Beginning at a point on the line as established between Miller & Lux Incorporated, and Alexander B. Fleming and David Johnson, by Deeds recorded in Volume 29 of Deeds, at Pages 389 and 393, Madera County Records, said point being in an existing East-West fence line and marked by a 5/8" rebar, tagged "LS 4298", said point bears S14°29'15"E 32,949.69 feet from the said Northwest corner of Block 5; thence from said POINT OF BEGINNING, N.00°45'15"W. 14620.66 feet; thence S.89°59'43"E. 2647.24 feet; thence S.89°41'12"E. 2664.61 feet; thence N.00°31'08"W. 1306.04 feet; thence S.89°39'28"E. 4394.30 feet; thence N.00°27'35"W. 849.60 feet; thence N.83°59'44"E. 638.08 feet to the centerline of an existing canal; thence along said canal centerline S.63°18'47"E. 326.92 feet to its intersection with the East line of the said West half of Block 14, said point of intersection bears N.00°42'15"W. 778.83 feet from a 2" diameter iron pipe marking the Southeast corner of the said West half of Block 14.

Also excepting therefrom the said West half of Block 11 that portion thereof heretofore conveyed to the Sacramento and San Joaquin Drainage District by the Deed recorded September 8, 1966 in Volume 970 of Official Records, Page 445, Madera County Records, Instrument No. 12107.

Also excepting therefrom that portion, if any, of Blocks 8, 17, 18, 27 and 28 lying South and West of the said lines established as the division lines between Miller & Lux Incorporated, and Alexander B. Fleming and David Johnson, by Deeds recorded in Volume 29 of Deeds, at Pages 389 and 393, Madera County Records.

APN's: 022-100-002 POR., 022-110-001 POR., 022-120-001 POR., 022-130-007 POR., 022-170-003 POR., 022-170-004 POR., 022-170-005, 022-180-001, 022-190- 001, 022-200-008, 043-013-003, 043-013-005, 043-015-002, 043-015-004, 043-015-005, 043-021-001 POR., 043-023-004 POR., 043-023-003 POR., 043-014-002, 043-016-002 POR., 043-016-004 POR., 043-016-003 POR., 043-022-002 POR., 043-061-004, 043-063-002 POR., 043-064-003 POR., 043-064-004 POR.

Containing 5039.9± Acres

PARCEL 4

All that portion of the West half of Block 14, Blocks 15, 19 & 20, the West half of Block 21, the West half of Block 24, Blocks 25, 26, 28 & 29 and the West half of Block 30 of Subdivision No. 3 of the Chowchilla Ranch, according to the map thereof recorded October 10, 1912 in Volume 3 of Maps at Page 10, Madera County Records lying Southerly and Easterly of the following described line:

Beginning at a point on the line as established between Miller & Lux Incorporated, and Alexander B. Fleming and David Johnson, by Deeds recorded in Volume 29 of Deeds, at Pages 389 and 393, Madera County Records, said point being in an existing East-West fence line and marked by a 5/8" rebar, tagged "LS 4298", said point bears S14°29'15"E 32,949.69 feet from the said Northwest corner of Block 5; thence from said POINT OF BEGINNING, N.00°45'15"W. 14620.66 feet; thence S.89°59'43"E. 2647.24 feet; thence S.89°41'12"E. 2664.61 feet; thence N.00°31'08"W. 1306.04 feet; thence S.89°39'28"E. 4394.30 feet; thence N.00°27'35"W. 849.60 feet; thence N.83°59'44"E. 638.08 feet to the centerline of an existing canal; thence along said canal centerline S.63°18'47"E. 326.92 feet to its intersection with the East line of the said West half of Block 14, said point of intersection bears N.00°42'15"W. 778.83 feet from a 2" diameter iron pipe marking the Southeast corner of the said West half of Block 14.

Excepting therefrom, Beginning at the Northwest corner of said Block 24; thence S.00°00'52"E. along the West line of said Block 24 a distance of 40.00 feet to the true Point of Beginning; thence S.00°00'52"E. along the West line of said Block 24 a distance of 2600.83 feet to the West corner of said Block 24; thence S.89°25'31"E. along the South line of the Northwest quarter of said Block 24 a distance of 980.78 feet; thence N.00°01'28"E. a distance of 2601.15 feet to a point 40.00 feet South of the North line of said Block 24; thence N.89°26'43"W. parallel with the North line of said Block 24 a distance of 982.53 feet to the true POINT OF BEGINNING.

Also excepting therefrom, Beginning at the center of said Block 24; thence N.89°25'31"W. along the South line of the Northwest quarter of said Block 24 a distance of 1660.17 feet; thence N.00°01'28"E. a distance of 2601.25 feet to a point 40.00 feet south of the North line of said Block 24; thence S.89°26'43"E. and parallel with the North line of said Block 24 a distance of 1657.79 feet to a point on the East line of the Northwest quarter of said Block 24, distant thereon S.00°01'42"E. 40.00 feet from the North quarter corner of said Block 24, thence S.00°01'42"E. along the East line of the Northwest quarter of said Block 24 a distance of 2601.76 feet to the POINT OF BEGINNING.

Also excepting therefrom that portion, if any, of Blocks 28, 29 and 30 lying South of the said lines established as the division lines between Miller & Lux Incorporated, and Alexander B. Fleming and David Johnson, by Deeds recorded in Volume 29 of Deeds, at Pages 389 and 393, Madera County Records.

APN's: 043-021-001 POR., 043-023-004 POR., 043-023-003 POR., 043-016-002 POR., 043-016-003 POR., 043-016-004 POR., 043-022-002 POR., 043-022-003, 043-024-004, 043-024-003, 043-063-003, 043-071-001, 043-073-010, 043-064-004 POR., 043-072-001, 043-074-001

Containing 3581.6± Acres

PARCEL 5

All those portions of lots 1246, 1247, 1248, 1249 and 1250 in Block 37, and of Lots 1269, 1270, 1271, 1272, 1273, 1274, 1275 and 1294 to 1301, inclusive, in Block 3, and of Lots 1293, 1302 and 1303 in Block 2 of Dairyland Farms Subdivision No. 4, according to the map thereof recorded November 15, 1916 in Volume 4 of maps at pages 39 and 40, Madera County Records, which lie southerly and southwesterly of the southwesterly line of the parcel of land designated parcel 3265-a described in the deed from Triangle T Ranch, Inc., to the Sacramento and San Joaquin Drainage District recorded September 8, 1966 in Volume 970 of Official Records, page 445, Madera County records, instrument No. 12107.

APNs 022-040-003; 022-050-006 and 021-130-008

EXHIBIT "D"

Description – SLCC's Arroyo Canal headworks upstream of Sack Dam

ARROYO CANAL:

That part of sections 12, 11, 10 and 3 of Township 11 South, Range 13 East, M.D.B.&M., Fresno County, California, as shown on the "Miller & Lux Subdivision" maps of said Sections, being more particularly described as follows:

Part 1 of 4 Parts: The portion situated within said Section 12: A strip of land, 216' wide, the north line of which is described as follows: Beginning at a point on the west of said Section 12, which bears North 0° 04' 00'' East, a distance of 1317.50 feet from the southwest corner thereof; thence North 73° 38' 00" East, a distance of 244.65 feet; thence South 83° 33' 00" East, a distance of 175.00 feet; thence South 49° 12' 00" East, a distance of 115.00 feet; thence South 21° 41' 00" East, a distance of 195.00 feet; thence South 25° 50' 00" East, a distance of 150.00; thence South 40° 00' 00" East, a distance of 120.00 feet; thence South 67° 20' 00" East, a distance of 140.00 feet; thence South 77° 05' 00" East, a distance of 750.00 feet; thence, South 79° 10' 00" East, a distance of 440.00 feet; thence South 76° 50' 00" East, a distance of 425.00 feet to termination of said north line and strip at the west line of the Poso Canal. Containing 13.52 acres, more or less.

Part 2 of 4 Parts: The portion situated within said Section 11: A strip of land, 216' wide, the north line of which is described as follows: Beginning at a point on the east line of said Section 11, which bears North 0° 04' 00" East, a distance of 1317.50 feet from the southeast corner thereof; thence South 77° 40' 00" West, a distance of 175.00 feet; thence North 79° 10' 00" West, a distance of 350.00 feet; thence North 70° 07' 00" West, a distance of 337.85 feet; thence South 86° 35' 00" West, a distance of 225.00 feet; thence North 79° 25' 00" West, a distance of 285.00 feet; thence North 73° 25' 00" West, a distance of 210.00 feet; thence North 56° 46' 00" West, a distance of 900.00 feet; thence North 76° 56' 00" West, a distance of 250.00; thence North 47° 11' 00" West, a distance of 285.00 feet; thence North 81° 26' 00" west, a distance of 270.00 feet; thence North 87° 41' 00" West, a distance of 230.00 feet; thence North 68° 26' 00" West, a distance of 270.00 feet, thence North 45° 56' 00" West, a distance of 195.00 feet; thence North 32°56' 00" West, a distance of 305.00 feet; thence North 82° 01' 00" West, a distance of 350.00 feet; thence North 53° 36' 00" West, a distance of 325.00 feet; thence North 88° 27' 00" West, a distance of 260.00 feet; thence North 65° 17' 00" West, a distance of 225.00 feet; thence North 77° 33' 00" West, a distance of 340.00 feet; thence North 75° 56' 30" West, a distance of 73.65 feet, to the termination of said north line and strip at the west line of said Section 11, which point bears South 00° 05' 30" East, a distance of 1948.61 feet from the northwest corner thereof. Containing 29.03 acres, more or less.

Part 3 of 4 Parts: The portion situated within said Section 10: A strip of land, 180' wide, the north line of which is described as follows: Beginning at a point on the east line of said Section 10, which bears South 00° 05' 30" East, a distance of 1948.61 feet from the northeast corner thereof; thence North 75° 56' 30" West, a distance of 30.02 feet; thence North 48° 43' 30" West, a distance of 144.69 feet; thence North 23° 12' 00" West, a distance of 260.09 feet; thence North

45° 46' 30" West, a distance of 313.78 feet; thence North 2° 47' 00" West, a distance of 423.98 feet; thence North 21° 15' 30" West, a distance of 1014.83 feet to the termination of said north line and strip at the north line of said Section 10, which point bears South 88° 43' 00" West, a distance of 849.60 feet from the northeast corner thereof. Containing 9.64 acres, more or less.

Part 4 of 4 Parts: The portion situated with said Section 3: A strip of land, 180' wide, the north line of which is described as follows: Beginning at a point on the south line of said Section 3, which point bears South 88° 43' 00" West, a distance of 849.60 feet from the southeast corner thereof; thence North 23° 49' 00" West, a distance of 584.06 feet, thence North 30° 20' 00" West, a distance of 194.03 feet; thence North 46° 43' 00" West, a distance of 667.77 feet; thence North 67° 39' 00" West, a distance of 807.81 feet; thence North 79° 46' 00" West, a distance of 1169.23 feet; thence North 72° 59' 00" West, a distance of 145.43 feet; thence North 49° 55' 00" West, a distance of 89.32 feet; thence North 35° 06' 00" West, a distance of 271.88 feet; thence North 52° 35' 00" West, a distance of 159.96 feet; thence North 83° 14' 00" West, a distance of 205.61 feet; thence South 84° 04' 00" West, a distance 112.82 feet; thence North 86° 09' 00" West, a distance of 85.63 feet; thence North 65° 26' 00" West, a distance of 90.90 feet; thence North 84° 29' 00" West, a distance of 95.13 feet; thence South 61° 44' 00" West, a distance of 142.48 feet; thence South 74° 47' 30" West, a distance of 86.94 feet; thence South 89° 25' 30" West, a distance of 69.57 feet; thence North 51° 11' 00" West, a distance of 82.33 feet; thence North 34° 39' 00" West, a distance 310.62 feet, to the termination of said north line and strip at a point which bears North 0° 06' 30" West, a distance of 2423.60 feet, and North 65° 51' 00" East, a distance of 4.87 feet, and North 65° 49' 00" East, a distance of 124.87 feet from the southwest corner of said Section 3. Containing 22.05 acres, more or less.

EXHIBIT E

DESCRIPTION OF CCID POSO CANAL IN AREA OF FACILITIES

That part of sections 4, 5, and 9, Township 12 South., Range 14 East, M.D.B.&M., Sections 18, 19, 30, and 31, Township 11 South, Range 14 East, M.D.B.& M., Sections 1, 2, 12, and 13 Township 11 South, Range 13 East, M.D.B.&M., and Sections 28, 34 and 35, Township 10 South, Range 13 East, M.D.B.&M., within Fresno County, California, as shown on the "Miller & Lux Subdivision" maps of said Sections, and as described in the "Final Agreement of Sale and Purchase" between the San Joaquin Canal Company and Central California Irrigation District recorded January 25, 1954, in Book 3393, of Official Records, at Page 612, Fresno County Records, being more particularly described as follows:

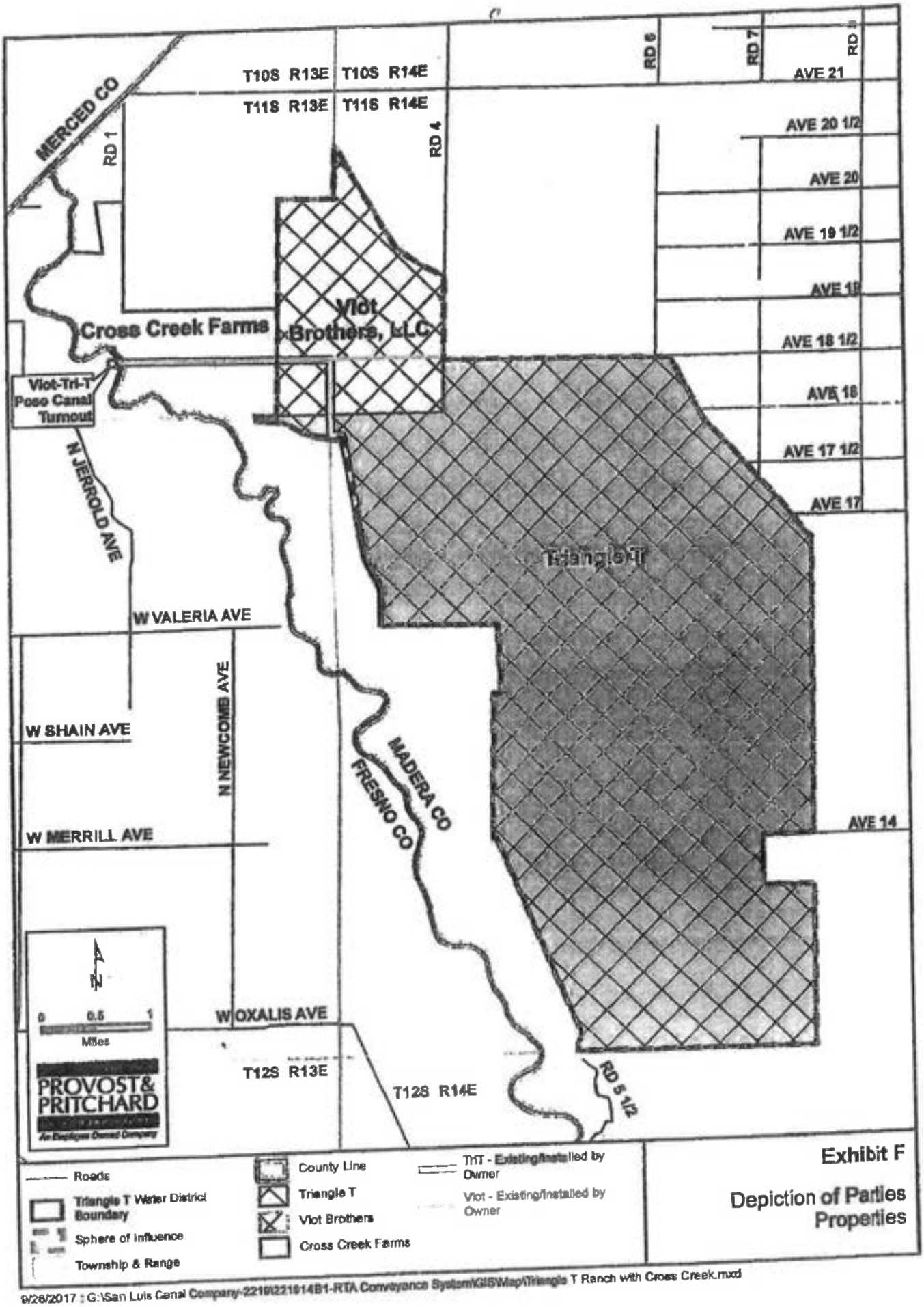
A strip of land 110.0 feet in width, lying equally 55.0 feet on either side of and parallel to the center line of the Poso Canal, the westerly side of which strip of land is more particularly described as follows, to wit:

Beginning at a point on the north line of Section 9, Township 12, Range 14, which point is 150.10 feet east of the northwest corner of said Section 9; thence northeasterly and northwesterly 2150.0 feet, more or less, to a point on the west line of Section 4, Township 12, Range 14, which point is 1575.0 feet, more or less, north of the southwest corner of said Section 4; thence northwesterly and northeasterly 5650.0 feet, more or less, to a point on the north line of Section 5, Township 12, Range 14, which point is 1100.0 feet more or less, west of the northeast corner of said Section 5; thence northwesterly 7200.0 feet, more or less, to a point on the north line of Section 31, Township 11, Range 14, which point is 150.0 feet, more or less, west of the northeast corner of said Section 31; thence northwesterly 5900.0 feet, more or less, to a point on the north line of Section 30, Township 11, Range 14, which point is 1700.0 feet, more or less, west of the northeast corner of said Section 30; thence northwesterly 6400.0 feet, more or less, to a point on the north line of Section 19, Township 11, Range 14, which point is 500.0 feet, more or less, east of the northwest corner of said Section 19; thence northeasterly and northwesterly 4400.0 feet, more or less, to a point on the west line of Section 18, Township 11, Range 14, which point is 2368.55 feet north of the southwest corner of said Section 18, and containing 80.05 acres, more or less.

Also a strip of land 100.0 feet in width lying equally 50.0 feet on either side of and parallel to the center line of the Poso Canal, the southwesterly side of which strip of land is more particularly described as follows, to wit:

Beginning at a point on the east line of Section 13, Township 11, Range 13, which point is 2373.76 feet north of the southeast corner of said Section 13; thence westerly and northwesterly 3800.0 feet, more or less, to a point on the north line of said Section 13, which point is 2300.0 feet, more or less, west of the northeast corner of said Section 13; thence northerly and northwesterly 5830.0 feet, more or less, to a point on the north line of Section 12, Township 11, Range 13, which point is north 89° 25' east 1405.0 feet from the northwest corner of said Section 12; thence northerly and westerly 2752.20 feet to a point on the west line of Section 1, Township 11, Range 13, which point is due north 880.0 feet from the southwest corner of said Section 1; thence northerly and northwesterly 6919.10 feet to a point on the north line of Section 2,

Township 11, Range 13, which point is north 89° 25' east 1642.90 feet from the northwest corner of said Section 1; thence northwesterly and southwesterly 2005.5 feet, more or less, to a point on the west line of Section 35, Township 10, Range 13, which point is north 0° 10' west 390.0 feet, more or less, from the southwest corner of said Section 35; thence westerly, northerly, southwesterly, westerly, northeasterly and northwesterly 9950.90 feet, more or less, to a point on the north line of Section 34, Township 10, Range 13, which point is north 89° 22' east 223.7 feet from the northwest corner of said Section 34; thence northwesterly and northeasterly 2590.0 feet, more or less, to a point on the east line of Section 28, Township 10, Range 13, which point is north 0° 09' west 2185.47 feet from the southwest corner of said Section 28, and which point is on or near the center line of Santa Rita Slough, containing 77.70 acres, more or less.


T10S R13E
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T11S R14E
T12S R13E
T12S R14E
MERCED CO
RD 1
RD 4
RD 6
RD 7
RD 8
RD 5 1/2
AVE 21
AVE 20 1/2
AVE 20
AVE 19 1/2
AVE 19
AVE 18 1/2
AVE 18
AVE 17 1/2
AVE 17
AVE 14
Cross Creek Farms
Viot Brothers, LLC
Triangle T
Viot-Tri-T Poso Canal Turnout
N JERROLD AVE
W VALERIA AVE
W SHAIN AVE
N NEWCOMB AVE
W MERRILL AVE
W OXALIS AVE
MADERA CO
FRESNO CO
N
0 0.5 1
Miles
PROVOST& PRITCHARD
An Employee Owned Company
Roads
Triangle T Water District Boundary
Sphere of Influence
Township & Range
County Line
Triangle T
Viot Brothers
Cross Creek Farms
TriT - Existing/Installed by Owner
Viot - Existing/Installed by Owner
Exhibit F
Depiction of Parties Properties
9/26/2017 : G:\San Luis Canal Company-2216\2216\4B1-RTA Conveyance System\GIS\Map\Triangle T Ranch with Cross Creek.mxd

2021 MONITORING DATA FOR THE SACK DAM-RED TOP AREA

Draft Report

prepared for
Central California Irrigation District
and San Luis Canal Company
Los Banos, California
and
Madera Triangle T Ranch
American Dairy
Cross Creek Ranch

by
Kenneth D. Schmidt and Associates
Groundwater Quality Consultants
Fresno, California
and
Summers Engineering, Inc.
Hanford, California

April 2022

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2021 MONITORING DATA FOR THE SACK DAM-RED TOP AREA

INTRODUCTION

A monitoring plan was developed in November 2018 for the land subsidence abatement program for the Sack Dam-Red Top area. The first annual report for this program was for 2019, and this is the third annual report. Summers Engineering, Inc. of Hanford is the consultant to the Madera Triangle T Ranch, the American Dairy (formerly Cowifornia Dreamin' Ranch), and the Cross Creek Ranch, all of which are located east of the San Joaquin River. Kenneth D. Schmidt & Associates (KDSA) of Fresno are the consultants to the Central California Irrigation District (CCID) and San Luis Canal Company (SLCC), which are located west of the San Joaquin River (Figure 1). The 2021 report is a joint effort between Summers Engineering and KDSA. It is KDSA's responsibility to provide the monitoring information for the area west of the San Joaquin River, as well as monitoring associated with a pilot recharge well at Sack Dam.

WEST AREA

For the west area, the monitoring data are divided into 1) pumpage, 2) water-level measurements, 3) land subsidence, and 4) groundwater quality. The water recharged in the pilot recharge well near Sack Dam is discussed under land subsidence.

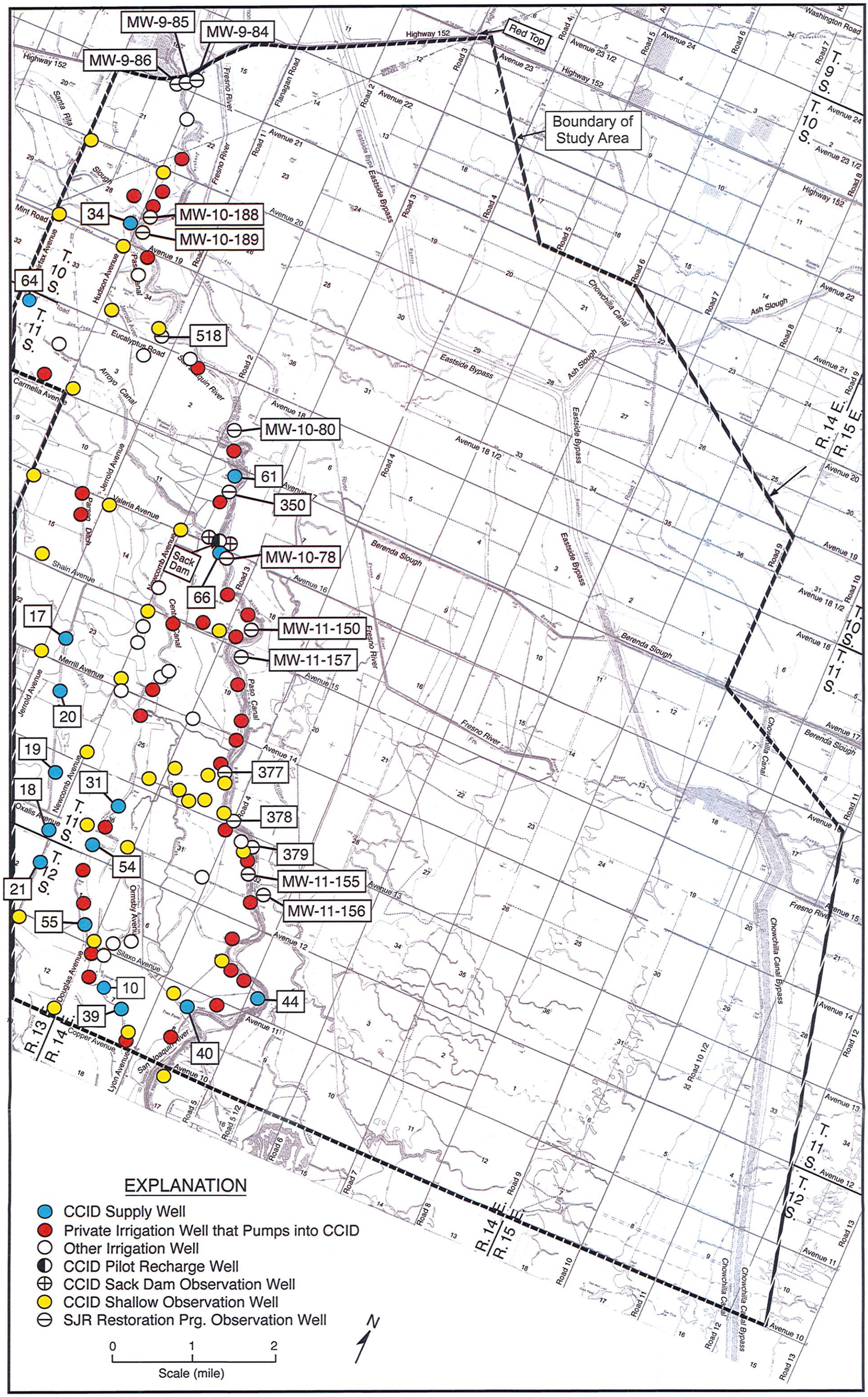


FIGURE 1 - LOCATION OF SELECTED WELLS NEAR AND WEST OF SAN JOAQUIN RIVER

Pumpage

KDSA (2022) prepared a report on the results of groundwater monitoring for the CCID 2021 pumpage program. This report included pumpage for District wells in the Sack Dam-Red Top area, which is in part of the District Poso Well Field. In addition, pumpage for private irrigation wells in SGMA Management Area E was provided. This Management Area includes the study area for this report, as well as a much larger area. For purposes of this evaluation, CCID provided the 2021 pumpage from the private wells in the study area (Figure 1).

Table 1 shows the monthly pumpage from the CCID wells in 2021. Most of the pumpage was during May-July. All of this pumpage was from the upper aquifer (above the Corcoran Clay). A total of 11,684 acre-feet of water was pumped from 14 CCID wells in the study area in 2021. The pumpage from private irrigation wells in the study area was 15,075 acre-feet in 2021. There was a total of 51,785 acre-feet pumped from CCID and private wells in Management Area E in 2021.

Water-Level Maps

Measuring point elevations have been determined for a number of wells at the Madera Triangle T Ranch, American Dairy, and Cross Creek Ranch. Figure 2 shows water-level elevations for the upper aquifer for February 2021. Water-level elevations

TABLE 1-2021 PUMPAGE FROM CCID WELLS

CCID Well Pumpage (acre-feet)

Well No.	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
10A	0.0	62.9	181.8	73.6	87.1	259.5	176.8	245.0	108.4	15.8	0.0	0.0	1,210.9
17A	0.0	131.4	22.7	14.9	40.6	197.4	147.2	137.7	39.8	6.4	0.0	0.0	738.0
18C	0.0	165.4	88.0	17.9	110.9	248.7	109.9	227.3	149.0	27.1	0.0	0.0	1,144.0
20A	0.0	0.0	0.0	88.9	70.4	241.5	74.9	197.5	81.2	23.4	0.0	0.0	777.8
21B	0.0	0.0	50.9	14.9	10.7	207.3	169.9	164.9	97.8	11.9	0.0	0.0	728.3
31B	0.0	67.1	58.2	54.8	50.0	107.9	93.9	115.3	28.5	16.9	0.0	0.0	592.6
34A	0.0	55.0	89.0	69.0	52.0	120.0	104.0	96.0	58.0	0.0	0.0	0.0	643.0
39A	0.0	31.9	26.7	62.9	10.6	134.4	125.5	69.0	63.1	11.1	0.0	0.0	535.2
40A	0.0	94.0	184.0	57.0	88.0	180.0	155.0	155.0	69.0	0.0	0.0	0.0	982.0
44A	0.0	112.0	203.0	52.0	99.0	204.0	170.0	175.0	89.0	0.0	0.0	0.0	1,104.0
54A	0.0	165.1	171.3	118.9	168.6	211.5	169.8	225.5	102.7	86.4	0.0	0.0	1,419.7
55	0.0	88.4	77.3	32.6	66.1	109.3	109.4	71.1	37.2	8.1	0.0	0.0	599.4
61	0.0	76.0	100.0	60.0	55.0	150.0	130.0	130.0	62.0	0.0	0.0	0.0	763.0
64	0.0	0.0	47.4	8.1	54.9	102.1	90.1	72.8	65.0	5.6	0.0	0.0	446.1
Total	0.0	1,049.1	1,300.4	725.4	963.7	2,473.6	1,826.4	2,082.1	1,050.6	212.8	0.0	0.0	11,684.0

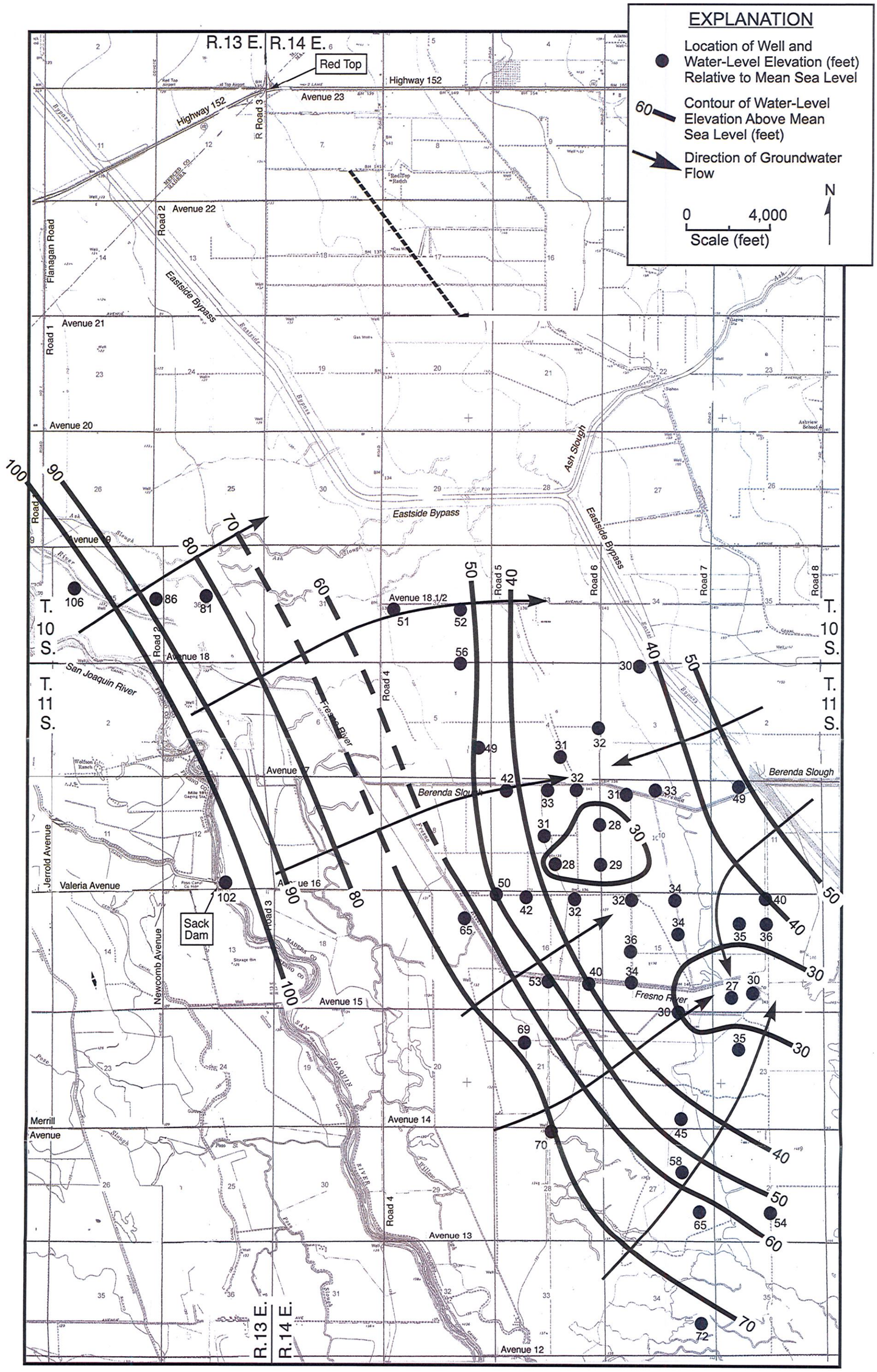


FIGURE 2-WATER-LEVEL ELEVATIONS AND DIRECTION OF GROUNDWATER FLOW IN THE UPPER AQUIFER (FEBRUARY 2021)

ranged from about 106 to 28 feet above mean sea level. Overall, there was a northeasterly direction of groundwater flow in most of the area, except near the bypass, where the direction of flow was to the southwest. There was a water-level depression west of the bypass where water-level elevations were less than 40 feet above mean sea level.

Figure 3 shows water-level elevations and the direction of groundwater flow for the lower aquifer for February 2021. Water-level elevations ranged from more than 20 feet above mean sea level to the southwest to 19 feet below mean sea level near the Eastside Bypass. Overall, the direction of groundwater flow was to the northeast. There is no pumpage from the lower aquifer in the area west of the San Joaquin River.

Water-Level Trends

CCID Wells

Monthly water-level measurements are available for 14 CCID wells in the study area for 2020 (Table 2). Depth to water has been relatively shallow in this area (usually less than 30 feet deep). Depth to water is closely related to the pumping patterns of the wells and river flows. CCID Well No. 55 is considered representative of the Poso Well Field in terms of water-level trends. Figure 4 shows monthly pumpage and monthly water levels

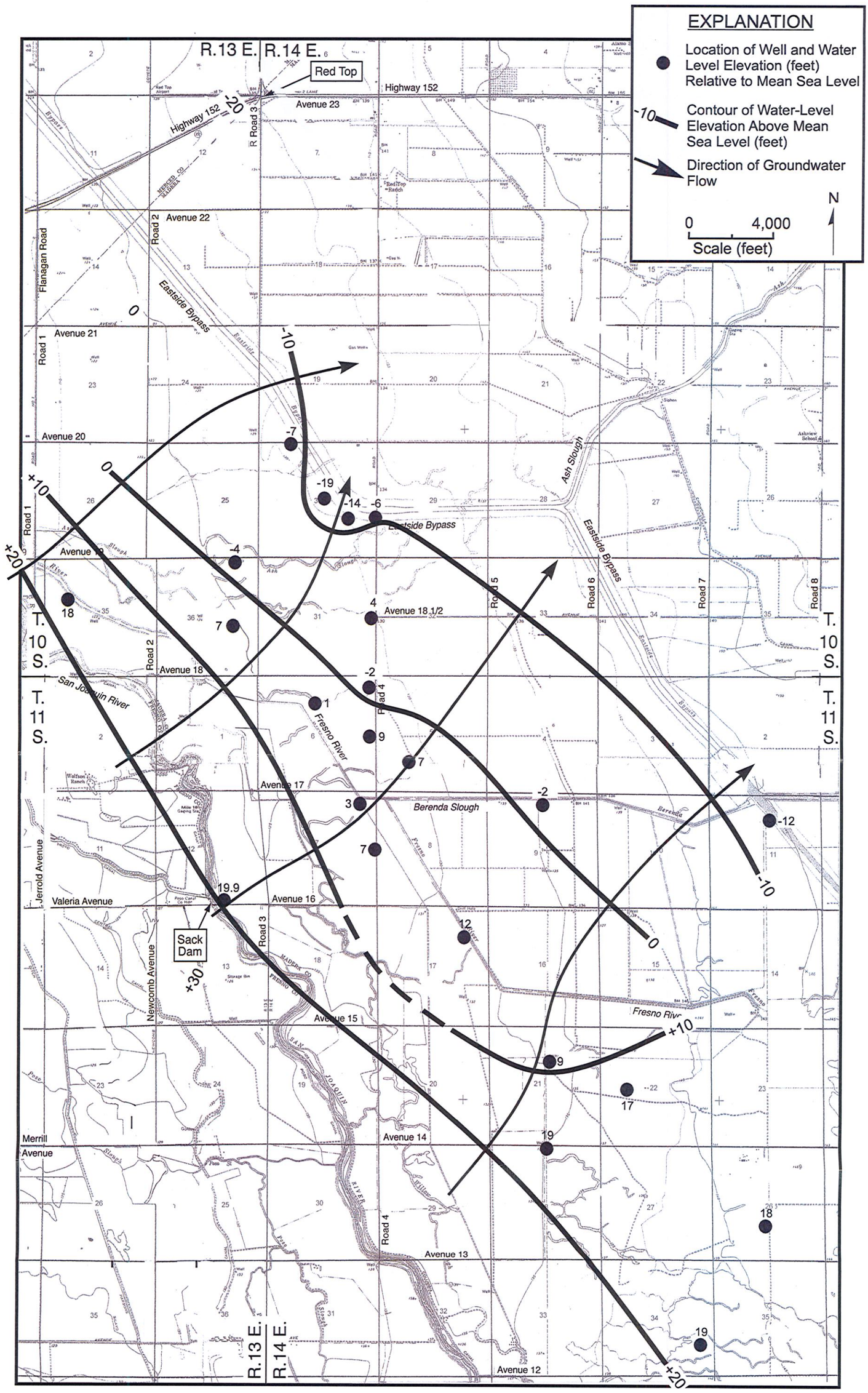


FIGURE 3-WATER-LEVEL ELEVATIONS AND DIRECTION OF GROUNDWATER FLOW IN THE LOWER AQUIFER (FEBRUARY 2021)

TABLE 2-2021 CCID WELL WATER-LEVEL MEASUREMENTS

Depth to Water (feet)

Well No.	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
10A	-14.71	-16.59		-20.91					-25.59			-19.20	-17.62
17A	-8.99	-8.90	-15.13	-17.00					-16.97			-12.70	-12.21
18C	-10.90	-10.90		-19.90					-26.90			-17.90	-17.57
20A	-10.60	-10.65	-19.74						-18.50			-14.80	-16.46
21B	-16.20	-10.27	-25.30	-17.25					-30.79			-20.50	-19.32
31B	-17.55	-18.17	-28.49	-19.89					-35.89			-21.40	-21.49
34A	-14.54	-14.25		-20.52					-28.85			-19.90	-17.90
39A	-16.17	-15.70	-27.98	-21.10					-23.61			-20.90	-19.90
40A	-19.88	-19.17							-30.15			-21.10	-25.10
44A	-34.98	-31.20							-34.75			-28.50	
54A	-15.06	-16.18	-25.37	-17.48					-33.00			-20.00	
55	-16.10			-20.47					-37.24			-20.00	-19.00
61	-15.80	-14.80										-23.80	-23.80
64	-8.91	-8.94		-9.99					-13.70			-9.50	-9.84

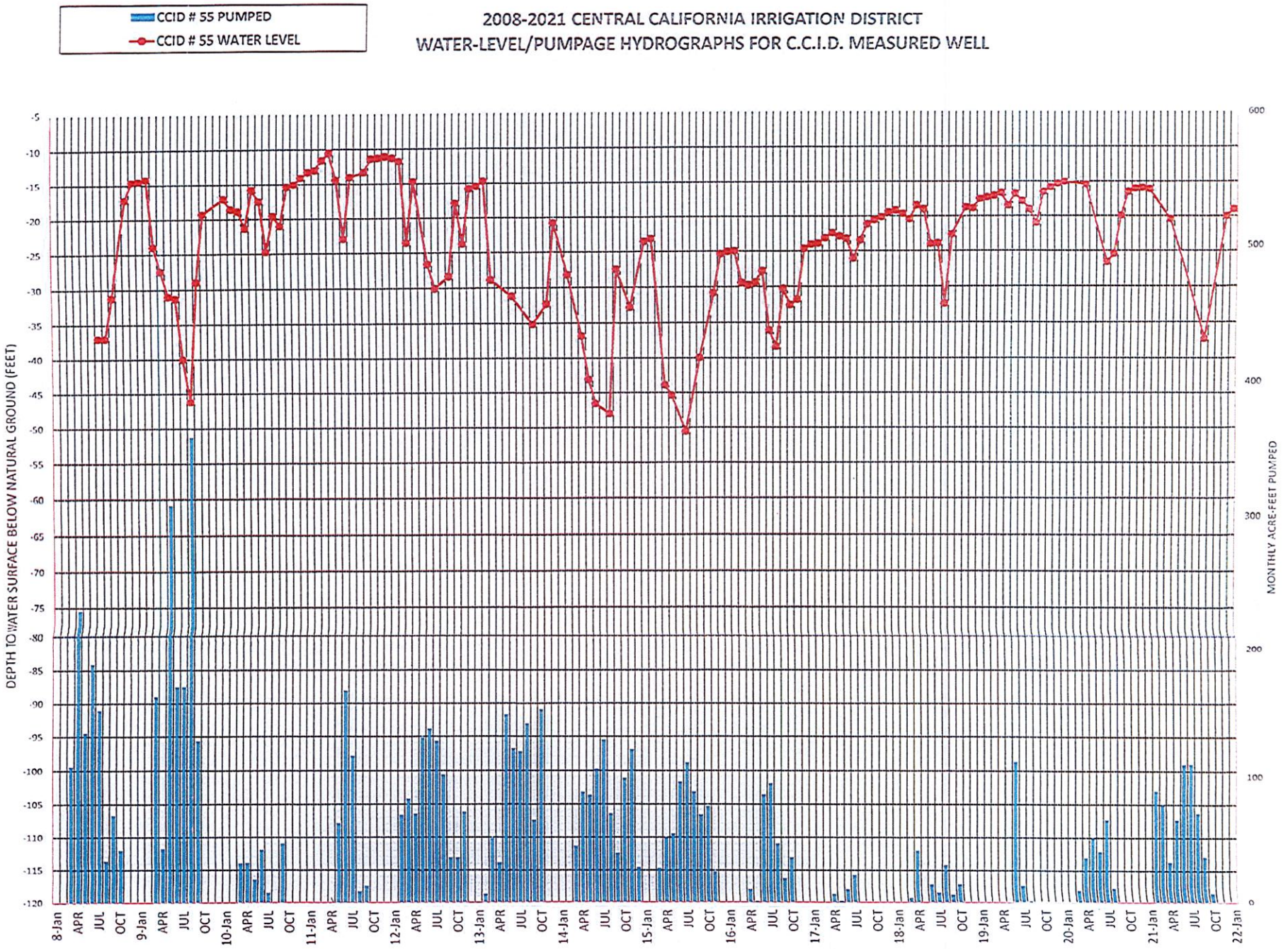


FIGURE 4- 2008-21 WATER-LEVEL AND PUMPAGE HYDROGRAPHS FOR UPPER AQUIFER DISTRICT WELL NO. 55 IN THE POSO WELL FIELD

for CCID Well No. 55 for 2008-2021. Depth to water in this well ranged from about 10 to 50 feet during this period. Pumpage during 2017-19 was small, less than 200 acre-feet per year. Water levels in Well No. 55 rose about nine feet during these three years of low pumpage. In 2020, depth to water ranged from about 16 to 27 feet. Most of the pumpage from this well in 2020 was during April-July 2020. In 2021, depth to water ranged from about 19 to 37 feet. Most of the pumpage from this well in 2021 was during February-September. There was not complete recovery after the 2021 pumping.

Figure 5 shows long-term pumpage and water level hydrographs for CCID Well No. 55. Annual pumpage values and semi-annual water-level measurements are shown. Depth to water ranged from five to 37 feet. The deepest water level during this period was in 2021. Water levels in this well have slightly declined over the long term. Prior to 2021, the deepest water levels were in 2012-16, when spring water levels fell about 13 feet. By early 2021, the water level had nearly recovered from this pumping.

Monitor Wells Near Sack Dam

Figure 6 shows depth to water for the four monitor wells near the Sack Dam for June 2014-February 2022. There are two nested

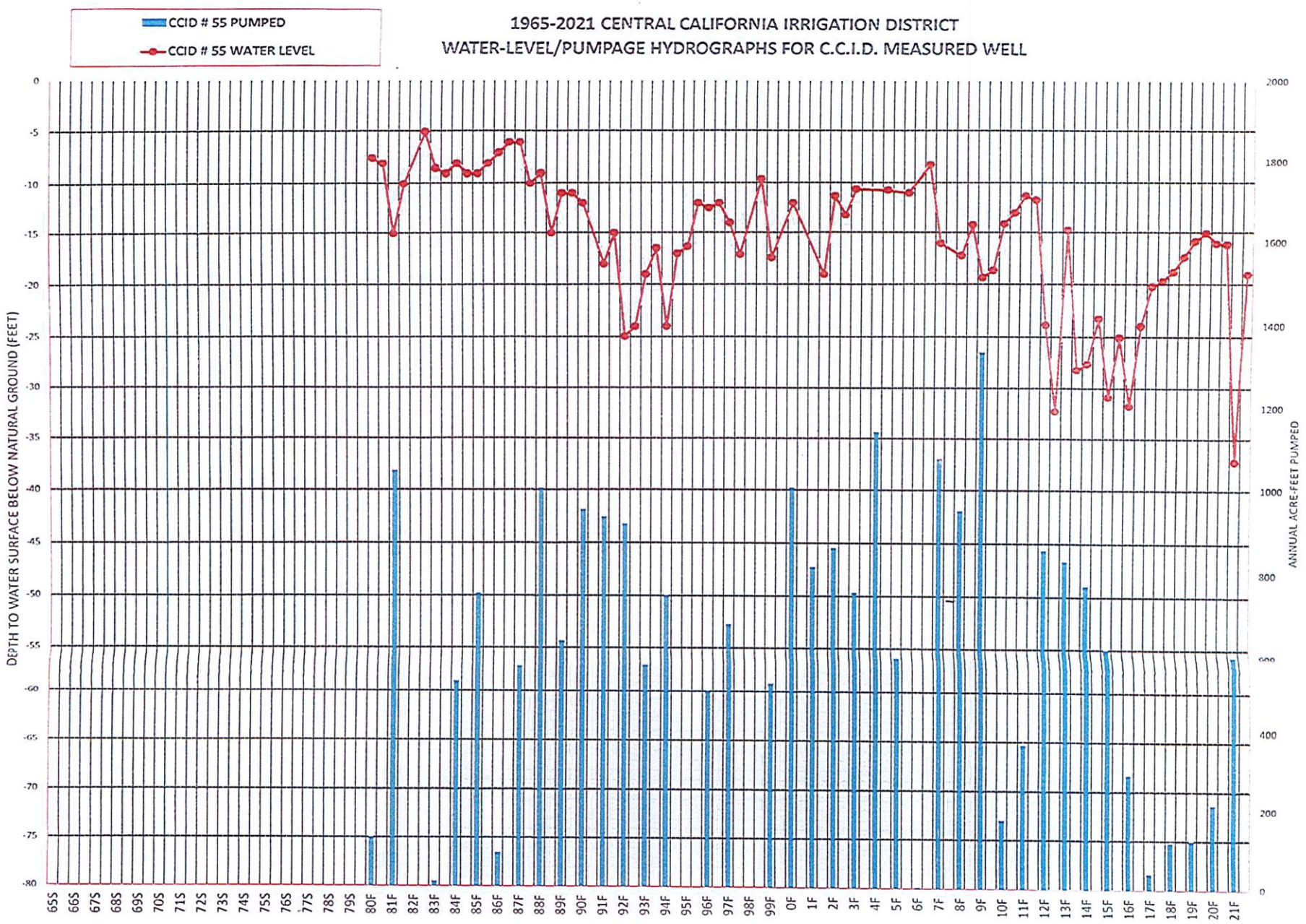


FIGURE 5-LONG-TERM WATER-LEVEL AND PUMPAGE HYDROGRAPHS FOR UPPER AQUIFER DISTRICT WELL NO. 55 IN THE POSO WELL FIELD

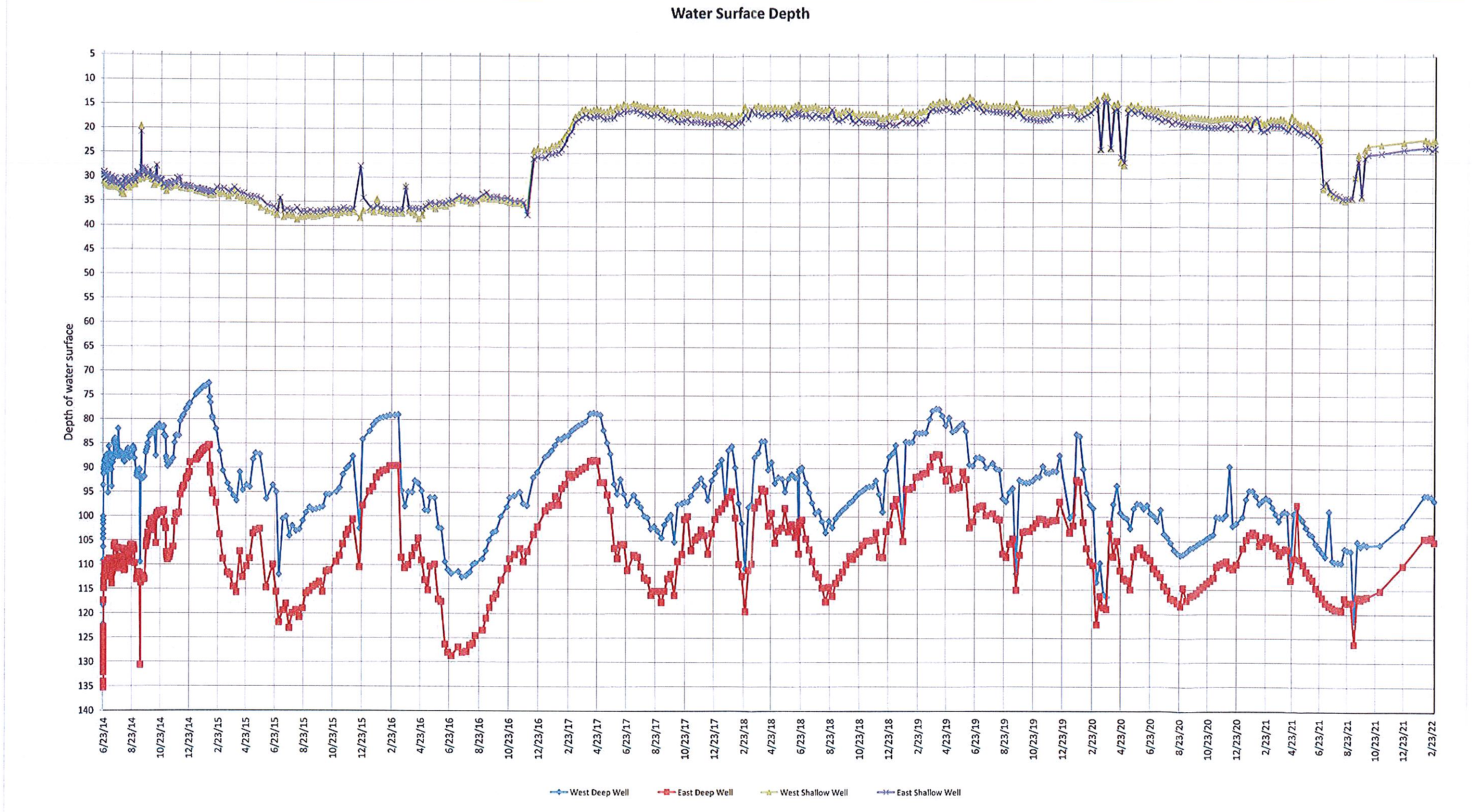


FIGURE 6-DEPTH TO WATER IN MONITOR WELLS NEAR SACK DAM

monitor well sites, one near the west edge of the dam and the other near east edge. The two shallower wells are perforated above the Corcoran Clay, and the two deeper wells are perforated below the Corcoran Clay. Depth to water in the shallow wells has been almost the same, with slightly shallower water levels in the westerly well. Depth to water in these two wells has ranged from about 15 to 38 feet. Water levels were almost 20 feet shallower after February 2017 then before October 2017. This was apparently due to a reduction in pumpage from a nearby CCID well, which taps the upper aquifer. Since February 2017, water levels in the two shallow wells have been relatively stable, averaging between 15 and 20 feet deep, except during June-July, 2021, when then temporarily fell to 35 feet. There were also some temporary declines in February and March, 2020, but the water levels quickly recovered.

The water-level trends for the two deep monitor wells have been similar, and the water levels in the east well had been about ten feet deeper than in the west well. This is because pumpage from the lower aquifer in the vicinity is east of Sack Dam. Seasonal shallowest levels in the west deep well have ranged from about 73 to 95 feet deep. Seasonal low water levels in the east deep well have ranged from about 115 feet to 128 feet deep. The deepest water levels were in the summer of 2016. Since that time, pumpage from the lower aquifer in the area has

been reduced, and the seasonal deepest water levels have generally risen. Water levels in the deep monitor wells show no apparent influence of the recharge well at Sack Dam, as it has been operating at about the same rate (180 gpm in 2019 and 2020).

The water level in the west deep well on February 23, 2022 was about 96 feet deep, compared to about 97 feet on February 23, 2021. The water level in the east deep well was about 105 feet deep on February 23, 2022, about same as on February 23, 2021.

Land Subsidence

Land subsidence records are provided in Appendix A. Land subsidence records were obtained for a station at Sack Dam, PT121 (375 USE). From December 2011 to December 2021 the total subsidence at this station was 2.92 feet, or an average of 0.29 foot per year. For December 2011-December 2015, the subsidence was 1.61 feet, or an average of 0.41 foot per year. From December 2016-December 2020, the subsidence was 0.72 foot, or an average of 0.17 foot per year. This decreased subsidence was due to a significant decrease in lower aquifer pumpage after 2015. From December 2018 to December 2019 the subsidence was only 0.14 foot, the lowest annual value since measurements began. From

December 2019 to December 2020 the subsidence was 0.22 foot and from December 2020 to December 2021 the subsidence was 0.24 foot.

Records are also available for Station 2562 along the San Joaquin River near Merril Avenue (about two miles south-southeast of Sack Dam). Between July 1, 2012 and December 1, 2021 there were 2.79 feet of subsidence, or an average of 0.30 foot per year. However, between July 1, 2019 and December 2020 there was 0.29 foot of subsidence, or about 0.2 foot per year. Between December 2020 and December 2021, there was 0.29 foot of subsidence.

The recharge well near Sack Dam has been operating since June 2014, and water is recharged below the Corcoran Clay into the lower aquifer. Flowmeter records are available from November 30, 2016 to December 22, 2021. A total of 1,484 acre-feet was recharged, and the average recharge rate was 175 gpm. Between December 22, 2020 and December 22, 2021, a total of 407 acre-feet was recharged, and the average recharge rate was 256 gpm.

Groundwater Quality

Irrigation suitability analyses are available for 14 CCID wells in the study area for July 2021. Electrical conductivities ranged from 810 to 1,600 micromhos per centimeter at 25°C.

The lowest electrical conductivities were for Wells No. 34A, 40A, and 44A, close to the San Joaquin River and Oxalis Avenue. The highest electrical conductivities were for wells along the Parson Ditch or the Central Canal between Merril Avenue and Oxalia Avenue. Boron concentrations ranged from less than 0.1 to 0.5 mg/l. The lowest concentrations were generally for wells with lower TDS concentrations, and the highest boron concentrations were for wells with higher TDS concentrations.

EAST AREA

For the east area the monitoring data are discussed by entity and divided into 1) wells, 2) water-level measurements, 3) pumpage, 4) pump tests, 5) surface water diverted for irrigation, 6) stream and canal seepage, 7) recharge basins, 8) crop data, and 9) well sampling and chemical analyses. Subsidence abatement and monitoring enhancement are discussed last.

Madera Triangle T Ranch-John Hancock

Wells

A summary of the Madera Triangle T Ranch (MTTR) wells is provided in Table S1. MTTR has 60 upper aquifer wells, 10 lower aquifer wells, 17 composite wells that tap both aquifers, and 6 lower aquifer monitoring wells.

