



REGULAR BOARD OF DIRECTORS MEETING

501 Taft Highway
Bakersfield, California

TUESDAY, November 15, 2022

AGENDA

CALL TO ORDER AND ANNOUNCEMENT OF QUORUM

12:00PM

CLOSED SESSION:

- A. Conference with Legal Counsel – Existing Litigation – Closed Session Pursuant to Gov. Code § 54956.9(d)(1):
 - 1. SWRCB Kern River.
 - 2. Kern Delta Water District et al. v. Rosedale Rio Bravo Water Storage District et al. (Onyx Ranch CEQA).
- B. Conference with Legal Counsel – Potential Litigation – Closed Session Pursuant to Gov. Code § 54956.9(d)(2),(e)(1):
 - 1. One Matter.

REGULAR SESSION:

1:00PM

INTRODUCTION OF GUESTS AND PUBLIC

- I. **PUBLIC COMMENT** (Members of the public may address the Board of Directors on any matter not on the agenda, but absent extraordinary circumstances, the Board may not act on such matters. Members of the public may address items of interest that are listed on the agenda prior to the Board's decision on such items.)
- II. **CONSENT CALENDAR** (The Board will consider various non-controversial routine items and issues relating to matters which are of interest to the District. Any Board Member may request that any or all items be considered and acted upon independently of the others.)
 - A. Approval of Minutes from the Regular Board Meeting of November 1, 2022.
 - B. Approval of October/November District Construction and Water Banking Project(s) Disbursements.
 - C. Approval of October/November District Disbursements.
 - D. Approval of District 2023 Meeting Calendar.
- III. **BUSINESS AND FINANCE** (The Board will consider various items and issues relating to financial matters which are of interest to the District.)
 - A. Public Hearing:
 - i. Consideration of Resolution 2022-04 Levying Special Assessments Within Zones of Benefit.
 - B. Business & Finance Committee Report(s) – November 10, 2022.
 - i. Approval of October 2022 Financial Reports.

C. Update Regarding District Investments.

IV. OPERATIONS AND PROJECTS (The Board will consider various items and issues relating to matters which have been, or will be, considered by committees of the Board and which are of interest to the District.)

A. Operations and Projects Committee Report – November 1, 2022.

- i. District Encroachment Permit Report.
- ii. District Facility and Banking Maintenance Report.
- iii. Pending Development Projects.
- iv. Old River & Sunset Groundwater Banking Projects Update.
- v. 2019 – 2021 District Engineering Report.

B. Authorization to Utilize Alspaw Tree Service for the Removal of Trees Along the Kern Island Canal Between California Avenue and 10th Street, in an Amount Not to Exceed \$40,000.

V. WATER RESOURCES REPORT (The Board will consider various items and issues relating to the Kern River of interest to the District.)

A. District Watermaster Report.

- i. State Water Project.
- ii. Kern River Runoff Forecast.

B. Kern River Watermaster Report.

- i. Isabella Dam Safety Remediation Report.

C. District Groundwater Manager Report.

VI. MANAGER'S REPORT (The General Manager will discuss, and the Board will consider various items and issues relating to the ongoing and future operations of the District which are of interest to the Board)

A. Verbal

B. External Agency Report.

C. Water Banking Projects Report.

VII. ATTORNEY'S REPORT (Legal Counsel will discuss, and the Board will consider items and issues of legal interest to the District.)

VIII. BOARD MEMBER COMMENTS (This item provides Board Members with an opportunity to make announcements or provide general comments.)

IX. ADJOURN

Requests for disability related modifications or accommodations, including auxiliary aids or services may be made by telephoning or contacting Madelyne Rodriguez at the District Office (661-834-4656). Please attempt to make such requests known at least 24 hours before the scheduled meeting. Pursuant to Government Code section 54957.5, any materials relating to an open session item on this agenda, distributed to the Board of Directors after the distribution of the agenda packet, will be made available for public inspection at the time of distribution at the District, 501 Taft Highway, Bakersfield, CA.

Tab II





To: Kern Delta Water District Board of Directors

From: Steven Teglia – General Manager

Date: November 15, 2022

Re: Agenda Item II – Consent Calendar

RECOMMENDATION:

Approve items A through D listed under Agenda Item II – Consent Calendar.

DISCUSSION:

Consent Calendar items are non-controversial routine matters. Board Members may request that any or all items listed under the Consent Calendar be moved to the regular agenda to be discussed and voted on separately. Otherwise, all items will be approved through one motion and vote.

II A. Approval of Minutes from the Regular Board Meeting of November 1, 2022 (attached).

