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	1.0
L2. Riparian Corridor Connectivity	4	0.25	
L3. Relative Wetland Size	2	0.25	0.5
L4. Surrounding Land Use	0.25	0.5	
Biotic		Σ	1
B1. Relative Native Plant Community Composition	9	0.2	
B2. Vegetation Horizontal Patch Structure	5	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	2	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity	*	0.3	
	3	0.2	
A2. Physical Patch Diversity	4	0.2	
A3. Channel Equilibrium	i i	0.2	
A4. Stream Bank Stability and Cover	4	0.1	
The state of the s	9	0.1	

SA Condition	Scoring Sum	mary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	3	0.35	*/
Abiotic	3,75	0.35	
SA WETLANI	3,33		
SA WETLANI	D RANK =		18

A5. Soil Surface Condition

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three			
	0	0	1	Not	as v	nuch wate
			2			
			3			

ssor Comments (Ev	aluation of risk)		

SA CODE: SF2MI[4]

3

3

/2 =

SA Name : Two Mile Pond Reservoir Transect [\mathcal{Y}]

Date:

6/11/24

≤1.5

Surveyor Initials: DS/AM

Landscape Context

450000000000000000000000000000000000000		'Integrity											
Work	sheet 1	a. Buffer aı	nd RCC Checklist.	Check of	ff land cover	elemen	ts with	in the buf	ffer a	area or RCC	corridors	that are either allowe	
Jos asc	. CACIUU	ed and cons nagery).	sidered non-buffer	element	s that disrup	t ecosys	stem co	onnectivit	y. In	dicate the ir	nagery ty	rpe and date (season	
lmage		Google Eart	h KMZ. file			lmage	mage Date 6/23						
		er/RCC land	cover elements			Exclud	ded no	L n-buffer/R	RCCI	land cover e	lements		
Buffer	RCC					Buffer		T		and cover c	icincino		
X	X	Natural or semi-natural vegetation patches				X	X					nents, parking lots, ther structures	
X	X	Small irriga	tion ditches witho	ut levees						, golf course			
		Old fields, u	ınmaintained					Railroads			······································		
		Open range	e land							evees, sedin ging areas	nent piles	, construction	
X		Foot trails, h intensity)	norse trails, unpave	ed bike tr	ails (low						horse pa	ddocks, feedlots	
X	X	Non-channe	el open water							agriculture: maintained pastures, hay fields, , orchards, and vineyards			
X			ning abandoned v curring levees	egetated	d levees, or	X	[V]		ads o	or developed second-order unpaved but			
		unpaved tw	o tracks roads			×			pen water bounded by a levee or other manmade ructure				
		Other						Other					
Vorks	heet 1b	. Buffer Per	cent Sub-metric.	Measure	or estimate	the ner	centag	e of the l					
A peri	meter c	omposed of	t allowed buffer ele	ements a	nd enter into	the Ru	ffer Pei	rcent			ole L1a. E	Buffer Percent	
ntegrii	ty Sumn	e the sub-m nary Worksh	etric using Table L eet 1d.	1a and e	nter the ratin	g on th	e Buffe	er		Rating		Buffer Percent	
			Buffer Percer	nt (%)=	85%					0 4		100%	
laukak		D (6 100 1										≥80% - <100%	
e GIS (eet 16.1 or on the	Butter Widt e man Aver	th Sub-metric. Me age the line length	asure the	e length of ea	ach buff	fer line	in meters	in	O 2		≥50% - <80%	
e Buff	er Integ	rity Summa	ry Worksheet 1d.	is allu la	te using rabie	e LID. E	nter tn	e rating o	n	O 1		<50%	
Line	Buff	er Width	Buffer Width	Line	Buffer W	/idth	But	ffer Width	h	Та	ble L1b.	Buffer Width	
	16	(m) 4.26	(ft)		(m)			(ft)		Rating	Ave	rage buffer width	
Α	102	+.20	538.91	E	161.93		5	31.26		O 4		≥190m	
В	125	5.25	410.92	F	231.48	3	7	59.44		⊗ 3		≥130 - <190m	
C	11	5.39	378.57	G	121.25		39	97.80	11	<u>C</u> 2		≥65 - <130m	
D	11	1.07	364.40	Н	155.87	7	51	1.38	- - L	<u>O 1</u>		<65m	
	Averag				486.58			1,30	 ₁	Tabla I 1 a	<u></u>		
			/				(ft)			Table LTC.		ry Rating for Buffer grity	
/orksh nd L1b	i eet 1d. above t	Buffer Inte to calculate	grity Summary. E the Buffer Integrity	nter the :	sub-metric R	atings f	rom Ta	bles L1a	7	Rating	1	Score	
eiow. (Jsing th	e Buffer Inte	egrity Index Score,	enter rat	ing for Buffer	'Integri	ty in Ta	ible L1c		O 4		>3.5	
7 on 1	ne SA S	ummary Wo	orksheet.			_			1 1	⊗ 3		>2.5 - ≤3.5	
uffer 9	6 Ratine	a + Bu	ffer Width Rating	/2 -	Ruffor	Intoari	tre In ale	av Score	7 6	<u> </u>	1	>1.5 - ≤2.5	

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SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect [\mathcal{U}]

Date: 6/11/24

Surveyor Initials: DS/AM

L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment		
Banks	Left Bank Right Bank		Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)		0	0		
C) % Segment Disruption = (B/1000)*100		0	0		
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable along the banks.				

Table L2. RCC Rating							
Rating	Description						
	0% total disruption on both segments combined.						
O 3	<15% total disruption on both segments combined.						
O 2	≥15% - <40% total disruption on both segments combined.						
C 1	≥40% total disruption on both segments combined.						

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksheet.

RSR								RV	VSI		
Current Size	1	Historic Size	=	RSR	1	1.0	RSR	Х	100	=	RWSI (%)
9	1	10	=	0.9	1	-	0.1	Х	100	=	10

Table L3. Relative Wetland Size Rating						
Rating RWSI Score Description						
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent				
O3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size				
02	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size				
01	>70%	Wetland has been reduced by more than 70% its natural size				

SA CODE: SF2MI[4]

Date:

6/11/24

SA Name :

Two Mile Pond Reservoir Transect [$\frac{4}{3}$]

Surveyor Initials:

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0,3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0,8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Ta	Table L4. Surrounding Land Use Rating							
Ra	ating	LUI Score						
\bigcirc	4	≥95 - 100						
\circ	3	≥80 - <95						
®	2	≥40 - <80						
\circ	1	<40						

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Biotic Metrics

the Tab	les in Appendix B al lix D). Use the comn	nd the Field G	suide for metric documenting	instructions. Enter the spo and describing vegetation	the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features.
Polygon No	B3 Vertical Structure Type	B4 Tree Regeneration 6 % Cover	B5 Invasive Exotic Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1				
2	IA2				
8	IIA1				
4	IIIB1	10010	None	None	Cat tails hilling in around all wasters expres
5	IIIC1	7007	None	None	Locks basically the some wheat grass, chimis, and rye
9	IVEI				
7	IVF1				
∞					
6					
10					
1					
12					
13					
41					
15					
16					
17					
18					
19					
20					

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B1 - Relative Native Plant Community Composition

Raw4 |% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 06 CT Score⁴ 2. O 2,0 Species 6 E Currant bluestan W Herbaceous/Sparse Stratum ³ which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 2 Species 5 E Madow られるジ ~ \geq Species 4 E at a Chinx Short Woody Stratum 2 \geq 2 Species 3 Soltbook 17.1/0 E 2 Species 2 Tall Woody Stratum 1 Species 1 Polygon Nos. S 7 ⋖ Ω U Δ ш ш G I ¥ Σ z

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must Final Weighted Score⁷ for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Ta	able B1	1. Relative Native Plant Community Composition Rating					
Ra	ating	CT Fina	CT Final Weighted Score				
C	4	≥ 3.75	<10% non-native				
C	3	≥ 3.25 and <3.75	10% ≤20% non-native				
C	2	> 2.0 and <3.25	20% ≤50% non-native				
\cap	1	≤2.0	>50% non-native				

32 - Vegetation Horizontal Patch Structure

Norksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch pattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

	Datak	Churching		A D C	~ "	D
iorizontai	Patch	Structure	pattern	A,B,C,	or	U

Table B2.	Rating for Vegetation He	orizontal Patch St	tructure	

	Tuble ba. Italing for Vegetation Florizontal Factors
Rating	Description
∩ 4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
X/ 3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
<u> </u>	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
<u> </u>	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

B3 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with same VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA	Torest	Torest	Sð	Sindblatta	50	, ege	5 - 1 - 1 - 1

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	. 1	5	6W and/or 6H
C 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
∂ 3	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
/	5	6W	
	2 or 1 and 2		
∩ 2	5		
	6W		
	6S		
C 1	6H		
	7		

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description				
C 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
j 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
O 1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating	Invasive Species Cover %				
O 4	0%				
F 3×	>0% - <1%				
2	≥1% - <10%				
O 1	≥10				

Additional CTs and Biotic Metric Comments:

Red Lizards are very prominent

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Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

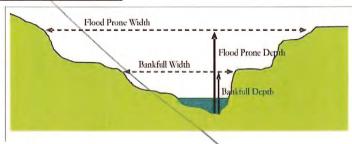
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three crosssections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description	Cross-section:	1	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the Measure the distance between the right and left bankfull contours v				
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, of the line above the thalweg (the deepest part of the charinel). A phelp here.				
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.				
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to t from Step 3 to where it intercepts the right and left banks.	he flood prone depth			
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).				
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections using Table A1a. Enter the rating in the A1 box on the SA Rank Sum		e and r	ate	

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in
meandering single-channel riffle-pool systems

incanaci	ing single-chainlei filite-poor systems	1
Rating	Description	1
O 4	Average entrenchment ratio is ≥ 2.2;	
O 3	Average entrenchment ratio is ≥1.9 - <2.2	
O 2	Average entrenchment ratio is ≥1.5 - <1.9	
0 1	Average entrenchment ratio is < 1.5	



Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Worksheet in conjunction with Table A1c. Check the boxes for all that apply to each seament.

Segine	-116.		\ /						
U	M	L	Indicator /						
			Bankful is slightly below bank height 🗸						
			Bankful is well below bank height and channel is incised						
			Channel widening due to bank failure						
			onstructed levees preclude floodplain inundation						
			Stream is straightened/channelized						
			Inset floodplain formation						
			Decreased peak flows due to hydrologic modification						
			Bankfull indicators at point of incipient flooding of the floodplain						
			Indicators of overbank flow on floodplain						
			Floodplain inundation due to beaver activity						

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems Rating Description Average entrenchment ratio is ≥ 1.9

Average entrenchment ratio is ≥1.4 - <1.9 3 Average entrenchment ratio is ≥1.2 - <1.4 Average entrenchment ratio is < 1.2

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Method 2

le A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

Rating	Description
O 4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankful indicators and the active floodplain width.
C 3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
O , 2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
C 1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Þ	ownstream	Bank Right	Bank Left
1							
2			/				·
3		1					

			/		 \	
Floodp	lain Hydrologic	: Connectivit	y co	Comments:		
		The second of			The second secon	
		the libertament and and				
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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

nter the rating on the SA Rank Summary Worksheet.							
Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)				
	X		Active side channels				
			Abandoned channels				
			Backwater/eddy				
			Riffles or rapids				
	[X]		Shoals, sparely-vegetated bars				
	otin		Channel boulders				
			Oxbow lakes/ponds on floodplains				
			Vegetated island and side bars				
	X		Terraces				
			Channel pools				
	X		Beaver ponds				
			Swales, depressional features on floodplains				
			Debris jams in channel				
			Woody wrack piles on the floodplain				
			Floodplain micro-topography (mounds, pits)				
			Downed logs				
			Natural levees				
			Standing snags				
			Variegated, convoluted, or crenulated foreshore				
			Undercut banks in channels				
			No. of unique Patch Types				

Tabl	Table A2. Rating for Physical Patch Complexity									
Rati	ng	Description								
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).								
Ø	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).								
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).								
C	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.								

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
				The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Q'		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Image: second content of the content		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		ď		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
			. 🔲	There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
Indicators of Active Aggradation				There are partially buried living tree trunks or shrubs along the banks.
				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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	Table A3. Rating for Channel Equilibrium						
Rating	Description						
% 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.						
	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.						
C 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.						
<u> </u>	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.						

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A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

ating on the SA Summary worksneet.							
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators			
	□4	☆ 4	□4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.			
Indicators of Bank	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.			
Soil Stability	<u></u> 2	<u></u> 2	<u></u> 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.			
	_1	<u></u> 1	<u></u> 1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.			
	□4	<u></u> 4	□4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.			
	□3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.			
Indicators of Stream Bank Erosion Potential	□ 2	<u></u> 2	<u>.</u> 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.			
	□ 1	□ 1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.			

Average Indicator Score	
-------------------------	--

Rating	Description
₹ 4	>3.5 - 4.0
3	>2.5 - ≤3.5
2	>1.5 - ≤2.5
7 1	1.0 - ≤1.5

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A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
П			Multiple livestock and other (fishing, hiking) trails,
П			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
П			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	71
-----------------------------	----

	Table A5. Soil Surface Condition Rating			
Rating	Description			
O 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.			
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.			
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.			
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.			

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DS/AM

Rank Affect						
MIIN	Major	Minor	Absent	Unknown	Stressor Group/Stressor	Comments
		Т	Г	T	Adverse water management	
	Ш				Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
			·		Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
					Adverse sediment input (roads/development)	
					Artificial water additions	ANGESTE EN STERREIGESTE DES SERVICIONES DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE ANGESTE CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA
			<u> </u>		Sewer treatment effluent	
					Point source urban runoff	
					Factory, feedlot outfall	
					Agricultural irrigation ditch returns	
					Mining waste	
					Ground water pumping	
					Urban depletions	
					Fracking	
					Agriculture irrigation wells	
					Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
					Local biodiversity impacts	iye e Asaliye dan i sa xii ku gosin bu un ayni oyu aliyu ka ka
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0 (Counts by Intensity	

ersion Date: 04/25/2022

Schema: Montane 2.5

		SA Cover	Worksheet		
SA Code SF2MI [5] SA Name : Two	Mile Pond Reservoir		Project : Riparia	an Assesement 449, 124
de Tsct [5]	AU Name : Trar	nsect [5]			Pond Reservoir
County Santa Fe	HUC 12 Head	waters Santa Fe River	levation (ft) 7299	(m) 2224.7	Ecoregion 6.0 NWFM
A riparian system decommissioned of water rights. Driving Directions Driving to Santa	and Boundary (Rationale that leads into a pond lo due to safety concerns Fe from Albuquerque yo til you reach the reservoi	ocated on the east side of egarding the reservoir a	nd a water diversio	n to the area was rece	al Forest. This reservoir was ently shut down due to lack Monte Sol and right on
Ownership The Natu	re Conservative and The	Santa Fe National Forest	1 7	esults to client Fis	h Observed in Wetland?
Surveyor Role		Survey	or Name		Surveyor Initials
Landscape	Dustin				DS .
Biotic	Annie +1) ustih			DS
Abiotic	Pustin				05
Stressors	Bath				D c
Easting (m)	Northing (m)	Zone	Datum	Latitude (DI	Oft) Longitude (DD ft)
-105° 53′ 24" W	35° 41′ 23" N	13	NAD-83 UTA	1 35.689722	-105.89
Survey Date	4/9/24	Start Time		End Time	1
			1	,	
Ven l	y Very vinter. Ar	dry area looks li	still de ke it	rmant from	n don plant remains
					n ed on plant remails
SA Biotic Condition \mathcal{N}_{arphi}	(vegetation patterns, coincide \mathcal{B} , of \mathcal{A} , \mathcal{C}	nposition and structure,	exotics and invasion	ves, disturbance evide	nce, fire and herbivory)
SA Biotic Condition $N_{\mathscr{O}}$ $M_{\mathscr{C}}$	(vegetation patterns, con Biotic adaw grass	mposition and structure, a c Hirly ex es Lich s (e.g., dams, walls etc.);	exotics and invasion of the paper paper paper paper flooding character	ves, disturbance evide	nce, fire and herbivory) and willows yelburg
SA Biotic Condition $N_{\mathcal{O}}$ $M_{\mathcal{C}}$ SA Abiotic Condition disturbance and other	(vegetation patterns, con Biotic adam grass. (hydrological alteration r site impacts; explain the Land Si	mposition and structure, a c the layer of t	exotics and invasion	ves, disturbance evide ome ry e ing up and istics and evidence of fine the SA limits)	nce, fire and herbivory) and willows yelburg overbank flooding; soil
SA Biotic Condition No Me SA Abiotic Condition disturbance and other	(vegetation patterns, con Biotic adaw grass. (hydrological alteration r site impacts; explain the Land Significance of large	s (e.g., dams, walls etc.); e hydrologic breaks or or college was	exotics and invasive cept s are poppi flooding character ther factors that de safter the field data	istics and evidence of fine the SA limits) Let y connormal decidence of the same of the s	nce, fire and herbivory) and willows yellowing overbank flooding; soil i's full vd to moisture tes
SA Biotic Condition No Me SA Abiotic Condition disturbance and other	(vegetation patterns, con Biotic adaw grass. (hydrological alteration r site impacts; explain the Land Significance of large	s (e.g., dams, walls etc.); e hydrologic breaks or or college was	exotics and invasive cept s are poppi flooding character ther factors that de safter the field data	istics and evidence of fine the SA limits) Let y connormal decidence of the same of the s	nce, fire and herbivory) and willows yelburg overbank flooding; soil

SA CODE: SF2MI[5]

SA Name : Two Mile Pond Reservoir Transect [\int]

Date: 4/9/24

Surveyor Initials: 05

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.3	NMRAM - SA Rank Summa	ry Worksheet: Montane Riverine Wetlands 2.5
--	-----------------------	---

Metric Description		Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	4	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	4	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	3	0.2	
A3. Channel Equilibrium	4	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition	Ÿ	0.1	

SA Condition	Scoring Sur	nmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	3.4	0.35	
Abiotic	3,8	0.35	
SA WETLANI	CONDITION	SCORE Σ	
SA WETLANI	RANK =		3,5

SA Wetland Rank		
Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three	
	0	0	1 Water Management	
			2	
			3	

Stressor Comments (Evaluation of risk)

Not Many strossors along this transect,

SF2MI[5] SA CODE:

Ly - Ruffer Integrity Index

SA Name: Two Mile Pond Reservoir Transect [5]

Date: 4/9/24

>3.5

>2.5 - ≤3.5

>1.5 - ≤2.5

≤1.5

(X

3

2

Surveyor Initials:

Landscape Context

and L1b	above 1	to calculate	the Buffer Ir	i ary. E itegrit	y Index S	sub-metric i core using t	raungs he form	irom ia iula in t	he box	R	ating		Score
					nter the	sub-metric F		***	blos I 1 -			Integrit	_
	Averag		148.31	(m)	••	486.58		(ft)	11,50	Tal	ble L1c. S	Summary R	ating for Buffer
D	11	1.07	364.40		Н	155.8	 7	5.	11.38		1		<65m
С	11:	5.39	378.57		G	121,2	5	3	97.80	\overline{C}	2	≥6	5 - <130m
В	125	5.25	410.92		F	231.4	8	7	59.44	R	3	≥13	30 - <190m
Α	164	1.26	538.91		E	161.93	3	5	31.26	0	4		≥190m
Line		er Width (m)	Buffer W (ft)	idth	Line	Buffer V (m)		Bu	ffer Width (ft)	 -	Rating	1	rer widtn
he Buffer Integrity Summary Worksheet 1d.										Tak	le L1b. Buf		
he GIS or on the map. Average the line lengths and rate using Table						acn buf e L1b. F	ter line inter th	ın meters in e rating on	0	1		<50%	
(\(\lambda\) 3 200%-							0% - <100% 50% - <80%						
Puffor Percent (0/) 9504						3	>0/	100% 0% - <100%					
Box below. Rate the sub-metric using Table L1a and enter the ratir Integrity Summary Worksheet 1d.						ng on th	e Buffe	er	<u> </u>	Rating	Buf	ffer Percent	
SA perimeter composed of allowed buffer elements and enter into the Buf							ıffer Pe	rcent		Tabl	e L1a. Buff	er Percent	
Workshoot 1h Puffor Porcont Sub-module Management Sub-module Manag													
		Other							other Other				
		inpaved two	o tracks road	ls			x	l y l	-	boun	ded by a	levee or oth	ner manmade
X	101		ning abando curring levee		egetated	i ievees, or	X	x	Paved roads graded road		veloped :	second-ord	er unpaved but
X			l open wate						row crops, o	rchar	ds, and vi	neyards	ures, hay fields,
X	IXI	ntensity)											cks, feedlots
	IF		orse trails, u	npave	d bike tr	ails (low			materials, st			W	
		Open range	7						Maintained	levee:	s, sedime	nt piles, cor	nstruction
X			ion ditches inmaintained		it ievees				Lawns, park Railroads	s, golf	courses,	sports field	S
X			emi-natural	_		Liles	X	X	dams, bridg	es, re	vetments	, and other	structures
		Notional av a		4 .	.,				Commercial	/resic	lential de	velopment	s, parking lots,
Buffer F		i/RCC land	cover eleme	ents			Exclud		n-buffer/RCC I	land	cover ele	ments	
Imagery		Google Earth	cover eleme				Image		6/23				
and yea			- VM7 61-				1						
or are e	xclude	d and consi	dered non-l	ouffer	elements	that disrupt	t ecosys	tem co	nnectivity. Ir	ndicat	e the ima	gery type a	nd date (season
Worksl	neet 1a	a. Buffer an	d RCC Chec	klist.	Check off	land cover	elemen	ts withi	in the buffer	area o	or BCC co	rridors that	are either allowed

Buffer Integrity Index Score

below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c

/2 =

/2 =

Buffer Width Rating

3

on the SA Summary Worksheet.

Buffer % Rating +

3

SA CODE: SF2MI[5]

SA Name: Two Mile Pond Reservoir Transect [5]

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05

L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstrea	m Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank		
A) Total Bank Disruption (m)	0	0	0	0		
B) Total Disruption by Segment (m)		0		0		
C) % Segment Disruption = (B/1000)*100		0 0				
D) Total Disruption both segments		()			
E) % Total Disruptions = (D/2000)*100	Zero disi	ruption notice	eable along t	he banks.		

Та	ble L2. RCC Rating
Rating	Description
(x 4	0% total disruption on both segments combined.
	<15% total disruption on both segments combined.
C 2	≥15% - <40% total disruption on both segments combined.
C 1	≥40% total disruption on both segments combined.

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksh

		RSR			y .			RV	VSI		1
Current Size	1	Historic Size	=	RSR	1	lobe an	RSR	х	100	II	RWSI (%)
9	1	10	=	0.9	1		0.1	Х	100	=	10

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
(3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
C 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size
C1	>70%	Wetland has been reduced by more than 70% its natural size

SA CODE:

SA Name:

SF2MI[5]

Two Mile Pond Reservoir Transect [5]

Surveyor Initials :

Date: 4/9/24

L4 - Surrounding Land Use

prksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	8.0	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L	4. Surrounding Land Use Rating
Rating	LUI Score
C 4	≥95 - 100
C 3	≥80 - <95
Ø 2	≥40 - <80
\cap 1	<40

SA CODE: SPZMIL | / J SA Name: Two Mile Pond Reservoir Transect [|]

Biotic Metrics

Surveyor Initials:

Date: 4/9/24

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant Appendix D). Use the comments box for documenting and describing vegetation community patch features.

olygon	Polygon B3 Vertical Structure No Type	B4 Tree Regeneration E % Cover	35 Invasive Exotic Species % Cover	Invasive Exotic Species (List Code(s))	Comments
1	IA1				
2	IA2				
8	IIA1				
4	IIIB1	80%	Mullery	Muller some Mestard	stoop edge down to cat trils stabled willass
5	IIIC1				
9	IVEI				
7	IVF1				
∞					
0					
10					
11					
12					
13					
14					
15		,			
16					
17					
18					
19					
20				y	

SA CODE - SF2MI[5]

SA Name: Two Mile Pond Reservoir Transect [\supset]

Date: 4/9/2 % Surveyor Initials:

B1 - Relative Native Plant Community Composition

dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.

Notices 2 E Species 3 E Species 4 E Species 5 E Species 6 E Specie	Tall Woody Stratum ¹ Short Woody Stratum ² Herbaceous/Sparse Stratur		Tall Woody Stratum 1	ly Stratun	_ر	Shoi	Short Woody Stratum ²	tratum •	2	エ	erbaceon	s/Sparse	Herbaceous/Sparse Stratum ³		CT Score 4	4	
4 Miles Mark Mark Mark Mark Mark Mark Mark Mark	T	lygon Nos.	Species 1	ᄪᅩ	ecies 2	Spec	cies 3 E		ies 4		oecies 5	ш Z	Species 6		Raw4 %	%SA5 V	Nt Score ⁶
	-					3	3	Partition of the last of the l	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		to Hem	* 4 :	Madon	\nearrow	3.75	(09	ę
	8																
	U																
	ш							10000									
	ц																
	ט																
	エ																
	_													:			
	¥				·												
	Σ							-									
	z																
Final Weighted Score ⁷	0																
												Fina	Weighte	d Score			338

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must 1. Trees and shrubs > 6 m (20 Teet) and > 25% total stratum cover; 2. Trees and shrubs soin (20 Teet) and 2 for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE: SF2MI[5]

SA Name : Two Mile Pond Reservoir Transect []

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Surveyor Initials:

05

	Table B1	. Relative Native Plant C	Community Composition Rating
	Rating		al Weighted Score
X	4	≥ 3.75	<10% non-native
Ć	3	≥ 3.25 and <3.75	10% ≤20% non-native
\subset	2	> 2.0 and <3.25	20% ≤50% non-native
\cup	1	≤2.0	>50% non-native

32 - Vegetation Horizontal Patch Structure

Vorksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch rattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch S	Structure	pattern ,	A,B,C,	or	D:
-------------------	-----------	-----------	--------	----	----

B

Table B2. Rating for Vegetation Horizontal Patch Structure							
Rating	Description						
^ 4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.						
	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.						
2	dominant patch type exists with the others occupying a small portion of the SA						
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.						

3 - Vegetation Vertical Structure

Vorksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA			80%		20%		vegetation

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the ow that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for ne rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the string on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5.	6W and/or 6H
4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		or ana or or
(¹ 3	2 or 1 and 2	5	
\ 3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
` 2	5		
	6W		
	6S		
1	6H		
	7		

SA CODE: SF2MI[51

Date: 4/9/24

SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials: 05

B4 - Native Riparian Tree Regeneration

34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
X 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
C 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating	Invasive Species Cover %				
C 4	0%				
7 3 X	>0% - <1%				
2	≥1% - <10%				
C 1	≥10				

Additional CTs and Biotic Metric Comments:

Still dry but some grasses coming back Rye, Mendon, Rush grasses seen. Willows turning Yellow

SA CODE:	SF2MI [🤚]
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Date: 4/9/24

SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
	Z '		Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
	M		Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
	X		Vegetated island and side bars
	(X		Terraces
	jx)		Channel pools
	A		Beaver ponds
			Swales, depressional features on floodplains
	ļ _k		Debris jams in channel
	X		Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Rati	ng	Description
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).
×	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).
\subset	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).
\subset	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.

SA CODE: SF2

SF2MI[5]

Date: 4/9/24

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Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		ÞÍ		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		ÌД		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		[X]		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Г <u>М</u>		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		X		Channel and point-bars consist of well-sorted bed material.
		D.		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
i i		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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Table A3. Rating for Channel Equilibrium						
Rating	Description					
% 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.					
○ 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.					
← 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.					
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.					

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	□ 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank Soil Stability	3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
Jon Stability	<u></u> 2	<u>2</u>	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	□1 □1 □1 bar	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.		
	<u></u> 4	<u> </u>	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	[]3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	□2	□ 2	□2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	_1	_1		Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	4

Table A4. Stream Bank Stability and Cover Rating				
Rating	Description			
፟ 4	>3.5 - 4.0			
C 3	>2.5 - ≤3.5			
C 2	>1.5 - ≤2.5			
C 1	1.0 - ≤1.5			

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SA	CODE:	SF2MI [\geq]

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SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

A5 - Soil Surface Condition

reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
	M		Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

	Table A5. Soil Surface Condition Rating					
Rating	Description					
Ø 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
○ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
C 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

SA CODE:	SF2MI[5]
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Date:

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SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

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Vorksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign ategories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknov ank Major Stressors in Dominant Stressor column(Pick up to 3)

Rank	Affect				Share C. IS	
varik	Major	Minor	Absent	Unknown	<u> </u>	Comments
		I	T		Adverse water management	
					Extended low flow dam releases	
				Ž	Timing of flow releases not concordant	
					Extended high flow dam releases	,
				N	Agriculture/Urban flow diversion upstream	
					Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
				4	Adverse sediment input (roads/development)	
					Artificial water additions	
				1	Sewer treatment effluent	
				A.	Point source urban runoff	
				*	Factory, feedlot outfall	
				E	Agricultural irrigation ditch returns	
					Mining waste	
		10-1-2-1			Ground water pumping	
				À	Urban depletions	
					Fracking	
					Agriculture irrigation wells	
					Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
				Ņ	Extensive open pit mining in watershed	
				T.	Livestock/wildlife overgrazing	
		77 6	-		Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	
ditiona	l Commen	ts				

sion Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

E FIVE STATE		SA Cove	er Worksheet			
SA Code SF2MI [5] SA Name: Two Mile Pond Reservoir Project: Riparian Assesement						
) de Tsct [5]	ond Reservoir					
County Santa Fe	ounty Santa Fe HUC 12 Headwaters Santa Fe River Elevation (ft) 7299 (m) 2224.7 E					
A riparian system decommissioned of water rights. Driving Directions Driving to Santa F	nd Boundary (Rationale, that leads into a pond lo due to safety concerns r e from Albuquerque yo il you reach the reservoi	ocated on the east side regarding the reservoir u head north on Old Pe	and a water diversion to	o the area was recent	Forest. This reservoir was ly shut down due to lack nte Sol and right on	
Ownership The Nature	e Conservative and The	Santa Fe National Fores	Data Sharing Resu		Observed in Vetland?	
Surveyor Role		Surve	yor Name	N. Carlot	Surveyor Initials	
Landscape	Dustih				115	
Biotic Annie + Dustin						
Abiotic Oustin						
Stressors	Bath			Ç III	ns	
Easting (m)	Northing (m)	Zone	Datum	Latitude (DD f	t) Longitude (DD ft	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722	-105.89	
Survey Date	5/15/24	Start Time		End Time		
		SA De	scription			
SA Landscape Conte	xt (summarize the wetla	nd and surrounding la	ndscape; include condit	tion and impacts)		
Ь	ranches of	seems pre	thy dry b	ut some gi	reen	
SA Biotic Condition (vegetation patterns, cor	nposition and structure	e exotics and invasives	disturbance evidence	a fire and harbivery)	
					starting to green,	
A Abiotic Condition	(hydrological alteration site impacts; explain the	s (e.g., dams, walls etc.	; flooding characteristic	cs and evidence of ov	erbank flooding; soil	
	d Gilling in			e the SA limits)		
ssessment Summary	(Overall site condition	summary and commer	nts after the field data is	collected)		
Assessment Summary	Overall site condition Le Seem	summary and commer	nts after the field data is	collected.)		
ovisional 3, 2 Rankeld Score 3, 2	te seem	summary and commer	but it very	collected.)	Date 5/15/24	

SA Name: Two Mile Pond Reservoir Transect [5]

Date: 5/15/24

Surveyor Initials: 05

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	2	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	2	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	3	0.2	
A3. Channel Equilibrium	4	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition	4	0.1	

SA Condition	n Scoring Sur	nmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	2.6	0.35	
Abiotic	3.8	0.35	
SA WETLANI	CONDITION	SCORE Σ	
SA WETLANI	D RANK =		3.2

SA Wetland Rank		
Rank	Score	Description
А	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

tressor Summary	Major	Minor	Top Three	
	0	0	1	Seems like soil drainabel
			2	Doesn't get enouch Hio
			3	

Stressor Comments (Evaluation of risk)

3

3

/2 =

SA Name: Two Mile Pond Reservoir Transect [)]

Date: 5/15/24

Surveyor Initials: D5

Landscape Context

Mark Contract Contract	Buffer Integrity									•
To: ai.	ksheet 1a. Buffer a e excluded and con: year of imagery).	nd RCC Checklist. sidered non-buffer	Check o element	ff land cover s that disrup	elemen t ecosys	ts withi stem co	n the buffer nnectivity. I	area (ndicat	or RCC co	orridors that are either allowed agery type and date (season
lmag	ery Google Ear	th KMZ. file			Image	Date	6/23			
	ed buffer/RCC land	d cover elements			Exclud	led non	L ı-buffer/RCC	land	cover ele	ements
Buffe	r RCC				Buffer	RCC				
X	X Natural or s	semi-natural veget	ation pat	tches	X	X	Commercia dams, brido	l/resio	dential de vetment	evelopments, parking lots, s, and other structures
X		tion ditches witho	ut levees		\Box	П				, sports fields
	🔲 Old fields, ι	unmaintained					Railroads			, opono menas
	Open range	e land					Maintained materials, st			ent piles, construction
X	Foot trails, intensity)	horse trails, unpave	ed bike tr	ails (low						norse paddocks, feedlots
X		el open water					Intensive ag			itained pastures, hay fields, ineyards
X		oning abandoned v curring levees	egetateo	d levees, or	X			or de		second-order unpaved but
	unpaved tw	o tracks roads			X		Open water structure	boun	ded by a	levee or other manmade
	Other						Other			
Works	heet 1b. Buffer Pe	rcent Sub-metric.	Measure	or estimate i	the perc	entage	of the			
рж per	imeter composed o	f allowed buffer ele	ements a	nd enter into	the Ru	ffor Dor	cont	_		le L1a. Buffer Percent
integri	low. Rate the sub-m ty Summary Worksh	reet 1d.	ia and e	nter the ratin	g on th	e Buffei	r	F	Rating	Buffer Percent
		Buffer Percer	nt (%)=	85%				0	4	100%
Novlesk								<u>(X)</u>	3	≥80% - <100%
he GIS	neet 1c. Buffer Widtor on the map. Aver	th Sub-metric. Me	asure the	e length of ea	ch buff	er line i	n meters in		2	≥50% - <80%
he Buff	er Integrity Summa	ry Worksheet 1d.	is allu la	te using labit	e LID. CI	nter the	rating on		1	<50%
Line	Buffer Width	Buffer Width	Line	Buffer W	/idth	Buff	fer Width		Tab	le L1b. Buffer Width
	(m)	(ft)	LIIIE	(m)			(ft)	R	ating	Average buffer width
Α	164.26	538.91	E	161.93		53	31.26		4	≥190m
В	125.25	410.92	F	231.48	}	75	9.44	R	3	≥130 - <190m
C	115.39	378.57	G	121.25			7.80	0	2	≥65 - <130m
D	111.07	364.40	Н	155.87				\circ	1	<65m
							1.38			
	Average	148.31 (m)		486.58		(ft)		Tab	ole L1c. S	iummary Rating for Buffer
Norksh	eet 1d. Buffer Inte	grity Summary. E	nter the	sub-metric R	atings fi	rom Tab	oles L1a	<u> </u>	- •	Integrity
ina LIE	above to calculate	the Buffer Integrity	v Index S	core usina th	e formi	ıla in th	e hov	<u> </u>	ating	Score
on i	Jsing the Buffer Inte the SA Summary Wo	gnty muex score, orksheet.	enter rat	ing for Buffer	ıntegri	ty in Tal	ole L1c		4	>3.5
						_		ß	3	>2.5 - ≤3.5
uner 7	% Rating + Bu	ffer Width Rating	/2 =	= Buffer	Integrit	ty Inde	x Score	\bigcirc	2	>1.5 - ≤2.5

SA Name: Two Mile Pond Reservoir Transect [5]

Date: 5/15/14

Surveyor Initials:

.2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

are data from the first state of the state o			And the second			
Segments	Upstrear	n Segment	Downstrea	m Segment		
Banks	Left Bank	Right Bank	Left Bank	Left Bank Right Bank		
A) Total Bank Disruption (m)	0	0	0	0		
B) Total Disruption by Segment (m)		0)		
C) % Segment Disruption = (B/1000)*100		0	C			
D) Total Disruption both segments		(0			
E) % Total Disruptions = (D/2000)*100	Zero dis	ruption notic	eable along t	the banks.		

Та	ble L2. RCC Rating
Rating	Description
	0% total disruption on both segments combined.
O 3	<15% total disruption on both segments combined.
O 2	≥15% - <40% total disruption on both segments combined.
O 1	≥40% total disruption on both segments combined.

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksher

		RSR						RV	VSI		
Current Size	1	Historic Size	=	RSR	1	- emil	RSR	X	100	=	RWSI (%)
9	1	10	=	0.9	1	-	0.1	Х	100	=	10

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
O 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
<u></u>	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size
O1	>70%	Wetland has been reduced by more than 70% its natural size

SA Name:

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L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	able L4. S	urrounding Land Use Rating
R	ating	LUI Score
\bigcirc	4	≥95 - 100
\circ	3	≥80 - <95
(X)	2	≥40 - <80
$\overline{\cap}$	1	<40

SA CODE: SPZMI [)]

SA Name: Two Mile Pond Reservoir Transect [)]

Surveyor Initials:

Date: > 112/12 7

Biotic Metrics

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B4 and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List - Appendix D). Use the comments box for documenting and describing vegetation community patch features. Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant

	B. C.				
Polygon No	B3 Vertical Structure Type	84 Iree Regeneration % Cover	B4 Iree B5 Invasive Regeneration Exotic % Cover Species % Cover	Invasive Exotic Species (List Code(s))	Comments
-	IA1				
2	IA2				
3	IIA1				
4	IIIB1	909	NA	No mullen ground	Willow trees until water line, they cat tails.
2	IIIC1				
9	IVEI				
7	IVF1				
∞					
6					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20	Å				

SA Name: Two Mile Pond Reservoir Transect [)

Date: Surveyor Initials:

B1 - Relative Native Plant Community Composition

Worksheet 6. CT Plant Species and Bol

\dashv				Tall Wc	Tall Woody Stratum ¹	tum ¹		Short Woody Stratum ²	ody Strat	um 2		Short Woody Stratum 2 Herbaceous/Sparse Stratu	Is/Spars	Herbaceous/Sparse Stratum 3		CT Score 4	4	
<u>~</u>	Polygon Nos.	los.	ļ	Species 1	S 1 E	Species 2	шZ	Species 3	ш Z	Species 4	ш 2	Species 5	шΖ	Species 6	ш 2	Raw4	% SA5	% SA5 Wt Score6
V V								Willow	3	Cattail	2	Mullein	LL	Texas C	2		2	4
В																\		?
J																		
ш																		
ш																		
9																		1000
ェ																		
~																		
Σ																		
z																		
														10000				
													i		r			1

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must

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Table B1	.Relative Native Plant	Community Composition Rating
Rating	CT Fin	al Weighted Score
4	≥ 3.75	<10% non-native
` _/ 3	≥ 3.25 and <3.75	10% ≤20% non-native
2	> 2.0 and <3.25	20% ≤50% non-native
) 1	≤2.0	>50% non-native

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch ttern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

rizontal Patch Structure pattern A,B,C, or D:	
---	--

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
ξ 3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

Orksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA or Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with time VST) x 100. Enter the total %SA for each VST below.

	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
	High Structure	Low Structure	Tall Shrubland	Short	Herbaceous	Herbaceous	Sparse
	Forest	Forest		Shrubland	Wetland	Vegetation	Vegetation
Fotal % of SA			80			ι0	

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the low that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the lating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
` 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	65		
1	6H		
	7		

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Surveyor Initials:

DS

																' a			

Ta. 34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
<u>ල</u> 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
○ 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
∑ ² 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
O 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%) 71

calculate

Table B5. Rating	s for Invasive Exotic Plant Species Cover
Rating	Invasive Species Cover %
O 4	0%
C 3 X	>0% - <1%
i_ /2 /	≥1% - <10%
O 1	≥10

Additional CTs and Biotic Metric Comment	dditional (CTs and	Biotic Met	ric Com	ment
--	-------------	---------	-------------------	---------	------

Area has mullein but no sign of New life

SA Name: Two Mile Pond Reservoir Transect [5]

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Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

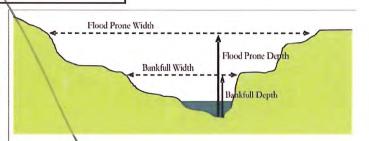
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three crosssections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description Cross-section:	1	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bankfull contour. Measure the distance between the right and left bankfull contours with a tape.			
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, measure the height of the line above the thalweg (the deepest part of the channel). A pocket line level can help here.			
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.			
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.			
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).			
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Enter the average hereusing Table A1a. Enter the rating in the A1 box on the SA Rank Summary Worksheet.	e and r	ate	

Rating Method

Table A1a. R	ating for Floodplain Hydrologi	c Connectivity in
meandering	single-channel riffle-pool system	ems

Rating	Description
O 4	Average entrenchment ratio is ≥ 2.2;
C 3	Average entrenchment ratio is ≥1.9 - <2.2
O 2	Average entrenchment ratio is ≥1.5 - <1.9
O 1	Average entrenchment ratio is < 1.5



Norksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Norksheet in conjunction with Table A1c. Check the boxes for all that apply to each

9			
U	M	L	Indicator
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
			Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
			Inset floodplain formation
			Decreased peak flows due to hydrologic modification
			Bankfull indicators at point of incipient flooding of the floodplain
			Indicators of overbank flow on floodplain
			Floodplain inundation due to beaver activity

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems

Rating	Description
0 4	Average entrenchment ratio is ≥ 1.9
O 3\	Average entrenchment ratio is ≥1.4 - <1.9
C 2	Average entrenchment ratio is ≥1.2 - <1.4
O 1	Average entrenchment ratio is < 1.2

SA (CODE:	SF2MI[5]			Date:	5/15/z	4
SAI	Name:	Two Mile Pond R	eservoir Transect [5]	Surveyo	or Initials :	DS	,
letho	d 2						
hydrold other h flow an Select a	ogic cor nydrolog nd flood a rating	nnectivity. At each co gic evidence that wo plain inundation. Re from the table belo	Hydrologic Connectivity Ra ross-section, use Worksheet ould preclude natural floodp ecord whether beaver activit w. Use data from Worksheet cross-section and recorded i	10b to record channel incis lain inundation. Conversely y is obscuring bankful indic s 10b to help select rating.	sion, bank mo ,, assess indic cators due to	odification, inse cators and evide inundation of t	t floodplain or ence for overbank :he floodplain.
Rati	ing		\	Description			
C 4	1 C	over-bankfull flows l igns of overbank se he identification of	ne natural floodplain. Indicat ikely to inundate a broad are diment deposition. Or beave bankfull indicators and the a	ea of floodplain. Floodplain er ponds inundate the entii active floodplain width.	∕supports rip re, normally a	arian vegetatio ictive floodplaii	n and shows n and preclude
∩ 3	3 c r a	connected streams on iparian overstory, bulso be present.	oodplain moderately limited described above (as noted by ut some understory plants m	y bankfull indicators below nay be upland. An inset floo	floodplain tr odplain suppe	ansition). Flood orting riparian	Iplain supports a vegetation may
C 2	2 \cdot \cd	regetation and sedir hannelization, or flo elatively long-lived	or modified with an inset floment regimes. Or the stream ow modification, and the nate phreatophytes (e.g., cottony	has minimal access to the cural floodplain does not su yood, salt cedar, etc.).	natural flood Ipport riparia	lplain due to in n vegetation e	cision, kcept for
O 1	r	nodification (i.e., ab and lack of overbank	rom floodplain, either throug andonment of floodplain du a sediment deposits on the fl	le to decreased peak flows) loodplain, etc.). Indicators n	nay include upl	and vegetation
ken loo oss-sec noto bo	oking Up tion. Le pard with	ostream and Downst ave the cross-section of SA name and cross	oss-Section Photographs. Fiream from the thalweg and in tape and flags indicating bes-section information is help instream.) See Appendix E for	looking Bank Right* and B bankful in the ground when ful. (*The bank of a stream	Bank Left* acr I taking the B	oss the stream ank Right and I	from each side of Bank Left photos.
Cross ection	Easti (Latit	ing Northing	Unctroom	Downstream	Bank	Right	Bank Left
1		,	/				
2		/					
3							
loodpla	ain Hyd	rologic Connectivity	Comments:		Man de la companya della companya della companya de la companya della companya de		
				,			

SF2MI[5] SA CODE:

SA Name: Two Mile Pond Reservoir Transect [5]

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
	₩.		Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
			Terraces
	X		Channel pools
	X		Beaver ponds
			Swales, depressional features on floodplains
	×		Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tabl	le A2. R	ating for Physical Patch Complexity
Rati	ng	Description
Ĉ	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).
7	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).
C	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).
C-	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ŕ		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		×		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium				There is little or no active undercutting or burial of riparian vegetation.
		×		There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
				Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation		. 🗆		Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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	Table A3. Rating for Channel Equilibrium
Rating	Description
√ 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.
∩ 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process; aggradation or degradation
∩ 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.
∩ 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators
	<u></u> 4	⊠4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank Soil Stability	3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
	<u></u> 2	2	□ 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	1	<u></u> 1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	1⊠4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	<u></u> 3	<u></u> 3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	<u></u> 2	<u></u> 2	□2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	1	1		Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	

Description
>3.5 - 4.0
>2.5 - ≤3.5
0
>1.5 - ≤2.5
1.0 - ≤1.5

SA Name: Two Mile Pond Reservoir Transect [5]

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A5 - Soil Surface Condition

rksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	Ø		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

> 1%

<u></u>	Table A5. Soil Surface Condition Rating								
Rating Description									
⊗ 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogudegradation to the soil surface is less than 1% of the SA.								
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.								
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.								
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill,gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.								