TABLE S1-MADERA TRIANGLE T RANCH (MTTR), AMERICAN DAIRY, AND CROSS CREEK FARMS WELL DATA

Madera Triangle T Ranch (MTTR) Well Data

Owner	Well No.	Aquifer	Well Log DWR No.	Date Drilled	2021 Meas. Point Elev. (ft)	Total Depth (ft)	Cased Depth (ft)	Diameter (in)	Perforation Depth (ft)		Annular Seal (ft)		Notes	Pumpage (acre-feet)	2021 Pump Test	2021 Water Quality Analysis	Depth to Water (feet) Fall 2020	Depth to Water (feet) Spring 2021	Depth to Water (feet) Fall 2021
									Top	Bottom	Top	Bottom		2021					
MTTR	1	Upper	118019	1/67	128.40	220	220	18	170	216	none			230	yes	yes	75	77	87
MTTR	2	Upper	52303	10/59	133.82	217	213	18	157	209	0	150	TV 7/14/2016	299	yes	yes	83	82	94
MTTR	3	Upper	52301	10/59	136.87	228	219	18	143	215	0	154		0					
MTTR	4	Composite	25120	11/67	144.77	284	284	18	160	280	none			0					
MTTR	5	Composite	25118	10/67	142.72	288	288	18	175	284	none			0					
MTTR	6	Upper	41001	1/58	131.72	216	196	18 & 16	158	192			TV 2/4/2011	254	yes	yes	78	76	88
MTTR	7	Lower	E054498	10/07	134.08	820	795	16	290	775	0	30	TV 1/13/2011	74	yes		163	136	147
MTTR	9	Composite	E0257176	11/15	140.30	790	245	18 & 16	160	200	0	50		113	yes		135	124	136
MTTR	10	Upper		5/05	146.53	416	413	16	133	413	0	30	TV 9/27/2012	594	yes	yes		117	126
MTTR	11	Lower	E062773	10/07	128.31	810	800	16	290	780	0	30	TV 2/4/2011	0			149	130	136
MTTR	12	Composite	E006032	5/05	144.15	477	467	16	160	200	0	30	TV 11/8/2016	13		yes	128	127	132
MTTR	13	Composite	E006029	5/05	145.83	416	413	16	133	173	0	30	TV 2/4/2011	40	yes	yes	142	136	145
MTTR	14	Upper			140.83		219	18	137	219			TV 1/3/2017	410		yes	106	109	119
MTTR	15	Upper			143.85		194	18	148	194			TV 6/22/2016	643	yes	yes	104	108	120
MTTR	16	Lower			131.09		857	18	292	854			TV 3/22/2011	82	yes		142	124	142
MTTR	17	Upper	25117	9/67	133.28	256	256	18	175	252	none		TV 11/19/2015	603	yes	yes	80	84	91
MTTR	18	Upper			140.55	213	211	18	166	213			TV 3/22/2011	855	yes	yes	106	110	116
MTTR	19	Lower	E074835	8/08	128.91	875	860	18 & 16	290	840	0	250	TV 1/31/2011	82	yes		137	126	139
MTTR	20	Upper			134.60		200	18	145	200			TV 11/30/2011	600	yes	yes	88	94	102
MTTR	21	Upper		9/66	135.86	212	212	18	170	208	none		TV 12/27/2016	304	yes	yes	88	94	99
MTTR	22	Upper	743391	3/04	139.43	304	304	16	170	298	0	20	TV 12/29/2011	226	yes	yes	98	106	114
MTTR	MW-22	Lower		8/19	140.61	800	800	5	300	800	0	300						149	143	152
MTTR	23	Upper	118013	9/66	140.59	304	304	18	170	298	0	20	TV 11/30/2016, collapsed at 142'	164		yes	104	109	118
MTTR	24	Upper		10/59	142.18	229	228	16	130	225	18x12 shoe		TV 11/30/2011	441	yes	yes		111	122
MTTR	25	Upper			137.73		211	18	167	211			TV 12/27/2011	297	yes	yes	97	107	110
MTTR	26	Upper	085895	12/79	140.81	300	300	16	130	299	none		TV 11/30/2011	94	yes	yes	106	113	120
MTTR	27	Composite			141.32		799	18	168	790			TV 11/28/2011	3	yes	yes	142	131	146
MTTR	28	Composite	E062776	10/07	147.58	715	710	16	170	690	0	30	TV 12/7/2011	178	yes	yes	151	140	156
MTTR	29	Upper			136.03		224	18	125	224			TV 12/9/2011	427	yes	yes	90	119	103
MTTR	30	Upper			139.45		185	16	150	185			TV 12/8/2011	26		yes	98	111	111
MTTR	31	Upper			141.23		197	18	158	197			TV 12/8/2011	215	yes	yes	106	112	121
MTTR	32	Upper	082646	3/87	138.36	236	236	16	100	232	none			385	yes	yes	80	88	90
MTTR	MW-32	Lower		7/19	137.50	900	900	5	300	900	0	300					134	126	136
MTTR	33	Upper	082634	9/83	139.67	360	220	16	110	284	none		TV 12/6/2011	386	yes	yes	90	98	102
MTTR	34	Upper		1/58	141.12	205	167	18	132	167	18x10 shoe		TV 2/13/2013, obstruction at 97'	564	yes	yes	102	109	117
MTTR	35	Upper	52300	9/59	143.08	218	168	18	130	185	none		TV 12/2/2016	579	yes	yes	108	111	125
MTTR	36	Upper			145.48	220	221	16	130	221			TV 9/24/2012	1150	yes	yes	110	114	129
MTTR	37	Upper			137.76		219	14	114	219			TV 12/9/2011	443	yes	yes	71	73	80
MTTR	38	Upper			140.75		206	18	125	206			TV 12/7/2011	387	yes		102	105	122
MTTR	39	Upper			146.47		211	16	132	211			TV 9/24/2012	18		yes	113	112	135
MTTR	40	Upper			146.32		228	16	175	228			TV 9/27/2012	559	yes	yes	112	121	128
MTTR	41	Upper			abandoned		212	16	153	212			TV 11/16/2012, shaft in well at 200'	328	yes	yes			
MTTR	42	Upper	65351	8/60	136.81	198	165	18	120	160			TV 5/9/2013, obstruction at 186'	324	yes	yes	74	72	83
MTTR	43	Upper	118018	12/66	140.17	280	280	18	190	276	none		TV 11/29/2012	1265	yes	yes	91	87	100
MTTR	44	Upper	118017	11/6	141.23	260	260	18	210	256	none		TV 2/11/2013	439		yes	115	118	125
MTTR	45	Upper	082639	5/85	141.80	300	300	16	100	300	none		TV 2/25/2016	642	yes	yes	97	102	115
MTTR	46	Upper	082621	2/82	142.72	300	300	16	144	296	none		TV 9/28/2012	647	yes	yes	103	109	123
MTTR	47	Upper	301380	7/89	143.12	260	260	16	188	247	0	20	TV 10/1/2012	110	yes	yes	107	113	128
MTTR	48	Upper			144.64		233	16	190	233			TV 10/1/2012	1087	yes	yes	112	121	131
MTTR	49	Composite			146.28		327	16	199	327			TV 10/1/2012	73	yes	yes	113	116	129

TABLE S1-MADERA TRIANGLE T RANCH (MTTR), AMERICAN DAIRY, AND CROSS CREEK FARMS WELL DATA

Madera Triangle T Ranch (MTTR) Well Data

Owner	Well No.	Aquifer	Well Log DWR No.	Date Drilled	2021 Meas. Point Elev. (ft)	Total Depth (ft)	Cased Depth (ft)	Diameter (in)	Perforation Depth (ft)		Annular Seal (ft)		Notes	Pumpage (acre-feet)	2021 Pump Test	2021 Water Quality Analysis	Depth to Water (feet) Fall 2020	Depth to Water (feet) Spring 2021	Depth to Water (feet) Fall 2021
									Top	Bottom	Top	Bottom		2021					
MTTR	50	Composite			148.46		408	16	192	408			TV 10/5/2012	34	yes		123	120	131
MTTR	51	Upper			145.54		203	14	143	203			TV 10/4/2012	471	yes	yes	112	119	128
MTTR	52	Upper			146.61		165	16	93	172			TV 10/17/2012	788	yes	yes	115	120	131
MTTR	53	Upper			149.27		217	14	118	217			TV 10/8/2012	440	yes	yes	119	119	131
MTTR	54	Upper			138.60			18	216	??			TV 11/30/2016, obstruction at 236'	447	yes		71	70	82
MTTR	55	Lower	E0144380	1/12	137.97	850	850	16	325	830	0	30	TV 8/25/2016	0	yes		129	119	132
MTTR	56	Composite			145.20		490	16	203	490			TV 10/17/2012	134	yes	yes	109	110	124
MTTR	57	Upper			148.06		272	16	175	272			TV 10/17/2012	1267	yes	yes	116	113	128
MTTR	58	Upper			141.44		220	18	138	220			TV 11/28/2012	439	yes	yes	79	79	89
MTTR	59	Upper			139.08		143	18	72	143			TV 4/18/2016	268	yes	yes		69	70
MTTR	60	Upper			141.28		202	18	105	202			TV 2/25/2016	393	yes	yes	64	66	72
MTTR	61	Lower	E067089	10/07	140.38	850	840	18 & 16	320	820	0	30	TV 5/3/2016	110	yes		130	121	132
MTTR	62	Upper			144.51		284	16	168	235			TV 2/17/2016	42	yes	yes	106	100	112
MTTR	63	Upper			145.09		286	16	192	??			TV 11/30/2016	2			91	87	98
MTTR	64	Lower	E062784	11/07	127.07	900	870	18	295	850	0	30		17	yes	yes	146	126	142
MTTR	65	Lower	E0133479	3/11	127.83	860	860	18 & 16	300	840	0	270	TV 8/2/2016	758	yes	yes	135	119	136
MTTR	66	Lower	E0126739	3/11	130.06	880	870	18 & 16	300	850	0	270		25	yes	yes	132	123	133
MTTR	67	Lower	E0139804	10/11	143.42	860	850	16	325	830	0	30		137	yes	yes	136	126	139
MTTR	68	Composite	E0144277	1/12	145.21	840	830	16	190	810	0	50		186	yes	yes	133	124	137
MTTR	69	Composite	E0151483	5/12	148.18	750	450	16	190	450	0	20		124	yes	yes		134	146
MTTR	70	Upper	E0206850	4/13	146.34	260	260	16	90	220	0	50	TV 11/12/2015	7	yes		93	97	108
MTTR	MW-70	Lower		10/19	145.15	800	800	5	300	800	0	290					162	157	164
MTTR	71	Upper	E0177739	5/13	147.78	280	280	16	150	240	0	50		356	yes	yes	109	112	125
MTTR	72	Upper	E0178810	6/13	145.87	280	240	16	150	240	0	50		453	yes	yes	104	106	121
MTTR	73	Upper	E0178811	6/13	146.72	280	240	16	150	240	0	50		0		yes	110	112	127
MTTR	74	Composite	E0164699	11/12	147.70	940	920							292	yes	yes	96	93	100
MTTR	75	Upper	E0178812	6/13	146.18	280	240	16	150	240	0	50		478	yes	yes	113	96	128
MTTR	MW-75	Lower		8/19	147.52	760	760	5	300	760	0	290					151		152
MTTR	76	Composite	E0286376	11/14	146.63	660	660	18 & 16	200	660	0	40		313	yes	yes	100	96	102
MTTR	77	Composite	E0286380	11/14	148.03	660	660	18 & 16	200	660	0	40		85	yes	yes	108	105	112
MTTR	78	Composite	E0286381	11/14	148.49	660	660	18 & 16	200	660	0	40		38	yes	yes	108	107	113
MTTR	79	Composite	E0257115	8/15	145.27	610	610	18 & 16	200	590	0	50		192	yes	yes	110	103	114
MTTR	80	Upper	E0257114	8/15	148.10	290	290	16	130	250	0	50		469	yes	yes	100	94	104
MTTR	MW-80	Lower		8/19	149.12	900	900	5	320	900	0	310					141	131	142
MTTR	81	Upper	000611	2/17	125.33	270	260	12	120	220	0	50		271	yes	yes	30		38
MTTR	82	Upper	001038	3/17	125.29	280	270	12	110	230	0	50		637	yes	yes	33	37	42
MTTR	83	Upper	001090	3/17	142.09	270	260	12	160	220	0	50		158	yes		105	109	120
MTTR	84	Upper	E0257351	6/17	140.75	300	300	14	150	260	0	50	TV 9/22/2017	50	yes	yes		104	117
MTTR	85	Upper	E0257352	6/17	143.00	270	270	12	160	230	0	50	TV 9/22/2017	37	yes	yes	101	100	115
MTTR	86	Upper	E0257353	6/17	145.29	250	250	14	130	210	0	50	TV 9/22/2017	29	yes	yes	83	80	87
MTTR	87	Upper	E0257354	6/17	146.24	280	280	12	180	240	0	50	TV 9/22/2017	57	yes	yes	75	74	78
MTTR	MW-87	Lower		8/19	148.27	880	880	5	320	880	0	310					123	129	127
MTTR	88	Upper	003791	6/17	132.61	280	270	12	125	230	0	50	TV 9/22/2017	777	yes	yes	62		

Upper	24,334
Lower	1284
Composite	1814
Total	27,432

TABLE S1-MADERA TRIANGLE T RANCH (MTTR), AMERICAN DAIRY, AND CROSS CREEK FARMS WELL DATA

American Dairy Well Data

Owner	Well No.	Aquifer	Well Log DWR No.	Date Drilled	2021 Meas. Point Elev. (ft)	Total Depth (ft)	Cased Depth (ft)	Diameter (in)	Perforation Depth (ft)		Annular Seal (ft)		Notes	Pumpage (acre-feet)	2021 Pump Test	2021 Water Quality Analysis	Depth to Water (feet) Fall 2020	Depth to Water (feet) Spring 2021	Depth to Water (feet) Fall 2021
									Top	Bottom	Top	Bottom		2021					
American Dairy	V1B	Lower	E01333721	3/12	128.45	760	760	18 & 16	270	740	0	225		303			170	132	148
American Dairy	V2B	Lower	E0091473	4/11	126.62	830	830	18 & 16	280	810	0	180		530					
American Dairy	V3	Lower	E0085662	1/09	124.46	880	880	18	360	880	0	50		0					
American Dairy	V4B	Lower		3/13	125.74	720	700	18 & 16	285	680	0	245		43			193	119	134
American Dairy	V6B	Lower	E0133871	4/13	124.96	820	820	18 & 16	295	800	0	260		296			149	129	144
American Dairy	V7	Lower	E0303195	3/16	128.30	920	920	16	440	920	0	50		258			161	142	160
American Dairy	V8	Lower	E076323	7/08	127.98	880	880	18	440	880	0	50		32			160	142	156
American Dairy	V9	Lower	E073448	5/08	126.10	900	900	18	440	900	0	20		0			133	112	
American Dairy	V10B	Lower	E0133728	3/12	128.02	870	870	18 & 16	280	850	0	50		151			155	134	155
American Dairy	V11	Lower	E0087098	2/09	127.51	880	880	18	320	880	0	50		0			156	135	155
American Dairy	V12	Unknown					706							200			84	75	90
American Dairy	V13	Upper	16379	08/70	124.91	220	167	16	167	220				400			148	130	144
American Dairy	V14	Lower	E0322010	8/16	125.33	940	920	16	440	920	0	50		137					
American Dairy	V15	Upper	005916	5/21		260	240	20	60	210	0	20		128					70
MTTR	1	Upper												1112					

Upper	1641
Lower	1750
Unknown	200
Total	3590

TABLE S1-MADERA TRIANGLE T RANCH (MTTR), AMERICAN DAIRY, AND CROSS CREEK FARMS WELL DATA

Cross Creek Farms Well Data

Owner	Well No.	Aquifer	Well Log DWR No.	Date Drilled	2021 Meas. Point Elev. (ft)	Total Depth (ft)	Cased Depth (ft)	Diameter (in)	Perforation Depth (ft)		Annular Seal (ft)		Notes	Pumpage (acre-feet)	2021 Pump Test	2021 Water Quality Analysis	Depth to Water (feet) Fall 2020	Depth to Water (feet) Spring 2021	Depth to Water (feet) Fall 2021
									Top	Bottom	Top	Bottom		2021					
Cross Creek Farms	C8	Upper	71552	3/75	125.62	186	151	18	151	186				1327		yes	30	28	40
Cross Creek Farms	C9	Upper	153333	10/86	123.08	165	165	8	130	165				179		yes	20	18	24
Cross Creek Farms	C11	Upper			125.09		224	16	149	228						yes	26	24	32
Cross Creek Farms	C16	Upper	574101	12/95	123.88	232	232	16	149	228				696		yes	18	18	24
Cross Creek Farms	C18	Upper			125.63	500	500	16 & 14	295	494				0		yes	35	40	34
Cross Creek Farms	C19	Composite			123.39		449	16	218	433				0			83	85	125
Cross Creek Farms	C20	Upper			123.15	224	195	16	195	224				1305		yes	55	42	48
Cross Creek Farms	C21	Lower	E0228553	8/14	124.01	450	450	16	300	450				214		yes	125	106	111

Upper	3,507
Lower	214
Composite	0
Total	3,721

Water-Level Measurements

In February 2021, depth to water measurements were taken for 86 of the MTTR wells, including five of the lower aquifer monitor wells. In late November 2021, depth to water measurements were taken for 88 of the MTTR wells, including all six of the lower aquifer monitoring wells. These readings are included in Table S1, and all well readings since 2015 are included in Appendix B. Readings from the monitor wells and their companion shallow aquifer production wells indicate the hydraulic head difference between the two aquifers. February 2021 water levels ranged from 74 to 106 feet deep in the upper aquifer, and 126 to 157 feet deep in the lower aquifer. The resulting hydraulic head differences ranged from 37 to 60 feet. November 2021 water levels ranged from 78 to 128 feet deep in the upper aquifer, and 127 to 164 feet deep in the lower aquifer, with resulting hydraulic head differences ranging from 24 to 56 feet. These water level ranges for both February and November 2021 did not change significantly from those in the fall of 2020.

Figure S1 is a location map for all MTTR wells. Due to the limited amount of data available in some of the years prior to 2020, hydrographs for groups of wells located in the same general vicinity were plotted in Figures S2 through S4. The ranch was divided into six regions consisting of east and west zones north of Berenda Slough, between Berenda Slough and the Fresno

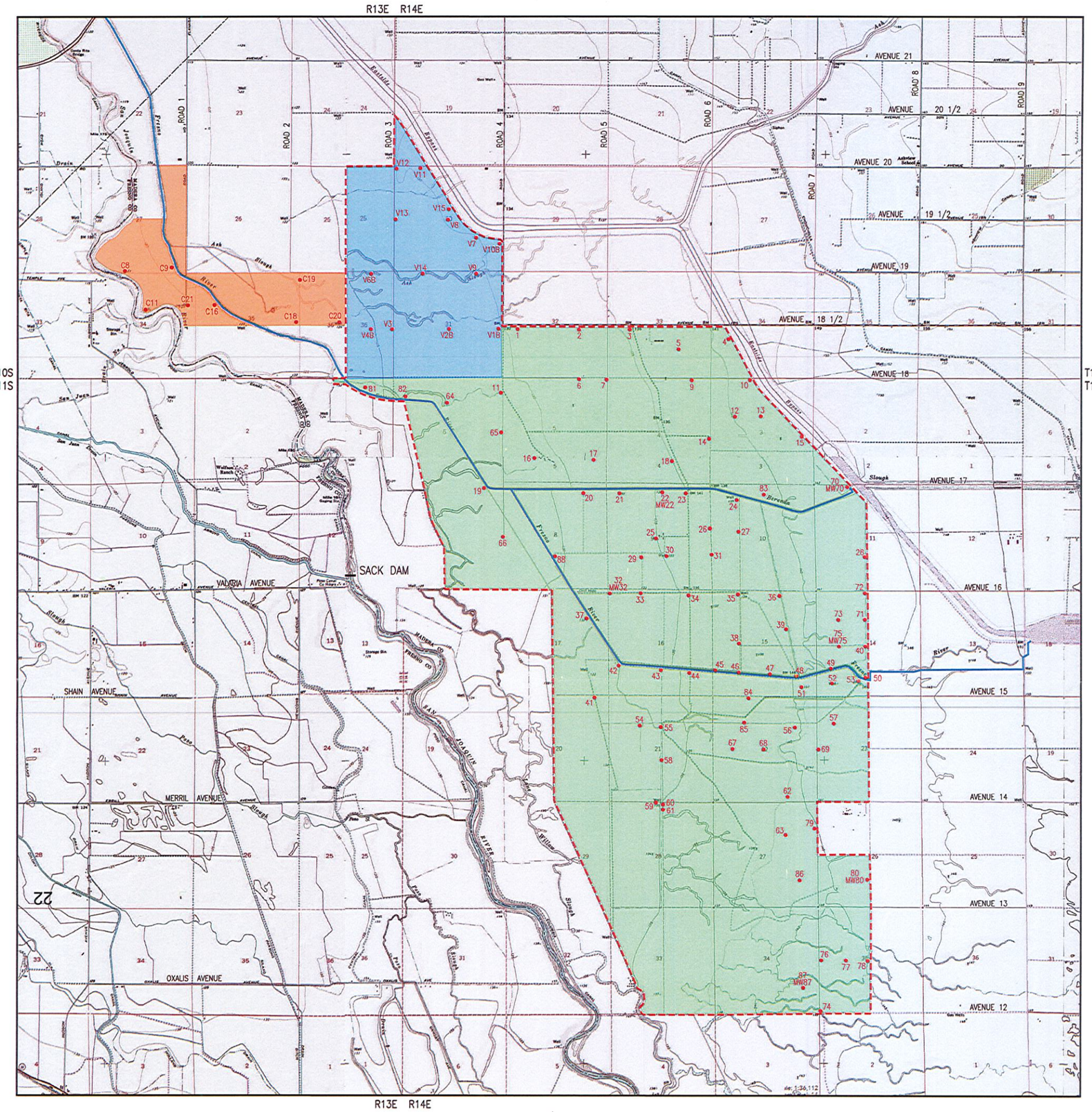
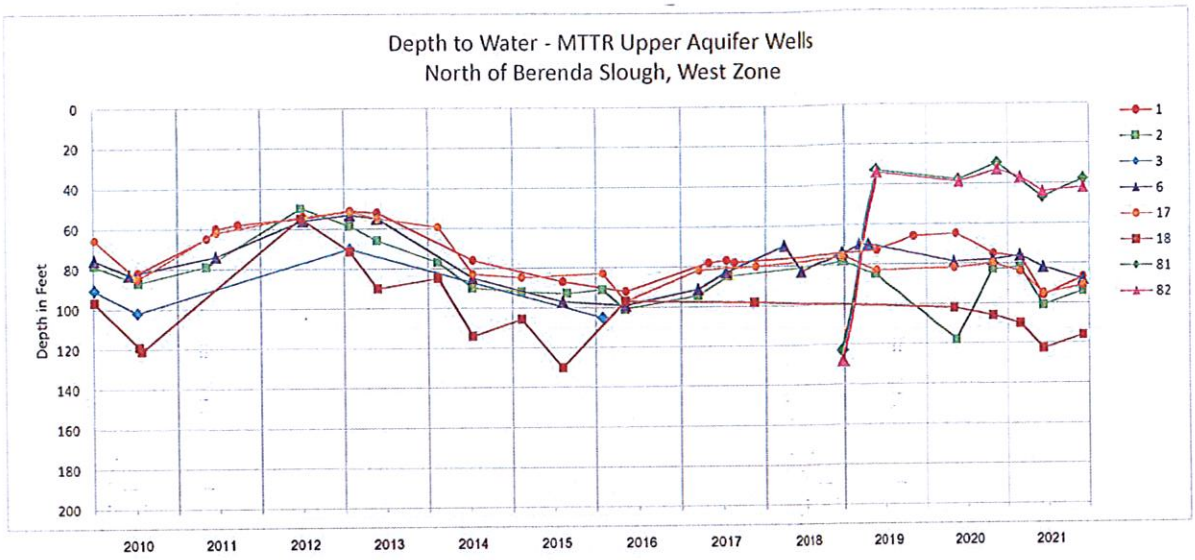
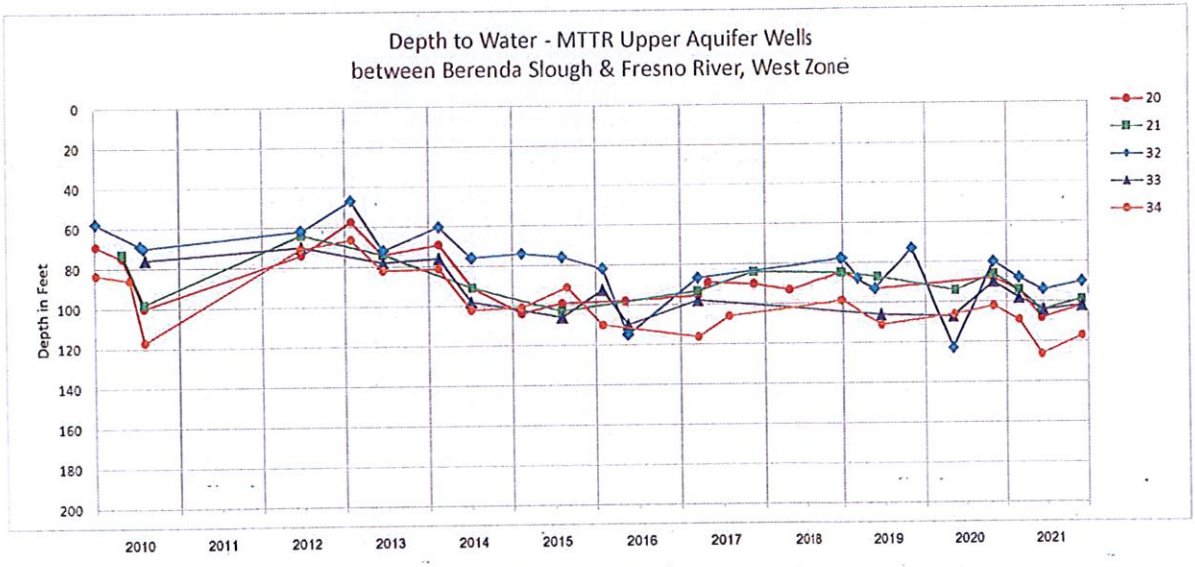


FIGURE S1-MTTR, AMERICAN DAIRY & CROSS CREEK FARMS WELL LOCATIONS





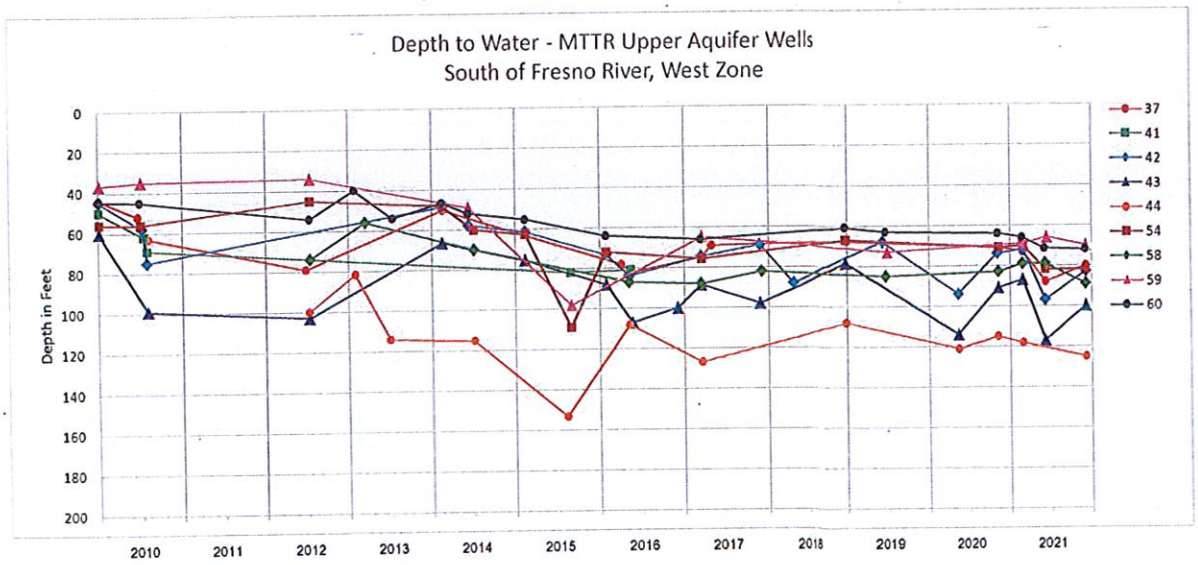
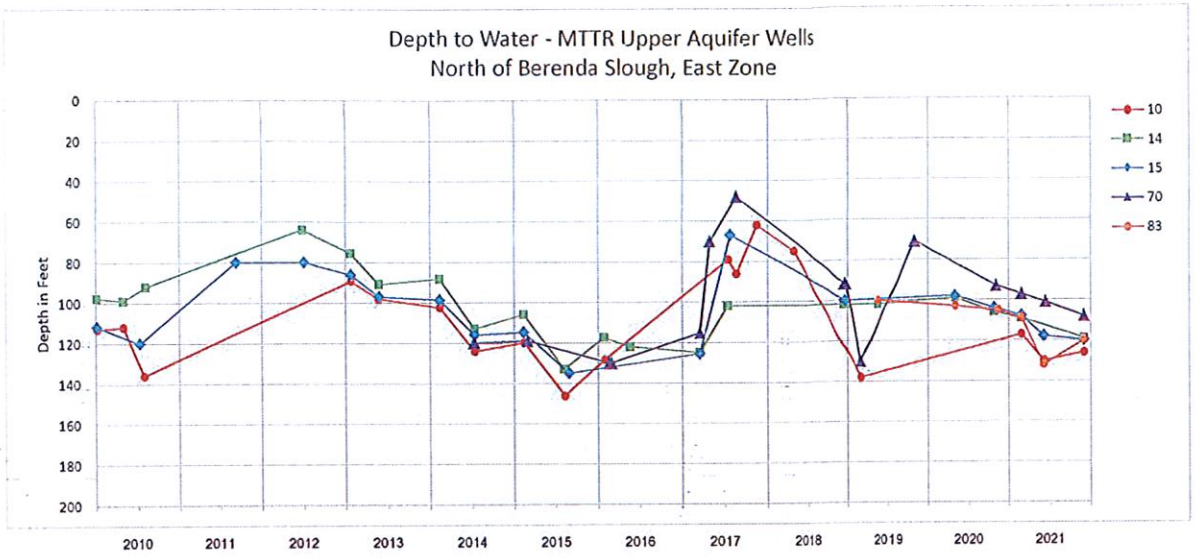
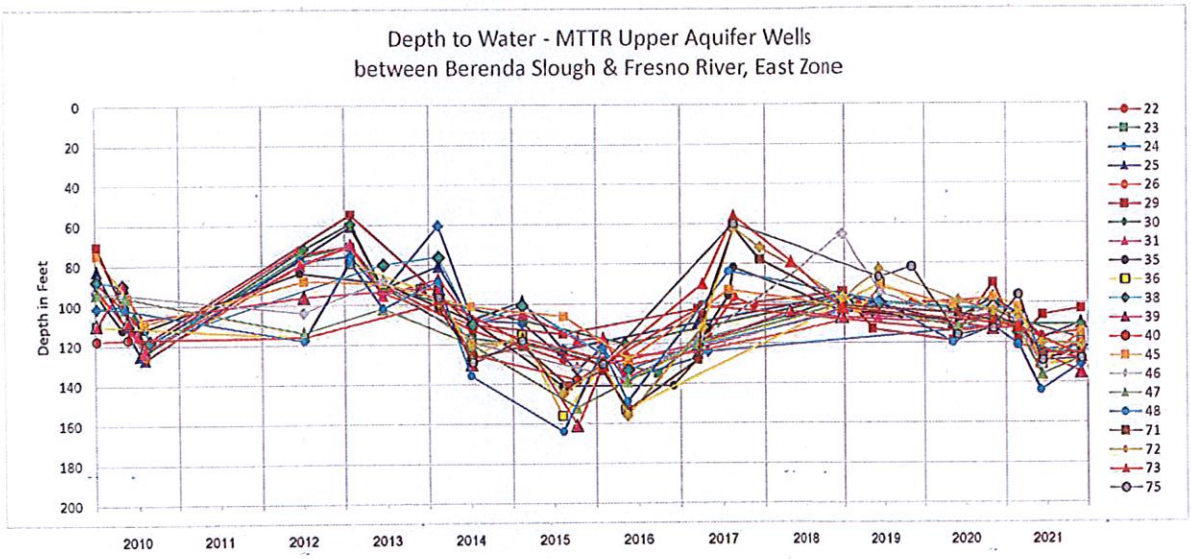


FIGURE S2-DEPTH TO WATER-MTTR UPPER AQUIFER WELLS-WEST ZONE





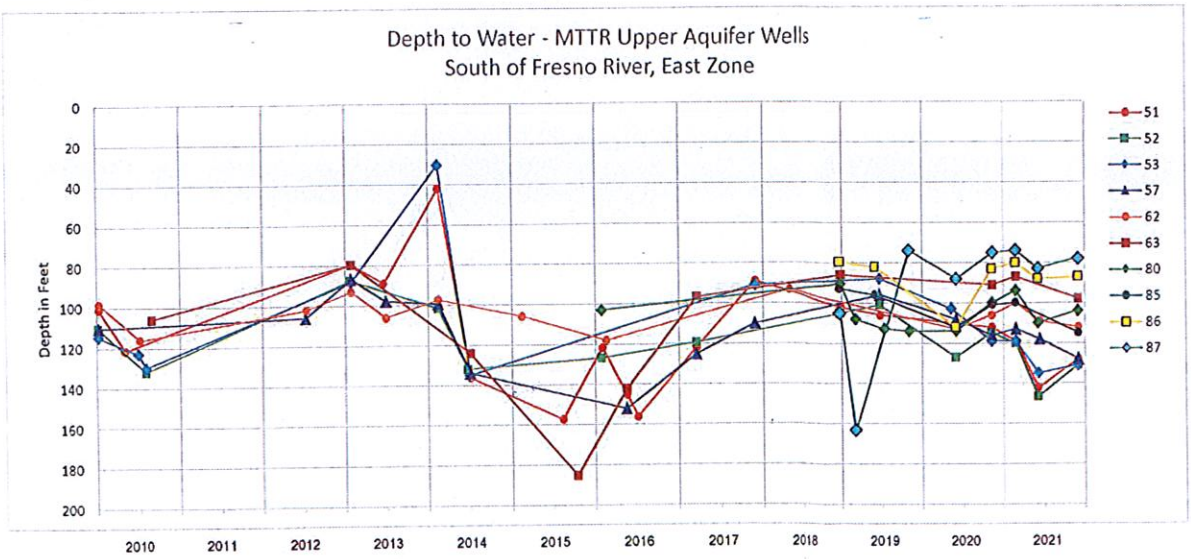
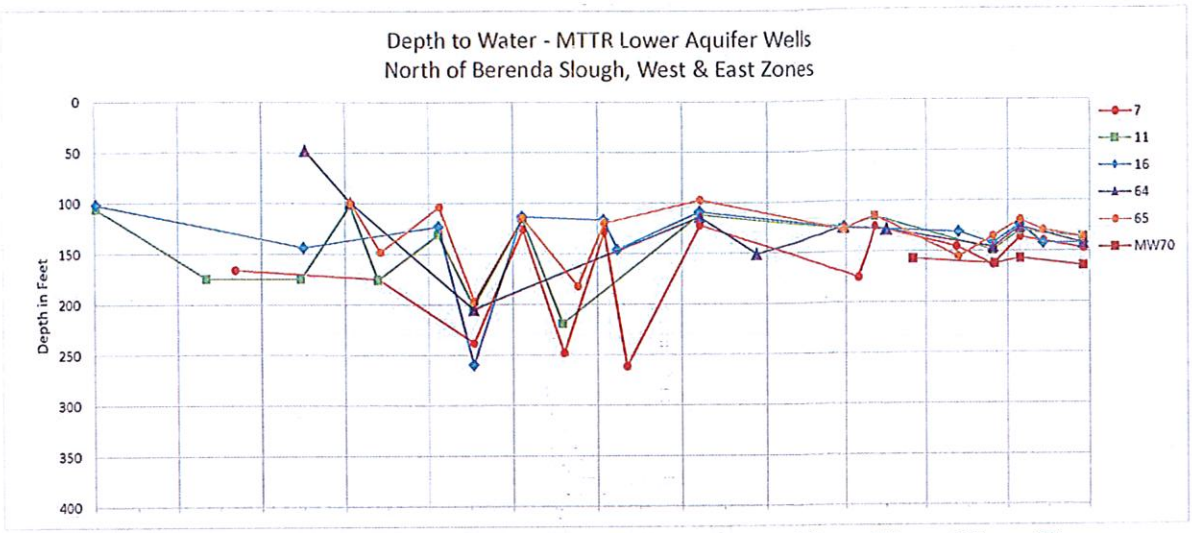
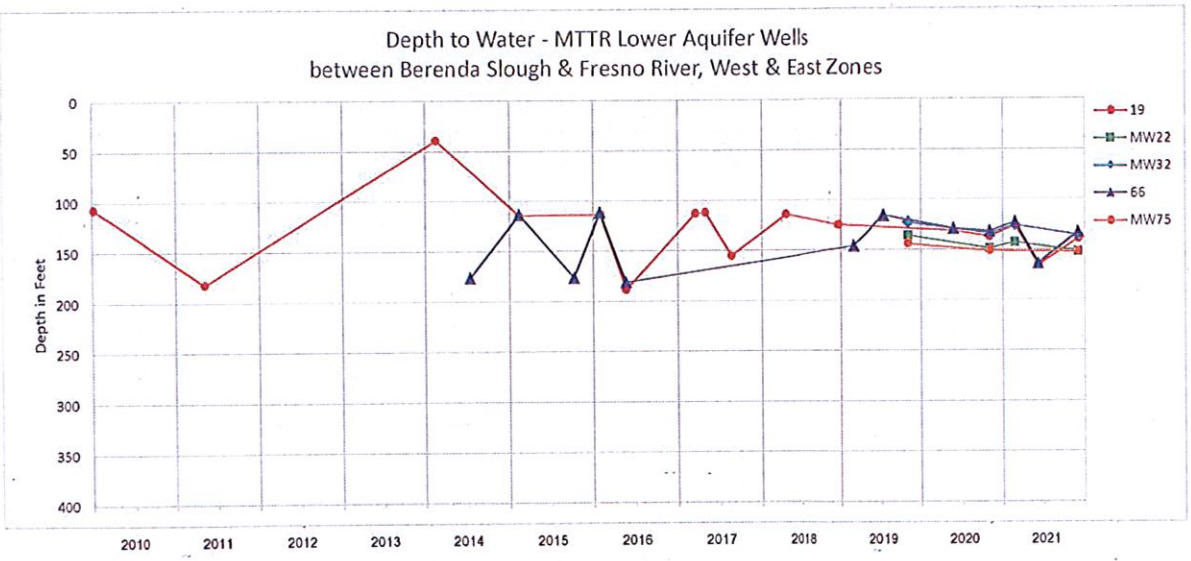


FIGURE S3-DEPTH TO WATER-MTTR UPPER AQUIFER WELLS-EAST ZONE





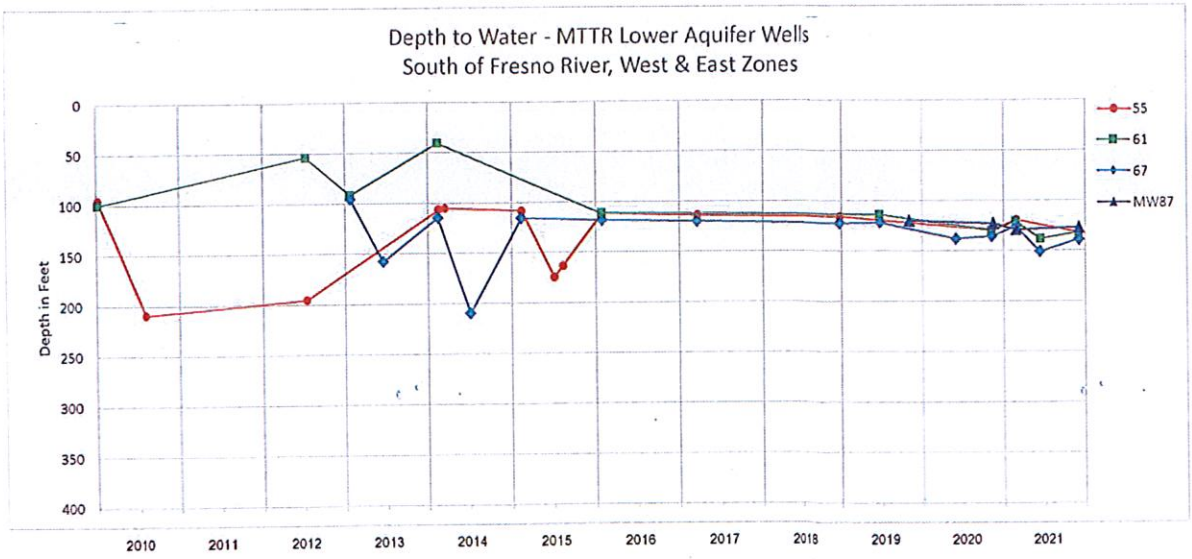


FIGURE S4-DEPTH TO WATER-MTTR LOWER AQUIFER WELLS

River, and south of the Fresno River. The hydrographs in Figures S2 and S3, which are for upper aquifer wells, generally show a downward trend in the levels from 2012 through 2016, and an upward trend from 2017 through 2020 when groundwater pumping was reduced and more surface water supplies were imported to the ranch. There was a moderate decline in water levels from 2020 to 2021. This is to be expected since MTTR relied on shallow aquifer pumping for the majority of its irrigation supplies due to the draught conditions and no availability of surface water supplies. Figure S4, which is for lower aquifer wells in both the east and west zones, shows seasonal fluctuations, but year to year levels have remained stable since 2012.

A GPS survey of all the well head measuring points was conducted in early 2021. This information together with the depth to water measurements provides for accurate plotting of water level elevation contours in Figures 2 and 3. The measuring point elevations are included in Table S1.

Pumpage

The MTTR wells are equipped with totalizing flow meters which are read monthly. The 2021 totals for each well are listed in Table S1, and totals from the years 2013 through 2021 are in-

cluded in Appendix C. Total 2021 pumpage from MTTR upper aquifer wells was 24,334 acre-feet. Total pumpage from lower aquifer wells was 1,284 acre-feet, and total pumpage from composite wells with perforations in both aquifers was 1,814 acre-feet. Total pumpage from all wells was 27,432 acre-feet. Pumpage by MMTR increased significantly compared to 2020 due to the draught conditions and lack of available surface water supplies.

Pump Tests

Pump tests, which include static and pumping water levels and the pumping rate, are done annually on most irrigation wells to evaluate pump efficiency and changes in specific capacity that could indicate plugging of perforations or other issues. Table S1 indicates the wells that were tested in 2021.

Surface Water Diverted for Irrigation

Surface water diverted from Poso and Columbia Canals, the Fresno River and Berenda Slough, and flood water diverted from the Eastside Bypass to irrigate fields is measured with totalizing flow meters at the diversion lift pumps. As indicated in Table S2, the draught conditions and lack of available surface water supplies meant that no surface or flood water could be delivered to MTTR in 2021.

TABLE S2-WATER DIVERSIONS

Madera Triangle T Ranch - John Hancock	
Source	2021 Diversions (ac-ft)
Poso Canal	0
Columbia Canal	0
Fresno River	0
Eastside Bypass	0
Total	0

American Dairy - Dirk Vlot	
Source	2021 Diversions (ac-ft)
Poso Canal	0
Fresno River	0
Eastside Bypass	0
Total	0

Cross Creek Farms - Case Vlot	
Source	2021 Diversions (ac-ft)
Poso Canal	0
Fresno River	0
Total	0

Stream and Canal Seepage

Surface water flows in canals and rivers are measured by a consultant hydrologist and recorded along with staff gauge readings. The total volume of surface water that enters the ranch is greater than the sum of diversions from the canals and rivers plus the volume that flows out of the ranch. This difference is attributed to channel seepage within the ranch and subsequent groundwater recharge of the upper aquifer. Since no flood water could be delivered in the Fresno River and Berenda Slough, the total volume attributed to seepage in 2021 was zero.

Recharge Basin Infiltration

Flood water can be diverted from the Eastside Bypass through the Fresno River to the 360-acre groundwater recharge basin in Sections 14 and 15 (T11S, R14E) and the diversion volume can be measured at the 14A intake pumps. Flood water diverted through the Fresno River can also be delivered to the 160-acre groundwater recharge basin in Section 35 (T11S, R14E). This basin recharge volume is included in the seepage volume and not measured separately. The two recharge basins comprise 4.6 percent of MTTR and nearly 4 percent of the aggregate area of MTTR, American Dairy, and Cross Creek Farms. This satisfies the Subsidence Abatement Agreement requirement for at least 3.5 percent of the

ranches' aggregate acreage to be devoted to recharge basins. Since no flood water was available in 2021, there were no diversions to the abovementioned recharge basins.

Crop Data

The acreage, age, and type of trees grown in MTTR are compiled annually to determine if measured volumes of applied irrigation water compare favorably with expected irrigation volumes, based on standard consumptive water use information. As of 2021 there were approximately 6,500 acres of 7 to 10 year old almonds trees, and 4,800 acres of 7 to 10 year old pistachios trees being grown in MTTR. The total applied irrigation in MTTR (pumpage and surface water diversions less basin recharge and channel seepage) was 27,432 acre-feet or 2.43 acre-feet per acre. The average crop irrigation demand estimated by the ranch's agronomist (including effective precipitation) was 3.14 acre-feet per acre. MTTR indicated they intentionally deficit irrigated in 2021 to conserve groundwater and minimize deep aquifer pumping, and this resulted in lower crop yields.

Well Sampling and Chemical Analyses

Water samples are collected annually from most wells and sent to a laboratory for irrigation suitability analysis. These

analyses include concentrations of the following constituents: pH, electrical conductivity, total dissolved solids, sodium adsorption ratio, adjusted sodium adsorption ratio, dissolved calcium, manganese, sodium, bicarbonate, carbonate, chloride, nitrate, boron, iron, and manganese. Table S1 indicates the wells that were analyzed for water quality in 2021. Analytes of primary concern are electrical conductivity (EC) and Boron. EC test results for MTTR wells ranged from 0.3 to 4.9 decisiemens per meter (dS/m) in 2021. MTTR's target for maximum EC levels is 1.50 dS/m. However, they sometimes must use blended well water with EC levels up to 2.5 dS/cm. MTTR manages EC levels by blending water from different wells, although sometimes even the blended water exceeds desirable EC levels. Boron levels ranged from 0.02 to 0.15. Desirable concentrations for Boron are 0.00 to 0.75 parts per million (ppm). MTTR sometimes adds Boron to increase the concentration applied to its pistachio trees. Fertilizers and soil amendments are also used to compensate for other analytes that are outside desirable ranges.

American Dairy (formerly Cowifornia Dreamin') - Dirk Vlot

Effective January 1, 2021, Cowifornia Dreamin' officially changed their business name to American Dairy.

Wells

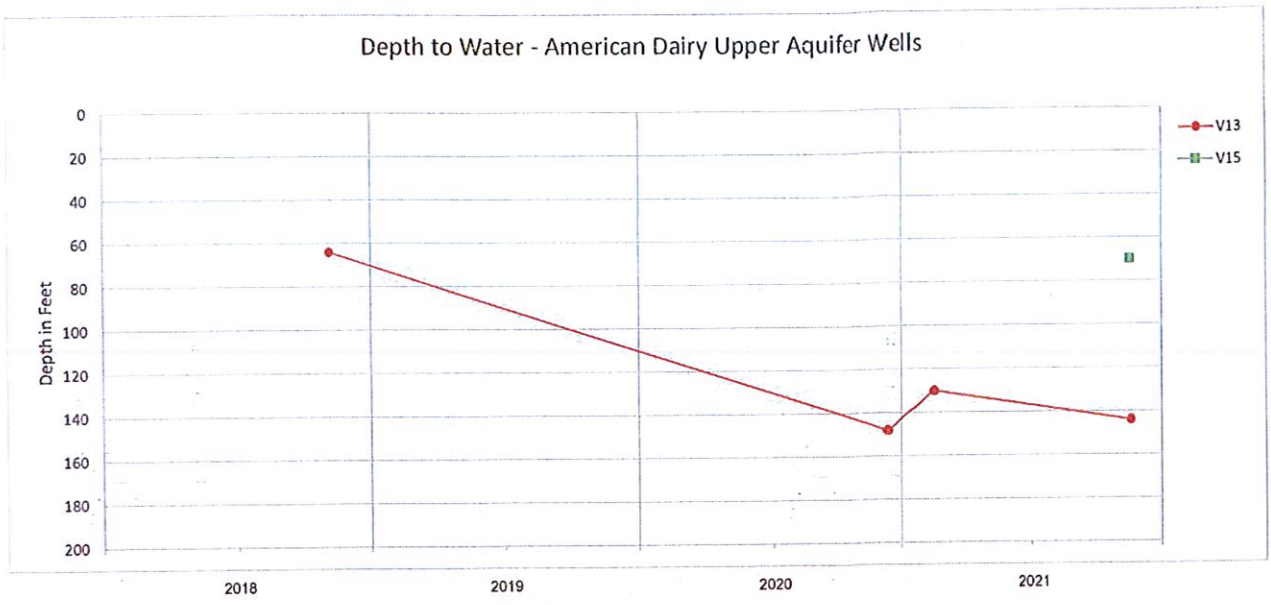
An updated summary of the American Dairy (AD) wells is provided in Table S1. AD has two (2) upper aquifer wells, 11 lower aquifer wells, and one (1) well of indeterminate construction. Figure S1 indicates the locations of AD's wells. Upper aquifer Well No. V15 was constructed on the ranch during 2021. To minimize lower aquifer pumping, AD also used MTTR's Well No. 1 to irrigate AD lands in 2021.

Water-Level Measurements

The water levels in 10 AD wells were measured in February and November of 2021. These readings are included in Table S1, and all well readings since 2018 are included in Appendix B. Figure S5 includes hydrographs of these well readings. Water levels in both aquifers fluctuated seasonally, but the fall 2021 readings were about the same or slightly higher than fall 2020 readings.

A GPS survey of all the well head measuring points was conducted in early 2021. This information together with the depth to water measurements provides for accurate plotting of water level elevation contours in Figures 2 and 3. The measuring point elevations are included in Table S1.

Pumpage



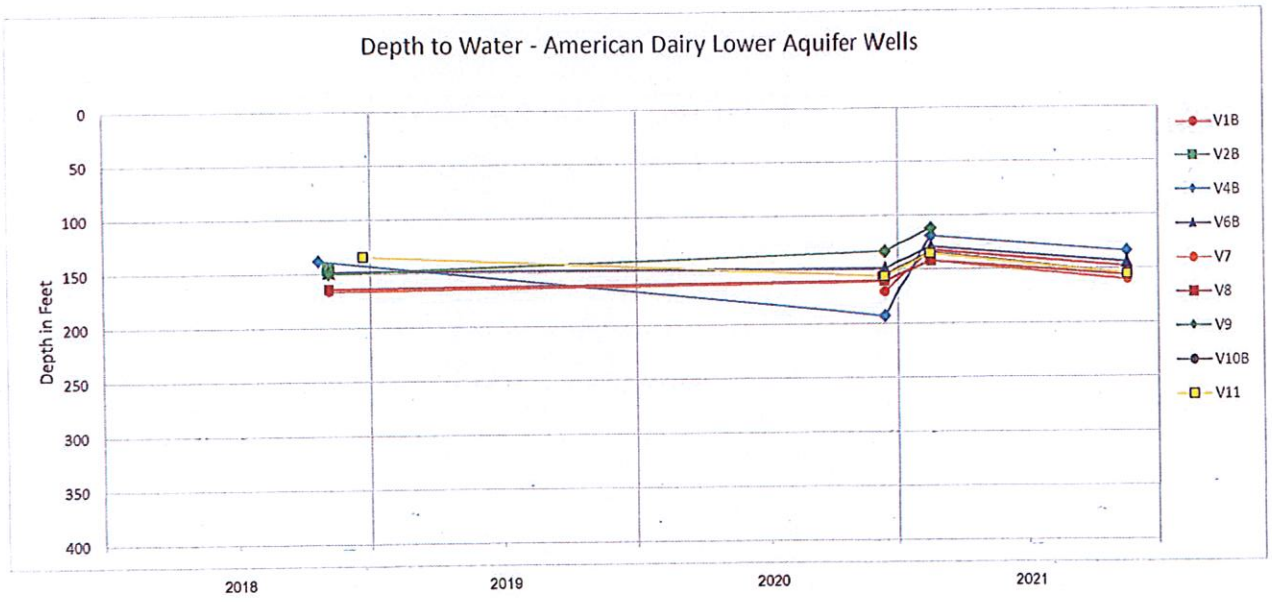


FIGURE S5-DEPTH TO WATER-AMERICAN DAIRY WELLS

Beginning in 2018 pumpage from AD wells has been estimated using power consumption records and well efficiency pump tests. Currently the Pow Wow system is being used with this method. The 2021 totals for each well are listed in Table S1, and totals from the years 2019 through 2021 are included in Appendix C. Total 2021 pumpage by AD from the two (2) AD and one (1) MTTR upper aquifer wells was 1641 acre-feet. Total pumpage from the 11 lower aquifer wells was 1,750 acre-feet, and total pumpage from the one (1) well of unknown construction was 200 acre-feet. Total pumpage from all wells used by AD was 3,590 acre-feet.

Pump Tests

Pump tests of all AD wells were last conducted in 2018 to determine pump efficiencies.

Surface Water Diverted for Irrigation

Surface water diverted from the Poso Canal to irrigate AD fields is measured with totalizing flow meters at the diversion lift pumps. Flood water from the Eastside Bypass has occasionally been diverted with a portable pump on the left embankment of the Bypass. As indicated in Table S2, the draught conditions and lack of available surface water supplies meant that no surface or flood water could be delivered to AD in 2021.

Stream and Canal Seepage

AD does not have riparian rights to streams and rivers in the area and no canals cross the property. Thus, except for seepage from the Eastside Bypass, surface water flow monitoring for the calculation of channel seepage is unnecessary.

Crop Data

The acreage, age, and type of trees grown in AD, as well as the acreage and type of grain crops grown, are compiled annually to determine if measured volumes of applied irrigation water compare favorably with expected irrigation volumes, based on standard consumptive water use information. As of 2021 there were 1072 acres of 5 year old pistachio trees and 159 acres of 1 year old pistachio trees being grown in AD. Corn and wheat totaled 578 acres. The total applied irrigation in AD (pumpage and surface water diversions) was 3,590 acre-feet or 2.02 acre-feet per acre. Crop demands based on published evapotranspiration (excluding effective precipitation) rates for the crops grown in AD were 3.62 acre-feet per acre. AD's farm manager indicated that they deficit irrigated all crops in 2021 and had significantly reduced yields.

Well Sampling and Chemical Analyses

Water samples are collected occasionally for most wells and sent to a laboratory for partial irrigation water analysis. Analytes include electrical conductivity, total dissolved solids, total nitrogen, nitrate-nitrogen, and ammonia-nitrogen. No water quality testing was indicated for AD in 2021.

Cross Creek Farms-Case Vlot

Wells

A summary of Cross Creek Farms (CCF) wells is provided in Table S1. CCF has 6 upper aquifer wells, one (1) lower aquifer well, and one (1) composite well that taps both aquifers. Figure S1 indicates the locations of CCF's wells.

Water-Level Measurements

The water levels in all 8 CCF wells were measured in the February and December of 2021. These readings are included in Table S1, and all well readings since 2018 are included in Appendix B. Figure S6 includes hydrographs of these well readings. Water levels in both aquifers fluctuated seasonally, but on average the fall 2021 readings were about the same as the fall 2020 readings.

A GPS survey of all the well head measuring points was conducted in early 2021. This information together with the depth

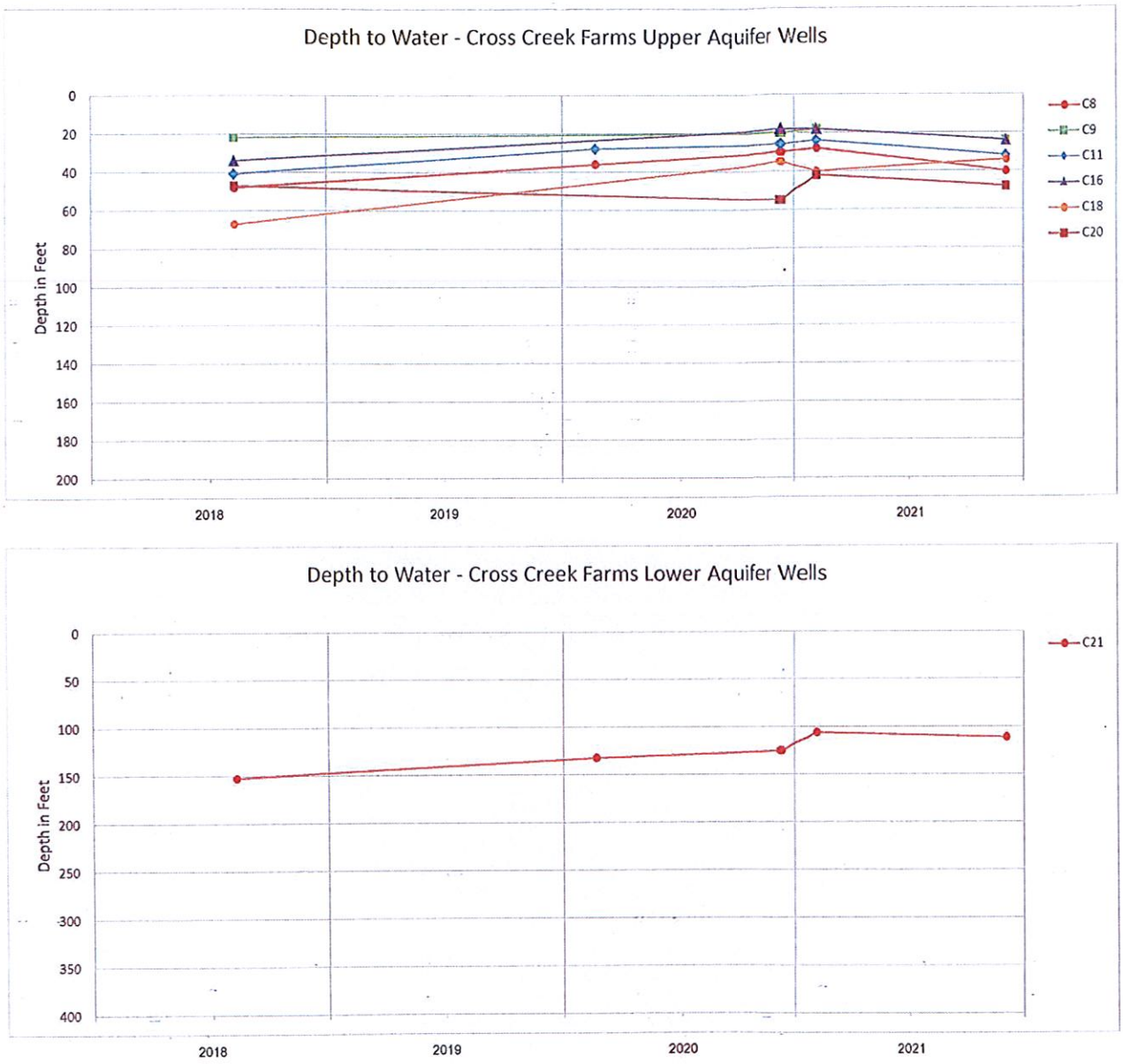


FIGURE S6-DEPTH TO WATER-CROSS CREEK FARMS WELLS

to water measurements provides for accurate plotting of water level elevation contours in Figures 2 and 3. The measuring point elevations are included in Table S1.

Pumpage

The CCF wells are equipped with totalizing flow meters which are read monthly. The 2021 totals for each well are listed in Table S1, and totals from the years 2017 through 2021 are included in Appendix C. Total 2021 pumpage from the 6 CCF upper aquifer wells was 3,507 acre-feet. Total pumpage from the one (1) lower aquifer well was 214 acre-feet, and there was no pumpage from the one (1) composite well with perforations in both aquifers. Total pumpage from all wells was 3,721 acre-feet.

Pump Tests

Pump tests of CCF's wells were last conducted in 2018 and 2020 to determine pump efficiencies.

Surface Water Diverted for Irrigation

Surface water diverted from the Poso Canal to irrigate CCF fields is measured with totalizing flow meters at the diversion lift pumps. Flood water from the Fresno River has occasionally

been diverted using Lift Pump 17 and other portable pumps temporarily placed on the right bank levee. As indicated in Table S2, the draught conditions and lack of available surface water supplies meant that no surface or flood water could be delivered to CCF in 2021.

Stream and Canal Seepage

Fresno River flows are not measured at CCF. The river bisects the ranch and seepage from the channel provides some recharge to the upper aquifer when the river is flowing. To reduce flooding, the southern farm road was raised where it crosses the Fresno River channel near Lift Pump 17. The channel crossing was improved by installing larger diameter culverts, which are gated so flood water can be retained for enhanced channel seepage. No other canals or streams cross the ranch. Seepage from the San Joaquin River, which runs near the west ranch boundary, has not been determined.

Crop Data

The acreage, age, and type of trees grown in CCF, as well as the acreage and type of grain crops grown, are compiled annually to determine if measured volumes of applied irrigation water compare favorably with expected irrigation volumes, based on

standard consumptive water use information. As of 2021 there were 531 acres of almond trees being grown in CCF which ranged from 1 to 16 years old. Alfalfa totaled 76 acres, and corn and winter forage totaled 428 acres. CCF updated the acreage they are irrigating with wells in the Subsidence Abatement Agreement from 835 to 1035 acres. This change occurred in 2019 but was not included in the 2019 annual report. The total applied irrigation in CCF (pumpage and surface water diversions) was 3,721 acre-feet or 3.60 acre-feet per acre. Crop demands based on published evapotranspiration rates (excluding effective precipitation) for the crops grown in CCF were 4.26 acre-feet per acre, indicating that CCF deficit irrigated.

Well Sampling and Chemical Analyses

Water samples are collected occasionally for most wells and sent to a laboratory for partial irrigation water analysis. Analytes include electrical conductivity, total dissolved solids, total nitrogen, nitrate-nitrogen, and ammonia-nitrogen. Table S1 indicates the 7 CCF wells that were tested for water quality in 2021. EC levels ranged from 0.3 to 2.2 dS/m. The maximum desirable EC level for almonds is 0.75 dS/m.

Subsidence Abatement

Table S3 is a summary of the water use and pumping that occurred in MTTR, AD, and CCF in 2017 through 2021. The second block of the table shows the actual acre-feet per acre that was pumped from the lower aquifer versus the corresponding contractual threshold in each year. In 2021 the allowable pumping for the lower aquifer was 0.50 acre-foot per acre while the actual pumping was only 0.37 acre-foot per acre.

