

Santa Fe River Commission Agenda
Thursday, February 9, 2017 (Round House Room), 6 pm to 8 pm
City Offices at the Market Station Building at the Railyard
500 Market Street, Suite 200, Santa Fe, NM
505-955-6840

- 1. ROLL CALL
- 2. APPROVAL OF AGENDA
- 3. APPROVAL OF MINUTES FROM DECEMBER 8, 2016, JANUARY 12, 2017
- 4. COMMUNICATION FROM OTHER AGENCIES /COMMITTEES
- 5. INFORMATION/DISCUSSION/ACTION:
 - a. Santa Fe River Commission Recommendations to the Santa Fe Governing Body on the Santa Fe River Target Flow for a Living River Ordinance (John Buchser)
 - b. PNM Power Up grant update (Andy Otto, SF Watershed Association)
 - c. Project Updates (Melissa McDonald)
 - d. River Commission Priorities & Goals (John Buchser)
- 6. MATTERS FROM COMMISSIONERS
- 7. MATTERS FROM STAFF
- 8. CITIZENS' COMMUNICATION FROM THE FLOOR
- 9. SUB-COMMITTEE BREAKOUT SESSION
 - Outdoor Economy
 - Promoting a Living River
 - Watershed Revitalization
 - Species Resiliency
- 10. ADJOURN

Next Scheduled for the River Commission is March 9, 2017
Captions & Packet Material are due by February 28, 2017
Persons with disabilities in need of accommodations,
contact the City Clerk's office at
(505) 955-6521 five (5) working days prior to the meeting date.

Santa Fe River Commission Meeting Index February 9, 2017

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Roll Call	A quorum was established will roll call.	1
Approval of the Agenda	Ms. Doremus moved to approve the agenda as presented with a second from Ms. Isaacson which passed by voice vote.	1
Approval of Minutes from December 8, 2016 and January 12, 2017	It was decided to allow the other Commissioners to review his clarifications and defer them until the next meeting.	2
Communication from other Agencies/Committees	Discussion Only	2
Information/Discussion/Action Santa Fe River Commission Recommendations to the Santa Fe Governing Body on the Santa Fe River Target Flow for a Living River Ordinance PNM Power Up Grant Update	Mr. Pierpont moved to allow a cover letter be written stating what the Santa Fe River Commission would like to do to create a process by which is understood changes around the River Preserve which includes addressing public safety issues, deliveries, living river flows and outlining and understanding the study after the RFP and gathering public input with a second from Mr. Sawyer which passed by voice vote. Discussion Only	2,3 3 3,4
Project UpdatesRiver Commission Priorities & Goals	Discussion Only Discussion Only	4
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Sub-Committee Break Out Session- Working Meeting Outdoor Economy Promoting a Living River Watershed Revitalization Species Resiliency	Discussion Only	4
Adjourn	There being no further business to come before the Santa Fe River commission Mr. Sawyer moved to adjourn at 8:01p.m. with a second from Ms. Doremus which passed by voice vote.	4
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Santa Fe River Commission

Meeting Minutes-**February 9, 2017** 500 Market Street Santa Fe, New Mexico 6:00 p.m.-8:00 p.m.

CALL TO ORDER

Chair Buchser called the meeting of the Santa Fe River Commission to order at 6:01 p.m. at 500 Market Station (Railyard Station), Santa Fe, NM. A quorum was established will roll call.

1. ROLL CALL

Present

John R. Buchser, Chair Dale Doremus Jerry Jacobi Zoe Isaacson Luke Pierpont Emile Sawyer

Not Present/Excused

Phil Bové, Vice Chair F.M. Patorni Anna Hansen

Others Present

Melissa McDonald, City of Santa Fe Staff
Bruce Reitz, Cerro Gordo Acequia
Melia Spaid-Reitz, Cerro Gordo Acequia
Bob Findling, The Nature's Conversancy
Michael Gonzales, Mayordomo of Cerro Gordo Acequia
Andy Otto, Executive Director Santa Fe Watershed Association
Don Sharhag, Cerro Gordo Acequia
Linda Vigil, Stenographer

2. APPROVAL OF THE AGENDA

MOTION: Ms. Doremus moved to approve the agenda as presented with a second from Ms. Isaacson which passed by voice vote.