	SA	CODE:	SF2MI	[.	5]
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SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials: DS

Worksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign categories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknor Rank Major Stressors in Dominant Stressor column(Pick up to 3)

-		A	ffect			
Rank	Major	Minor	inor Absent Unknown		Stressor Group/Stressor	Comments
Description		· - /			Adverse water management	
					Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
			\square		Agriculture/Urban flow diversion upstream	
T			.		Adverse sediment management	
					Adverse sediment retention by dams	
			Ø		Sediment loss by dredging	
					Adverse sediment input (roads/development)	
			0.44		Artificial water additions	
			Ø		Sewer treatment effluent	
			Ø		Point source urban runoff	
			Ø		Factory, feedlot outfall	
			Ø		Agricultural irrigation ditch returns	
			Ø		Mining waste	
			1	100	Ground water pumping	
			4		Urban depletions	
			Ø		Fracking	
					Agriculture irrigation wells	
					Watershed alteration	
			Ø		Extensive recent fires in watershed	
					Extensive recent timber harvest	
			Ø		Extensive open pit mining in watershed	
			\Box		Livestock/wildlife overgrazing	
T	i i		- /-		Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0 0	counts by Intensity	
litional	Commen	h-				

litional Comments

sion Date: 04/25/2022

Schema: Montane 2.5

	Established	SA Cover	Worksheet				
SA Code SF2MI[5] SA Name : Two	Mile Pond Reservoir		Project : Ri _l	parian Asses	sement	
Code Tsct [5]	AU Name : Tran	sect [5]		WOI : Two	Mile Pond R	Reservoir	
County Santa Fe	HUC 12 Heady	waters Santa Fe River	Elevation (ft) 7299	(m) 2224.7	Eco	region 6.0 NWFM	
A riparian system t decommissioned o of water rights. Driving Directions Driving to Santa Fo	due to safety concerns r	ocated on the east side o egarding the reservoir a 	nd a water diversio	on to the area was	recently shu	ut down due to lack	
Ownership The Nature	Conservative and The S	Santa Fe National Forest	1 21	Results to client only.	Fish Obsei Wetlar	1	
Surveyor Role		Survey	or Name			Surveyor Initials	
Landscape	Dustin Schwart	Z				DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwar	tz				DS	
Stressors	Dustin Schwar	tz				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude	e (DD ft)	Longitude (DD ft)	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTI	M 35.689722		-105.89	
Survey Date	6/11/24	Start Time	9:00	End 7	Γime	15:00	
		SA Des	cription				
SA Landscape Contex	ct (summarize the wetla	nd and surrounding lan	dscape; include co	ndition and impac	ts)		
Look	,	lar to last thee and R			l	1015	
SA Biotic Condition (\		mposition and structure,				and herbivory)	
M	Srass is	etill brown	12.1667	the te	. / /	1 la	
s <i>H</i> //	recovering	still brown catt ti	ls in	pond con	ning ba	ek substantials	
		s (e.g., dams, walls etc.); e hydrologic breaks or o				nk flooding; soil	
Assessment Summary	(Overall site condition	summary and comment	ts after the field da	ta is collected.)			
- Accounts							
Provisional Rank	Surveyor(s)	DS/AM Final Score	.// Rank /	Initials (ς Γ	Date 6/11/24	

SA Name: Two Mile Pond Reservoir Transect [5]

Date: 6/11/24

Surveyor Initials: DS/AM

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5			
Metric Description	Rating	y Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	2	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	3	0.2	
B4. Native Riparian Tree Regeneration	2	0.2	
B5. Invasive Exotic Plant Species Cover	3	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	3	0.2	
A3. Channel Equilibrium	3	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition	Ц	0.1	

SA Condition Scoring Summary							
Major Attribute	Score	Wt.	Wt. Score				
Landscape Context	3.25	0.3	0.975				
Biotic	2,6	0.35					
Abiotic	3,5	0.35					
SA WETLAND CONDITION SCORE Σ							
SA WETLANI	D RANK =		3.11				

SA Wetland Rank									
Rank	Score	Description							
А	≥3.25 - 4.0	Excellent Condition							
В	≥2.5 - <3.25	Good Condition							
С	≥1.75 - <2.5	Fair Condition							
D	1.0 - <1.75	Poor Condition							

Stressor Summary	Major	Minor	Top Three	
	0	0	1 Seems Dry	
			2 Doesn't get som	ne water,
			3	d J

ressor Comments (Evaluation of risk)		
		1.0

Date:

SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials: DS/AM

6/11/24

Landscape Context

\$1500 (00 cm mm m m m m m m m m m m m m m m m m		egrity Inc										
or are e	heet 1a. B excluded a ar of image	nd consider	CC Checklist. Ched non-buffer ele	eck off land ments that	cover e disrupt	lement: ecosyst	s within em con	n the buffer ar nnectivity. Ind	ea or icate	RCC corri the imag	idors that are either allowed, ery type and date (season	
lmager	y Goo	gle Earth K	MZ. file			Image Date 6/23						
Allowed buffer/RCC land cover elements						Exclud	Excluded non-buffer/RCC land cover elements					
Buffer	RCC					Buffer	RCC					
X	X Nat	ural or semi	-natural vegetation	on patches		X	X				elopments, parking lots, and other structures	
X	X Sm	all irrigation	ditches without	evees				Lawns, parks,	golf	courses, s	ports fields	
Hat		l fields, unm						Railroads				
	□ Ор	en range lar	nd					Maintained le materials, sta			t piles, construction	
X	IVII	ot trails, hors ensity)	se trails, unpaved	bike trails (l	low			Intensive live	stock	areas, ho	rse paddocks, feedlots	
X	X No	n-channel o	pen water					Intensive agri			ained pastures, hay fields, neyards	
X	1.711	n-functionin	ng abandoned veg	getated leve	ees, or	X	X	Paved roads of graded roads	roads or developed second-order unpaved but			
		Open water bounded by a levee or other manma structure						evee or other manmade				
、村	Oth	ner						Other				
Morks			nt Sub-metric. N	leasure or e	stimate	the per	centac	e of the		Table	e L1a. Buffer Percent	
SA peri	meter cor	nposed of al	llowed buffer eler ric using Table L1	nents and e	nter int	o the Bu	uffer Pe	ercent	F	Rating	Buffer Percent	
				-		J			0	4	100%	
Integrity Summary Worksheet 1d. Buffer Percent (%)= 85%					35%						100/0	
Daniel Colonia, (17)									Ø	3	≥80% - <100%	
<u> </u>	44.5				oth of	asch bu	ffor line	o in meters in	⊗ ○	3		
Worksh the GIS	neet 1c. Bu	uffer Width	Sub-metric. Mea	sure the ler	ngth of e	each bu	ffer line	e in meters in			≥80% - <100%	
the GIS	or on the	map. Averag		sure the ler	ngth of e sing Tab	each bu	ffer line Enter tl	e in meters in he rating on		2	≥80% - <100% ≥50% - <80% <50%	
the GIS the Buff	or on the l fer Integrit	map. Averag y Summary	Sub-metric. Mea ge the line lengths Worksheet 1d. Buffer Width	sure the ler	sing Tab Buffer	ole L1b. Width	Enter tl	affer Width	00	2 1 Tab l	≥80% - <100% ≥50% - <80% <50%	
the GIS	or on the fer Integrit Buffer (1	map. Averag y Summary · Width n)	Sub-metric. Mea ge the line length: Worksheet 1d. Buffer Width (ft)	sure the ler	sing Tab Buffer (m	Width	Enter tl	uffer Width (ft)	(C) (C) (F)	2	≥80% - <100% ≥50% - <80% <50% Le L1b. Buffer Width Average buffer width	
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the GIS the Buff Line	or on the fer Integrit Buffer (1	map. Averag y Summary • Width n)	Sub-metric. Mea ge the line length: Worksheet 1d. Buffer Width (ft)	sure the ler	sing Tab Buffer (m	Width) 93	Bu	uffer Width (ft)		2 1 Tab Rating 4 3	≥80% - <100% ≥50% - <80% <50% L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m	
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the GIS the Buff Line A B C D Works and L1 below.	or on the fer Integrit Buffer (1) 164 125. 111. Average heet 1d. I b above to Using the	map. Averagy Summary Width n) 26 25 39 07 Buffer Integ	Sub-metric. Mea ye the line lengths Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) Irity Summary. E he Buffer Integrity grity Index Score,	sure the lers and rate uses an	Buffer (m 161.9 231.4 155.4 486.5 po-metric re using	Width n) 93 48 25 87 8 E Rating:	Bu (ft)	14 rating on 14 rating on 14 rating on 14 rating on 14 rating on 14 rating on 14 rating on 14 rating on 14 rating on 15 ra	C C C C C C C	Table Rating 4 3 2 1 ble L1c. Stating	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m Summary Rating for Buffer Integrity Score	
Line A B C D Works and L1 below.	or on the fer Integrit Buffer (1 164 125. 111. Average heet 1d. I b above to Using them the SA Su	map. Averagy y Summary Width n) 26 25 39 07 e Buffer Integ to calculate to Buffer Integ to many Wor	Sub-metric. Mea ge the line lengths Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) Irity Summary. E he Buffer Integrity grity Index Score,	sure the lers and rate uses an	Buffer (m 161.9 231.4 155.4 486.5 po-metric re using for Buff	Width) 93 48 25 87 Rating: the fori	(ft) s from mula in grity in	uffer Width (ft) 531.26 759.44 397.80 511.38 Tables L1a the box Table L1c	C C	Table Rating 4 3 2 1 ble L1c. Seating 4	≥80% - <100% ≥50% - <80% <50% le L1b. Buffer Width Average buffer width ≥190m ≥130 - <190m ≥65 - <130m <65m Summary Rating for Buffer Integrity Score >3.5	
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L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment	
Banks	Left Bank Right Ba		Left Bank Right Bar	
A) Total Bank Disruption (m)	0	0	0	0
B) Total Disruption by Segment (m)		0	()
C) % Segment Disruption = (B/1000)*100	ption = (B/1000)*100		0	
D) Total Disruption both segments	0			
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable along the banks.			he banks.

Та	ble L2. RCC Rating
Rating	Description
⊗ 4	0 % total disruption on both segments combined.
O 3	<15% total disruption on both segments combined.
O 2	≥15% - <40% total disruption on both segments combined.
O 1	≥40% total disruption on both segments combined.

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksheat.

		RSR						R	WSI		
Current Size	1	Historic Size	=	RSR	1	-	RŞR	Х	100	-	RWSI (%)
9	1	10	=	0.9	1	1 mg	0.1	Х	100	=	10

		Table L3. Relative Wetland Size Rating
Rating	RWSI Score	Description
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent
O3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size
		Wetland has been reduced by more than 40% its natural size
01	>70%	Wetland has been reduced by more than 70% its natural size

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	
LUI Score= Coefficient * % LUZ Area		100	75

T	able L4	. Surrounding Land Use Rating
R	ating	LUI Score
\overline{C}	4	≥95 - 100
\circ	3	≥80 - <95
(X)	2	≥40 - <80
	1	<40

Biotic Metrics

SA Name: Two Mile Pond Reservoir Transect [ら]

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Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List -Appendix D). Use the comments box for documenting and describing vegetation community patch features. W1/1025 Comments Invasive Exotic Species (List Code(s)) Species % Cover None B4 Tree B5 Invasive Regeneration Exotic 50% % Cover B3 Vertical Structure Type IIC1 IA1 IA2 IIIB1 INEI IVF1 IIA1 Polygon No 7 4 2 9 ∞ 0 10 1 12 13 14 15 16 17 18 19 20

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B1 - Relative Native Plant Community Composition

dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.

				1	Tall Woody Stratum 1	v Stratur	n 1		Short Woody Stratum 2	dv Strati	Jm 2		Herbaceous/Sparse Stratum ³	erbaceous/Sparse Stratu	Stratum 3		CT Score 4	4	
t	Polygon Nos.	los.		1 2	Species 1	Ш	ecies 2	ш	Species 3	`ш	ies 4	ш	Species 5	- ш	Species 6	ш ;	Raw4 %	SA5	Wt Score ⁶
		<u> </u>			-	z		z				Z				~	3778		K
		1		+								2	1 12 1 622	7	1000	1	@/\ @/\	3)
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														Fina	Final Weighted Score ⁷	Score ⁷			\sim
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equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7 The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs < 6m (20 feet) and > 25% total stratum cover; 3. Herbaceous (graminoids and forbs) > 10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Table B1	. Relative Native Plant C	ommunity Composition Rating
Rating	CT Fina	al Weighted Score
○ 4	≥ 3.75	<10% non-native
C3	≥ 3.25 and <3.75	10% ≤20% non-native
(*< 2	> 2.0 and <3.25	20% ≤50% non-native
C 1	≤2.0	>50% non-native

B2 - Vegetation Horizontal Patch Structure

Worksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch pattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

	Table B2. Rating for Vegetation Horizontal Patch Structure
Ratin	 Description
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

B3 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with same VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA		لـــــ	80			20	

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
C 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
/	1		
3	2 or 1 and 2	5	
	2 or 1 and 2	6W	
	5	6W	6W and/or 6H
	2 or 1 and 2		
C 2	5		6W and/or 6H
	6W		***************************************
	6S		
C 1	6H		
	7		

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B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5%
() 4	cover, typically multiple size (age) classes.
C /3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)	>	/_

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover							
Rating	Rating Invasive Species Cover %						
C 4	, 0%						
3 7/	>0% - <1%						
2	≥1% - <10%						
Ó 1	≥10						

Additional	CTs and	Biotic Metric	Comments:
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SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

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Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

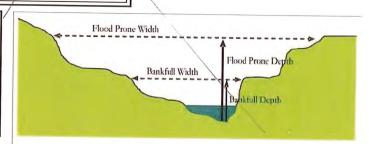
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description	Cross-section:	1	2	3
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bank Measure the distance between the right and left bankfull contours with a	tape.			
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, mea of the line above the thalweg (the deepest part of the channel). A pocket help here.	sure the height t line level can			
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.				
4: Flood-prone width	: Flood-prone width Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.				
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).				
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Ente using Table A1a. Enter the rating in the A1 box on the SA Rank Summary	r the average here Worksheet.	and ra	ate	

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems

Rating	Description
O 4	Average entrenchment ratio is \geq 2.2;
O 3	Average entrenchment ratio is ≥1.9 - <2.2
O 2 Average entrenchment ratio is ≥1.5 -	
0 1	Average entrenchment ratio is < 1.5



Works Works segme	heet ir	1 0b. F l n conju	loodplain Hydrologic Connectivity Indicators. Use this inction with Table A1c. Check the boxes for all that apply to each
U	M	L	Indicator

	Bankful is slightly below bank height		
	ankful is well below bank height and channel is incised		
	Channel widening due to bank failure		
	Constructed levees preclude floodplain inundation		
	Stream is straightened/channelized		
	set floodplain formation		
	ecreased peak flows due to hydrologic modification		
	Bankfull indicators at point of incipient flooding of the floodplain		
	ndicators of overbank flow on floodplain		
	loodplain inundation due to beaver activity		

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems					
Rating	Description				
O 4	Average entrenchment ratio is ≥ 1.9				
O 3 Average entrenchment ratio is ≥1.4 - <1					
O 2	Average entrenchment ratio is ≥1.2 - <1.4				
0 1	Average entrenchment ratio is < 1.2				

SF2MI[5]

Date:

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SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

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Method 2

ble A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

Rating	Description
C 4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.
O 3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
C 2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
O 1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1		-				
2	`					
3			And the same of th			

Floodplain Hydrologic Connectivity Comments:

₹ 			÷
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SA Name: Two Mile Pond Reservoir Transect [5]

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A2 - Physical Patch Complexity

Worksheet 11. Phy	sical Patch Complex	xity checklist. Chec	k off existing physical patch types for the upper, middle and lower				
peginents of the 3A,	, count the number o	i unique batch type	s and rate using Table A2 in combination with the narrative description.				
Enter the rating on the SA Rank Summary Worksheet.							
Upper Segment Middle Segment Lower Seg			Field Indicators (check all existing conditions)				
			Active side channels				
			Abandoned channels				
			Backwater/eddy				
			Riffles or rapids				
			Shoals, sparely-vegetated bars				
	X		Channel boulders				
			Oxbow lakes/ponds on floodplains				
			Vegetated island and side bars				
			Terraces				
			Channel pools				
			Beaver ponds				
			Swales, depressional features on floodplains				
			Debris jams in channel				
			Woody wrack piles on the floodplain				
			Floodplain micro-topography (mounds, pits)				
			Downed logs				
			Natural levees				
			Standing snags				
			Variegated, convoluted, or crenulated foreshore				
			Undercut banks in channels				
			No. of unique Patch Types				

Tabl	e A2. Ra	ating for Physical Patch Complexity							
Ratio		Description							
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).							
A	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).							
\subset	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).							
\subset	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.							

SA Name:

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper	Middle	Lower	Field Indicators(check all existing conditions)	
Condition	Segment	Segment	Segment		
				The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.	
				Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.	
f ^c		Q	<i>i</i> 🔲	There is leaf litter, thatch, or wrack in most pools.	
Indicators of		D		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.	
Channel Equilibrium		ý- 		There is little or no active undercutting or burial of riparian vegetation.	
·		囟		There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).	
		· 🔲		Channel and point-bars consist of well-sorted bed material.	
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.	
				There are channel pools at meander bends and some deep pools within threach.	
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.	
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.	
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.	
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.	
				There are active headcuts within the channel.	
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.	
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.	
				There are partially buried living tree trunks or shrubs along the banks.	
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.	
				There are partially buried or sediment-choked culverts.	
				There are avulsion channels on the floodplain or adjacent valley floor.	

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	Table A3. Rating for Channel Equilibrium						
Rating	Description						
4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.						
<u> </u>	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.						
C 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.						
\bigcap 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.						

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

	acting on the SA Summary Worksheet.						
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators			
	<u></u> 4		<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.			
Indicators of Bank Soil Stability	<u></u> 3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.			
Son Stability	<u>2</u>	<u></u> 2	<u></u> 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.			
	1	1	<u></u> 1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.			
	<u></u> 4	<u></u> 4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.			
	<u></u> 3	<u></u> 3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.			
Indicators of Stream Bank Erosion Potential	<u></u> 2	<u></u>	<u> </u>	>25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.			
	<u></u> 1	□1	<u> </u>	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.			

Average Indicator Score	
-------------------------	--

Rating	Description			
X 4	>3.5 - 4.0			
C 3	>2.5 - ≤3.5			
C 2	>1.5 - ≤2.5			
C 1	1.0 - ≤1.5			

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SA Name: Two Mile Pond Reservoir Transect [5]

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A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)		
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).		
	\(\overline{\pi}\)		Multiple livestock and other (fishing, hiking) trails,		
			Vehicle tracks including off-road and construction, etc.		
			Impervious compacted surfaces or pavement		
			Grading or plowing		
			Fill		
			Gravel pits		
			Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts		
			Fire pits		
			Other:		
			Estimate % soil disturbance by segment area		

Average % Soil Disturbance: ///

Ĵ 	Table A5. Soil Surface Condition Rating						
Rating	Description						
? 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

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Worksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign categories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknow" "Rank Major Stressors in Dominant Stressor column(Pick up to 3)

Rank	Rank Affect				St	
Marik	Major	Minor	Absent	Unknown	Stressor Group/Stressor	Comments
			T		Adverse water management	
		D			Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
					Agriculture/Urban flow diversion upstream	
					Adverse sediment management	The filter of the first of the
					Adverse sediment retention by dams	
			Q		Sediment loss by dredging	
			Ø		Adverse sediment input (roads/development)	
					Artificial water additions	
			Ø		Sewer treatment effluent	
			$\square \not \supseteq \backslash$		Point source urban runoff	
	. Ц		Ø,		Factory, feedlot outfall	
			Ø		Agricultural irrigation ditch returns	
					Mining waste	
					Ground water pumping	
			血		Urban depletions	
			Ď		Fracking	
			Ò		Agriculture irrigation wells	
			A CONTRACTOR	Table 1	Watershed alteration	and well to one of the particle of the continues and adding the
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
	6047				Local biodiversity impacts	Maring particular de la comparación de la comparación de la comparación de la comparación de la comparación de
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0	Counts by Intensity	
dditiona	l Commen	tc				

ersion Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

Canyon Road until yo	oundary (Rationale, co	ect [/] aters Santa Fe River comments) ated on the east side	Elevation (ft) 729	Project : Rip WOI : Two N (m) 2224.7	Mile Pond Re						
County Santa Fe SA General Location and B A riparian system that decommissioned due of water rights. Driving Directions Driving to Santa Fe fro Canyon Road until yo	HUC 12 Headwa	nters Santa Fe River comments) nated on the east side	<u> </u>								
A General Location and B A riparian system that decommissioned due of water rights. Driving Directions Driving to Santa Fe fro Canyon Road until yo	oundary (Rationale, co	omments) ated on the east side	<u> </u>	(m) 2224.7	Ecor	region 6.0 NWFM					
A riparian system that decommissioned due of water rights. Driving Directions Driving to Santa Fe fro Canyon Road until yo	leads into a nond loca	ated on the east side		ndary (Rationale comments)							
	om Albuquerque you u reach the reservoir l	head north on Old Pe	and a water divers	sion to the area was I	recently shu	it down due to lack					
Ownership The Nature Co			Data Sharing Restrictions	Results to client only.	Fish Obser Wetlar	1 .					
Surveyor Role		Surve	yor Name		and the second	Surveyor Initials					
Landscape	Dustin	garante e e e e e e e e e e e e e e e e e e				Ds					
Biotic	Annie					P5					
Abiotic	Dustin					DS					
Stressors	Both				1100	D)					
Easting (m)	Northing (m)	Zone	Datum	Latitude	e (DD ft)	Longitude (DD ft					
	35° 41′ 23" N	13	NAD- 83 U	JTM 35.68972	22	-105.89					
Survey Date	4/9/24	Start Time	20 S 20 S 20 S 20 S 20 S 20 S 20 S 20 S	End	Time						
	Il dry a		,								
SA Biotic Condition (ve						,					
	Some bladd	er worl	growing	on the	Por	7 <i>0</i>					
SA Abiotic Condition (hadisturbance and other si	te impacts; explain the	e hydrologic breaks c	or other factors tha	it define the SA limit	S)						
Ave	a is s	till very	dry ar	nd recov	eving	from					
h	inter	,									
Assessment Summary	(Overall site condition	summary and comm	ents after the field	d data is collected.)							
I	Area is	5+111	recoverib	is from	winte	W					
,	1.00	t .		/							
	Area is Not ma	ch now	life (yet,							

SA CODE: SF2MI[💍]

Date: 4/9/24)

Surveyor Initials:

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5			
Metric Description	Rating	Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	0.5
B1. Relative Native Plant Community Composition	2	0.2	
B2. Vegetation Horizontal Patch Structure	2	0.2	
B3. Vegetation Vertical Structure	2	0.2	
B4. Native Riparian Tree Regeneration	L	0.2	
B5. Invasive Exotic Plant Species Cover	7		
Abiotic	L	0.2	
A1. Floodplain Hydrologic Connectivity		Σ	
A2. Physical Patch Diversity		0.3	
A3. Channel Equilibrium	2	0.2	
	4	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition			-

SA Condition	Scoring Sum	nmary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	2.6	0.35	
Abiotic	3.5	0.35	
SA WETLAND	CONDITION	SCORE Σ	
SA WETLAND	RANK =		3./1

SA Wetland Rank							
Rank	Score	Description					
Α	≥3.25 - 4.0	Excellent Condition					
В	≥2.5 - <3.25	Good Condition					
С	≥1.75 - <2.5	Fair Condition					
D	1.0 - <1.75	Poor Condition					

Stressor Summary	Major	Minor	Top Three				
	0	0	1	Not	Mony	Stressons	Present her
			2	Less	Wa	ter	1
			3				
traces Comment of		4					

tressor Comments (Evaluation of risk)

chance of changes from less water 6000

SF2MI[6] SA CODE:

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 4/9/24Surveyor Initials: 0.5

Landscape Context

loi aic	CACIGG	1a. Buffer and RCC Checklist. Check off land cover led and considered non-buffer elements that disrup magery).	elemen t ecosys	ts with tem c	nin the buffer area or RCC corridors that are either allowed onnectivity. Indicate the imagery type and date (season
lmage	ry	Google Earth KMZ. file	lmage	Date	6/23
		er/RCC land cover elements	Exclud	led no	n-buffer/RCC land cover elements
Buffer	RCC		Buffer		- Saveny, regularid cover cicinents
X	x	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures
х	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields
		Old fields, unmaintained			Railroads
		Open range land			Maintained levees, sediment piles, construction materials, staging areas
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots
X		Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards
X		Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads
		unpaved two tracks roads	X	x	Open water bounded by a levee or other manmade structure
		Other			Other
Vorksl	eet 1k	D. Buffer Percent Sub-metric. Measure or estimate to	he ner	ontac	e of the Table L1a. Buffer Percent

ate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d. Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

		,			
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
A	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
C	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table I	.1a. Buffer Percent
R	lating	Buffer Percent
\circ	4	100%
R	3	≥80% - <100%
C	2	≥50% - <80%
\bigcirc	1	<50%

Table L1b. Buffer Width						
Rating	Average buffer width					
<u> </u>	≥190m					
(X) 3	≥130 - <190m					
C 2	≥65 - <130m					
C 1	<65m					

Table L1c. Summary Rating for Buffer Integrity Rating Score 4 >3.5 R 3 >2.5 - ≤3.5 2 >1.5 - ≤2.5 1 ≤1.5

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Date: 4/9/24

Surveyor Initials:

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2 - Riparian Corridor Connectivity (RCC)

Norksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

The data from this worksheet like realing or the like year.					
Segments	Upstrear	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)	0 0		0		
C) % Segment Disruption = (B/1000)*100		0	C)	
D) Total Disruption both segments			0		
E) % Total Disruptions = (D/2000)*100	Zero dis	ruption notic	eable along t	the banks.	

Table L2. RCC Rating							
Rating	Description						
(x 4	0% total disruption on both segments combined.						
	<15% total disruption on both segments combined.						
C 2	≥15% - <40% total disruption on both segments combined.						
C 1	≥40% total disruption on both segments combined.						

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Workshe

	RSR RWSI										
Current Size	1	Historic Size	=	RSR	1	100	RSR	Х	100		RWSI (%)
9	1	10	=	0.9	1	-	0.1	Х	100	=	10

Table L3. Relative Wetland Size Rating					
Rating	RWSI Score	Description			
(X 4	≤10%	Wetland is at or only minimally reduced from its full natural extent			
C 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size			
C 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size			
C1	>70%	Wetland has been reduced by more than 70% its natural size			

SF2MI [6]

SA Name:

Two Mile Pond Reservoir Transect [&

Surveyor Initials :

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L4 - Surrounding Land Use

brksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
eveloped/Managed trail system (high use trail)		5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)		0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms		0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surrounding Land Use Rating				
Rating	LUI Score			
C 4	≥95 - 100			
C 3	≥80 - <95			
(₹ 2	≥40 - <80			
C 1	<40			

SA CODE: SPZIMI []

SA Name: Two Mile Pond Reservoir Iransect [6]

Biotic Metrics

Surveyor Initials:

Date: 4/9/27

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List – Appendix D). Use the comments box for documenting and describing vegetation community patch features. Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant

olygon	Polygon B3 Vertical Structure	B4 Tree Regeneration	35 Invasive exotic	Invasive Exotic Species	Comments
	lype	% Cover	pecies % Cover		
-	IA1				
2	IA2				
m	IIA1				
4	IIIB1	9,09	< 5%	Mullein	Still dry No New life of willow cattels
5	IIIC1	60-70%	~ 20%	Musterd/Chentquass	All of cheat grass, lots of Now small like
9	IVEI				
7	IVF1				
∞					
6					
0					
Ξ					
12					
13					
14					
15	. (
16					
17					
18					
19					
20					

SA CODF SF2MI[&]

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 4/9/5 / Surveyor Initials:

B1 - Relative Native Plant Community Composition

dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.

	The same control of a new Color of the payage of the payage of the payage of the payage.	T-11 W 4 . 0	יייייי ל	3 5	חוב שחווב כבייו	ייי יייייייייייייייייייייייייייייייייי	2 -	רובמורה יר	נווב ארי	ygui.			_	
		I all Woody Stratum			Short Woody Stratum 4			Herbaceous/Sparse Stratum	/Sparse	stratum 2		CT Score 4	t	
<u>교</u> 다	Polygon Nos.	Species 1 E	Species 2	E Spe	Species 3 E	Species 4 R	ъ́s	Species 5	w шZ	pecies 6	7	3aw4	% SA5 √	Raw4 % SA5 Wt Score6
A				Se!	Housh N	Climisa		cheat grass	m)	E Mes N 20	2	2.0	2/09	
8				7	Villac V	Catha)		Tullein	Ш	chest f	\geq	QΉ	2,02	
U										12 on 12 on				
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Σ														
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0														
								7,	Final	Final Weighted Score ⁷	Score7			2.8
1 Troop	The second minimal least 103C x but (took) OC) m3/ shinds but social C monor minimals least (%SC x but (took) OC) m3/ shinds but social is	1-+0+ 7030 - 1	T C 20000	do bac soc.	, UC) 427 74	Can land	4-4-4 /	4.	- 1 C	-,			;	

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SA Name: Two Mile Pond Reservoir Transect [/]

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Surveyor Initials:

05

Table B1.	. Relative Native Plant C	ommunity Composition Rating
Rating	CT Fina	al Weighted Score
C´4	≥ 3.75	<10% non-native
3	≥ 3.25 and <3.75	10% ≤20% non-native
? ∼ 2	> 2.0 and <3.25	20% ≤50% non-native
(1	≤2.0	>50% non-native

2 - Vegetation Horizontal Patch Structure

Forksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

B

	Table B2. Rating for Vegetation Horizontal Patch Structure
Rating	Description
4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

3 - Vegetation Vertical Structure

Forksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ame VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA				50%		50%	

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the low that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for me rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the able down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the sting on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
4	1	6W	<u> </u>
	2 or 1 and 2	5	6W and/or 6H
	1		
3	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		A THE STATE OF THE
2	5		
	6W		
	6S		
1	6H		
	7		

SA Name:

SA CODE: SF2MI[6]

Two Mile Pond Reservoir Transect [💪]

Date: 4/9/24

Surveyor Initials:

B4 Native Riparian Tree Regeneration

34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
152 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
C 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

< 5%

Invasive cover (%)

calculate

Table B5. Rating	gs for Invasive Exotic Plant Species Cover
Rating	Invasive Species Cover %
C 4	0%
7 3	>0% - <1%
2×	≥1% - <10%
C 1	≥10

Additional CTs and Biotic Metric Comments:

Duck on pond. lots of new green grasses and herbacios cover but mostly dry Chimisa greening up

SF2MI[6] SA CODE:

Date: 4/9/29

SA Name: Two Mile Pond Reservoir Transect [6]

Surveyor Initials:

A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
	R		Vegetated island and side bars
	N N		Terraces
			Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
		<u> </u>	Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
			Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tab	le A2. I	Rating for Physical Patch Complexity
Rati		Description
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).
×	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).
\subset	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.

SA CODE:

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Two Mile Pond Reservoir Transect [6]

Surveyor Initials: DS

A3-Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		×		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		図		There is leaf litter, thatch, or wrack in most pools.
ndicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
·				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
	· 🔲	郊		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
`				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
	· 🔲			There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE:

SF2MI [|]

Two Mile Pond Reservoir Transect [6] SA Name:

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Table A3. Rating for Channel Equilibrium						
Rating	Description					
6 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12					
3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach are equilibrium condition. Circle primary process: aggradation or degradation					
2	rnere is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.					
<u> </u>	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.					

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

rating on the SA Su		T		The same and the rable A4 and enter the		
Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators		
	<u></u> 4	½]4	<u></u> 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.		
Indicators of Bank Soil Stability	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.		
,	<u> </u>	<u></u> 2	□ 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.		
	1	<u></u> 1	1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.		
	<u>4</u>	∮ 4	<u></u> 4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.		
	□3	□3	<u></u> 3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.		
Indicators of Stream Bank Erosion Potential	<u></u> 2	<u></u> 2	□ 2	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.		
	_1	_1	1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.		

Average Indicator Score	4
	L

Table A4. Stream Bank Stability and Cover Rating Rating Description				
4	>3.5 - 4.0			
` 3	>2.5 - ≤3.5			
2	>1.5 - ≤2.5			
1	1.0 - ≤1.5			

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 4/9/24

Surveyor Initials: D5

A5 - Soil Surface Condition

reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
	X		Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:

<u> </u>	Table A5. Soil Surface Condition Rating						
Rating	Description						
⋈ 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
○ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
<u> </u>	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other appropriate degradation to the soil surface is greater than 5% or less than 10% of the SA.						
<u> </u>	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill,gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

SA Name: Two Mile Pond Reservoir Transect [6]

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Worksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign categories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknown and Mary of the stressor column (Pick up to 3)

Affect					
Major	Minor		Unknown	Stressor Group/Stressor	Comments
See giber		, 	er to the spe	Adverse water management	
Ŋ				Extended low flow dam releases	
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Timing of flow releases not concordant	
				Extended high flow dam releases	
				Agriculture/Urban flow diversion upstream	
derena 				4	
		\Box		Adverse sediment retention by dams	
		Q		Sediment loss by dredging	
		口		Adverse sediment input	
1				Artificial water additions	
		Ø		Sewer treatment effluent	
		Q		Point source urban runoff	
				Factory, feedlot outfall	
				Agricultural irrigation ditch returns	
				Mining waste	
				Ground water numping	
				Urban depletions	
				Fracking	
				Agriculture irrigation wells	
	A Company			Watershed alteration	
				Extensive recent fires in watershed	
				Extensive recent timber harvest	
				Extensive open pit mining in watershed	
		Ď			
				-	
				Evidence of excessive grazing (local)	
				Excessive noise affecting wildlife	
0	0		0 0	ounts by Intensity	
					Adverse water management Extended low flow dam releases Timing of flow releases not concordant Extended high flow dam releases Agriculture/Urban flow diversion upstream Adverse sediment management Adverse sediment retention by dams Adverse sediment input (roads/development) Artificial water additions Sewer treatment effluent Point source urban runoff Factory, feedlot outfall Agricultural irrigation ditch returns Mining waste Ground water pumping Urban depletions Fracking Agriculture irrigation wells Extensive recent fires in watershed Extensive recent timber harvest Extensive open pit mining in watershed Livestock/wildlife overgrazing Local biodiversity impacts Extense of excessive grazing (local) Excessive noise affecting wildlife

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ion Date: 04/25/2022

Schema: Montane 2.5

SA CODE:	SF2MI[]	!	Date:
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SA Name: Two Mile Pond Reservoir Transect [] **Surveyor Initials:**

Photo Point Log

ksheet 16. Photo point Log. Photo points are highly recommended to document 1) general condition of the SA, 2) dominant plant communities, and 3) stream condition. (See metric descriptions for when photo documentation is required.) The photograph number, direction (AZM=azimuth compass direction of photo), photo point coordinates (GPS UTM northing and easting location), and latitude and longitude should be recorded, along with a general description and segment on which the photo was taken and the initials of the photographer.

ohotographer.		1 .	T	.		<u> </u>	1
Photo PT File	AZM	Easting	Northing	Latitude	Longitude	Description	Initial
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MMRAM Montane Riverine Wetlands Version 2.5

		SA Cover	Worksheet	Published Hard	Miller and Miller		
A Code SF2MI[6	ode SF2MI [6] SA Name: Two Mile Pond Reservoir Project: Riparian Asses						
de Tsct [6]	AU Name: Trans	ect [6]		WOI : Two Mile Pond Reservoir			
ounty Santa Fe			levation (ft) 7299	(m) 2224.7 Ecoregion 6.0 NWFM			
A riparian system decommissioned of water rights.	nd Boundary (Rationale, o that leads into a pond loo due to safety concerns re	cated on the east side of egarding the reservoir ar	nd a water diversion to t	he area was recently s	snut down due to lack		
Driving to Santa F	e from Albuquerque you il you reach the reservoir	head north on Old Peco located to the North.			e Sol and right on		
wnership The Natur	e Conservative and The S	anta Fe National Forest	Data Sharing Result Restrictions only.		tland?		
Surveyor Role		Survey	or Name	and of the	Surveyor Initials		
Landscape	Dustin				DS		
Biotic	Annie				D5		
Abiotic	Dustin				ps		
Stressors	Both				03		
Easting (m)	Northing (m)	Zone	Datum	Latitude (DD ft)	Longitude (DD ft		
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722	-105.89		
Survey Date	5/15/24	Start Time		End Time			
Ave	ext (summarize the wetlands) a is begins me cat tail	ning to sho	w signs o	F spring 9	rowth		
Ds)	(vegetation patterns, co	2 41	e, exotics and invasives, Togs can be evily on pondadg	, 1 2 1	1 Malland		
SA Abiotic Condition disturbance and oth	on (hydrological alteration er site impacts; explain th	ns {e.g., dams, walls etc. ne hydrologic breaks or	l; flooding characteristic other factors that define	s and evidence of ove the SA limits)	erbank flooding; soil		
SA Abiotic Condition disturbance and oth	on (hydrological alteration er site impacts; explain the description of transition)	ns {e.g., dams, walls etc. ne hydrologic breaks or	l; flooding characteristic other factors that define	s and evidence of ove the SA limits)	erbank flooding; soil		
SA Abiotic Condition disturbance and oth Lan	on (hydrological alteration er site impacts; explain th	ns {e.g., dams, walls etc. ne hydrologic breaks or	l; flooding characteristic other factors that define	s and evidence of ove the SA limits)	erbank flooding; soil		
SA Abiotic Condition disturbance and oth Lan	er site impacts; explain the description of the ansition of the arm of the ar	ns {e.g., dams, walls etc. ne hydrologic breaks or wery gu n summary and comme	i; flooding characteristic other factors that define i'ckly with	es and evidence of over the SA limits) Change s collected.)	erbank flooding; soil		
SA Abiotic Condition disturbance and oth Lan	er site impacts; explain the description of the contract of th	ns {e.g., dams, walls etc. ne hydrologic breaks or wery gu n summary and comme	i; flooding characteristic other factors that define i'ckly with	es and evidence of over the SA limits) Change s collected.)	erbank flooding; soil		

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VMRAM -	SA Rank Summary	Worksheet: Montane Riverine Wetlands 2.5
***************************************	37 Hank Summary	worksneet: Workane Riverine Wetlands 2.5

Metric Description	Rating	Wt	Final Score
Landscape Context		Σ 1.0	3,25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	1 2	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	2	0.2	
B4. Native Riparian Tree Regeneration	y	0.2	
B5. Invasive Exotic Plant Species Cover	2	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	2	0.2	
A3. Channel Equilibrium		0.2	
A4. Stream Bank Stability and Cover	1		
A5. Soil Surface Condition	Ч	0.2	
	4	0.1	

SA Condition	Scoring Sumi	mary	
Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic	2.6	0.35	
Abiotic	3.5	0.35	
SA WETLAND	CONDITIONS	SCORE Σ	
SA WETLAND	RANK =		3.//

Rank	Score	Description
Α	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three
	0	0	1
			2
			3

itressor Comments (Evaluation of risk)

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Surveyor Initials: D5

Landscape Context

LB	uffer	Integrity Index			
or are	exclude	 a. Buffer and RCC Checklist. Check off land cover eed and considered non-buffer elements that disrupt nagery). 	element ecosys	s withi tem co	n the buffer area or RCC corridors that are either allowed, nnectivity. Indicate the imagery type and date (season
lmage	у	Google Earth KMZ. file	lmage	Date	6/23
Allowed buffer/RCC land cover elements		Exclud	ed nor	n-buffer/RCC land cover elements	
Buffer	RCC		Buffer	RCC	
X	x	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields
	一一	Old fields, unmaintained			Railroads
		Open range land			Maintained levees, sediment piles, construction materials, staging areas
×	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards
X	X	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads
		unpaved two tracks roads	×	x	Open water bounded by a levee or other manmade structure
L		Other			Other
		b. Buffer Percent Sub-metric. Measure or estimate composed of allowed buffer elements and enter int			

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c pn the SA Summary Worksheet.

Buffer % Rating	er Width Rating	/2 =	Buffer Integrity Index Score		
3	+	3	/2 =	3	

	Table L1a. Buffer Percent							
R	Rating Buffer Percent							
0	4	100%						
(X)	3	≥80% - <100%						
0	2	≥50% - <80%						
\circ	1	<50%						

	Tab	le L1b. Buffer Width						
R	Rating Average buffer width							
\overline{C}	4	≥190m						
(X)	3	≥130 - <190m						
\cap	2	≥65 - <130m						
\circ	1	<65m						

Tal	Table L1c. Summary Rating for Buffer Integrity						
R	Rating Score						
C	4	>3.5					
Ø	3	>2.5 - ≤3.5					
\circ	2	>1.5 - ≤2.5					
\cap	1	≤1.5					

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L2 - Riparian Corridor Connectivity (RCC)

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Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)		0	0		
C) % Segment Disruption = (B/1000)*100		0	0		
D) Total Disruption both segments		C)		
E) % Total Disruptions = (D/2000)*100	Zero disr	uption notice	eable along t	he banks.	

	Table L2. RCC Rating									
Ra	ating	Description								
Ø	4	0% total disruption on both segments combined.								
0	3	<15% total disruption on both segments combined.								
0	2	≥15% - <40% total disruption on both segments combined.								
0	1	≥40% total disruption on both segments combined.								

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksher

RSR							R	WSI			
Current Size	1	Historic Size	=	RSR	1	-	RSR	Х	100	-	RWSI (%)
9	1	10	= 0	0.9	1	-	0.1	Х	100	=	10

Table L3. Relative Wetland Size Rating						
Rating	RWSI Score	Description				
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent				
○ 3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size				
<u></u>	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size				
$\bigcirc 1$	>70%	Wetland has been reduced by more than 70% its natural size				

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L4 - Surrounding Land Use

orksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) purrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
riculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surr	ounding Land Use Rating
Rating	LUI Score
O 4	≥95 - 100
O 3	≥80 - <95
⊗ 2	≥40 - <80
\bigcirc 1	<40

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Biotic Metrics

Species Cover (BS) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List -Cheatgrass, Allysum, por wheel Appendix D). Use the comments box for documenting and describing vegetation community patch features. Comments Invasive Exotic Species (List Code(s)) Allysum Pinzero B4 Tree B5 Invasive
Regeneration Exotic
% Cover Species % Cover 50% 9.05 siller 1001 Wolfe & Herb B3 Vertical Structure
Type Mile V NO NO IIA1 IIIB1 IIC1 IVE IVF1 Polygon No 50 4 Bu 3 9 / _∞ 10 11 12 13 6 14 15 16 17 18 19

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B1 - Relative Native Plant Community Composition

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dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Fach polygon is either assigned to the same (T if it has the same composition or a new (T is created for the polygor

Decies 2 E Species 3 E Species 5 E Species 6 E Species	!	Tall Woody Stratum 1 Short Woody Stratum 2 Herbaceous/Sparse Stratu	Tall Woody Stratum 1	Stratum	_		Short Woo	dy Strati	ım 2		Herbaceon	c/Sparse	Stratum 3		CT Score 4		
9 S S S S S S S S S S S S S S S S S S S		Polygon Nos.	Species 1	шΖ	secies 2	<u>ш</u> 2	Species 3	ы Z	ies 4		Species 5	E E			w4 %	SA5 Wt So	core6
S	٧	7					1	>		2			1_	5	20 6	0	
Final Weighted Score?	8	<u> </u>			J.%.~	2	Cothi		M. Non	Ш	1587 2687		Printery.	4	5 0,	200%	
Final Weighted Score?	U																
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Final Weighted Score?	Ш												-				
Final Weighted Score?	ட														·		
Final Weighted Score ⁷	9																
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Final Weighted Score7	_														-		
Final Weighted Score7	ſ																
Final Weighted Score 7	ᅩ																
Final Weighted Score7																	
	Σ														:		
Final Weighted Score ⁷	z																
	0													<u></u>	·		
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equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Table B1. Relative Native Plant Community Composition Rating								
Rating	CT Fina	CT Final Weighted Score						
<u> </u>	≥ 3.75	<10% non-native						
3	≥ 3.25 and <3.75	10% ≤20% non-native						
∑ 2	> 2.0 and <3.25	20% ≤50% non-native						
<u> </u>	≤2.0	>50% non-native						

2 - Vegetation Horizontal Patch Structure

forksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch Structure pattern A,B,C, or D:	
--	--

	Table B2. Rating for Vegetation Horizontal Patch Structure					
R	ating	Description				
`	4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.				
(3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.				
)	2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.				
`	1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.				

3 - Vegetation Vertical Structure

orksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA om Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with ime VST) x 100. Enter the total %SA for each VST below.

	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	VST 6S Short Shrubland	VST 6W Herbaceous Wetland	VST 6H Herbaceous Vegetation	VST 7 Sparse Vegetation
Total % of SA				50		50	

able B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the ow that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. ercentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for e rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the ble down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the ting on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
` 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
3	2 or 1 and 2	5	
	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
2	5		
	6W		
	6S		
1	6H		
	7		

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34 - Native Riparian Tree Regeneration	enic versions for the converse states	820010EN05SE05S60ND	20000000000000000000000000000000000000	0.000	100000000000000000000000000000000000000	ENDOUGHES !	M35566888	FORESTON		ar.
ta - Narive Ribariali, il ee Reuelle autoi) / NI_1	D	I TO SO MI		raa E	200	one	V	HOI	200
	54 - IVai	単数7人ご感 6寸	187.18		[중 국니 20 1			-12-1		ш

T. 34. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

F	ating	Description
X	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
$\overline{\bigcirc}$	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
$\overline{\Box}$	1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating	Invasive Species Cover %				
0 4	0%				
<u>3</u>	>0% - <1%				
2	≥1% - <10%				
0 1	≥10				

Additional CTs and B	Biotic Metric Comments:	AND THE RESIDENCE OF THE PARTY	 	
, word all the				

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05

Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description Cross-section:	1	/2	3				
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bankfull contour. Measure the distance between the right and left bankfull contours with a tape.							
2: Maximum bankfull depth	Keeping the tape level between the right and left bankfull contours, measure the height of the line above the thalweg (the deepest part of the channel). A pocket line level can help here.							
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.							
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.							
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).							
6: Calculate average ratio	Calculate the average for Step 5 for all three replicate cross-sections. Enter the average her using Table A1a. Enter the rating in the A1 box on the SA Rank Summary Worksheet.	e and ra	ate					

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in	-
meandering single-channel riffle-pool systems	

Rating	Description					
O 4	Average entrenchment ratio is \geq 2.2;					
\bigcirc 3	Average entrenchment ratio is ≥1.9 - <2.2					
O 2	Average entrenchment ratio is ≥1.5 - <1.9					
O 1	Average entrenchment ratio is < 1.5					

Flood Prone Width

Bankfull Width

Bankfull Depth

Vorksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Vorksheet in conjunction with Table A1c. Check the boxes for all that apply to each egment.

)			
J	M	L	Indicator /
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
			Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
			Inset floodplain formation
			Decreased peak flows due to hydrologic modification
			Bankfull indicators at point of incipient flooding of the floodplain
			Indicators of overbank flow on floodplain

Floodplain inundation due to beaver activity

R	ating	Description				
0	4	Average entrenchment ratio is ≥ 1.9				
0	3	Average entrenchment ratio is ≥1.4 - <1.9				
0	2	Average entrenchment ratio is ≥1.2 - <1.4				
0	1	Average entrenchment ratio is < 1.2				

Table A1b. Rating for Floodplain Hydrologic

SA C	ODE:	SF2MI[6]			Date: 5/15/	24			
SA Name :		Two Mile Pond Rese	ervoir Transect [6]	Surveyo	r Initials : DS				
ethod									
hydrolo other hy flow and Select a	egic conn ydrologio d floodpl rating fr	ectivity. At each cross evidence that would ain inundation. Reco om the table below.	s-section, use Worksheet 1 d preclude natural floodpl rd whether beaver activity	ting. Select the narrative of the select the narrative of the select the narrative of the select indication. Conversely of the select indication to help select rating. In Table A1d.	ion, bank modification, , assess indicators and e ators due to inundation	inset floodplain or vidence for overbank of the floodplain.			
Rati	ng			Description					
C 4	ov sig	er-bankfull flows like gns of overbank sedir e identification of ba	ly to inundate a broad are nent deposition. Or beave nkfùll indicators and the a	ors of bankfull discharge a a of floodplain. Floodplain r ponds inundate the entir ctive floodplain width.	súpports riparian veget e, normally active flood	plain and preclude			
C 3	co rip als	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.							
C 2	ve ch re	getation and sedime annelization, or flow latively long-lived ph	nt regimes. Or the stream modification, and the nat reatophytes (e.g., cottonw	odplain formed, which is rong has minimal access to the ural floodplain does not surod, salt cedar, etc.).	natural floodplain due t pport riparian vegetatio	o incision, on except for			
O 1	lm.	odification (i.e., aban	n floodplain, either throug donment of floodplain du ediment deposits on the fl	h incision, bank modificat e to decreased peak flows) oodplain, etc.	ion/channelization, or h . Indicators may include	ydrologic upland vegetation			
ken loo oss-sec	king Ups tion. Leav ard with	tream and Downstre ve the cross-section t SA name and cross-s	am from the thalweg and	or each cross-section record looking Bank Right* and E ankful in the ground when ful. (*The bank of a stream or additional details.	ank Left* across the stre taking the Bank Right a	eam from each side of and Bank Left photos. <i>F</i>			
ross	Eastin (Latitue		Upstream	Downstream	Bank Right	Bank Left			
1		,							
2		<i>'</i>							
3									
i		1							

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Date: 5/15/24

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
			Terraces
	X		Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
	K		Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
······································			No. of unique Patch Types

		Rating for Physical Patch Complexity						
Rati	ng	Description						
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).						
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).						
X	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).						
\subset	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.						

SA CODE:

SF2MI[6]

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 5/15/24

Surveyor Initials:

DS

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ă		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		X		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		囟		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		×		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
	. 🔲			Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

				_			
SA	CO	DE	:	SF2MI	[6]

SA Name : Two Mile Pond Reservoir Transect [

Date: 5/15/24

Surveyor Initials:

09

	Table A3. Rating for Channel Equilibrium				
Rating	Description				
Ø 4	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.				
○ 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.				
<u> </u>	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.				
∩ 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.				

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

Condition	Upper	Middle	Lower	Field Indicators
	Segment	Segment	Segment	
	□ 4	□4	₹4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.
Indicators of Bank Soil Stability	□3	3	_3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.
3011 Stability	<u></u> 2	<u></u> 2	□2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.
	1	1	1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.
	<u></u> 4	<u></u> 4	₩4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.
	□3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.
Indicators of Stream Bank Erosion Potential	<u></u> 2	□ 2	<u> </u>	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.
	1	□1	<u></u> 1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.

