

**BUCKMAN WELLS 10-13
(RG-20516-S-10 THROUGH S-13)
MONITORING PROGRAM
7TH BIENNIAL REPORT
FEBRUARY 2022**

prepared for

**NEW MEXICO OFFICE OF THE STATE ENGINEER
District VI Office, Santa Fe**

prepared by



**JOHN SHOMAKER & ASSOCIATES, INC.
Water-Resource and Environmental Consultants**

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February 24, 2022



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EXECUTIVE SUMMARY

As required by the Buckman Monitoring Program (BMP) document titled *Buckman Well Field Water-Level Monitoring Program Response to Condition of Approval No. 5, Permit No. RG-20516-S-10 thru RG-20516-S-13, City of Santa Fe*, adopted by all parties and the District Court in 2007, this biennial report summarizes production and water-level data in the City of Santa Fe's Buckman Well Field; documents water-level data and trends for BMP wells; provides 10-year and 40-year drawdown projections for wells in the BMP area; and addresses Permit Conditions 6 and 7, which evaluate whether wells of other ownership may go dry as a result of pumping Buckman Wells 10 through 13 (BW10-13) under permit RG-20516-S-10 through RG-20516-S-13.

Buckman Well Field Permitted Diversions and Actual Pumping

Under RG-20516 et al., the City is permitted to pump 10,000 acre-feet per year (ac-ft/yr) from the Buckman Well Field, and under RG-20516-S-10 through RG-20516-S-13 permit, the City is permitted to pump 6,000 ac-ft/yr of the total permitted 10,000 ac-ft/yr from BW10-13 (provided flow depletion offsets are made). In the past 8 years, total pumping under RG-20516 et al. has been less than 1,000 ac-ft/yr, and pumping from BW10-13 has been less than 200 ac-ft/yr. The maximum pumped from BW10-13 was 3,378 ac-ft/yr in 2004.

Shallow and Deep Aquifer Zones

The intent of BMP water-level monitoring is to evaluate the potential drawdown effects from pumping BW10-13 on wells of other ownership in the BMP area. The water-level trends interpreted from the monitoring data can be separated into trends for the shallow and deep zones of the regional aquifer in the BMP area:

- The shallow aquifer trends are from wells completed in the upper few hundred feet of the aquifer resembling water-table conditions, and generally representative of the wells of other ownership used for domestic and stock use in the BMP area.
- The deep aquifer trends are from wells typically completed and screened several hundreds of feet below the water table resembling confined aquifer conditions, and representative of the aquifer zone pumped by Buckman Wells 1 through 13 (BW1-13).

Water-Level Trends

Non-pumping water levels in Buckman Wells 1 through 9 (BW1-9) have been rising since 2003 as total Buckman Well Field pumping has been decreasing and approximately 30 percent of the total pumping has shifted to BW10-13. Non-pumping water levels in BW10-13 have been generally rising or stable over the past decade due to reduced pumping from the Buckman Well Field.

The shallow aquifer surrounding BW10-13 has shown a water-level decline of about 13 ft since 2003, and most of the decline occurred between 2003 and 2006, when pumping was greater. There has been little change in water levels since 2006 in piezometers that represent the deep aquifer zone screened by BW10-13, due to reduced BW10-13 pumping. Las Campanas piezometer nest bounds the southern extent of drawdown in the shallow and deeper zones of the aquifer due to BW10-13 pumping; water levels in Las Campanas piezometer nest ranged from a rise of 0 to 10 ft in the deep and middle piezometers (representative of the deep aquifer zone), to a decline of 2 ft in the shallow piezometer, since 2005.

Future Projection Scenarios

Average water-level trends for the shallow aquifer, and the NMOSE superposition groundwater-flow model of the Santa Fe area, were used to estimate future drawdowns over the 40-year period for (1) BMP area wells, and (2) table 30-A and 30-B wells (wells specifically identified in Finding 30 of NMOSE Order HU No. 03-004).

The NMOSE superposition groundwater-flow model was used to project potential future water-level declines under two model scenarios for BW1-13:

- A forecast scenario with 2,600 ac-ft/yr of future pumping, which is close to the average total pumping for 2003 to present (BW10-13 came on-line in 2003)
- A worst-case scenario with 10,000 ac-ft/yr of future pumping based on full permitted amounts

Potential future water-level declines were also projected based on a continuation of average water-level trends, as interpreted from BMP monitoring data.

Results of Future Projections

Under the forecast scenario, none of the wells of other ownership (i.e., BMP database wells, or table 30-A or 30-B wells) are projected to go dry, or have water columns reduced to less than 30 percent.

Under the worst-case scenario, a total of five wells are projected to go dry, or have water columns reduced to less than 30 percent, within the 40-year period (Table 8).

Based on a continuation of average trends, none of the wells of other ownership are projected to go dry, or have water columns reduced to less than 30 percent, except for USFS Well. USFS Well was drilled between 1938 and 1940 with a reported water column of 48 ft (1977 declaration), and is already beyond its life expectancy. USFS Well had a starting water column of only 29 ft in 2004, at the start of BW10-13 pumping. The City has been providing reclaimed water to the owners and users of USFS Well, and the well is not currently in use or equipped; in fact, the well has not been used for over a decade and likely much longer.

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**BUCKMAN WELLS 10-13 (RG-20516-S-10 THROUGH S-13)
MONITORING PROGRAM 7TH BIENNIAL REPORT
FEBRUARY 2020**

1.0 INTRODUCTION

New Mexico Office of the State Engineer (NMOSE) permitted the Buckman Well Field under NMOSE file number RG-20516 in 1976. Buckman Wells 1 through 9 (BW1-9) are permitted under NMOSE file numbers RG-20516 through RG-20516-S-9, and Buckman Wells 10 through 13 (BW10-13) are permitted under NMOSE file numbers RG-20516-S-10 through RG-20516-S-13.

As required by the Buckman Monitoring Program (BMP) document titled *Buckman Well Field Water-Level Monitoring Program Response to Condition of Approval No. 5, Permit No. RG-20516-S-10 thru RG-20516-S-13, City of Santa Fe*, this biennial report summarizes production and water-level data in the City of Santa Fe's Buckman Well Field, with a particular focus on Buckman Wells 10, 11, 12, and 13 (BW10-13), which were completed in 2003 (Fig. 1). This report also documents water-level data and trends for BMP wells.

The Buckman Well Field diversions and monitoring program water-level data summarized in this report are available in a Microsoft Excel spreadsheet on the City Water Division's web site, [http://www.santafenm.gov/buckman_wells_water_level_monitoring_program]. The spreadsheet contains the following:

1. Buckman Well Field production data in monthly time steps from 1981 to present, and production data in daily time steps from 2006 to present
2. water-level data collected by the City municipal water utility and by the U.S. Geological Survey (USGS) for the Buckman area
3. graphs of water-level changes over time

1.1 Buckman Monitoring Program Requirements

To manage well field operations and to comply with RG-20516 et al. permit requirements, water-level data have been collected in the region for about 40 years. The water-level monitoring program was expanded with the permitting of BW10-13 in 2007. The current BMP area is a 50-square-mile area with a 4-mile radius centered at BW10-13 (see Fig. 1). The BMP requires water-level monitoring at specified wells in and around the BMP area at varying frequencies. BMP wells are listed in Table 1 and locations are shown on Figures 1 and 2.

Table 1. Buckman Monitoring Program requirements

| NMOSE ID | other ID (NMBGMR/USGS, if any) | name | monitoring frequency | comments and status |
|---------------|--------------------------------|-------------------------------|--------------------------|---|
| | EB269/355000106092802 | SF-2B piez. | hourly | part of previous MP, USGS |
| | EB270/355000106092803 | SF-2C piez. | hourly | part of previous MP, USGS |
| | EB265/355002106093701 | SF-3A piez. | monthly | part of previous MP, USGS |
| | EB266/355002106093702 | SF-3B piez. | monthly | part of previous MP, USGS |
| | EB267/355002106093703 | SF-3C piez. | monthly | part of previous MP, USGS |
| | EB262/355003106094301 | SF-4A piez. | monthly | part of previous MP, USGS |
| | EB263/355003106094302 | SF-4B piez. | monthly | part of previous MP, USGS |
| | EB264/355003106094303 | SF-4C piez. | monthly | part of previous MP, USGS |
| | EB261/355006106094803 | SF-5C piez. | monthly | part of previous MP, USGS |
| | EB298/354731106072001 | Buckman deep piez. (SF-6A) | hourly | BW10-13 MP, download monthly, USGS |
| | EB299/354731106072002 | Buckman middle piez. (SF-6B) | hourly | BW10-13 MP, download monthly, USGS |
| | EB300/354731106072003 | Buckman shallow piez. (SF-6C) | hourly | BW10-13 MP, download monthly, USGS |
| | EB608/354228106044901 | Las Campanas deep piez. | hourly | BW10-13 MP, download monthly, USGS |
| | EB609/354228106044902 | Las Campanas middle piez. | hourly | BW10-13 MP, download monthly, USGS |
| | EB610/354228106044903 | Las Campanas shallow piez. | hourly | BW10-13 MP, download monthly, USGS |
| RG-20516-S-5 | EB478 | Buckman 1 (BW1) | monthly | part of previous MP |
| RG-20516-S-6 | EB479 | Buckman 2 (BW2) | monthly | part of previous MP |
| RG-20516-S | EB480 | Buckman 3 (BW3) | monthly | part of previous MP |
| RG-20516-S-2 | EB481 | Buckman 4 (BW4) | monthly | part of previous MP |
| RG-20516-S-3 | EB482 | Buckman 5 (BW5) | monthly | part of previous MP |
| RG-20516-S-4 | EB483 | Buckman 6 (BW6) | monthly | part of previous MP |
| RG-20516-S-7 | EB484 | Buckman 7 (BW7) | monthly | part of previous MP |
| RG-20516-S-8 | EB485 | Buckman 8 (BW8) | monthly | part of previous MP |
| RG-20516-S-9 | EB486 | Buckman 9 (BW9) | monthly | part of previous MP |
| RG-20516-S-10 | EB487 | Buckman 10 (BW10) | monthly | BW10-13 MP, measure daily production |
| RG-20516-S-11 | EB488 | Buckman 11 (BW11) | monthly | BW10-13 MP, measure daily production |
| RG-20516-S-12 | EB489 | Buckman 12 (BW12) | monthly | BW10-13 MP, measure daily production |
| RG-20516-S-13 | EB490 | Buckman 13 (BW13) | monthly | BW10-13 MP, measure daily production |
| RG-21318 | EB288 | Skillet | monthly | part of previous MP |
| RG-439 | EB157 | Weil Corral | monthly | part of previous MP; access suspended |
| RG-16681 | EB163 | Permit | monthly | part of previous MP; access suspended |
| RG-6386 | EB160 | Tony's Windmill | semi-annual | BW10-13 MP |
| RG-29524 | EB085 | Las Dos 1 | semi-annual ^a | BW10-13 MP, access issues |
| RG-81860 | | Santa Fe Ranch Barn Well | semi-annual ^c | BW10-13 MP, replaces RG-29524 Las Dos 1 |
| RG-25463 | EB287 | - | hourly | BW10-13 MP |
| RG-24584 | EB121 | - | semi-annual ^b | no access |
| RG-28112 | | - | semi-annual ^b | BW10-13 MP, replaces RG-24584 |
| RG-438 | EB251 | Midway Windmill | semi-annual | BW10-13 MP |
| RG-29723 | EB645 | USFS Well | semi-annual | BW10-13 MP |
| RG-30777 | EB064 | - | hourly | BW10-13 MP |
| RG-79509 | | - | semi-annual | BW10-13 MP |
| RG-93871 | | La Tierra Deep Mon. Well | hourly | BW10-13 MP |

^a Due to access and safety issues at RG-29524 (confined space in well vault), City has replaced RG-29524 with RG-81860 for semi-annual monitoring.

^b Access has not been granted at RG-24584; City has replaced RG-24584 with RG-28112 for semi-annual monitoring.

^c The City is currently working to reestablish access with new owners

NMOSE - New Mexico Office of the State Engineer

NMBGMR - New Mexico Bureau of Geology and Mineral Resources

USGS - U.S. Geological Survey

USFS - U.S. Forest Service

MP - monitoring program

BW10-13 MP - Buckman Wells 10 through 13 monitoring program

piez. - piezometer

In addition to the monitoring requirements set forth under the original RG-20516 permit, the City is meeting the water-level monitoring requirements set forth under the RG-20516-S-10 through RG-20516-S-13 (BW10-13) permit:

- Monthly measurements in BW10-13
- Hourly measurements using transducers in SF-6(A,B,C) piezometer nest, and Las Campanas piezometer nest
- Hourly measurements using transducer in Bernstein Well (RG-30777)
- Semi-annual measurements in seven private domestic wells plus USFS Well:
 - Bernstein Well (RG-30777)
 - Tony's Windmill (RG-6386)
 - RG-79509 and RG-81860 as alternative to RG-29524 due to confined space entry issues at RG-29524; the City is currently working to reestablish access to RG-81860 with new owners
 - RG-25463
 - RG-28112 as alternative to RG-24584, as access has not been granted by the well owner of RG-24584
 - Midway Windmill (RG-438)
 - USFS Well (RG-29723)
- Hourly measurements using transducer in RG-25463, an active domestic well
- Hourly measurements using transducer in La Tierra Deep Monitoring Well

Please note that access to RG-439 (Weil Corral) and RG-16681 (Permit), for which water-level monitoring was required under the original RG-20516 permit, has been suspended due to sale of property.

1.2 Buckman Monitoring Program Biennial Report Requirements

Requirements for this BMP biennial report set forth under the RG-20516-S-10 through RG-20516-S-13 (BW10-13) permit, are as follows:

- Summarize RG-20516 production.
- Summarize water-level trends in monitored wells.
- 10-year and 40-year projections of water-level declines in monitored wells.
- Projection of water-level declines for wells in the Monitoring Program area, or as specified in the RG-20516 permit.

- 10-year and 40-year projections of water-level decline for one well near the western terminus of Tano Road Subdivision (currently met by making projections for well RG-77553 labeled “Tano” on maps).
- Starting/initial water columns in wells senior to RG-20516-S-10 through S-13 are to be determined from NMOSE Drillers’ Well Logs, actual static water levels, site-specific studies, or a combination of these data.
- Forecast whether remaining water column at the end of both projections will, in any monitored well, in any of the wells specifically identified in the Permit, or in any other senior well within BMP area, exceed 70 percent drawdown of the water column available at the initiation of the monitoring program.
- Map water-level trends in the monitored wells.
- Post report and generalized map on-line for public access within 30 days of submittal to the NMOSE.

1.3 Permit Conditions 6 and 7 Requirements

This BMP biennial report addresses Permit Conditions 6 and 7, which ensure access to water for well owners potentially impacted by the pumping of BW10-13. Permit Conditions 6 and 7 read as follows:

6. No water shall be diverted from wells RG-20516-S-10 through RG-20516-S-13 after December 31, 2010, until such time as the Permittee shall have furnished to the State Engineer such information and/or documents as the Engineer may find necessary to establish that any wells impacted under this Permit, including those wells identified in Table 30-A of Finding 30, will not go dry in 40 years, or that the owners of the right to beneficially use groundwater diverted from those wells have waived or released any claim of liability against the Permittee for impairment to such wells resulting from operations under this Permit, or that the Permittee has acquired the rights of such persons in such wells, or that the Permittee can and will, upon agreement of the well owners, supply water to such wells or the users thereof.
7. No water shall be diverted from wells RG-20516-S-10 through RG-20516-S-13 after December 31, 2043, until such time as the Permittee shall have furnished to the State Engineer such information and/or documents as the Engineer may find necessary to establish that any wells impacted under this Permit, including those wells identified in Table 30-B of Finding 30 of this Order, will not go dry due to Applicant’s pumping authorized under this Permit, or that the owners or users of said wells have waived or released any claim of liability against the Permittee for injury resulting to such wells from operations under this permit, or that the Permittee has acquired the rights of such persons in such wells, or that the Permittee can and will supply water to such wells or the users thereof.

NMOSE Order HU No. 03-004, Finding 30, table 30-A lists wells that have the potential to go dry in 40 years as a result of BW10-13 pumping, and table 30-B lists wells that have the potential to go dry in 100 years as a result of BW10-13 pumping. All wells listed in table 30-A and table 30-B are included in Appendices B and C of this report.

2.0 HYDROGEOLOGIC SETTING

Buckman Well Field produces water supply from groundwater within the Española Basin, one of a series of structural basins in the Rio Grande rift, which formed during crustal extension starting in the late Oligocene (Grauch et al., 2009; Koning and Read, 2010). As the Espanola Basin formed it was filled with a thick section of sediments derived from erosion of surrounding highlands (Koning and Read, 2010). At the Buckman Well Field, these sediments include the Tesuque Formation (belonging to the Santa Fe Group) and consist of sand, silt, clay, and gravel locally interbedded with minor volcanic flows and ashes (Koning and Read, 2010).

Geophysical data and geologic mapping indicate that the southern Española Basin is a west-tilted half-graben (Grauch et al., 2009; Hudson and Grauch, 2013). As a result, the beds of the Tesuque Formation dip approximately 10 degrees west. There are also structural features within the half graben including Cañada Ancha Graben, Barrancos Monocline, and numerous north-south faults (see Figs. 2, 3a, 3b, and 3c). The Cañada Ancha Graben is bound to the west by the Caja Del Rio Horst block and to the east by the Barrancos Monocline (west-down faulted monocline). The Caja Del Rio Horst block and Cañada Ancha Graben plunge north and terminate near Buckman Wells 1 through 9 (BW1-9).

The Tesuque Formation has been divided into several “lithosomes” that are distinguished by location and type of source material (Koning and Read, 2010). Near the Rio Grande, BW1-9 are completed in the axial river sediments (labeled Tcar on Fig. 3a) consisting of stacked channel-fills of sandstone deposits with interbedded over-bank deposits of claystone, siltstone and fine sandstone. Buckman Wells 10 through 13 (BW10-13) are completed in the medium-grained unit of Lithosome S (Fig. 3b). Most of the domestic wells in the area of BW10-13 are completed in the Cuarteles Member (Ttcu), which overlies Lithosomes A and S. Further east domestic wells are completed in the medium-grained unit of Lithosome S (Ttsm).

In the area of BW1-9, the shallow alluvial aquifer is in hydraulic communication with the Rio Grande and to a lesser degree the underlying Tesuque Formation (Beaumont, 1971; JSAI, 2001). The well construction, well yield, and water quality are highly variable in the BW1-9 area. In general, wells with elevated arsenic concentrations are near faults and yield groundwater with low mineral hardness. The artesian conditions at BW1-9 are from westward flow down dip along bedding planes and deep groundwater flow from Tesuque Formation Lithosome B that flows upward along fault zones (JSAI, 2005; JSAI, 2012).

BW10-13 were drilled, constructed, and tested in 2003. Results of the testing can be referenced from JSAI (2004). BW10-13 were constructed using casing path design, so that they produce water from nearly the entire saturated section of the highly stratified Tesuque Formation

Lithosome S medium-grained unit penetrated by the well. All four wells are relatively high yielding, with specific capacities ranging from about 4 to 10 gallons per minute per foot (gpm/ft) of drawdown at pumping rates in excess of 900 gpm. Under pumping conditions, the water quality from BW10-13 resembles the deeper zones. Groundwater is older with respect to depth, and the older groundwater has undergone geochemical reactions that involve water softening, increased pH, and release of arsenic adsorbed to minerals. This older groundwater upwells along fault zones or resides in the aquifer at a certain depth.

The majority of domestic wells in the BMP area are completed within the upper few hundred feet of the water table, primarily in Cuarteles Member (Ttcu) and upper portion of Lithosome S medium-grained unit (Ttsm), referred to as the shallow aquifer. The deep aquifer represents the confined aquifer within Lithosome S medium-grained unit at BW10-13, and Tear axial river sediments at Buckman Wells 1 through 9 (BW1-9).

3.0 BUCKMAN WELL FIELD (RG-20516 ET AL.) DIVERSIONS

3.1 Historical Diversions

A summary of BW1-9 diversions between 1972 and 2002 is presented in Table 2. Figures A1 through A14 in Appendix A present graphs showing historical Buckman Well Field diversions and water levels. Significant pumping began in the Buckman Well Field in 1972, with pumping at BW3, BW4, and BW6. Between 1972 and 2002, total diversions from the Buckman Well Field ranged from 16 to 5,890 acre-feet per year (ac-ft/yr; Table 2). Under RG-20516 et al., the City is permitted to pump 10,000 ac-ft/yr from the Buckman Well Field.

3.2 Diversions Since 2003

A summary of Buckman Well Field (BW1-13) diversions between 2003 and 2021 is presented in Table 3. Figures A1 through A14 in Appendix A present graphs showing historical Buckman Well Field diversions and water levels. BW10-13 began producing water for the municipal utility between October and December 2003. Between 2003 and 2021, total diversions from the Buckman Well Field have ranged from less than 1,000 up to 5,823 ac-ft/yr (Table 3), and diversions from BW10-13 have ranged from about 20 up to 3,378 ac-ft/yr. Under RG-20516-S-10 through RG-20516-S-13 permit, the City is permitted to pump up to 6,000 ac-ft/yr of the total permitted 10,000 ac-ft/yr from BW10-13. It should be noted that in the past 8 years, total diversions from the Buckman Well Field have been less than 1,000 ac-ft/yr, and diversions from BW10-13 have been less than 200 ac-ft/yr.

Table 2. Summary of Buckman Well Field (BW1-9) diversions between 1981 and 2002

| year | BW1, ac-ft | BW2, ac-ft | BW3, ac-ft | BW4, ac-ft | BW5, ac-ft | BW6, ac-ft | BW7, ac-ft | BW8, ac-ft | BW9, ac-ft | BW total, ac-ft |
|------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------|
| 1972 | 0 | 0 | 284 | 283 | 0 | 284 | 0 | 0 | 0 | 851 |
| 1973 | 0 | 0 | 782 | 732 | 0 | 752 | 0 | 0 | 0 | 2,266 |
| 1974 | 0 | 0 | 1,036 | 939 | 185 | 1,133 | 0 | 0 | 0 | 3,293 |
| 1975 | 0 | 0 | 662 | 732 | 77 | 906 | 0 | 0 | 0 | 2,376 |
| 1976 | 0 | 0 | 893 | 961 | 1 | 852 | 0 | 0 | 0 | 2,707 |
| 1977 | 0 | 0 | 1,001 | 1,052 | 0 | 898 | 0 | 0 | 0 | 2,951 |
| 1978 | 0 | 0 | 538 | 538 | 0 | 536 | 0 | 0 | 0 | 1,611 |
| 1979 | 0 | 0 | 171 | 171 | 171 | 0 | 0 | 0 | 0 | 513 |
| 1980 | 0 | 0 | 170 | 170 | 0 | 170 | 0 | 0 | 0 | 509 |
| 1981 | 1,027 | 1,459 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,486 |
| 1982 | 579 | 695 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,274 |
| 1983 | 7 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 1984 | 100 | 212 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 312 |
| 1985 | 459 | 671 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,130 |
| 1986 | 602 | 946 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,548 |
| 1987 | 544 | 897 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,442 |
| 1988 | 548 | 741 | 82 | 465 | 52 | 581 | 0 | 0 | 0 | 2,470 |
| 1989 | 563 | 1,272 | 261 | 1,049 | 146 | 1,260 | 0 | 0 | 0 | 4,551 |
| 1990 | 334 | 840 | 263 | 1,041 | 143 | 1,203 | 0 | 0 | 0 | 3,823 |
| 1991 | 203 | 554 | 181 | 645 | 103 | 820 | 302 | 378 | 0 | 3,185 |
| 1992 | 194 | 730 | 112 | 497 | 48 | 1,215 | 993 | 962 | 0 | 4,752 |
| 1993 | 693 | 735 | 139 | 647 | 141 | 1,222 | 1,070 | 962 | 0 | 5,610 |
| 1994 | 714 | 743 | 121 | 668 | 266 | 1,052 | 634 | 783 | 0 | 4,982 |
| 1995 | 945 | 825 | 352 | 765 | 384 | 1,009 | 831 | 779 | 0 | 5,890 |
| 1996 | 935 | 707 | 617 | 632 | 438 | 972 | 593 | 761 | 0 | 5,656 |
| 1997 | 925 | 816 | 507 | 453 | 139 | 1,031 | 498 | 347 | 0 | 4,715 |
| 1998 | 660 | 879 | 457 | 399 | 111 | 1,043 | 743 | 924 | 0 | 5,216 |
| 1999 | 625 | 842 | 416 | 353 | 0 | 994 | 1,159 | 891 | 0 | 5,279 |
| 2000 | 626 | 720 | 519 | 266 | 0 | 915 | 1,169 | 864 | 0 | 5,081 |
| 2001 | 716 | 490 | 436 | 354 | 0 | 1,037 | 1,033 | 678 | 0 | 4,743 |
| 2002 | 730 | 584 | 417 | 555 | 265 | 1,273 | 1,145 | 869 | 0 | 5,838 |

bold - indicates well with maximum diversion in a given year

BW - Buckman Well

ac-ft - acre-feet

Table 3. Summary of Buckman Well Field (BW1-13) diversions between 2003 and 2019

| year | BW1, ac-ft | BW2, ac-ft | BW3, ac-ft | BW4, ac-ft | BW5, ac-ft | BW6, ac-ft | BW7, ac-ft | BW8, ac-ft | BW9, ac-ft | BW10, ac-ft | BW11, ac-ft | BW12 ac-ft | BW13, ac-ft | BW1-13 total, ac-ft | BW10-13 subtotal, ac-ft | BW10-13, percent of total | comments |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|---------------------------|-------------------------------|---------------------------------|-------------------------------------|
| 2003 | 508 | 540 | 338 | 386 | 234 | 1,188 | 987 | 780 | 292 | 0 | 251 | 259 | 60 | 5,823 | 570 | 10 | BW10-13 on-line between Oct and Dec |
| 2004 | 27 | 6 | 73 | 355 | 4 | 958 | 278 | 653 | 6 | 454 | 711 | 948 | 1,265 | 5,738 | 3,378 | 59 | |
| 2005 | 5 | 6 | 105 | 510 | 1 | 367 | 1,223 | 797 | 2 | 23 | 368 | 216 | 160 | 3,783 | 767 | 20 | |
| 2006 | 20 | 150 | 247 | 612 | 8 | 1,077 | 238 | 814 | 54 | 657 | 825 | 88 | 407 | 5,197 | 1,977 | 38 | |
| 2007 | 398 | 9 | 183 | 565 | 0 | 409 | 704 | 704 | 25 | 223 | 137 | 31 | 405 | 3,793 | 796 | 21 | |
| 2008 | 75 | 0 | 115 | 782 | 60 | 38 | 851 | 866 | 0 | 263 | 556 | 42 | 84 | 3,732 | 945 | 25 | |
| 2009 | 30 | 0 | 143 | 704 | 157 | 952 | 531 | 368 | 0 | 233 | 331 | 345 | 8 | 3,802 | 917 | 24 | |
| 2010 | 82 | 0 | 437 | 474 | 129 | 1,023 | 249 | 8 | 0 | 97 | 328 | 182 | 44 | 3,053 | 651 | 21 | |
| 2011 | 78 | 0 | 101 | 220 | 1 | 433 | 0 | 244 | 0 | 194 | 289 | 165 | 0 | 1,725 | 648 | 38 | |
| 2012 | 214 | 0 | 95 | 150 | 169 | 311 | 0 | 192 | 0 | 20 | 120 | 131 | 0 | 1,402 | 271 | 19 | |
| 2013 | 631 | 5 | 219 | 404 | 0 | 514 | 31 | 255 | 5 | 185 | 288 | 159 | 194 | 2,891 | 826 | 29 | |
| 2014 | 54 | 0 | 82 | 38 | 29 | 135 | 54 | 21 | 71 | 0 | 30 | 41 | 26 | 579 | 96 | 17 | |
| 2015 | 163 | 0 | 57 | 12 | 14 | 163 | 33 | 50 | 8 | 8 | 22 | 31 | 73 | 633 | 133 | 21 | |
| 2016 | 232 | 0 | 37 | 86 | 0 | 220 | 89 | 151 | 19 | 29 | 4 | 30 | 28 | 925 | 90 | 10 | |
| 2017 | 336 | 0 | 0 | 30 | 0 | 225 | 0 | 68 | 0 | 0 | 5 | 0 | 11 | 674 | 16 | 2 | |
| 2018 | 361 | 0 | 17 | 45 | 0 | 161 | 0 | 56 | 14 | 34 | 41 | 14 | 88 | 831 | 177 | 21 | |
| 2019 | 95 | 0 | 21 | 17 | 1 | 91 | 1 | 64 | 1 | 13 | 0 | 0 | 10 | 314 | 23 | 7 | |
| 2020 | 276 | 0 | 7 | 26 | 0 | 112 | 0 | 128 | 2 | 49 | 16 | 3 | 16 | 633 | 84 | 13 | |
| 2021 | 242 | 0 | 4 | 35 | 0 | 74 | 12 | 98 | 26 | 32 | 0 | 11 | 124 | 659 | 168 | 25 | |
| 2003-2021 total | 3,826 | 716 | 2,280 | 5,449 | 807 | 8,450 | 5,282 | 6,315 | 525 | 2,513 | 4,321 | 2,696 | 3,003 | 46,183 | 12,532 | - | |
| 2003-2021 average | 201 | 38 | 120 | 287 | 42 | 445 | 278 | 332 | 28 | 132 | 227 | 142 | 158 | 2,431 | 660 | 27 | |
| average as percent of permitted amount | 2 | 0 | 1 | 3 | 0 | 4 | 3 | 3 | 0 | 1 | 2 | 1 | 2 | 24 | 11 | - | - |

BW - Buckman Well
bold - indicates well with maximum diversion in a given year
 ac-ft - acre-feet

Demand for groundwater supply from the Buckman Well Field is inversely related to surface-water availability. When the City has adequate supply from its surface-water resources, groundwater is conserved. However, during drought conditions, groundwater pumping is needed to make up for shortfalls in surface-water supply.

3.3 Forecasted Diversions

The City has prepared a forecast scenario for future pumping in which BW10-13 pump a total of 1,300 ac-ft/yr (distributed equally among the wells), and BW1-9 pump a total of 1,300 ac-ft/yr (distributed equally among the wells), for a total of 2,600 ac-ft/yr. This forecast scenario is close to the average total pumping for 2003 to present (note that BW10-13 came on-line in 2003). The forecasted diversions do not consider the worst-case scenario in which catastrophic fires and potential legal/administrative constraints eliminate or greatly reduce surface-water supplies, requiring the City to be wholly dependent on groundwater and potentially utilizing up to the total permitted 10,000 ac-ft/yr under RG-20516 et al.

4.0 ANALYSIS OF WATER-LEVEL DATA

The following analysis of water-level data pertains to the evaluation period of 2003 to 2021, with an emphasis on the last 2 years of data. Interpretations of initial water-level responses from BW10-13 pumping can be referenced from the 2014 biennial report (JSAI, 2014).

4.1 Groundwater Elevation Contours

Groundwater-elevation contours representative of the regional aquifer (including shallow and deep zones) beneath the BMP area were prepared for years 2003 (Fig. 4) and 2021 (Fig. 5). Year 2003 represents groundwater-elevation contours before BW10-13 began pumping, and year 2021 represents current pumping conditions that include BW10-13. Direction of regional groundwater flow in the BMP area has generally been northeast toward BW1-9 and the Rio Grande. The contours indicate flatter hydraulic gradient in the vicinity of Buckman piezometer and BW10, and southeast of BW13. The observed differences between the 2003 and 2021 flow fields reflect the removal of the artesian head component in the Cañada Ancha Graben (5,900 and 6,000 ft above mean sea level (amsl) contours shifted to the southeast), and approximately 585 ft of water-level recovery at BW1-9.

4.2 Calculation of Water-Level Trends

The analysis of water-level trends focuses on an evaluation period from 2003 (when BW10-13 began pumping) to 2021. Water-level trends, presented as total drawdown during the evaluation period, are shown in Table 4 and in Figures 6 and 7, and were calculated by subtracting the most recent non-pumping water level from the 2003 non-pumping water level (or earliest data point for wells for which pre-2004 data were not available). Positive numbers indicate a water-level rise and negative numbers represent a water-level decline.

4.3 Buckman Well Field

Although the effort was made to use only non-pumping water-level data in this analysis, water-level data from Buckman supply wells must be interpreted cautiously because non-pumping water levels reflect varying periods and degrees of recovery from pumping. The water-level datasets for these wells capture a range of conditions in and near the wells, and not necessarily in the regional aquifer.

Non-pumping water levels in BW1-9 have been rising overall since 2003 as total Buckman Well Field pumping has been decreasing and 27 percent of the total pumping has shifted to BW10-13 (Tables 2 and 3, Figs. A2 through A10). Non-pumping water levels in BW10 are currently 8 ft higher than the initial 2003 measurement (Fig. A11). Non-pumping water levels in BW11 have been rising over the past 8 years (Fig. A12). The observed water-level rises for non-pumping water levels in BW10 and BW11 are due to reduced pumping from the Buckman Well Field. Non-pumping water levels in BW12 and BW13 have been stable over the past 8 years (Figs. A13 and A14).

4.4 USGS Monitoring Wells

The USGS monitoring wells are non-pumping wells dedicated to water-level observation, which include piezometer nests that allow observation of water levels at multiple levels in the aquifer (Table 5). Piezometers SF-2(B,C), SF-3(A,B,C), SF-4(A,B,C) and SF-5C are in the BW1-9 area, piezometer nest SF-6(A,B,C) is between BW1-9 and BW10, and Las Campanas piezometer nest is located approximately 2 miles south of BW13 (see Fig. 2).

Table 4. Water-level trends for Buckman Monitoring Program wells

| NMOSE ID | other ID (NMBGMR/USGS, if any) | name | aquifer zone | total depth, ft | points used to define water-level trend | | | | observed water- level change (+ rise / - decline), ft | comments |
|---------------|--------------------------------------|----------------------------|-----------------|-----------------------|---|--|-------------------------------|--|---|-------------------------------|
| | | | | | starting water-level date | starting non-pumping water level, ft bgl | recent water-level date | recent non-pumping water level, ft bgl | | |
| | EB269/355000106092802 | SF-2B piez. | deep | 824 | Jan-2003 | 411.94 | Nov-2021 | 0.70 | 411 | |
| | EB270/355000106092803 | SF-2C piez. | deep | 346 | Jan-2003 | 233.84 | Nov-2021 | 2.66 | 231 | |
| | EB265/355002106093701 | SF-3A piez. | deep | 294 | Jan-2003 | 185.73 | Nov-2021 | -20.87 | 207 | |
| | EB266/355002106093702 | SF-3B piez. | shallow | 169 | Jan-2003 | 17.99 | Nov-2021 | -6.44 | 24 | |
| | EB267/355002106093703 | SF-3C piez. | shallow | 60 | Jan-2003 | 17.39 | Nov-2021 | 16.34 | 1 | |
| | EB262/355003106094301 | SF-4A piez. | deep | 280 | Jan-2003 | 155.30 | Nov-2021 | -44.75 | 200 | |
| | EB263/355003106094302 | SF-4B piez. | shallow | 130 | Jan-2003 | 5.74 | Nov-2021 | -1.05 | 7 | |
| | EB264/355003106094303 | SF-4C piez. | shallow | 60 | Jan-2003 | 12.78 | Nov-2021 | 12.02 | 1 | |
| | EB261/355006106094803 | SF-5C piez. | shallow | 69 | Jan-2003 | 5.95 | Nov-2021 | 5.14 | 1 | |
| | EB298/354731106072001 | SF-6A (Buckman deep piez.) | deep | 2,440 | Oct-2003 | 59.90 | Jan-2022 | 155.41 | -96 | |
| | EB299/354731106072002 | SF-6B (Buckman deep piez.) | deep | 1,340 | Oct-2003 | 164.83 | Jan-2022 | 190.38 | -26 | |
| | EB300/354731106072003 | SF-6C (Buckman deep piez.) | shallow | 480 | Oct-2003 | 186.56 | Jan-2022 | 199.39 | -13 | |
| | EB608/354228106044901 | Las Campanas deep piez. | deep | 1,990 | Jul-2005 | 216.53 | Jan-2022 | 216.50 | 0.0 | |
| | EB609/354228106044902 | Las Campanas middle piez. | deep | 1,320 | Jul-2005 | 262.92 | Jan-2022 | 252.84 | 10 | |
| | EB610/354228106044903 | Las Campanas shallow piez. | shallow | 450 | Jul-2005 | 278.70 | Jan-2022 | 280.27 | -2 | |
| RG-20516-S-5 | EB478 | Buckman 1 (BW1) | deep | 1,108 | Jan-2003 | 632.1 | Dec-2021 | 0.00 | 632 | |
| RG-20516-S-6 | EB479 | Buckman 2 (BW2) | deep | 1,593 | Jan-2003 | 483.65 | Dec-2021 | 0.00 | 484 | |
| RG-20516-S | EB480 | Buckman 3 (BW3) | deep | 1,500 | Jan-2003 | 642.25 | Dec-2021 | 37.24 | 605 | |
| RG-20516-S-2 | EB481 | Buckman 4 (BW4) | deep | 1,219 | Jan-2003 | 678.39 | Dec-2021 | 21.48 | 657 | |
| RG-20516-S-3 | EB482 | Buckman 5 (BW5) | deep | 1,182 | Jan-2003 | 652.98 | Dec-2021 | 99.89 | 553 | |
| RG-20516-S-4 | EB483 | Buckman 6 (BW6) | deep | 1,154 | Jan-2003 | 669.15 | Dec-2021 | 87.54 | 582 | |
| RG-20516-S-7 | EB484 | Buckman 7 (BW7) | deep | 1,415 | Jan-2003 | 758.42 | Dec-2021 | 38.89 | 720 | |
| RG-20516-S-8 | EB485 | Buckman 8 (BW8) | deep | 910 | Jan-2003 | 488.33 | Dec-2021 | 0.00 | 488 | |
| RG-20516-S-9 | EB486 | Buckman 9 (BW9) | deep | 1,363 | Nov-2003 | 669.50 | Dec-2021 | 125.30 | 544 | |
| RG-20516-S-10 | EB487 | Buckman 10 (BW10) | both | 2,016 | Sep-2003 | 331.90 | Dec-2021 | 323.80 | 8 | |
| RG-20516-S-11 | EB488 | Buckman 11 (BW11) | both | 2,020 | Jul-2003 | 271.10 | Dec-2021 | 385.27 | -114 | |
| RG-20516-S-12 | EB489 | Buckman 12 (BW12) | both | 1,930 | Jul-2003 | 239.10 | Dec-2021 | 396.92 | -158 | |
| RG-20516-S-13 | EB490 | Buckman 13 (BW13) | both | 2,018 | Jul-2003 | 296.40 | Dec-2021 | 318.24 | -22 | |
| RG-21318 | EB288 | Skillet | deep | 1,700 | Jan-2003 | 219.00 | Dec-2021 | 184.20 | 35 | |
| RG-439 | EB157 | Weil Corral | deep | 325 | Jan-2003 | 264.00 | Jul-2015 | 128.75 | 135 | access suspended |
| RG-16681 | EB163 | Permit | shallow | 745 | Sep-2003 | 695.10 | Jul-2015 | 697.70 | -3 | access suspended |
| RG-6386 | EB160 | Tony's Windmill | shallow | 350 | Jun-2005 | 291.89 | Jan-2022 | 294.79 | -3 | |
| RG-29524 | EB085 | Las Dos 1 | shallow | 773 | May-2005 | 396.66 | - | - | - | access issues |
| RG-25463 | EB287 | - | shallow | 841 | May-2004 | 467.52 | Jan-2022 | 473.48 | -6 | |
| RG-438 | EB251 | Midway Windmill | shallow | 310 | Apr-2005 | 254.96 | Jan-2020 | 265.90 | -11 | table 30-A |
| RG-29723 | EB645 | USFS Well | shallow | 693 | Mar-2004 | 664.10 | Jan-2022 | 673.12 | -9 | table 30-A |
| RG-30777 | EB064 | - | shallow | 663 | Mar-2004 | 540.02 | Jan-2022 | 540.81 | -1 | |
| RG-28112 | | - | shallow | 701 | Jan-2009 | 548.31 | Jan-2022 | 552.71 | -4 | replaces RG-24584 |
| RG-79509 | | - | shallow | 800 | Jan-2009 | 526.62 | Jan-2022 | 530.60 | -4 | |
| RG-24584 | EB121 | - | shallow | 602 | Jul-2003 | 424.95 | - | - | - | no access |
| RG-81860 | | Santa Fe Ranch Barn Well | shallow | 695 | Jul-2013 | 370.66 | Jan-2021 | 371.28 | -1 | replaces RG-29524 (Las Dos 1) |
| RG-93871 | | La Tierra Deep Mon. Well | deep | 1,200 | May-2013 | 373.24 | Jan-2022 | 376.28 | -3 | |

^a water level above ground level
table 30-A - Finding 30, NMOSE Order HU No. 03-004
ft bgl - feet below ground level

NMOSE - New Mexico Office of the State Engineer
USGS - U.S. Geological Survey
NMBGMR - New Mexico Bureau of Geology and Mineral Resources

Table 5. Summary of elevation, total depth, and depth to top and bottom of screen for BW1-13 and piezometers in the Buckman Monitoring Program area

| well | land surface elevation, ft amsl | total well depth, ft bgl | depth to top of screen, ft bgl | depth to bottom of screen, ft bgl |
|----------------------------|---------------------------------|--------------------------|--------------------------------|-----------------------------------|
| Buckman 1 (BW1) | 5,519 | 1,108 | 257 | 1,093 |
| Buckman 2 (BW2) | 5,539 | 1,593 | 234 | 1,578 |
| Buckman 3 (BW3) | 5,619 | 1,500 | 500 | 1,480 |
| Buckman 4 (BW4) | 5,646 | 1,219 | 454 | 1,214 |
| Buckman 5 (BW5) | 5,790 | 1,182 | 244 | 1,170 |
| Buckman 6 (BW6) | 5,726 | 1,154 | 291 | 1,148 |
| Buckman 7 (BW7) | 5,605 | 1,415 | 700 | 1,400 |
| Buckman 8 (BW8) | 5,514 | 910 | 380 | 900 |
| Buckman 9 (BW9) | 5,738 | 1,363 | 320 | 1,320 |
| Buckman 10 (BW10) | 6,044 | 2,016 | 500 | 1,980 |
| Buckman 11 (BW11) | 6,149 | 2,020 | 450 | 1,980 |
| Buckman 12 (BW12) | 6,245 | 1,930 | 400 | 1,900 |
| Buckman 13 (BW13) | 6,426 | 2,018 | 400 | 1,980 |
| SF-2B piez. | 5,540 | 824 | 802 | 812 |
| SF-2C piez. | 5,540 | 346 | 324 | 334 |
| SF-3A piez. | 5,480 | 294 | 274 | 284 |
| SF-3B piez. | 5,480 | 169 | 149 | 159 |
| SF-3C piez. | 5,480 | 60 | 40 | 50 |
| SF-4A piez. | 5,470 | 280 | 260 | 270 |
| SF-4B piez. | 5,470 | 130 | 110 | 120 |
| SF-4C piez. | 5,470 | 60 | 40 | 50 |
| SF-5C piez. | 5,455 | 69 | 49 | 59 |
| SF-6A (Buckman deep piez.) | 5,960 | 2,440 | 2,400 | 2,430 |
| SF-6B (Buckman deep piez.) | 5,960 | 1,340 | 1,300 | 1,330 |
| SF-6C (Buckman deep piez.) | 5,960 | 480 | 280 | 470 |
| Las Campanas deep piez. | 6,390 | 1,990 | 1,960 | 1,980 |
| Las Campanas middle piez. | 6,390 | 1,320 | 1,290 | 1,310 |
| Las Campanas shallow piez. | 6,390 | 450 | 380 | 440 |

ft amsl - feet above mean sea level

ft bgl - feet below ground level

In the BW1-9 area, piezometers SF-2(B,C), SF-3A, and SF-4A represent the aquifer zone pumped by BW1-9, and piezometers SF-3(B,C), SF-4(B,C), and SF-5C represent the aquifer above the zone pumped by BW1-9 (including Rio Grande alluvium) (see Figs. A17 through A20). The piezometers representative of the shallow aquifer zone (above the interval pumped) show no response to pumping, most likely because the heads in the shallow aquifer are maintained by the Rio Grande. Water levels in middle and deep USGS-monitored piezometers close to the Rio Grande (SF-3A and B, and SF-4A) are now above ground level (artesian), and these piezometers require to be shut in.

The USGS-monitored Buckman piezometer nest (SF-6(A,B,C)) is located in Cañada Ancha Graben between BW1-9 and BW10 (Figs. 1 and 2). Piezometer SF-6C represents the shallow aquifer zone above the BW10-13 screen intervals, and the middle (SF-6B) and deep (SF-6A) piezometers represent the deep aquifer zone screened in BW10-12 (see Fig. 3). The water levels in the deep aquifer at SF-6A and SF-6B significantly declined between 2003 and 2006, showed little change between 2006 and 2014, and have risen slightly between 2014 and present (Fig. A15).

Las Campanas piezometer nest, located south of BW13, consists of a shallow piezometer representative of the shallow aquifer zone above the BW10-13 screen intervals, and the middle and deep piezometers are representative of the deep aquifer zone screened in BW10-13 (Fig. 1; Table 5). The difference in depth to water between the shallow and deep piezometers is indicative of water-table conditions in the shallow piezometer and confined aquifer conditions in the deep piezometer (Fig. A16). Since 2005, water-level rises have been observed in Las Campanas middle piezometer, and little to no change in water level has been observed in the deep piezometer. Measured water levels in the shallow piezometer indicate a slight decline (Fig. A16; Table 4). These data for Las Campanas piezometer nest bound the southern extent of drawdown in the shallow and deeper zones of the aquifer due to BW10-13 pumping.

Water levels have risen in 10 of the 15 piezometers monitored by USGS in and near the BMP area since 2003 (Table 4). The majority of the piezometers with water-level rises are in the vicinity of BW1-9, where pumping has decreased since 2003.

4.5 Other Buckman Monitoring Program Wells

Other BMP wells include several wells measured under the BW1-9 monitoring program (Skillet, Permit, Weil Corral), wells equipped and actively-pumped for stock watering use (Tony's Windmill, Midway Windmill, and RG-81860) and domestic use (RG-25463), and unequipped wells (USFS Well, RG-30777, RG-28112, RG-79509, and RG-93871 (La Tierra Deep Monitoring Well)); see Figs. 1 and 2).

Water levels have generally declined by a total of 1 to 11 ft in the other BMP wells during the evaluation period 2003 to present (Table 3, Figs. 6, A21 through A39). The hydrographs for RG-21318 (Skillet Well) and RG-439 (Weil Corral) show increases in water levels since 2003 (Figs. A40 through A43). The water levels in Weil Corral well significantly rebounded after 2011 as a result of reduced pumping at BW1-9; however, the Skillet Well has not shown the same response as the Weil Corral Well. It is suspected that the Skillet Well water-level data are not representative of the deep aquifer; the well casing may have collapsed at depth.

4.6 Interpretation of Water-Level Trends

The intent of BMP water-level monitoring is to evaluate the potential drawdown effects from pumping BW10-13 on wells of other ownership in the BMP area (Fig. 1). The evaluation period corresponds to the period BW10-13 has been pumping (2003 to current). The water-level trends interpreted from the monitoring data can be separated into trends for the shallow and deep zones of the regional aquifer (see Table 4). The shallow aquifer trends are from wells completed in the upper few hundred feet of the aquifer resembling water-table conditions, and representative of most wells of other ownership. The deep aquifer trends are from wells typically completed and screened several hundreds of feet below the water table resembling confined aquifer conditions, and representative of the aquifer zone pumped by BW1-13.

As illustrated by the hydrographs for Buckman piezometer nest (SF-6(A,B,C)) (Fig. A15) and Las Campanas piezometer nest (Fig. A16), the deeper (confined aquifer) piezometers have depth to water that is significantly shallower than the adjacent shallow piezometers. The aquifer is composed of layers (beds) with varying permeability, which limit vertical flow and create confined aquifer conditions at depth. This aquifer stratification is further complicated by regional structures that have tilted the beds so that they dip approximately 10 degrees to the west, and the Cañada Ancha Graben (Koning and Read, 2010; see Fig. 3b).

4.6.1 Shallow Aquifer Trends

Observed water-level changes in the shallow aquifer have been minimal in the BMP area during the evaluation period from 2003 to present (Table 4, Fig. 6). The shallow aquifer water levels in the BW1-9 area have risen during the 19-year evaluation period.

The shallow aquifer surrounding BW10-13 has shown a maximum water-level decline of about 13 ft over the past 19 years in the Cañada Ancha Graben (Fig. 6). Most of the observed water-level declines at wells in the shallow aquifer surrounding BW10-13 occurred between 2003 and 2006 when BW10-13 pumping averaged 1,673 ac-ft/yr (see Figs. A15 and A27). Since 2006, BW10-13 pumping has averaged 430 ac-ft/yr. SF-6C (Fig. A15), Midway Windmill (Fig. A21), RG-30777 (Fig. A27), and USFS Well (Fig. A36) are the closest shallow aquifer monitoring points to BW10-13 (Fig. 6). The largest observed water-level declines in the shallow aquifer are observed at SF-6C and Midway Windmill, which could be influenced by pumping from BW1-9 and BW10-13.

It should also be noted that Midway Windmill is an active, and aging, stock well and long-term water-level declines at the well are also very likely related to ongoing pumping and deteriorating condition of the well. A representative of NMSU has indicated that the well is pumped nearly every day to fill a tote tank for stock water. The well is pumped down to the pump intake, and yields approximately 100 gallons of stock water a day.

4.6.2 Deep Aquifer Trends

Hydrographs representative of deep aquifer trends include BW1-13 (Figs. A2 through A14), deep piezometers (Figs. A15 through A20), and RG-93871 La Tierra deep monitoring well (Fig. A33).

In the BW1-9 area, water levels in the deep aquifer have recovered hundreds of feet due to reduced BW1-9 pumping, and in some cases the wells are artesian with water levels above land surface (Table 4). Non-pumping water levels from BW10-13 have varied with periods of pumping, but due to the lack of pumping in the past 8 years, water levels have been steadily rising (BW10 and BW11) or remaining stable (BW12 and BW13).

At selected Buckman wells, there is evidence that the lower artesian aquifer has been de-pressurized. For example, historical pumping and water-quality data evaluated for BW2 have demonstrated that the lower artesian zone has been de-pressurized at this location, allowing shallow groundwater to recharge the lower aquifer zone through the upper screen interval in the well (JSAI, 2012). At BW11, BW12, and Buckman deep piezometer (SF-6A), drawdown from initial water levels represents a loss of the artesian head component in the deepest part of the aquifer at these locations. This is a characteristic unique to the deepest part of the aquifer within certain fault segments such as the Cañada Ancha Graben.

4.6.3 Zone of Influence

A total water-level decline of 12 ft in the shallow aquifer during the evaluation period can be contoured around the area spanning the Buckman piezometer nest to BW11 (Fig. 6). A maximum water-level decline of 13 ft in the shallow aquifer during the evaluation period can be assumed based on data from Buckman shallow piezometer (SF-6C); a 13-ft water-level decline over a 19-year evaluation period 2003 to 2021 equates to an average decline rate of 0.7 ft/yr.

Water-level declines of 6 ft or less over the evaluation period can be difficult to define and contour (Fig. 6). Therefore, significant drawdown is defined here as 6 ft over the 19-year evaluation period 2003 to 2021, which equates to an average decline rate of about 0.3 ft/yr; this average rate is significantly lower than the average regional decline rate previously documented in the area. In the NMOSE Order HU No. 03-004, the hearing examiner accepted testimony from NMOSE Hydrologist Andy Core that regional water-level changes prior to the granting of and the pumping from the BW10-13 well permit range from 0.89 ft/yr rise and 7.41 ft/yr decline with an average regional decline rate of 1.18 ft/yr (Finding 27).

Water-level trends in the Buckman deep piezometer (SF-6A) indicate a maximum water-level decline of 96 ft in a non-pumping observation well in the deep aquifer during the evaluation period (Fig. 7). Most of this drawdown occurred between 2003 and 2006, and likely represents the removal of the artesian head component in the deepest part of the aquifer within certain fault segments in the area between Buckman piezometer and BW12 (Fig. 2; JSAI, 2014). This is a characteristic unique to the deepest part of the aquifer within the Cañada Ancha Graben and is not

representative of the aquifer as a whole, or the shallower part of the aquifer in which many of the BMP and domestic wells are completed. Furthermore, in the case of BW11 and BW12, the reduction in pressure in the deeper portion of the aquifer may be due to well construction where the deeper part of the screen interval with higher head equilibrates with the shallower part of the screen interval with lower head. In this case, the loss in pressure is localized around the well. This may be the reason for observed drawdown from initial water level at Buckman deep piezometer as well, in the case that the annular seal may have failed to isolate the different screen intervals. Review of the well construction details would be required to evaluate the reason for observed drawdown; JSAI has been unable to obtain the documentation on the drilling and construction of the Buckman deep piezometer. BW10 water level does not reflect the initial artesian condition found at BW11 and BW12. The 2003 groundwater-elevation contours would suggest that the original water level in BW10 was about 60 ft higher than measured (see Fig. 4).

Water-level declines of 11 ft in Midway Windmill and 13 ft in Buckman shallow piezometer (SF-6C) are likely representative of maximum water-level declines during the evaluation period in the shallow aquifer near BW10-13. As mentioned above, SF-6C and Midway are situated such that they could be influenced by pumping from BW1-9 and BW10-13. SF-6C is a non-pumping monitoring well screened between 280 and 470 ft, and Midway is an active stock well (for which diversions are not metered) completed to a depth of 310 ft.

Drawdown in the deep aquifer would most likely propagate up dip in the same beds pumped by BW10-13, unless the Cañada Ancha Graben and the north-south faults in the Barrancos Monocline act as hydraulic barriers. BW10-13 and the dipping bedding planes are shown on Figure 3b. Based on these hydrogeologic conditions, the likely extent of potential drawdown impacts due to pumping BW10-13 can be projected up dip to the east (Figs. 3b and 6). This projected line of likely extent of potential drawdown, shown on Figure 6, is well within the BMP area. Although there may be the potential for groundwater flow (and drawdown impacts) perpendicularly across bedding, water-level declines for wells east of this line are likely due to regional drawdown effects, particularly under conditions of reduced pumping from the Buckman Well Field in recent years. The BMP continues to provide an effective monitoring network to detect any such impacts that may occur.

4.7 Projections of Water-Level Declines

Ten-year and 40-year projection of water-level declines in the monitored wells and a projection of water-level declines for wells in the BMP area are required components of the biennial report (see Section 3.3 Buckman Well Field water-level monitoring program for Permit No. RG-20516-S-10 thru RG-20516-S-13).

Observed water-level declines in the shallow aquifer represent the portion of aquifer in which most all domestic wells are completed. The observed water-level declines are localized to the Cañada Ancha Graben, and less pronounced to the east of the graben in the Barrancos Monocline area (Figs. 2, 3b, and 6).

Wells of other ownership and monitoring wells in the shallow aquifer with observed water-level declines (2003 to current), and projected water-level declines, are listed in Table 6. The observed water-level-decline rates in Table 6 are 0.7 ft/yr or less for the Cañada Ancha Graben area, and 0.3 ft/yr or less in the Barrancos Monocline area.

Table 6. Summary of observed and projected water-level declines

| well name | geologic setting | average water-level decline rate based on observed water-level decline 2003 to current, ft/yr | 10-year projected water-level decline, ft | 40-year projected water-level decline, ft |
|---------------------------------|------------------|---|---|---|
| Midway Windmill | CAG | 0.6 | 6 | 24 |
| U.S. Forest Service Well (USFS) | CAG | 0.5 | 5 | 20 |
| SF-6C (shallow piez.) | CAG | 0.7 | 7 | 28 |
| Las Campanas shallow piez. | CAG | 0.1 | 1 | 4 |
| Permit | BM | 0.2 | 2 | 8 |
| Tony's Windmill | BM | 0.2 | 2 | 8 |
| RG-28112 | BM | 0.2 | 2 | 8 |
| RG-79509 | BM | 0.2 | 2 | 8 |
| RG-25463 | BM | 0.3 | 3 | 12 |
| RG-81860 | BM | 0.05 | 0.5 | 2 |
| RG-30777 | BM | 0.05 | 0.5 | 2 |
| RG-77553 | TRA | 0.3 | 3 | 12 |

CAG – Cañada Ancha Graben
 BM – Barrancos Monocline
 TRA – Tano Road area

Starting water columns can be referenced from Appendix B. Based on observed water-level declines presented in Table 6, the only well projected to have drawdown exceeding 70 percent of the starting water column is USFS Well over the 40-year period. USFS Well and Midway Windmill have the smallest starting water columns among the Buckman Monitoring Program wells (Appendix B). Starting water columns in almost all domestic wells in the BMP area are greater than 100 ft.

Also required for the biennial report are 10-year and 40-year projections of water-level declines for one well from the western terminus of the Tano Road area. The representative well selected for the Tano Road area is RG-77553 (see Section 5.3). A decline rate of 0.3 ft/yr was assumed for the Tano Road area well, based on observed water-level-decline rates of 0.3 ft/yr or less in the Barrancos Monocline area directly to the west.

5.0 GROUNDWATER-FLOW MODEL ANALYSIS

5.1 Application of NMOSE Superposition Groundwater-Flow Model to Predict Future Drawdowns

The applicability of the NMOSE revised superposition version of the McAda-Wasiolek (1988) groundwater-flow model of the Santa Fe area (Core, 1996; Barroll and Keyes, 2005) has been evaluated under historical Buckman Well Field pumping conditions, and for model Layers 1 and 2 (JSAI, 2018), and the model may be considered the best tool currently available for projecting future drawdowns in the area. Therefore, the NMOSE revised superposition model has been used to simulate future drawdowns under future pumping scenarios.