Beginning in April of 2021, the landowners and Exchange Contractors conducted several conference calls and meetings to determine the allowable lower aquifer pumping for 2021. Due to the draught conditions and no availability of surface water supplies, the landowners requested the limit on lower aquifer pumping be increased to 0.75 acre-feet per acre. Following an analysis by the expert panel (Kenneth D. Schmidt and Associates [KDSA] and Summers Engineering) it was agreed that deep wells within approximately 3-miles of the San Joaquin River would be limited to 0.5 acre-feet per acre and deep wells beyond 3-miles would be allowed to pump up to 0.75 acre-feet per acre. Additionally, upper aquifer pumping would be increased to compensate for the lack of surface water supplies. Actual lower aquifer pumping within 3-miles of the River was 0.45 acre-feet per acre and lower aquifer pumping beyond 3-miles of the River was 0.27 acre-feet per acre. Therefore, actual lower aquifer pumping was

TABLE S3-SUBSIDENCE ABATEMENT AGREEMENT SUMMARY

	MTTR					Cross Creek Farms					American Dairy (Cowifornia Dreamin')					Grand Total				
Irrigated Acreage	11,300					835		1,035			1,776					13,911		14,111		
Description	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Total Well Pumpage (a-f)	13,596	21,121	19,029	19,645	27,432	2,113	3,290	3,386	5,242	3,721	1,380	3,353	1,573	5,591	3,591	17,089	27,764	23,988	30,478	34,744
Deep Well Pumpage (a-f)	832	3,002	512	194	3,098	460	968	108	206	214	485	3,008	1,150	4,955	1,950	1,777	6,978	1,770	5,355	5,262
Deep Well Pumpage (a-f/ac)	0.07	0.27	0.05	0.02	0.27	0.55	1.16	0.10	0.20	0.21	0.27	1.69	0.65	2.78	1.10	0.13	0.50	0.13	0.38	0.37
Shallow Well Pumpage (a-f)	12,764	18,119	18,517	19,451	24,334	1,653	2,322	3,278	5,036	3,507	895	345	423	636	1,641	15,312	20,786	22,218	25,123	29,482
Shallow Well Pumpage (a-f/ac)	1.13	1.60	1.64	1.72	2.15	1.98	2.78	3.17	4.87	3.39	0.50	0.19	0.24	0.36	0.92	1.10	1.49	1.57	1.78	2.09
Siphon Purchases (a-f)	0	3,876	7,757	7,265	0	0	763	413	0	0	0	3,640	2,576	2,064	0	0	8,279	10,746	9,329	0
Siphon Purchases (a-f/ac)	0.00	0.34	0.69	0.64	0.00	0.00	0.91	0.40	0.00	0.00	0.00	2.05	1.45	1.16	0.00	0.00	0.60	0.76	0.66	0.00
Fresno River Diversions (a-f)	15,041	620	10,858	0	0	625	0	149	0	0	0	0	0	0	0	15,666	620	11,007	0	0
Fresno River Diversions (a-f/ac)	1.33	0.05	0.96	0.00	0.00	0.75	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.04	0.78	0.00	0.00
Eastside Bypass Diversions (a-f)	0	360	1,360	0	0	0	0	0	0	0	6,987	985	1,685	0	0	6,987	1,345	3,045	0	0
Eastside Bypass Diversions (a-f/ac)	0.00	0.03	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.93	0.55	0.95	0.00	0.00	0.50	0.10	0.22	0.00	0.00
Total Well Pumpage (a-f/ac)	1.20	1.87	1.68	1.74	2.43	2.53	3.94	3.27	5.06	3.60	0.78	1.89	0.89	3.15	2.02	1.23	2.00	1.70	2.16	2.46
Total Water Usage (a-f/ac)	2.53	2.30	3.45	2.38	2.43	3.28	4.85	3.81	5.06	3.60	4.71	4.49	3.28	4.31	2.02	2.86	2.73	3.46	2.82	2.46

Subsidence Abatement Agreement Deep Pumping Thresholds: Defined in Contract Section 10(b)

	2017 (ac-ft/ac)			2018 (ac-ft/ac)			2019 (ac-ft/ac)			2020 (ac-ft/ac)			2021 (ac-ft/ac)		
	Defined	Actual	Balance	Defined	Actual	Balance	Defined	Actual	Balance	Defined	Actual	Balance	Defined	Actual	Balance
Irrigated Acreage	0.90	0.13	0.77	0.75	0.50	0.25	0.65	0.13	0.52	0.60	0.38	0.22	0.50	0.37	0.13
Gross Acreage	0.90	0.12	0.78	0.75	0.48	0.27	0.65	0.12	0.53	0.60	0.36	0.24	0.50	0.35	0.15

Ranch	Gross Acreage						Irrigated Acreage					
	Acres	2017 (ac-ft/ac)	2018 (ac-ft/ac)	2019 (ac-ft/ac)	2020 (ac-ft/ac)	2021 (ac-ft/ac)	Acres	2017 (ac-ft/ac)	2018 (ac-ft/ac)	2019 (ac-ft/ac)	2020 (ac-ft/ac)	2021 (ac-ft/ac)
Cowifornia Dreamin'	1,798	0.27	1.67	0.64	2.76	1.08	1,776	0.27	1.69	0.65	2.79	1.10
Cross Creek Farms (2017-18)	892	0.52	1.09	-	-	-	835	0.55	1.16	-	-	-
Cross Creek Farms (2019-21)	1,092	-	-	0.10	0.19	0.20	1,035	-	-	0.10	0.20	0.21
MTTR	12,000	0.07	0.25	0.04	0.02	0.26	11,300	0.07	0.27	0.05	0.02	0.27
Total (2017-18)	14,690	0.12	0.48	-	-	-	13,911	0.13	0.50	-	-	-
Total (2019-21)	14,890	-	-	0.12	0.35	0.35	14,111	-	-	0.13	0.38	0.37

safely below the agreed upon limits.

Monitoring Enhancements

Land Subsidence

As long as the currently active Reclamation leveling surveys and DWR InSAR program continue there is no need to implement an independent subsidence monitoring program. To assist the landowners and Exchange Contractors in determining future pumping limits, it has been proposed that the correlation of lower aquifer pumping and subsidence be analyzed each year. KDSA drafted a memo during the latter half of 2021 describing such an analysis and the need to increase the frequency of elevation surveys at Sack Dam. If this method is adopted, additional surveys will need to be implemented by the landowners to supplement the existing data being collected by Reclamation and DWR.

Water Levels

In MTTR there are six lower aquifer monitor wells which were installed in 2019. Four of these six monitor wells (Nos. MW22, MW32, MW70 & MW80) have pressure transducer installations capable of constant water level monitoring. Five upper aquifer production wells (Nos. 22, 32, 73, 80 & 87) also have pressure

transducer installations capable of constant water level monitoring, and three of these are companions to the nearby monitor wells noted above. The cloud based system that logs this data and provides on-line access to authorized users became operational in 2021. Most of the wells were monitored through the end of October or mid-November of 2021. For unknown reasons Well No. 32 was not logged after May, while Well Nos. 80 and 87 were logged through the entire year. Data from the system approximately matches the manual well soundings collected during the year. The system logs water level measurements every 15 minutes, which generates a voluminous amount of data. Appendix D includes tabulations of daily water-level readings which were culled from the data.

Pumpage

Pumpage from MTTR wells continues to be measured by flow meters which are read monthly. All pumpage from AD wells continues to be estimated using power consumption records and well efficiency pump tests, with power meter readings recorded monthly. Pumpage from CCF wells is measured by flow meters which have been in service since 2019. The flow meter readings are recorded monthly.

Measuring Point Elevations

A GPS survey of all the MTTR, AD, and CCF well head measuring points was conducted in early 2021 and this elevation data was used together with depth to water readings to plot the water level elevation contours presented in Figures 2 and 3. The measuring point elevations are included in Table S1.

Well Construction

No additional construction information has been acquired for MTTR Well No. 74, AD Well No. V12, or CCF Well No. C19. When these well pumps are removed for maintenance, the wells should be video inspected. AD constructed a new upper aquifer well in 2021, which is designated herein as Well No. V15. Data for the construction of Well No. V15 is included in Table S1.

Surface Water Flow and Diversions

The Rubicon flow measurement gates installed on the Fresno River at Grover Junction, the turnout to the Dusthammer North Canal, and at the mouth of Berenda Slough enable MTTR to more easily measure channel seepage losses on the ranch (when flood water is available). Vegetation in the Fresno River downstream of the takeout from the Eastside Bypass and downstream of the measurement weir near the west boundary of MTTR may interfere

with the stage/discharge relation at these sites. These channel reaches should be cleaned.

Recharge Basins

Seepage from the Fresno River could be enhanced and credited as recharge to the upper aquifer by checking up the water level at the south boundary of CCF and measuring the difference between inflows and outflows. Seepage from the Fresno River within CCF could also be credited as recharge to the upper aquifer by measuring the difference between inflows and the sum of outflows and diversions.

Well Sampling and Chemical Analysis

No water quality testing was indicated for AD in 2021. Seven (7) of the CCF wells were tested in 2021. However, the tests did not include all of the analytes recommended in previous annual reports, which are listed as follows: pH, electrical conductivity, total dissolved solids, sodium adjusted adsorption ratio, adjusted adsorption ratio, dissolved calcium, magnesium, sodium, alkalinity, bicarbonate, carbonate, chloride, nitrates, boron, and manganese.

APPENDIX A
LAND SUBSIDENCE RECORDS

Gmail **Cheryl Lassotovitch <classotovitch@gmail.com>**

Fw: 2021 Sack Dam Info

Kenneth D. Schmidt <kdschmidt@bak.rr.com> Thu, Mar 17, 2022 at 2:42 PM
To: Cherie Lassotovitch <classotovitch@gmail.com>

for ken

From: Christopher Rogers
Sent: Thursday, March 17, 2022 12:58 PM
To: Kenneth D. Schmidt
Subject: RE: 2021 Sack Dam Info

For the Sack Dam monitor wells, the west well measuring point elevation is 123.03 ft. The east well measuring point elevation is 124.86 ft.

Hetfield Subsidence Site (#10063):

Date	Elevation (ft)
12/01/2021	130.928
07/21/2021	130.993
12/01/2020	131.216
07/01/2019	131.495

375 USE Subsidence Site (#10007):

Date	Elevation (ft)
12/01/2021	126.844
07/21/2021	126.932
12/01/2020	127.086
12/01/2019	127.297

From: Kenneth D. Schmidt <kdschmidt@bak.rr.com>
Sent: Thursday, March 17, 2022 10:21 AM
To: Christopher Rogers <CRogers@ccidwater.org>
Subject: Re: 2021 Sack Dam Info

thanks

From: Christopher Rogers

APPENDIX B

DEPTH TO WATER MEASUREMENTS

MTTR,
AMERICAN DAIRY &
CROSS CREEK FARMS

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2010																
			January	April		May					June								
			5	26	28	5	17	18	20	27	2	4	13	16	23	24	28	29	30
MTTR	1	Upper																	
MTTR	2	Upper	78.4																
MTTR	3	Upper	90.6																
MTTR	4	Composite	111.4																
MTTR	5	Composite	106																
MTTR	6	Upper	75.5								83								
MTTR	7	Lower																	
MTTR	9	Composite																	
MTTR	10	Upper	112.9		112														
MTTR	11	Lower	105.8																
MTTR	12	Composite	108.4																
MTTR	13	Composite	109		115.5														
MTTR	14	Upper	97.6		99														
MTTR	15	Upper	111.7																
MTTR	16	Lower	101.8																
MTTR	17	Upper	65.6																
MTTR	18	Upper	96.8																
MTTR	19	Lower	107																
MTTR	20	Upper	69.1		75														
MTTR	21	Upper			73														
MTTR	22	Upper	88.4										107		107				
MTTR	MW-22	Lower																	
MTTR	23	Upper				102													
MTTR	24	Upper	101.4	100															
MTTR	25	Upper	82.6																
MTTR	26	Upper	93																
MTTR	27	Composite	106.3																
MTTR	28	Composite	116.5																
MTTR	29	Upper	70.5											115					
MTTR	30	Upper													105				
MTTR	31	Upper	91									115				115			
MTTR	32	Upper	57.8																
MTTR	MW-32	Lower																	
MTTR	33	Upper																	
MTTR	34	Upper	83.5							86									
MTTR	35	Upper	93.8	112															
MTTR	36	Upper	110																
MTTR	37	Upper	44											52					
MTTR	38	Upper	87.9	90															
MTTR	39	Upper	109.7	90				108											
MTTR	40	Upper	117.7						117										
MTTR	41	Upper	50																
MTTR	42	Upper	44.8																
MTTR	43	Upper	60.4																
MTTR	44	Upper																	
MTTR	45	Upper	75				96												
MTTR	46	Upper	93																
MTTR	47	Upper	93.9			96													
MTTR	48	Upper	101.4			102													
MTTR	49	Composite	110.6																
MTTR	50	Composite	114.1						117										
MTTR	51	Upper	101	121.4															

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2010																
			January	April		May					June								
			5	26	28	5	17	18	20	27	2	4	13	16	23	24	28	29	30
MTTR	52	Upper	110.4																
MTTR	53	Upper	114.6													123			
MTTR	54	Upper	56															56	
MTTR	55	Lower	95.4																
MTTR	56	Composite																	
MTTR	57	Upper	110.4																
MTTR	58	Upper																	
MTTR	59	Upper	36.7																35
MTTR	60	Upper	44.6														45		
MTTR	61	Lower	100																
MTTR	62	Upper	98.2																116
MTTR	63	Upper																	
MTTR	64	Lower																	
MTTR	65	Lower																	
MTTR	66	Lower																	
MTTR	67	Lower																	
MTTR	68	Composite																	
MTTR	69	Composite																	
MTTR	70	Upper																	
MTTR	MW-70	Lower																	
MTTR	71	Upper																	
MTTR	72	Upper																	
MTTR	73	Upper																	
MTTR	74	Composite																	
MTTR	75	Upper																	
MTTR	MW-75	Lower																	
MTTR	76	Composite																	
MTTR	77	Composite																	
MTTR	78	Composite																	
MTTR	79	Composite																	
MTTR	80	Upper																	
MTTR	MW-80	Lower																	
MTTR	81	Upper																	
MTTR	82	Upper																	
MTTR	83	Upper																	
MTTR	84	Upper																	
MTTR	85	Upper																	
MTTR	86	Upper																	
MTTR	87	Upper																	
MTTR	MW-87	Lower																	
MTTR	88	Upper																	

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2010														2011			
			July										August			May	June	September	
			6	7	8	12	13	14	25	26	28	29	30	3	4	23	6	17	9	21
MTTR	1	Upper		82													65	60		58
MTTR	2	Upper					87										79			
MTTR	3	Upper		102																
MTTR	4	Composite		130																
MTTR	5	Composite		62																
MTTR	6	Upper																74		
MTTR	7	Lower																	166	
MTTR	9	Composite	77																	
MTTR	10	Upper							136											
MTTR	11	Lower															175			
MTTR	12	Composite	109												150					
MTTR	13	Composite																259		
MTTR	14	Upper												92						
MTTR	15	Upper		120															80	
MTTR	16	Lower																		
MTTR	17	Upper			85													62		
MTTR	18	Upper						119	121											
MTTR	19	Lower															182			
MTTR	20	Upper								100										
MTTR	21	Upper											98							
MTTR	22	Upper								121										
MTTR	MW-22	Lower																		
MTTR	23	Upper								123										
MTTR	24	Upper							120	120										
MTTR	25	Upper			125								127							
MTTR	26	Upper			117										126					
MTTR	27	Composite													142					
MTTR	28	Composite				192														
MTTR	29	Upper									119									
MTTR	30	Upper											124							
MTTR	31	Upper								123										
MTTR	32	Upper					69			70	70									
MTTR	MW-32	Lower																		
MTTR	33	Upper													76					
MTTR	34	Upper									117									
MTTR	35	Upper								112			112							
MTTR	36	Upper																		
MTTR	37	Upper								63		63								
MTTR	38	Upper														118				
MTTR	39	Upper																		
MTTR	40	Upper																		
MTTR	41	Upper					62					69								
MTTR	42	Upper	58							75										
MTTR	43	Upper										99								
MTTR	44	Upper																		
MTTR	45	Upper								109										
MTTR	46	Upper																		
MTTR	47	Upper																		
MTTR	48	Upper																		
MTTR	49	Composite		110																
MTTR	50	Composite																		
MTTR	51	Upper																		
MTTR	52	Upper										132								

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2010														2011			
			July										August			May	June	September	
			6	7	8	12	13	14	25	26	28	29	30	3	4	23	6	17	9	21
MTTR	53	Upper									130									
MTTR	54	Upper																		
MTTR	55	Lower										209								
MTTR	56	Composite																		
MTTR	57	Upper																		
MTTR	58	Upper																		
MTTR	59	Upper																		
MTTR	60	Upper																		
MTTR	61	Lower																		
MTTR	62	Upper																		
MTTR	63	Upper														106				
MTTR	64	Lower																		
MTTR	65	Lower																		
MTTR	66	Lower																		
MTTR	67	Lower																		
MTTR	68	Composite																		
MTTR	69	Composite																		
MTTR	70	Upper																		
MTTR	MW-70	Lower																		
MTTR	71	Upper																		
MTTR	72	Upper																		
MTTR	73	Upper																		
MTTR	74	Composite																		
MTTR	75	Upper																		
MTTR	MW-75	Lower																		
MTTR	76	Composite																		
MTTR	77	Composite																		
MTTR	78	Composite																		
MTTR	79	Composite																		
MTTR	80	Upper																		
MTTR	MW-80	Lower																		
MTTR	81	Upper																		
MTTR	82	Upper																		
MTTR	83	Upper																		
MTTR	84	Upper																		
MTTR	85	Upper																		
MTTR	86	Upper																		
MTTR	87	Upper																		
MTTR	MW-87	Lower																		
MTTR	88	Upper																		

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2012									
			June					July				
			14	19	20	22	27	2	3	5	6	9
MTTR	1	Upper				55						
MTTR	2	Upper				50						
MTTR	3	Upper										
MTTR	4	Composite										
MTTR	5	Composite										
MTTR	6	Upper						56				
MTTR	7	Lower										
MTTR	9	Composite										
MTTR	10	Upper										
MTTR	11	Lower				175						
MTTR	12	Composite					152					
MTTR	13	Composite						162				
MTTR	14	Upper					64					
MTTR	15	Upper						80				
MTTR	16	Lower						144				
MTTR	17	Upper						54				
MTTR	18	Upper				55						
MTTR	19	Lower										
MTTR	20	Upper		74								
MTTR	21	Upper		64								
MTTR	22	Upper	72					74		74		
MTTR	MW-22	Lower										
MTTR	23	Upper	76									
MTTR	24	Upper	78									
MTTR	25	Upper										
MTTR	26	Upper			80							
MTTR	27	Composite	138									
MTTR	28	Composite	152									
MTTR	29	Upper										
MTTR	30	Upper						72				
MTTR	31	Upper	80									
MTTR	32	Upper	62	62								
MTTR	MW-32	Lower										
MTTR	33	Upper		70								
MTTR	34	Upper	71									
MTTR	35	Upper	84									
MTTR	36	Upper									116	
MTTR	37	Upper		79								
MTTR	38	Upper										
MTTR	39	Upper							96			
MTTR	40	Upper								116		
MTTR	41	Upper										
MTTR	42	Upper										
MTTR	43	Upper									103	
MTTR	44	Upper							100			
MTTR	45	Upper							88			
MTTR	46	Upper							104			
MTTR	47	Upper							114			
MTTR	48	Upper							118			
MTTR	49	Composite								108		
MTTR	50	Composite								114		
MTTR	51	Upper										

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2012									
			June					July				
			14	19	20	22	27	2	3	5	6	9
MTTR	52	Upper										
MTTR	53	Upper										
MTTR	54	Upper										45
MTTR	55	Lower										195
MTTR	56	Composite								96		
MTTR	57	Upper									106	
MTTR	58	Upper										74
MTTR	59	Upper										34
MTTR	60	Upper										54
MTTR	61	Lower										54
MTTR	62	Upper										102
MTTR	63	Upper										
MTTR	64	Lower										48
MTTR	65	Lower										
MTTR	66	Lower										
MTTR	67	Lower										
MTTR	68	Composite										
MTTR	69	Composite										
MTTR	70	Upper										
MTTR	MW-70	Lower										
MTTR	71	Upper										
MTTR	72	Upper										
MTTR	73	Upper										
MTTR	74	Composite										
MTTR	75	Upper										
MTTR	MW-75	Lower										
MTTR	76	Composite										
MTTR	77	Composite										
MTTR	78	Composite										
MTTR	79	Composite										
MTTR	80	Upper										
MTTR	MW-80	Lower										
MTTR	81	Upper										
MTTR	82	Upper										
MTTR	83	Upper										
MTTR	84	Upper										
MTTR	85	Upper										
MTTR	86	Upper										
MTTR	87	Upper										
MTTR	MW-87	Lower										
MTTR	88	Upper										

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2013										
			January	March	May			June				July	November
			23	10	22	24	31	11	12	14	25	9	25
MTTR	1	Upper	51.2		52								
MTTR	2	Upper	58.6		66								
MTTR	3	Upper	70.3										
MTTR	4	Composite	88.3										
MTTR	5	Composite	83.7										
MTTR	6	Upper	53.2		55								
MTTR	7	Lower			175								
MTTR	9	Composite											
MTTR	10	Upper	89.3		98								
MTTR	11	Lower	102.4			176							
MTTR	12	Composite											
MTTR	13	Composite	98.9		150								
MTTR	14	Upper	75.6			91							
MTTR	15	Upper	86.2			97							
MTTR	16	Lower											
MTTR	17	Upper	51.6			55							
MTTR	18	Upper	71.4			90							
MTTR	19	Lower											
MTTR	20	Upper	57.4					74					
MTTR	21	Upper						74					
MTTR	22	Upper	70.5					90		90			
MTTR	MW-22	Lower											
MTTR	23	Upper	70.7					91					
MTTR	24	Upper	75.7					94					
MTTR	25	Upper	60.6						92				
MTTR	26	Upper	70.7					94					
MTTR	27	Composite	97.7								139		
MTTR	28	Composite	103.5					154					
MTTR	29	Upper	54.7										
MTTR	30	Upper	59.4						92				
MTTR	31	Upper	69.7					95					
MTTR	32	Upper	46.9						72	72			
MTTR	MW-32	Lower											
MTTR	33	Upper							78				
MTTR	34	Upper	66.4					82					
MTTR	35	Upper						89					
MTTR	36	Upper	79.2										92
MTTR	37	Upper											
MTTR	38	Upper								80			
MTTR	39	Upper											92
MTTR	40	Upper											
MTTR	41	Upper											
MTTR	42	Upper											
MTTR	43	Upper											
MTTR	44	Upper	81.6								114		
MTTR	45	Upper							89				
MTTR	46	Upper								88			
MTTR	47	Upper							102				
MTTR	48	Upper	78.5						102				
MTTR	49	Composite											
MTTR	50	Composite	90.5										
MTTR	51	Upper	79.4							89			

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2013										
			January	March	May			June				July	November
			23	10	22	24	31	11	12	14	25	9	25
MTTR	52	Upper	87.7										
MTTR	53	Upper	88.5										
MTTR	54	Upper											
MTTR	55	Lower											
MTTR	56	Composite	79.6							93			
MTTR	57	Upper	86.9								98		
MTTR	58	Upper		56									
MTTR	59	Upper											
MTTR	60	Upper	40									54	
MTTR	61	Lower	91.6										
MTTR	62	Upper	93.1								106		
MTTR	63	Upper	79.6										
MTTR	64	Lower	99.2										
MTTR	65	Lower	99.5				148						
MTTR	66	Lower											
MTTR	67	Lower	95.9							158			
MTTR	68	Composite	91.9							140			
MTTR	69	Composite	101							175			
MTTR	70	Upper											
MTTR	MW-70	Lower											
MTTR	71	Upper											
MTTR	72	Upper											
MTTR	73	Upper											
MTTR	74	Composite											
MTTR	75	Upper											
MTTR	MW-75	Lower											
MTTR	76	Composite											
MTTR	77	Composite											
MTTR	78	Composite											
MTTR	79	Composite											
MTTR	80	Upper											
MTTR	MW-80	Lower											
MTTR	81	Upper											
MTTR	82	Upper											
MTTR	83	Upper											
MTTR	84	Upper											
MTTR	85	Upper											
MTTR	86	Upper											
MTTR	87	Upper											
MTTR	MW-87	Lower											
MTTR	88	Upper											

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2014								
			February	March	June			July			
			14	10	6	20	30	2	3	7	11
MTTR	1	Upper									76
MTTR	2	Upper	77								90
MTTR	3	Upper									
MTTR	4	Composite									
MTTR	5	Composite									
MTTR	6	Upper									85
MTTR	7	Lower									238
MTTR	9	Composite									
MTTR	10	Upper	102.2								124
MTTR	11	Lower	131.1								202
MTTR	12	Composite									186
MTTR	13	Composite									214
MTTR	14	Upper	88.3								113
MTTR	15	Upper	98.6								116
MTTR	16	Lower	123.3								260
MTTR	17	Upper	59.3								83
MTTR	18	Upper	85								114
MTTR	19	Lower	39.2								
MTTR	20	Upper	69.2							91	
MTTR	21	Upper								91	
MTTR	22	Upper								113	
MTTR	MW-22	Lower									
MTTR	23	Upper								117	
MTTR	24	Upper	60.6							108	
MTTR	25	Upper	80.9					108			
MTTR	26	Upper								110	
MTTR	27	Composite	118.7							155	
MTTR	28	Composite	132.2							204	
MTTR	29	Upper								110	
MTTR	30	Upper									
MTTR	31	Upper	87							109	
MTTR	32	Upper	60.4					76		76	
MTTR	MW-32	Lower									
MTTR	33	Upper	76.2					98			
MTTR	34	Upper	81.2					102			
MTTR	35	Upper							108		
MTTR	36	Upper	92.6						126		
MTTR	37	Upper	50.2								
MTTR	38	Upper	76.2							110	
MTTR	39	Upper	92						130		
MTTR	40	Upper	99.2							125	
MTTR	41	Upper									
MTTR	42	Upper	48.8		58						
MTTR	43	Upper	66.6								
MTTR	44	Upper					115				
MTTR	45	Upper						101			
MTTR	46	Upper						119			
MTTR	47	Upper						120			
MTTR	48	Upper	88.5					136			
MTTR	49	Composite									
MTTR	50	Composite								144	
MTTR	51	Upper	42				136				

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2014								
			February	March	June			July			
			14	10	6	20	30	2	3	7	11
MTTR	52	Upper	101.6			132					
MTTR	53	Upper	30.5				135				
MTTR	54	Upper	48.2				60				
MTTR	55	Lower	106.4	105							
MTTR	56	Composite					128				
MTTR	57	Upper	99.3				134				
MTTR	58	Upper					70				
MTTR	59	Upper			49						
MTTR	60	Upper	46.6		52						
MTTR	61	Lower	40.75								
MTTR	62	Upper	97.2								
MTTR	63	Upper					124				
MTTR	64	Lower									205
MTTR	65	Lower	103.5								197
MTTR	66	Lower									176
MTTR	67	Lower	114.9				210				
MTTR	68	Composite	117.1				169				
MTTR	69	Composite	121.6				197				
MTTR	70	Upper								120	120
MTTR	MW-70	Lower									
MTTR	71	Upper	101.6							127	
MTTR	72	Upper	98.4							120	
MTTR	73	Upper	97.1								
MTTR	74	Composite	73.8								
MTTR	75	Upper	96.4							129	
MTTR	MW-75	Lower									
MTTR	76	Composite									
MTTR	77	Composite									
MTTR	78	Composite									
MTTR	79	Composite									
MTTR	80	Upper									
MTTR	MW-80	Lower									
MTTR	81	Upper									
MTTR	82	Upper									
MTTR	83	Upper									
MTTR	84	Upper									
MTTR	85	Upper									
MTTR	86	Upper									
MTTR	87	Upper									
MTTR	MW-87	Lower									
MTTR	88	Upper									

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2015												
			February		June		August						October		
			9	26	19	30	3	4	6	7	11	26	6	9	19
MTTR	1	Upper							87						
MTTR	2	Upper	92									93			
MTTR	3	Upper													
MTTR	4	Composite													
MTTR	5	Composite													
MTTR	6	Upper							97						
MTTR	7	Lower	125.6						248						
MTTR	9	Composite													
MTTR	10	Upper	119.7						146						
MTTR	11	Lower	115				219								
MTTR	12	Composite							326						
MTTR	13	Composite							326						
MTTR	14	Upper	106						133						
MTTR	15	Upper	114.8									135			
MTTR	16	Lower	113.4												
MTTR	17	Upper	84.7												
MTTR	18	Upper	105.6						130						
MTTR	19	Lower	114.3												
MTTR	20	Upper	103.8					99							
MTTR	21	Upper						103							
MTTR	22	Upper						128							
MTTR	MW-22	Lower													
MTTR	23	Upper						123							
MTTR	24	Upper	109.5										133		
MTTR	25	Upper	98.7					123							
MTTR	26	Upper													
MTTR	27	Composite	122.2												
MTTR	28	Composite	134.7		202										184
MTTR	29	Upper						115							
MTTR	30	Upper													
MTTR	31	Upper	104.6										118		
MTTR	32	Upper	74.1					76							
MTTR	MW-32	Lower													
MTTR	33	Upper						106							
MTTR	34	Upper	101									91			
MTTR	35	Upper						141							
MTTR	36	Upper	115.2					156							
MTTR	37	Upper													
MTTR	38	Upper	100.7												
MTTR	39	Upper	117.2										161		
MTTR	40	Upper											138		
MTTR	41	Upper										82			
MTTR	42	Upper	61.6												
MTTR	43	Upper	75.5												
MTTR	44	Upper								153					
MTTR	45	Upper								106					
MTTR	46	Upper											132		
MTTR	47	Upper											152		
MTTR	48	Upper								164					
MTTR	49	Composite		129											
MTTR	50	Composite												140	
MTTR	51	Upper								157					

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2015												
			February		June		August						October		
			9	26	19	30	3	4	6	7	11	26	6	9	19
MTTR	52	Upper													
MTTR	53	Upper													
MTTR	54	Upper	62.6									109			
MTTR	55	Lower	108			174				163					
MTTR	56	Composite													
MTTR	57	Upper													
MTTR	58	Upper								87					
MTTR	59	Upper										98			
MTTR	60	Upper	55.2												
MTTR	61	Lower													
MTTR	62	Upper	105.7												
MTTR	63	Upper												185	
MTTR	64	Lower													
MTTR	65	Lower	114.7										182		
MTTR	66	Lower	113.6										176		
MTTR	67	Lower	115.8												
MTTR	68	Composite	112							172					
MTTR	69	Composite	122.5								234				
MTTR	70	Upper		119											
MTTR	MW-70	Lower													
MTTR	71	Upper	121									141			
MTTR	72	Upper	118					145							
MTTR	73	Upper	119												
MTTR	74	Composite	73.8												
MTTR	75	Upper	118.3												
MTTR	MW-75	Lower													
MTTR	76	Composite													
MTTR	77	Composite													
MTTR	78	Composite													
MTTR	79	Composite													
MTTR	80	Upper													
MTTR	MW-80	Lower													
MTTR	81	Upper													
MTTR	82	Upper													
MTTR	83	Upper													
MTTR	84	Upper													
MTTR	85	Upper													
MTTR	86	Upper													
MTTR	87	Upper													
MTTR	MW-87	Lower													
MTTR	88	Upper													

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2016																
			January	February			March		May						June		September	November	
			26	12	17	27	25	29	3	4	12	13	16	17	9	29	22	28	29
MTTR	1	Upper								92									
MTTR	2	Upper	91.2							101									
MTTR	3	Upper	105.2																
MTTR	4	Composite	126.1																
MTTR	5	Composite																	
MTTR	6	Upper							99										
MTTR	7	Lower	128						261										
MTTR	9	Composite	117.3																
MTTR	10	Upper	128.4																
MTTR	11	Lower																	
MTTR	12	Composite							198						194				
MTTR	13	Composite							243										
MTTR	14	Upper	117.4											122					
MTTR	15	Upper																	
MTTR	16	Lower	116.5				146												
MTTR	17	Upper	83						97										
MTTR	18	Upper							97										
MTTR	19	Lower	113.2										188						
MTTR	20	Upper							98										
MTTR	21	Upper																	
MTTR	22	Upper							126										
MTTR	MW-22	Lower																	
MTTR	23	Upper															135		
MTTR	24	Upper	122						138										
MTTR	25	Upper																	
MTTR	26	Upper								131									
MTTR	27	Composite											168						
MTTR	28	Composite	137																
MTTR	29	Upper																	
MTTR	30	Upper							120										
MTTR	31	Upper	117						137										
MTTR	32	Upper	81.8								115		115						
MTTR	MW-32	Lower																	
MTTR	33	Upper	92.5										110						
MTTR	34	Upper	110																
MTTR	35	Upper																141	
MTTR	36	Upper	130							153									
MTTR	37	Upper						78					82						
MTTR	38	Upper											133						
MTTR	39	Upper	130.4																
MTTR	40	Upper																	
MTTR	41	Upper									81								
MTTR	42	Upper	73.4							84									
MTTR	43	Upper	88.1											107					100
MTTR	44	Upper								108									
MTTR	45	Upper											128						
MTTR	46	Upper									138								
MTTR	47	Upper									139								
MTTR	48	Upper	123.2								149								
MTTR	49	Composite																	
MTTR	50	Composite																	
MTTR	51	Upper	121.6								145					156			

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2016																
			January	February			March		May						June		September	November	
			26	12	17	27	25	29	3	4	12	13	16	17	9	29	22	28	29
MTTR	52	Upper	126.9																
MTTR	53	Upper																	
MTTR	54	Upper	71.9																
MTTR	55	Lower	111.1																
MTTR	56	Composite																	
MTTR	57	Upper									152								
MTTR	58	Upper								88									
MTTR	59	Upper																	
MTTR	60	Upper	63.9																
MTTR	61	Lower	111.3																
MTTR	62	Upper		118															
MTTR	63	Upper										142							
MTTR	64	Lower																	
MTTR	65	Lower	119.6																
MTTR	66	Lower	111.8											181					
MTTR	67	Lower	118.4																
MTTR	68	Composite	117.6									141							
MTTR	69	Composite	124.2									201							
MTTR	70	Upper			130	130													
MTTR	MW-70	Lower																	
MTTR	71	Upper	133.5									153							
MTTR	72	Upper	131.1									156							
MTTR	73	Upper	130.9																
MTTR	74	Composite	79.8								126								
MTTR	75	Upper	130.2																
MTTR	MW-75	Lower																	
MTTR	76	Composite	85.3								122								
MTTR	77	Composite	91.6								123								
MTTR	78	Composite	91.9								159								
MTTR	79	Composite	92.8																
MTTR	80	Upper	103.1																
MTTR	MW-80	Lower																	
MTTR	81	Upper																	
MTTR	82	Upper																	
MTTR	83	Upper																	
MTTR	84	Upper																	
MTTR	85	Upper																	
MTTR	86	Upper																	
MTTR	87	Upper																	
MTTR	MW-87	Lower																	
MTTR	88	Upper																	

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2017													
			March	April		July			August	November						December
			13	3	25	11	21	25	15	9	14	15	20	22	29	4
MTTR	1	Upper			78	77			78							
MTTR	2	Upper	94.4				85									
MTTR	3	Upper														
MTTR	4	Composite														
MTTR	5	Composite														
MTTR	6	Upper	91.3			83										
MTTR	7	Lower	122													
MTTR	9	Composite	125.5													
MTTR	10	Upper				79			86	62						
MTTR	11	Lower	112													
MTTR	12	Composite	129.3													
MTTR	13	Composite	134.8													
MTTR	14	Upper	125			102										
MTTR	15	Upper	125.6				67									
MTTR	16	Lower	109													
MTTR	17	Upper	81.7								80					
MTTR	18	Upper								98						
MTTR	19	Lower	112.8		112				155							
MTTR	20	Upper	95.5		89					90						
MTTR	21	Upper	93.4							84						
MTTR	22	Upper	124.1		115				97	101						
MTTR	MW-22	Lower														
MTTR	23	Upper	118.8													
MTTR	24	Upper	127.3		124											
MTTR	25	Upper	109.5													
MTTR	26	Upper														
MTTR	27	Composite														
MTTR	28	Composite	118.4												146	
MTTR	29	Upper	102.6													
MTTR	30	Upper														
MTTR	31	Upper	122.2													
MTTR	32	Upper	86.9													
MTTR	MW-32	Lower														
MTTR	33	Upper	98													
MTTR	34	Upper	116.2					106								
MTTR	35	Upper	127.7		112			96	82							
MTTR	36	Upper														
MTTR	37	Upper	75		69											
MTTR	38	Upper	120.9													
MTTR	39	Upper	120.4													
MTTR	40	Upper		101												
MTTR	41	Upper														
MTTR	42	Upper	74.6											69		
MTTR	43	Upper	88.5											98		
MTTR	44	Upper	126.7													
MTTR	45	Upper						93								
MTTR	46	Upper	119													
MTTR	47	Upper	120.1													
MTTR	48	Upper						84								
MTTR	49	Composite														
MTTR	50	Composite														
MTTR	51	Upper	121.6										89			

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2017													
			March	April		July			August	November						December
			13	3	25	11	21	25	15	9	14	15	20	22	29	4
MTTR	52	Upper	119.3													
MTTR	53	Upper												91		
MTTR	54	Upper	75.6													
MTTR	55	Lower	113.6													
MTTR	56	Composite	117.8													
MTTR	57	Upper	125										110			
MTTR	58	Upper	82.2												85	
MTTR	59	Upper	64.7													
MTTR	60	Upper	66													
MTTR	61	Lower														
MTTR	62	Upper														
MTTR	63	Upper	96.6													
MTTR	64	Lower	114.1									151				
MTTR	65	Lower	97.2													
MTTR	66	Lower														
MTTR	67	Lower	120													
MTTR	68	Composite	120.5		121				135							
MTTR	69	Composite	129.7													
MTTR	70	Upper	115.3		70				48							
MTTR	MW-70	Lower														
MTTR	71	Upper	128.2	106					62							78
MTTR	72	Upper		112					62							72
MTTR	73	Upper		90					56							
MTTR	74	Composite	91.4		93				52							126
MTTR	75	Upper							60							
MTTR	MW-75	Lower														
MTTR	76	Composite	96.8													120
MTTR	77	Composite														
MTTR	78	Composite	107.6													
MTTR	79	Composite	108.6													
MTTR	80	Upper														
MTTR	MW-80	Lower														
MTTR	81	Upper														
MTTR	82	Upper														
MTTR	83	Upper														
MTTR	84	Upper														
MTTR	85	Upper														
MTTR	86	Upper														
MTTR	87	Upper														
MTTR	MW-87	Lower														
MTTR	88	Upper														

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2018					
			March	April			June	December
			19	12	16	17	2	20
MTTR	1	Upper						
MTTR	2	Upper						78.7
MTTR	3	Upper						
MTTR	4	Composite						
MTTR	5	Composite						
MTTR	6	Upper	70				83	74.3
MTTR	7	Lower						
MTTR	9	Composite						124.7
MTTR	10	Upper				75		
MTTR	11	Lower						127
MTTR	12	Composite						111.8
MTTR	13	Composite						106
MTTR	14	Upper						102
MTTR	15	Upper						100
MTTR	16	Lower						125.6
MTTR	17	Upper						75.8
MTTR	18	Upper						
MTTR	19	Lower		114				124.7
MTTR	20	Upper		93				84.5
MTTR	21	Upper						84.8
MTTR	22	Upper						
MTTR	MW-22	Lower						
MTTR	23	Upper						97.8
MTTR	24	Upper						
MTTR	25	Upper						95.6
MTTR	26	Upper						
MTTR	27	Composite						
MTTR	28	Composite						134.5
MTTR	29	Upper						94.1
MTTR	30	Upper						96.7
MTTR	31	Upper						103
MTTR	32	Upper						77.7
MTTR	MW-32	Lower						
MTTR	33	Upper						
MTTR	34	Upper						98.7
MTTR	35	Upper						104
MTTR	36	Upper						
MTTR	37	Upper						67.6
MTTR	38	Upper						
MTTR	39	Upper				104		107.1
MTTR	40	Upper						
MTTR	41	Upper						
MTTR	42	Upper			88			
MTTR	43	Upper						78.6
MTTR	44	Upper						108
MTTR	45	Upper						
MTTR	46	Upper						65.6
MTTR	47	Upper						100.3
MTTR	48	Upper						
MTTR	49	Composite						
MTTR	50	Composite						
MTTR	51	Upper						102.1

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2018					
			March	April			June	December
			19	12	16	17	2	20
MTTR	52	Upper						105.1
MTTR	53	Upper						
MTTR	54	Upper						67
MTTR	55	Lower						115.8
MTTR	56	Composite						
MTTR	57	Upper						
MTTR	58	Upper						
MTTR	59	Upper						
MTTR	60	Upper						60.9
MTTR	61	Lower						
MTTR	62	Upper				93		
MTTR	63	Upper						86
MTTR	64	Lower						125.7
MTTR	65	Lower						127.4
MTTR	66	Lower						
MTTR	67	Lower						122.6
MTTR	68	Composite						
MTTR	69	Composite						128.9
MTTR	70	Upper						91.8
MTTR	MW-70	Lower						
MTTR	71	Upper						101.4
MTTR	72	Upper						97.6
MTTR	73	Upper				79		102.4
MTTR	74	Composite						91
MTTR	75	Upper						
MTTR	MW-75	Lower						
MTTR	76	Composite						94.8
MTTR	77	Composite						
MTTR	78	Composite						101.8
MTTR	79	Composite						104.8
MTTR	80	Upper						90.6
MTTR	MW-80	Lower						
MTTR	81	Upper						122.9
MTTR	82	Upper						128
MTTR	83	Upper						
MTTR	84	Upper						
MTTR	85	Upper						92.9
MTTR	86	Upper						79.5
MTTR	87	Upper						105.1
MTTR	MW-87	Lower						
MTTR	88	Upper						

MTTR Well Readings

Depth to Water (ft)

Owner	Well No.	Aquifer	2019																
			March	April	May					June					July		September	October	
			1	15	3	9	14	15	28	2	3	11	18	20	1	9	14	29	
MTTR	1	Upper						73										66	
MTTR	2	Upper						85											
MTTR	3	Upper																	
MTTR	4	Composite																	
MTTR	5	Composite																	
MTTR	6	Upper	70	70															
MTTR	7	Lower	175			125													
MTTR	9	Composite				115													
MTTR	10	Upper	138																
MTTR	11	Lower				115													
MTTR	12	Composite																	
MTTR	13	Composite																	
MTTR	14	Upper						102											
MTTR	15	Upper																	
MTTR	16	Lower													120				
MTTR	17	Upper						83											
MTTR	18	Upper																	
MTTR	19	Lower																	
MTTR	20	Upper						93											
MTTR	21	Upper							87										
MTTR	22	Upper	101															100	
MTTR	MW-22	Lower																136	
MTTR	23	Upper																	
MTTR	24	Upper																	
MTTR	25	Upper			100														
MTTR	26	Upper							105										
MTTR	27	Composite																	
MTTR	28	Composite																	
MTTR	29	Upper			113														
MTTR	30	Upper			105														
MTTR	31	Upper							107										
MTTR	32	Upper	88				93											73	
MTTR	MW-32	Lower																123	
MTTR	33	Upper										106							
MTTR	34	Upper										111							
MTTR	35	Upper															106		
MTTR	36	Upper										90							
MTTR	37	Upper																	
MTTR	38	Upper										100							
MTTR	39	Upper																	
MTTR	40	Upper																	
MTTR	41	Upper																	
MTTR	42	Upper								68									
MTTR	43	Upper																	
MTTR	44	Upper																	
MTTR	45	Upper	103									92							
MTTR	46	Upper										95							
MTTR	47	Upper																	
MTTR	48	Upper									99								
MTTR	49	Composite																	
MTTR	50	Composite																	
MTTR	51	Upper											106						

MTTR Well Readings

Depth to Water (ft)

Owner	Well No.	Aquifer	2019															
			March	April	May					June					July		September	October
			1	15	3	9	14	15	28	2	3	11	18	20	1	9	14	29
MTTR	52	Upper											101					
MTTR	53	Upper											88					
MTTR	54	Upper																
MTTR	55	Lower																
MTTR	56	Composite												94				
MTTR	57	Upper											96					
MTTR	58	Upper											83					
MTTR	59	Upper												73				
MTTR	60	Upper											63					
MTTR	61	Lower											114					
MTTR	62	Upper																
MTTR	63	Upper																
MTTR	64	Lower													128			
MTTR	65	Lower				114												
MTTR	66	Lower	146													116		
MTTR	67	Lower												122				
MTTR	68	Composite												120				
MTTR	69	Composite																
MTTR	70	Upper	130															71
MTTR	MW-70	Lower																157
MTTR	71	Upper																
MTTR	72	Upper									83							
MTTR	73	Upper																
MTTR	74	Composite														97		
MTTR	75	Upper									87							82
MTTR	MW-75	Lower																144
MTTR	76	Composite														117		
MTTR	77	Composite																
MTTR	78	Composite														115		
MTTR	79	Composite														102		
MTTR	80	Upper	108													113		114
MTTR	MW-80	Lower																
MTTR	81	Upper						33										
MTTR	82	Upper						34										
MTTR	83	Upper						100										
MTTR	84	Upper																
MTTR	85	Upper							96									
MTTR	86	Upper							82									
MTTR	87	Upper	163															74
MTTR	MW-87	Lower																120
MTTR	88	Upper																

MTTR Well Readings

Depth to Water (feet)

Owner	Well No.	Aquifer	2020																	
			April		May									October			November			
			29	30	4	6	7	12	21	26	27	28	29	22	29	30	3	6	9	
MTTR	1	Upper					65							75						
MTTR	2	Upper						118						83						
MTTR	3	Upper																		
MTTR	4	Composite																		
MTTR	5	Composite																		
MTTR	6	Upper	79											78						
MTTR	7	Lower						145						163						
MTTR	9	Composite						122						135						
MTTR	10	Upper																		
MTTR	11	Lower												149						
MTTR	12	Composite												128						
MTTR	13	Composite						126						142						
MTTR	14	Upper	99											106						
MTTR	15	Upper	98											104						
MTTR	16	Lower							131					142						
MTTR	17	Upper	82											80						
MTTR	18	Upper	102											106						
MTTR	19	Lower							131						137					
MTTR	20	Upper													88					
MTTR	21	Upper						94							86					
MTTR	22	Upper													98					
MTTR	MW-22	Lower													149					
MTTR	23	Upper													104					
MTTR	24	Upper																		
MTTR	25	Upper			110										97					
MTTR	26	Upper			109										106					
MTTR	27	Composite							138						142					
MTTR	28	Composite													151					
MTTR	29	Upper		119											90					
MTTR	30	Upper		109											98					
MTTR	31	Upper		108											106					
MTTR	32	Upper		123												80				
MTTR	MW-32	Lower														134				
MTTR	33	Upper		107												90				
MTTR	34	Upper				106										102				
MTTR	35	Upper		109												108				
MTTR	36	Upper		108												110				
MTTR	37	Upper														71				
MTTR	38	Upper				103										102				
MTTR	39	Upper				110										113				
MTTR	40	Upper								114						112				
MTTR	41	Upper																		
MTTR	42	Upper					94									74				
MTTR	43	Upper					114										91			
MTTR	44	Upper				121										115				
MTTR	45	Upper			101											97				
MTTR	46	Upper			107											103				
MTTR	47	Upper								112						107				
MTTR	48	Upper			120											112				
MTTR	49	Composite								116						113				
MTTR	50	Composite								118						123				
MTTR	51	Upper															112			
MTTR	52	Upper								127							115			
MTTR	53	Upper				103											119			
MTTR	54	Upper									78						71			
MTTR	55	Lower																129		
MTTR	56	Composite									104							109		

MTTR Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2020																	
			April		May									October			November			
			29	30	4	6	7	12	21	26	27	28	29	22	29	30	3	6	9	
MTTR	57	Upper									108						116			
MTTR	58	Upper					84										79			
MTTR	59	Upper																		
MTTR	60	Upper										36					64			
MTTR	61	Lower															130			
MTTR	62	Upper									113						106			
MTTR	63	Upper																91		
MTTR	64	Lower												146						
MTTR	65	Lower							55					135						
MTTR	66	Lower							129						132					
MTTR	67	Lower									138						136			
MTTR	68	Composite															133			
MTTR	69	Composite									144									
MTTR	70	Upper													93					
MTTR	MW-70	Lower													162					
MTTR	71	Upper								105						109				
MTTR	72	Upper								99						104				
MTTR	73	Upper														110				
MTTR	74	Composite											98						96	
MTTR	75	Upper								116						113				
MTTR	MW-75	Lower														151				
MTTR	76	Composite										101							100	
MTTR	77	Composite										108							108	
MTTR	78	Composite											110						108	
MTTR	79	Composite										108						110		
MTTR	80	Upper										114						100		
MTTR	MW-80	Lower																141		
MTTR	81	Upper							38										30	
MTTR	82	Upper							39										33	
MTTR	83	Upper		103															105	
MTTR	84	Upper																		
MTTR	85	Upper									112								101	
MTTR	86	Upper										112						83		
MTTR	87	Upper											88						75	
MTTR	MW-87	Lower																	123	
MTTR	88	Upper																	62	

MTTR Well Readings

Owner	Well No.	Aquifer	2021										
			February	June									November
			20	1	2	3	4	5	7	8	9	10	29
MTTR	1	Upper	77			96							87
MTTR	2	Upper	82				101						94
MTTR	3	Upper											
MTTR	4	Composite											
MTTR	5	Composite											
MTTR	6	Upper	76			82							88
MTTR	7	Lower	136				140						147
MTTR	9	Composite	124				153						136
MTTR	10	Upper	117			130							126
MTTR	11	Lower	130										136
MTTR	12	Composite	127				139						132
MTTR	13	Composite	136				166						145
MTTR	14	Upper	109										119
MTTR	15	Upper	108		118								120
MTTR	16	Lower	124				142						142
MTTR	17	Upper	84				95						91
MTTR	18	Upper	110				122.5						116
MTTR	19	Lower	126					165					139
MTTR	20	Upper	94		108								102
MTTR	21	Upper	94		104								99
MTTR	22	Upper	106		116.6								114
MTTR	MW-22	Lower	143										152
MTTR	23	Upper	109										118
MTTR	24	Upper	111		124								122
MTTR	25	Upper	107			118							110
MTTR	26	Upper	113		127								120
MTTR	27	Composite	131								144.1		146
MTTR	28	Composite	140								163		156
MTTR	29	Upper	119									106	103
MTTR	30	Upper	111										111
MTTR	31	Upper	112		130								121
MTTR	32	Upper	88								94		90
MTTR	MW-32	Lower	126										136
MTTR	33	Upper	98								104		102
MTTR	34	Upper	109		126								117
MTTR	35	Upper	111		128								125
MTTR	36	Upper	114							131			129
MTTR	37	Upper	73	88									80
MTTR	38	Upper	105		126								122
MTTR	39	Upper	112								126		135
MTTR	40	Upper	121										128
MTTR	41	Upper											
MTTR	42	Upper	72	97									83
MTTR	43	Upper	87	117									100
MTTR	44	Upper	118										125
MTTR	45	Upper	102		130.6								115
MTTR	46	Upper	109		132								123

MTTR Well Readings

Owner	Well No.	Aquifer	2021										
			February	June									November
			20	1	2	3	4	5	7	8	9	10	29
MTTR	47	Upper	113							136			128
MTTR	48	Upper	121		144								131
MTTR	49	Composite	116								121		129
MTTR	50	Composite	120								125		131
MTTR	51	Upper	119		142								128
MTTR	52	Upper	120		146.5								131
MTTR	53	Upper	119		135								131
MTTR	54	Upper	70	81.9									82
MTTR	55	Lower	119										132
MTTR	56	Composite	110							124			124
MTTR	57	Upper	113							118			128
MTTR	58	Upper	79	89									89
MTTR	59	Upper	69						66				70
MTTR	60	Upper	66	71.5									72
MTTR	61	Lower	121									138	132
MTTR	62	Upper	100							109			112
MTTR	63	Upper	87										98
MTTR	64	Lower	126										142
MTTR	65	Lower	119	129									136
MTTR	66	Lower	123				164						133
MTTR	67	Lower	126							151			139
MTTR	68	Composite	124							134			137
MTTR	69	Composite	134							141			146
MTTR	70	Upper	97								101		108
MTTR	MW-70	Lower	157										164
MTTR	71	Upper	112							125			125
MTTR	72	Upper	106							120			121
MTTR	73	Upper	112										127
MTTR	74	Composite	93						118				100
MTTR	75	Upper	96							129			128
MTTR	MW-75	Lower											152
MTTR	76	Composite	96						118				102
MTTR	77	Composite	105						29				112
MTTR	78	Composite	107						113				113
MTTR	79	Composite	103						111				114
MTTR	80	Upper	94	110									104
MTTR	MW-80	Lower	131										142
MTTR	81	Upper		47									38
MTTR	82	Upper	37	44									42
MTTR	83	Upper	109		132								120
MTTR	84	Upper	104		132								117
MTTR	85	Upper	100										115
MTTR	86	Upper	80	88									87
MTTR	87	Upper	74	83									78
MTTR	MW-87	Lower	129										127
MTTR	88	Upper											

American Dairy Well Readings Depth to Water (feet)

			2018			2020	2021	
			October	November	December	December	February	November
Owner	Well No.	Aquifer	19	2	20	8	11	15
American Dairy	V1B	Lower				170	132	148
American Dairy	V2B	Lower		145				
American Dairy	V3	Lower						
American Dairy	V4B	Lower	138			193	119	134
American Dairy	V6B	Lower		148		149	129	144
American Dairy	V7	Lower		166		161	142	160
American Dairy	V8	Lower		164		160	142	156
American Dairy	V9	Lower		150		133	112	
American Dairy	V10B	Lower				155	134	155
American Dairy	V11	Lower			134	156	135	155
American Dairy	V12	Unknown		76		84	75	90
American Dairy	V13	Upper		64		148	130	144
American Dairy	V14	Lower						
American Dairy	V15	Upper						70

Cross Creek Farms Well Readings Depth to Water (feet)

Owner	Well No.	Aquifer	2018 August 7	2020 February 18	2020 December 5	2021 February 1	2021 December 1
Cross Creek Farms	C8	Upper	48	36	30	28	40
Cross Creek Farms	C9	Upper	22		20	18	24
Cross Creek Farms	C11	Upper	41	28	26	24	32
Cross Creek Farms	C16	Upper	34		18	18	24
Cross Creek Farms	C18	Upper	67		35	40	34
Cross Creek Farms	C19	Composite	112		83	85	125
Cross Creek Farms	C20	Upper	47		55	42	48
Cross Creek Farms	C21	Lower	152	132	125	106	111

APPENDIX C

PUMPAGE

MTTR,
AMERICAN DAIRY &
CROSS CREEK FARMS

MTTR Wells

Owner	Well No.	Aquifer	Pumpage (acre-feet)								
			2013	2014	2015	2016	2017	2018	2019	2020	2021
MTTR	1	Upper	152	284	617	480	334	298	382	206	230
MTTR	2	Upper	163	1,457	604	232	150	433	343	0	299
MTTR	3	Upper	0	0	0	0	0	0	0	0	0
MTTR	4	Composite	0	0	0	0	0	0	0	0	0
MTTR	5	Composite	0	0	0	0	0	0	0	0	0
MTTR	6	Upper	28	445	686	1,524	0	0	458	196	254
MTTR	7	Lower	308	465	505	468	7	84	15	14	74
MTTR	9	Composite	0	0	0	0	0	127	75	2	113
MTTR	10	Upper	341	578	675	526	388	368	143	462	594
MTTR	11	Lower	535	390	414	398	12	79	11	0	0
MTTR	12	Composite	174	277	180	290	0	0	0	0	13
MTTR	13	Composite	329	235	287	304	8	53	0	0	40
MTTR	14	Upper	306	407	546	360	433	330	261	287	410
MTTR	15	Upper	604	508	523	281	245	306	298	456	643
MTTR	16	Lower	273	295	160	420	2	0	0	0	82
MTTR	17	Upper	27	430	13	244	328	328	424	331	603
MTTR	18	Upper	389	729	732	625	666	616	1100	576	855
MTTR	19	Lower	85	273	353	574	716	109	286	0	82
MTTR	20	Upper	286	1,102	702	616	622	606	399	507	600
MTTR	21	Upper	318	590	592	368	1,098	622	555	276	304
MTTR	22	Upper	450	446	161	322	1,037	183	175	296	226
MTTR	MW-22	Lower									
MTTR	23	Upper	215	419	342	235	580	62	237	0	164
MTTR	24	Upper	251	390	376	408	834	484	544	371	441
MTTR	25	Upper	283	499	521	491	259	382	84	390	297
MTTR	26	Upper	257	461	498	474	325	521	347	353	94
MTTR	27	Composite	11	216	179	395	1	43	0	0	3
MTTR	28	Composite	228	641	145	688	2	972	0	0	178
MTTR	29	Upper	217	258	452	193	0	616	195	220	427
MTTR	30	Upper	223	10	187	220	125	248	140	137	26
MTTR	31	Upper	298	533	548	521	326	491	261	392	215
MTTR	32	Upper	237	449	574	486	226	276	176	482	385
MTTR	MW-32	Lower									
MTTR	33	Upper	262	411	193	237	9	560	403	239	386
MTTR	34	Upper	195	482	608	577	170	433	339	372	564
MTTR	35	Upper	764	367	564	387	134	150	388	353	579
MTTR	36	Upper	0	940	1,115	1,065	875	1,030	986	775	1150
MTTR	37	Upper	32	34	416	394	408	329	358	427	443
MTTR	38	Upper	313	367	495	286	139	289	244	242	387
MTTR	39	Upper	0	630	692	406	689	765	634	270	18
MTTR	40	Upper	0	614	729	0	7	207	336	382	559
MTTR	41	Upper	0	0	68	228	107	134	236	329	328
MTTR	42	Upper	0	0	243	818	244	439	532	621	324
MTTR	43	Upper	0	4	0	0	0	636	505	264	1265
MTTR	44	Upper	323	783	709	731	373	611	558	455	439
MTTR	45	Upper	315	786	957	454	188	555	377	494	642
MTTR	46	Upper	1,032	660	836	589	265	519	358	447	647
MTTR	47	Upper	239	314	289	434	9	78	108	15	110
MTTR	48	Upper	247	638	889	632	295	746	698	759	1087
MTTR	49	Composite	780	0	15	3	0	0	0	0	73
MTTR	50	Composite	0	0	0	0	0	0	0	0	34
MTTR	51	Upper	158	531	633	411	235	446	369	251	471
MTTR	52	Upper	0	737	592	287	62	555	592	530	788
MTTR	53	Upper	0	402	471	331	201	325	334	342	440
MTTR	54	Upper	0	0	158	117	102	188	132	495	447
MTTR	55	Lower	1	438	0	0	0	41	0	0	0
MTTR	56	Composite	112	301	144	188	0	26	0	0	134
MTTR	57	Upper	94	658	243	525	10	75	0	518	1267
MTTR	58	Upper	100	672	839	667	272	492	608	0	439
MTTR	59	Upper	0	2	3	0	64	361	188	230	268
MTTR	60	Upper	0	4	9	0	0	0	158	232	393
MTTR	61	Lower	0	0	0	0	0	0	0	33	110
MTTR	62	Upper	0	0	0	0	13	0	0	504	42
MTTR	63	Upper	0	326	91	229	0	0	0	1	2

MTTR Wells

Owner	Well No.	Aquifer	Pumpage (acre-feet)								
			2013	2014	2015	2016	2017	2018	2019	2020	2021
MTTR	64	Lower	38	113	22	193	1	54	0	54	17
MTTR	65	Lower	255	293	373	53	108	0	1	89	758
MTTR	66	Lower	175	145	59	265	0	42	0	0	25
MTTR	67	Lower	233	652	333	647	3	151	0	0	137
MTTR	68	Composite	247	386	263	517	7	142	0	0	186
MTTR	69	Composite	340	667	259	659	6	122	0	0	124
MTTR	70	Upper	80	326	54	14	0	0	0	2	7
MTTR	MW-70	Lower									
MTTR	71	Upper	0	31	75	341	0	298	159	288	356
MTTR	72	Upper	0	239	376	295	35	0	3	251	453
MTTR	73	Upper	0	0	4	0	0	0	0	0	0
MTTR	74	Composite	0	0	0	759	0	106	104	1	292
MTTR	75	Upper	0	0	396	403	31	327	211	343	478
MTTR	MW-75	Lower									
MTTR	76	Composite				860	14	230	9	0	313
MTTR	77	Composite				765	15	189	0	0	85
MTTR	78	Composite				292	0	0	1	0	36
MTTR	79	Composite				0	0	278	9	0	192
MTTR	80	Upper				0	31	530	417	289	469
MTTR	MW-80	Lower									
MTTR	81	Upper							337	270	271
MTTR	82	Upper							425	636	637
MTTR	83	Upper							0	190	158
MTTR	84	Upper							346	314	50
MTTR	85	Upper							4	0	37
MTTR	86	Upper							166	154	29
MTTR	87	Upper							481	744	57
MTTR	MW-87	Lower									
MTTR	88	Upper							0	487	777
			9,198	20,955	22,094	19,466	12,946	18,251	18,517	19,451	24,334
			1901	3063	2218	3019	849	561	313	190	1284
			2220	2723	1473	5719	53	2288	199	4	1814
			13,319	26,741	25,784	28,204	13,848	21,099	19,029	19,645	27,432

American Dairy Wells

Owner	Well No.	Aquifer	Pumpage (acre-feet)		
			2019	2020	2021
American Dairy	V1B	Lower	50	526	303
American Dairy	V2B	Lower	77	733	530
American Dairy	V3	Lower	0	0	0
American Dairy	V4B	Lower	23	322	43
American Dairy	V6B	Lower	80	868	296
American Dairy	V7	Lower	151	736	258
American Dairy	V8	Lower	9	185	32
American Dairy	V9	Lower	0	0	0
American Dairy	V10B	Lower	0	136	151
American Dairy	V11	Lower	0	220	0
American Dairy	V12	Unknown	358	64	200
American Dairy	V13	Upper	423	636	400
American Dairy	V14	Lower	401	1165	137
American Dairy	V15	Upper			128
MTTR	1	Upper			1112
			423	636	1641
			792	4891	1750
			358	64	200
			1573	5590	3590

Cross Creek Farms Wells

Owner	Well No.	Aquifer	Pumpage (acre-feet)				
			2017	2018	2019	2020	2021
Cross Creek Farms	C8	Upper	145	124	764	1489	1327
Cross Creek Farms	C9	Upper	75	150	141	297	179
Cross Creek Farms	C11	Upper	732	1099			
Cross Creek Farms	C16	Upper	290	436	535	807	696
Cross Creek Farms	C18	Upper	360	668	883	1226	0
Cross Creek Farms	C19	Composite	10	29	0	0	0
Cross Creek Farms	C20	Upper	400	485	955	1217	1305
Cross Creek Farms	C21	Lower	100	300	108	206	214
			2,002	2,962	3,278	5,036	3,507
			100	300	108	206	214
			10	29	0	0	0
			2,112	3,291	3,386	5,242	3,721