II B. Approval of October/November District Construction and Water Banking Project(s) Disbursements totaling \$734,689.62* (attached), partially recommended for approval by the Operations and Projects Committee (*see November 1, 2022 Operations and Projects Committee Minutes for additional detail*).

II C. Approval of October/November District Disbursements (attached) recommended for approval by the Business and Finance Committee (*see November 10, 2022 Business and Finance Committee Minutes for additional detail*).

II D. Approval of 2023 District Meeting Calendar.

**The total includes disbursements approved by the Operations and Projects Committee (\$616,301.33) and an additional amount (\$118,388.29) for invoices which came in after November 1, 2022 and were subsequently recommended for approval by the Business and Finance Committee on November 10, 2022).*



MINUTES OF THE REGULAR MEETING OF THE BOARD OF DIRECTORS

November 1, 2022

TUESDAY, November 1, 2022, 12:02PM– 1:54PM

DIRECTORS PRESENT: Palla, Tillema, Antongiovanni, Garone, Mendonca, Spitzer, Fanucchi, and Kaiser.

DIRECTORS ABSENT: Borba.

STAFF PRESENT: General Manager Teglia, Assistant General Manager Bellue, General Counsel Iger, Water Resources Manager Mulkay, and Controller Duncan.

OTHERS PRESENT: None.

CLOSED SESSION DECLARED AT 12:02PM

President Palla called to order the Closed Session of the Kern Delta Board of Directors at 12:02PM regarding the following agenda items:

- A. Conference with Legal Counsel – Potential Litigation – Closed Session Pursuant to Gov. Code § 54956.9(d)(2),(e)(1):
1. Three Matters.

Closed Session concluded at 12:59PM.

REGULAR SESSION DECLARED AT 1:01PM

President Palla called to order the Regular Session of the Kern Delta Board of Directors at 1:01PM.

Closed Session Report: District General Counsel Iger reported the following:

Item A: No reportable action.

INTRODUCTION OF GUESTS AND PUBLIC

Those listed as others present above were introduced.

I. PUBLIC COMMENT

None.

II. MANAGER'S REPORT

A. Approve Minutes of the Regular Board Meeting of October 18, 2022:

M/S/C (Mendonca/Spitzer) (yes-8, no-0): By unanimous vote, with Director Borba absent, the Board approved the minutes from the regular board meeting of October 18, 2022, as presented.

B. Discussion Regarding Remote Monitoring of District Canal Flows: Staff provided a presentation discussing the current remote monitoring program the City of Bakersfield installed at the head of several District canals (Kern Island, Eastside, Stine, and Buena Vista) to provide continuous flow data. Staff has utilized the data provided from this program and it has been beneficial to District operations. Following previous direction of the Board, staff began to evaluate locations for District funded expansion of the flow monitoring program. Several locations along the Kern Island system have been identified for additional monitoring. Staff has received a proposal from Sierra Hydrographics to facilitate the recommended expansion. Following the presentation, the Board requested staff take the necessary steps to compare costs with other potential providers before bringing the item back to the Board for further consideration.

C. District Investment Update: Staff provided a brief verbal update regarding the recent action of the Business and Finance Committee to invest available District fund balances in U.S. Treasury instruments over a staggered investment schedule.

III. BOARD MEMBER COMMENTS

None.

IV. ADJOURNMENT:

There being no further business, President Palla adjourned the meeting at approximately 1:54PM.

Respectfully Submitted,



Steven Teglia, General Manager

Approved by Board,



Richard Tillema, Board Secretary



To: Kern Delta Water District Board of Directors

From: Steven Teglia

Date: November 15, 2022

Re: Invoices and Disbursements, Special Projects & Water Banking Project Operation/Construction.

RECOMMENDATION:

Staff recommends payment of the following twelve payables divided into three overall groups of: 1) water banking program design, construction, and construction support -- \$00.00; 2) water banking variable -- \$246,747.53; 3) Kern Delta Water District construction -- \$00.00. The total expenditure in October for these areas is \$246,747.53 (plus additional PG&E well energy stand-by cost).

DISCUSSION:

The following twelve payables can be divided into three overall groups: 1) water banking program design, construction and construction support, 2) water banking variable, and 3) Kern Delta construction.