Average Indicator Score	

Table A4. Stream Bank Stability and Cover Rating Rating Description				
4	>3.5 - 4.0			
○ 3 >2.5 - ≤3.5				
^ 2 >1.5 - ≤2.5				
C 1	1.0 - ≤1.5			

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 5/15/24

Surveyor Initials: 05

A5 - Soil Surface Condition

rksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
	K		Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:

<u> </u>	Table A5. Soil Surface Condition Rating					
Rating	Description					
X 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
∩ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

SA	CODE:	SF2MI [💪]

Date: 5/15/24

SA Name: Two Mile Pond Reservoir Transect [6]

Surveyor Initials:

DS

Worksheet 15. Stressor Checklist. Check off stressors by intensity category that may be affecting wetland ecological condition of the SA and WOI. Assign categories using direct evidence where available or your best professional judgement otherwise. If the presence of the stressor is uncertain, mark as "Unknown and Major Stressors in Dominant Stressor column(Pick up to 3)

Affect

ank		/ / / /	ect		Channel Court (C)	
LUTIK	Major	Minor	Absent	Unknown	Stressor Group/Stressor	Comments
		Г	I	T	Adverse water management	
		Ž			Extended low flow dam releases	
					Timing of flow releases not concordant	
					Extended high flow dam releases	
			Ò		Agriculture/Urban flow diversion upstream	
	1810				Adverse sediment management	
					Adverse sediment retention by dams	
					Sediment loss by dredging	
			Ò		Adverse sediment input (roads/development)	·
					Artificial water additions	
			Ď		Sewer treatment effluent	
			Ż		Point source urban runoff	
					Factory, feedlot outfall	
			Ď		Agricultural irrigation ditch returns	
			Ė		Mining waste	
					Ground water pumping	
					Urban depletions	
			Q		Fracking	
			Q		Agriculture irrigation wells	
					Watershed alteration	
					Extensive recent fires in watershed	
					Extensive recent timber harvest	
					Extensive open pit mining in watershed	
					Livestock/wildlife overgrazing	
	100			300 0000	Local biodiversity impacts	
					Evidence of excessive grazing (local)	
					Excessive noise affecting wildlife	
	0	0		0 (Counts by Intensity	
	Common					

sion Date: 04/25/2022

Schema: Montane 2.5

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	er Worksheet		
SA Code SF2MI[6] SA Name: Two	Mile Pond Reservoir		Project : Riparia	an Assesement
Code Tsct [6]	e Tsct [6] AU Name : Transect [6]		WOI : Two Mile	Pond Reservoir	
County Santa Fe	HUC 12 Head	HUC 12 Headwaters Santa Fe River Elevation (ft) 7299 (m) 2224.7		Ecoregion 6.0 NWFM	
A riparian system decommissioned of water rights. Driving Directions Driving to Santa I	due to safety concerns	ocated on the east side regarding the reservoir		the area was rece	nal Forest. This reservoir was ently shut down due to lack ————————————————————————————————————
Ownership The Natur	e Conservative and The	Santa Fe National Fore	st Data Sharing Resul Restrictions only.		sh Observed in Wetland?
Surveyor Role		Surve	eyor Name		Surveyor Initials
Landscape	Dustin Schwar	tz			DS
Biotic	Annie McCoy				AM
Abiotic	Dustin Schwa	rtz			DS
Stressors	Dustin Schwa	rtz	4,41,4,		DS
Easting (m)	Northing (m)	Zone	Datum	Latitude (DI	D ft) Longitude (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722	-105.89
Survey Date	6/11/24	Start Time	9:00	End Time	e 15:00
		SA De	escription		
SA Landscape Conte	ext (summarize the wetl	and and surrounding la	ndscape; include condit	ion and impacts)	
I q	t has b	eon rain, area is	hy the very wet	past to	rowing,
			re, exotics and invasives,		
Red n	ing black bird	, musterd has	grown in fast	t 2 feet h	igh and flowering
			pond, Brown e		
Cat	tails around	elge of	fond gum:	reed, 1	90% ground coverage
		-	.]; flooding characteristic other factors that define		f overbank flooding; soil
			the days 9		very covered
		•	6.71 turb 16.		
Assessment Summa	ry (Overall site condition	n summary and comme	ents after the field data is	collected.)	
	Site seems	, to be	comins in	densc	with 90%
	ground cove	er, Mustar	d coming for	51	
Provisional Field Score 3,04 Rai	nk B Surveyor(s)	DS/AM Final Score	3,04 Rank 13	Initials DS/A	Date 6/11/24

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 6/11/24

Surveyor Initials: DS/AM

NMRAM - SA Rank Summary Worksheet: Montane Riverine Wetlands 2.5			
Metric Description	Rating	Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition	2	0.2	
B2. Vegetation Horizontal Patch Structure	3	0.2	
B3. Vegetation Vertical Structure	2	0.2	
B4. Native Riparian Tree Regeneration	4	0.2	
B5. Invasive Exotic Plant Species Cover	j	0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity	2	0.2	
A3. Channel Equilibrium	4	0.2	
A4. Stream Bank Stability and Cover	4	0.2	
A5. Soil Surface Condition	4	0.1	

SA Condition Scoring Summary					
Major Attribute Score Wt.			Wt. Score		
Landscape Context	3.25	0.3	0.975		
Biotic	2.4	0.35			
Abiotic	3.5	0.35			
SA WETLAND CONDITION SCORE Σ					
SA WETLAND	3,04				

SA Wetland Rank					
Rank	Score	Description			
Α	≥3.25 - 4.0	Excellent Condition			
В	≥2.5 - <3.25	Good Condition			
С	≥1.75 - <2.5	Fair Condition			
D	1.0 - <1.75	Poor Condition			

Stressor Summary	Major	Minor	Top Three				
	0	0	1	Less	Water	to	this arm
			2				
			3				

tressor Comments	(Evaluation of risk)
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Not a lot of stressors here.

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 6/11/24

Surveyor Initials: DS/AM

Landscape Context

IZ-SDOOM-O-O-O-O-	- Buffer Integrity Index Vorksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed														
Work	sheet 1a	. Buffer and	d RCC Checklist.	Check off	land c	over e	elemen	ts with	in the bu	ıffer	area (or RCC co	rridors that are o	either allowe	
and ye	excluded ear of im-	a and consid agery).	dered non-buffer (elements	that d	isrupt	ecosy	stem co	nnectivi	ity. li	ndicat	e the ima	igery type and d	late (season	
lmage	ry G	ioogle Earth	ı KMZ. file				Image Date 6/23			23					
Allowe	ed buffer	/RCC land	cover elements				Exclu	ded no	_ <u></u> n-buffer/	'RCC	land	cover ele	ments		
Buffer	RCC						Buffer	RCC							
X	X N	latural or se	mi-natural vegeta	ition patc	hes		X	×	1				velopments, pa s, and other strue		
X	X S	mall irrigati	on ditches withou	ıt levees					Lawns,	park	s, gol	f courses,	sports fields		
		old fields, ur	ds, unmaintained						Railroac	ds					
)pen range	land						Maintai materia				nt piles, constru	ction	
X	1 IXII	oot trails, ho	orse trails, unpave	trails, unpaved bike trails (low					Intensiv	e liv	estoc	k areas, h	orse paddocks, 1	feedlots	
X	XN	on-channel	el open water										tained pastures,	hay fields,	
X	1011		ning abandoned v urring levees	egetated levees, or			X	X	Paved ro	pads	orchards, and vineyards or developed second-order unpaved but				
			tracks roads					X		ater	er bounded by a levee or other manmade				
H									structure	e 					
Ш	Other Other								Other						
	Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate to SA perimeter composed of allowed buffer elements and enter into														
Works	heet 1b.	Buffer Per	cent Sub-metric.	Measure	or estii	mate 1	he per	centag	e of the			Tabl	e L1a. Buffer Pe	ercent	
SA peri Box be	meter co low. Rate	mposed of the sub-me	allowed buffer ele etric using Table L	ements ar	nd ente	er into	the Bu	ıffer Pe	e of the			Tabl Rating	e L1a. Buffer Po Buffer F		
SA peri Box be	meter co low. Rate	mposed of	allowed buffer ele etric using Table L eet 1d.	ements ar 1a and er	nd ententer the	er into e ratin	the Bu	ıffer Pe	e of the				T	Percent	
SA peri Box be Integrit	meter co low. Rate y Summ	omposed of the sub-me ary Workshe	allowed buffer ele etric using Table L eet 1d. Buffer Percen	ements ar 1a and er nt (%)=	nd ententer the	er into e ratin	the Bug on th	uffer Pe ne Buffe	e of the rcent er		○ ⊗	Rating 4 3	Buffer F 100 ≥80% -	Percent 0% <100%	
SA peri Box be Integrit Vorksh	meter co low. Rate by Summ eet 1c. E	emposed of the sub-me ary Workshe suffer Widt	allowed buffer ele etric using Table L eet 1d. Buffer Percen h Sub-metric. Me	ements ar 1a and er nt (%)=	85%	er into	g on th	uffer Pe ne Buffe	e of the rcent	rs in	 ⊗ ○	Rating 4 3 2	Buffer F 100 ≥80% - ≥50% -	Percent 0% <100% <80%	
SA peri Box be Integrit Vorksh he GIS	meter co low. Rate by Summ eet 1c. E	emposed of the sub-me ary Workshe suffer Widtl map. Avera	allowed buffer ele etric using Table L eet 1d. Buffer Percen h Sub-metric. Me age the line length	ements ar 1a and er nt (%)=	85%	er into	g on th	uffer Pe ne Buffe	e of the rcent	rs in	○ ⊗	Rating 4 3	Buffer F 100 ≥80% -	Percent 0% <100% <80%	
SA peri Box be Integrit Vorksh he GIS o	meter co low. Rate cy Summ eet 1c. E or on the er Integr	emposed of the sub-me ary Workshe suffer Widtl map. Avera	allowed buffer ele etric using Table L eet 1d. Buffer Percen h Sub-metric. Me	ements ar 1a and er nt (%)= asure the ns and rati	85% lengthe	er into e ratin 6 n of ea	g on the Bu	uffer Pe ne Buffe ffer line Enter th	e of the rcent er in meter e rating	on	 ⊗ ○	Rating 4 3 2 1	Buffer F 100 ≥80% - ≥50% -	Percent 0% <100% <80% 0%	
SA peri Box be Integrit Vorksh he GIS	meter colow. Rates by Summ eet 1c. E or on the er Integr Buffe	emposed of the sub-me ary Worksho suffer Widtl map. Avera ity Summar	allowed buffer ele etric using Table L eet 1d. Buffer Percen h Sub-metric. Me age the line length y Worksheet 1d.	ements ar 1a and er nt (%)=	85% lengthe	er into	g on the Bu	uffer Pe ne Buffe ffer line Enter th	e of the rcent	on		Rating 4 3 2 1	Buffer F 100 ≥80% - ≥50% - <50	Percent 0% <100% <80% 0% Vidth	
SA peri Box be Integrit Vorksh he GIS o	meter colow. Rates by Summ eet 1c. E or on the er Integr Buffe	unposed of the sub-me ary Workshe uffer Widtl map. Avera ity Summar er Width (m)	allowed buffer ele etric using Table L eet 1d. Buffer Percen h Sub-metric. Me age the line length y Worksheet 1d. Buffer Width	ements ar 1a and er nt (%)= asure the ns and rati	85% lengthe using	er into e ratin 6 n of ea g Table	g on the Bunch bun	offer Pene Buffer Fer line Enter th	e of the rcent er in meter er rating	on		Rating 4 3 2 1 Tab	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu	Percent 0% <100% <80% 0% Vidth	
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SA peri Box bei Integrit Vorksh he GIS of he Bufff Line A B	eet 1c. E or on the er Integr Buffe 164	suffer Widtl map. Avera ity Summar r Width (m)	allowed buffer electric using Table Leet 1d. Buffer Percent Bub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92	asure the sand rate Line E	85% lengthe using	er into e ratin 6 n of ea g Table (m) 161.93	o the Bu g on the ech buf e L1b. E	offer Pene Buffer Ifer line Enter th	e of the rcent er in meter e rating (ft) 631.26	on		Rating 4 3 2 1 Tab Rating 4	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu ≥190	Percent 0% <100% <80% 0% Vidth offer width 0m <190m	
SA peri Box bei Integrit Vorksh he GIS of he Buff Line A B	eet 1c. E or on the er Integr Buffe 164 125	suffer Widtle map. Averater Width (m)2639	allowed buffer electric using Table Leet 1d. Buffer Percent Sub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57	ements ar 1a and er at (%)= asure the as and rate Line E F G	85% lengthe using	er into e ratin 6 n of ea g Table (m) 161.93 231.48	o the Bu g on the ach buf e L1b. E	effer line Enter th	e of the rcent er in meter er ating ffer Wid (ft) 531.26	on	C & C C C & C C & C	Rating 4 3 2 1 Tab Rating 4 3	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu ≥190 ≥130 - <	Percent 0% <100% <80% 0% Vidth om <190m 130m	
SA peri Box bei Integrit Vorksh he GIS of he Bufff Line A B	eet 1c. E or on the er Integr Buffe 164	suffer Widtle map. Averater Width (m)2639	allowed buffer electric using Table Leet 1d. Buffer Percent Sub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40	asure the sand rate Line E	85% lengtle using	er into e ratin 6 n of ea g Table (m) 161.93 231.48	o the Bu g on the ach buf e L1b. E	effer line Enter th	e of the rcent er in meter e rating (ft) 631.26	on		Rating 4 3 2 1 Tab Rating 4 3 2 1	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu ≥190 ≥130 - < ≥65 - < <65	Percent 0% <100% <80% 0% Vidth offer width 0m <190m 130m	
SA peri Box bei Integrit Vorksh he GIS of he Buff Line A B	eet 1c. E or on the er Integr Buffe 164 125	suffer Widtle map. Averater Width (m)262539	allowed buffer electric using Table Leet 1d. Buffer Percent Sub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57	ements ar 1a and er at (%)= asure the as and rate Line E F G	85% lengtle using	er into e ratin 6 n of ea g Table (m) 161.93 231.48	o the Bu g on the ach buf e L1b. E	effer line Enter th	e of the rcent er in meter er ating ffer Wid (ft) 531.26	on		Rating 4 3 2 1 Tab Rating 4 3 2 1	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer W Average bu ≥190 ≥130 - < ≥65 - < <65 Summary Ratin	Percent 0% <100% <80% 0% Vidth offer width 0m <190m 130m	
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SA peri Box bei Integrit Vorksh he GIS of he Buff Line A B C D	eet 1c. Eor on the er Integr Buffe 164 125 111 Averag neet 1d. Jabove t Using the	suffer Widtle map. Averality Summar Width (m) .26 .25 .39 .07 e Buffer Integore allowed buffer electric using Table Leet 1d. Buffer Percent Sub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) grity Summary. Ethe Buffer Integrity grity Index Score,	asure the sand rate Line F G H	85% lengthe using Bu 1 48 sub-mecore us	er into e ratin 6 n of ea g Table (m) 161.93 231.48 121.25 155.87 86.58	atings ne form	ffer line Fine Buffer Fine Bu Fine B	e of the reent er ating ffer Wid (ft) 531.26 259.44 97.80 11.38	on th		Rating 4 3 2 1 Tab Rating 4 3 2 1 ble L1c. Stating 4	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu ≥190 ≥130 - < ≥65 - < <65 Summary Ratin Integrity Sco >3.	Percent 0% <100% <80% Vidth om <190m 130m om g for Buffer		
Vorksh he GIS o he Buff Line A B C D	eet 1c. Eor on the er Integr Buffe 164 125 111 Averag neet 1d. Jabove t Using the SA Si	suffer Widtle map. Averality Summar Width (m) .26 .25 .39 .07 e Buffer Integrated and summary Wo	allowed buffer electric using Table Leet 1d. Buffer Percent Sub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) grity Summary. Ethe Buffer Integrity grity Index Score, orksheet.	asure the sand rate Line F G H Inter the separate sand rate A content of the se	85% lengthe using Bu 1 48 sub-mecore us	er into e ratin 6 n of ea g Table (m) 161.93 231.48 121.25 155.87 86.58	atings ne form	ffer line Fine Buffer Fine Bu Fine B	e of the reent er ating ffer Wid (ft) 531.26 259.44 97.80 11.38	on th		Rating 4 3 2 1 Tab Rating 4 3 2 1 ble L1c. Seating 4 3	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu ≥190 ≥130 - < ≥65 - < <65 Summary Ratin Integrity Sco >3. >2.5 - :	Percent 0% <100% <80% 0% Vidth om <190m 130m om cr g for Buffer re 5 ≤3.5	
Vorksh he GIS o he Buff Line A B C D	eet 1c. Eor on the er Integr Buffe 164 125 111 Averag neet 1d. Jabove t Using the	suffer Widtle map. Averality Summar Width (m) .26 .25 .39 .07 e Buffer Integrated and summary Wo	allowed buffer electric using Table Leet 1d. Buffer Percent Sub-metric. Meage the line length y Worksheet 1d. Buffer Width (ft) 538.91 410.92 378.57 364.40 148.31 (m) grity Summary. Ethe Buffer Integrity grity Index Score,	asure the sand rate Line F G H Inter the separate sand rate A content of the se	85% lengtle using Bu 1 46 sub-mecore using for	er into e ratin 6 n of ea g Table (m) 161.93 231.48 121.25 155.87 86.58 etric R Sing th Buffe	atings ne form	ffer line ffer line	e of the reent er ating ffer Wid (ft) 531.26 259.44 97.80 11.38	on th		Rating 4 3 2 1 Tab Rating 4 3 2 1 ble L1c. Stating 4	Buffer F 100 ≥80% - ≥50% - <50 le L1b. Buffer V Average bu ≥190 ≥130 - < ≥65 - < <65 Summary Ratin Integrity Sco >3.	Percent 0% <100% <80% 0% Vidth offer width 130m om g for Buffer re 5 ≤3.5 ≤2.5	

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L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstrear	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0 0		0	
B) Total Disruption by Segment (m)		0	0		
C) % Segment Disruption = (B/1000)*100		0	0		
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable along the banks.				

Table L2. RCC Rating						
Rating	Description					
(x) 4	0% total disruption on both segments combined.					
О 3	<15% total disruption on both segments combined.					
C 2	≥15% - <40% total disruption on both segments combined.					
O 1	≥40% total disruption on both segments combined.					

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksheet.

		RSR						R\	WSI		
Current Size	1	Historic Size	=	RSR	1	12	RSR	X	100	=	RWSI (%)
9	1	10	=	0.9	1	-	0.1	X	100	=	10

	Table L3. Relative Wetland Size Rating						
Rating	RWSI Score	Description					
(X) 4	≤10%	Wetland is at or only minimally reduced from its full natural extent					
O3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size					
O 2	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size					
01	>70%	Wetland has been reduced by more than 70% its natural size					

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0,1		0
rilling or dumping of sediment or soils		0	
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.1	<u> </u>	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads) Ski area	0.3	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.4	0	0
Abandoned artificial in a second water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) Mature restorations	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surrounding Land Use Rating						
Rating	LUI Score					
O 4	≥95 - 100					
C 3	≥80 - <95					
⊗ 2	≥40 - <80					
O 1	. <40					

SA Name: Two Mile Pond Reservoir Transect $[\circlearrowleft]$

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Biotic Metrics

Species Cover (B5) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant

Append	lix D). Use the comm	nents box for	documenting	and describing vegetatior	Appendix D). Use the comments box for documenting and describing vegetation community patch features.
Polygon No	B3 Vertical Structure Type	84 Tree Regeneration % Cover	B4 Tree B5 Invasive Regeneration Exotic % Cover Species % Cover	Invasive Exotic Species (List Code(s))	Comments
7	W. F. F.	%08 #	20%	Musterd	
S.	171116	20%	9,9	Akse	
8	llA1				
*	IIIB1				
極	IIIC1				
9	IVEI				
7	IVF1				
∞					
6					
10					
=======================================					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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SA CO SF2MI[6]

B1 - Relative Native Plant Community Composition

SA Name: Two Mile Pond Reservoir T -ect [G]

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Raw4 |% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must 0 CT Score 4 5 W Herbaceous/Sparse Stratum 3 Species 6 Ble ster da.5y which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 19/06 in 1/2 Species 5 Maskal шΖ Species 4 Short Woody Stratum 2 \geq Species 3 L:4, Say 674 ш Z Species 2 Tall Woody Stratum 1 Species 1 Willow Polygon Nos. ⋖ Ω U ۵ ш ш G ェ \mathbf{x} _ Σ z 0

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating

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SA CODE:

SA Name:

SF2MI[6]

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Table B1	Table B1. Relative Native Plant Community Composition Rating						
Rating	CT Fina	Final Weighted Score					
	≥ 3.75	<10% non-native					
7 2	≥ 3.25 and <3.75	10% ≤20% non-native					
7 2	> 2.0 and <3.25	20% ≤50% non-native					
2	<2.0 <2.0	>50% non-native					
1	52.0						

2 - Vegetation Horizontal Patch Structure

orksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch attern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

orizontal Patch Structure pattern A,B,C, or D:	

Table B2. Rating for Vegetation Horizontal Patch Structure							
Rating	Description Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would						
4	to make to a literatural make						
Z 3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.						
2	be present, although the other patch types would be well represented and have more than one that one than one than one than one than one than one than one than one than one than one than one than one than one than one than one than one than one that one than one that one than one than one than one than one than one than one than one than one than one than one than one than one than one that one than one than one than one than one than one than one that one that one than one than one that one t						
C 1	Pattern D. SA has essentially little to no patch diversity of complexity. The SA is dominated by a support of the SA. types, if present, occur infrequently and occupy a small portion of the SA.						

33 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SAfrom Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with SA for CTs withsame VST) ${\sf x}$ 100. Enter the total %SA for each VST below.

same VST) x 100	. Enter the total	%SA for each VS	T below.	VST 6S	VST 6W	VST 6H	VST 7
	VST 1 High Structure Forest	VST 2 Low Structure Forest	VST 5 Tall Shrubland	* =	Herbaceous Wetland	Herbaceous Vegetation	Sparse Vegetation
Total % of SA	Tolesc			50		50	
TOTAL % OF 3A					L L Oata tha S	A based on the	riteria in Table B3

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

	ank Summary Worksheet.	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
Rating	Dominant VST		6W and/or 6H
	1	5	
~ 4	1	6W	6W and/or 6H
· •	2 or 1 and 2	5	
	1		
	2 or 1 and 2	5	
3	2 or 1 and 2	6W	6W and/or 6H
	5	6W	
	2 or 1 and 2		
7 2	5		
/	6W		
	6S		
1	6H		
·	7		

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34 - Na	tive R	liparian '	Tree Re	egeneratio)n					
: B4	4. Nativ	ve Riparia	n Tree R	egeneration	rating. Using t	he polygon perce	ent cover of na	tive tree s	eedlings, saplings and poles fi	om
Norkshe	et 5, rat	te the SA b	ased on	polygon per	cent cover and p	oatch density. Ent	er the rating o	n the SA F	Rank Summary Worksheet.	
Rating						Description	on			
7 4	co	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.								
∂ 3	Na	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.								
O 2	<1	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.								
<u>) 1</u>	Na	ative poles	, sapling	s, and/or see	dlings absent (0	% cover).				
			a di di di di di di di di di di di di di	ecies Cove						
						ate the percentag Summary Works		sive exoti	c species for the SA and enter	
R	ating M	Nethod				Invasive cove	er (%)		calculate	
Table	B5. Rat	tings for l	nvasive	Exotic Plant	Species Cover					•
Rat	ing		Invasive	Species Co	ver %					
0 4	4			0%						
	3		>	·0% - <1%						
	2		≥	1% - <10%						
8	1			≥10						
Additio	nal CTs	and Biotic	: Metric C	Comments:						
Additio	nal CTs	and Biotic	: Metric C	omments:						
Additio	nal CTs	and Biotic	: Metric C	omments:						
Additio	nal CTs	and Biotic	: Metric C	omments:	·					
Additio	nal CTs	and Biotic	: Metric C	omments:						
Additio	nal CTs	and Biotic	: Metric C	omments:						
Additio	nal CTs	and Biotic	: Metric C	omments:						
Additio	nal CTs	and Biotic	: Metric C	omments:	•					
Additio	nal CTs	and Biotic	: Metric C	omments:						

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Abiotic Metrics

A1 - Floodplain Hydrologic Connectivity

Method 1

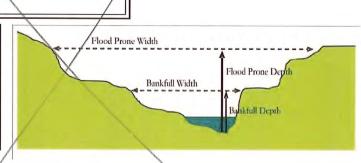
Worksheet 10a. Floodplain Hydrologic Connectivity Measurements. The following six steps are conducted at each of three cross-sections at the approximate mid-points along straight riffles and away from deep pools or meander bends. Use a measuring tape and temporary stakes for horizontal measurements, and a stadia rod or similar measuring stick for vertical measurements. If unavailable, use visual estimates. Where straight channel segments do not occur, or if there is excessive ponding or bankfull indicators are obscured, use the narrative rating approach (Method 2). Enter the rating method in the box below, either meander pool, riffle pool or narrative (Method 2) and choose the corresponding Table (A1a, A1b, or A1c) to rate Floodplain Hydrologic Connectivity. Enter the rating on the SA Rank Summary Worksheet. Photographs of each cross-section are required and recorded in Table A1d.

Steps	Description Cross-section	n:	1	2	3		
1: Bankfull width	This is a critical step requiring familiarity with field indicators of the bankfull contour. Measure the distance between the right and left bankfull contours with a tape.						
Keeping the tape level between the right and left bankfull contours, measure the height of the line above the thalweg (the deepest part of the channel). A pocket line level can help here.							
3: Flood-prone depth	Double the estimate of maximum bankfull depth from Step 2.						
4: Flood-prone width	Using a tape, measure the length of a level line at a height equal to the flood prone depth from Step 3 to where it intercepts the right and left banks.						
5: Calculate Entrenchment Ratio	Divide the flood-prone width (Step 4) by the bankfull width (Step 1).						
6: Calculate average Calculate the average for Step 5 for all three replicate cross-sections. Enter the average here and rate using Table A1a. Enter the rating in the A1 box on the SA Rank summary Worksheet.							

Rating Method

Table A1a. Rating for Floodplain Hydrologic Connectivity in meandering single-channel riffle-pool systems

Rating	Description				
O 4	Average entrenchment ratio is \geq 2.2;				
C 3	Average entrenchment ratio is ≥1.9 - <2.2				
O 2	Average entrenchment ratio is ≥1.5 - <1.9				
O 1	Average entrenchment ratio is < 1.5				



Worksheet 10b. Floodplain Hydrologic Connectivity Indicators. Use this Worksheet in conjunction with Table A1c. Check the boxes for all that apply to each segment.

U	M	L	Indicator /
			Bankful is slightly below bank height
			Bankful is well below bank height and channel is incised
			Channel widening due to bank failure
			Constructed levees preclude floodplain inundation
			Stream is straightened/channelized
			Inset floodplain formation
			Decreased peak flows due to hydrologic modification
			Bankfull indicators at point of incipient flooding of the floodplain
			Indicators of overbank flow on floodplain
			Floodplain inundation due to beaver activity

Table A1b. Rating for Floodplain Hydrologic Connectivity in single-channel step-pool systems				
Rating	Description			
0 4	Average entrenchment ratio is > 1.0			

•		111111111111111111111111111111111111111
0	3	Average entrenchment ratio is ≥1.4 - <1.
0	2	Average entrenchment ratio is ≥1.2 - <1.
0	1	Average entrenchment ratio is < 1.2

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Method 2

Je A1c. Narratve Floodplain Hydrologic Connectivity Rating. Select the narrative description that best describes the floodplain hydrologic connectivity. At each cross-section, use Worksheet 10b to record channel incision, bank modification, inset floodplain or other hydrologic evidence that would preclude natural floodplain inundation. Conversely, assess indicators and evidence for overbank flow and floodplain inundation. Record whether beaver activity is obscuring bankful indicators due to inundation of the floodplain. Select a rating from the table below. Use data from Worksheets 10b to help select rating. Enter Rating on SA Summary Worksheet. Photographs are required at each cross-section and recorded in Table A1d.

Rating	Description
O 4	Fully connected to the natural floodplain. Indicators of bankfull discharge are at the bank/floodplain transition, with over-bankfull flows likely to inundate a broad area of floodplain. Floodplain supports riparian vegetation and shows signs of overbank sediment deposition. Or beaver ponds inundate the entire, normally active floodplain and preclude the identification of bankfull indicators and the active floodplain width.
∩ 3	Flow access to the floodplain moderately limited by incision, channelization. Less frequent inundation than fully connected streams described above (as noted by bankfull indicators below floodplain transition). Floodplain supports a riparian overstory, but some understory plants may be upland. An inset floodplain supporting riparian vegetation may also be present.
C 2	Incised, channelized or modified with an inset floodplain formed, which is regularly inundated and supports riparian vegetation and sediment regimes. Or the stream has minimal access to the natural floodplain due to incision, channelization, or flow modification, and the natural floodplain does not support riparian vegetation except for relatively long-lived phreatophytes (e.g., cottonwood, salt cedar, etc.).
O 1	Fully disconnected from floodplain, either through incision, bank modification/channelization, or hydrologic modification (i.e., abandonment of floodplain due to decreased peak flows). Indicators may include upland vegetation and lack of overbank sediment deposits on the floodplain, etc.

A1d. Photo Point Log for Cross-Section Photographs. For each cross-section record the digital names/numbers of photographs taken looking Upstream and Downstream from the thalweg and looking Bank Right* and Bank Left* across the stream from each side of the cross-section. Leave the cross-section tape and flags indicating bankful in the ground when taking the Bank Right and Bank Left photos. A photo board with SA name and cross-section information is helpful. (*The bank of a stream or river on the right (left) of the observer when facing in the direction of flow or downstream.) See Appendix E for additional details.

Cross Section	Easting (Latitude)	Northing (Longitude)	Upstream	Downstream	Bank Right	Bank Left
1				•		
2						
3			/			

3			/		
Floodp	lain Hydrologic	: Connectivity Co	omments:		
		a common and			

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A2 - Physical Patch Complexity

Worksheet 11. Physical Patch Complexity checklist. Check off existing physical patch types for the upper, middle and lower segments of the SA; count the number of unique patch types and rate using Table A2 in combination with the narrative description. Enter the rating on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
			Active side channels
			Abandoned channels
			Backwater/eddy
			Riffles or rapids
			Shoals, sparely-vegetated bars
			Channel boulders
			Oxbow lakes/ponds on floodplains
			Vegetated island and side bars
			Terraces
	X		Channel pools
			Beaver ponds
			Swales, depressional features on floodplains
			Debris jams in channel
			Woody wrack piles on the floodplain
			Floodplain micro-topography (mounds, pits)
			Downed logs
	Ø		Natural levees
			Standing snags
			Variegated, convoluted, or crenulated foreshore
			Undercut banks in channels
			No. of unique Patch Types

Tabl	Table A2. Rating for Physical Patch Complexity						
Rati	ng	Description					
C	4	High degree of physical patch complexity across the floodplain. There are many floodplain micro-habitats present (mounds and pits, woody wrack piles, etc.), many fluvial geomorphic surfaces (swales, side channels, terraces, side bars, etc.), and there is high in-channel complexity (pools and riffles, large woody debris, undercut banks, etc.). As a guide, 12 or more unique indicators are present and well distributed throughout the SA (most indicators are found on multiple segments).					
C	3	Moderate physical patch complexity scattered across the floodplain. There are several floodplain micro-habitats present, several fluvial geomorphic surfaces, and there is moderate in-channel complexity. As a guide, 9 - 11 indicators are scattered throughout the SA (some on multiple segments).					
X	2	Limited physical patch complexity scattered across the floodplain. There are some floodplain micro-habitats present, some fluvial geomorphic surfaces, and there is limited in-channel complexity. As a guide, on average there are 6 - 8 unique indicators present in the SA (only a few on multiple segments).					
\cap	1	Little or no physical patch complexity on the floodplain. There are few or no floodplain micro-habitats present, few different fluvial geomorphic surfaces, and there is little or no in-channel complexity. As a guide, ≤ 5 unique indicators are present in the SA.					

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Surveyor Initials:

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		×		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ż		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		囟		There is leaf litter, thatch, or wrack in most pools.
Indicators of		×		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		图		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		図		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
Indicators of Active Aggradation				There are partially buried living tree trunks or shrubs along the banks.
				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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	Table A3. Rating for Channel Equilibrium					
Rating	Description					
	Most of the channel throughout the SA is in equilibrium condition with little evidence of excessive aggradation or degradation based on the field indicators listed in Worksheet 12.					
○ 3	There is some evidence of excessive aggradation or degradation; the channel throughout the SA seems to approach an equilibrium condition. Circle primary process: aggradation or degradation.					
∩ 2	There is evidence of severe aggradation or degradation throughout most of the channel through the SA. Circle primary process: aggradation or degradation.					
C 1	The channel is artificially hardened, channelized, or is concrete throughout most of the SA.					

A4- Stream Bank Stability and Cover

Worksheet 13. Bank Soil Stability and Streambank Erosion Potential Checklist. Check the indicator that best describes the condition looking a minimum of 25 m upstream and downstream at the channel edge of the upper, middle and lower segment of the SA. Average the six scores for both Bank Soil Stability and Streambank Erosion Potential. Rate using the Table A4 and enter the rating on the SA Summary Worksheet.

idening of the S/t Sur	ating on the SA summary worksneet.					
Condition Upper Middle Lower Segment Segment Segment		Field Indicators				
	<u></u> 4	⊠ ′4	\(\) 4	Infrequent raw banks, less than 10% of steam bank under stress from trampling, slumping, vegetation removal or active erosion, etc.		
Indicators of Bank Soil Stability	□3	□3	□3	Raw banks and loose soil intermittently and 10%-25% of stream bank under stress from trampling, trail crossing, hoof punching, vegetation removal, erosion etc.		
Jon Stability	<u></u> 2	<u></u> 2	<u></u> 2	Significant raw banks and loose soil, 25%-50% of stream bank under stress, trampled, slumping or eroding etc.		
	1	1	1	Raw banks almost continuous with greater than 50% of stream bank under stress, loose soil, slumping, trampled or eroding; or channel appear to lack banks due to trampling; or channel that is artificially hardened or concrete along most of its length.		
	<u></u> 4	₫4	□4	≥ 80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by boulders, large cobbles and/or large woody debris that prevent bank erosion.		
	<u></u> 3	□3	□3	≥50% - <80% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation are protected to allow only minor erosion.		
Indicators of Stream Bank Erosion Potential	<u></u> 2	□2	<u> </u>	≥25% - <50% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those area not covered by vegetation or stabilized by roots, are covered by materials or vegetation that give limited protection.		
	<u></u> 1	□ 1	<u></u> 1	Less than 25% of the stream bank surfaces are covered by vegetation in vigorous condition with dense root mass or by cobble or larger material. Those areas not covered by vegetation provide little or no control over erosion and excess shear stress, and the banks are susceptible to erosion by high water flows.		

|--|

Rating	ank Stability and Cover Rating
nating	Description
× 4	>3.5 - 4.0
` 3	>2.5 - ≤3.5
` 2	>1.5 - ≤2.5
` 1	1.0 - ≤1.5

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A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
			Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
	. []		Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	
-----------------------------	--

Ĵ 	Table A5. Soil Surface Condition Rating						
Rating	Description						
V 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
С 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

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	ics asing	an cet evi	Gence WI	icie avalial	stressors by intensity category that may be affect to or your best professional judgement otherwi tumn(Pick up to 3)	rting wetland ecological condition of the SA and WOI. Assign ise. If the presence of the stressor is uncertain, mark as "Unknow"		
Rank	Major	Af Minor	fect Absent	Unknown	Stressor Group/Stressor	Comments		
					Adverse water management			
					Extended low flow dam releases			
					Timing of flow releases not concordant			
					Extended high flow dam releases			
					Agriculture/Urban flow diversion upstream			
			I		Adverse sediment management			
					Adverse sediment retention by dams			
					Sediment loss by dredging			
					Adverse sediment input (roads/development)			
T					Artificial water additions			
					Sewer treatment effluent			
					Point source urban runoff			
					Factory, feedlot outfall			
					Agricultural irrigation ditch returns			
					Mining waste			
					Ground water pumping			
					Urban depletions			
					Fracking			
					Agriculture irrigation wells			
				100	Watershed alteration			
					Extensive recent fires in watershed			
					Extensive recent timber harvest			
					Extensive open pit mining in watershed			
					Livestock/wildlife overgrazing	·		
			enners e		Local biodiversity impacts	o entropio de la companya de la companya de la companya de la companya de la companya de la companya de la com La companya de la co		
					Evidence of excessive grazing (local)			
					Excessive noise affecting wildlife			
	0	0		0 (Counts by Intensity			
dditional	Comment	ts						

ersion Date: 04/25/2022

Schema: Montane 2.5

NMKAM Monta	ane Riverine Weti	lands Version 2.	<u> </u>				
		SA Cover \	Worksheet				
SA Code SF2MI[]] SA Name: Two N	SA Name: Two Mile Pond Reservoir				sement	
Code Tsct []	AU Name : Trans	sect [/]		WOI : Tw	o Mile Pond R	leservoir	
County Santa Fe	HUC 12 Headw	vaters Santa Fe River El	levation (ft) 729	99 (m) 2224	.7 Eco	region 6.0 NWFM	-
A riparian system t decommissioned o of water rights. Driving Directions	nd Boundary (Rationale, of that leads into a pond loo due to safety concerns re fe from Albuquerque you	cated on the east side of egarding the reservoir an	nd a water divers	sion to the area wa	ns recently shu	ut down due to lack	
	il you reach the reservoir)S Hall, High ric			_	
Ownership The Nature	e Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obsei Wetlar	,	
Surveyor Role		Surveyo	or Name			Surveyor Initials	i
Landscape	Dustin Schwartz	z				DS	
Biotic	Annie McCoy					АМ	
Abiotic	Dustin Schwart:	.z				DS	
Stressors	Dustin Schwart					DS	
Easting (m)	Northing (m)	Zone	Datum	Latitu	de (DD ft)	Longitude (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U	JTM 35.689	722	-105.89	
Survey Date	7/16/24	Start Time	9:00	Enc	d Time	15:00	
		SA Desc	ription				
SA Landscape Conte	xt (summarize the wetlar	nd and surrounding land	dscape; include	condition and imp	acts)		Silvan
	Area seems Projerty to	bloom and	ir to Licar	last trip	out, fl	lowers	
	(vegetation patterns, con						_
Willo Globi	ows are bu	-shy and he golden aster	prickly	rounding d	whip t	nne/ L//	
disturbance and other	n (hydrological alterations r site impacts; explain the	e hydrologic breaks or ot	ther factors that	define the SA limi	ts)	nk flooding; soil	7
_	1.46 ntu			6, 0	84 p#		
		er flowing	/				
	ry (Overall site condition	· · · · · · · · · · · · · · · · · · ·					\neg
and the state of t	Area scomes to	o be Joing in the	, well area	daspite	the lac	<i>k</i>	
Provisional Field Score 3,07 Ran	nk Burveyor(s)	DS/AM Final 3 Score 3	,07 Rank	B Initials)5	Date 7/16/24	

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Landscape Context

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	111			rei	JI 12	y 111	IME

Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery). Google Earth KMZ. file 6/23 Image Date Imagery Allowed buffer/RCC land cover elements Excluded non-buffer/RCC land cover elements Buffer RCC Buffer RCC Commercial/residential developments, parking lots, X X Natural or semi-natural vegetation patches X X dams, bridges, revetments, and other structures Lawns, parks, golf courses, sports fields Small irrigation ditches without levees X $|\mathbf{x}|$ Railroads Old fields, unmaintained Maintained levees, sediment piles, construction Open range land materials, staging areas Foot trails, horse trails, unpaved bike trails (low X П Intensive livestock areas, horse paddocks, feedlots Х intensity) Intensive agriculture: maintained pastures, hay fields, Non-channel open water П X $|\mathbf{x}|$ row crops, orchards, and vineyards Paved roads or developed second-order unpaved but Non-functioning abandoned vegetated levees, or Х X X $|\mathbf{x}|$ graded roads naturally occurring levees Open water bounded by a levee or other manmade X unpaved two tracks roads X structure Other Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

l	- ,	•			
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125,25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
Average		148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent					
R	ating	Buffer Percent				
\overline{C}	4	100%				
⊗	3	≥80% - <100%				
$\overline{\circ}$	2	≥50% - <80%				
0	1	<50%				

	Table L1b. Buffer Width					
R	Rating Average buffer width					
\circ	4	≥190m				
(X)	3	≥130 - <190m				
\circ	2	≥65 - <130m				
\circ	1	<65m				

Table L1c. Summary Rating for Buffer
Integrity
Score

Rating	Score
O 4	>3.5
⊗ 3	>2.5 - ≤3.5
O 2	>1.5 - ≤2.5
C 1	≤1.5

SA CODE:

SA Name:

SF2MI[!]

Two Mile Pond Reservoir Transect [/]

Date:

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DS/AM **Surveyor Initials:**

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Т	Table L4. Surrounding Land Use Rating					
Rating		LUI Score				
	4	≥95 - 100				
0	3	≥80 - <95				
8	2	≥40 - <80				
\cap	1	<40				

SA Name: Two Mile Pond Reservoir Transct [

SA COD SF2MI [

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Date: 7/16/24

B1 - Relative Native Plant Community Composition

Raw4 | % SA5 | Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Ç Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 1859 35 CT Score 4 273 لدا Herbaceous/Sparse Stratum ³ Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. Cure Species 5 PAICK NOW 16/20x шΖ Species 4 Charles Charles Short Woody Stratum 2 2 Species 3 | E K. W. W. 2 шΖ Species 2. - C Tall Woody Stratum 1 2 Species 1 1 a Polygon Nos. Σ Z 0 ட ェ \checkmark ⋖ Δ U Δ ш G

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

Final Weighted Score⁷

SA CODE:

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Date:

SA Name:

Two Mile Pond Reservoir Transect [/]

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7/16/24

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

R	Rating	Description					
0	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.					
	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.					
Ø	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.					
	1	Native poles, saplings, and/or seedlings absent (0% cover).					

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

7		
14 //	A	
// //	/L	
, v /	/\f	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating	Invasive Species Cover %				
O 4	0%				
3 X	>0% - <1%				
2	≥1% - <10%				
O 1	≥10				

Additional CTs and Biotic Metric Comments:

Lots of lizards seen in area mostly just the Whip tails. Prickly pear is proporting to fruit.

SA CODE:	SF2MI[]	Date:	7/16/24

SA Name: Two Mile Pond Reservoir Transect [/] **Surveyor Initials:** DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		7		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø.		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)		
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).		
			Multiple livestock and other (fishing, hiking) trails,		
	Q		Vehicle tracks including off-road and construction, etc.		
			Impervious compacted surfaces or pavement		
			Grading or plowing		
			Fill		
			Gravel pits		
			Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts		
			Fire pits		
			Other:		
			Estimate % soil disturbance by segment area		

Average % Soil Disturbance: 5%

	Table A5. Soil Surface Condition Rating				
Rating	Description				
C 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.				
Ж) 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.				
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.				
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.				

NMRAM Montane Riverine Wetlands Version 2.5

ode Tsct [] County Santa Fe A General Location and Bou A riparian system that le decommissioned due to of water rights. Driving Directions	AU Name: Trans HUC 12 Headw undary (Rationale, oads into a pond lo	vaters Santa Fe River Ecomments)		Project : Rip	arian Asses	ment				
County Santa Fe SA General Location and Bou A riparian system that le decommissioned due to of water rights. Driving Directions	HUC 12 Headw undary (Rationale, o ads into a pond lo	vaters Santa Fe River Ecomments)		SA Code SF2MI [] SA Name: Two Mile Pond Reservoir Project: Riparian Assess						
A General Location and Bou A riparian system that le decommissioned due to of water rights. Priving Directions	_l undary (Rationale, c ads into a pond lo			WOI : Two Mile Pond Reservoir						
A riparian system that le decommissioned due to of water rights. Priving Directions	ads into a pond lo	comments)	levation (ft) 7299	(m) 2224.7	Ecor	egion 6.0 NWFM				
Driving to Santa Fe from		cated on the east side o egarding the reservoir a	f Santa Fe bordering the nd a water diversion to t	: Santa Fe Nat he area was r	tional Fores recently shu	t. This reservoir was t down due to lack				
Canyon Road until you		i head north on Old Peclocated to the North.	os Trail. Then head east	on Camino D	el Monte So	l and right on				
Ownership The Nature Cons	ervative and The S	anta Fe National Forest	Data Sharing Result: Restrictions only.	s to client	Fish Obser Wetlan	1				
Surveyor Role	Surveyor Initials									
Landscape		DS								
Biotic	Biotic Annie McCoy									
Abiotic	Dustin Schwart	Z				DS				
Stressors	Dustin Schwart	Z				DS				
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD ft				
-105° 53' 24" W 35°	41' 23" N	13	NAD- 83 UTM	35.68972	2	-105.89				
Survey Date 8	/13/24	Start Time	9:00	End T	ime -	15:00				
		SA Des	cription							
SA Landscape Context (sur	mmarize the wetla	nd and surrounding lan	dscape; include condition	on and impac	ts)					
Ground Strong	cover is	5 prominent, 1	Trails appear Flow from SF	slightly rived	Drago	n Hy				
SA Biotic Condition (veget	ation patterns, cor	nposition and structure	, exotics and invasives, c	listurbance e	vidence, fire	and herbivory)				
Virginia Co	eeper; gol	len aster in b	loom, globe mal	low; two	ble nee	d, Blazing				
		colors. Matteblue								
a o pear	to be	doing well	Many whip to	15 Net	- Mans	bilds				
177			flooding characteristics	and evidenc	e of overba					
SA Abiotic Condition (hyd	rological alteration	is {e.g., dams, walls etc.];	that factors that define	tha CA limital		nk flooding; soil				
SA Abiotic Condition (hydidisturbance and other site i	rological alteration mpacts; explain th	e hydrologic breaks or c				nk flooding; soil				
SA Abiotic Condition (hydroisturbance and other site i	rological alteration mpacts; explain th	e hydrologic breaks or o moist from n	von soons. Som	e Consu	hation	nk flooding; soil				
SA Abiotic Condition (hydr disturbance and other site i Grown	rological alteration mpacts; explain th	e hydrologic breaks or o moist from n	von soons. Som	e Consu	hation	nk flooding; soil				
SA Abiotic Condition (hyd disturbance and other site i Grow from	rological alteration mpacts; explain th nd seems n Andobon A	e hydrologic breaks or c moist from n trea. Channel 7945/om	shows slyng	e Const	hation	nk flooding; soil				
SA Abiotic Condition (hyd disturbance and other site i Grow From Assessment Summary (Ov	rological alteration mpacts; explain th nd seems n Andokon A 15.5 ntu erall site condition	e hydrologic breaks or comorbt from not from 179 as/om summary and commen	Shows Slight 17.4°C starts after the field data is	e Const ρμ7.7 collected.)	hation Elight	nk flooding; soil				
SA Abiotic Condition (hydidisturbance and other site in Grown Assessment Summary (Ov	rological alteration mpacts; explain th nd seems n Andokon A 15.5 ntu erall site condition	e hydrologic breaks or c moist from n trea. Channel 7945/om	Shows Slight 17.4°C starts after the field data is	e Const ρμ7.7 collected.)	hation Elight	nk flooding; soil				

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SA Name: Two Mile Pond Reservoir Transect [

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Landscape Context

B			

Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery). Google Earth KMZ. file Image Date 6/23 **Imagery** Allowed buffer/RCC land cover elements Excluded non-buffer/RCC land cover elements Buffer RCC Buffer RCC Commercial/residential developments, parking lots, X X X Natural or semi-natural vegetation patches dams, bridges, revetments, and other structures Lawns, parks, golf courses, sports fields Small irrigation ditches without levees X |X|Railroads Old fields, unmaintained Maintained levees, sediment piles, construction Open range land materials, staging areas Foot trails, horse trails, unpaved bike trails (low Intensive livestock areas, horse paddocks, feedlots X П intensity) Intensive agriculture: maintained pastures, hay fields, Non-channel open water X X row crops, orchards, and vineyards Payed roads or developed second-order unpayed but Non-functioning abandoned vegetated levees, or Х X X Xnaturally occurring levees graded roads Open water bounded by a levee or other manmade unpaved two tracks roads Х \boxtimes structure Other Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
А	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/ 2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent					
Rating		Buffer Percent				
	4	100%				
⊗	3	≥80% - <100%				
\overline{C}	2	≥50% - <80%				
0	1	<50%				

	Table L1b. Buffer Width					
Rating		Average buffer width				
0	4	≥190m				
⊗	3	≥130 - <190m				
0	2	≥65 - <130m				
\circ	1	<65m				

Table L1c. Summary Rating for Buffer IntegrityRatingScore \bigcirc 4>3.5 \bigcirc 3>2.5 - \leq 3.5 \bigcirc 2>1.5 - \leq 2.5 \bigcirc 1 \leq 1.5

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L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Tab	Table L4. Surrounding Land Use Rating					
Rati	ng	LUI Score				
O 4		≥95 - 100				
C 3		≥80 - <95				
⊗ 2		≥40 - <80				
O 1		<40				

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B1 - Relative Native Plant Community Composition

Raw4 |% SA5 |Wt Score6 1,225 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in 1.82 Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top X B CT Score 4 7.3 3:50 Ш Herbaceous/Sparse Stratum ³ Species 6 ेवा है which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 4 41) Species 5 E 20/08 Bolden - \geq шΖ Species 4 Chief R Short Woody Stratum 2 man year \geq Species 3 Galanton Commission 11.7 2 шΖ Species 2 مير ج م) Tall Woody Stratum 1 2 Species 1 Map Polygon Nos. $\sqrt{}$ ⋖ U Δ ш ட G I \mathbf{x} b Ω

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and > 25% total stratum cover; 3. Herbaceous (graminoids and forbs) > 10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

≥

z

0

Final Weighted Score⁷

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
C	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
\circ	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
Ø	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
C	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

1	1	A	
10	γ.		

		
Invasive cover (%)	>1	

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover						
Rating	Invasive Species Cover %					
C 4	0%					
○ 3 X	>0% - <1%					
, 2	≥1% - <10%					
O 1	≥10					

Additional CTs and Biotic Metric Comments:

The chimisms have different dolor dependant on plant.