5.2 Model Set-Up

The Groundwater Vistas (ESI, 2021) model file provided by NMOSE was geo-referenced with a model origin (lower left corner) of $X = 1,240,391.22$ ft, $Y = 12,900,880.53$ ft, UTM83 Z13), and 0.7-degree clockwise rotation of the model grid, based on the file “McadaWasiolek.shp” provided by NMOSE.

JSAI imported BW1-13, USGS monitoring wells, other BMP wells, and BMP database wells as observations wells in model Layer 1 and model Layer 2. JSAI prepared pumping files for future pumping scenarios, for import into Groundwater Vistas. BW1-13 pumping was distributed equally in model Layer 1 and model Layer 2, as in NMOSE well files.

5.3 Use of Buckman Monitoring Program Database Wells

JSAI imported BMP database wells as observation wells in model Layer 1 and model Layer 2. Model-simulated future drawdowns, and starting water levels at the initiation of the monitoring program (2003, or best available information for individual wells), were used for water-level projections for the database wells. Projections could only be made for database wells for which depth-to-water and total-depth information are available. Projections for BMP database wells are presented in Appendices B and C.

According to the requirements for the biennial report, one well from the Tano Road area is also included in Appendix B and C tables. The Tano Road area well, RG-77553, is located near the western boundary of the Tano Road area. RG-77553 was completed in T17N.R09E.04 in 2002, and drilled to a total depth of 900 ft. This well was selected for projections because the location has been verified (June 19, 2008 email from J.M. Smith), and the well record from 2002 likely gives a realistic estimate of the water column in the well around the time BW10-13 began pumping.

5.4 Model-Simulated Future Drawdown Effects

Ten-year and 40-year model-simulated future drawdowns were used for water-level projections for wells in the BMP area. Model-simulated drawdowns are larger in model Layer 2 than model Layer 1, so in order to take a conservative approach, drawdowns in Layer 2 were used for projections. Model-simulated future drawdowns under two different Buckman Well Field pumping scenarios were considered in the current study. The Buckman Well Field future pumping scenarios are summarized in Table 7.

Table 7. Future pumping scenarios for Buckman Well Field

| years | BW1-9, ac-ft/yr ^a | BW10-13, ac-ft/yr ^a | total, ac-ft/yr |
|---|---------------------------------|-----------------------------------|--------------------|
| <i>Scenario 1 Full RG-20516 et al. Permit</i> | | | |
| 1 through 100 | 4,000 | 6,000 | 10,000 |
| <i>Scenario 2 Forecast</i> | | | |
| 1 through 100 | 1,300 | 1,300 | 2,600 |

^a pumping distributed equally among wells
ac-ft/yr - acre-feet/year

5.4.1 Scenario 1 Full RG-20516 et al. Permit

To evaluate a worst-case scenario, future pumping of the full permitted diversion amounts under RG-20516 et al. was simulated, with a total of 6,000 ac-ft/yr distributed equally among BW10-13, and a total of 4,000 ac-ft/yr distributed equally among BW1-9 (Table 7). This worst-case scenario is referred to as Scenario 1 in this report. Model-simulated water-level declines under Scenario 1 are presented in Figure 8 for the 10-year period, and in Figure 9 for the 40-year period. Water-level projections for wells in the BMP area under Scenario 1 are presented in Appendix B.

5.4.2 Scenario 2 Forecast

The City has prepared a forecast scenario for future pumping in which BW10-13 pump a total of 1,300 ac-ft/yr (distributed equally among the wells), and BW1-9 pump a total of 1,300 ac-ft/yr (distributed equally among the wells), for a total of 2,600 ac-ft/yr. This forecast scenario is close to the average total pumping for 2003 to present (note that BW10-13 came on-line in 2003).

This forecast pumping scenario is referred to as Scenario 2 in this report, and is considered a realistic pumping scenario in contrast to the worst-case Scenario 1. Model-simulated water-level declines under Scenario 2 are presented in Figure 10 for the 10-year period, and in Figure 11 for the 40-year period. Water-level projections for wells in the BMP area under Scenario 2 are presented in Appendix C.

6.0 COMPLIANCE WITH PERMIT RG-20516-S-10 THROUGH RG-20516-S-13

6.1 Buckman Monitoring Program

The City is in compliance with the BMP through ongoing water-level monitoring, maintenance of the BMP database of wells and permits, reporting of BW1-13 diversion data and BMP water-level data, and submittal of this biennial report.

To remain in compliance with the BMP, this biennial report identifies all BMP area wells for which water columns are projected to be reduced to less than 30 percent over the 10-year or 40-year periods due to pumping at the full permitted diversion amounts (future pumping Scenario 1) or based on forecasted demand (future pumping Scenario 2).

As recommended by NMOSE (2018), this biennial report also evaluates water columns remaining after 10- and 40-year periods based on a continuation of average trends established for the period 2003 to present (see Section 5.3). As recommended by NMOSE (2021), this biennial report provides explanation and qualification for the likely extent of potential drawdown impacts due to pumping BW10-13 (see Section 4.6.3), presents starting water levels and water columns at the initiation of the monitoring program (2003, or best available information for individual wells), presents projections for the Tano Road area well, and identifies USFS Well as a well that will likely have inadequate water column in the 40-year time frame and is already beyond its life expectancy. The City is already providing water to the owners and users of this well.

Appendix B presents projected drawdowns for BMP area wells under future pumping Scenario 1, Appendix C presents projected drawdowns for these wells under future pumping Scenario 2, and Appendix D presents projected drawdowns for these wells based on a continuation of average trends established for the evaluation period 2003 to present. Table 8 summarizes BMP area wells for which water columns are projected to be reduced to less than 30 percent over the 10-year or 40-year periods.

6.2 Permit Conditions 6 and 7

This biennial report addresses Permit Conditions 6 and 7 by identifying any table 30-A and 30-B wells that may go dry due to pumping at the full permitted diversion amounts (future pumping Scenario 1) or based on forecasted demand (future pumping Scenario 2).

The table 30-A and 30-B wells are wells specifically identified in Finding 30 of NMOSE Order HU No. 03-004 as potentially going dry in 40 years (table 30-A) or 100 years (table 30-B) as a result of the RG-20516-S-10 through RG-20516-S-13 permit. Appendix B presents projected 10-year and 40-year drawdowns for table 30-A and 30-B wells (plus 100-year drawdowns for table 30-B wells) under future pumping Scenario 1, and Appendix C presents projected drawdowns for these wells under future pumping Scenario 2. Table 8 summarizes BMP area wells, including any table 30-A or 30-B wells, for which water columns are projected to be reduced to less than 30 percent over the 10-year or 40-year periods for the given pumping scenario.

Table 8. Ten- and 40-year projections for Buckman Monitoring Program area wells for which water columns are projected to be reduced to less than 30 percent (see Appendices B thru D for projections for additional BMP database wells)

| NMOSE ID | RG-438 (Midway WM) | RG-29723 (USFS Well) * | RG-30777 | RG-89212- POD1 | - |
|---|-----------------------|---------------------------|-----------|-------------------|-----------------|
| other ID (NMBGMR/USGS, if any) | EB251 | EB645 | EB064 | - | M-18 |
| date drilled | 1962 | 1940 | 1978 | 1983 | 1961 |
| total depth, ft | 310 | 693 | 663 | 700 | 560 |
| water-level date | Apr-2005 | Mar-2004 | Mar-2004 | 1983 | 1961 |
| water level, ft bgl | 254.96 | 664.10 | 540.02 | 580 | 524 |
| starting water column, ft | 55 | 29 | 123 | 115 ^a | 31 ^a |
| Scenario 1 full permit (model Layer 2) percent water column remaining after 10 yrs | 21 | 0 | 33 | 31 | 51 |
| Scenario 1 full permit (model Layer 2) percent water column remaining after 40 yrs | 0 | 0 | 15 | 13 | 0 |
| Scenario 2 forecast (model Layer 2) percent water column remaining after 10 yrs | 81 | 76 | 87 | 86 | 86 |
| Scenario 2 forecast (model Layer 2) percent water column remaining after 40 yrs | 72 | 61 | 83 | 82 | 75 |
| continuation of average trends percent water column remaining after 10 yrs | 87 | 76 | 98 | 98 | 92 |
| continuation of average trends percent water column remaining after 40 yrs | 49 | 0 | 90 | 90 | 67 |
| comments | table 30-A | table 30-A | | | |

^a starting water column adjusted based on the assumption that water-level information represents 2003 condition (beginning of evaluation period), and starting water level was calculated based on average trend established for evaluation period 2003 to 2019

* The City of Santa Fe has been providing reclaimed water to the owners and users of USFS Well, and the well is not currently in use or equipped

bold - less than 30 percent water column remaining table 30-A - Finding 30, NMOSE Order HU No. 03-004

NMBGMR/USGS - New Mexico Bureau of Geology and Mineral Resources/U.S. Geological Survey

NMOSE - New Mexico Office of the State Engineer

USFS - U.S. Forest Service

ft bgl - feet below ground level

WM - windmill

7.0 CONCLUSIONS

- There is a significant difference in water-level responses between wells and piezometers completed in the shallow and deep aquifer zones. BW1-13 pumping is mostly from the deep aquifer zone, where the largest water-level changes are observed. Water-level declines in the shallow aquifer are significantly less than those observed in the deep aquifer around BW10-13. Almost all wells of other ownership (including table 30-A and 30-B wells) are completed in the shallow aquifer east of the Cañada Ancha Graben, in the Barrancos Monocline area, where significant drawdown effects from pumping are not anticipated.
- None of the table 30-A or 30-B wells are projected to go dry under Scenario 2, the forecasted pumping scenario (Appendix C), or based on continuation of average trends (Appendix D), except for USFS Well (Table 8). USFS Well was drilled between 1938 and 1940 with a reported water column of 48 ft (1977 declaration), and is already beyond its life expectancy. USFS Well had a starting water column of only 29 ft in 2004, at the start of BW10-13 pumping. The City has been providing reclaimed water to the owners and users of USFS Well, and the well is not currently in use or equipped; in fact, the well has not been in use for over a decade and likely much longer. Based on the criteria described in NMOSE (2017), it is unclear whether the USFS Well meets the criteria for a “reasonably completed well,” and has certainly aged beyond the point that exceedance of drawdown allowance would be grounds for impairment.
- Two table 30-A wells, Midway Windmill and USFS Well, are projected to go dry within the 40-year period due to pumping at the full permitted diversion amounts under Scenario 1 (Table 8). Midway Windmill was drilled in 1962, and may be reaching the end of its life expectancy as an active stock well. The City may provide reclaimed water to the owners and users of Midway Windmill as needed, although the well is currently equipped and is in use for stock purposes. It should be noted that Midway Windmill does not go dry when considering model-simulation results for model Layer 1 (the shallow aquifer in which the well is completed; see Fig. A22).
- Three additional wells from the BMP database, RG-30777, RG-89212-POD1, and M-18, are projected to have water columns reduced to less than 30 percent within the 40-year period due to pumping at the full permitted diversion amounts under Scenario 1 (Table 8). Wells RG-30777 and RG-89212-POD1 are located within 0.5 mile east of BW13 and both have a starting water column of about 120 ft. Well M-18 referenced from Mourant (1980), is located about 1.9 miles east of Midway Windmill, likely drilled for livestock watering

use, and had a starting water column of 36 ft in 1961 (the well is 61 years old). Note that wells RG-89212-POD1 and M-18 have not yet been field-verified in terms of completion and current condition, current water level, and in the case of M-18, existence and actual location.

- None of the table 30-B wells are projected to go dry within the 100-year period due to pumping at the full permitted diversion amounts under Scenario 1 (Appendix B), nor for that matter under the forecasted pumping Scenario 2, or based on continuation of average trends.
- After 40 years, Tano Road area well RG-77553 is projected to have 97 percent of its starting water column under Scenario 1 (full permitted diversion). Water-level declines in the Tano Road area are projected to be 12 ft or less over the 40-year period due to Buckman Well Field pumping under Scenario 1, or based on continuation of average trends (results for RG-77553 as shown in Appendices B and D).
- The City has addressed Conditions 6 and 7 by using the NMOSE superposition model to simulate BW1-13 pumping and drawdown effects, and using drawdown results from Scenario 1 (full permitted diversion amounts) in model Layer 2 to project water-level declines over the 40-year period. The City has also used drawdown results from forecasted pumping Scenario 2 in model Layer 2, and based on NMOSE recommendation, has calculated drawdown based on a continuation of average trends, over the 40-year period.

8.0 RECOMMENDATIONS

- Continued monitoring at Midway Windmill, USFS Well, and RG-30777 will help the City ensure that the wells maintain sufficient water columns under actual Buckman Well Field pumping conditions to remain in compliance with RG-20516 permit requirements.
- If BW10-13 pumping is increased to rates similar to those between 2003 and 2006 (average of 1,673 ac-ft/yr, compared to average of 389 ac-ft/yr since then), RG-89212-POD1 and M-18 may need to be field-verified in terms of their completion and current condition, current water level, and in the case of M-18, the well's existence and actual location. RG-89212-POD1 is reported to be very close to RG-30777, with a similar completion as RG-30777.

9.0 REFERENCES

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ILLUSTRATIONS

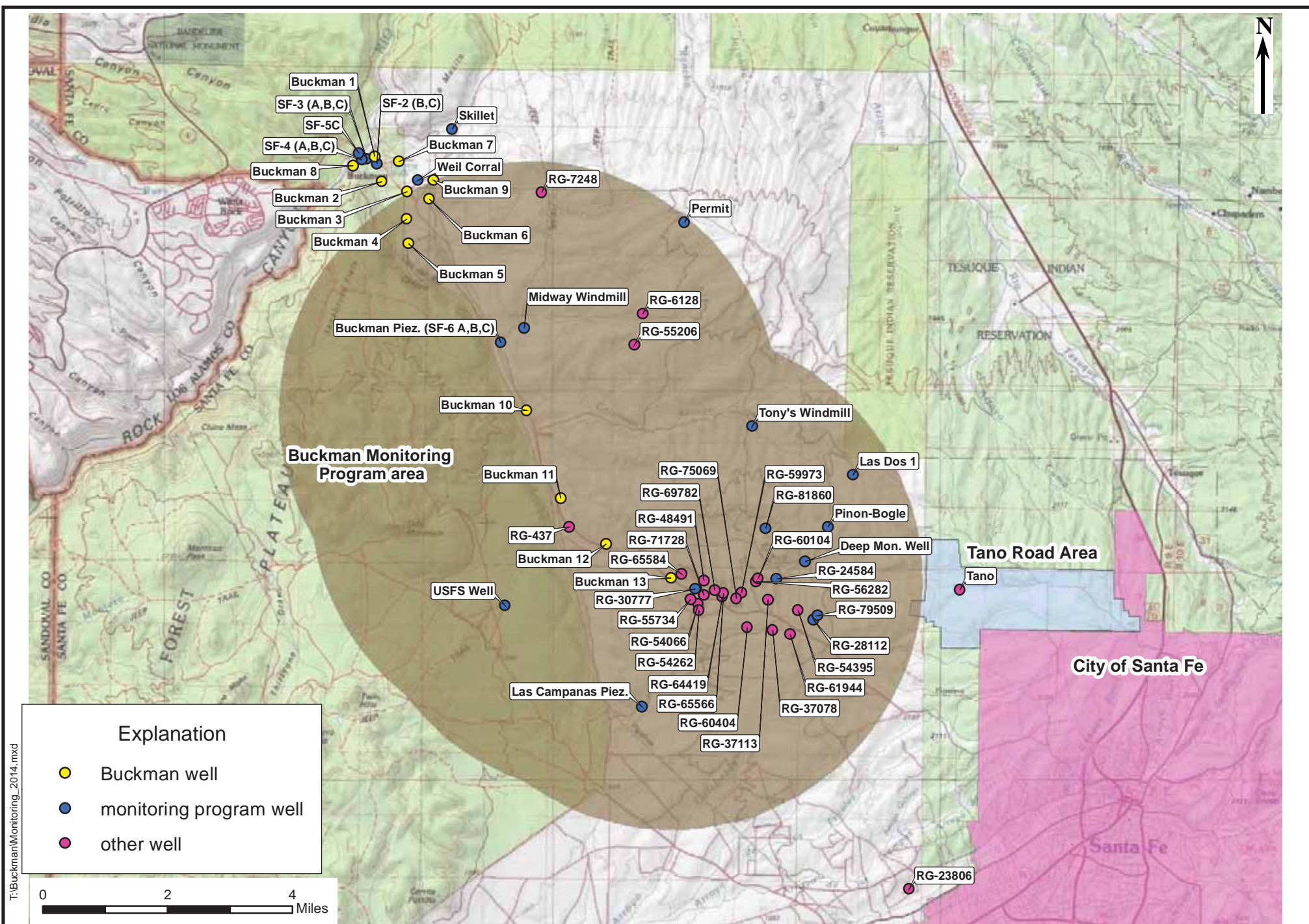


Figure 1. Map showing Buckman Monitoring Program area and Tano Road area, and selected wells.

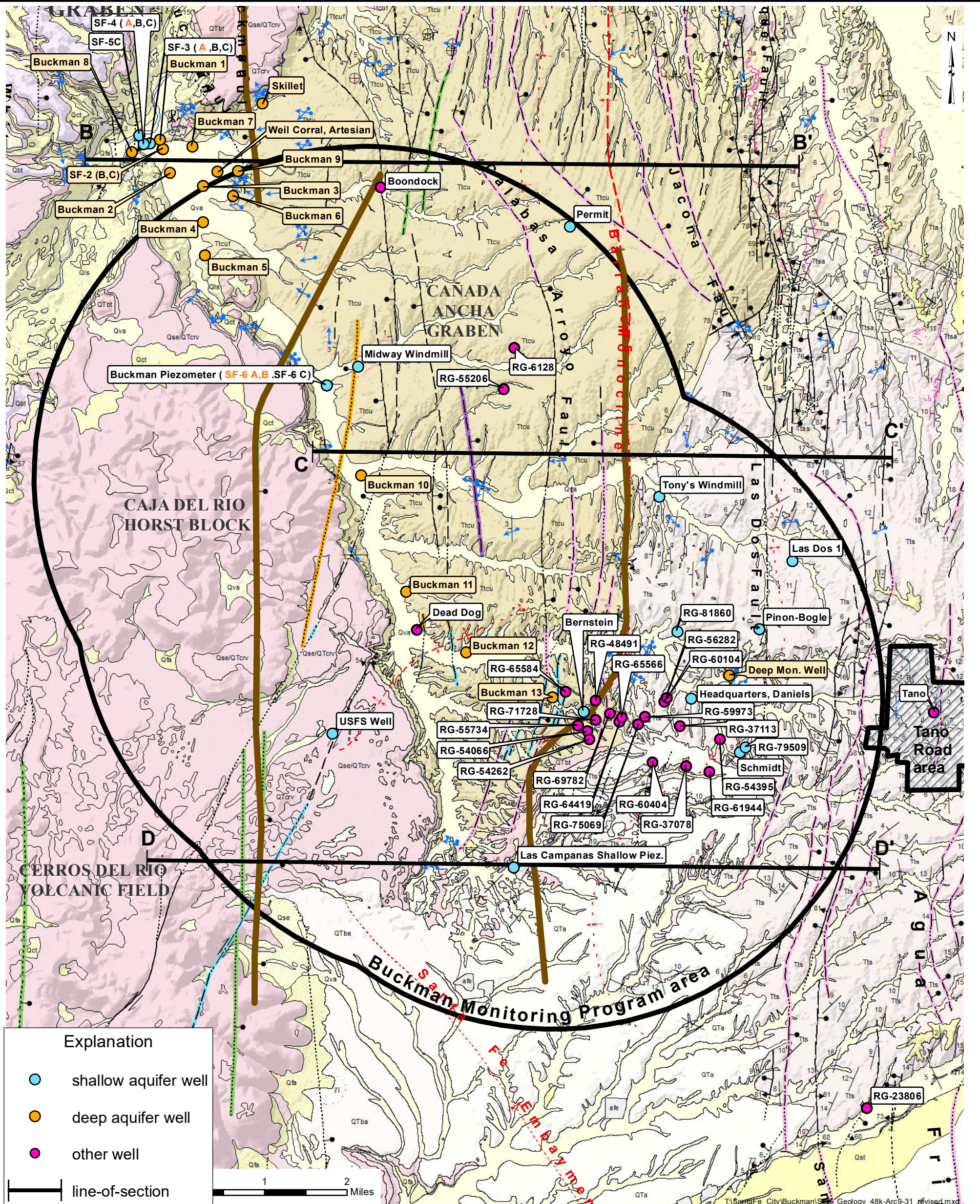


Figure 2. Geologic map (Koning and Read, 2010) showing Buckman Monitoring Program wells and other selected wells.

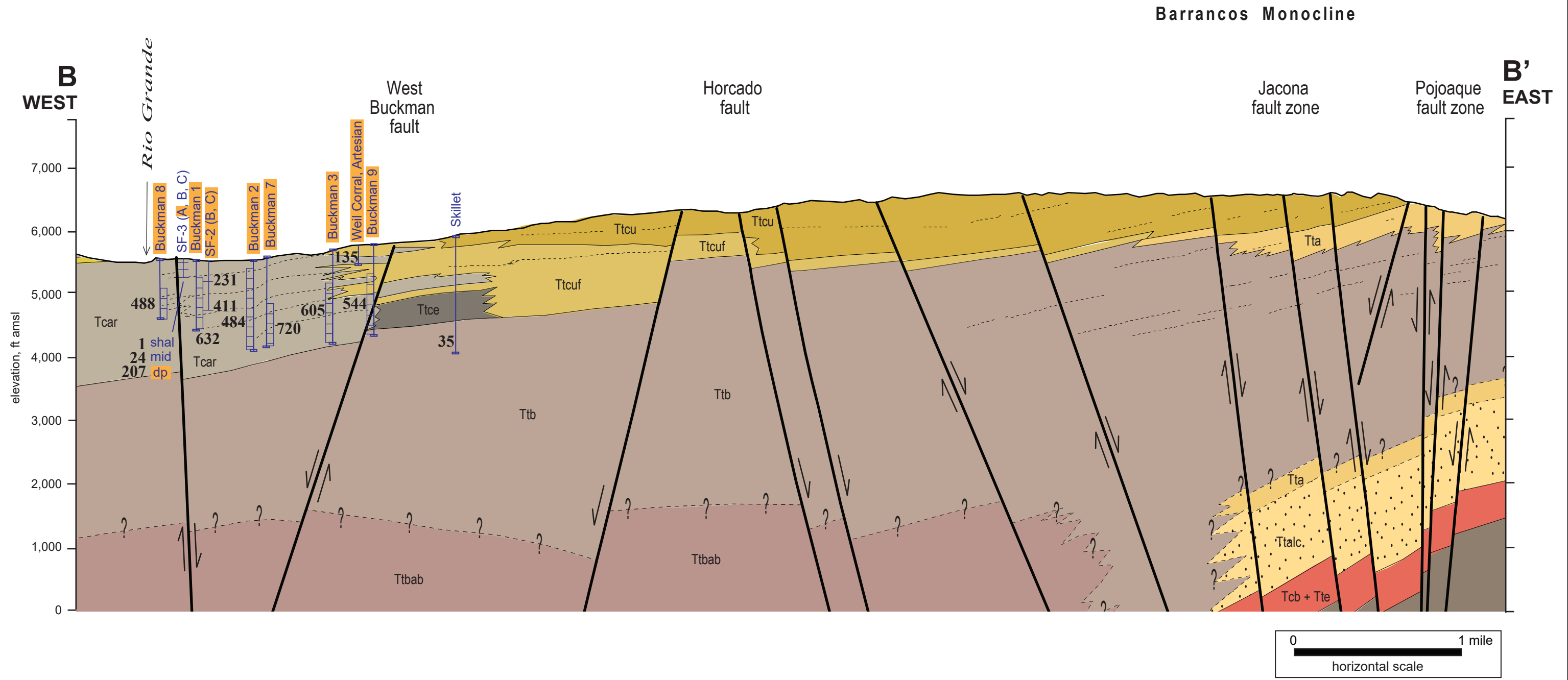
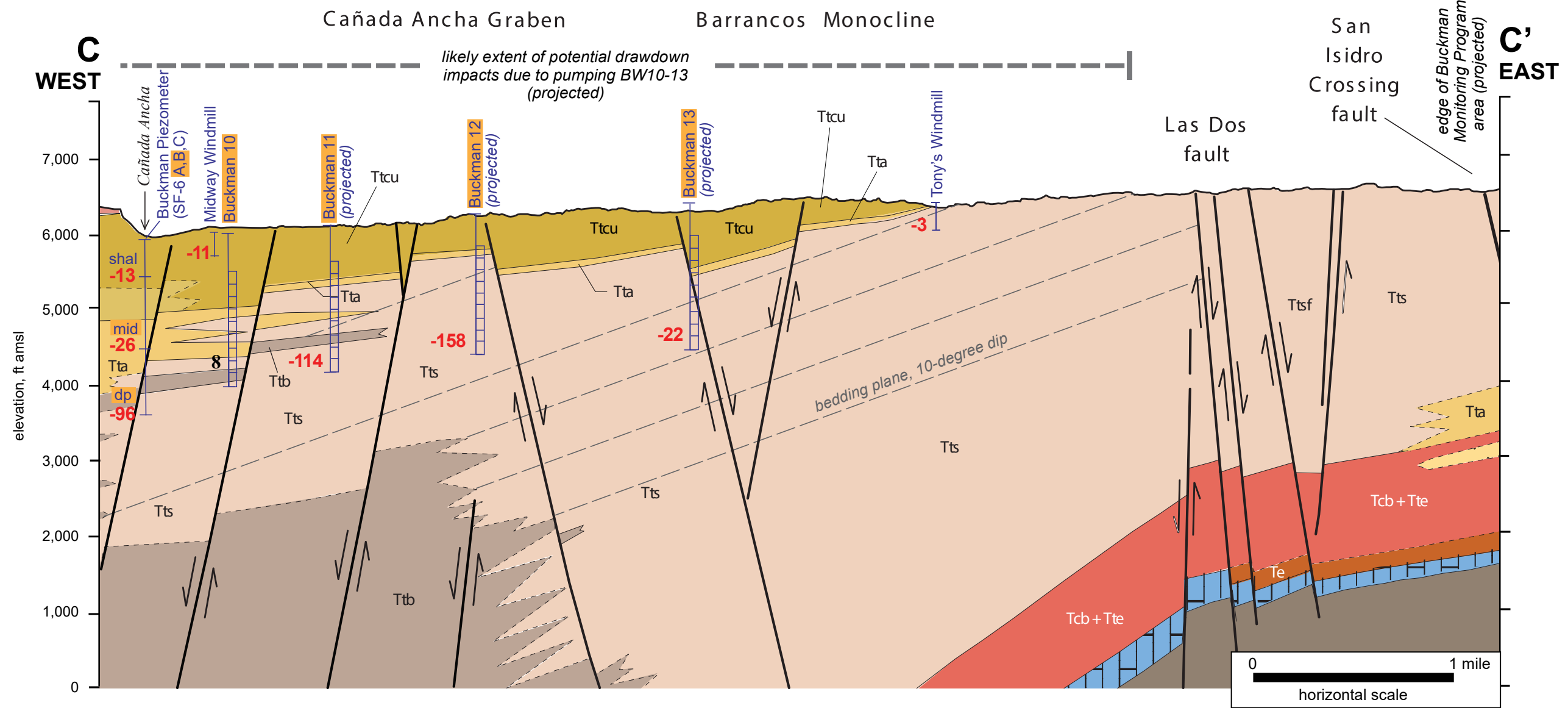


Figure 3a. West-east geologic cross-section B-B' (after Koning and Read, 2010) showing selected Buckman Monitoring Program wells, and water-level rises measured between 2003 and present. See Figure 2 for line of section, and Figure 3b for explanation of geologic units and map symbols.



| EXPLANATION | |
|---|---|
| QUATERNARY-AGE DEPOSITS | <ul style="list-style-type: none"> Qse sheetflood deposits, minor eolian sediment Qls landslide deposits Qct colluvium and talus Qfa alluvial fan deposits Qva valley-fill alluvium Qst stream terrace deposits Qbt Tshirege Member of the Bandelier Tuff |
| QUATERNARY- TO TERTIARY-AGE DEPOSITS | <ul style="list-style-type: none"> QTerv Cerros del Rio volcanic rocks QTbt basaltic tephra QTa Ancha Formation |
| TERTIARY-AGE TESUQUE FM. | <ul style="list-style-type: none"> Tcar Axial river sediment of Chamita Formation Tce Cejita Member of Tesuque Formation Ttcu/Ttcuf Cuarteles Member of Tesuque Formation Tta/Ttalc Lithosome A of Tesuque Formation Ttb Lithosome B of Tesuque Formation Tts/Ttsf/Tfsm/Ttsc Lithosome S of Tesuque Formation Tbab interbedded Lithosome A&B of Tesuque Fm. Tcb + Tte Cieneguilla/Lithosome E of Tesuque Fm. Te Espinaso Fm. |
| PALEOZOIC-AGE | <ul style="list-style-type: none"> Penn lm undifferentiated Pennsylvanian limestone |
| PROTEROZOIC-AGE | <ul style="list-style-type: none"> XYu undifferentiated units |
| | <ul style="list-style-type: none"> --- fault -12 water-level decline, ft 4 water-level rise, ft Deep Mon. Well orange highlight: well representative of deep aquifer |

Figure 3b. West-east geologic cross-section C-C' (after Koning and Read, 2010) showing selected Buckman Monitoring Program wells, water-level changes measured between 2003 and present, and explanation of geologic units and map symbols. See Figure 2 for line of section.

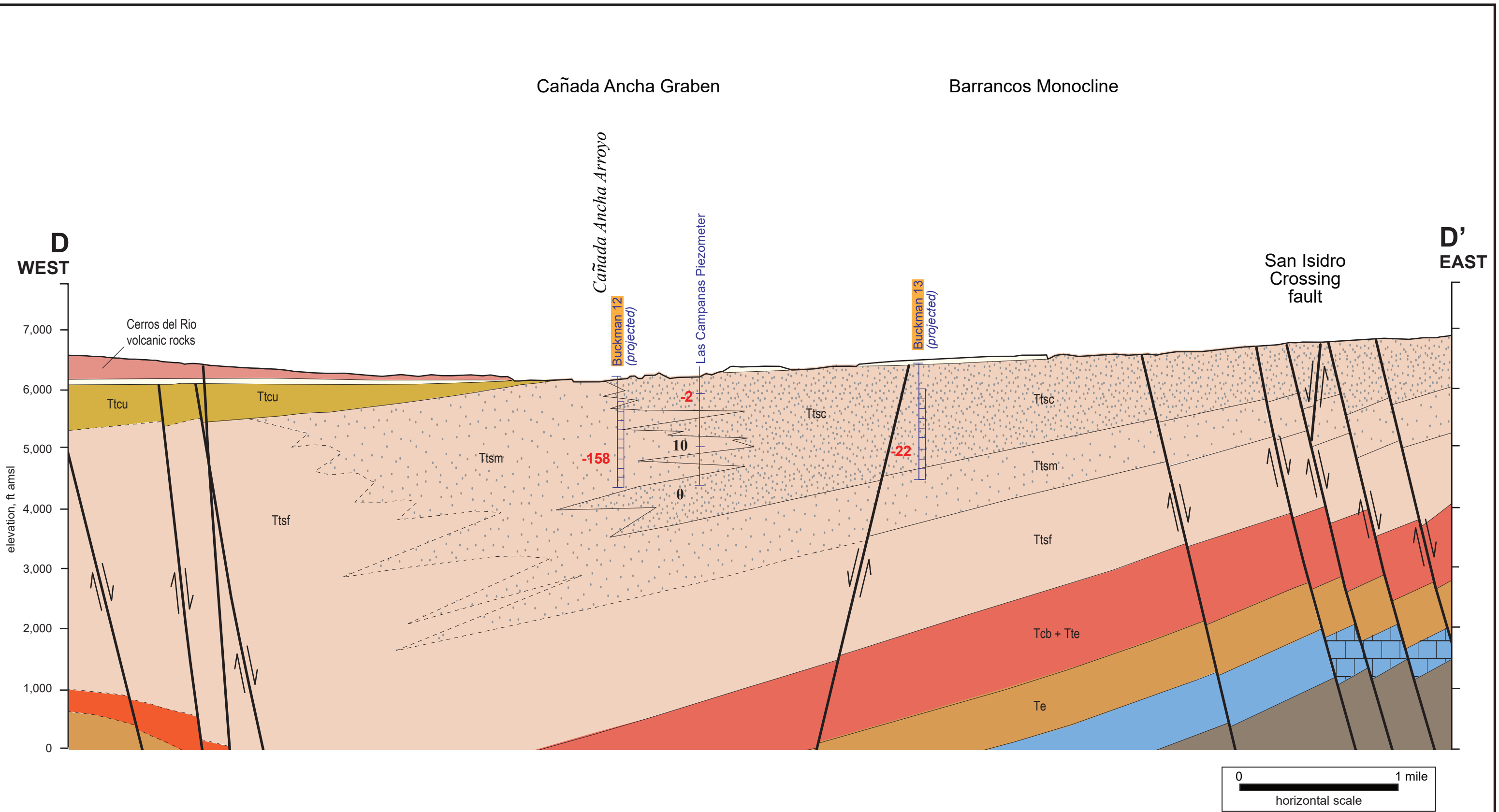


Figure 3c. West-east geologic cross-section D-D' (after Koning and Read, 2010) showing selected Buckman Monitoring Program wells, and water-level changes (rises in black/declines in red) measured between 2003 and present . See Figure 2 for line of section, and Figure 3b for explanation of geologic units and map symbols.

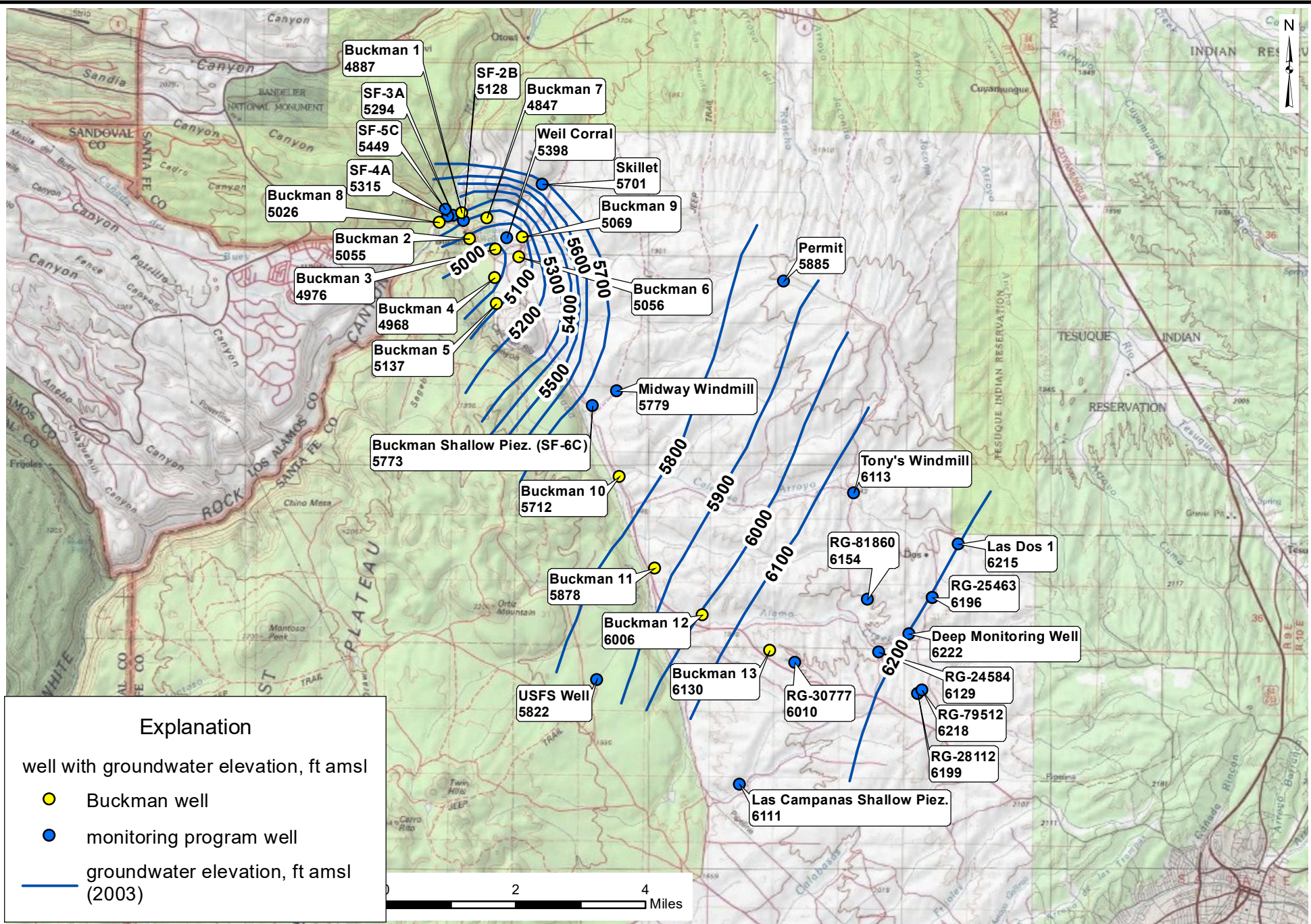


Figure 4. Map showing 2003 groundwater-elevation contours for the regional aquifer in the Buckman Monitoring Program area, Santa Fe County, New Mexico. (Non-pumping water-level data for Buckman supply wells may reflect varying periods and degrees of recovery from pumping.)

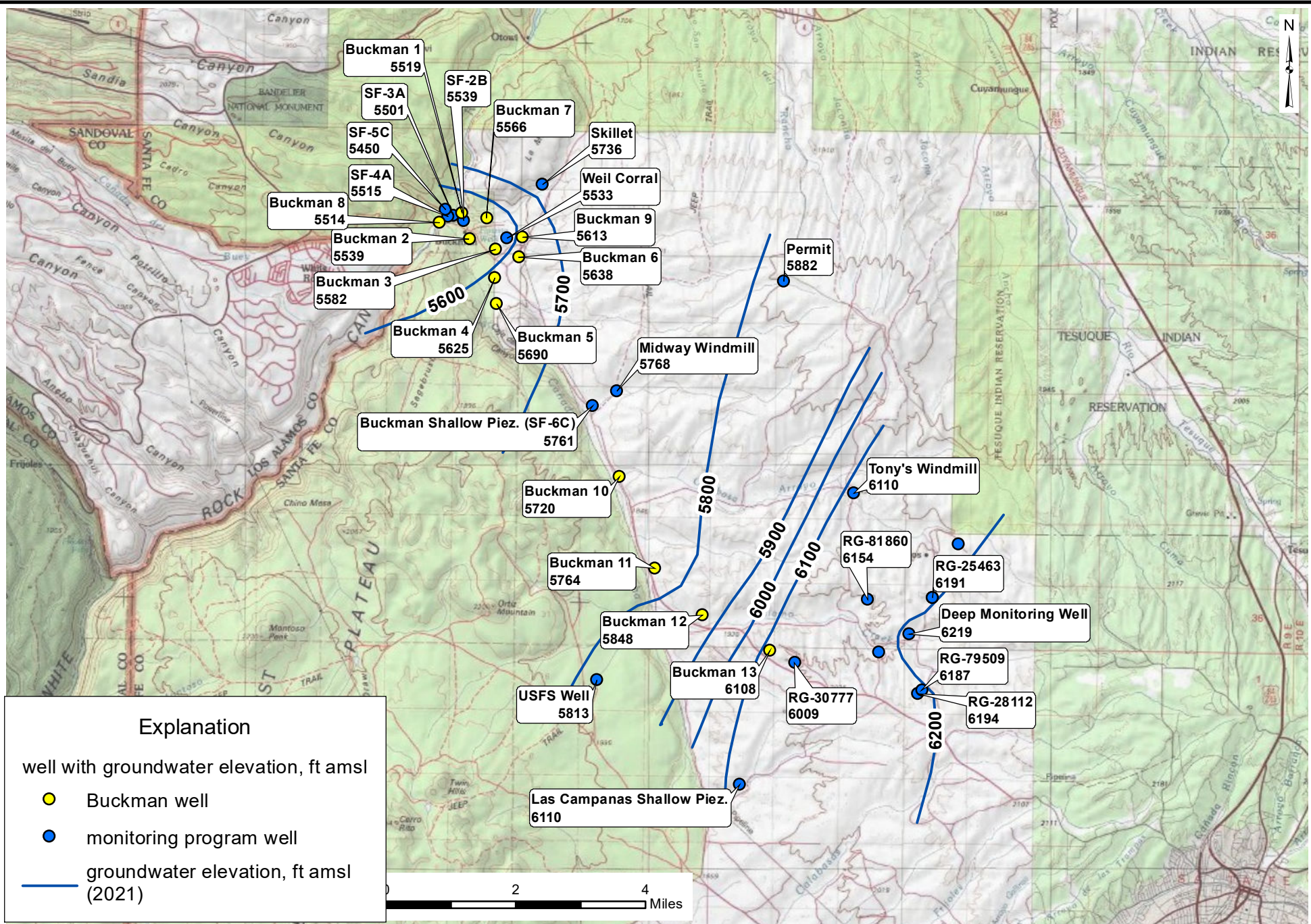


Figure 5. Map showing 2021 groundwater-elevation contours for the regional aquifer in the Buckman Monitoring Program area, Santa Fe County, New Mexico. (Non-pumping water level data for Buckman supply wells may reflect varying periods and degrees of recovery from pumping.)

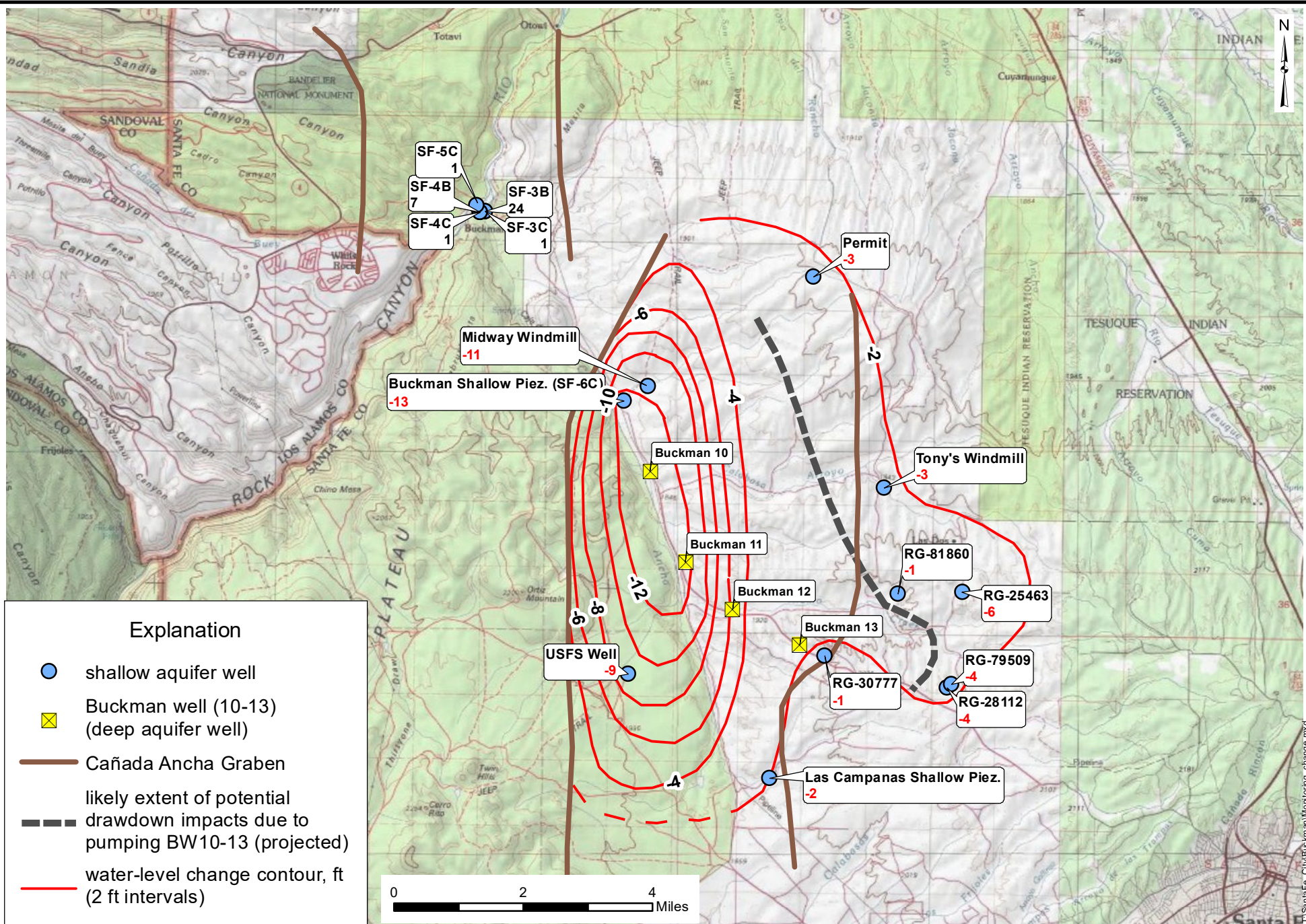


Figure 6. Map showing water-level changes measured between 2003 and present, in feet, for the shallow aquifer in the Buckman Monitoring Program area, Santa Fe County, New Mexico. Positive numbers indicate a water-level rise and negative numbers represent a water-level decline.

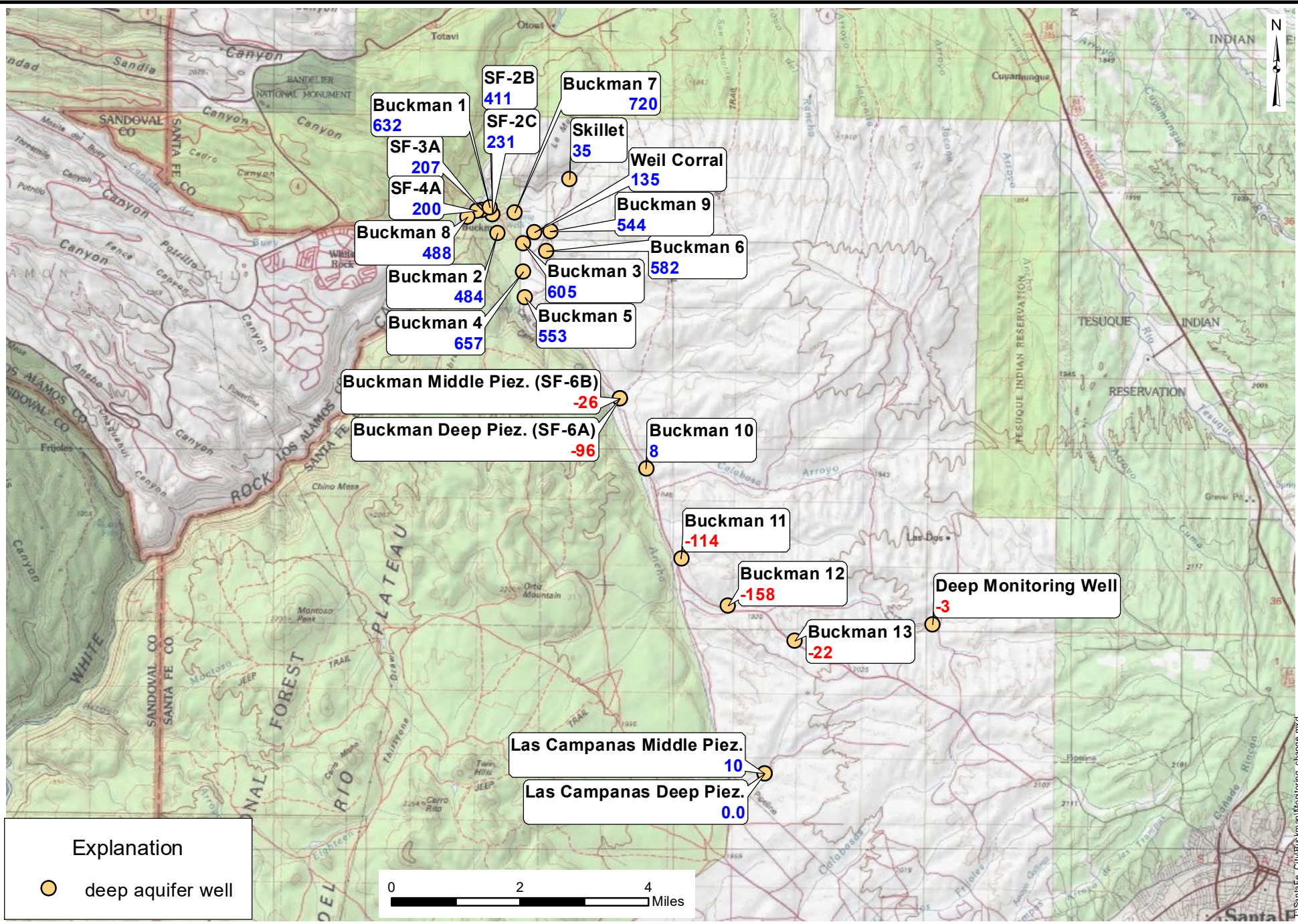


Figure 7. Map showing water-level changes measured between 2003 and present, in feet, for the deep aquifer in the Buckman Monitoring Program area, Santa Fe County, New Mexico. Positive numbers indicate a water-level rise and negative numbers represent a water-level decline.

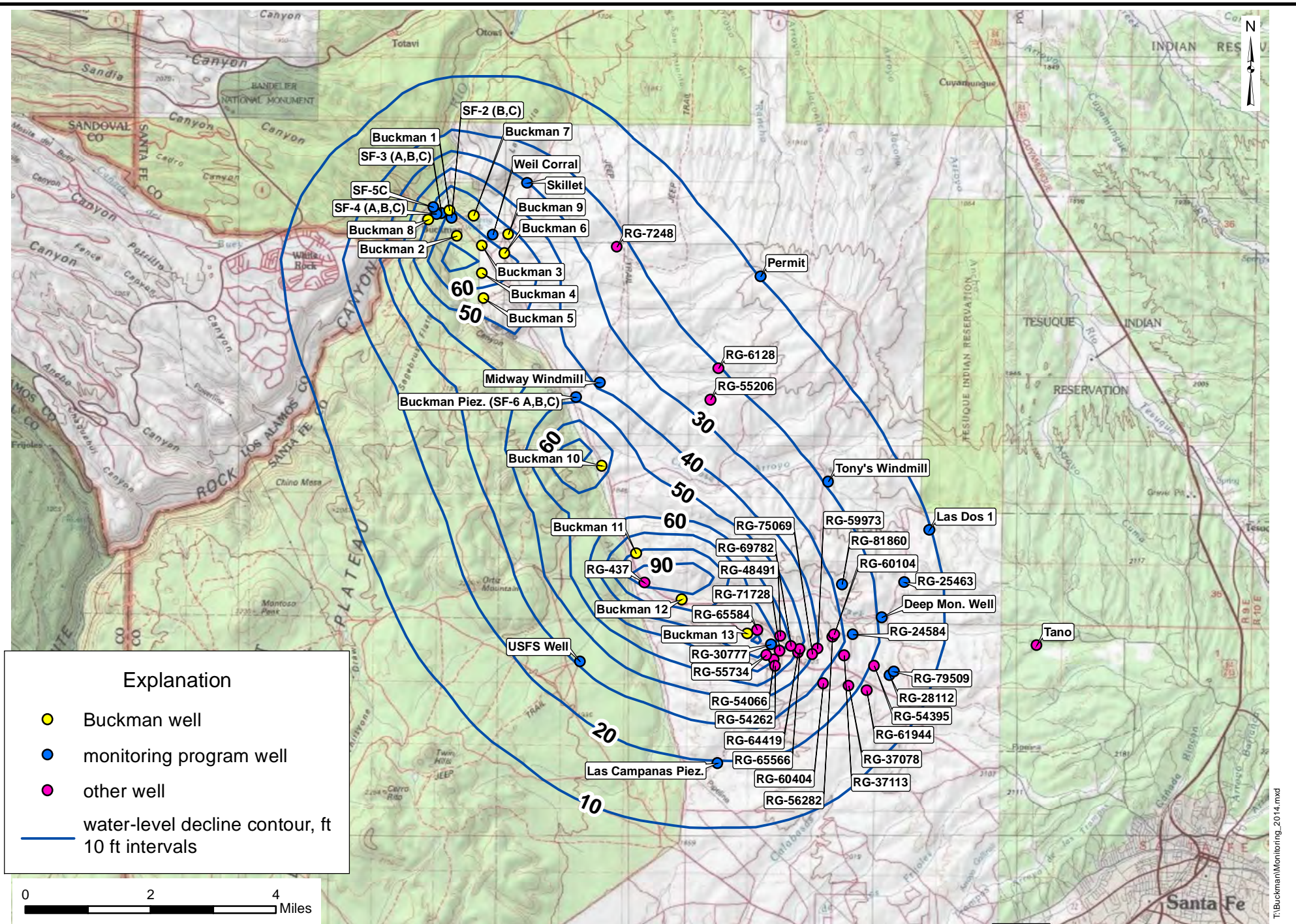


Figure 8. Map showing NMOSE groundwater-flow model-simulated 10-year water-level declines, in feet, for model Layer 2, under future pumping Scenario 1 (worst case).

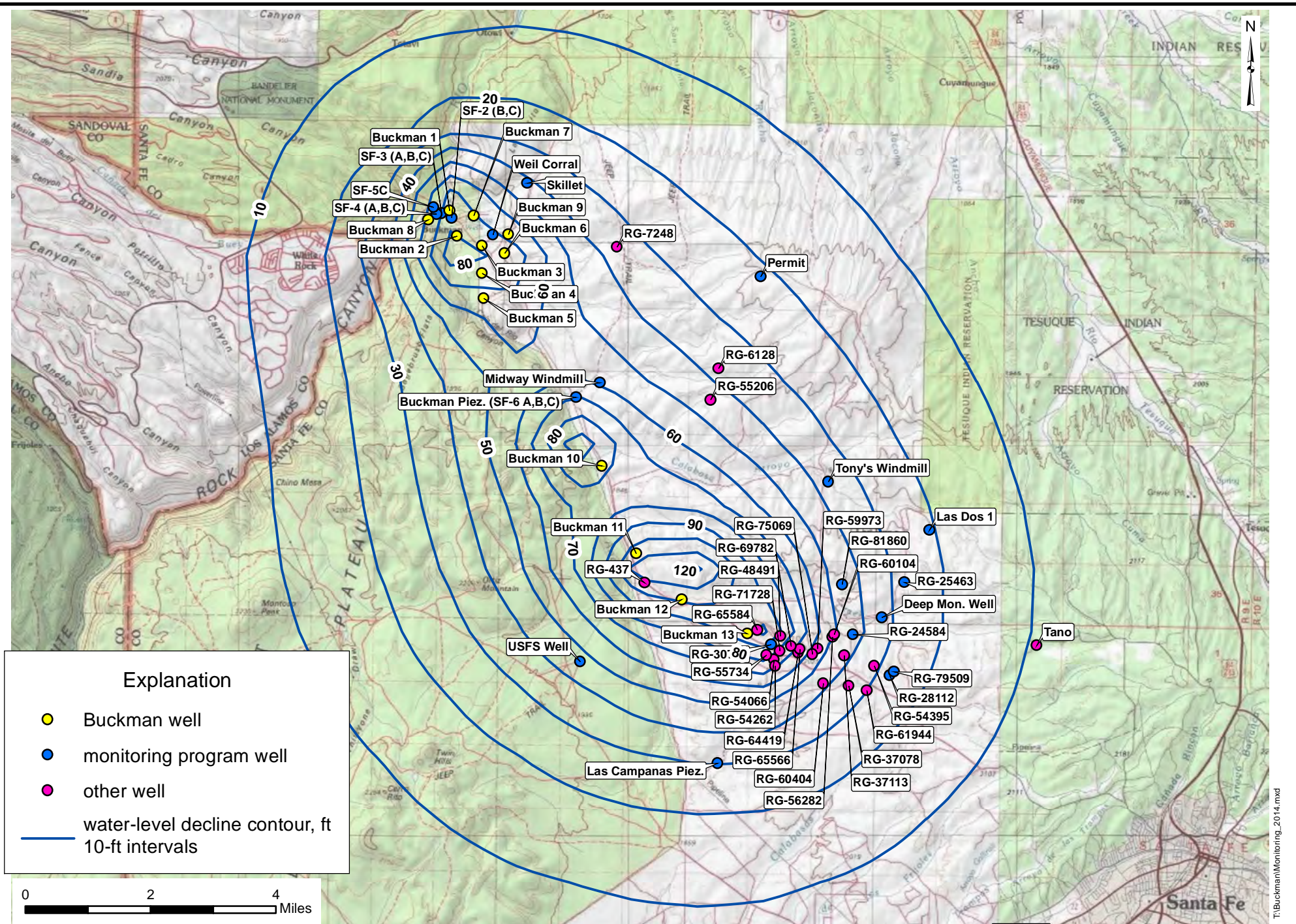


Figure 9. Map showing NMOSE groundwater-flow model-simulated 40-year water-level declines, in feet, for model Layer 2, under future pumping Scenario 1 (worst case).