First group (Water Banking Program Design, Construction, and Construction Support):

Second group (Water Banking Variable):

- 1) Bakersfield Well & Pump – \$16,795.00 (Pull top end; AE-04)
- 2) PG&E – \$66.73 (KI-08, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 3) PG&E – \$19,222.09 (AE-01, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 4) PG&E – \$32,218.24 (KI-07, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 5) PG&E – \$3,611.24 (FR-03, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 6) PG&E – \$21,638.10 (KD-01, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 7) PG&E – \$92,192.59 (KB-03, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 8) PG&E – \$25,346.36 (KD-02, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 9) PG&E – \$8,683.64 (AE-03, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 10) PG&E – \$11,331.18 (AE-02, Power/stand-by energy cost for the wells associated with the Water Banking water production)

- 11) PG&E – \$8,742.36 (AE-04, Power/stand-by energy cost for the wells associated with the Water Banking water production)
- 12) Bakersfield Well & Pump – \$6,900.00 (Pull motor; KI-01)

Third group (Kern Delta Construction)

**KERN DELTA WATER BANKING PROGRAM DISBURSEMENTS
RECOMMENDED BY THE OPERATIONS & PROJECTS COMMITTEE**

Tuesday, November 1, 2022

#	PAYEE	AMOUNT	CHECK
	BAKERSFIELD WELL Pull top end AE4	16,795.00	3464
	PGE - KI8 Well Utilities	66.73	3465
	PGE - AE1 Well Utilities	19,222.09	3466
	PGE - KI7 Well Utilities	32,218.24	3467
	PGE - FR3 Well Utilities	3,611.24	3468
	PGE - KD1 Well Utilities	21,638.10	3469
	PGE - KB3 11/03/21-10/03/22 (06/22-10/22)	92,192.59	3470
	PGE - KD2 Well Utilities	25,346.36	3471
	PGE - AE3 Well Utilities	8,683.64	3472
	PGE - AE2 Well Utilities	11,331.18	3473
	PGE - AE4 Well Utilities	8,742.36	3474
	BAKERSFIELD WELL Pull motor KI7	6,900.00	3475
	TOTAL	246,747.53	

**SUNSET WATER BANKING PROGRAM DISBURSEMENTS
RECOMMENDED BY THE OPERATIONS & PROJECTS COMMITTEE**

Tuesday, November 1, 2022

# PAYEE		AMOUNT	CHECK
1	SPECIALTY CONSTRUCTION, INC. Progress payment 1	369,553.80	11
		TOTAL	369,553.80

**KERN DELTA WATER BANKING PROGRAM DISBURSEMENTS
RECOMMENDED BY THE OPERATIONS & PROJECTS COMMITTEE**

Tuesday, November 1, 2022

#	PAYEE	AMOUNT	CHECK
1	BAKERSFIELD WELL Pull top end AE4	16,795.00	3464
2	PGE - KI8 Well Utilities	66.73	3465
3	PGE - AE1 Well Utilities	19,222.09	3466
4	PGE - KI7 Well Utilities	32,218.24	3467
5	PGE - FR3 Well Utilities	3,611.24	3468
6	PGE - KD1 Well Utilities	21,638.10	3469
7	PGE - KB3 11/03/21-10/03/22 (06/22-10/22)	92,192.59	3470
8	PGE - KD2 Well Utilities	25,346.36	3471
9	PGE - AE3 Well Utilities	8,683.64	3472
10	PGE - AE2 Well Utilities	11,331.18	3473
11	PGE - AE4 Well Utilities	8,742.36	3474
12	BAKERSFIELD WELL Pull motor KI7	6,900.00	3475
TOTAL		246,747.53	

The following were received after the November 1st, 2022 Operations & Projects Committee meeting and will be reviewed at the November 10th, 2022 Business and Finance Committee meeting.

□

#	PAYEE	AMOUNT	CHECK
1	COUNTRY TIRE Tire #401	1,202.40	3476
2	TARGET Torpedo, Roundup, Finale	8,374.56	3477
3	BATTERY SYSTEMS Battery #403	282.89	3478
4	PGE - FR2 Well Utilities	55.03	3479
5	PGE - KB6 Well Utilities	24,245.02	3480
6	PGE - KB3 Well Utilities	17,495.84	3481
7	PGE - KB4 Well Utilities	21,605.60	3482
8	PGE - KB1 Well Utilities	22,244.27	3483
9	QUINN Filters #402	242.48	3484
10	STEPHEN B. SMITH Weed Control	3,190.00	3485
TOTAL		98,938.09	

**SUNSET WATER BANKING PROGRAM DISBURSEMENTS
RECOMMENDED BY THE OPERATIONS & PROJECTS COMMITTEE**

Tuesday, November 1, 2022

#	PAYEE	AMOUNT	CHECK
1	SPECIALTY CONSTRUCTION, INC. Progress payment 1	369,553.80	11
TOTAL		369,553.80	

The following were received after the November 1st, 2022 Operations & Projects committee meeting and will be reviewed at the November 10th, 2022 Business and Finance Committee meeting. ☐