Mr. Jacobi discussed Melinda Romero-Pike a former Commissioner will be celebrating her 90th birthday. He would like to present something to say Thank You for her service and for her time on the Santa Fe River Commission. Ms. McDonald will find out the protocol.

MOTION: Ms. Doremus moved to endorse Jerrys Thank You for Ms. Romero-Pike, with a second from Mr. Jacobi which passed by voice vote.

3. APPROVAL OF MINUTES FROM DECEMBER 8, 2016 AND JANUARY 12, 2017

Mr. Sawyer had several questions and clarifications for the minutes. It was decided to allow the other Commissioners to review his clarifications and defer them until the next meeting.

4. COMMUNICATION FROM OTHER AGENCIES/COMMITTEES

5. INFORMATION/DISCUSSION/ACTION:

a.) Santa Fe River Commission Recommendations to the Santa Fe Governing Body on the Santa Fe River Target Flow for a Living River Ordinance

Chair Buchser discussed the public forum/hearing on Monday at the Public Works Committee. Councilor Ives who is the Chair of the Public Works Commission. Action was not taken. Councilor Ives stated he would like the Santa Fe River Commission and City Staff to be in agreement on all recommendations. (See Exhibit A)

Ms. Doremus would like to have City staff clarified. It could mean City Water Division and Legal.

A discussion was held about operations and the CFS amounts that would need to be written in the document.

A discussion was held about the RFP and if the information from the seepage study should be done first. Ms. McDonald explained the Fiscal Year timing and how the process has changed.

A discussion was held about gathering public input and whether it should be done before or after it was done.

A discussion was held about combining recommendations 2 & 4. Also adding language that there will be at least one public meeting as part of recommendation 3. Chair Buchser stated that language can also be added to recommendation 4.

Ms. McDonald explained she will get clarification on it before it goes to the next Committee. If approved all those issues would be worked out. Also a stenographer would be needed at the public meetings to capture all efforts. Mr. Jacobi recalled having a facilitator when the working group worked on the proposed target flows.

It was decided to make the following changes:

- Add in Item 4 the public outreach portion.
- Mention cost analysis of various options and add public outreach
- Add to last line of Item 2- prior to issuance of RFP

Ms. Isaacson suggested in the beginning of the document mentioned these should be considered in chronological order.

A discussion was held regarding where this document will go next. Will it return to Public Works or go on to Public Utilities? It is unclear since there was no action taken in Public Works. Ms. McDonald will need to find out the next steps.

Chair Buchser suggests sending a letter to Councilor Rivera who is chair of the Public Utilities Committee explaining the reasons for the Recommendations and the process to help inform the Governing Body and help make a decision.

Ms. Doremus explained Councilor Maestas showed an interest in the preserve and how it would impact wildlife. Ms. McDonald shared the Army Corps report with Councilor Ives as a follow up.

Chair Buchser stated he is clear what should be in the letter he will work on it before he leaves town.

<u>MOTION:</u> Mr. Pierpont moved to allow a cover letter be written stating what the Santa Fe River Commission would like to do to create a process by which is understood changes around the River Preserve which includes addressing public safety issues, deliveries, living river flows and outlining and understanding the study after the RFP and gathering public input with a second from Mr. Sawyer which passed by voice vote.

Mr. Gonzales suggested City staff and legal be aware of the acequias as addendums to the discussion. It may clear up the scope of the process. Chair Buchser stated all stakeholders and staff can be mentioned.

Mr. Findling pointed out a potential problem with the administrative procedures. There is a time frame when the evaporation is highest and acequias need their deliveries. It may help to make them aware so they understand the reasons why it needs to be one timely.

Chair Buchser will also make brief mentioned of the CFS amount in the cover letter. Ms. Doremus it should include the recommendations as a near term recommendation to address that issue.

b.) PNM Power Up Grant Update

Mr. Otto presented slides showing the locations of the 5 benches and 5 bike racks that will be installed later this month.

c.) Project Updates

Ms. McDonald no photos but reviewed the list on a slide on the overhead projector.