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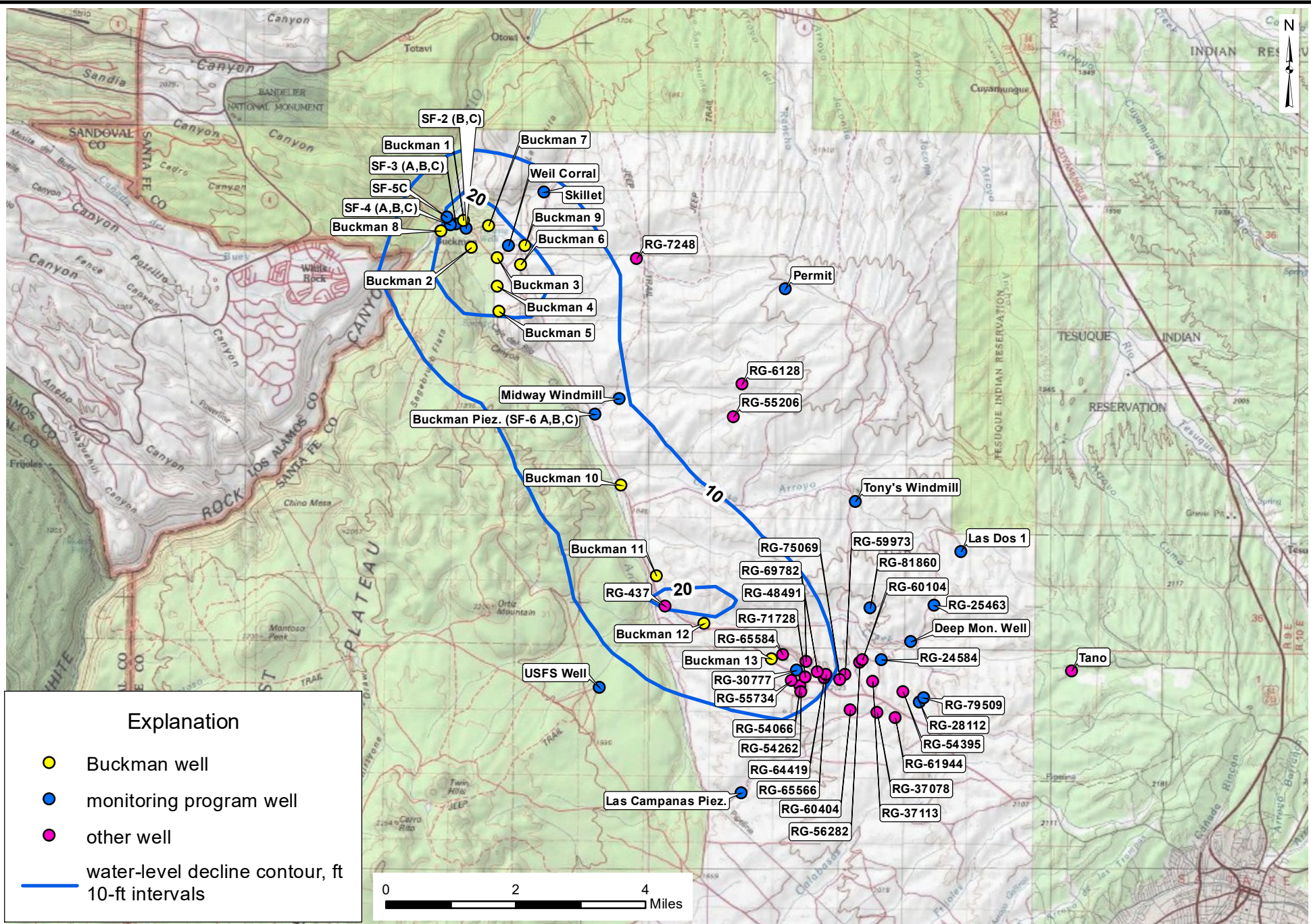


Figure 10. Map showing NMOSE groundwater-flow model-simulated 10-year water-level declines, in feet, for model Layer 2, under future pumping Scenario 2 (forecast scenario).

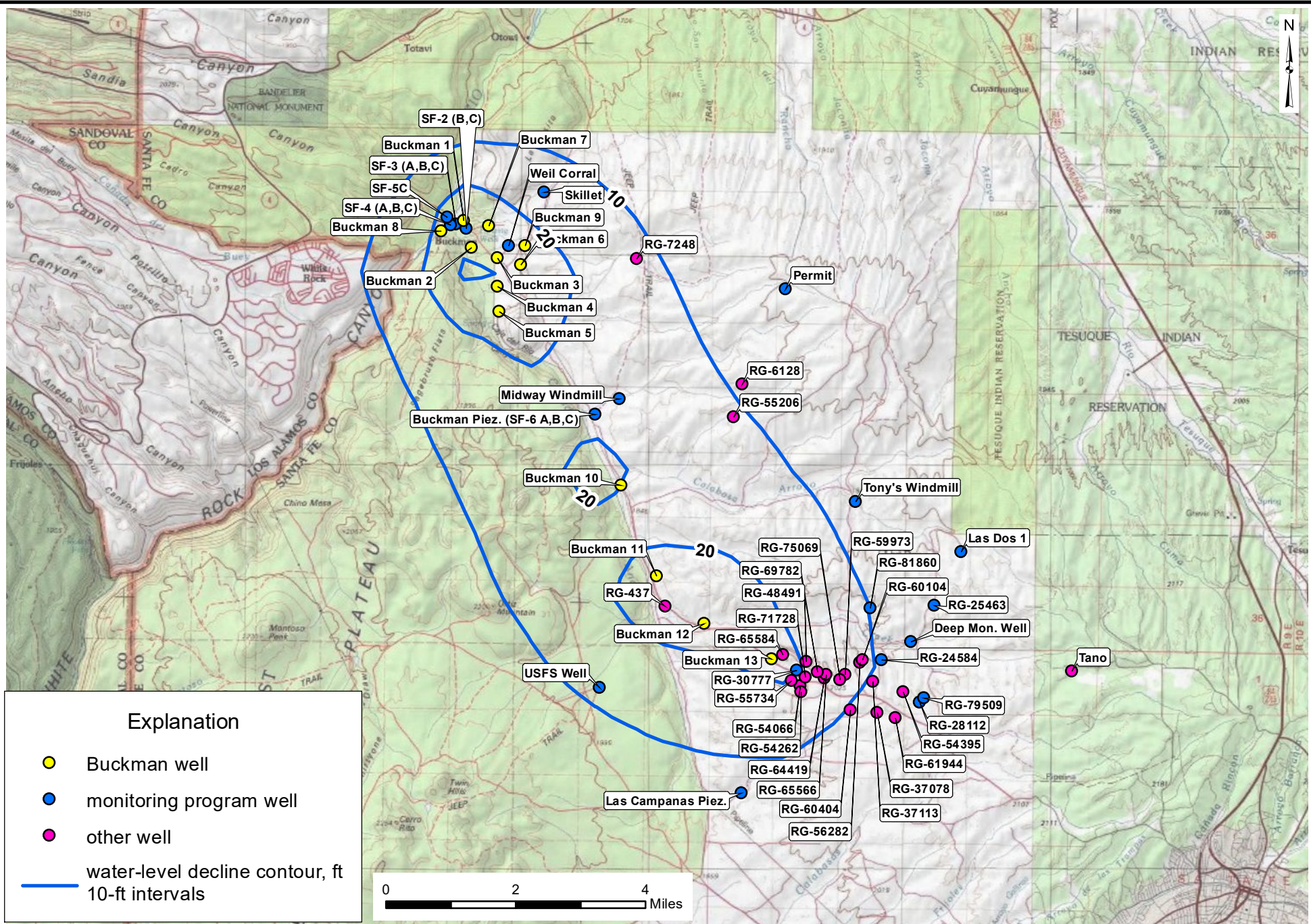


Figure 11. Map showing NMOSE groundwater-flow model-simulated 40-year water-level declines, in feet, for model Layer 2, under future pumping Scenario 2 (forecast scenario).

APPENDICES

Appendix A.

Graphs showing Buckman Well Field diversions, water levels in Buckman Monitoring Program wells, model-simulated historical drawdowns, and projected drawdowns at selected wells due to pumping at the full permitted diversion amounts (Scenario 1)

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- Figure A2. Water levels and monthly diversions from Buckman Well 1 (RG-20516-S-5), 1981 through 2021.
- Figure A3. Water levels and monthly diversions from Buckman Well 2 (RG-20516-S-6), 1981 through 2021.
- Figure A4. Water levels and monthly diversions from Buckman Well 3 (RG-20516-S), 1981 through 2021.
- Figure A5. Water levels and monthly diversions from Buckman Well 4 (RG-20516-S-2), 1981 through 2021.
- Figure A6. Water levels and monthly diversions from Buckman Well 5 (RG-20516-S-3), 1981 through 2021.
- Figure A7. Water levels and monthly diversions from Buckman Well 6 (RG-20516-S-4), 1981 through 2021.
- Figure A8. Water levels and monthly diversions from Buckman Well 7 (RG-20516-S-7), 1981 through 2021.
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- Figure A13. Water levels and monthly diversions from Buckman Well 12 (RG-20516-S-12), 2003 through 2021.
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- Figure A15. Water levels in U.S. Geological Survey Buckman shallow, middle, and deep piezometers (SF-6 C, B, and A, respectively), and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

- Figure A16. Water levels in U.S. Geological Survey Las Campanas shallow, middle and deep piezometers (C, B, and A, respectively), and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
- Figure A17. Water levels in U.S. Geological Survey SF-2 shallow and middle piezometers (SF-2 C and B, respectively), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.
- Figure A18. Water levels in U.S. Geological Survey SF-3 shallow, middle and deep piezometers (SF-3 C, B and A, respectively), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.
- Figure A19. Water levels in U.S. Geological Survey SF-4 shallow, middle and deep piezometers (SF-4 C, B and A, respectively), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.
- Figure A20. Water levels in U.S. Geological Survey SF-5 shallow piezometer (SF-5 C), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.
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- Figure A24. Water levels in Tony's Windmill well (RG-6386) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).
- Figure A25. Water levels in well RG-25463 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
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- Figure A30. Water levels in well RG-28112 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).
- Figure A31. Water levels in well RG-79509 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
- Figure A32. Water levels in well RG-79509 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).
- Figure A33. Water levels in La Tierra deep monitoring well RG-93871 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
- Figure A34. Water levels in well RG-81860 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
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- Figure A36. Water levels in U.S. Forest Service Well (RG-29723) and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
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- Figure A38. Water levels in Permit Well (RG-16681) and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.
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- Figure A40. Water levels in Skillet Well (RG-21318) and monthly diversions from Buckman Wells 10 through 13, 1981 through 2021.
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- Figure A43. Water levels in Weil Corral Well (RG-439) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

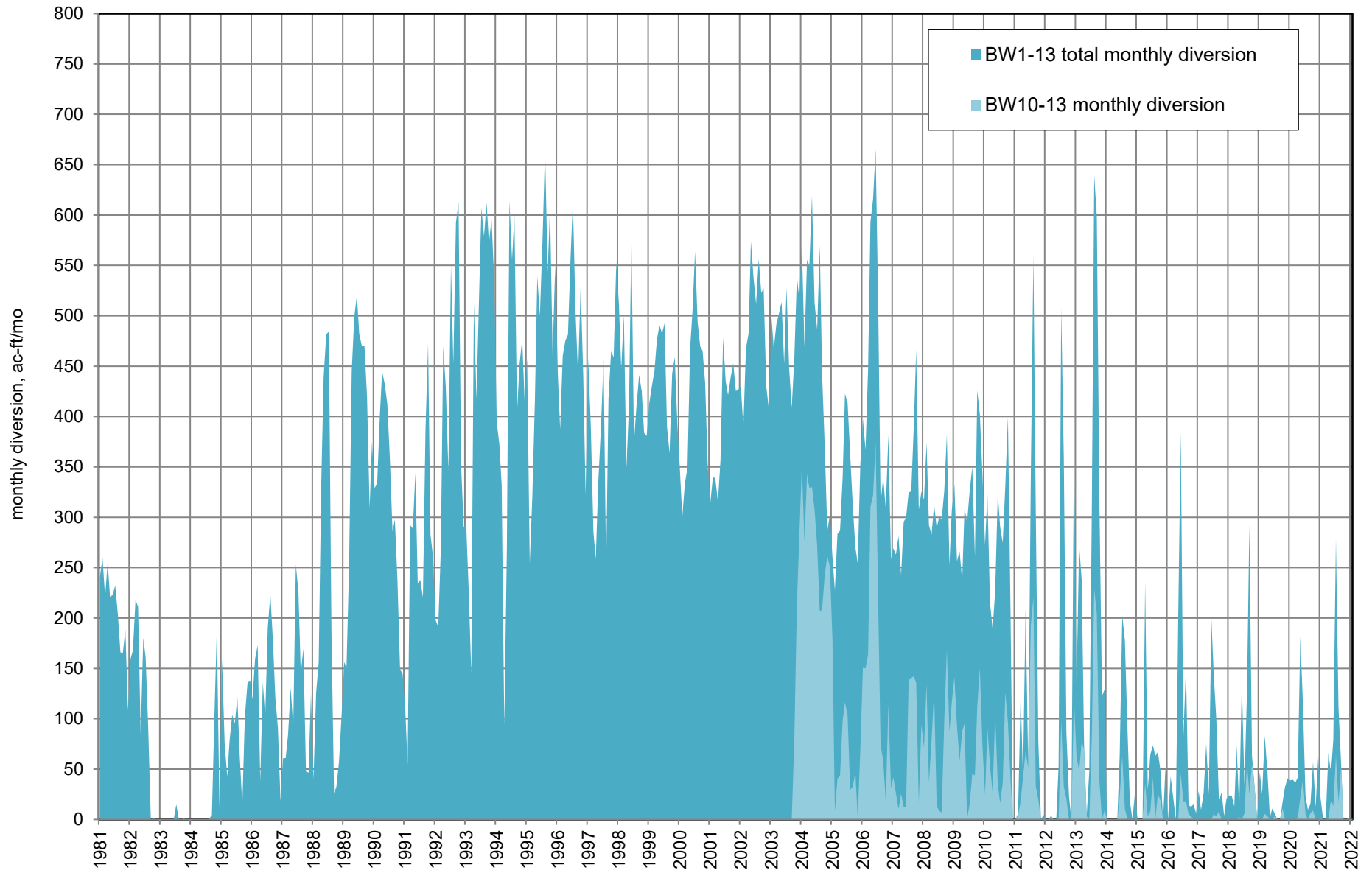


Figure A1. Monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.

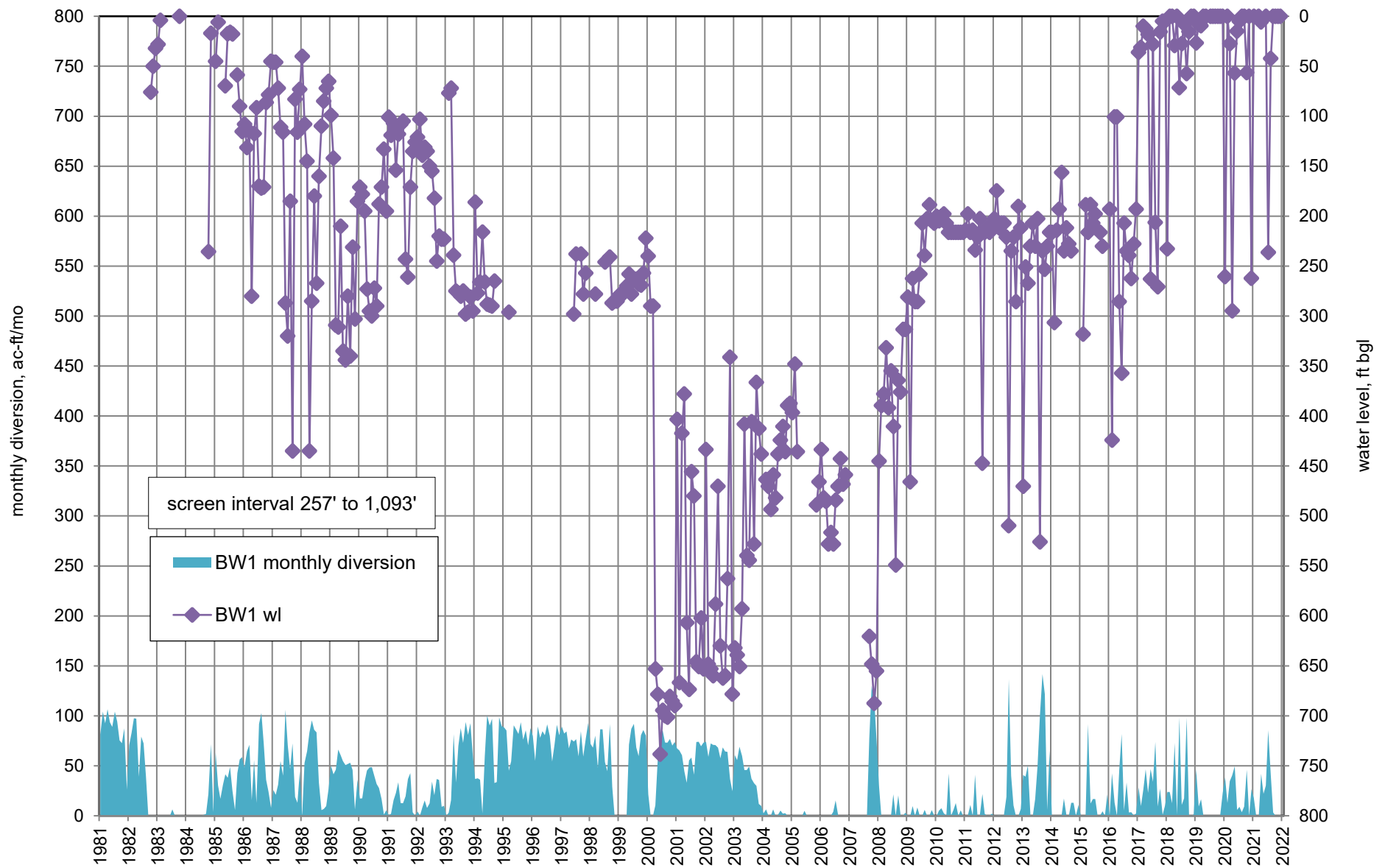


Figure A2. Water levels and monthly diversions from Buckman Well 1 (RG-20516-S-5), 1981 through 2021.

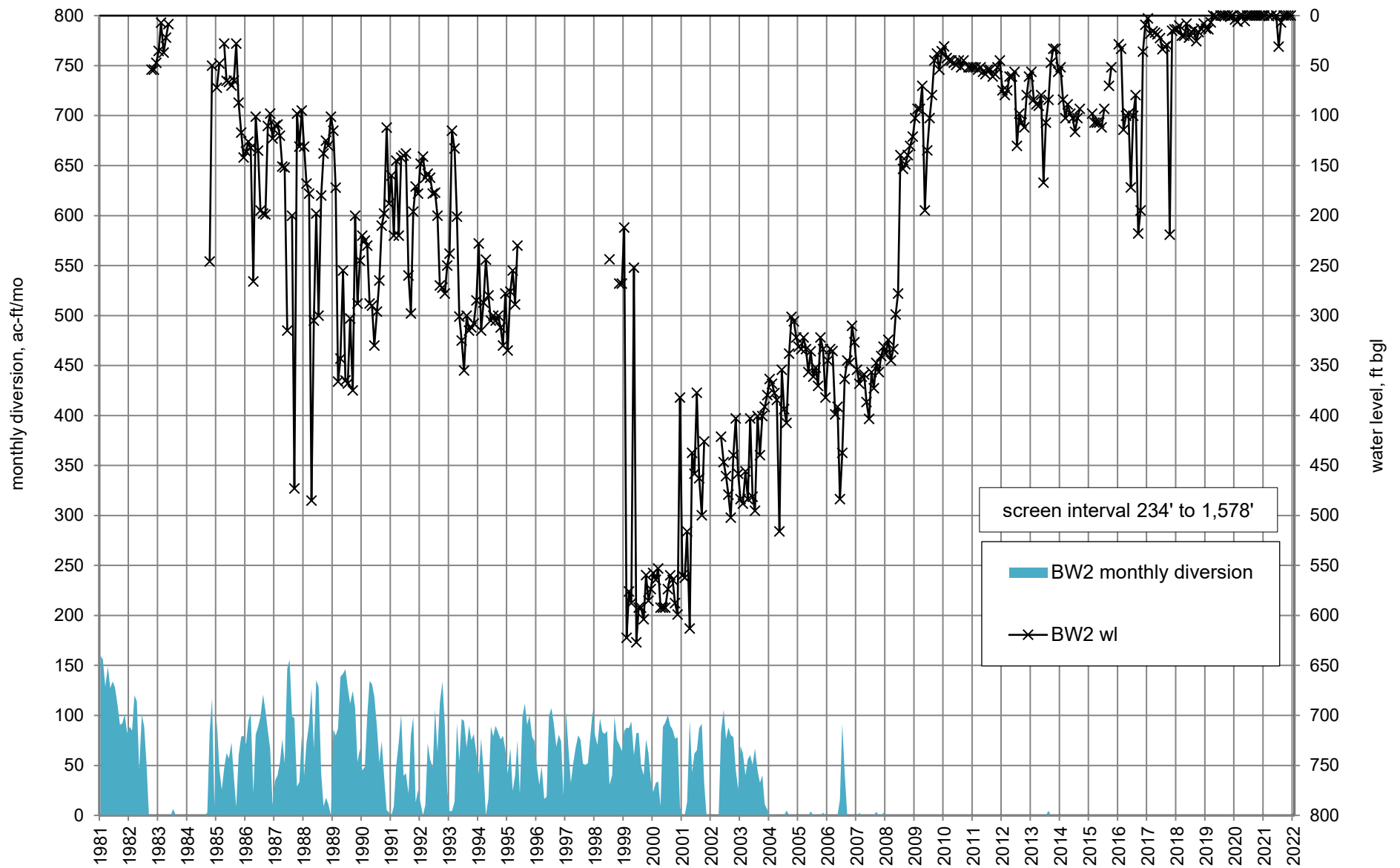


Figure A3. Water levels and monthly diversions from Buckman Well 2 (RG-20516-S-6), 1981 through 2021.

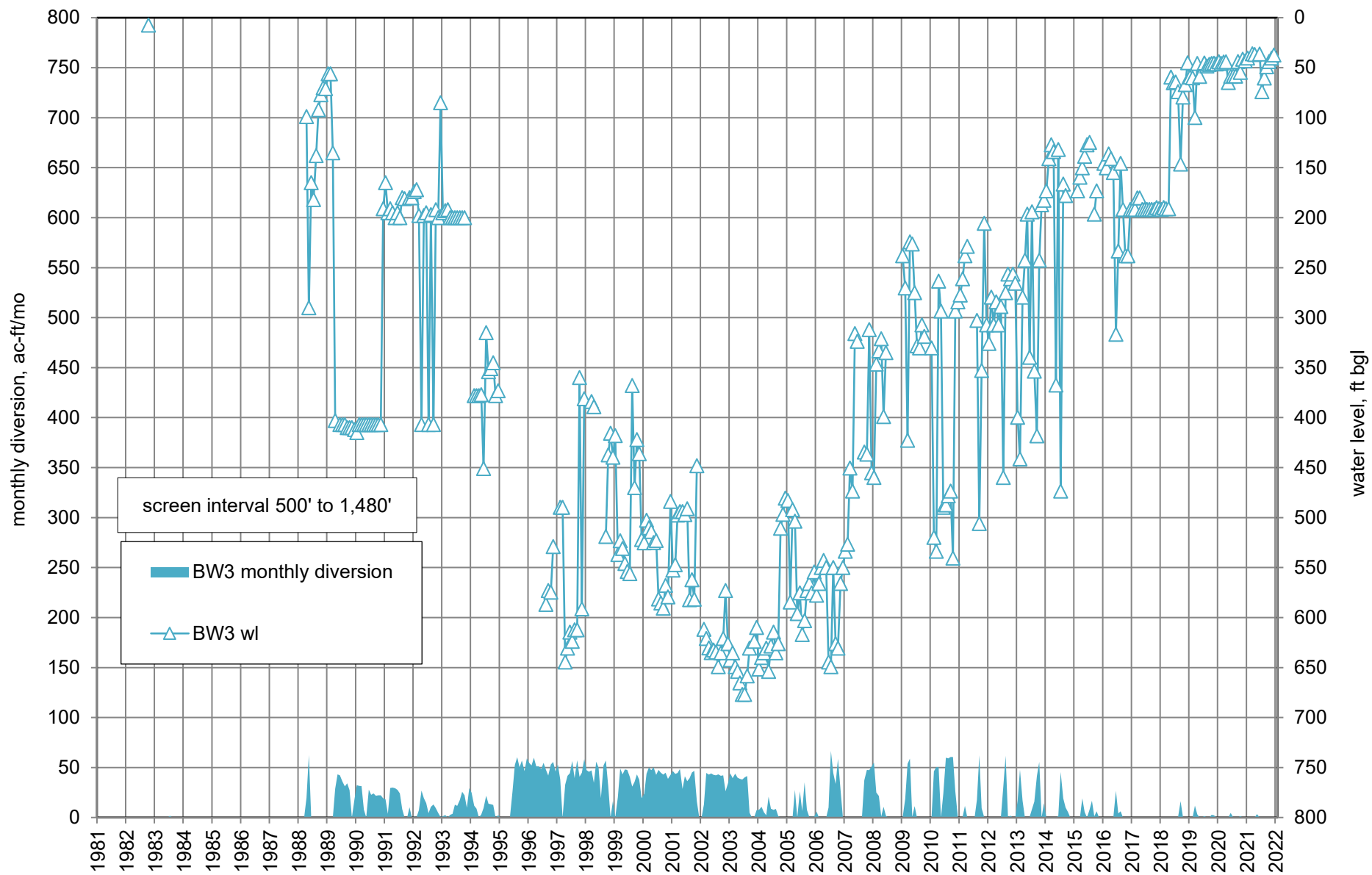


Figure A4. Water levels and monthly diversions from Buckman Well 3a (RG-20516-S), 1981 through 2021.

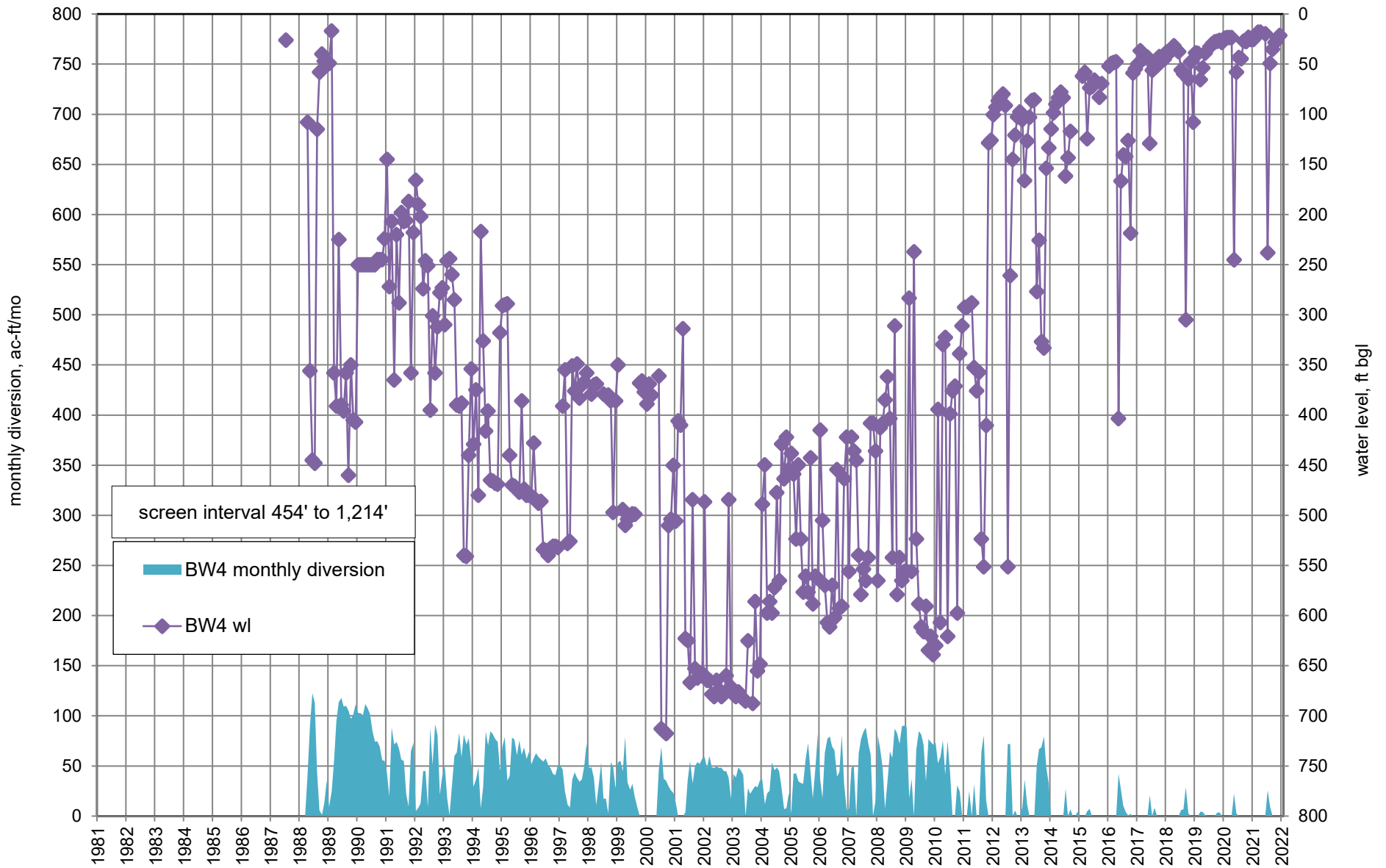


Figure A5. Water levels and monthly diversions from Buckman Well 4 (RG-20516-S-2), 1981 through 2021.

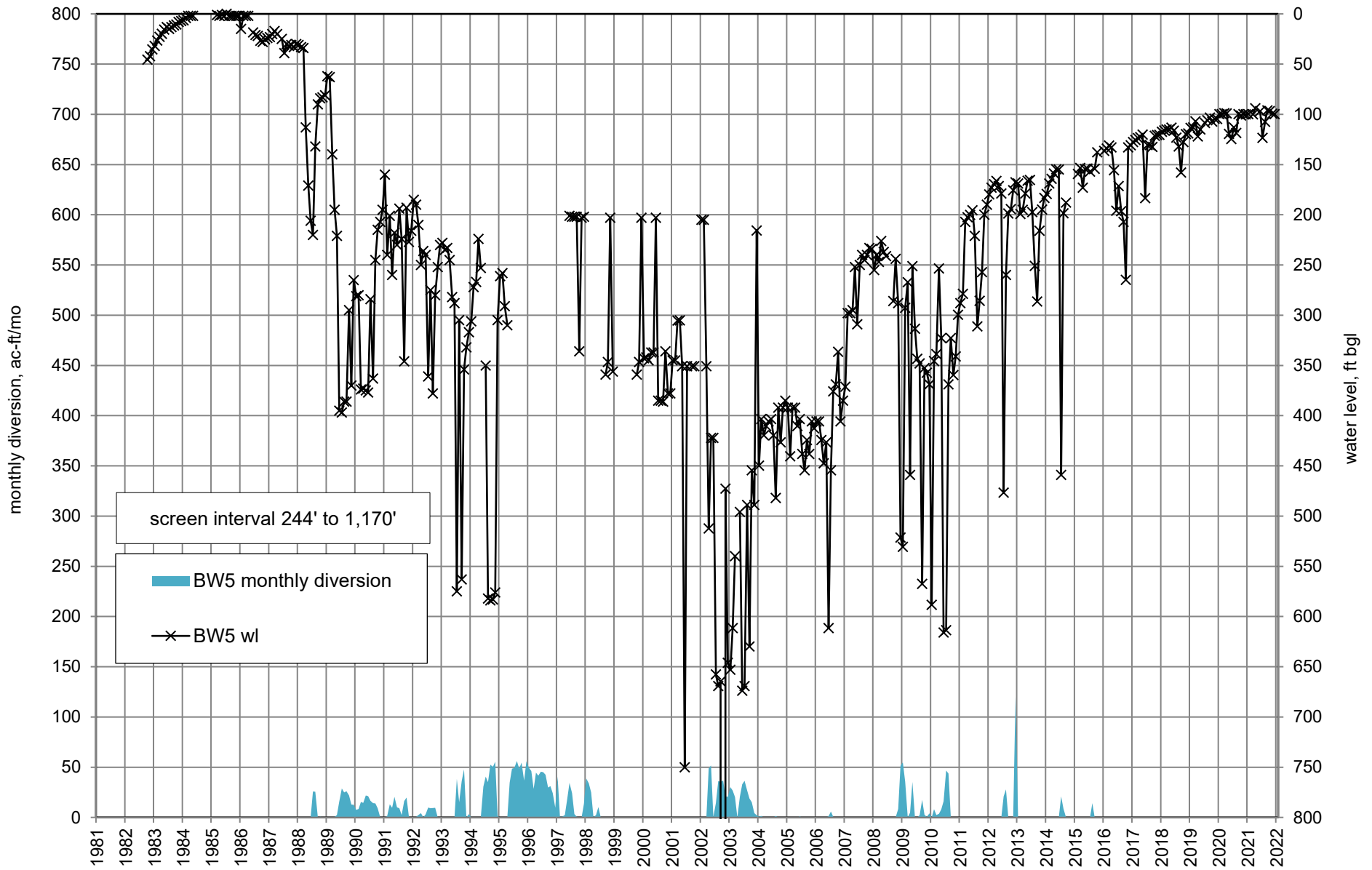


Figure A6. Water levels and monthly diversions from Buckman Well 5 (RG-20516-S-3), 1981 through 2021.

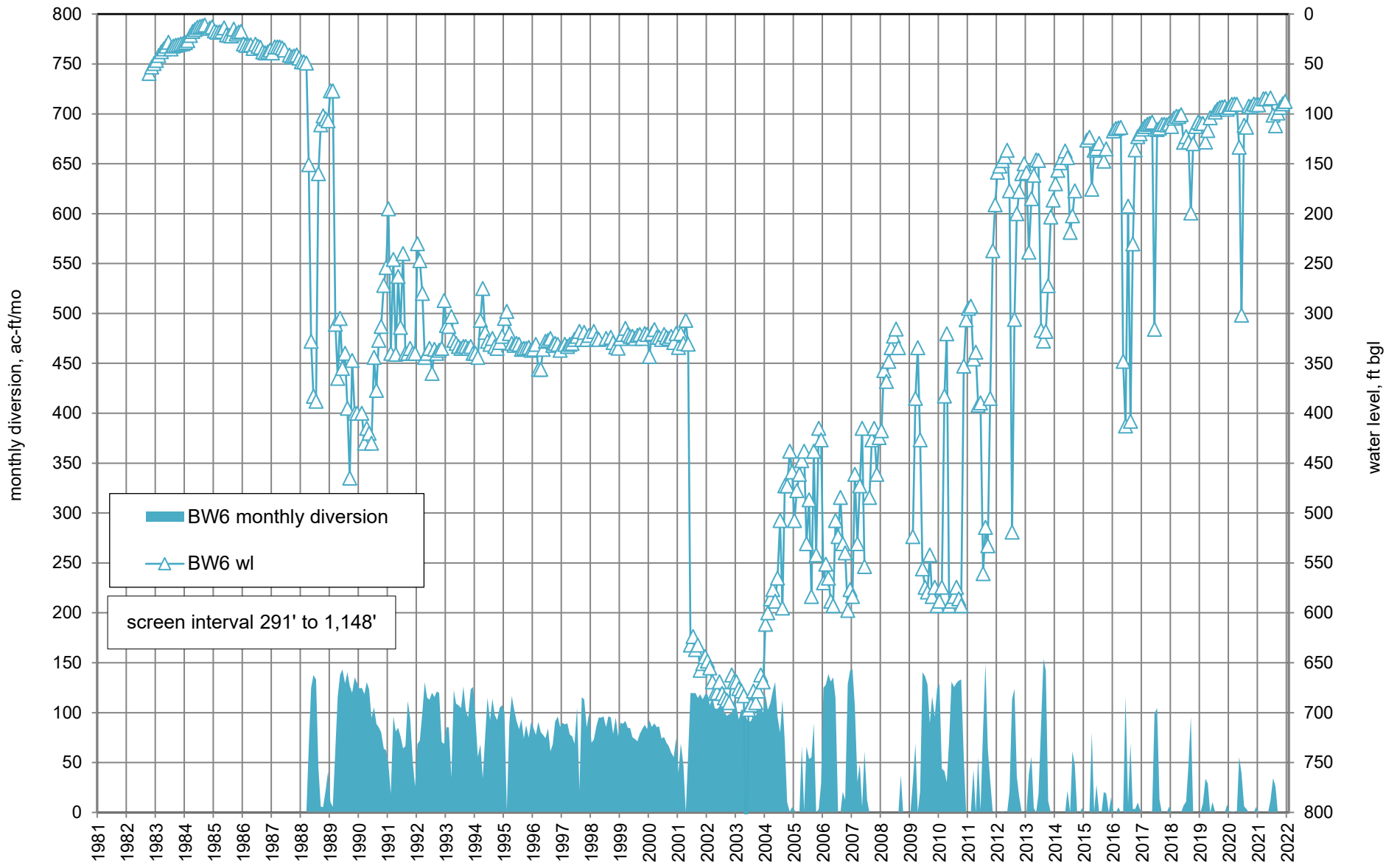


Figure A7. Water levels and monthly diversions from Buckman Well 6 (RG-20516-S-4), 1981 through 2021.

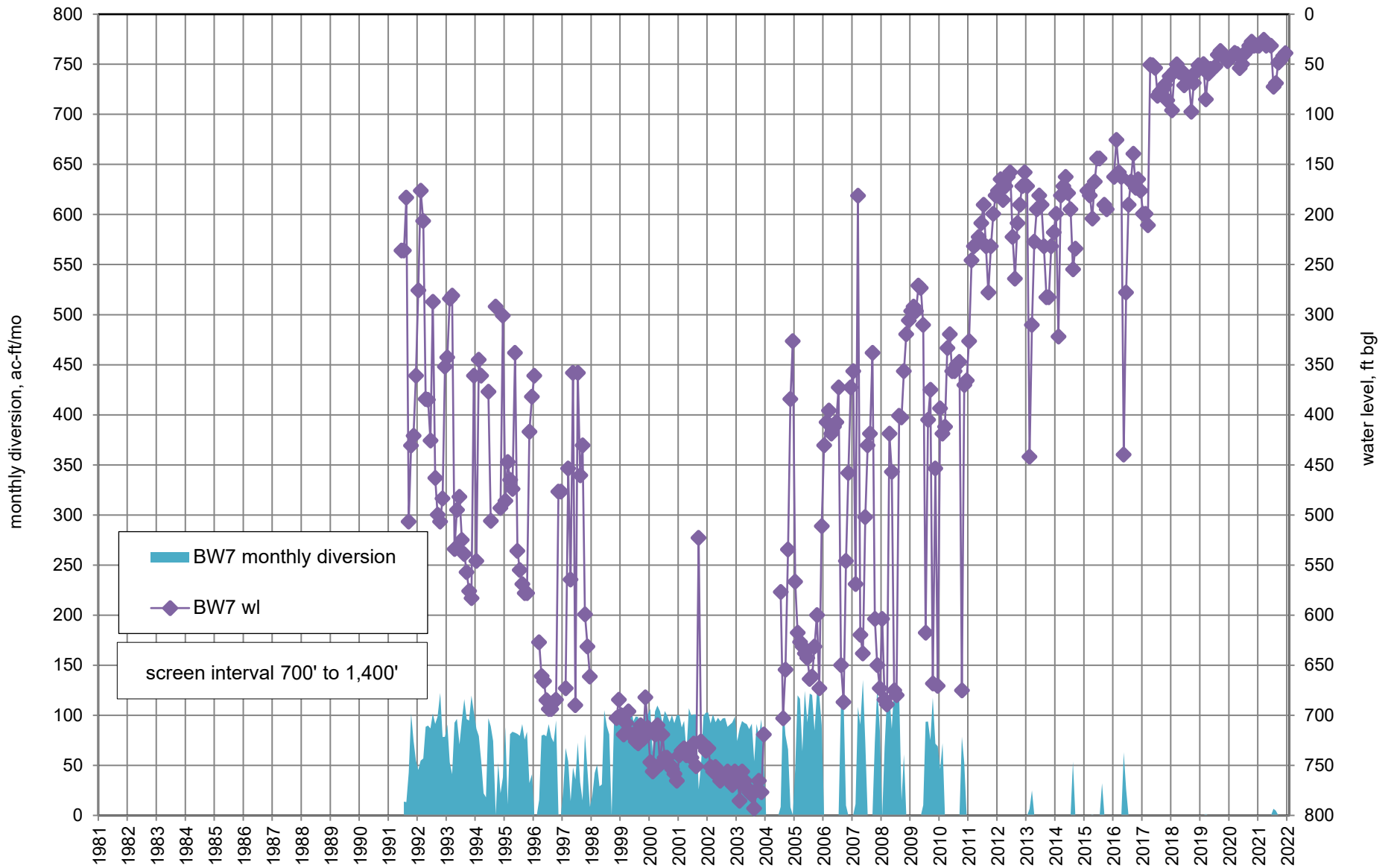


Figure A8. Water levels and monthly diversions from Buckman Well 7 (RG-20516-S-7), 1981 through 2021.

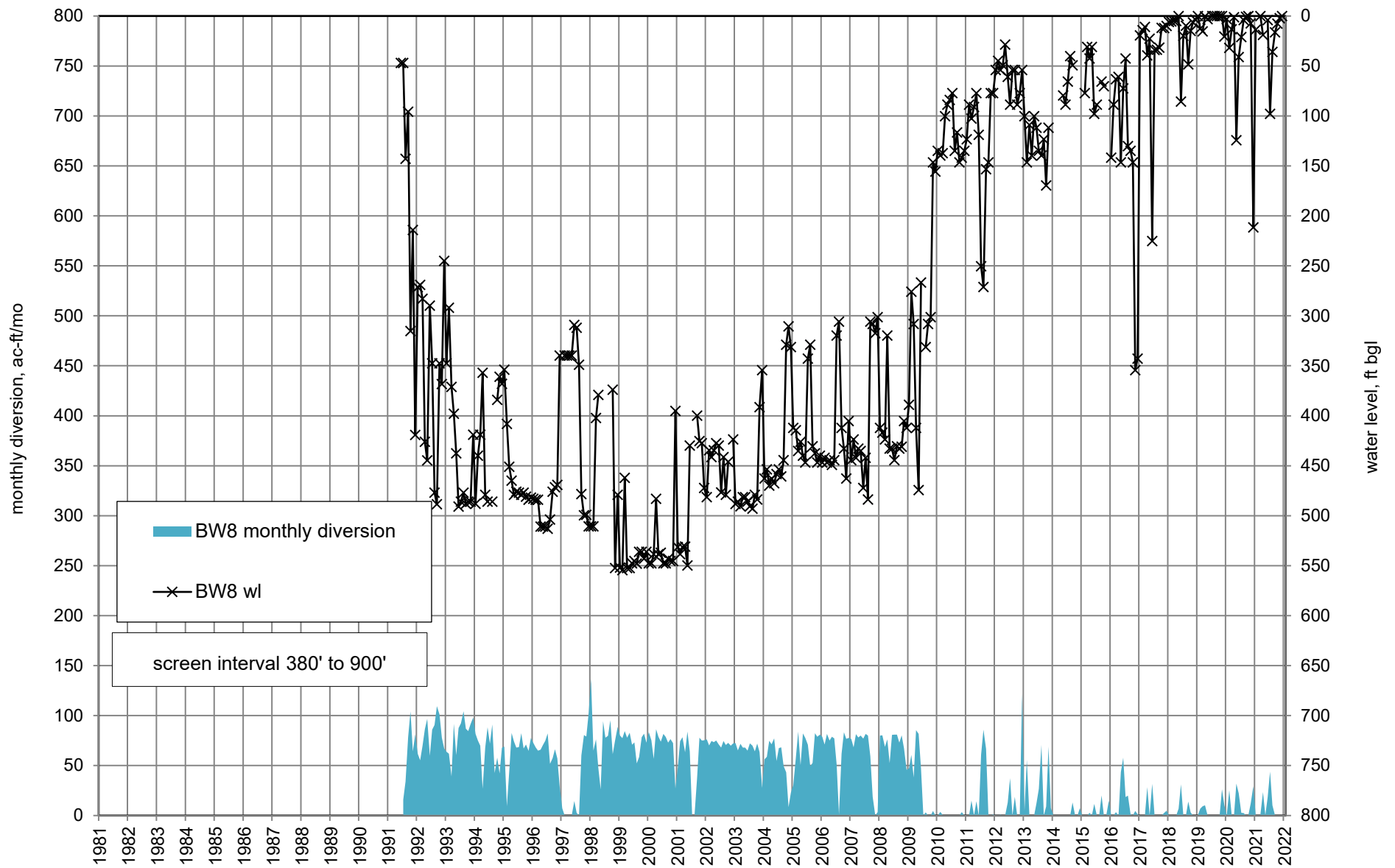


Figure A9. Water levels and monthly diversions from Buckman Well 8 (RG-20516-S-8), 1981 through 2021.

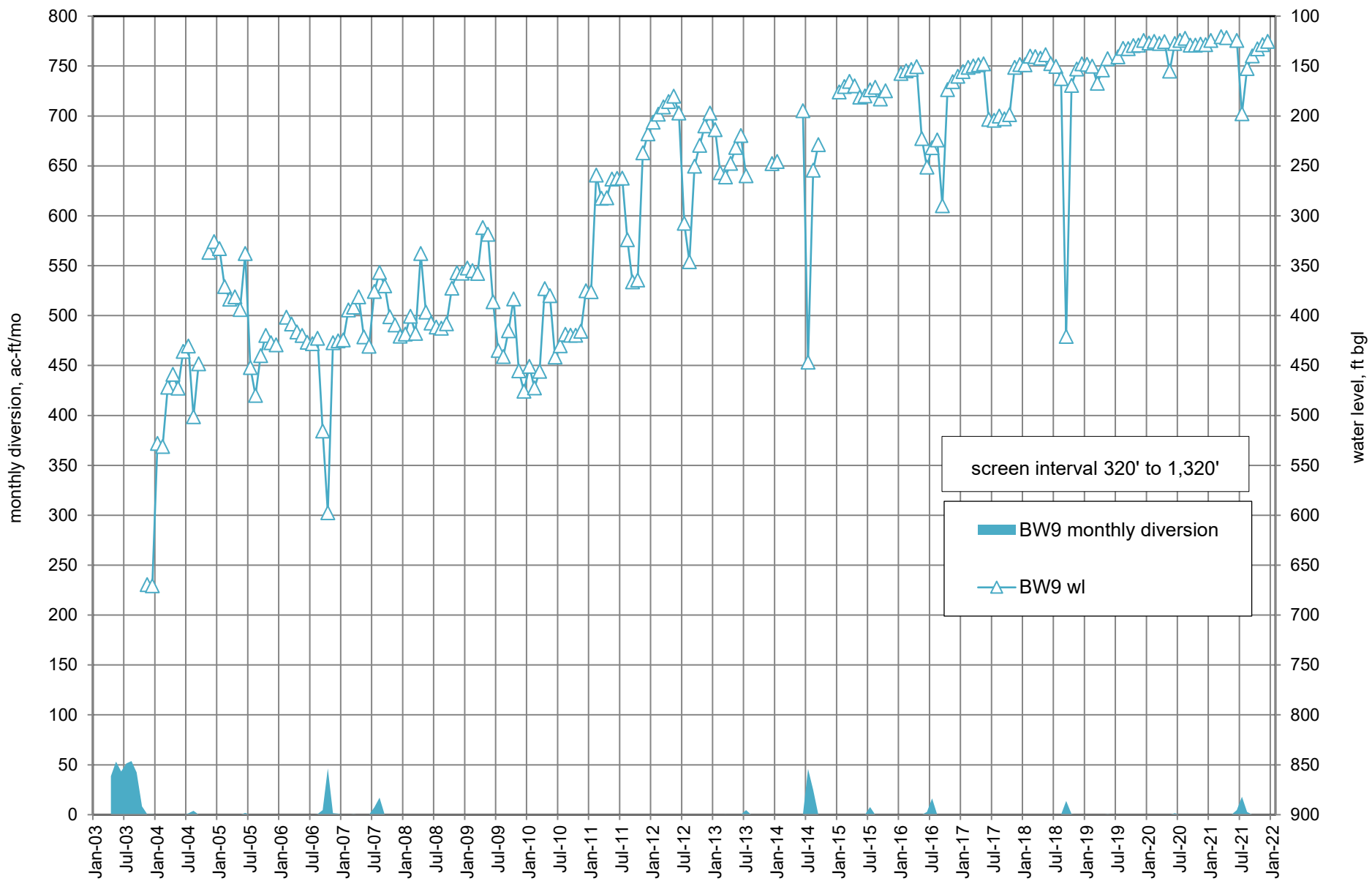


Figure A10. Water levels and monthly diversions from Buckman Well 9 (RG-20516-S-9), 2003 through 2021.

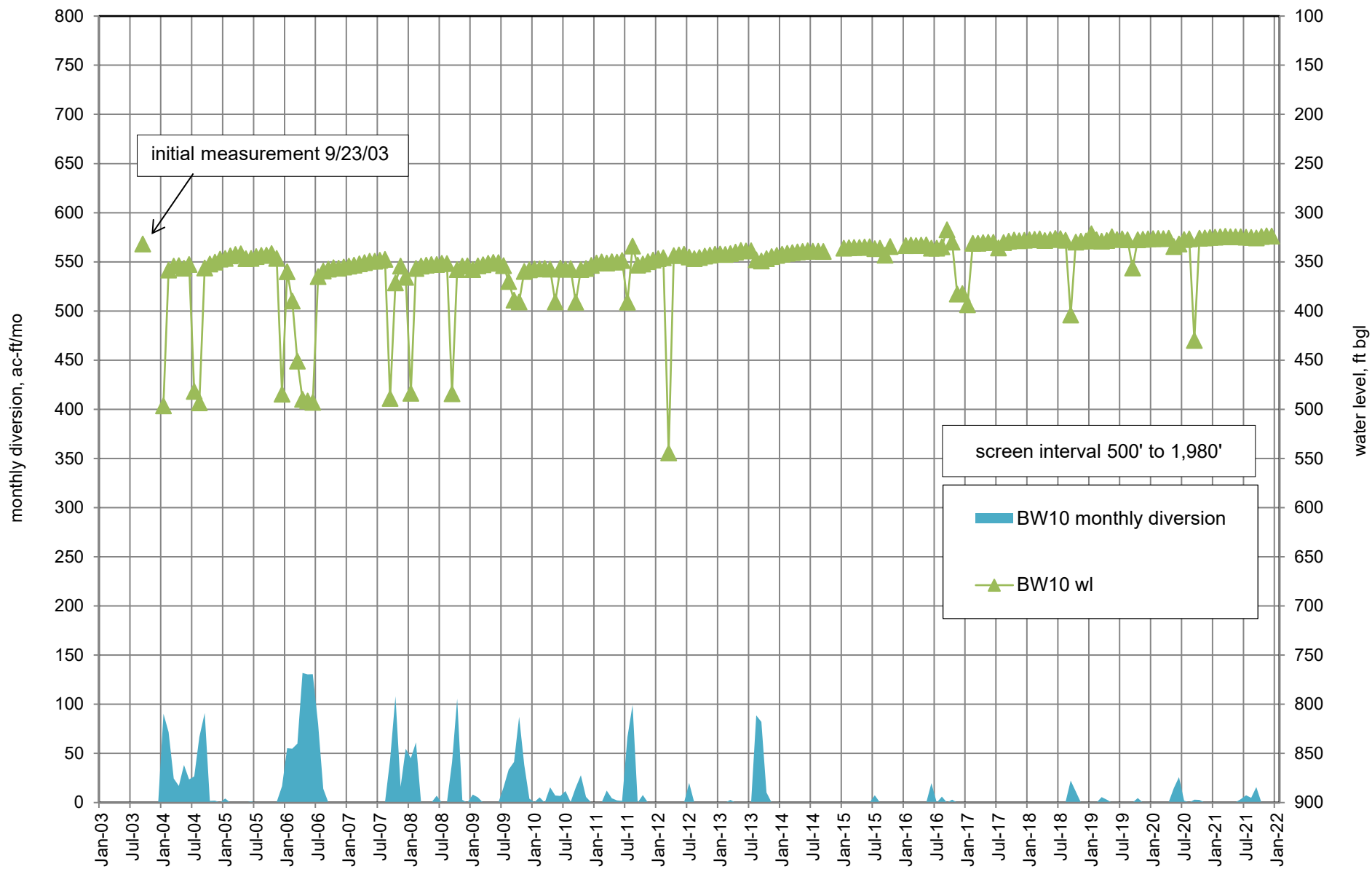


Figure A11. Water levels and monthly diversions from Buckman Well 10 (RG-20516-S-10), 2003 through 2021.

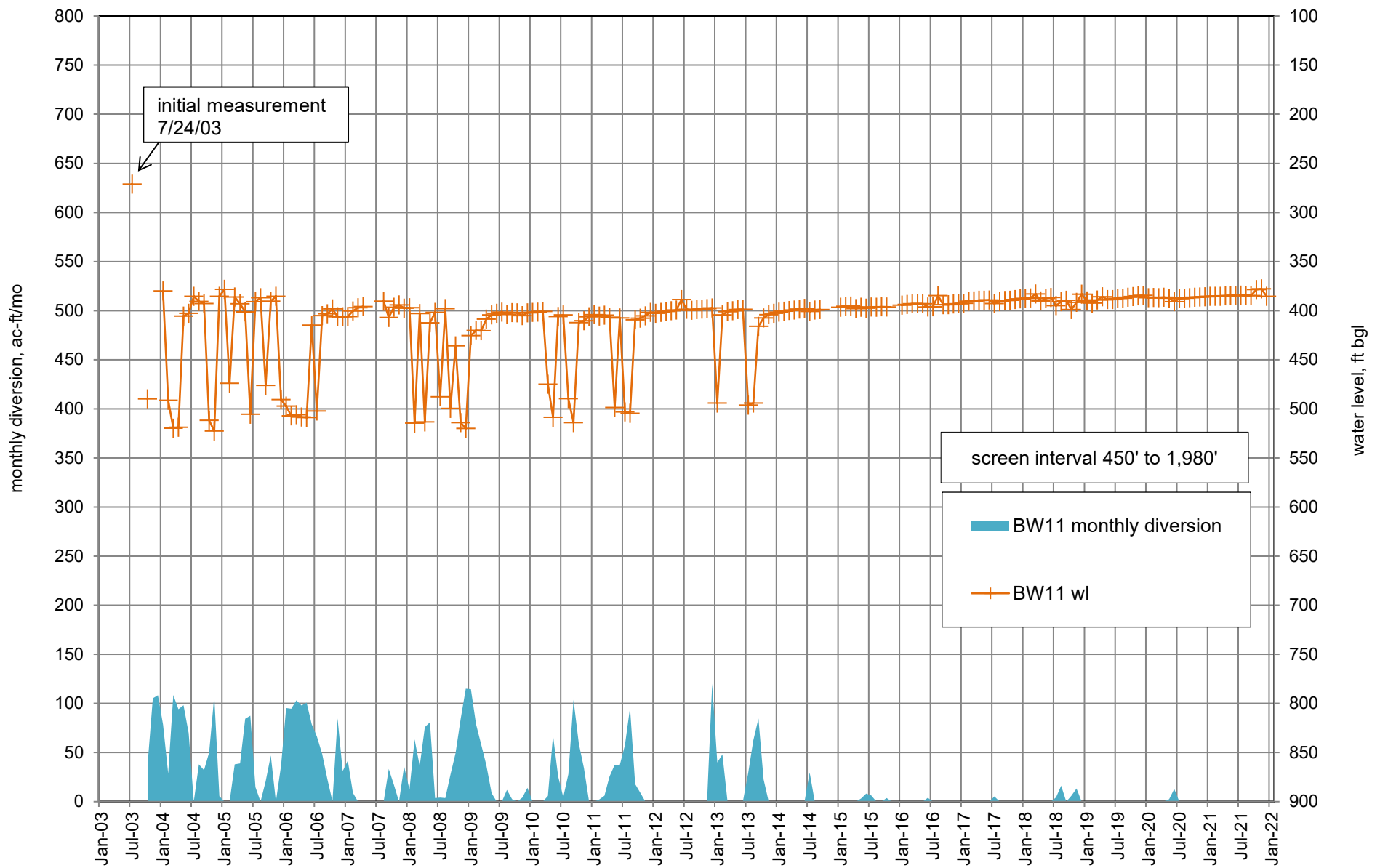


Figure A12. Water levels and monthly diversions from Buckman Well 11 (RG-20516-S-11), 2003 through 2021.