One type of chimism ragreen flowing chimism almost neon

the other of

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Two Mile Pond Reservoir Transect [/]

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Þ		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ź		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ų		There is leaf litter, thatch, or wrack in most pools.
Indicators of				The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Á		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
				Channel and point-bars consist of well-sorted bed material.
		P		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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A5 - Soil Surface Condition

Vorksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	>
-----------------------------	---

Table A5. Soil Surface Condition Rating					
Rating	Description				
4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.				
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.				
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.				
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.				

		SA Cover v	Vorksheet				
SA Code SF2MI[i]	SA Name : Two N	file Pond Reservoir		Project:	Riparian Asses	ement	
Code Tsct [/]	AU Name : Trans	ect []	WOI : TW	WOI : Two Mile Pond Reservoir			
County Santa Fe	HUC 12 Headw	raters Santa Fe River El	evation (ft) 729	9 (m) 222	4.7 Ecoi	egion 6.0 NWFM	
SA General Location and Boundary (Rationale, comments) A riparian system that leads into a pond located on the east side of Santa Fe bordering the Santa Fe National Forest decommissioned due to safety concerns regarding the reservoir and a water diversion to the area was recently shut of water rights. Driving Directions							
Driving to Santa Fe	e from Albuquerque you you reach the reservoir	head north on Old Peco located to the North.					
Ownership The Nature	Conservative and The S	anta Fe National Forest	12 444 21141119	Results to client only.	Fish Obse Wetlar	l l	
Surveyor Role		Surveyo	r Name			Surveyor Initials	
Landscape	Dustin Schwart	Z				DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwart	Z				DS	
Stressors	Dustin Schwart	Z		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		DS	
Easting (m)	Northing (m)	Zone	Datum	Latitu	ıde (DD ft)	Longitude (DD ft	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U	ГМ 35.689	722	-105.89	
Survey Date	9/11/24	Start Time	9:00	En	d Time	15:00	
		SA Desc	ription				
SA Landscape Contex	ct (summarize the wetla	nd and surrounding land	lscape; include o	ondition and im	oacts)		
Land blue	is driver than grass, L	last time, tab	osa grass or fall airp	is new to	er tree	/ No Mosquitos to - Drayonfly	
SA Biotic Condition (vegetation patterns, cor	mposition and structure,	exotics and inva	sives, disturbanc	e evidence, fir	e and herbivory)	
	golden yarrow, gol sted nut hatch, No.	den aster, purple as					
V 0.20		man Flicker, Dro	no Thise is	,	The Diff		
		K, water strider,					
Lesser gold	finch, Raceen trace (hydrological alteration site impacts; explain the	K, water strider, is {e.g., dams, walls etc.]; e hydrologic breaks or of	flooding charact ther factors that	prickly pear, teristics and evid define the SA lim	Chimisar : ence of overba	Saltbrus 5 blue tai Ink flooding; soil	
Lesser gold	finch, Raceen trace (hydrological alteration site impacts; explain the	K, water strider, is {e.g., dams, walls etc.];	flooding charact ther factors that	prickly pear, teristics and evid define the SA lim	Chimisar : ence of overba	Saltbrus 5 blue tai Ink flooding; soil	
Lesser gold SA Abiotic Condition disturbance and other	(hydrological alteration site impacts; explain the Rally low fle	K, water strider, is {e.g., dams, walls etc.]; e hydrologic breaks or of	flooding characteristics that	prickly pearly teristics and evidence the SA lim	Chimisar : ence of overba its) are ta	Saltbras 5 blue tai ink flooding; soil	
SA Abiotic Condition disturbance and other SF Assessment Summar	(hydrological alteration site impacts; explain the Rally low flow flow flow flow flow flow flow	K, water strider, is {e.g., dams, walls etc.]; e hydrologic breaks or of ownin santa fe 17,57 14,5° summary and comment	flooding characterizer hat her factors that river has	teristics and evidence the SA lime bushess	Chimisar sence of overba its) Are ta	Saltbras 5 blueta ink flooding; soil	
SA Abiotic Condition disturbance and other SF Assessment Summar	(hydrological alteration site impacts; explain the Rally low flow flow flow flow flow flow flow	K, water strider, is {e.g., dams, walls etc.]; e hydrologic breaks or of ownin santa fe 17,57 14,5° summary and comment	flooding characterizer hat her factors that river has	teristics and evidence the SA lime bushess	Chimisar sence of overba its) Are ta	Saltbras 5 blueta ink flooding; soil	
SA Abiotic Condition disturbance and other SF Assessment Summar	(hydrological alteration site impacts; explain the Rally low flow flow flow flow flow flow flow	K, water strider, is {e.g., dams, walls etc.]; e hydrologic breaks or of owin santa fe 17,57 14,5°	flooding characterizer hat her factors that river has	teristics and evidence the SA lime bushess	Chimisar sence of overba its) Are ta	Saltbras 5 blueta ink flooding; soil	

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Landscape Context

Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC. corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery).	₁ - B	uffer	miteditià i	macx										
Allowed buffer/RCC land cover elements Buffer RCC X	or are e	exclude	d and consid											
Buffer RCC X X Natural or semi-natural vegetation patches X X Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X Autorial or semi-natural vegetation patches X X Autorial vegetation X X X X X X X X X	lmager	у	Google Earth	KMZ. file			Image Date 6/23		3					
Buffer RCC X X Natural or semi-natural vegetation patches X X Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X Small irrigation ditches without levees X X Autorial or semi-natural vegetation patches X X Autorial or semi-natural vegetation patches X X Autorial vegetation X X X X X X X X X	Allowe	d buffe	r/RCC land o	over elements			Exclud	led no	n-buffer/F	RCC la	and co	over elen	nents	
X Natural or semi-natural vegetation patches X Maintain or semi-natural vegetation patches X Maintain or semi-natural vegetation patches X Maintain of Small irrigation ditches without levees Lawns, parks, golf courses, sports fields Railroads Railroads Maintained levees, sediment piles, construction materials, staging areas Intensive livestock areas, horse paddocks, feediots Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards Paved roads or developed second-order unpaved but graded roads Paved roads or developed second-order unpaved but graded roads Other O					***************************************		Buffer							
Old fields, unmaintained Open range land O	X	X	Natural or se	mi-natural vegetati	ion patch	nes	X	X	1					
Open range land	X	X	Small irrigati	on ditches without	levees				Lawns, p	oarks,	golf (courses, s	sports fields	
Open range land			Old fields, ur	nmaintained					Railroad	S				
Intensive intensive intensive with sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter the rating on the Buffer Naturally Summary Worksheet 1d. Buffer Width Suffer Width Suff			Open range	land					l .				nt piles, construction	
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Surveyor Initials:

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Tal	Table L4. Surrounding Land Use Rating				
Rat	ting	LUI Score			
\circ	4	≥95 - 100			
\circ	3	≥80 - <95			
Ø	2	≥40 - <80			
\circ	1	<40			

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SA Name: Two Mile Pond Reservoir T et [/]

Date: 9/11/24

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B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top |% SA5 |\ % CT Score⁴ Raw4 2,75 Final Weighted Score⁷ Herbaceous/Sparse Stratum ³ Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 111 3000 Species 5 ш Z Species 4 K. K. K. Short Woody Stratum 2 Species 3 Chings. William шΖ Species 2 Tall Woody Stratum ¹ Species 1 E Polygon Nos. Σ z 0 エ \checkmark 4 Δ щ G b

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs < 6m (20 feet) and > 25% total stratum cover; 3. Herbaceous (graminoids and forbs) > 10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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Date:

SA Name:

Two Mile Pond Reservoir Transect [|]

Surveyor Initials: DS/AM

9/11/24

B4 - Native Riparian Tree Regeneration

e B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

R	ating	Description						
0	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.						
\circ	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.						
C _y	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.						
K	1	Native poles, saplings, and/or seedlings absent (0% cover).						

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

N/A

Invasive cover (%)

71

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
O 4	0%			
<u>3 </u>	>0% - <1%			
2	≥1% - <10%			
O 1	≥10			

Additional CTs and Biotic Metric Comments:

White breasted nut batch, Northern flicker, Broad tailed humaning bird, black enpped chickades, lesser gold finch, Racoon tracks, water strider, deer track, prickly pears blue dailizard

SA CODE: SF2MI [] Date: 9/11/	SA CODE:	SF2MI[]	Date:	9/11/24
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SA Name: Two Mile Pond Reservoir Transect [[] Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		d		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		d		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ì		There is leaf litter, thatch, or wrack in most pools.
Indicators of		ď		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium				There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		ď		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		d		There are channel pools at meander bends and some deep pools within the reach.
			\Box	The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
·				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[∫]

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SA Name: Two Mile Pond Reservoir Transect []

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	Į į		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other
			Estimate % soil disturbance by segment area

Average % Soil Disturbance: > 5%

/ 	Table A5. Soil Surface Condition Rating
Rating	Description
X 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

		SA Cover V	Vorksheet					
SA Code SF2MI[2]	SA Name : Two N	Mile Pond Reservoir		Project : Ripa	arian Assese	ement		
Code Tsct [2]	AU Name : Trans	sect [2]		WOI : Two M	lile Pond Re	servoir		
ounty Santa Fe HUC 12 Headwaters Santa Fe River Elevation (ft) 7299 (m) 2224.7 Ecoregion 6.0 NWFM								
A riparian system t decommissioned o of water rights. Oriving Directions	lue to safety concerns re	comments) scated on the east side of egarding the reservoir an u head north on Old Pecc	d a water diversion to tl	he area was re	ecently shu	t down due to lack		
	you reach the reservoir		3 Hall. Meli Meda Case	on cumino be	i morne so			
Ownership The Nature	Conservative and The S	Santa Fe National Forest	Data Sharing Results Restrictions only.	to client	Fish Obser Wetlan	1		
Surveyor Role		Surveyo	r Name			Surveyor Initials		
Landscape	Dustin Schwart	tz				DS		
Biotic Annie McCoy AM								
Abiotic Dustin Schwartz DS								
Stressors	Dustin Schwartz DS							
Easting (m)	Northing (m)	Longitude (DD ft)						
-105° 53' 24" W	35° 41' 23" N 13 NAD- 83 UTM 35.689722 -105.89							
Survey Date /	7/16/24	Start Time	9:00	End T	ime	15:00		
Juivey Date	// 10/27	- July mile	-,					
Juivey Date	7710/24	SA Desc						
			ription					
SA Landscape Conte	I xt (summarize the wetla	SA Desc and and surrounding land	r iption dscape; include conditio	on and impact				
SA Landscape Conte	xt (summarize the wetla	SA Desc and and surrounding land Jam is simi	dscape; include condition Ar to May	on and impact	ts)			
SA Landscape Contex んし し	xt (summarize the wetla on from c	SA Desc and and surrounding land	cription dscape; include condition lar to May No odor	on and impact Flow From	ts)			
SA Landscape Contex	ext (summarize the wetland on From a summarize the summarize the wetland of the summarize th	SA Descended and and surrounding land and surrounding land and significant and structure, Apples on a	exotics and invasives, d	on and impact Flow From Sisturbance ev	wate	and herbivory)		
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SA Landscape Contex (1) SA Biotic Condition (4 9 av (has	ext (summarize the wetland from from a constitution patterns, constitution patterns, constitution patterns, constitution from a constitution from	SA Descended and and surrounding land and surrounding land and significant is similarly suffers mell mposition and structure, Apples on grant have	exotics and invasives, d	on and impact Flow From Sisturbance ev w tro how 1+4	ts) Late Vidence, fire to he	and herbivory)		
SA Landscape Contex FI SA Biotic Condition (4 9 and Chair Blace SA Abiotic Condition	ext (summarize the wetland from from a constant less extension patterns, constant seem bird extension (hydrological alteration)	sa Descendent and and surrounding land and surrounding land and surrounding land surface and surface and structure, to have a grasses constead of the surface and	exiption dscape; include condition lar to May No odor exotics and invasives, de round willow moderate reveryth, flooding characteristics	Flow From listurbance even how 1 the and evidence	is) Late vidence, fire to he to he	e and herbivory)		
SA Landscape Contex FI SA Biotic Condition (4 9 and Chair Blace SA Abiotic Condition	ext (summarize the wetland from from a constant less expectation patterns, constant seems from a constant seem	SA Descended and surrounding land and surrounding land and surrounding land same is similar to sufficiently and structure, for have grasses constants (e.g., dams, walls etc.); ne hydrologic breaks or o'	exotics and invasives, de moderate recover that define	Flow From Sisturbance even Sisturbance e	is) Late vidence, fire to he to he	e and herbivory)		
SA Landscape Contex FI SA Biotic Condition (4 9 and Chair Blace SA Abiotic Condition	ext (summarize the wetland on From a control less expectation patterns, control seem bind extension riste impacts; explain the 6,07 NTu	SA Descended and surrounding land and surrounding land and surrounding land and surrounding land and surface and s	exiption dscape; include condition lar to May No odor exotics and invasives, de round wills moderate reveryth, flooding characteristics ther factors that define	Flow From isturbance even how 1 the and evidence the SA limits) 08 p H	its) Late vidence, fire tohe tohe e of overba	e and herbivory) e and hydd		
SA Landscape Contex FI L SA Biotic Condition (4 9 and Chair Blace SA Abiotic Condition	ext (summarize the wetland on From a control less expectation patterns, control seem bind extension riste impacts; explain the 6,07 NTu	SA Descended and surrounding land and surrounding land and surrounding land same is similar to sufficiently and structure, for have grasses constants (e.g., dams, walls etc.); ne hydrologic breaks or o'	exiption dscape; include condition lar to May No odor exotics and invasives, de round wills moderate reveryth, flooding characteristics ther factors that define	Flow From isturbance even how 1 the and evidence the SA limits) 08 p H	its) Late vidence, fire tohe tohe e of overba	e and herbivory) e and hydd		
SA Landscape Contex FI SA Biotic Condition (4 9 av Char Blace SA Abiotic Condition disturbance and other	ext (summarize the wetland on From a control less expectation patterns, control seem bird expectation rite impacts; explain the 6,07 Ntu Path is sery (Overall site condition)	SA Descendent and surrounding land and surrounding land and surrounding land surrounding land surface and surrounding land surface and surrounding land surroun	exotics and invasives, de moderate ther factors that define to a few channels as after the field data is a steer the field	isturbance ever the SA limits) 08 pH collected.)	ts) Late vidence, fire to he	e and herbivory) e and hydd		
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SA Landscape Contex FI SA Biotic Condition (4 9 av Char Blace SA Abiotic Condition disturbance and other	ext (summarize the wetland on From a control less expectation patterns, control seem bind a (hydrological alteration riste impacts; explain the 6,07 NTu Path is sery (Overall site condition Land is	SA Descendent and surrounding land and surrounding land and surrounding land surrounding land surface and surrounding land surface and surrounding land surroun	exotics and invasives, de moderate the field data is and new gr	isturbance ever the SA limits) 08 pH collected.)	ts) Late vidence, fire to he	e and herbivory) e and hydd		

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SA Name : Two Mile Pond Reservoir Transect [\mathcal{L}]

Date: 7/16/24

Surveyor Initials: DS/AM

Landscape Context

⊾₁ - B	 Buffer Integrity Index Vorksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed 										
	excluded and cons ar of imagery).	idered hon-bullet et	ements i	that disrupt	ecosysi	em co	nnecuvii	ty. II iu	JICate	tne imay	ery type and date (season
lmager		h KMZ. file			lmage	Date	6/2	3			
Allowe	d buffer/RCC land	cover elements			Exclud	Excluded non-buffer/RCC land cover elements					
Buffer	RCC				Buffer	RCC					
X	X Natural or s	semi-natural vegetat	ion patcl	hes	X	X	ł				elopments, parking lots, and other structures
X	X Small irriga	tion ditches without	levees				Lawns, p	parks,	, golf (courses, s	ports fields
	Old fields, u	ınmaintained	***************************************				Railroad	s			
	Open range	Open range land					Maintair material				t piles, construction
X	Foot trails, intensity)	horse trails, unpaved	l bike tra	ils (low			Intensiv	e live	stock	areas, ho	rse paddocks, feedlots
X	X Non-chann	el open water					1	_		re: mainta Is, and vin	ained pastures, hay fields, neyards
X	1.7 []	oning abandoned ve	getated	levees, or	X	1 🗸	Paved ro			reloped so	econd-order unpaved but
		vo tracks roads			x	x	Open wa		ound	led by a le	evee or other manmade
卣	Other Other										
Norksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the Table L1a. Buffer Percent									1 1 a Ruffer Percent		
SA perimeter composed of allowed buffer elements and enter into the Buffer Percent									<u> </u>		Γ
	ox below. Rate the sub-metric using Table L1a and enter the rating of the critical summary Worksheet 1d						er		<u> </u>	lating	Buffer Percent
Integric	ntegrity Summary Worksheet 1d. Buffer Percent (%)= 85%									4	100%
								1	<u> </u>	3	≥80% - <100% ≥50% - <80%
Vorksheet 1c. Buffer Width Sub-metric. Measure the length of ea										2 1	≥50% - <80% <50%
he GIS or on the map. Average the line lengths and rate using Table he Buffer Integrity Summary Worksheet 1d.						inter tr	ne rating	on			\3U70
	Buffer Width	Buffer Width		Buffer Width Buffer Width						Tabl	e L1b. Buffer Width
Line	(m)	(ft)	Line	Line (m) (ft)				R	ating	Average buffer width	
Α	164.26	538.91	E	161.9	3		531.26			4	≥190m
В	125.25	410.92	F	231.4	8	 	759.44		®	3	≥130 - <190m
	115.39	378.57	G	121.2	<u> </u>		397.80		0	2	≥65 - <130m
				155.8						1	<65m
D	111.07	364.40	Н				511.38		<u></u>	114-6	Detien few Duffen
	Average	148.31 (m)		486.58		(ft)			lar	ole LTC. S	iummary Rating for Buffer Integrity
		tegrity Summary. E							R	ating	Score
		te the Buffer Integrity Itearity Index Score,								4	>3.5
						,			R	3	>2.5 - ≤3.5
	r. Using the Buffer Integrity Index Score, enter rating for Buffer In n the SA Summary Worksheet.						1 2 1 1 2 2 5				
 Buffer (Buffer Width Rating	/2 :	= Buffe	r Integ	rity Ind	dex Scor	اج	0	2	>1.5 - ≤2.5

3

SA CODE:

SF2MI[?]

7 7 1

Date:

7/16/24

DS/AM

SA Name:

Two Mile Pond Reservoir Transect [?]

Surveyor Initials:

L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	. 0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	able L4	. Surrounding Land Use Rating
R	ating	LUI Score
\cap	4	≥95 - 100
\overline{C}	3	≥80 - <95
®	2	≥40 - <80
\overline{C}	1	<40

SA COD SF2MI[2]

SA Name: Two Mile Pond Reservoir Tranct [2]

Date: 7/16/24

7/16/24 Surveyor Initials: D

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B1 - Relative Native Plant Community Composition

dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.

ز (1 2 2 2		38	which is more abundant; each polygon is either assigned to the same of minos the same composition of a new Cli IS created for the polygon.	nail filed	נו נוב אווינ	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	llas tile sall	וב רחוואי	USITION OF A	ובא ובא	S Created IC	r the po	lygon.				
					Tall Woody Stratum ¹	v Stratun	1		Short Woody Stratum ²	dy Stratu	ım 2		Herbaceous/Sparse Stratum ³	:/Sparse	Stratum ³		CT Score 4	e 4	
b	Polygon Nos.	Nos.				шZ		ᄪᅩ	Species 3	<u>ч</u> Z	Species 4	ш Z	Species 5	ш 2		шг	Raw4	SA5	Wt Score ⁶
А	7				Novoulent Cottonus	2	Per Flee	2	villas trees	>	App to Tracs	ર્	do sa		Mesobul	3	7		4.00
ω																			
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Σ																			
z																			
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														Final	Final Weighted Score ⁷	Score7			4.00

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating . Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs < 6m (20 feet) and > 25% total stratum cover; 3. Herbaceous (graminoids and forbs) > 10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE:

SF2MI[2]

Date:

7/16/24

SA Name:

Two Mile Pond Reservoir Transect [2]

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
6 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
O 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1%-5% cover, size classes few.
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
\bigcirc 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

	1/1	
- N/	111	
10	/ ' \	

Invasive cover (%)

calculate

Table B5. Ratin	gs for Invasive Exotic Plant Species Cover
Rating	Invasive Species Cover %
Ø 4	0%
3	>0% - <1%
2	≥1% - <10%
0 1	≥10

Additional CTs and Biotic Metric Comments:

Area is thriving with green life,

Garler snakes, Tokee, blackbirds seen in

area. Apples are on tree.

SA Name: Two Mile Pond Reservoir Transect [2] Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ż		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ż		There is leaf litter, thatch, or wrack in most pools.
Indicators of		囟		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		×		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[[]

[\mathcal{L}] Date: 7/16/24

SA Name: Two Mile Pond Reservoir Transect [2]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	Ø		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance: > 101/8

1	Table A5. Soil Surface Condition Rating				
Rating	Description				
<u>ර</u> 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.				
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.				
2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.				
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.				

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	r Worksheet			
A Code SF2MI [2] SA Name : Two I	SA Name: Two Mile Pond Reservoir		Project : Riparian Assesement		
ode Tsct [2]	AU Name : Tran	AU Name : Transect [Z]			WOI : Two Mile Pond Reservoir	
ounty Santa Fe	HUC 12 Heady	HUC 12 Headwaters Santa Fe River Elevation (ft) 7299		(m) 2224.7	Ecoregion 6.0 NWFM	
A riparian system t decommissioned o of water rights. Priving Directions Driving to Santa Fo	due to safety concerns r	ocated on the east side egarding the reservoir u head north on Old Pe	of Santa Fe bordering the and a water diversion to t ecos Trail. Then head east	he area was recer	al Forest. This reservoir was ntly shut down due to lack onte Sol and right on	
wnership The Nature	Conservative and The S	Santa Fe National Fore	Data Sharing Results Restrictions only.	l l	n Observed in Wetland?	
Surveyor Role		Surve	yor Name		Surveyor Initials	
Landscape	Dustin Schwart	iz			DS	
Biotic	Annie McCoy				AM	
Abiotic	Dustin Schwar	Dustin Schwartz				
Stressors	Dustin Schwar	Dustin Schwartz				
Easting (m)	Northing (m)	Zone	Datum	Latitude (DD	ft) Longitude (DD ft	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722	-105.89	
	04064				4	
		and and surrounding la	9:00 escription indscape; include condition mon sooks. App			
SA Landscape Context taking have G SA Biotic Condition (3 1000 She Scar 301 She Scar 301 She Scar 301 She She She She She She She She She She	ext (summarize the wetland still admirage. 'Cover vegetation patterns, color masquitas in debris and still in debris in the site impacts; explain th	sa De sand and surrounding la ret from the letus vine?" is very mposition and structures chast has apples as {e.g., dams, walls etche hydrologic breaks on from dabrit as a position of the letus of th	escription Indscape; include condition Inds	disturbance evider Channel. S Vines and evidence of the SA limits) The channel	ines are of the trees ince, fire and herbivory) intense flow Also evidence taking over treen overbank flooding; soil	
SA Landscape Context taking have G SA Biotic Condition (3 3 5 5 5 5 5 6 5 6 6 6 6 6 6	ext (summarize the wetland still advantage. 'Cover' vegetation patterns, con masquitas in dabris in dabris in dabris in the impacts; explain the site sa De sand and surrounding la set from the letus vine?" is very mposition and structures chast has apple so the hydrologic breaks on the hydrolog	escription Indscape; include condition Inds	des and vide myjority disturbance evider Channel. Solvines and evidence of the SA limits) The channel. 186 mS/cm. collected.)	ines are of the trees ince, fire and herbivory) intense flow Also evidence taking over treen overbank flooding; soil nel whes et		
SA Landscape Context taking have G SA Biotic Condition (3 3 4 5 5 5 5 5 6 5 6 6 6 6 6 6	ext (summarize the wetland still advantage. 'Cover' vegetation patterns, con masquitas in dabris in dabris in dabris in the impacts; explain the site sa De sand and surrounding la set from the letus vine?" is very mposition and structures chast has apple so the hydrologic breaks on the hydrolog	escription Indscape; include condition Inds	des and vide myjority disturbance evider Channel. Solvines and evidence of the SA limits) The channel. 186 mS/cm. collected.)	ines are of the trees ince, fire and herbivory) intense flow Also evidence taking over treen overbank flooding; soil tel whes et		

SF2MI [2] SA CODE:

8/13/24 Date:

Two Mile Pond Reservoir Transect [SA Name:

Surveyor Initials: DS/AM

Landscape Context

- Butt	er Inte	egrity	Index												
orkshee	t 1a. Bu	iffer ar	nd RCC (hecklist	. Check	off la	nd c	over ele	ments wi	thin the	buffer	area or I	RCC cor	ridors th	at ar
													1 2		

or are e	exclud	 a. Buffer and RCC Checklist. Check off land cover eed and considered non-buffer elements that disrupt nagery). 	ecosys	s withi tem co	n the buffer area or RCC corridors that are either allowed, nnectivity. Indicate the imagery type and date (season
lmagei	magery Google Earth KMZ. file		lmage Date		6/23
Allowe	d buffe	er/RCC land cover elements	Exclud	ed nor	n-buffer/RCC land cover elements
Buffer	RCC		Buffer	RCC	
X	x	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields
		Old fields, unmaintained			Railroads
		Open range land			Maintained levees, sediment piles, construction materials, staging areas
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards
X	X	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads
Contraction of the contraction o		unpaved two tracks roads	X	X	Open water bounded by a levee or other manmade structure
Ú		Other			Other
			11		of the

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d. Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
C	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2=	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent					
F	lating	Buffer Percent				
	4	100%				
8	3	≥80% - <100%				
	2	≥50% - <80%				
	1	<50%				

Table L1b. Buffer Width					
Rating Average buffer width					
C 4	≥190m				
⊗ 3	≥130 - <190m				
O 2	≥65 - <130m				
O 1	<65m				

Table L1c. Summary Rating for Buffer Integrity

257						
Ra	ating	Score				
C	4	>3.5				
Ø	3	>2.5 - ≤3.5				
C	2	>1.5 - ≤2.5				
\circ	1	≤1.5				

SA Name:

SF2MI[2]

Two Mile Pond Reservoir Transect [2]

Date:

Surveyor Initials:

8/13/24

DS/AM

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surrounding Land Use Rating				
Ra	ting	LUI Score		
\cap	4	≥95 - 100		
\circ	3	≥80 - <95		
Ø	2	≥40 - <80		
\circ	1	<40		

SA COD SF2MI[2]

SA Name: Two Mile Pond Reservoir $\mathbb{T}_{\mathcal{V}}$ -ct $[\hspace{.1cm} > \hspace{.1cm}]$

Date: 8/13/24

Surveyor Initials: D´

B1 - Relative Native Plant Community Composition

Raw4 |% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in 4,00 Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 200, CT Score ⁴ 4.00 Herbaceous/Sparse Stratum ³ Species 6 90035 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. ~ Species 5 E Horse 3 ШΖ Species 4 t.00% App le Short Woody Stratum 2 2 Species 3 4,000 3.1.3 2 Species 2 E Tall Woody Stratum ¹ Z Coffeewood Species 1 Northwilest Polygon Nos. 2 Σ z 0 G ェ \checkmark Ü Δ ⋖ 8

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

Final Weighted Score⁷

SF2MI [2]

Date:

SA Name:

Two Mile Pond Reservoir Transect [2]

Surveyor Initials: DS/AM

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description					
⋈ 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.					
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.					
O 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.					
C 1	Native poles, saplings, and/or seedlings absent (0% cover).					

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method	N	14
hatting Method	10	11

Invasive cover (%)	
• •	1

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating	Invasive Species Cover %				
O 4 X	0%				
3	>0% - <1%				
2	≥1% - <10%				
O 1	≥10				

Additional CTs and Biotic Metric Comments:

Lesser goldfinch was heard and evidence of animals eating apples. 3 mosquilos were seen today which is most seen all year

SA Name:

SF2MI[2]

Two Mile Pond Reservoir Transect [2]

Date:

8/13/24

Surveyor Initials:

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		囡		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		赵		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		A		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ŕ		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		X		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		K Í		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ŕ		There are channel pools at meander bends and some deep pools within the reach.
		Q		The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
		X		There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
		R		Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
	· 🔲			There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[2]

SA Name: Two Mile Pond Reservoir Transect [2]

Date: 8/13/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)			
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).			
	12		Multiple livestock and other (fishing, hiking) trails,			
			Vehicle tracks including off-road and construction, etc.			
			Impervious compacted surfaces or pavement			
			Grading or plowing			
			Fill			
			Gravel pits			
			Anthropogenic levees and berms			
			Irrigation-driven salinity and mineral crusts			
			Fire pits			
			Other:			
			Estimate % soil disturbance by segment area			

Average % Soil Disturbance: > 5 %

	Table A5. Soil Surface Condition Rating					
Rating	Description					
C 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
№ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

		SA Cover V	Vorksheet					
A Code SF2MI [2] SA Name: Two Mile Pond Reservoir Project: Riparian Assese						ement		
Code Tsct [V]	Code Tsct [V] AU Name : Transect [2] WOI : Two Mile Pond Re						eservoir	
County Santa Fe HUC 12 Headwaters Santa Fe River E			evation (ft) 729	9 ((m) 2224.7	Eco	Ecoregion 6.0 NWFM	
A riparian system to decommissioned do of water rights. Driving Directions	lue to safety concerns re	cated on the east side of garding the reservoir an	d a water divers	sion to the	e area was i	recently shu	ut down due to lack	
	e from Albuquerque you I you reach the reservoir	head north on Old Peco located to the North.	is Itali. Then he	au east oi	i Camillo D	el Monte 2	or and right on	
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results to	to client	Fish Obse Wetlar		
Surveyor Role		Surveyo	r Name				Surveyor Initials	
Landscape	Dustin Schwartz	Z					DS	
Biotic	Annie McCoy						AM	
Abiotic	Dustin Schwart	Z					DS	
Stressors	Dustin Schwart	Z					DS	
Easting (m)	Northing (m)	Zone	Datum		Latitude	(DD ft)	Longitude (DD ft	
-105° 53' 24" W			-105.89					
		'3	יי כס ייטאוו		33.00372			
Survey Date	9/11/24	Start Time	9:00		End 1		15:00	
	9/11/24	Start Time	9:00				15:00	
Survey Date		Start Time SA Desc	9:00		End 1	rime .	15:00	
Survey Date SA Landscape Conte	Kt (summarize the wetla	Start Time SA Desc	9:00 ription Iscape; include	condition	End 1	rime		
Survey Date SA Landscape Contex	Kt (summarize the wetla	Start Time SA Desc	9:00 ription Iscape; include	condition	End 1	rime		
Survey Date SA Landscape Contex Source Survey SA Landscape Contex	kt (summarize the wetland thing seem still green	Start Time SA Desc	9:00 ription Iscape; include	condition	End 1	rime		
Survey Date SA Landscape Contex E very 1'5 5	ext (summarize the wetland thing seems still green of trees	Start Time SA Descend and surrounding land Arier, up but lower of	9:00 :ription :scape; include above do	condition an th	end 1 and impact an use he da	rime its) its) its V	verything nes	
Survey Date SA Landscape Contex Source SA Conti	ext (summarize the wetland thing seem strill green seem seem seem seem seem seem seem s	Start Time SA Desc Ind and surrounding land Arier, up but lower of	9:00 Exiption Assaye; include Asove do Flow from exotics and invi	condition am th om to	end 1	rime its) its / / / its / / / vidence, fir	verything in es	
Survey Date SA Landscape Contex Every 1's S Comb	still green of off trees vegetation patterns, cor	Start Time SA Descend and surrounding land There up but lower of the properties of	9:00 iription iscape; include above do flow from exotics and invitations are	condition an th am t assives, dis	end 1	rime its) nal, E vidence, fir	e and herbivory)	
Survey Date SA Landscape Contex Every is s Comit	still green g off trees vegetation patterns, cor trees are yellow. Vis	Start Time SA Desc Ind and surrounding land Arier, up but lower of	9:00 iription iscape; include above do flow from exotics and invitations are	condition an th am t assives, dis	end 1	rime its) nal, E vidence, fir	e and herbivory)	
Survey Date SA Landscape Contex is a Continuous Continuous Continuous Continuous Condition (Continuous Contex Continuous Contex Continuous Continuous Continuous Contex Continuous Contex Continuous Contex Continuous Contex Co	ext (summarize the wetland thing seems still green still green seems seems seems seems seems seems seems seems seems seems.	Start Time SA Descend and surrounding land Inter, up but lower of mposition and structure, ripe, The way hes and other	9:00 Exiption Ascape; include Above do Flow from exotics and invitations of veget	condition am the am the assives, dis phere a tion	and impaction to the da	rime its) nal, E vidence, fir start till t	e and herbivory)	
Survey Date SA Landscape Contex Every 1's S Comb SA Biotic Condition (Appl to r g SA Abiotic Condition	ext (summarize the wetland thing seems still green still green wegetation patterns, con le trees are yellow, Villagen.	Start Time SA Descend and surrounding land There up but lower of the properties and officers and officers as {e.g., dams, walls etc.];	9:00 iription Iscape; include above do flow from exotics and invitations of veget	condition an the assives, dis phere ation	and impaction and impaction in the date of	vidence, fir	e and herbivory)	
Survey Date SA Landscape Contex Every 1's S Comb SA Biotic Condition (Appl The real SA Abiotic Condition disturbance and other Chone/	ext (summarize the wetland thing seems still green green green wegetation patterns, confidence are yellow. Visite impacts; explain the site impacts; explain the size of 150 - 20	Start Time SA Descend and surrounding land Inter, up but lower of mposition and structure, ripe, The whee and other as {e.g., dams, walls etc.]; e hydrologic breaks or other 20 gpm Notices	9:00 Iscape; include Above do Flow from exotics and inventions of veget flooding character factors that	condition an the assives, dis assives, dis tarion teristics a	and impaction and impaction in the date of	vidence, fir	e and herbivory) Air Kand ank flooding; soil	
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SA CODE: SF2MI [2]

MI [²] Date: 9/11/24

SA Name: Two Mile Pond Reservoir Transect [\(\lambda \)]

Surveyor Initials: DS/AM

Landscape Context

		Integrity I										
or are e	xclud										idors that are either allowed, ery type and date (season	
Imager	у	Google Earth KMZ. file					Image Date 6/23					
Allowed	d buffe	er/RCC land c	over elements				xcluded non-buffer/RCC land cover elements			nents		
Buffer	RCC					Buffer	fer RCC					
X	х	Natural or se	mi-natural vegetat	ion patch	nes	X	X	l .	ercial/residential developments, parking lots, oridges, revetments, and other structures			
X	X	Small irrigati	on ditches without	levees				Lawns, parks	, golf co	ourses, s	ports fields	
		Old fields, un	nmaintained					Railroads				
		Open range l	land					Maintained le materials, sta			t piles, construction	
×	X	Foot trails, ho intensity)	orse trails, unpaved	l bike trai	ls (low			Intensive live	estock a	reas, ho	rse paddocks, feedlots	
X	X	Non-channel	l open water		2			Intensive agr row crops, or			ained pastures, hay fields, neyards	
X	x	1	ning abandoned ve urring levees	getated l	evees, or	×	X	Paved roads graded roads		eloped s	econd-order unpaved but	
		unpaved two tracks roads				X	x	Open water b	ater bounded by a levee or other manmade e			
一团		Other						Other				
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SA Name:

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Two Mile Pond Reservoir Transect [2]

Date:

Surveyor Initials:

9/11/24

DS/AM

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	8.0	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Т	Table L4. Surrounding Land Use Rating				
R	ating	LUI Score			
\circ	4	≥95 - 100			
\circ	3	≥80 - <95			
(X)	2	≥40 - <80			
\circ	1	<40			

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SA Name: Two Mile Pond Reservoir T → ct [<]

Date: 9/11/24

Surveyor Initials:

Σ

B1 - Relative Native Plant Community Composition

|% SA5 |Wt Score6 4.08 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 96/ CT Score 4 Raw4 8°, 7 Final Weighted Score⁷ Herbaceous/Sparse Stratum ³ Species 6 Memory 6,0055 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. Species 5 1 шΖ Species 4 Short Woody Stratum 2 Species 3 | E Willay trees \geq ш 2 Species 2 म हर् Tall Woody Stratum 1 Mountain N Species 1 Polygon Nos. ⋖ Ü Δ G ェ Σ z 0 \Box

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SA CODE: SF2MI [ℓ]

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Two Mile Pond Reservoir Transect [2]

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
C 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
O 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
Q 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
O 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

B 4 6			
B 1 2	48		
25 3 6	1.3		
2897	P . S		
2 ~ 3	W 1.2		

nvasive cover (%)	NA

calculate

Tab	Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating Invasive Species Cover %						
$\overline{\circ}$	4	X	0%			
Ú	3		>0% - <1%			
	2		≥1% - <10%			
O	1		≥10			

Additional CTs and Biotic Metric Comments:

	Area	15	pre paring	for	winter
, , , , , , , , , , , , , , , , , , , ,					

SA CODE: SF2MI [\mathcal{I}] Date: 9/11/24

SA Name: Two Mile Pond Reservoir Transect [2] Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
				The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		×		There is leaf litter, thatch, or wrack in most pools.
Indicators of		\boxtimes		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		1 7		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ä		Channel and point-bars consist of well-sorted bed material.
		\triangleright		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
		Ø		Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[$^{?}$]

MI[?] Date: 9/11/24

SA Name: Two Mile Pond Reservoir Transect [

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
		Active erosion features due to anthropogenic disturbance (eg. ri gullies, plant pedestals).		
	<u> </u>		Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	>5

<u> </u>	Table A5. Soil Surface Condition Rating					
Rating	Description					
O 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
⋈ 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

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		SA Cover V	Norksheet				
SA Code SF2MI[3] SA Name : Two Mile Pond Reservoir Project : Riparian Assesement					ement	
code Tsct [3]	AU Name : Trans	sect [3]			WOI : Two	Mile Pond R	eservoir
County Santa Fe	HUC 12 Headwaters Santa Fe River Elevation (ft) 7299 (m) 2224.7 Ecore			region 6.0 NWFM			
A riparian system to decommissioned of of water rights. Driving Directions Driving to Santa F	due to safety concerns re e from Albuquerque you	cated on the east side of egarding the reservoir an head north on Old Pecc	nd a water diver	sion to t	he area was	recently shu	ut down due to lack
-	I you reach the reservoir Conservative and The S		Data Sharing Restrictions	Results only.	to client	Fish Obsei Wetlar	1
Surveyor Role		Surveyo			And Market		Surveyor Initials
Landscape	Dustin Schwart						DS
Biotic	Annie McCoy			· · · · · · · · · · · · · · · · · · ·			AM
Abiotic	Dustin Schwart	tz					DS
Stressors	Dustin Schwart	tz	1.1				DS
Easting (m)	Northing (m)	Zone	Datum		Latitude	(DD ft)	Longitude (DD ft
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U	JTM	35.68972	22	-105.89
<u>-</u>	7/46/04						15.00
Survey Date	7/16/24	Start Time	9:00		End 7	lime	15:00
Survey Date	//16/24	Start Time SA Desc			End 1	Гime	15:00
		SA Desc	ription	conditio			15:00
SA Landscape Conte	I xt (summarize the wetla	SA Desc and and surrounding land	ription dscape; include		n and impac	ets)	
SA Landscape Conte	I xt (summarize the wetla	SA Desc and and surrounding land	ription dscape; include		n and impac	ets)	
SA Landscape Conte	I xt (summarize the wetla	SA Desc	ription dscape; include		n and impac	ets)	
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SA Landscape Conte	xt (summarize the wetla Area Fee/s Trees Ih	SA Descond and surrounding land very shaded bloom position and structure,	exotics and inv	borin	on and impac Alm 097 e Dse	ts) t track vidence, fire	ca /
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SA Landscape Conte	xt (summarize the wetla Area Fee/s Trees Ih	SA Descond and surrounding land very shaded bloom position and structure,	exotics and inv	borin	on and impac Alm 097 e Dse	ts) t track vidence, fire	ca /
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SA Landscape Conte	ext (summarize the wetland feels Trees in Exequence Sparrow Spotial Execution patterns, cor Sparrow Spotial Execution patterns, cor Sparrow Spotial Execution patterns, cor (hydrological alteration of site impacts; explain the	SA Descended and surrounding land very shaded bloom mposition and structure, the token Human blorse tail Red Broaste as {e.g., dams, walls etc.]; e hydrologic breaks or other.	exotics and investigations of the state of t	asives, de la la la la la la la la la la la la la	isturbance e Alm of interpretation in and evidence the SA limits	vidence, fire bever	e and herbivory) Linch, Pondaren:
SA Landscape Conte	ext (summarize the wetland free feels Trees in Evegetation patterns, cor Sparrow, Spots Loh, Robin, (hydrological alteration riste impacts; explain the 18,5 Note	sa Descended and surrounding land very shaded full bloom mposition and structure, the borse fail Red Breaster as {e.g., dams, walls etc.]; e hydrologic breaks or other 179 as	exotics and investigations that the flooding character factors that	asives, de hatch	isturbance e Alm of the sacrates of the SA limits 6.85	vidence, fire bever	e and herbivory) Finch, Pondaren:
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SA Landscape Context SA Biotic Condition (Song Yello G SA Abiotic Condition disturbance and other	ext (summarize the wetland frea feels Trees in Evegetation patterns, cor Sparrow, Spots Leh, Robin, (hydrological alteration or site impacts; explain the 18,5 Note udfar is	sa Descended and surrounding land very shaded full bloom mposition and structure, the borse fail Red Breaster as {e.g., dams, walls etc.]; e hydrologic breaks or other 179 as	exotics and inverse fooding character factors that	asives, de hatch	isturbance e isturbance e isturbance e low low and evidence the SA limits low low low low low low low low low low	vidence, fire bever	e and herbivory) Finch, Pondaren:
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SA CODE: SF2MI [3]

SA Name : Two Mile Pond Reservoir Transect [\mathcal{S}]

Date: 7/16/24

Surveyor Initials: DS/AM

Landscape Context

L, -B	uffer	Integrity Index						
or are	exclud	 a. Buffer and RCC Checklist. Check off land cover e ed and considered non-buffer elements that disrupt nagery). 	lement ecosys	s within tem co	n the buffer ar nnectivity. Ind	ea or RCC corri icate the imag	dors that are either allowed, ery type and date (season	
lmagei	у 「	Google Earth KMZ. file	Image	Date	6/23			
Allowe	d buff	er/RCC land cover elements			-buffer/RCC la	nd cover elem	ents	
Buffer	RCC		Buffer	RCC				
X	х	Natural or semi-natural vegetation patches	X	X			elopments, parking lots, and other structures	
X	X	Small irrigation ditches without levees			Lawns, parks,	golf courses, s	ports fields	
		Old fields, unmaintained			Railroads			
		Open range land		111	1	ned levees, sediment piles, construction ls, staging areas		
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive lives	stock areas, ho	rse paddocks, feedlots	
X	X	Non-channel open water		1 I I	_	culture: mainta chards, and vin	ained pastures, hay fields, eyards	
X	x	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	1 7	graded roads	·	econd-order unpaved but	
	unpaved two tracks roads			x	Open water b structure	ounded by a le	evee or other manmade	
		Other			Other			
Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the					Table	L1a. Buffer Percent		
SA perimeter composed of allowed buffer elements and enter into Box below. Rate the sub-metric using Table L1a and enter the ratin						Rating	Buffer Percent	
		nmary Worksheet 1d.				O 4	100%	
		Buffer Percent (%)= 85%					≥80% - <100%	
<u> </u>								

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

the bunch integrity summary from since that					
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating + Buffer Width Rating		/2 =	Buffer Integrity Index Score	
3	+	3	/2 =	3

	Table L1a. Buffer Percent				
R	ating	Buffer Percent			
	4	100%			
(8)	3	≥80% - <100%			
	2	≥50% - <80%			
	1	<50%			

Table L1b. Buffer Width				
Rating	Average buffer width			
O 4	≥190m			
⊗ 3	≥130 - <190m			
C 2	≥65 - <130m			
O 1	<65m			

Table L1c. Summary Rating for Buffer Integrity				
Rating		Score		
\circ	4	>3.5		
Ø	3	>2.5 - ≤3.5		
0	2	>1.5 - ≤2.5		
\circ	1	≤1.5		

SA Name:

SF2MI[3]

Two Mile Pond Reservoir Transect [3]

Date:

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DS/AM

Surveyor Initials:

L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating						
Rating LUI Score							
	4	≥95 - 100					
	3	≥80 - <95					
8	2	≥40 - <80					
0	1	<40					

SA COD: SF2MI[$\mathcal F$]

SA Name: Two Mile Pond Reservoir $\operatorname{Tr}^- \operatorname{rct}[\ \ \ \ \ \]$

Surveyor Initials: **Date:** 7/16/24

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B1 - Relative Native Plant Community Composition

% SA⁵ Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in 5 8 Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CTA, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top P R CT Score⁴ Raw4 V) M TELL 3 Herbaceous/Sparse Stratum ³ Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. All a Species 5 E Novac ter Sp. Sp. Sp. Magnetize L 2 Species 4 E Cothe B Short Woody Stratum 2 2 Coopert Species 3 2 Species 2 E willy. 3 Tall Woody Stratum 1 2 Species 1 るたる Polygon Nos. G \checkmark Σ z 0 Ü Δ ш I ⋖ 8

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

Final Weighted Score⁷

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Two Mile Pond Reservoir Transect [3]

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description
A 4		Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
O 3		Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
C 2		Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
0 1		Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

N/A

Invasive cover (%)

0

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover						
Rating Invasive Species Cover %						
⊘ 4	0%					
3	>0% - <1%					
. 2	≥1% - <10%					
O 1	≥10					

Additional CTs and Biotic Metric Comments:

Area is looking as full and as

life full as ever, all animals seen

are on the cover page,

SA CODE: SF2MI[3]

Date: 7/16/24

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Surveyor Initials :

DS/AM

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7 18 Table 18		8 ≃(0 6 1	3 2 5 6 5 6 6	181411
military and the second		Showshor the		

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		ď		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ą		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		ď		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		d		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA	CODE	:	SF2MI [3]

Date: 7/16/24

SA Name: Two Mile Pond Reservoir Transect [3]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
	. 🔲		Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
		. 🔲	Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	0
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<i>*</i>	Table A5. Soil Surface Condition Rating						
Rating	Description						
Q 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

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SA Code SF2MI [🏅]] SA Name : Two Mile Pond Reservoir Project : Riparian Asso					
ode Tsct [3]] AU Name : Transect []			WOI : Two Mile Pond Reservoir		
County Santa Fe	HUC 12 Headw	Elevation (ft) 7299	(m) 2224.7	Ecoregion 6.0 NWF	М	
A riparian system t decommissioned c of water rights. Driving Directions Driving to Santa Fe	lue to safety concerns re	ated on the east side og garding the reservoir a head north on Old Pec	of Santa Fe bordering the nd a water diversion to t cos Trail. Then head east o	he area was rece	ntly shut down due to l	was ack
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Results Restrictions only.	s to client Fis	h Observed in Wetland?	
Surveyor Role		Survey	or Name		Surveyor In	itials
Landscape	Dustin Schwartz	7			DS	
Biotic	Annie McCoy				AM	
Abiotic	Dustin Schwart	Z .			DS	
Stressors	Dustin Schwart	Z			DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude (DI		DD ft
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722	-105.89	
Survey Date	8/13/24	Start Time	9:00	End Time	15:00	
			mid, ground inder mulch			
Logsor bloom SA Abiotic Condition disturbance and othe	(hydrological alteration r site impacts; explain th	Ce Post Lizard Broad tall s {e.g., dams, walls etc. e hydrologic breaks or	Humming bild, for the flooding characteristics other factors that define	and evidence of the SA limits)	troes in full Tosquibos	
•		216, Instin K was very	13.9°(f	>H 1,16		
Assessment Summar	r y (Overall site condition	summary and comme	nts after the field data is	collected.)		
	Land is recent Rais	proparing for	fall and humid from	recouring was prom	e en disconnect	Janasen,
Provisional SIP Rar Field Score	nk Surveyor(s)	DS/AM Final Score Page	3, 77 Rank A II	nitials P5	Date 8/13/24	

SA Cover Worksheet

SA CODE: SF2MI[\(\bigsig \)]

Other

SA Name: Two Mile Pond Reservoir Transect [3]

Date: 8/13/24

Surveyor Initials: DS/AM

Landscape Context

_, - B	Juffer	Integrity Index						
Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery).								
lmager	ry	Google Earth KMZ. file	lmage	Date	6/23			
Allowe	d buffe	er/RCC land cover elements	Exclud	ed nor	n-buffer/RCC land cover elements			
Buffer	RCC		Buffer	RCC				
X	X	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures			
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields			
		Old fields, unmaintained			Railroads			
		Open range land		1	Maintained levees, sediment piles, construction materials, staging areas			
X	וצוו	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots			
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards			
X	llvil	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	Ľ	Paved roads or developed second-order unpaved but graded roads			
		unpaved two tracks roads	X	llvil	Open water bounded by a levee or other manmade structure			

Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
Average		148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating + Buff		er Width Rating	/2 =	Buffer Integrity Index Score	
	3	+	3	/2 =	3

	Table L1a. Buffer Percent				
R	Rating Buffer Percent				
\overline{C}	4	100%			
Ø	3 ≥80% - <100%				
\circ	C 2 ≥50% - <80%				
C 1 <50%					

Table L1b. Buffer Width				
Rating Average buffer width				
\circ	4	≥190m		
(X)	3	≥130 - <190m		
\circ	2	≥65 - <130m		
O	1	<65m		

 Table L1c. Summary Rating for Buffer Integrity

 Rating
 Score

 ○ 4
 >3.5

 ※ 3
 >2.5 - ≤3.5

 ○ 2
 >1.5 - ≤2.5

 ○ 1
 ≤1.5

SA CODE: SF2MI[3]

SA Name:

Two Mile Pond Reservoir Transect [3]

Date: 8/13/24

DS/AM

Surveyor Initials:

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Т	Table L4. Surrounding Land Use Rating				
R	Rating LUI Score				
\overline{C}	4	≥95 - 100			
0	3	≥80 - <95			
8	Ø 2 ≥40 - <80				
0.	C 1 <40				

SA COL SF2MI[3]

SA Name: Two Mile Pond Reservoir Transct [S]

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⋝

B1 - Relative Native Plant Community Composition

Raw4 |% SA5 |Wt Score6 9,00 1.75 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CTA, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top O O CT Score⁴ v) 3 Final Weighted Score⁷ die Herbaceous/Sparse Stratum ³ for the factor Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 2 -Species 5 マデオン M. len ~ Species 4 E Corrat Short Woody Stratum 2 2 Species 3 Willows W. How 2 \geq шΖ Species 2 willow S. Mer Tall Woody Stratum ¹ 2 \geq Species 1 E Cetternos Co Heaward Polygon Nos. 0 G I \mathbf{x} Σ Z U Δ ш ш ⋖ Θ t

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SA CODE: SF2MI[3 1

Date:

8/13/24

SA Name:

Two Mile Pond Reservoir Transect [3]

Surveyor Initials:

DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Ratin	Description					
Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons wi cover, typically multiple size (age) classes.						
\bigcirc 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.					
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with ty <1% cover, little size class differentiation.					
\bigcirc 1	Native poles, saplings, and/or seedlings absent (0% cover).					