- Arroyo Chamiso- will be complete by April
- Aroryo de los Pinos- considering getting a construction plan implementing the larger plan by the end of the year.

- La Resolana- this was taken over from Parks. There are several drainage repairs needed. It should be under contract this year.
- Alameda Raingardens near Cathedral Park- got approved. Ms. McDonald will get a packet put together.
- Defouri Bridge- will start in March.
- SF River Trial Improvements- almost complete

Ms. McDonald has put in for several arroyo projects.

d.) River Commission Priorities and Goals

Chair Buchser reviewed the chart that was done a few months ago. Chair Buchser will work on this chart and put it on order. Ms. McDonald will place it on the agenda in April.

Ms. McDonald mentioned she was a guest on a radio show today, Ms. Christine Chavez of the Water Conservation Committee offered to come in and discuss Raingardens. She asked that any Commissioner can attend the Water Conservation Meeting to discuss projects and update them on the work. They would like to collaborate.

6. MATTERS FROM COMMISSIONERS

7. MATTERS FROM STAFF

8. CITIZEN'S COMMUNICATION FROM THE FLOOR

Mr. Reitz provided a Memo from Cerro Gordo Acequias regarding their concerns with the historic point of diversion.

Mr. Otto invited the Commission to attend "Love your River Day" on February 18^{th} at 10:00 a.m. at Frenchy's Park.

9. SUB COMMITTEE BREAKOUT SESSION

- Outdoor Economy
- Promoting a Living River
- Watershed Revitalization
- Species Resiliency

10. ADJOURN

There being no further business to come before the Santa Fe River commission Mr. Sawyer moved to adjourn at 8:01p.m. with a second from Ms. Doremus which passed by voice vote.

SIGNATURES

ớhn Buchser Chair.

Linda Vigil, Stenographer

SANTA FE RIVER COMMISSION RECOMMENDATIONS TO THE SANTA FE GOVERNING BODY ON THE SANTA FE RIVER TARGET FLOW FOR A LIVING RIVER ORDINANCE

Background:

The Santa Fe River Target Flow Ordinance, Ordinance No. 2012-10, provides for a target flow within the Santa Fe River to support and enhance the Santa Fe River as a living river system. The Target Flow Ordinance provides up to 1,000 acre-feet per year (AFY), depending on the annual water yield from high elevation snowpack in the upper Santa Fe River watershed, for the benefit of the Santa Fe River system and the community of Santa Fe. The Ordinance scales the amount of "Living River Target Flow" water in years with 75% or less of the average Santa Fe River watershed yield based on the percentage of projected annual streamflow yield, down to 300 AFY. The Living River flow can be reduced to zero, under a Water Emergency provision for severe water shortages (Administrative Procedures, Article IV, Section 4.8). Living River Target Flows are further limited by, and cannot exceed, the amount of water (bypass flows²) flowing into McClure Reservoir at any one time.

The Santa Fe Canyon Preserve (Preserve), located immediately downstream of Nichols Reservoir on the Santa Fe River, relies on Living River bypass flows to maintain the environmental values and ecological characteristics of the 525 acre Preserve. The Preserve is owned and maintained by the Nature Conservancy and is open to limited public access for education, recreation, and other purposes compatible with the fragile ecology and history of the site. Among other elements shown in Figure 1, the Preserve includes the Old Stone Dam from Santa Fe's first reservoir, as well as portions of the former Two Mile Reservoir and Two Mile Pond, which retains approximately 10 acre-feet of water or less. Within the Preserve the Living River bypass flows help support a diverse riparian habitat, including a healthy population of beaver, a cornerstone species for riparian ecosystems.