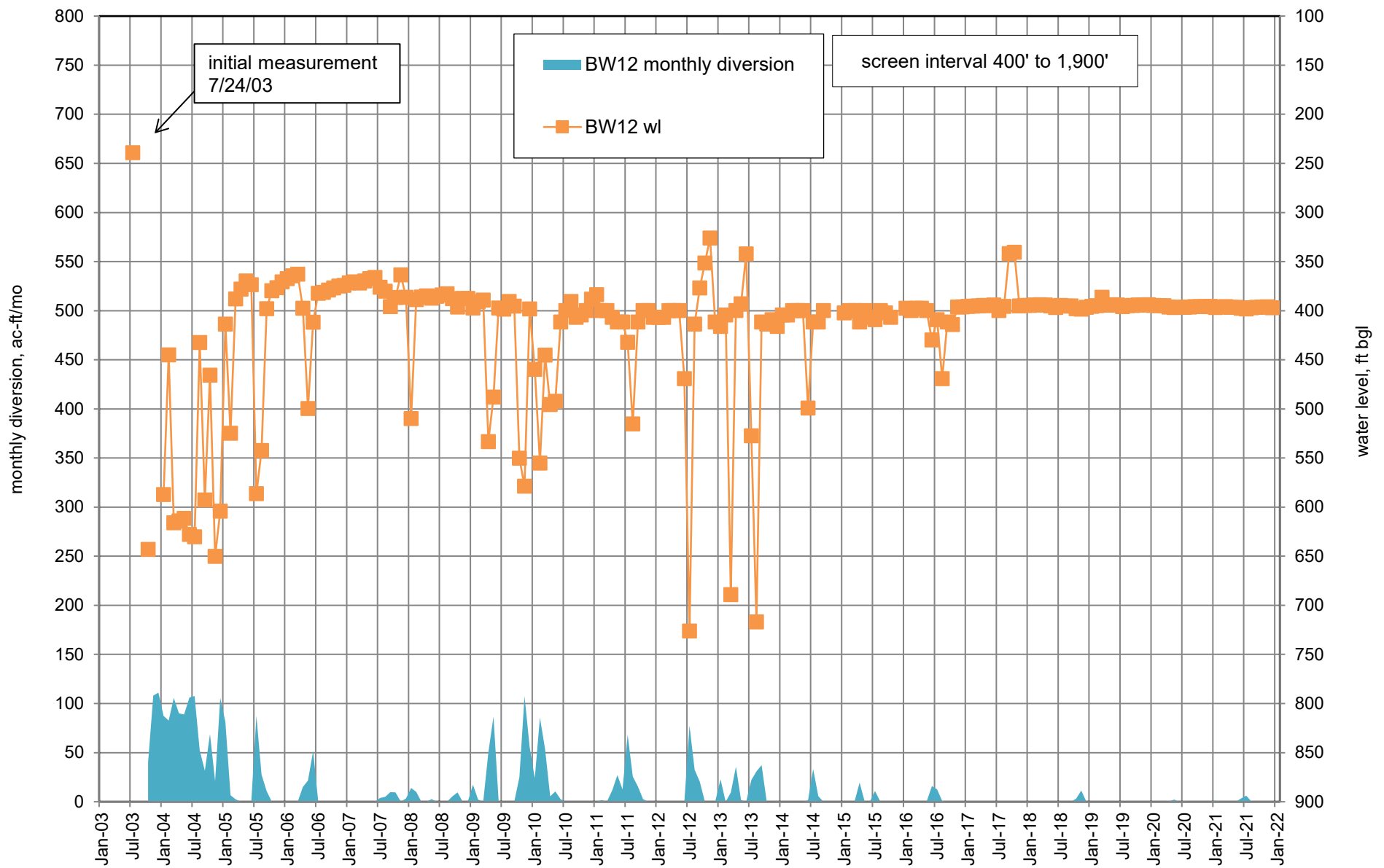


Figure A13. Water levels and monthly diversions from Buckman Well 12 (RG-20516-S-12), 2003 through 2021.

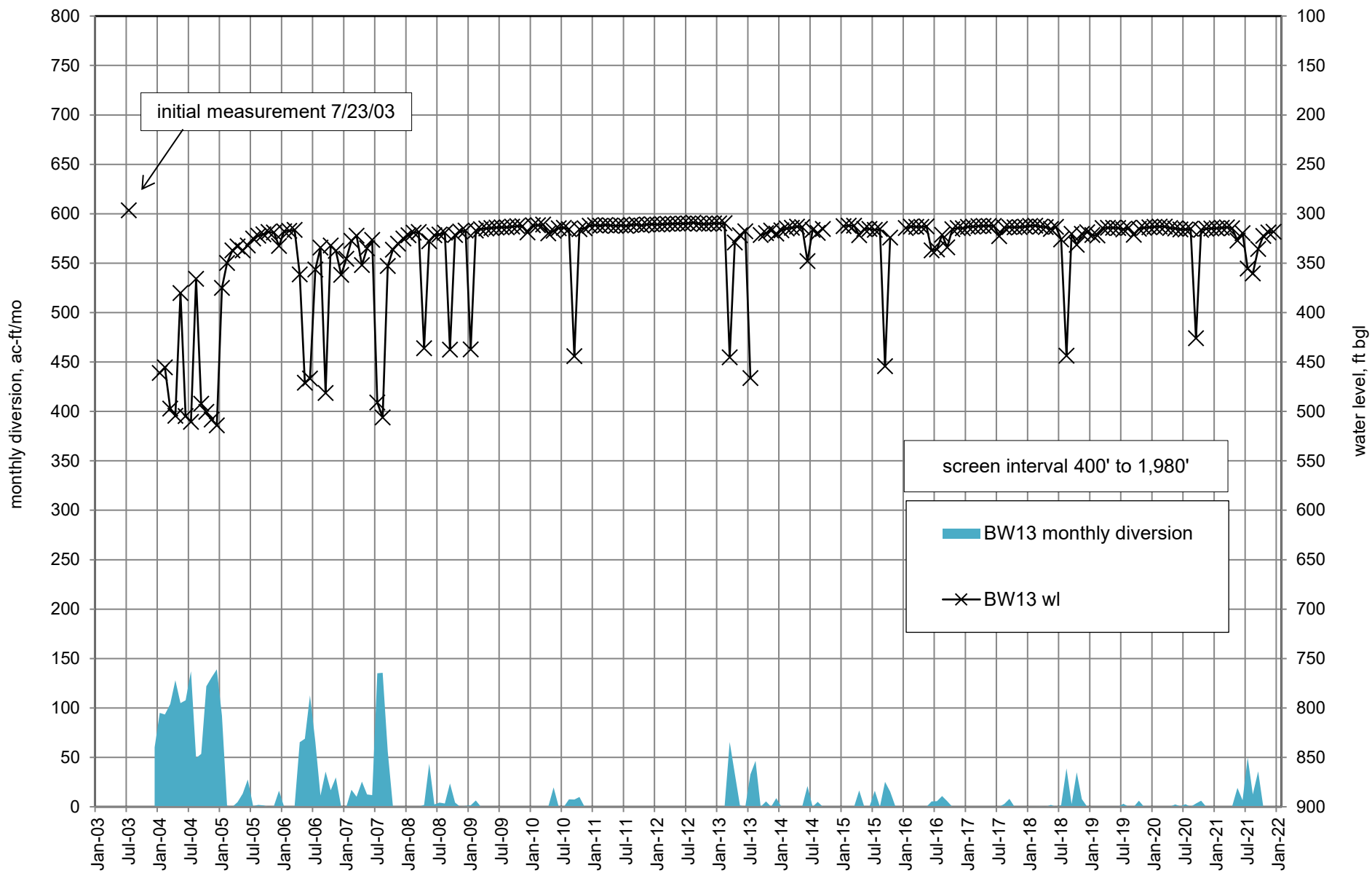


Figure A14. Water levels and monthly diversions from Buckman Well 13 (RG-20516-S-13), 2003 through 2019.

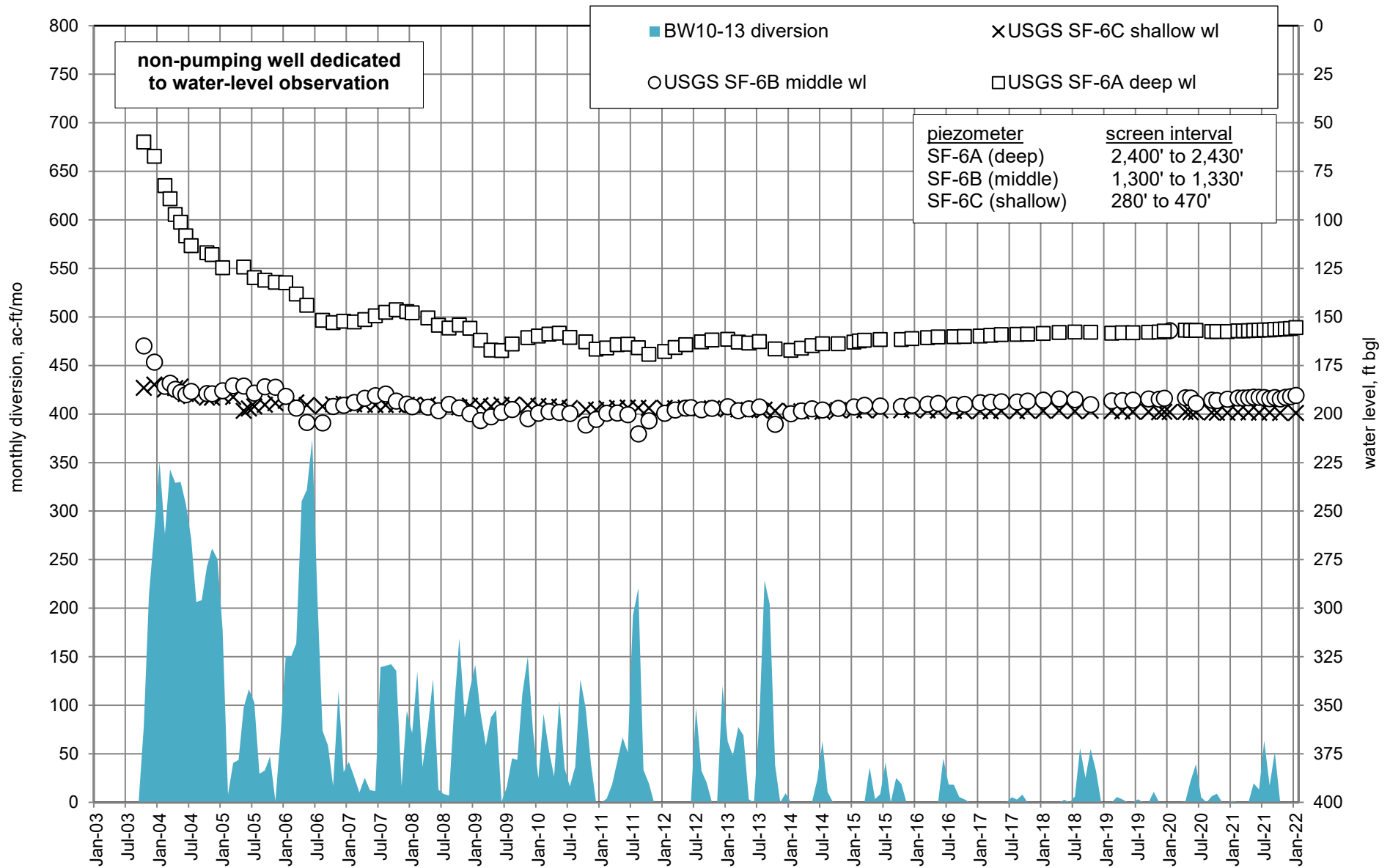


Figure A15. Water levels in U.S. Geological Survey Buckman shallow, middle, and deep piezometers (SF-6 C, B, and A, respectively), and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

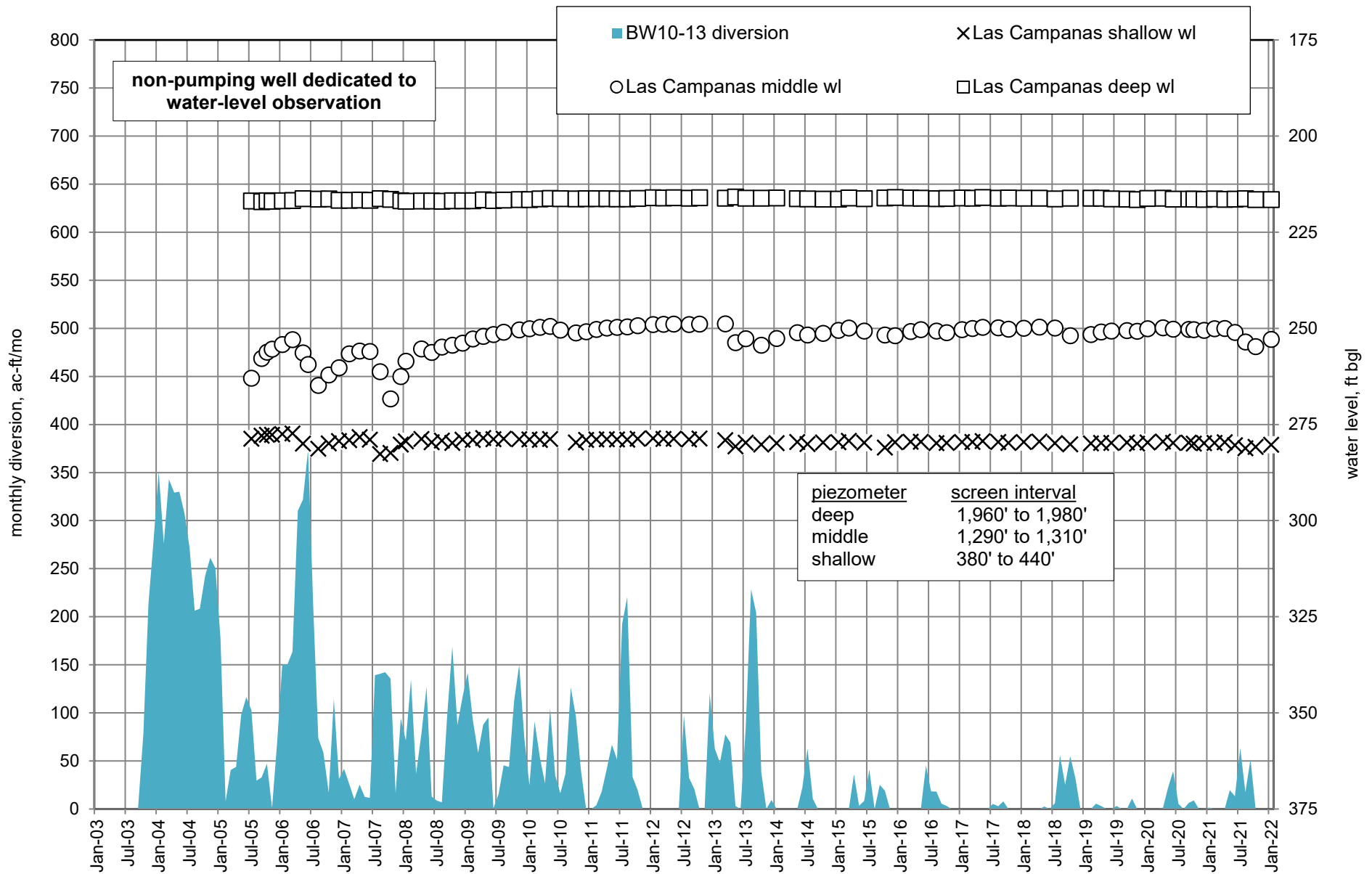


Figure A16. Water levels in U.S. Geological Survey Las Campanas shallow, middle and deep piezometers (C, B, and A, respectively), and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

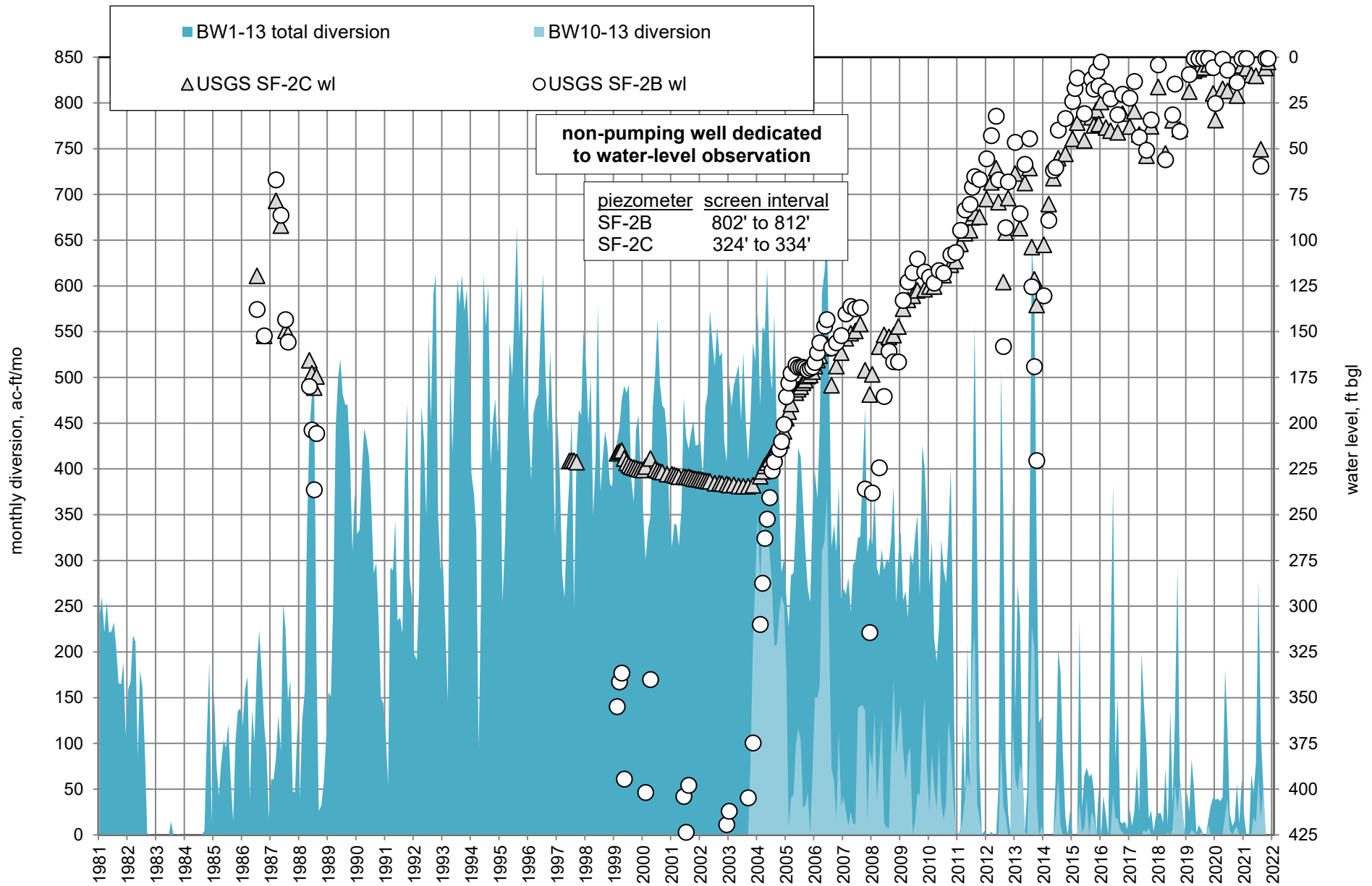


Figure A17. Water levels in U.S. Geological Survey SF-2 shallow and middle piezometers (SF-2 C and B, respectively), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.

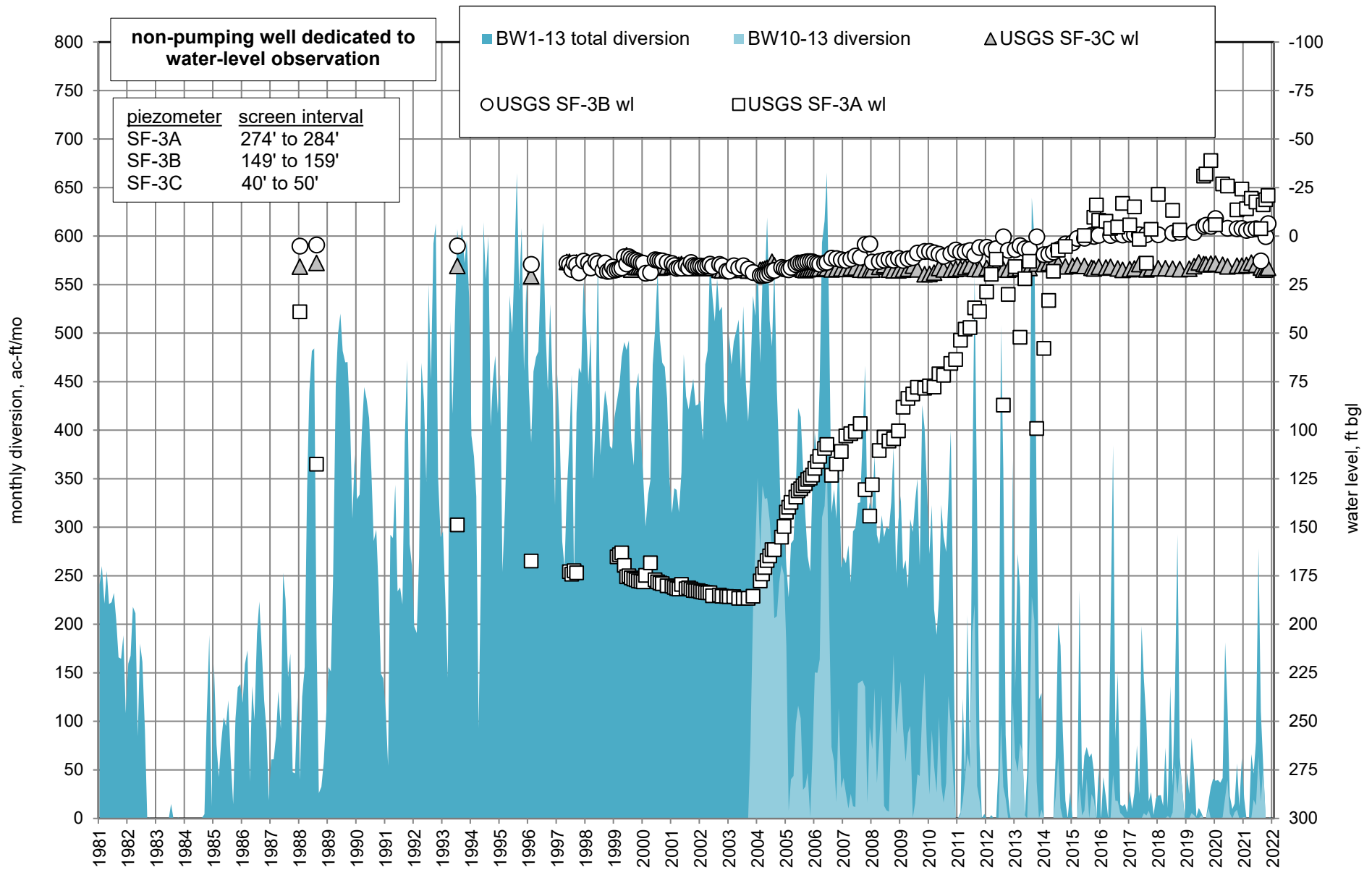


Figure A18. Water levels in U.S. Geological Survey SF-3 shallow, middle and deep piezometers (SF-3 C, B and A, respectively), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.

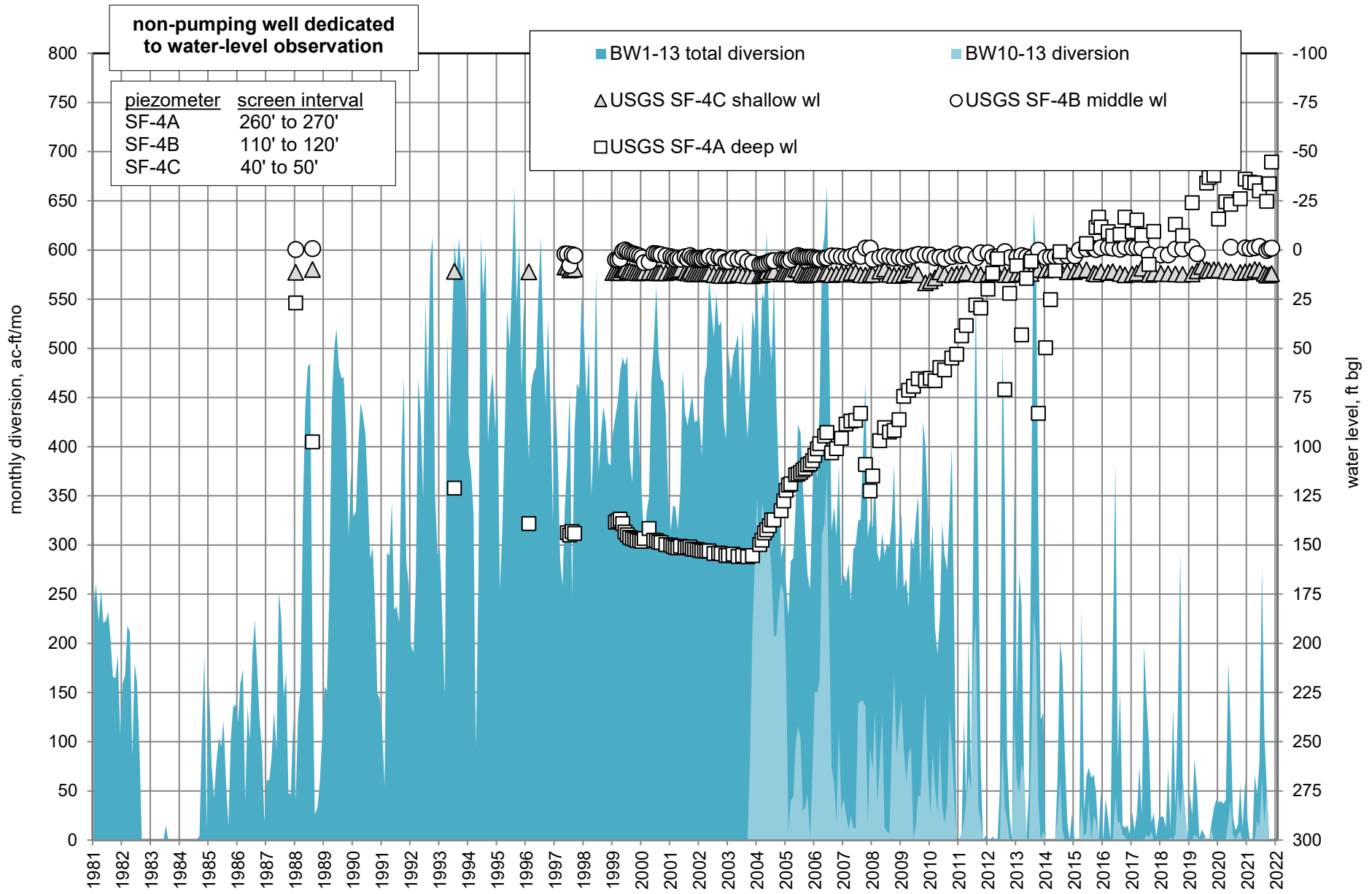


Figure A19. Water levels in U.S. Geological Survey SF-4 shallow, middle and deep piezometers (SF-4 C, B and A, respectively), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.

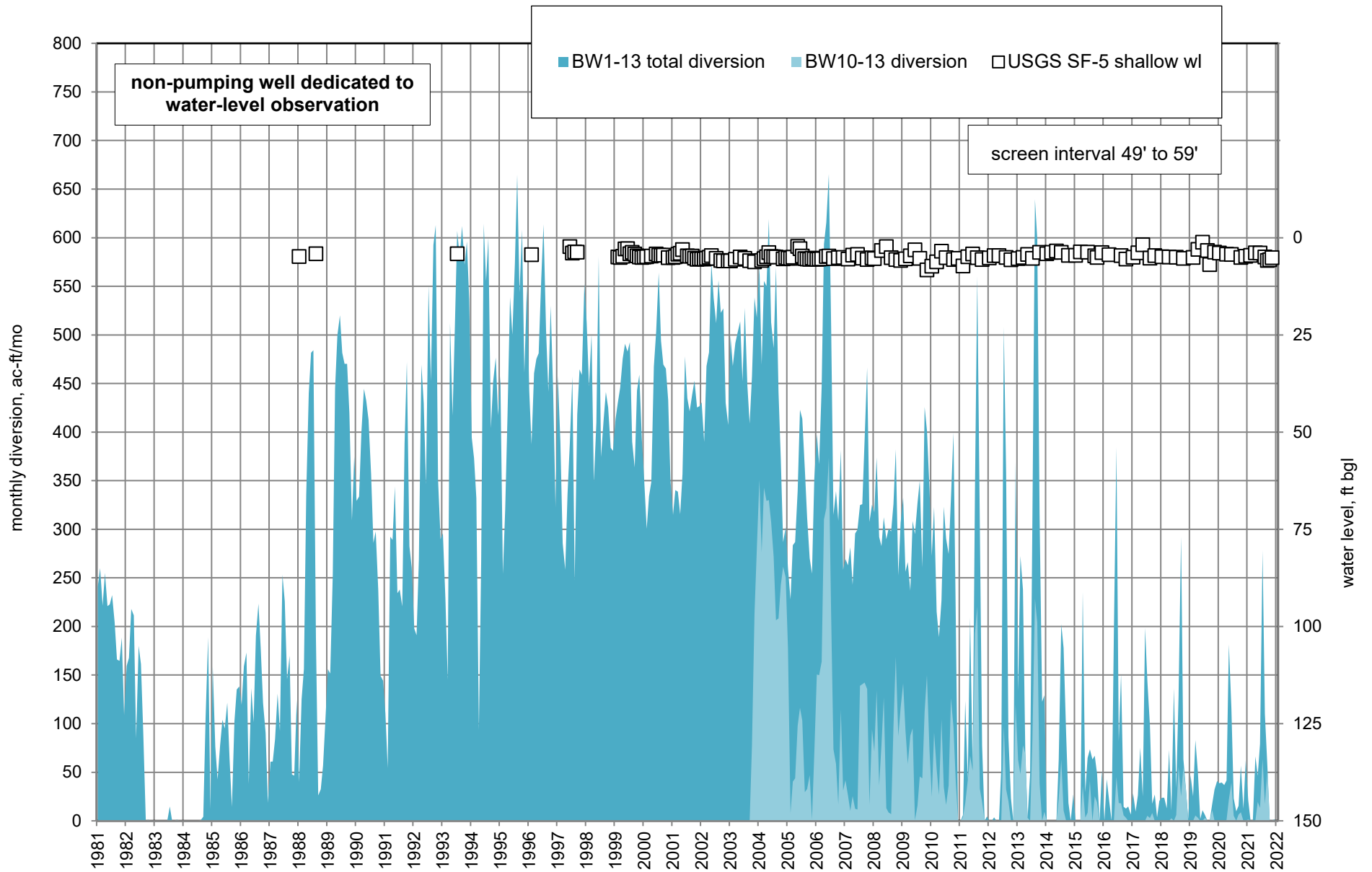


Figure A20. Water levels in U.S. Geological Survey SF-5 shallow piezometer (SF-5 C), and monthly diversions from Buckman Wells 1 through 13, 1981 through 2021.

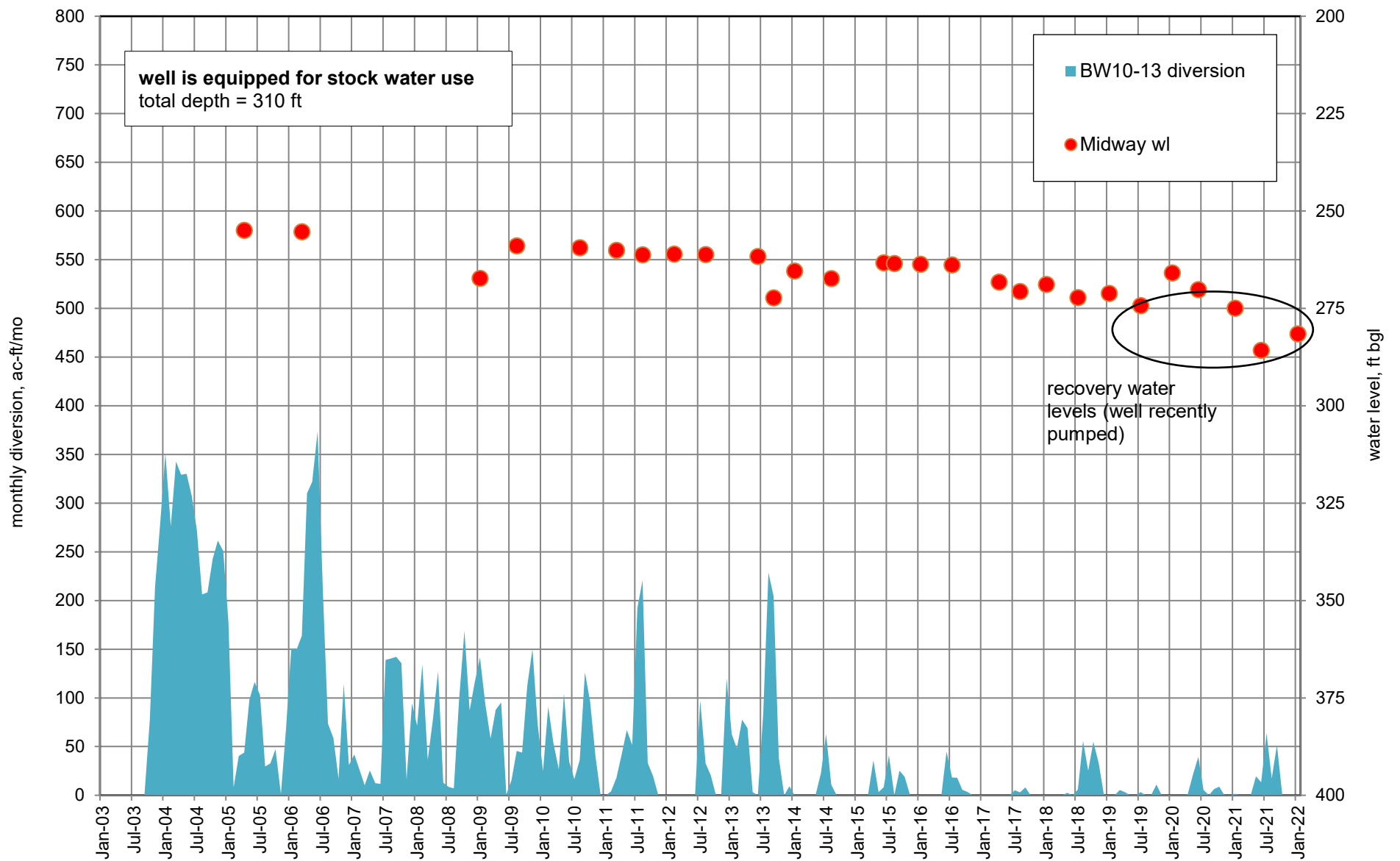


Figure A21. Water levels in Midway Windmill well (RG-438) and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

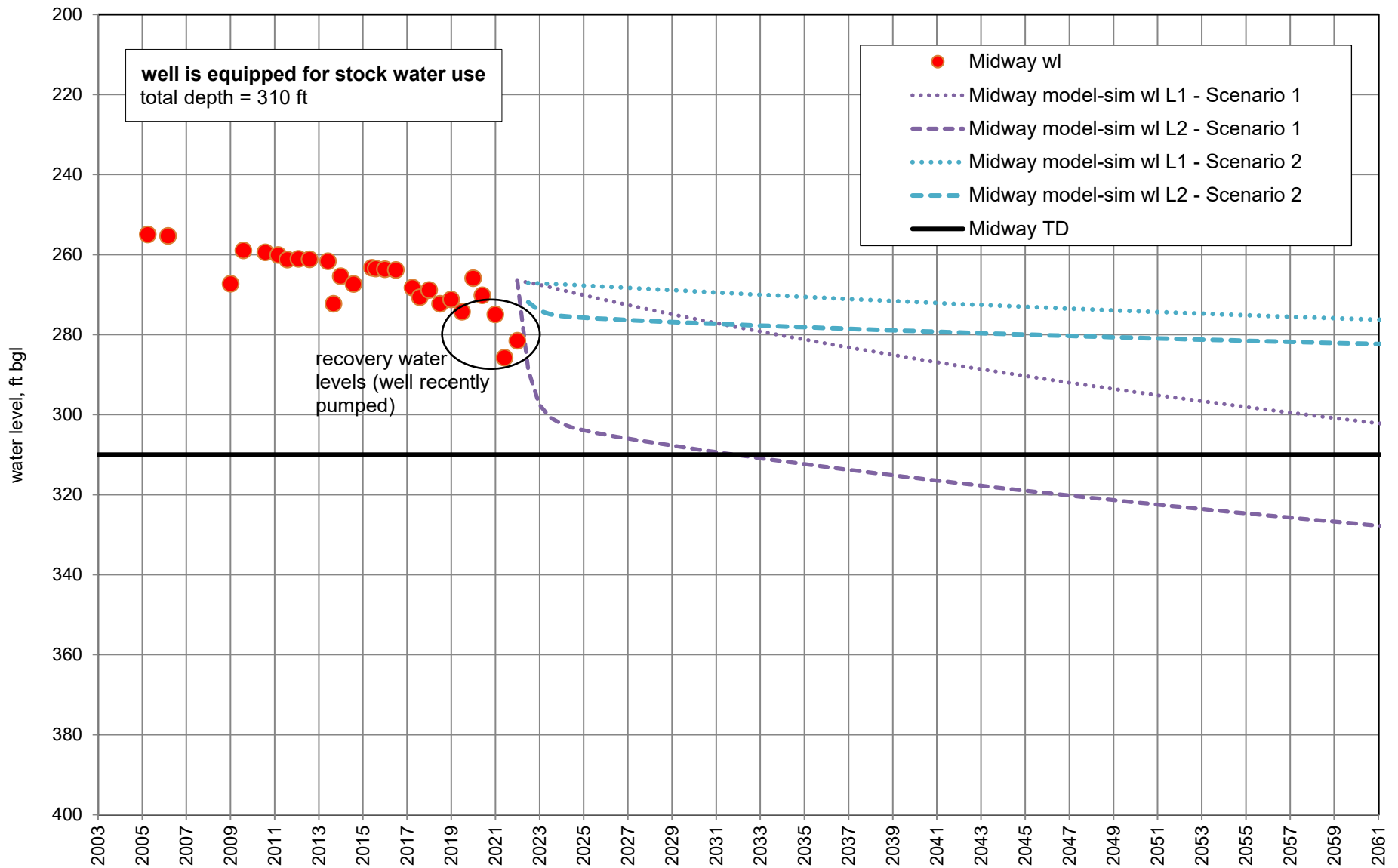


Figure A22. Water levels in Midway Windmill well (RG-438) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

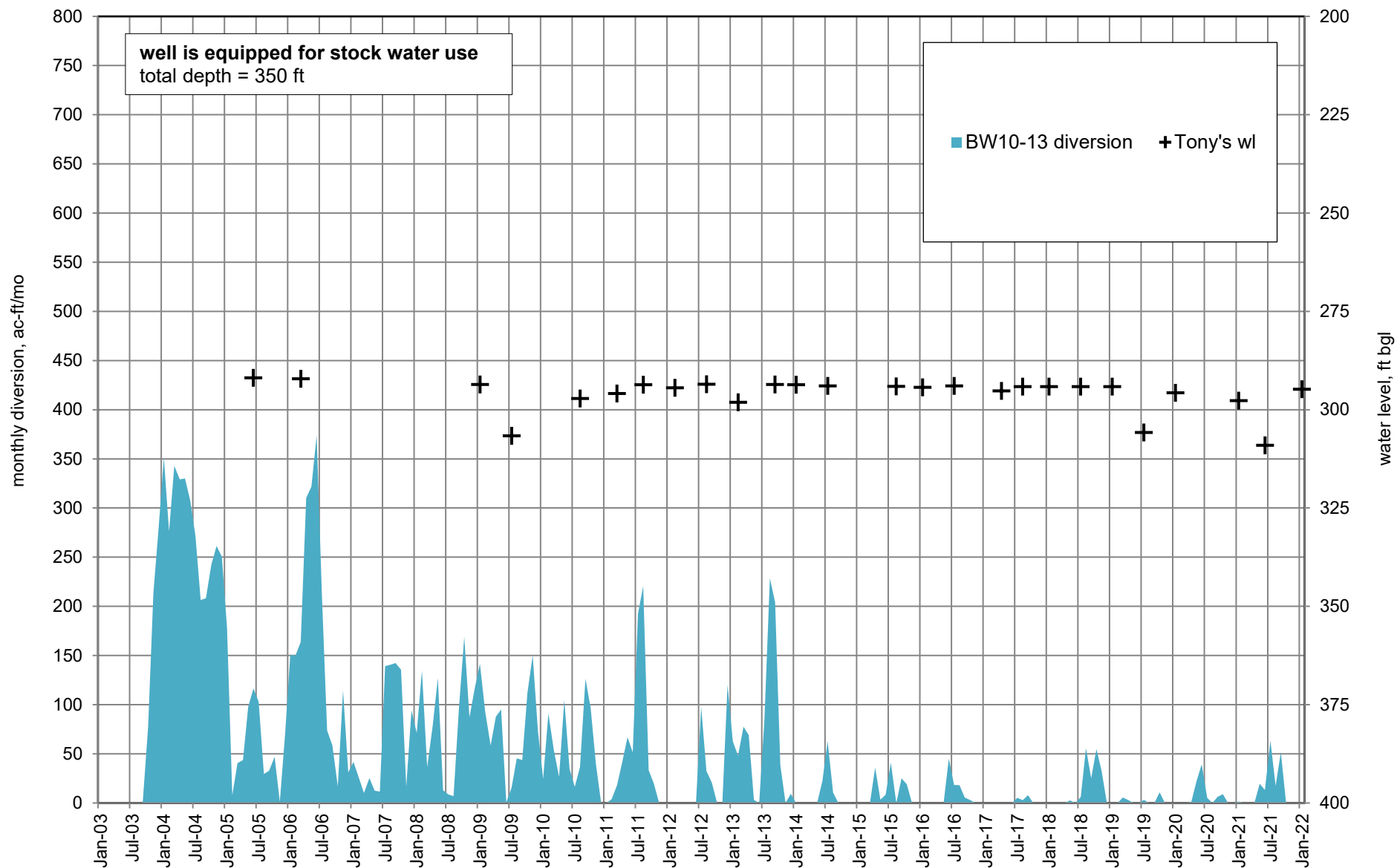


Figure A23. Water levels in Tony Windmill well (RG-6386) and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

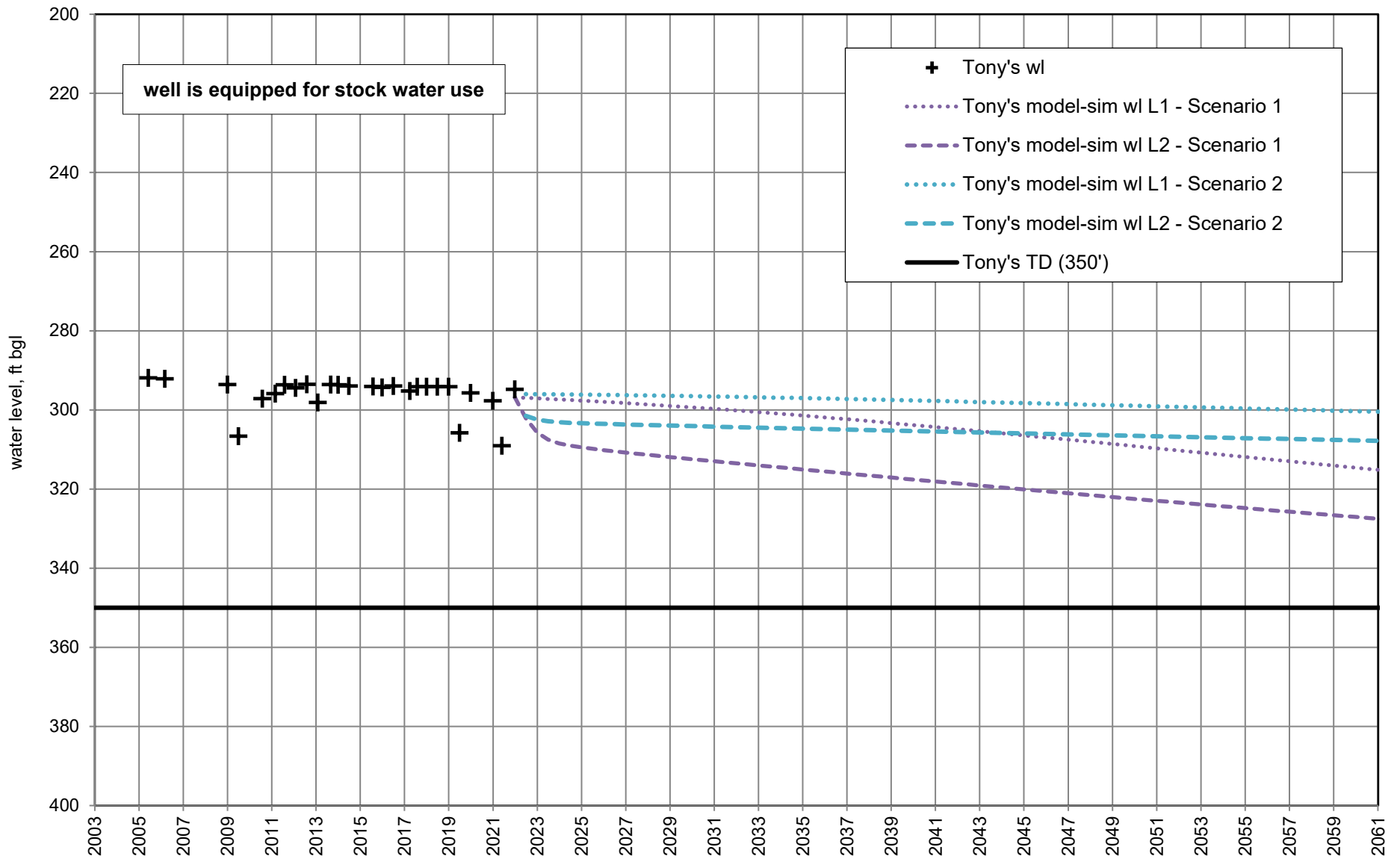


Figure A24. Water levels in Tony's Windmill well (RG-6386) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

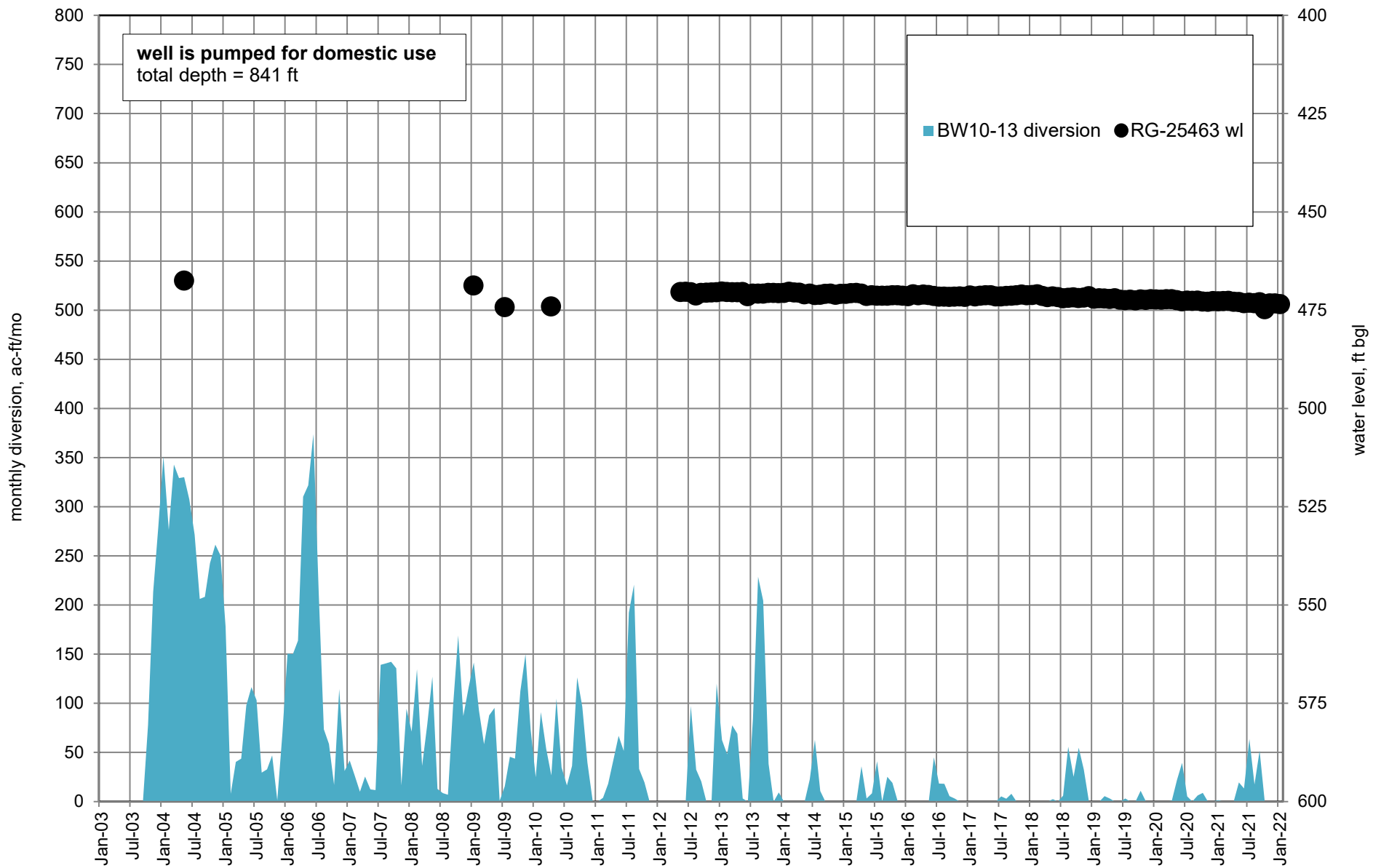


Figure A25. Water levels in well RG-25463 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

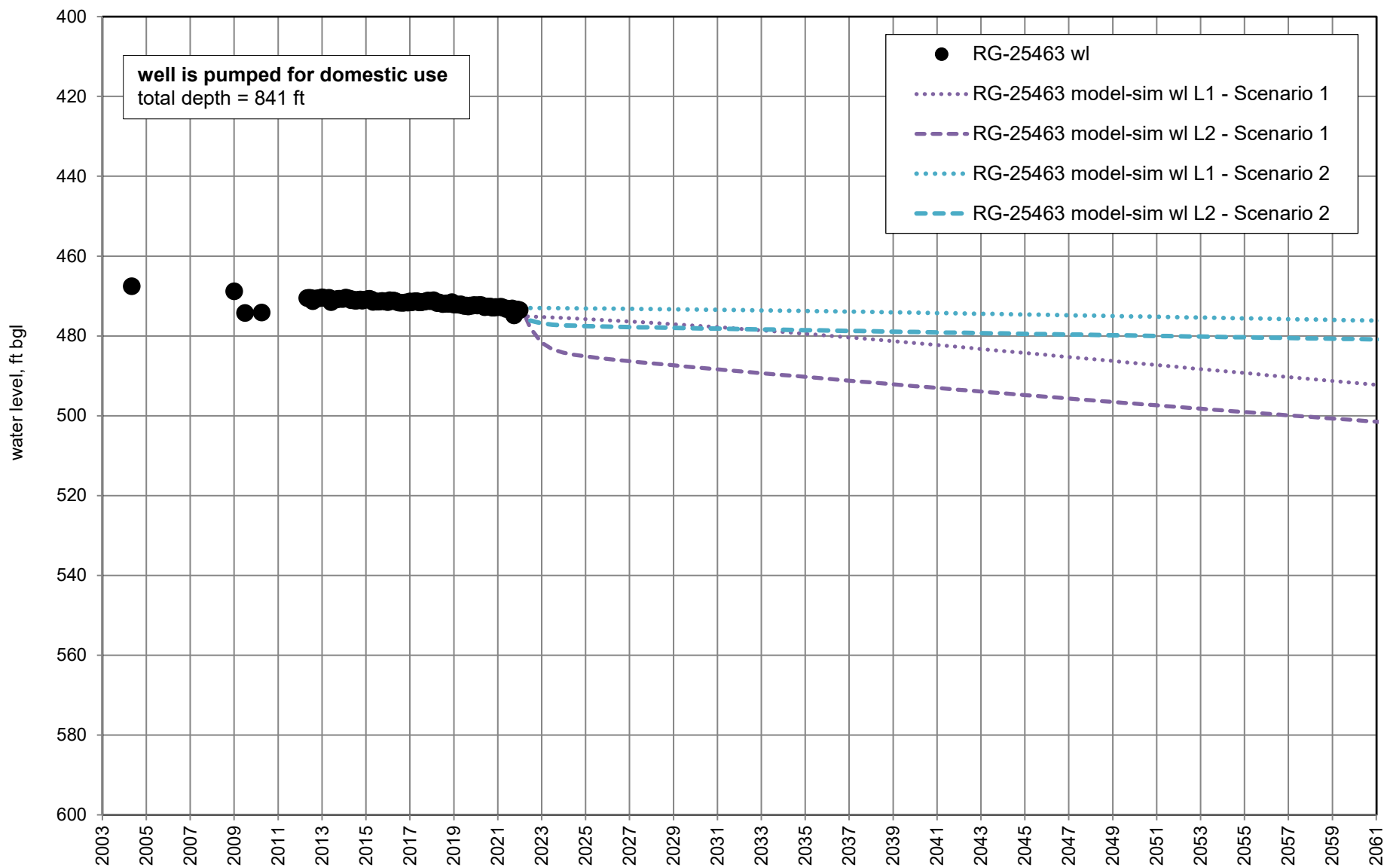


Figure A26. Water levels in well RG-25463 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

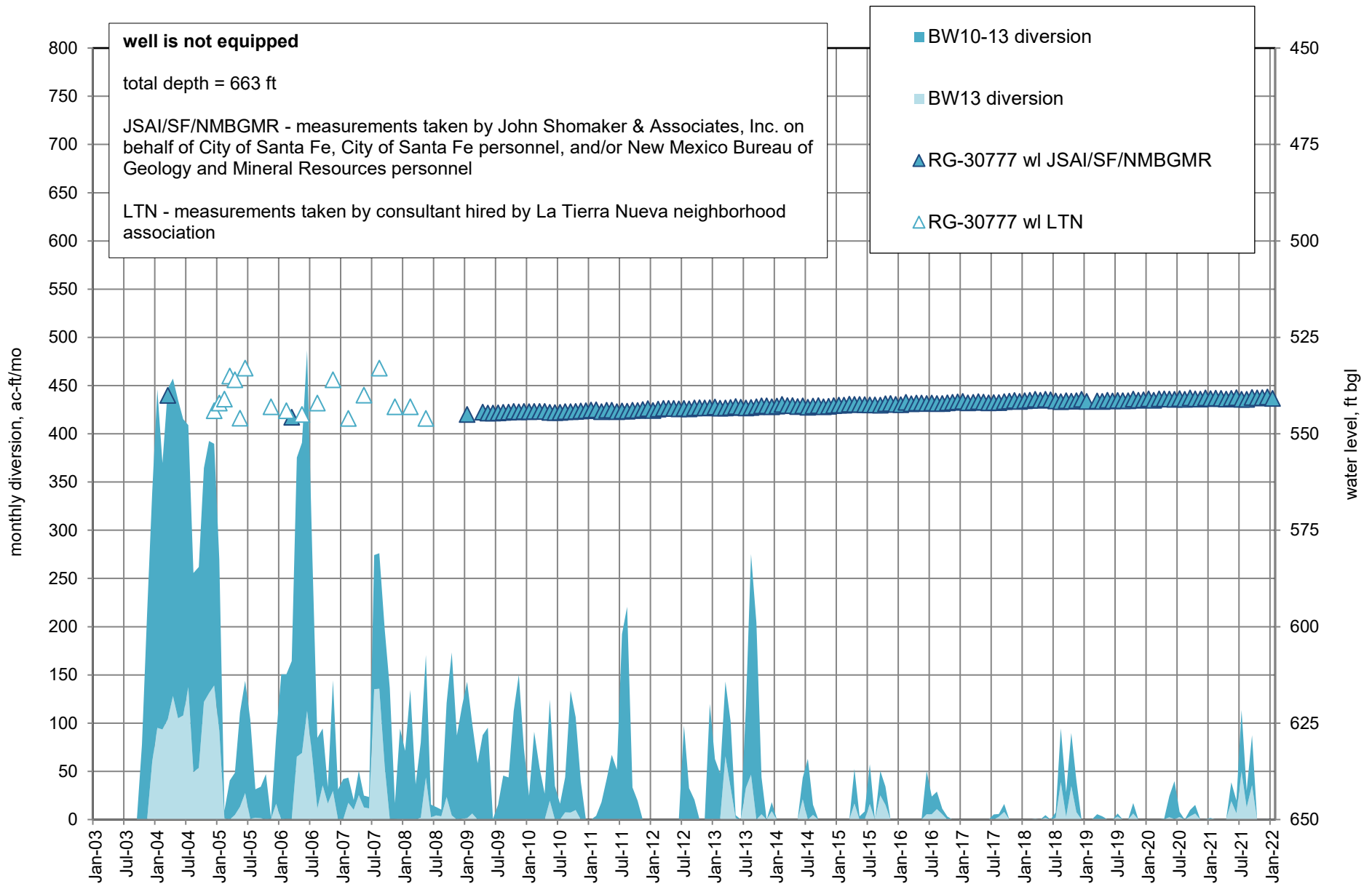


Figure A27. Water levels in well RG-30777 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