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
Ø 4	0%			
↑ 3	>0% - <1%			
2	≥1% - <10%			
O 1	≥10			

Additional CTs and Biotic Metric Comments:

Fungus is thriving in the environment with the recent humidity,

SA Name:

SF2MI[3]

Two Mile Pond Reservoir Transect [3]

Date:

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DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		a		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		2		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		ď		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Q		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
	ď		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
			Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	0
-----------------------------	---

	Table A5. Soil Surface Condition Rating					
Rating	Description					
Ø 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover V	Vorksheet			
SA Code SF2MI [3] SA Name : Two Mile Pond Reservoir Project : Riparian Assess						
Code Tsct [3] AU Name : Transect [3] WOI : Two Mile Pond Re						
 County Santa Fe	HUC 12 Headw	raters Santa Fe River El	evation (ft) 7299	(m) 2224.7	Ecore	gion 6.0 NWFM
A riparian system the decommissioned decommissioned decommissioned decommissions.	lue to safety concerns re	cated on the east side of garding the reservoir an	d a water diversion to t	he area was re	cently shut	down due to lack
Driving to Santa Fe Canyon Road until	e from Albuquerque you you reach the reservoir	head north on Old Pecclocated to the North.			Fish Observ	
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Results Restrictions only.	s to client	Wetland	
Surveyor Role		Surveyo	r Name			Surveyor Initials
Landscape	Dustin Schwart:	z				DS
Biotic	Annie McCoy					АМ
Abiotic	Dustin Schwart	Z				DS
Stressors	Dustin Schwart	z				DS
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.689722		-105.89
Survey Date	9/11/24	Start Time	9:00	End Ti	me	15:00
		SA Desc	ription		and the second	
SA Landscape Conte	*t (summarize the wetla	nd and surrounding land	dscape; include condition	on and impact	s)	
						e path 17
next	to the se	with very di	The vegeta:	tion is	the s	ano C
		t .				
	always just	Thickey (iome Tyres I	orabig y		
<i>a</i> 5	a ways just					and herbivory)
A S	vegetation patterns, cor	mposition and structure,	exotics and invasives, o	disturbance ev	idence, fire	and herbivory)
as SA Biotic Condition (vegetation patterns, cor	mposition and structure,	exotics and invasives, c	disturbance ev	idence, fire	1
SA Biotic Condition (Lu x re horse	vegetation patterns, cor ant, Various	mposition and structure, willown Son pollinators, 2 s	exotics and invasives, control Race in mall yellow m	disturbance ev	idence, fire	1
SA Biotic Condition (Lu x re horse Nut	vegetation patterns, cor ant, Various tail, Various hatch and	pollinators, 2 s	exotics and invasives, of Range in mall yellow m	disturbance ev	idence, fire	sted
SA Biotic Condition (Lu rec horse nut SA Abiotic Condition disturbance and other	vegetation patterns, cor ant, Various hatch and (hydrological alteration r site impacts; explain th	pollinators, 2 s A Morrowta s {e.g., dams, walls etc.]; e hydrologic breaks or o	exotics and invasives, of the mall yellow mall yellow mall flooding characteristics ther factors that define	disturbance even and the salimits)	idence, fire	sted nk flooding; soil
SA Biotic Condition (Lu rec horse nut SA Abiotic Condition disturbance and other	vegetation patterns, cor ant, Various hatch and (hydrological alteration r site impacts; explain th	pollinators, 2 s A Morrowta ns (e.g., dams, walls etc.);	exotics and invasives, of the mall yellow mall yellow mall flooding characteristics ther factors that define	disturbance even and the salimits)	idence, fire	sted nk flooding; soil
SA Biotic Condition (Lu vice horse nut SA Abiotic Condition disturbance and other	vegetation patterns, cor ant, Various thatch and (hydrological alteration r site impacts; explain th	pollinators, 2 s A Morrowta s {e.g., dams, walls etc.]; e hydrologic breaks or o	exotics and invasives, of mall yellow mall yellow mall flooding characteristics ther factors that define accurate dam mall managements.	disturbance every many many many many many many many man	idence, fire	nk flooding; soil
SA Biotic Condition (Lu y re horse nut SA Abiotic Condition disturbance and other	vegetation patterns, cor whit, Various hatch and (hydrological alteration r site impacts; explain th water is se ph 7,33	pollinators, 2 s A norrowta as {e.g., dams, walls etc.]; e hydrologic breaks or o	exotics and invasives, of the mall yellow	disturbance every many many many many many many many man	idence, fire	nk flooding; soil
SA Biotic Condition (Lu y re Lorse Nut SA Abiotic Condition disturbance and other	vegetation patterns, cor whit, Various hatch and (hydrological alteration r site impacts; explain th water is se ph 7,33	pollinators, 2 s A norrowta as {e.g., dams, walls etc.]; e hydrologic breaks or o	exotics and invasives, of the mall yellow	disturbance every many many many many many many many man	idence, fire	nk flooding; soil
SA Biotic Condition (Lu y re Lorse Nut SA Abiotic Condition disturbance and other	vegetation patterns, cor ant, Various tail, Various hatch and (hydrological alteration r site impacts; explain th Water is se ph 7,33 ry (Overall site condition	pollinators, 2 s A Morrowta as {e.g., dams, walls etc.]; e hydrologic breaks or o	exotics and invasives, of the factors that define the factors that define the factor the field data is	disturbance evidence the SA limits) collected.)	idence, fire	nkflooding; soil

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SA CODE: SF2MI[3]

d on the SA Summary Worksheet.

+

|Buffer % Rating +

3

Buffer Width Rating

/2 =

/2=

SA Name: Two Mile Pond Reservoir Transect [3]

Date: 9/11/24

Surveyor Initials: DS/AM

Landscape Context

) - B	uffer Integrit	y Index									
or are e											idors that are either allowed, Jery type and date (season
Imager	magery Google Earth KMZ. file				lmage	Date	6/23				
Allowe	d buffer/RCC lan	d cover elements			1		n-buffer/R0	CC laı	nd co	over elem	nents
Buffer	RCC				Buffer	RCC					
X	Natural or	semi-natural vegetat	ion patcl	hes	X	X	1				elopments, parking lots, and other structures
X	X Small irrig	ation ditches withou	t levees				Lawns, pa	arks, g	golfo	courses, s	ports fields
	Old fields,	unmaintained					Railroads				
	Open rang	e land					Maintaine materials,				t piles, construction
×	Foot trails, intensity)	horse trails, unpaved	d bike tra	ils (low			Intensive	lives	tock	areas, ho	orse paddocks, feedlots
X	X Non-chani	nel open water					Intensive row crops	-			ained pastures, hay fields, neyards
X	17/1	oning abandoned ve ccurring levees	egetated	levees, or	X	X	1	ved roads or developed second-order unpaved but aded roads			
	unpaved t	wo tracks roads			X	x	Open wat structure	Open water bounded by a levee or other manmade			
一一	Other						Other				
		ercent Sub-metric.								Table	e L1a. Buffer Percent
		of allowed buffer ele metric using Table L							R	ating	Buffer Percent
Integrit	y Summary Work	sheet 1d.						l	\circ	4	100%
		Buffer Percen	t (%)=	85%					Ø	3	≥80% - <100%
Worksh	eet 1c. Buffer Wi	dth Sub-metric. Me	asure the	lenath of e	ach bu	fer line	in meters	s in	C	2	≥50% - <80%
		erage the line length							0	1	<50%
the Buffe		Buffer Width		Buffer \	41: Jak	Т В.	ıffer Widt	[Tabl	e L1b. Buffer Width
Line	Buffer Width (m)	(ft)	Line	Burrer ((m		БС	(ft)		R	ating	Average buffer width
Α	164.26	538.91	E	161.9	3		531.26		0	4	≥190m
В	125.25	410.92	F	231.4	18		759.44		(X)	3	≥130 - <190m
С	115.39	378.57	G	121.2	 25		397.80		<u>O</u>	2	≥65 - <130m
				155.8				L	\circ	1	<65m
ט	D 111.07 SS 16 11								Tak	10116	Summary Rating for Buffer
	Average	148.31 (m)		486.58	3	(ft)			ıak)16 F I C. 3	Integrity
Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box						-]	R	ating	Score		
below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c C 4						4	>3.5				

3

Buffer Integrity Index Score

Ø

3

2

1

>2.5 - ≤3.5

>1.5 - ≤2.5

≤1.5

SA Name:

SF2MI[*3*]

Date:

Surveyor Initials:

9/11/24

Two Mile Pond Reservoir Transect [🔰]

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DS/AM

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	8.0	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Т	Table L4. Surrounding Land Use Rating						
R	ating	LUI Score					
\circ	4	≥95 - 100					
\overline{C}	3	≥80 - <95					
®	2	≥40 - <80					
	1	<40					

SA COF SF2MI[3]

SA Name: Two Mile Pond Reservoir T act []

Date: 9/11/24

Surveyor Initials:

≥

B1 - Relative Native Plant Community Composition

Wt Score⁶ 8.00 B. S. dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top |% SA5 \mathcal{R}_{J} S CT Score 4 Raw4 R Final Weighted Score⁷ 4 Herbaceous/Sparse Stratum ³ Species 6 不是 Meda S. Marin which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 1 Species 5 шΖ Species 4 Count Short Woody Stratum 2 2 Species 3 N. Bar ×. 1 2 2 ш Z Species 2 No. 2.00 Tall Woody Stratum 1 2 Strain of Street S Species 1 Polygon Nos. 0 Ь ⋖ Ω \cup Δ ш ட G ェ \mathbf{x} Σ Z

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SF2MI[3]

Date:

9/11/24

SA Name:

Two Mile Pond Reservoir Transect [3]

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
K	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
\overline{O}	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
$\overline{\cap}$	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

D-11	N A A
Katınd.	Method

× 11.	
N/A	ĺ

nvasive cover (%)	0
-------------------	---

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating	Invasive Species Cover %				
© 4	0%				
⊘ 3	>0% - <1%				
2	≥1% - <10%				
O 1	≥10				

Additional CTs and Biotic Metric Comments:

Lots of pollinators in the area and land is shifting into a fall environment, All animals are listed on cover page.

SA CODE: SF2MI[3]

MI[3] Date: 9/11/24

SA Name: Two Mile Pond Reservoir Transect [3]

Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
				Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		ď		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		Q		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
:				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[3]

SA Name: Two Mile Pond Reservoir Transect [3]

Date: 9/11/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)		
	a a		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).		
			Multiple livestock and other (fishing, hiking) trails,		
			Vehicle tracks including off-road and construction, etc.		
			Impervious compacted surfaces or pavement		
			Grading or plowing		
			Fill		
			Gravel pits		
			Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts		
			Fire pits		
			Other:		
			Estimate % soil disturbance by segment area		

Average % Soil Disturbance:	D
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Table A5. Soil Surface Condition Rating					
Rating	Description				
X 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.				
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.				
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.				
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.				

SA Cover Worksheet SA Code SF2MI [4] SA Name: Two Mile Pond Reservoir Project: Riparian Assese						ement		
ode Tsct [$\frac{\mathcal{U}}{\mathcal{U}}$]	AU Name : Trans				WOI : Two Mile Pond Reservoir			
County Santa Fe			evation (ft) 729		(m) 2224.7 Ecoregion 6.0 NWFM			NM/FM
5A General Location as A riparian system decommissioned of water rights.	nd Boundary (Rationale, o that leads into a pond loo due to safety concerns re	comments) cated on the east side of	Santa Fe borde	ring the	Santa Fe Na	tional Fores	t. This rese	ervoir was
	e from Albuquerque you il you reach the reservoir		os Trail. Then he					t on
Ownership The Natur	e Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results only.	to client	Fish Obser Wetlar	I .	
Surveyor Role		Surveyo	r Name				Survey	or Initials
Landscape	Dustin Schwartz	Z	A 1000 Pe 11 mm 2-4 2-20	agamen ann an t-an-t-a-t-a-t-a-t-a-t-a-t-a-t-a-t-a-t-a			DS	
Biotic	Annie McCoy						AM	
Abiotic	Dustin Schwart	Z			······································		DS	
Stressors	Dustin Schwart	Z					DS	
Easting (m)	Northing (m)	Zone	Datum		Latitude	(DD ft)	Longiti	ıde (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 L	JTM	35.68972	22	-10	5.89
Survey Date	Survey Date 7/16/24 Start Time			9:00		End Time		
 And the second of	A3	Jeune / IIII.C					15:00	
		SA Desc						
SA Landscape Conte	ext (summarize the wetlan	SA Desc nd and surrounding land	ription dscape; include		n and impac	tts)		
•	Area is in the fond	SA Desc nd and surrounding land a hall appears h	eription dscape; include growth Grow	for th	n and impact	its) me J becon	ning p	vo males h
SA Biotic Condition	Area is in the Pond (vegetation patterns, con	SA Descond and surrounding land a hall appears for	eription Iscape; include Iscape; include Iscape; include Iscape; include Iscape; include	For th	in and impact Surger on Pence isturbance e	its) Joecon	e and herb	vo on la k
SA Biotic Condition	Area is in the Pond (vegetation patterns, con Mustard V	sa Descend and surrounding land a hall appears for a position and structure, wholet green so	exotics and inv	ter the	isturbance e	its) J Becon vidence, fire	e and herb	No one des de
SA Biotic Condition Tan sy Alde	Area is in the Pond (vegetation patterns, con Mastard V ree lots	sa Descend and surrounding land a hall appears for a hall appear for a hall appears for a	exotics and inv	ter the	isturbance e	its) J Becon vidence, fire	e and herb	No one des de
SA Biotic Condition Tansy Alde	Area is in the Pond (vegetation patterns, con Mastard V ree lots noises, blue	sa Descend and surrounding land a half appears for inposition and structure, infoliate green so of blue dragon F	exotics and inv	asives, d	isturbance e	vidence, fire	e and herb Mulle in Ant:	No ora les les les les les les les les les les
SA Biotic Condition Tansy Alde Frog SA Abiotic Condition disturbance and other	Area is in the Pond (vegetation patterns, con Mastard Tree lots noises, blue In (hydrological alteration er site impacts; explain the	sa Descend and surrounding land a hall a few forms for the second structure, and	exotics and inv	asives, d	isturbance e	vidence, fire Lini Sq	e and herb Mulle in Ant:	ivory)
SA Biotic Condition Takey Alde Frog SA Abiotic Condition disturbance and other	Area is in the Pond (vegetation patterns, con Mustard V tree lots noises, blue In (hydrological alteration er site impacts; explain the	sa Descend and surrounding land a half a half a half a pread for the property of the black of black of black of black of the property of the p	exotics and inv	asives, d	isturbance e	vidence, fire Lini Sq	e and herb Mulle in Ant:	ivory)
SA Biotic Condition Takey Alde Frog SA Abiotic Condition disturbance and other	Area is in the Pond (vegetation patterns, con Mastard Tree lots noises, blue In (hydrological alteration er site impacts; explain the	sa Descend and surrounding land a half a half a half a pread for the property of the black of black of black of black of the property of the p	exotics and inv	asives, d	isturbance e	vidence, fire Lini Sq	e and herb Mulle in Ant:	ivory)
SA Biotic Condition Tansy Alde Grog SA Abiotic Condition disturbance and other	Area is in the Pond (vegetation patterns, con Mastard Veree lots noises, blue In (hydrological alteration er site impacts; explain the ground cove towhee, Finch	sa Descend and surrounding land a hall a fall exotics and inv	asives, ded when the control of the	isturbance e isturbance e and evidence the SA limits but	vidence, fire hinisq e of overba Samc	and herb Mulle in Ant:	ivory)	
SA Biotic Condition Pansy Alde Frog SA Abiotic Condition disturbance and other	Area is in the Pond (vegetation patterns, con Mustard V ree lots noises, blue n (hydrological alteration er site impacts; explain the ground cove towhee, Finch ry (Overall site condition Area is	sa Descend and surrounding land a hall appears for a hall appears for a hall appears for a hall appears for a following a hall a hall appears for a hall a h	exotics and inv stem So flooding character factors that	asives, ded with the control of the	isturbance e isturbance e and evidence the SA limits but	vidence, fire hinisq e of overba Samc	and herb Mulle in Ant:	ivory)
SA Biotic Condition Tansy Alde Crog SA Abiotic Condition disturbance and other 90%	Area is in the Pond (vegetation patterns, con Mustard V ree lots noises, blue n (hydrological alteration er site impacts; explain the ground cove towhee, Finch ry (Overall site condition Area is	sa Descend and surrounding land a half a half a press for the appears for the	exotics and inv stem So flooding character factors that	asives, ded with the control of the	isturbance e isturbance e and evidence the SA limits but	vidence, fire hinisq e of overba Samc	and herb Mulle in Ant:	ivory)
SA Biotic Condition Tansy Alde Crog SA Abiotic Condition disturbance and other 90%	Area is in the Pond (vegetation patterns, con Mustard V ree lots noises, blue n (hydrological alteration er site impacts; explain the ground cove towhee, Finch ry (Overall site condition Area is	sa Descend and surrounding land a hall appears for a hall appears for a hall appears for blue dragon for blue dragon for seen, dams, walls etc.]; a hydrologic breaks or other and black be summary and comment filling in plants and	exotics and inv stem So flooding character factors that	asives, ded with the control of the	isturbance e isturbance e and evidence the SA limits but	vidence, fire kind kind se of overba Samc	and herb Mulle in Ant:	ivory) g; soil

SF2MI [] SA CODE:

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В

C

125.25

115.39

on the SA Summary Worksheet.

SA Name: Two Mile Pond Reservoir Transect [4]

Date:

7/16/24

Surveyor Initials: DS/AM

Landscape Context

⊾, - B	uffei	· Integrity I	ndex								
or are e	xclud									rridors that are either allowed, Igery type and date (season	
Imagery Google Earth KMZ. file					lmage	Date	6/23				
Allowed buffer/RCC land cover elements					Excluded non-buffer/RCC land cover elements			ments			
Buffer	RCC					Buffer	Buffer RCC				
X	х	Natural or semi-natural vegetation patches				X	X	į.	ommercial/residential developments, parking lots, ams, bridges, revetments, and other structures		
X	X	Small irrigati	on ditches withou	t levees				Lawns, park	cs, golf courses,	sports fields	
		Old fields, ur	nmaintained					Railroads			
		Open range land							aintained levees, sediment piles, construction aterials, staging areas		
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)						Intensive liv	tensive livestock areas, horse paddocks, feedlots		
X	x	Non-channel open water						Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards			
X	x	Non-functioning abandoned vegetated levees, or naturally occurring levees				X	X	Paved roads or developed second-order unpaved but graded roads			
- 7		unpaved two tracks roads				X	X	Open water bounded by a levee or other manmade structure			
		Other Other									
	Vorksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the Table L1a. Buffer Percent										
	SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Rating Buffer Percent					Buffer Percent					
Internative Community Mayligh oct 1d					O 4	100%					
Buffer Percent (%)= 85%						≥80% - <100%					
Norksh	Vorksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters					in meters ir	ก C 2	≥50% - <80%			
he GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on CO 1 <50%											
he Buffe		- ,	y Worksheet 1d.						Tak	ole L1b. Buffer Width	
Line	Bu	ffer Width (m)	Buffer Width (ft)	Line	Buffer V (m		Вι	iffer Width (ft)	Rating	Average buffer width	
Α	1	64.26	538.91	E	161.9	3		531.26		≥190m	

155.87 364.40 511.38 D 111.07 Н 486.58 Average 148.31 (m) (ft) Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c

410.92

378.57

F

G

231.48

121.25

759.44

397.80

Buffer % Rating + Buff		er Width Rating	/2 =	Buffer Integrity Index Score	
3	+	3	/2 =	3	

0	2	≥50% - <80%						
\circ	1	<50%						
	Table L1b. Buffer Width							
R	ating	Average buffer width						
0	4	≥190m						
8	3	≥130 - <190m						

1		integrity
	Table L1c.	Summary Rating for Buffer Integrity
1	0 1	<65m
\dashv	O 2	≥65 - <130m
-	(X) 3	≥130 - <190m

Integrity					
Rating		Score			
\circ	4	>3.5			
Ø	3	>2.5 - ≤3.5			
\circ	2	>1.5 - ≤2.5			
\circ	1	≤1.5			

SA Name:

SF2MI[4]

Two Mile Pond Reservoir Transect []

Date:

Surveyor Initials:

7/16/24

DS/AM

L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	8.0	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	able L4. Sur	rounding Land Use Rating
R	ating	LUI Score
\circ	4	≥95 - 100
0	3	≥80 - <95
8	2	≥40 - <80
$\overline{\circ}$	1	<40

SA Name: Two Mile Pond Reservoir Tranct [り]

Date: 7/16/24

Surveyor Initials:

B1 - Relative Native Plant Community Composition

dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.

					5		,		2	ישונוטוו טו מ	ובא	Total and the polygon.	ne polygr	JII.			
				Tall Woo	Tall Woody Stratum	_ E		Short Woody Stratum ²	dy Stratu			Herbaceous/Sparse Stratum ³	parse Stra	ıtum 3	CT Score 4	re 4	
Ե	Polygon Nos.	n Nos.		Species 1	밀모	Species 2	шZ	Species 3	ш Z	Species 4	шZ	Species 5 E	Spe	Species 6 E	Raw4	% SA ⁵	% SA ⁵ Wt Score ⁶
∢	\sim					Box	Z	Saltbash	<i>S</i> .	(G. Markon	1	Prado or	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Blue Stoon	2,2	5	
В	3	:						W, 1/2	ここ	らたご	2	CARI	3	Cungafe	4.0	X	
U																	
۵																	
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Σ																	
z																	
0																	
													Final Wei	Final Weighted Score ⁷	re7		0,2

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SF2MI [⁴]

Date:

7/16/24

SA Name:

Two Mile Pond Reservoir Transect [$\frac{4}{7}$]

Surveyor Initials:

DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

R	ating	Description			
Ø	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.			
\circ		Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.			
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.			
1 Native poles, saplings, and/or seedlings absent (0% cover).					

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

NIA

Invasive cover (%)

0

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover								
Rating	Invasive Species Cover %							
O 4	0%							
3 %	>0% - <1%							
2	≥1% - <10%							
O 1	≥10							

Additional CTs and Biotic Metric Comments:

Area has a lot of new life.

That is listed on the cover page,

SA CODE: SF2MI [$\frac{1}{4}$]

Date: 7/16/24

SA Name:

Two Mile Pond Reservoir Transect [\mathcal{Y}]

Surveyor Initials :

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium				There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		d		Channel and point-bars consist of well-sorted bed material.
		d		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
				There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[$\frac{4}{9}$]

MI[9]

SA Name: Two Mile Pond Reservoir Transect [\mathcal{Y}]

Date: 7/16/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	ď		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

, . 	Table A5. Soil Surface Condition Rating
Rating	Description
% 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover ¹	Worksheet						
SA Code SF2MI [4] SA Name : Two N	Mile Pond Reservoir		Project : Riparian Asse	esement				
ode Tsct [4]	AU Name : Trans	sect [4]		WOI : Two Mile Pond	Reservoir				
County Santa Fe									
A riparian system t	d Boundary (Rationale, hat leads into a pond lo lue to safety concerns re	comments) cated on the east side of egarding the reservoir ar	Santa Fe bordering the nd a water diversion to t	Santa Fe National Fore he area was recently sh	est. This reservoir was nut down due to lack				
Driving to Santa Fe	e from Albuquerque you you reach the reservoir	ı head north on Old Peco located to the North.	os Trail. Then head east	on Camino Del Monte S	sol and right on				
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Results Restrictions only.	s to client Fish Obso Wetla					
Surveyor Role		Surveyo	or Name		Surveyor Initials				
Landscape	Dustin Schwart	z			DS				
Biotic Annie McCoy AM									
Abiotic Dustin Schwartz									
Stressors Dustin Schwartz									
Easting (m)	ting (m) Northing (m) Zone Datum Latitude (DD ft)								
-105° 53' 24" W	24" W 35° 41' 23" N 13 NAD- 83 UTM 35.689722 -105.89								
Survey Date	8/13/24	Start Time	9:00	End Time	15:00				
)	The control of the co	SA Desc	cription						
SA Landscape Contex	ct (summarize the wetla	nd and surrounding land	dscape; include condition	on and impacts)					
Land Mor than	1	om Monsoon surrounding a ran sects	Souson Seep a area less	appears to be plant divorsi	+y				
		nposition and structure,							
Rye	e, Anto, Pin	Tullein gum w se Siskin, Au sy off W	merican Crow	Dragorfly	the stem				
SA Abiotic Condition	(hydrological alteration	s {e.g., dams, walls etc.]; e hydrologic breaks or o	flooding characteristics	and evidence of overb the SA limits)	ank flooding; soil				
	Ant hill gets	larger every tim	ie, Seep has	mosy and ap	pears				
м	ore wet than	surroundly en	wiron mont 3.5T	35ntu 407m	9cm 17.62 pH6.				
Assessment Summar	-	summary and commen		- j					
· }		plant 11fé	and ground	l cover tak	ie,				
and the second s	over,								
Provisional Field Score <u>S, L</u> Ran	k A Surveyor(s)	DS/AM Final Score 3	.4 Rank / Ir	nitials DS	Date 8/13/24				

Page 1 of 17

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect [\mathcal{Y}]

Date: 8/13/24

Surveyor Initials: DS/AM

Landscape Context

)-B	- Buffer Integrity Index								
or are	Vorksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season nd year of imagery).								
magery		lmage		6/23					
Allowe	d buffe	er/RCC land cover elements	Excluded non-buffer/RCC land cover elements						
Buffer	RCC		Buffer						
X	x	Natural or semi-natural vegetation patches	X	1 1 1 1	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures				
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields				
一一		Old fields, unmaintained			Railroads				
		Open range land			Maintained levees, sediment piles, construction materials, staging areas				
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots				
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards				
X	X	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads				
					Open water bounded by a levee or other manmade				

X

X

structure Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

unpayed two tracks roads

Other

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
А	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

Table L1a. Buffer Percent			
Rating	Buffer Percent		
C 4	100%		
(२) 3	≥80% - <100%		
C 2	≥50% - <80%		
O 1	<50%		

	Table L1b. Buffer Width			
Rating Average buffer width				
\circ	4	≥190m		
Ø	3	≥130 - <190m		
\circ	2	≥65 - <130m		
\circ	1	<65m		

Table L1c. Summary Rating for Buffer Integrity				
Rating	Score			
C 4	>3.5			
(₹) 3	>2.5 - ≤3.5			
C 2	>1.5 - ≤2.5			
O 1	≤1.5			

SF2MI[4]

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Date:

8/13/24

DS/AM

SA Name:

Two Mile Pond Reservoir Transect [//]

Surveyor Initials:

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Т	Table L4. Surrounding Land Use Rating				
Rating		LUI Score			
\circ	4	≥95 - 100			
\circ	3	≥80 - <95			
(X)	2	≥40 - <80			
\circ	1	<40			

Date: 8/13/24

B1 - Relative Native Plant Community Composition

Raw4 | % SA5 | Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top \mathcal{Q} Ö CT Score 4 6 and a 9 Species 6 E Herbaceous/Sparse Stratum ³ てが急が San Store which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. Species 5 E Chail Factor 2 the. Species 4 E Cara. R C. the ? Short Woody Stratum 2 3 Species 3 E SASSA 1.160 Species 2 Tall Woody Stratum 1 Species 1 Polygon Nos. 5 \checkmark Σ ⋖ Ü ш ш. G ェ t മ Δ

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

z

0

Final Weighted Score⁷

SA CODE: SF2MI[4]

SA Name:

Two Mile Pond Reservoir Transect [$\frac{4}{3}$]

Date:

8/13/24

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
₹ 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
C 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
C 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
O 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

N/A

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover			
Rating	Invasive Species Cover %		
O 4	0%		
3 X	>0% - <1%		
2	≥1% - <10%		
O 1	≥10		

Additional CTs and Biotic Metric Comments:

Area is supporting a large variety of biotic life, can be seen on cover page,

SA CODE: SF2N

SA Name:

SF2MI[4]

Two Mile Pond Reservoir Transect [4]

Date: 8/13/24

Surveyor Initials:

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		d		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[\bigvee]

Date: 8/13/24

SA Name: Two Mile Pond Reservoir Transect [\mathcal{Y}]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	Ø		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	Б
-----------------------------	---

	Table A5. Soil Surface Condition Rating		
Rating	Description		
A 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.		
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.		
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.		
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.		

				L	A	omant	
SA Code SF2MI [4] SA Name: Two Mile Pond Reservoir				Project: Riparian Assesement			
Code Tsct [4]	AU Name : Transect [屮]				WOI : Two Mile Pond Reservoir		
County Santa Fe			evation (ft) 729	99 (m) 2224.7	Ecor	egion 6.0 NWFM	
A riparian system t	d Boundary (Rationale, on the leads into a pond loo ue to safety concerns re	comments) cated on the east side of garding the reservoir and	Santa Fe borde d a water diver	ring the Santa Fe Na sion to the area was	ntional Fores recently shu	t. This reservoir was It down due to lack	
Driving to Santa Fe	from Albuquerque you you reach the reservoir	head north on Old Peco located to the North.	s Trail. Then he				
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obser Wetlar		
Surveyor Role		Surveyo	r Name			Surveyor Initials	
Landscape	Dustin Schwart:	Z				DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwart	Z				DS	
Stressors	Dustin Schwart	Z				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitud	e (DD ft)	Longitude (DD f	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 L	ITM 35.6897	22	-105.89	
Survey Date	9/11/24	Start Time	9:00	End	Time	15:00	
		SA Desc	ription				
SA Landscape Contex	kt (summarize the wetla	nd and surrounding land	lscape; include	condition and impa	cts)		
Pla	ants lock like and stocks be	they are getting	g ready ants yet	for Full, St	ill mus	tarð	
SA Biotic Condition (vegetation patterns, cor	mposition and structure,	exotics and inv	asives, disturbance e	evidence, fire	and barbiyary)	
The second secon						e and herbivory)	
		cover is thick	e not a		ns beside	?5	
		cover is thick	e not a		ns beside	?5	
golden y	arrow. Salt b		k not a every w		ns beside	?5	
golden y grass SA Abiotic Condition disturbance and other	American Ravey C (hydrological alteration site impacts; explain th	cover is thick rush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or ot	e very w flooding character that	here, blue 57 Eteristics and eviden It define the SA limits	beside lem an ce of overba	nk flooding; soil	
golden y grazz SA Abiotic Condition disturbance and other Secp	American Raven C (hydrological alteration site impacts; explain th appears to	cover is thick yush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or ot be actine at	every we flooding character factors that the some p	teristics and eviden to define the SA limits of the SA limits	beside lem an ce of overba	nk flooding; soil	
golden y grazz SA Abiotic Condition disturbance and other Secp 1 hat	American Raven C (hydrological alteration site impacts; explain the appears to flow over he	cover is thick much and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or ot be active at	every was flooding character factors that the some p	teristics and eviden to define the SA limits of the Sed on	ce of overba	nk flooding; soil	
golden y grazz SA Abiotic Condition disturbance and other Seep 1 hat 3.5	American Ravey Co (hydrological alteration site impacts; explain the appears to flows over him water Quelit	cover is thick yush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or of be actine at ill side 7 moss or y pH 6.90	every was flooding character factors that have properly hillside.	teristics and evident define the SA limits	ce of overba	nk flooding; soil	
golden y grazz SA Abiotic Condition disturbance and other Seep 1 hat 3.5	American Raven Control by American Raven Control of the control of	cover is thick (ush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or of be active at ill side + moss or y pH 6.9t summary and comment	flooding characher factors that some por hillside. 245 mb/cs after the field	teristics and evident define the SA limits and 17,1°C data is collected.)	ce of overbass) 3.48	on eador Ink flooding; soil In sodiment Jongl 10.2nt	
golden y grass SA Abiotic Condition disturbance and other Seep 1 kat 3.5 Assessment Summar	American Raven Control of the American Raven Control of the Contro	cover is thick (ush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or ot be active at ill side + moss or y pH 6.9t summary and comment	flooding characher factors that some por hillside. 245 mb/cs after the field	teristics and evident define the SA limits and 17,1°C data is collected.)	ce of overbass) 3.48	on eador Ink flooding; soil In sodiment Jongl 10.2nt	
golden y grass SA Abiotic Condition disturbance and other Seep 1 ket 3.5 Assessment Summar	American Raven Control by American Raven Control of the control of	cover is thick (ush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or ot be active at ill side + moss or y pH 6.9t summary and comment	flooding characher factors that some por hillside. 245 mb/cs after the field	teristics and evident define the SA limits and 17,1°C data is collected.)	ce of overbass) 3.48	on cadem Ink flooding; soil In sodiment Jongle 10.2 nte	
SA Abiotic Condition disturbance and other Seep 1 hat 3.5 Assessment Summar	American Raven Control of the American Raven Control of the Contro	cover is thick yush and chimish hatty bird, ants is {e.g., dams, walls etc.]; e hydrologic breaks or ot be active an ill side + moss or y pH 6.90 summary and comment in end for fall,	flooding character factors that the factors that the field of blooding character field and the field of blooding the factors after the factors after the factors aft	teristics and evident define the SA limits and 17,1°C data is collected.)	ce of overbasis	on eador Ink flooding; soil In sodiment Jongl 10.2nt	

SA CODE: SF2MI[1]

SA Name: Two Mile Pond Reservoir Transect [🥤]

Date: 9/11/24

Surveyor Initials: DS/AM

Landscape Context

					nc	

Other

Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery). 6/23 Google Earth KMZ. file Image Date Imagery Excluded non-buffer/RCC land cover elements Allowed buffer/RCC land cover elements Buffer RCC Buffer RCC Commercial/residential developments, parking lots, X X X Natural or semi-natural vegetation patches X dams, bridges, revetments, and other structures Lawns, parks, golf courses, sports fields $|\mathbf{x}|$ Small irrigation ditches without levees |X|Railroads Old fields, unmaintained Maintained levees, sediment piles, construction Open range land materials, staging areas Foot trails, horse trails, unpaved bike trails (low Intensive livestock areas, horse paddocks, feedlots X X intensity) Intensive agriculture: maintained pastures, hay fields, X X Non-channel open water row crops, orchards, and vineyards Paved roads or developed second-order unpaved but Non-functioning abandoned vegetated levees, or X X |X|X graded roads naturally occurring levees Open water bounded by a levee or other manmade X unpaved two tracks roads Xstructure

Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c and on the SA Summary Worksheet.

Buffer % Rating + Buff		er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2=	3

Table L1a. Buffer Percent			
Rating Buffer Percent			
O 4		100%	
(₹) 3		≥80% - <100%	
O 2		≥50% - <80%	
O 1		<50%	

Table L1b. Buffer Width			
Rating Average buffer width			
O 4	≥190m		
⊗ 3	≥130 - <190m		
C 2	≥65 - <130m		
O 1	<65m		

Table L1c. Summary Rating for Buffer Integrity		
Rating	Score	
C 4	>3.5	
(3) 3	>2.5 - ≤3.5	
C 2	>1.5 - ≤2.5	
O 1	≤1.5	

SA CODE: SF2

SA Name:

SF2MI[¹/₄]

Two Mile Pond Reservoir Transect [$\frac{U}{I}$]

Date:

Surveyor Initials:

DS/AM

9/11/24

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	Ō
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	8.0	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surrounding Land Use Rating				
Rating	LUI Score			
O 4	≥95 - 100			
C 3	≥80 - <95			
⊘ 2	≥40 - <80			
O 1	<40			

SA COF SF2MI[4]

SA Name: Two Mile Pond Reservoir Tract [🕌]

Date: 9/11/24

B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top % SA⁵ 0 CT Score 4 Raw4 0,5 J, J, Final Weighted Score⁷ 2 \geq Herbaceous/Sparse Stratum ³ Species 6 6/20 Show Current which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 2 2 Species 5 Madow C+16,7 2 2 Species 4 E 12/22 Cathail Short Woody Stratum 2 N Saltsush N 2 Species 3 E Willer шΖ Species 2 Tall Woody Stratum 1 Species 1 E Polygon Nos. Σ z 0 U Δ G ェ \checkmark ⋖ Ω ш ட \Box

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SA CODE: SF2MI[4]

Date: 9/11/24

SA Name:

Two Mile Pond Reservoir Transect [4]

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
C ₂ 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
Q 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
O 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
O 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

	,	
/	` <u> </u>	
A\ I /	/ 1 -	
1\1/	A. dar	

Invasive cover (%)	>/_

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover			
Rating	Invasive Species Cover %		
C 4	0%		
\bigcirc 3 \rightarrow	>0% - <1%		
2	≥1% - <10%		
O 1	≥10		

Additional CTs and Biotic Metric Comments:

Area is preparing for fall. Mustard Never returned

SA CODE: SF2MI[4]

Date: 9/11/24

SA Name: Two Mile Pond Reservoir Transect [\(\frac{1}{2} \)]

Surveyor Initials :

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators (check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[/]

SA Name : Two Mile Pond Reservoir Transect [$\frac{4}{7}$]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)			
	ď		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).			
			Multiple livestock and other (fishing,hiking) trails,			
			Vehicle tracks including off-road and construction, etc.			
			Impervious compacted surfaces or pavement			
			Grading or plowing			
			Fill			
			Gravel pits			
			Anthropogenic levees and berms			
			Irrigation-driven salinity and mineral crusts			
			Fire pits			
			Other:			
			Estimate % soil disturbance by segment area			

Average % Soil Disturbance:	0
-----------------------------	---

J 	Table A5. Soil Surface Condition Rating					
Rating	Description					
Q 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
C 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

ode Tsct [5]	SA Code SF2MI [5] SA Name: Two Mile Pond Reservoir Project: R					parian Assesement		
	AU Name : Trans	sect [5]		WOI : Two	Mile Pond F	ile Pond Reservoir		
County Santa Fe	HUC 12 Headw	raters Santa Fe River Ele	evation (ft) 729	99 (m) 2224.	7 Eco	coregion 6.0 NWFM		
A riparian system t decommissioned o of water rights.		comments) cated on the east side of egarding the reservoir an						
	e from Albuquerque you I you reach the reservoir	head north on Old Peco located to the North.	s Trail. Then he	ead east on Camino	Del Monte S	ol and right on		
wnership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obse Wetla			
Surveyor Role Surveyor Name								
Landscape	Dustin Schwartz	Z				DS		
Biotic	Annie McCoy					AM		
Abiotic	Dustin Schwart	Z				DS		
Stressors	Dustin Schwart	Z				DS		
Easting (m)	Northing (m)	Zone	Datum	Latitud	e (DD ft)	Longitude (DD ft		
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 L	JTM 35.6897	22	-105.89		
Survey Date	7/16/24	Start Time	9:00	End	Time	15:00		
Dry	wilthy an	nd and surrounding land ea. Even w/1	Hows in	high area	Soon	dry		
		nposition and structure, of Some dry white moths	9103305	, Sandow	a a	nts		
$\beta I_{\kappa e}$ C_{os} SA Abiotic Condition	(hydrological alteration	s {e.g., dams, walls etc.]; f	looding charac	teristics and evider	ce of overba	ank flooding; soil		
$\beta I_{\omega e}$ ζ_{os} SA Abiotic Condition disturbance and other	(hydrological alteration site impacts; explain the	.s {e.g., dams, walls etc.]; f e hydrologic breaks or ot	looding charac her factors that	teristics and evider t define the SA limit	ce of overba s)	ank flooding; soil		
Blue Cos SA Abiotic Condition disturbance and other	(hydrological alteration r site impacts; explain the rea Feels No F	s (e.g., dams, walls etc.); fe hydrologic breaks or ot and seem,	looding characher factors that Jry New Market	eteristics and evider t define the SA limit S.'llow S & &	ce of overba s)	ank flooding; soil		
Blue Cos SA Abiotic Condition disturbance and other	(hydrological alteration site impacts; explain the rea Feels Not a	.s {e.g., dams, walls etc.]; f e hydrologic breaks or ot	flooding character that described the second	teristics and evider teristics and evider teristics and evider teristics. It define the SA limit to the SA limit teristics.	ce of overbass)	ank flooding; soil		

SA CODE: SF2MI[\leq]

☐ Other

SA Name: Two Mile Pond Reservoir Transect [5]

Date:

7/16/24

Surveyor Initials: DS/AM

Landscape Context

ے ، - E	Buffer	Integrity Index			
or are	exclud				n the buffer area or RCC corridors that are either allowed nnectivity. Indicate the imagery type and date (season
lmage	ry	Google Earth KMZ. file	lmage	Date	6/23
Allowe	ed buffe	er/RCC land cover elements	Exclud	ed nor	n-buffer/RCC land cover elements
Buffer	RCC		Buffer	RCC	
X	X	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields
		Old fields, unmaintained			Railroads
		Open range land			Maintained levees, sediment piles, construction materials, staging areas
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards
X	IVI	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads
J		unpaved two tracks roads	X	x	Open water bounded by a levee or other manmade structure

Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

	- ·	•			
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
c	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
Average		148,31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating + Buffer		er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent					
R	ating	Buffer Percent				
	4	100%				
Ø	3	≥80% - <100%				
0	2	≥50% - <80%				
0	1	<50%				

Table L1b. Buffer Width					
Ra	ating	Average buffer width			
0	4	≥190m			
(X)	3	≥130 - <190m			
\circ	2	≥65 - <130m			
\circ	1	<65m			

Tal	Table L1c. Summary Rating for Buffer Integrity					
R	Rating Score					
0	4	>3.5				
(X)	3	>2.5 - ≤3.5				
\cap	2	>1.5 - ≤2.5				
\cap	1	≤1.5				

SF2MI[5]

Date:

7/16/24

DS/AM

SA Name:

Two Mile Pond Reservoir Transect [S]

Surveyor Initials:

L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Table L4. Surrounding Land Use Rating							
Rating LUI Score							
O 4	≥95 - 100						
C 3	≥80 - <95						
⊗ 2	≥40 - <80						
\bigcirc 1	<40						

SA Name: Two Mile Pond Reservoir Transct [\$]

Date: 7/16/24

Surveyor Initials: D

5

B1 - Relative Native Plant Community Composition

% SA5 Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in M Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 0 CT Score 4 W, K Raw4 Final Weighted Score⁷ Herbaceous/Sparse Stratum ³ Species 6 公文 おまの which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. U Species 5 E Mallon 2 Species 4 E Cath. 1 Short Woody Stratum 2 2 Species 3 шΖ Species 2 Tall Woody Stratum ¹ Species 1 Polygon Nos. ⋖ U Δ ш ட G I Σ Z 0 മ ¥

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SF2MI[5]

Date:

7/16/24

SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
		Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
Ø	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

/	
A / / A	
-M/M	
. 0 / /%	

Invasive cover (%)

1>

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating Invasive Species Cover %					
O 4	0%				
3	>0% - <1%				
2 X	≥1% - <10%				
O 1	≥10				

Additional CTs and Biotic Metric Comments:

little to no growth but what does appear is small and hard to identify,

SA CODE: SF2MI[5]

Date: 7/16/24

SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)	
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.	
		Ø		Perennial riparian vegetation is abundant and well established along th bankfull contour, but not below it.	
				There is leaf litter, thatch, or wrack in most pools.	
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.	
Channel Equilibrium				There is little or no active undercutting or burial of riparian vegetation.	
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).	
				Channel and point-bars consist of well-sorted bed material.	
		贝		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.	
		d		There are channel pools at meander bends and some deep pools within the reach.	
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.	
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.	
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.	
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.	
				There are active headcuts within the channel.	
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.	
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.	
				There are partially buried living tree trunks or shrubs along the banks.	
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.	
				There are partially buried or sediment-choked culverts.	
				There are avulsion channels on the floodplain or adjacent valley floor.	