Within the Santa Fe Canyon, the Santa Fe River either flows through the Preserve along what the Nature Conservancy has termed the "historic channel," and which provides water to the Preserve's habitat, or through the "bypass channel" located on the southeastern boundary of the Preserve (Figure 1). The City Water Division currently uses the bypass channel to supply two downstream acequias, the Acequia Madre and Acequia Cerro Gordo, both of which have senior water rights to the City of Santa Fe's storage reservoirs. Deliveries to the Acequia Madre and Acequia Cerro Gordo are limited by the inflow into McClure Reservoir, as the City of Santa Fe is not required to deliver water to the acequias out of storage. In addition to the acequia deliveries, the City Water Division has cited the efficiency of the bypass channel as necessary for Living River bypass flows to reach as far as possible downstream when available to support riparian plantings, wildlife habitat and community events along the middle and lower reaches of the river.

²See SFCC § 25-13.4 Definition of "bypass flow".



 $^{^1}$ See SFCC § 25-13.4 Definition of "target flow" and Administrative Procedures, Article IV, Section 4.2

Limitations and Challenges:

Under certain conditions, primarily during irrigation season, significant amounts of the Living River bypass flows are conducted through the bypass channel rather than through the historic channel. Flows through the historic channel provide a greater benefit to the riparian ecosystem of the Santa Fe Canyon Preserve. However, there are administrative and physical limitations to the historic channel's ability to convey Living River bypass flows, acequia releases, stormflows and flood flows of the Santa Fe River. This discussion does not purport to be a comprehensive summary of the challenges in managing bypass flows and the limitations of the historic channel, but is rather intended to provide a brief overview of the situation.

Below the Santa Fe Canyon Preserve the historic channel passes under Cerro Gordo Road through a culvert, which is insufficient to carry the capacity of a 100-year flood, while the bypass channel has the capacity to handle flood flows under the Cerro Gordo Road Bridge. The lack of capacity of the historic channel, in its current configuration, to convey significant stormflows past Cerro Gordo Road limits its utility as the main channel of the Santa Fe River.

Currently the Acequia Cerro Gordo diverts directly off of the bypass channel just under Cerro Gordo Road Bridge. The two downstream acequias, the Acequia Madre and Acequia Cerro Gordo have water rights senior to those of the City of Santa Fe and the City is obligated to deliver Santa Fe River water to those acequias when inflow to McClure Reservoir is sufficient. The location of the intake structure for the Acequia Cerro Gordo and the associated requirement of delivery by the City of Santa Fe presents an additional limit on the ability to use the historic river channel as the main channel of the Santa Fe River. Additionally, City of Santa Fe staff have described that the historic river channel is subject to greater conveyance losses than the bypass channel, although some seepage to the Preserve occurs from acequia water deliveries that are conveyed through the bypass channel. If the historic river channel is, in fact, subject to greater losses, less water would be available for Acequia diversions as well as downstream Living River bypass flows.

The Santa Fe River Commission supports further study to determine the water requirements for the Preserve to maintain a healthy riparian ecosystem; determine impacts of using the historic channel versus the bypass channel on the Preserve and downstream reaches of the river; and to determine the fiscal impact of various water management options.

Recommendations:

- 1. The Santa Fe River Commission makes the following near-term recommendations:
 - a. Direct Living River bypass flows to the Preserve via the historic channel at the rates provided for in the Administration Procedures adopted pursuant to Ordinance No. 2012-10 and seek to maintain a minimum flow of 0.3 cfs ³year round through the Preserve restoration channel.
 - b. The City of Santa Fe should pursue an agreement with The Nature Conservancy to allow The Nature Conservancy the option to purchase or lease raw (untreated)