☐

#	PAYEE	AMOUNT	CHECK
1	PACIFIC PREMIER BANK 5% Retainage	19,450.20	12
TOTAL		19,450.20	

KERN DELTA WATER DISTRICT
DISBURSEMENTS RECOMMENDED BY THE BUSINESS AND FINANCE COMMITTEE
Thursday, November 10, 2022

OCTOBER 2022 SUB TOTAL \$ 239,578.97

# PAYEE	AMOUNT	CHECK
1 ABATE-A-WEED - weed control	900.00	46019
2 ACWA/JOINT POWERS AUTHORITY - 2022-2023 auto/gen. liability	145,378.00	46020
3 ADVANCED DISTRIBUTION - taillight, gloves	491.11	46021
4 AG SPRAY EQUIPMENT - gloves	60.49	46022
5 AMERICAN BUSINESS MACHINES - service contract	510.43	46023
6 AMERICAN HYDROTECH - lawn service	325.00	46024
7 AMERIFUEL - fuel	10,057.01	46025
8 BLUE PRINT SERVICE CO. - copies	23.95	46026
9 BUDGET BOLT, INC. - bolts, nuts	372.69	46027
10 CALIFORNIA COOPERATIVE SNOW SURVEY PRG. - 2022 snow survey meeting	280.00	46028
11 CASH - pesticide book	86.79	46029
12 CITIZENS CARDMEMBER SERVICES - lunch, office supplies, subscriptions	5,455.28	46030
13 HALL LETTER SHOP - employee handbook	360.36	46031
14 KERN COUNTY PUBLIC WORKS - dump fees	4,182.38	46032
15 MARCOM GROUP - website hosting	95.00	46033
16 MOSSMAN'S - board lunch	478.28	46034
17 PACIFIC GAS & ELECTRIC - 09/12/2022-10/10/2022 office	1,900.54	46035
18 PRINCIPAL LIFE INSURANCE - 11/01/22-11/30/22	4,414.41	46036
19 RELIABLE JANITORIAL - cleaning service	1,185.00	46037
20 UNITED AG BENEFIT TRUST - medical premium	33,473.81	46038
21 B&G MACHINE & WELDING - welding on grader #404	11,412.44	46039
22 BUGNI HARDWARE AND FEED - water jugs	128.66	46040
23 CARQUEST, INC. - battery tester	332.15	46041
24 COUNTRY TIRE & WHEEL - valve stem t-12	150.15	46042
25 COX, CASTLE & NICHOLSON LLP - professional services	2,576.45	46043
26 ECONOMY TRUCK SCHOOL - drivers ed	2,300.00	46044
27 ELLISON, SCHNEIDER & HARRIS L.L.P. - professional services	11,391.00	46045
28 GRAINGER - water filter	263.06	46046
29 JERRY AND KEITH'S - air fitting, taillight #322, air filters	19.37	46047
30 JIM BURKE - air filters, alternator #326	2,476.55	46048
31 KERN COUNTY RECORDER - lien redemptions	300.00	46049
32 KERN MACHINERY - motor filter #326	54.18	46050
33 PACIFIC GAS & ELECTRIC - 09/27/22-10/25/22 lights	12.16	46051
34 PROGRESSIVE TECHNOLOGY, INC. - phone service	1,750.44	46052
35 QUINN - air filters, rear window 404	1,212.98	46053
36 SAN JOAQUIN TRACTOR CO. - kioti utv	19,330.20	46054
37 SCHWEBEL PETROLEUM - lubricants	206.83	46055
38 SELECT PORTFOLIO SERVICING, INC. - s/a overpayment	20.00	46056
39 SPARKLE TEXTILE RENTAL SERVICE - uniforms, towels, mats	1,449.00	46057
40 SPECTRUM - internet service	373.54	46058
41 STINSON STATIONERS - office supplies	88.07	46059
42 TARGET SPECIALTY PRODUCTS - capstone, torpedo, garlon	3,324.66	46060
43 VERIZON - cell service	651.90	46061
44 STERLING - HRA admin	140.00	Wire
45 PAYROLL #21	73,441.05	Wire

46 PAYROLL PEOPLE #21	300.35	Wire
47 EDD-STATE P/R #21	4,441.37	Wire
48 EFT-IRS P/R #21	20,839.16	Wire
49 LINCOLN LIFE - retirement program	12,239.79	Wire
50 LINCOLN LIFE - deferred comp.	2,929.45	Wire
51 EMPOWER - deferred comp.	1,815.00	Wire
52 PAYROLL #22	74,964.16	Wire
53 PAYROLL PEOPLE #22	300.35	Wire
54 EDD-STATE P/R #22	4,448.01	Wire
55 EFT-IRS P/R #22	20,711.45	Wire
56 LINCOLN LIFE - retirement program	12,245.81	Wire
57 LINCOLN LIFE - deferred comp.	2,929.45	Wire
58 EMPOWER - deferred comp.	1,815.00	Wire
OCTOBER 2022 TOTAL		742,993.69