SA	CODE:	SF2MI [5]	1
			•

Date: 7/16/24

SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

Table A5. Soil Surface Condition Rating							
Rating	Description						
1 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

		SA Cover \	Vorksheet				
SA Code SF2MI[5]	SA Name: Two M	ile Pond Reservoir		Project : Rip	arian Asses		
Code Tsct [5]	Code Tsct [5] AU Name : Transect [] WOI : Two Mil						
unty Santa Fe HUC 12 Headwaters Santa Fe River Elevation (ft) 7299 (m) 222						region 6.0 NWFM	
A riparian system t decommissioned o of water rights.	d Boundary (Rationale, c hat leads into a pond loc lue to safety concerns re	ated on the east side of	Santa Fe bordering the	ne Santa Fe Na the area was I	tional Fores recently shu	t. This reservoir was It down due to lack	
Oriving Directions Driving to Santa Fe Canyon Road until	e from Albuquerque you I you reach the reservoir I	head north on Old Pecclocated to the North.	os Trail. Then head eas	t on Camino D	el Monte So	ol and right on	
Ownership The Nature	Conservative and The Sa	anta Fe National Forest	Data Sharing Resulted Restrictions only.	lts to client	Fish Obse Wetlar		
Surveyor Role		Surveyo	or Name			Surveyor Initials	
Landscape	Dustin Schwartz					DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwartz	Z				DS	
Stressors	Dustin Schwartz	Z				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD f	
-105° 53' 24" W	35° 41' 23" N	13	NAD-83 UTM	35.68972	22	-105.89	
			9:00	End Time		15:00	
	xt (summarize the wetlar	SA Desc and and surrounding land	dscape; include condit				
SA Landscape Conte	still not	SA Desc and and surrounding land healthy loo	dscape; include condit	ared to			
SA Landscape Contex Area area s	still not Willows and	SA Desc and and surrounding land healthy loo	dscape; include condit	ared to	other		
SA Landscape Conte	still not Willows and vegetation patterns, com	SA Descend and surrounding land Lealthy local land composition and structure,	eking compositions include conditions compositions compositions are second conditions.	ared to	other	e and herbivory)	
SA Landscape Conte	still not Willows and vegetation patterns, com	SA Descend and surrounding land Lealthy local land composition and structure,	eking compositions include conditions compositions compositions are second conditions.	ared to	other	e and herbivory)	
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SA Landscape Contex Area area \$ SA Biotic Condition (M, I-k we No bin in SA Abiotic Condition	Still not Willows and vegetation patterns, com ed! Cosmos (and high end high end	sa Designed and surrounding land healthy local land composition and structure, check with very quiet of transect s {e.g., dams, walls etc.];	exotics and invasives, Some Complete flooding characteristi	disturbance e Sand mat hickoree cs and evidence	other vidence, fir blue and c	e and herbivory) Stem. lover	
SA Landscape Contex Area area \$ SA Biotic Condition (M, I-k we No bin SA Abiotic Condition disturbance and other	vegetation patterns, com Losmos Losm	sa Description and surrounding land Lealthy local land composition and structure, with very quiet fransco	exotics and invasives, Some Confidence of the condition of the confidence of the confidence of the condition of the conditio	disturbance e Sand mat Lictoree cs and evidence e the SA limits	other	e and herbivory) Stem. lover ank flooding; soil	
SA Landscape Contex Area area \$ SA Biotic Condition (M, I-k we No bin SA Abiotic Condition disturbance and other	vegetation patterns, com Losmos Losm	sa Description and surrounding land Lealthy local land composition and structure, with very quiet fransco	exotics and invasives, Some Confidence of the condition of the confidence of the confidence of the condition of the conditio	disturbance e Sand mat Lictoree cs and evidence e the SA limits	other	e and herbivory) Stem. lover ank flooding; soil	
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SA Landscape Contex Area area \$ SA Biotic Condition (M, I-k we No bin SA Abiotic Condition disturbance and other	still not willows and wegetation patterns, com and sheard high end a (hydrological alteration r site impacts; explain the ecovered from and is secovered from	sa Designed and surrounding land healthy look land common structure, check with very quiet of transect s {e.g., dams, walls etc.]; e hydrologic breaks or on the procky, a winter grow summary and commen	exotics and invasives, last time Some Con flooding characteristi ther factors that defin and is covere ts after the field data i	disturbance e disturbance e Sand mat hickovee cs and evidence e the SA limits ed ih s collected.)	other vidence, fir blue and c ce of overba >> Ne	e and herbivory) Stem. lover ank flooding; soil	
SA Landscape Contex Area area \$ SA Biotic Condition (M, I-k we No bin SA Abiotic Condition disturbance and other	vegetation patterns, com ved! Cosmos (ds heard high end n (hydrological alteration r site impacts; explain the and is s ecovered from ry (Overall site condition	sa Design and and surrounding land healthy look land composition and structure, where with very quiet of transects (e.g., dams, walls etc.); e hydrologic breaks or on teep, rocky, a winter grow summary and commen	exotics and invasives, last time Some Con flooding characteristi ther factors that defin and is covere ts after the field data i	disturbance e disturbance e Sand mat hickovee cs and evidence e the SA limits ed ih s collected.)	other vidence, fir blue and c ce of overba >> Ne	e and herbivory) Stem. lover ank flooding; soil	
SA Landscape Contex Area area \$ SA Biotic Condition (M, I-k we No bin SA Abiotic Condition disturbance and other	still not willows and wegetation patterns, com and sheard high end a (hydrological alteration r site impacts; explain the ecovered from and is secovered from	sa Design and and surrounding land healthy look land composition and structure, where with very quiet of transects (e.g., dams, walls etc.); e hydrologic breaks or on teep, rocky, a winter grow summary and commen	exotics and invasives, last time Some Con flooding characteristi ther factors that defin and is covere ts after the field data i	disturbance e disturbance e Sand mat hickovee cs and evidence e the SA limits ed ih s collected.)	other vidence, fir blue and c ce of overba >> Ne	e and herbivory) Stem. lover ank flooding; soil	

SA CODE: SF2MI [5]

-ZMI[2)]

SA Name: Two Mile Pond Reservoir Transect [\mathcal{S}]

Date: 8/13/24

Surveyor Initials: DS/AM

Landscape Context

	- Buffer Integrity Index							
or are	exclud	 a. Buffer and RCC Checklist. Check off land cover eed and considered non-buffer elements that disrupt nagery). 	element ecosys	s withi tem co	hin the buffer area or RCC corridors that are either allowed, connectivity. Indicate the imagery type and date (season			
Imagery Google Earth KMZ. file			lmage Date		6/23			
Allowe	ed buff	er/RCC land cover elements	Exclud	ed nor	on-buffer/RCC land cover elements			
Buffer	RCC		Buffer	RCC				
X	X	Natural or semi-natural vegetation patches		X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures			
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields			
		Old fields, unmaintained] Railroads			
		Open range land			Maintained levees, sediment piles, construction materials, staging areas			
X	Foot trails, horse trails, unpaved bike trails (low intensity)				Intensive livestock areas, horse paddocks, feedlots			
X	X Non-channel open water				Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards			
X	X	— Inacturally occurring levees						
	unpaved two tracks roads				Open water bounded by a levee or other manmade structure			
ıδ		Other			Other			
		b. Buffer Percent Sub-metric. Measure or estimate composed of allowed buffer elements and enter int						

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

the Burlet micegney burning, transmission							
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)		
Α	164.26	538.91	E	161.93	531.26		
В	125.25	410.92	F	231.48	759.44		
С	115.39	378.57	G	121.25	397.80		
D	111.07	364.40	Н	155.87	511.38		
	Average	148.31 (m)		486.58	(ft)		

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c d on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	3 +		/2 =	3

	Table L1a. Buffer Percent					
R	Rating Buffer Percent					
$\overline{\circ}$	4	100%				
Ø	3	≥80% - <100%				
0	2	≥50% - <80%				
O 1		<50%				

	Table L1b. Buffer Width					
R	Rating Average buffer width					
\circ	4	≥190m				
(₹) 3 ≥130 - <190m		≥130 - <190m				
\circ	2	≥65 - <130m				
\cap	C 1 <65m					

Table L1c. Summary Rating for Buffer Integrity					
Rating Score					
\circ	4	>3.5			
(?) 3 >2.5 - ≤3.5		>2.5 - ≤3.5			
\circ	C 2 >1.5 - ≤2.5				
\cap	1	≤1.5			

SA CODE: SF2MI [5]

SA Name:

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Two Mile Pond Reservoir Transect [5]

Date: 8/13/24

Surveyor Initials:

DS/AM

L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Т	Table L4. Surrounding Land Use Rating					
Rating		LUI Score				
\circ	4	≥95 - 100				
\circ	3	≥80 - <95				
(8)	2	≥40 - <80				
\Box	1	<40				

SA Name: Two Mile Pond Reservoir Transct [💆]

Surveyor Initials: [M

Date: 8/13/24

SA COP SF2MI[5]

B1 - Relative Native Plant Community Composition

% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in M Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top Q M CT Score⁴ S. Raw4 Final Weighted Score⁷ 2 Herbaceous/Sparse Stratum ³ Species 6 Menchon 1436 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 11 Species 5 M. Hein 2 Species 4 E で学り Short Woody Stratum 2 \mathcal{Z} Species 3 Willow шΖ Species 2 Tall Woody Stratum 1 Species 1 E Polygon Nos. Σ Z 0 Ü Δ ェ \mathbf{x} ⋖ Ω b

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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SF2MI[5]

<u>7</u> 1

Date:

8/13/24

DS/AM

SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description					
0	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.					
\overline{C}	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.					
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.					
(%)	1 .	Native poles, saplings, and/or seedlings absent (0% cover).					

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

 NILA	
NIXT	

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover					
Rating Invasive Species Cover %					
C 4	0%				
○ 3 X	>0% - <1%				
2	≥1% - <10%				
C 1	≥10				

Additiona	I CTs ar	d Rintic	Metric	Comments:
Auditiona	1 (13 a)	iu biouc	INICUIC	COMMITTER

Area is in a decline some plants Never recovered from winter **SA CODE:** SF2MI[5]

SA Name:

Date: 8/13/24

Two Mile Pond Reservoir Transect [5]

Surveyor Initials: DS

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
				There is leaf litter, thatch, or wrack in most pools.
Indicators of				The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[5]

SA Name: Two Mile Pond Reservoir Transect [5]

Date: 8/13/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
	Ø		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
			Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
			Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	0
-----------------------------	---

<i>J</i>	Table A5. Soil Surface Condition Rating			
Rating	Description			
№ 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.			
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.			
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.			
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.			

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover V	Vorksheet				
SA Code SF2MI [5] SA Name: Two Mile Pond Reservoir Project: Riparian Asses				F	Project : Rip	arian Asses	ement
Code Tsct [5] AU Name : Transect [5] WOI : T			VOI : Two l	Two Mile Pond Reservoir			
County Santa Fe	unty Santa Fe HUC 12 Headwaters Santa Fe River Elevation (ft) 7299 (m) 2224.7 Ecore			egion 6.0 NWFM			
A riparian system to decommissioned do of water rights. Driving Directions Driving to Santa Fe	lue to safety concerns re e from Albuquerque you	cated on the east side of egarding the reservoir an head north on Old Peco	d a water divers	sion to the	e area was	recently shu	it down due to lack
Canyon Road until	you reach the reservoir Conservative and The S.	located to the North.	Data Sharing Restrictions	Results t		Fish Obser Wetlar	ved in
Surveyor Role		Surveyo		J,.		- 0.6	Surveyor Initials
Landscape	Dustin Schwartz	z			and the second		DS
Biotic	Annie McCoy						АМ
Abiotic	Dustin Schwart	Z					DS
Stressors	Dustin Schwart	tz			······································		DS
Easting (m)	Northing (m)	Zone	Datum		Latitude	e (DD ft)	Longitude (DD ft)
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U	ITM	35.68972	22	-105.89
Survey Date	9/11/24	Start Time	33 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		15:00		
SA Landscape Conte	I xt (summarize the wetla	SA Desc nd and surrounding land	dscape; include	condition	and impa	cts)	
SA Landscape Conte	xt (summarize the wetla 7 ass is mat Area is ve	SA Desc	ription dscape; include	condition end w	and impa	cts)	
SA Landscape Contex Dead g area SA Biotic Condition (Chi, ko rea are d thistk SA Abiotic Condition disturbance and other	Area is mathernal very vegetation patterns, correctly of the confidence of the confi	sa Descend and surrounding land the on floor, on floor, on rocky with mposition and structure, None of the same is block to	exotics and inverse flooding character factors that	asives, dis	and imparations of the sturbance of the	evidence, fire	e and herbivory) they possible ank flooding; soil
SA Landscape Contex Dead g area SA Biotic Condition (Chiko rea re d thistk SA Abiotic Condition disturbance and other hills Assessment Summar	Area is mathernal very (overall site condition	sa Descend and surrounding land the on floor, and rocky with mposition and structure, None of seg, dams, walls etc.]; he hydrologic breaks or on matted games assummary and commen	exotics and inverse flooding character factors that rass covers after the field	asives, dise plants to the time the plants to the plants t	and imparations of the sturbance of the	evidence, fire octorio	e and herbivory) they possible ank flooding; soil cky
SA Landscape Contex Dead g area SA Biotic Condition (Chi, ko rea are d thistk SA Abiotic Condition disturbance and other hills Assessment Summar	Area is mathered very (Overall site condition Area of the lands a locally is	sa Descend and surrounding land the on floor, by rocky with mposition and structure, None of series is blooms seen, dams, walls etc.]; he hydrologic breaks or on matted gardonicologic heard	exotics and inverse flooding character factors that rass covers after the field of final the food,	asives, dise plantice asives, dise plantice and the second control of the second control	and imparations of the start of	evidence, fire ook 1. k d mait,) ce of overbasis oded ro	e and herbivory) they possible ank flooding; soil cky they

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SA Name: Two Mile Pond Reservoir Transect [5]

Date: 9/11/24

Surveyor Initials: DS/AM

Landscape Context

)	. Buffer Integrity Index								
or are	Vorksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery).								
lmagei	у	Google Earth KMZ. file	lmage Date 6/2		6/23				
Allowe	d buff	er/RCC land cover elements	Exclud	ed nor	n-buffer/R	CC lar	nd cover elem	ents	
Buffer	RCC		Buffer	RCC					
X			×	X	dams, br	idges,	revetments, a	elopments, parking lots, and other structures	
X	X	Small irrigation ditches without levees			Lawns, p	arks, g	golf courses, s _l	ports fields	
	一一	Old fields, unmaintained			Railroads	5			
		Open range land			l .	ained levees, sediment piles, construction ials, staging areas			
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive	Intensive livestock areas, horse paddocks, feedlots			
X	X	Non-channel open water	Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards			eyards			
×	x	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads			econd-order unpaved but	
		unpaved two tracks roads Open water bounded by a levee or other manmade structure				evee or other manmade			
ıБ		Other			Other				
Works	heet 1	b. Buffer Percent Sub-metric. Measure or estimate	the per	centag	ge of the		Table	L1a. Buffer Percent	
SA per	imeter	composed of allowed buffer elements and enter int	o the Bu	uffer Pe	ercent		Rating	Buffer Percent	
		ate the sub-metric using Table L1a and enter the ration was worksheet 1d	ng on ti	ie bull	CI		∩ 4	100%	
miegn	ntegrity Summary Worksheet 1d.								

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
A	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c nd on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent				
Rating		Buffer Percent			
	4	100%			
Ø	3	≥80% - <100%			
	2	≥50% - <80%			
	1	<50%			

Table L1b. Buffer Width				
Rating		Average buffer width		
$\overline{\circ}$	4	≥190m		
⊗ 3		≥130 - <190m		
\circ	2	≥65 - <130m		
\circ	1	<65m		

Table L1c. Summary Rating for Buffer Integrity				
Rating	Score			
C 4	>3.5			
(₹) 3	>2.5 - ≤3.5			
C 2	>1.5 - ≤2.5			
O 1	≤1.5			

SA CODE: SF2MI[5]

SA Name:

Two Mile Pond Reservoir Transect [$\frac{5}{3}$]

Date:

Surveyor Initials:

9/11/24

DS/AM

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating			
Rating		LUI Score		
\circ	4	≥95 - 100		
\circ	3	≥80 - <95		
Ø	2	≥40 - <80		
\circ	1	<40		

SA Name: Two Mile Pond Reservoir Tract [🖺]

Date: 9/11/24

B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top |% SA5 | (N) CT Score⁴ Raw4 8 200 Herbaceous/Sparse Stratum ³ Species 6 Meadow ST STATE which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. Mullein Species 5 2 шΖ Species 4 Cathe! Short Woody Stratum 2 2 Species 3 Villow шΖ Species 2 Tall Woody Stratum 1 Species 1 Polygon Nos. Σ z ⋖ മ U Δ ட Ů I \mathbf{x} 0 \Box

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and > 25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

Final Weighted Score⁷

SA CODE:

SF2MI[5]

Date:

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SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
0	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
\circ	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
С	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
Ø	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

NIA

Invasive cover (%)

70

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
C 4	0%			
3 χ	>0% - <1%			
2	≥1% - <10%			
C 1	≥10			

Additional CTs and Biotic Metric Comments:

Area about to go into fall with last blooms on cosmos and Chimisa,

SA CODE: SF2MI [5]

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ó		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ő		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		ď		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		d		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[\mathcal{S}]	Date :
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SA Name: Two Mile Pond Reservoir Transect [5]

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A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)		
	4		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).		
			Multiple livestock and other (fishing, hiking) trails,		
			Vehicle tracks including off-road and construction, etc.		
			Impervious compacted surfaces or pavement		
			Grading or plowing		
			Fill		
			Gravel pits		
			Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts		
			Fire pits		
			Other:		
			Estimate % soil disturbance by segment area		

<i>j</i>	Table A5. Soil Surface Condition Rating					
Rating	Description					
9 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C) 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover	Worksheet					
SA Code SF2MI [6] SA Name: Two Mile Pond Reservoir Project: Riparian Ass						ement		
ode Tsct [6]	AU Name : Trans	AU Name : Transect [6]				WOI : Two Mile Pond Reservoir		
County Santa Fe	HUC 12 Headw	HUC 12 Headwaters Santa Fe River El		evation (ft) 7299 (m) 2224.7		Ecoregion 6.0 NWFM		
A riparian system t	nd Boundary (Rationale, o hat leads into a pond loo due to safety concerns re	cated on the east side o						
Driving to Santa Fe	e from Albuquerque you you reach the reservoir		os Trail. Then head east	on Camino D	el Monte So	ol and right on		
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Results Restrictions only.	s to client	Fish Obser Wetlan	. 1		
Surveyor Role		Survey	or Name			Surveyor Initia		
Landscape	Dustin Schwartz	Z				DS		
Biotic	Annie McCoy					AM		
Abiotic	Dustin Schwart	Z				DS		
Stressors	Dustin Schwart	Z				DS		
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD t		
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.68972	2	-105.89		
Survey Date	7/16/24	Start Time	9:00	End T	ime	15:00		
		SA Des	cription					
SA Landscape Contex	kt (summarize the wetla	nd and surrounding lan	dscape; include condition	on and impac	ts)	22 WS (1111111111 2) 25 25 25 25 25 25 25 26 26 26 26 26 26 26 26 26 26 26 26 26		
Land	almost enti-	rely cover	ed in grow	the pi	i weed	even		
4 " 0 #	natille bike	plant Gronne	cherry/wild	tomatilla.	Wasps,	beetles, ant		
Ho	use Finch and	Red Wing	bleck birds.	Bunny				
SA Biotic Condition (Chickeree, recovered coming	vegetation patterns, con globe mallow and some gra in, Signific (hydrological alteration	nposition and structure I mullicin are by moths cant photogra s {e.g., dams, walls etc.];	black birds. , exotics and invasives, of looming Lat to orange black aphed butterfly, if flooding characteristics.	Bunay disturbance en a, /s a butter blue 5to	Inost of	e and herbivory) completly mustand R.		
SA Biotic Condition (Chickeree, recovered coming SA Abiotic Condition disturbance and other	vegetation patterns, con globe mallow and some gra	nposition and structure, maths moths see, dams, walls etc.]; hydrologic breaks or co	black birds. , exotics and invasives, of the description of the description of the description of the description of the define	disturbance evidence the SA limits)	Inost of	e and herbivory) completly mustand R.		
SA Biotic Condition (Chickeree, recovered coming SA Abiotic Condition disturbance and other Algge	vegetation patterns, con globemallow and some gra in, Signific (hydrological alteration site impacts; explain the	nposition and structure, maths moths see, dams, walls etc.]; hydrologic breaks or co	black birds. , exotics and invasives, of looming Lat to orange black aphed butterfly, flooding characteristics other factors that define covering penals	disturbance evidence blue 5/2 sand evidence the SA limits)	Inost of fly take	e and herbivory) completly mustand R.		
SA Biotic Condition (Chickeree, recovered coming SA Abiotic Condition disturbance and other Algge	vegetation patterns, con globemallow and some gra in, Signific (hydrological alteration site impacts; explain the	nposition and structure, maths moths seant photogra seg, dams, walls etc.]; hydrologic breaks or continely 306 mS	black birds. , exotics and invasives, of looming Let to orange black aphed butterfly, if flooding characteristics other factors that define covering penals	Bunay disturbance evidence blue 5th and evidence the SA limits)	Inost of fly take	e and herbivory) completly mustand R.		
SA Biotic Condition (Chickeree, recovered conting SA Abiotic Condition disturbance and other Algge Assessment Summar	vegetation patterns, con globe mallow and some gra in Signific (hydrological alteration site impacts; explain the 27,5 ntu y (Overall site condition	nposition and structure, maths meths see ht photogra see hydrologic breaks or co entirely 306 mS summary and commen	black birds. , exotics and invasives, of looming Lat to orange black sphed butterfly, if flooding characteristics other factors that define covering pone 7.10 pt	Bunay disturbance en a, /s a butter blue 5te and evidence the SA limits) 16,4 collected.)	Inost of fly take	e and herbivory) completly mustand R. govern Yarr nk flooding; soil b		
SA Biotic Condition (Chickeree, recovered conting SA Abiotic Condition disturbance and other Algge Assessment Summar	vegetation patterns, con globe mallow and some gra in, Signific (hydrological alteration site impacts; explain the is almost 27,5 ntu y (Overall site condition rea is in	nposition and structure, maths meths see ht photogra see hydrologic breaks or co entirely 306 mS summary and commen	black birds. , exotics and invasives, of looming Lot of forward butterfly, of flooding characteristics other factors that define covering pone 7.10 pt the staffer the field data is of summe and, with a	Bunay disturbance en a, /s a butter blue 5te and evidence the SA limits) 16,4 collected.)	Inost of fly take	e and herbivory) completly mustand R. govern Yarr nk flooding; soil b		

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SA CODE: SF2MI[/]

SA Name: Two Mile Pond Reservoir Transect [6]

Date:

Surveyor Initials: DS/AM

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Landscape Context

_	Buffe	Integrity Index			
or are	exclud				n the buffer area or RCC corridors that are either allowed, nnectivity. Indicate the imagery type and date (season
lmage	magery Google Earth KMZ. file			Date	6/23
Allowe	ed buff	er/RCC land cover elements	Exclud	ed nor	n-buffer/RCC land cover elements
Buffer	RCC		Buffer	RCC	
X	x	Natural or semi-natural vegetation patches	X	X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields
		Old fields, unmaintained			Railroads
		Open range land	Maintained levees, sediment piles, construction materials, staging areas		Maintained levees, sediment piles, construction materials, staging areas
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards
X	X	Non-functioning abandoned vegetated levees, or naturally occurring levees		X	Paved roads or developed second-order unpaved but graded roads
<u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u>		unpaved two tracks roads		X	Open water bounded by a levee or other manmade structure
		Other			Other
		b. Buffer Percent Sub-metric. Measure or estimate		_	Iubic E lui pullej i cicciit

A perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d. 85% Buffer Percent (%)=

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
А	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3 .

	Table L1a. Buffer Percent					
Rating		Buffer Percent				
	4	100%				
Ø	3	≥80% - <100%				
\circ	2	≥50% - <80%				
0	1	<50%				

	Table L1b. Buffer Width							
R	ating	Average buffer width						
0	4	≥190m						
Ø	3	≥130 - <190m						
0	2	≥65 - <130m						
\circ	1	<65m						

Table L1c. Summary Rating for Buffer Integrity							
R	ating	Score					
0	4	>3.5					
Ø	3	>2.5 - ≤3.5					
\circ	2	>1.5 - ≤2.5					
\circ	1	≤1.5					

SA CODE: SF2MI[6]

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SA Name: Two Mile Pond Reservoir Transect [6]

Surveyor Initials:

Date:

DS/AM

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L4 - Surrounding Land Use

Vorksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Tabl	Table L4. Surrounding Land Use Rating							
Rati	ng	LUI Score						
O 4		≥95 - 100						
C 3		≥80 - <95						
⊗ 2		≥40 - <80						
\bigcirc 1		<40						

SA COD SF2MI[6]

SA Name: Two Mile Pond Reservoir Tr $^{\circ}$ ct [$^{\circ}$ $^{\circ}$]

Surveyor Initials:

Date: 7/16/24

B1 - Relative Native Plant Community Composition

|% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top $\overline{\frac{\mathcal{S}}{\mathcal{S}_{\tilde{o}}}}$ 0/0 CT Score 4 Raw4 ው የኒ 5 Final Weighted Score⁷ N Eresta 8 Herbaceous/Sparse Stratum ³ Property Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 3 Species 5 E crond 200000 Species 4 E N C. A. S. られる Short Woody Stratum 2 Species 3 W. Now ш Z Species 2 Tall Woody Stratum 1 Species 1 Polygon Nos. 4 U Δ G ェ Σ z 0 മ Ь

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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SA CODE:

SA Name:

SF2MI[-{]

Two Mile Pond Reservoir Transect [6]

Date:

Surveyor Initials:

7/16/24

DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from

Wor	ksheet 5	, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.
Rating		Description
X	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
\overline{C}	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
$\overline{\cap}$	1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

NA

Invasive cover (%)

710

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover							
Rating	Invasive Species Cover %						
C 4	0%						
3	>0% - <1%						
, 2	≥1% - <10%						
C 1 χ	≥10						

Additional CTs and Biotic Metric Comments:

This area is supporting many blotic life. Most species are listed on the cover page

SA CODE: SF2MI[\(\)]

SA Name:

MI[C]

Two Mile Pond Reservoir Transect [$\;\; igle c$]

Date: 7/16/24

Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
1				Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		d		There is leaf litter, thatch, or wrack in most pools.
Indicators of		口		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium				There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
:		Image: section of the		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation	· 🗆			Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
			, 🗆	There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[6]

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 7/16/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	-0		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	
-----------------------------	--

	Table A5. Soil Surface Condition Rating						
Rating	Description						
% 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.						
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.						
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.						
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.						

NMRAM Montane Riverine Wetlands Version 2.5

SA Code SF2MI [6		SA Cover I	Worksheet				
] SA Name : Two M	1ile Pond Reservoir		Project : Riparian Assesement			
ode Tsct [6]	AU Name : Trans	ect [6]		WOI : Two N	Aile Pond Re	eservoir	
County Santa Fe	HUC 12 Headw	aters Santa Fe River E	evation (ft) 7299	(m) 2224.7 Ecoregion 6.0 NWFM			
A riparian system to decommissioned do of water rights. Original Directions	nd Boundary (Rationale, on the Heads into a pond look lue to safety concerns re	cated on the east side of garding the reservoir ar	d a water diversion to	the area was r	ecently shu	t down due to lack	
	e from Albuquerque you I you reach the reservoir		os Iraii. Men neau easi	t on Callillo D	ei Monte 20	and fight on	
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Resul Restrictions only.	ts to client	Fish Obser Wetlan	1	
Surveyor Role		Surveyo	or Name			Surveyor Initials	
Landscape	Dustin Schwartz	Z				DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwart	Z				DS	
Stressors	Dustin Schwart	Z				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD ft	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.68972	2	-105.89	
Survey Date	8/13/24	Start Time	9:00	End 1	ime -	15:00	
		SA Desc	ription:				
	rt (aumma-vi th · · · - th-		decape: include condit	ion and impac	+c)		
SA Landscape Conte	xt (summarize the wetla	na ana surrounding iang	ascape, include condit	ion and impac	.(3)		
Land is bloom SA Biotic Condition (A m bloo (かな) SA Abiotic Condition disturbance and other		recent me thriving and thriving and and as {e.g., dams, walls etc.];	exotics and invasives, where, Hore horing pond, persoling cov flooding characteristic ther factors that define	n and most of sever disturbance e was approximately sering grows and evidence	ther special vidence, fire full grand live of overba	and herbivory) have already since n (Dragonh	
SA Biotic Condition (A m bloo (Ants) SA Abiotic Condition disturbance and other	has had net and net and ling. A maran vegetation patterns, cor aranth is are is Covering (hydrological alteration r site impacts; explain the turb 1,76 ntu	recent me thriving and the is new inposition and structure, proming every ort is cove a ground and is {e.g., dams, walls etc.]; e hydrologic breaks or o pH 6,91	exotics and invasives, And taking exotics and invasives, Neve, Hore ho ring fond, persoling cov flooding characteristic ther factors that define 16.9°C. 3	n and most of sover disturbance e was apple solution is ering grow cs and evidence the SA limits 08 NS/cm	ther special vidence, fire ears to full grand live of overba	e and herbivory) have already green (Dragont 2a-d; +flies seed nk flooding; soil	
SA Biotic Condition (A m bloo (Ants) SA Abiotic Condition disturbance and other	has had net and net and ling. A maran vegetation patterns, cor aranth is are is Covering (hydrological alteration r site impacts; explain the turb 1,76 ntu	recent me thriving and the is new inposition and structure, proming every ort is cove a ground and is {e.g., dams, walls etc.]; e hydrologic breaks or o pH 6,91	exotics and invasives, And taking exotics and invasives, Neve, Hore ho ring fond, persoling cov flooding characteristic ther factors that define 16.9°C. 3	n and most of sover disturbance e was apple solution is ering grow cs and evidence the SA limits 08 NS/cm	ther special vidence, fire ears to full grand live of overba	e and herbivory) have already green (Dragont 2a-d; +flies seed nk flooding; soil	
SA Biotic Condition (A m bloo (Ants) SA Abiotic Condition disturbance and other	has had net and net and ling. A maran vegetation patterns, cor aranth is are is Covering (hydrological alteration r site impacts; explain the turb 1,76 ntu	recent methodologic breaks or o	exotics and invasives, And taking exotics and invasives, Neve, Hore ho ring fond, persoling cov flooding characteristic ther factors that define 16.9°C. 3	n and most of sover disturbance e was apple solution is ering grow cs and evidence the SA limits 08 NS/cm	ther special vidence, fire ears to full grand live of overba	e and herbivory) have already green (Dragont 2a-d; +flies seed nk flooding; soil	

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SA CODE: SF2MI[6]

SA Name: Two Mile Pond Reservoir Transect [\(\int_2 \)]

Date: 8/13/24

4

3

2

B

>3.5

>2.5 - ≤3.5

>1.5 - ≤2.5

≤1.5

Surveyor Initials: DS/AM

Landscape Context

B	uffer	Integrity I	ndex							iii ee allisi		
or are e	xclud										orridors that are either allow agery type and date (seasc	
lmager	nagery Google Earth KMZ. file						Date	6/23				
Allowe	d buffe	er/RCC land o	over elements			Exclud	led no	n-buffer/l	RCC la	and cover el	ements	
Buffer	RCC					Buffer	RCC					
X	x	Natural or se	mi-natural vegetat	ion patcl	hes	X	X	1			evelopments, parking lots, ts, and other structures	
X	X	Small irrigati	on ditches without	levees				Lawns, p	Lawns, parks, golf courses, sports fields			
		Old fields, un	maintained					Railroad	ls			
		Open range l	and					ı		evees, sedim ging areas	ent piles, construction	
X	X	Foot trails, ho intensity)	orse trails, unpaved	l bike tra	ils (low			Intensiv	e live	stock areas,	horse paddocks, feedlots	
X	X	Non-channel	open water					1	_	iculture: mai chards, and	ntained pastures, hay field vineyards	s,
X	X	Non-functior naturally occ	ning abandoned ve urring levees	getated	levees, or	X	X	1	ed roads or developed second-order unpaved but led roads			
		unpaved two	tracks roads			X	X	1 '	Open water bounded by a levee or other manmade structure			
ıЫ		Other						Other	Other			
			cent Sub-metric.							Tal	ble L1a. Buffer Percent	
			allowed buffer ele etric using Table L1							Rating	Buffer Percent	
		mary Worksh								O 4	100%	
			Buffer Percen	t (%)=	85%					⊗ 3	≥80% - <100%	
Morksh	oot 1	Buffer Widt	h Sub-metric. Mea	sure the	length of e	each hu	ffer lin	e in mete	rs in	C 2	≥50% - <80%	
he GIS o	or on t	he map. Avera	age the line length y Worksheet 1d.							O 1	<50%	
			Buffer Width		Buffer \	Width	B	uffer Wic	lth	Та	ble L1b. Buffer Width	
Line	Du	(m)	(ft)	Line	(m			(ft)		Rating	Average buffer wid	th
Α	1	64.26	538.91	E	161.9	3		531.26		C 4	≥190m	
В	1	25.25	410.92	F	231.4	18		759.44		⊗ 3	≥130 - <190m	
C		15.39	378.57	G	121.2	25		397.80		C 2	≥65 - <130m	
D		11.07	364.40	Н	155.8			511.38		C 1	<65m	
	Aver	age	148.31 (m)		486.58	8	(ft)			Table L10	. Summary Rating for Bu	ffer
Worksh	eet 1	d. Buffer Inte	grity Summary. E	nter the				Tables L1		Rating	Score	

3

Buffer Integrity Index Score

and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c

/2=

/2 =

Buffer Width Rating

3

d on the SA Summary Worksheet.

Buffer % Rating +

3

SF2MI[6] SA CODE:

Two Mile Pond Reservoir Transect [6]

Date:

8/13/24

SA Name:

Surveyor Initials:

DS/AM

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Ta	ble L4.	Surrounding Land Use Rating
Ra	ting	LUI Score
\circ	4	≥95 - 100
\circ	3	≥80 - <95
Ø	2	≥40 - <80
\overline{C}	1	<40

SA Name: Two Mile Pond Reservoir Traget [🕘]

Date: 8/13/24

Surveyor Initials: F M

B1 - Relative Native Plant Community Composition

Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top

domir which	dominant species in each stratum that appears in the polygon. See footno which it is more abundant. Each polygon is either assigned to the same CT	in each s bundant.	stratur Each	n tha polyg	t appears i Jon is eithe	in the poer assign	olygon ned to i	. See footno the same C	notes fo	or special ir	nstructio ne comp	osition or	cies app	dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.	than on or the po	e strata, ass lygon.	ign the	species to	the str	atum in
					Tall Wo	Tall Woody Stratum ¹	atum 1			Short Woody Stratum ²	dy Stratı	um ²		Herbaceous/Sparse Stratum ³	ıs/Sparse	Stratum ³		CT Score ⁴	4	
t	Polygon Nos.	٠			Species 1	51 E	Sp	Species 2	ш Z	Species 3	<u>ш</u> Z	Species 4	ᄪᅩ	Species 5	ш Z	Species 6	шΖ	Raw4 9	% SA5	Wt Score ⁶
Α										W.Tlaw		Q'in's	N	growel	2	Buchen	N			
8												cat the	20	Stobile	1	Hisy	211			
U																				
۵																				
ш																				
ц																				
ט																				
工																				
_																				
쏘																				
7																				
Σ																				
z								·												
0																				
															Fina	Final Weighted Score ⁷	1 Score ⁷			

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. ⁴Raw Score is from Table B1a (Appendix B); 5%5A is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %5A must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE: SF2MI[6]

N [6] Date: 8/13/24

SA Name:

Two Mile Pond Reservoir Transect [🦒]

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

R	ating	Description
X	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
0	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
0	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
	1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

	r	
N	1	

Invasive cover (%)

calculate

Table B5. Ratin	gs for Invasive Exotic Plant Species Cover
Rating	Invasive Species Cover %
C 4	0%
3	>0% - <1%
2	≥1% - <10%
Ø 1	/ ≥10

Additional CTs and Biotic Metric Comments:

A list of all the biotic life can be seen in the cover page SA CODE: SF2MI [6]

SA Name:

Two Mile Pond Reservoir Transect [6]

Date: 8/13/24

Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
				Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		ď		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
·		Image: Control of the control of the		Channel and point-bars consist of well-sorted bed material.
		Į		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		d		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[6]

SA Name: Two Mile Pond Reservoir Transect [(]

Date: 8/13/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Norksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)			
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).			
			Multiple livestock and other (fishing, hiking) trails,			
			Vehicle tracks including off-road and construction, etc.			
			Impervious compacted surfaces or pavement			
			Grading or plowing			
			Fill			
			Gravel pits			
			Anthropogenic levees and berms			
			Irrigation-driven salinity and mineral crusts			
			Fire pits			
			Other:			
***************************************			Estimate % soil disturbance by segment area			

<u> </u>	Table A5. Soil Surface Condition Rating
Rating	Description
% 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cove	r Worksheet							
SA Code SF2MI [6]										
Code Tsct [6]	AU Name : Trans	sect [6]		v	۷OI : Two ۸	Aile Pond R	eservoir			
County Santa Fe	HUC 12 Headv	vaters Santa Fe River	Elevation (ft) 729	9 (1	m) 2224.7	Eco	region 6.0 NWFM			
decommissioned d of water rights.	d Boundary (Rationale, hat leads into a pond lo lue to safety concerns re	cated on the east side (
	from Albuquerque you you reach the reservoir					,				
Ownership The Nature	Conservative and The S	ianta Fe National Fores	†	Results to only.	o client	Fish Obse Wetlar				
Surveyor Role		Surve	yor Name				Surveyor Initials			
Landscape	Dustin Schwart	Z					DS			
Biotic	AM									
Abiotic	DS									
Stressors	Dustin Schwar	tz					DS			
Easting (m)	Northing (m)	Zone	Datum		Latitude	(DD ft)	Longitude (DD ft)			
-105° 53' 24" W	W 35° 41' 23" N 13 NAD- 83 UTM 35.689722									
Survey Date 9/11/24 Start Time 9:00 End Time										
		SA De	scription							
SA Landscape Context (summarize the wetland and surrounding landscape; include condition and impacts)										
Brown and drying land getting ready for winter										
winte.r										
SA Biotic Condition (vegetation patterns, composition and structure, exotics and invasives, disturbance evidence, fire and herbivory)										
Wild Sunfl	wild Sunflower, Puple Aster, chimisa, globernallow, chickory All in bloom. A Sora bird call can be heard in the cattails, Palmer Amaranths									
Mullein, g	iround cherries	also prominent	. Many pollin	ators (gnats, bei	atles, b	ees in grea)			
Mullein, ground cherries also prominent. Many pollinators (gnats, beatles, bees in grea) SA Abiotic Condition (hydrological alterations (e.g., dams, walls etc.); flooding characteristics and evidence of overbank flooding; soil										
Last	disturbance and other site impacts; explain the hydrologic breaks or other factors that define the SA limits) Last vear dead Masterd Still in area but ground still moist and									
lake c	Last year dead Masterd Still in area but ground still moist and lake covered in Mug Wort									
	pH 6,85	12.50 4394	14cm 221	itu	1,99 m	n9/L DO				
	y (Overall site condition	summary and comme	nts after the field o	data is co	llected.)					
,	Area seei	n's stro	ns and	Lea 10	thy s	bloom	199			
	before 1	Call.								
Provisional Field Score 3.11 Ran	k B Surveyor(s)	DS/AM Final Score	3, // Rank	/> Init	ials $ ho$	5	Date 9/11/24			

SA CODE: SF2MI[6]

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 9/11/24

Surveyor Initials: DS/AM

Landscape Context

_ ,	uffe	· Integrity I	ndex									
or are	exclud											idors that are either allowed, Jery type and date (season
lmager	у	Google Earth	KMZ. file			lmage	Date	6/2	!3			
Allowe	d buff	er/RCC land c	over elements			Exclud	led no	n-buffer/	RCC I	and c	over elem	nents
Buffer	RCC					Buffer	RCC					
X	х	Natural or se	mi-natural vegetat	on patc	hes	X	×	1				elopments, parking lots, and other structures
X	X	Small irrigation	on ditches without	levees				Lawns,	parks	, golf	courses, s	ports fields
		Old fields, un	maintained					Railroad				
		Open range l	and					Maintai materia				t piles, construction
X	X	Foot trails, ho intensity)	orse trails, unpaved	bike tra	ils (low			Intensiv	e live	stock	areas, ho	orse paddocks, feedlots
X	x	Non-channel	open water					1	_		ire: maint ds, and vir	ained pastures, hay fields, neyards
X	x	Non-functior naturally occ	ning abandoned ve urring levees	getated	levees, or	X	X	graded	roads	1	,	econd-order unpaved but
		unpaved two	tracks roads			X	X	Open w structui		ound	ded by a l	evee or other manmade
ΔI		Other						Other				
Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate						the per	centa	ge of the	1		Table	L1a. Buffer Percent
			allowed buffer eler							 -	Rating	Buffer Percent
Box below. Rate the sub-metric using Table L1a and enter the rational Integrity Summary Worksheet 1d.						ing on a	ne bui	lei			4	100%
	<u> </u>		Buffer Percent	: (%)=	85%					8	3	≥80% - <100%
Norksheet 1c. Buffer Width Sub-metric. Measure the length of 6							CC I!	- !	j .ua in		2	≥50% - <80%
worksneet 1c. Buffer width Sub-metric. Measure the length of 6 the GIS or on the map. Average the line lengths and rate using Tab										0	1	<50%
he Buffer Integrity Summary Worksheet 1d.												
Line	Bu	iffer Width Buffer Width Line Buffer Width Buffer Width						dth			e L1 b. Buffer Width	
		(m)	(ft)		(m)			(ft)		R	Rating	Average buffer width
Α	1	64.26	538.91	E	161.9		3 531.2				4	≥190m
В	1	25.25	410.92	F	231.	48		759.44		8	3	≥130 - <190m
C	1	15.39	378.57	G	G 121.25		397.80				2	≥65 - <130m <65m
D	1	11.07	364.40	Н	155.	87	511.38					703111
Average 148.31 (m) 486.58					8	(ft)			Ta	ble L1c. S	iummary Rating for Buffer Integrity	
			grity Summary. E							R	Rating	Score
			the Buffer Integrity egrity Index Score,								4	>3.5
	_	Summary Wo	• ,		J = u .		, ,			Ø	3	>2.5 - ≤3.5
Buffer	% Rat	ing + Bu	ıffer Width Rating	/2	= Buff	er Integ	rity In	dex Sco	re	\overline{C}	2	>1.5 - ≤2.5
				<u></u>						\Box	1	≤1.5

/2 =

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SA CODE: SF2MI[6]

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Two Mile Pond Reservoir Transect [🧴]

Date:

DS/AM

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r Transect [/] Surveyor Initials:

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	able L4.	Surrounding Land Use Rating
R	ating	LUI Score
\circ	4	≥95 - 100
\Box	3	≥80 - <95
®	2	≥40 - <80
\Box	1	<40

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81 - Relative Native Plant Community Composition

dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.

	-					200	2		יונייייייייייייייייייייייייייייייייייי		ן כו	רוומז נווב זכ		position o	ו מוועאי	in terias tine same composition of a new crips created for tine polygon.	ומו בווע לי	JOINGOII.				
							Tall	Woody	Tall Woody Stratum ¹	1		Short Woody Stratum ²	ody Str.	atum ²		Herbaceo	us/Spars	Herbaceous/Sparse Stratum ³	m	CT Score 4	ore 4	
Ե	Ъ	lygo	Polygon Nos.	·S			Spec	Species 1	E N	Species 2	шZ	Species 3	шZ	Species 4	4 n z	Species 5	ᄪᅩ	Species 6	ш 2	Raw ⁴	% SA ⁵	% SA ⁵ Wt Score ⁶
∢												Willow	N	C Ta. S	3	9 10 be, 10m	>	June 2	3	5	99	
В														Chine son	2	Aste	l .	N Blueston		5	30	
U																						
D																						
Ш																						
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																	Fine	Final Weighted Score ⁷	d Score	L		5

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

SF2MI [💪] SA CODE:

Two Mile Pond Reservoir Transect [6]

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
(% 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
O 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

Invasive cover (%)

calculate

Table B5. Rating	gs for Invasive Exotic Plant Species Cover
Rating	Invasive Species Cover %
C 4	0%
Q 3	>0% - <1%
2	≥1% - <10%
0 1 🗡	≥10

Additional CTs and Biotic Metric Comments:

A list of biotic factors
can be seen on cover page,

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		d		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
				Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
				The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		ď		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

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A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	Ą		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:

	Table A5. Soil Surface Condition Rating
Rating	Description
9 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

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Table B1	. Relative Native Plant C	Community Composition Rating
Rating	CT Fin	al Weighted Score
R 4	≥ 3.75	<10% non-native
O 3	≥ 3.25 and <3.75	10% ≤20% non-native
O 2	> 2.0 and <3.25	20% ≤50% non-native
O 1	≤2.0	>50% non-native

B2 - Vegetation Horizontal Patch Structure

Worksheet 7. Using Tables B2a and B2c (Appendix B), choose the schematic pattern that best matches the mapped vegetation patch pattern for the SA. Rate using Table B2 and enter rating on the SA Rank Summary Worksheet.

L	lori	zoni	tal I	Patch	Structure	nattern	ARC	orD
ı	1011	20111	rai i	attii	Jucture	pattern	~,∪,\	, UI D

B B

		Table B2. Rating for Vegetation Horizontal Patch Structure
R	Rating	Description
O	4	Most closely matches Pattern A. SA has a diverse patch structure (≥4 patch types) and complexity. A dominant patch type would be difficult to determine.
0	3	Pattern B. SA has a moderate degree of patch diversity (3 patch types present) and complexity. A single, dominant patch type may be present, although the other patch types would be well represented and have more than one occurrence in the SA.
0	2	Pattern C. SA has a low degree of patch diversity and complexity. Two or three patch types may be present; however, a single, dominant patch type exists with the others occupying a small portion of the SA.
O	1	Pattern D. SA has essentially little to no patch diversity or complexity. The SA is dominated by a single patch type. Other patch types, if present, occur infrequently and occupy a small portion of the SA.

B3 - Vegetation Vertical Structure

Worksheet 8. Percentage of SA by vertical structure type (VST). Using the Structure Type from Worksheet 5 and the %SA from Worksheet 6 calculate the total area of the SA occupied by each VST using the formula VST(type) = Sum (%SA for CTs with same VST) \times 100. Enter the total %SA for each VST below.

	VST 1	VST 2	VST 5	VST 6S	VST 6W	VST 6H	VST 7
	High Structure	Low Structure	Tall Shrubland	Short	Herbaceous	Herbaceous	Sparse
	Forest	Forest		Shrubland	Wetland	Vegetation	Vegetation
Total % of SA					So	50	

Table B3. Rating for Vegetation Vertical Structure. Using the data from Worksheet 8 rate the SA based on the criteria in Table B3. Pick the row that best fits the distribution of VSTs in the SA. Each row specifies the required dominant structure type plus co- and sub-dominants. Percentage cover required per co- or sub-dominant is a minimum. The types listed in the columns must be the most common VSTs in the SA for the rating to be applicable (Worksheet 8). VSTs 1 and 2 can be inverted in dominance and the rating is still applicable. Work from the top of the table down. As long as the requirements for one row are met, any other types may or may not co-occur without changing the rating. Enter the rating on the SA Rank Summary Worksheet.

Rating	Dominant VST	Co- or Sub-dominant VST ≥15%	Sub-dominant VST ≥5%
	1	5	6W and/or 6H
C 4	1	6W	
	2 or 1 and 2	5	6W and/or 6H
	1		
	2 or 1 and 2	5	
3	2 or 1 and 2	6W	
	5	6W	
	2 or 1 and 2		
C 2	5		
	6W		*
	6S		الودر
O 1	6H		
	7		

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Biotic Metrics

Species Cover (BS) metrics. Enter the Vertical Structure Type (VST) for B3, tree regeneration % cover within the polygon for B4 and the % cover of invasive exotic species for B5. Use Worksheet 5. Vegetation Community Patch Polygon Data for Biotic Metrics B3, B4, and B5 for Polygons from SA Biotic Map. Enter data for each polygon under a unique number assigned from the SA Biotic Map. Each polygon is evaluated with respect to Vegetation Vertical Structure (B3), Native Tree Regeneration (B4), and Invasive Exotic Plant the Tables in Appendix B and the Field Guide for metric instructions. Enter the species codes for the invasive exotic species found in the polygon (from NM Noxious Weed List -Appendix D). Use the comments box for documenting and describing vegetation community patch features.

Polygon No	Polygon B3 Vertical Structure No Type	B4 Tree Regeneration	85 Invasive Exotic	Invasive Exotic Species	Comments
-	IA1	% Cover	species % cover		
2	lA2	%%	Go 1000 240		
8	llA1				
4	IIIB1	50,4	5. N. C.		Williast 21t Loush
5	IIIC1				
9	IVEI				
7	IVF1				
8					
6					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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L2 - Riparian Corridor Connectivity (RCC)

Worksheet 2. RCC excluded non-buffer elements calculation. Refer to worksheet 1a for excluded non-buffer RCC land cover elements. Following the steps in the Field Guide, enter the summed values in meters for excluded element lengths for each bank within each segment upstream and downstream of the SA. Sum the values for each segment and calculate % Segment Disruption for the upstream side and the downstream side. Add the total disruption for upstream and downstream segments and then calculate the % Total Disruptions for the riparian corridor. Rate Riparian Corridor Connectivity using Table L2 and the data from this worksheet. Enter rating on the SA Summary Worksheet.

Segments	Upstream	n Segment	Downstream Segment		
Banks	Left Bank	Right Bank	Left Bank	Right Bank	
A) Total Bank Disruption (m)	0	0	0	0	
B) Total Disruption by Segment (m)	0			0	
C) % Segment Disruption = (B/1000)*100	0		C		
D) Total Disruption both segments	0				
E) % Total Disruptions = (D/2000)*100	Zero disruption noticeable along the b		he banks.		

Table L2. RCC Rating					
Rating	Description				
⊗ 4	0% total disruption on both segments combined.				
О 3	<15% total disruption on both segments combined.				
O 2	≥15% - <40% total disruption on both segments combined.				
O 1	≥40% total disruption on both segments combined.				