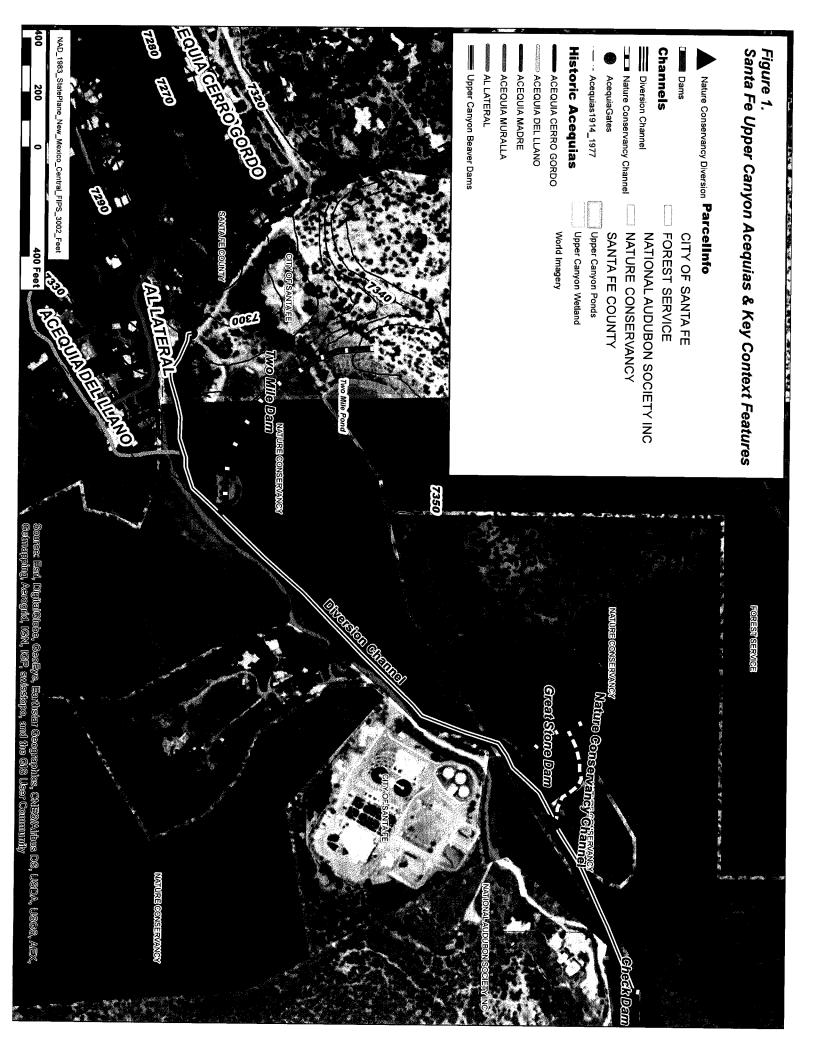
 $^{^{3}0.3}$ cfs (cubic feet per second) = 217.17 AFY (acre feet per year).

water from the City to augment the Preserve during periods when Living River bypass flows are unavailable.

- 2. The Santa Fe River Commission supports and will provide input to the planned water balance/seepage study of the Santa Fe Canyon Preserve area by the City Water Division. This study is critical to determining channel efficiency and conveyance losses between the historic channel and the bypass channel and will inform future management options for the area.
- 3. The Santa Fe River Commission recommends and offers assistance to the Water Division to solicit public input on the impact of current hydrologic conditions on Living River bypass flows and possible options to maintain the following objectives of the Target Flow Ordinance.
 - a. Create a ecologically healthy vegetative corridor;
 - b. Benefit the entire community with flows (e.g., equity);
 - c. Nurture a beautiful, natural urban greenspace with water in an arid environment; and
 - d. Provide an educational resource for schools and community stewardship. The Santa Fe River Commission will report the results of this public outreach effort to the City Council.
- 4. The Santa Fe River Commission recommends that the City initiate a Request for Proposals to study the feasibility and options associated with restoration of the historic river channel and infrastructure improvements to accommodate all river flows, including flood flows, through the historic channel. The study should include a legal analysis and cost analysis of various options, and an evaluation of operational, environmental, ecological, agricultural, and recreational impacts to the Preserve and downstream reaches of the river.
- 5. The Santa Fe River Commission recommends that the City consider the options and feasibility of aquifer storage and recovery, and the effect of Living River bypass flows on groundwater levels along the Santa Fe River.
- 6. The Santa Fe River Commission recommends making necessary revisions to the Administrative Procedures for Santa Fe River Target Flows that are based on results of the new water balance/seepage studies and existing data combined with input from the public, City staff, and the Santa Fe River Commission.