# PAYEE	AMOUNT	CHECK
1 A-1 ANSWERING SERVICE - answering service	568.83	46062
2 AMERICAN HYDROTECH - lawn service	325.00	46063
3 AMERIFUEL - fuel	8,278.46	46064
4 COUNTRY TIRE & WHEEL - Tire #326	383.87	46065
5 GRAINGER - air filters	136.97	46066
6 GREENFIELD COUNTY WATER DIST. - office utilities	181.93	46067
7 HERC RENTALS - telescoping rental	1,599.59	46068
8 INDUSTRIAL MEDICAL GROUP - emp. physical	365.00	46069
9 McMURTREY, HARTSOCK, et al - professional services	12,500.00	46070
10 NORTH KERN WATER STORAGE DISTRICT - 2023 weather mod start up	9,625.00	46071
11 PEDRO J. PEDROZA, PLS - surveying	2,947.50	46072
12 PERRY HYATT - snow conference	678.11	46073
13 PRICE DISPOSAL - waste removal	15.05	46074
14 PROFORMA - polos, award jacket	1,989.66	46075
15 PROGRESSIVE TECHNOLOGY, INC. - it support	2,366.17	46076
16 QUINN - dozer rental	6,899.04	46077
17 RKL SOLUTIONS, LLC - it support	210.00	46078
18 STEPHEN B. SMITH VEG - weed control	9,295.00	46079
19 STERICYCLE, INC. - shred service	97.46	46080
20 TARGET SPECIALTY PRODUCTS - 5 gal	609.66	46081
21 THE BAKERSFIELD CALIFORNIAN - ad postings	3,099.31	46082
22 VACUSWEEP - parking lot maintenance	420.00	46083
23 COMPUTERSHARE - annual payment of COPs principal	230,000.00	Wire
24 COMPUTERSHARE - semi-annual payment of interest on COPs	68,564.83	Wire
25 CENTRALIZE HR - admin fee	1,895.00	Wire
NOVEMBER 2022 SUBTOTAL		363,051.44

KERN DELTA WATER DISTRICT**Anticipated Disbursements - Month End - October 2022**

Payee	Reason	November 2022 Anticipated
ABATE-A-WEED	contract weed control	2,775.00
ADVANCED DIST.	truck maintenance/repair	1,200.00
AG SPRAY EQUIPMENT	spray parts	100.00
AHERN RENTALS, INC.	equipment rental	2,000.00
AMERICAN HYDROTECH	lawn service	325.00
AMERIFUEL	gas/diesel fuel	10,000.00
B & G MACHINE & WELDING	welding service	1,200.00
BATTERY SYSTEMS	vehicle maintenance	425.00
BLUE PRINT SERVICE CO.	blue prints	100.00
BUDGET BOLT	maintenance materials	375.00
BUGNI HARDWARE	boots	125.00
CARQUEST	brake fluid, lube	332.00
CITIZENS CARDMEMBER SERV	misc expenses	5,500.00
COUNTRY TIRE	vehicle tires	1,500.00
COX, CASTLE & NICHOLSON LLP	professional services	2,576.45
DERREL'S MINI STORAGE	storage rental	1,004.40
ELLISON, SCHNEIDER & HARRIS	professional services	12,000.00
EMPOWER	deferred comp contributions	1,815.00
FLOYD'S	maintenance materials	115.00
GRAINGER	safety materials	260.00
GREENFIELD COUNTY WATER DIST	district office water	350.00
HALL LETTER SHOP	mass mailing service	450.00
JERRY & KEITH'S	truck maintenance/repair	50.00
JIM BURKE	truck maintenance/repair	2,500.00
K.C. WASTE (PUBLIC WORKS)	dumping	2,100.00
KERN COUNTY RECORDER	lien redemption	160.00
KERN MACHINERY	truck maintenance/repair	60.00
LINCOLN FINANCIAL	pension/deferred comp contributions	12,490.88
MARCOM GROUP	district web site support	95.00
McMURTREY, HARTSOCK et al	professional services	12,705.00
MOSSMAN'S	catering	478.00
NORTH KERN WSD	watermaster/weather modification	1,650.00
P.G.&E.	district office utilities	1,900.00
PITNEY BOWES	postage	260.80
PRINCIPAL LIFE INS.	dental/vision/life insurance premium	4,500.00
PROGRESSIVE TECH.	IT and computer system support	1,500.00
QUINN	motorgrader maintenance/repair	1,200.00
RELIABLE JANITORIAL	janitor service	1,185.00
SCHWEBEL PETROLEUM	oil/lubricants	500.00
SPARKLE	uniform/laundry service	1,500.00
SPECTRUM	internet access	375.00
SSD SYSTEMS	office alarm monitoring	172.00
STERLING ADMINISTRATION	medical insurance - annual fees	128.00
STINSON'S	office supplies	450.00
SULLY & SON	canal maintenance materials	85.00
TARGET	weed control chemicals	10,000.00
UNITED AG	medical insurance premium	35,000.00
UNITED RENTAL	equipment rental	1,000.00
VERIZON	cell phones and service	652.00
		<u>137,224.53</u>