APPENDIX D

DAILY WATER LEVEL MEASUREMENTS OF MTTR WELLS EQUIPPED WITH PRESSURE TRANSDUCERS

Well 22 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	78.94	167	88.06	139.43	51.37	
1/2/2021	79.06	167	87.94	139.43	51.49	
1/3/2021	79.23	167	87.77	139.43	51.66	
1/4/2021	79.32	167	87.68	139.43	51.75	
1/5/2021	79.30	167	87.7	139.43	51.73	
1/6/2021	79.38	167	87.62	139.43	51.81	
1/7/2021	79.47	167	87.53	139.43	51.90	
1/8/2021	79.55	167	87.45	139.43	51.98	
1/9/2021	79.69	167	87.31	139.43	52.12	
1/10/2021	79.81	167	87.19	139.43	52.24	
1/11/2021	72.85	167	94.15	139.43	45.28	
1/12/2021	68.26	167	98.74	139.43	40.69	
1/13/2021	67.71	167	99.29	139.43	40.14	
1/14/2021	66.73	167	100.27	139.43	39.16	
1/15/2021	66.79	167	100.21	139.43	39.22	
1/16/2021	72.33	167	94.67	139.43	44.76	
1/17/2021	78.74	167	88.26	139.43	51.17	
1/18/2021	79.37	167	87.63	139.43	51.80	
1/19/2021	79.58	167	87.42	139.43	52.01	
1/20/2021	79.27	167	87.73	139.43	51.70	
1/21/2021	79.31	167	87.69	139.43	51.74	
1/22/2021	78.29	167	88.71	139.43	50.72	
1/23/2021	71.72	167	95.28	139.43	44.15	
1/24/2021	66.60	167	100.4	139.43	39.03	
1/25/2021	65.45	167	101.55	139.43	37.88	
1/26/2021	64.82	167	102.18	139.43	37.25	
1/27/2021	64.75	167	102.25	139.43	37.18	
1/28/2021	64.36	167	102.64	139.43	36.79	
1/29/2021	62.34	167	104.66	139.43	34.77	
1/30/2021	60.91	167	106.09	139.43	33.34	
1/31/2021	60.71	167	106.29	139.43	33.14	
2/1/2021	61.23	167	105.77	139.43	33.66	
2/2/2021	61.25	167	105.75	139.43	33.68	
2/3/2021	60.74	167	106.26	139.43	33.17	
2/4/2021	60.91	167	106.09	139.43	33.34	
2/5/2021	60.55	167	106.45	139.43	32.98	
2/6/2021	62.21	167	104.79	139.43	34.64	
2/7/2021	62.26	167	104.74	139.43	34.69	
2/8/2021	61.18	167	105.82	139.43	33.61	
2/9/2021	60.95	167	106.05	139.43	33.38	
2/10/2021	61.26	167	105.74	139.43	33.69	
2/11/2021	61.49	167	105.51	139.43	33.92	
2/12/2021	61.13	167	105.87	139.43	33.56	
2/13/2021	61.12	167	105.88	139.43	33.55	
2/14/2021	60.89	167	106.11	139.43	33.32	
2/15/2021	60.92	167	106.08	139.43	33.35	
2/16/2021	61.06	167	105.94	139.43	33.49	
2/17/2021	60.42	167	106.58	139.43	32.85	
2/18/2021	60.14	167	106.86	139.43	32.57	
2/19/2021	60.59	167	106.41	139.43	33.02	
2/20/2021	60.56	167	106.44	139.43	32.99	106
2/21/2021	60.48	167	106.52	139.43	32.91	
2/22/2021	60.47	167	106.53	139.43	32.90	
2/23/2021	66.81	167	100.19	139.43	39.24	
2/24/2021	70.19	167	96.81	139.43	42.62	
2/25/2021	70.31	167	96.69	139.43	42.74	
2/26/2021	70.68	167	96.32	139.43	43.11	
2/27/2021	70.97	167	96.03	139.43	43.40	
2/28/2021	70.67	167	96.33	139.43	43.10	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	70.80	167	96.2	139.43	43.23	
3/2/2021	70.97	167	96.03	139.43	43.40	
3/3/2021	65.35	167	101.65	139.43	37.78	
3/4/2021	60.24	167	106.76	139.43	32.67	
3/5/2021	59.73	167	107.27	139.43	32.16	
3/6/2021	59.66	167	107.34	139.43	32.09	
3/7/2021	59.79	167	107.21	139.43	32.22	
3/8/2021	65.99	167	101.01	139.43	38.42	
3/9/2021	70.62	167	96.38	139.43	43.05	
3/10/2021	62.80	167	104.2	139.43	35.23	
3/11/2021	57.75	167	109.25	139.43	30.18	
3/12/2021	65.32	167	101.68	139.43	37.75	
3/13/2021	70.30	167	96.7	139.43	42.73	
3/14/2021	62.73	167	104.27	139.43	35.16	
3/15/2021	57.82	167	109.18	139.43	30.25	
3/16/2021	65.04	167	101.96	139.43	37.47	
3/17/2021	70.06	167	96.94	139.43	42.49	
3/18/2021	70.86	167	96.14	139.43	43.29	
3/19/2021	71.13	167	95.87	139.43	43.56	
3/20/2021	71.32	167	95.68	139.43	43.75	
3/21/2021	71.75	167	95.25	139.43	44.18	
3/22/2021	65.03	167	101.97	139.43	37.46	
3/23/2021	63.50	167	103.5	139.43	35.93	
3/24/2021	71.30	167	95.7	139.43	43.73	
3/25/2021	65.27	167	101.73	139.43	37.70	
3/26/2021	60.43	167	106.57	139.43	32.86	
3/27/2021	66.66	167	100.34	139.43	39.09	
3/28/2021	71.38	167	95.62	139.43	43.81	
3/29/2021	64.59	167	102.41	139.43	37.02	
3/30/2021	60.99	167	106.01	139.43	33.42	
3/31/2021	60.58	167	106.42	139.43	33.01	
4/1/2021	66.26	167	100.74	139.43	38.69	
4/2/2021	70.54	167	96.46	139.43	42.97	
4/3/2021	71.14	167	95.86	139.43	43.57	
4/4/2021	71.58	167	95.42	139.43	44.01	
4/5/2021	64.98	167	102.02	139.43	37.41	
4/6/2021	59.42	167	107.58	139.43	31.85	
4/7/2021	59.10	167	107.9	139.43	31.53	
4/8/2021	62.17	167	104.83	139.43	34.60	
4/9/2021	62.83	167	104.17	139.43	35.26	
4/10/2021	58.16	167	108.84	139.43	30.59	
4/11/2021	63.12	167	103.88	139.43	35.55	
4/12/2021	62.44	167	104.56	139.43	34.87	
4/13/2021	58.17	167	108.83	139.43	30.60	
4/14/2021	58.03	167	108.97	139.43	30.46	
4/15/2021	57.71	167	109.29	139.43	30.14	
4/16/2021	57.48	167	109.52	139.43	29.91	
4/17/2021	57.76	167	109.24	139.43	30.19	
4/18/2021	62.73	167	104.27	139.43	35.16	
4/19/2021	61.17	167	105.83	139.43	33.60	
4/20/2021	57.44	167	109.56	139.43	29.87	
4/21/2021	56.99	167	110.01	139.43	29.42	
4/22/2021	56.47	167	110.53	139.43	28.90	
4/23/2021	56.14	167	110.86	139.43	28.57	
4/24/2021	56.60	167	110.4	139.43	29.03	
4/25/2021	64.33	167	102.67	139.43	36.76	
4/26/2021	67.68	167	99.32	139.43	40.11	
4/27/2021	67.08	167	99.92	139.43	39.51	
4/28/2021	66.84	167	100.16	139.43	39.27	
4/29/2021	59.30	167	107.7	139.43	31.73	
4/30/2021	56.23	167	110.77	139.43	28.66	

Well 22 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	55.57	167	111.43	139.43	28.00	
5/2/2021	55.96	167	111.04	139.43	28.39	
5/3/2021	55.58	167	111.42	139.43	28.01	
5/4/2021	55.09	167	111.91	139.43	27.52	
5/5/2021	55.61	167	111.39	139.43	28.04	
5/6/2021	55.97	167	111.03	139.43	28.40	
5/7/2021	55.42	167	111.58	139.43	27.85	
5/8/2021	54.40	167	112.6	139.43	26.83	
5/9/2021	54.71	167	112.29	139.43	27.14	
5/10/2021	53.81	167	113.19	139.43	26.24	
5/11/2021	53.14	167	113.86	139.43	25.57	
5/12/2021	54.05	167	112.95	139.43	26.48	
5/13/2021	53.58	167	113.42	139.43	26.01	
5/14/2021	52.94	167	114.06	139.43	25.37	
5/15/2021	53.39	167	113.61	139.43	25.82	
5/16/2021	53.84	167	113.16	139.43	26.27	
5/17/2021	54.51	167	112.49	139.43	26.94	
5/18/2021	54.12	167	112.88	139.43	26.55	
5/19/2021	52.23	167	114.77	139.43	24.66	
5/20/2021	52.93	167	114.07	139.43	25.36	
5/21/2021	52.03	167	114.97	139.43	24.46	
5/22/2021	51.22	167	115.78	139.43	23.65	
5/23/2021	52.12	167	114.88	139.43	24.55	
5/24/2021	51.54	167	115.46	139.43	23.97	
5/25/2021	52.40	167	114.6	139.43	24.83	
5/26/2021	52.05	167	114.95	139.43	24.48	
5/27/2021	60.55	167	106.45	139.43	32.98	
5/28/2021	55.64	167	111.36	139.43	28.07	
5/29/2021	50.81	167	116.19	139.43	23.24	
5/30/2021	51.55	167	115.45	139.43	23.98	
5/31/2021	51.62	167	115.38	139.43	24.05	
6/1/2021	50.73	167	116.27	139.43	23.16	
6/2/2021	51.48	167	115.52	139.43	23.91	117
6/3/2021	50.90	167	116.1	139.43	23.33	
6/4/2021	57.67	167	109.33	139.43	30.10	
6/5/2021	61.05	167	105.95	139.43	33.48	
6/6/2021	61.38	167	105.62	139.43	33.81	
6/7/2021	61.55	167	105.45	139.43	33.98	
6/8/2021	61.34	167	105.66	139.43	33.77	
6/9/2021	61.45	167	105.55	139.43	33.88	
6/10/2021	56.67	167	110.33	139.43	29.10	
6/11/2021	51.26	167	115.74	139.43	23.69	
6/12/2021	50.13	167	116.87	139.43	22.56	
6/13/2021	49.61	167	117.39	139.43	22.04	
6/14/2021	50.30	167	116.7	139.43	22.73	
6/15/2021	49.84	167	117.16	139.43	22.27	
6/16/2021	49.88	167	117.12	139.43	22.31	
6/17/2021	49.65	167	117.35	139.43	22.08	
6/18/2021	50.92	167	116.08	139.43	23.35	
6/19/2021	59.79	167	107.21	139.43	32.22	
6/20/2021	59.93	167	107.07	139.43	32.36	
6/21/2021	60.02	167	106.98	139.43	32.45	
6/22/2021	60.14	167	106.86	139.43	32.57	
6/23/2021	60.18	167	106.82	139.43	32.61	
6/24/2021	60.16	167	106.84	139.43	32.59	
6/25/2021	60.16	167	106.84	139.43	32.59	
6/26/2021	60.28	167	106.72	139.43	32.71	
6/27/2021	60.26	167	106.74	139.43	32.69	
6/28/2021	60.45	167	106.55	139.43	32.88	
6/29/2021	60.44	167	106.56	139.43	32.87	
6/30/2021	60.16	167	106.84	139.43	32.59	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	59.81	167	107.19	139.43	32.24	
7/2/2021	59.57	167	107.43	139.43	32.00	
7/3/2021	59.46	167	107.54	139.43	31.89	
7/4/2021	59.26	167	107.74	139.43	31.69	
7/5/2021	59.19	167	107.81	139.43	31.62	
7/6/2021	59.09	167	107.91	139.43	31.52	
7/7/2021	59.02	167	107.98	139.43	31.45	
7/8/2021	58.89	167	108.11	139.43	31.32	
7/9/2021	58.75	167	108.25	139.43	31.18	
7/10/2021	58.69	167	108.31	139.43	31.12	
7/11/2021	58.61	167	108.39	139.43	31.04	
7/12/2021	58.56	167	108.44	139.43	30.99	
7/13/2021	58.48	167	108.52	139.43	30.91	
7/14/2021	58.30	167	108.7	139.43	30.73	
7/15/2021	51.94	167	115.06	139.43	24.37	
7/16/2021	48.52	167	118.48	139.43	20.95	
7/17/2021	53.91	167	113.09	139.43	26.34	
7/18/2021	57.60	167	109.4	139.43	30.03	
7/19/2021	57.64	167	109.36	139.43	30.07	
7/20/2021	57.66	167	109.34	139.43	30.09	
7/21/2021	57.64	167	109.36	139.43	30.07	
7/22/2021	57.54	167	109.46	139.43	29.97	
7/23/2021	57.46	167	109.54	139.43	29.89	
7/24/2021	57.51	167	109.49	139.43	29.94	
7/25/2021	57.38	167	109.62	139.43	29.81	
7/26/2021	57.20	167	109.8	139.43	29.63	
7/27/2021	57.01	167	109.99	139.43	29.44	
7/28/2021	57.13	167	109.87	139.43	29.56	
7/29/2021	57.13	167	109.87	139.43	29.56	
7/30/2021	57.02	167	109.98	139.43	29.45	
7/31/2021	56.83	167	110.17	139.43	29.26	
8/1/2021	56.72	167	110.28	139.43	29.15	
8/2/2021	56.53	167	110.47	139.43	28.96	
8/3/2021	56.45	167	110.55	139.43	28.88	
8/4/2021	56.33	167	110.67	139.43	28.76	
8/5/2021	56.27	167	110.73	139.43	28.70	
8/6/2021	56.26	167	110.74	139.43	28.69	
8/7/2021	56.26	167	110.74	139.43	28.69	
8/8/2021	56.26	167	110.74	139.43	28.69	
8/9/2021	56.21	167	110.79	139.43	28.64	
8/10/2021	56.16	167	110.84	139.43	28.59	
8/11/2021	56.14	167	110.86	139.43	28.57	
8/12/2021	56.10	167	110.9	139.43	28.53	
8/13/2021	55.97	167	111.03	139.43	28.40	
8/14/2021	55.88	167	111.12	139.43	28.31	
8/15/2021	55.93	167	111.07	139.43	28.36	
8/16/2021	55.90	167	111.1	139.43	28.33	
8/17/2021	55.78	167	111.22	139.43	28.21	
8/18/2021	56.07	167	110.93	139.43	28.50	
8/19/2021	56.12	167	110.88	139.43	28.55	
8/20/2021	56.21	167	110.79	139.43	28.64	
8/21/2021	56.26	167	110.74	139.43	28.69	
8/22/2021	56.29	167	110.71	139.43	28.72	
8/23/2021	56.24	167	110.76	139.43	28.67	
8/24/2021	56.27	167	110.73	139.43	28.70	
8/25/2021	56.76	167	110.24	139.43	29.19	
8/26/2021	57.41	167	109.59	139.43	29.84	
8/27/2021	57.73	167	109.27	139.43	30.16	
8/28/2021	57.84	167	109.16	139.43	30.27	
8/29/2021	57.90	167	109.1	139.43	30.33	
8/30/2021	58.04	167	108.96	139.43	30.47	
8/31/2021	58.04	167	108.96	139.43	30.47	

Well 22 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	57.83	167	109.17	139.43	30.26	
9/2/2021	57.78	167	109.22	139.43	30.21	
9/3/2021	57.82	167	109.18	139.43	30.25	
9/4/2021	57.84	167	109.16	139.43	30.27	
9/5/2021	58.04	167	108.96	139.43	30.47	
9/6/2021	58.38	167	108.62	139.43	30.81	
9/7/2021	58.60	167	108.4	139.43	31.03	
9/8/2021	58.73	167	108.27	139.43	31.16	
9/9/2021	58.83	167	108.17	139.43	31.26	
9/10/2021	58.85	167	108.15	139.43	31.28	
9/11/2021	59.07	167	107.93	139.43	31.50	
9/12/2021	59.34	167	107.66	139.43	31.77	
9/13/2021	59.50	167	107.5	139.43	31.93	
9/14/2021	59.56	167	107.44	139.43	31.99	
9/15/2021	59.64	167	107.36	139.43	32.07	
9/16/2021	59.79	167	107.21	139.43	32.22	
9/17/2021	59.61	167	107.39	139.43	32.04	
9/18/2021	59.45	167	107.55	139.43	31.88	
9/19/2021	59.80	167	107.2	139.43	32.23	
9/20/2021	59.81	167	107.19	139.43	32.24	
9/21/2021	59.55	167	107.45	139.43	31.98	
9/22/2021	59.56	167	107.44	139.43	31.99	
9/23/2021	59.63	167	107.37	139.43	32.06	
9/24/2021	59.67	167	107.33	139.43	32.10	
9/25/2021	59.74	167	107.26	139.43	32.17	
9/26/2021	60.05	167	106.95	139.43	32.48	
9/27/2021	60.07	167	106.93	139.43	32.50	
9/28/2021	59.87	167	107.13	139.43	32.30	
9/29/2021	59.93	167	107.07	139.43	32.36	
9/30/2021	59.81	167	107.19	139.43	32.24	
10/1/2021	59.82	167	107.18	139.43	32.25	
10/2/2021	59.81	167	107.19	139.43	32.24	
10/3/2021	59.97	167	107.03	139.43	32.40	
10/4/2021	60.19	167	106.81	139.43	32.62	
10/5/2021	59.91	167	107.09	139.43	32.34	
10/6/2021	60.11	167	106.89	139.43	32.54	
10/7/2021	60.37	167	106.63	139.43	32.80	
10/8/2021	60.32	167	106.68	139.43	32.75	
10/9/2021						
10/10/2021	60.49	167	106.51	139.43	32.92	
10/11/2021	60.69	167	106.31	139.43	33.12	
10/12/2021	60.44	167	106.56	139.43	32.87	
10/13/2021	59.97	167	107.03	139.43	32.40	
10/14/2021	58.84	167	108.16	139.43	31.27	
10/15/2021	58.74	167	108.26	139.43	31.17	
10/16/2021	60.18	167	106.82	139.43	32.61	
10/17/2021						
10/18/2021	60.25	167	106.75	139.43	32.68	
10/19/2021	59.22	167	107.78	139.43	31.65	
10/20/2021	59.46	167	107.54	139.43	31.89	
10/21/2021						
10/22/2021	59.56	167	107.44	139.43	31.99	
10/23/2021	60.33	167	106.67	139.43	32.76	
10/24/2021	60.82	167	106.18	139.43	33.25	
10/25/2021	60.79	167	106.21	139.43	33.22	
10/26/2021	60.59	167	106.41	139.43	33.02	
10/27/2021	60.79	167	106.21	139.43	33.22	
10/28/2021	61.21	167	105.79	139.43	33.64	
10/29/2021	61.41	167	105.59	139.43	33.84	
10/30/2021	61.51	167	105.49	139.43	33.94	
10/31/2021						

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021						
11/2/2021						
11/3/2021						
11/4/2021						
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11/7/2021						
11/8/2021						
11/9/2021						
11/10/2021						
11/11/2021						
11/12/2021						
11/13/2021						
11/14/2021						
11/15/2021						
11/16/2021						
11/17/2021						
11/18/2021						
11/19/2021						
11/20/2021						
11/21/2021						
11/22/2021						
11/23/2021						
11/24/2021						
11/25/2021						
11/26/2021						
11/27/2021						
11/28/2021						
11/29/2021						114
11/30/2021						
12/1/2021						
12/2/2021						
12/3/2021						
12/4/2021						
12/5/2021						
12/6/2021						
12/7/2021						
12/8/2021						
12/9/2021						
12/10/2021						
12/11/2021						
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12/17/2021						
12/18/2021						
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12/21/2021						
12/22/2021						
12/23/2021						
12/24/2021						
12/25/2021						
12/26/2021						
12/27/2021						
12/28/2021						
12/29/2021						
12/30/2021						
12/31/2021						

Monitoring Well 22 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	39.44	185	145.56	140.61	-4.95	
1/2/2021	39.68	185	145.32	140.61	-4.71	
1/3/2021	39.89	185	145.11	140.61	-4.50	
1/4/2021	40.16	185	144.84	140.61	-4.23	
1/5/2021	40.39	185	144.61	140.61	-4.00	
1/6/2021	40.61	185	144.39	140.61	-3.78	
1/7/2021	40.84	185	144.16	140.61	-3.55	
1/8/2021	41.10	185	143.90	140.61	-3.29	
1/9/2021	41.31	185	143.69	140.61	-3.08	
1/10/2021	41.42	185	143.58	140.61	-2.97	
1/11/2021	41.53	185	143.47	140.61	-2.86	
1/12/2021	41.84	185	143.16	140.61	-2.55	
1/13/2021	42.11	185	142.89	140.61	-2.28	
1/14/2021	42.25	185	142.75	140.61	-2.14	
1/15/2021	42.40	185	142.60	140.61	-1.99	
1/16/2021	42.67	185	142.33	140.61	-1.72	
1/17/2021	42.87	185	142.13	140.61	-1.52	
1/18/2021	43.02	185	141.98	140.61	-1.37	
1/19/2021	43.09	185	141.91	140.61	-1.30	
1/20/2021	43.20	185	141.80	140.61	-1.19	
1/21/2021	43.51	185	141.49	140.61	-0.88	
1/22/2021	43.78	185	141.22	140.61	-0.61	
1/23/2021	43.32	185	141.68	140.61	-1.07	
1/24/2021	40.90	185	144.10	140.61	-3.49	
1/25/2021	39.26	185	145.74	140.61	-5.13	
1/26/2021	37.89	185	147.11	140.61	-6.50	
1/27/2021	37.29	185	147.71	140.61	-7.10	
1/28/2021	37.93	185	147.07	140.61	-6.46	
1/29/2021	37.78	185	147.22	140.61	-6.61	
1/30/2021	35.44	185	149.56	140.61	-8.95	
1/31/2021	33.32	185	151.68	140.61	-11.07	
2/1/2021	31.82	185	153.18	140.61	-12.57	
2/2/2021	30.89	185	154.11	140.61	-13.50	
2/3/2021	30.23	185	154.77	140.61	-14.16	
2/4/2021	30.35	185	154.65	140.61	-14.04	
2/5/2021	32.24	185	152.76	140.61	-12.15	
2/6/2021	33.83	185	151.17	140.61	-10.56	
2/7/2021	35.12	185	149.88	140.61	-9.27	
2/8/2021	36.12	185	148.88	140.61	-8.27	
2/9/2021	37.02	185	147.98	140.61	-7.37	
2/10/2021	37.83	185	147.17	140.61	-6.56	
2/11/2021	38.37	185	146.63	140.61	-6.02	
2/12/2021	39.08	185	145.92	140.61	-5.31	
2/13/2021	39.64	185	145.36	140.61	-4.75	
2/14/2021	40.04	185	144.96	140.61	-4.35	
2/15/2021	40.54	185	144.46	140.61	-3.85	
2/16/2021	40.95	185	144.05	140.61	-3.44	
2/17/2021	41.30	185	143.70	140.61	-3.09	
2/18/2021	41.45	185	143.55	140.61	-2.94	
2/19/2021	41.78	185	143.22	140.61	-2.61	
2/20/2021	42.19	185	142.81	140.61	-2.20	143
2/21/2021	42.32	185	142.68	140.61	-2.07	
2/22/2021	42.61	185	142.39	140.61	-1.78	
2/23/2021	42.62	185	142.38	140.61	-1.77	
2/24/2021	42.41	185	142.59	140.61	-1.98	
2/25/2021	42.25	185	142.75	140.61	-2.14	
2/26/2021	42.10	185	142.90	140.61	-2.29	
2/27/2021	41.69	185	143.31	140.61	-2.70	
2/28/2021	41.44	185	143.56	140.61	-2.95	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	41.33	185	143.67	140.61	-3.06	
3/2/2021	41.07	185	143.93	140.61	-3.32	
3/3/2021	40.71	185	144.29	140.61	-3.68	
3/4/2021	40.16	185	144.84	140.61	-4.23	
3/5/2021	39.77	185	145.23	140.61	-4.62	
3/6/2021	39.43	185	145.57	140.61	-4.96	
3/7/2021	39.03	185	145.97	140.61	-5.36	
3/8/2021	38.85	185	146.15	140.61	-5.54	
3/9/2021	38.73	185	146.27	140.61	-5.66	
3/10/2021	38.70	185	146.30	140.61	-5.69	
3/11/2021	38.46	185	146.54	140.61	-5.93	
3/12/2021	37.87	185	147.13	140.61	-6.52	
3/13/2021	37.70	185	147.30	140.61	-6.69	
3/14/2021	37.60	185	147.40	140.61	-6.79	
3/15/2021	35.28	185	149.72	140.61	-9.11	
3/16/2021	33.02	185	151.98	140.61	-11.37	
3/17/2021	33.66	185	151.34	140.61	-10.73	
3/18/2021	34.69	185	150.31	140.61	-9.70	
3/19/2021	35.38	185	149.62	140.61	-9.01	
3/20/2021	35.91	185	149.09	140.61	-8.48	
3/21/2021	36.39	185	148.61	140.61	-8.00	
3/22/2021	36.89	185	148.11	140.61	-7.50	
3/23/2021	37.35	185	147.65	140.61	-7.04	
3/24/2021	37.68	185	147.32	140.61	-6.71	
3/25/2021	38.07	185	146.93	140.61	-6.32	
3/26/2021	38.15	185	146.85	140.61	-6.24	
3/27/2021	38.42	185	146.58	140.61	-5.97	
3/28/2021	38.85	185	146.15	140.61	-5.54	
3/29/2021	39.15	185	145.85	140.61	-5.24	
3/30/2021	39.32	185	145.68	140.61	-5.07	
3/31/2021	39.41	185	145.59	140.61	-4.98	
4/1/2021	39.55	185	145.45	140.61	-4.84	
4/2/2021	39.64	185	145.36	140.61	-4.75	
4/3/2021	39.65	185	145.35	140.61	-4.74	
4/4/2021	39.66	185	145.34	140.61	-4.73	
4/5/2021	39.72	185	145.28	140.61	-4.67	
4/6/2021	39.62	185	145.38	140.61	-4.77	
4/7/2021	39.22	185	145.78	140.61	-5.17	
4/8/2021	38.74	185	146.26	140.61	-5.65	
4/9/2021	38.15	185	146.85	140.61	-6.24	
4/10/2021	38.04	185	146.96	140.61	-6.35	
4/11/2021	37.67	185	147.33	140.61	-6.72	
4/12/2021	37.24	185	147.76	140.61	-7.15	
4/13/2021	36.79	185	148.21	140.61	-7.60	
4/14/2021	36.47	185	148.53	140.61	-7.92	
4/15/2021	36.27	185	148.73	140.61	-8.12	
4/16/2021	36.02	185	148.98	140.61	-8.37	
4/17/2021	35.74	185	149.26	140.61	-8.65	
4/18/2021	35.55	185	149.45	140.61	-8.84	
4/19/2021	35.31	185	149.69	140.61	-9.08	
4/20/2021	35.14	185	149.86	140.61	-9.25	
4/21/2021	34.95	185	150.05	140.61	-9.44	
4/22/2021	34.71	185	150.29	140.61	-9.68	
4/23/2021	34.39	185	150.61	140.61	-10.00	
4/24/2021	34.15	185	150.85	140.61	-10.24	
4/25/2021	33.97	185	151.03	140.61	-10.42	
4/26/2021	33.76	185	151.24	140.61	-10.63	
4/27/2021	33.53	185	151.47	140.61	-10.86	
4/28/2021	33.30	185	151.70	140.61	-11.09	
4/29/2021	33.14	185	151.86	140.61	-11.25	
4/30/2021	32.86	185	152.14	140.61	-11.53	

Monitoring Well 22 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	32.44	185	152.56	140.61	-11.95	
5/2/2021	32.18	185	152.82	140.61	-12.21	
5/3/2021	31.73	185	153.27	140.61	-12.66	
5/4/2021	31.44	185	153.56	140.61	-12.95	
5/5/2021	31.13	185	153.87	140.61	-13.26	
5/6/2021	30.90	185	154.10	140.61	-13.49	
5/7/2021	30.75	185	154.25	140.61	-13.64	
5/8/2021	30.65	185	154.35	140.61	-13.74	
5/9/2021	30.62	185	154.38	140.61	-13.77	
5/10/2021	30.56	185	154.44	140.61	-13.83	
5/11/2021	30.32	185	154.68	140.61	-14.07	
5/12/2021	29.95	185	155.05	140.61	-14.44	
5/13/2021	29.85	185	155.15	140.61	-14.54	
5/14/2021	29.46	185	155.54	140.61	-14.93	
5/15/2021	28.97	185	156.03	140.61	-15.42	
5/16/2021	28.32	185	156.68	140.61	-16.07	
5/17/2021	27.99	185	157.01	140.61	-16.40	
5/18/2021	27.47	185	157.53	140.61	-16.92	
5/19/2021	27.07	185	157.93	140.61	-17.32	
5/20/2021	26.70	185	158.30	140.61	-17.69	
5/21/2021	26.53	185	158.47	140.61	-17.86	
5/22/2021	26.27	185	158.73	140.61	-18.12	
5/23/2021	26.00	185	159.00	140.61	-18.39	
5/24/2021	25.80	185	159.20	140.61	-18.59	
5/25/2021	25.76	185	159.24	140.61	-18.63	
5/26/2021	25.65	185	159.35	140.61	-18.74	
5/27/2021	25.31	185	159.69	140.61	-19.08	
5/28/2021	25.15	185	159.85	140.61	-19.24	
5/29/2021	25.10	185	159.90	140.61	-19.29	
5/30/2021	24.99	185	160.01	140.61	-19.40	
5/31/2021	24.97	185	160.03	140.61	-19.42	
6/1/2021	24.97	185	160.03	140.61	-19.42	
6/2/2021	24.95	185	160.05	140.61	-19.44	
6/3/2021	24.80	185	160.20	140.61	-19.59	
6/4/2021	24.37	185	160.63	140.61	-20.02	
6/5/2021	23.91	185	161.09	140.61	-20.48	
6/6/2021	23.45	185	161.55	140.61	-20.94	
6/7/2021	23.09	185	161.91	140.61	-21.30	
6/8/2021	22.36	185	162.64	140.61	-22.03	
6/9/2021	21.88	185	163.12	140.61	-22.51	
6/10/2021	21.78	185	163.22	140.61	-22.61	
6/11/2021	21.76	185	163.24	140.61	-22.63	
6/12/2021	21.60	185	163.40	140.61	-22.79	
6/13/2021	21.34	185	163.66	140.61	-23.05	
6/14/2021	21.04	185	163.96	140.61	-23.35	
6/15/2021	20.81	185	164.19	140.61	-23.58	
6/16/2021	19.86	185	165.14	140.61	-24.53	
6/17/2021	17.58	185	167.42	140.61	-26.81	
6/18/2021	16.22	185	168.78	140.61	-28.17	
6/19/2021	16.49	185	168.51	140.61	-27.90	
6/20/2021	17.44	185	167.56	140.61	-26.95	
6/21/2021	17.84	185	167.16	140.61	-26.55	
6/22/2021	17.86	185	167.14	140.61	-26.53	
6/23/2021	17.08	185	167.92	140.61	-27.31	
6/24/2021	16.84	185	168.16	140.61	-27.55	
6/25/2021	16.78	185	168.22	140.61	-27.61	
6/26/2021	16.73	185	168.27	140.61	-27.66	
6/27/2021	16.54	185	168.46	140.61	-27.85	
6/28/2021	16.04	185	168.96	140.61	-28.35	
6/29/2021	15.58	185	169.42	140.61	-28.81	
6/30/2021	15.11	185	169.89	140.61	-29.28	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	14.99	185	170.01	140.61	-29.40	
7/2/2021	14.83	185	170.17	140.61	-29.56	
7/3/2021	14.72	185	170.28	140.61	-29.67	
7/4/2021	14.66	185	170.34	140.61	-29.73	
7/5/2021	14.58	185	170.42	140.61	-29.81	
7/6/2021	14.48	185	170.52	140.61	-29.91	
7/7/2021	14.41	185	170.59	140.61	-29.98	
7/8/2021	14.35	185	170.65	140.61	-30.04	
7/9/2021	14.31	185	170.69	140.61	-30.08	
7/10/2021	14.27	185	170.73	140.61	-30.12	
7/11/2021	14.23	185	170.77	140.61	-30.16	
7/12/2021	14.17	185	170.83	140.61	-30.22	
7/13/2021	14.09	185	170.91	140.61	-30.30	
7/14/2021	13.91	185	171.09	140.61	-30.48	
7/15/2021	13.72	185	171.28	140.61	-30.67	
7/16/2021	13.56	185	171.44	140.61	-30.83	
7/17/2021	13.43	185	171.57	140.61	-30.96	
7/18/2021	13.35	185	171.65	140.61	-31.04	
7/19/2021	13.29	185	171.71	140.61	-31.10	
7/20/2021	13.21	185	171.79	140.61	-31.18	
7/21/2021	13.17	185	171.83	140.61	-31.22	
7/22/2021	13.12	185	171.88	140.61	-31.27	
7/23/2021	13.11	185	171.89	140.61	-31.28	
7/24/2021	13.17	185	171.83	140.61	-31.22	
7/25/2021	13.22	185	171.78	140.61	-31.17	
7/26/2021	13.27	185	171.73	140.61	-31.12	
7/27/2021	13.29	185	171.71	140.61	-31.10	
7/28/2021	13.27	185	171.73	140.61	-31.12	
7/29/2021	13.26	185	171.74	140.61	-31.13	
7/30/2021	13.20	185	171.80	140.61	-31.19	
7/31/2021	13.08	185	171.92	140.61	-31.31	
8/1/2021	12.95	185	172.05	140.61	-31.44	
8/2/2021	12.80	185	172.20	140.61	-31.59	
8/3/2021	12.71	185	172.29	140.61	-31.68	
8/4/2021	12.64	185	172.36	140.61	-31.75	
8/5/2021	12.57	185	172.43	140.61	-31.82	
8/6/2021	12.54	185	172.46	140.61	-31.85	
8/7/2021	12.51	185	172.49	140.61	-31.88	
8/8/2021	12.50	185	172.50	140.61	-31.89	
8/9/2021	12.49	185	172.51	140.61	-31.90	
8/10/2021	12.48	185	172.52	140.61	-31.91	
8/11/2021	12.48	185	172.52	140.61	-31.91	
8/12/2021	12.49	185	172.51	140.61	-31.90	
8/13/2021	12.51	185	172.49	140.61	-31.88	
8/14/2021	12.55	185	172.45	140.61	-31.84	
8/15/2021	12.62	185	172.38	140.61	-31.77	
8/16/2021	12.70	185	172.30	140.61	-31.69	
8/17/2021	12.79	185	172.21	140.61	-31.60	
8/18/2021	12.89	185	172.11	140.61	-31.50	
8/19/2021	13.01	185	171.99	140.61	-31.38	
8/20/2021	13.17	185	171.83	140.61	-31.22	
8/21/2021	13.32	185	171.68	140.61	-31.07	
8/22/2021	13.39	185	171.61	140.61	-31.00	
8/23/2021	13.55	185	171.45	140.61	-30.84	
8/24/2021	13.73	185	171.27	140.61	-30.66	
8/25/2021	13.89	185	171.11	140.61	-30.50	
8/26/2021	14.09	185	170.91	140.61	-30.30	
8/27/2021	14.30	185	170.70	140.61	-30.09	
8/28/2021	14.49	185	170.51	140.61	-29.90	
8/29/2021	14.64	185	170.36	140.61	-29.75	
8/30/2021	14.81	185	170.19	140.61	-29.58	
8/31/2021	14.93	185	170.07	140.61	-29.46	

Monitoring Well 22 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	15.00	185	170.00	140.61	-29.39	
9/2/2021	15.03	185	169.97	140.61	-29.36	
9/3/2021	15.09	185	169.91	140.61	-29.30	
9/4/2021	15.11	185	169.89	140.61	-29.28	
9/5/2021	15.17	185	169.83	140.61	-29.22	
9/6/2021	15.27	185	169.73	140.61	-29.12	
9/7/2021	15.36	185	169.64	140.61	-29.03	
9/8/2021	15.44	185	169.56	140.61	-28.95	
9/9/2021	15.50	185	169.50	140.61	-28.89	
9/10/2021	15.50	185	169.50	140.61	-28.89	
9/11/2021	15.57	185	169.43	140.61	-28.82	
9/12/2021	15.69	185	169.31	140.61	-28.70	
9/13/2021	15.77	185	169.23	140.61	-28.62	
9/14/2021	15.83	185	169.17	140.61	-28.56	
9/15/2021	15.88	185	169.12	140.61	-28.51	
9/16/2021	15.94	185	169.06	140.61	-28.45	
9/17/2021	16.03	185	168.97	140.61	-28.36	
9/18/2021	16.14	185	168.86	140.61	-28.25	
9/19/2021	16.27	185	168.73	140.61	-28.12	
9/20/2021	16.42	185	168.58	140.61	-27.97	
9/21/2021	16.52	185	168.48	140.61	-27.87	
9/22/2021	16.61	185	168.39	140.61	-27.78	
9/23/2021	16.67	185	168.33	140.61	-27.72	
9/24/2021	16.73	185	168.27	140.61	-27.66	
9/25/2021	16.79	185	168.21	140.61	-27.60	
9/26/2021	16.93	185	168.07	140.61	-27.46	
9/27/2021	17.10	185	167.90	140.61	-27.29	
9/28/2021	17.32	185	167.68	140.61	-27.07	
9/29/2021	17.50	185	167.50	140.61	-26.89	
9/30/2021	17.70	185	167.30	140.61	-26.69	
10/1/2021	17.88	185	167.12	140.61	-26.51	
10/2/2021	18.03	185	166.97	140.61	-26.36	
10/3/2021	18.16	185	166.84	140.61	-26.23	
10/4/2021	18.24	185	166.76	140.61	-26.15	
10/5/2021	18.26	185	166.74	140.61	-26.13	
10/6/2021	18.25	185	166.75	140.61	-26.14	
10/7/2021	18.25	185	166.75	140.61	-26.14	
10/8/2021	18.28	185	166.72	140.61	-26.11	
10/9/2021						
10/10/2021	18.38	185	166.62	140.61	-26.01	
10/11/2021	18.48	185	166.52	140.61	-25.91	
10/12/2021	18.68	185	166.32	140.61	-25.71	
10/13/2021	18.76	185	166.24	140.61	-25.63	
10/14/2021	19.00	185	166.00	140.61	-25.39	
10/15/2021	19.10	185	165.90	140.61	-25.29	
10/16/2021	19.20	185	165.80	140.61	-25.19	
10/17/2021						
10/18/2021	19.72	185	165.28	140.61	-24.67	
10/19/2021	19.91	185	165.09	140.61	-24.48	
10/20/2021	20.08	185	164.92	140.61	-24.31	
10/21/2021						
10/22/2021	20.23	185	164.77	140.61	-24.16	
10/23/2021	20.44	185	164.56	140.61	-23.95	
10/24/2021	20.78	185	164.22	140.61	-23.61	
10/25/2021	21.26	185	163.74	140.61	-23.13	
10/26/2021	21.57	185	163.43	140.61	-22.82	
10/27/2021	21.78	185	163.22	140.61	-22.61	
10/28/2021	21.78	185	163.22	140.61	-22.61	
10/29/2021	21.98	185	163.02	140.61	-22.41	
10/30/2021	22.29	185	162.71	140.61	-22.10	
10/31/2021						

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021						
11/2/2021						
11/3/2021						
11/4/2021						
11/5/2021						
11/6/2021						
11/7/2021						
11/8/2021						
11/9/2021						
11/10/2021						
11/11/2021						
11/12/2021						
11/13/2021						
11/14/2021						
11/15/2021						
11/16/2021						
11/17/2021						
11/18/2021						
11/19/2021						
11/20/2021						
11/21/2021						
11/22/2021						
11/23/2021						
11/24/2021						
11/25/2021						
11/26/2021						
11/27/2021						
11/28/2021						
11/29/2021						152
11/30/2021						
12/1/2021						
12/2/2021						
12/3/2021						
12/4/2021						
12/5/2021						
12/6/2021						
12/7/2021						
12/8/2021						
12/9/2021						
12/10/2021						
12/11/2021						
12/12/2021						
12/13/2021						
12/14/2021						
12/15/2021						
12/16/2021						
12/17/2021						
12/18/2021						
12/19/2021						
12/20/2021						
12/21/2021						
12/22/2021						
12/23/2021						
12/24/2021						
12/25/2021						
12/26/2021						
12/27/2021						
12/28/2021						
12/29/2021						
12/30/2021						
12/31/2021						

Well 32 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	81.09	158	76.91	138.36	61.45	
1/2/2021	81.12	158	76.88	138.36	61.48	
1/3/2021	81.27	158	76.73	138.36	61.63	
1/4/2021	81.44	158	76.56	138.36	61.80	
1/5/2021	81.37	158	76.63	138.36	61.73	
1/6/2021	80.80	158	77.20	138.36	61.16	
1/7/2021	81.41	158	76.59	138.36	61.77	
1/8/2021	81.62	158	76.38	138.36	61.98	
1/9/2021	81.71	158	76.29	138.36	62.07	
1/10/2021	81.76	158	76.24	138.36	62.12	
1/11/2021	81.28	158	76.72	138.36	61.64	
1/12/2021	81.16	158	76.84	138.36	61.52	
1/13/2021	81.09	158	76.91	138.36	61.45	
1/14/2021	81.27	158	76.73	138.36	61.63	
1/15/2021	81.60	158	76.40	138.36	61.96	
1/16/2021	81.59	158	76.41	138.36	61.95	
1/17/2021	81.93	158	76.07	138.36	62.29	
1/18/2021	82.24	158	75.76	138.36	62.60	
1/19/2021	81.71	158	76.29	138.36	62.07	
1/20/2021	80.04	158	77.96	138.36	60.40	
1/21/2021	79.39	158	78.61	138.36	59.75	
1/22/2021	78.21	158	79.79	138.36	58.57	
1/23/2021	76.46	158	81.54	138.36	56.82	
1/24/2021	72.90	158	85.10	138.36	53.26	
1/25/2021	71.55	158	86.45	138.36	51.91	
1/26/2021	70.76	158	87.24	138.36	51.12	
1/27/2021	71.73	158	86.27	138.36	52.09	
1/28/2021	71.74	158	86.26	138.36	52.10	
1/29/2021	71.23	158	86.77	138.36	51.59	
1/30/2021	70.64	158	87.36	138.36	51.00	
1/31/2021	70.41	158	87.59	138.36	50.77	
2/1/2021	70.14	158	87.86	138.36	50.50	
2/2/2021	70.32	158	87.68	138.36	50.68	
2/3/2021	69.68	158	88.32	138.36	50.04	
2/4/2021	69.03	158	88.97	138.36	49.39	
2/5/2021	69.81	158	88.19	138.36	50.17	
2/6/2021	70.12	158	87.88	138.36	50.48	
2/7/2021	70.43	158	87.57	138.36	50.79	
2/8/2021	70.34	158	87.66	138.36	50.70	
2/9/2021	70.24	158	87.76	138.36	50.60	
2/10/2021	70.28	158	87.72	138.36	50.64	
2/11/2021	70.62	158	87.38	138.36	50.98	
2/12/2021	70.51	158	87.49	138.36	50.87	
2/13/2021	70.40	158	87.60	138.36	50.76	
2/14/2021	70.25	158	87.75	138.36	50.61	
2/15/2021	70.21	158	87.79	138.36	50.57	
2/16/2021	70.15	158	87.85	138.36	50.51	
2/17/2021	69.22	158	88.78	138.36	49.58	
2/18/2021	68.70	158	89.30	138.36	49.06	
2/19/2021	69.18	158	88.82	138.36	49.54	
2/20/2021	69.79	158	88.21	138.36	50.15	88
2/21/2021	70.57	158	87.43	138.36	50.93	
2/22/2021	69.97	158	88.03	138.36	50.33	
2/23/2021	71.06	158	86.94	138.36	51.42	
2/24/2021	70.70	158	87.30	138.36	51.06	
2/25/2021	69.90	158	88.10	138.36	50.26	
2/26/2021	67.96	158	90.04	138.36	48.32	
2/27/2021	67.65	158	90.35	138.36	48.01	
2/28/2021	67.47	158	90.53	138.36	47.83	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	67.37	158	90.63	138.36	47.73	
3/2/2021	67.30	158	90.70	138.36	47.66	
3/3/2021	67.26	158	90.74	138.36	47.62	
3/4/2021	67.21	158	90.79	138.36	47.57	
3/5/2021	68.45	158	89.55	138.36	48.81	
3/6/2021	56.58	158	101.42	138.36	36.94	
3/7/2021	50.16	158	107.84	138.36	30.52	
3/8/2021	63.35	158	94.65	138.36	43.71	
3/9/2021	71.56	158	86.44	138.36	51.92	
3/10/2021	55.24	158	102.76	138.36	35.60	
3/11/2021	44.07	158	113.93	138.36	24.43	
3/12/2021	57.82	158	100.18	138.36	38.18	
3/13/2021	71.25	158	86.75	138.36	51.61	
3/14/2021	56.63	158	101.37	138.36	36.99	
3/15/2021	44.38	158	113.62	138.36	24.74	
3/16/2021	59.68	158	98.32	138.36	40.04	
3/17/2021	71.26	158	86.74	138.36	51.62	
3/18/2021	72.39	158	85.61	138.36	52.75	
3/19/2021	72.96	158	85.04	138.36	53.32	
3/20/2021	73.40	158	84.60	138.36	53.76	
3/21/2021	73.90	158	84.10	138.36	54.26	
3/22/2021	71.46	158	86.54	138.36	51.82	
3/23/2021	72.15	158	85.85	138.36	52.51	
3/24/2021	59.72	158	98.28	138.36	40.08	
3/25/2021	50.54	158	107.46	138.36	30.90	
3/26/2021	48.76	158	109.24	138.36	29.12	
3/27/2021	63.09	158	94.91	138.36	43.45	
3/28/2021	73.01	158	84.99	138.36	53.37	
3/29/2021	66.61	158	91.39	138.36	46.97	
3/30/2021	57.06	158	100.94	138.36	37.42	
3/31/2021	50.43	158	107.57	138.36	30.79	
4/1/2021	50.67	158	107.33	138.36	31.03	
4/2/2021	62.83	158	95.17	138.36	43.19	
4/3/2021	72.96	158	85.04	138.36	53.32	
4/4/2021	73.82	158	84.18	138.36	54.18	
4/5/2021	60.42	158	97.58	138.36	40.78	
4/6/2021	54.79	158	103.21	138.36	35.15	
4/7/2021	45.05	158	112.95	138.36	25.41	
4/8/2021	44.51	158	113.49	138.36	24.87	
4/9/2021	44.09	158	113.91	138.36	24.45	
4/10/2021	42.06	158	115.94	138.36	22.42	
4/11/2021	53.00	158	105.00	138.36	33.36	
4/12/2021	53.97	158	104.03	138.36	34.33	
4/13/2021	46.10	158	111.90	138.36	26.46	
4/14/2021	45.51	158	112.49	138.36	25.87	
4/15/2021	44.45	158	113.55	138.36	24.81	
4/16/2021	43.85	158	114.15	138.36	24.21	
4/17/2021	44.60	158	113.40	138.36	24.96	
4/18/2021	56.21	158	101.79	138.36	36.57	
4/19/2021	53.78	158	104.22	138.36	34.14	
4/20/2021	45.12	158	112.88	138.36	25.48	
4/21/2021	44.97	158	113.03	138.36	25.33	
4/22/2021	44.11	158	113.89	138.36	24.47	
4/23/2021	43.48	158	114.52	138.36	23.84	
4/24/2021	44.70	158	113.30	138.36	25.06	
4/25/2021	60.09	158	97.91	138.36	40.45	
4/26/2021	56.60	158	101.40	138.36	36.96	
4/27/2021	45.52	158	112.48	138.36	25.88	
4/28/2021	44.77	158	113.23	138.36	25.13	
4/29/2021	43.21	158	114.79	138.36	23.57	
4/30/2021	43.57	158	114.43	138.36	23.93	

Well 32 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	42.79	158	115.21	138.36	23.15	
5/2/2021	42.97	158	115.03	138.36	23.33	
5/3/2021	41.83	158	116.17	138.36	22.19	
5/4/2021	42.19	158	115.81	138.36	22.55	
5/5/2021	57.07	158	100.93	138.36	37.43	
5/6/2021	64.65	158	93.35	138.36	45.01	
5/7/2021	57.42	158	100.58	138.36	37.78	
5/8/2021	42.62	158	115.38	138.36	22.98	
5/9/2021	42.41	158	115.59	138.36	22.77	
5/10/2021	40.91	158	117.09	138.36	21.27	
5/11/2021	38.86	158	119.14	138.36	19.22	
5/12/2021	52.31	158	105.69	138.36	32.67	
5/13/2021	61.87	158	96.13	138.36	42.23	
5/14/2021	62.09	158	95.91	138.36	42.45	
5/15/2021	62.88	158	95.12	138.36	43.24	
5/16/2021	60.99	158	97.01	138.36	41.35	
5/17/2021	62.78	158	95.22	138.36	43.14	
5/18/2021	63.20	158	94.80	138.36	43.56	
5/19/2021	62.93	158	95.07	138.36	43.29	
5/20/2021	62.66	158	95.34	138.36	43.02	
5/21/2021	63.06	158	94.94	138.36	43.42	
5/22/2021	62.17	158	95.83	138.36	42.53	
5/23/2021	62.28	158	95.72	138.36	42.64	
5/24/2021	62.45	158	95.55	138.36	42.81	
5/25/2021	62.66	158	95.34	138.36	43.02	
5/26/2021	63.08	158	94.92	138.36	43.44	
5/27/2021	63.93	158	94.07	138.36	44.29	
5/28/2021	64.27	158	93.73	138.36	44.63	
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6/9/2021						94
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6/30/2021						

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021						
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8/31/2021						

Well 32 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021						
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10/30/2021						
10/31/2021						

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021						
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12/31/2021						

Monitoring Well 32 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	28.09	155	126.91	137.50	10.59	
1/2/2021	28.20	155	126.80	137.50	10.70	
1/3/2021	28.27	155	126.73	137.50	10.77	
1/4/2021	28.47	155	126.53	137.50	10.97	
1/5/2021	28.73	155	126.27	137.50	11.23	
1/6/2021	28.94	155	126.06	137.50	11.44	
1/7/2021	29.10	155	125.90	137.50	11.60	
1/8/2021	29.30	155	125.70	137.50	11.80	
1/9/2021	29.55	155	125.45	137.50	12.05	
1/10/2021	29.73	155	125.27	137.50	12.23	
1/11/2021	29.85	155	125.15	137.50	12.35	
1/12/2021	29.91	155	125.09	137.50	12.41	
1/13/2021	30.03	155	124.97	137.50	12.53	
1/14/2021	30.26	155	124.74	137.50	12.76	
1/15/2021	30.45	155	124.55	137.50	12.95	
1/16/2021	30.65	155	124.35	137.50	13.15	
1/17/2021	30.80	155	124.20	137.50	13.30	
1/18/2021	31.00	155	124.00	137.50	13.50	
1/19/2021	31.19	155	123.81	137.50	13.69	
1/20/2021	31.31	155	123.69	137.50	13.81	
1/21/2021	31.42	155	123.58	137.50	13.92	
1/22/2021	31.56	155	123.44	137.50	14.06	
1/23/2021	31.67	155	123.33	137.50	14.17	
1/24/2021	31.77	155	123.23	137.50	14.27	
1/25/2021	31.65	155	123.35	137.50	14.15	
1/26/2021	31.31	155	123.69	137.50	13.81	
1/27/2021	30.81	155	124.19	137.50	13.31	
1/28/2021	30.18	155	124.82	137.50	12.68	
1/29/2021	29.59	155	125.41	137.50	12.09	
1/30/2021	28.78	155	126.22	137.50	11.28	
1/31/2021	28.03	155	126.97	137.50	10.53	
2/1/2021	27.15	155	127.85	137.50	9.65	
2/2/2021	26.18	155	128.82	137.50	8.68	
2/3/2021	25.20	155	129.80	137.50	7.70	
2/4/2021	24.56	155	130.44	137.50	7.06	
2/5/2021	24.11	155	130.89	137.50	6.61	
2/6/2021	24.14	155	130.86	137.50	6.64	
2/7/2021	24.43	155	130.57	137.50	6.93	
2/8/2021	24.79	155	130.21	137.50	7.29	
2/9/2021	25.06	155	129.94	137.50	7.56	
2/10/2021	25.61	155	129.39	137.50	8.11	
2/11/2021	26.04	155	128.96	137.50	8.54	
2/12/2021	26.50	155	128.50	137.50	9.00	
2/13/2021	26.86	155	128.14	137.50	9.36	
2/14/2021	27.24	155	127.76	137.50	9.74	
2/15/2021	27.59	155	127.41	137.50	10.09	
2/16/2021	27.93	155	127.07	137.50	10.43	
2/17/2021	28.20	155	126.80	137.50	10.70	
2/18/2021	28.32	155	126.68	137.50	10.82	
2/19/2021	28.70	155	126.30	137.50	11.20	
2/20/2021	29.00	155	126.00	137.50	11.50	126
2/21/2021	29.19	155	125.81	137.50	11.69	
2/22/2021	29.51	155	125.49	137.50	12.01	
2/23/2021	29.72	155	125.28	137.50	12.22	
2/24/2021	29.85	155	125.15	137.50	12.35	
2/25/2021	29.90	155	125.10	137.50	12.40	
2/26/2021	30.02	155	124.98	137.50	12.52	
2/27/2021	30.20	155	124.80	137.50	12.70	
2/28/2021	30.24	155	124.76	137.50	12.74	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	30.30	155	124.70	137.50	12.80	
3/2/2021	30.38	155	124.62	137.50	12.88	
3/3/2021	30.42	155	124.58	137.50	12.92	
3/4/2021	30.19	155	124.81	137.50	12.69	
3/5/2021	30.01	155	124.99	137.50	12.51	
3/6/2021	29.95	155	125.05	137.50	12.45	
3/7/2021	29.88	155	125.12	137.50	12.38	
3/8/2021	29.73	155	125.27	137.50	12.23	
3/9/2021	29.61	155	125.39	137.50	12.11	
3/10/2021	29.66	155	125.34	137.50	12.16	
3/11/2021	29.42	155	125.58	137.50	11.92	
3/12/2021	28.86	155	126.14	137.50	11.36	
3/13/2021	28.28	155	126.72	137.50	10.78	
3/14/2021	28.15	155	126.85	137.50	10.65	
3/15/2021	27.85	155	127.15	137.50	10.35	
3/16/2021	27.11	155	127.89	137.50	9.61	
3/17/2021	26.57	155	128.43	137.50	9.07	
3/18/2021	26.30	155	128.70	137.50	8.80	
3/19/2021	26.19	155	128.81	137.50	8.69	
3/20/2021	26.20	155	128.80	137.50	8.70	
3/21/2021	26.33	155	128.67	137.50	8.83	
3/22/2021	26.49	155	128.51	137.50	8.99	
3/23/2021	26.65	155	128.35	137.50	9.15	
3/24/2021	26.89	155	128.11	137.50	9.39	
3/25/2021	27.17	155	127.83	137.50	9.67	
3/26/2021	27.28	155	127.72	137.50	9.78	
3/27/2021	27.29	155	127.71	137.50	9.79	
3/28/2021	27.49	155	127.51	137.50	9.99	
3/29/2021	27.79	155	127.21	137.50	10.29	
3/30/2021	28.02	155	126.98	137.50	10.52	
3/31/2021	28.12	155	126.88	137.50	10.62	
4/1/2021	28.17	155	126.83	137.50	10.67	
4/2/2021	28.17	155	126.83	137.50	10.67	
4/3/2021	28.15	155	126.85	137.50	10.65	
4/4/2021	28.17	155	126.83	137.50	10.67	
4/5/2021	28.23	155	126.77	137.50	10.73	
4/6/2021	28.24	155	126.76	137.50	10.74	
4/7/2021	28.25	155	126.75	137.50	10.75	
4/8/2021	28.21	155	126.79	137.50	10.71	
4/9/2021	28.14	155	126.86	137.50	10.64	
4/10/2021	28.00	155	127.00	137.50	10.50	
4/11/2021	27.78	155	127.22	137.50	10.28	
4/12/2021	27.62	155	127.38	137.50	10.12	
4/13/2021	27.40	155	127.60	137.50	9.90	
4/14/2021	27.09	155	127.91	137.50	9.59	
4/15/2021	26.78	155	128.22	137.50	9.28	
4/16/2021	26.53	155	128.47	137.50	9.03	
4/17/2021	26.22	155	128.78	137.50	8.72	
4/18/2021	25.79	155	129.21	137.50	8.29	
4/19/2021	25.62	155	129.38	137.50	8.12	
4/20/2021	25.26	155	129.74	137.50	7.76	
4/21/2021	24.97	155	130.03	137.50	7.47	
4/22/2021	24.87	155	130.13	137.50	7.37	
4/23/2021	24.66	155	130.34	137.50	7.16	
4/24/2021	24.41	155	130.59	137.50	6.91	
4/25/2021	24.13	155	130.87	137.50	6.63	
4/26/2021	24.05	155	130.95	137.50	6.55	
4/27/2021	23.88	155	131.12	137.50	6.38	
4/28/2021	23.58	155	131.42	137.50	6.08	
4/29/2021	23.41	155	131.59	137.50	5.91	
4/30/2021	23.33	155	131.67	137.50	5.83	