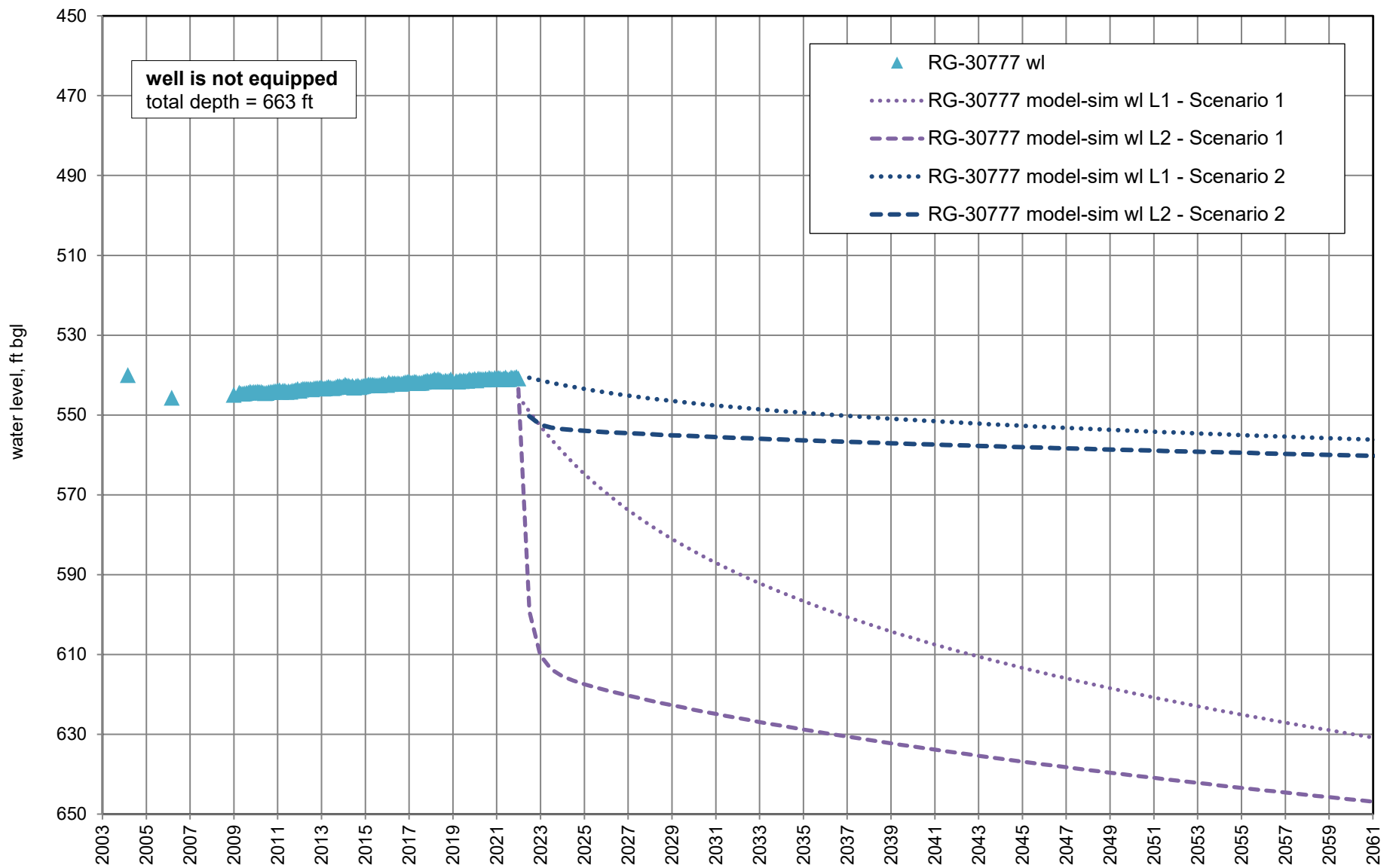


Figure A28. Water levels in well RG-30777 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

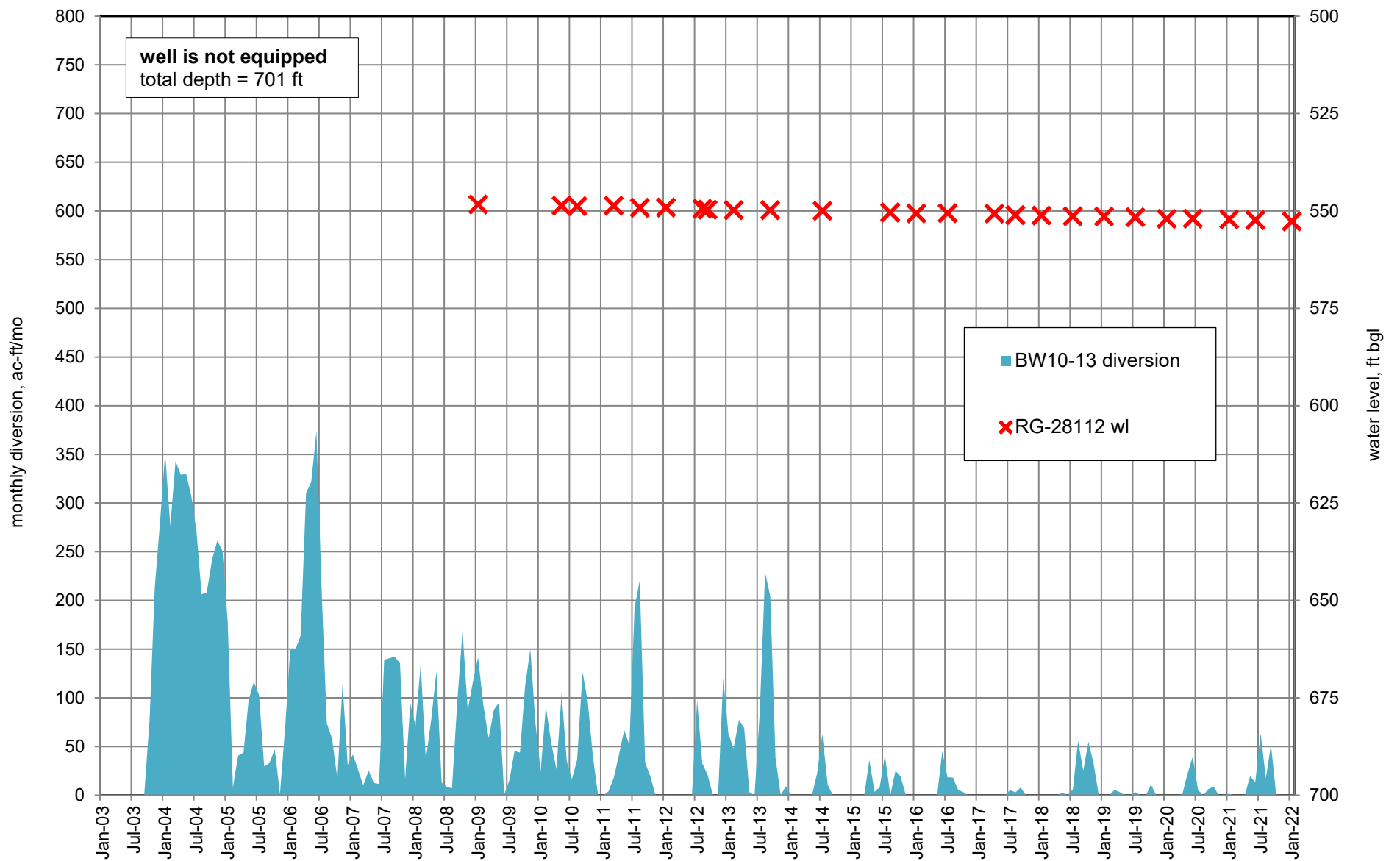


Figure A29. Water levels in well RG-28112 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

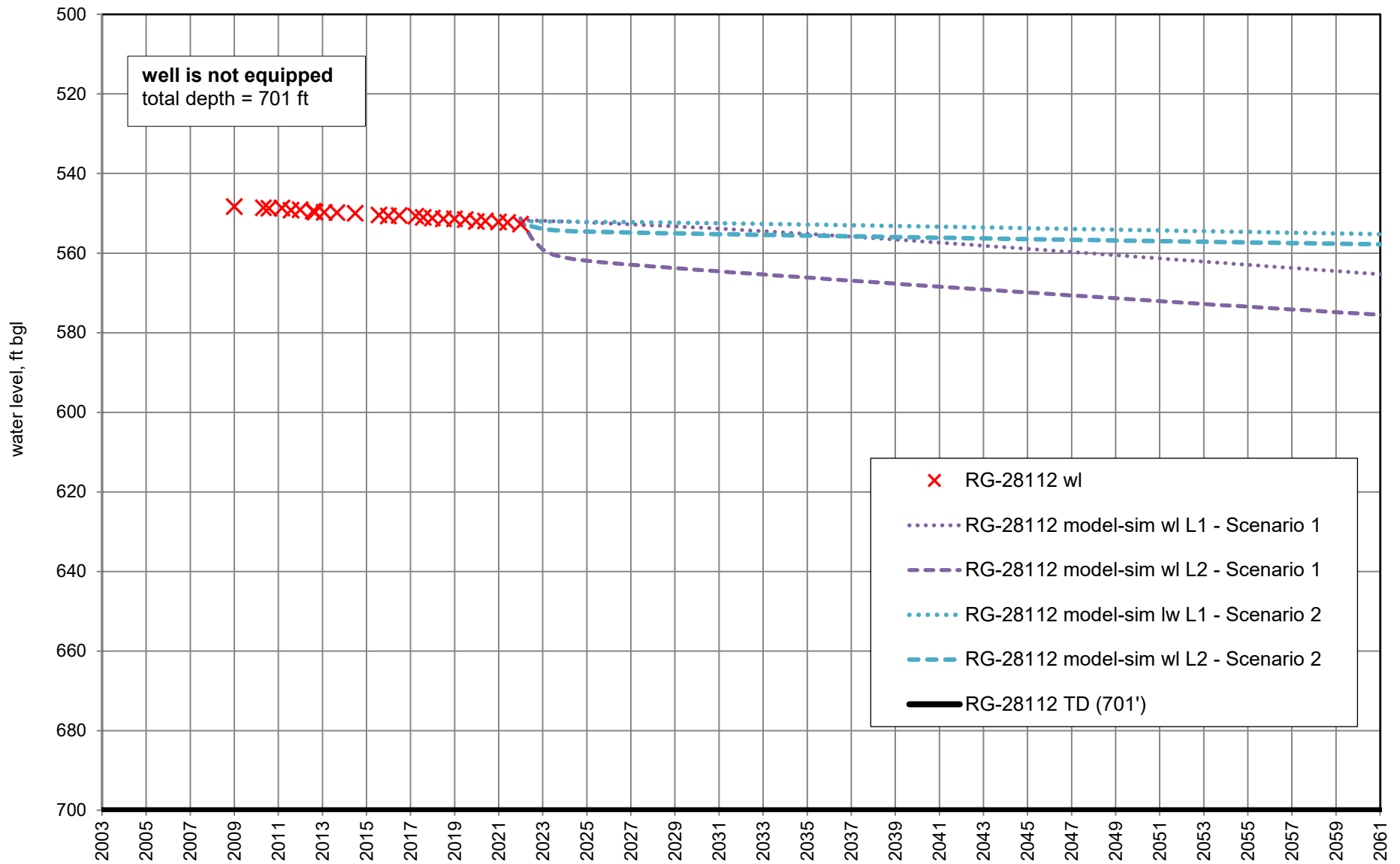


Figure A30. Water levels in well RG-28112 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

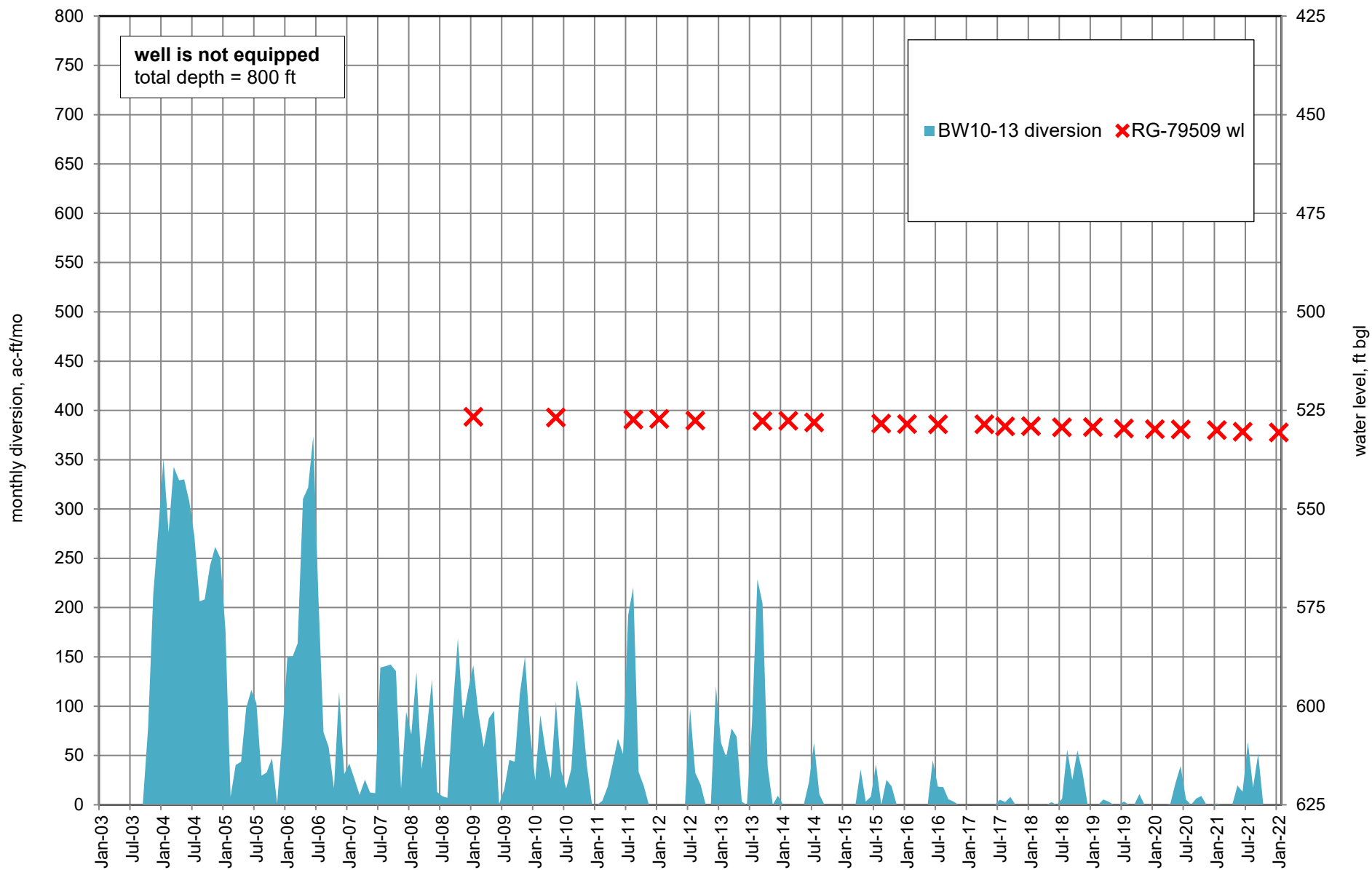


Figure A31. Water levels in well RG-79509 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

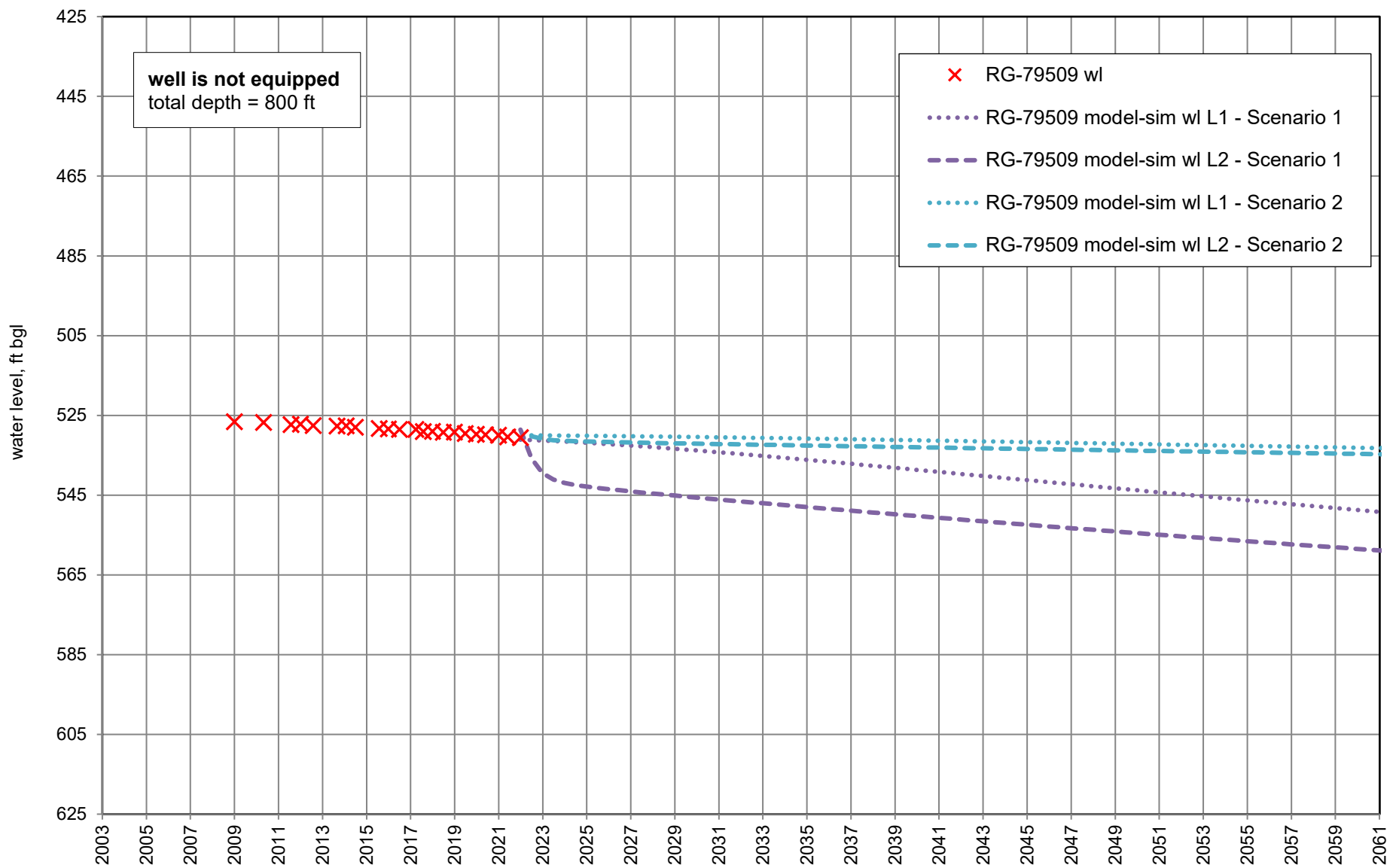


Figure A32. Water levels in well RG-79509 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

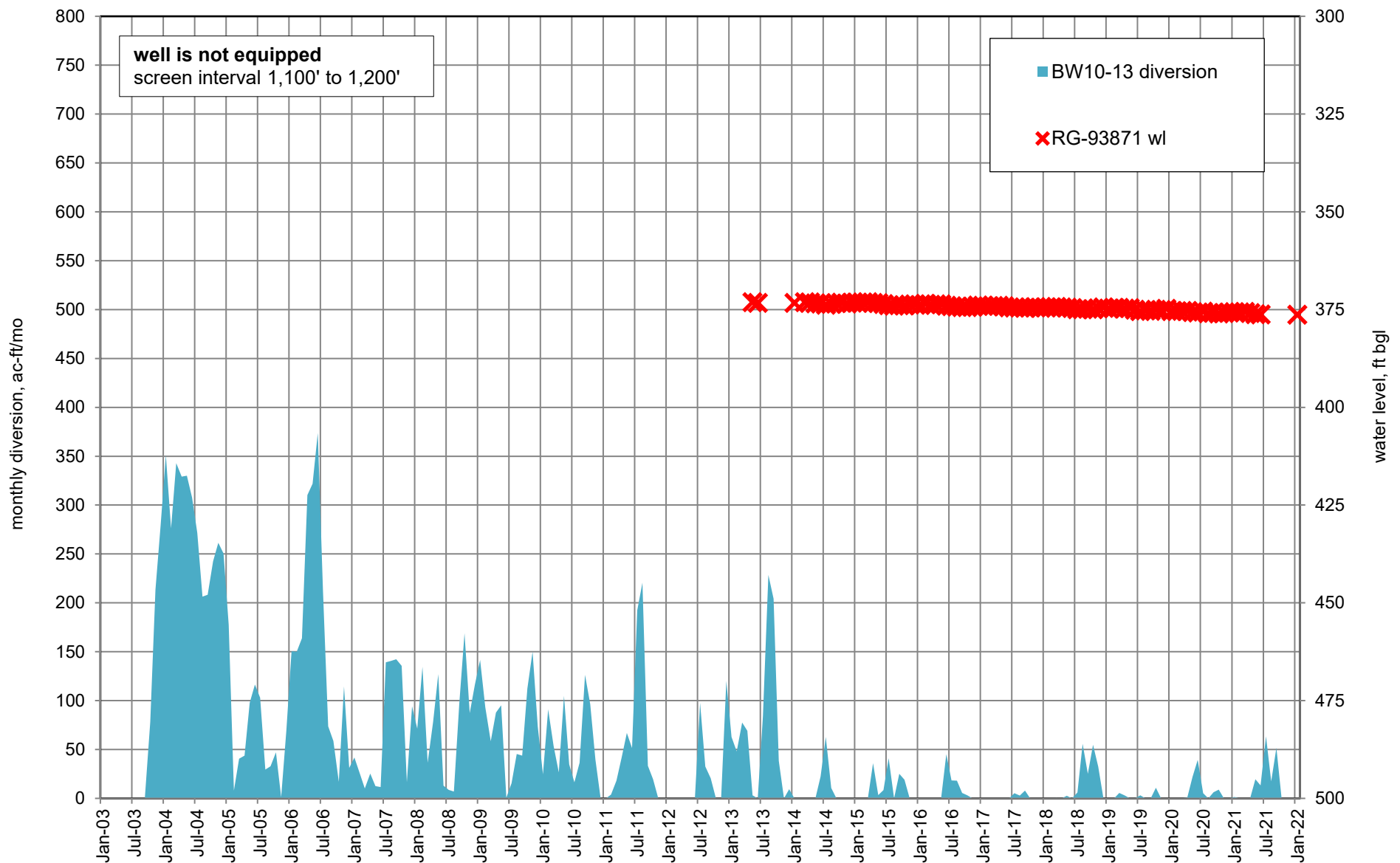


Figure A33. Water levels in La Tierra deep monitoring well RG-93871 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

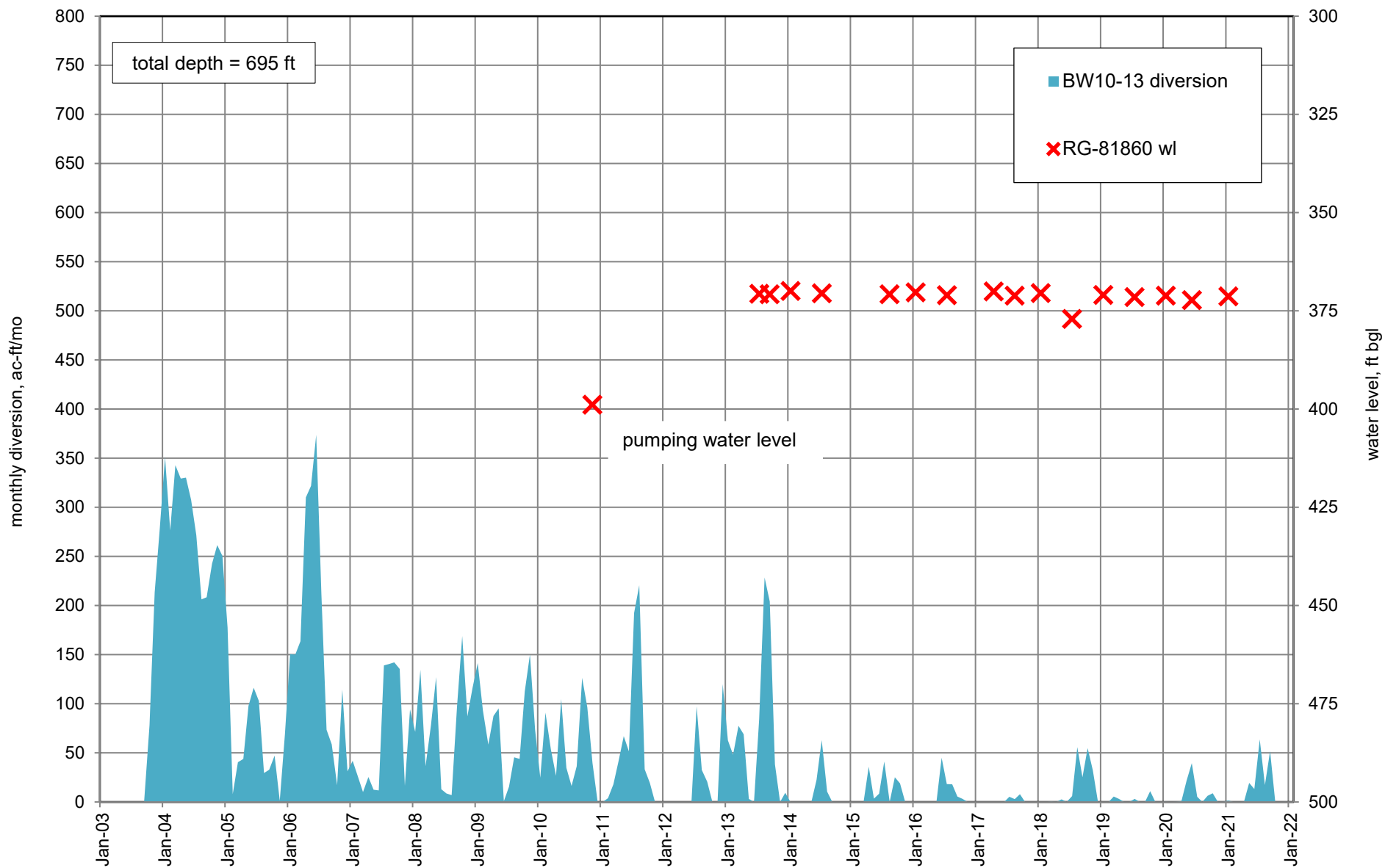


Figure A34. Water levels in well RG-81860 and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

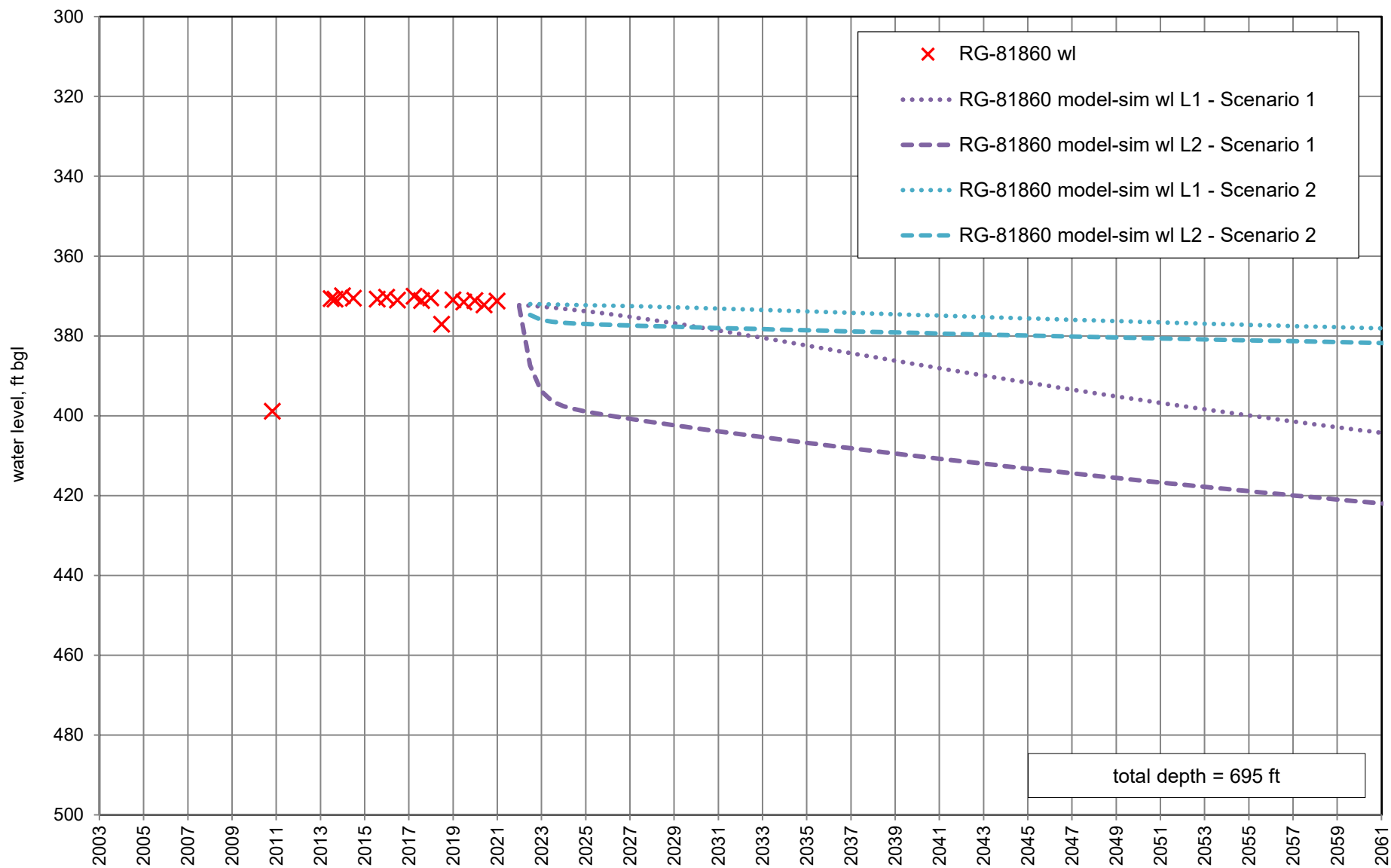


Figure A35. Water levels in well RG-81860 and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

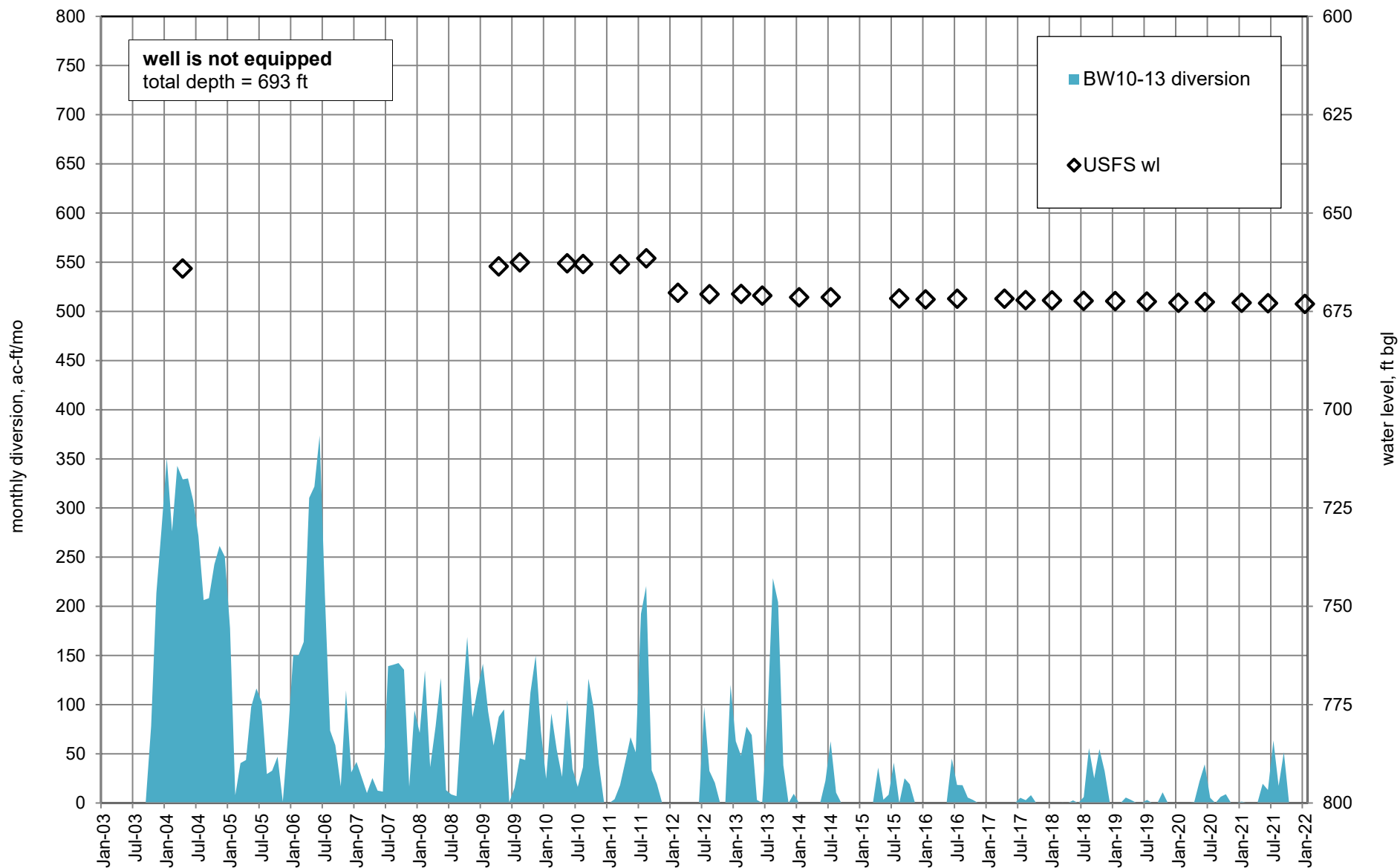


Figure A36. Water levels in U.S. Forest Service well (RG-29723) and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

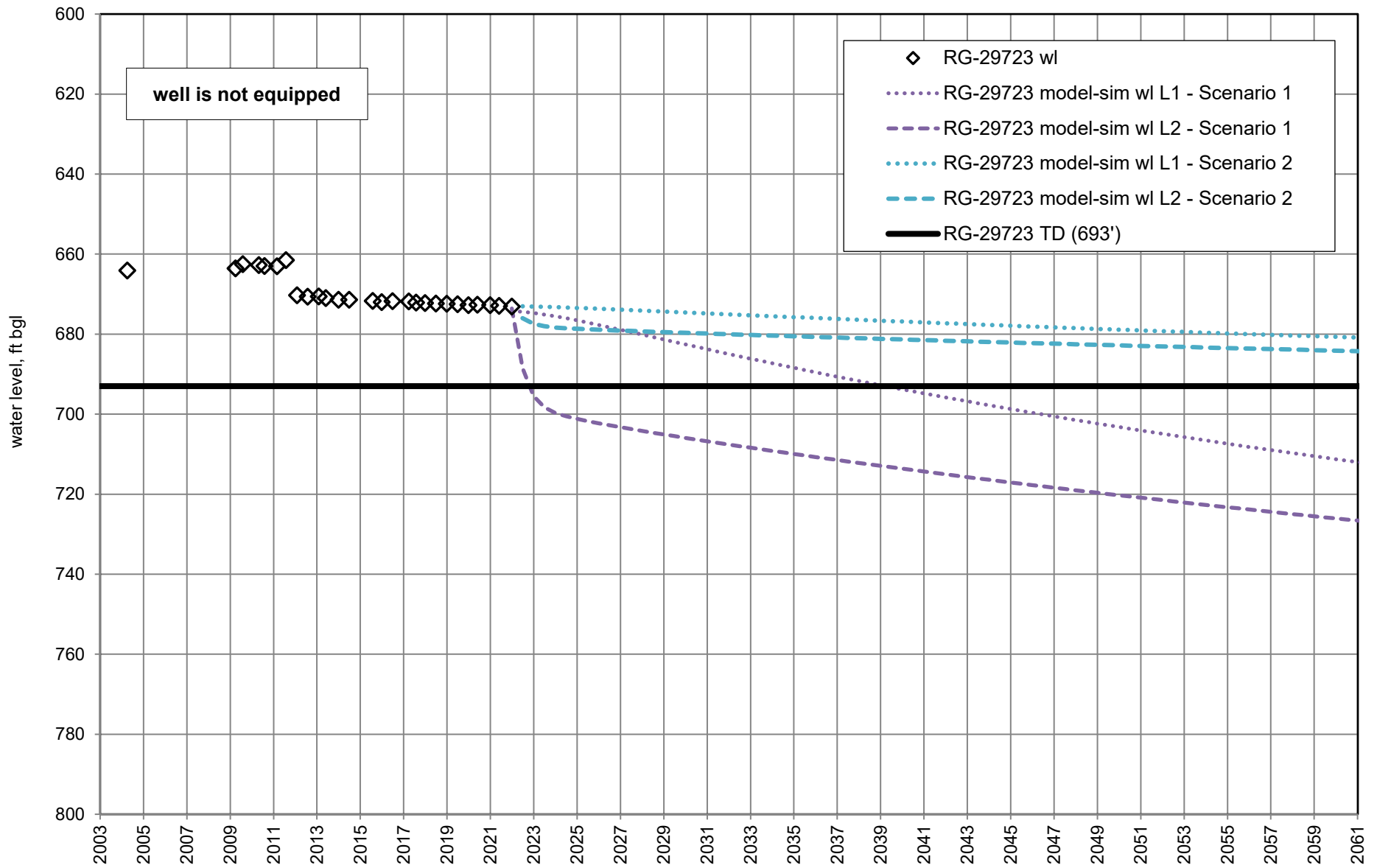


Figure A37. Water levels in U.S. Forest Service well (RG-29723) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

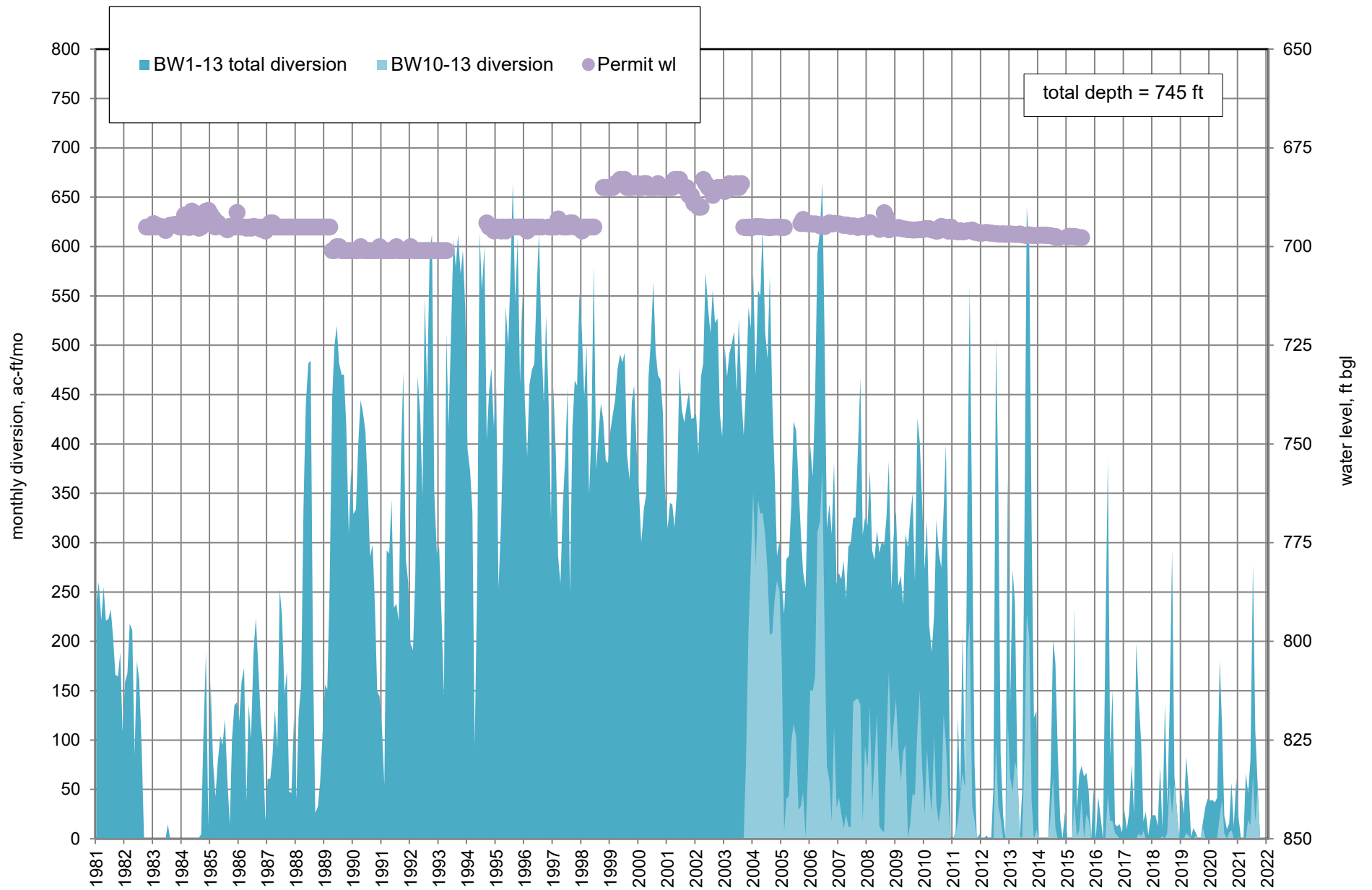


Figure A38. Water levels in Permit well (RG-16681) and monthly diversions from Buckman Wells 10 through 13, 2003 through 2021.

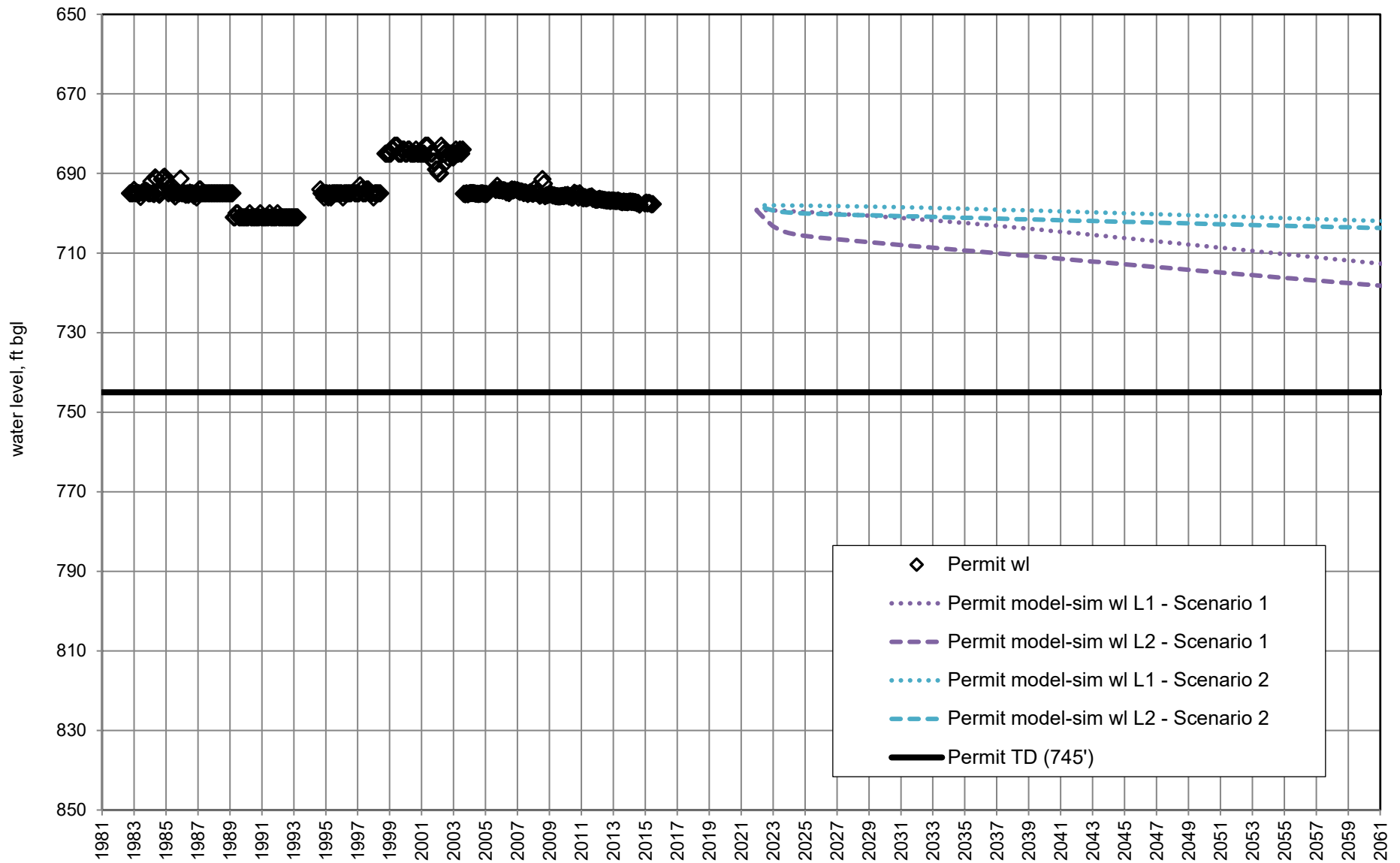


Figure A39. Water levels in Permit Well (RG-16681) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

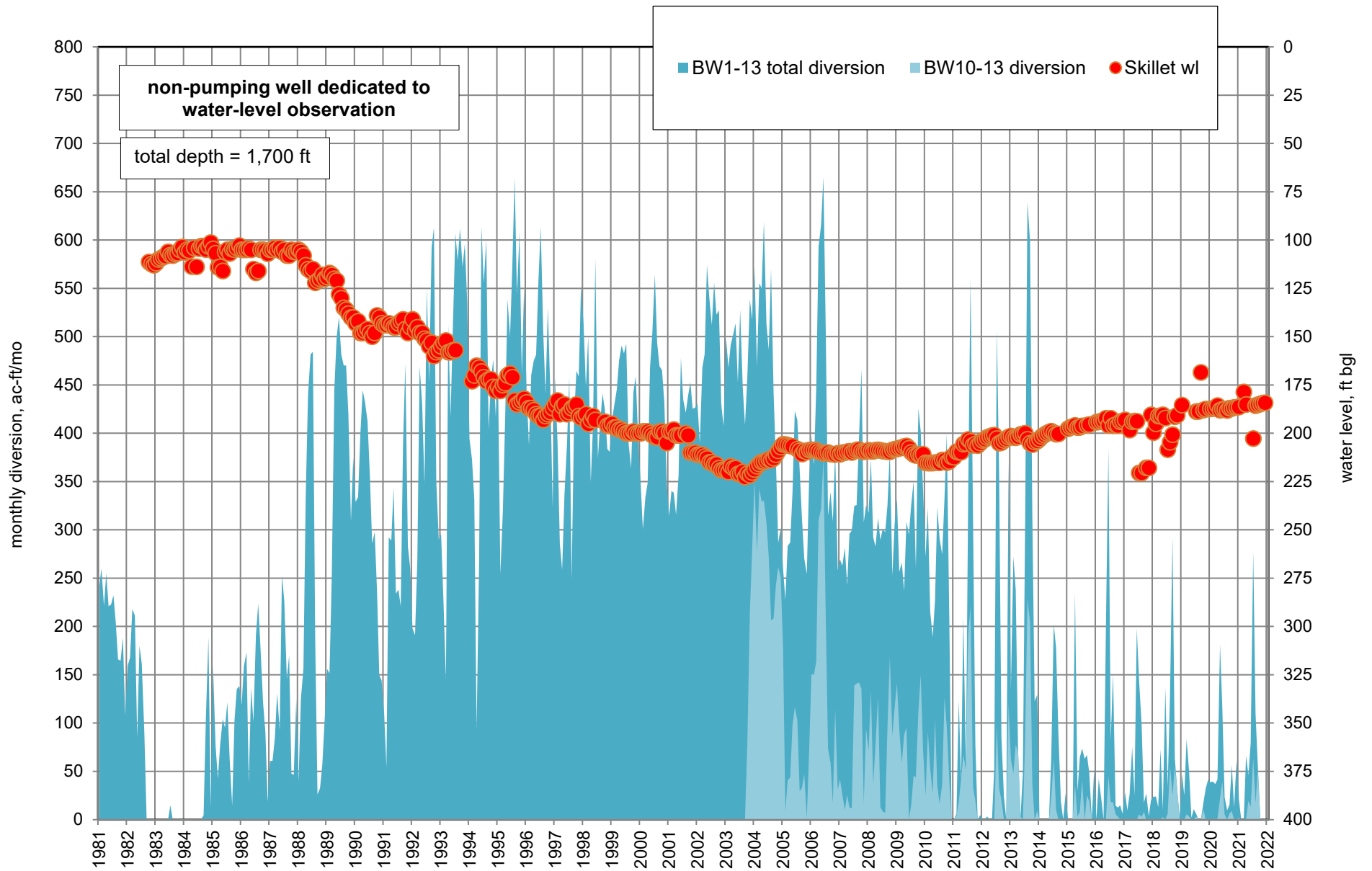


Figure A40. Water levels in Skillet well (RG-21318) and monthly diversions from Buckman Wells 10 through 13, 1981 through 2021.

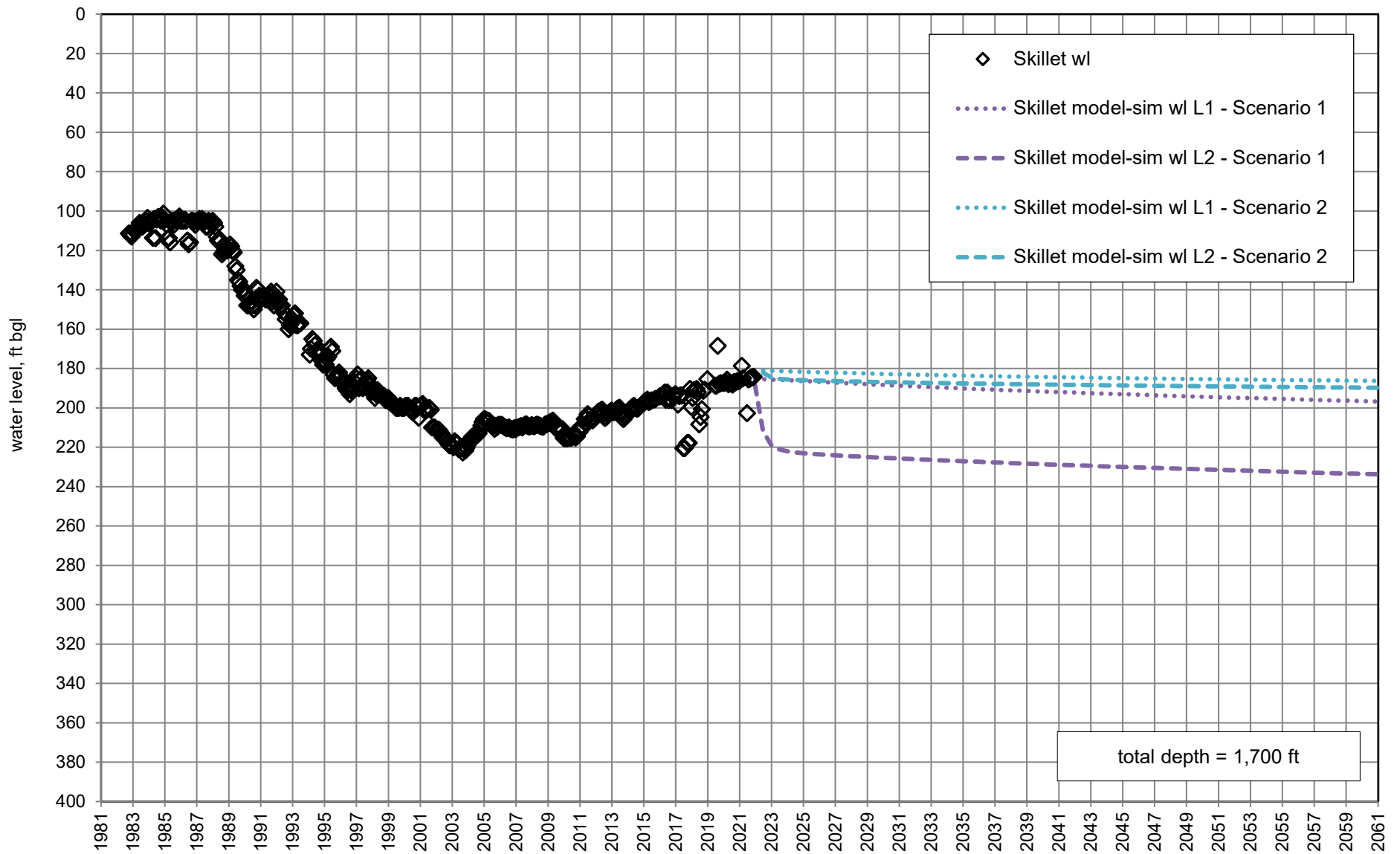


Figure A41. Water levels in Skillet Well (RG-21318) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

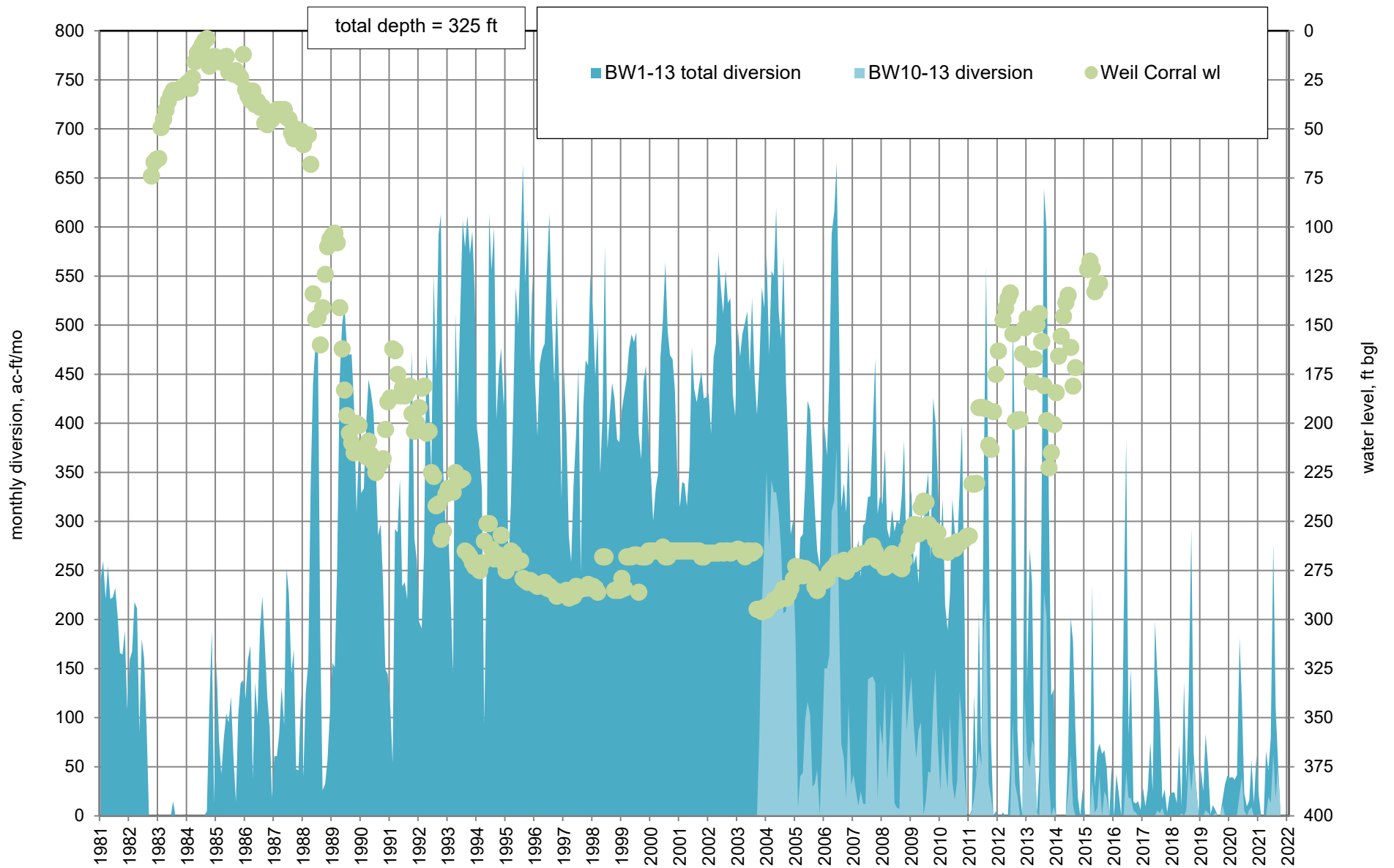


Figure A42. Water levels in Weil Corral well (RG-439) and monthly diversions from Buckman Wells 10 through 13, 1981 through 2021.

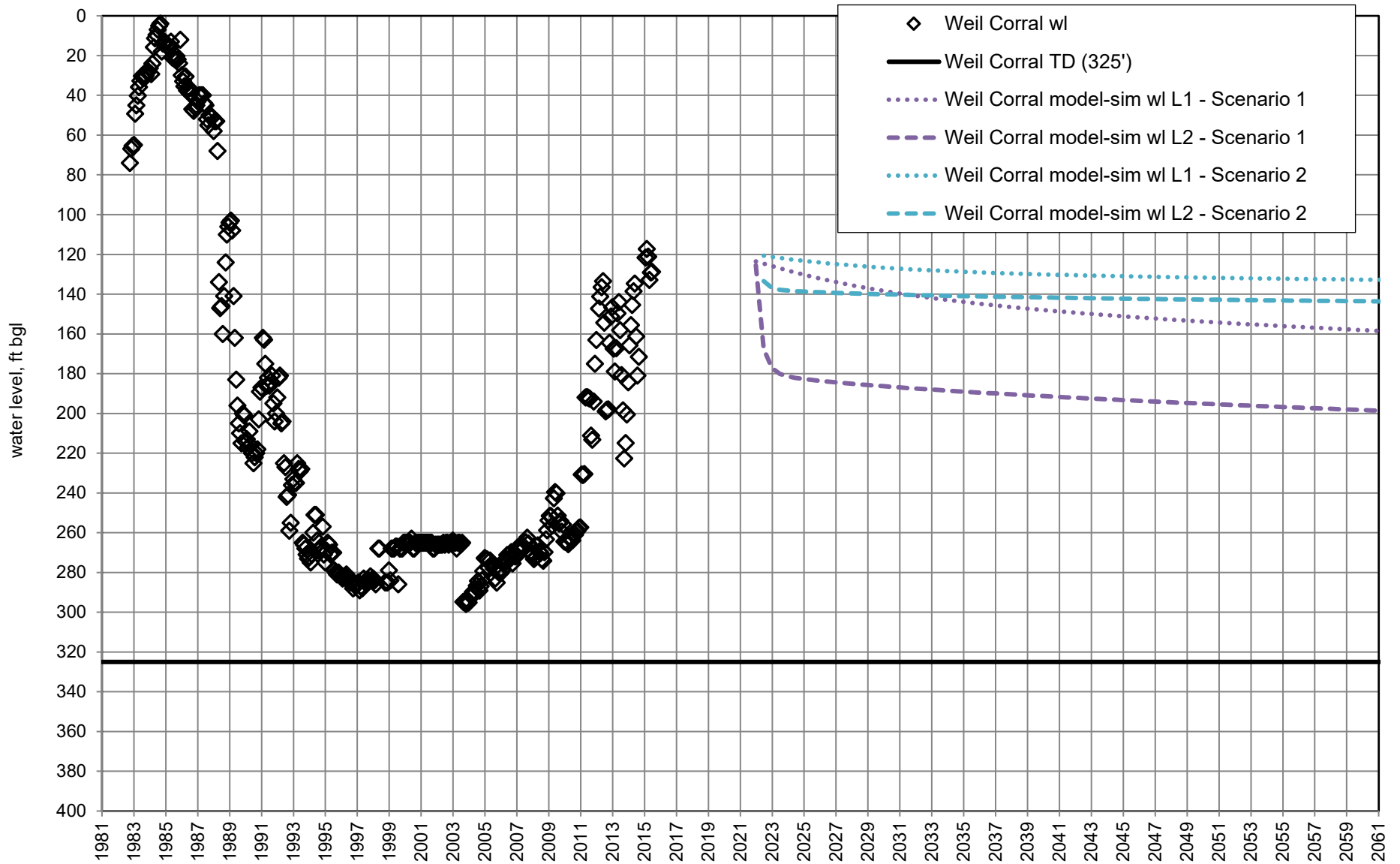


Figure A43. Water levels in Weil Corral Well (RG-439) and model-simulated drawdown with future pumping Scenario 1 (full permitted diversion amounts) and Scenario 2 (forecast scenario).