2023 Meeting Calendar

January						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

May						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

September						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

November						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Kern Delta Board Meeting (1st Tues. @ 12PM and 3rd Tues. @ 12PM Closed Session; 1:00PM Regular Session)

Operations and Projects Committee (1st Tues. of the Month @ 10:30AM)

Business and Finance Committee (Thurs. prior to the 3rd Tues. @ 10:00AM)

District Observed Holidays - Office Closed

Note: Meetings Subject to Change or Cancellation with Appropriate Notice.

Tab III



BEFORE THE BOARD OF DIRECTORS OF
THE KERN DELTA WATER DISTRICT

IN THE MATTER OF:

RESOLUTION NO. 2022-04

LEVYING SPECIAL ASSESSMENTS
WITHIN ZONES OF BENEFIT

WHEREAS, Article 2 (commencing with Section 35532) of Chapter 2.5 of Part 5 of Division 13 of the Water Code of the State of California establishes a procedure whereby the District may adopt or amend zones of benefit for the purpose of fixing special acreage assessments pursuant to Article 3 (commencing with Section 35539) of Chapter 2.5 of Part 5 of Division 13 of the Water Code varied in accordance with the extent of benefits to each zone derived or to be derived from services to the land in each zone in order to cause just and equitable sharing among the District's landowners of all or any portion of the District's obligations for the next year; and

WHEREAS, Article 3 (commencing with Section 35539) of Chapter 2.5 of Part 5 of Division 13 of the Water Code of the State of California establishes a procedure whereby this District may levy a special assessment of an equal amount upon each acre of developed land, upon each acre of undeveloped land, or both, within the District or within zones established pursuant to Sections 35534 and 35535, in order to cause just and equitable sharing among the District's landowners of all or any portion of District obligations for the next year in excess of receipts from water charges as reflected in the annual estimate of obligations; and

WHEREAS, this Board of Directors noticed and held a public hearing as to whether or not it is necessary to raise by special assessment the sum of \$500,626.00 in order to meet a portion of the estimated obligations of the District during 2023 attributable to general administration of the District; and

WHEREAS, this Board of Directors noticed and held a public hearing as to whether or not it is also necessary to raise by special assessment the sum of \$98,049.00 in order to meet a portion of the estimated obligations of the District during 2023 attributable to general benefits of District participation in the California State Water Project.

WHEREAS, this Board of Directors noticed and held a public hearing as to whether or not it is also necessary to raise by special assessment the approximate sum of \$409,158.00 in order to meet a portion of the estimated obligations of the District during 2023 attributable to specific benefits of District's participation in the California State Water Project.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by this Board of Directors as follows:

1. That all the foregoing is true and correct.

2. That the respective share of benefits received by Zones of Benefit Numbers 1 through 11, inclusive, the criteria for establishing each such zone, and the percentage of benefit applicable thereto are described in Exhibit "A" attached hereto and incorporated herein by this reference.

3. That there is levied a special assessment in the amount of \$4.34 upon each acre of developed and undeveloped land within the District in order to cause just and equitable sharing among the District's landowners of the portion of the District's obligations for 2023 in excess of receipts from water charges attributable to general administration of the District.

4. That there is levied a special assessment in the amount of \$.85 upon each acre of developed and undeveloped land within the District in order to cause just and equitable sharing among the District's landowners of the portion of the District's obligations for 2023 in excess of receipts from water charges attributable to general benefits of District participation in the California State Water Project.