Monitoring Well 32 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	23.25	155	131.75	137.50	5.75	
5/2/2021	23.21	155	131.79	137.50	5.71	
5/3/2021	23.08	155	131.92	137.50	5.58	
5/4/2021	22.90	155	132.10	137.50	5.40	
5/5/2021	22.63	155	132.37	137.50	5.13	
5/6/2021	22.49	155	132.51	137.50	4.99	
5/7/2021	22.39	155	132.61	137.50	4.89	
5/8/2021	22.31	155	132.69	137.50	4.81	
5/9/2021	22.20	155	132.80	137.50	4.70	
5/10/2021	22.06	155	132.94	137.50	4.56	
5/11/2021	21.93	155	133.07	137.50	4.43	
5/12/2021	21.77	155	133.23	137.50	4.27	
5/13/2021	21.73	155	133.27	137.50	4.23	
5/14/2021	21.64	155	133.36	137.50	4.14	
5/15/2021	21.46	155	133.54	137.50	3.96	
5/16/2021	21.22	155	133.78	137.50	3.72	
5/17/2021	20.97	155	134.03	137.50	3.47	
5/18/2021	20.70	155	134.30	137.50	3.20	
5/19/2021	20.37	155	134.63	137.50	2.87	
5/20/2021	20.12	155	134.88	137.50	2.62	
5/21/2021	19.88	155	135.12	137.50	2.38	
5/22/2021	19.56	155	135.44	137.50	2.06	
5/23/2021	19.25	155	135.75	137.50	1.75	
5/24/2021	19.00	155	136.00	137.50	1.50	
5/25/2021	18.80	155	136.20	137.50	1.30	
5/26/2021	18.54	155	136.46	137.50	1.04	
5/27/2021	18.36	155	136.64	137.50	0.86	
5/28/2021	18.27	155	136.73	137.50	0.77	
5/29/2021	18.22	155	136.78	137.50	0.72	
5/30/2021	18.12	155	136.88	137.50	0.62	
5/31/2021	17.96	155	137.04	137.50	0.46	
6/1/2021	17.77	155	137.23	137.50	0.27	
6/2/2021	17.67	155	137.33	137.50	0.17	
6/3/2021	17.53	155	137.47	137.50	0.03	
6/4/2021	17.35	155	137.65	137.50	-0.15	
6/5/2021	17.12	155	137.88	137.50	-0.38	
6/6/2021	16.94	155	138.06	137.50	-0.56	
6/7/2021	16.74	155	138.26	137.50	-0.76	
6/8/2021	16.40	155	138.60	137.50	-1.10	
6/9/2021	15.90	155	139.10	137.50	-1.60	
6/10/2021	15.71	155	139.29	137.50	-1.79	
6/11/2021	15.39	155	139.61	137.50	-2.11	
6/12/2021	15.12	155	139.88	137.50	-2.38	
6/13/2021	15.02	155	139.98	137.50	-2.48	
6/14/2021	14.83	155	140.17	137.50	-2.67	
6/15/2021	14.60	155	140.40	137.50	-2.90	
6/16/2021	14.35	155	140.65	137.50	-3.15	
6/17/2021	14.22	155	140.78	137.50	-3.28	
6/18/2021	13.97	155	141.03	137.50	-3.53	
6/19/2021	13.64	155	141.36	137.50	-3.86	
6/20/2021	13.35	155	141.65	137.50	-4.15	
6/21/2021	12.99	155	142.01	137.50	-4.51	
6/22/2021	12.63	155	142.37	137.50	-4.87	
6/23/2021	12.08	155	142.92	137.50	-5.42	
6/24/2021	11.73	155	143.27	137.50	-5.77	
6/25/2021	11.47	155	143.53	137.50	-6.03	
6/26/2021	11.19	155	143.81	137.50	-6.31	
6/27/2021	10.94	155	144.06	137.50	-6.56	
6/28/2021	10.60	155	144.40	137.50	-6.90	
6/29/2021	10.17	155	144.83	137.50	-7.33	
6/30/2021	9.80	155	145.20	137.50	-7.70	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	9.37	155	145.63	137.50	-8.13	
7/2/2021	8.99	155	146.01	137.50	-8.51	
7/3/2021	8.68	155	146.32	137.50	-8.82	
7/4/2021	8.36	155	146.64	137.50	-9.14	
7/5/2021	7.97	155	147.03	137.50	-9.53	
7/6/2021	7.66	155	147.34	137.50	-9.84	
7/7/2021	7.34	155	147.66	137.50	-10.16	
7/8/2021	7.06	155	147.94	137.50	-10.44	
7/9/2021	6.82	155	148.18	137.50	-10.68	
7/10/2021	6.66	155	148.34	137.50	-10.84	
7/11/2021	6.42	155	148.58	137.50	-11.08	
7/12/2021	6.11	155	148.89	137.50	-11.39	
7/13/2021	5.96	155	149.04	137.50	-11.54	
7/14/2021	5.77	155	149.23	137.50	-11.73	
7/15/2021	5.60	155	149.40	137.50	-11.90	
7/16/2021	5.50	155	149.50	137.50	-12.00	
7/17/2021	5.39	155	149.61	137.50	-12.11	
7/18/2021	5.28	155	149.72	137.50	-12.22	
7/19/2021	5.20	155	149.80	137.50	-12.30	
7/20/2021	5.13	155	149.87	137.50	-12.37	
7/21/2021	5.07	155	149.93	137.50	-12.43	
7/22/2021	4.90	155	150.10	137.50	-12.60	
7/23/2021	4.90	155	150.10	137.50	-12.60	
7/24/2021	4.90	155	150.10	137.50	-12.60	
7/25/2021	4.96	155	150.04	137.50	-12.54	
7/26/2021	4.99	155	150.01	137.50	-12.51	
7/27/2021	5.02	155	149.98	137.50	-12.48	
7/28/2021	5.05	155	149.95	137.50	-12.45	
7/29/2021	5.06	155	149.94	137.50	-12.44	
7/30/2021	5.09	155	149.91	137.50	-12.41	
7/31/2021	5.08	155	149.92	137.50	-12.42	
8/1/2021	5.09	155	149.91	137.50	-12.41	
8/2/2021	5.10	155	149.90	137.50	-12.40	
8/3/2021	5.09	155	149.91	137.50	-12.41	
8/4/2021	5.10	155	149.90	137.50	-12.40	
8/5/2021	5.03	155	149.97	137.50	-12.47	
8/6/2021	4.94	155	150.06	137.50	-12.56	
8/7/2021	4.87	155	150.13	137.50	-12.63	
8/8/2021	4.80	155	150.20	137.50	-12.70	
8/9/2021	4.74	155	150.26	137.50	-12.76	
8/10/2021	4.71	155	150.29	137.50	-12.79	
8/11/2021	4.73	155	150.27	137.50	-12.77	
8/12/2021	4.72	155	150.28	137.50	-12.78	
8/13/2021	4.77	155	150.23	137.50	-12.73	
8/14/2021	4.85	155	150.15	137.50	-12.65	
8/15/2021	4.92	155	150.08	137.50	-12.58	
8/16/2021	5.01	155	149.99	137.50	-12.49	
8/17/2021	5.08	155	149.92	137.50	-12.42	
8/18/2021	5.12	155	149.88	137.50	-12.38	
8/19/2021	5.18	155	149.82	137.50	-12.32	
8/20/2021	5.31	155	149.69	137.50	-12.19	
8/21/2021	5.45	155	149.55	137.50	-12.05	
8/22/2021	5.60	155	149.40	137.50	-11.90	
8/23/2021	5.73	155	149.27	137.50	-11.77	
8/24/2021	5.88	155	149.12	137.50	-11.62	
8/25/2021	5.99	155	149.01	137.50	-11.51	
8/26/2021	6.17	155	148.83	137.50	-11.33	
8/27/2021	6.38	155	148.62	137.50	-11.12	
8/28/2021	6.59	155	148.41	137.50	-10.91	
8/29/2021	6.72	155	148.28	137.50	-10.78	
8/30/2021	6.86	155	148.14	137.50	-10.64	
8/31/2021	7.00	155	148.00	137.50	-10.50	

Monitoring Well 32 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	7.12	155	147.88	137.50	-10.38	
9/2/2021	7.20	155	147.80	137.50	-10.30	
9/3/2021	7.33	155	147.67	137.50	-10.17	
9/4/2021	7.48	155	147.52	137.50	-10.02	
9/5/2021	7.61	155	147.39	137.50	-9.89	
9/6/2021	7.70	155	147.30	137.50	-9.80	
9/7/2021	7.77	155	147.23	137.50	-9.73	
9/8/2021	7.83	155	147.17	137.50	-9.67	
9/9/2021	7.87	155	147.13	137.50	-9.63	
9/10/2021	7.86	155	147.14	137.50	-9.64	
9/11/2021	7.89	155	147.11	137.50	-9.61	
9/12/2021	7.97	155	147.03	137.50	-9.53	
9/13/2021	7.95	155	147.05	137.50	-9.55	
9/14/2021	8.03	155	146.97	137.50	-9.47	
9/15/2021	8.11	155	146.89	137.50	-9.39	
9/16/2021	8.13	155	146.87	137.50	-9.37	
9/17/2021	8.21	155	146.79	137.50	-9.29	
9/18/2021	8.28	155	146.72	137.50	-9.22	
9/19/2021	8.34	155	146.66	137.50	-9.16	
9/20/2021	8.36	155	146.64	137.50	-9.14	
9/21/2021	8.45	155	146.55	137.50	-9.05	
9/22/2021	8.49	155	146.51	137.50	-9.01	
9/23/2021	8.57	155	146.43	137.50	-8.93	
9/24/2021	8.63	155	146.37	137.50	-8.87	
9/25/2021	8.72	155	146.28	137.50	-8.78	
9/26/2021	8.79	155	146.21	137.50	-8.71	
9/27/2021	8.82	155	146.18	137.50	-8.68	
9/28/2021	8.96	155	146.04	137.50	-8.54	
9/29/2021	9.08	155	145.92	137.50	-8.42	
9/30/2021	9.17	155	145.83	137.50	-8.33	
10/1/2021	9.29	155	145.71	137.50	-8.21	
10/2/2021	9.45	155	145.55	137.50	-8.05	
10/3/2021	9.59	155	145.41	137.50	-7.91	
10/4/2021	9.73	155	145.27	137.50	-7.77	
10/5/2021	9.82	155	145.18	137.50	-7.68	
10/6/2021	9.91	155	145.09	137.50	-7.59	
10/7/2021	9.94	155	145.06	137.50	-7.56	
10/8/2021	9.93	155	145.07	137.50	-7.57	
10/9/2021						
10/10/2021	9.94	155	145.06	137.50	-7.56	
10/11/2021	10.07	155	144.93	137.50	-7.43	
10/12/2021	10.11	155	144.89	137.50	-7.39	
10/13/2021	10.08	155	144.92	137.50	-7.42	
10/14/2021	10.33	155	144.67	137.50	-7.17	
10/15/2021						
10/16/2021	10.39	155	144.61	137.50	-7.11	
10/17/2021						
10/18/2021	10.76	155	144.24	137.50	-6.74	
10/19/2021	11.03	155	143.97	137.50	-6.47	
10/20/2021	11.23	155	143.77	137.50	-6.27	
10/21/2021						
10/22/2021	11.48	155	143.52	137.50	-6.02	
10/23/2021	11.54	155	143.46	137.50	-5.96	
10/24/2021	11.79	155	143.21	137.50	-5.71	
10/25/2021	12.10	155	142.90	137.50	-5.40	
10/26/2021	12.25	155	142.75	137.50	-5.25	
10/27/2021	12.41	155	142.59	137.50	-5.09	
10/28/2021	12.63	155	142.37	137.50	-4.87	
10/29/2021	12.92	155	142.08	137.50	-4.58	
10/30/2021	13.23	155	141.77	137.50	-4.27	
10/31/2021						

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021						
11/2/2021						
11/3/2021						
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11/9/2021						
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11/23/2021						
11/24/2021						
11/25/2021						
11/26/2021						
11/27/2021						
11/28/2021						
11/29/2021						136
11/30/2021						
12/1/2021						
12/2/2021						
12/3/2021						
12/4/2021						
12/5/2021						
12/6/2021						
12/7/2021						
12/8/2021						
12/9/2021						
12/10/2021						
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12/17/2021						
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12/23/2021						
12/24/2021						
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12/26/2021						
12/27/2021						
12/28/2021						
12/29/2021						
12/30/2021						
12/31/2021						

Monitoring Well 70 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	92.31	248	155.69	145.15	-10.54	
1/2/2021	92.52	248	155.48	145.15	-10.33	
1/3/2021	92.79	248	155.21	145.15	-10.06	
1/4/2021	93.13	248	154.87	145.15	-9.72	
1/5/2021	93.35	248	154.65	145.15	-9.50	
1/6/2021	93.62	248	154.38	145.15	-9.23	
1/7/2021	93.88	248	154.12	145.15	-8.97	
1/8/2021	94.08	248	153.92	145.15	-8.77	
1/9/2021	94.13	248	153.87	145.15	-8.72	
1/10/2021	94.14	248	153.86	145.15	-8.71	
1/11/2021	94.07	248	153.93	145.15	-8.78	
1/12/2021	94.11	248	153.89	145.15	-8.74	
1/13/2021	94.12	248	153.88	145.15	-8.73	
1/14/2021	94.15	248	153.85	145.15	-8.70	
1/15/2021	94.20	248	153.80	145.15	-8.65	
1/16/2021	94.46	248	153.54	145.15	-8.39	
1/17/2021	94.69	248	153.31	145.15	-8.16	
1/18/2021	94.88	248	153.12	145.15	-7.97	
1/19/2021	95.00	248	153.00	145.15	-7.85	
1/20/2021	95.11	248	152.89	145.15	-7.74	
1/21/2021	95.29	248	152.71	145.15	-7.56	
1/22/2021	95.44	248	152.56	145.15	-7.41	
1/23/2021	95.22	248	152.78	145.15	-7.63	
1/24/2021	93.96	248	154.04	145.15	-8.89	
1/25/2021	92.09	248	155.91	145.15	-10.76	
1/26/2021	90.33	248	157.67	145.15	-12.52	
1/27/2021	89.08	248	158.92	145.15	-13.77	
1/28/2021	89.31	248	158.69	145.15	-13.54	
1/29/2021	90.12	248	157.88	145.15	-12.73	
1/30/2021	89.16	248	158.84	145.15	-13.69	
1/31/2021	87.65	248	160.35	145.15	-15.20	
2/1/2021	86.33	248	161.67	145.15	-16.52	
2/2/2021	86.55	248	161.45	145.15	-16.30	
2/3/2021	87.50	248	160.50	145.15	-15.35	
2/4/2021	88.05	248	159.95	145.15	-14.80	
2/5/2021	88.50	248	159.50	145.15	-14.35	
2/6/2021	88.83	248	159.17	145.15	-14.02	
2/7/2021	89.13	248	158.87	145.15	-13.72	
2/8/2021	89.63	248	158.37	145.15	-13.22	
2/9/2021	90.13	248	157.87	145.15	-12.72	
2/10/2021	90.61	248	157.39	145.15	-12.24	
2/11/2021	90.84	248	157.16	145.15	-12.01	
2/12/2021	91.26	248	156.74	145.15	-11.59	
2/13/2021	91.28	248	156.72	145.15	-11.57	
2/14/2021	91.40	248	156.60	145.15	-11.45	
2/15/2021	91.70	248	156.30	145.15	-11.15	
2/16/2021	91.76	248	156.24	145.15	-11.09	
2/17/2021	91.53	248	156.47	145.15	-11.32	
2/18/2021	90.97	248	157.03	145.15	-11.88	
2/19/2021	90.85	248	157.15	145.15	-12.00	
2/20/2021	90.78	248	157.22	145.15	-12.07	157
2/21/2021	90.59	248	157.41	145.15	-12.26	
2/22/2021	90.46	248	157.54	145.15	-12.39	
2/23/2021	90.32	248	157.68	145.15	-12.53	
2/24/2021	90.19	248	157.81	145.15	-12.66	
2/25/2021	90.15	248	157.85	145.15	-12.70	
2/26/2021	90.10	248	157.90	145.15	-12.75	
2/27/2021	89.91	248	158.09	145.15	-12.94	
2/28/2021	89.24	248	158.76	145.15	-13.61	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	88.62	248	159.38	145.15	-14.23	
3/2/2021	88.12	248	159.88	145.15	-14.73	
3/3/2021	87.61	248	160.39	145.15	-15.24	
3/4/2021	86.85	248	161.15	145.15	-16.00	
3/5/2021	86.28	248	161.72	145.15	-16.57	
3/6/2021	86.13	248	161.87	145.15	-16.72	
3/7/2021	86.12	248	161.88	145.15	-16.73	
3/8/2021	86.26	248	161.74	145.15	-16.59	
3/9/2021	86.48	248	161.52	145.15	-16.37	
3/10/2021	86.69	248	161.31	145.15	-16.16	
3/11/2021	86.68	248	161.32	145.15	-16.17	
3/12/2021	86.76	248	161.24	145.15	-16.09	
3/13/2021	86.71	248	161.29	145.15	-16.14	
3/14/2021	86.78	248	161.22	145.15	-16.07	
3/15/2021	86.83	248	161.17	145.15	-16.02	
3/16/2021	86.70	248	161.30	145.15	-16.15	
3/17/2021	86.63	248	161.37	145.15	-16.22	
3/18/2021	86.80	248	161.20	145.15	-16.05	
3/19/2021	87.09	248	160.91	145.15	-15.76	
3/20/2021	87.35	248	160.65	145.15	-15.50	
3/21/2021	87.50	248	160.50	145.15	-15.35	
3/22/2021	87.75	248	160.25	145.15	-15.10	
3/23/2021	88.01	248	159.99	145.15	-14.84	
3/24/2021	88.24	248	159.76	145.15	-14.61	
3/25/2021	88.64	248	159.36	145.15	-14.21	
3/26/2021	88.88	248	159.12	145.15	-13.97	
3/27/2021	88.56	248	159.44	145.15	-14.29	
3/28/2021	88.00	248	160.00	145.15	-14.85	
3/29/2021	87.42	248	160.58	145.15	-15.43	
3/30/2021	86.78	248	161.22	145.15	-16.07	
3/31/2021	86.16	248	161.84	145.15	-16.69	
4/1/2021	85.78	248	162.22	145.15	-17.07	
4/2/2021	85.11	248	162.89	145.15	-17.74	
4/3/2021	84.41	248	163.59	145.15	-18.44	
4/4/2021	83.87	248	164.13	145.15	-18.98	
4/5/2021	83.47	248	164.53	145.15	-19.38	
4/6/2021	83.23	248	164.77	145.15	-19.62	
4/7/2021	82.73	248	165.27	145.15	-20.12	
4/8/2021	82.54	248	165.46	145.15	-20.31	
4/9/2021	80.90	248	167.10	145.15	-21.95	
4/10/2021	78.30	248	169.70	145.15	-24.55	
4/11/2021	75.78	248	172.22	145.15	-27.07	
4/12/2021	73.63	248	174.37	145.15	-29.22	
4/13/2021	71.76	248	176.24	145.15	-31.09	
4/14/2021	70.35	248	177.65	145.15	-32.50	
4/15/2021	69.20	248	178.80	145.15	-33.65	
4/16/2021	68.22	248	179.78	145.15	-34.63	
4/17/2021	68.41	248	179.59	145.15	-34.44	
4/18/2021	68.99	248	179.01	145.15	-33.86	
4/19/2021	69.23	248	178.77	145.15	-33.62	
4/20/2021	69.26	248	178.74	145.15	-33.59	
4/21/2021	69.09	248	178.91	145.15	-33.76	
4/22/2021	68.16	248	179.84	145.15	-34.69	
4/23/2021	67.18	248	180.82	145.15	-35.67	
4/24/2021	66.69	248	181.31	145.15	-36.16	
4/25/2021	66.70	248	181.30	145.15	-36.15	
4/26/2021	66.83	248	181.17	145.15	-36.02	
4/27/2021	66.90	248	181.10	145.15	-35.95	
4/28/2021	67.49	248	180.51	145.15	-35.36	
4/29/2021	68.82	248	179.18	145.15	-34.03	
4/30/2021	69.40	248	178.60	145.15	-33.45	

Monitoring Well 70 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	68.73	248	179.27	145.15	-34.12	
5/2/2021	67.69	248	180.31	145.15	-35.16	
5/3/2021	66.99	248	181.01	145.15	-35.86	
5/4/2021	66.40	248	181.60	145.15	-36.45	
5/5/2021	66.04	248	181.96	145.15	-36.81	
5/6/2021	65.72	248	182.28	145.15	-37.13	
5/7/2021	66.17	248	181.83	145.15	-36.68	
5/8/2021	66.94	248	181.06	145.15	-35.91	
5/9/2021	66.81	248	181.19	145.15	-36.04	
5/10/2021	66.63	248	181.37	145.15	-36.22	
5/11/2021	66.78	248	181.22	145.15	-36.07	
5/12/2021	66.30	248	181.70	145.15	-36.55	
5/13/2021	65.27	248	182.73	145.15	-37.58	
5/14/2021	64.30	248	183.70	145.15	-38.55	
5/15/2021	63.10	248	184.90	145.15	-39.75	
5/16/2021	61.72	248	186.28	145.15	-41.13	
5/17/2021	60.41	248	187.59	145.15	-42.44	
5/18/2021	59.36	248	188.64	145.15	-43.49	
5/19/2021	58.52	248	189.48	145.15	-44.33	
5/20/2021	58.03	248	189.97	145.15	-44.82	
5/21/2021	58.60	248	189.40	145.15	-44.25	
5/22/2021	59.59	248	188.41	145.15	-43.26	
5/23/2021	60.34	248	187.66	145.15	-42.51	
5/24/2021	60.79	248	187.21	145.15	-42.06	
5/25/2021	61.18	248	186.82	145.15	-41.67	
5/26/2021	61.37	248	186.63	145.15	-41.48	
5/27/2021	61.65	248	186.35	145.15	-41.20	
5/28/2021	61.79	248	186.21	145.15	-41.06	
5/29/2021	61.52	248	186.48	145.15	-41.33	
5/30/2021	61.22	248	186.78	145.15	-41.63	
5/31/2021	60.65	248	187.35	145.15	-42.20	
6/1/2021	60.02	248	187.98	145.15	-42.83	
6/2/2021	60.02	248	187.98	145.15	-42.83	
6/3/2021	60.40	248	187.60	145.15	-42.45	
6/4/2021	59.86	248	188.14	145.15	-42.99	
6/5/2021	58.73	248	189.27	145.15	-44.12	
6/6/2021	57.34	248	190.66	145.15	-45.51	
6/7/2021	56.10	248	191.90	145.15	-46.75	
6/8/2021	54.99	248	193.01	145.15	-47.86	
6/9/2021	54.37	248	193.63	145.15	-48.48	
6/10/2021	53.53	248	194.47	145.15	-49.32	
6/11/2021	52.78	248	195.22	145.15	-50.07	
6/12/2021	51.97	248	196.03	145.15	-50.88	
6/13/2021	51.25	248	196.75	145.15	-51.60	
6/14/2021	50.60	248	197.40	145.15	-52.25	
6/15/2021	49.87	248	198.13	145.15	-52.98	
6/16/2021	49.60	248	198.40	145.15	-53.25	
6/17/2021	49.38	248	198.62	145.15	-53.47	
6/18/2021	48.87	248	199.13	145.15	-53.98	
6/19/2021	48.35	248	199.65	145.15	-54.50	
6/20/2021	47.74	248	200.26	145.15	-55.11	
6/21/2021	47.10	248	200.90	145.15	-55.75	
6/22/2021	46.65	248	201.35	145.15	-56.20	
6/23/2021	46.55	248	201.45	145.15	-56.30	
6/24/2021	46.46	248	201.54	145.15	-56.39	
6/25/2021	46.30	248	201.70	145.15	-56.55	
6/26/2021	45.93	248	202.07	145.15	-56.92	
6/27/2021	44.82	248	203.18	145.15	-58.03	
6/28/2021	43.30	248	204.70	145.15	-59.55	
6/29/2021	42.60	248	205.40	145.15	-60.25	
6/30/2021	42.21	248	205.79	145.15	-60.64	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021						
7/2/2021	41.07	248	206.93	145.15	-61.78	
7/3/2021	39.93	248	208.07	145.15	-62.92	
7/4/2021	39.03	248	208.97	145.15	-63.82	
7/5/2021	38.13	248	209.87	145.15	-64.72	
7/6/2021	37.86	248	210.14	145.15	-64.99	
7/7/2021	37.85	248	210.15	145.15	-65.00	
7/8/2021	37.97	248	210.03	145.15	-64.88	
7/9/2021	38.63	248	209.37	145.15	-64.22	
7/10/2021	39.39	248	208.61	145.15	-63.46	
7/11/2021	39.28	248	208.72	145.15	-63.57	
7/12/2021	38.81	248	209.19	145.15	-64.04	
7/13/2021	39.00	248	209.00	145.15	-63.85	
7/14/2021	39.52	248	208.48	145.15	-63.33	
7/15/2021	39.68	248	208.32	145.15	-63.17	
7/16/2021	39.72	248	208.28	145.15	-63.13	
7/17/2021	40.20	248	207.80	145.15	-62.65	
7/18/2021	40.03	248	207.97	145.15	-62.82	
7/19/2021	39.70	248	208.30	145.15	-63.15	
7/20/2021	39.36	248	208.64	145.15	-63.49	
7/21/2021	39.10	248	208.90	145.15	-63.75	
7/22/2021	39.16	248	208.84	145.15	-63.69	
7/23/2021	39.04	248	208.96	145.15	-63.81	
7/24/2021	39.04	248	208.96	145.15	-63.81	
7/25/2021	38.91	248	209.09	145.15	-63.94	
7/26/2021						
7/27/2021						
7/28/2021						
7/29/2021						
7/30/2021						
7/31/2021						
8/1/2021						
8/2/2021						
8/3/2021	38.15	248	209.85	145.15	-64.70	
8/4/2021	38.36	248	209.64	145.15	-64.49	
8/5/2021	38.89	248	209.11	145.15	-63.96	
8/6/2021	39.18	248	208.82	145.15	-63.67	
8/7/2021	39.25	248	208.75	145.15	-63.60	
8/8/2021	39.18	248	208.82	145.15	-63.67	
8/9/2021	39.09	248	208.91	145.15	-63.76	
8/10/2021	39.75	248	208.25	145.15	-63.10	
8/11/2021	40.16	248	207.84	145.15	-62.69	
8/12/2021	40.18	248	207.82	145.15	-62.67	
8/13/2021	40.88	248	207.12	145.15	-61.97	
8/14/2021	41.23	248	206.77	145.15	-61.62	
8/15/2021	41.34	248	206.66	145.15	-61.51	
8/16/2021	42.41	248	205.59	145.15	-60.44	
8/17/2021	43.97	248	204.03	145.15	-58.88	
8/18/2021	45.34	248	202.66	145.15	-57.51	
8/19/2021	46.53	248	201.47	145.15	-56.32	
8/20/2021	47.42	248	200.58	145.15	-55.43	
8/21/2021	48.02	248	199.98	145.15	-54.83	
8/22/2021	48.59	248	199.41	145.15	-54.26	
8/23/2021	48.82	248	199.18	145.15	-54.03	
8/24/2021	49.75	248	198.25	145.15	-53.10	
8/25/2021	50.25	248	197.75	145.15	-52.60	
8/26/2021	51.01	248	196.99	145.15	-51.84	
8/27/2021	51.92	248	196.08	145.15	-50.93	
8/28/2021	52.86	248	195.14	145.15	-49.99	
8/29/2021	53.02	248	194.98	145.15	-49.83	
8/30/2021	53.00	248	195.00	145.15	-49.85	
8/31/2021	53.08	248	194.92	145.15	-49.77	

Monitoring Well 70 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	53.25	248	194.75	145.15	-49.60	
9/2/2021	53.51	248	194.49	145.15	-49.34	
9/3/2021	54.02	248	193.98	145.15	-48.83	
9/4/2021	53.87	248	194.13	145.15	-48.98	
9/5/2021	52.80	248	195.20	145.15	-50.05	
9/6/2021	51.48	248	196.52	145.15	-51.37	
9/7/2021	50.42	248	197.58	145.15	-52.43	
9/8/2021	49.60	248	198.40	145.15	-53.25	
9/9/2021	49.33	248	198.67	145.15	-53.52	
9/10/2021	49.13	248	198.87	145.15	-53.72	
9/11/2021	49.82	248	198.18	145.15	-53.03	
9/12/2021	50.86	248	197.14	145.15	-51.99	
9/13/2021	51.27	248	196.73	145.15	-51.58	
9/14/2021	51.55	248	196.45	145.15	-51.30	
9/15/2021	51.86	248	196.14	145.15	-50.99	
9/16/2021	51.95	248	196.05	145.15	-50.90	
9/17/2021	52.14	248	195.86	145.15	-50.71	
9/18/2021	52.32	248	195.68	145.15	-50.53	
9/19/2021	51.42	248	196.58	145.15	-51.43	
9/20/2021	51.35	248	196.65	145.15	-51.50	
9/21/2021	51.56	248	196.44	145.15	-51.29	
9/22/2021	51.79	248	196.21	145.15	-51.06	
9/23/2021	52.21	248	195.79	145.15	-50.64	
9/24/2021	52.48	248	195.52	145.15	-50.37	
9/25/2021	52.60	248	195.40	145.15	-50.25	
9/26/2021	53.10	248	194.90	145.15	-49.75	
9/27/2021	54.95	248	193.05	145.15	-47.90	
9/28/2021	56.46	248	191.54	145.15	-46.39	
9/29/2021	57.65	248	190.35	145.15	-45.20	
9/30/2021	58.93	248	189.07	145.15	-43.92	
10/1/2021	59.47	248	188.53	145.15	-43.38	
10/2/2021	59.51	248	188.49	145.15	-43.34	
10/3/2021	59.21	248	188.79	145.15	-43.64	
10/4/2021	58.78	248	189.22	145.15	-44.07	
10/5/2021	58.60	248	189.40	145.15	-44.25	
10/6/2021	58.11	248	189.89	145.15	-44.74	
10/7/2021	57.72	248	190.28	145.15	-45.13	
10/8/2021	56.99	248	191.01	145.15	-45.86	
10/9/2021	56.27	248	191.73	145.15	-46.58	
10/10/2021	56.22	248	191.78	145.15	-46.63	
10/11/2021	56.31	248	191.69	145.15	-46.54	
10/12/2021	56.74	248	191.26	145.15	-46.11	
10/13/2021	57.37	248	190.63	145.15	-45.48	
10/14/2021	58.80	248	189.20	145.15	-44.05	
10/15/2021	59.58	248	188.42	145.15	-43.27	
10/16/2021	61.00	248	187.00	145.15	-41.85	
10/17/2021	61.79	248	186.21	145.15	-41.06	
10/18/2021	62.38	248	185.62	145.15	-40.47	
10/19/2021	62.93	248	185.07	145.15	-39.92	
10/20/2021	63.25	248	184.75	145.15	-39.60	
10/21/2021	63.49	248	184.51	145.15	-39.36	
10/22/2021	63.92	248	184.08	145.15	-38.93	
10/23/2021	64.44	248	183.56	145.15	-38.41	
10/24/2021	65.25	248	182.75	145.15	-37.60	
10/25/2021	66.18	248	181.82	145.15	-36.67	
10/26/2021	66.90	248	181.10	145.15	-35.95	
10/27/2021	67.61	248	180.39	145.15	-35.24	
10/28/2021	68.20	248	179.80	145.15	-34.65	
10/29/2021	69.01	248	178.99	145.15	-33.84	
10/30/2021	69.47	248	178.53	145.15	-33.38	
10/31/2021	70.06	248	177.94	145.15	-32.79	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021	70.43	248	177.57	145.15	-32.42	
11/2/2021	70.91	248	177.09	145.15	-31.94	
11/3/2021	71.28	248	176.72	145.15	-31.57	
11/4/2021	71.82	248	176.18	145.15	-31.03	
11/5/2021	72.38	248	175.62	145.15	-30.47	
11/6/2021	72.84	248	175.16	145.15	-30.01	
11/7/2021	73.28	248	174.72	145.15	-29.57	
11/8/2021	73.70	248	174.30	145.15	-29.15	
11/9/2021	74.28	248	173.72	145.15	-28.57	
11/10/2021	74.53	248	173.47	145.15	-28.32	
11/11/2021						
11/12/2021						
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11/30/2021						
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12/15/2021						
12/16/2021						
12/17/2021						
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12/25/2021						
12/26/2021						
12/27/2021						
12/28/2021						
12/29/2021						
12/30/2021						
12/31/2021						

Well 73 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	136.90	240	103.10	146.72	43.62	
1/2/2021	136.90	240	103.10	146.72	43.62	
1/3/2021	136.95	240	103.05	146.72	43.67	
1/4/2021	137.03	240	102.97	146.72	43.75	
1/5/2021	137.00	240	103.00	146.72	43.72	
1/6/2021	137.03	240	102.97	146.72	43.75	
1/7/2021	137.08	240	102.92	146.72	43.80	
1/8/2021	137.14	240	102.86	146.72	43.86	
1/9/2021	137.21	240	102.79	146.72	43.93	
1/10/2021	137.24	240	102.76	146.72	43.96	
1/11/2021	137.34	240	102.66	146.72	44.06	
1/12/2021	137.33	240	102.67	146.72	44.05	
1/13/2021	137.40	240	102.60	146.72	44.12	
1/14/2021	137.49	240	102.51	146.72	44.21	
1/15/2021	137.62	240	102.38	146.72	44.34	
1/16/2021	137.82	240	102.18	146.72	44.54	
1/17/2021	137.95	240	102.05	146.72	44.67	
1/18/2021	138.19	240	101.81	146.72	44.91	
1/19/2021	138.19	240	101.81	146.72	44.91	
1/20/2021	137.85	240	102.15	146.72	44.57	
1/21/2021	138.03	240	101.97	146.72	44.75	
1/22/2021	137.70	240	102.30	146.72	44.42	
1/23/2021	135.93	240	104.07	146.72	42.65	
1/24/2021	128.04	240	111.96	146.72	34.76	
1/25/2021	127.09	240	112.91	146.72	33.81	
1/26/2021	127.09	240	112.91	146.72	33.81	
1/27/2021	126.86	240	113.14	146.72	33.58	
1/28/2021	126.05	240	113.95	146.72	32.77	
1/29/2021	125.39	240	114.61	146.72	32.11	
1/30/2021	124.81	240	115.19	146.72	31.53	
1/31/2021	124.55	240	115.45	146.72	31.27	
2/1/2021	124.29	240	115.71	146.72	31.01	
2/2/2021	123.71	240	116.29	146.72	30.43	
2/3/2021	123.42	240	116.58	146.72	30.14	
2/4/2021	124.67	240	115.33	146.72	31.39	
2/5/2021	127.05	240	112.95	146.72	33.77	
2/6/2021	127.09	240	112.91	146.72	33.81	
2/7/2021	127.09	240	112.91	146.72	33.81	
2/8/2021	127.10	240	112.90	146.72	33.82	
2/9/2021	127.12	240	112.88	146.72	33.84	
2/10/2021	127.09	240	112.91	146.72	33.81	
2/11/2021	127.10	240	112.90	146.72	33.82	
2/12/2021	127.10	240	112.90	146.72	33.82	
2/13/2021	127.11	240	112.89	146.72	33.83	
2/14/2021	127.10	240	112.90	146.72	33.82	
2/15/2021	127.12	240	112.88	146.72	33.84	
2/16/2021	127.14	240	112.86	146.72	33.86	
2/17/2021	127.10	240	112.90	146.72	33.82	
2/18/2021	127.09	240	112.91	146.72	33.81	
2/19/2021	127.12	240	112.88	146.72	33.84	
2/20/2021	127.09	240	112.91	146.72	33.81	112
2/21/2021	127.09	240	112.91	146.72	33.81	
2/22/2021	127.09	240	112.91	146.72	33.81	
2/23/2021	127.09	240	112.91	146.72	33.81	
2/24/2021	127.02	240	112.98	146.72	33.74	
2/25/2021	126.74	240	113.26	146.72	33.46	
2/26/2021	126.83	240	113.17	146.72	33.55	
2/27/2021	126.75	240	113.25	146.72	33.47	
2/28/2021	127.05	240	112.95	146.72	33.77	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	127.09	240	112.91	146.72	33.81	
3/2/2021	127.09	240	112.91	146.72	33.81	
3/3/2021	127.09	240	112.91	146.72	33.81	
3/4/2021	127.09	240	112.91	146.72	33.81	
3/5/2021	127.09	240	112.91	146.72	33.81	
3/6/2021	127.09	240	112.91	146.72	33.81	
3/7/2021	127.09	240	112.91	146.72	33.81	
3/8/2021	127.09	240	112.91	146.72	33.81	
3/9/2021	128.06	240	111.94	146.72	34.78	
3/10/2021	127.98	240	112.02	146.72	34.70	
3/11/2021	124.18	240	115.82	146.72	30.90	
3/12/2021	124.31	240	115.69	146.72	31.03	
3/13/2021	127.09	240	112.91	146.72	33.81	
3/14/2021	126.64	240	113.36	146.72	33.36	
3/15/2021	123.22	240	116.78	146.72	29.94	
3/16/2021	123.47	240	116.53	146.72	30.19	
3/17/2021	127.03	240	112.97	146.72	33.75	
3/18/2021	127.09	240	112.91	146.72	33.81	
3/19/2021	127.09	240	112.91	146.72	33.81	
3/20/2021	127.09	240	112.91	146.72	33.81	
3/21/2021	127.09	240	112.91	146.72	33.81	
3/22/2021	127.10	240	112.90	146.72	33.82	
3/23/2021	127.09	240	112.91	146.72	33.81	
3/24/2021	127.09	240	112.91	146.72	33.81	
3/25/2021	127.09	240	112.91	146.72	33.81	
3/26/2021	127.09	240	112.91	146.72	33.81	
3/27/2021	127.09	240	112.91	146.72	33.81	
3/28/2021	127.25	240	112.75	146.72	33.97	
3/29/2021	127.51	240	112.49	146.72	34.23	
3/30/2021	127.10	240	112.90	146.72	33.82	
3/31/2021	127.09	240	112.91	146.72	33.81	
4/1/2021	127.17	240	112.83	146.72	33.89	
4/2/2021	127.21	240	112.79	146.72	33.93	
4/3/2021	127.36	240	112.64	146.72	34.08	
4/4/2021	128.05	240	111.95	146.72	34.77	
4/5/2021	128.62	240	111.38	146.72	35.34	
4/6/2021	127.11	240	112.89	146.72	33.83	
4/7/2021	127.06	240	112.94	146.72	33.78	
4/8/2021	127.09	240	112.91	146.72	33.81	
4/9/2021	127.09	240	112.91	146.72	33.81	
4/10/2021	127.09	240	112.91	146.72	33.81	
4/11/2021	127.09	240	112.91	146.72	33.81	
4/12/2021	127.09	240	112.91	146.72	33.81	
4/13/2021	127.09	240	112.91	146.72	33.81	
4/14/2021	127.09	240	112.91	146.72	33.81	
4/15/2021	127.09	240	112.91	146.72	33.81	
4/16/2021	127.09	240	112.91	146.72	33.81	
4/17/2021	127.09	240	112.91	146.72	33.81	
4/18/2021	127.09	240	112.91	146.72	33.81	
4/19/2021	127.09	240	112.91	146.72	33.81	
4/20/2021	127.09	240	112.91	146.72	33.81	
4/21/2021	127.09	240	112.91	146.72	33.81	
4/22/2021	127.09	240	112.91	146.72	33.81	
4/23/2021	127.09	240	112.91	146.72	33.81	
4/24/2021	127.09	240	112.91	146.72	33.81	
4/25/2021	127.09	240	112.91	146.72	33.81	
4/26/2021	127.09	240	112.91	146.72	33.81	
4/27/2021	127.09	240	112.91	146.72	33.81	
4/28/2021	127.09	240	112.91	146.72	33.81	
4/29/2021	127.09	240	112.91	146.72	33.81	
4/30/2021	127.09	240	112.91	146.72	33.81	

Well 73 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	126.49	240	113.51	146.72	33.21	
5/2/2021	125.61	240	114.39	146.72	32.33	
5/3/2021	126.30	240	113.70	146.72	33.02	
5/4/2021	125.29	240	114.71	146.72	32.01	
5/5/2021	126.93	240	113.07	146.72	33.65	
5/6/2021	127.05	240	112.95	146.72	33.77	
5/7/2021	127.08	240	112.92	146.72	33.80	
5/8/2021	126.55	240	113.45	146.72	33.27	
5/9/2021	122.55	240	117.45	146.72	29.27	
5/10/2021	121.26	240	118.74	146.72	27.98	
5/11/2021	119.88	240	120.12	146.72	26.60	
5/12/2021	119.31	240	120.69	146.72	26.03	
5/13/2021	119.51	240	120.49	146.72	26.23	
5/14/2021	119.23	240	120.77	146.72	25.95	
5/15/2021	120.31	240	119.69	146.72	27.03	
5/16/2021	122.90	240	117.10	146.72	29.62	
5/17/2021	123.62	240	116.38	146.72	30.34	
5/18/2021	124.14	240	115.86	146.72	30.86	
5/19/2021	122.64	240	117.36	146.72	29.36	
5/20/2021	121.25	240	118.75	146.72	27.97	
5/21/2021	121.98	240	118.02	146.72	28.70	
5/22/2021	119.34	240	120.66	146.72	26.06	
5/23/2021	118.56	240	121.44	146.72	25.28	
5/24/2021	118.25	240	121.75	146.72	24.97	
5/25/2021	119.25	240	120.75	146.72	25.97	
5/26/2021	120.74	240	119.26	146.72	27.46	
5/27/2021	120.34	240	119.66	146.72	27.06	
5/28/2021	120.94	240	119.06	146.72	27.66	
5/29/2021	118.86	240	121.14	146.72	25.58	
5/30/2021	119.89	240	120.11	146.72	26.61	
5/31/2021	121.90	240	118.10	146.72	28.62	
6/1/2021	121.18	240	118.82	146.72	27.90	
6/2/2021	119.96	240	120.04	146.72	26.68	
6/3/2021	120.58	240	119.42	146.72	27.30	
6/4/2021	119.29	240	120.71	146.72	26.01	
6/5/2021	119.89	240	120.11	146.72	26.61	
6/6/2021	118.15	240	121.85	146.72	24.87	
6/7/2021	119.51	240	120.49	146.72	26.23	
6/8/2021	119.07	240	120.93	146.72	25.79	
6/9/2021	117.52	240	122.48	146.72	24.24	
6/10/2021	117.17	240	122.83	146.72	23.89	
6/11/2021	118.62	240	121.38	146.72	25.34	
6/12/2021	118.77	240	121.23	146.72	25.49	
6/13/2021	116.19	240	123.81	146.72	22.91	
6/14/2021	116.67	240	123.33	146.72	23.39	
6/15/2021	117.83	240	122.17	146.72	24.55	
6/16/2021	117.47	240	122.53	146.72	24.19	
6/17/2021	117.93	240	122.07	146.72	24.65	
6/18/2021	117.27	240	122.73	146.72	23.99	
6/19/2021	116.34	240	123.66	146.72	23.06	
6/20/2021	114.84	240	125.16	146.72	21.56	
6/21/2021	115.65	240	124.35	146.72	22.37	
6/22/2021	115.98	240	124.02	146.72	22.70	
6/23/2021	115.29	240	124.71	146.72	22.01	
6/24/2021	115.57	240	124.43	146.72	22.29	
6/25/2021	114.07	240	125.93	146.72	20.79	
6/26/2021	112.97	240	127.03	146.72	19.69	
6/27/2021	112.55	240	127.45	146.72	19.27	
6/28/2021	112.56	240	127.44	146.72	19.28	
6/29/2021	112.35	240	127.65	146.72	19.07	
6/30/2021	111.17	240	128.83	146.72	17.89	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	110.83	240	129.17	146.72	17.55	
7/2/2021	110.45	240	129.55	146.72	17.17	
7/3/2021	110.23	240	129.77	146.72	16.95	
7/4/2021	109.53	240	130.47	146.72	16.25	
7/5/2021	109.57	240	130.43	146.72	16.29	
7/6/2021	110.37	240	129.63	146.72	17.09	
7/7/2021	110.48	240	129.52	146.72	17.20	
7/8/2021	110.52	240	129.48	146.72	17.24	
7/9/2021	110.39	240	129.61	146.72	17.11	
7/10/2021	110.37	240	129.63	146.72	17.09	
7/11/2021	110.08	240	129.92	146.72	16.80	
7/12/2021	109.73	240	130.27	146.72	16.45	
7/13/2021	109.15	240	130.85	146.72	15.87	
7/14/2021	108.32	240	131.68	146.72	15.04	
7/15/2021	108.20	240	131.80	146.72	14.92	
7/16/2021	107.42	240	132.58	146.72	14.14	
7/17/2021	107.54	240	132.46	146.72	14.26	
7/18/2021	106.67	240	133.33	146.72	13.39	
7/19/2021	106.27	240	133.73	146.72	12.99	
7/20/2021	105.95	240	134.05	146.72	12.67	
7/21/2021	106.95	240	133.05	146.72	13.67	
7/22/2021	108.19	240	131.81	146.72	14.91	
7/23/2021	106.95	240	133.05	146.72	13.67	
7/24/2021	106.42	240	133.58	146.72	13.14	
7/25/2021	105.69	240	134.31	146.72	12.41	
7/26/2021	104.98	240	135.02	146.72	11.70	
7/27/2021	104.20	240	135.80	146.72	10.92	
7/28/2021	104.03	240	135.97	146.72	10.75	
7/29/2021	105.19	240	134.81	146.72	11.91	
7/30/2021	107.09	240	132.91	146.72	13.81	
7/31/2021	107.72	240	132.28	146.72	14.44	
8/1/2021	108.63	240	131.37	146.72	15.35	
8/2/2021	109.13	240	130.87	146.72	15.85	
8/3/2021	107.59	240	132.41	146.72	14.31	
8/4/2021	105.70	240	134.30	146.72	12.42	
8/5/2021	104.12	240	135.88	146.72	10.84	
8/6/2021	103.75	240	136.25	146.72	10.47	
8/7/2021	103.60	240	136.40	146.72	10.32	
8/8/2021	103.84	240	136.16	146.72	10.56	
8/9/2021	104.57	240	135.43	146.72	11.29	
8/10/2021	104.77	240	135.23	146.72	11.49	
8/11/2021	104.41	240	135.59	146.72	11.13	
8/12/2021	104.20	240	135.80	146.72	10.92	
8/13/2021	104.03	240	135.97	146.72	10.75	
8/14/2021	103.97	240	136.03	146.72	10.69	
8/15/2021	103.97	240	136.03	146.72	10.69	
8/16/2021	105.16	240	134.84	146.72	11.88	
8/17/2021	107.11	240	132.89	146.72	13.83	
8/18/2021	107.94	240	132.06	146.72	14.66	
8/19/2021	107.63	240	132.37	146.72	14.35	
8/20/2021	105.89	240	134.11	146.72	12.61	
8/21/2021	105.01	240	134.99	146.72	11.73	
8/22/2021	104.21	240	135.79	146.72	10.93	
8/23/2021	104.00	240	136.00	146.72	10.72	
8/24/2021	103.88	240	136.12	146.72	10.60	
8/25/2021	103.80	240	136.20	146.72	10.52	
8/26/2021	104.04	240	135.96	146.72	10.76	
8/27/2021	104.65	240	135.35	146.72	11.37	
8/28/2021	104.89	240	135.11	146.72	11.61	
8/29/2021	105.03	240	134.97	146.72	11.75	
8/30/2021	105.16	240	134.84	146.72	11.88	
8/31/2021	104.95	240	135.05	146.72	11.67	

Well 73 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	104.34	240	135.66	146.72	11.06	
9/2/2021	104.01	240	135.99	146.72	10.73	
9/3/2021	103.95	240	136.05	146.72	10.67	
9/4/2021	103.92	240	136.08	146.72	10.64	
9/5/2021	103.91	240	136.09	146.72	10.63	
9/6/2021	104.00	240	136.00	146.72	10.72	
9/7/2021	103.97	240	136.03	146.72	10.69	
9/8/2021	103.87	240	136.13	146.72	10.59	
9/9/2021	103.64	240	136.36	146.72	10.36	
9/10/2021	103.14	240	136.86	146.72	9.86	
9/11/2021	102.81	240	137.19	146.72	9.53	
9/12/2021	103.89	240	136.11	146.72	10.61	
9/13/2021	105.30	240	134.70	146.72	12.02	
9/14/2021	103.97	240	136.03	146.72	10.69	
9/15/2021	104.87	240	135.13	146.72	11.59	
9/16/2021	106.05	240	133.95	146.72	12.77	
9/17/2021	104.49	240	135.51	146.72	11.21	
9/18/2021	104.50	240	135.50	146.72	11.22	
9/19/2021	106.90	240	133.10	146.72	13.62	
9/20/2021	107.20	240	132.80	146.72	13.92	
9/21/2021	105.87	240	134.13	146.72	12.59	
9/22/2021	105.41	240	134.59	146.72	12.13	
9/23/2021	106.30	240	133.70	146.72	13.02	
9/24/2021	108.19	240	131.81	146.72	14.91	
9/25/2021	109.18	240	130.82	146.72	15.90	
9/26/2021	109.99	240	130.01	146.72	16.71	
9/27/2021	110.48	240	129.52	146.72	17.20	
9/28/2021	110.71	240	129.29	146.72	17.43	
9/29/2021	110.51	240	129.49	146.72	17.23	
9/30/2021	109.06	240	130.94	146.72	15.78	
10/1/2021	107.19	240	132.81	146.72	13.91	
10/2/2021	106.91	240	133.09	146.72	13.63	
10/3/2021	107.67	240	132.33	146.72	14.39	
10/4/2021	107.45	240	132.55	146.72	14.17	
10/5/2021	106.22	240	133.78	146.72	12.94	
10/6/2021	105.48	240	134.52	146.72	12.20	
10/7/2021	105.52	240	134.48	146.72	12.24	
10/8/2021	104.89	240	135.11	146.72	11.61	
10/9/2021						
10/10/2021	107.07	240	132.93	146.72	13.79	
10/11/2021	108.66	240	131.34	146.72	15.38	
10/12/2021	108.95	240	131.05	146.72	15.67	
10/13/2021	106.23	240	133.77	146.72	12.95	
10/14/2021	107.43	240	132.57	146.72	14.15	
10/15/2021	108.46	240	131.54	146.72	15.18	
10/16/2021	109.90	240	130.10	146.72	16.62	
10/17/2021						
10/18/2021	110.98	240	129.02	146.72	17.70	
10/19/2021	110.56	240	129.44	146.72	17.28	
10/20/2021	110.41	240	129.59	146.72	17.13	
10/21/2021						
10/22/2021	109.59	240	130.41	146.72	16.31	
10/23/2021	110.47	240	129.53	146.72	17.19	
10/24/2021	111.46	240	128.54	146.72	18.18	
10/25/2021	111.86	240	128.14	146.72	18.58	
10/26/2021	111.49	240	128.51	146.72	18.21	
10/27/2021	111.91	240	128.09	146.72	18.63	
10/28/2021	112.68	240	127.32	146.72	19.40	
10/29/2021	113.35	240	126.65	146.72	20.07	
10/30/2021	113.71	240	126.29	146.72	20.43	
10/31/2021						

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021						
11/2/2021						
11/3/2021						
11/4/2021						
11/5/2021						
11/6/2021						
11/7/2021						
11/8/2021						
11/9/2021						
11/10/2021						
11/11/2021						
11/12/2021						
11/13/2021						
11/14/2021						
11/15/2021						
11/16/2021						
11/17/2021						
11/18/2021						
11/19/2021						
11/20/2021						
11/21/2021						
11/22/2021						
11/23/2021						
11/24/2021						
11/25/2021						
11/26/2021						
11/27/2021						
11/28/2021						
11/29/2021						127
11/30/2021						
12/1/2021						
12/2/2021						
12/3/2021						
12/4/2021						
12/5/2021						
12/6/2021						
12/7/2021						
12/8/2021						
12/9/2021						
12/10/2021						
12/11/2021						
12/12/2021						
12/13/2021						
12/14/2021						
12/15/2021						
12/16/2021						
12/17/2021						
12/18/2021						
12/19/2021						
12/20/2021						
12/21/2021						
12/22/2021						
12/23/2021						
12/24/2021						
12/25/2021						
12/26/2021						
12/27/2021						
12/28/2021						
12/29/2021						
12/30/2021						
12/31/2021						

Well 80 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	160.67	254	93.33	148.10	54.77	
1/2/2021	160.77	254	93.23	148.10	54.87	
1/3/2021	160.88	254	93.12	148.10	54.98	
1/4/2021	161.11	254	92.89	148.10	55.21	
1/5/2021	161.00	254	93.00	148.10	55.10	
1/6/2021	161.13	254	92.87	148.10	55.23	
1/7/2021	161.24	254	92.76	148.10	55.34	
1/8/2021	161.34	254	92.66	148.10	55.44	
1/9/2021	161.39	254	92.61	148.10	55.49	
1/10/2021	161.48	254	92.52	148.10	55.58	
1/11/2021	161.56	254	92.44	148.10	55.66	
1/12/2021	161.58	254	92.42	148.10	55.68	
1/13/2021	161.59	254	92.41	148.10	55.69	
1/14/2021	161.65	254	92.35	148.10	55.75	
1/15/2021	161.67	254	92.33	148.10	55.77	
1/16/2021	161.67	254	92.33	148.10	55.77	
1/17/2021	161.71	254	92.29	148.10	55.81	
1/18/2021	162.01	254	91.99	148.10	56.11	
1/19/2021	162.22	254	91.78	148.10	56.32	
1/20/2021	161.82	254	92.18	148.10	55.92	
1/21/2021	161.96	254	92.04	148.10	56.06	
1/22/2021	151.38	254	102.62	148.10	45.48	
1/23/2021	121.81	254	132.19	148.10	15.91	
1/24/2021	99.41	254	154.59	148.10	-6.49	
1/25/2021	98.90	254	155.10	148.10	-7.00	
1/26/2021	95.77	254	158.23	148.10	-10.13	
1/27/2021	93.14	254	160.86	148.10	-12.76	
1/28/2021	93.48	254	160.52	148.10	-12.42	
1/29/2021	93.22	254	160.78	148.10	-12.68	
1/30/2021	134.00	254	120.00	148.10	28.10	
1/31/2021	159.50	254	94.50	148.10	53.60	
2/1/2021	160.01	254	93.99	148.10	54.11	
2/2/2021	160.08	254	93.92	148.10	54.18	
2/3/2021	160.33	254	93.67	148.10	54.43	
2/4/2021	160.67	254	93.33	148.10	54.77	
2/5/2021	161.10	254	92.90	148.10	55.20	
2/6/2021	161.44	254	92.56	148.10	55.54	
2/7/2021	161.53	254	92.47	148.10	55.63	
2/8/2021	161.67	254	92.33	148.10	55.77	
2/9/2021	161.61	254	92.39	148.10	55.71	
2/10/2021	160.64	254	93.36	148.10	54.74	
2/11/2021	160.13	254	93.87	148.10	54.23	
2/12/2021	160.07	254	93.93	148.10	54.17	
2/13/2021	160.03	254	93.97	148.10	54.13	
2/14/2021	160.41	254	93.59	148.10	54.51	
2/15/2021	160.39	254	93.61	148.10	54.49	
2/16/2021	159.98	254	94.02	148.10	54.08	
2/17/2021	159.92	254	94.08	148.10	54.02	
2/18/2021	159.75	254	94.25	148.10	53.85	
2/19/2021	159.76	254	94.24	148.10	53.86	
2/20/2021	159.82	254	94.18	148.10	53.92	94
2/21/2021	159.95	254	94.05	148.10	54.05	
2/22/2021	159.96	254	94.04	148.10	54.06	
2/23/2021	122.15	254	131.85	148.10	16.25	
2/24/2021	97.61	254	156.39	148.10	-8.29	
2/25/2021	96.64	254	157.36	148.10	-9.26	
2/26/2021	99.74	254	154.26	148.10	-6.16	
2/27/2021	100.26	254	153.74	148.10	-5.64	
2/28/2021	98.18	254	155.82	148.10	-7.72	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	123.30	254	130.70	148.10	17.40	
3/2/2021	137.39	254	116.61	148.10	31.49	
3/3/2021	133.00	254	121.00	148.10	27.10	
3/4/2021	132.23	254	121.77	148.10	26.33	
3/5/2021	130.98	254	123.02	148.10	25.08	
3/6/2021	139.70	254	114.30	148.10	33.80	
3/7/2021	157.15	254	96.85	148.10	51.25	
3/8/2021	157.03	254	96.97	148.10	51.13	
3/9/2021	132.36	254	121.64	148.10	26.46	
3/10/2021	155.97	254	98.03	148.10	50.07	
3/11/2021	155.69	254	98.31	148.10	49.79	
3/12/2021	138.11	254	115.89	148.10	32.21	
3/13/2021	149.76	254	104.24	148.10	43.86	
3/14/2021	155.94	254	98.06	148.10	50.04	
3/15/2021	156.66	254	97.34	148.10	50.76	
3/16/2021	155.69	254	98.31	148.10	49.79	
3/17/2021	155.23	254	98.77	148.10	49.33	
3/18/2021	137.84	254	116.16	148.10	31.94	
3/19/2021	154.82	254	99.18	148.10	48.92	
3/20/2021	154.84	254	99.16	148.10	48.94	
3/21/2021	155.90	254	98.10	148.10	50.00	
3/22/2021	150.07	254	103.93	148.10	44.17	
3/23/2021	148.24	254	105.76	148.10	42.34	
3/24/2021	116.18	254	137.82	148.10	10.28	
3/25/2021	92.60	254	161.40	148.10	-13.30	
3/26/2021	87.80	254	166.20	148.10	-18.10	
3/27/2021	126.82	254	127.18	148.10	20.92	
3/28/2021	154.11	254	99.89	148.10	48.21	
3/29/2021	154.72	254	99.28	148.10	48.82	
3/30/2021	154.55	254	99.45	148.10	48.65	
3/31/2021	154.98	254	99.02	148.10	49.08	
4/1/2021	155.22	254	98.78	148.10	49.32	
4/2/2021	155.28	254	98.72	148.10	49.38	
4/3/2021	155.25	254	98.75	148.10	49.35	
4/4/2021	156.25	254	97.75	148.10	50.35	
4/5/2021	156.48	254	97.52	148.10	50.58	
4/6/2021	156.05	254	97.95	148.10	50.15	
4/7/2021	155.89	254	98.11	148.10	49.99	
4/8/2021	155.80	254	98.20	148.10	49.90	
4/9/2021	155.79	254	98.21	148.10	49.89	
4/10/2021	155.84	254	98.16	148.10	49.94	
4/11/2021	156.40	254	97.60	148.10	50.50	
4/12/2021	156.69	254	97.31	148.10	50.79	
4/13/2021	156.41	254	97.59	148.10	50.51	
4/14/2021	156.03	254	97.97	148.10	50.13	
4/15/2021	155.88	254	98.12	148.10	49.98	
4/16/2021	155.86	254	98.14	148.10	49.96	
4/17/2021	155.88	254	98.12	148.10	49.98	
4/18/2021	156.52	254	97.48	148.10	50.62	
4/19/2021	156.62	254	97.38	148.10	50.72	
4/20/2021	156.35	254	97.65	148.10	50.45	
4/21/2021	156.22	254	97.78	148.10	50.32	
4/22/2021	156.17	254	97.83	148.10	50.27	
4/23/2021	156.08	254	97.92	148.10	50.18	
4/24/2021	156.08	254	97.92	148.10	50.18	
4/25/2021	156.71	254	97.29	148.10	50.81	
4/26/2021	156.73	254	97.27	148.10	50.83	
4/27/2021	155.03	254	98.97	148.10	49.13	
4/28/2021	153.78	254	100.22	148.10	47.88	
4/29/2021	154.17	254	99.83	148.10	48.27	
4/30/2021	154.41	254	99.59	148.10	48.51	