Appendix B.

Ten- and 40-year water column projections for Buckman Monitoring Program database wells due to pumping at the full permitted diversion amounts (Scenario 1, model Layer 2)

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----------------------|-------------------------|---|--|---|---|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-00437 CLW | COLLEGE AGRIC. HOME ECON. NEW, Frank Bond | | Dead Dog WM | | | | | 400343 | 3956715 | 18N.08E.33.134 | STK | 3 | 6/10/1995 | 700 | 407.7 | CAG | 292.3 | 96.1 | 196.2 | 67 | 119.2 | 173.1 | 59 | 6166 | BMP | |
| RG-00438 | SUZANNE HOYT GARCIA, TRUSTEE, Robert H. Weil, McKinney | | Midway WM | | | | | 399191 | 3961850 | 18N.08E.17.21 | STK | 3 | 6/30/1962 | 310 | 255.0 | CAG | 55.0 | 43.8 | 11.3 | 0 | 61.8 | -6.8 | 0 | 6034 | BMP | |
| RG-00439 | SUZANNE HOYT GARCIA, TRUSTEE, Robert H. Weil | | Artesian, Corral | | | | | 396449 | 3965653 | 19N.07E.36.44 | STK | 3 | 8/8/1947 | 325 | 264.0 | BWI-9 | 61.0 | 62.0 | -1.0 | -2 | 73.4 | -12.4 | -20 | 5662 | BMP | |
| RG-04523 | RUFINO MRS. GONZALES, | | | MEAD, WALTER L JR & EMILY C | 101 CALLE ADELINA | LOT B-2 44.534 AC, T18N R 9E S30 | COUNTY PLAT | 406421 | 3958329 | 18N.09E.30.131 | DOM | 3 | 9/30/1960 | 170 | 95.0 | BM | 75.0 | 13.8 | 61.2 | 82 | 26.0 | 49.0 | 65 | | BMP | |
| RG-06128 | LILLIAN M. WALKER, | | | | | | | 402245 | 3962216 | 18N.08E.10.344 | DOM | 3 | 4/25/1993 | 700 | 525.0 | BM | 175.0 | 24.5 | 150.5 | 86 | 41.8 | 133.2 | 76 | 6430 | BMP | |
| RG-06141 | SUZANNE HOYT GARCIA, TRUSTEE, Robert H. Weil | | | LA TIERRA ASSOC INC | RANCH ESTATES RD | T17N R 8E S12 375.855 AC, REMAINDER UNDEVELOPED AREA | COUNTY PLAT | 407117 | 3952667 | 17N.09E.7.431 | STK | 3 | 9/11/1961 | 560 | 500.0 | BM | 60.0 | 9.1 | 50.9 | 85 | 17.5 | 42.5 | 71 | 6720 | BMP | |
| RG-06275 | ROBERT H. WEIL, Western Cattle Co. | | | | | | | 403339 | 3952770 | 17N.08E.11.332 | STK | 3 | 9/5/1961 | 436 | 385.0 | BM | 51.0 | 18.6 | 32.4 | 63 | 31.2 | 19.8 | 39 | 6480 | BMP | |
| RG-06386 | COLLEGE AGRIC. HOME ECON. NEW, Robert H. Weil | | Tony's Windmill | | | | | 405066 | 3959311 | 18N.08E.24.33 | STK | 3 | 9/13/1961 | 350 | 291.9 | BM | 58.1 | 16.7 | 41.4 | 71 | 31.1 | 27.0 | 47 | 6397 | BMP | |
| RG-07248 | COLLEGE OF AGRIC. & ECON. NEW, Robert H. Weil | | Boondock well | | | | | 399636 | 3965339 | 19N.08E.32.44 | STK | 3 | 8/3/1975 | 900 | 434.0 | CAG | 466.0 | 19.9 | 446.1 | 96 | 32.1 | 433.9 | 93 | 6150 | BMP | |
| RG-09740 | U. S. FOREST SERVICE, | | USFS Weir Well | | | | | 400424 | 3951041 | 17N.08E.16.34 | SAN | 0 | 9/13/1963 | 514 | 461.0 | CAG | 53.0 | 9.1 | 43.9 | 83 | 18.2 | 34.8 | 66 | 6393 | BMP | |
| RG-14073 -REPAIR | U.S. FOREST SERVICE | | 1100 Ft Well | | | | | 394978 | 3956163 | 18N.07E.35.4 | STK | 4.83 | 7/1/1966 | 1090 | 996.0 | BWI-9 | 94.0 | 17.2 | 76.8 | 82 | 32.3 | 61.7 | 66 | 6641 | BMP | |
| RG-14451 | NOVBAKHTIAN, ABDOLREZA, MASOUD | | | 82 PASEO DE LA TIERRA | LOT 5 LA TIERRA S/D PH 1, T17N R9E S 6 | COUNTY PLAT | 407082 | 3954847 | 17N.09E.6. | DOM | 3 | 12/23/1966 | 614 | 550.0 | BM | 64.0 | 18.0 | 46.0 | 72 | 30.6 | 33.4 | 52 | 6683 | BMP | | |
| RG-16681 | W. J. ROUNSEVILLE, ROBERT H. WEIL, | | Permit | | | | | 404578 | 3964298 | 18N.08E.2.42 | PDM | 3 | 6/20/1969 | 745 | 695.1 | BM | 49.9 | 6.2 | 43.7 | 88 | 14.5 | 35.4 | 71 | | BMP | |
| RG-17409 | ROBERT H WEIL, | | | POMEROY, CHARLES W & BARBARA | 6 COLUMBINE LN | LOT 22 SALVA TIERRA UNIT 1, 2.038 AC, T17N R 9E S8, | COUNTY PLAT | 408234 | 3952574 | 17N.09E.8.334 | DOL | 3 | 1970 | 1980 | 466.0 | BM | 1514.0 | 5.7 | 1508.3 | 100 | 11.9 | 1502.1 | 99 | 6800 | BMP | |
| RG-17410 | ROBERT H WEIL, | | | SMITH, STEPHEN R | 36 PICACHO PEAK DR | LOT 640 LAS CAMPANAS PH V, T17N R 9E S 7 5.029 AC | COUNTY PLAT | 406809 | 3953748 | 17N.09E.7.123 | DOL | 3 | 1970 | 1000 | 567.0 | BM | 433.0 | 13.7 | 419.3 | 97 | 24.6 | 408.4 | 94 | 6765 | BMP | |
| RG-18385 | DR. WILLIAM STENNIS, | | | MCDUGALL, RICHARD & MARY | 38 N VUELTA HERRADURA | LOT 117 LA TIERRA S/D PHASE 3, 14.07 AC, T18N R 9E S32, | COUNTY PLAT | 409233 | 3955917 | 18N.09E.32.441 | DOM | 3 | 2/26/1971 | 710 | 625.0 | BM | 85.0 | 5.2 | 79.8 | 94 | 11.1 | 73.9 | 87 | 6914 | BMP | |
| RG-19117 | LUDEN. FRITZ, Kris Hotvedt | | | POLANCO, LEE B | 17 WILDFLOWER WAY | T17N R 9E S18 2.51 AC LOT B, | COUNTY PLAT | 407542 | 3951276 | 17N.09E.18.423 | DOM | 3 | 7/12/1971 | 608 | 565.0 | BM | 43.0 | 5.7 | 37.3 | 87 | 11.9 | 31.1 | 72 | 6790 | BMP | |
| RG-21516 | CINCO PARA MANANA, VILLAGE GATE HOLDINGS | | | MILLER, NEIL Z & SUSANNE B | 1 CAMINO DELILAH | T17N R 9E S9 3.380 AC, LOT 1-A | COUNTY PLAT | 409481 | 3953882 | 17N.09E.5.44S | SAN | 0 | 10/3/1972 | 220 | 140.0 | BM | 80.0 | 4.5 | 75.5 | 94 | 9.8 | 70.2 | 88 | | BMP | |
| RG-24203 | JOHN D. GUNDZIK MD, A.A. Realty, Al Amiday | | | BOMSE, PEARL & MARC & | 59 SONRISA TRL | LOT 4 5.346 AC, T17N R 9E S18 | COUNTY PLAT | 406964 | 3951493 | 17N.09E.18.322 | DOM | 3 | 11/6/1973 | 777 | 448.0 | BM | 329.0 | 9.1 | 319.9 | 97 | 17.5 | 311.5 | 95 | 6720 | BMP | |
| RG-24364 | E. C DE BACA, | | | NAMINGHA, DANIEL & FRANCES | 68 PASEO DE LA TIERRA | LOT 4 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406977 | 3954740 | 17N.09E.6.322 | DOM | 3 | 12/29/1973 | 400 | 300.0 | BM | 100.0 | 18.0 | 82.0 | 82 | 30.6 | 69.4 | 69 | 6701 | BMP | |
| RG-24584 POD1 | BOB WEIL, Daniels | Jeanne C. Daniels | Headquarters , Daniels | CREED, JEANNE H | 86 Headquarters Trail | T18N R 8E S36 14.58 AC SE4 &, T17N R 8E S 1 NE4 PORT OF | COUNTY PLAT, 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405692 | 3955377 | 17N.8E.1.2123 | DOM | 3 | 4/19/1974 | 602 | 425.0 | BM | 177.0 | 36.7 | 140.3 | 79 | 54.0 | 123.0 | 69 | 6554 | BMP | |
| RG-24855 | ROBET H. WEIL, Kubert | | La Tierra | TURNEY, PATRICIA A | 87 E ESTRADA CALABASA | LOT 59 LA TIERRA PHASE 2, T18N R 9E S31 10.009 AC | COUNTY PLAT | 407931 | 3956170 | 18N.09E.32.41 | DOM | 3 | 5/16/1974 | 697 | 496.4 | BM | 200.6 | 9.3 | 191.3 | 95 | 18.3 | 182.2 | 91 | 6722 | BMP | |
| RG-24968 | DREW C. & LYNNE D. ARENA, | | | ARENA, DREW C & ELISE PINKOW | 44 SONRISA TRL | T17N R 9E S18 23.982 AC, TRACT B | COUNTY PLAT | 407040 | 3951072 | 17N.09E.18.324 | DOM | 3 | 7/22/1974 | 697 | 528.0 | BM | 169.0 | 5.7 | 163.3 | 97 | 11.9 | 157.1 | 93 | | BMP | |
| RG-25463 | JEANETTE LILIENTHAL, | | La Tierra, Pinon-Ostrum | BOGLE, GLENN G & SUSAN R | 218 PASEO DE LA TIERRA | LOT 16 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 407017 | 3956720 | 18N.09E.31.211 | DOM | 3 | 10/22/1974 | 841 | 467.5 | BM | 373.5 | 17.1 | 356.4 | 95 | 30.1 | 343.4 | 92 | 6664 | BMP | |
| RG-25637 | SUSAN MERWIN, W.P. Saunders | | La Tierra, South Well | NAMINGHA, DANIEL & FRANCES | 68 PASEO DE LA TIERRA | LOT 4 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 407026 | 3954795 | 17N.09E.6.114 | DOM | 0 | 1975 | 735 | 445.9 | BM | 289.1 | 18.0 | 271.2 | 94 | 30.6 | 258.5 | 89 | 6708 | BMP | |
| RG-25800 | IRIS H WILSON, | | | | | | | 401653 | 3973422 | 19N.08E... | DOM | 3 | 4/25/1975 | 153 | 78.0 | BWI-9 | 75.0 | 1.7 | 73.3 | 98 | 3.7 | 71.3 | 95 | | BMP | |
| RG-26125 | WILLIAM S. ELKINS, | | | | | | | 406010 | 3957550 | 18N.09E.25.431 | DOM | 3 | 7/5/1975 | 167 | 43.0 | BM | 124.0 | 17.1 | 106.9 | 86 | 30.1 | 93.9 | 76 | 6600 | BMP | |
| RG-26697 | MARK K. JONES, | | | | | | | 401478 | 3960568 | 18N.08E. | DOM | 3 | 12/15/1975 | 650 | 480.0 | BM | 170.0 | 36.0 | 134.0 | 79 | 56.1 | 113.9 | 67 | | BMP? | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------|-----------------------------------|---|-------------------------|--|---|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-27928 | PETER DYKE, | | | MACCORQUODALE, MICHAEL & PAM | 29 VUELTA MONTUOSO | LOT 29 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 406599 | 3956321 | 18N.09E.31.312 | DOM | 3 | 4/10/2004 | 900 | 555.0 | BM | 345.0 | 17.1 | 327.9 | 95 | 30.1 | 314.9 | 91 | 6701 | BMP | |
| RG-28007 | DON HENRY, | | | LA TIERRA ASSOC INC | 12 HORCADO RANCH RD | LOT 33 LA TIERRA PHASE 1 PARK, NEXT TO T17N R 9E S31, PARK NO TAXABLE VALUE. | COUNTY PLAT | 406395 | 3955740 | 18N.09E.31.333 | DOM | 3 | 12/9/1976 | 585 | 385.0 | BM | 200.0 | 18.0 | 182.0 | 91 | 30.6 | 169.4 | 85 | 6575 | BMP | |
| RG-28064 | STEVEN H. TREMPER, | | La Tierra 32-T-1 | ANDERSON, JON R & ANNE-DRUE | 22 N VUELTA HERRADURA | T18N R 9E S32 11.24 AC, LOT 115 LA TIERRA PHASE 3 | COUNTY PLAT | 408320 | 3956006 | 18N.09E.32.33 | DOM | 3 | 12/28/1976 | 750 | 529.0 | BM | 221.0 | 9.3 | 211.7 | 96 | 18.3 | 202.7 | 92 | 6769 | BMP | |
| RG-28064 | STEVEN H. TREMPER, | | La Tierra 32-T-2 | GREENKER, JEROLD A | 12 ESTRADA REDONDA | T18N R 9E S32 10.39 AC, LOT 82 LA TIERRA PHASE 3 | COUNTY PLAT | 409264 | 3956135 | 18N.09E.32.42 | DOM | 3 | 2/4/1977 | 750 | 533.3 | BM | 216.7 | 5.2 | 211.5 | 98 | 11.3 | 205.3 | 95 | 6847 | BMP | |
| RG-28064 X-2 | STEVEN H. TREMPER, | | Hilltop | NEIKRUG, MARC AND DOLLY L | 59 ESTRADA MAYA | T18N R 9E S32 15.00 AC, LOT 99 LA TIERRA PHASE 3 | COUNTY PLAT | 409088 | 3956910 | 18N.09E.32.222 | DOM | 3 | 2/16/1977 | 727 | 498.0 | BM | 229.0 | 5.2 | 223.8 | 98 | 11.3 | 217.7 | 95 | 6863 | BMP | |
| RG-28064 X-3 | STEVEN H. TREMPER, | | La Tierra 32-T-4 | PHINNEY, ROBERT T & MARGARET | 124 ESTRADA REDONDA | T18N R 9E S32 12.25 AC, LOT 93 LA TIERRA S/D, (OLD PHASE 3). | COUNTY PLAT | 408163 | 3956965 | 18N.09E.32.11 | DOM | 3 | 1/12/1977 | 790 | 513.0 | BM | 277.0 | 9.3 | 267.7 | 97 | 18.3 | 258.7 | 93 | 6750 | BMP | |
| RG-28112 | HENRY SANDMEIER, Paul B. Schmidt and Elise Wheless Schmidt | | | | | Lot 47, La Tierra | | 406645 | 3954327 | | DOM | 3 | 2/2/1977 | 701 | 548.3 | BM | 152.7 | 13.7 | 139.0 | 91 | 24.6 | 128.1 | 84 | 6747 | BMP | |
| RG-28299 | WILLIS A. SEYFFERT, | | La Tierra 32-T-3 | | | | | 409347 | 3956949 | 18N.09E.32.22 | DOM | 3 | 3/4/1977 | 765 | 368.7 | BM | 396.3 | 5.2 | 391.1 | 99 | 11.3 | 385.0 | 97 | 6816 | BMP | |
| RG-28345 | ROBERT GILL, | | | GILL, ROBERT I & CHERYL L | 11 E ESTRADA CALABASA | LOT 13 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 406825 | 3956116 | 18N.09E.31.323 | DOM | 3 | 3/19/1977 | 618 | 522.0 | BM | 96.0 | 17.1 | 78.9 | 82 | 30.1 | 65.9 | 69 | | BMP | |
| RG-29191 | SANDRA LAUDEDALE GRAHAM, | | | GRAHAM, THOMAS R & SANDRA L | 15 VUELTA SABIO | LOT 51 LA TIERRA PHASE 2, SEC 6 T17N R9E 10.578 AC | COUNTY PLAT | 406386 | 3954945 | 17N.09E.6.133 | DOM | 3 | 8/17/1977 | 700 | 530.0 | BM | 170.0 | 18.0 | 152.0 | 89 | 30.6 | 139.4 | 82 | 6654 | BMP | |
| RG-29356 | DENNIS R. COOPER, | | | LICATA, WILLIAM M & CATHERINE | 20 LOS PRADOS | T17N R 9E S 8 TR 1-A-2 1.0 AC, PLAT BK 225 PG 037 | COUNTY PLAT | 409205 | 3953067 | 17N.09E.8.421 | DOM | 3 | 1/23/1978 | 730 | 556.8 | BM | 173.3 | 4.5 | 168.8 | 97 | 9.8 | 163.4 | 94 | 6881 | BMP | |
| RG-29359 | CROCKER EDWARD E. JR., | | | CROMWELL, FLORENCE C & | 16 VUELTA LINDA | T18N R 9E S32 10.31 AC, LOT 111 LA TIERRA PHASE 3 | COUNTY PLAT | 408731 | 3956429 | 18N.09E.32. | DOM | 3 | 7/3/1979 | 715 | 603.0 | BM | 112.0 | 9.3 | 102.7 | 92 | 18.3 | 93.7 | 84 | 6819 | BMP | |
| RG-29524 | BARBARA VIGIL, | | Las Dos #1 | MOONEY, HELEN W | 45 MAMIES MILE | LOT 21 LAS DOS PHASE 1, T18N R 9E S30 12.224 AC | COUNTY PLAT | 407663 | 3958060 | 18N.09E.30.424 | DOM | 3 | 10/24/1977 | 768 | 396.7 | BM | 371.3 | 8.0 | 363.3 | 98 | 16.6 | 354.8 | 96 | 6612 | BMP | |
| RG-29546 | BERGERE KENNEY, | | Los Dos #2 | | | | | 407940 | 3960307 | 18N.09E.19.22 | NOT | 0 | 11/3/1977 | 773 | 434.3 | BM | 338.7 | 6.4 | 332.3 | 98 | 14.1 | 324.6 | 96 | 6674 | BMP | |
| RG-29550 | KENNETH N. & WYONA T. JOY | | | | | | | 397154 | 3964185 | 18N.08E.6.3 | DOM | 3 | 10/26/1977 | 675 | 535.0 | BWI-9 | 140.0 | 62.0 | 78.0 | 56 | 73.4 | 66.6 | 48 | 5791 | BMP | |
| RG-29723 | U.S. FOREST SERVICE, US Soil Conservation Service | | USFS Well, 700 Ft Well | | | | | 398694 | 3954689 | 17N.08E.5.3 | STK | 2 | 1/1/1940 | 693 | 664.1 | CAG | 28.9 | 34.0 | -5.1 | 0 | 53.5 | -24.6 | 0 | 6486 | BMP | |
| RG-29725 | US FOREST SERVICE, US Soil Conservation Service | | USFS Headquarters Well | | | | | 400842 | 3949932 | 17N.08E.21.41 | STK | 2 | 1/1/1940 | 350 | 311.0 | CAG-South | 39.0 | 10.0 | 29.0 | 74 | 19.2 | 19.8 | 51 | 6442 | BMP | |
| RG-30162 | TODD BAILEY, | | | BAILEY, TODD J | 124 ARROYO CALABASAS RD | T17N R 9E S18 2.5 AC TR 2, | COUNTY PLAT | 406269 | 3951851 | 17N.09E.18.131 | MUL | 3 | 5/29/1978 | 725 | 500.0 | BM | 225.0 | 9.1 | 215.9 | 96 | 17.5 | 207.5 | 92 | | BMP | |
| RG-30269 | KIRSTIN MCMULLEN, | | | GALLANT, DANNY & MARCE MILLER | 52 CAMINO DOS PERROS | T17N R 9E S18 LOT 3-B 5.0 AC, (OLD TR 3) | COUNTY PLAT | 407048 | 3951873 | 17N.09E.18.124 | MUL | 3 | 4/20/1978 | 556 | 475.0 | BM | 81.0 | 9.1 | 71.9 | 89 | 17.5 | 63.5 | 78 | | BMP | |
| RG-30777 | BOB WELL, | Tom and Andrea Bernstein | Bernstein, La Tierra Lot 71; IV-1 | BERNSTEIN, TOM A & ANDREA E | 159 Longhorn Lane | LOT 46 TIERRA NUEVA, T17N R 8E S 2 17.385 AC | COUNTY PLAT, 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 403595 | 3955119 | 17N.08E.36.23 | OBS | 3 | 7/15/1978 | 663 | 540.0 | BM | 123.0 | 82.5 | 40.5 | 33 | 103.9 | 19.0 | 15 | 6550 | BMP | |
| RG-31284 | SUZANNE HOYT GARCIA, TRUSTEE, | | | HOYT, SUZANNE & LINDA WEIL | 127 W ESTRADA CALABASA | T18N R 8E S36 1074.650 AC N2 &, PORT S2 RANCH & HEADQTRS, LIVESTOCK ON ACCT 970001777, | COUNTY PLAT | 405804 | 3957152 | 18N.08E.36.212 | DOM | 3 | 10/30/1978 | 815 | 515.0 | BM | 300.0 | 17.1 | 282.9 | 94 | 30.1 | 269.9 | 90 | 6660 | BMP | |
| RG-31487 EXPL | BOB WEIL, RICHARD CARLYON | | La Tierra Lot 16; IV-2 | STATE OF NEW MEXICO | STATE PROPERTY | LOT 1 LA TIERRA NUEVA, 10.432 AC T17N R 8E S 1 | COUNTY PLAT | 405575 | 3954126 | 17N.08E.1.433 | DOM | 3 | 10/20/1978 | 785 | 529.0 | BM | 256.0 | 23.8 | 232.2 | 91 | 38.2 | 217.8 | 85 | 6677 | BMP | |
| RG-31845 | HIROSHI AND NANCY MURATA, | | | NOVBAKHTIAN, ABDOLREZA, MASOUD | 82 PASEO DE LA TIERRA | LOT 5 LA TIERRA S/D PH 1, T17N R9E S 6 | COUNTY PLAT | 407082 | 3954847 | 17N.09E.6. | DOM | 3 | 4/23/1979 | 700 | 580.0 | BM | 120.0 | 18.0 | 102.0 | 85 | 30.6 | 89.4 | 74 | 6683 | BMP | |
| RG-31977 | BILLY W. ROYBAL, | | | | | | | 401605 | 3970215 | 19N.08E. | IRR | 12 | 12/20/1979 | 300 | 75.0 | BWI-9 | 225.0 | 4.3 | 220.7 | 98 | 9.1 | 215.9 | 96 | | BMP? | |
| RG-32871 | MARK JONES, Paul B. Schmidt and Elise Wheless Schmidt | | | | | Lot 40, La Tierra | | 406879 | 3954516 | | DOM | 3 | 7/19/1979 | 700 | 580.0 | BM | 120.0 | 18.0 | 102.0 | 85 | 30.6 | 89.4 | 74 | | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|------------------|---|-------------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-33170 | JOHN O. ZINN, Elise Wheless | | | WHELESS, ELISE | 37 VUELTA TOMAS | LOT 46 LA TIERRA PHASE 2, T17N R 9E S 6 11.890 AC | COUNTY PLAT | 406489 | 3954272 | | DOM | 3 | 9/15/1979 | 680 | 540.0 | BM | 140.0 | 13.7 | 126.3 | 90 | 24.6 | 115.4 | 82 | | BMP | |
| RG-33382 EXPL1 | RICHARD M. HAGER, ANNIE CONSTANT | | | NORTHWEST RANCHES LLC | 28 CAMINO LOS SUENOS | T17N R 9E S19 2.500 AC, LOT 4 | COUNTY PLAT | 406448 | 3950465 | 17N.09E.19.11 | DOM | 3 | 9/8/1979 | 640 | 520.0 | BM | 120.0 | 5.7 | 114.3 | 95 | 11.9 | 108.1 | 90 | | BMP | |
| RG-33451 | LEONARD E. SHULMAN, M.D., | | | KENNEY, NANCY BERGERE & ELLEN, | | T18N R 9E S19 62.525 AC, LOT A-2, N2, SW4, SW4 SW4, | COUNTY PLAT | 407031 | 3958929 | 18N.09E.19.344 | DOM | 3 | 10/30/1979 | 450 | 200.0 | BM | 250.0 | 13.8 | 236.2 | 94 | 26.0 | 224.0 | 90 | | BMP | |
| RG-33833 | BURTON AND PAULA GEYER | Burton L. and Paula Geyer | | | 21 Goodnight Trail West | Lot 19 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405209 | 3954630 | | DOM | 3 | 3/13/1980 | 700 | 580.0 | BM | 120.0 | 36.7 | 83.3 | 69 | 54.0 | 66.0 | 55 | | BMP | |
| RG-34804 | MARIAM BROWNE, | | | LEBLANC, STEVEN R & ELLEN A | | T16N R10E S21, 30.627 AC | COUNTY PLAT | 407399 | 3951520 | 17N.09E.18.412 | MUL | 3 | 10/3/1980 | 400 | 60.0 | BM | 340.0 | 5.7 | 334.3 | 98 | 11.9 | 328.1 | 96 | | BMP | |
| RG-35350 | JOACHIM T. WIRTH, | | | GEORGE, JAMES S & BARBARA | 86 PASEO DE LA TIERRA | LOT 6 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406982 | 3955141 | 17N.09E.6.142 | PDM | 3 | 12/2/1980 | 720 | 375.0 | BM | 345.0 | 18.0 | 327.0 | 95 | 30.6 | 314.4 | 91 | | BMP | |
| RG-35630 | JAMES H. WHEELLOCK, | | | HANDELSMAN, STUART | 31 VISTA CALABASAS | T17N R 9E S18 5.037 AC TR A, HANSEN & ZILECEA SURVEY | COUNTY PLAT | 406749 | 3952121 | 17N.09E.18.123 | DOM | 3 | 5/12/1986 | 605 | 455.0 | BM | 150.0 | 9.1 | 140.9 | 94 | 17.5 | 132.5 | 88 | | BMP | |
| RG-35802 | YARKO KOZIY, | | | | | | | 395871 | 3958899 | 17N.09E.18.233 | DOM | 3 | 3/24/1981 | 720 | 600.0 | BWI-9 | 120.0 | 20.7 | 99.3 | 83 | 36.0 | 84.0 | 70 | | BMP | |
| RG-36031 | DAVID GARRISON, | | | GARRISON, DAVID | 138 ESTRADA REDONDA | T18N R 9E S32 16.63 AC, LOT 91 LA TIERRA PHASE 3 | COUNTY PLAT | 408142 | 3956772 | 18N.09E.32. | DOM | 3 | 4/27/1981 | 700 | 620.0 | BM | 80.0 | 9.3 | 70.7 | 88 | 18.3 | 61.7 | 77 | | BMP | |
| RG-37078 CLW | BOB WEIL, ROLAND BETTS | Roland and Lois Betts | | | 6 Headquarters Trail | Lot 2 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405591 | 3954061 | 17N.08E.1.413 | DOM | 0 | 12/15/1993 | 755 | 580.0 | BM | 175.0 | 23.8 | 151.2 | 86 | 38.2 | 136.8 | 78 | 6693 | BMP | |
| RG-37113 | EUGENE E., TRUSTEE BECK, | | | LINCOLN, CYNTHIA H TRUST | | LOT 76 LA TIERRA NUEVA, T17N R 8E S 1 | COUNTY PLAT | 405476 | 3954840 | 17N.08E.1. | DOM | 3 | 11/25/1981 | 700 | 527.0 | BM | 173.0 | 36.7 | 136.3 | 79 | 54.0 | 119.0 | 69 | 6668 | BMP | |
| RG-37164 | ROBERT MARCUS, | | Mountain Vista | ROUNSVILLE, WILLIAM J | 82 PASEO DE LA TIERRA | T17N R 9E S5 184.91 AC, TRACT A, LIVESTOCK ON ACCT 970001905, | COUNTY PLAT | 408098 | 3955429 | 17N.09E.5.11 | DOM | 3 | 12/1/1981 | 950 | 604.7 | BM | 345.3 | 9.4 | 335.9 | 97 | 18.2 | 327.1 | 95 | 6919 | BMP | |
| RG-37582 | GLORIA GAUGHAN, | | | | | | | 399421 | 3950816 | 17N.09E.18.22 | DOM | 3 | 2/12/1982 | 700 | 550.0 | CAG | 150.0 | 9.1 | 140.9 | 94 | 18.2 | 131.8 | 88 | | BMP | |
| RG-37817 | DAVID C NELSON, | | | GEORGE, JAMES S & BARBARA | 86 PASEO DE LA TIERRA | LOT 6 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406685 | 3955076 | 17N.09E.6. | DOM | 3 | 4/23/1982 | 720 | 600.0 | BM | 120.0 | 18.0 | 102.0 | 85 | 30.6 | 89.4 | 74 | 6683 | BMP | |
| RG-37879 | MARCIA J. WILSON, | | | RIMBEAUX, B C | 44 VALLECITO RD | LOT 17 VALLECITO DE LA TIERRA, T17N R 9E S18 2.97 AC | COUNTY PLAT | 407450 | 3951838 | 17N.08E.17.443 | DOM | 3 | 6/1/1982 | 600 | 460.0 | BM | 140.0 | 5.7 | 134.3 | 96 | 11.9 | 128.1 | 91 | | BMP | |
| RG-40491 | FRANCIS MURPHY | Francis Michael Murphy and Joan-Ann Ryan-Murphy | | MURPHY, FRANCIS M & JOAN ANN | 34 CHISHOLM TRL | LOT 26 LA TIERRA NUEVA, T17N R 8E S 1 10.869 AC | COUNTY PLAT | 404883 | 3954138 | | DOM | 3 | 9/16/1983 | 730 | 590.0 | BM | 140.0 | 23.8 | 116.2 | 83 | 38.2 | 101.8 | 73 | | BMP | |
| RG-40722 | KATHLEEN MLOTOK, | | | | | | | 403884 | 3956473 | 18N.08E.35. | DOM | 3 | 9/9/1983 | 756 | 603.0 | BM | 153.0 | 59.5 | 93.5 | 61 | 81.7 | 71.3 | 47 | | BMP | |
| RG-40978 | COURTLANDT & KATRINA BARNES, | | | BARNES, COURTLANDT D & KATRINA | 2 WILDFLOWER WAY | T17N R 9E S18 10 AC SE4 PORT, | COUNTY PLAT | 407745 | 3951291 | 17N.09E.18.424 | DOM | 3 | 1/26/1984 | 720 | 600.0 | BM | 120.0 | 5.7 | 114.3 | 95 | 11.9 | 108.1 | 90 | | BMP | |
| RG-41872 | EDWARD E. JR. CROCKER, | | | NAVA, GREGORY | 29 ESTRADA MAYA | T18N R 9E S32 10.89 AC, LOT 97 LA TIERRA PHASE 3 | COUNTY PLAT | 408842 | 3957099 | 18N.09E.32.211 | DOM | 3 | 2/19/1984 | 730 | 550.0 | BM | 180.0 | 9.3 | 170.7 | 95 | 18.3 | 161.7 | 90 | 6783 | BMP | |
| RG-42335 | RANDLOW SMITH, | | | RIMBEAUX, B C | 44 VALLECITO RD | LOT 17 VALLECITO DE LA TIERRA, T17N R 9E S18 2.97 AC | COUNTY PLAT | 407450 | 3951838 | 17N.09E.1.332 | DOM | 3 | 8/7/1984 | 740 | 550.0 | BM | 190.0 | 5.7 | 184.3 | 97 | 11.9 | 178.1 | 94 | | BMP | |
| RG-42618 | CHARLES S. VON STADE | Eleanor T. and Charles S. von Stade | | | 42 Chisholm Trail | Lot 28 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404814 | 3954123 | | DOM | 3 | 10/18/1984 | 605 | 520.0 | BM | 85.0 | 23.8 | 61.2 | 72 | 38.2 | 46.8 | 55 | | BMP | |
| RG-46386 | DANIEL FORMAN, | | | CITY OF SANTA FE | CITY PROPERTY | CITY PROPERTY, MAPPING PURPOSE ONLY | COUNTY PLAT | 411114 | 3953865 | 17N.09E.18.414 | DOM | 3 | 10/16/1986 | 605 | 380.0 | BM | 225.0 | 2.6 | 222.4 | 99 | 6.4 | 218.6 | 97 | | BMP | |
| RG-48491 | DARLENE STREIT, | Michael and Tami Lang | | LANG, MICHAEL S & TAMI | 173 CHISHOLM TRL | LOT 49 LA TIERRA NUEVA, T17N R 8E S 2 15.425 AC | COUNTY PLAT | 403827 | 3955337 | 17N.08E.2.121 | DOM | 3 | 11/24/1987 | 730 | 530.0 | BM | 200.0 | 82.5 | 117.5 | 59 | 103.9 | 96.1 | 48 | 6564 | BMP | |
| RG-48897 | WLATER L. & EMILY C. MEAD, | | | MEAD, WALTER L JR & EMILY C | 29 CALLE ADELINA | T18N R 9E S30 40 AC SE4-SW4, UND INTEREST | COUNTY PLAT | 406915 | 3957423 | 18N.09E.30.34 | DOM | 3 | 4/11/1988 | 800 | 580.0 | BM | 220.0 | 17.1 | 202.9 | 92 | 30.1 | 189.9 | 86 | 6638 | BMP | |
| RG-48897 X2 | WLATER L. & EMILY C. MEAD, | | | MEAD, WALTER L JR & EMILY C | 29 CALLE ADELINA | T18N R 9E S30 40 AC SE4-SW4, UND INTEREST | COUNTY PLAT | 407014 | 3957522 | 18N.09E.30.342 | DOM | 3 | 11/14/1996 | 760 | 422.0 | BM | 338.0 | 17.1 | 320.9 | 95 | 30.1 | 307.9 | 91 | 6617 | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|------------------|---|-------------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-49717 | GLORIA GAUGHAM, | | | CHRIST, RONALD TRUSTEE OF | 40 CAMINO CIELO | T17N R 9E S18 2.907 AC, LOT 4-A CIELO AZUL | COUNTY PLAT | 406273 | 3952251 | 17N.09E.18. | DOM | 3 | 9/6/1988 | 700 | 600.0 | BM | 100.0 | 9.1 | 90.9 | 91 | 17.5 | 82.5 | 82 | | BMP | |
| RG-49952 | JOSEPH MORSE | Florence and Joseph Morse | | | 25 Goodnight Trail | Lot 20, La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405546 | 3954603 | | DOM | 3 | 12/22/1988 | 710 | 540.0 | BM | 170.0 | 36.7 | 133.3 | 78 | 54.0 | 116.0 | 68 | | BMP | |
| RG-50395 | TAYLOR A DALE, | | | BRANCH, DENNIS R | | T17N R 9E S18 17.400 AC TR D4, NW4 | COUNTY PLAT | 406939 | 3952352 | 17N.09E.18.112 | DOM | 3 | 3/12/1989 | 700 | 480.0 | BM | 220.0 | 9.1 | 210.9 | 96 | 17.5 | 202.5 | 92 | | BMP | |
| RG-50735 | EUGENE D HIGGINS, | | | SCULLIN, MARC & CYNTHIA | 136 ARROYO CALABASAS RD | T17N R 9E S18 2.5 AC TR 1, | COUNTY PLAT | 406269 | 3951935 | 17N.09E.18.11 | MUL | 3 | 5/11/1989 | 700 | 500.0 | BM | 200.0 | 9.1 | 190.9 | 95 | 17.5 | 182.5 | 91 | 6644 | BMP | |
| RG-50944 | DENNIS & ELLEN SANDERS, | | | BT HOMES INC | | T17N R 9E S12 252.0120 AC, TR 14 W OF TAOS HWY | COUNTY PLAT | 414355 | 3953833 | 17N.09E.18.1 | DOM | 0 | 7/1/1989 | 700 | 580.0 | BM | 120.0 | 1.0 | 119.0 | 99 | 2.9 | 117.1 | 98 | | BMP | |
| RG-51854 | RAY WINN | William A. and Janet F. Moffett | | | 44 Chisholm Trail | Lot 29 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404642 | 3954152 | | DOM | 3 | 2/15/1990 | 695 | 590.0 | BM | 105.0 | 23.8 | 81.2 | 77 | 38.2 | 66.8 | 64 | | BMP | |
| RG-52506 | WILLIAM AGNEW | Tucker Family Trust - Cecil R. Tucker/Janice W. Tucker | | | 20 Goodnight Trail West | | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405241 | 3954362 | | DOM | 3 | 8/7/1990 | 730 | 627.0 | BM | 103.0 | 23.8 | 79.2 | 77 | 38.2 | 64.8 | 63 | | BMP | |
| RG-52780 CLW | RICHARD BRENNER, VALLECITO HOMEOWNERS ASSOC | | Vallecitos #1 | LUDIN, FRITZ | | T17N R 9E S18 10 AC NE4-SE4, | COUNTY PLAT | 407446 | 3951438 | 17N.09E.18.412 | DOM | 3 | 12/23/1996 | 735 | 496.0 | BM | 239.0 | 5.7 | 233.3 | 98 | 11.9 | 227.1 | 95 | 6718 | BMP | |
| RG-52938 | JACK & JUNE SMITH, | | | MILLER, MARK C | 3 VUELTA LINDA | T18N R 9E S32 11.32 AC, LOT 107 LA TIERRA PHASE 3 | COUNTY PLAT | 408537 | 3956601 | 18N.09E.32.14 | DOM | 3 | 9/26/1990 | 1000 | 650.0 | BM | 350.0 | 9.3 | 340.7 | 97 | 18.3 | 331.7 | 95 | 6802 | BMP | |
| RG-53071 | LEROY BACA, | | | | | | | 400288 | 3949351 | 17N.08E.21.343 | DOM | 3 | 10/10/1990 | 440 | 261.0 | CAG | 179.0 | 5.2 | 173.8 | 97 | 11.4 | 167.6 | 94 | | BMP | |
| RG-53404 | MARC NEIKRUG, | | | FISCHER, CYNTHIA F & KURT | 17 SONRISA TRL | LOT 4 SONRISA S/D 5.010 AC, T17N R 9E S18 | COUNTY PLAT | 406265 | 3951450 | 17N.09E.18.311 | MUL | 3 | 7/10/1991 | 800 | 410.0 | BM | 390.0 | 9.1 | 380.9 | 98 | 17.5 | 372.5 | 96 | | BMP | |
| RG-53581 | PATRICIA & J. SIGMUND FORMAN, | | | LUDIN, FRITZ | | T17N R 9E S18 10 AC NE4-SE4, | COUNTY PLAT | 407446 | 3951438 | 17N.09E.18.412 | MUL | 3 | 6/14/1991 | 700 | 580.0 | BM | 120.0 | 5.7 | 114.3 | 95 | 11.9 | 108.1 | 90 | | BMP | |
| RG-53658 | BRIAN K. GONZALES, | | | BLOG, THOMAS M & ANNE E | 43 VUELTA MARIA | LOT 24 LAS DOS PHASE 1, T18N R 9E S30 13.177 AC, PER DEATH CERT & ATTY R FOX, | COUNTY PLAT | 407484 | 3957507 | 18N.09E.30.432 | DOM | 3 | 5/7/1991 | 720 | 520.0 | BM | 200.0 | 9.3 | 190.7 | 95 | 18.3 | 181.7 | 91 | | BMP | |
| RG-53984 | HERSCHEL COBB, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 8/7/1991 | 735 | 500.0 | BM | 235.0 | 3.9 | 231.1 | 98 | 8.7 | 226.3 | 96 | | BMP | |
| RG-53998 | PETER GOODWIN, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 7/15/1991 | 735 | 500.0 | BM | 235.0 | 3.9 | 231.1 | 98 | 8.7 | 226.3 | 96 | | BMP | |
| RG-53999 | ROBERT & CAROL CARUTHERS, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 6/30/1991 | 700 | 500.0 | BM | 200.0 | 3.9 | 196.1 | 98 | 8.7 | 191.3 | 96 | | BMP | |
| RG-54000 | CANDIS NELSON, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 7/9/1991 | 730 | 500.0 | BM | 230.0 | 3.9 | 226.1 | 98 | 8.7 | 221.3 | 96 | | BMP | |
| RG-54001 | B. C. RIMBEAUX, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 9/5/1991 | 718 | 500.0 | BM | 218.0 | 3.9 | 214.1 | 98 | 8.7 | 209.3 | 96 | | BMP | |
| RG-54066 | JAMES KARP, | James and Arlene Karp | | BERNSTEIN, TOM A & ANDREA E | 11 Longhorn Lane | Lot 42 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 403672 | 3954737 | 17N.08E.2.142 | DOM | 3 | 7/31/1991 | 760 | 540.0 | BM | 220.0 | 82.5 | 137.5 | 63 | 103.9 | 116.1 | 53 | 6549 | BMP | |
| RG-54262 | WELLS W. WHITNEY, | Philip Grasso | | | 17 Longhorn Lane | Lot 41 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 403699 | 3954577 | 17N.08E.2.223 | DOM | 3 | 11/8/1991 | 755 | 535.0 | BM | 220.0 | 82.5 | 137.5 | 63 | 103.9 | 116.1 | 53 | 6531 | BMP | |
| RG-54319 | JEROME MARSHAK, | | | KENNEY GRANDCHILDRENS | 50 CALLE ADELINA | T18N R 9E S30 21.056 AC, TR D | COUNTY PLAT | 406823 | 3958125 | 18N.09E.30.143 | DOM | 3 | 9/19/1991 | 715 | 560.0 | BM | 155.0 | 13.8 | 141.2 | 91 | 26.0 | 129.0 | 83 | 6575 | BMP | |
| RG-54395 | CLAY BERGER, | John L. Babitt | | | 38 Goodnight Trail | Lot 9 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 406245 | 3954574 | 17N.08E.1.421 | DOM | 3 | 9/25/1991 | 740 | 580.0 | BM | 160.0 | 18.0 | 142.0 | 89 | 30.6 | 129.4 | 81 | 6646 | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|------------------|---|-----------------------|---|----------------|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-54655 | WILLIAM C. III HARKER, | | | ELTON, DEBBIE | | T17N R 9E S18 5 AC LOT 4A, AS PER DEATH CERTIFICATE, #091019, | COUNTY PLAT | 406979 | 3951747 | | MUL | 3 | 12/23/1991 | 700 | 580.0 | BM | 120.0 | 9.1 | 110.9 | 92 | 17.5 | 102.5 | 85 | 6681 | BMP | |
| RG-54919 | PING & DEBORAH LEE, | | | MURATA, HIROSHI & NANCY | 22 VUELTA CHAMISA | LOT 8 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406788 | 3955542 | 17N.09E.6.121 | DOM | 3 | 3/8/1992 | 660 | 500.0 | BM | 160.0 | 18.0 | 142.0 | 89 | 30.6 | 129.4 | 81 | 6622 | BMP | |
| RG-54938 | WILLIAM & JOANNA SEITZ, | | | MEAD, WALTER L JR & EMILY C | 57 CALLE ADELINA | LOT B-3 45.458 AC, T18N R 9E S30 | COUNTY PLAT | 406616 | 3957928 | 18N.09E.30.312 | DOM | 3 | 3/7/1992 | 700 | 550.0 | BM | 150.0 | 13.8 | 136.2 | 91 | 26.0 | 124.0 | 83 | 6555 | BMP | |
| RG-55206 | LA LUZ GROUP, LLC, | | | | | | | 402036 | 3961412 | 18N.08E.15.143 | DOM | 0 | 9/28/1992 | 655 | 580.0 | BM | 75.0 | 24.5 | 50.5 | 67 | 41.8 | 33.2 | 44 | 6394 | BMP | |
| RG-55696 CLW | R. L. BURKE, | | | MCCURDY, RICHARD B TRUSTEE | 60 E ESTRADA CALABASA | LOT 57 LA TIERRA S/D PH 2, T18N R 9E S31 10.992 AC | COUNTY PLAT | 407825 | 3955729 | 18N.09E.31.444 | DOM | 0 | 4/14/1993 | 850 | 685.0 | BM | 165.0 | 9.4 | 155.6 | 94 | 18.2 | 146.8 | 89 | 6727 | BMP | |
| RG-55734 | JILL & MITCHEL, PAUL NORTON, | Jill A. Norton | | | 138 Chisholm Trail | Lot 44 La Tierra Nueva | | 403477 | 3954854 | 17N.08E.2.124 | DOM | 3 | 8/19/1992 | 740 | 500.0 | BM | 240.0 | 82.5 | 157.5 | 66 | 103.9 | 136.1 | 57 | 6558 | BMP | |
| RG-55885 | CUSTOM PROPERTIES OF SANTA FE, JAMES D. WARREN | William L. Oliver, Jr., and Mary Lynn Oliver | | | 54 Headquarters Trail | Lot 78 La Tierra Nueva | | 405763 | 3954711 | 17N.08E.1.233 | DOM | 3 | 8/25/1992 | 750 | 530.0 | BM | 220.0 | 18.0 | 202.0 | 92 | 30.6 | 189.4 | 86 | 6622 | BMP | |
| RG-56282 | CLIFF WALBRIDGE, | Donald and Karen Berlanti Revocable Trust | | BERLANTI, DONALD V & KAREN L | 171 HEADQUARTERS TRL | LOT 69 LA TIERRA NUEVA, T17N R 8E S 1 27.273 AC | COUNTY PLAT | 405170 | 3955316 | 17N.08E.1.123 | DOM | 3 | 12/18/1992 | 700 | 520.0 | BM | 180.0 | 36.7 | 143.3 | 80 | 54.0 | 126.0 | 70 | 6620 | BMP | |
| RG-56667 | DON & DEBBIE WOODIN, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR C, 20.20 AC, | COUNTY PLAT | 407065 | 3951041 | 17N.09E.18.431 | MUL | 3 | 4/3/1993 | 725 | 630.0 | BM | 95.0 | 5.7 | 89.3 | 94 | 11.9 | 83.1 | 87 | | BMP | |
| RG-56804 | MYRON G. RIGHTMAN, | | | | | | | 408252 | 3958516 | 18N.09E.29.114 | DOM | 3 | 3/3/1993 | 705 | 420.0 | BM | 285.0 | 8.0 | 277.0 | 97 | 16.6 | 268.4 | 94 | | BMP | |
| RG-56880 | PRICILLA TEMPLE, | | | UNFRIED, CHARLES O JR & NANCY | 17 VUELTA YUCCA | T18N R 9E S32 13.30 AC, LOT 79 LA TIERRA PHASE 3 | COUNTY PLAT | 408027 | 3955725 | 18N.09E.32.333 | DOM | 3 | 3/12/1993 | 755 | 578.0 | BM | 177.0 | 9.4 | 167.6 | 95 | 18.2 | 158.8 | 90 | 6766 | BMP | |
| RG-57586 | JAIME TRUJILLO, | | | | | | | 408250 | 3951460 | 17N.09E.17.134 | MUL | 3 | 7/1/1993 | 700 | 500.0 | BM | 200.0 | 5.7 | 194.3 | 97 | 11.9 | 188.1 | 94 | | BMP | |
| RG-57619 | ERIC A. SAMLER, | | | WAGNER, LINDA J | 34 RABBITBRUSH | LOT 11 LA VIDA S/D 2.012 AC, T17N R 9E S19 | COUNTY PLAT | 407031 | 3950240 | 17N.09E.19.124 | MUL | 3 | 2/18/1994 | 643 | 481.0 | BM | 162.0 | 5.7 | 156.3 | 96 | 11.9 | 150.1 | 93 | | BMP | |
| RG-57851 | SUSAN GARDNER, Trujillo | | Guesthouse | TRUJILLO, RICARDO B | 16 CAMINO LADERA | T17N R 9E S 5 LOT 1-D 5.060 AC, | COUNTY PLAT | 409294 | 3955311 | 17N.09E.5.412 | DOM | 3 | 9/29/1993 | 864 | 520.0 | BM | 344.0 | 5.2 | 338.8 | 98 | 11.1 | 332.9 | 97 | 6863 | BMP | |
| RG-57909 EXPL | PETER ORDWAY, | | | | | | | 407646 | 3956147 | 18N.09E.31.423 | DOM | 0 | 8/10/1993 | 900 | 550.0 | BM | 350.0 | 9.3 | 340.7 | 97 | 18.3 | 331.7 | 95 | 6729 | BMP | |
| RG-57968 | SARA VACHA, | | | SCHNEIDER, DAVID J & | 16 CAMINO CALABASAS | T17N R 9E S18 LOT 1 2.50 AC, | COUNTY PLAT | 407856 | 3952235 | 17N.09E.18.222 | DOM | 3 | 8/21/1993 | 700 | 540.0 | BM | 160.0 | 5.7 | 154.3 | 96 | 11.9 | 148.1 | 93 | | BMP | |
| RG-58366 | HACIENDA DEL CEREZO LTD., | | HDC1 | HACIENDA DEL CEREZO LTD | | T18N R 9E S 1 NW4-SW4-S2, SW4-, N2-NW4 & LOT 6, T18N R 9E S18 217.113 AC, | COUNTY PLAT | 406473 | 3960061 | 18N.09E.19.113 | SAN | 3 | 1/6/1994 | 945 | 396.0 | BM | 549.0 | 10.4 | 538.6 | 98 | 21.2 | 527.8 | 96 | 6551 | BMP | |
| RG-58534 | CARRIE LEE KAYE, | | | ROSENZWOG, JANET | | LOT 16 VALLECITO DE LA TIERRA, T17N R 9E S18 | COUNTY PLAT | 407475 | 3951869 | 17N.09E.18.223 | DOM | 0 | | 800 | 500.0 | BM | 300.0 | 5.7 | 294.3 | 98 | 11.9 | 288.1 | 96 | | BMP | |
| RG-59101 | DAVID C. ZERBST, | | | GRANT, PETER A & JOAN C | | T17N R 9E S18 5.0765 AC, LOT A-4 | COUNTY PLAT | 407454 | 3952239 | 17N.09E.18.212 | MUL | 3 | 3/16/1994 | 750 | 445.0 | BM | 305.0 | 5.7 | 299.3 | 98 | 11.9 | 293.1 | 96 | | BMP | |
| RG-59195 | MICHAEL HURLOCKER, | | Los Suenos Expl | JANS, NEIL A & IRENE L | 10 E CLOUD MARCH | T17N R 8E S13 2.727 AC, LOS SUENOS S/D LOT 8 | COUNTY PLAT | 406047 | 3951057 | 17N.08E.13.441 | MUL | 3 | 3/25/1994 | 845 | 448.7 | BM | 396.3 | 5.7 | 390.6 | 99 | 11.9 | 384.4 | 97 | 6661 | BMP | |
| RG-59213 | MICHAEL & BARBARA OGG, | Barbara and Michael J. Ogg | | OGG, MICHAEL J & BARBARA DOROB | 209 HEADQUARTERS TRL | LOT 66 LA TIERRA NUEVA, T17N R 8E S 2 17.704 AC | COUNTY PLAT | 404678 | 3955430 | 17N.08E.2.222 | DOM | 3 | 4/6/1994 | 750 | 500.0 | BM | 250.0 | 36.7 | 213.3 | 85 | 54.0 | 196.0 | 78 | 6508 | BMP | |
| RG-59386 | GABRIELLE BURKE, | | | | | | | 405044 | 3961179 | 18N.08E.13.312 | DOM | 0 | 1/15/1995 | 905 | 480.0 | BM | 425.0 | 11.8 | 413.2 | 97 | 24.1 | 400.9 | 94 | 6516 | BMP | |
| RG-59388 | ROBERT & NANCY LEHRER, | Robert and Nancy Lehrer | | LEHRER, ROBERT M & NANCY M | 240 HEADQUARTERS TRL | LOT 61 LA TIERRA NUEVA, T17N R 8E S 2 12.643 AC | COUNTY PLAT | 404339 | 3954999 | 17N.08E.2.222 | DOM | 3 | 4/15/1994 | 800 | 505.0 | BM | 295.0 | 36.7 | 258.3 | 88 | 54.0 | 241.0 | 82 | 6508 | BMP | |
| RG-59728 | HELEN LOUISE SWANKY, | | | JACOBS, LAURENCE S & KATHERINE | 60 LA SERENA TRL | T17N R 9E S19 2.992 AC, LOT 9 LA SERENA S/D | COUNTY PLAT | 407035 | 3950641 | 17N.09E.18.34 | DOM | 0 | 5/4/1994 | 855 | 485.0 | BM | 370.0 | 5.7 | 364.3 | 98 | 11.9 | 358.1 | 97 | | BMP | |
| RG-59973 | LOUIS & BARBARA SKLAR, | Louis S. and Barbara Sklar | | | 19 Brahma Ln | Lot 60 La Tierra Nueva | | 404788 | 3955019 | 17N.08E.2.122 | DOM | 3 | 8/10/1994 | 750 | 540.0 | BM | 210.0 | 36.7 | 173.3 | 83 | 54.0 | 156.0 | 74 | 6511 | BMP | |
| RG-60104 | LEONARD & BARBARA RAND THE RAN, | Len and Barbara Rand | | RAND, LEONARD M & BARBARA E | 111 HEADQUARTERS TRL | LOT 73 LA TIERRA NUEVA S/D, T17N R 8E S 1 | COUNTY PLAT | 405218 | 3955382 | 17N.08E.1.142 | DOM | 3 | 1/20/1995 | 760 | 580.0 | BM | 180.0 | 36.7 | 143.3 | 80 | 54.0 | 126.0 | 70 | 6641 | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--------------------|---|-----------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-60135 | RICHARD FALLOWS, | | | MOTODA, DARYL M & JEANETTE W | 5 TERARY CT | T17N R 8E S13 4.001 AC, LOT 5 EL PRADO S/D | COUNTY PLAT | 406154 | 3952301 | 17N.08E.13.222 | MUL | 3 | 8/30/1994 | 800 | 465.0 | BM | 335.0 | 9.1 | 325.9 | 97 | 17.5 | 317.5 | 95 | 6690 | BMP | |
| RG-60136 | RICHARD FALLOWS, | | El Prado Test Well | MARX, JAMES F & | 10 LUPINE CT | T17N R 8E S13 4.081 AC, LOT 4 EL PRADO S/D | COUNTY PLAT | 406139 | 3952312 | 17N.08E.13.242 | MUL | 3 | 8/21/1994 | 810 | 488.8 | BM | 321.2 | 9.1 | 312.1 | 97 | 17.5 | 303.7 | 95 | 6680 | BMP | |
| RG-60137 | RICHARD FALLOWS, | | El Prado ELP2 | MOTODA, DARYL M & JEANETTE W | 5 TERARY CT | T17N R 8E S13 4.001 AC, LOT 5 EL PRADO S/D | COUNTY PLAT | 406179 | 3952187 | 17N.08E.13.224 | MUL | 3 | 8/26/1994 | 830 | 481.8 | BM | 348.2 | 9.1 | 339.1 | 97 | 17.5 | 330.7 | 95 | 6686 | BMP | |
| RG-60138 | RICHARD FALLOWS, | | El Prado ELP3 | MARCELLUS, GARY W & LINDA | 35 COPPERMALLOW RD | T17N R 8E S13 4.292 AC, LOT 11 EL PRADO S/D | COUNTY PLAT | 406081 | 3951925 | 17N.08E.13.241 | MUL | 3 | 9/4/1994 | 820 | 448.2 | BM | 371.8 | 9.1 | 362.7 | 98 | 17.5 | 354.3 | 95 | 6642 | BMP | |
| RG-60404 | SHERYL M LARNER, | Richard and Staci Smith | | | 21 Chisholm Trail | Lot 25 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404936 | 3954130 | 17N.08E.1.331 | DOM | 3 | 12/17/1994 | 760 | 580.0 | BM | 180.0 | 23.8 | 156.2 | 87 | 38.2 | 141.8 | 79 | 6647 | BMP | |
| RG-61535 | WILLIAM & SHARON EKLUND, | | | EKLUND, WILLIAM A & SHARON R | 48 PASEO DE LA TIERRA | LOT 3 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 407174 | 3954334 | 17N.09E.6.431 | DOM | 0 | 10/26/1998 | 750 | 522.0 | BM | 228.0 | 13.7 | 214.3 | 94 | 24.6 | 203.4 | 89 | 6742 | BMP | |
| RG-61551 | TOM BLOG, | | | MEAD, WALTER L JR & EMILY C | 29 CALLE ADELINA | T18N R 9E S30 40 AC SE4-SW4, UND INTEREST | COUNTY PLAT | 406814 | 3957522 | 18N.09E.30.341 | DOM | 3 | 2/11/1995 | 810 | 580.0 | BM | 230.0 | 17.1 | 212.9 | 93 | 30.1 | 199.9 | 87 | 6617 | BMP | |
| RG-61944 | ROBERT T RITTER, | Robert and Connie Ritter | | | 10 SHORTHORN LN | Lot 6 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 406049 | 3953948 | 17N.08E.12.121 | DOM | 3 | 3/25/1995 | 710 | 585.0 | BM | 125.0 | 13.7 | 111.3 | 89 | 24.6 | 100.4 | 80 | 6625 | BMP | |
| RG-62974 | RICHARD S PODMORE, | | | MORO, RAYMOND & IRIS D | 12 DEER CIR | LOT 269 LAS CAMPANAS ESTATES, II | COUNTY PLAT | 407852 | 3951865 | 17N.09E.18.224 | DOM | 3 | 1/11/1996 | 800 | 460.0 | BM | 340.0 | 5.7 | 334.3 | 98 | 11.9 | 328.1 | 96 | | BMP | |
| RG-63280 | LAURA BETH CLAYTON, | | | COST, RICHARD & STACEY | 19 VUELTA CHAMISA | LOT 10 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406988 | 3955542 | 17N.09E.6.122 | DOM | 3 | 10/4/1995 | 760 | 490.0 | BM | 270.0 | 18.0 | 252.0 | 93 | 30.6 | 239.4 | 89 | 6691 | BMP | |
| RG-64419 | SYLVIA SWANSON, | E. Gifford Stack and Sylvia E. Swanson | | SWANSON, SYLVIA E & E GIFFORD | 97 CHISHOLM TRL | LOT 36 LA TIERRA NUEVA 1, T17N R 8E S 2, 10.030 AC, | COUNTY PLAT | 404293 | 3954920 | 17N.08E.2.421 | DOM | 3 | 5/31/1996 | 740 | 500.0 | BM | 240.0 | 36.7 | 203.3 | 85 | 54.0 | 186.0 | 77 | 6620 | BMP | |
| RG-65175 | GREGORY COLE, | | | MEAD, WALTER L JR & EMILY C | 57 CALLE ADELINA | LOT B-3 45.458 AC, T18N R 9E S30 | COUNTY PLAT | 407019 | 3957723 | 18N.09E.30.324 | MUL | 3 | 8/22/1996 | 800 | 560.0 | BM | 240.0 | 13.8 | 226.2 | 94 | 26.0 | 214.0 | 89 | 6602 | BMP | |
| RG-65180 | SUKI GROSECLOSE, | Everett and Susan Groseclose | | GROSECLOSE, EVERETT H & SUSAN | 57 E GOODNIGHT TRL | LOT 14 LA TIERRA NUEVA, T17N R 8E S 1, 13.942 AC, | COUNTY PLAT | 406081 | 3954653 | 17N.08E.1.423 | SAN | 3 | 5/10/1996 | 756 | 530.0 | BM | 226.0 | 18.0 | 208.0 | 92 | 30.6 | 195.4 | 86 | 6695 | BMP | |
| RG-65244 | MICHAEL LAWRENCE, | | | TARN, NATHANIEL R TRUSTEE | 77 VUELTA MARIA | LOT 27 LAS DOS PHASE 1, T18N R 9E S29 10.856 AC | COUNTY PLAT | 408245 | 3957711 | 18N.09E.29.314 | DOM | 3 | 10/22/1996 | 800 | 560.0 | BM | 240.0 | 8.0 | 232.0 | 97 | 16.6 | 223.4 | 93 | 6709 | BMP | |
| RG-65566 | PHYLLIS L. NEWCOMER, | Dr. Phyllis L. Newcomer | | NEWCOMER, PHYLLIS L | 79 CHISHOLM TRL | LOT 33 LA TIERRA NUEVA S/D, T17N R 8E S 2, 10.794 AC, | COUNTY PLAT | 404331 | 3955009 | 17N.08E.2.421 | DOM | 3 | 5/5/1998 | 765 | 542.0 | BM | 223.0 | 36.7 | 186.3 | 84 | 54.0 | 169.0 | 76 | 6620 | BMP | |
| RG-65584 | CHARLES HARRISON, | Charles Harrison | | HARRISON, CHARLES & RAWSON, | 181 CHISHOLM TRL | LOT 51 LA TIERRA NUEVA, T17N R 8E S 2 14.399 AC | COUNTY PLAT | 403243 | 3955504 | 17N.08E.2.112 | DOM | 3 | 8/17/1997 | 755 | 535.0 | BM | 220.0 | 82.5 | 137.5 | 63 | 103.9 | 116.1 | 53 | 6499 | BMP | |
| RG-66147 | ELISE WHELESS, | | | WHELESS, ELISE | 22 VUELTA SABIO | LOT 49 LA TIERRA PHASE 2, T17N R 9E S 6 12.814 AC | COUNTY PLAT | 406478 | 3954618 | 17N.09E.6.314 | DOM | 3 | 1/22/1997 | 750 | 500.0 | BM | 250.0 | 18.0 | 232.0 | 93 | 30.6 | 219.4 | 88 | 6702 | BMP | |
| RG-66978 | CITY OF SANTA FE/CIP, | | | | | | | 403104 | 3949122 | 17N.08E.26.111 | SAN | 3 | 5/1/1997 | 890 | 240.0 | BM | 650.0 | 5.4 | 644.6 | 99 | 11.4 | 638.6 | 98 | 6460 | BMP | |
| RG-67134 | DAVID KENNEY, | | | KENNEY, DAVID | 146 CALLE JOSEPHINA | T18N R 9E S19 62.502 AC, TR C | COUNTY PLAT | 407241 | 3959929 | 18N.09E.19.231 | DOM | 3 | 5/26/1999 | 270 | 60.0 | BM | 210.0 | 10.4 | 199.6 | 95 | 21.2 | 188.8 | 90 | 6543 | BMP | |
| RG-67485 | LAWRENCE BURKE, | | Mariah Ranch | | | | | 405067 | 3962076 | 18N.08E.13.141 | DOM | 3 | 11/25/1997 | 880 | 420.0 | BM | 460.0 | 11.8 | 448.2 | 97 | 24.1 | 435.9 | 95 | 6522 | BMP | |
| RG-68309 | DAN MCCOY, | | | LOGAN, STANLEY & MARJORIE | 150 ESTRADA REDONDA | T18N R 9E S32 11.65 AC, LOT 89 LA TIERRA PHASE 3 | COUNTY PLAT | 408034 | 3956504 | 18N.09E.32.133 | DOM | 3 | 9/10/1997 | 700 | 550.0 | BM | 150.0 | 9.3 | 140.7 | 94 | 18.3 | 131.7 | 88 | 6785 | BMP | |
| RG-68712 | DENNIS & MARLYS WHITE, | | | WHITE, MARLYS RUTH | 48 E ESTRADA CALABASA | LOT 54 LA TIERRA PHASE 2, T18N R 9E S31 10.134 AC | COUNTY PLAT | 407365 | 3955733 | 18N.09E.31.434 | DOM | 3 | 4/10/1998 | 740 | 520.0 | BM | 220.0 | 9.4 | 210.6 | 96 | 18.2 | 201.8 | 92 | 6674 | BMP | |
| RG-69121 | GREGORY SWENDSEN, | | | BELL, SUSAN H | 185 CALLE JOSEPHINA | T18N R 9E S19 12.50 AC, TR A-1 | COUNTY PLAT | 406438 | 3959936 | 18N.09E.19.131 | DOM | 3 | 6/8/1998 | 760 | 404.0 | BM | 356.0 | 10.4 | 345.6 | 97 | 21.2 | 334.8 | 94 | 6551 | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-----------------------------------|--------------------------|---|------------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-69782 | RICHARD & HELEN WOLFORD, | Richard and Helen Wolford | | | 103 Chisholm Trail | Lot 37 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404106 | 3955085 | 17N.08E.2.233 | MUL | 3 | 6/13/1998 | 785 | 572.0 | BM | 213.0 | 36.7 | 176.3 | 83 | 54.0 | 159.0 | 75 | 6569 | BMP | |
| RG-70634 | STEPHEN KIRSCHENBAUM, | | Hacienda del Cerezo HDC2 | HACIENDA DEL CERZO LTD | | T18N R 9E S 1 NW4-SW4-S2, SW4-, N2-NW4 & LOT 6, T18N R 9E S18 217.113 AC. | COUNTY PLAT | 406851 | 3960801 | 18N.09E.18.341 | DOM | 3 | 2/24/1999 | 800 | 426.0 | BM | 374.0 | 10.4 | 363.6 | 97 | 21.2 | 352.8 | 94 | 6587 | BMP | |
| RG-71056 | SUSAN B. HADLEY, | | | VELTMANN, JOSEPH R JR | TANO RD | T17N R 9E S 5 5.02 AC LOT 1A, | COUNTY PLAT | 409408 | 3954304 | 17N.09E.5.442 | MUL | 3 | 12/15/1998 | 923 | 660.0 | BM | 263.0 | 4.5 | 258.5 | 98 | 9.8 | 253.2 | 96 | | BMP | |
| RG-71298 | FRANK P.L. AND LYNNE S. MINAR, | Frank and Lynne Minard | | MINARD, FRANK P L & LYNNE S | 161 HEADQUARTERS TRL | LOT 70 LA TIERRA NUEVA, T17N R 8E S36 24.159 AC | COUNTY PLAT | 405074 | 3955773 | 18N.08E.36.334 | DOM | 3 | 11/22/1993 | 700 | 580.0 | BM | 120.0 | 36.7 | 83.3 | 69 | 54.0 | 66.0 | 55 | 6558 | BMP | |
| RG-71558 | GAIL & PATRICK CASEY, | | | FARLEY, TERRANCE C & JOAN C | 23 VUELTA YUCCA | T18N R 9E S32 12.75 AC, LOT 81 LA TIERRA PHASE 3 | COUNTY PLAT | 408429 | 3955921 | 18N.09E.32.341 | DOM | 3 | 6/11/1999 | 800 | 515.0 | BM | 285.0 | 9.4 | 275.6 | 97 | 18.2 | 266.8 | 94 | 6781 | BMP | |
| RG-71583 | JOYCE LIBUTTI, | | | HARRIS, JOHN G & M CHRISTINE | 13 PASEO DEL PAJARO | T17N R 9E S 5 8.510 AC, TRACT B-3-D | COUNTY PLAT | 408803 | 3954513 | 17N.09E.5.413 | MUL | 3 | 3/17/1999 | 853 | 440.0 | BM | 413.0 | 9.4 | 403.6 | 98 | 18.2 | 394.8 | 96 | 6857 | BMP | |
| RG-71688 | STEPHEN A. GIBSON, | | | GARCIA, ANGEL E & | 71 BLUESTEM DR | T17N R 9E S 8 2.052 AC, LOT 7 COLINAS VERDES | COUNTY PLAT | 408702 | 3953859 | 17N.09E.8.21 | DOM | 3 | 3/28/1999 | 851 | 645.0 | BM | 206.0 | 7.8 | 198.2 | 96 | 15.5 | 190.5 | 92 | | BMP | |
| RG-71728 | WILLIAM BUCHANAN, | William Buchanan and Ellen Walton | | | 135 Chisholm Trail | Lot 43 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 403821 | 3954959 | 17N.08E.2.141 | DOM | 3 | 4/21/1999 | 750 | 485.0 | BM | 265.0 | 82.5 | 182.5 | 69 | 103.9 | 161.1 | 61 | 6526 | BMP | |
| RG-71748 | KING BROTHERS RANCH, | | Rancho de los Ninos Expl | GONZALES, GEORGE A & CELINE V | 57 CALLE HACIENDA | LOT 14 RANCHO DE LOS NINOS SD, T17N R 8E S23 2.500 AC | COUNTY PLAT | 403911 | 3950729 | 17N.08E.23.21 | | 0 | 4/13/1999 | 854 | 407.8 | BM | 446.2 | 9.8 | 436.4 | 98 | 18.4 | 427.8 | 96 | 6575 | BMP | |
| RG-71811 | MICHAEL & LEE MORE, | | | MORE, J MICHAEL & LEE | 52 E ESTRADA CALABASA | LOT 55 LA TIERRA PHASE 2, T18N R 9E S31 10.438 AC | COUNTY PLAT | 407503 | 3955730 | 18N.09E.31.434 | DOM | 3 | 5/4/1999 | 760 | 465.0 | BM | 295.0 | 9.4 | 285.6 | 97 | 18.2 | 276.8 | 94 | 6674 | BMP | |
| RG-72263 | JON WOLFE, | | | | | | | 407827 | 3958118 | 18N.09E.30.244 | DOM | 3 | 7/31/1999 | 820 | 690.0 | BM | 130.0 | 8.0 | 122.0 | 94 | 16.6 | 113.4 | 87 | 6615 | BMP | |
| RG-72292 | GEORGE GOZIGIAN, | | | GOZIGIAN, GEORGE & JEANNE T | 30 E ESTRADA CALABASA | LOT 52 LA TIERRA PHASE 2, T18N R 9E S31 10.180 AC | COUNTY PLAT | 407022 | 3955736 | 18N.09E.31.344 | DOM | 3 | 6/30/1999 | 750 | 610.0 | BM | 140.0 | 18.0 | 122.0 | 87 | 30.6 | 109.4 | 78 | 6649 | BMP | |
| RG-72317 | KING BROTHERS RANCH, | | | GALLEGOS, FRANK & ELIZABETH | 16 VIA DE ESTRELLAS | T17N R8E S23 2.500 AC, TRACT 4B-4B1 | COUNTY PLAT | 403214 | 3949828 | 17N.08E.23.31 | | 3 | 9/28/1999 | 802 | 244.0 | BM | 558.0 | 9.8 | 548.2 | 98 | 18.4 | 539.6 | 97 | 6526 | BMP | |
| RG-72349 | GERALD AND KATHLEEN PETERS, | | Wilderness Estates | WILDERNESS ESTATES DEVELOPMENT | | T17N R 8E S24 40.00 AC, NW1/4 SE1/4 | COUNTY PLAT | 405489 | 3949905 | 17N.08E.24.411 | DOM | 3 | 7/18/1999 | 740 | 404.2 | BM | 335.8 | 7.9 | 327.9 | 98 | 15.5 | 320.3 | 95 | 6614 | BMP | |
| RG-72551 | TOBY LOVATO, | | | | | | | 408275 | 3951460 | 17N.09E.17.143 | DOM | 3 | 11/26/1999 | 660 | 255.0 | BM | 405.0 | 5.7 | 399.3 | 99 | 11.9 | 393.1 | 97 | | BMP | |
| RG-72697 | PHILIP & BERNADETTE WIEGEL, | | | DAVIDSON, KENNETH J | 157 VUELTA MARIA | LOT 31 LAS DOS PHASE 1, T18N R 9E S29 11.048 AC | COUNTY PLAT | 408249 | 3958113 | 18N.09E.29.134 | DOM | 3 | 10/16/1999 | 780 | 400.0 | BM | 380.0 | 8.0 | 372.0 | 98 | 16.6 | 363.4 | 96 | 6683 | BMP | |
| RG-72765 | MARIE A DUPREE, | | | WYSS, A WALTER | | T17N R 9E S 5 5.19 AC TR B2C. | COUNTY PLAT | 408903 | 3954208 | 17N.09E.5.43 | DOM | 3 | 2/20/2001 | 1000 | 660.0 | BM | 340.0 | 7.8 | 332.2 | 98 | 15.5 | 324.5 | 95 | 6918 | BMP | |
| RG-72864 | FRANK GALLEGOS, | | | GALLEGOS, FRANK & ELIZABETH | 16 VIA DE ESTRELLAS | T17N R8E S23 2.500 AC, TRACT 4B-4B1 | COUNTY PLAT | 403214 | 3949828 | 17N.08E.23.31 | DOM | 3 | 11/16/1999 | 600 | 396.0 | BM | 204.0 | 9.8 | 194.2 | 95 | 18.4 | 185.6 | 91 | 6526 | BMP | |
| RG-72865 | ANDREW & LUCINDA LEYBA, | | | SISNEROS, DIEGO J & DORIN K | 6 CAMINO DE REY CIR | T17N R 8E S23 & 26 2.500 AC, TRACT 4C-3 | COUNTY PLAT | 403151 | 3949549 | 17N.08E.23.31 | DOM | 3 | 9/30/1999 | 800 | 244.0 | BM | 556.0 | 5.4 | 550.6 | 99 | 11.4 | 544.6 | 98 | 6498 | BMP | |
| RG-72866 | RICHARD AND STEPHNIE PATTERSON, Leyba | | 600 | LEYBA, ANDREW M & LUCINDA M | 7 CAMINO DE REY CIR | T17N R 8E S23 & 26 2.5104 AC, LOT 2 | COUNTY PLAT | 403236 | 3949568 | 17N.08E.23.313 | DOM | 3 | 4/16/2001 | 600 | 33.0 | BM | 567.0 | 5.4 | 561.6 | 99 | 11.4 | 555.6 | 98 | 6522 | BMP | |
| RG-73539 | ANTHONY MARK, | | | TRUJILLO, RICARDO & | 10 CAMINO LADERA | T17N R 9E S 5 2.523 AC, LOT 2-C-1 | COUNTY PLAT | 409409 | 3955317 | 17N.09E.5.224 | DOM | 3 | 10/7/2000 | 820 | 527.0 | BM | 293.0 | 5.2 | 287.8 | 98 | 11.1 | 281.9 | 96 | 6846 | BMP | |
| RG-73694 | RICHARD ROGERS, | | | DIBACHI, FARZAD TRUSTEE | 33 CAMINO MONTUOSO | LOT 75 LA TIERRA PHASE 2, T18N R 9E S31 50.169 AC | COUNTY PLAT | 407630 | 3957111 | 18N.09E.31.221 | DOM | 3 | 6/28/2000 | 780 | 485.0 | BM | 295.0 | 9.3 | 285.7 | 97 | 18.3 | 276.7 | 94 | 6694 | BMP | |
| RG-74635 | MARIA CRISTINA KENNEY, | | | KENNEY GRANDCHILDRENS | 50 CALLE ADELINA | T18N R 9E S30 21.056 AC, TR D | COUNTY PLAT | 406823 | 3958125 | 18N.09E.30.143 | DOM | 3 | 3/8/2003 | 780 | 452.0 | BM | 328.0 | 13.8 | 314.2 | 96 | 26.0 | 302.0 | 92 | 6575 | BMP | |
| RG-74646 | MARTIN LUJAN, | | | KING BROTHERS RANCH | KING BROTHERS RANCH | T17N R8E S23 77.187 AC, TRACT 3 | COUNTY PLAT | 403118 | 3950329 | 17N.08E.23.131 | MUL | 3 | 9/2/2000 | 600 | 400.0 | BM | 200.0 | 9.8 | 190.2 | 95 | 18.4 | 181.6 | 91 | 6519 | BMP | |
| RG-74740 | GLENN G ROYBAL, | | | MARES, ANTHONY & MERRILYN | 11 AVENIDA DE MERCEDES | T17N R8E S23 2.520 AC, TRACT A-3 | COUNTY PLAT | 403109 | 3949325 | 17N.08E.23.333 | | 0 | 9/26/2000 | 600 | 347.0 | BM | 253.0 | 5.4 | 247.6 | 98 | 11.4 | 241.6 | 96 | 6486 | BMP | |
| RG-74741 | GLENN G ROYBAL, | | | COKER, ROBERT & BARBARA COHEN | 3 AVENIDA DE MERCEDES | T17N R8E S23 2.520 AC, TRACT A-1 | COUNTY PLAT | 403117 | 3949436 | 17N.08E.23.331 | | 0 | 9/21/2000 | 700 | 284.8 | BM | 415.2 | 5.4 | 409.8 | 99 | 11.4 | 403.9 | 97 | 6502 | BMP | |
| RG-74811 | ELIZABETH GLASCOCK, | Frank Carter and Toquaiah Jackson | | CARTER, FRANK C & TOQUAIAH | 180 CHISHOLM TRL | LOT 50 LA TIERRA NUEVA, T17N R 8E S 2 14.846 AC | COUNTY PLAT | 403610 | 3955520 | 17N.08E.2.111 | DOM | 3 | 1/8/2001 | 860 | 427.0 | BM | 433.0 | 82.5 | 350.5 | 81 | 103.9 | 329.1 | 76 | 6522 | BMP | |
| RG-74926 | DEBORAH K. ROMERO, Borrego | | Borrego | GONZALES, PATRICIO M & | 5 CALLE QUERIDO | LOT 19 RANCHO DE LOS NINOS SD, T17N R 8E S23 2.500 AC | COUNTY PLAT | 403984 | 3950389 | 17N.08E.23.232 | MUL | 3 | 12/8/2000 | 700 | 387.0 | BM | 313.0 | 9.8 | 303.2 | 97 | 18.4 | 294.6 | 94 | 6566 | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------------------------|---------------------|---|------------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-75059 | RONALD SCHNEIDER, | | | BOYD, BRIAN | 7 CAMINO MONTUOSO | LOT 18 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 407233 | 3957115 | 18N.09E.31.211 | DOM | 3 | 5/3/2001 | 820 | 572.0 | BM | 248.0 | 17.1 | 230.9 | 93 | 30.1 | 217.9 | 88 | 6627 | BMP | |
| RG-75069 | KENDERDINE CONSTRUCTION | Seymour Grufferman and Sue Kimm | | | 14 Brahma Lane | Lot 57 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404659 | 3954875 | | | 0 | 10/4/2001 | 735 | 500.0 | BM | 235.0 | 36.7 | 198.3 | 84 | 54.0 | 181.0 | 77 | | BMP | |
| RG-75084 | RICHARD A. GALAZ, | | | GALAZ, RICHARD A & MICHELLE Y | 83 PASEO DE ESTRELLAS | LOT 7 RANCHO DE LOS NINOS SD, T17N R 8E S23 2.500 AC | COUNTY PLAT | 404179 | 3950298 | 17N.08E.23.232 | MUL | 3 | 12/4/2000 | 700 | 390.0 | BM | 310.0 | 7.9 | 302.1 | 97 | 15.5 | 294.5 | 95 | 6536 | BMP | |
| RG-75096 | TERRANCE C FARLEY, | | | FARLEY, TERRANCE C & JOAN C | 23 VUELTA YUCCA | T18N R 9E S32 12.75 AC, LOT 81 LA TIERRA PHASE 3 | COUNTY PLAT | 408429 | 3955721 | 18N.09E.32.343 | DOM | 3 | 3/23/2001 | 780 | 520.0 | BM | 260.0 | 9.4 | 250.6 | 96 | 18.2 | 241.8 | 93 | 6808 | BMP | |
| RG-75172 | RICHARD C STERTZ, | | | HUNTER, MICHAEL L & LORI A | 22 PASEO DEL VENADO | T17N R 9E S 9 5.010 AC, LOT 4 TR A | COUNTY PLAT | 409100 | 3953485 | 17N.09E.8.223 | MUL | 3 | 2/2/2001 | 820 | 609.0 | BM | 211.0 | 4.5 | 206.5 | 98 | 9.8 | 201.2 | 95 | | BMP | |
| RG-75191 | GILDA GLASSCOCK WILSON, | | | | | | | 406586 | 3955145 | 17N.09E.6.132 | MUL | 3 | 2/13/2001 | 760 | 492.0 | BM | 268.0 | 18.0 | 250.0 | 93 | 30.6 | 237.4 | 89 | 6620 | BMP | |
| RG-75232 POD1 | SUSAN SEIFERT, | | | SKY LIMIT LLC | | T17N R 8E S23 4.780 AC, PARCEL B | COUNTY PLAT | 403565 | 3950078 | 17N.08E.23.143 | MUL | 3 | 9/30/2002 | 700 | 364.0 | BM | 336.0 | 9.8 | 326.2 | 97 | 18.4 | 317.6 | 95 | | BMP | |
| RG-75233 POD1 | MICHAEL G MELLOS, APPR | | | MELLOS, MICHAEL G & CAROLYN O | 10 HACIENDA CT | LOT 22 LA VILLA ESCONDIDA, T17N R 8E S23 3.140 AC | COUNTY PLAT | 403798 | 3950154 | 17N.08E.23.144 | MUL | 3 | 5/8/2001 | 700 | 375.0 | BM | 325.0 | 9.8 | 315.2 | 97 | 18.4 | 306.6 | 94 | | BMP | |
| RG-75234 POD1 | MELISSA PESSARRA, APPR | | | STANFORD, ANTHONY & LORRAINE | 6 HACIENDA CT | LOT 23 LA VILLA ESCONDIDA, T17N R 8E S23 3.090 AC | COUNTY PLAT | 403701 | 3950128 | 17N.08E.23.143 | MUL | 3 | 11/11/2001 | 700 | 381.0 | BM | 319.0 | 9.8 | 309.2 | 97 | 18.4 | 300.6 | 94 | | BMP | |
| RG-75236 | CAJA DEL RIO, LLC, | | | BORREGO, ROBERT R & DEBORAH K | 2 CALLE CURIOSO | LOT 17 RANCHO DE LOS NINOS SD, T17N R 8E S23 2.500 AC | COUNTY PLAT | 404120 | 3950320 | 17N.08E.23.232 | | 0 | 3/10/2001 | 700 | 387.0 | BM | 313.0 | 7.9 | 305.1 | 97 | 15.5 | 297.5 | 95 | 6536 | BMP | |
| RG-75454 POD1 | ALFRED LOPEZ, VALERIE LOPEZ | | | STANFORD, ANTHONY & LORRAINE | 6 HACIENDA CT | LOT 23 LA VILLA ESCONDIDA, T17N R 8E S23 3.090 AC | COUNTY PLAT | 403650 | 3950173 | 17N.09E.17.113 | MUL | 3 | 3/6/2001 | 700 | 378.0 | BM | 322.0 | 9.8 | 312.2 | 97 | 18.4 | 303.6 | 94 | | BMP | |
| RG-75455 POD1 | GEORGE M COHEN, | | | BOB DIJANNI CUSTOM HOMES, INC | 11 CALLE HACIENDA | LOT 3 LA VILLA ESCONDIDA, T17N R 8E S23 3.370 AC | COUNTY PLAT | 403523 | 3950282 | 17N.09E.17.112 | MUL | 3 | 11/16/2001 | 700 | 391.0 | BM | 309.0 | 9.8 | 299.2 | 97 | 18.4 | 290.6 | 94 | | BMP | |
| RG-75456 | SKYLIMIT LLC, | | Rancho de los Ninos | COHEN, GEORGE M & LINDA S | 38 CALLE HACIENDA | LOT 12 LA VILLA ESCONDIDA, T17N R 8E S23 2.750 AC | COUNTY PLAT | 403696 | 3950710 | 17N.09E.17.114 | | 0 | 7/18/2001 | 700 | 294.7 | BM | 405.3 | 9.8 | 395.5 | 98 | 18.4 | 386.9 | 95 | 6564 | BMP | |
| RG-75553 | CHAD SNOW, | | | SNOW, CHAD & RENAE | 19 S VUELTA HERRADURA | T18N R 9E S32 14.49 AC, LOT 113 LA TIERRA PHASE 3 | COUNTY PLAT | 409031 | 3955722 | 18N.09E.32.434 | DOM | 3 | 4/25/2001 | 820 | 584.0 | BM | 236.0 | 5.2 | 230.8 | 98 | 11.1 | 224.9 | 95 | 6907 | BMP | |
| RG-75566 | JAMES G. BATTERMANN, APPR | | | MONTOYA, MELISSA J | | T17N R 9E S 5 5.05 AC, TR B-4-C | COUNTY PLAT | 409003 | 3954713 | 17N.09E.5.412 | MUL | 3 | 3/8/2002 | 800 | 650.0 | BM | 150.0 | 5.2 | 144.8 | 97 | 11.1 | 138.9 | 93 | 6863 | BMP | |
| RG-75570 | GLENN CONROY, | | | HACIENDA DEL CEREZO LTD | | T18N R 9E S19 & 18 23.086 AC, 9OT 3 | COUNTY PLAT | 407044 | 3960134 | 18N.09E.19.124 | DOM | 3 | 3/12/2001 | 760 | 422.0 | BM | 338.0 | 10.4 | 327.6 | 97 | 21.2 | 316.8 | 94 | 6531 | BMP | |
| RG-75956 | MICHAEL W. & MARCIA YOUNG, | | | MEAD, WALTER L JR & EMILY C | 57 CALLE ADELINA | LOT B-3 45.458 AC, T18N R 9E S30 | COUNTY PLAT | 406616 | 3957728 | 18N.09E.30.314 | DOM | 3 | 7/17/2001 | 800 | 419.0 | BM | 381.0 | 13.8 | 367.2 | 96 | 26.0 | 355.0 | 93 | 6572 | BMP | |
| RG-76065 | GREG STRATTON, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407992 | 3954926 | 17N.09E.5.133 | MUL | 3 | 8/3/2001 | 800 | 522.0 | BM | 278.0 | 9.4 | 268.6 | 97 | 18.2 | 259.8 | 93 | 6761 | BMP | |
| RG-76305 | JOHN G HARRIS, | | | COIMBRA, CLIF & CHARAINE | 3 LAS KATRINAS RD | T17N R 9E S 5 2.510 AC, TRACT 1D LOT 1 | COUNTY PLAT | 409408 | 3954915 | 17N.09E.5.244 | DOM | 3 | 10/18/2001 | 880 | 352.0 | BM | 528.0 | 5.2 | 522.8 | 99 | 11.1 | 516.9 | 98 | | BMP | |
| RG-76696 | DONALD L & BARBARA E SHIRES, | | | GALLEGOS, FRANK & ELIZABETH | 16 VIA DE ESTRELLAS | T17N R8E S23 & 26 5.993 AC, TRACT 4B-4B2 | COUNTY PLAT | 403313 | 3949727 | 17N.08E.23.314 | MUL | 3 | 11/20/2001 | 560 | 395.0 | BM | 165.0 | 9.8 | 155.2 | 94 | 18.4 | 146.6 | 89 | 6519 | BMP | |
| RG-77195 | GERALD A. BECKER, | | | DIBACHI, FARZAD TRUSTEE | 33 CAMINO MONTUOSO | LOT 75 LA TIERRA PHASE 2, T18N R 9E S31 50.169 AC | COUNTY PLAT | 407630 | 3956911 | 18N.09E.31.223 | DOM | 3 | 7/12/2002 | 805 | 465.0 | BM | 340.0 | 9.3 | 330.7 | 97 | 18.3 | 321.7 | 95 | 6756 | BMP | |
| RG-77258 | THERESA MARTINEZ, | | | | | | | 408250 | 3951460 | 17N.09E.17.134 | DOM | 3 | 5/15/2004 | 700 | 600.0 | BM | 100.0 | 5.7 | 94.3 | 94 | 11.9 | 88.1 | 88 | | BMP | |
| RG-77426 | RICHARD B MCCURDY, | | | MCCURDY, RICHARD B TRUSTEE | 60 E ESTRADA CALABASA | LOT 57 LA TIERRA S/D PH 2, T18N R 9E S31 10.992 AC | COUNTY PLAT | 407825 | 3955729 | 18N.09E.31.444 | | 3 | 4/24/2002 | 800 | 508.0 | BM | 292.0 | 9.4 | 282.6 | 97 | 18.2 | 273.8 | 94 | 6727 | BMP | |
| RG-77553 | CAROL METCHICK, | Robert Metchick | Shared Well 2 | | 11 Sundance Drive | Block 1/Lot 12, Sundance Estates | John Miles Smith, 6/19/08 email | 410418 | 3955100 | 17N.09E.4.231 | MUL | 3 | 5/10/2002 | 900 | 505.0 | BM | 395.0 | 5.2 | 389.8 | 99 | 11.1 | 383.9 | 97 | 6972 | TR | |
| RG-77563 | MANANA LLC, | | | BRILLIANT, B KAY | 41 CAMINO HASTA MANANA | T17N R 9E S 5 2.530 AC, LOT 1-B, TRACT A, | COUNTY PLAT | 409408 | 3955115 | 17N.09E.5.242 | | 0 | 8/30/2002 | 800 | 380.0 | BM | 420.0 | 5.2 | 414.8 | 99 | 11.1 | 408.9 | 97 | 6881 | BMP | |
| RG-77758 | LETITIA A KRAKOWSKI, | | | MOTT, JOHN B & LETITIA A | 24 VISTA CALABASAS | T17N R 9E S18 5.030 AC NW4, W/IN | COUNTY PLAT | 406675 | 3952247 | 17N.09E.18.121 | DOM | 3 | 3/7/2003 | 800 | 224.0 | BM | 576.0 | 9.1 | 566.9 | 98 | 17.5 | 558.5 | 97 | | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|------------------|---|------------------------|---|---|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-77820 | MARY LYNN OLIVER | William L. Oliver, Jr., and Mary Lynn Oliver | | OLIVER, WILLIAM L & MARY LYNN | 36 Headquarters Trail | LOT 17 LA TIERRA NUEVA, T17N R 8E S 1 11.0904 AC | COUNTY PLAT, 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405664 | 3954590 | | DOM | 3 | 2/14/2003 | 780 | 456.0 | BM | 324.0 | 36.7 | 287.3 | 89 | 54.0 | 270.0 | 83 | | BMP | |
| RG-77912 | VICTOR BALLAS, | | | CONROY, GLENN C & JANE E | 166 CALLE JOSEPHINA | T18N R 9E S19 12.50 AC, TR B-1 | COUNTY PLAT | 407040 | 3959933 | 18N.09E.19.142 | | 0 | 10/16/2002 | 800 | 380.0 | BM | 420.0 | 10.4 | 409.6 | 98 | 21.2 | 398.8 | 95 | 6542 | BMP | |
| RG-78027 | ADRIAN & KRISTIN GRIGGS, | Adrian Griggs and Kristin Martinez | | | 56 Goodnight Trail | Lot 10 La Tierra Nueva | COUNTY PLAT 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 406232 | 3954594 | 17N.08E.1.241 | DOM | 3 | 1/3/2003 | 720 | 492.0 | BM | 228.0 | 18.0 | 210.0 | 92 | 30.6 | 197.4 | 87 | 6614 | BMP | |
| RG-78304 | MONTROYA GRANDCHILDREN'S TRUST, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 408192 | 3954926 | 17N.09E.5.134 | | 3 | 9/15/2004 | 840 | 448.0 | BM | 392.0 | 9.4 | 382.6 | 98 | 18.2 | 373.8 | 95 | 6798 | BMP | |
| RG-78324 | PATRICIA JOHNSTON, | | | FRANK YARDMAN CONSTRUCTION | 110 PASEO DEL CONEJO | T17N R 9E S 5 2.50 AC, TR B-1-A LOT 3-B | COUNTY PLAT | 407976 | 3955044 | 17N.09E.5.133 | DOM | 3 | 9/20/2004 | 840 | 462.0 | BM | 378.0 | 9.4 | 368.6 | 98 | 18.2 | 359.8 | 95 | 6761 | BMP | |
| RG-78325 | MONTROYA GRANDCHILDREN'S TRUST, | | | ROUNSVILLE, WILLIAM J | 28 CONEJO TRL | T17N R 9E S5 6.70 AC, LOT 2 | COUNTY PLAT | 408690 | 3955091 | 17N.09E.5.142 | | 3 | 12/30/2002 | 900 | 535.0 | BM | 365.0 | 9.4 | 355.6 | 97 | 18.2 | 346.8 | 95 | | BMP | |
| RG-78339 | RUBEN ARCHULETA, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407982 | 3954124 | 17N.09E.5.333 | DOM | 3 | 1/8/2003 | 840 | 582.0 | BM | 258.0 | 7.8 | 250.2 | 97 | 15.5 | 242.5 | 94 | 6818 | BMP | |
| RG-78343 | RUBEN ARCHULETA, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407982 | 3954124 | 17N.09E.5.333 | DOM | 3 | 9/13/2004 | 840 | 438.0 | BM | 402.0 | 7.8 | 394.2 | 98 | 15.5 | 386.5 | 96 | 6818 | BMP | |
| RG-78347 | RICHARD A MONTROYA, | | | HUNTER, MICHAEL L & LORI A | 22 PASEO DEL VENADO | T17N R 9E S 9 5.010 AC, LOT 4 TR A | COUNTY PLAT | 409100 | 3953485 | 17N.09E.8.223 | | 3 | 11/29/2002 | 800 | 520.0 | BM | 280.0 | 4.5 | 275.5 | 98 | 9.8 | 270.2 | 96 | | BMP | |
| RG-78348 | RUBEN ARCHULETA, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407982 | 3954124 | 17N.09E.5.333 | DOM | 3 | 10/11/2004 | 840 | 473.0 | BM | 367.0 | 7.8 | 359.2 | 98 | 15.5 | 351.5 | 96 | 6818 | BMP | |
| RG-78354 | RUBEN ARCHULETA, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407982 | 3954124 | 17N.09E.5.333 | DOM | 3 | 12/30/2002 | 900 | 535.0 | BM | 365.0 | 7.8 | 357.2 | 98 | 15.5 | 349.5 | 96 | 6818 | BMP | |
| RG-78355 | RUBEN ARCHULETA, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407982 | 3954124 | 17N.09E.5.333 | DOM | 3 | 9/24/2003 | 840 | 488.0 | BM | 352.0 | 7.8 | 344.2 | 98 | 15.5 | 336.5 | 96 | 6818 | BMP | |
| RG-78415 | TIERRA ENTERPRISES LLC, | | | LARKIN, ROBERT J & BARBARA E | 12 INDIGO CT | LOT 8 LA VIDA S/D 3.044 AC, T17N R 9E S19 | COUNTY PLAT | 407433 | 3950236 | 17N.09E.19.214 | | 0 | 7/3/2003 | 663 | 486.0 | BM | 177.0 | 3.9 | 173.1 | 98 | 8.7 | 168.3 | 95 | | BMP | |
| RG-78419 | MICHAEL MAC CORQUODALE, | | | MOREAU, JOAN M | 19 W ESTRADA CALABASA | LOT 31 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 406399 | 3956121 | 18N.09E.31.313 | MUL | 3 | 6/20/2003 | 820 | 478.0 | BM | 342.0 | 17.1 | 324.9 | 95 | 30.1 | 311.9 | 91 | 6692 | BMP | |
| RG-78879 | CAROLE D PULLO, | | | PULLO, CAROLE D | 6 PASEO DEL PALOMA | T17N R 9E S 5 2.590 AC, TRACT B-1-D, LOT 1, | COUNTY PLAT | 409038 | 3954118 | 17N.09E.5.433 | MUL | 3 | 7/15/2005 | 780 | 575.0 | BM | 205.0 | 4.5 | 200.5 | 98 | 9.8 | 195.2 | 95 | 6888 | BMP | |
| RG-78889 | STEPHEN ETRE, | | | WILLIAMS, MARK R & ORLY V | 10 SIERRA LAVANDA | T17N R 9E S19 LOT 4-A-4 2.5AC, | COUNTY PLAT | 407027 | 3949809 | 17N.09E.19.322 | MUL | 3 | 1/10/2003 | 760 | 423.0 | BM | 337.0 | 5.7 | 331.3 | 98 | 11.9 | 325.1 | 96 | | BMP | |
| RG-78962 | ROD HONSTEIN, | | | HONSTEIN, RODERICK N & ANNE W | 46 PASEO DEL PAISANO | T17N R 9E S 5 5.06 AC TR B2B, | COUNTY PLAT | 408925 | 3954349 | 17N.09E.5.431 | DOM | 3 | 4/5/2003 | 800 | 571.0 | BM | 229.0 | 4.5 | 224.5 | 98 | 9.8 | 219.2 | 96 | 6871 | BMP | |
| RG-79460 | WALLACE WHITE JR, | | | CLIFTON, PERLA | 16 PASEO DEL VENADO | T17N R 8E S 8 5.040 AC, LOT 4 TR B | COUNTY PLAT | 409269 | 3953509 | | MUL | 3 | 3/20/2003 | 800 | 486.0 | BM | 314.0 | 4.5 | 309.5 | 99 | 9.8 | 304.2 | 97 | | BMP | |
| RG-79509 | PAUL SCHMIDT, | | | | | Lot 41, La Tierra | COUNTY PLAT | 406889 | 3954249 | 17N.09E.6.342 | | 0 | 4/8/2003 | 800 | 526.6 | BM | 273.4 | 13.7 | 259.7 | 95 | 24.6 | 248.8 | 91 | 6745 | BMP | |
| RG-79511 | ELISE W SCHMIDT, | | | WHELESS, ELISE | 37 VUELTA TOMAS | LOT 46 LA TIERRA PHASE 2, T17N R 9E S 6 11.890 AC | COUNTY PLAT | 406517 | 3954287 | 17N.09E.6.331 | | 0 | 4/21/2003 | 800 | 442.0 | BM | 358.0 | 13.7 | 344.3 | 96 | 24.6 | 333.4 | 93 | 6687 | BMP | |
| RG-79512 | ELISE W SCHMIDT, | | | SCHMIDT, ELISE WHELESS & PAUL | 20 VUELTA SABIO | LOT 48 LA TIERRA PHASE 2, T17N R 9E S 6 14.815 AC | COUNTY PLAT | 406749 | 3954427 | 17N.09E.6.312 | | 0 | 4/14/2003 | 800 | 462.0 | BM | 338.0 | 18.0 | 320.0 | 95 | 30.6 | 307.4 | 91 | 6718 | BMP | |
| RG-79548 | CAROL A JOHNSON, | | | BALANCE POINT ENTERPRISES | 16 PASEO DEL CONEJO | T17N R 9E S 5, TR B-1-A2, 2.67 AC, | COUNTY PLAT | 408802 | 3954107 | 17N.09E.5.433 | | 3 | 2/21/2003 | 840 | 466.0 | BM | 374.0 | 7.8 | 366.2 | 98 | 15.5 | 358.5 | 96 | 6888 | BMP | |
| RG-79574 | JAMES NICKELL, | | | STEWART TITLE GUARANTY CO | 2 ESCOPETA CT | T17N R 9E S19 2.511 AC, LOT H-2 | COUNTY PLAT | 407437 | 3950606 | 17N.09E.19.212 | MUL | 3 | 5/19/2003 | 660 | 474.0 | BM | 186.0 | 3.9 | 182.1 | 98 | 8.7 | 177.3 | 95 | | BMP | |
| RG-79603 | CLINTON HORN, | | | WEATHERFORD, JANICE L & | 60 TIERRA GRANDE | T17N R 9E S19 2.450 AC, LOT 15 TIERRA GRANDE S/D | COUNTY PLAT | 406897 | 3949478 | 17N.09E.19.321 | MUL | 3 | 3/14/2003 | 665 | 460.0 | BM | 205.0 | 3.5 | 201.5 | 98 | 8.0 | 197.0 | 96 | | BMP | |
| RG-80255 | JONATHAN BEAMER, | | | BEAMER, JONATHAN & FRAN SALKIN | | T17N R 9E S18 LOT 3-A 5.0 AC, | COUNTY PLAT | 406983 | 3951951 | 17N.09E.18.142 | DOM | 3 | 11/15/2004 | 800 | 455.0 | BM | 345.0 | 9.1 | 335.9 | 97 | 17.5 | 327.5 | 95 | 6670 | BMP | |
| RG-80390 | ABBIE BEN CORRIZ, | | | CORRIZ, ABBIE BEN | 4654 SAN YSIDRO PL | T17N R 9E S32 2.50 AC, TR 8-A2 | COUNTY PLAT | 408153 | 3947295 | 17N.08E.23.144 | MUL | 3 | 7/14/2003 | 560 | 382.0 | BM | 178.0 | 1.6 | 176.4 | 99 | 4.3 | 173.7 | 98 | 6539 | BMP | |
| RG-80431 | RON SMITH, | | | SUERTE DEL SUR, LLC | 160 LOS SUENOS TRL | T17N R 9E S19 35.00 AC, LOT 2 | COUNTY PLAT | 406629 | 3950214 | 17N.09E.19.132 | MUL | 3 | 7/17/2003 | 560 | 385.0 | BM | 175.0 | 5.7 | 169.3 | 97 | 11.9 | 163.1 | 93 | | BMP | |
| RG-80940 | CYNTHIA FOWLER, | | | HOYT, SUZANNE & LINDA WEIL | 127 W ESTRADA CALABASA | T18N R 8E S36 1074.650 AC N2 & PORT S2 RANCH & HEADQTRS, LIVESTOCK ON ACCT 970001777, | COUNTY PLAT | 405718 | 3956026 | | DOM | 3 | 10/30/2005 | 692 | 352.0 | BM | 340.0 | 32.0 | 308.0 | 91 | 49.8 | 290.2 | 85 | 6581 | BMP | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----------------------|------------------|---|------------------------|--|----------------|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|--|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs | |
| RG-81036 | GRANT HOLLAND, CALLE ALEGRE, | | | BALANCE POINT ENTERPRISES | 22 PASEO DEL CONEJO | T17N R 9E S 5, 2.50 AC, TR B-1-A1, | COUNTY PLAT | 408763 | 3954148 | 17N.09E.5.433 | MUL | 3 | 4/2/2004 | 905 | 575.0 | BM | 330.0 | 7.8 | 322.2 | 98 | 15.5 | 314.5 | 95 | 6888 | BMP | | |
| RG-81127 | | | | | | | | 401299 | 3950384 | | MUL | 3 | 8/13/2004 | 700 | 245.0 | CAG | 455.0 | 10.0 | 445.0 | 98 | 19.2 | 435.8 | 96 | 6417 | BMP | | |
| RG-81323 | TIERRA DE LA VIDA LLC, | | | TIERRA DE LA VIDA, LLC | 25 SENDERO DE LA VIDA | LOT 14 TIERRA DE LA VIDA, T17N R 9E S19 2.27 AC | COUNTY PLAT | 406990 | 3949876 | 17N.09E.19.322 | MUL | 3 | 6/12/2004 | 760 | 435.0 | BM | 325.0 | 5.7 | 319.3 | 98 | 11.9 | 313.1 | 96 | | BMP | | |
| RG-81771 | DEAN PRESTON, | | | WAGGONER, ALAN S & KAREN | 11 PASEO DEL HALCON | T17N R 9E S 5 5.01 AC LOT 1C, | COUNTY PLAT | 409208 | 3954304 | 17N.09E.5.441 | DOM | 3 | 4/16/2004 | 800 | 465.0 | BM | 335.0 | 4.5 | 330.5 | 99 | 9.8 | 325.2 | 97 | 6926 | BMP | | |
| RG-81838 | SUZANNE HOYT GARCIA REVOCABLE, | | | HOYT, SUZANNE & LINDA WEIL | 127 W ESTRADA CALABASA | T18N R 8E S36 1074.650 AC N2 &, PORT S2 RANCH & HEADQTRS, LIVESTOCK ON ACCT 970001777, | COUNTY PLAT | 405595 | 3956349 | 18N.08E.36.411 | STK | 3 | 10/8/2004 | 1100 | 550.0 | BM | 550.0 | 32.0 | 518.0 | 94 | 49.8 | 500.2 | 91 | 6516 | BMP | | |
| RG-81854 | SUZANNE H GARCIA IRREVOCABLE T, | | | | | | | 401428 | 3961018 | 18N.08E.16.424 | | 3 | 4/17/2004 | 910 | 724.0 | BM | 186.0 | 24.5 | 161.5 | 87 | 41.8 | 144.2 | 78 | 6305 | BMP | | |
| RG-81860 | SUZANNE HOYT GARCIA REVOCABLE, | | | HOYT, SUZANNE & LINDA WEIL | 127 W ESTRADA CALABASA | T18N R 8E S36 1074.650 AC N2 &, PORT S2 RANCH & HEADQTRS, LIVESTOCK ON ACCT 970001777, | COUNTY PLAT | 405416 | 3956671 | 18N.08E.36.134 | STK | 3 | 7/31/2004 | 695 | 370.7 | BM | 324.3 | 32.0 | 292.3 | 90 | 49.8 | 274.5 | 85 | 6462 | BMP | | |
| RG-81861 | SUZANNE HOYT GARCIA REVOCABLE, | | | HOYT, SUZANNE & LINDA WEIL | 127 W ESTRADA CALABASA | T18N R 8E S36 1074.650 AC N2 &, PORT S2 RANCH & HEADQTRS, LIVESTOCK ON ACCT 970001777, | COUNTY PLAT | 405388 | 3955950 | 18N.08E.36.342 | STK | 3 | 9/29/2004 | 850 | 460.0 | BM | 390.0 | 36.7 | 353.3 | 91 | 54.0 | 336.0 | 86 | 6517 | BMP | | |
| RG-82184 | JACQUES CONSTANT, | | New | EBERSOLE, GARY E & KATHY F | CAMINO LOS SUENOS | T17N R 9E S19 2.50 AC, LOT 2-2 NORTHWEST RANCHES S/D, PHASE 1, | COUNTY PLAT | 406339 | 3950675 | 17N.09E.19.321 | MUL | 3 | 5/14/2004 | 900 | 485.0 | BM | 415.0 | 5.7 | 409.3 | 99 | 11.9 | 403.1 | 97 | 6690 | BMP | | |
| RG-82337 | JIM MCELROY, | | | STERTZ, RICHARD C | 25 PASEO DEL CONEJO | T17N R 9E S 5 2.880 AC, TR B-2-D LOT 1 | COUNTY PLAT | 408740 | 3954194 | | DOM | 3 | 5/26/2004 | 840 | 432.0 | BM | 408.0 | 7.8 | 400.2 | 98 | 15.5 | 392.5 | 96 | 6903 | BMP | | |
| RG-82398 | HYDE PARK ASSOCIATES LLC, | | | LA VIDA DEVELOPMENT CORP | | T17N R 9E S19 3.573 AC, OPEN SPACE LA VIDA S/D | COUNTY PLAT | 407433 | 3950205 | 17N.09E.19.232 | MUL | 3 | 6/28/2004 | 660 | 486.0 | BM | 174.0 | 3.9 | 170.1 | 98 | 8.7 | 165.3 | 95 | | BMP | | |
| RG-82635 | FRANK YARDMAN, | | | MARK, ANTHONY | 8 CAMINO LADERA | T17N R 9E S 5 5.056 AC, LOT 2-D | COUNTY PLAT | 409457 | 3955356 | 17N.09E.5.224 | DOM | 3 | 10/8/2004 | 840 | 465.0 | BM | 375.0 | 5.2 | 369.8 | 99 | 11.1 | 363.9 | 97 | 6846 | BMP | | |
| RG-83022 | RICHARD BARELA, | | | STERTZ, RICHARD & GINNIE | 17 PASEO DEL VENADO | T17N R 9E S 8 5.00 AC, LOT 1 TR C | COUNTY PLAT | 409208 | 3953726 | | DOM | 3 | 6/29/2004 | 800 | 558.0 | BM | 242.0 | 4.5 | 237.5 | 98 | 9.8 | 232.2 | 96 | | BMP | | |
| RG-83025 | KALOKO LAND CORPORATION, | | | STERTZ, RICHARD C & MARTHA V | 10 VISTA DEL CIELO | LOT 11 LAS CORDILLERAS S/D, PHASE II 5.373 AC, T17N R 9E S 4 & 5, | COUNTY PLAT | 409408 | 3954509 | 17N.09E.5.424 | | 3 | 9/23/2005 | 860 | 569.0 | BM | 291.0 | 5.2 | 285.8 | 98 | 11.1 | 279.9 | 96 | 6938 | TR/BMP | | |
| RG-83026 | ERIC FREEMAN, | | | STERTZ, RICHARD C & MARTHA V | 10 VISTA DEL CIELO | LOT 11 LAS CORDILLERAS S/D, PHASE II 5.373 AC, T17N R 9E S 4 & 5, | COUNTY PLAT | 409408 | 3954509 | 17N.09E.5.424 | | 3 | 9/8/2005 | 860 | 447.0 | BM | 413.0 | 5.2 | 407.8 | 99 | 11.1 | 401.9 | 97 | 6938 | TR/BMP | | |
| RG-83027 | KALOKO LAND CORPORATION, | | | FIRST NATIONAL BANK AS CUSTOD | 33 PASEO DEL FONDO | LOT 18 LAS CORDILLERAS S/D, PHASE II 3.597 AC, T17N R 9E S 4 & 5, | COUNTY PLAT | 409208 | 3954709 | 17N.09E.5.421 | | 3 | 9/16/2005 | 860 | 484.0 | BM | 376.0 | 5.2 | 370.8 | 99 | 11.1 | 364.9 | 97 | 6912 | TR/BMP | | |
| RG-83782 | PRADEEP SAFAYA, | | | HAPKA, CATHERINE M & | 79 HEADQUARTERS TRL | TOT 75 LA TIERRA NUEVA, T17N R 8E S 1 | COUNTY PLAT | 405381 | 3955135 | 17N.08E.1.142 | DOM | 3 | 2/10/2005 | 995 | 487.0 | BM | 508.0 | 36.7 | 471.3 | 93 | 54.0 | 454.0 | 89 | 6641 | BMP | | |
| RG-83907 | DARCY CRENSHAW, | | | COWLES, MACON | 6 CAMINO CIELO | T17N R 9E S18 2.50 AC, LOT 5-B | COUNTY PLAT | 406646 | 3951877 | 17N.09E.18.114 | DOM | 3 | 10/3/2005 | 680 | 476.0 | BM | 204.0 | 9.1 | 194.9 | 96 | 17.5 | 186.5 | 91 | | BMP | | |
| RG-83947 | PETER DEUBER, | | | | | | | 408777 | 3954335 | 17N.09E.5.431 | | 0 | 4/6/2005 | 840 | 467.0 | BM | 373.0 | 7.8 | 365.2 | 98 | 15.5 | 357.5 | 96 | 6871 | BMP | | |
| RG-83952 | DIANE BARELA, | | | BANDARI, HENRIK & KIRKORIAN, | 73 PASEO DEL CONEJO | T17N R 9E S 5 3.250 AC, TRACT B-2, LOT 1-B-2, | COUNTY PLAT | 408645 | 3954903 | | DOM | 3 | 11/5/2005 | 800 | 556.0 | BM | 244.0 | 9.4 | 234.6 | 96 | 18.2 | 225.8 | 93 | 6800 | BMP | | |
| RG-84125 | JOEL MCHORSE, | | | ARENA, DREW C & ELISE PINKOW | 44 SONRISA TRL | T17N R 9E S18 23.982 AC, TRACT B | COUNTY PLAT | 406830 | 3951348 | | | 3 | 12/2/2005 | 800 | 495.0 | BM | 305.0 | 9.1 | 295.9 | 97 | 17.5 | 287.5 | 94 | 6722 | BMP | | |
| RG-84708 | ROBERT ELLIG, | | | COYOTE CREEK CONSTRUCTION LLC | 114 PASEO DEL CONEJO | T17N R 9E S 5 2.50 AC, TR B-1-A LOT 3-A | COUNTY PLAT | 407992 | 3955126 | 17N.09E.5.131 | DOM | 3 | 7/31/2006 | 820 | 426.0 | BM | 394.0 | 9.4 | 384.6 | 98 | 18.2 | 375.8 | 95 | 6757 | BMP | | |
| RG-84781 | REGINA FLORES, | | | FLORES, RANDY & REGINA | 6 VIA DE ESTRELLAS | T17N R8E S23 2.500 AC, TRACT 4B-4A-2A | COUNTY PLAT | 403364 | 3949790 | 17N.08E.23.314 | DOM | 3 | 7/2/2005 | 580 | 375.0 | BM | 205.0 | 9.8 | 195.2 | 95 | 18.4 | 186.6 | 91 | 6519 | BMP | | |
| RG-85496 | RON WHITMORE, | | | MILLER, MARK C | 3 VUELTA LINDA | T18N R 9E S32 11.32 AC, LOT 107 LA TIERRA PHASE 3 | COUNTY PLAT | 408636 | 3956500 | 18N.09E.32.144 | DOM | 3 | 2/11/2006 | 800 | 439.0 | BM | 361.0 | 9.3 | 351.7 | 97 | 18.3 | 342.7 | 95 | 6820 | BMP | | |
| RG-85584 | LEESA KEY, | | | MONTOYA, RICHARD TRUSTEE OF | TANO RD | T17N R 9E S 5 5.05 AC, TR B-4-A | COUNTY PLAT | 408686 | 3954691 | 17N.09E.5.322 | DOM | 3 | 7/28/2005 | 840 | 477.0 | BM | 363.0 | 9.4 | 353.6 | 97 | 18.2 | 344.8 | 95 | | BMP | | |