We thank you for considering the above recommendations, and look forward to the opportunity to respond to any questions that the Governing Body may have.

Santa Fe River Commission









1413 Second Street, Suite 3 Santa Fe, NM 87505 (505) 820-1696; fax 986-9132 info@santafewatershed.org santafewatershed.org



January 12, 2017

To: City of Santa Fe River Commission

RE: Santa Fe Watershed Association Recommendations to the City of Santa Fe River Commission Recommendations to the Santa Fe City Council on the Santa Fe River Target Ordinance Flows Report

Dear River Commissioners:

We would like you to consider, by insertion into your recommendations, the following items into the amended (by TNC) Recommendation Letter referred to above: Under "Background":

At the end of the first paragraph add "per Article VII of the Rio Grande Compact".

Under "Limitations and Challenges"

- 1) Since the City does not own the Bypass Ditch, they should not assume that they can use it.
- 2) There have been other studies completed on the hydrology of this reach and they should be included in the report.
- 3) The Acequia Cerro Gordo has the infrastructure in place to use City treated water.
- 4) The Santa Fe Watershed Association also supports further study to determine the water requirements for the Preserve.

Under "Recommendations":

At Number 1:

At the first bullet point add: Section 4.8.1 of Resolution 2012-28 already allows City Manager authority to operate under a "Water Emergency".

At the second bullet point: Delete the words "from the City" as there may be other options.

At Number 3: The Santa Fe Watershed Association agrees to assist the River Commission with any public input.

We would like to add a Number 7: The Santa Fe River Commission recommends that the Acequia Cerro Gordo headgate be located back to it's original location below the Two Mile Pond on City property by the existing outlet structure with a new 'ditch' (pipeline) being constructed to the current headgate downstream of Cerro Gordo Road.

Thank you for any consideration you can give to these recommendations, Andy Otto, Executive Director

Our River - Our Water - Our Future



1413 Second Street, Suite 3 Santa Fe, NM 87505 (505) 820-1696; fax 986-9132 andy@santafewatershed.org santafewatershed.org



January 30, 2017

Re: Santa Fe Watershed Association's Concerns about the report titled "The City's Water and the Living River" dated December 14, 2016

The Santa Fe Watershed Association appreciates the opportunity to comment on this document.

This is a very detailed report and can be considered an incredible resource on City water discussions. While we found this report and its Appendices to be extremely thorough, the document raises two serious concerns which we detail below:

- 1) The report contains numerous opinion statements that could be construed as fact.
- 2) While the authors don't recommend any particular Option, the fear is that this report could become the basis for City Policy without sufficient community discussions to determine how Santa Feans would like to see their scarce water resources allocated.

We submitted our suggestions to the River Commission on their response letter and were told that these suggestions were forwarded to the Committee and City Council.

Opinion Challenges with the Report:

- 1) Appendix F does not appear to have an author or date, yet it becomes the mainstay of the definition of Offsets.
- 2) In the Challenge of Bypass Flows section, the last sentence of Number 1 (Page 10): "Clearly, the living river bypass flow is in addition to the City's acequia obligations" is an opinion statement rather than a determined fact.
- 3) At Number 2 (Page 10), the paragraph "This implies that bypass flows should be directed through the Restoration Channel to the Preserve all year" is also an opinion statement.
- 4) In the Managing Bypass Flows section, at the end of the first paragraph (Page 11): "It appears that the four acequias take significantly more bypass water than the allotted 156.53 AFY." What is the basis for this statement, could further study clarify this?



- 5) At the Canyon Preserve section, the fourth paragraph (Page 12) concludes with the opinion statement: "As such, the City cannot be compelled to continue to supply to the Preserve with water."
- 6) At the Conclusion section (Page 20), the last paragraph is an obvious opinion that does not necessarily pertain to the challenge at hand. It does not seem appropriate for a background report to advocate for a change in the policy of how the City's water is allocated.

Options:

We strongly support Option 6 at this time, as more information needed in order to make the best possible decision, and the lack of actual numbers may be a large part of the problem.