5. That there is levied a special assessment in the amounts described below upon each acre of land within the Kern Delta Water District Zone Numbers 1 through 11, as described below, in order to cause just and equitable sharing among the District landowners of the portion of the District's obligations for 2023 in excess of receipts from water charges attributable to specific benefits of District's participation in the California State Water Project, to wit:

- (a) Zone No. 1 - \$2.12 per acre;
- (b) Zone No. 2 - \$1.36 per acre;
- (c) Zone No. 3 - \$3.82 per acre;
- (d) Zone No. 4 - \$4.63 per acre;
- (e) Zone No. 5 - \$4.36 per acre;
- (f) Zone No. 6 - \$0.00 per acre;
- (g) Zone No. 7 - \$0.00 per acre;
- (h) Zone No. 8 - \$0.00 per acre;
- (i) Zone No. 9 - \$5.46 per acre;
- (j) Zone No. 10 - \$0.00 per acre;
- (k) Zone No. 11 - \$5.46 per acre;

6. That the levy of the special assessments described in paragraphs 3, 4 and 5 above, shall be and become effective on the first working day after the 32nd day following the adoption of this Resolution, to wit; December 17, 2022; provided however, that, if the Board receives a petition containing the signatures of persons holding title to 5% of the land area within the District before said date, the Board shall call an election of the qualified voters in the District and submit the

Resolution to levy the special assessments to such voters, and no levy of assessment shall be made unless and until the election is held and the assessments are approved, in whole or in part, by a majority vote of the qualified voters of the District.

7. That the special assessments levied pursuant hereto shall be due December 31, 2022, shall be payable in one installment, and shall be delinquent if not paid on or before June 30, 2023.

8. That the District's staff be, and it hereby is, authorized and directed to collect said special assessments pursuant to the provision of Chapters 3,4, 5 and 6 of Part 7 of Division 13 of the California Water Code, all as prescribed in Section 35539.4 of said Code.

All the foregoing being on the motion of Director Antongiovanni, seconded by Director Tillema and authorized by the following vote, to wit:

AYES: Palla, Antongiovanni, Kaiser, Mendonca, Garone, Spitzer, Tillema, Fanucchi, Borba

NOES:

ABSTAIN:

I HEREBY CERTIFY that the foregoing Resolution is the resolution of said District as duly passed and adopted by said Board of Directors the 15th day of November 2022.

WITNESS my hand and the Seal of said Board of Directors this 15th day of November 2022.

Rodney Palla
President of the Board of Directors

Richard Tillema
Secretary of the Board of Directors

EXHIBIT "A"

CRITERIA FOR ESTABLISHING KERN DELTA WATER DISTRICT ZONES OF BENEFIT NUMBERS 1 THROUGH 11

Through a contract with the Kern County Water Agency, Kern Delta Water District has been importing water from the California State Water Project since the early 1970's. Approximately eighty percent (80%) of the water imported to the District has been delivered to landowners within the District for crop irrigation. Canal seepage losses have accounted for about twenty percent (20%) of the imported water. Surface water deliveries to landowners have allowed an equal reduction in pumping from the groundwater basin underlying the District. Canal seepage directly recharges the groundwater basin underlying the District.

The combination of reduced groundwater pumping and recharge has resulted in an improvement in groundwater levels as opposed to levels which would now exist if no imported water had been brought into the District. The general benefits due to improved water level have been estimated at \$98,049.00 for 2023. The specific benefits due to improved water levels have been estimated at \$408,158.00 for 2023.

The zones of benefit herein established have been identified as areas of common groundwater pumping. The specific benefits realized by each such zone are proportional to the total amount of water pumped from the groundwater basin. The general benefits are realized equally by all lands within the District. The general and special benefits have been distributed to several zones as follows:

<u>ZONE</u>	<u>PERCENTAGE OF TOTAL BENEFIT</u>	
	<u>General</u>	<u>Special</u>
1	3.72%	2.22%
2	31.16%	11.96%
3	4.89%	5.27%
4	9.28%	12.12%
5	10.04%	12.36%
6	0.02%	0.00%
7	2.07%	0.00%
8	0.54%	0.00%
9	30.80%	47.45%
10	1.89%	0.00%
11	<u>5.59%</u>	<u>8.62%</u>
	100.00%	100.00%



BUSINESS & FINANCE COMMITTEE MEETING

**501 Taft Highway
Bakersfield, CA**

**THURSDAY, November 10, 2022
10:00AM**

A G E N D A

- 1. Call to order**
- 2. Public Comment Period**
- 3. Approve Minutes of October 25, 2022, Special Meeting of the Business & Finance Committee**
- 4. Financial Reports and Accounts Payable:**
 - a. Approve October and November District and Banking Project(s) Disbursements
 - b. Approve October 2022 Financial Reports
- 5. District Controller's Report:**
 - a. Resolution 2022-04 Levying Special Assessments Within Zones of Benefit
 - b. Investment Portfolio Review
- 6. Committee Comments**
- 7. Adjourn**

A handwritten signature in black ink, appearing to read "Bryan Duncan", with a long horizontal line extending to the right.