Well 80 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	155.80	254	98.20	148.10	49.90	
5/2/2021	157.07	254	96.93	148.10	51.17	
5/3/2021	157.66	254	96.34	148.10	51.76	
5/4/2021	156.77	254	97.23	148.10	50.87	
5/5/2021	155.76	254	98.24	148.10	49.86	
5/6/2021	156.72	254	97.28	148.10	50.82	
5/7/2021	157.89	254	96.11	148.10	51.99	
5/8/2021	158.51	254	95.49	148.10	52.61	
5/9/2021	158.85	254	95.15	148.10	52.95	
5/10/2021	159.11	254	94.89	148.10	53.21	
5/11/2021	120.29	254	133.71	148.10	14.39	
5/12/2021	86.83	254	167.17	148.10	-19.07	
5/13/2021	85.54	254	168.46	148.10	-20.36	
5/14/2021	88.36	254	165.64	148.10	-17.54	
5/15/2021	91.21	254	162.79	148.10	-14.69	
5/16/2021	83.47	254	170.53	148.10	-22.43	
5/17/2021	89.82	254	164.18	148.10	-16.08	
5/18/2021	91.92	254	162.08	148.10	-13.98	
5/19/2021	87.74	254	166.26	148.10	-18.16	
5/20/2021	89.63	254	164.37	148.10	-16.27	
5/21/2021	87.83	254	166.17	148.10	-18.07	
5/22/2021	85.92	254	168.08	148.10	-19.98	
5/23/2021	82.39	254	171.61	148.10	-23.51	
5/24/2021	85.24	254	168.76	148.10	-20.66	
5/25/2021	88.62	254	165.38	148.10	-17.28	
5/26/2021	88.48	254	165.52	148.10	-17.42	
5/27/2021	98.65	254	155.35	148.10	-7.25	
5/28/2021	88.51	254	165.49	148.10	-17.39	
5/29/2021	86.30	254	167.70	148.10	-19.60	
5/30/2021	85.29	254	168.71	148.10	-20.61	
5/31/2021	99.26	254	154.74	148.10	-6.64	
6/1/2021	112.25	254	141.75	148.10	6.35	
6/2/2021	88.86	254	165.14	148.10	-17.04	
6/3/2021	88.27	254	165.73	148.10	-17.63	
6/4/2021	87.83	254	166.17	148.10	-18.07	
6/5/2021	83.33	254	170.67	148.10	-22.57	
6/6/2021	87.86	254	166.14	148.10	-18.04	
6/7/2021	88.38	254	165.62	148.10	-17.52	
6/8/2021	93.09	254	160.91	148.10	-12.81	
6/9/2021	89.90	254	164.10	148.10	-16.00	
6/10/2021	89.79	254	164.21	148.10	-16.11	
6/11/2021	88.04	254	165.96	148.10	-17.86	
6/12/2021	89.33	254	164.67	148.10	-16.57	
6/13/2021	88.21	254	165.79	148.10	-17.69	
6/14/2021	84.34	254	169.66	148.10	-21.56	
6/15/2021	86.00	254	168.00	148.10	-19.90	
6/16/2021	85.23	254	168.77	148.10	-20.67	
6/17/2021	84.29	254	169.71	148.10	-21.61	
6/18/2021	88.10	254	165.90	148.10	-17.80	
6/19/2021	84.04	254	169.96	148.10	-21.86	
6/20/2021	85.64	254	168.36	148.10	-20.26	
6/21/2021	84.68	254	169.32	148.10	-21.22	
6/22/2021	85.90	254	168.10	148.10	-20.00	
6/23/2021	83.74	254	170.26	148.10	-22.16	
6/24/2021	84.65	254	169.35	148.10	-21.25	
6/25/2021	83.82	254	170.18	148.10	-22.08	
6/26/2021	86.69	254	167.31	148.10	-19.21	
6/27/2021	87.01	254	166.99	148.10	-18.89	
6/28/2021	82.57	254	171.43	148.10	-23.33	
6/29/2021	85.90	254	168.10	148.10	-20.00	
6/30/2021	83.53	254	170.47	148.10	-22.37	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	84.95	254	169.05	148.10	-20.95	
7/2/2021	84.19	254	169.81	148.10	-21.71	
7/3/2021	87.64	254	166.36	148.10	-18.26	
7/4/2021	88.05	254	165.95	148.10	-17.85	
7/5/2021	84.80	254	169.20	148.10	-21.10	
7/6/2021	88.77	254	165.23	148.10	-17.13	
7/7/2021	86.15	254	167.85	148.10	-19.75	
7/8/2021	88.41	254	165.59	148.10	-17.49	
7/9/2021	84.57	254	169.43	148.10	-21.33	
7/10/2021	85.39	254	168.61	148.10	-20.51	
7/11/2021	87.05	254	166.95	148.10	-18.85	
7/12/2021	84.29	254	169.71	148.10	-21.61	
7/13/2021	87.99	254	166.01	148.10	-17.91	
7/14/2021	84.94	254	169.06	148.10	-20.96	
7/15/2021	82.32	254	171.68	148.10	-23.58	
7/16/2021	80.14	254	173.86	148.10	-25.76	
7/17/2021	81.46	254	172.54	148.10	-24.44	
7/18/2021	81.98	254	172.02	148.10	-23.92	
7/19/2021	81.55	254	172.45	148.10	-24.35	
7/20/2021	86.12	254	167.88	148.10	-19.78	
7/21/2021	86.13	254	167.87	148.10	-19.77	
7/22/2021	106.83	254	147.17	148.10	0.93	
7/23/2021	124.06	254	129.94	148.10	18.16	
7/24/2021	78.17	254	175.83	148.10	-27.73	
7/25/2021	79.31	254	174.69	148.10	-26.59	
7/26/2021	81.81	254	172.19	148.10	-24.09	
7/27/2021	84.80	254	169.20	148.10	-21.10	
7/28/2021	79.90	254	174.10	148.10	-26.00	
7/29/2021	83.90	254	170.10	148.10	-22.00	
7/30/2021	79.62	254	174.38	148.10	-26.28	
7/31/2021	76.05	254	177.95	148.10	-29.85	
8/1/2021	83.01	254	170.99	148.10	-22.89	
8/2/2021	83.05	254	170.95	148.10	-22.85	
8/3/2021	85.05	254	168.95	148.10	-20.85	
8/4/2021	83.71	254	170.29	148.10	-22.19	
8/5/2021	87.11	254	166.89	148.10	-18.79	
8/6/2021	87.27	254	166.73	148.10	-18.63	
8/7/2021	81.84	254	172.16	148.10	-24.06	
8/8/2021	80.86	254	173.14	148.10	-25.04	
8/9/2021	83.54	254	170.46	148.10	-22.36	
8/10/2021	84.85	254	169.15	148.10	-21.05	
8/11/2021	81.30	254	172.70	148.10	-24.60	
8/12/2021	85.12	254	168.88	148.10	-20.78	
8/13/2021	87.95	254	166.05	148.10	-17.95	
8/14/2021						
8/15/2021						
8/16/2021						
8/17/2021						
8/18/2021						
8/19/2021						
8/20/2021	79.05	254	174.95	148.10	-26.85	
8/21/2021	79.61	254	174.39	148.10	-26.29	
8/22/2021	80.13	254	173.87	148.10	-25.77	
8/23/2021	82.08	254	171.92	148.10	-23.82	
8/24/2021	79.84	254	174.16	148.10	-26.06	
8/25/2021	80.42	254	173.58	148.10	-25.48	
8/26/2021	85.67	254	168.33	148.10	-20.23	
8/27/2021	83.84	254	170.16	148.10	-22.06	
8/28/2021	81.70	254	172.30	148.10	-24.20	
8/29/2021	84.43	254	169.57	148.10	-21.47	
8/30/2021	87.16	254	166.84	148.10	-18.74	
8/31/2021	88.06	254	165.94	148.10	-17.84	

Well 80 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	86.65	254	167.35	148.10	-19.25	
9/2/2021	81.83	254	172.17	148.10	-24.07	
9/3/2021	80.52	254	173.48	148.10	-25.38	
9/4/2021	80.46	254	173.54	148.10	-25.44	
9/5/2021	83.53	254	170.47	148.10	-22.37	
9/6/2021	85.64	254	168.36	148.10	-20.26	
9/7/2021	81.10	254	172.90	148.10	-24.80	
9/8/2021	78.62	254	175.38	148.10	-27.28	
9/9/2021	79.90	254	174.10	148.10	-26.00	
9/10/2021	79.79	254	174.21	148.10	-26.11	
9/11/2021	79.97	254	174.03	148.10	-25.93	
9/12/2021	123.38	254	130.62	148.10	17.48	
9/13/2021	121.13	254	132.87	148.10	15.23	
9/14/2021	127.44	254	126.56	148.10	21.54	
9/15/2021	144.13	254	109.87	148.10	38.23	
9/16/2021	144.01	254	109.99	148.10	38.11	
9/17/2021	143.12	254	110.88	148.10	37.22	
9/18/2021	143.01	254	110.99	148.10	37.11	
9/19/2021	142.99	254	111.01	148.10	37.09	
9/20/2021	144.04	254	109.96	148.10	38.14	
9/21/2021	145.07	254	108.93	148.10	39.17	
9/22/2021	145.22	254	108.78	148.10	39.32	
9/23/2021	106.64	254	147.36	148.10	0.74	
9/24/2021	83.61	254	170.39	148.10	-22.29	
9/25/2021	117.83	254	136.17	148.10	11.93	
9/26/2021	144.37	254	109.63	148.10	38.47	
9/27/2021	145.42	254	108.58	148.10	39.52	
9/28/2021	86.47	254	167.53	148.10	-19.43	
9/29/2021	83.64	254	170.36	148.10	-22.26	
9/30/2021	82.05	254	171.95	148.10	-23.85	
10/1/2021	82.96	254	171.04	148.10	-22.94	
10/2/2021	86.64	254	167.36	148.10	-19.26	
10/3/2021	81.94	254	172.06	148.10	-23.96	
10/4/2021	78.01	254	175.99	148.10	-27.89	
10/5/2021	80.67	254	173.33	148.10	-25.23	
10/6/2021	81.71	254	172.29	148.10	-24.19	
10/7/2021	79.34	254	174.66	148.10	-26.56	
10/8/2021	78.19	254	175.81	148.10	-27.71	
10/9/2021	100.91	254	153.09	148.10	-4.99	
10/10/2021	143.85	254	110.15	148.10	37.95	
10/11/2021	144.50	254	109.50	148.10	38.60	
10/12/2021						
10/13/2021						
10/14/2021						
10/15/2021	145.47	254	108.53	148.10	39.57	
10/16/2021	145.84	254	108.16	148.10	39.94	
10/17/2021	146.24	254	107.76	148.10	40.34	
10/18/2021	146.28	254	107.72	148.10	40.38	
10/19/2021						
10/20/2021						
10/21/2021						
10/22/2021						
10/23/2021						
10/24/2021						
10/25/2021	147.60	254	106.40	148.10	41.70	
10/26/2021	147.39	254	106.61	148.10	41.49	
10/27/2021	147.66	254	106.34	148.10	41.76	
10/28/2021	148.13	254	105.87	148.10	42.23	
10/29/2021	148.41	254	105.59	148.10	42.51	
10/30/2021	148.49	254	105.51	148.10	42.59	
10/31/2021	148.50	254	105.50	148.10	42.60	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021	117.12	254	136.88	148.10	11.22	
11/2/2021	98.66	254	155.34	148.10	-7.24	
11/3/2021						
11/4/2021						
11/5/2021						
11/6/2021	149.12	254	104.88	148.10	43.22	
11/7/2021	149.39	254	104.61	148.10	43.49	
11/8/2021	144.40	254	109.60	148.10	38.50	
11/9/2021	149.69	254	104.31	148.10	43.79	
11/10/2021	149.81	254	104.19	148.10	43.91	
11/11/2021	133.40	254	120.60	148.10	27.50	
11/12/2021	149.88	254	104.12	148.10	43.98	
11/13/2021	150.13	254	103.87	148.10	44.23	
11/14/2021	150.19	254	103.81	148.10	44.29	
11/15/2021	150.34	254	103.66	148.10	44.44	
11/16/2021	150.08	254	103.92	148.10	44.18	
11/17/2021	150.03	254	103.97	148.10	44.13	
11/18/2021	149.98	254	104.02	148.10	44.08	
11/19/2021	149.83	254	104.17	148.10	43.93	
11/20/2021	149.29	254	104.71	148.10	43.39	
11/21/2021	149.94	254	104.06	148.10	44.04	
11/22/2021	109.58	254	144.42	148.10	3.68	
11/23/2021	126.72	254	127.28	148.10	20.82	
11/24/2021	148.67	254	105.33	148.10	42.77	
11/25/2021	149.70	254	104.30	148.10	43.80	
11/26/2021	150.02	254	103.98	148.10	44.12	
11/27/2021	149.83	254	104.17	148.10	43.93	
11/28/2021	150.15	254	103.85	148.10	44.25	
11/29/2021	150.22	254	103.78	148.10	44.32	104
11/30/2021	149.82	254	104.18	148.10	43.92	
12/1/2021	149.60	254	104.40	148.10	43.70	
12/2/2021	108.25	254	145.75	148.10	2.35	
12/3/2021	86.55	254	167.45	148.10	-19.35	
12/4/2021	125.26	254	128.74	148.10	19.36	
12/5/2021	148.92	254	105.08	148.10	43.02	
12/6/2021	149.78	254	104.22	148.10	43.88	
12/7/2021	128.69	254	125.31	148.10	22.79	
12/8/2021						
12/9/2021						
12/10/2021	150.24	254	103.76	148.10	44.34	
12/11/2021	150.55	254	103.45	148.10	44.65	
12/12/2021	150.94	254	103.06	148.10	45.04	
12/13/2021	151.42	254	102.58	148.10	45.52	
12/14/2021	151.52	254	102.48	148.10	45.62	
12/15/2021	151.33	254	102.67	148.10	45.43	
12/16/2021	151.72	254	102.28	148.10	45.82	
12/17/2021	151.74	254	102.26	148.10	45.84	
12/18/2021	151.86	254	102.14	148.10	45.96	
12/19/2021	152.05	254	101.95	148.10	46.15	
12/20/2021	152.13	254	101.87	148.10	46.23	
12/21/2021	152.24	254	101.76	148.10	46.34	
12/22/2021	152.55	254	101.45	148.10	46.65	
12/23/2021	152.85	254	101.15	148.10	46.95	
12/24/2021	152.95	254	101.05	148.10	47.05	
12/25/2021	152.94	254	101.06	148.10	47.04	
12/26/2021	152.95	254	101.05	148.10	47.05	
12/27/2021	153.16	254	100.84	148.10	47.26	
12/28/2021	153.31	254	100.69	148.10	47.41	
12/29/2021	153.40	254	100.60	148.10	47.50	
12/30/2021						
12/31/2021	141.09	254	112.91	148.10	35.19	

Monitoring Well 80 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	125.46	255	129.54	149.12	19.58	
1/2/2021	125.67	255	129.33	149.12	19.79	
1/3/2021	126.00	255	129.00	149.12	20.12	
1/4/2021	126.27	255	128.73	149.12	20.39	
1/5/2021	125.18	255	129.82	149.12	19.30	
1/6/2021	123.86	255	131.14	149.12	17.98	
1/7/2021	122.88	255	132.12	149.12	17.00	
1/8/2021	122.12	255	132.88	149.12	16.24	
1/9/2021	121.64	255	133.36	149.12	15.76	
1/10/2021	121.52	255	133.48	149.12	15.64	
1/11/2021	122.15	255	132.85	149.12	16.27	
1/12/2021	123.04	255	131.96	149.12	17.16	
1/13/2021	123.88	255	131.12	149.12	18.00	
1/14/2021	124.51	255	130.49	149.12	18.63	
1/15/2021	124.94	255	130.06	149.12	19.06	
1/16/2021	125.31	255	129.69	149.12	19.43	
1/17/2021	125.47	255	129.53	149.12	19.59	
1/18/2021	125.64	255	129.36	149.12	19.76	
1/19/2021	125.85	255	129.15	149.12	19.97	
1/20/2021	125.93	255	129.07	149.12	20.05	
1/21/2021	126.15	255	128.85	149.12	20.27	
1/22/2021	126.39	255	128.61	149.12	20.51	
1/23/2021	126.22	255	128.78	149.12	20.34	
1/24/2021	123.77	255	131.23	149.12	17.89	
1/25/2021	121.55	255	133.45	149.12	15.67	
1/26/2021	120.29	255	134.71	149.12	14.41	
1/27/2021	120.67	255	134.33	149.12	14.79	
1/28/2021	121.22	255	133.78	149.12	15.34	
1/29/2021	121.05	255	133.95	149.12	15.17	
1/30/2021	120.52	255	134.48	149.12	14.64	
1/31/2021	120.32	255	134.68	149.12	14.44	
2/1/2021	119.94	255	135.06	149.12	14.06	
2/2/2021	120.29	255	134.71	149.12	14.41	
2/3/2021	120.64	255	134.36	149.12	14.76	
2/4/2021	121.32	255	133.68	149.12	15.44	
2/5/2021	122.03	255	132.97	149.12	16.15	
2/6/2021	122.66	255	132.34	149.12	16.78	
2/7/2021	122.48	255	132.52	149.12	16.60	
2/8/2021	123.33	255	131.67	149.12	17.45	
2/9/2021	124.07	255	130.93	149.12	18.19	
2/10/2021	124.84	255	130.16	149.12	18.96	
2/11/2021	125.43	255	129.57	149.12	19.55	
2/12/2021	125.88	255	129.12	149.12	20.00	
2/13/2021	126.32	255	128.68	149.12	20.44	
2/14/2021	126.61	255	128.39	149.12	20.73	
2/15/2021	126.82	255	128.18	149.12	20.94	
2/16/2021	126.38	255	128.62	149.12	20.50	
2/17/2021	125.29	255	129.71	149.12	19.41	
2/18/2021	124.37	255	130.63	149.12	18.49	
2/19/2021	123.84	255	131.16	149.12	17.96	
2/20/2021	124.36	255	130.64	149.12	18.48	131
2/21/2021	125.50	255	129.50	149.12	19.62	
2/22/2021	126.27	255	128.73	149.12	20.39	
2/23/2021	126.74	255	128.26	149.12	20.86	
2/24/2021	125.47	255	129.53	149.12	19.59	
2/25/2021	124.10	255	130.90	149.12	18.22	
2/26/2021	123.22	255	131.78	149.12	17.34	
2/27/2021	122.27	255	132.73	149.12	16.39	
2/28/2021	122.03	255	132.97	149.12	16.15	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	122.15	255	132.85	149.12	16.27	
3/2/2021	121.67	255	133.33	149.12	15.79	
3/3/2021	120.78	255	134.22	149.12	14.90	
3/4/2021	120.30	255	134.70	149.12	14.42	
3/5/2021	119.76	255	135.24	149.12	13.88	
3/6/2021	119.20	255	135.80	149.12	13.32	
3/7/2021	119.15	255	135.85	149.12	13.27	
3/8/2021	119.69	255	135.31	149.12	13.81	
3/9/2021	119.02	255	135.98	149.12	13.14	
3/10/2021	118.16	255	136.84	149.12	12.28	
3/11/2021	117.22	255	137.78	149.12	11.34	
3/12/2021	116.47	255	138.53	149.12	10.59	
3/13/2021	115.51	255	139.49	149.12	9.63	
3/14/2021	115.51	255	139.49	149.12	9.63	
3/15/2021	116.43	255	138.57	149.12	10.55	
3/16/2021	116.23	255	138.77	149.12	10.35	
3/17/2021	115.80	255	139.20	149.12	9.92	
3/18/2021	115.61	255	139.39	149.12	9.73	
3/19/2021	115.56	255	139.44	149.12	9.68	
3/20/2021	115.56	255	139.44	149.12	9.68	
3/21/2021	116.52	255	138.48	149.12	10.64	
3/22/2021	117.85	255	137.15	149.12	11.97	
3/23/2021	117.99	255	137.01	149.12	12.11	
3/24/2021	117.88	255	137.12	149.12	12.00	
3/25/2021	117.88	255	137.12	149.12	12.00	
3/26/2021	117.89	255	137.11	149.12	12.01	
3/27/2021	117.56	255	137.44	149.12	11.68	
3/28/2021	118.19	255	136.81	149.12	12.31	
3/29/2021	119.24	255	135.76	149.12	13.36	
3/30/2021	118.78	255	136.22	149.12	12.90	
3/31/2021	118.26	255	136.74	149.12	12.38	
4/1/2021	117.38	255	137.62	149.12	11.50	
4/2/2021	117.06	255	137.94	149.12	11.18	
4/3/2021	116.66	255	138.34	149.12	10.78	
4/4/2021	116.72	255	138.28	149.12	10.84	
4/5/2021	117.22	255	137.78	149.12	11.34	
4/6/2021	117.15	255	137.85	149.12	11.27	
4/7/2021	116.65	255	138.35	149.12	10.77	
4/8/2021	115.81	255	139.19	149.12	9.93	
4/9/2021	115.35	255	139.65	149.12	9.47	
4/10/2021	115.01	255	139.99	149.12	9.13	
4/11/2021	115.25	255	139.75	149.12	9.37	
4/12/2021	116.26	255	138.74	149.12	10.38	
4/13/2021	115.74	255	139.26	149.12	9.86	
4/14/2021	115.06	255	139.94	149.12	9.18	
4/15/2021	114.35	255	140.65	149.12	8.47	
4/16/2021	113.91	255	141.09	149.12	8.03	
4/17/2021	113.61	255	141.39	149.12	7.73	
4/18/2021	113.67	255	141.33	149.12	7.79	
4/19/2021	114.44	255	140.56	149.12	8.56	
4/20/2021	114.00	255	141.00	149.12	8.12	
4/21/2021	113.27	255	141.73	149.12	7.39	
4/22/2021	112.99	255	142.01	149.12	7.11	
4/23/2021	112.91	255	142.09	149.12	7.03	
4/24/2021	112.90	255	142.10	149.12	7.02	
4/25/2021	113.63	255	141.37	149.12	7.75	
4/26/2021	114.63	255	140.37	149.12	8.75	
4/27/2021	114.20	255	140.80	149.12	8.32	
4/28/2021	113.76	255	141.24	149.12	7.88	
4/29/2021	114.44	255	140.56	149.12	8.56	
4/30/2021	115.36	255	139.64	149.12	9.48	

Monitoring Well 80 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	116.38	255	138.62	149.12	10.50	
5/2/2021	117.14	255	137.86	149.12	11.26	
5/3/2021	117.89	255	137.11	149.12	12.01	
5/4/2021	118.33	255	136.67	149.12	12.45	
5/5/2021	118.55	255	136.45	149.12	12.67	
5/6/2021	118.80	255	136.20	149.12	12.92	
5/7/2021	118.90	255	136.10	149.12	13.02	
5/8/2021	119.00	255	136.00	149.12	13.12	
5/9/2021	119.48	255	135.52	149.12	13.60	
5/10/2021	119.90	255	135.10	149.12	14.02	
5/11/2021	120.02	255	134.98	149.12	14.14	
5/12/2021	119.83	255	135.17	149.12	13.95	
5/13/2021	119.58	255	135.42	149.12	13.70	
5/14/2021	119.33	255	135.67	149.12	13.45	
5/15/2021	119.37	255	135.63	149.12	13.49	
5/16/2021	119.44	255	135.56	149.12	13.56	
5/17/2021	119.17	255	135.83	149.12	13.29	
5/18/2021	118.73	255	136.27	149.12	12.85	
5/19/2021	118.00	255	137.00	149.12	12.12	
5/20/2021	117.23	255	137.77	149.12	11.35	
5/21/2021	116.98	255	138.02	149.12	11.10	
5/22/2021	116.83	255	138.17	149.12	10.95	
5/23/2021	116.78	255	138.22	149.12	10.90	
5/24/2021	116.62	255	138.38	149.12	10.74	
5/25/2021	116.17	255	138.83	149.12	10.29	
5/26/2021	115.55	255	139.45	149.12	9.67	
5/27/2021	115.13	255	139.87	149.12	9.25	
5/28/2021	113.93	255	141.07	149.12	8.05	
5/29/2021	112.78	255	142.22	149.12	6.90	
5/30/2021	113.41	255	141.59	149.12	7.53	
5/31/2021	113.98	255	141.02	149.12	8.10	
6/1/2021	114.23	255	140.77	149.12	8.35	
6/2/2021	114.10	255	140.90	149.12	8.22	
6/3/2021	113.80	255	141.20	149.12	7.92	
6/4/2021	113.37	255	141.63	149.12	7.49	
6/5/2021	113.10	255	141.90	149.12	7.22	
6/6/2021	113.10	255	141.90	149.12	7.22	
6/7/2021	113.09	255	141.91	149.12	7.21	
6/8/2021	112.22	255	142.78	149.12	6.34	
6/9/2021	111.13	255	143.87	149.12	5.25	
6/10/2021	110.35	255	144.65	149.12	4.47	
6/11/2021	109.18	255	145.82	149.12	3.30	
6/12/2021	107.46	255	147.54	149.12	1.58	
6/13/2021	107.02	255	147.98	149.12	1.14	
6/14/2021	106.87	255	148.13	149.12	0.99	
6/15/2021	107.69	255	147.31	149.12	1.81	
6/16/2021	107.39	255	147.61	149.12	1.51	
6/17/2021	107.33	255	147.67	149.12	1.45	
6/18/2021	107.28	255	147.72	149.12	1.40	
6/19/2021	107.55	255	147.45	149.12	1.67	
6/20/2021	108.08	255	146.92	149.12	2.20	
6/21/2021	108.06	255	146.94	149.12	2.18	
6/22/2021	107.39	255	147.61	149.12	1.51	
6/23/2021	107.09	255	147.91	149.12	1.21	
6/24/2021	106.74	255	148.26	149.12	0.86	
6/25/2021	106.31	255	148.69	149.12	0.43	
6/26/2021	105.73	255	149.27	149.12	-0.15	
6/27/2021	104.95	255	150.05	149.12	-0.93	
6/28/2021	104.08	255	150.92	149.12	-1.80	
6/29/2021	103.82	255	151.18	149.12	-2.06	
6/30/2021	103.33	255	151.67	149.12	-2.55	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	103.03	255	151.97	149.12	-2.85	
7/2/2021	102.06	255	152.94	149.12	-3.82	
7/3/2021	101.02	255	153.98	149.12	-4.86	
7/4/2021	100.50	255	154.50	149.12	-5.38	
7/5/2021	100.04	255	154.96	149.12	-5.84	
7/6/2021	99.61	255	155.39	149.12	-6.27	
7/7/2021	99.09	255	155.91	149.12	-6.79	
7/8/2021	98.49	255	156.51	149.12	-7.39	
7/9/2021	98.07	255	156.93	149.12	-7.81	
7/10/2021	97.49	255	157.51	149.12	-8.39	
7/11/2021	97.43	255	157.57	149.12	-8.45	
7/12/2021	97.39	255	157.61	149.12	-8.49	
7/13/2021	97.04	255	157.96	149.12	-8.84	
7/14/2021	96.67	255	158.33	149.12	-9.21	
7/15/2021	96.88	255	158.12	149.12	-9.00	
7/16/2021	97.93	255	157.07	149.12	-7.95	
7/17/2021	99.18	255	155.82	149.12	-6.70	
7/18/2021	100.28	255	154.72	149.12	-5.60	
7/19/2021	100.95	255	154.05	149.12	-4.93	
7/20/2021	101.00	255	154.00	149.12	-4.88	
7/21/2021	100.88	255	154.12	149.12	-5.00	
7/22/2021	100.80	255	154.20	149.12	-5.08	
7/23/2021	100.69	255	154.31	149.12	-5.19	
7/24/2021	100.61	255	154.39	149.12	-5.27	
7/25/2021	100.73	255	154.27	149.12	-5.15	
7/26/2021	100.91	255	154.09	149.12	-4.97	
7/27/2021	100.86	255	154.14	149.12	-5.02	
7/28/2021	100.75	255	154.25	149.12	-5.13	
7/29/2021	100.82	255	154.18	149.12	-5.06	
7/30/2021	100.78	255	154.22	149.12	-5.10	
7/31/2021	100.54	255	154.46	149.12	-5.34	
8/1/2021	100.70	255	154.30	149.12	-5.18	
8/2/2021	100.86	255	154.14	149.12	-5.02	
8/3/2021	100.85	255	154.15	149.12	-5.03	
8/4/2021	100.60	255	154.40	149.12	-5.28	
8/5/2021	98.67	255	156.33	149.12	-7.21	
8/6/2021	98.65	255	156.35	149.12	-7.23	
8/7/2021	98.19	255	156.81	149.12	-7.69	
8/8/2021	95.94	255	159.06	149.12	-9.94	
8/9/2021	94.92	255	160.08	149.12	-10.96	
8/10/2021	96.14	255	158.86	149.12	-9.74	
8/11/2021	97.17	255	157.83	149.12	-8.71	
8/12/2021	97.98	255	157.02	149.12	-7.90	
8/13/2021	98.27	255	156.73	149.12	-7.61	
8/14/2021						
8/15/2021						
8/16/2021						
8/17/2021						
8/18/2021						
8/19/2021						
8/20/2021	100.11	255	154.89	149.12	-5.77	
8/21/2021	100.20	255	154.80	149.12	-5.68	
8/22/2021	100.64	255	154.36	149.12	-5.24	
8/23/2021	100.96	255	154.04	149.12	-4.92	
8/24/2021	100.12	255	154.88	149.12	-5.76	
8/25/2021	99.01	255	155.99	149.12	-6.87	
8/26/2021	98.43	255	156.57	149.12	-7.45	
8/27/2021	98.02	255	156.98	149.12	-7.86	
8/28/2021	97.54	255	157.46	149.12	-8.34	
8/29/2021	97.43	255	157.57	149.12	-8.45	
8/30/2021	97.43	255	157.57	149.12	-8.45	
8/31/2021	97.33	255	157.67	149.12	-8.55	

Monitoring Well 80 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	97.64	255	157.36	149.12	-8.24	
9/2/2021	98.81	255	156.19	149.12	-7.07	
9/3/2021	99.22	255	155.78	149.12	-6.66	
9/4/2021	98.21	255	156.79	149.12	-7.67	
9/5/2021	97.58	255	157.42	149.12	-8.30	
9/6/2021	97.58	255	157.42	149.12	-8.30	
9/7/2021	97.62	255	157.38	149.12	-8.26	
9/8/2021	97.61	255	157.39	149.12	-8.27	
9/9/2021	97.60	255	157.40	149.12	-8.28	
9/10/2021	97.54	255	157.46	149.12	-8.34	
9/11/2021	97.53	255	157.47	149.12	-8.35	
9/12/2021	97.57	255	157.43	149.12	-8.31	
9/13/2021	98.45	255	156.55	149.12	-7.43	
9/14/2021	97.94	255	157.06	149.12	-7.94	
9/15/2021	97.44	255	157.56	149.12	-8.44	
9/16/2021	97.40	255	157.60	149.12	-8.48	
9/17/2021	97.21	255	157.79	149.12	-8.67	
9/18/2021	96.87	255	158.13	149.12	-9.01	
9/19/2021	96.83	255	158.17	149.12	-9.05	
9/20/2021	97.02	255	157.98	149.12	-8.86	
9/21/2021	97.02	255	157.98	149.12	-8.86	
9/22/2021	96.97	255	158.03	149.12	-8.91	
9/23/2021	97.29	255	157.71	149.12	-8.59	
9/24/2021	97.32	255	157.68	149.12	-8.56	
9/25/2021	97.18	255	157.82	149.12	-8.70	
9/26/2021	97.44	255	157.56	149.12	-8.44	
9/27/2021	98.27	255	156.73	149.12	-7.61	
9/28/2021	98.78	255	156.22	149.12	-7.10	
9/29/2021	98.37	255	156.63	149.12	-7.51	
9/30/2021	98.73	255	156.27	149.12	-7.15	
10/1/2021	99.23	255	155.77	149.12	-6.65	
10/2/2021	101.03	255	153.97	149.12	-4.85	
10/3/2021	101.94	255	153.06	149.12	-3.94	
10/4/2021	102.91	255	152.09	149.12	-2.97	
10/5/2021	102.36	255	152.64	149.12	-3.52	
10/6/2021	101.40	255	153.60	149.12	-4.48	
10/7/2021	100.99	255	154.01	149.12	-4.89	
10/8/2021	100.70	255	154.30	149.12	-5.18	
10/9/2021	100.45	255	154.55	149.12	-5.43	
10/10/2021	101.67	255	153.33	149.12	-4.21	
10/11/2021	102.73	255	152.27	149.12	-3.15	
10/12/2021						
10/13/2021						
10/14/2021						
10/15/2021	105.37	255	149.63	149.12	-0.51	
10/16/2021	105.66	255	149.34	149.12	-0.22	
10/17/2021	106.29	255	148.71	149.12	0.41	
10/18/2021	106.68	255	148.32	149.12	0.80	
10/19/2021						
10/20/2021						
10/21/2021						
10/22/2021						
10/23/2021						
10/24/2021						
10/25/2021	109.98	255	145.02	149.12	4.10	
10/26/2021	110.43	255	144.57	149.12	4.55	
10/27/2021	110.86	255	144.14	149.12	4.98	
10/28/2021	111.42	255	143.58	149.12	5.54	
10/29/2021	112.03	255	142.97	149.12	6.15	
10/30/2021	112.47	255	142.53	149.12	6.59	
10/31/2021	112.97	255	142.03	149.12	7.09	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021	113.47	255	141.53	149.12	7.59	
11/2/2021	113.84	255	141.16	149.12	7.96	
11/3/2021						
11/4/2021						
11/5/2021						
11/6/2021	114.54	255	140.46	149.12	8.66	
11/7/2021	114.66	255	140.34	149.12	8.78	
11/8/2021	114.75	255	140.25	149.12	8.87	
11/9/2021	114.93	255	140.07	149.12	9.05	
11/10/2021	114.44	255	140.56	149.12	8.56	
11/11/2021	115.18	255	139.82	149.12	9.30	
11/12/2021	115.19	255	139.81	149.12	9.31	
11/13/2021	115.27	255	139.73	149.12	9.39	
11/14/2021	115.32	255	139.68	149.12	9.44	
11/15/2021	115.36	255	139.64	149.12	9.48	
11/16/2021						
11/17/2021						
11/18/2021						
11/19/2021						
11/20/2021						
11/21/2021						
11/22/2021						
11/23/2021						
11/24/2021						
11/25/2021						
11/26/2021						
11/27/2021						
11/28/2021						
11/29/2021						142
11/30/2021						
12/1/2021						
12/2/2021						
12/3/2021						
12/4/2021						
12/5/2021						
12/6/2021						
12/7/2021						
12/8/2021						
12/9/2021						
12/10/2021						
12/11/2021						
12/12/2021						
12/13/2021						
12/14/2021						
12/15/2021						
12/16/2021						
12/17/2021						
12/18/2021						
12/19/2021						
12/20/2021						
12/21/2021						
12/22/2021						
12/23/2021						
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12/25/2021						
12/26/2021						
12/27/2021						
12/28/2021						
12/29/2021						
12/30/2021						
12/31/2021						

Well 87 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
1/1/2021	106.40	178	71.60	146.24	74.64	
1/2/2021	106.60	178	71.40	146.24	74.84	
1/3/2021	106.78	178	71.22	146.24	75.02	
1/4/2021	106.94	178	71.06	146.24	75.18	
1/5/2021	107.02	178	70.98	146.24	75.26	
1/6/2021	106.89	178	71.11	146.24	75.13	
1/7/2021	106.48	178	71.52	146.24	74.72	
1/8/2021	106.07	178	71.93	146.24	74.31	
1/9/2021	105.69	178	72.31	146.24	73.93	
1/10/2021	105.42	178	72.58	146.24	73.66	
1/11/2021	105.32	178	72.68	146.24	73.56	
1/12/2021	105.35	178	72.65	146.24	73.59	
1/13/2021	105.48	178	72.52	146.24	73.72	
1/14/2021	105.58	178	72.42	146.24	73.82	
1/15/2021	105.67	178	72.33	146.24	73.91	
1/16/2021	105.78	178	72.22	146.24	74.02	
1/17/2021	105.84	178	72.16	146.24	74.08	
1/18/2021	105.97	178	72.03	146.24	74.21	
1/19/2021	106.13	178	71.87	146.24	74.37	
1/20/2021	106.19	178	71.81	146.24	74.43	
1/21/2021	106.32	178	71.68	146.24	74.56	
1/22/2021	106.47	178	71.53	146.24	74.71	
1/23/2021	104.56	178	73.44	146.24	72.80	
1/24/2021	95.37	178	82.63	146.24	63.61	
1/25/2021	90.91	178	87.09	146.24	59.15	
1/26/2021	89.03	178	88.97	146.24	57.27	
1/27/2021	92.07	178	85.93	146.24	60.31	
1/28/2021	93.95	178	84.05	146.24	62.19	
1/29/2021	94.56	178	83.44	146.24	62.80	
1/30/2021	93.99	178	84.01	146.24	62.23	
1/31/2021	90.90	178	87.10	146.24	59.14	
2/1/2021	90.60	178	87.40	146.24	58.84	
2/2/2021	93.33	178	84.67	146.24	61.57	
2/3/2021	94.09	178	83.91	146.24	62.33	
2/4/2021	95.49	178	82.51	146.24	63.73	
2/5/2021	99.62	178	78.38	146.24	67.86	
2/6/2021	101.39	178	76.61	146.24	69.63	
2/7/2021	101.44	178	76.56	146.24	69.68	
2/8/2021	102.43	178	75.57	146.24	70.67	
2/9/2021	103.60	178	74.40	146.24	71.84	
2/10/2021	104.05	178	73.95	146.24	72.29	
2/11/2021	104.83	178	73.17	146.24	73.07	
2/12/2021	105.49	178	72.51	146.24	73.73	
2/13/2021	105.83	178	72.17	146.24	74.07	
2/14/2021	106.18	178	71.82	146.24	74.42	
2/15/2021	106.50	178	71.50	146.24	74.74	
2/16/2021	106.69	178	71.31	146.24	74.93	
2/17/2021	106.68	178	71.32	146.24	74.92	
2/18/2021	106.57	178	71.43	146.24	74.81	
2/19/2021	106.44	178	71.56	146.24	74.68	
2/20/2021	106.39	178	71.61	146.24	74.63	74
2/21/2021	106.48	178	71.52	146.24	74.72	
2/22/2021	106.69	178	71.31	146.24	74.93	
2/23/2021	106.90	178	71.10	146.24	75.14	
2/24/2021	106.90	178	71.10	146.24	75.14	
2/25/2021	106.59	178	71.41	146.24	74.83	
2/26/2021	106.16	178	71.84	146.24	74.40	
2/27/2021	105.70	178	72.30	146.24	73.94	
2/28/2021	105.39	178	72.61	146.24	73.63	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
3/1/2021	105.13	178	72.87	146.24	73.37	
3/2/2021	104.98	178	73.02	146.24	73.22	
3/3/2021	104.59	178	73.41	146.24	72.83	
3/4/2021	104.04	178	73.96	146.24	72.28	
3/5/2021	102.94	178	75.06	146.24	71.18	
3/6/2021	103.77	178	74.23	146.24	72.01	
3/7/2021	103.53	178	74.47	146.24	71.77	
3/8/2021	103.42	178	74.58	146.24	71.66	
3/9/2021	103.35	178	74.65	146.24	71.59	
3/10/2021	103.17	178	74.83	146.24	71.41	
3/11/2021	102.87	178	75.13	146.24	71.11	
3/12/2021	102.41	178	75.59	146.24	70.65	
3/13/2021	102.18	178	75.82	146.24	70.42	
3/14/2021	101.92	178	76.08	146.24	70.16	
3/15/2021	101.99	178	76.01	146.24	70.23	
3/16/2021	102.11	178	75.89	146.24	70.35	
3/17/2021	102.11	178	75.89	146.24	70.35	
3/18/2021	102.09	178	75.91	146.24	70.33	
3/19/2021	102.01	178	75.99	146.24	70.25	
3/20/2021	102.03	178	75.97	146.24	70.27	
3/21/2021	102.13	178	75.87	146.24	70.37	
3/22/2021	102.38	178	75.62	146.24	70.62	
3/23/2021	102.84	178	75.16	146.24	71.08	
3/24/2021	103.06	178	74.94	146.24	71.30	
3/25/2021	103.16	178	74.84	146.24	71.40	
3/26/2021	103.15	178	74.85	146.24	71.39	
3/27/2021	103.11	178	74.89	146.24	71.35	
3/28/2021	103.05	178	74.95	146.24	71.29	
3/29/2021	103.18	178	74.82	146.24	71.42	
3/30/2021	103.32	178	74.68	146.24	71.56	
3/31/2021	103.18	178	74.82	146.24	71.42	
4/1/2021	103.03	178	74.97	146.24	71.27	
4/2/2021	102.72	178	75.28	146.24	70.96	
4/3/2021	102.37	178	75.63	146.24	70.61	
4/4/2021	102.29	178	75.71	146.24	70.53	
4/5/2021	102.28	178	75.72	146.24	70.52	
4/6/2021	102.33	178	75.67	146.24	70.57	
4/7/2021	102.29	178	75.71	146.24	70.53	
4/8/2021	102.15	178	75.85	146.24	70.39	
4/9/2021	101.90	178	76.10	146.24	70.14	
4/10/2021	101.61	178	76.39	146.24	69.85	
4/11/2021	101.50	178	76.50	146.24	69.74	
4/12/2021	100.35	178	77.65	146.24	68.59	
4/13/2021	100.54	178	77.46	146.24	68.78	
4/14/2021	101.41	178	76.59	146.24	69.65	
4/15/2021	101.15	178	76.85	146.24	69.39	
4/16/2021	100.91	178	77.09	146.24	69.15	
4/17/2021	100.75	178	77.25	146.24	68.99	
4/18/2021	100.52	178	77.48	146.24	68.76	
4/19/2021	100.50	178	77.50	146.24	68.74	
4/20/2021	100.64	178	77.36	146.24	68.88	
4/21/2021	100.58	178	77.42	146.24	68.82	
4/22/2021	100.43	178	77.57	146.24	68.67	
4/23/2021	100.26	178	77.74	146.24	68.50	
4/24/2021	100.32	178	77.68	146.24	68.56	
4/25/2021	100.15	178	77.85	146.24	68.39	
4/26/2021	100.62	178	77.38	146.24	68.86	
4/27/2021	100.72	178	77.28	146.24	68.96	
4/28/2021	100.82	178	77.18	146.24	69.06	
4/29/2021	100.86	178	77.14	146.24	69.10	
4/30/2021	101.00	178	77.00	146.24	69.24	

Well 87 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
5/1/2021	101.27	178	76.73	146.24	69.51	
5/2/2021	101.62	178	76.38	146.24	69.86	
5/3/2021	102.00	178	76.00	146.24	70.24	
5/4/2021	102.26	178	75.74	146.24	70.50	
5/5/2021	102.40	178	75.60	146.24	70.64	
5/6/2021	102.47	178	75.53	146.24	70.71	
5/7/2021	102.88	178	75.12	146.24	71.12	
5/8/2021	103.22	178	74.78	146.24	71.46	
5/9/2021	103.37	178	74.63	146.24	71.61	
5/10/2021	103.48	178	74.52	146.24	71.72	
5/11/2021	103.59	178	74.41	146.24	71.83	
5/12/2021	103.66	178	74.34	146.24	71.90	
5/13/2021	103.66	178	74.34	146.24	71.90	
5/14/2021	103.60	178	74.40	146.24	71.84	
5/15/2021	103.50	178	74.50	146.24	71.74	
5/16/2021	103.40	178	74.60	146.24	71.64	
5/17/2021	103.22	178	74.78	146.24	71.46	
5/18/2021	103.05	178	74.95	146.24	71.29	
5/19/2021	102.73	178	75.27	146.24	70.97	
5/20/2021	102.37	178	75.63	146.24	70.61	
5/21/2021	102.21	178	75.79	146.24	70.45	
5/22/2021	101.89	178	76.11	146.24	70.13	
5/23/2021	101.63	178	76.37	146.24	69.87	
5/24/2021	101.50	178	76.50	146.24	69.74	
5/25/2021	101.43	178	76.57	146.24	69.67	
5/26/2021	101.25	178	76.75	146.24	69.49	
5/27/2021	101.01	178	76.99	146.24	69.25	
5/28/2021	100.84	178	77.16	146.24	69.08	
5/29/2021	100.40	178	77.60	146.24	68.64	
5/30/2021	99.89	178	78.11	146.24	68.13	
5/31/2021	99.80	178	78.20	146.24	68.04	
6/1/2021	99.82	178	78.18	146.24	68.06	
6/2/2021	99.86	178	78.14	146.24	68.10	
6/3/2021	99.78	178	78.22	146.24	68.02	
6/4/2021	99.60	178	78.40	146.24	67.84	
6/5/2021	99.42	178	78.58	146.24	67.66	
6/6/2021	99.27	178	78.73	146.24	67.51	
6/7/2021	97.11	178	80.89	146.24	65.35	
6/8/2021	89.91	178	88.09	146.24	58.15	
6/9/2021	87.31	178	90.69	146.24	55.55	
6/10/2021	85.49	178	92.51	146.24	53.73	
6/11/2021	85.23	178	92.77	146.24	53.47	
6/12/2021	85.74	178	92.26	146.24	53.98	
6/13/2021	85.10	178	92.90	146.24	53.34	
6/14/2021	86.11	178	91.89	146.24	54.35	
6/15/2021	90.62	178	87.38	146.24	58.86	
6/16/2021	91.89	178	86.11	146.24	60.13	
6/17/2021	92.18	178	85.82	146.24	60.42	
6/18/2021	92.47	178	85.53	146.24	60.71	
6/19/2021	93.50	178	84.50	146.24	61.74	
6/20/2021	90.95	178	87.05	146.24	59.19	
6/21/2021	89.27	178	88.73	146.24	57.51	
6/22/2021	88.51	178	89.49	146.24	56.75	
6/23/2021	88.05	178	89.95	146.24	56.29	
6/24/2021	87.67	178	90.33	146.24	55.91	
6/25/2021	87.44	178	90.56	146.24	55.68	
6/26/2021	87.16	178	90.84	146.24	55.40	
6/27/2021	86.95	178	91.05	146.24	55.19	
6/28/2021	87.67	178	90.33	146.24	55.91	
6/29/2021	90.50	178	87.50	146.24	58.74	
6/30/2021	91.76	178	86.24	146.24	60.00	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
7/1/2021	91.86	178	86.14	146.24	60.10	
7/2/2021	88.31	178	89.69	146.24	56.55	
7/3/2021	86.66	178	91.34	146.24	54.90	
7/4/2021	85.93	178	92.07	146.24	54.17	
7/5/2021	85.26	178	92.74	146.24	53.50	
7/6/2021	84.92	178	93.08	146.24	53.16	
7/7/2021	84.64	178	93.36	146.24	52.88	
7/8/2021	84.31	178	93.69	146.24	52.55	
7/9/2021	84.21	178	93.79	146.24	52.45	
7/10/2021	83.98	178	94.02	146.24	52.22	
7/11/2021	83.87	178	94.13	146.24	52.11	
7/12/2021	83.57	178	94.43	146.24	51.81	
7/13/2021	83.25	178	94.75	146.24	51.49	
7/14/2021	82.99	178	95.01	146.24	51.23	
7/15/2021	83.88	178	94.12	146.24	52.12	
7/16/2021	87.77	178	90.23	146.24	56.01	
7/17/2021	89.31	178	88.69	146.24	57.55	
7/18/2021	90.25	178	87.75	146.24	58.49	
7/19/2021	90.74	178	87.26	146.24	58.98	
7/20/2021	90.35	178	87.65	146.24	58.59	
7/21/2021	88.37	178	89.63	146.24	56.61	
7/22/2021	89.81	178	88.19	146.24	58.05	
7/23/2021	90.43	178	87.57	146.24	58.67	
7/24/2021	90.59	178	87.41	146.24	58.83	
7/25/2021	90.64	178	87.36	146.24	58.88	
7/26/2021	90.67	178	87.33	146.24	58.91	
7/27/2021	90.69	178	87.31	146.24	58.93	
7/28/2021	90.68	178	87.32	146.24	58.92	
7/29/2021	90.70	178	87.30	146.24	58.94	
7/30/2021	90.69	178	87.31	146.24	58.93	
7/31/2021	90.65	178	87.35	146.24	58.89	
8/1/2021	90.61	178	87.39	146.24	58.85	
8/2/2021	90.59	178	87.41	146.24	58.83	
8/3/2021	90.69	178	87.31	146.24	58.93	
8/4/2021	90.04	178	87.96	146.24	58.28	
8/5/2021	83.34	178	94.66	146.24	51.58	
8/6/2021	83.36	178	94.64	146.24	51.60	
8/7/2021	82.00	178	96.00	146.24	50.24	
8/8/2021	76.07	178	101.93	146.24	44.31	
8/9/2021	75.24	178	102.76	146.24	43.48	
8/10/2021	81.98	178	96.02	146.24	50.22	
8/11/2021	85.17	178	92.83	146.24	53.41	
8/12/2021	86.78	178	91.22	146.24	55.02	
8/13/2021	87.62	178	90.38	146.24	55.86	
8/14/2021	88.10	178	89.90	146.24	56.34	
8/15/2021	88.45	178	89.55	146.24	56.69	
8/16/2021	88.71	178	89.29	146.24	56.95	
8/17/2021						
8/18/2021						
8/19/2021						
8/20/2021	89.15	178	88.85	146.24	57.39	
8/21/2021	89.21	178	88.79	146.24	57.45	
8/22/2021	89.40	178	88.60	146.24	57.64	
8/23/2021	89.68	178	88.32	146.24	57.92	
8/24/2021	89.80	178	88.20	146.24	58.04	
8/25/2021	89.66	178	88.34	146.24	57.90	
8/26/2021	89.37	178	88.63	146.24	57.61	
8/27/2021	89.21	178	88.79	146.24	57.45	
8/28/2021	89.15	178	88.85	146.24	57.39	
8/29/2021	89.11	178	88.89	146.24	57.35	
8/30/2021	89.07	178	88.93	146.24	57.31	
8/31/2021	89.00	178	89.00	146.24	57.24	

Well 87 Daily Water Levels in feet

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
9/1/2021	88.85	178	89.15	146.24	57.09	
9/2/2021	87.85	178	90.15	146.24	56.09	
9/3/2021	84.50	178	93.50	146.24	52.74	
9/4/2021	84.27	178	93.73	146.24	52.51	
9/5/2021	86.79	178	91.21	146.24	55.03	
9/6/2021	87.68	178	90.32	146.24	55.92	
9/7/2021	87.98	178	90.02	146.24	56.22	
9/8/2021	88.10	178	89.90	146.24	56.34	
9/9/2021	88.14	178	89.86	146.24	56.38	
9/10/2021	88.10	178	89.90	146.24	56.34	
9/11/2021	88.09	178	89.91	146.24	56.33	
9/12/2021	88.10	178	89.90	146.24	56.34	
9/13/2021	88.18	178	89.82	146.24	56.42	
9/14/2021	88.28	178	89.72	146.24	56.52	
9/15/2021	88.29	178	89.71	146.24	56.53	
9/16/2021	88.25	178	89.75	146.24	56.49	
9/17/2021	88.19	178	89.81	146.24	56.43	
9/18/2021	88.10	178	89.90	146.24	56.34	
9/19/2021	88.07	178	89.93	146.24	56.31	
9/20/2021	88.10	178	89.90	146.24	56.34	
9/21/2021	88.10	178	89.90	146.24	56.34	
9/22/2021	88.13	178	89.87	146.24	56.37	
9/23/2021	88.17	178	89.83	146.24	56.41	
9/24/2021	88.18	178	89.82	146.24	56.42	
9/25/2021	88.22	178	89.78	146.24	56.46	
9/26/2021	88.18	178	89.82	146.24	56.42	
9/27/2021	88.28	178	89.72	146.24	56.52	
9/28/2021	88.60	178	89.40	146.24	56.84	
9/29/2021	88.85	178	89.15	146.24	57.09	
9/30/2021	89.05	178	88.95	146.24	57.29	
10/1/2021	89.21	178	88.79	146.24	57.45	
10/2/2021	89.41	178	88.59	146.24	57.65	
10/3/2021	89.66	178	88.34	146.24	57.90	
10/4/2021	90.10	178	87.90	146.24	58.34	
10/5/2021	90.47	178	87.53	146.24	58.71	
10/6/2021	90.49	178	87.51	146.24	58.73	
10/7/2021	90.35	178	87.65	146.24	58.59	
10/8/2021	90.17	178	87.83	146.24	58.41	
10/9/2021	90.07	178	87.93	146.24	58.31	
10/10/2021	90.21	178	87.79	146.24	58.45	
10/11/2021	90.41	178	87.59	146.24	58.65	
10/12/2021						
10/13/2021						
10/14/2021						
10/15/2021	91.72	178	86.28	146.24	59.96	
10/16/2021	92.08	178	85.92	146.24	60.32	
10/17/2021	92.36	178	85.64	146.24	60.60	
10/18/2021	92.52	178	85.48	146.24	60.76	
10/19/2021	92.56	178	85.44	146.24	60.80	
10/20/2021						
10/21/2021						
10/22/2021						
10/23/2021						
10/24/2021						
10/25/2021						
10/26/2021	94.23	178	83.77	146.24	62.47	
10/27/2021	94.44	178	83.56	146.24	62.68	
10/28/2021						
10/29/2021						
10/30/2021	95.79	178	82.21	146.24	64.03	
10/31/2021	96.13	178	81.87	146.24	64.37	

Date (1)	Reading (2)	Sensor Depth (3)	Water Level Depth (4) = (3) - (2)	Measuring Point Elev. (5)	GW Elev. (4)	Manual Readings
11/1/2021	96.58	178	81.42	146.24	64.82	
11/2/2021	96.85	178	81.15	146.24	65.09	
11/3/2021						
11/4/2021						
11/5/2021						
11/6/2021	97.63	178	80.37	146.24	65.87	
11/7/2021	97.75	178	80.25	146.24	65.99	
11/8/2021	97.89	178	80.11	146.24	66.13	
11/9/2021	98.01	178	79.99	146.24	66.25	
11/10/2021	98.06	178	79.94	146.24	66.30	
11/11/2021	98.15	178	79.85	146.24	66.39	
11/12/2021	98.22	178	79.78	146.24	66.46	
11/13/2021	98.29	178	79.71	146.24	66.53	
11/14/2021	98.35	178	79.65	146.24	66.59	
11/15/2021	98.40	178	79.60	146.24	66.64	
11/16/2021	98.47	178	79.53	146.24	66.71	
11/17/2021	98.58	178	79.42	146.24	66.82	
11/18/2021	98.67	178	79.33	146.24	66.91	
11/19/2021	98.69	178	79.31	146.24	66.93	
11/20/2021	98.40	178	79.60	146.24	66.64	
11/21/2021	98.18	178	79.82	146.24	66.42	
11/22/2021	98.18	178	79.82	146.24	66.42	
11/23/2021	98.20	178	79.80	146.24	66.44	
11/24/2021	98.09	178	79.91	146.24	66.33	
11/25/2021	97.97	178	80.03	146.24	66.21	
11/26/2021	98.16	178	79.84	146.24	66.40	
11/27/2021	98.25	178	79.75	146.24	66.49	
11/28/2021	98.20	178	79.80	146.24	66.44	
11/29/2021	98.26	178	79.74	146.24	66.50	78
11/30/2021	98.33	178	79.67	146.24	66.57	
12/1/2021	98.26	178	79.74	146.24	66.50	
12/2/2021	98.24	178	79.76	146.24	66.48	
12/3/2021	98.37	178	79.63	146.24	66.61	
12/4/2021	98.63	178	79.37	146.24	66.87	
12/5/2021	98.89	178	79.11	146.24	67.13	
12/6/2021	99.15	178	78.85	146.24	67.39	
12/7/2021	99.38	178	78.62	146.24	67.62	
12/8/2021	99.61	178	78.39	146.24	67.85	
12/9/2021	99.88	178	78.12	146.24	68.12	
12/10/2021	100.06	178	77.94	146.24	68.30	
12/11/2021	100.30	178	77.70	146.24	68.54	
12/12/2021	100.61	178	77.39	146.24	68.85	
12/13/2021	100.77	178	77.23	146.24	69.01	
12/14/2021	100.84	178	77.16	146.24	69.08	
12/15/2021	100.89	178	77.11	146.24	69.13	
12/16/2021	100.98	178	77.02	146.24	69.22	
12/17/2021	101.06	178	76.94	146.24	69.30	
12/18/2021	101.16	178	76.84	146.24	69.40	
12/19/2021	101.29	178	76.71	146.24	69.53	
12/20/2021	101.36	178	76.64	146.24	69.60	
12/21/2021	101.42	178	76.58	146.24	69.66	
12/22/2021	101.49	178	76.51	146.24	69.73	
12/23/2021	101.58	178	76.42	146.24	69.82	
12/24/2021	101.62	178	76.38	146.24	69.86	
12/25/2021	101.61	178	76.39	146.24	69.85	
12/26/2021	101.62	178	76.38	146.24	69.86	
12/27/2021	101.72	178	76.28	146.24	69.96	
12/28/2021	101.82	178	76.18	146.24	70.06	
12/29/2021	101.84	178	76.16	146.24	70.08	
12/30/2021						
12/31/2021						

APPENDIX 3.G. MONITORING NETWORK

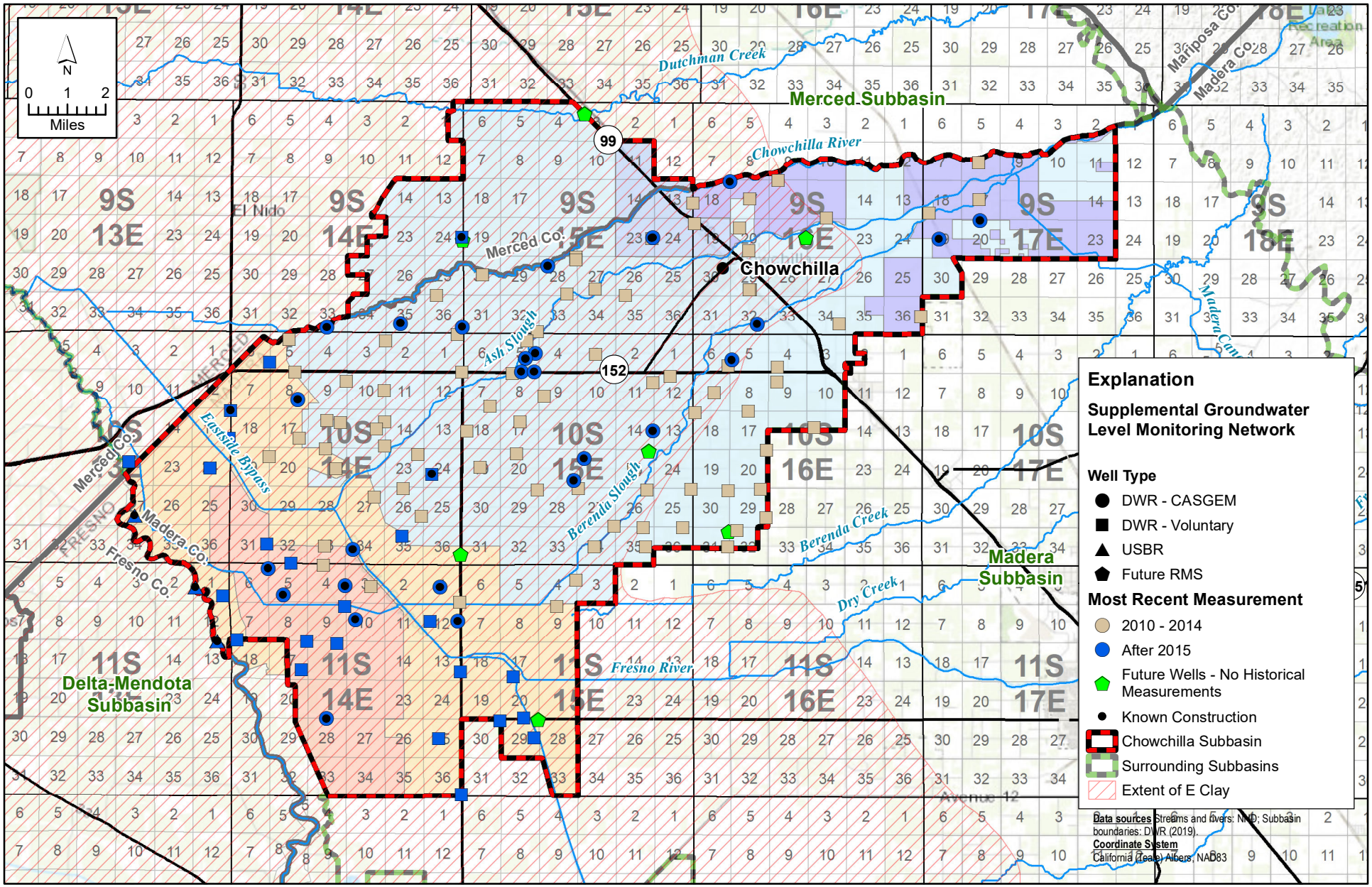
Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento



X:\2018\18-017 Chowchilla GSP Development\GIS\Map files\Report Figures\Figure 3.D-1 Chowchilla Subbasin Supplemental Groundwater Level Monitoring Network.mxd

DAVIDS ENGINEERING, INC

Luhdorff & Scalmanini Consulting Engineers

FIGURE 3.D-1

Supplemental Groundwater Level Monitoring Network

Table 3.D-1 - Supplemental Groundwater Level Monitoring Network, Chowchilla Subbasin