With this data in hand, Option 1 could be explored further and, it is possible that several other options may be viable and should be fleshed out. We would be disappointed if we lost the momentum for the continued revival of the Santa Fe River, and we know many Santa Feans deeply value this resource, both in the more natural river reaches through the Nature Preserve and the Living River flows that extend through town.

In general, we also support the continued existence of Two Mile Pond and the use of the historic, restored riverbed. We strongly believe that the spirit of the Living River Ordinance can be kept whole and that we can all work to accommodate the diverse and important uses of the water in the Rio de Santa Fe. We look forward to continuing to participate in this important conversation with you in the coming months.

Sincerely,

Andy Otto

Executive Director



ACEQUIA MADRE de SANTA FE

(Community Acequia Association)
922 Acequia Madre, Santa Fe, New Mexico 87505
(505) 983-3546 Fax: (505) 986-0877

January 25, 2017

Public Works/CIP and Land Use Committee and River Commission:

The Acequia Madre de Santa Fe Community Acequia Association appreciates the opportunity to comment on the Santa Fe River Commission recommendations to the Santa Fe City Council on the Santa Fe Target Flow for the Living River Ordinance.

- 1. The Acequia Madre and the Acequia Cerro Gordo coordinate irrigation water releases with the City to make the delivery of water to the acequias and the Living River as efficient as possible. The City sends the water deliveries to the Acequias via the by-pass channel because the Acequia Cerro Gordo's point of diversion is located on the by-pass channel where it passes under the Cerro Gordo Road Bridge. Presently the Living River water follows the same route through the by-pass channel.
- 2. The River Commission has recommended that the City route some River flows through the "historic" River channel to the Nature Conservancy Preserve, rather than through the by-pass channel, and study the possibility of routing all River flows through the historic River channel. During the 2016 irrigation season, this prevented the acequias from receiving the water to which they are entitled and for which they have the most senior priorities. The Acequia Madre is prepared to work with the City and other stakeholders to try to maximize efficiency and use of available River flows. However, the Acequia Madre is also prepared to take steps to ensure that it receives the water to which it is entitled and to protect the priority of its rights.
- 3. The suggested delivery route for all water in the River to be routed through the Nature Conservancy Preserve via the historic channel would need to be subject to thorough hydrologic studies to evaluate evapotranspiration, infiltration, seepage, timing/rate of throughput, ability to accommodate 100 year storm events, and other pertinent hydrologic factors. The studies would need to consider whether use of the historic channel would enable the City to comply with its obligation to deliver irrigation water to the Acequias at the volumes, rates and times requested by the Acequias so that they, in turn, can deliver water to their parciantes. Without this information, it would be impossible to determine the extent to which routing River flows through the historic River channel would interfere with deliveries to the Acequias and impair their rights.

Phillip Bové

Chilly o Bove

Commissioner, Acequia Madre de Santa Fe Community Acequia Association



Santa Fe, New Mexico, 87501

Subject: Cerro Gordo Ditch Association feedback to the Santa Fe Public Works/CIP and Land Use Committee

and the Santa Fe River Commission
Date: Wednesday, January 25, 2017

Committee and Commission Members:

The Cerro Gordo Ditch Association (the Association) appreciates the opportunity to comment to the Public Works Committee and Santa Fe River Commission (the Commission) regarding efforts to establish Living River Flow criteria and future work. We support a Living River as an integral part of our community and the historic Acequias as a part of our culture. The Association submits the following points:

- 1) Acequia Cerro Gordo's 11.08 Acre Feet per year is required by law to be delivered at its Point of Diversion (POD). This POD is defined in the court-ordered 1977 Santa Fe River Hydrographic Survey Report, Volume II (1978) as follows: "New México State Plane Coordinate System, Central Zone: X = 605,420, Y= 1,705,150 within the Santa Fe Grant, as shown on (1977) Hydrographic Survey Map Sheet No. 1." This map shows the 1977 POD at the Cerro Gordo Bridge near the intersection of Canyon Road; it is also the current POD. It is the city's responsibility to deliver the 11.08 Acre Feet of water per year at that POD.
- 2) The Association will not move the legal POD or accept diminution of the required 11.08 Acre Feet of water.
- 3) An alternative route for Cerro Gordo acequia water delivery was proposed to the Commission on January 12, 2017. This route through the Nature Conservancy Preserve would pass across the permeable fill behind the Great Stone dam, over the dam, over about 11 impounding beaver dams and through associated ponds, and through the Two Mile pond. Providing acequia water over the numerous flow impediments/impoundments on this route would not be feasible and would increase flood risk to Cerro Gordo Road.
- 4) The City Water Division has outlined numerous options for acequia water delivery in their December 14, 2016 report "The City's Water and the Living River". The Association recommends future hydrologic studies evaluate evapotranspiration, infiltration, seepage, timing/rate of throughput, and other pertinent hydrologic factors, as well as risk and cost/benefit analyses of all alternative delivery routes and infrastructure.

Sincerely,

Mike Gonzales Mayordomo, Cerro Gordo Ditch Association

Don Scharhag Commissioner, Cerro Gordo Ditch Association

Bruce Reitz and Malia Spaid-Reitz, et al Parciantes, Cerro Gordo Ditch Association



Santa Fe, New Mexico, 87501

Subject: River Commission feedback From the Cerro Gordo Ditch Association

Date: Wednesday, February 9, 2017

River Commission Members:

The Cerro Gordo Ditch Association (the Association) appreciates the opportunity to comment to the Santa Fe River Commission regarding points brought forward in the February 6, 2017 Public Works meeting in relation to the Cerro Gordo Point of Diversion (POD), and other concerns.

In regards to a proposed POD relocation to city property on the West side of Two Mile Pond (map 1):

- The surface of Two Mile Pond is at an elevation of 7293.6' and it is up to 8' deep
- The Cerro Gordo ditch is at an elevation of 7294'
- There is no hydraulic head to permit a gravity driven feed from this POD
- The proposed POD would be 8' above water level if Two Mile pond is drained

In regards to possible locations of gravity-fed PODs on the "historic" channel near Two Mile Pond:

- A ditch would require a gradient of 0.6%, a pipe would need a gradient of at least 1.5%
- For proper flow within a ditch, a POD (map1) would have to be located about 750' east of the proposed POD at an elevation near 7288'. This is near the boundary of the Conservancy tract in the midst of beaver ponds. The new ditch would be 1450' long.
- For proper flow through a pipe, a POD (map 1) would have to be located about 1500' east of the proposed POD at an elevation near7324'. This is on Conservancy land in the midst of beaver ponds. The new pipe would be about 2200' long.
- The pipe POD and route mirrors that proposed in 1994 during Two Mile Dam removal
- The presence of beavers will likely require daily maintenance at these PODs and human interactions must be monitored

In regards to the Cerro Gordo "historic" 1766-1877 pre-dam POD:

• Elevations require a ditch POD near that calculated above but cannot be precisely confirmed

In regards to construction costs and cultural issues near the Two Mile Pond and filter plant:

 Plans and costs should account for existing pipes, valves, sewage infrastructure, road crossing, and any modification and reconstruction on private property

In regards to future studies:

- For the "historic" channel reach, we calculate annual evapotranspiration losses for 1.1 acres of open water and 3.1 acres of marshland to be on the order of 13.4 Acre-Feet/year. This exceeds Cerro Gordo's 11.08 Acre-Feet/year right. These numbers should be refined in future work to quantify the efficiency of possible acequia flows in the "historic" channel, particularly in the unfortunate absence of Living River flows.
- Consider the geology of the Upper Canyon area. Shallow bedrock, porous alluvial fill, and human disturbance significantly impact the hydrology of the Upper Santa Fe River.



In summary, the Association has numerous concerns about relocation of our current gravity-fed POD to the Two Mile pond area. We look forward to future studies by independent and unbiased third parties, and offer assistance in any way possible.

Sincerely,

Mike Gonzales Mayordomo, Cerro Gordo Ditch Association

Bruce Reitz and Malia Spaid-Reitz Parciantes, Cerro Gordo Ditch Association

MAP 1