L3 - Relative Wetland Size

Worksheet 3a. Calculate the Relative Size Ratio (RSR) between the current WOI size and the historic WOI size. b. Calculate the Relative Wetland Size Score (RWSI (%)) as (1-RSR)*100. Rate Relative Wetland Size Index using Table L3 and enter rating on the SA Summary Worksh

		RSR						RI	NSI		
Current Size	1	Historic Size	=	RSR	1		RSR	×	100	=	RWSI (%)
9	1	10	=	0.9	1	8	0.1	X	100		10

	Table L3. Relative Wetland Size Rating						
Rating	RWSI Score	Description					
Ø 4	≤10%	Wetland is at or only minimally reduced from its full natural extent					
O3	>10% - ≤40%	Wetland remains equal to or more than 60% of its natual size					
02	>40% - ≤70%	Wetland has been reduced by more than 40% its natural size					
01	>70%	Wetland has been reduced by more than 70% its natural size					

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Metric Description	Rating	Wt	Final Score
Landscape Context		Σ 1.0	3.25
L1. Buffer Integrity Index	3	0.25	0.75
L2. Riparian Corridor Connectivity	4	0.25	1.0
L3. Relative Wetland Size	4	0.25	1.0
L4. Surrounding Land Use	2	0.25	0.5
Biotic		Σ	
B1. Relative Native Plant Community Composition		0.2	
B2. Vegetation Horizontal Patch Structure		0.2	
B3. Vegetation Vertical Structure		0.2	
B4. Native Riparian Tree Regeneration		0.2	
B5. Invasive Exotic Plant Species Cover		0.2	
Abiotic		Σ	
A1. Floodplain Hydrologic Connectivity		0.3	
A2. Physical Patch Diversity Sovered Sheet		0.2	
A3. Channel Equilibrium		0.2	
A4. Stream Bank Stability and Cover		0.2	
A5. Soil Surface Condition		0.1	

Major Attribute	Score	Wt.	Wt. Score
Landscape Context	3.25	0.3	0.975
Biotic		0.35	
Abiotic		0.35	
SA WETLANI	CONDITIO	N SCORE Σ	
SA WETLANI	D RANK =		

Rank	Score	Description
А	≥3.25 - 4.0	Excellent Condition
В	≥2.5 - <3.25	Good Condition
С	≥1.75 - <2.5	Fair Condition
D	1.0 - <1.75	Poor Condition

Stressor Summary	Major	Minor	Top Three
	0	0	1 Human trails
			2
			3

stressor	Comments	(Evaluation	of risk)

The area doesn't seem heardy affected by Stressors

SA CODE: SF2MI[|]

Date:

SA Name:

Two Mile Pond Reservoir Transect [|]

Surveyor Initials:

DS/AM

10/9/24

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description	
C	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.	
\circ	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size class		
C	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typica <1% cover, little size class differentiation.	
8	1	Native poles, saplings, and/or seedlings absent (0% cover).	

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

NIA

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover										
Rating	Invasive Species Cover %									
O 4	0%									
∩ 3 ½	>0% - <1%									
2	≥1% - <10%									
O 1	≥10									

Additional CTs and Biotic Metric Comments:

Multiple pollinators in the area. No prints besides dog tracks by the nater

SA CODE:	SF2MI[]	Date:	10/9/24
SA Name:	Two Mile Pond Reservoir Transect []	Surveyor Initials:	DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
				The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		占		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		白		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		d		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE:	SF2MI[]	Date:	10/9/24
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SA Name: Two Mile Pond Reservoir Transect [] Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
	Ø		Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
· 🔲			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	Q
-----------------------------	---

<i>.</i>	Table A5. Soil Surface Condition Rating								
Rating	Description								
4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.								
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.								
O 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.								
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.								

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover V	Vorksheet				
SA Code SF2MI [2] SA Name : Two	Mile Pond Reservoir		Projec	t: Riparian Asse	sement	
Code Tsct [2]	AU Name : Trai	nsect [2]		woi :	Two Mile Pond F	Reservoir	
County Santa Fe	HUC 12 Head	waters Santa Fe River Ele	evation (ft) 729	99 (m) 22	224.7 Eco	region 6.0 NWFM	
A riparian system to decommissioned of of water rights. Driving Directions	due to safety concerns	e, comments) ocated on the east side of regarding the reservoir and ou head north on Old Peco	d a water diver	sion to the area	was recently sh	ut down due to lack	
Canyon Road unti	I you reach the reservo	ir located to the North.	Data Sharing	Results to clie		_	
Ownership The Nature	Conservative and The	Santa Fe National Forest	Restrictions	only.	Wetla	I	
Surveyor Role		Surveyo	r Name			Surveyor Initials	
Landscape	Dustin Schwa	rtz				DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwa	rtz				DS	
Stressors	Dustin Schwa	rtz				DS	
Easting (m)	Northing (m)	Zone	Datum	Lat	itude (DD ft)	Longitude (DD ft)	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U	TM 35.6	89722	-105.89	
Survey Date	10/9/24	Start Time	9:00		End Time	15:00	
		SA Desc	ription				
SA Landscape Conte	xt (summarize the wetl	land and surrounding land	scape; include	condition and i	mpacts)		
						410	
Conl				4.4. 1.	0		
C001	reen System	Arreported for	p.a.	1. ()		t he	
(C00)		feel under con preparity for	Pall 1	ots of 1	esset y was	the	
	growd						
SA Biotic Condition (9 00 med vegetation patterns, co	omposition and structure, o	exotics and inv	asives, disturbai	nce evidence, fir	e and herbivory)	
SA Biotic Condition (vegetation patterns, co	omposition and structure, on the Northern	exotics and inv	asives, disturbai	nce evidence, fir	e and herbivory)	
SA Biotic Condition (vegetation patterns, co	omposition and structure, o	exotics and inv	asives, disturbai	nce evidence, fir	e and herbivory)	
SA Biotic Condition (Apr Fare	yegetation patterns, co	omposition and structure, on the Northern Willows are	exotics and invo	asives, disturbal Sech in f	nce evidence, fir	e and herbivory)	
SA Biotic Condition (Afritain Farm SA Abiotic Condition disturbance and other	vegetation patterns, co	omposition and structure, on the Northern Willows are ons (e.g., dams, walls etc.); for he hydrologic breaks or ot	exotics and inverse states and inverse states and inverse states are states and inverse states are states and inverse states and inverse states are states and inverse states and inverse states are states and inverse states are states and inverse states and inverse states are states are states and inverse states are states are states and inverse states are states are states are states and inverse states are states a	asives, disturbal Seco in f Treen, teristics and evi	nce evidence, fire Mos if	e and herbivory)	
SA Biotic Condition (Afritain Farm SA Abiotic Condition disturbance and other	vegetation patterns, co	omposition and structure, on fee. Northern Willows are ons (e.g., dams, walls etc.); fhe hydrologic breaks or ot	exotics and inverse state of the asives, disturbal Seco in f Treen, teristics and evi	nce evidence, fire Mos if	e and herbivory)		
SA Biotic Condition (Afritain Farm SA Abiotic Condition disturbance and other	vegetation patterns, converge yellow (hydrological alteration site impacts; explain the scharge 50 mg	omposition and structure, on the Northern Willows are ons {e.g., dams, walls etc.]; fine hydrologic breaks or ot 100 gfm signification Salfkr	exotics and inverse states of the states of	asives, disturbances, disturba	dence of overba	e and herbivory) Trees ank flooding; soil	
SA Biotic Condition (Apr Farm SA Abiotic Condition disturbance and other	vegetation patterns, consider yellow (hydrological alteration site impacts; explain the scharge 50 mg/s)	omposition and structure, on fee. Northern Willows are ons {e.g., dams, walls etc.]; fhe hydrologic breaks or ot floog fm signification fleavy Salfkr	looding characher factors that	asives, disturbance of the set of	idence of overbalmits) Sammer 4,09 ntu	e and herbivory) Trees ank flooding; soil	
SA Biotic Condition (Apr Farm SA Abiotic Condition disturbance and other D.: Assessment Summar	vegetation patterns, converged by the second site impacts; explain the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site of the sec	omposition and structure, on the Northern Willows are ons {e.g., dams, walls etc.]; fine hydrologic breaks or ot 100 gfm signification Jeany Salfkr 12,1°C n summary and comments	contics and inverse set. If gooding character factors that continues after the field	asives, disturbances, disturba	dence of overbainits) 4,09 nfu	e and herbivory) Trees ank flooding; soil Do 2.89-	
SA Biotic Condition (Apr Farm SA Abiotic Condition disturbance and other D.:	vegetation patterns, converged by the second site impacts; explain the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site of the sec	omposition and structure, on the Northern Willows are ons {e.g., dams, walls etc.]; fine hydrologic breaks or ot 100 gfm signification Jeany Salfkr 12,1°C n summary and comments	contics and inverse set. If gooding character factors that continues after the field	asives, disturbances, disturba	dence of overbainits) 4,09 nfu	e and herbivory) Trees ank flooding; soil Do 2.69-	
SA Biotic Condition (Apr Farm SA Abiotic Condition disturbance and other D.:	vegetation patterns, converged by the second site impacts; explain the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site of the sec	omposition and structure, on fee. Northern Willows are ons {e.g., dams, walls etc.]; fhe hydrologic breaks or ot floog fm signification fleavy Salfkr	contics and inverse set. If gooding character factors that continues after the field	asives, disturbances, disturba	dence of overbainits) 4,09 nfu	e and herbivory) Trees ank flooding; soil Do 2.69-	
SA Biotic Condition (Apr Farm SA Abiotic Condition disturbance and other Assessment Summar	vegetation patterns, converged by the second site impacts; explain the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site conditions of the second site of the sec	omposition and structure, on the Northern Willows are ons (e.g., dams, walls etc.); for the hydrologic breaks or othern I 100 gfm signification in the summary and comments on summary and comments on the summary and comments on the summary and comments on the summary and comments	looding characher factors that cantly less after the field turning	asives, disturbances, disturba	dence of overbainits) Summer 4,09 ntu	e and herbivory) Trees ank flooding; soil Do 2.89-	

SF2MI[2] SA CODE:

10/9/24 Date:

SA Name: Two Mile Pond Reservoir Transect [Z]

Surveyor Initials: DS/AM

Landscape Context

										d		

111.07

Average

ESSENTED II		a. Buffer and		heck off	land cover e	elemen	ts with	n the huffer a	area or	· RCC cor	ridors that are either allowed,		
or are	exclud	ed and consid									gery type and date (season		
and ye	ar of in	nagery).				7			-				
lmager	у	Google Earth	ı KMZ. file			lmage	mage Date 6/23						
		er/RCC land	cover elements			Exclud	led nor	n-buffer/RCC	land co	over elen	nents		
Buffer	RCC					Buffer	RCC						
X	x	Natural or se	emi-natural vegeta	tion patc	hes	X	X	1			velopments, parking lots, and other structures		
X	X	Small irrigati	on ditches withou	t levees				Lawns, parks	s, golf	courses,	sports fields		
		Old fields, ur	nmaintained					Railroads					
		Open range	land					Maintained I materials, sta			nt piles, construction		
X	X	Foot trails, h	orse trails, unpaved	d bike tra	ils (low			Intensive live	estock	areas, ho	orse paddocks, feedlots		
X	X	Non-channe	l open water					Intensive agi row crops, oi			ained pastures, hay fields, neyards		
X	X		ning abandoned ve curring levees	egetated	levees, or	X	X	Paved roads graded roads	or developed second-order unpaved but s				
		unpaved two	tracks roads			X	X	Open water l structure	n water bounded by a levee or other manmade ture				
ı (T		Other						Other					
			cent Sub-metric.							Table	e L1a. Buffer Percent		
			allowed buffer ele etric using Table L						R	ating	Buffer Percent		
Integrit	y Sum	mary Worksh	eet 1d.							4	100%		
			Buffer Percen	it (%)=	85%				Ø	3	≥80% - <100%		
Worksh	eet 1c	. Buffer Widt	h Sub-metric. Me	asure the	length of e	ach but	ffer line	in meters in	<u> </u>	2	≥50% - <80%		
			age the line length	s and rat	e using Tabl	le L1b. I	nter th	ne rating on		1	<50%		
the Buffer Integrity Summary Worksheet 1d. Buffer Width Buffer Width Buffer Width Bu										Tabl	e L1b. Buffer Width		
Line	Bui	(m)	Buffer Width (ft)	Buffer v		В	iffer Width (ft)	R	ating	Average buffer width			
Α	10	64.26	538.91	161.9	3		531.26		4	≥190m			
В	1:	25.25	231.4	8	1-	759.44	8	3	≥130 - <190m				
С		15.39	410.92 378.57	F G	121.2	5		397.80		2	≥65 - <130m		
										1	<65m		
D	1	11.07	364.40	364.40 H 155.8			1 5	11.38	I				

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c d on the SA Summary Worksheet.

(m)

148.31

Н

Buffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

Integrity								
Rating	Score							
O 4	>3.5							
⊗ 3	>2.5 - ≤3.5							
C 2	>1.5 - ≤2.5							
O 1	≤1.5							

(ft)

486.58

SA CODE:

SA Name:

SF2MI[2]

Two Mile Pond Reservoir Transect [\nearrow]

Date:

Surveyor Initials:

10/9/24

DS/AM

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
\griculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

ן	able L4	. Surrounding Land Use Rating
R	lating	LUI Score
\bigcirc	4	≥95 - 100
\circ	3	≥80 - <95
(X)	2	≥40 - <80
\circ	1	<40

SA COF SF2MI [\geq]

SA Name: Two Mile Pond Reservoir Tr $\operatorname{act}[\geq]$

r 'd. | ∠]

Date: 10/9/24 Surveyor Initials: Γ

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B1 - Relative Native Plant Community Composition

Wor dom whic	ksheet 6 inant spe h it is mo	scies in ea	t Speci ch stra	es an tum t	nd Po hat a lypor	lygon Ass ppears in t	ignmen the poly	Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter t dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strats which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a pay. CT is created for the polygon	with CT stnotes f	A, enter the or special in the care	number struction	r of the first ns. If a spec	t polygo	from Work sars in more	ksheet 5 than or	Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.	species c	odes for species	to the str	top atum in
				-		Tall Woody Stratum ¹	y Stratu	m 1		Short Woody Stratum ²	dy Stratt	2 mr		Herbaceou	Is/Sparse	Herbaceous/Sparse Stratum ³		CT Score 4	e 4	
t l	Polygon Nos.	Nos.				Species 1	N E	Species 2	ᄪᅩ	Species 3	ш Z	Species 4	ш Z	Species 5	ш Z		ш Z	Raw4	% SA5	Wt Score ⁶
⋖						Novioulas		Bex Tiles		wieller grees	`2	Applie 4,503	7	Total	2	Seeded &	>	37	5	3;
ω							>													
U																				
Δ																				
Ш																				
Щ																				
ט																				
Ι																				
_																				
7													,							
¥																				
Σ																				
z																				
0																				
	-														Fina	Final Weighted Score ⁷	Score ⁷			9

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must

SA CODE: SF2MI[Z]

Date: 10/9/24

SA Name:

Two Mile Pond Reservoir Transect [2]

Surveyor Initials:

DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description					
0	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.					
	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.					
×	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.					
$\overline{\bigcirc}$	1	Native poles, saplings, and/or seedlings absent (0% cover).					

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating	Method

1	1	/A	

	
Invasive cover (%)	

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover						
Rating	Invasive Species Cover %					
∅ 4	0%					
3	>0% - <1%					
2	≥1% - <10%					
O 1	≥10					

Additional CTs and Biotic Metric Comments:

Lots of Northern Flickers in the area.

Heard throughout the park but

Only seen hammering here

SA CODE: SF2MI[2]

/II[7] Date: 10/9/24

SA Name: Two Mile Pond Reservoir Transect [こ]

Surveyor Initials: DS

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		囡		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Þ		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		—		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		×		Channel and point-bars consist of well-sorted bed material.
		×		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Я		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
		×		Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation		×		Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[²]

 $\mathsf{Date}: 10/9/24$

SA Name: Two Mile Pond Reservoir Transect [\mathcal{L}]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)		
			Active erosion features due to anthropogenic disturbance (eg. ril gullies, plant pedestals).		
	\square		Multiple livestock and other (fishing, hiking) trails,		
			Vehicle tracks including off-road and construction, etc.		
			Impervious compacted surfaces or pavement		
			Grading or plowing		
			Fill		
			Gravel pits		
			Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts		
			Fire pits		
			Other:		
			Estimate % soil disturbance by segment area		

Average % Soil Disturbance: > 5 %

<i>.</i>	Table A5. Soil Surface Condition Rating							
Rating	Description							
C 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.							
ў 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.							
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.							
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.							

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover V	Vorksheet			
SA Code SF2MI [3] SA Name: Two Mile Pond Reservoir Project: Riparian Assese						
Code Tsct [3]		WOI : Two Mile Pond Reservoir				
County Santa Fe	HUC 12 Headw	vaters Santa Fe River Ele	evation (ft) 729	99 (m) 2224	.7 Eco	region 6.0 NWFM
A riparian system t decommissioned o of water rights. Driving Directions	due to safety concerns re	comments) cated on the east side of egarding the reservoir an the reservoir and the reservoir and the control on Old Peco	d a water diver	sion to the area wa	is recently shi	ut down due to lack
	l you reach the reservoir					_
Ownership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obse Wetla	1
Surveyor Role		Surveyo	r Name			Surveyor Initials
Landscape	Dustin Schwartz	Z				DS
Biotic	Annie McCoy					AM
Abiotic	Dustin Schwart	Z				DS
Stressors	Dustin Schwart	Z				DS
Easting (m)	Northing (m)	Zone	Datum	Latitu	de (DD ft)	Longitude (DD ft
-105° 53' 24" W	35° 41' 23" N	3' 24" W 35° 41' 23" N 13 NAD- 83 UTM 35.689722			-105.89	
				l l		
Survey Date	10/9/24	Start Time	9:00	En	d Time	15:00
Survey Date	10/9/24	Start Time SA Desc		En	d Time	15:00
		SA Desc	ription			15:00
SA Landscape Conte	 	SA Desc and and surrounding land	ription scape; include	condition and imp	acts)	
SA Landscape Contex	xt (summarize the wetlar	SA Desc nd and surrounding land sticks and eve	ription scape; include	condition and imp	acts)	etten woods
SA Landscape Contex	ext (summarize the wetlands of downed The ground is	SA Desc nd and surrounding land sticks and eve covered in	ription scape; include A trees yellow	condition and imp	acts)	etten woods
SA Landscape Conte	ext (summarize the wetlands of downed) The ground is Moze of sticks	SA Desc nd and surrounding land sticks and eve covered in s and dry tr	ription scape; include A trees yellow ces	condition and imp both willar leaves the	acts) Valley 1	etten woods
SA Landscape Contex Lorf	ext (summarize the wetlands of downed) The ground is Maze of sticks Vegetation patterns, con	SA Descend and surrounding land sticks and ever covered in and dry tr nposition and structure, e	ription scape; include A frees yellow ee9	condition and imp	acts) "Valley" evidence, fire	etten woods a a e and herbivory)
SA Landscape Contex Lorf	ext (summarize the wetlands of downed) The ground is Maze of sticked vegetation patterns, con Jillow and coffe	SA Descind and surrounding land sticks and eve covered in and dry tr sponsorion and structure, and word trees	ription scape; include A frees yellow ee9 exotics and inva	condition and imp	acts) Valley evidence, fire	etten woods a a e and herbivory) why leaves:
SA Landscape Contex Lorf	ext (summarize the wetlands of downed) The ground is Maze of sticked vegetation patterns, con Jillow and codice Iterse tails an	SA Descind and surrounding land sticks and eve covered in s and dry tr apposition and structure, eve d grasses st	ription scape; include A trees yellow ces exotics and inva	condition and implements the leaves the asives, disturbance around bear	acts) And c. "Valley" is evidence, fire and dropp	e and herbivory) The leaves: Crickots/toads
SA Landscape Contex Lorf	ext (summarize the wetlands of downed) The ground is Maze of sticked vegetation patterns, con Jillow and codice Iterse tails an	SA Descind and surrounding land sticks and eve covered in s and dry tr apposition and structure, eve d grasses st	ription scape; include A trees yellow ces exotics and inva	condition and implements the leaves the asives, disturbance around bear	acts) And c. "Valley" is evidence, fire and dropp	e and herbivory) The leaves: Crickots/toads
SA Landscape Contex Lode SA Biotic Condition (ext (summarize the wetlands of downed) The ground is Moze of sticked vegetation patterns, con Jillow and codite there tails and heard. All dead (hydrological alteration)	SA Descend and surrounding land sticks and ever covered in specific and dry transposition and structure, and model trees of grasses states folliage as seg, dams, walls etc.]; for second structure, and seg, dams, walls etc.]; for second structure, and seg, dams, walls etc.]; for second sec	ription scape; include A trees yellow ces exotics and inva are turn press sti	condition and imp before willow leaves the asives, disturbance around bear ghtly mois teristics and evide	evidence, firm	etten woods a a e and herbivory) why leaves: . (vic kots/toads y Mouse
SA Landscape Contex Lode SA Biotic Condition (ext (summarize the wetlands of downed) The grand is Maze of sticked vegetation patterns, con Jillow and codit there tails and heard, Alldea (hydrological alterations site impacts: explain the	SA Descind and surrounding land sticks and ever covered in and dry tr nposition and structure, every grasses standing and folliage questions and structure, every see, dams, walls etc.]; for hydrologic breaks or of	ription scape; include A trees yellow ees exotics and inva are turn freer looding character factors that	condition and imp beth willow leaves the asives, disturbance around bear shely mois teristics and evide	evidence, firm	e and herbivory) The leaves: Crickets/toads y Mouse ank flooding; soil
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SA Landscape Contex Lode SA Biotic Condition (ext (summarize the wetlands of downed) The ground is Maze of sticked vegetation patterns, con Jillow and codite there tails and heard. All dead (hydrological alterations site impacts; explain the lead trees and Pond still "Main	sheks and ever covered in sticks and ever covered in special structure, and and structure, and analy trees of grasses standing and analy structure, and analy structure, and analy structure, and analy structure, and analy structure, and analy analy analy analy analy analy analy analy analy analy analy analy analy analysis seems to structure analy analy analy analy analysis seems to structure analy analy analysis seems to structure analy analysis seems to structure analysis s	ription scape; include A trees yellow ees exotics and inva exotics and inva exotics and inva ere fill green preams sti looding characher factors that the yellow cool than	condition and implement will and implement the leaves the assives, disturbance around bear around bear the define the SA limit tears on the leaves of the le	evidence, firm	e and herbivory) The leaves: Crickets/toads y Mouse Ink flooding; soil boared the tracs.
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SA Biotic Condition (ext (summarize the wetlands of downed) The ground is Maze of sticks vegetation patterns, con Jillow and codford there tails and heard. All dea (hydrological alterations site impacts; explain the pend still Main ph 7.40 y (Overall site condition	SA Descind and surrounding land sticks and ever covered in sand dry transposition and structure, and made trees of grasses standing and and a sticky cover and a sticky cover and a sticky cover and a sticky cover and a summary and comments	essape; include A trees yellow ees exotics and invent presen presens flooding character factors that the yellow cool blance a safter the field	condition and implements the willow assives, disturbance around bear around bear the state of th	evidence, firm	e and herbivory) The leaves; Crickets/toads y Mouse Ink flooding; soil the trees.
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SA Landscape Contex Lode SA Biotic Condition (SA Abiotic Condition disturbance and other Assessment Summar	ext (summarize the wetlands of downed) The ground is Maze of sticks vegetation patterns, con Jillow and codford there tails and heard. All dea (hydrological alterations site impacts; explain the pend still Main ph 7.40 y (Overall site condition	SA Descind and surrounding land sticks and ever covered in sand dry transposition and structure, and made trees of grasses standing and and a sticky cover and a sticky cover and a sticky cover and a sticky cover and a summary and comments	essape; include A trees yellow ees exotics and invent presen presens flooding character factors that the yellow cool blance a safter the field	condition and implements the willow assives, disturbance around bear around bear the state of th	evidence, firm	e and herbivory) The leaves; Crickets/toads y Mouse Ink flooding; soil the trees.
SA Landscape Contex Lode SA Biotic Condition (SA Abiotic Condition disturbance and other Assessment Summar	ext (summarize the wetlands of downed) The grand is Maze of sticked vegetation patterns, con Jillow and codde Iterse tails and heard. All dead (hydrological alterations site impacts; explain the pead trees and pond still Main ph 7.40 y (Overall site condition Area is	SA Descind and surrounding land sticks and ever covered in sand dry transposition and structure, and made trees of grasses standing and and a sticky cover and a sticky cover and a sticky cover and a sticky cover and a summary and comments	essape; include A trees yellow ees exotics and invent presen presens flooding character factors that the yellow cool blance a safter the field	condition and implements the willow assives, disturbance around bear around bear the state of th	evidence, firm	e and herbivory) The leaves; Crickets/toads y Mouse Ink flooding; soil beauto the trees.

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Date: 10/9/24

Surveyor Initials: DS/AM

Landscape Context

⁾ - E	Buffe	r Integrity Index						
or are	exclud	a. Buffer and RCC Checklist. Check off land cover e ed and considered non-buffer elements that disrupt magery).						
lmage	ry	Google Earth KMZ. file	6/23					
Allowe	d buff	er/RCC land cover elements	Exclud	ed nor	-buffer/RCC la	ınd cover elem	ents	
Buffer	RCC		Buffer	RCC				
X	X	Natural or semi-natural vegetation patches	×	X			elopments, parking lots, and other structures	
X	X	Small irrigation ditches without levees			Lawns, parks,	golf courses, s	ports fields	
		Old fields, unmaintained			Railroads			
		Open range land			Maintained levees, sediment piles, construction materials, staging areas			
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive lives	stock areas, ho	rse paddocks, feedlots	
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards			
X	X	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	graded roads		econd-order unpaved but	
D		unpaved two tracks roads X X Open water bounded by a levee or other manmade structure						
		Other			Other			
Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the Table L1a. Buffer Percent							L1a. Buffer Percent	
SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer						Rating	Buffer Percent	
Integri	ty Sum	imary Worksheet 1d.				O 4	100%	
Buffer Percent (%)= 85%								
Norksh	Jorksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in C 2 ≥50% - <80%							

the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

the bunch integrity summary worksheet ru.							
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)		
Α	164.26	538.91	E	161.93	531.26		
В	125.25	410.92	F	231.48	759.44		
С	115.39	378.57	G	121.25	397.80		
D	111.07	364.40	Н	155.87	511.38		
	Average	148.31 (m)		486.58	(ft)		

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Buffer % Rating	ı + Buff	er Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent					
R	Rating Buffer Percent					
	4	100%				
®	3	≥80% - <100%				
	2	≥50% - <80%				
0	1	<50%				

Table L1b. Buffer Width						
R	Rating Average buffer width					
0	4	≥190m				
⊗	3	≥130 - <190m				
\overline{C}	2	≥65 - <130m				
\circ	1	<65m				

Table L1c. Summary Rating for Buffer Integrity

Rating	Score
O 4	>3.5
ℜ 3	>2.5 - ≤3.5
C 2	>1.5 - ≤2.5
O 1	≤1.5

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	8.0	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating				
Rating		LUI Score			
\circ	4	≥95 - 100			
0	3	≥80 - <95			
®	2	≥40 - <80			
0	1	<40			

SA Name: Two Mile Pond Reservoir Trest[3]

SA COF SF2MI[] 3

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Surveyor Initials: [

B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in S B Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top % SA5 S CT Score⁴ Raw4 ¥. Final Weighted Score⁷ Herbaceous/Sparse Stratum ³ が水が Species 6 2500 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 1 шΖ 6/4,3 1. 10 1/2 m Species 5 шΖ (correct) Species 4 Short Woody Stratum 2 W. Para Willang Species 3 3 No. ш 2 Species 2 346 Mond William Tall Woody Stratum 1 \gtrsim Species 1 E できずり Marray 6 Frances Polygon Nos. മ Ü \mathbf{x} ≥ Z 0 ⋖ I

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%5A is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE:

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MI[3]

Date:

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Two Mile Pond Reservoir Transect [3]

Surveyor Initials:

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B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
G	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
\overline{O}	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
Q	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
\circ	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

W/A

Invasive cover (%)

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover				
Rating	Invasive Species Cover %			
C 4	0%			
3	>0% - <1%			
, , 2	≥1% - <10%			
O 1	≥10			

Additional CTs and Biotic Metric Comments:

A grey mouse was seen jumping by the water. The beaver dam is still in tact

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∆ | **Date:** 10/9/24

SA Name: Two Mile Pond Reservoir Transect [/]

Surveyor Initials: DS

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		d		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
				Channel and point-bars consist of well-sorted bed material.
		团		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ď		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE:	SF2MI[3]
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SA Name : Two Mile Pond Reservoir Transect [\mathcal{S}]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or lowdensity wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)		
	Ø		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).		
			Multiple livestock and other (fishing, hiking) trails,		
			Vehicle tracks including off-road and construction, etc.		
			Impervious compacted surfaces or pavement		
			Grading or plowing		
			Fill		
	· 🔲		Gravel pits		
			Anthropogenic levees and berms		
			Irrigation-driven salinity and mineral crusts		
			Fire pits		
			Other:		
			Estimate % soil disturbance by segment area		

Average % Soil Disturbance:

<i>j</i>	Table A5. Soil Surface Condition Rating					
Rating	Description					
⋈ 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.					
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.					
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.					
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.					

County Santa Fe	AU Name : Trans						
County Santa Fe	1	Code Tsct [\mathcal{U}] AU Name : Transect [\mathcal{Y}] WOI : Two Mile Pond Re					
•							
A riparian system t decommissioned o of water rights.	d Boundary (Rationale, of hat leads into a pond loo lue to safety concerns re	ated on the east side of					
	e from Albuquerque you you reach the reservoir		os Trail. Then he		Oel Monte Sc	ol and right on	
)wnership The Nature	Conservative and The S	anta Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obser Wetlan	ı	
Surveyor Role		Survey	or Name			Surveyor Initials	
Landscape	Dustin Schwartz					DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwart	Z				DS	
Stressors	Dustin Schwart	Z				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude	e (DD ft)	Longitude (DD ft	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 L	JTM 35.68972	22	-105.89	
Survey Date	10/9/24	Start Time	9:00	End 1	Γime	15:00	
		SA Des	cription				
SA Landscape Conte	<t< b=""> (summarize the wetlan</t<>	nd and surrounding land	dscape; include	condition and impac	its)		
	and is in or of bleon See			re and salt b	brush at	end	
· · · · · · · · · · · · · · · · · · ·	vegetation patterns, con						
į	enves on Alder	are tarning	yellow	spotted to be	* flic	kers seen	
	Most of groun	d cover seems	dead				
disturbance and other	(hydrological alteration site impacts; explain the	hydrologic breaks or o	ther factors tha	t define the SA limits))		
Area 3.	5 Bushtit,						
	pH 7.41	9,9 °C	28345	14,5 nta	J. 1	64 mg/1	
	. (0	summary and commen	ts after the field	data is collected.)			
Assessment Summar					-		
Assessment Summar		in a fi	ull fall	Season.	lots		

SA CODE: SF2MI[4]

SA Name: Two Mile Pond Reservoir Transect []

Date: 10/9/24

Surveyor Initials: DS/AM

Landscape Context

- Buffe		

Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery). Google Earth KMZ. file Image Date 6/23 **Imagery** Allowed buffer/RCC land cover elements Excluded non-buffer/RCC land cover elements Buffer RCC Buffer RCC Commercial/residential developments, parking lots, Х X Natural or semi-natural vegetation patches |x|dams, bridges, revetments, and other structures Lawns, parks, golf courses, sports fields X Small irrigation ditches without levees Old fields, unmaintained Railroads Maintained levees, sediment piles, construction Open range land materials, staging areas Foot trails, horse trails, unpaved bike trails (low Intensive livestock areas, horse paddocks, feedlots X X intensity) Intensive agriculture: maintained pastures, hay fields, Х $|\mathbf{x}|$ Non-channel open water row crops, orchards, and vineyards Paved roads or developed second-order unpaved but Non-functioning abandoned vegetated levees, or Х X X X naturally occurring levees graded roads Open water bounded by a levee or other manmade unpaved two tracks roads X Xstructure Other Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)	
Α	164.26	538.91	E	161.93	531.26	
В	125.25	410.92	F	231.48	759.44	
С	115.39	378.57	G	121.25	397.80	
D	111.07	364.40	Н	155.87	511.38	
Average		148.31 (m)		486.58	(ft)	

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c d on the SA Summary Worksheet.

Buffer % Rating + Buf		ffer Width Rating	/2 =	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent				
R	ating	Buffer Percent			
$\overline{\circ}$	4	100%			
⊗	3	≥80% - <100%			
\circ	2	≥50% - <80%			
\circ	1	<50%			

	Table L1b. Buffer Width			
R	ating	Average buffer width		
\overline{C}	4	≥190m		
⊗	3	≥130 - <190m		
\cap	2	≥65 - <130m		
\circ	1	<65m		

Table L1c. Summary Rating for Buffer Integrity

Rating	Score
O 4	>3.5
(₹) 3	>2.5 - ≤3.5
<u> </u>	>1.5 - ≤2.5
O 1	≤1.5

SA CODE:

SA Name:

SF2MI[Y]

Two Mile Pond Reservoir Transect [$\frac{4}{9}$]

Date:

10/9/24

DS/AM

Surveyor Initials:

L4 - Surrounding Land Use

Norksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating				
R	ating	LUI Score			
\cap	4	≥95 - 100			
0	3	≥80 - <95			
®	2	≥40 - <80			
\circ	1	<40			

SA COF SF2MI [η]

SA Name: Two Mile Pond Reservoir T; $\operatorname{sct}[\ \ \ \ \ \ \]$

Date: 10/9/24

Surveyor Initials: [

Σ

B1 - Relative Native Plant Community Composition

Wt Score⁶ dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top | % SA5 | () () CT Score 4 Raw4 0 *S* Final Weighted Score⁷ Herbaceous/Sparse Stratum ³ Part of the Control o Species 6 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. 2 Species 5 Practi atta, e Google 2 Species 4 E Chimisa, Cathe. Short Woody Stratum 2 S. Hernit N Strike. Species 3 E 3 2 Species 2 Tall Woody Stratum 1 Species 1 E Polygon Nos. Σ z 0 U Ū I \checkmark ⋖ 8 Δ ш ட b

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. SA CODE: SF2MI[4]

Date: 10/9/24

SA Name:

Two Mile Pond Reservoir Transect [\(\frac{1}{2} \)]

Surveyor Initials:

DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
		Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
\overline{C}	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1%-5% cover, size classes few.				
Ø	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
\cap	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

27

Invasive cover (%)

61

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover			
Rating	Invasive Species Cover %		
C 4	0%		
¬ 3 X	>0% - <1%		
2	≥1% - <10%		
O 1	≥10		

Additional CTs and Biotic Metric Comments:

lots of birds are seen in the area.

SA CODE: SF2MI[]

SA Name:

Two Mile Pond Reservoir Transect [/]

Date: 10/9/24

Surveyor Initials: DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Þ		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		d		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		ď		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
				Channel and point-bars consist of well-sorted bed material.
		ď		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		T		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI[4]

SA Name : Two Mile Pond Reservoir Transect [\mathcal{V}_{\parallel}]

Date: 10/9/24

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)	
	Ø		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).	
			Multiple livestock and other (fishing, hiking) trails,	
			Vehicle tracks including off-road and construction, etc.	
			Impervious compacted surfaces or pavement	
	· 🔲		Grading or plowing	
			Fill	
			Gravel pits	
			Anthropogenic levees and berms	
			Irrigation-driven salinity and mineral crusts	
			Fire pits	
			Other:	
			Estimate % soil disturbance by segment area	

Average % Soil Disturbance:	D
-----------------------------	---

	Table A5. Soil Surface Condition Rating			
Rating	Description			
4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.			
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.			
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.			
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.			

NMRAM Montane Riverine Wetlands Version 2.5

		SA Cover W	/orksheet				
SA Code SF2MI [5]	SA Name : Two Mile Pond Reservoir			Project : Rip	Project: Riparian Assesement		
ode Tsct [5]	AU Name : Tran	AU Name : Transect [5] WOI : Two Mile Pond			∕lile Pond R	Reservoir	
County Santa Fe			evation (ft) 7299	(m) 2224.7	(m) 2224.7 Ecoregi		
A riparian system t decommissioned o of water rights. Driving Directions Driving to Santa Fe	lue to safety concerns r from Albuquerque yo	ocated on the east side of a regarding the reservoir and under the reservoir a	d a water diversion	to the area was I	ecently shu	ut down due to lack	
	you reach the reservoi Conservative and The	Santa Fe National Forest		esults to client nly.	Fish Obsei Wetlar	i	
Surveyor Role		Surveyo	r Name			Surveyor Initials	
Landscape	Dustin Schwar	tz				DS	
Biotic	Annie McCoy					AM	
Abiotic	Dustin Schwar	tz				DS	
Stressors	Dustin Schwai	rtz				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD ft	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 UTM	35.68972	2	-105.89	
Survey Date	10/9/24	Start Time	9:00	End 7	ime	15:00	
SA Landscape Contex	(3d111111d112c tric Wett	and and surrounding land	scape, include con	idition and impac	·····		
Ave I,	bloomed or	to Gall Vory dr	y and all , cosmes P	life has	grown,	e stem	
Ave I,	a 15 turning bloomed or all	to fall Vory dr	y and all , cosmes P	life has Islanh, Zanha			
Ave Iv a SA Biotic Condition (bloomed or all vegetation patterns, co	to fall Vory dr dra pping seeds mposition and structure, a full fall preparat erage is Jowa 1	y and all , cosmo p exotics and invasiv fon ground	life has lattern, Casha es, disturbance e	vidence, fire	e and herbivory)	
Ave I SA Biotic Condition (Vey SA Abiotic Condition	vegetation patterns, co petation patterns, co petation in porcent of con golden (hydrological alterationsite impacts; explain the	to fall Vory or dra pring seeds mposition and structure, e	exotics and invasive of 25% looding charactering factors that decoming	res, disturbance e cover is Willow istics and evidence fine the SA limits)	vidence, fire mostly s furn e of overba	e and herbivory) dry ring ink flooding; soil	
A Abiotic Condition (see SA Abiotic Condition disturbance and other	vegetation patterns, co petation in porcent of con golden (hydrological alteration site impacts; explain the Land is dr Bone frog m	mposition and structure, e full fall preparations (e.g., dams, walls etc.); for end of the control of the contr	exotics and invasive for ground to 2 55% looding characterisher factors that decoming hill high	res, disturbance e cover is Willow istics and evidence fine the SA limits) more pre hly deterlo	vidence, fire mostly s furn e of overba	e and herbivory) dry ring ink flooding; soil	
SA Biotic Condition (veg	vegetation patterns, co peration patterns, co getation in porcent of con golden (hydrological alteration site impacts; explain the Land is dr Bone frogen	mposition and structure, a full fall preparate arage is down to the hydrologic breaks or other factors. Found on summary and comments is very o	exotics and invasive and all exotics and invasive and all exotics and invasive and all exotics and invasive as a few and a second all all all all and all all all all all all all all all al	res, disturbance e cover is Willow Instict and evidence fine the SA limits) more pre hly deterlo	vidence, fire mostly s furn e of overba	e and herbivory) dry ring ink flooding; soil	

SA CODE: SF2MI[5]

SA Name : Two Mile Pond Reservoir Transect [\subseteq]

Date: 10/9/24

Surveyor Initials: DS/AM

Landscape Context

Buffer Integrity Ind	ex
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Worksheet 1a. Buffer and RCC Checklist. Check off land cover elements within the buffer area or RCC corridors that are either allowed, or are excluded and considered non-buffer elements that disrupt ecosystem connectivity. Indicate the imagery type and date (season and year of imagery). Google Earth KMZ. file 6/23 **Imagery** Image Date Allowed buffer/RCC land cover elements Excluded non-buffer/RCC land cover elements Buffer RCC Buffer RCC Commercial/residential developments, parking lots, X X Natural or semi-natural vegetation patches X dams, bridges, revetments, and other structures X Small irrigation ditches without levees Lawns, parks, golf courses, sports fields Old fields, unmaintained Railroads Maintained levees, sediment piles, construction Open range land materials, staging areas Foot trails, horse trails, unpaved bike trails (low Х Intensive livestock areas, horse paddocks, feedlots X intensity) Intensive agriculture: maintained pastures, hay fields, X $|\mathbf{x}|$ Non-channel open water row crops, orchards, and vineyards Paved roads or developed second-order unpaved but Non-functioning abandoned vegetated levees, or X Х $|\mathbf{x}|$ X naturally occurring levees graded roads Open water bounded by a levee or other manmade X lunpaved two tracks roads X structure Other Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
	Average	148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c 1 on the SA Summary Worksheet.

Buffer % Rating	ng + Buffer Width Rating		/2=	Buffer Integrity Index Score
3	+	3	/2 =	3

	Table L1a. Buffer Percent				
Rating		Buffer Percent			
0	4	100%			
⊗	3	≥80% - <100%			
\circ	2	≥50% - <80%			
0	1	<50%			

	Table L1b. Buffer Width			
Rating		Average buffer width		
\circ	4	≥190m		
⊗	3	≥130 - <190m		
0	2	≥65 - <130m		
\circ	1	<65m		

Table L1c. Summary Rating for Buffer Integrity

Rating	Score	
O 4	>3.5	
⊗ 3	>2.5 - ≤3.5	
C 2	>1.5 - ≤2.5	
O 1	≤1.5	

SA CODE:

SA Name:

SF2MI[5]

Two Mile Pond Reservoir Transect [5]

Date:

10/9/24

DS/AM

Surveyor Initials:

L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

Ta	Table L4. Surrounding Land Use Rating		
Rating		LUI Score	
\circ	4	≥95 - 100	
\circ	3	≥80 - <95	
®	2	≥40 - <80	
\circ	1	<40	

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SA Name: Two Mile Pond Reservoir Transct [\lesssim]

Surveyor Initials:

Σ

Date: 10/9/24

B1 - Relative Native Plant Community Composition

Wor dom whic	ksheet 6. inant spe h it is mou	CT Plar cies in e re abunc	nt Specach Stragach S	ies all atum ach po	nd Pc that a olygo	lygon As appears in n is either	ssignn າ the p r assig	nents. olygor ned to	Worksheet 6. CT Plant Species and Polygon Assignments. Starting with dominant species in each stratum that appears in the polygon. See footno which it is more abundant. Each polygon is either assigned to the same CT	ith CT notes f CT if it	A, enter th or special i has the sar	e numbe Instruction The comp	er of the fir ons. If a spe	st polygo ecies appe a new CT	Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon.	sheet 5. than on r the po	Enter the se strata, as lygon.	species c	odes for species	the two	top ratum in
						Tall Woody Stratum ¹	dy Str	atum ¹			Short Woody Stratum 2	ody Strat	:um 2		Herbaceous/Sparse Stratum ³	:/Sparse	Stratum ³		CT Score 4	e 4	
b	Polygon Nos.	Nos.				Species 1	ш Z	Ş	Species 2	ш Z	Species 3	шZ	Species 4	<u>ш</u> Z	Species 5	ш Z	Species 6	шZ	Raw4	SA5	Wt Score ⁶
Υ												2	140			\ \	The said	2	10-7	Such Such deat	S
മ								***************************************													
U																					
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ш																					
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٦									·												
ᅩ																					
ا ب																					
Σ																					
z																					
0																					
																Final	Final Weighted Score ⁷	4 Score ⁷			

stratum cover. ⁴Raw Score is from Table B1a (Appendix B); ⁵%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must equal 1; ⁶Wt. Score is the product of the Raw Score * % SA; ⁷The Final Weighted Score is the wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating for Relative Native Plant Community Composition on the SA Rank Summary Worksheet. 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total

SA CODE:

SF2MI[5]

Date:

10/9/24

SA Name:

Two Mile Pond Reservoir Transect [5]

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating	Description
C 4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.
O 3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.
O 2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.
Ø 1	Native poles, saplings, and/or seedlings absent (0% cover).

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

/	
1100	
$\Lambda I I I \Lambda$	
10/14	

nvasive cover (%)	71
	<u> </u>

calculate

Table	B5. Ratin	gs for Invasive Exotic Plant Species Cover
Ra	ting	Invasive Species Cover %
	4	0%
	3 ×	>0% - <1%
	2	≥1% - <10%
\circ	1	≥10

Additional CTs and Biotic Metric Comments:

Area is very dry Not much

SA CODE: SF2MI [5]

Date: 10/9/24

SA Name: Two Mile Pond Reservoir Transect [5]

Surveyor Initials:

DS/AM

A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Ø		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		Ø		There is leaf litter, thatch, or wrack in most pools.
Indicators of		ď		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		A		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		Ø		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE:	SF2MI[5]
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Date: 10/9/24

SA Name: Two Mile Pond Reservoir Transect [\int]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
	ď		Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

Average % Soil Disturbance:	0
-----------------------------	---

<i>X</i> • • • • • • • • • • • • • • • • • • •	Table A5. Soil Surface Condition Rating
Rating	Description
Ø 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.
C 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.

SA Code SF2MI [6]	SA Name: Two N	Mile Pond Reservoir $_{\lambda\lambda}$	ry we need	Project : Rip	arian Asses	ement	
Code Tsct [6]	AU Name : Trans	sect [6]	y we need to see so	WOI : Two N	Aile Pond R	eservoir	
County Santa Fe	HUC 12 Headv		levation (ft) 729		Ecor	egion 6.0 NWFM	
A riparian system t decommissioned d of water rights. Driving Directions Driving to Santa Fe	ue to safety concerns re	cated on the east side of egarding the reservoir ar u head north on Old Pecc	nd a water divers	sion to the area was r	ecently shu	t down due to lack	
-	-	Santa Fe National Forest	Data Sharing Restrictions	Results to client only.	Fish Obser Wetlan	1	
Surveyor Role		Surveyo	or Name			Surveyor Initials	
Landscape	Dustin Schwart	Z	200 - 200 -	And the state of t		DS	
Biotic	Annie McCoy		**************************************			AM	
Abiotic	Dustin Schwart	tz				DS	
Stressors	Dustin Schwar	tz				DS	
Easting (m)	Northing (m)	Zone	Datum	Latitude	(DD ft)	Longitude (DD f	
-105° 53' 24" W	35° 41' 23" N	13	NAD- 83 U	TM 35.68972	2	-105.89	
Survey Date	10/9/24	Start Time	9:00	End T	ime -	15:00	
μ <i>i1</i>	lows turning	most plant lile ened and are gold chini	sas are	all yellor tops	eed		
		mposition and structure,					
10 rch -015	or bees and	bank Hying	nollingura. I	M. tand N/	rvær s	a back	
Lots of bees and other flying pollinaters. Door poop in area, 6 ducks forth on pond. Cottails haven't "Cattailed" yet. Mustard Never came back. Since Chickoree is full bloom, Mullein has bloomed. Northern flicker and spotted towhere							
Chie	ROFEE IS FALL	blonger / lullers				d gotted lower	
SA Abiotic Condition	(hydrological alteration	s {e.g., dams, walls etc.];	flooding charac	teristics and evidence			
SA Abiotic Condition disturbance and other $\mathcal{M}_{\mu\nu}$	(hydrological alteration site impacts; explain the ,tard Never Water flo	is {e.g., dams, walls etc.]; e hydrologic breaks or ot came buck but ming into outli	flooding charac ther factors that F. A. Jean Apre,	teristics and evidence define the SA limits) of Remarks as	e of overba	Janti Lant	
SA Abiotic Condition disturbance and other	(hydrological alteration site impacts; explain the ,tard Never Water Flo plt 7.05	ns (e.g., dams, walls etc.); e hydrologic breaks or ot came buck bus	flooding charac ther factors that Fight dea fight, gasten	teristics and evidence define the SA limits) of Remails or 18,5 atu	e of overba	James Land	
SA Abiotic Condition disturbance and other	(hydrological alteration site impacts; explain the stard Never Plant Pla	s {e.g., dams, walls etc.]; e hydrologic breaks or of came buck bus wing into outle 10°C 35 summary and comment	flooding character factors that the factors that the factors guillen s after the field bloom	teristics and evidence define the SA limits) A Remains are 18,5 ntu data is collected.) and lots	e of overbal e very 2.65	Joniburi Joniburi Ing/L DO	
SA Abiotic Condition disturbance and other	(hydrological alteration site impacts; explain the stard Never Plant Pla	e hydrologic breaks or of come buck but wing into outle 10°C 35	flooding character factors that the factors that the factors guillen s after the field bloom	teristics and evidence define the SA limits) A Remains are 18,5 ntu data is collected.) and lots	e of overbal e very 2.65	dominations	

SA CODE: SF2MI[]

SA Name: Two Mile Pond Reservoir Transect [6]

Date: 10/9/24

Surveyor Initials: DS/AM

Landscape Context

_ , ' - E	uffe	Integrity Index			
or are	exclud				n the buffer area or RCC corridors that are either allowed, nnectivity. Indicate the imagery type and date (season
lmage	ry	Google Earth KMZ. file	lmage	Date	6/23
Allowe	d buff	er/RCC land cover elements	Exclud	ed nor	n-buffer/RCC land cover elements
Buffer	RCC		Buffer	RCC	
X	X	Natural or semi-natural vegetation patches		X	Commercial/residential developments, parking lots, dams, bridges, revetments, and other structures
X	X	Small irrigation ditches without levees			Lawns, parks, golf courses, sports fields
		Old fields, unmaintained			Railroads
		Open range land			Maintained levees, sediment piles, construction materials, staging areas
X	X	Foot trails, horse trails, unpaved bike trails (low intensity)			Intensive livestock areas, horse paddocks, feedlots
X	X	Non-channel open water			Intensive agriculture: maintained pastures, hay fields, row crops, orchards, and vineyards
X	X	Non-functioning abandoned vegetated levees, or naturally occurring levees	X	X	Paved roads or developed second-order unpaved but graded roads
. _		unpaved two tracks roads	X	X	Open water bounded by a levee or other manmade structure
		Other			Other

Worksheet 1b. Buffer Percent Sub-metric. Measure or estimate the percentage of the SA perimeter composed of allowed buffer elements and enter into the Buffer Percent Box below. Rate the sub-metric using Table L1a and enter the rating on the Buffer Integrity Summary Worksheet 1d.