Well ID	Well Type	Latitude	Longitude	T/R/S	Well Depth	Screen Interval	Earliest Groundwater Level Measurement Date	Most Recent Groundwater Level Measurement Date	Count of Groundwater Level Measurements
09S14E24H	Voluntary	37.1343	-120.3831	9S/14E/24	900	324-828	11/3/2015	3/14/2019	8
09S14E33L	CASGEM	37.1001	-120.4467	9S/14E/33	290	265-285	10/28/2015	3/14/2019	8
09S14E35P	CASGEM	37.1018	-120.4120	9S/14E/35	452	257-447	5/9/2019	5/9/2019	0
09S14E36C001M	Voluntary	37.1124	-120.3952	9S/14E/36			2/9/1967	3/9/2011	83
09S14E36R1	CASGEM	37.1004	-120.3828	9S/14E/36	490	130-270	5/10/2019	5/10/2019	0
09S15E23J	CASGEM	37.1343	-120.2929	9S/15E/23	291		10/17/2016	3/14/2019	6
09S15E23J2	Voluntary	37.1341	-120.2935	9S/15E/23	291	290.5-291	2/23/1968	2/19/2014	85
09S15E27Q001M	Voluntary	37.1149	-120.3202	9S/15E/27			2/25/2013	2/18/2014	2
09S15E28A001M	Voluntary	37.1268	-120.3293	9S/15E/28			10/29/1935	2/22/2010	54
09S15E28A002M	Voluntary	37.1260	-120.3293	9S/15E/28			2/15/1963	2/18/2014	74
09S15E28C	CASGEM	37.1236	-120.3427	9S/15E/28	736	502-722	5/11/2019	5/11/2019	0
09S15E28R001M	Voluntary	37.1132	-120.3335	9S/15E/28			7/6/1939	2/18/2014	133
09S15E30G001M	Voluntary	37.1202	-120.3735	9S/15E/30			11/8/1939	2/22/2010	127
09S15E32R001M	Voluntary	37.0988	-120.3474	9S/15E/32			10/24/1952	2/22/2010	74
09S15E35C001M	Voluntary	37.1127	-120.3057	9S/15E/26			3/4/2013	2/18/2014	2
09S16E15Q001M	Voluntary	37.1418	-120.2110	9S/16E/15			2/6/1980	2/20/2014	56
09S16E16D001M	Voluntary	37.1560	-120.2338	9S/16E/16			1/30/1987	3/5/2010	41
09S16E17F001M	Voluntary	37.1491	-120.2474	9S/16E/17			2/6/1980	2/20/2014	58
09S16E18A	CASGEM	37.1554	-120.2565	9S/16E/18	800	320-762	10/30/2015	3/14/2019	8
09S16E18M001M	Voluntary	37.1474	-120.2741	9S/16E/18			2/6/1980	2/28/2011	56
09S16E19D001M	Voluntary	37.1396	-120.2732	9S/16E/19			2/25/2013	2/19/2014	2
09S16E20E001M	Voluntary	37.1382	-120.2521	9S/16E/20			10/14/1964	2/20/2014	82
09S16E20P002M	Voluntary	37.1296	-120.2477	9S/16E/20			3/7/1969	2/20/2014	83
09S16E29Q001M	Voluntary	37.1149	-120.2468	9S/16E/29			10/10/1941	2/20/2014	49
09S16E29Q002M	Voluntary	37.1149	-120.2474	9S/16E/29			2/21/1958	2/28/2011	73
09S16E32Q	CASGEM	37.1019	-120.2434	9S/16E/32	400	200-400	10/28/2015	3/14/2019	8
09S16E34J001M	Voluntary	37.1021	-120.2049	9S/16E/34			12/3/1959	2/20/2014	106
09S16E36J001M	Voluntary	37.1049	-120.1663	9S/16E/36			11/3/1952	2/20/2014	104
09S17E08F001M	Voluntary	37.1630	-120.1391	9S/17E/08			2/13/2013	2/19/2014	2
09S17E17F001M	Voluntary	37.1491	-120.1388	9S/17E/17			2/6/1980	3/1/2011	55
09S17E18N002M	Voluntary	37.1438	-120.1624	9S/17E/18			2/6/1980	3/1/2011	44
09S17E19L001M	CASGEM	37.1341	-120.1577	9S/17E/19	648	240-620	10/9/1964	3/14/2019	99
09S17E20C	CASGEM	37.1411	-120.1384	9S/17E/20	720	200-720	10/29/2015	3/14/2019	8
10S13E13J001M	Voluntary	37.0582	-120.4927	10S/13E/13			2/8/2012	3/11/2019	9
10S13E22F002M	Voluntary	37.0489	-120.5400	10S/13E/22			1/22/1999	10/16/2018	11
10S13E24L001M	Voluntary	37.0468	-120.5016	10S/13E/24			2/12/1964	3/8/2017	89
10S14E01A001M	Voluntary	37.0977	-120.3852	10S/14E/01			3/1/2013	2/28/2014	2
10S14E01R002M	Voluntary	37.0835	-120.3829	10S/14E/12			2/22/1968	2/28/2014	82
10S14E03A001M	Voluntary	37.0952	-120.4191	10S/14E/03			10/1/1928	2/11/2014	138
10S14E05C003M	Voluntary	37.0955	-120.4646	10S/14E/05			10/6/1976	2/11/2014	66
10S14E06R001M	Voluntary	37.0868	-120.4738	10S/14E/06			10/8/1976	3/11/2019	66
10S14E08B003M	Voluntary	37.0830	-120.4616	10S/14E/08			7/21/1961	2/26/2010	157
10S14E08D	CASGEM	37.0728	-120.4603	10S/14E/08	410	230-360	10/29/2015	3/15/2019	8
10S14E09A003M	Voluntary	37.0799	-120.4374	10S/14E/09			2/22/1968	2/12/2014	81
10S14E10H001M	Voluntary	37.0763	-120.4196	10S/14E/10			2/21/2013	2/12/2014	2
10S14E15H001M	Voluntary	37.0646	-120.4193	10S/14E/15			10/29/1935	2/12/2014	135
10S14E15J001M	Voluntary	37.0618	-120.4232	10S/14E/15			2/1/1999	2/26/2010	17
10S14E15R001M	Voluntary	37.0555	-120.4193	10S/14E/15			11/30/1937	3/1/2011	131
10S14E16F002M	Voluntary	37.0649	-120.4466	10S/14E/16			10/14/1964	2/12/2014	85
10S14E16H001M	Voluntary	37.0641	-120.4402	10S/14E/16			12/28/1950	2/12/2014	110
10S14E17J001M	Voluntary	37.0582	-120.4596	10S/14E/17			2/6/1980	2/12/2014	58
10S14E18D	Voluntary	37.0688	-120.4922	10S/13E/13	516	265-506	10/29/2015	3/15/2019	8
10S14E19A002M	Voluntary	37.0513	-120.4738	10S/14E/19			2/6/1980	2/11/2014	58
10S14E21C003M	Voluntary	37.0543	-120.4471	10S/14E/21			2/6/1980	3/1/2013	58
10S14E21G001M	Voluntary	37.0468	-120.4421	10S/14E/21			2/6/1980	2/21/2013	58
10S14E23A001M	Voluntary	37.0524	-120.4035	10S/14E/23			11/26/1941	2/13/2014	122
10S14E24M	Voluntary	37.0449	-120.3969	10S/14E/24	696	255-636	10/29/2015	3/15/2019	8
10S14E26C002M	Voluntary	37.0396	-120.4104	10S/14E/26			2/18/1963	2/12/2014	91
10S14E26R001M	Voluntary	37.0291	-120.4018	10S/14E/26			2/21/2013	2/28/2014	2
10S14E27H001M	Voluntary	37.0360	-120.4241	10S/14E/27			2/2/1999	2/25/2010	17
10S14E31H001M	Voluntary	37.0182	-120.4746	10S/14E/31			2/8/2012	3/18/2016	5
10S14E32Q001M	Voluntary	37.0110	-120.4632	11S/14E/05			10/16/1961	3/20/2019	93
10S14E33L002M	Voluntary	37.0177	-120.4474	10S/14E/33			2/6/1980	2/12/2014	58
10S14E34M001M	CASGEM	37.0163	-120.4341	10S/14E/34	870	295-850	10/8/2015	10/17/2017	2
10S14E35F001M	Voluntary	37.0216	-120.4110	10S/14E/35			2/13/1964	3/11/2019	133
10S15E03L001M	Voluntary	37.0902	-120.3199	10S/15E/03			2/28/2013	2/18/2014	2
10S15E05B001M	Voluntary	37.0955	-120.3524	10S/15E/05			3/21/1944	2/14/2014	120
10S15E05J-2	CASGEM	37.0906	-120.3483	10S/15E/05	104	84-104	10/29/2015	3/15/2019	8
10S15E05K	CASGEM	37.0885	-120.3528	10S/15E/05	105	85-105	10/29/2015	3/15/2019	8
10S15E05Q	CASGEM	37.0836	-120.3549	10S/15E/05	100	80-100	10/29/2015	3/15/2019	8
10S15E05R	CASGEM	37.0837	-120.3488	10S/15E/05	100	80-100	10/29/2015	3/15/2019	8

Table 3.D-1 - Supplemental Groundwater Level Monitoring Network, Chowchilla Subbasin

Well ID	Well Type	Latitude	Longitude	T/R/S	Well Depth	Screen Interval	Earliest Groundwater Level Measurement Date	Most Recent Groundwater Level Measurement Date	Count of Groundwater Level Measurements
10S15E07Q001M	Voluntary	37.0705	-120.3696	10S/15E/07			12/6/1961	2/25/2010	87
10S15E08C001M	Voluntary	37.0830	-120.3591	10S/15E/08			12/6/1961	2/14/2014	88
10S15E09M001M	Voluntary	37.0743	-120.3441	10S/15E/09			12/6/1961	3/4/2011	89
10S15E11H001M	Voluntary	37.0796	-120.2927	10S/15E/11			2/11/1963	2/14/2014	86
10S15E12C002M	Voluntary	37.0821	-120.2846	10S/15E/12			2/19/2013	2/14/2014	2
10S15E13F	CASGEM	37.0614	-120.2928	10S/15E/14	390	150-390	10/29/2015	3/15/2019	8
10S15E17G001M	Voluntary	37.0649	-120.3554	10S/15E/17			12/6/1961	2/14/2014	89
10S15E18M002M	Voluntary	37.0613	-120.3804	10S/15E/18			3/4/1960	2/14/2014	92
10S15E19F001M	Voluntary	37.0477	-120.3741	10S/15E/19			12/5/1961	2/28/2014	92
10S15E20C004M	Voluntary	37.0527	-120.3571	10S/15E/20			1/12/1979	2/14/2014	61
10S15E21R001M	CASGEM	37.0427	-120.3300	10S/15E/21	600	280-600	10/8/2015	3/28/2019	7
10S15E22D	CASGEM	37.0509	-120.3251	10S/15E/22	800	360-800	10/29/2015	3/15/2019	8
10S15E23K001M	Voluntary	37.0471	-120.3016	10S/15E/23			10/26/1920	2/13/2014	150
10S15E25A001M	Voluntary	37.0396	-120.2746	10S/15E/25			2/19/2013	2/13/2014	2
10S15E26A001M	Voluntary	37.0393	-120.2954	10S/15E/26			3/1/1927	2/13/2014	146
10S15E27D001M	Voluntary	37.0396	-120.3279	10S/15E/27			10/1/1928	3/3/2011	51
10S15E27R001M	Voluntary	37.0255	-120.3107	10S/15E/27			10/1/1928	2/13/2014	144
10S15E29A002M	Voluntary	37.0393	-120.3471	10S/15E/29			1/12/1979	2/13/2014	60
10S15E34L001M	Voluntary	37.0177	-120.3202	10S/15E/34			2/19/2013	2/13/2014	2
10S15E35A002M	Voluntary	37.0252	-120.2971	10S/15E/35			3/6/1969	2/13/2014	80
10S15E35J001M	Voluntary	37.0180	-120.2960	10S/15E/35			2/25/2013	2/13/2014	2
10S15E36A001M	Voluntary	37.0252	-120.2785	10S/15E/36			3/15/2002	3/15/2012	11
10S16E04N001M	Voluntary	37.0857	-120.2341	10S/16E/04			12/22/1934	3/1/2011	131
10S16E05M	CASGEM	37.0884	-120.2554	10S/16E/05	440	240-440	10/30/2015	3/15/2019	8
10S16E06R001M	Voluntary	37.0860	-120.2571	10S/16E/06			3/22/1944	2/21/2014	126
10S16E07K001M	Voluntary	37.0760	-120.2638	10S/16E/07			12/11/1961	2/25/2010	88
10S16E09E001M	Voluntary	37.0802	-120.2343	10S/16E/09			2/19/2013	2/21/2014	2
10S16E15F001M	Voluntary	37.0630	-120.2166	10S/16E/15			2/14/2013	2/20/2014	2
10S16E17C001M	Voluntary	37.0691	-120.2477	10S/16E/08			10/24/1952	2/21/2014	101
10S16E18D002M	Voluntary	37.0685	-120.2727	10S/16E/18			12/5/1961	2/21/2014	89
10S16E20A001M	Voluntary	37.0543	-120.2391	10S/16E/20			3/8/1969	3/2/2010	77
10S16E29A001M	Voluntary	37.0396	-120.2418	10S/16E/29			2/6/1980	2/13/2014	58
10S16E29R002M	Voluntary	37.0288	-120.2393	10S/16E/29			1/19/1979	3/2/2011	58
10S16E30A001M	Voluntary	37.0391	-120.2571	10S/16E/30			11/26/1941	2/28/2014	122
10S16E31J001M	Voluntary	37.0180	-120.2571	10S/16E/31			2/6/1980	2/21/2014	58
10S16E32D002M	Voluntary	37.0241	-120.2529	10S/16E/32			2/6/1980	2/25/2010	55
11S13E01Q001M	Voluntary	36.9988	-120.4952	11S/13E/01			10/16/1961	3/20/2019	94
11S14E01R001M	Voluntary	36.9968	-120.3835	11S/14E/01			10/15/2001	10/15/2010	19
11S14E03G001M	Voluntary	37.0024	-120.4254	11S/14E/03			10/26/2011	2/12/2014	6
11S14E04C001M	Voluntary	37.0105	-120.4479	11S/14E/04			3/13/1959	2/21/2014	91
11S14E04J001M	CASGEM	37.0025	-120.4377	11S/14E/04	900		10/8/2015	3/28/2019	7
11S14E05P	CASGEM	36.9991	-120.4667	11S/14E/05	860	290-840	5/13/2019	5/13/2019	0
11S14E06A	CASGEM	37.0092	-120.4738	11S/14E/06	840	170-230	5/14/2019	5/14/2019	0
11S14E07N001M	Voluntary	36.9821	-120.4885	11S/14E/18			2/13/1964	3/20/2019	67
11S14E08R001M	Voluntary	36.9818	-120.4554	11S/14E/17			10/16/1961	3/20/2019	94
11S14E09A003M	Voluntary	36.9949	-120.4377	11S/14E/09			10/16/1961	3/20/2019	95
11S14E10F	CASGEM	36.9899	-120.4326	11S/14E/10	710	170-690	5/15/2019	5/15/2019	0
11S14E12E001M	Voluntary	36.9893	-120.3974	11S/14E/12			10/5/1976	3/20/2019	68
11S14E12H1	CASGEM	36.9894	-120.3844	11S/14E/12	420		11/2/2015	3/14/2019	8
11S14E13R001M	Voluntary	36.9705	-120.3829	11S/14E/13			2/19/1963	3/13/2019	104
11S14E16A001M	Voluntary	36.9810	-120.4413	11S/14E/16			10/16/1961	3/20/2019	105
11S14E17J001M	Voluntary	36.9710	-120.4579	11S/14E/17			2/9/2012	3/9/2017	7
11S14E25L002M	Voluntary	36.9452	-120.3932	11S/14E/25			10/5/1976	3/13/2019	70
11S14E28C	CASGEM	36.9524	-120.4461	11S/14E/28	840	320-680	5/16/2019	5/16/2019	0
11S14E36R001M	Voluntary	36.9241	-120.3824	11S/14E/36			2/14/1964	3/10/2017	87
11S15E04H001M	Voluntary	37.0052	-120.3288	11S/15E/04			2/19/2013	2/28/2014	2
11S15E06L	CASGEM	37.0022	-120.3929	11S/14E/01	390	120-390	10/30/2015	3/19/2019	8
11S15E09C001M	Voluntary	36.9952	-120.3377	11S/15E/09			3/22/1950	2/13/2014	112
11S15E17P001M	Voluntary	36.9685	-120.3582	11S/15E/17			2/9/2012	3/10/2017	7
11S15E20Q001M	Voluntary	36.9530	-120.3532	11S/15E/20			2/9/2012	3/13/2019	9
11S15E29H001M	Voluntary	36.9457	-120.3482	11S/15E/29			7/28/1949	3/20/2019	105
11S15E30A001M	Voluntary	36.9521	-120.3643	11S/15E/30			2/14/1964	3/13/2019	91
Clayton WD Shallow Ag Well #2	Other	37.0051	120.5040	11S/13E/01			10/1/2001	4/1/2018	19
Site 1	Future RMS	37.1332	-120.3827	9S/15E/19					
Site 2	Future RMS	37.1811	-120.3254	9S/15E/03					
Site 3	Future RMS	37.1347	-120.2206	9S/16E/21					
Site 5	Future RMS	37.0539	-120.2947	10S/15E/23					
Site 6	Future RMS	37.0148	-120.3833	13S/16E/03					
Site 7	Future RMS	36.9527	-120.3463	11S/15E/20					
Site 9	Future RMS	37.0236	-120.2567	10S/16E/31					
SJRRP_MW-10-78	USBR	36.9817	-120.4978	11S/13E/13	28	43763	4/14/2010	10/31/2018	295

Table 3.D-1 - Supplemental Groundwater Level Monitoring Network, Chowchilla Subbasin

Well ID	Well Type	Latitude	Longitude	T/R/S	Well Depth	Screen Interval	Earliest Groundwater Level Measurement Date	Most Recent Groundwater Level Measurement Date	Count of Groundwater Level Measurements
SJRRP_MW-10-80	USBR	37.0018	-120.5081	11S/13E/01	27.9	43763	4/14/2010	7/27/2016	226
SJRRP_MW-11-162	USBR	37.0287	-120.5370	10S/13E/27	30		1/11/2012	10/31/2018	205

NOTE:
T/R/S location corresponds to Township/Range/Section grid on Figure A-X

CHOWCHILLA SUBBASIN

Sustainable Groundwater Management Act (SGMA)

Groundwater Sustainability Plan

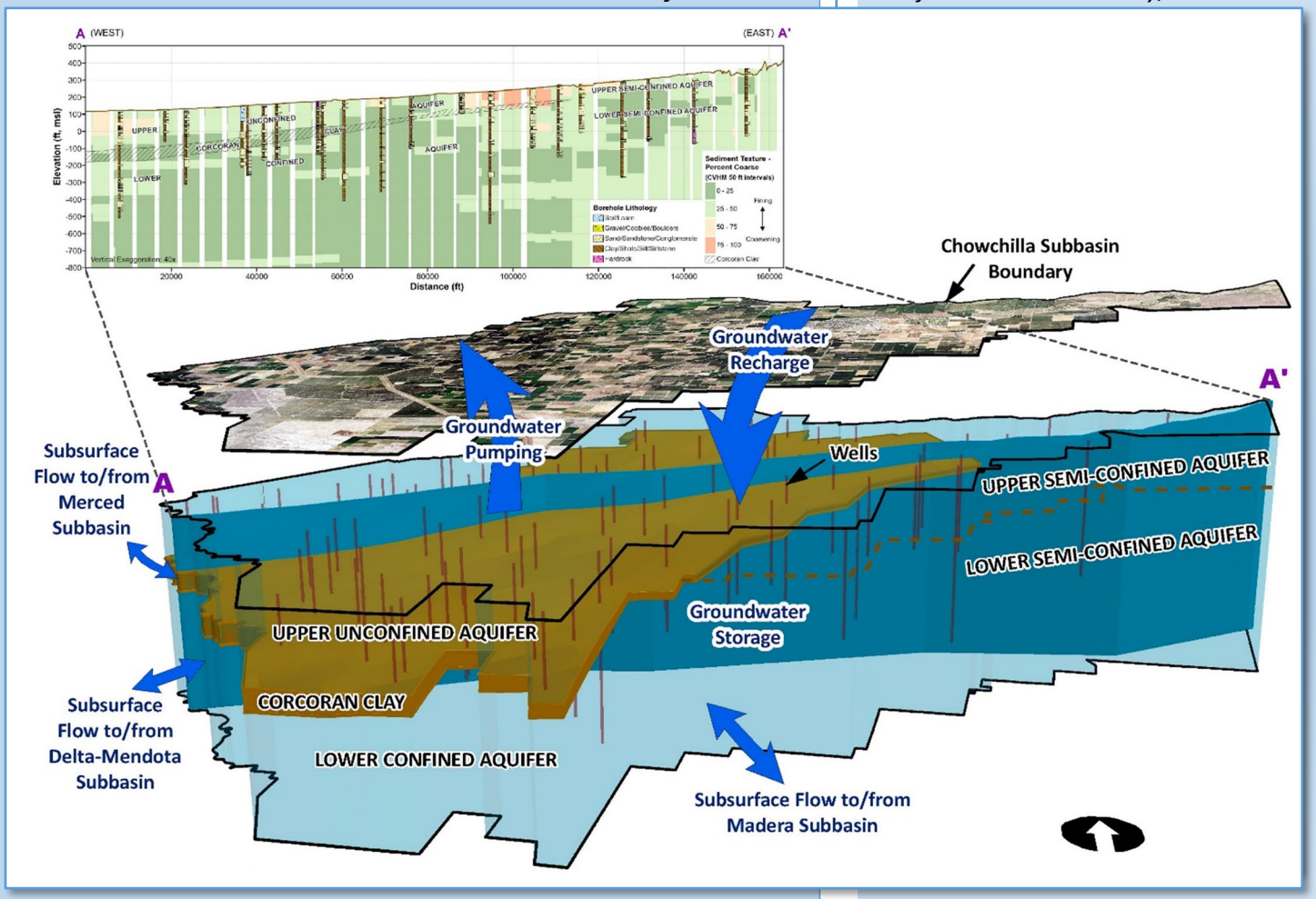
APPENDIX 4. Projects and Management Actions to Achieve Sustainability Goal

Technical Appendices 4.A. through 4.E.

January 2020

Prepared by

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento



FINAL

Chowchilla Subbasin

Sustainable Groundwater Management Act

Groundwater Sustainability Plan

Technical Appendices 4.A. through 4.E.

January 2020

Prepared For

Chowchilla Subbasin GSP Advisory Committee

Prepared By

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

APPENDIX 4. PROJECTS AND MANAGEMENT ACTIONS TO ACHIEVE SUSTAINABILITY GOAL

4.A. Chowchilla Water District GSA: Groundwater Recharge Basins Project Supporting Details

4.B. Chowchilla Water District GSA: Chowchilla-Merced Intertie Project Supporting Details

4.C. Chowchilla Water District GSA: Madera Canal Capacity Increase Project Supporting Details

4.D. Chowchilla Water District GSA: Buchanan Dam Capacity Increase Project Supporting Details

4.E. Madera County GSA: Groundwater Recharge Basins Project Supporting Details

APPENDIX 4.A. CHOWCHILLA WATER DISTRICT GSA
Groundwater Recharge Basins Project Supporting Details

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
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1 PROJECT OVERVIEW

CWD plans to construct approximately 1,000 acres of groundwater recharge basins that would be distributed throughout its service area. The locations and sizes of basins will be selected based on land uses, access to delivery facilities, and the presence of soils with appropriate percolation rates suitable for recharge. Sites will be selected to maximize recharge efficiency and net benefits to the Subbasin groundwater system.

As part of project development, CWD has developed project costs for a typical 80-acre recharge basin. While actual costs for each basin will vary based on unique site characteristics and market conditions affecting land, construction, and material costs at that time, these costs are anticipated to scale, on average, with construction of the 1,000 acres of recharge basins district-wide.

The assumptions used in development and the preliminary capital cost estimates for the 80-acre recharge basin are provided below.

2 ASSUMPTIONS

The total infiltration provided by the proposed 80-acre recharge based is based on the anticipated availability of flood flows, or the flood frequency, and infiltration rates of soils in the CWD service area. These assumptions are summarized in Table A4.A-1.

The availability of flood flows in the CWD service area was based on the annual historical flood releases from Buchanan Dam and Madera Canal along Chowchilla River, Ash Slough, and Berenda Slough within the CWD service area. Flood frequency was calculated as the proportion of years with available flood flows, which generally occur during water years characterized as wet or above normal.

Infiltration rates in CWD are assumed based on seepage analyses by CWD, and seepage rates reported by Summers (2014), Bachand et al. (2015), and Dalkhe et al. (2015). These infiltration rates may be refined through further soils and groundwater analyses as specific locations are selected for the recharge basins.

Table A4.A-1. Flood Frequency and 80-acre Recharge Basin Infiltration Assumptions.

Parameter	Value
Flood frequency (% of total years)	48.5%
Recharge basin area (acres)	80
Infiltration rate (in/day)	3
Recharge duration (days/year)	140
Total infiltration per year with flood flows (AF/year)	**2,800**
Annual expected infiltration, all years (AF/year)	**1,360**

Assumptions regarding the capital cost estimates for the 80-acre recharge basin are summarized by item in Table A4.A-2. All costs are reported in current 2019 dollars.

These cost estimates are based on actual costs reported by CWD for a recently constructed 40-acre recharge basin and typical rates for materials, construction, and related services. Notably, the capital costs include higher CWD estimated requirements for:

- Installation of a 20 cfs lift pump to the basin: $30,000 total
- Shoring, sheeting & bracing: $12,000 total
- PG&E power (bringing to the site, 1/4 mile run): $35,200 total
- Construction of a 1/4 mile gravel road to the site: $47,520 total
- Soils report and testing: $35,000 total

Assumptions for all survey, design, legal, administration, and other contingency costs include:

- Field Survey: 1.5% of construction cost
- Project Design: 7% of construction cost
- Legal: 2% of construction cost
- CEQA: 5% of construction cost
- CWD Administration: 5% of construction cost

3 ESTIMATED PROJECT COSTS

The total estimated capital costs of a single 80-acre groundwater recharge basin are summarized below in Table A4.A-2. In total, an 80-acre recharge basin is expected to cost approximately $3,060,000.

Table A4.A-2. Detailed Construction Cost Estimate.

PROBABLE CONSTRUCTION COST ESTIMATE
Chowchilla Water District
Recharge basin - 80 acre site
Civil Improvements

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
			OFF-SITE IMPROVEMENTS		
1	1	LS	Mobilization	$5,000.00	$5,000
2	1	LS	Clear & Grub	$6,000.00	$6,000
4	1	LS	Pump Structure inlet and outlet	$36,000.00	$36,000
5	125,000	CY	Earthwork	$6.50	$812,500
6	1	EA	15 cfs structure	$18,000.00	$18,000
7	1	EA	10 cfs structure	$16,000.00	$16,000
8	1	EA	5 cfs structure	$15,000.00	$15,000
9	2	EA	Monitoring well	$4,800.00	$9,600
10	1	LS	20 cfs lift pump to basin	$30,000.00	$30,000
11	7,800	LF	Chain Link Fence	$18.50	$144,300
12	1	LS	Shoring, Sheeting & Bracing	$12,000.00	$12,000
13	1	LS	PG&E Power to site 1/4 mile run	$35,200.00	$35,200
14	1	LS	1/4 mile gravel road	$47,520.00	$47,520
			SUBTOTAL COST OF IMPROVEMENTS		$1,182,120.00
			Land Purchase 80 acres @ $20,000 per acre	$1,600,000.00	$1,600,000.00
			Soils report and testing	$35,000.00	$35,000.00
			Field Survey 1.5% of construction cost		$ 17,731.80
			Project Design: 7% of construction cost		$ 82,748.40
			Legal: 2% of construction cost		$ 23,642.40
			CEQA: 5% of construction cost		$ 59,106.00
			CWD Administration: 5% of construction cost		$ 59,106.00
			Total of Improvements		$3,060,000

APPENDIX 4.B. CHOWCHILLA WATER DISTRICT GSA
Chowchilla-Merced Intertie Project Supporting Details

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

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1 PROJECT OVERVIEW

In 2000, Chowchilla Water District (CWD) conducted a preliminary investigation of the feasibility of a water transfer project with Merced Irrigation District (Merced) via the Chowchilla-Merced Intertie.[1] This project was revisited again during a preliminary reconnaissance-level feasibility assessment developed as part of San Joaquin River Restoration Program (SJRRP) planning efforts. The Chowchilla-Merced Intertie project would benefit the Chowchilla Subbasin by allowing CWD to purchase and deliver excess surface water supplies from Merced during years in which excess supplies are available.

The project would include construction of a pipeline connection between CWD and Merced and negotiation of short- and long-term transfer arrangements between CWD and water management entities in Merced.

In total, water conveyance facilities consisting of a canal, pipeline and appurtenant facilities would be constructed to convey water from Merced to CWD. CWD would then use that water within its service area in-lieu of groundwater pumping, or for recharge (basins or Flood-MAR), depending on conditions at the time water is available. The most likely option is that water would be acquired from Merced ID by short-term or long-term contract and delivered to CWD for direct irrigation use, thereby reducing groundwater demand within CWD's service area

This project would provide a benefit to the subbasin, allowing CWD to deliver additional surface water to growers to reduce groundwater pumping within the CWD service area.

2 COST ESTIMATES

Preliminary construction cost estimates for the Chowchilla-Merced Intertie project are based on the Water Transfer Feasibility Study prepared by Tolladay, Fremming and Parson for Reclamation in 2000. The analysis considered different alternatives for construction of new facilities and expansion of existing facilities. For GSP development, costs for alternative 6 from this study were considered. Indexed to 2019 dollars, the estimated construction cost is approximately $6.7 million, which would be incurred at the start of the project. It should be noted that the study completed in 2000 assumes lower land acquisition costs and does not include environmental permitting or Right-of-Way costs.

Details regarding the development of these costs are summarized below from SJRRP planning efforts in January 2014 (in 2013 dollars). Building on the preliminary reconnaissance-level feasibility assessment, CWD will perform additional studies of the project to refine costs and explore partnership opportunities during the GSP implementation period.

Operating costs of the project include costs to operate the system and move water from Merced. Weighted-average annual operations and maintenance (O&M) costs are summarized in Section 4.1.3 of the GSP.

[1] Water Transfer Feasibility Study: Merced Irrigation District to Chowchilla Water District. Prepared by Tolladay, Fremming and Parson for the U.S. Bureau of Reclamation. Summer 2000.

3 PROJECT DETAILS (SAN JOAQUIN RIVER RESTORATION PROGRAM, 2014)

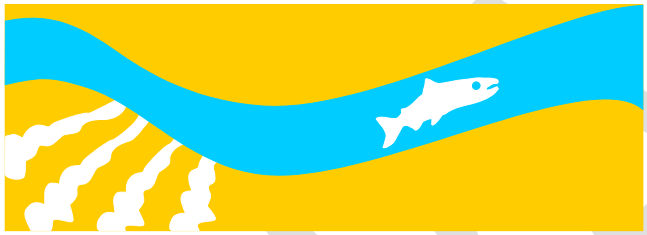
Details regarding the development of the Chowchilla-Merced Intertie project are provided below in the documentation of *Project 101: Chowchilla-Merced Intertie* from SJRRP planning efforts in January 2014. Project cost estimates are provided in 2013 dollars.

Project 101

Chowchilla-Merced Intertie

Working Administrative Draft
Water Management Goal – Investment Strategy

SAN JOAQUIN RIVER
RESTORATION PROGRAM



1.0 Project 101 Evaluation Summary

BUREAU OF RECLAMATION

SAN JOAQUIN RIVER RESTORATION PROGRAM

WATER MANAGEMENT GOAL - INVESTMENT STRATEGY

Project Evaluation Summary

ID: **101** Type: **LI**

Project Name: **Chowchilla-Merced Intertie** Proponent: **Chowchilla WD & Madera ID**

CRITERIA	METRICS	ASSESSMENT/ VALUE	SCORE	NOTES
Performance & Cost	Yield - Long-term Average (TAF/year)	6		*Refer to Yield Analysis Summary*
	Water Supply Source	Merced River Flow	MRF	
	RWA Balance Reduction Benefit (TAF/year)	6		*Assumes Yield would result in RWA Balance Reduction either directly or through exchanges*
	Duration of Benefits/ Project Useful Life	Long-Term	2	*30-year project life*
	Total Cost ($)	$ 10,000,000		*Refer to Cost Estimates Summary*
	Non-Federal Cost Share ($)			
	Overall Cost-effectiveness ($/AF) (Total Cost / Yield)	$ 121		*Annualized Total Cost / Yield, 6% discount rate over project life*
	Federal Cost of RWA Benefit ($/AF)	$ 121		*Annualized Reclamation Cost Share / RWA Credit, 6% discount rate over project life*
Implementation Factors	Environmental Compliance Requirements	Complex: Likely EIS/EIR	1	*Refer to Environmental Considerations Summary*
	Permitting Requirements	Complex: Likely Individual Permit, Formal Section 7 Consultation	1	*Refer to Environmental Considerations Summary*
	Water Rights/Contract	High: Likely New Water Right	1	*New supply for Chowchilla WD*
	Institutional Requirements	High: Partnerships Needed, Likely New Agreement	1	*Agreement with Merced ID*
	Land Acquisition	High: No Willing Seller Identified	1	*Need lands for new conveyance*
	Timeframe for Implementation	Moderate: Between 3 and 10 Years	2	
Completeness of Project Definition	Facilities & Costs	High: Plans/Studies Available	3	*Feasibility level plans*
	Yield & RWA Reduction Approach	Low: Unconfirmed Yield/Water Source and/or RWA Reduction Approach	1	*Source is confirmed only when agreement is in place with MID. Project yield and RWA reduction approach is uncertain*
	Finance	Low: Non-Federal Cost-Share is not Identified	1	
Other Related Benefits	Groundwater Overdraft Reduction	Low Potential	1	*Project delivers more surface water into an area suffering from GW over-draft*
	Hydropower	None	0	
	Flood Damage Reduction	None	0	
	Recreation	None	0	
	Ecosystem	None	0	
	Water Quality	None	0	

RELATIVE RANKING		RELATIVE SCORES		
B	Scenario 1 - Cost-Effectivenss Only	Overall Cost-Effectiveness Rank	16.5	*Relative cost-effectiveness rank compared to all other projects*
B	Scenario 2 - Cost-Effectiveness & Implementation Complexity	Overall Implementation Factors Score	0.08	*0 to 1 score - sum of six Implementation Factors scores minus six and divided by 12.*
B	Scenario 3 - Cost-Effectiveness & Completeness of Project Definition	Overall Project Definition Score	0.33	*0 to 1 score - sum of three Project Definition scores minus three and divided by six.*
B	Scenario 4 - Composite Weighted Score (for all Four Criteria)	Composite Weighted Score	1.62	*Composite weighted score for all four criteria and their specific metrics (refer to Lookup for details)*

Key:

AF = acre-feet, EA = Environmental Assessment, EIS/EIR = Environmental Impact Statement/Report, ID = Irrigation District, MND = Mitigated Negative Declaration, N/A = Not Applicable, ROW = Right of Way, RWA = Recovered Water Account, TAF = 1,000 acre-feet

Type: GW = Groundwater, LI = Local Improvement, NS = Non-Structural, RC = Regional Conveyance, RE = Recapture, RW = Recycled Water, SS = Surface Storage

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2.0 Project 101 Overview

Project Name: Chowchilla-Merced Intertie

ID: 101

Proponent:
Chowchilla Water District

Synopsis:
Construct intertie to deliver Merced River water to the Chowchilla Water District.

Description:
This project proposes improvements to existing Merced Irrigation District (MID) facilities, and construction of a new intertie to the Chowchilla Water District (CWD) distribution system. Two transfer sizes have been considered: 7,500 acre-feet per year and 15,000 acre-feet per year, both between June 1st and August 31st. Water transfers from MID to CWD would occur at a rate of 41 to 83 cfs from the Merced River into the MID Main Canal, at a point just east of the community of Snelling, CA. The MID Main Canal from the Merced River to Lake Yosemite would require minor grading, shaping and increased bank height to contain the additional water flow. From Lake Yosemite, water would flow for about 12 miles before diverted into the Planada Canal. After 3 miles in the Planada Canal the water would be lifted through new canals and pipelines and discharge into the Chowchilla River. Water would flow in the river until the CWD Main Canal Diversion and travel west in the CWD Main Canal for about 0.75 miles until being diverted south into a new canal. The new canal would be 1.75 miles in length and have siphons under both the Chowchilla River and Ash Slough. At the end of this new canal water would be diverted into either the Bethel Canal or the Ash Main Canal. In total this project would require about 6 miles of new canal, 1 mile of pipeline, 8 siphons, and 2 pumping plants.

This project allows CWD to take delivery of additional Merced River water. The proposed diversion enters CWD's system in a location that allows them to better manage flows and allows CWD to take delivery of additional Merced River water.

Category & Descriptor:
RC - Merced River to CWD

Water Source(s):
Merced River Supply

References:
U.S. Department of the Interior, Bureau of Reclamation. 2011. San Joaquin River Restoration Program Draft Program Environmental Impact Report. April.

Merced Irrigation District. 2013 Agricultural Water Management Plan. September.

Tolladay, Fremming, & Parson. 2000. Merced Irrigation District to Chowchilla Water District Water Transfer Feasibility Study. September.

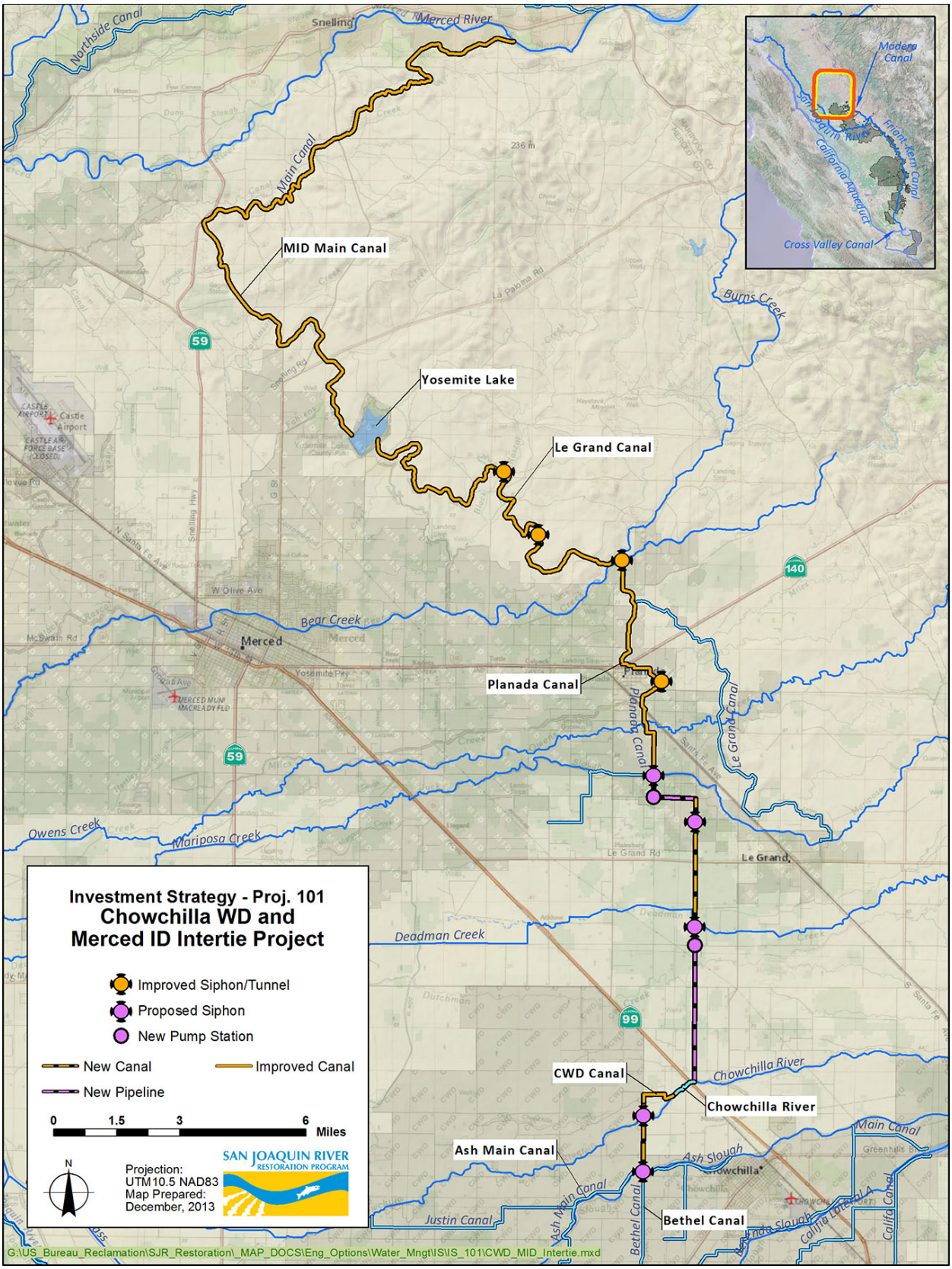

Figure 2-1.
Project Location Map

3.0 Project 101 Yield Analysis

3.1 Operational Description

This project is proposed by the Chowchilla Water District (CWD) and includes upgrades to existing conveyance facilities and construction of a new canal and siphons to annually convey 7,500 acre-feet to 15,000 acre-feet of water from the Merced Irrigation District (MID) main canal to CWD. From June 1st through August 31st, Merced River water would be conveyed through an upgraded MID main canal to Lake Yosemite, then through an upgraded Le Grand Canal, then through an upgraded Planada Canal, then through a new canal, pumping facilities, and pipelines to the Chowchilla River (Tolladay, Fremming, & Parson 2000).

3.2 Project Schematic

The following diagram depicts how Merced River water would be conveyed to CWD.

Figure 3-1.
Project Schematic

3.3 Assumptions

The following assumptions were used for this yield estimate:

- This analysis only includes an evaluation of the 7,500 acre-feet sale from MID to CWD

- MID is willing to sell 7.5 thousand acre-feet (TAF) of Merced River water to CWD each in wet, normal-wet, and normal-dry Restoration year types, split equally during June, July, and August. No sale occurs in other Restoration year types.

- The analysis period is restricted to the availability of release data from New Exchequer Dam on CDEC: 1995 through present.

3.4 Analysis Process

3.4.1 Yield

The amount of water available for irrigation purposes from June through August was determined from California Data Exchange Center (CDEC) data, available from 1995 through present. Flow requirements in the Merced River downstream from the MID main canal were subtracted from the New Exchequer Dam releases, the Crocker Agreement and the Stevinson Entitlement (Merced Irrigation District 2013). This resulted in a monthly time series of Merced River water available to MID. The quantity of Merced River flows available to MID was then compared to the flow rate required to convey 7.5 TAF to CWC from June through August. Flow rates required to deliver 7.5 TAF to CWD were determined to make up 1 to 4 percent of the Merced River water available to MID.

Since the sale of 7.5 TAF of Merced River water to CWD makes up a small percentage of total Merced River water available to MID, it was assumed that in wet, normal-wet, and normal-dry Restoration year types, MID would be willing to sell 7.5 TAF to CWD. This yield was then averaged with zero yield assumed in dry, critical high, and critical low Restoration years, to determine an annual average project yield of 6 TAF.

The certainty of the yield estimate is assumed to be low. It is unclear how much Merced River water CWD would have access to, since CWD and MID have not discussed potential terms of a transfer or sale agreement.

3.4.2 RWA Balance Reduction

CWD currently has a long-term average RWA credit of 19 TAF. Since this project directly increases delivery to CWD through a sale and not an exchange, it is expected that the entire project yield of 6 TAF a RWA reduction. The RWA balance reduction certainty is high.

3.5 Results Summary

Table 3-1 displays the long-term average annual results from the yield analysis.

Table 3-1.
Results Summary for Yield Analysis

Result	TAF/year
Annual Average Yield	6
Annual RWA Credit	18.8
Annual RWA Balance Reduction	6

Key:
RWA = Recovered Water Account
TAF = thousand acre-feet

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4.0 Project 101 Cost Estimates Summary

BUREAU OF RECLAMATION

FEATURE: Construct Siphons; Canal Improvements; New Canal; New Pipeline	**PROJECT:** Chowchilla-Merced Intertie Canal Preferred Alternative
	ESTIMATE LEVEL: Pre-Appraisal
	PRICE LEVEL: Dec-2013
Level of Confidence: **High: Plans/Studies Available**	ID-101

	PAY ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Merced ID System					
	1	Siphon - Main Canal		1	EA	$ 125,000.00	$ 125,000.00
	2	Siphon - Flume #2		1	EA	$ 230,000.00	$ 230,000.00
	3	Minor Reshaping - Le Grande Canal		12	MI	$12,650	$ 151,800.00
	4	Siphon - Bear Creek		1	EA	$ 75,000.00	$ 75,000.00
	5	Enlargement - Planada Canal		5	MI	$ 32,850.00	$ 164,250.00
	6	Siphon - Owen's Creek		1	EA	$75,000	$ 75,000.00
	7	Crossing - Santa Fe Railroad		1	EA	$50,000	$ 50,000.00
	8	Siphon - Mariposa Creek		1	EA	$75,000	$ 75,000.00
	9	New Canal		1	MI	$42,240	$ 42,240.00
	10	Pumping Plant		1	LS	$250,000	$ 250,000.00
	11	60" RCP		5,280	LF	$380	$ 2,006,400.00
	12	New Canal		3.5	MI	$42,240	$ 147,840.00
		Merced ID System					
	13	New Canal		3.25	MI	$65,706	$ 213,544.50
	14	Siphon - small creek		1	EA	$50,000	$ 50,000.00
	15	Spill Structure - Chowchilla River		1	EA	$35,000	$ 35,000.00
		Chowchilla WD System					
	16	Control Structure		1	EA	$35,000	$ 35,000.00
	17	Siphon - river		1	EA	$125,000	$ 125,000.00
	18	New Canal		1.75	MI	$65,706	$ 114,985.50
	19	Siphon - creek		1	EA	$50,000	$ 50,000.00
	20	Control Structure		1	EA	$35,000	$ 35,000.00
		Subtotal					$ 4,051,060.00
		Price Escalation (Sep/2000 to Dec/2007)		30%	pct		$ 5,266,378.00

	PAY ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT PRICE	AMOUNT
	21	Mobilization		5%	LS	Lump Sum	$ 465,871.90
	22	Unlisted Items		15%	pct	Lump Sum	$ 789,956.70
		Contract Cost					$ 6,522,206.60
		Contingencies		30%	pct		$ 1,956,661.98
		Field Cost					$ 8,478,868.58
		Non-Contract Costs		25%	pct		$ 2,119,717.15
		Dec-2007 Project Cost					$ 10,598,585.73
		Dec-2013 Project Cost *Project Cost Escalated to Dec-2013 price levels using CALTRANS Construction Price Index*					$ 10,000,000.00

BY	CHECKED
Evan Perez	Checker's name here

References:

1) Tolladay, Fremming, and Parsons Water Transfer Feasibility Study: Merced Irrigation District to Chowchilla Water District, 2000

Disclaimer:

The estimates of construction costs shown, and any resulting conclusions on the project's financial requirements, economic feasibility, or funding requirements, have been prepared from the best information available at the time the estimates were performed. Additional engineering and feasibility studies would refine project information, and final project costs and resulting feasibility would depend on actual labor and material costs, competitive market conditions, and other variable factors. Accordingly, the final project cost would vary from the estimates herein. Therefore, project feasibility, benefit/cost analysis, risk, and funding would need to be carefully reviewed before making specific funding decisions and/or establishing the project budget.

5.0 Project 101 Environmental Considerations Summary

Environmental Compliance Requirements	Complex: Likely EIS/EIR
Permitting Requirements	Complex: Likely Individual or Regional Section 404 Permit, Formal Section 7 Consultation

Consideration	Yes	No	Maybe	Notes
Affect a scenic vista or scenic resources?		X		
Convert Prime Farmland, unique Farmland, Farmland of Statewide Significance; or affect Williamson Contracts?	X			Multiple sensitive soil types in project area
Violate air quality standards (large construction project vs. modification to an existing structure)?			X	Depends on size and duration of construction elements, large linear project area and new canals are proposed.
Affect endangered/threatened species, critical habitat, or other biological resources? If yes, proceed to permitting.	X			Several species/habitat are contiguous with project area. Construction of crossings at Bear and Owens Creeks and Chowchilla River could cause habitat loss in the channels and riparian areas. If additional water is to be taken from the Merced River, it could affect the water quality, fisheries, and temperature in the Merced River.
Affect historical/cultural resources? If yes, proceed to permitting:			X	Specialist or field surveys would be needed to verify.
Located on a known earthquake zone?			X	
Result in substantial soil erosion or loss of topsoil?		X		Most of project is tunnel or narrow canal construction.
Violate or degrade water quality standards?	X			During construction; multiple new siphons and and improvements to existing canals would occur. Construction of facilities may create dust or introduce additional sediment to rivers.
Substantially deplete groundwater supplies?		X		
Alter drainage patterns of site?	X			
Placement of a structure in 100-year flood hazard area?	X			
Located within residential homes (e.g. will these homes be affected by construction noise)?		X		
Affect recreational facilities?		X		
Result in a change of traffic patterns?		X		Possibly during construction.

Consideration	Yes	No	Maybe	Notes
Require work in a river, stream, or reservoir? If yes, proceed to permitting section below	X			Are canals jurisdictional? Multiple new siphons and and improvements to existing canals would occur. Existing facilities need to be kept in operation during construction, which may require some facilities to be constructed during winter months when less water is required for irrigation demands.
USFWS/NMFS Section 7 Consultation required? Formal or Informal			X	Field surveys/detailed analysis needed for formal vs. informal consultation.
USACE Section 404 Clean Water Act permit required?	X			Six miles of new canal, 1 mile of pipeline, 8 siphons, and 2 pumping plants will most likely require a CWA Section 404 Individual or Regional Permit.
USACE Section 10 Rivers and Harbors Act permit required?		X		
USACE Section 408 permission required?		X		
NHPA Section 106 Consultation required?	X			
CA RWQCB Section 402 permit required?			X	
CA DFW Incidental Take Permit required?			X	If State listed species found.
CA DFW Section 1600 permit required?	X			
CA RWQCB Section 401 Water Quality Certification Required?	X			
CVFPB levee/floodway encroachment permit required?		X		
Caltrans/local encroachments?			X	Possibly during construction.
New water right required?			X	It is using recaptured water.
Require a Change of Place of Use?			X	Water would be moved from one ID system to another for use. The intertie canal is not expected to affect the hydraulic capacity of the CWD structures, but the increased through-flow may require operation of some facilities to change. Water from the Merced River can only be used for meeting the water management goal and cannot be diverted to the San Joaquin River.
Require a Change of Point of Diversion?	X			New diversions are proposed for this project.

Key:

CA DFW = California Department of Fish and Wildlife; CA RWQCB = California Regional Water Quality Control Board; CVFPB = Central Valley Flood Protection Board; EA = Environmental Assessmnet; EIS/EIR = Environmental Impact Statement/Report; MND =Mitigated Negative Declaration; ND= Negative Declaration; NHPA = National Histroic Preservation Act; NMFS = National Marine Fisheries Service; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service

Sources:

U.S. Department of the Interior, Bureau of Reclamation. 2011. San Joaquin River Restoration Program Draft Program Environmental Impact Report. April.

APPENDIX 4.C. CHOWCHILLA WATER DISTRICT GSA

Madera Canal Capacity Increase Project Supporting Details

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

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1 PROJECT OVERVIEW

As part of the San Joaquin River Restoration Program (SJRRP), Reclamation, working with CWD, has investigated the feasibility of increasing the capacity of the Madera Canal[1]. The purpose of the project is to increase the hydraulic capacity of the canal and improve the reliability of Friant water supplies delivered to CWD and Madera Irrigation District. Concurrent to this project, CWD would undertake efforts to improve operational flexibility in its system to better utilize additional supply delivered through the Madera Canal.

In total, the Madera Canal is 36 miles long, of which the first 7 miles are concrete lined and the remaining 29 miles are earth lined. The capacity at the head of the canal is 1,275 cfs and the capacity at the end is 600 cfs. The capacity of the first three siphons are 1,500 cfs, while the remaining siphons and drop structures have capacities gradually declining to 935 cfs. This project would increase the capacity at the head of the canal to 1,500 cfs, with capacities gradually declining to 750 cfs at the end.

This project would provide a benefit to the subbasin, allowing CWD to deliver additional surface water to growers to reduce groundwater pumping within the CWD service area.

The assumptions used in development of design requirements and preliminary capital cost estimates for the Madera Canal capacity increase project are summarized below.

2 ASSUMPTIONS AND METHODOLOGY

The data sources and assumptions used in developing the Madera Canal capacity increase project design requirements and cost estimates are summarized in Table A4.C-1.

The original design canal capacity, the 1985 canal capacity (following a reevaluation of capacity in 1985), and design structure capacity (the proposed project capacity) were used to develop three flow scenarios from which to evaluate normal flow depth in the Madera Canal. Table A4.C-2 provides a summary of the capacity under each scenario for seven sections of the canal between the canal heading and the canal end.

Normal flow depth in the Madera Canal was calculated under each flow scenario using Manning's equation for uniform flow and canal characteristics provided by the Madera Canal Profile and Section Drawings Sheets and cross section survey data collected by CWD staff, as indicated in Table A4.C-1. A Manning's roughness factor of 0.0167 was used to characterize the concrete-lined section of Madera Canal, and a factor of 0.025 was used for the earth lined section.

The existing lining freeboard and existing embankment freeboard were evaluated relative to the USBR design freeboard recommendations for concrete lining and embankment, respectively, as calculated based on the anticipated flow in Madera Canal under the design structure capacity flow scenario. These comparisons were used to compute which sections of the canal would require raised lining and/or raised embankment, and the total increase needed in each.

[1] Madera Canal Capacity Restoration Feasibility Study. Final Feasibility Report. San Joaquin River Restoration Program. September 2016. U.S. Bureau of Reclamation.

Table A4.C-1. Data Sources and Assumptions Used in Developing Madera Canal Capacity Increase Project Requirements and Cost Estimates.

Parameter	Data Source or Assumption
Capacity	
Design Canal Capacity, CFS	Doug Welch, Chowchilla Water District
1985 Canal Capacity, CFS	Doug Welch, Chowchilla Water District
Design Structure Capacity, CFS	Doug Welch, Chowchilla Water District
Canal Characteristics	
Canal Type	CWD cross section survey data and Madera Canal Profile and Section Drawings Sheets 214-D-10395 - 214-D-10397, 214-D-3563,214-D-9926, and 214-D-9927
Canal Depth to Top of Lining	CWD cross section survey data and Madera Canal Profile and Section Drawings Sheets 214-D-10395 - 214-D-10397, 214-D-3563,214-D-9926, and 214-D-9928
Canal Depth to Top of Bank	CWD cross section survey data and Madera Canal Profile and Section Drawings Sheets 214-D-10395 - 214-D-10397, 214-D-3563,214-D-9926, and 214-D-9929
Bottom width, ft	CWD cross section survey data and Madera Canal Profile and Section Drawings Sheets 214-D-10395 - 214-D-10397, 214-D-3563,214-D-9926, and 214-D-9930
Side Slope, Run Length	CWD cross section survey data and Madera Canal Profile and Section Drawings Sheets 214-D-10395 - 214-D-10397, 214-D-3563,214-D-9926, and 214-D-9931
Canal Gradient, ft/ft	Madera Canal Profile and Section Drawings Sheets 214-D-10395 - 214-D-10397, 214-D-3563,214-D-9926, and 214-D-9932
Manning's Roughness Factor	Adjusted USBR design values based upon information from Doug Welch as inferred from recent stream gaging data in the Madera Canal.
Structure and Bridge Characteristics	
Canal Structures, type and location (stationing)	"Madera Canal Structures List" dated 7/18/2006. Received from Doug Welch, Chowchilla Water District
Bridge types	"Madera Canal Structures List" dated 7/18/2006. Received from Doug Welch, Chowchilla Water District
Bridge locations (stationing)	"Madera Canal Structures List" dated 7/18/2006. Received from Doug Welch, Chowchilla Water District
Bridge Stringer Clearance, feet above inv.	Madera Canal Design Drawings 214-D-3566, 214-D-3566, 214-D-3569, 214-D-3580, 214-D-3582, 214-D-9132, 214-D-9929, 214-D-10399, 214-D-10406, 214-D-10409, 214-D-10421
General Hydraulic Characteristics	
Normal Flow Depth, ft	Manning's Equation for uniform flow
Flow Area, ft	(b+zy)*y
Wetted Perimeter, ft	b+2y*sqrt(1+z^2)
Velocity, fps	Q/A
Hydraulic Radius, ft	A/Wp
Freeboard - Concrete Lining	Jeremy Lorberau (UBSR CE) via Doug Welch
Freeboard - Embankment	Jeremy Lorberau (UBSR CE) via Doug Welch
Embankment Import Fill Required per LF, CY	=0.25x+32.125, where "x" is the raised height required. Relationship between raised height and volume required was derived based upon cross-section mock-ups at varying levels of embankment raise
Bulk Earth Shrinkage Factor	1.3
Concrete Overage Factor	1.15

Table A4.C-2. Madera Canal Capacity by Section and Flow Scenario.

Section	Upstream Location	Downstream Location	Up-stream Mile	Down-stream Mile	Flow Scenario		
					Design Canal Capacity, CFS	1985 Canal Capacity, CFS	Design Structure Capacity, CFS
1	Heading	6.2 Canal	0	6.2	1,000	1,275	1,500
2	6.2 Canal	Site 980	6.2	17.7	825	1,075	1,237
3	Site 980	Fresno River	17.7	18.8	825	1,075	1,237
4	Fresno River	Equalization Reservoir	18.8	21.7	801	1,075	1,200
5	Equalization Reservoir	Dry Creek	21.7	24.1	799	1,000	1,200
6	Dry Creek	32.2 Canal	24.1	32.2	625	750	937
7	32.2 Canal	End Canal	32.2	35.9	625	750	750

Bridge replacement requirements following increase in the capacity of Madera Canal were evaluated by comparing the stringer clearance of each bridge to the calculated hydraulic grade line (HGL) depth at the bridge's station under the design structure capacity flow scenario. The difference between these values was compared to the target bridge freeboard, per USBR guidance, to identify:

1. Bridges that would require replacement following the capacity increase (HGL greater than the stringer clearance).
2. Bridges that are low priority for replacement (HGL below the stringer clearance, but not providing the target bridge freeboard).
3. Bridges not requiring replacement (HGL below the stringer clearance, and providing the target bridge freeboard).

Replacement requirements for other miscellaneous canal structures were similarly evaluated. The assumed invert elevation of each structure was compared to the calculated HGL at the structure's station under the design structure capacity flow scenario. The difference between these values was compared to the target bridge freeboard, per USBR guidance, to identify:

1. Structures that would require replacement following the capacity increase (HGL greater than the assumed invert elevation).
2. Structures that are low priority for replacement (HGL below the assumed invert elevation, but not providing the target bridge freeboard).
3. Structures not requiring replacement (HGL below the assumed invert elevation, and providing the target bridge freeboard).

Costs were calculated based on the total increase in lining height, increase in embankment height, replacement of bridges, and replacement of structures required along the Madera Canal, per the analyses described above. Unit costs and extended costs for each of these elements is described in Table A4.C-3 below.

3 RESULTS

In total, the estimated preliminary cost of the Madera Canal capacity increase project is $61,200,000 in 2019 dollars. Detailed costs are provided below in Table A4.C-3.

These costs include:

1. General site work and temporary land acquisition
2. Earthwork to raise canal embankments
3. Expansion of Shotcrete canal lining by approximately 395,000 square feet
4. Bridge replacements:
    a. Three (3) farm bridges, type 1 (490 square feet)
    b. Five (5) farm bridges, type 2 (1,100 square feet)
    c. Two (2) farm bridges, type 3 (1,020 square feet)
    d. One (1) highway bridge (3,000 square feet)
    e. Six (6) county road bridges (1,500 square feet)
5. Canal structure replacements:
    a. Modify 18 drop inlet structures
    b. Install 44 new inlet culverts
    c. Lengthen 20 box culverts (8 ft each side)
    d. Replace 4 concrete overchutes
6. Mobilization, construction, professional services, permitting and compliance, and contingency costs

Table A4.C-3. Madera Canal Capacity Increase Project Cost Details.

See attached document.

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST
Estimate Level: PRELIMINARY

Status: Draft
Price Year: 2019
Project: Madera Canal Capacity Expansion
Task: 1165.06, Task 12
Date: 5/22/2019
Estimator: TJO

Item no.	Item Description	QTY	UNIT	Unit Cost	Extended Cost	Notes
1	**Site Work**					
a	Clearing and Grubbing	100	AC	$ 5,500	$ 550,000	Remove existing vegetation on canal slopes and embankment
b	Asphalt Milling, off-haul, and stockpile	1,780,000	SF	$ 1	$ 1,780,000	Grind or mill exisitng AC/Chipseal O&M road
c	Equipment Removal and Salvage	1	LS	$ 25,000	$ 25,000	Ladders, signage, gates, etc. identified for salvage
d	Establish Staging Areas, Access, and Misc. Facilities	2	EA	$ 25,000	$ 60,062	Assume one (1) staging area every 10 miles
				Subtotal =	$ 2,415,062	
2	**Earthwork**					
a	Import fill material, offsite borrow	95,727	TON	$ 17	$ 1,627,364	Assumes ~5 mile one-way haul
b	Excavation, bench cuts	40,000	CY	$ 8	$ 320,000	Bench cuts for level fill
c	Place fill and compact, trim slopes	95,727	CY	$ 9	$ 861,545	Assume mechanical compaction
d	Finish grade and roll	1,780,000	SF	$ 0.50	$ 890,000	
				Subtotal =	$ 3,698,909	
3	**Concrete Lining**					
a	Clean and prep existing lining connection. Remove existing 12" extension	78,000	LF	$ 35	$ 2,730,000	Sawcut existing lining raise and remove
b	Subgrade preparation	395,000	SF	$ 2.5	$ 987,500	
c	Shotcrete canal lining (Form, place, finish)	395,000	SF	$ 25	$ 9,677,500	Assumes 3" thickness
d	Final backfill	78,000	LF	$ 10	$ 780,000	
				Subtotal =	$ 14,175,000	
4	**Bridge Work**					
	FARM BRIDGES Type 1 - 490 Sq. Ft					
a	Demo and remove	3	EA	$ 10,000	$ 30,000	
b	Construct bridge (PC/PS Slab)	3	EA	$ 147,000	$ 441,000	Precast and prestressed slabs
c	Misc. (Guard rails, road transitions, signage)	3	EA	$ 36,750	$ 110,250	
	FARM BRIDGES Type 2 - 1100 Sq. Ft					
d	Demo and remove	5	EA	$ 25,000	$ 125,000	
e	Construct bridge (PC/PS Slab)	5	EA	$ 330,000	$ 1,650,000	Precast and prestressed slabs
f	Misc. (Guard rails, road transitions, signage)	5	EA	$ 82,500	$ 412,500	
	FARM BRIDGES Type 3 - 1020 Sq. Ft					
e	Demo and remove	2	EA	$ 25,000	$ 50,000	
g	Construct bridge (PC/PS Slab)	2	EA	$ 306,000	$ 612,000	Precast and prestressed slabs
h	Misc. (Guard rails, road transitions, signage)	2	EA	$ 76,500	$ 153,000	
	HIGHWAY BRIDGES - 3000 Sq. Ft.					
i	Demo and remove	1	EA	$ 75,000	$ 75,000	
j	Construct bridge (RC T-Beam Girder)	1	EA	$ 825,000	$ 825,000	Reinforced concrete T-beam girder bridge (cast-in-place)
k	Misc. (Guard rails, road transitions, signage)	1	EA	$ 412,500	$ 412,500	
	COUNTY ROAD BRIDGES - 1500 Sq. Ft.					
l	Demo and remove	6	EA	$ 55,000	$ 330,000	
m	Construct bridge (RC T-Beam Girder)	6	EA	$ 450,000	$ 2,700,000	Reinforced concrete T-beam girder bridge (cast-in-place)
o	Misc. (Guard rails, road transitions, signage)	6	EA	$ 112,500	$ 675,000	
				Subtotal =	$ 8,601,250	
5	**Canal Road**					
a	Import aggregate base, offsite borrow	1,780,000	SF	$ 0.75	$ 1,335,000	Recycle ground/crushed AC from existing road
b	Prep subgrade and pave with 3" asphalt concrete	32,000	TON	$ 125	$ 4,000,000	12' wide x 3" thick AC
c	Access Gates, Signage, and Safety Fencing	1	LS	$ 250,000	$ 250,000	
				Subtotal =	$ 5,585,000	
6	**Canal Structures**					
a	Modify drop inlet structures	18	EA	$ 20,000	$ 360,000	Inlet concrete box
b	Install new inlet culverts	44	EA	$ 5,000	$ 220,000	Inlet drain pipes (typically CMP)
c	Lengthen Box culverts (8ft each side)	20	EA	$ 10,000	$ 200,000	Assume reuse existing flared inlets/outlets
d	Replace Concrete Overchutes	4	EA	$ 75,000	$ 300,000	Assume precast structures
				Subtotal =	$ 1,080,000	
7	**Land Acquisition**					
a	Borrow area	10	AC	$ 25,000	$ 250,000	Assumes a 5ft depth of cut to produce required fill material.
				Subtotal =	$ 250,000	
				Subtotal of Pay Items=	**$ 35,810,000**	
	Mobilization/Demobilization			5%	$ 1,790,500	
	Design Contingency/Minor Item Allowance			25%	$ 8,952,500	
	Contractor Profit/Markup			10%	$ 3,581,000	
				Contract Cost =	**$ 50,100,000**	**Rounded**
	Construction Contingencies			10%	$ 5,010,000	
				Field Cost =	$ 55,100,000	**Rounded**
	Construction Management/Support					
	Construction Management/Support			3.0%	$ 1,653,000	
				Construction Cost =	$ 56,800,000	**Rounded**
	Professional Service Costs					
	Project Planning			1.0%	$ 551,000	
	Project Engineering					
	Geotechnical			0.5%	$ 275,500	
	Surveying			1.0%	$ 551,000	
	30-100% Design and Technical Specifications			5.0%	$ 2,755,000	
				Subtotal (Planning and Engineering)=	$ 4,132,500	
	Permitting and Compliance					
	Environmental Permitting			1.50%	$ 826,500	
				Subtotal (Environmental Compliance and Permitting)=	$ -	
	Bidding and Contracting			0.5%	$ 275,500	
				Project Cost =	**$ 61,200,000**	**Rounded**
	Escalation	0	years	5.0%	$ -	No basis for determining escalation period
				Project Cost in 2019 Dollars =	**$ 61,200,000**	**Rounded**

DISCLAIMER Davids Engineering has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or any other factors likely to affect this estimate of probable project cost. All these factors are unavoidably dynamic due to Acts of God and other market events beyond the control of DE. This estimate is a "snapshot in time" and the reliability of the estimate will degrade over time. DE cannot and does not make any warranty, promise, guarantee or representation, either express or implied, that proposals, bids, construction costs, or costs of O&M functions will not vary from this estimate.