Appendix B. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------------------|------------------|---|------------------------|---|----------------|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|-------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-85585 | EDWARD KIRKORIAN, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 407982 | 3954124 | 17N.09E.5.333 | DOM | 3 | 7/22/2005 | 840 | 448.0 | BM | 392.0 | 7.8 | 384.2 | 98 | 15.5 | 376.5 | 96 | 6818 | BMP | |
| RG-85662 | KAREN J POWELL, | | | GREENBERG, MARK & | 25 SONRISA TRL | LOT 2 SONRISA S/D 4.047 AC, T17N R 9E S18 | COUNTY PLAT | 406521 | 3951582 | 17N.09E.18. | | 3 | 1/27/2006 | 700 | 450.0 | BM | 250.0 | 9.1 | 240.9 | 96 | 17.5 | 232.5 | 93 | 6647 | BMP | |
| RG-86289 | CHARLES UNFRIED, | | | TEMPLE, HUNTER M & PRISCILLA B | 21 VUELTA YUCCA | T18N R 9E S32 11.59 AC, LOT 80 LA TIERRA PHASE 3 | COUNTY PLAT | 408227 | 3955725 | 18N.09E.32.334 | DOM | 3 | 2/4/2006 | 780 | 488.0 | BM | 292.0 | 9.4 | 282.6 | 97 | 18.2 | 273.8 | 94 | 6796 | BMP | |
| RG-86789 | ANTHONY PADILLA, | | | BRILLIANT, B KAY | 41 CAMINO HASTA MANANA | T17N R 9E S 5 2.530 AC, LOT 1-B, TRACT A, | COUNTY PLAT | 409408 | 3955115 | 17N.09E.5.242 | DOM | 3 | 5/5/2006 | 800 | 517.0 | BM | 283.0 | 5.2 | 277.8 | 98 | 11.1 | 271.9 | 96 | | BMP | |
| RG-87173 | VINCENT STENERSON, | | | STENERSON, VINCENT & | 40 CALLE JOSEPHINA | T18N R 9E S30 14.151 AC, LOT 2-C | COUNTY PLAT | 407225 | 3958321 | 18N.09E.30.231 | DOM | 3 | 3/29/2007 | 750 | 395.0 | BM | 355.0 | 13.8 | 341.2 | 96 | 26.0 | 329.0 | 93 | | BMP | |
| RG-87265 | FARZAD DIBACHI, | | | | | | | 407620 | 3956553 | 18N.09E.31.243 | MUL | 3 | 5/26/2006 | 800 | 532.0 | BM | 268.0 | 9.3 | 258.7 | 97 | 18.3 | 249.7 | 93 | | BMP | |
| RG-87519 | LANA PARK, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 408293 | 3954725 | 17N.09E.5.221 | DOM | 1 | 12/23/2007 | 780 | 406.0 | BM | 374.0 | 9.4 | 364.6 | 97 | 18.2 | 355.8 | 95 | | BMP | |
| RG-87734 | THOMAS GONZALES, | | | KING BROTHERS RANCH | 34 PASEO DE ESTRELLAS | T17N R 8E S23 13.287 AC, TRACT 5-1A | COUNTY PLAT | 403515 | 3949722 | 17N.08E.23.323 | | 0 | 6/20/2006 | 600 | 327.0 | BM | 273.0 | 9.8 | 263.2 | 96 | 18.4 | 254.6 | 93 | | BMP | |
| RG-88268 | THOMAS WEHNER, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 408187 | 3954525 | 17N.09E.5.314 | DOM | 3 | 1/18/2007 | 840 | 505.0 | BM | 335.0 | 9.4 | 325.6 | 97 | 18.2 | 316.8 | 95 | | BMP | |
| RG-88666 | RAMON L ROMERO, | | | KING BROTHERS RANCH | KING BROTHERS RANCH | T17N R8E S23 77.187 AC, TRACT 3 | COUNTY PLAT | 403114 | 3950177 | 17N.08E.23. | DOM | 1 | 4/9/2007 | 800 | 362.0 | BM | 438.0 | 9.8 | 428.2 | 98 | 18.4 | 419.6 | 96 | | BMP | |
| RG-88950 POD1 | JOSEPH D ALBILLAR, | | | BRANCH, DENNIS R | | T17N R 9E S18 17.400 AC TR D4, NW4 | COUNTY PLAT | 406850 | 3952374 | 17N.09E.18. | DOM | 1 | 4/11/2007 | 700 | 375.0 | BM | 325.0 | 9.1 | 315.9 | 97 | 17.5 | 307.5 | 95 | | BMP | |
| RG-89138 POD1 | MARK SPAULDING, | | | SPAULDING, MARK R | 40 CALLE JOSEPHINA | T18N R 9E S30 15.103 AC, LOT 2-B | COUNTY PLAT | 407121 | 3958483 | 18N.09E.30.124 | DOM | 1 | 5/25/2007 | 800 | 368.0 | BM | 432.0 | 13.8 | 418.2 | 97 | 26.0 | 406.0 | 94 | | BMP | |
| RG-89212 POD1 | DAVID ROBB, | William H. Moore | | MOORE, WILLIAM H & DOROTHY B | 178 CHISHOLM TRL | LOT 52 LA TIERRA NUEVA S/D, T17N R08E S2 17.936 AC | COUNTY PLAT | 403225 | 3955515 | 17N.08E.2.113 | DOM | 1 | 9/5/1983 | 700 | 580.0 | BM | 120.0 | 82.5 | 37.5 | 31 | 103.9 | 16.1 | 13 | | BMP | |
| RG-89456 | MARK GAYER, | | | WERNER, JOHN C | 4 PASEO DEL HALCON | T17N R 9E S 5, LOT 2A-1 | COUNTY PLAT | 409164 | 3954110 | 17N.09E.5. | DOM | 1 | 9/6/2007 | 800 | 569.0 | BM | 231.0 | 4.5 | 226.5 | 98 | 9.8 | 221.2 | 96 | | BMP | |
| | J.A. Ortiz, | | | | | | | 401971 | 3962996 | 18N.08E.10.143 | | | 1961 | 560 | 524.0 | BM | 36.0 | 17.6 | 18.4 | 51 | 32.0 | 4.0 | 0 | 6370 | BMP | M-18 |
| | Eric Sloane, | | | | | | | 406835 | 3956782 | 18N.09E.31.141 | | | 1976 | 634 | 491.0 | BM | 143.0 | 17.1 | 125.9 | 88 | 30.1 | 112.9 | 79 | 6680 | BMP | M-24 |
| | David A. Ater, | | | PROTHRO, CHARLES V | 24 VUELTA SUSANA | LOT 24 LA TIERRA PHASE 1, T18N R 9E S31, 13.634 AC, | COUNTY PLAT | 406515 | 3956726 | 18N.09E.31.131 | | | 1976 | 727 | 557.0 | BM | 170.0 | 17.1 | 152.9 | 90 | 30.1 | 139.9 | 82 | 6725 | BMP | M-23 |
| | Milo Earhard, | | | BOGLE, GLENN G & SUSAN R | 218 PASEO DE LA TIERRA | LOT 16 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 406931 | 3956586 | 18N.09E.31.143 | | | 1976 | 673 | 497.0 | BM | 176.0 | 17.1 | 158.9 | 90 | 30.1 | 145.9 | 83 | 6680 | BMP | M-26 |
| | Norman L. Ringhand, | | | BOGLE, GLENN G & SUSAN R | 218 PASEO DE LA TIERRA | LOT 16 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 407046 | 3956731 | 18N.09E.31.142 | | | 1975 | 804 | 460.0 | BM | 344.0 | 17.1 | 326.9 | 95 | 30.1 | 313.9 | 91 | 6660 | BMP | M-25 |
| | Western Cattle Co., Nuclear Dynamics, Inc., | | | NEWCOMER, PHYLLIS L | 79 CHISHOLM TRL | LOT 33 LA TIERRA NUEVA S/D, T17N R 8E S 2, 10.794 AC, | COUNTY PLAT | 404379 | 3954619 | 17N.08E.2.423 | | | 1970 | 1000 | 574.0 | BM | 426.0 | 36.7 | 389.3 | 91 | 54.0 | 372.0 | 87 | 6640 | BMP | M-2 |
| | Nuclear Dynamics, Inc., | | | | | | | 399180 | 3960054 | 18N.08E.20.231 | | | 1970 | 990 | 193.0 | CAG | 797.0 | 78.3 | 718.7 | 90 | 98.4 | 698.6 | 88 | 6065 | BMP | M-19 |
| | Nuclear Dynamics, Inc., | | | | | | | 397818 | 3962287 | 18N.08E.7.434 | | | 1970 | 1000 | 65.0 | BWI-9 | 935.0 | 43.8 | 891.2 | 95 | 61.8 | 873.2 | 93 | 5875 | BMP | M-17 |
| | Nuclear Dynamics, Inc., | | | | | | | 401791 | 3956065 | 18N.08E.34.332 | | | 1970 | 1985 | 380.0 | BM | 1605.0 | 100.3 | 1504.7 | 94 | 124.3 | 1480.7 | 92 | 6320 | BMP | M-21 |
| | Western Cattle Co., Nuclear Dynamics, Inc., | Edward L. and Donna W. Klopfer | | KLOPFER, EDWARD L & DONNA L | 40 W ESTRADA CALABASA | T18N R 8E S36 & T17N R 8E S 1, 60.04 AC | COUNTY PLAT | 405847 | 3955481 | 17N.08E.1.212 | | | - | 1500 | 395.0 | BM | 1105.0 | 18.0 | 1087.0 | 98 | 30.6 | 1074.4 | 97 | 6543 | BMP | M-1 |
| | Nuclear Dynamics, Inc., | | | | | | | 403103 | 3952509 | 17N.08E.11.333 | | | 1970 | 1000 | 130.0 | BM | 870.0 | 18.6 | 851.4 | 98 | 31.2 | 838.8 | 96 | 6445 | BMP | M-3 |
| | Summer A. Weld, Nuclear Dynamics, Inc., | | | CRAWFORD, JOHN F & BETTY | 28 ARROYO CALABASAS RD | 617N R 9E S18 5.00 AC TR A, | COUNTY PLAT | 407591 | 3952262 | 17N.09E.18.221 | | | 1975 | 588 | 543.0 | BM | 45.0 | 5.7 | 39.3 | 87 | 11.9 | 33.1 | 74 | 6785 | BMP | M-15 |
| | Nuclear Dynamics, Inc., | | | | | | | 401541 | 3949586 | 17N.08E.22.331 | | | 1970 | 1000 | 212.0 | CAG | 788.0 | 5.6 | 782.4 | 99 | 11.8 | 776.2 | 99 | 6440 | BMP | M-4 |
| | Nuclear Dynamics, Inc., | | | | | | | 396671 | 3964509 | 18N.07E.1.422 | | | 1970 | 1000 | 0.0 | BWI-9 | 1000.0 | 62.0 | 938.0 | 94 | 73.4 | 926.6 | 93 | 5680 | BMP | M-16 |
| | | | | | | | | 395610 | 3965942 | | | | 1939 | 191 | 0.0 | BWI-9 | 191.0 | 57.9 | 133.1 | 70 | 63.6 | 127.4 | 67 | 5555 | BMP | M-27 |