Buffer Percent (%)= 85%

Worksheet 1c. Buffer Width Sub-metric. Measure the length of each buffer line in meters in the GIS or on the map. Average the line lengths and rate using Table L1b. Enter the rating on the Buffer Integrity Summary Worksheet 1d.

	- ,	•			
Line	Buffer Width (m)	Buffer Width (ft)	Line	Buffer Width (m)	Buffer Width (ft)
Α	164.26	538.91	E	161.93	531.26
В	125.25	410.92	F	231.48	759.44
С	115.39	378.57	G	121.25	397.80
D	111.07	364.40	Н	155.87	511.38
Average		148.31 (m)		486.58	(ft)

Worksheet 1d. Buffer Integrity Summary. Enter the sub-metric Ratings from Tables L1a and L1b above to calculate the Buffer Integrity Index Score using the formula in the box below. Using the Buffer Integrity Index Score, enter rating for Buffer Integrity in Table L1c on the SA Summary Worksheet.

Bu	ffer % Rating	+ Buff	er Width Rating	/2 =	Buffer Integrity Index Score
	3	+	3	/2 =	3

	Table L1a. Buffer Percent			
Rating		Buffer Percent		
\circ	4	100%		
⊗	3	≥80% - <100%		
0	2	≥50% - <80%		
0	1	<50%		

Table L1b. Buffer Width			
Rating Average buffer width			
\circ	4	≥190m	
(X)	3	≥130 - <190m	
\circ	2	≥65 - <130m	
\circ	1	<65m	

Table L1c. Summary Rating for Buffer Integrity			
Rating Score			
O 4	>3.5		
⊘ 3	>2.5 - ≤3.5		
C 2	>1.5 - ≤2.5		
C 1	≤1.5		

SA CODE:

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SF2MI[6]

Two Mile Pond Reservoir Transect [6]

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L4 - Surrounding Land Use

Worksheet 4. Surrounding Land Use. Enter the percent area occupied by a given Land Use Element in the Land Use Zone (LUZ) surrounding the SA. Calculate the Land Use Index (LUI) Score by element as the product of the element coefficient times the percent of the LUZ Area occupied. (The %LUZ Area must total 100%.) Sum the LUI scores for each element to create the final LUI Score. Rate using Table L4 and enter the rating in the SA Rank Summary Worksheet.

Land Use Element	Coef	% LUZ Area	LUI Score
Paved roads, parking lots, domestic or commercially developed buildings, mining (gravel pit, quarry, open pit, strip mining), railroads	0	0	0
Unpaved roads (e.g., driveway, tractor trail, unpaved parking lots), paddock, dirt lot	0.1	0	0
Dredging, borrow pits, abandoned mines, water-filled artificial impoundments (ponds and reservoirs)	0.1	0	0
Filling or dumping of sediment or soils	0.1	0	0
Intense recreation (all-terrain vehicle use, camping, popular fishing spot, etc.)	0.3	0	0
Rip-rapped channel (highly modified channel with severely limited vegetation zone that is altered by human activities but not a completely concrete channel [that goes under paved roads]), junkyards, trash dumps, disturbed ground (not including roads)	0.3	0	0
Ski area	0.4	0	0
Dam sites and flood-disturbed shorelines around water storage reservoirs	0.5	0	0
Abandoned artificial impoundments (ponds and reservoirs) and associated disturbed flood zones	0.5	10	5
Artificial/Constructed wetlands, irrigation ditches	0.7	20	14
Developed/Managed trail system (high use trail)	0.8	5	4
Agriculture - active tilled crop production	0.2	0	0
Agriculture - permanent crop (vineyards, orchards, nurseries, berry production)	0.3	0	0
Manicured lawns, sport fields, and golf courses; urban manicured parks	0.3	0	0
Old fields and other disturbed fallow lands dominated by ruderal and/or exotic species (e.g., kochia, Russian thistle, mustards, annual vegetation)	0.5	0	0
Mature old fields and other fallow lands with natural composition, introduced hay field and pastures (e.g., perennial vegetation cover)	0.7	0	0
Restoration areas in process to natural conditions (re-conversion in process)	0.8	65	52
Haying of native grassland (e.g., no tillage, haying and baling only)	0.9	0	0
Heavy logging or tree removal with >50% of large trees (e.g., >30 cm diameter at breast height) removed, woodland/shrub vegetation conversion (chaining, cabling, rotochopping)	0.3	0	0
Commercial tree plantation, Christmas tree farms	0.6	0	0
Selective logging or tree removal with <50% of large trees (e.g., >30 cm diameter at breast height) removed	0.8	0	0
Mature restoration areas returned to natural conditions (re-converted)	0.9	0	0
Natural area, land managed for native vegetation - No agriculture, logging, development	1	0	0
LUI Score= Coefficient * % LUZ Area		100	75

T	Table L4. Surrounding Land Use Rating		
R	ating	LUI Score	
\overline{C}	4	≥95 - 100	
\circ	3	≥80 - <95	
®	2	≥40 - <80	
\circ	1	<40	

SA COD $^{-}$ SF2MI [$oldsymbol{eta}$]

SA Name: Two Mile Pond Reservoir Tr \sim ct [eta]

Date: 10/9/24

10/9/24 Surveyor Initials: D

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B1 - Relative Native Plant Community Composition

% SA5 |Wt Score6 dominant species in each stratum that appears in the polygon. See footnotes for special instructions. If a species appears in more than one strata, assign the species to the stratum in Worksheet 6. CT Plant Species and Polygon Assignments. Starting with CT A, enter the number of the first polygon from Worksheet 5. Enter the species codes for the two top 20% 20% CT Score 4 Raw4 3,0 4.0 Final Weighted Score⁷ \geq Herbaceous/Sparse Stratum 3 Species 6 35006 12018 which it is more abundant. Each polygon is either assigned to the same CT if it has the same composition or a new CT is created for the polygon. かられ 2/6 14 W ш Z Species 5 R. Main 1000 Chan + 2 <u>ш</u> 2 Species 4 Con 50 6+41 Short Woody Stratum 2 2 2 が変え Species 3 <u>u</u> Z Species 2 Tall Woody Stratum 1 Species 1 Polygon Nos. ⋖ മ U Δ ш ய G ェ \checkmark Σ z 0

equal 1; 6Wt. Score is the product of the Raw Score * % SA; 7The Final Weighted Score is the sum of the Wt. Scores. Rate the CT Final Weighted Score on Table B1 and enter the Rating 1. Trees and shrubs > 6 m (20 feet) and > 25% total stratum cover; 2. Trees and shrubs ≤6m (20 feet) and >25% total stratum cover; 3. Herbaceous (graminoids and forbs)>10% total stratum cover. 4Raw Score is from Table B1a (Appendix B); 5%SA is the percentage of the SA area covered by the CT and expressed as a decimal number; the total area %SA must for Relative Native Plant Community Composition on the SA Rank Summary Worksheet.

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SA CODE: SF2MI[6]

SA Name:

Two Mile Pond Reservoir Transect [6]

Date:

10/9/24

Surveyor Initials: DS/AM

B4 - Native Riparian Tree Regeneration

B4. Native Riparian Tree Regeneration rating. Using the polygon percent cover of native tree seedlings, saplings and poles from Worksheet 5, rate the SA based on polygon percent cover and patch density. Enter the rating on the SA Rank Summary Worksheet.

Rating		Description				
0	4	Native poles, sapling, and seedlings trees well represented, obvious regeneration, many patches or polygons with >5% cover, typically multiple size (age) classes.				
\circ	3	Native poles, saplings and/or seedlings common, scattered patches or polygons with 1% -5% cover, size classes few.				
Ø	2	Native poles, saplings and/or seedlings present but uncommon, restricted to one or two patches or polygons with typically <1% cover, little size class differentiation.				
\overline{C}	1	Native poles, saplings, and/or seedlings absent (0% cover).				

B5 - Invasive Exotic Plant Species Cover

Worksheet 9. Based on Worksheets 5 and 6, calculate or estimate the percentage cover of invasive exotic species for the SA and enter below. Rate using Table B5 and enter the rating on the SA Rank Summary Worksheet.

Rating Method

nvasive cover (%)	>1
ill vasive cover (70)	

calculate

Table B5. Ratings for Invasive Exotic Plant Species Cover			
Rating	Invasive Species Cover %		
O 4	0%		
3	>0% - <1%		
2	≥1% - <10%		
O 14	≥10		

Additional CTs and Biotic Metric Comments:

Lots of Northern Flickers in the area. They are heard throughout the park but werent seen here.

SA CODE: SF2MI[6]

MI[6] Date:

SA Name: Two Mile Pond Reservoir Transect [6]

Surveyor Initials :

DS/AM

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A3- Channel Equilibrium

Worksheet 12. Channel Equilibrium Checklist. Check all field indicators that apply to the upper, middle and lower segment of the SA observed at the channel edge of the traverse. Rate using the Table A3 descriptions and based on a preponderance of evidence from this checklist. Enter the rating on the SA Rank Summary Worksheet.

Condition	Upper Segment	Middle Segment	Lower Segment	Field Indicators(check all existing conditions)
		Ø		The channel has a well-defined bankfull contour that clearly demarcates the point of incipient flooding where moderate frequent flow events spread flow across the floodplain.
		Z,		Perennial riparian vegetation is abundant and well established along the bankfull contour, but not below it.
		团		There is leaf litter, thatch, or wrack in most pools.
Indicators of		Ø		The channel contains embedded woody debris of the size and amount consistent with what is naturally available in the riparian area.
Channel Equilibrium		Ø		There is little or no active undercutting or burial of riparian vegetation.
				There are no bars that are densely vegetated with perennial vegetation (neither mid-channel bars or point bars).
		a		Channel and point-bars consist of well-sorted bed material.
		Ø		The channel bed is not planar and without an abundance of fine materials filling the interstitial spaces between larger stream substrate.
		Ø		There are channel pools at meander bends and some deep pools within the reach.
				The channel is characterized by deeply undercut banks with exposed living roots of trees or shrubs.
				There are abundant bank slides or slumps, or the lower banks are uniformly scoured and not vegetated.
				Bank vegetation is declining in stature or vigor, or many riparian trees and shrubs along the banks are leaning or falling into the channel.
Indicators of Active Degradation				Channel bed is scoured to large cobbles or boulders and entrained bank material is filling the cobble interstices and pools.
				There are active headcuts within the channel.
				An obvious historical floodplain has recently been abandoned, as indicated by the age structure of its riparian vegetation.
				There is abundant fresh splays of coarse sediment covering the floodplain above the natural point bar elevation.
				There are partially buried living tree trunks or shrubs along the banks.
Indicators of Active Aggradation				The channel bed is planar overall. The stream lacks well-defined channel pools at meander bends, or pools are filled with sediment.
				There are partially buried or sediment-choked culverts.
				There are avulsion channels on the floodplain or adjacent valley floor.

SA CODE: SF2MI [6] **Date:** 10/9/24

SA Name: Two Mile Pond Reservoir Transect [6]

Surveyor Initials: DS/AM

A5 - Soil Surface Condition

Worksheet 14. Soil Surface Condition. Check all that apply in the upper, middle and lower SA segments during the field reconnaissance. The absence of these indicators would signify that disturbances are naturally occurring (e.g., flood deposition or low-density wildlife trails). Estimate the percent soil disturbance by segment area and referring to the SA abiotic map. Rate using Table A5 and enter on the SA Rank Summary Worksheet.

Upper Segment	Middle Segment	Lower Segment	Field Indicators (Check all existing conditions)
			Active erosion features due to anthropogenic disturbance (eg. rills, gullies, plant pedestals).
			Multiple livestock and other (fishing, hiking) trails,
			Vehicle tracks including off-road and construction, etc.
			Impervious compacted surfaces or pavement
			Grading or plowing
			Fill
			Gravel pits
			Anthropogenic levees and berms
			Irrigation-driven salinity and mineral crusts
			Fire pits
			Other:
			Estimate % soil disturbance by segment area

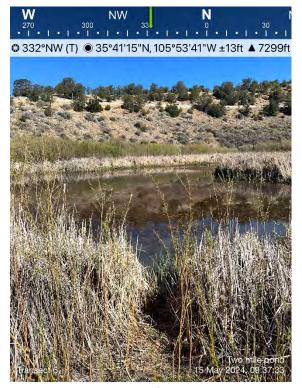
Table A5. Soil Surface Condition Rating			
Rating	Description		
f 4	Bare soil areas due to anthropogenic disturbance absent or very limited. No human-caused impervious surfaces or gravel pits are found within the SA. Total disturbance, including erosion, impervious surfaces, fill, or other anthropogenic degradation to the soil surface is less than 1% of the SA.		
O 3	Some amount of bare soil from human causes is present but the extent is limited. Area of impervious surfaces are minimal in extent. Total disturbance, including erosion, impervious surfaces, fill, gravel pits, vehicle tracks or other anthropogenic degradation to the soil surface is between 1% and 5% of the sampling area.		
C 2	Bare soils from human causes are common. These may include dense livestock trails, vehicle tracks, trails, construction staging areas, mechanical rutting, or irrigation-driven salinity. Soil disturbance, while apparent, is limited to specific areas and not found across the majority of the SA. Total disturbance, including erosion, impervious surfaces, fill, gravel mining, or other anthropogenic degradation to the soil surface is greater than 5% or less than 10% of the SA.		
O 1	Bare soil areas degrade portions of the site because of altered hydrology or other long-lasting impacts. Deep ruts from off-road vehicles or machinery are present. Livestock disturbance or trails are widespread and several inches deep. Water is channeled into rills or ponded. Additional human-caused impervious surfaces or soil compaction are present. Total disturbance, including erosion, impervious surfaces, fill, gravel mining or other anthropogenic degradation to the soil surface is equal to or greater than 10% of the SA.		

Appendix E.

Field Photos



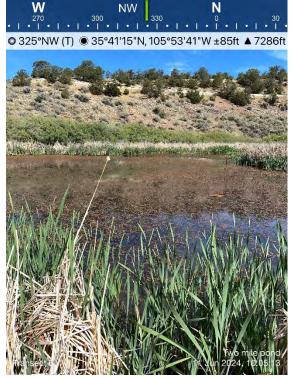
March 7th 2024 Transect 6



May 15th 2024 Transect 6



April 9th 2024 Transect 6



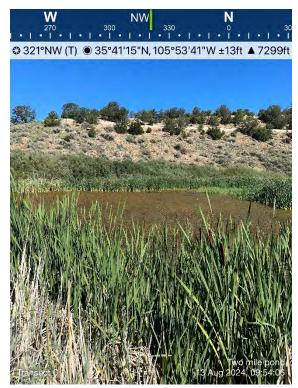
June 11th 2024 Transect 6



July 16th 2024 Transect 6



September 11th 2024 Transect 6



August 13th 2024 Transect 6



October 9th 2024 Transect 6



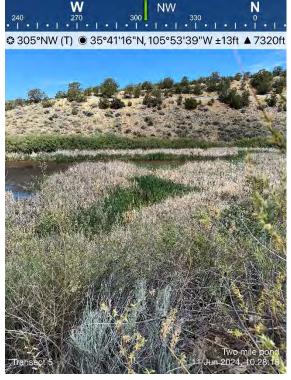
March 7th 2024 Transect 5



May 15th 2024 Transect 5



April 9th 2024 Transect 5



June 11th 2024 Transect 5



March 7th 2024 Transect 5



September 11th 2024 Transect 5



April 9th 2024 Transect 5



October 9th 2024 Transect 5



March 7th 2024 Transect 4



May 15th 2024 Transect 4



April 9th 2024 Transect 4



June 11th 2024 Transect 4



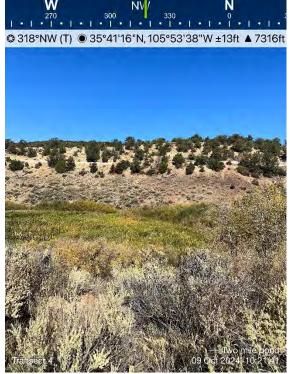
July 16th 2024 Transect 4



September 11th 2024 Transect 4



August 13th 2024 Transect 4



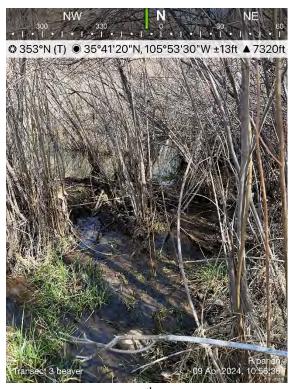
October 9th 2024 Transect 4



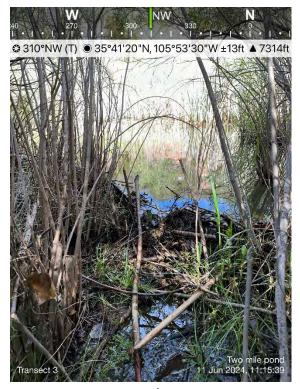
March 7th 2024 Transect 3



May 15th 2024 Transect 3



April 9th 2024 Transect 3



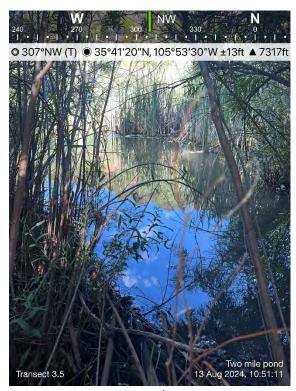
June 11th 2024 Transect 3



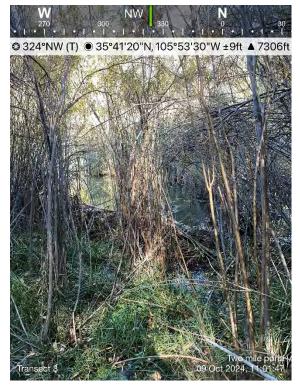
July 16th 2024 Transect 3



September 11th 2024 Transect 3



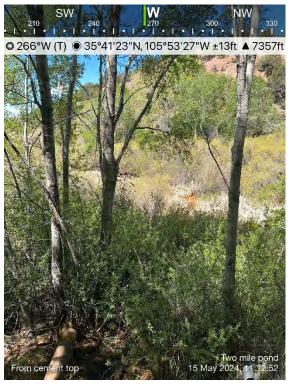
August 13th 2024 Transect 3



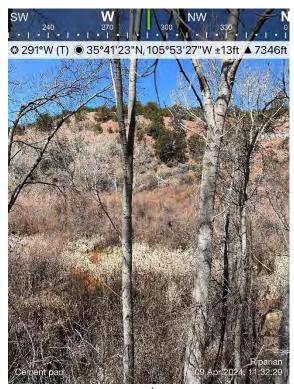
October 9th 2024 Transect 3



March 7th 2024 View from top of dam.



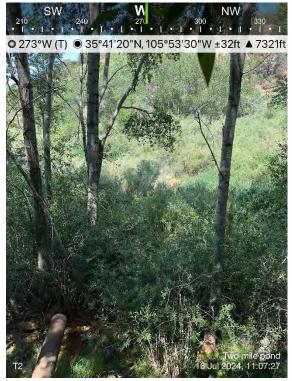
May 15th 2024 View from top of dam.



April 9th 2024 View from top of dam.



June 11th 2024 View from top of dam.



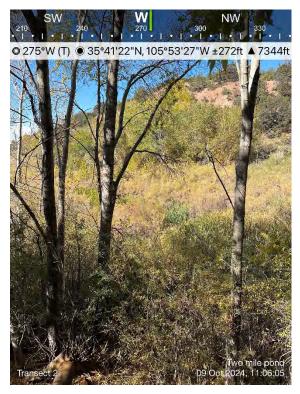
July 16th 2024 View from top of dam.



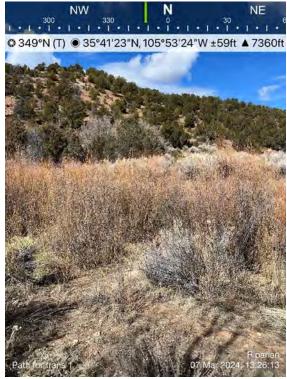
September 11th 2024 View from top of dam.



August 13th 2024 View from top of dam.



October 9th 2024 View from top of dam.



March 7th 2024 Transect 1



May 15th 2024 Transect 6



June 11th 2024 Transect 1



May 15th 2024 Transect 2.5



March 7th 2024 Transect 1



September 11th 2024 Transect 1



June 11th 2024 Transect 1



October 9th 2024 Transect 1



Large Box Elder bug.



Spotted Towhee



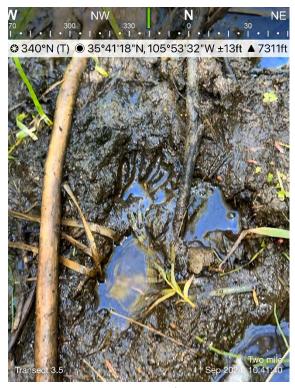
Goldfish in pond.



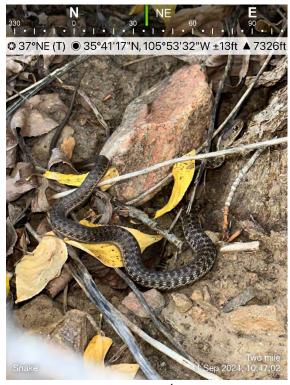
Mule Deer



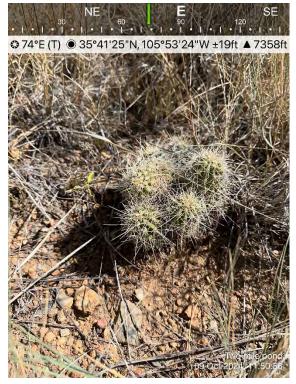
August 13th 2024 Blooming



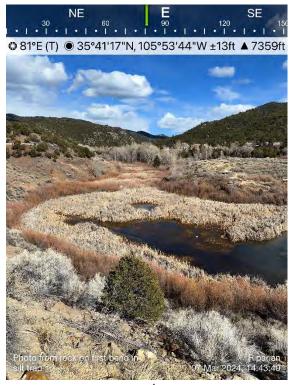
September 11th 2024 Racoon Track



September 11th 2024 Garter Snake



October 9th 2024 Hedgehog Cactus



March 7th 2024 Two Mile Pond



May 15th 2024 Two Mile Pond



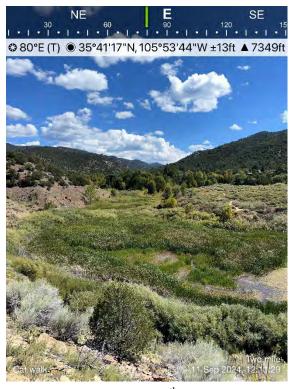
April 9th 2024 Two Mile Pond



June 11th 2024 Two Mile Pond



July 16th 2024 Two Mile Pond



September 11th 2024 Two Mile Pond



August 13th 2024 Two Mile Pond



October 9th 2024 Two Mile Pond

Appendix F.

Santa Fe, New Mexico, Mosquito Study Two Mile Pond



City of Santa Fe, New Mexico



Integrated Pest Management

Two Mile Pond Mosquito Survey

City of Santa Fe employees with assistance from New Mexico Department of Health (DOH) conducted presence sampling for adult mosquitos at Two Mile Pond (TMP). Trapping was conducted according to DOH protocols, including a standard sampling array using gravid traps and light traps specifically designed for capturing mosquitos. Weather conditions were ideal, and trapping proved successful.

In total, sixty-six mosquitos were captured with seven species representing the four genera identified (Table 1). All species identified are common throughout NM and would be expected in an environment such as Two Mile Pond. All species captured are considered nuisance species except C. tarsalis, a common vector for West Nile Virus (WNV) in New Mexico.

Santa Fe has a low number of WNV cases and very little mosquito sampling has been conducted previously. As such, historical data may be hard to come by. With the data from this recent sampling, we are unable to draw any conclusions as to how changes in TMP flows have impacted the mosquito populations in the area. However, this testing does confirm the presence of mosquitos at the time of sampling. To further examine the status of the mosquito population at TMP a long-term study would need to be developed and implemented.

Table 1: Sample results from June 18th, 2024 field collection

		Percent of	
		total	
Species	Count	sample	WNV vector
Aedes increpitus	1	1.52%	
Aedes trivittatus	11	16.67%	
Anopheles			
freeborni	6	9.09%	
Culextarsalis	18	27.27%	yes
Culiseta incidens	4	6.06%	
Culiseta increpitus	1	1.52%	
Culiseta inornata	25	37.88%	



SPOTTING FLORA AND FAUNA AT

Santa Fe Canyon Preserve

To the same	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Cottonwood	Álamo de Norteamérica	Populus fremontii	Tay
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Douglas fir	Abeto de Douglas	Pseudotsuga menziesii	T'say
the walk of	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	One-seed juniper	Junípero monosperma	Juniperus monosperma	Huu
The state of the s	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Pinyon pine	Pino piñonero	Pinus edulis	T'o
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Ponderosa pine	Pino ponderoso	Pinus ponderosa	Wan
. A. M. M.	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Rocky Mountain juniper	Enebro de las Montañas Rocosas	Juniperus scopulorum	Huu
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	American robin	Zorzal americano	Tardus migratorius	Sawaa
	COMMON NAME	NOMBRE COM ÚN	SCIENTIFIC NAME	TEWA NAME
	Black-chinned hummingbird	Colibrí de barbilla negra	Archilochus alexandri	Than kohay
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
77	Broad-tailed hummingbird	Colibrí de cola ancha	Selasphorus platycerus	Than kohay
50	COMMON NAME	NOMBRE COM ÚN	SCIENTIFIC NAME	TEWA NAME
	Canadian geese	Barnacla canadiense	Branta canadensis	Kahgee
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Golden eagle	Águila real	Aquila chrysaetos	Tsay

	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Kestrel	Cernícalo	Falco sparverius	T'in
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Mallard duck	Ánade real	Anas platyrhyncos	Ovin
	A ANNO ANNO ANNO ANNO ANNO ANNO ANNO AN	NAMEDE CONTU	L COUNTY NAME L	TOUR SILVE
1 8/	Merriams	Nombre común Pavo salvaje	Meleagris	P'in dee
	turkey	Merriam	gallopavo	r m dee
A	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Red-tailed hawk	Ratonero de cola roja	Buteo jamaicensis	Whan p'i
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Red-winged blackbird	Mirlo alirrojo	Agelaius phoeniceus	Kuu wo Piyo
1	COMMON NAME	NOMBRE COM ÚN	SCIENTIFIC NAME	TEWA NAME
A SAME	Rufous hummingbird	Colibrí rufo	Selasphorus rufus	Than kohay
24.00	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Spotted towhee	Pipilo maculatus	Pipilo erythrophthalmus	Whado win
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Western bluebird	Azulejo oriental	Sialia mexicana	Seh
1	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Woodhouse's scrub jay	Aphelocoma [californica] woodhouseii	Cyanocitta stelleri	Ts'ay kw'a aa
200	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Aberts squirrel	Ardilla de Abert	Sciurus aberti	Whayo
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
1.0	Beaver	Castor	Castor canadensis	Oyo
10000	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Chipmunk	Ardilla rayada	Tamias minimus	Wee yo
	COMMON NAME	NOMBRE COMÚN	SCIENTIFIC NAME	TEWA NAME
	Mule deer	Ciervo mulo	Odocoileus hemionus	Paa





Randall Davey Audubon Center TNC Santa Fe Canyon Preserve

Bird Sighting Report and Checklist 2011



Please report your sightings to Audubon NM, PO Box 9314, Santa Fe, NM, 87504

Contributors: Jonathan Batkin, Suzanne Fahey, Bernie Foy, Christopher Rustay, e-bird. Compiled by Steve Cary.

Reported by:
Observation Date:
Observation Type (please check one)
☐ Traveling Count (All Bird Walks) Observations made over known period of time, traveling (walking) a known distance.
□ Stationary Count: Sightings made from relatively small area - about 30 square yards.
☐ Casual Observation: Incidental observations made while you are doing something else!
Start Time:End Time:
Number of people in birding party:
Approximate Distance Covered: RDAC loop trail = 0.5 miles TNC Santa Fe Canyon Preserve loop trail = 1.5 miles
Bird Walk Included: □ RDAC Trails and Center □ TNC Santa Fe Canyon Preserve Trails
Weather: □ clear □ partly cloudy □ cloudy □ precipitation (comments):
Temperature: (estimates, e.g. mid 80°s)
Other remarks (e.g. cool things seen)

Key:

c: common (usually seen each visit)

u: uncommon (seen on many visits, but not every)

o: occasional (seen a few times each season)

r: rare (seen a few times over 5 seasons)

x: extremely rare (only 1 or 2 sightings ever)

 	2 51511111				
Bird Type	Number	W	Sp	Su	F
GEESE, DUCKS					
Greater White-fronted Goose					Х
Snow Goose		х			
Wood Duck			Х		
Gadwall			х		
American Wigeon			Х	Х	
Mallard		0	С	С	С
Blue-winged Teal			r	r	r
Cinnamon Teal			Х	Х	
Northern Shoveler			r	Х	
Northern Pintail					r
Green-winged Teal			r	r	r
Redhead					r
Ring-necked Duck			r		r
Lesser Scaup			r		r
Bufflehead			r		r
Common Merganser			r		
Ruddy Duck			r		
GROUSE TO QUAIL					
Blue Grouse		r			
Wild Turkey		0		Х	
Scaled Quail			r		
GREBES TO HERONS					
Pied-billed Grebe				Х	
Eared Grebe				r	r
Double-crested Cormorant				Х	
Great Blue Heron			0	0	0
VULTURES TO FALCONS					
Turkey Vulture			u	С	u
Osprey			0	х	0
Golden Eagle			Х		х
Bald Eagle					r

	Bird Type	Number	w	Sp	Su	F
Northerr	n Harrier		r		r	r
□ Sharp-sl	hinned Hawk		0	0	0	u
Cooper's	s Hawk		u	u	u	u
Northerr	n Goshawk				Х	r
☐ Broad-w	inged Hawk			х		
Swainsc	on's Hawk			u		х
□ Red-taile	ed Hawk		С	С	С	С
Ferrugin	ious Hawk				х	
America			r	0	0	0
Merlin			r			
Peregrin	ne Falcon			r	х	r
□ Prairie F				х		х
RAILS	TO SHOREBIRDS					
□ Virginia	Rail		0	0	0	0
□Sora				r		r
Coot				С	С	С
Sandhill	Crane					r
Killdeer				r		
Solitary	Sandpiper				Х	
Willet				Х		
Spotted	Sandpiper			r		r
Western	Sandpiper			Х		
□ Wilson's	Snipe		r	r		r
Caspian				х		
	TO ROADRUNNER					
☐ Rock Pig			С	С	С	С
	iled Pigeon			Х		r
	n Collared-Dove		С	С	С	С
	inged Dove		С	С	С	С
□ Mournin				С	u	u
	Roadrunner VLS TO SWIFTS			Х		r
			_	<u> </u>	<u> </u>	-
	Screech Owl		r	r	r	r
	orned Owl		0	0	0	0
	n Pygmy Owl		r	r	r	r
	n Nighthawk			u	u	u
	n Poorwill			Х	Х	Х
☐ Black S\	witt				Х	

Bird Type	Number	W	Sp	Su	F
 HUMMINGBIRDS					
Green Violet-ear					Х
Black-chinned Hummingbird			С	С	С
Calliope Hummingbird				u	u
Broad-tailed Hummingbird			С	С	С
Rufous Hummingbird				С	u
INGFISHER, WOODPECKER					
Belted Kingfisher		Х	0	0	0
Lewis' Woodpecker		r	r	r	r
Williamson's Sapsucker			0	r	u
Yellow-bellied Sapsucker			r		Х
Red-naped Sapsucker			0	0	0
Ladder-backed Woodpecker		u	С	С	С
Downy Woodpecker		С	С	С	С
Hairy Woodpecker		С	С	С	С
Am. Three-toed Woodpecker				Х	
Northern Flicker		С	С	С	С
TYRANT FLYCATCHERS					
Olive-sided Flycatcher			r	0	r
Western Wood-Pewee			С	С	u
Hammond's Flycatcher			r	r	
Gray Flycatcher			r	0	r
Cordilleran Flycatcher			0	u	0
Black Phoebe		Х	r	Х	r
Eastern Phoebe		Х	r		r
Say's Phoebe			u	u	Х
Ash-throated Flycatcher			С	С	u
Cassin's Kingbird			u	u	u
Western Kingbird			u	u	u
Eastern Kingbird				х	
VIREOS					
Plumbeous Vireo			u	С	u
Cassin's Vireo					r
Warbling Vireo			С	С	С
Red-eyed Vireo				х	
JAYS, MAGPIES, CROWS					
Gray Jay		х			
Steller's Jay		С	С	С	С
Blue Jay					

Bird Type	Number	w	Sp	Su	F
□ Western Scrub Jay		С	С	С	С
□ Pinyon Jay		u	u	u	u
□ Clark's Nutcracker		r	r	r	0
☐ Black-billed Magpie		С	С	С	С
☐ American Crow		u	u	u	u
□ Common Raven		С	С	С	С
LARKS TO SWALLOWS					
☐ Horned Lark		r			
☐ Tree Swallow			r	r	r
□ Violet-green Swallow			С	С	С
☐ N. Rough-winged Swallow			u	u	u
☐ Bank Swallow			Х		
□ Cliff Swallow				х	
□ Barn Swallow			С	С	С
TITMICE TO CREEPERS					
□ Black-capped Chickadee		С	С	С	С
☐ Mountain Chickadee		С	С	С	С
☐ Juniper Titmouse		С	С	С	С
□ Bushtit		С	С	С	С
□ Red-breasted Nuthatch		u	u	r	u
☐ White-breasted Nuthatch		С	С	С	С
□ Pygmy Nuthatch		С	С	С	С
☐ Brown Creeper		0	0	0	0
WRENS to GNATCATCHERS	-				
□ Rock Wren				Х	Х
□ Canyon Wren		Х			r
□ Bewick's Wren		С	С	С	С
☐ House Wren			С	С	u
□ Winter Wren					r
□ Marsh Wren			r		r
☐ Golden-crowned Kinglet		0	0	Х	r
□ Ruby-crowned Kinglet			С	С	С
□ Blue-gray Gnatcatcher			u	u	u
	_				
THRUSHES to THRASHER	S				
□ Western Bluebird		u	u	u	u
□ Mountain Bluebird		0		r	r
☐ Townsend's Solitaire		С	С	u	С
☐ Hermit Thrush			u	u	u
□ American Robin		С	С	С	С

	Bird Type	Number	w	Sp	Su	F
	Gray Catbird					х
	Northern Mockingbird				Х	
	Brown Thrasher					r
	Curve-billed Thrasher		r	r	Х	0
	STARLING TO WAXWINGS					
	European Starling		С	С	С	С
	Bohemian Waxwing		r			х
	Cedar Waxwing		r	u	r	u
	WARBLERS to TANAGERS					
	Orange-crowned Warbler			u	u	u
	Nashville Warbler					х
	Virginia's Warbler			С	С	u
	Yellow Warbler			r	r	r
	Yellow-rumped Warbler		r	С	С	С
	Myrtle					
	Audubon's					
				u	u	u
	Townsend's Warbler			r		u
	Grace's Warbler			С	С	u
	American Redstart			Х		х
	MacGillivray's Warbler			u	u	u
	Common Yellowthroat			0	u	
	Hooded Warbler			х	Х	х
	Wilson's Warbler			С	r	С
	Yellow-breasted Chat				х	r
	Hepatic Tanager			х	r	
	Western Tanager			u	u	u
	SPARROWS					
				r		r
	Spotted Towhee		С	С	С	С
	Canyon Towhee		С	С	С	С
	Rufous-crowned Sparrow					х
	Chipping Sparrow			С	С	u
	Brewer's Sparrow				Х	
				r	r	0
	Lark Sparrow			<u> </u>	Х	х
	Savannah Sparrow				^	X
] [Fox Sparrow					X

	Bird Type	Number	W	Sp	Su	F
	Song Sparrow		0	С	С	С
	Lincoln's Sparrow			0	r	0
	Swamp Sparrow					Х
	White-throated Sparrow		r			r
	White-crowned Sparrow		u	u		u
	Golden-crowned Sparrow		Х	Х		
	Dark-eyed Juncos		С	u	0	u
	Slate-colored		r			
	Oregon		С			
	Pink-sided		С			
	Gray-headed		С	u	0	u
	White-winged		х			
	GROSBEAKS, BUNTINGS					
	Rose-breasted Grosbeak			Х		
	Black-headed Grosbeak			u	С	u
	Blue Grosbeak				r	
	Lazuli Bunting			r	r	r
	Indigo Bunting			Х		
	BLACKBIRDS, ORIOLES					
	Red-winged Blackbird		0	С	С	С
	Western Meadowlark				r	r
	Yellow-headed Blackbird			r		
	Brewer's Blackbird					Х
	Common Grackle			r		r
	Great-tailed Grackle			Х	Х	
	Brown-headed Cowbird			0	0	
	Bullock's Oriole		r	u	u	u
	Scott's Oriole			Х	Х	
	FINCHES					
	Cassin's Finch		u	u		0
	House Finch		С	С	С	С
	Red Crossbill		r	0	r	0
	Pine Siskin		u	u	С	u
	Lesser Goldfinch			u	С	С
	American Goldfinch		0	u	u	u
	Evening Grosbeak		u	r	r	u
	OLD WORLD SPARROWS					
\Box	House Sparrow		u	u	u	u

Appendix G.

Soil moisture maps

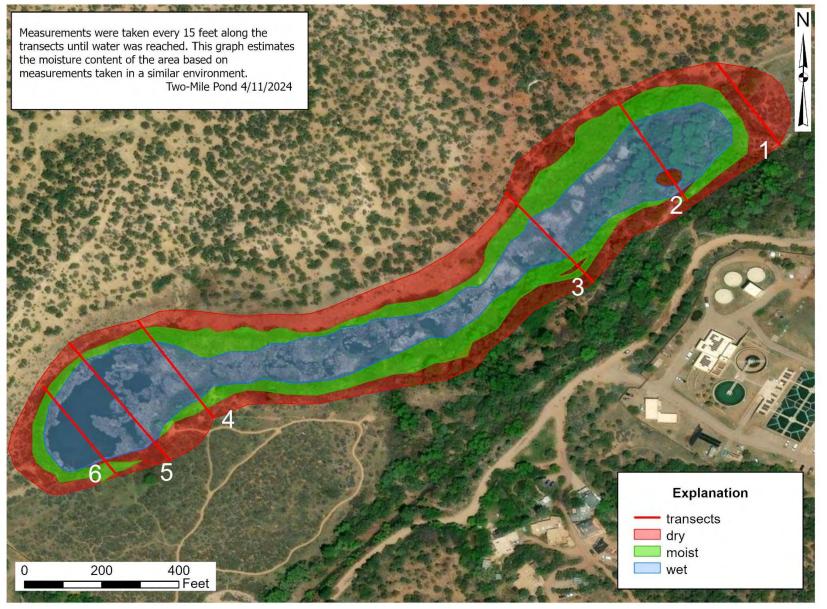


Figure G1. Moisture map April 11, 2024.

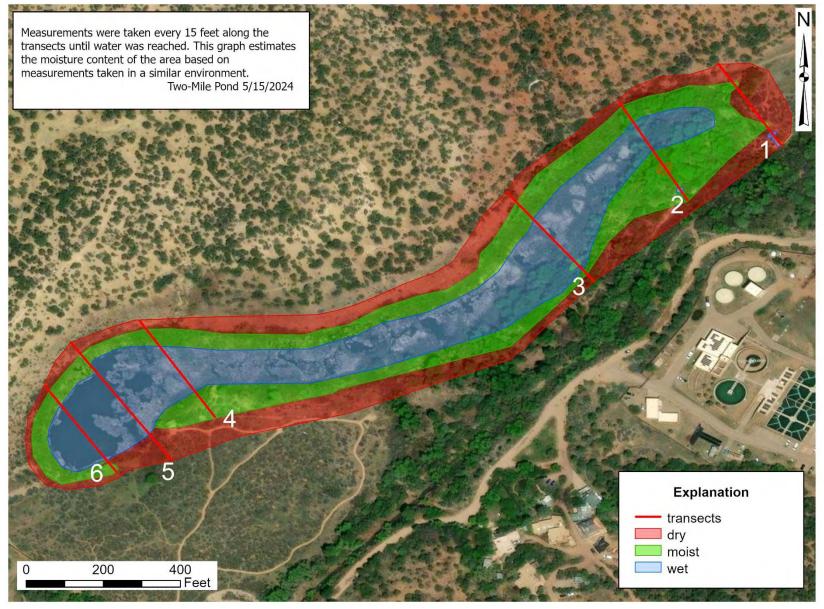


Figure G2. Moisture map May 15, 2024.

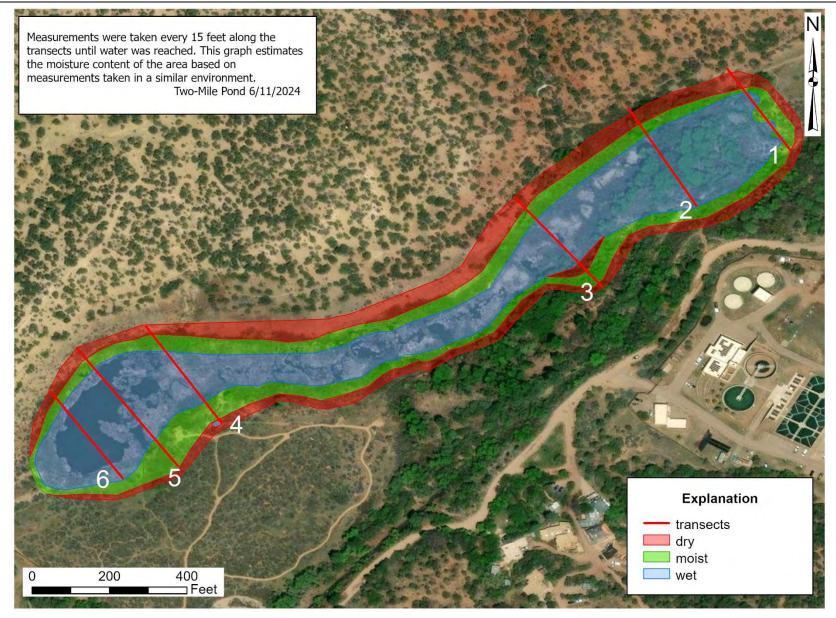


Figure G3. Moisture map June 11, 2024.

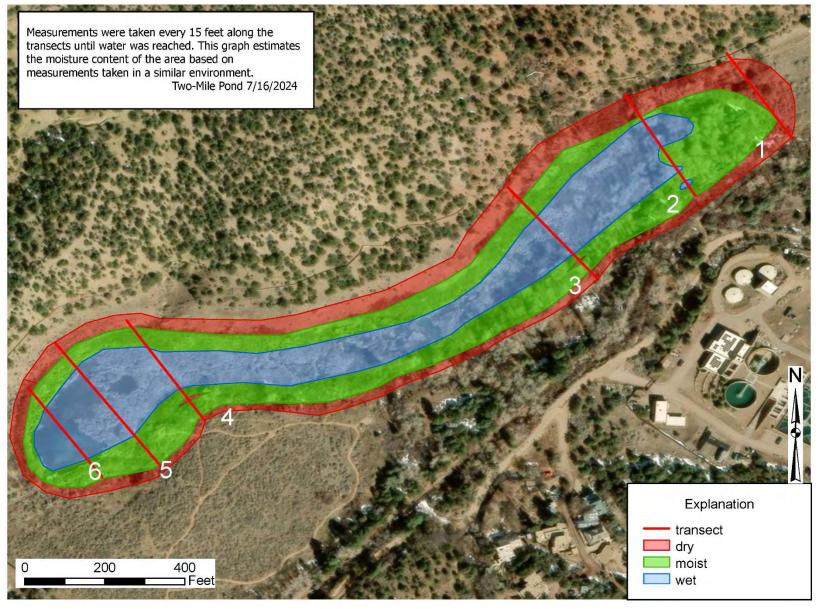


Figure G4. Moisture map July 16, 2024.

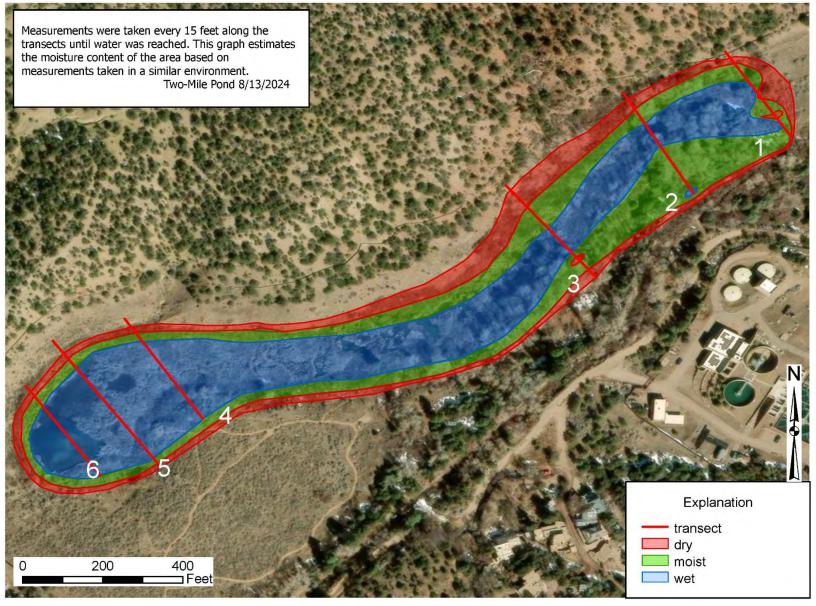


Figure G5. Moisture map August 13, 2024.

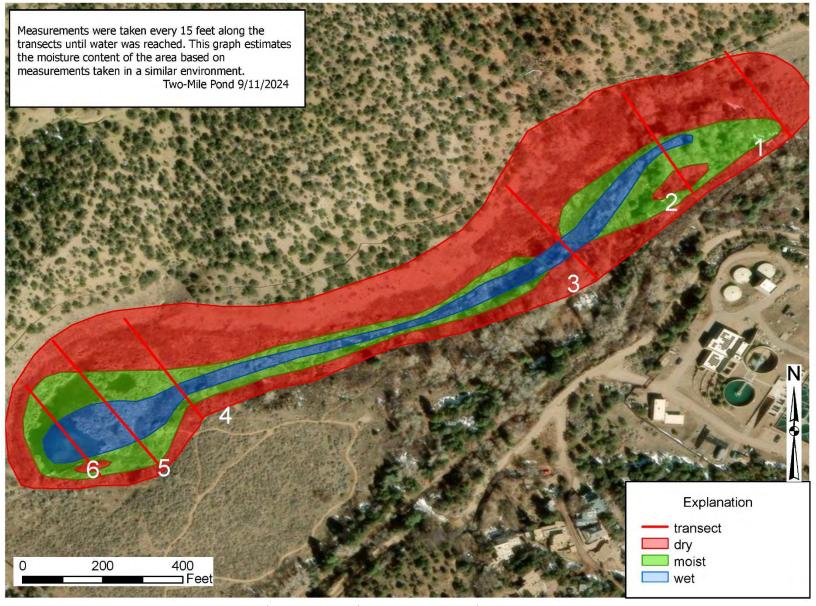


Figure G6. Moisture map September 11, 2024.

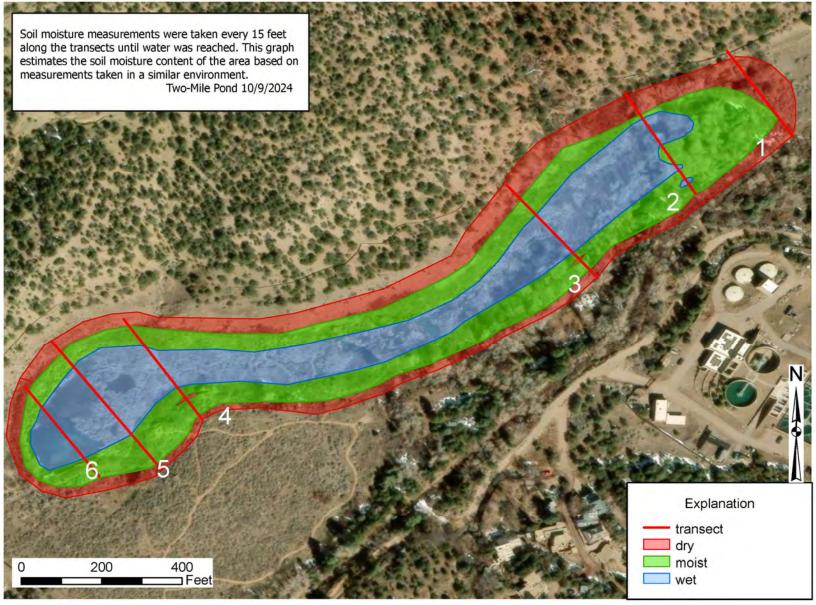


Figure G7. Moisture map October 9, 2024.