APPENDIX 4.D. CHOWCHILLA WATER DISTRICT GSA
Buchanan Dam Capacity Increase Project Supporting Details

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

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1 PROJECT OVERVIEW

As part of the San Joaquin River Restoration Program (SJRRP), Reclamation, working with CWD, investigated the feasibility of expanding Eastman Lake by approximately 50 thousand acre-feet (TAF).[1]

The U.S. Army Corps of Engineers (USACE) owns and operates Buchanan Dam and Eastman Lake on the Chowchilla River as part of the Central Valley Project (CVP). Eastman Lake currently has a gross capacity of 150 TAF and is operated with a 45 TAF flood management reservation. CWD has a long-term contract with Reclamation for 24 TAF of CVP supplies per year from Eastman Lake. In wet years storage in Eastman Lake is carried over to subsequent drier years. In wet years, inflows that would encroach into the flood reservation space are evacuated as flood flows.

Under this project, CWD would enlarge the current 150 TAF capacity of Eastman Lake by 50 TAF to 200 TAF. The reconnaissance-level feasibility assessment conducted in 2014 estimated that the existing dam and spillway crest would be raised in place by 24 feet, and a 700-foot saddle dam would be constructed to the east of the spillway. The increase in capacity would allow USACE to maintain the flood reserve and store additional runoff for delivery to CWD.

The added capacity would allow additional deliveries to CWD and growers, helping to reduce groundwater pumping within the CWD service area. However, the additional deliveries would partially offset the availability of flood flows which are used for groundwater recharge benefits under other CWD projects (recharge basins and Flood-MAR). CWD will assess these tradeoffs under future project planning efforts.

2 COST ESTIMATES

Preliminary construction costs for the Buchanan Dam Capacity Increase project are based on the pre-appraisal level cost estimate developed by Reclamation as part of SJRRP planning efforts in January 2014. Details regarding the development of these costs are summarized below in 2013 dollars. Indexed to 2019 dollars, the estimated construction cost is approximately $49.6 million, which would be incurred at the start of the project.

The estimated average annual operations and maintenance (O&M) costs are summarized in Section 4.1.5 of the GSP and total approximately $220,000. Actual O&M costs will be assessed by CWD as the project is developed.

3 PROJECT DETAILS (SAN JOAQUIN RIVER RESTORATION PROGRAM, 2014)

Details regarding the development of the Buchanan Dam Capacity Increase project are provided below in the documentation of *Project 105: Eastman Lake Enlargement* from SJRRP planning efforts in January 2014. Project cost estimates are provided in 2013 dollars.

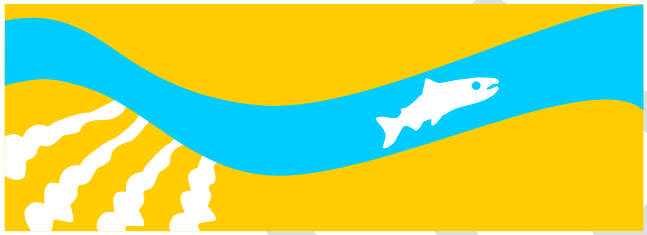
[1] Eastman Lake Enlargement. Working Administrative Draft. Water Management Goal – Investment Strategy. San Joaquin River Restoration Program. January 2014. U.S. Bureau of Reclamation.

Project 105

Eastman Lake Enlargement

Working Administrative Draft
Water Management Goal – Investment Strategy

SAN JOAQUIN RIVER
RESTORATION PROGRAM



1.0 Project 105 Evaluation Summary

BUREAU OF RECLAMATION

SAN JOAQUIN RIVER RESTORATION PROGRAM

WATER MANAGEMENT GOAL - INVESTMENT STRATEGY

Project Evaluation Summary

ID: **105** Type: **SS**

Project Name: **Eastman Lake Enlargement** Proponent: **Chowchilla WD**

CRITERIA	METRICS	ASSESSMENT/ VALUE	SCORE	NOTES
Performance & Cost	Yield - Long-term Average (TAF/year)	22		*Refer to Yield Analysis Summary*
	Water Supply Source	Other	Oth	*Surplus Chowchilla River Flows*
	RWA Balance Reduction Benefit (TAF/year)	22		*Assumes Yield would result in RWA Balance Reduction either directly or through exchanges*
	Duration of Benefits/ Project Useful Life	Long-Term	2	*30-year project life*
	Total Cost ($)	$ 45,000,000		*Refer to Cost Estimates Summary*
	Non-Federal Cost Share ($)	$ -		
	Overall Cost-effectiveness ($/AF) (Total Cost / Yield)	$ 149		*Annualized Total Cost/ Yield, 6% discount rate over project life*
	Federal Cost of RWA Benefit ($/AF)	$ 149		*Annualized Reclamation Cost Share / RWA Credit, 6% discount rate over project life*
Implementation Factors	Environmental Compliance Requirements	Complex: Likely EIS/EIR	1	*Refer to Environmental Considerations Summary*
	Permitting Requirements	Complex: Likely Individual Permit, Formal Section 7 Consultation	1	*Refer to Environmental Considerations Summary*
	Water Rights/Contract	Low: Likely No Change	3	*Uses existing water right*
	Institutional Requirements	Moderate: Partnerships Needed, Likely Similar to Existing Arrangement	2	*Partnership with U.S. Army Corps of Engineers (USACE) for reservoir operations*
	Land Acquisition	High: No Willing Seller Identified	1	
	Timeframe for Implementation	Long: Greater Than 10 Years	1	
Completeness of Project Definition	Facilities & Costs	Moderate: Cost Information, No Engineering Details	2	
	Yield & RWA Reduction Approach	High: Confirmed Yield/Water Source and RWA Reduction Approach	3	*Well defined project. Straight-forward RWA reduction approach. Yield is uncertain.*
	Finance	Low: Non-Federal Cost-Share is not Identified	1	
Other Related Benefits	Groundwater Overdraft Reduction	Low Potential	1	*Conjunctive use district. Method for reducing GW over-draft is not defined*
	Hydropower	None	0	
	Flood Damage Reduction	Low Potential	1	*Reduces flood flows in the Chowchilla River and Ash Slough*
	Recreation	High Potential	3	*Increased res surface area and enhanced recreational benefits*
	Ecosystem	Low Potential	1	*It is unknown how the benefits may compare to impacts*
	Water Quality	Low Potential	1	*It is unknown how the benefits may compare to impacts*

RELATIVE RANKING		RELATIVE SCORES		
B	Scenario 1 - Cost-Effectivenss Only	Overall Cost-Effectiveness Rank	22.0	*Relative cost-effectiveness rank compared to all other projects*
B	Scenario 2 - Cost-Effectiveness & Implementation Complexity	Overall Implementation Factors Score	0.25	*0 to 1 score - sum of six Implementation Factors scores minus six and divided by 12.*
A	Scenario 3 - Cost-Effectiveness & Completeness of Project Definition	Overall Project Definition Score	0.50	*0 to 1 score - sum of three Project Definition scores minus three and divided by six.*
B	Scenario 4 - Composite Weighted Score (for all Four Criteria)	Composite Weighted Score	1.88	*Composite weighted score for all four criteria and their specific metrics (refer to Lookup for details)*

Key:

AF = acre-feet, EA = Environmental Assessment, EIS/EIR = Environmental Impact Statement/Report, ID = Irrigation District, MND = Mitigated Negative Declaration, N/A = Not Applicable, ROW = Right of Way, RWA = Recovered Water Account, TAF = 1,000 acre-feet

Type: GW = Groundwater, LI = Local Improvement, NS = Non-Structural, RC = Regional Conveyance, RE = Recapture, RW = Recycled Water, SS = Surface Storage

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2.0 Project 105 Overview

Project Name:
Eastman Lake Enlargement

ID:
105

Proponent:
Chowchilla Water District

Synopsis:
Enlarge Eastman Lake to develop additional water supply from the Chowchilla River.

Description:
The U.S. Army Corps of Engineers (USACE) owns and operates Buchanan Dam and Eastman Lake on the Chowchilla River as part of the Central Valley Project. The 206-foot-high and 1,800-foot-long rockfill dam, with a gross pool of 150 thousand acre-feet (TAF), is operated with a 45 TAF flood management reservation (Reclamation and DWR 2005). Chowchilla Water District (WD) has a long-term contract with Reclamation for 24 TAF of Central Valley Project supplies per year from Eastman Lake (Reclamation 2001). Chowchilla WD also has appropriative water rights to divert water from the Chowchilla River. These water rights are senior to Reclamation's appropriative water rights issued for storage of water in Buchanan Dam. Eastman Lake fills during wetter years, and that storage is delivered during subsequent drier years. During periods of heavy runoff, the remaining inflows to Eastman Lake are evacuated as flood flows (CWD 2013).

This project proposes to enlarge the capacity of Eastman Lake by 50 TAF to 200 TAF. The existing dam and spillway crest would be raised in place by 24 feet and a 700 foot saddle dam would be constructed to the east of the spillway. The increase in capacity would allow USACE to store additional flood waters from the Chowchilla River for delivery to Chowchilla WD.

This project benefits Chowchilla WD by delaying the delivery of Chowchilla River supplies that would normally have to be evacuated from the reservoir due to storage limitations and flood control criteria.

Category & Descriptor:
SS - Reservoir enlargement

Water Source(s):
Surplus San Joaquin River Flows

References:

Chowchilla Water District (CWD). 2013. Water Resources. Website. Available at:< http://www.cwdwater.com/index.php/about-cwd-2/water-resources. Accessed November 12, 2013.

Reclamation and DWR. 2005. Upper San Joaquin River Basin Storage Investigation Initial Alternatives Report: Flood Damage Reduction Technical Appendix. June.

California State Water Resources Control Board (SWRCB). 1965. Decision 1365: Decision Approving Application 18714 In Part And Denying Application 18732.

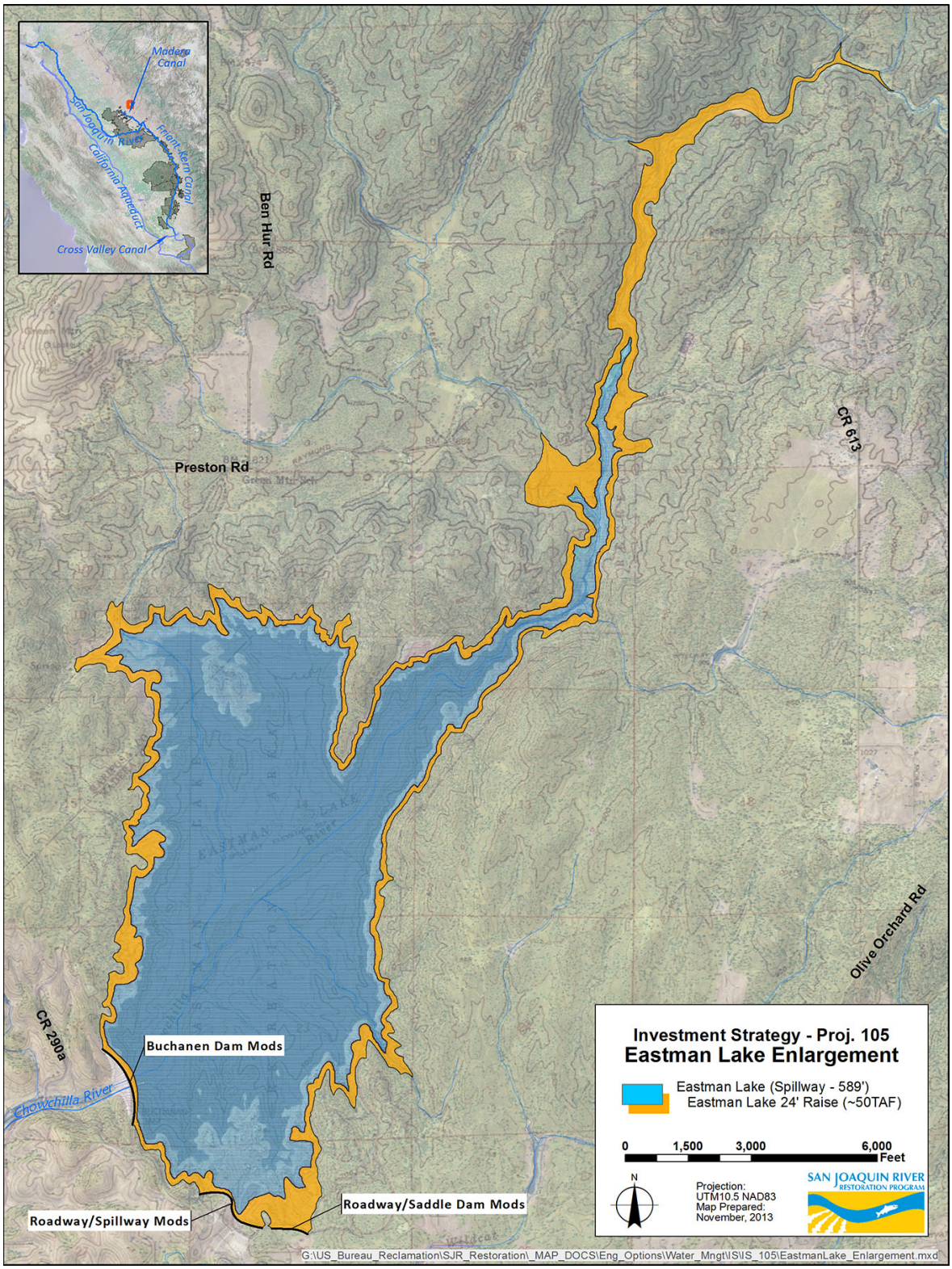

Figure 2-1.
Project Location Map

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3.0 Project 105 Yield Analysis

3.1 Operational Description

The project would raise Buchanan Dam on the Chowchilla River to increase storage capacity in Eastman Lake by 50 TAF. Chowchilla Water District (CWD) has a long-term contract with Reclamation for 24,000 acre-feet of CVP supplies per year from Eastman Lake, and takes deliveries from Buchanan via the Chowchilla River.

3.2 Project Schematic

The following diagram shows how Buchanan Dam and associated facilities would be modified, and how stored Chowchilla River flows would be released downstream for the yield assessment.

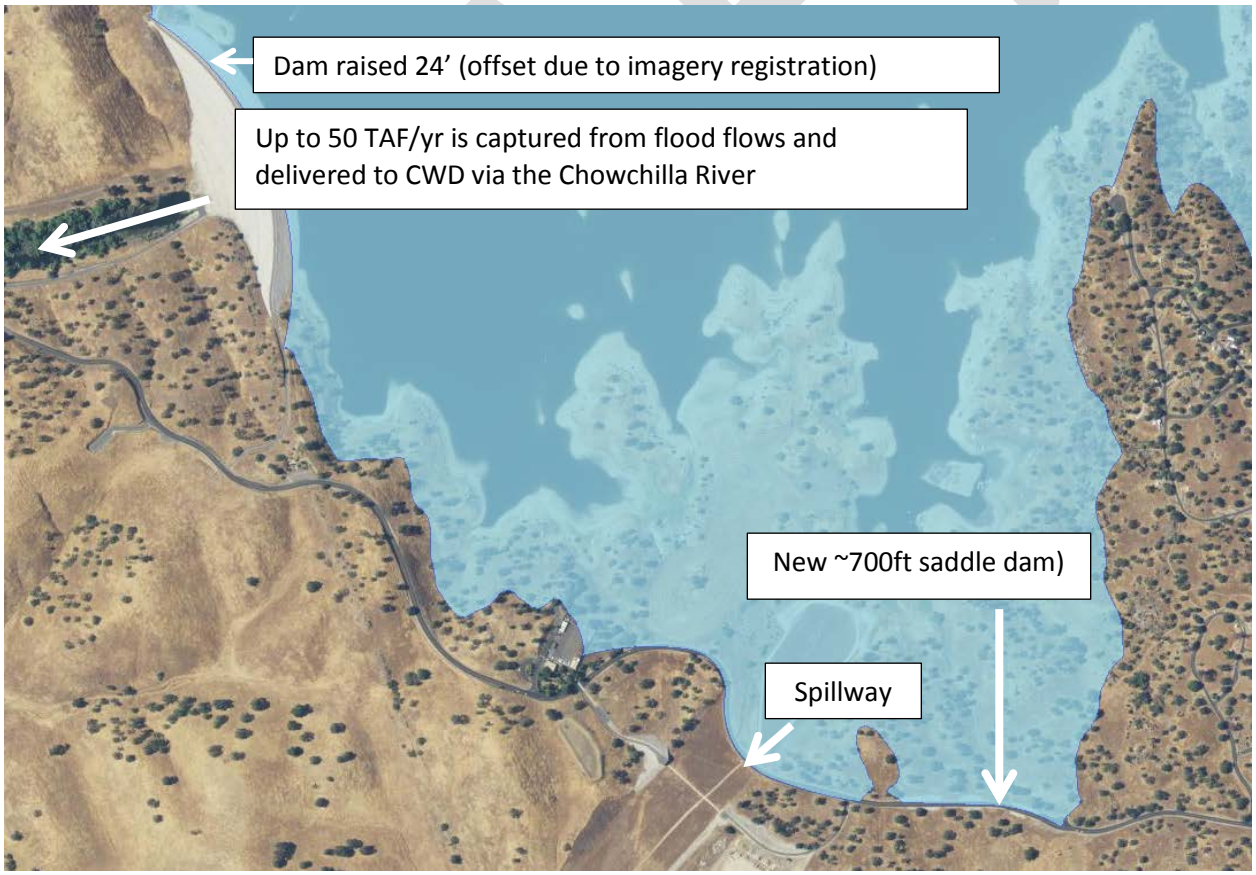

Figure 3-1.
Project Schematic

3.3 Assumptions

The following assumptions were used for this yield estimate:

- The historical ratio of long-term average deliveries and spills to inflows from 1912 to 2008, as provided by CWD, apply consistently to all months of all years, such that 61 percent of inflow in any month was delivered, and 39 percent was spilled.
- All historical inflow that would have spilled, up to 50 TAF, is stored from August 1 to July 31 and delivered August 1.
- Monthly inflows for water years 1912 – 1921 and 1924 – 1931 are correlated with gaged flow records for Fresno River near Knowles and Fresno River at Hidden Dam site in the Comprehensive Study – 2002, as reported by USACE in the Water Control Manual.
- Monthly inflows for water years 1922 – 1923, 1931 – 1990 are from the USGS; 1991 – 2005 from USACE, as reported by USACE in the Water Control Manual.

3.4 Analysis Process

3.4.1 Yield

The surplus Chowchilla River flows available at Buchanan Dam on a monthly basis were stored from August 1 through July 31 of the following year. The monthly values were converted to annual totals and an annual average new storage computed. The new amount stored annually was limited to 50 TAF per year. The computed annual average yield is 22 TAF. The yield certainty is assumed to be moderate, due to size uncertainty of the purposed Eastman Lake enlargement.

3.4.2 RWA Balance Reduction

CWD has an expected long-term annual average RWA credit of 19 TAF. The project would be operated directly for the benefit of CWD; hence, the annual average RWA balance reduction is assumed to be equal to the credit. The RWA balance reduction certainty is high.

3.5 Results Summary

Table 3-1 shows the simulated delivery of San Joaquin River flood flows to the new reservoir. The project would provide a benefit in all Restoration Year types. On a long-term basis, the yield would meet or nearly meet the entire CWD RWA credit. The majority of supplies would be diverted in January and February.

Table 3-1.
Summary of Yield Estimates

	Average Annual (TAF)
Total Supply Available	27
Total Recoverable (Yield)	22
RWA Credit	19

Key:
RWA = Recovered Water Account
TAF = thousand acre-feet

3.6 References

Chowchilla Water District (CWD). 2013. Water Resources. http://www.cwdwater.com/index.php/about-cwd-2/water-resources. Accessed November 12, 2013.

U.S. Army Corps of Engineers (USACE). 2006. Water Control Manual: Buchanan Dam and H.V. Eastman Lake, Chowchilla River, California. Appendix IX to Master Water Control Manual: San Joaquin River Basin, California. Sacramento District. June 1975, Revised January 2006.

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4.0 Project 105 Cost Estimates Summary

BUREAU OF RECLAMATION

FEATURE: Dam Raise; Spillway Raise; Saddle Dam	**PROJECT:** Eastman Lake Enlagement
	ESTIMATE LEVEL: Pre-Appraisal
	PRICE LEVEL: Dec-2013
Level of Confidence: **Low: No Plans, Best Engineering Judgment Applied**	ID-105

	PAY ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT PRICE	AMOUNT
	1	Dam Raise		1	LS	$7,207,620	$ 7,207,620.00
	2	Spillway Raise		1	LS	$7,774,000	$ 7,774,000.00
	3	Saddle Dam		603,750	CY	$12	$ 7,245,000.00
	4	Env. Docs/Mitigation		1	LS	$540,000	$ 540,000.00
	5	Mobilization (5%)		5%	pct		$ 1,138,331.00
	6	Unlisted Items (15%)		15%	pct		$ 3,414,993.00
		Contract Cost					$ 27,319,944.00
		Contingincies (30%)		30%	pct		$ 8,195,983.20
		Field Cost					$ 35,515,927.20
		Non-Contract Costs (25%)		25%	pct		$ 8,878,981.80
		Project Cost					$ 45,000,000.00

BY	**CHECKED**
Evan Perez	Checker's name here

References:

Disclaimer:

The estimates of construction costs shown, and any resulting conclusions on the project's financial requirements, economic feasibility, or funding requirements, have been prepared from the best information available at the time the estimates were performed. Additional engineering and feasibility studies would refine project information, and final project costs and resulting feasibility would depend on actual labor and material costs, competitive market conditions, and other variable factors. Accordingly, the final project cost would vary from the estimates herein. Therefore, project feasibility, benefit/cost analysis, risk, and funding would need to be carefully reviewed before making specific funding decisions and/or establishing the project budget.

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5.0 Project 105 Environmental Considerations Summary

Environmental Compliance Requirements	Complex: Likely EIS/EIR
Permitting Requirements	Complex: Likely Individual or Regional Section 404 Permit, Formal Section 7 Consultation

Consideration	Yes	No	Maybe	Notes
Affect a scenic vista or scenic resources?			X	This is in a foothill area.
Convert Prime Farmland, unique Farmland, Farmland of Statewide Significance; or affect Williamson Contracts?		X		
Violate air quality standards (large construction project vs. modification to an existing structure)?			X	Depends on size and duration of construction.new dam/spillway elements would require excavation.
Affect endangered/threatened species, critical habitat, or other biological resources? If yes, proceed to permitting.	X			Areas of critical habitat are adjacent. Inundation of the reservoir site may have impacts to species of concern.
Affect historical/cultural resources? If yes, proceed to permitting:			X	Specialist or field surveys would be needed to verify.
Located on a known earthquake zone?			X	
Result in substantial soil erosion or loss of topsoil?			X	Additional land area would be covered by a reservoir.
Violate or degrade water quality standards?			X	During construction.
Substantially deplete groundwater supplies?		X		
Alter drainage patterns of site?	X			This is a reservoir project.
Placement of a structure in 100-year flood hazard area?	X			
Located within residential homes (e.g. will these homes be affected by construction noise)?		X		
Affect recreational facilities?			X	Possibly trails or other facilities surrounding the current reservoir boundary.
Result in a change of traffic patterns?	X			Lakeshore roads would be inundated/rerouted due to new reservoir.
Require work in a river, stream, or reservoir? If yes, proceed to permitting section below	X			
USFWS/NMFS Section 7 Consultation required? Formal or Informal			X	Species or critical habitat are adjacent to project area.

Consideration	Yes	No	Maybe	Notes
USACE Section 404 Clean Water Act permit required?	X			Increasing reservoir area to 200,000 af will most likely require a CWA Section 404 Individual or Regional Permit.
USACE Section 10 Rivers and Harbors Act permit required?		X		
USACE Section 408 permission required?		X		
NHPA Section 106 Consultation required?	X			
CA RWQCB Section 402 permit required?		X		
CA DFW Incidental Take Permit required?			X	If State listed species are present
CA DFW Section 1600 permit required?	X			
CA RWQCB Section 401 Water Quality Certification Required?	X			
CVFPB levee/floodway encroachment permit required?		X		
Caltrans/local encroachments?			X	Possibly during construction.
New water right required?			X	Who uses current water reservoir doesn't store?
Require a Change of Place of Use?			X	
Require a Change of Point of Diversion?		X		

Key:

CA DFW = California Department of Fish and Wildlife; CA RWQCB = California Regional Water Quality Control Board; CVFPB = Central Valley Flood Protection Board; EA = Environmental Assessmnet; EIS/EIR = Environmental Impact Statement/Report; MND =Mitigated Negative Declaration; ND= Negative Declaration; NHPA = National Histroic Preservation Act; NMFS = National Marine Fisheries Service; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service

APPENDIX 4.E. MADERA COUNTY GSA

Groundwater Recharge Program Supporting Details

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

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Madera County plans to develop a groundwater recharge program to help achieve the Chowchilla Subbasin sustainability goal. Under this program, Madera County plans to construct recharge basins or work with landowners to develop a Flood Managed Aquifer Recharge (Flood-MAR) program to divert flood flows from waterways and provide percolation into the deep aquifer. The size, location, and performance of Madera County recharge sites depends on site-specific characteristics that are currently being assessed by Madera County.

Madera County GSA's recharge program includes three projects that would divert water from the Eastside Bypass and Ash Slough into recharge basins or fields during wet and above normal years when water is available.

1. Eastside Bypass diversions to recharge ponds with Clayton Water District

2. Office of Emergency Services (OES) Joint Redtop Banking Project with Triangle T Water District and Clayton Water District

3. Expanded OES Joint Redtop Banking Project with Triangle T Water District

The project would construct 14 new 20 cfs slant pump turnouts to flood recharge basins and fields. Two of the recharge projects would be implemented jointly with Triangle T Water District (TTWD) and two with Clayton Water District. Together, the projects would provide nearly 28,000 acre-feet of recharge per year, on average, across all years. In years of large available flood flow, the program would provide up to 79,000 acre-feet of recharge.

Madera County plans to construct pumping stations, delivery facilities, and/or recharge basins, as required, that are sized to accommodate this recharge rate. Preliminary capital cost estimates are provided below for these combined projects. The assumptions and methodologies used to develop the costs of the pumping stations and delivery facilities required by this program are summarized below.

2 ASSUMPTIONS AND METHODOLOGY

Estimates of capital costs for the pump stations and other infrastructure used to convey Eastside Bypass flood water for recharge were prepared based on the assumptions and methodologies outlined below.

2.1 General Assumptions

General assumptions used to develop the infrastructure cost calculations include:

- In one of every three years, pumps will be operated for 90 days during the winter period to divert Eastside Bypass flood water for recharge.
- Parcels that will receive Eastside Bypass flood water have a typical elevation relative to adjacent waterways that corresponds to a ground slope of 0.0015 ft/ft (based on ground surface elevations from Google Earth).
- Evapotranspiration loss is 5% of the diverted volume.
- Amortized total cost ($/AF) is calculated based on the assumptions in Table A4.E-1.

Table A4.E-1. Assumptions for Developing Amortized Total Cost ($/AF).

Parameter	Value	Description and Additional Notes
Borrowing cost (interest rate)	5.75%	consistent with recent municipal bonds
Term (years)	20	longer borrowing term possible
Opportunity cost of water in crop production ($/ac)	$1,334.60	$/AF applied water assumed to equal the average of annual crop applied water values (excluding irrigated pasture and wheat) in Madera County plus a 20% incentive/premium over operating costs. Assumed field prep/maintenance cost of $125/ac are included.
Annual crop / marginal orchard land values ($/ac)	$15,000	land value of productive row crop land
Share of permanent land retirement (share)	5%	% of land that is permanently retired (the remainder is idled 1 every 3 years)
Recharge "loss" (share)	10%	assumed share of non-beneficial recharge (recharge that does not contribute subbasin overdraft)

2.2 Pump Station Assumptions

Specific assumptions used to develop the size, number, and cost of pump stations required to deliver water to parcels for recharge include:

- Ground slope is estimated to be 0.0015 ft/ft (based on ground surface elevations from Google Earth; these values may vary depending on the area selected).
- 50% of all land that is able to receive water from each pump station and pipeline will be used for recharge (based on the Soil Agricultural Groundwater Banking Index (SAGBI) ratings for lands along Eastside Bypass in Madera County).
- Infiltration rate is 4 inches per day.
- Recharge infrastructure will consist of pipelines to the center of each quarter section used for recharge, enabling delivery to each 40 acre parcel, and will vary in length depending on the capacity of the pump station. Additional pipeline length is required if the recharge area is not directly adjacent to the waterway.
- Pump stations will be installed at regular intervals every half-mile along the selected waterway and sized to provide 79,000 AF of recharge over a 60 day period during years when flood flows are available.
- Pump and pipeline hydraulics estimated following the assumptions in Table A4.E-2.

Table A4.E-2. Pump and Pipeline Hydraulics Design Assumptions.

Parameter	Value	Unit	Note
Pump Hydraulics			
Motor efficiency	0.95		Estimated
Impeller efficiency	0.85		Estimated
Column pipe diameter	30	inches	Assumed
Column pipe "C" factor	120		Hazen Williams "C" Factor for steel
Column pipe length	15	feet	Assumed
Static lift	8	feet	WSE to ground surface
Factor of Safety	1.2		
Pipeline Hydraulics			
Pump Station Design Flow Capacity	*varies*	cfs	Assumed (see results)
End Line Pressure	5	psi	Assumed
Maximum Flow Velocity	5	fps	Recommended
Pipe Material	PVC		
Friction Factor	150		Hazen Williams "C" Factor
Pipeline Length	*varies*	feet	Assumed, length of pipeline to center of parcels depends on pump station capacity.
Ground Slope	0.0015	ft/ft	From Google Earth, 40 foot approximate elevation change from waterway in Madera County GSA to location about 5 miles east
Change in Elevation	*calculated*	feet	Pipeline Length x Ground Slope
Number of Isolation Valves	*calculated*		Pipeline Length / 1,320 ft

2.3 Legal, Permitting, Planning, and Professional Service Contingency Cost Assumptions

Legal, permitting, planning, and other professional service contingency costs are estimated as a percentage of estimated infrastructure costs based on the assumptions in Table A4-E-3.

3 RESULTS

The size, quantity, and associated costs of all pump stations required for the Madera County groundwater recharge program are summarized in Table A4.E-4.

Two pump station designs were considered for the three projects in this program. Design 1 would be used to transfer water to all recharge basins, providing 43 cfs each through 48 inch diameter pipelines of length 6,600 ft. Design 2 would be used to flood recharge basins and fields, providing 20 cfs through a 36 inch diameter pipeline of length 3,960 ft. The total cost per pump station, including pipeline costs and all estimated legal, permitting, planning, and contingency costs, is $7,998,000 for design 1 and $3,354,000 for design 2. Cost details per pump station are provided in Tables A4.E-5 and A4.E-6 for each design.

At minimum, a total capacity of approximately 700 cfs is required to achieve 79,000 AF of recharge within a 60 day span under the assumptions above. To meet this requirement, the project would include nine 43 cfs pump stations and eighteen 20 cfs pump stations, for a total capacity of nearly 750 cfs across

all 27 pump stations. These pump stations have a total installation cost of approximately $118,000,000 and would provide approximately 79,000 AF of recharge per year on approximately 4,300 acres of land when flood flows are available.

Of these, nine 43 cfs pump stations and fourteen 20 cfs pump stations would be implemented as part of the Eastside Bypass diversions to Madera County project ($110,000,000), while the remaining four 20 cfs pump stations would be implemented as part of the two OES Joint Redtop Banking Project with TTWD.

Table A4.E-3. Legal, Permitting, Planning, and Professional Service Contingency Cost Assumptions.

Cost Type	Cost Item	Percent	Percent Calculated Over
Site Costs	Site Work	10%	Pipeline and pump station costs (Infrastructure Costs)
	Site Safety/Security/Protection	5%	
Construction Contract Costs	Design Contingency	30%	Infrastructure + Site Costs
	Mobilization/Demobilization	3%	
	Contractor profit/markup/insurance/bonding	8%	
	Construction Management	10%	
Other Construction Costs	Construction Contingency	30%	Infrastructure + Site + Construction Contract Costs
Other Project Costs	Planning	1%	Infrastructure + Site + Construction Contract + Other Construction Costs
	Engineering/Design/Controls	10%	
	Bidding/Contracting	1%	
	Legal	2%	
	Permitting/Environmental	10%	
	Professional services contingency	5%	

Table A4.E-4. Eastside Bypass Groundwater Recharge Program: Summary of Total Estimated Pump Stations and Associated Costs.

Element	Pump Station Design		
	1	2	All
Number of Pump Stations	9	18	27
Flow Capacity (cfs/Pump Station)	43	20	-
Pipeline Length (ft/Pump Station)	6,600	3,960	-
Pipeline Diameter (in)	48	30	-
Installation Cost ($/Pump Station)	$7,998,000	$2,580,000	-
Total Installation Cost ($)	**$71,982,000**	**$46,440,000**	**$118,422,000**
Recharge Acreage Served (ac/Pump Station)	240	120	-
Recharge Acreage Served (ac)	**2,160**	**2,160**	**4,320**

Table A4.E-5. Project Component Cost Estimates Per Each Pump Station, Design 1 (43 cfs capacity, 48 inch diameter pipeline, 6,600 ft length).

Line Items	Pricing Unit	QTY	Unit Cost	Extended Cost
PVC Pipeline and Appurtenances (installed)	LF	6,600	$341.43	$2,253,451
Pump Station, Electrical Equipment, Sump	HP	256	$2,000.00	$511,540
			Subtotal	***$2,800,000***
Site Work			10%	$280,000
Site Safety/Security/Protection			5%	$140,000
			Line Item Subtotal	***$3,200,000***
Design Contingency			30%	$960,000
Mobilization/Demobilization			3%	$96,000
Contractor profit/markup/insurance/bonding			8%	$256,000
Construction Management			10%	$320,000
			Estimated Construction Contract Subtotal =	***$4,800,000***
Construction Contingency			30%	$1,440,000
			Estimated Construction Cost =	***$6,200,000***
Planning			1%	$62,000
Engineering/Design/Controls			10%	$620,000
Bidding/Contracting			1%	$62,000
Legal			2%	$124,000
Permitting/Environmental			10%	$620,000
Professional services contingency			5%	$310,000
			Estimated Total Project Cost Per Pump Station =	***$7,998,000***

Table A4.E-6. Project Component Cost Estimates Per Each Pump Station, Design 2 (20 cfs capacity, 30 inch diameter pipeline, 3,960 ft length).

Line Items	Pricing unit	QTY	Unit Cost	Extended Cost
PVC Pipeline and Appurtenances (installed)	LF	3,960	$173.88	$688,566
Pump Station, Electrical Equipment, Sump	HP	106	$2,000.00	$212,516
			Subtotal	***$900,000***
Site Work			10%	$90,000
Site Safety/Security/Protection			5%	$45,000
			Line Item Subtotal	***$1,000,000***
Design Contingency			30%	$300,000
Mobilization/Demobilization			3%	$30,000
Contractor profit/markup/insurance/bonding			8%	$80,000
Construction Management			10%	$100,000
			Estimated Construction Contract Subtotal =	***$1,500,000***
Construction Contingency			30%	$450,000
			Estimated Construction Cost =	***$2,000,000***

Line Items	Pricing unit	QTY	Unit Cost	Extended Cost
Planning			1%	$20,000
Engineering/Design/Controls			10%	$200,000
Bidding/Contracting			1%	$20,000
Legal			2%	$40,000
Permitting/Environmental			10%	$200,000
Professional services contingency			5%	$100,000
Estimated Total Project Cost Per Pump Station =				***$2,580,000***

CHOWCHILLA SUBBASIN

Sustainable Groundwater Management Act (SGMA)

Groundwater Sustainability Plan

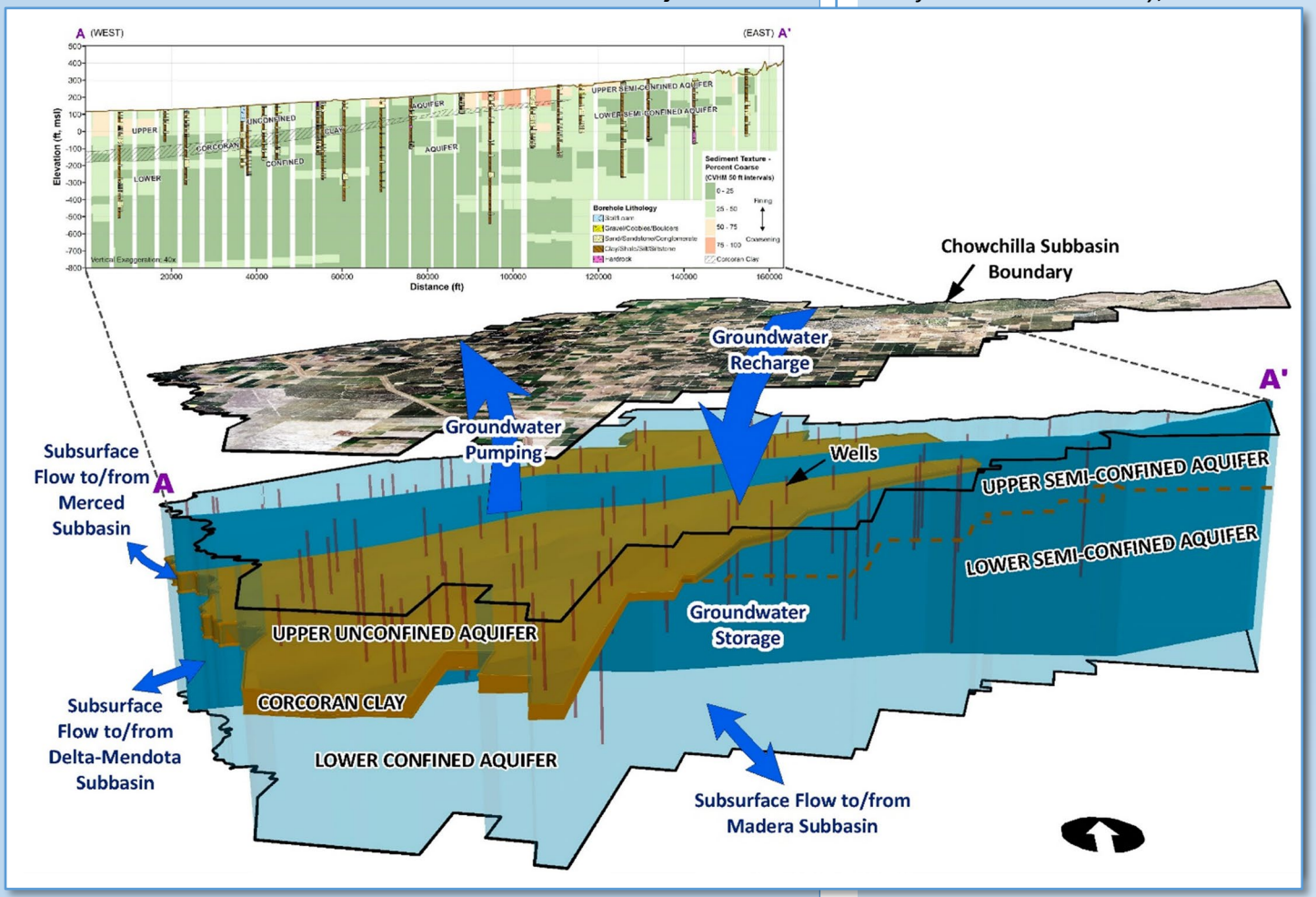
APPENDIX 5. Plan Implementation

Technical Appendix 5

January 2020

Prepared by

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento



FINAL

Chowchilla Subbasin

Sustainable Groundwater Management Act

Groundwater Sustainability Plan

Technical Appendix 5

January 2020

Prepared For

Chowchilla Subbasin GSP Advisory Committee

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There are no appendices associated with Chapter 5. Plan Implementation.

CHOWCHILLA SUBBASIN

Sustainable Groundwater Management Act (SGMA)

Groundwater Sustainability Plan

APPENDIX 6. REFERENCES AND TECHNICAL STUDIES

Technical Appendices 6.A. through 6.D.

January 2020

Prepared by

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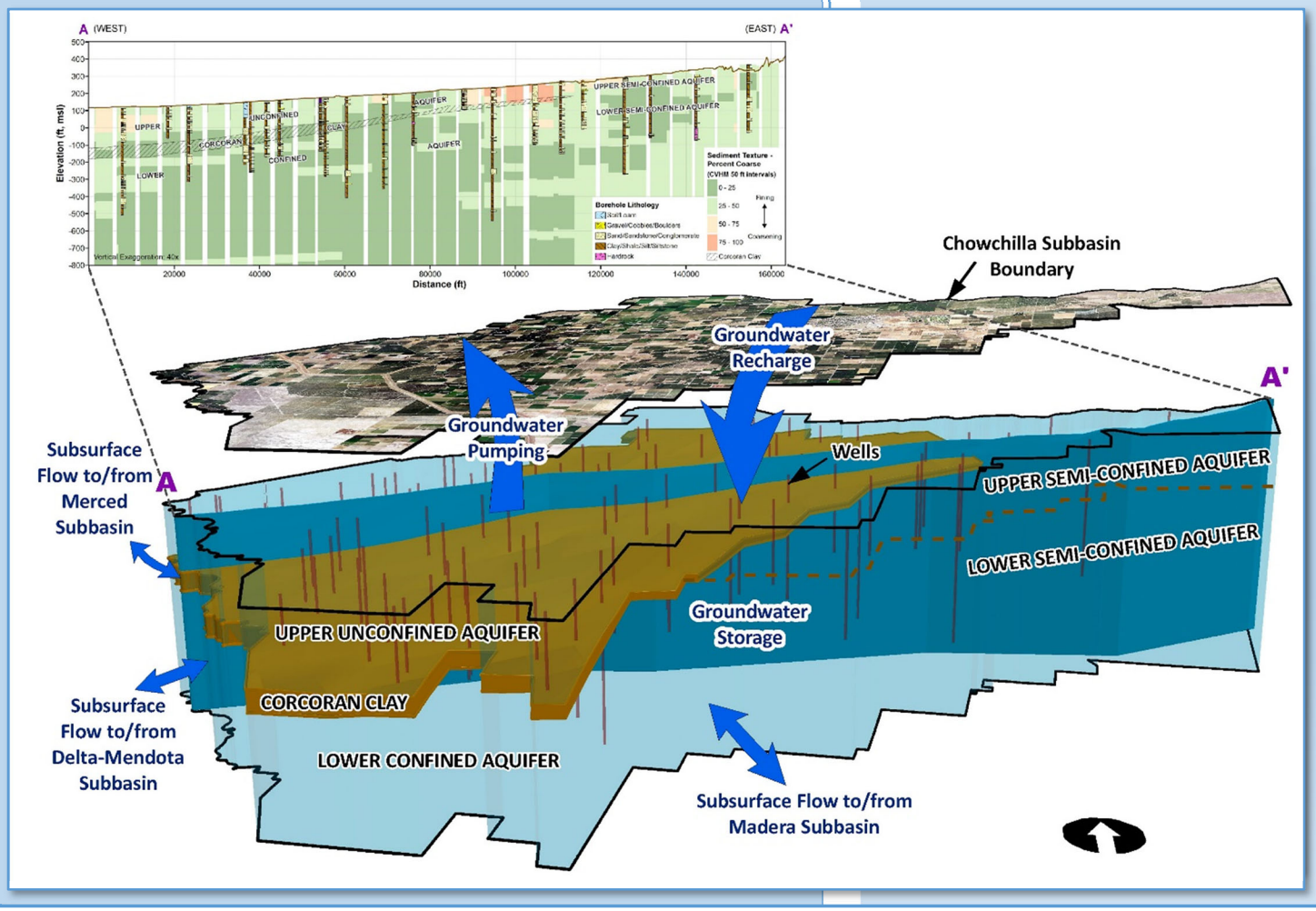

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APPENDIX 6. REFERENCES AND TECHNICAL STUDIES

6.A. Interbasin and Coordination Agreements (as applicable) (23 CCR § 357)

6.B. Contact Information for Plan Manager and GSA Mailing Address (23 CCR § 354.6)

6.C. List of Public Meetings (23 CCR § 354.10)

6.D. Groundwater Model Documentation

APPENDIX 6.A. INTERBASIN AND COORDINATION AGREEMENTS (AS APPLICABLE) (23 CCR § 357)

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

INTERBASIN AGREEMENT

MERCED-CHOWCHILLA GROUNDWATER SUBBASINS

This Interbasin Agreement for the Merced-Chowchilla Groundwater Subbasins (this "Agreement") is made and effective as of July 31, 2018 ("Effective Date") by and among **Chowchilla Water District Groundwater Sustainability Agency, Merced Irrigation-Urban Groundwater Sustainability Agency, County of Madera Chowchilla Subbasin Groundwater Sustainability Agency, Merced Subbasin Groundwater Sustainability Agency, Triangle T Water District GSA** and **County of Merced Chowchilla Subbasin Groundwater Sustainability Agency**.

This Agreement is made with reference to the following facts and understandings:

A. On August 29, 2014, the California Legislature passed comprehensive groundwater legislation contained in SB 1168, SB 1319, and AB 1739, collectively known as the "Sustainable Groundwater Management Act" ("SGMA"). SGMA was signed into law on September 16, 2014 and it became effective on January 1, 2015. In adopting SGMA, the Legislature intended to provide local groundwater agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater.

B. Under SGMA, each affected groundwater basin or subbasin will be regulated separately by one or more Groundwater Sustainability Agencies (each, a "GSA"). A local agency or combination of local agencies may elect to be the GSA for a basin or subbasin. Each of the parties to this Agreement ("Party(ies)") is a Groundwater Sustainability Agency (each, as "GSA") established by a local government entity with either water supply, water management, or land use responsibilities within the critically overdrafted Merced and Chowchilla groundwater subbasins of the San Joaquin Valley groundwater basin (the "Subbasins").

C. Groundwater sustainability under SGMA is to be achieved through Groundwater Sustainability Plans (each, a "GSP"). A GSP can be a single plan developed by one or more GSAs, or multiple coordinated plans within a basin or subbasin by multiple GSAs. SGMA requires that the GSPs for critically overdrafted subbasins be adopted by January 31, 2020. The regulations interpreting SGMA allow for GSAs with adjoining jurisdictions to enter into interbasin agreements to establish compatible sustainability goals and understanding regarding fundamental elements of the GSPs of each agency, and thereby promote the compatibility of GSPs where the actions in one subbasin may affect the groundwater of an adjoining subbasin.

D. In March of 2016 the Chowchilla Water District submitted a Basin Boundary Modification request to the California Department of Water Resources ("DWR") proposing that the Chowchilla groundwater subbasin boundary be modified under the Jurisdictional Modification criteria in the DWR Basin Boundary Modification Emergency Regulation, which requested changes do not alter the interactive hydrologic nature of the Subbasins. This Basin Boundary Modification resulted in moving a portion of the Chowchilla Subbasin (as defined by Bulletin 118- 2003) that is within the jurisdiction of Merced Irrigation District and Merced County into the Merced Subbasin. This area

in Merced County, mainly around the community of El Nido, has experienced significant land subsidence over the recent years.

E. Merced Irrigation District initially submitted to DWR a letter opposing the Basin Boundary Modification due to concerns regarding inter-basin coordination. Merced County submitted a letter of support for the Basin Boundary Modification contingent upon the adoption of an interbasin agreement. Merced Irrigation District subsequently withdrew its opposition to the Basin Boundary Modification request based on agreement from the Chowchilla Subbasin GSAs to enter into this inter-basin agreement as defined in Section 357.2 of the Groundwater Sustainability Plan Emergency Regulations.

F. The Parties are entering into this Agreement to establish compatible sustainability goals and understandings for the Subbasins, with a focus on the areas where the activities occurring within one Party's jurisdiction may affect groundwater within another Party's jurisdiction, to resolve the comments and concerns of Merced Irrigation District and Merced County regarding the boundary modification request of the Chowchilla Water District, and to coordinate preparation of each agency's respective GSP in order to promote the compatibility thereof. The Parties intend that the GSPs will address the level of cooperation and coordination between the Parties.

G. The intent of the Parties under this Agreement is to provide each Party with the sole right and responsibility to implement SGMA within its respective boundaries, as defined herein, in a manner determined by the Party as a GSA. The Parties expressly intend that neither SGMA, nor this Agreement, nor any GSP shall be construed as authorizing another Party, or the other Parties acting together, or any dispute resolution process contained herein, to:

(i) Determine or alter surface water rights or groundwater rights (California Water Code Section 10720.5 (b));

(ii) Make binding determinations of the water rights of any person or entity (California Water Code Section 10726.8 (b)); or

(iii) Supersede the existing land use authority of cities or counties, including the city or county general plan, within the overlying basin (California Water Code Section 10726.8 (f)).

THEREFORE, in consideration of the mutual promises, covenants and provisions herein set forth, it is agreed by and among the Parties as follows:

1. Recitals Incorporated. The recitals set forth above are hereby incorporated into this Agreement as a statement of the intent and purposes of this Agreement.

2. General Information. Within 120 days from execution of this Agreement, each Party shall develop and share with the other Parties general information regarding the portion of the Subbasins in its jurisdiction, including:

a. Description and general information pertaining to groundwater resources;

b. List of public agencies and other entities with groundwater management responsibilities; and

c. List of groundwater management plans and other water resource management plans.

3. Exchange of Information. The Parties shall exchange relevant available technical information and groundwater data to quantify the level of interconnection between the Subbasins and the areas where the activities occurring within one Party's jurisdiction may affect groundwater within another Party's jurisdiction. The Parties will coordinate shared information and work on adjusting values to the same basis for all data and parameters to the best of their abilities, and within reasonable range of acceptable scientific practices to help all Parties reach sustainability within their respective GSA areas. The information exchanged shall include if feasible:

a. Model aquifer parameter values and other model inputs relevant to calculation of inter-basin groundwater flow (e.g. model layering, grid size vertical pumping distribution, etc.);

b. Model outputs including simulated heads (groundwater elevations) by model layer and model water budget components (including model-estimated flows across the Subbasin boundary);

c. Values for groundwater quality (primarily TDS and nitrate), quantity and land subsidence;

d. An estimate of groundwater flow across basin and jurisdictional boundaries, including consistent and coordinated data, methods and assumptions;

e. An estimate of stream-aquifer interactions at boundaries;

f. A common understanding of the hydrogeology and hydrology as it applies to the determination of groundwater flow across basin and jurisdictional boundaries;

g. Sustainable management criteria, including management goals and thresholds, and a monitoring network that would support confirmation that no adverse impacts result from the implementation of the GSPs;

h. Existing and proposed monitoring locations;

i. Plans, programs, and projects anticipated as options and/or alternatives for sustainable management of respective Subbasins;

j. The following parameters:

i. Groundwater elevation data;
ii. Groundwater extraction data or estimates;
iii. Groundwater quality information;
iv. Surface water supply;
v. Reports of cropping patters on parcels adjacent to the subbasin boundaries, with approximately a 5-mile buffer on both sides of the boundary;
vi. Total water use;
vii. Change in groundwater storage;
viii. Water budget for land surface, stream, and groundwater systems;
ix. Sustainable yield; and
x. Agricultural water demands (consumptive use and extraction).

g. The Parties will work in good faith to complete a preliminary exchange of available information set forth above in Section 3(a)-(j) by August 31, 2018, and a complete exchange of information by June 30, 2019. The Parties shall analyze hydrologic and hydrogeologic conditions, based on the detail and local information available within the Merced Water Resources Model and the model to be developed and used for the Chowchilla Subbasin GSP analyses. The Parties will exchange information for the area of model overlap and analyze hydrologic and hydrogeologic conditions in the area of overlap to the extent relevant to interbasin groundwater flow. Information from items "a" through "j" above will be utilized in the analyses. Field verification and results from GSP monitoring programs will generally be used to validate model results during GSP implementation.

4. Planning for the GSPs. The Parties shall develop compatible sustainability goals, minimum thresholds and measurable objectives for their respective GSPs. Compatible sustainability goals would include, but are not limited to, the following:

a. Targeted 2040 groundwater levels;
b. Measurable objectives and interim milestones; and
c. Volumes of groundwater extraction and managed recharge to ensure coordination of any GSP-established or State-recommended/mandated levels.

"Compatible" in the context of this section means that the sustainability goals developed would not impede the other Party's efforts to achieve sustainability

5. Development of the GSPs. Each Party shall be responsible for development of its own GSP for the lands within its GSA jurisdiction, or for joint development of a GSP for the lands within its GSA jurisdiction and the lands of one or more additional GSA. The contents and adoption of each GSP shall be the decision and responsibility of each Party, subject to the criteria set forth in SGMA and its implementing regulations. However, in developing its GSP, each Party shall utilize the information exchanged under this Agreement, and shall incorporate any agreed sustainability goals, minimum thresholds and measurable objectives into each GSP.

6. Implementation. Each Party, in implementing its GSP and managing its affairs, shall avoid actions that materially and adversely impact or impede the ability to achieve the

sustainability goals of each other Party. Disagreements regarding a Party's implementation of its GSP shall be subject to the dispute resolution process outlined in paragraph 9.

7. Meetings. Commencing within 30 days of execution of this Agreement, the Parties shall meet quarterly while the planning activities described in Paragraph 4 are being performed and while the Parties are developing their GSPs. After all GSPs are approved, the Parties shall meet as agreed to discuss implementation and ongoing issues.

8. Costs. Each Party shall bear its own costs for its direct participation in the activities contemplated by this Agreement, including staff time, administrative and overhead costs, office expenses, legal fees, and consultants that report directly and exclusively to that Party. Contracts for any additional studies, reports, and data development for the matters identified in Paragraphs 3 and 4 must be approved by the unanimous vote of the Parties. The Parties shall select one of their members to be the fiscal agent for implementation of this Agreement, which shall calculate the costs being incurred therefor, assess the Parties for contributions to common costs in a timely manner, and pay invoices for such services. No Party shall be bound, financially or otherwise, by any obligation, contract, or activity undertaken by the other Parties unless and except to the extent agreed upon by the Party.

9. Dispute Resolution. The Parties fully intend to comply with this Agreement in good faith. Should, however, any controversy arise among or between the Parties concerning this Agreement, or the rights and duties of any Party under this Agreement, such a controversy shall be addressed as follows:

a. Any Party may trigger the dispute resolution process by delivering, in writing to all Parties, a notification of a dispute or controversy that contains a specific description of the actions alleged to be contrary to this Agreement and a proposed solution. A dispute resolution group, consisting of one member of the elected or appointed governance of each Party, shall be established by the Parties to resolve disputes and/or controversies relating to this Agreement (the "Dispute Resolution Group"). The Dispute Resolution Group shall meet no later than 30 days following notification of the dispute or controversy. The Party alleged to be in violation shall prepare a written response delivered to all Parties prior to the meeting of the Dispute Resolution Group. Thereafter, the Dispute Resolution Group will have 90 days to issue a written, non-binding opinion on the matter in dispute, including a proposed resolution. Any Party, at its sole expense, may retain outside experts to assist in data development or discussion of the dispute. Upon unanimous approval by the Parties, the Dispute Resolution Group may retain independent experts to assist in mediating the dispute. The Parties shall equally share the cost to retain the experts the Dispute Resolution Group selects. The Dispute Resolution Group may also consult with the Department of Water Resources as necessary. Participation in the process established by the Dispute Resolution Group is mandatory and a condition precedent to resorting to litigation, or referring the dispute to the State Water Resources Control Board or Department of Water Resources for formal action.

b. Should the dispute resolution process described above not provide a final resolution to the controversy raised, any Party may pursue any judicial or administrative

remedies otherwise available. However, notwithstanding this Paragraph 9, a Party may seek a preliminary injunction or other interlocutory judicial relief if necessary to avoid irreparable damage or to preserve the status quo.

10. General Provisions.

a. Term of Agreement. This Agreement shall expire on December 31, 2030 unless extended by all of the Parties.

b. Amendment. This Agreement may be amended only by a writing executed by all of the Parties.

c. Withdrawal. Any Party may withdraw from this Agreement starting six (6) months after approval of the GSP for all Parties by the DWR, and upon thirty (30) days prior written notice to all other Parties, provided that the withdrawing Party is cooperating through an approved GSP with other Parties and interests in the Basin, where the approved GSP fully meets and incorporates mutual promises, covenants and provisions 2, 3, 4, 5, and 6 of this agreement; and the written notice provided by the withdrawing party documents the basis for withdrawal and the way(s) in which the mutual promises, covenants and provisions 2, 3, 4, 5 have been addressed in the GSP to which it is a party. A withdrawing Party shall not be obligated for any financial obligations incurred after delivery of notice of its withdrawal, but shall remain liable for and shall pay upon demand all obligations of the Parties approved as provided herein prior to written notice of its withdrawal.

d. Severability. Should the participation of any Party to this Agreement, or any part, term or provision of this Agreement, be decided by any court to be illegal, in excess of that Party's authority, in conflict with any law of the State of California, or otherwise rendered unenforceable or ineffectual, the participation of the other Parties or the validity of the remaining portions, terms or provisions of this Agreement shall not be affected thereby and each Party hereby agrees it would have entered into this Agreement upon the remaining terms and provisions.

e. Counterparts and Facsimile. This Agreement may be executed in counterparts, each counterpart being an exact duplicate of all other counterparts, and all counterparts shall be considered as constituting one complete original and may be attached together when executed by the Parties hereto. Facsimile or electronic signatures shall be binding.

f. Notices. Notices authorized or required to be given pursuant to this Agreement shall be in writing and shall be deemed to have been given when mailed, postage prepaid, or delivered during working hours to the principal offices of the other Parties at the address indicated below, attention to the responsible person at each Party as identified, or to such other changed addresses communicated to the other Parties in writing.