NMOSE - New Mexico Office of the State Engineer
 ac-ft/yr - acre feet per year
 ft amsl - feet above mean sea level
 BMP - Buckman Monitoring Program

BW -Buckman Well
 CAG - Canada Ancha Graben
 BM - Barrancos Monocline
 TRA - Tano Road Area

Appendix C.

Ten- and 40-year water column projections for Buckman Monitoring Program database wells due to forecasted pumping (Scenario 2, model Layer 2)

Appendix C. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------------------|-----------------------------------|---|-------------------------|--|---|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Drawdown, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-28064 | STEVEN H. TREMPER, | | La Tierra 32-T-2 | GREENKER, JEROLD A | 12 ESTRADA REDONDA | T18N R 9E S32 10.39 AC, LOT 82 LA TIERRA PHASE 3 | COUNTY PLAT | 409264 | 3956135 | 18N.09E.32.42 | DOM | 3 | 2/4/1977 | 750 | 533.3 | BM | 216.7 | 1.4 | 215.2 | 99 | 3.0 | 213.7 | 99 | 6847 | BMP | |
| RG-28064 X-2 | STEVEN H. TREMPER, | | Hilltop | NEIKRUG, MARC AND DOLLY L | 59 ESTRADA MAYA | T18N R 9E S32 15.00 AC, LOT 99 LA TIERRA PHASE 3 | COUNTY PLAT | 409088 | 3956910 | 18N.09E.32.222 | DOM | 3 | 2/16/1977 | 727 | 498.0 | BM | 229.0 | 1.5 | 227.5 | 99 | 3.1 | 225.9 | 99 | 6863 | BMP | |
| RG-28064 X-3 | STEVEN H. TREMPER, | | La Tierra 32-T-4 | PHINNEY, ROBERT T & MARGARET | 124 ESTRADA REDONDA | T18N R 9E S32 12.25 AC, LOT 93 LA TIERRA S/D, (OLD PHASE 3), | COUNTY PLAT | 408163 | 3956965 | 18N.09E.32.11 | DOM | 3 | 1/12/1977 | 790 | 513.0 | BM | 277.0 | 2.0 | 275.0 | 99 | 4.0 | 273.0 | 99 | 6750 | BMP | |
| RG-28112 | HENRY SANDMEIER, Paul B. Schmidt and Elise Wheless Schmidt | | | | | Lot 47, La Tierra | | 406645 | 3954327 | | DOM | 3 | 2/2/1977 | 701 | 548.3 | BM | 152.7 | 3.3 | 149.4 | 98 | 5.9 | 146.8 | 96 | 6747 | BMP | |
| RG-28299 | WILLIS A. SEYFFERT, | | La Tierra 32-T-3 | | | | | 409347 | 3956949 | 18N.09E.32.22 | DOM | 3 | 3/4/1977 | 765 | 368.7 | BM | 396.3 | 1.4 | 394.9 | 100 | 2.9 | 393.4 | 99 | 6816 | BMP | |
| RG-28345 | ROBERT GILL, | | | GILL, ROBERT I & CHERYL L | 11 E ESTRADA CALABASA | LOT 13 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 406825 | 3956116 | 18N.09E.31.323 | DOM | 3 | 3/19/1977 | 618 | 522.0 | BM | 96.0 | 3.5 | 92.5 | 96 | 6.3 | 89.7 | 93 | | BMP | |
| RG-29191 | SANDRA LAUDEDAL GRAHAM, | | | GRAHAM, THOMAS R & SANDRA L | 15 VUELTA SABIO | LOT 51 LA TIERRA PHASE 2, SEC 6 T17N R9E 10.578 AC | COUNTY PLAT | 406386 | 3954945 | 17N.09E.6.133 | DOM | 3 | 8/17/1977 | 700 | 530.0 | BM | 170.0 | 4.1 | 165.9 | 98 | 7.0 | 163.0 | 96 | 6654 | BMP | |
| RG-29356 | DENNIS R. COOPER, | | | LICATA, WILLIAM M & CATHERINE | 20 LOS PRADOS | T17N R 9E S 8 TR 1-A-2 1.0 AC, PLAT BK 225 PG 037 | COUNTY PLAT | 409205 | 3953067 | 17N.09E.8.421 | DOM | 3 | 1/23/1978 | 730 | 556.8 | BM | 173.3 | 1.1 | 172.1 | 99 | 2.4 | 170.9 | 99 | 6881 | BMP | |
| RG-29359 | CROCKER EDWARD E. JR., | | | CROMWELL, FLORENCE C & | 16 VUELTA LINDA | T18N R 9E S32 10.31 AC, LOT 111 LA TIERRA PHASE 3 | COUNTY PLAT | 408731 | 3956429 | 18N.09E.32. | DOM | 3 | 7/3/1979 | 715 | 603.0 | BM | 112.0 | 1.7 | 110.3 | 98 | 3.5 | 108.5 | 97 | 6819 | BMP | |
| RG-29524 | BARBARA VIGIL, | | Las Dos #1 | MOONEY, HELEN W | 45 MAMIES MILE | LOT 21 LAS DOS PHASE 1, T18N R 9E S30 12.224 AC | COUNTY PLAT | 407663 | 3958060 | 18N.09E.30.424 | DOM | 3 | 10/24/1977 | 768 | 396.7 | BM | 371.3 | 2.3 | 369.1 | 99 | 4.5 | 366.8 | 99 | 6612 | BMP | |
| RG-29546 | BERGERE KENNEY, | | Los Dos #2 | | | | | 407940 | 3960307 | 18N.09E.19.22 | NOT | 0 | 11/3/1977 | 773 | 434.3 | BM | 338.7 | 1.5 | 337.2 | 100 | 3.4 | 335.3 | 99 | 6674 | BMP | |
| RG-29550 | KENNETH N. & WYONA T. JOY | | | | | | | 397154 | 3964185 | 18N.08E.6.3 | DOM | 3 | 10/26/1977 | 675 | 535.0 | BWI-9 | 140.0 | 20.3 | 119.7 | 86 | 24.5 | 115.5 | 82 | 5791 | BMP | |
| RG-29723 | U.S. FOREST SERVICE, US Soil Conservation Service | | USFS Well, 700 Ft Well | | | | | 398694 | 3954689 | 17N.08E.5.3 | STK | 2 | 1/1/1940 | 693 | 664.1 | CAG | 28.9 | 7.0 | 21.9 | 76 | 11.4 | 17.5 | 61 | 6486 | BMP | |
| RG-29725 | US FOREST SERVICE, US Soil Conservation Service | | USFS Headquarters Well | | | | | 400842 | 3949932 | 17N.08E.21.41 | STK | 2 | 1/1/1940 | 350 | 311.0 | CAG-South | 39.0 | 1.8 | 37.2 | 95 | 3.7 | 35.3 | 91 | 6442 | BMP | |
| RG-30162 | TODD BAILEY, | | | BAILEY, TODD J | 124 ARROYO CALABASAS RD | T17N R 9E S18 2.5 AC TR 2, | COUNTY PLAT | 406269 | 3951851 | 17N.09E.18.131 | MUL | 3 | 5/29/1978 | 725 | 500.0 | BM | 225.0 | 2.1 | 222.9 | 99 | 4.0 | 221.0 | 98 | | BMP | |
| RG-30269 | KIRSTIN MCMULLEN, | | | GALLANT, DANNY & MARCE MILLER | 52 CAMINO DOS PERROS | T17N R 9E S18 LOT 3-B 5.0 AC, (OLD TR 3) | COUNTY PLAT | 407048 | 3951873 | 17N.09E.18.124 | MUL | 3 | 4/20/1978 | 556 | 475.0 | BM | 81.0 | 1.7 | 79.3 | 98 | 3.4 | 77.6 | 96 | | BMP | |
| RG-30777 | BOB WELL, | Tom and Andrea Bernstein | Bernstein, La Tierra Lot 71; IV-1 | BERNSTEIN, TOM A & ANDREA E | 159 Longhorn Lane | LOT 46 TIERRA NUEVA, T17N R 8E S 2 17.385 AC | COUNTY PLAT, 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 403595 | 3955119 | 17N.08E.36.23 | OBS | 3 | 7/15/1978 | 663 | 540.0 | BM | 123.0 | 15.7 | 107.2 | 87 | 20.3 | 102.6 | 83 | 6550 | BMP | |
| RG-31284 | SUZANNE HOYT GARCIA, TRUSTEE, | | | HOYT, SUZANNE & LINDA WEIL | 127 W ESTRADA CALABASA | T18N R 8E S36 1074.650 AC N2 &, PORT S2 RANCH & HEADQTRS, LIVESTOCK ON ACCT 970001777, | COUNTY PLAT | 405804 | 3957152 | 18N.08E.36.212 | DOM | 3 | 10/30/1978 | 815 | 515.0 | BM | 300.0 | 5.0 | 295.0 | 98 | 8.4 | 291.6 | 97 | 6660 | BMP | |
| RG-31487 EXPL | BOB WEIL, RICHARD CARLYON | | La Tierra Lot 16; IV-2 | STATE OF NEW MEXICO | STATE PROPERTY | LOT 1 LA TIERRA NUEVA, 10.432 AC T17N R 8E S 1 | COUNTY PLAT | 405575 | 3954126 | 17N.08E.1.433 | DOM | 3 | 10/20/1978 | 785 | 529.0 | BM | 256.0 | 5.0 | 251.0 | 98 | 8.1 | 247.9 | 97 | 6677 | BMP | |
| RG-31845 | HIROSHI AND NANCY MURATA, | | | NOVBAKHTIAN, ABDOLREZA, MASOUD | 82 PASEO DE LA TIERRA | LOT 5 LA TIERRA S/D PH 1, T17N R9E S 6 | COUNTY PLAT | 407082 | 3954847 | 17N.09E.6. | DOM | 3 | 4/23/1979 | 700 | 580.0 | BM | 120.0 | 3.1 | 116.9 | 97 | 5.6 | 114.4 | 95 | 6683 | BMP | |
| RG-31977 | BILLY W. ROYBAL, | | | | | | | 401605 | 3970215 | 19N.08E. | IRR | 12 | 12/20/1979 | 300 | 75.0 | BWI-9 | 225.0 | 1.5 | 223.5 | 99 | 2.9 | 222.1 | 99 | | BMP? | |
| RG-32871 | MARK JONES, Paul B. Schmidt and Elise Wheless Schmidt | | | | | Lot 40, La Tierra | | 406879 | 3954516 | | DOM | 3 | 7/19/1979 | 700 | 580.0 | BM | 120.0 | 3.2 | 116.8 | 97 | 5.7 | 114.3 | 95 | | BMP | |
| RG-33170 | JOHN O. ZINN, Elise Wheless | | | WHELESS, ELISE | 37 VUELTA TOMAS | LOT 46 LA TIERRA PHASE 2, T17N R 9E S 6 11.890 AC | COUNTY PLAT | 406489 | 3954272 | | DOM | 3 | 9/15/1979 | 680 | 540.0 | BM | 140.0 | 3.5 | 136.5 | 98 | 6.1 | 133.9 | 96 | | BMP | |
| RG-33382 EXPL1 | RICHARD M. HAGER, ANNIE CONSTANT | | | NORTHWEST RANCHES LLC | 28 CAMINO LOS SUENOS | T17N R 9E S19 2.500 AC, LOT 4 | COUNTY PLAT | 406448 | 3950465 | 17N.09E.19.11 | DOM | 3 | 9/8/1979 | 640 | 520.0 | BM | 120.0 | 1.3 | 118.7 | 99 | 2.7 | 117.3 | 98 | | BMP | |
| RG-33451 | LEONARD E. SHULMAN, M.D., | | | KENNEY, NANCY BERGERE & ELLEN, | | T18N R 9E S19 62.525 AC, LOT A-2, N2, SW4, SW4 SW4, | COUNTY PLAT | 407031 | 3958929 | 18N.09E.19.344 | DOM | 3 | 10/30/1979 | 450 | 200.0 | BM | 250.0 | 2.5 | 247.5 | 99 | 5.0 | 245.0 | 98 | | BMP | |
| RG-33833 | BURTON AND PAULA GEYER | Burton L. and Paula Geyer | | | 21 Goodnight Trail West | Lot 19 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405209 | 3954630 | | DOM | 3 | 3/13/1980 | 700 | 580.0 | BM | 120.0 | 6.4 | 113.6 | 95 | 9.9 | 110.1 | 92 | | BMP | |
| RG-34804 | MARIAM BROWNE, | | | LEBLANC, STEVEN R & ELLEN A | | T16N R10E S21, 30.627 AC | COUNTY PLAT | 407399 | 3951520 | 17N.09E.18.412 | MUL | 3 | 10/3/1980 | 400 | 60.0 | BM | 340.0 | 1.4 | 338.6 | 100 | 2.9 | 337.1 | 99 | | BMP | |

Appendix C. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|------------------|---|-------------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Drawdown, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-35350 | JOACHIM T. WIRTH, | | | GEORGE, JAMES S & BARBARA | 86 PASEO DE LA TIERRA | LOT 6 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406982 | 3955141 | 17N.09E.6.142 | PDM | 3 | 12/2/1980 | 720 | 375.0 | BM | 345.0 | 3.4 | 341.6 | 99 | 6.0 | 339.0 | 98 | | BMP | |
| RG-35630 | JAMES H. WHEELOCK, | | | HANDELSMAN, STUART | 31 VISTA CALABASAS | T17N R 9E S18 5.037 AC TR A, HANSEN & ZILECEA SURVEY | COUNTY PLAT | 406749 | 3952121 | 17N.09E.18.123 | DOM | 3 | 5/12/1986 | 605 | 455.0 | BM | 150.0 | 2.0 | 148.0 | 99 | 3.8 | 146.2 | 97 | | BMP | |
| RG-35802 | YARKO KOZIY, | | | | | | | 395871 | 3958899 | 17N.09E.18.233 | DOM | 3 | 3/24/1981 | 720 | 600.0 | BWI-9 | 120.0 | 6.8 | 113.2 | 94 | 11.0 | 109.0 | 91 | | BMP | |
| RG-36031 | DAVID GARRISON, | | | GARRISON, DAVID | 138 ESTRADA REDONDA | T18N R 9E S32 16.63 AC, LOT 91 LA TIERRA PHASE 3 | COUNTY PLAT | 408142 | 3956772 | 18N.09E.32. | DOM | 3 | 4/27/1981 | 700 | 620.0 | BM | 80.0 | 2.1 | 77.9 | 97 | 4.1 | 75.9 | 95 | | BMP | |
| RG-37078 CLW | BOB WEIL, ROLAND BETTS | Roland and Lois Betts | | | 6 Headquarters Trail | Lot 2 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405591 | 3954061 | 17N.08E.1.413 | DOM | 0 | 12/15/1993 | 755 | 580.0 | BM | 175.0 | 4.9 | 170.1 | 97 | 7.9 | 167.1 | 95 | 6693 | BMP | |
| RG-37113 | EUGENE E., TRUSTEE BECK, | | | LINCOLN, CYNTHIA H TRUST | | LOT 76 LA TIERRA NUEVA, T17N R 8E S 1 | COUNTY PLAT | 405476 | 3954840 | 17N.08E.1. | DOM | 3 | 11/25/1981 | 700 | 527.0 | BM | 173.0 | 6.1 | 166.9 | 96 | 9.5 | 163.5 | 94 | 6668 | BMP | |
| RG-37164 | ROBERT MARCUS, | | Mountain Vista | ROUNSVILLE, WILLIAM J | 82 PASEO DE LA TIERRA | T17N R 9E S5 184.91 AC, TRACT A, LIVESTOCK ON ACCT 970001905, | COUNTY PLAT | 408098 | 3955429 | 17N.09E.5.11 | DOM | 3 | 12/1/1981 | 950 | 604.7 | BM | 345.3 | 2.1 | 343.2 | 99 | 4.1 | 341.2 | 99 | 6919 | BMP | |
| RG-37582 | GLORIA GAUGHAN, | | | | | | | 399421 | 3950816 | 17N.09E.18.22 | DOM | 3 | 2/12/1982 | 700 | 550.0 | CAG | 150.0 | 2.2 | 147.8 | 99 | 4.4 | 145.6 | 97 | | BMP | |
| RG-37817 | DAVID C NELSON, | | | GEORGE, JAMES S & BARBARA | 86 PASEO DE LA TIERRA | LOT 6 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406685 | 3955076 | 17N.09E.6. | DOM | 3 | 4/23/1982 | 720 | 600.0 | BM | 120.0 | 3.7 | 116.3 | 97 | 6.4 | 113.6 | 95 | 6683 | BMP | |
| RG-37879 | MARCIA J. WILSON, | | | RIMBEAUX, B C | 44 VALLECITO RD | LOT 17 VALLECITO DE LA TIERRA, T17N R 9E S18 2.97 AC | COUNTY PLAT | 407450 | 3951838 | 17N.08E.17.443 | DOM | 3 | 6/1/1982 | 600 | 460.0 | BM | 140.0 | 1.5 | 138.5 | 99 | 3.0 | 137.0 | 98 | | BMP | |
| RG-40491 | FRANCIS MURPHY | Francis Michael Murphy and Joan Ann Ryan-Murphy | | MURPHY, FRANCIS M & JOAN ANN | 34 CHISHOLM TRL | LOT 26 LA TIERRA NUEVA, T17N R 8E S 1 10.869 AC | COUNTY PLAT | 404883 | 3954138 | | DOM | 3 | 9/16/1983 | 730 | 590.0 | BM | 140.0 | 6.3 | 133.7 | 96 | 9.7 | 130.3 | 93 | | BMP | |
| RG-40722 | KATHLEEN MLOTOK, | | | | | | | 403884 | 3956473 | 18N.08E.35. | DOM | 3 | 9/9/1983 | 756 | 603.0 | BM | 153.0 | 11.8 | 141.2 | 92 | 16.5 | 136.5 | 89 | | BMP | |
| RG-40978 | COURTLANDT & KATRINA BARNES, | | | BARNES, COURTLANDT D & KATRINA | 2 WILDFLOWER WAY | T17N R 9E S18 10 AC SE4 PORT, | COUNTY PLAT | 407745 | 3951291 | 17N.09E.18.424 | DOM | 3 | 1/26/1984 | 720 | 600.0 | BM | 120.0 | 1.2 | 118.8 | 99 | 2.5 | 117.5 | 98 | | BMP | |
| RG-41872 | EDWARD E. JR. CROCKER, | | | NAVA, GREGORY | 29 ESTRADA MAYA | T18N R 9E S32 10.89 AC, LOT 97 LA TIERRA PHASE 3 | COUNTY PLAT | 408842 | 3957099 | 18N.09E.32.211 | DOM | 3 | 2/19/1984 | 730 | 550.0 | BM | 180.0 | 1.6 | 178.4 | 99 | 3.3 | 176.7 | 98 | 6783 | BMP | |
| RG-42335 | RANDLOW SMITH, | | | RIMBEAUX, B C | 44 VALLECITO RD | LOT 17 VALLECITO DE LA TIERRA, T17N R 9E S18 2.97 AC | COUNTY PLAT | 407450 | 3951838 | 17N.09E.1.332 | DOM | 3 | 8/7/1984 | 740 | 550.0 | BM | 190.0 | 1.5 | 188.5 | 99 | 3.0 | 187.0 | 98 | | BMP | |
| RG-42618 | CHARLES S. VON STADE | Eleanor T. and Charles S. von Stade | | | 42 Chisholm Trail | Lot 28 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404814 | 3954123 | | DOM | 3 | 10/18/1984 | 605 | 520.0 | BM | 85.0 | 6.5 | 78.5 | 92 | 9.9 | 75.1 | 88 | | BMP | |
| RG-46386 | DANIEL FORMAN, | | | CITY OF SANTA FE | CITY PROPERTY | CITY PROPERTY, MAPPING PURPOSE ONLY | COUNTY PLAT | 411114 | 3953865 | 17N.09E.18.414 | DOM | 3 | 10/16/1986 | 605 | 380.0 | BM | 225.0 | 0.7 | 224.3 | 100 | 1.5 | 223.5 | 99 | | BMP | |
| RG-48491 | DARLENE STREIT, | Michael and Tami Lang | | LANG, MICHAEL S & TAMI | 173 CHISHOLM TRL | LOT 49 LA TIERRA NUEVA, T17N R 8E S 2 15.425 AC | COUNTY PLAT | 403827 | 3955337 | 17N.08E.2.121 | DOM | 3 | 11/24/1987 | 730 | 530.0 | BM | 200.0 | 14.6 | 185.4 | 93 | 19.1 | 180.9 | 90 | 6564 | BMP | |
| RG-48897 | WLATER L. & EMILY C. MEAD, | | | MEAD, WALTER L JR & EMILY C | 29 CALLE ADELINA | T18N R 9E S30 40 AC SE4-SW4, UND INTEREST | COUNTY PLAT | 406915 | 3957423 | 18N.09E.30.34 | DOM | 3 | 4/11/1988 | 800 | 580.0 | BM | 220.0 | 3.2 | 216.8 | 99 | 5.8 | 214.2 | 97 | 6638 | BMP | |
| RG-48897 X2 | WLATER L. & EMILY C. MEAD, | | | MEAD, WALTER L JR & EMILY C | 29 CALLE ADELINA | T18N R 9E S30 40 AC SE4-SW4, UND INTEREST | COUNTY PLAT | 407014 | 3957522 | 18N.09E.30.342 | DOM | 3 | 11/14/1996 | 760 | 422.0 | BM | 338.0 | 3.0 | 335.0 | 99 | 5.6 | 332.4 | 98 | 6617 | BMP | |
| RG-49717 | GLORIA GAUGHAM, | | | CHRIST, RONALD TRUSTEE OF | 40 CAMINO CIELO | T17N R 9E S18 2.907 AC, LOT 4-A CIELO AZUL | COUNTY PLAT | 406273 | 3952251 | 17N.09E.18. | DOM | 3 | 9/6/1988 | 700 | 600.0 | BM | 100.0 | 2.3 | 97.7 | 98 | 4.4 | 95.6 | 96 | | BMP | |
| RG-49952 | JOSEPH MORSE | Florence and Joseph Morse | | | 25 Goodnight Trail | Lot 20, La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405546 | 3954603 | | DOM | 3 | 12/22/1988 | 710 | 540.0 | BM | 170.0 | 5.7 | 164.3 | 97 | 8.9 | 161.1 | 95 | | BMP | |
| RG-50395 | TAYLOR A DALE, | | | BRANCH, DENNIS R SCULLIN, MARC & CYNTHIA | 136 ARROYO CALABASAS RD | T17N R 9E S18 17.400 AC TR D4, NW4 | COUNTY PLAT | 406939 | 3952352 | 17N.09E.18.112 | DOM | 3 | 3/12/1989 | 700 | 480.0 | BM | 220.0 | 2.0 | 218.0 | 99 | 3.8 | 216.2 | 98 | | BMP | |
| RG-50735 | EUGENE D HIGGINS, | | | | | T17N R 9E S18 2.5 AC TR 1, | COUNTY PLAT | 406269 | 3951935 | 17N.09E.18.11 | MUL | 3 | 5/11/1989 | 700 | 500.0 | BM | 200.0 | 2.1 | 197.9 | 99 | 4.0 | 196.0 | 98 | 6644 | BMP | |
| RG-50944 | DENNIS & ELLEN SANDERS, | | | BT HOMES INC | | T17N R 9E S12 252.0120 AC, TR 14 W OF TAOS HWY | COUNTY PLAT | 414355 | 3953833 | 17N.09E.18.1 | DOM | 0 | 7/1/1989 | 700 | 580.0 | BM | 120.0 | 0.2 | 119.8 | 100 | 0.7 | 119.3 | 99 | | BMP | |
| RG-51854 | RAY WINN | William A. and Janet F. Moffett | | | 44 Chisholm Trail | Lot 29 La Tierra Nueva | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 404642 | 3954152 | | DOM | 3 | 2/15/1990 | 695 | 590.0 | BM | 105.0 | 7.1 | 97.9 | 93 | 10.7 | 94.3 | 90 | | BMP | |

Appendix C. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|------------------|---|-------------------------|---|--|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|---------------------------|------------------------------------|---------------------------------|---|-------------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Starting Water Column, ft | Model-Simulated 10-Yr Drawdown, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Model-Simulated 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-52506 | WILLIAM AGNEW | Tucker Family Trust - Cecil R. Tucker/Janice W. Tucker | | | 20 Goodnight Trail West | | 9/2/04 Charles Harrison submittal to Louis O'Dell, NMOSE | 405241 | 3954362 | | DOM | 3 | 8/7/1990 | 730 | 627.0 | BM | 103.0 | 5.9 | 97.1 | 94 | 9.3 | 93.7 | 91 | | BMP | |
| RG-52780 CLW | RICHARD BRENNER, VALLECITO HOMEOWNERS ASSOC | | Vallecitos #1 | LUDIN, FRITZ | | T17N R 9E S18 10 AC NE4-SE4, | COUNTY PLAT | 407446 | 3951438 | 17N.09E.18.412 | DOM | 3 | 12/23/1996 | 735 | 496.0 | BM | 239.0 | 1.4 | 237.6 | 99 | 2.8 | 236.2 | 99 | 6718 | BMP | |
| RG-52938 | JACK & JUNE SMITH, | | | MILLER, MARK C | 3 VUELTA LINDA | T18N R 9E S32 11.32 AC, LOT 107 LA TIERRA PHASE 3 | COUNTY PLAT | 408537 | 3956601 | 18N.09E.32.14 | DOM | 3 | 9/26/1990 | 1000 | 650.0 | BM | 350.0 | 1.8 | 348.2 | 99 | 3.7 | 346.3 | 99 | 6802 | BMP | |
| RG-53071 | LEROY BACA, | | | | | | | 400288 | 3949351 | 17N.08E.21.343 | DOM | 3 | 10/10/1990 | 440 | 261.0 | CAG | 179.0 | 1.4 | 177.6 | 99 | 3.0 | 176.0 | 98 | | BMP | |
| RG-53404 | MARC NEIKRUG, | | | FISCHER, CYNTHIA F & KURT | 17 SONRISA TRL | LOT 4 SONRISA S/D 5.010 AC, T17N R 9E S18 | COUNTY PLAT | 406265 | 3951450 | 17N.09E.18.311 | MUL | 3 | 7/10/1991 | 800 | 410.0 | BM | 390.0 | 1.9 | 388.1 | 100 | 3.6 | 386.4 | 99 | | BMP | |
| RG-53581 | PATRICIA & J. SIGMUND FORMAN, | | | LUDIN, FRITZ | | T17N R 9E S18 10 AC NE4-SE4, | COUNTY PLAT | 407446 | 3951438 | 17N.09E.18.412 | MUL | 3 | 6/14/1991 | 700 | 580.0 | BM | 120.0 | 1.4 | 118.6 | 99 | 2.8 | 117.2 | 98 | | BMP | |
| RG-53658 | BRIAN K. GONZALES, | | | BLOG, THOMAS M & ANNE E | 43 VUELTA MARIA | LOT 24 LAS DOS PHASE 1, T18N R 9E S30 13.177 AC, PER DEATH CERT & ATTY R FOX, | COUNTY PLAT | 407484 | 3957507 | 18N.09E.30.432 | DOM | 3 | 5/7/1991 | 720 | 520.0 | BM | 200.0 | 2.6 | 197.4 | 99 | 4.9 | 195.1 | 98 | | BMP | |
| RG-53984 | HERSCHEL COBB, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 8/7/1991 | 735 | 500.0 | BM | 235.0 | 1.2 | 233.8 | 99 | 2.6 | 232.4 | 99 | | BMP | |
| RG-53998 | PETER GOODWIN, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 7/15/1991 | 735 | 500.0 | BM | 235.0 | 1.2 | 233.8 | 99 | 2.6 | 232.4 | 99 | | BMP | |
| RG-53999 | ROBERT & CAROL CARUTHERS, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 6/30/1991 | 700 | 500.0 | BM | 200.0 | 1.2 | 198.8 | 99 | 2.6 | 197.4 | 99 | | BMP | |
| RG-54000 | CANDIS NELSON, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 7/9/1991 | 730 | 500.0 | BM | 230.0 | 1.2 | 228.8 | 99 | 2.6 | 227.4 | 99 | | BMP | |
| RG-54001 | B. C. RIMBEAUX, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR D, 20.00 AC, | COUNTY PLAT | 407467 | 3951068 | 17N.09E.18.423 | MUL | 3 | 9/5/1991 | 718 | 500.0 | BM | 218.0 | 1.2 | 216.8 | 99 | 2.6 | 215.4 | 99 | | BMP | |
| RG-54066 | JAMES KARP, | James and Arlene Karp | | BERNSTEIN, TOM A & ANDREA E | 11 Longhorn Lane | Lot 42 La Tierra Nueva | | 403672 | 3954737 | 17N.08E.2.142 | DOM | 3 | 7/31/1991 | 760 | 540.0 | BM | 220.0 | 13.3 | 206.7 | 94 | 17.7 | 202.3 | 92 | 6549 | BMP | |
| RG-54262 | WELLS W. WHITNEY, | Philip Grasso | | | 17 Longhorn Lane | Lot 41 La Tierra Nueva | | 403699 | 3954577 | 17N.08E.2.223 | DOM | 3 | 11/8/1991 | 755 | 535.0 | BM | 220.0 | 12.4 | 207.6 | 94 | 16.6 | 203.4 | 92 | 6531 | BMP | |
| RG-54319 | JEROME MARSHAK, | | | KENNEY GRANDCHILDRENS | 50 CALLE ADELINA | T18N R 9E S30 21.056 AC, TR D | COUNTY PLAT | 406823 | 3958125 | 18N.09E.30.143 | DOM | 3 | 9/19/1991 | 715 | 560.0 | BM | 155.0 | 3.0 | 152.0 | 98 | 5.6 | 149.4 | 96 | 6575 | BMP | |
| RG-54395 | CLAY BERGER, | John L. Babitt | | | 38 Goodnight Trail | Lot 9 La Tierra Nueva | | 406245 | 3954574 | 17N.08E.1.421 | DOM | 3 | 9/25/1991 | 740 | 580.0 | BM | 160.0 | 4.2 | 155.8 | 97 | 7.0 | 153.0 | 96 | 6646 | BMP | |
| RG-54655 | WILLIAM C. III HARKER, | | | ELTON, DEBBIE | | T17N R 9E S18 5 AC LOT 4A, AS PER DEATH CERTIFICATE, #091019, | COUNTY PLAT | 406979 | 3951747 | | MUL | 3 | 12/23/1991 | 700 | 580.0 | BM | 120.0 | 1.7 | 118.3 | 99 | 3.3 | 116.7 | 97 | 6681 | BMP | |
| RG-54919 | PING & DEBORAH LEE, | | | MURATA, HIROSHI & NANCY | 22 VUELTA CHAMISA | LOT 8 LA TIERRA PHASE 1, T17N R 9E S 6 | COUNTY PLAT | 406788 | 3955542 | 17N.09E.6.121 | DOM | 3 | 3/8/1992 | 660 | 500.0 | BM | 160.0 | 3.6 | 156.4 | 98 | 6.3 | 153.7 | 96 | 6622 | BMP | |
| RG-54938 | WILLIAM & JOANNA SEITZ, | | | MEAD, WALTER L JR & EMILY C | 57 CALLE ADELINA | LOT B-3 45.458 AC, T18N R 9E S30 | COUNTY PLAT | 406616 | 3957928 | 18N.09E.30.312 | DOM | 3 | 3/7/1992 | 700 | 550.0 | BM | 150.0 | 3.2 | 146.8 | 98 | 6.0 | 144.0 | 96 | 6555 | BMP | |
| RG-55206 | LA LUZ GROUP, LLC, | | | | | | | 402036 | 3961412 | 18N.08E.15.143 | DOM | 0 | 9/28/1992 | 655 | 580.0 | BM | 75.0 | 6.2 | 68.8 | 92 | 10.7 | 64.3 | 86 | 6394 | BMP | |
| RG-55696 CLW | R. L. BURKE, | | | MCCURDY, RICHARD B TRUSTEE | 60 E ESTRADA CALABASA | LOT 57 LA TIERRA S/D PH 2, T18N R 9E S31 10.992 AC | COUNTY PLAT | 407825 | 3955729 | 18N.09E.31.444 | DOM | 0 | 4/14/1993 | 850 | 685.0 | BM | 165.0 | 2.4 | 162.6 | 99 | 4.6 | 160.4 | 97 | 6727 | BMP | |
| RG-55734 | JILL & MITCHEL, PAUL NORTON, | Jill A. Norton | | | 138 Chisholm Trail | Lot 44 La Tierra Nueva | | 403477 | 3954854 | 17N.08E.2.124 | DOM | 3 | 8/19/1992 | 740 | 500.0 | BM | 240.0 | 14.9 | 225.1 | 94 | 19.4 | 220.6 | 92 | 6558 | BMP | |
| RG-55885 | CUSTOM PROPERTIES OF SANTA FE, JAMES D. WARREN | William L. Oliver, Jr., and Mary Lynn Oliver | | | 54 Headquarters Trail | Lot 78 La Tierra Nueva | | 405763 | 3954711 | 17N.08E.1.233 | DOM | 3 | 8/25/1992 | 750 | 530.0 | BM | 220.0 | 5.3 | 214.7 | 98 | 8.5 | 211.5 | 96 | 6622 | BMP | |
| RG-56282 | CLIFF WALBRIDGE, | Donald and Karen Berlanti Revocable Trust | | BERLANTI, DONALD V & KAREN L | 171 HEADQUARTERS TRL | LOT 69 LA TIERRA NUEVA, T17N R 8E S 1 27.273 AC | COUNTY PLAT | 405170 | 3955316 | 17N.08E.1.123 | DOM | 3 | 12/18/1992 | 700 | 520.0 | BM | 180.0 | 7.4 | 172.6 | 96 | 11.1 | 168.9 | 94 | 6620 | BMP | |
| RG-56667 | DON & DEBBIE WOODIN, | | | LOVE RANCH PARTNERS LLC | | T17N R 9E S18, TR C, 20.20 AC, | COUNTY PLAT | 407065 | 3951041 | 17N.09E.18.431 | MUL | 3 | 4/3/1993 | 725 | 630.0 | BM | 95.0 | 1.4 | 93.6 | 99 | 2.8 | 92.2 | 97 | | BMP | |
| RG-56804 | MYRON G. RIGHTMAN, | | | | | | | 408252 | 3958516 | 18N.09E.29.114 | DOM | 3 | 3/3/1993 | 705 | 420.0 | BM | 285.0 | 1.7 | 283.3 | 99 | 3.6 | 281.4 | 99 | | BMP | |

Appendix C. Buckman Monitoring Area Well and Well Permit Survey

(gray highlight = well location verified with site-specific data)

Table with 24 columns: NMOSE Well ID, Well Owner(s) listed in NMOSE Database, Confirmed Well Owner, Other Well Names, Parcel Owner Listed in County Parcel Database, Street Address, Lot Description, Address Source, UTM Easting, UTM Northing, NMOSE T.R.Sec.qqq, Use, Diver-sion, ac-ft/yr, Drilling Date, Well Depth, Depth to Water, Sub-region, Starting Water Column, Model-Simulated 10-Yr Drawdown, Water Column After 10 Years, Percent Water Column Remaining After 10 Years, Model-Simulated 40-Yr Draw-down, Water Column After 40 Years, Percent Water Column Remaining After 40 Years, Land Surface Elevation, ft amsl, Monitoring Area, Other IDs.

NMOSE - New Mexico Office of the State Engineer
ac-ft/yr - acre feet per year
ft amsl - feet above mean sea level
BMP - Buckman Monitoring Program

BW -Buckman Well
CAG - Canada Ancha Graben
BM - Barrancos Monocline
TRA - Tano Road Area

Appendix D.

**Ten- and 40-year water column projections for
Buckman Monitoring Program database wells
due to continuation of average trends established for
the period 2003 to present**

Appendix D. Buckman Monitoring Area Well and Well Permit Survey

| (gray highlight = well location verified with site-specific data) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------------|------------------|--|------------------------|---|----------------|-----------------------|------------------------|-------------------|-----|----------------------|---------------|----------------|--------------------|------------|--|---------------------------|-------------------------------|---------------------------------|---|-------------------------------|---------------------------------|---|---------------------------------|-----------------|-----------|
| NMOSE Well ID | Well Owner(s) listed in NMOSE Database | Confirmed Well Owner | Other Well Names | Parcel Owner Listed in County Parcel Database | Street Address | Lot Description | Address Source | UTM Easting, m, NAD83 | UTM Northing, m, NAD83 | NMOSE T.R.Sec.qqq | Use | Diver-sion, ac-ft/yr | Drilling Date | Well Depth, ft | Depth to Water, ft | Sub-region | Average decline rate 2003-present, ft/yr | Starting Water Column, ft | Projected 10-Yr Draw-down, ft | Water Column After 10 Years, ft | Percent Water Column Remaining After 10 Years | Projected 40-Yr Draw-down, ft | Water Column After 40 Years, ft | Percent Water Column Remaining After 40 Years | Land Surface Elevation, ft amsl | Monitoring Area | Other IDs |
| RG-85662 | KAREN J POWELL, | | | GREENBERG, MARK & TEMPLE, HUNTER M & PRISCILLA B | 25 SONRISA TRL | LOT 2 SONRISA S/D 4.047 AC, T17N R 9E S18 | COUNTY PLAT | 406521 | 3951582 | 17N.09E.18. | | 3 | 1/27/2006 | 700 | 450.0 | BM | 0.3 | 250.0 | 3.0 | 247.0 | 99 | 12.0 | 238.0 | 95 | 6647 | BMP | |
| RG-86289 | CHARLES UNFRIED, | | | BRILLIANT, B KAY | 21 VUELTA YUCCA | T18N R 9E S32 11.59 AC, LOT 80 LA TIERRA PHASE 3 | COUNTY PLAT | 408227 | 3955725 | 18N.09E.32.334 | DOM | 3 | 2/4/2006 | 780 | 488.0 | BM | 0.3 | 292.0 | 3.0 | 289.0 | 99 | 12.0 | 280.0 | 96 | 6796 | BMP | |
| RG-86789 | ANTHONY PADILLA, VINCENT | | | STENERSON, VINCENT & | 41 CAMINO HASTA MANANA | T17N R 9E S 5 2.530 AC, LOT 1-B, TRACT A, | COUNTY PLAT | 409408 | 3955115 | 17N.09E.5.242 | DOM | 3 | 5/5/2006 | 800 | 517.0 | BM | 0.3 | 283.0 | 3.0 | 280.0 | 99 | 12.0 | 271.0 | 96 | | BMP | |
| RG-87173 | STENERSON, | | | | 40 CALLE JOSEPHINA | T18N R 9E S30 14.151 AC, LOT 2-C | COUNTY PLAT | 407225 | 3958321 | 18N.09E.30.231 | DOM | 3 | 3/29/2007 | 750 | 395.0 | BM | 0.3 | 355.0 | 3.0 | 352.0 | 99 | 12.0 | 343.0 | 97 | | BMP | |
| RG-87265 | FARZAD DIBACHI, | | | | | | | 407620 | 3956553 | 18N.09E.31.243 | MUL | 3 | 5/26/2006 | 800 | 532.0 | BM | 0.3 | 268.0 | 3.0 | 265.0 | 99 | 12.0 | 256.0 | 96 | | BMP | |
| RG-87519 | LANA PARK, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 408293 | 3954725 | 17N.09E.5.221 | DOM | 1 | 12/23/2007 | 780 | 406.0 | BM | 0.3 | 374.0 | 3.0 | 371.0 | 99 | 12.0 | 362.0 | 97 | | BMP | |
| RG-87734 | THOMAS GONZALES, | | | KING BROTHERS RANCH | 34 PASEO DE ESTRELLAS | T17N R 8E S23 13.287 AC, TRACT 5-1A | COUNTY PLAT | 403515 | 3949722 | 17N.08E.23.323 | | 0 | 6/20/2006 | 600 | 327.0 | BM | 0.3 | 273.0 | 3.0 | 270.0 | 99 | 12.0 | 261.0 | 96 | | BMP | |
| RG-88268 | THOMAS WEHNER, | | | CRYSTAL INC | | T17N R 9E S 5 113.52 AC, LOT 4 | COUNTY PLAT | 408187 | 3954525 | 17N.09E.5.314 | DOM | 3 | 1/18/2007 | 840 | 505.0 | BM | 0.3 | 335.0 | 3.0 | 332.0 | 99 | 12.0 | 323.0 | 96 | | BMP | |
| RG-88666 | RAMON L ROMERO, | | | KING BROTHERS RANCH | | T17N R8E S23 77.187 AC, TRACT 3 | COUNTY PLAT | 403114 | 3950177 | 17N.08E.23. | DOM | 1 | 4/9/2007 | 800 | 362.0 | BM | 0.3 | 438.0 | 3.0 | 435.0 | 99 | 12.0 | 426.0 | 97 | | BMP | |
| RG-88950 POD1 | JOSEPH D ALBILLAR, | | | BRANCH, DENNIS R | | T17N R 9E S18 17.400 AC TR D4, NW4 | COUNTY PLAT | 406850 | 3952374 | 17N.09E.18. | DOM | 1 | 4/11/2007 | 700 | 375.0 | BM | 0.3 | 325.0 | 3.0 | 322.0 | 99 | 12.0 | 313.0 | 96 | | BMP | |
| RG-89138 POD1 | MARK SPAULDING, | | | SPAULDING, MARK R | 40 CALLE JOSEPHINA | T18N R 9E S30 15.103 AC, LOT 2-B | COUNTY PLAT | 407121 | 3958483 | 18N.09E.30.124 | DOM | 1 | 5/25/2007 | 800 | 368.0 | BM | 0.3 | 432.0 | 3.0 | 429.0 | 99 | 12.0 | 420.0 | 97 | | BMP | |
| RG-89212 POD1 | DAVID ROBB, | William H. Moore | | MOORE, WILLIAM H & DOROTHY B | 178 CHISHOLM TRL | LOT 52 LA TIERRA NUEVA S/D, T17N R08E S2 17.936 AC | COUNTY PLAT | 403225 | 3955515 | 17N.08E.2.113 | DOM | 1 | 9/5/1983 | 700 | 580.0 | BM | 0.3 | 120.0 | 3.0 | 117.0 | 98 | 12.0 | 108.0 | 90 | | BMP | |
| RG-89456 | MARK GAYER, J.A. Ortiz, | | | WERNER, JOHN C | 4 PASEO DEL HALCON | T17N R 9E S 5, LOT 2A-1 | COUNTY PLAT | 409164 | 3954110 | 17N.09E.5. | DOM | 1 | 9/6/2007 | 800 | 569.0 | BM | 0.3 | 231.0 | 3.0 | 228.0 | 99 | 12.0 | 219.0 | 95 | | BMP | |
| | Eric Sloane, | | | | | | | 401971 | 3962996 | 18N.08E.10.143 | | | 1961 | 560 | 524.0 | BM | 0.3 | 36.0 | 3.0 | 33.0 | 92 | 12.0 | 24.0 | 67 | 6370 | BMP | M-18 |
| | | | | | | | | 406835 | 3956782 | 18N.09E.31.141 | | | 1976 | 634 | 491.0 | BM | 0.3 | 143.0 | 3.0 | 140.0 | 98 | 12.0 | 131.0 | 92 | 6680 | BMP | M-24 |
| | David A. Ater, | | | PROTHRO, CHARLES V | 24 VUELTA SUSANA | LOT 24 LA TIERRA PHASE 1, T18N R 9E S31, 13.634 AC, | COUNTY PLAT | 406515 | 3956726 | 18N.09E.31.131 | | | 1976 | 727 | 557.0 | BM | 0.3 | 170.0 | 3.0 | 167.0 | 98 | 12.0 | 158.0 | 93 | 6725 | BMP | M-23 |
| | Milo Earhard, | | | BOGLE, GLENN G & SUSAN R | 218 PASEO DE LA TIERRA | LOT 16 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 406931 | 3956586 | 18N.09E.31.143 | | | 1976 | 673 | 497.0 | BM | 0.3 | 176.0 | 3.0 | 173.0 | 98 | 12.0 | 164.0 | 93 | 6680 | BMP | M-26 |
| | Norman L. Ringhand, | | | BOGLE, GLENN G & SUSAN R | 218 PASEO DE LA TIERRA | LOT 16 LA TIERRA PHASE 1, T17N R 9E S31 | COUNTY PLAT | 407046 | 3956731 | 18N.09E.31.142 | | | 1975 | 804 | 460.0 | BM | 0.3 | 344.0 | 3.0 | 341.0 | 99 | 12.0 | 332.0 | 97 | 6660 | BMP | M-25 |
| | Western Cattle Co., | | | NEWCOMER, PHYLLIS L | 79 CHISHOLM TRL | LOT 33 LA TIERRA NUEVA S/D, T17N R 8E S 2, 10.794 AC, | COUNTY PLAT | 404379 | 3954619 | 17N.08E.2.423 | | | 1970 | 1000 | 574.0 | BM | 0.3 | 426.0 | 3.0 | 423.0 | 99 | 12.0 | 414.0 | 97 | 6640 | BMP | M-2 |
| | Nuclear Dynamics, Inc., | | | | | | | 399180 | 3960054 | 18N.08E.20.231 | | | 1970 | 990 | 193.0 | CAG | 0.7 | 797.0 | 7.0 | 790.0 | 99 | 28.0 | 769.0 | 96 | 6065 | BMP | M-19 |
| | Nuclear Dynamics, Inc., | | | | | | | 397818 | 3962287 | 18N.08E.7.434 | | | 1970 | 1000 | 65.0 | BWI-9 | 0.0 | 935.0 | 0.0 | 935.0 | 100 | 0.0 | 935.0 | 100 | 5875 | BMP | M-17 |
| | Nuclear Dynamics, Inc., | | | | | | | 401791 | 3956065 | 18N.08E.34.332 | | | 1970 | 1985 | 380.0 | BM | 0.3 | 1605.0 | 3.0 | 1602.0 | 100 | 12.0 | 1593.0 | 99 | 6320 | BMP | M-21 |
| | Western Cattle Co., | Edward L. and Donna W. Klopfer | | KLOPFER, EDWARD L & DONNA L | 40 W ESTRADA CALABASA | T18N R 8E S36 & T17N R 8E S 1, 60.04 AC | COUNTY PLAT | 405847 | 3955481 | 17N.08E.1.212 | | | - | 1500 | 395.0 | BM | 0.3 | 1105.0 | 3.0 | 1102.0 | 100 | 12.0 | 1093.0 | 99 | 6543 | BMP | M-1 |
| | Nuclear Dynamics, Inc., | | | | | | | 403103 | 3952509 | 17N.08E.11.333 | | | 1970 | 1000 | 130.0 | BM | 0.3 | 870.0 | 3.0 | 867.0 | 100 | 12.0 | 858.0 | 99 | 6445 | BMP | M-3 |
| | Summer A. Weld, | | | CRAWFORD, JOHN F & BETTY | 28 ARROYO CALABASAS RD | 617N R 9E S18 5.00 AC TR A, | COUNTY PLAT | 407591 | 3952262 | 17N.09E.18.221 | | | 1975 | 588 | 543.0 | BM | 0.3 | 45.0 | 3.0 | 42.0 | 93 | 12.0 | 33.0 | 73 | 6785 | BMP | M-15 |
| | Nuclear Dynamics, Inc., | | | | | | | 401541 | 3949586 | 17N.08E.22.331 | | | 1970 | 1000 | 212.0 | CAG | 0.7 | 788.0 | 7.0 | 781.0 | 99 | 28.0 | 760.0 | 96 | 6440 | BMP | M-4 |
| | Nuclear Dynamics, Inc., | | | | | | | 396671 | 3964509 | 18N.07E.1.422 | | | 1970 | 1000 | 0.0 | BWI-9 | 0.0 | 1000.0 | 0.0 | 1000.0 | 100 | 0.0 | 1000.0 | 100 | 5680 | BMP | M-16 |
| | | | | | | | | 395610 | 3965942 | | | | 1939 | 191 | 0.0 | BWI-9 | 0.0 | 191.0 | 0.0 | 191.0 | 100 | 0.0 | 191.0 | 100 | 5555 | BMP | M-27 |

NMOSE - New Mexico Office of the State Engineer
 ac-ft/yr - acre feet per year
 ft amsl - feet above mean sea level
 BMP - Buckman Monitoring Program

BW -Buckman Well
 CAG - Canada Ancha Graben
 BM - Barrancos Monocline
 TRA - Tano Road Area

Appendix E.

**Buckman Monitoring Program requirements,
RG-20516-S-10 thru RG-20516-S-13 report and recommendation of the
hearing examiner, and associated correspondence from NMOSE;
Buckman Monitoring Program transducer master databases; and
Buckman Monitoring Program spreadsheet
(included on jump drive)**