**Bryan Duncan
District Controller**

**Posted: Monday November 7, 2022
Bakersfield, California**

Requests for disability related modifications or accommodations, including auxiliary aids or services may be made by telephoning or contacting Madelyne Rodriguez at the District Office (661-834-4656). Please attempt to make such requests known at least 24 hours before the scheduled meeting. Pursuant to Government Code section 54957.5, any materials relating to an open session item on this agenda, distributed to the Board of Directors after the distribution of the agenda packet, will be made available for public inspection at the time of distribution at the District, 501 Taft Highway, Bakersfield, CA.



MINUTES OF THE BUSINESS & FINANCE COMMITTEE
Thursday, November 10, 2022

DIRECTORS PRESENT: Antongiovanni, Tillema, Garone and Kaiser.

OTHERS PRESENT: From KDWD: General Manager Teglia, Assistant General Manager Bellue, Controller Duncan, General Counsel Iger, and Administrative Assistant Rodriguez.

1. CALL TO ORDER

Chair Antongiovanni called the meeting to order at 10:10 A.M.

2. PUBLIC COMMENTS

None.

3. APPROVAL OF PREVIOUS COMMITTEE MEETING MINUTES

- a. **M/S/C (Tillema/Kaiser) (yes – 4, no – 0):** The Business & Finance Committee approved the minutes of the Special Business & Finance Committee meeting held on October 25, 2022, as presented.

4. FINANCIAL REPORTS AND DISBURSEMENTS

- a.- b. Approval of October 2022 and November 2022 Disbursements and October 2022 Financial Reports.

M/S/C (Tillema/Garone) (yes – 4, no – 0): The Business & Finance Committee recommends the Board approve the October 2022 and November 2022 District Disbursements, the November 2022 Water Banking Projects' Disbursements, the anticipated November 2022 end of month Disbursements, and the October 2022 District and Water Banking Projects' Financial Statements, Treasurer's Reports, and Delinquency Report as presented.

A request for a February 2023 Agenda Item by Chair Antongiovanni to discuss the transfer of Take-Put funds from the Banking Project to the District was made.

5. DISTRICT CONTROLLER'S REPORT

- a. Resolution 2022-04 Levying Special Assessments Within Zones of Benefit.
Staff provided a brief update on the Public Hearing set for November 15, 2022, for the Approval of Resolution 2022-04 Levying Special Assessments Within Zones of Benefit.
- b. Investment Portfolio Review.
Staff provided a brief update on the recent Board-approved investment in US T-Bills and US Treasury Notes.

6. DIRECTORS' COMMENTS

None.

7. ADJOURN

Chair Antongiovanni adjourned the meeting at 11:02 A.M.

Respectfully submitted,

Kevin Antongiovanni – Chair

**Kern Delta Water District
Balance Sheet
As of October 31, 2022**

	<u>10/31/2022</u>	<u>09/30/2022</u>	<u>Month-to-Month Variance</u>
Assets			
Current Assets			
Cash & Cash Equivalents	22,182,182	21,199,500	982,682
Accounts Receivable	103,152	342,465	(239,313)
Inventory & Prepaid Expenses	468,493	392,060	76,433
Total Current Assets	<u>22,753,827</u>	<u>21,934,025</u>	<u>819,802</u>
Net Fixed Assets			
Fixed Assets			
District Structures, Rights of Way	18,235,547	18,170,705	64,842
CVC Expansion	8,776,668	8,776,668	0
Machinery & Equipment	2,735,856	2,716,194	19,662
Fixed Assets	<u>29,748,071</u>	<u>29,663,567</u>	<u>84,504</u>
Less Accumulated Depreciation	<u>7,539,395</u>	<u>7,492,795</u>	<u>46,600</u>
Net Fixed Assets	<u>22,208,676</u>	<u>22,170,772</u>	<u>37,904</u>
Investment in Joint Powers Authority	<u>15,375</u>	<u>15,375</u>	<u>0</u>
Investment in MET Program	<u>8,890,131</u>	<u>8,890,130</u>	<u>0</u>
Investment in Sunset Banking Program	<u>500,000</u>	<u>500,000</u>	<u>0</u>
Total Assets	<u>54,368,009</u>	<u>53,510,302</u>	<u>857,706</u>
Liabilities & Equity			
Current Liabilities			
Accounts Payable	112,123	87,794	24,329
Deposits Held for Others	107,552	107,552	0
Other Liabilities	174,461	172,722	1,739
Total Current Liabilities	<u>394,136</u>	<u>368,068</u>	<u>26,068</u>
Long Term Liabilities			
Bonds & COP Debt	3,795,000	3,795,000	0
Bonds Premium & Costs	130,694	130,694	0
Total Long Term Liabilities	<u>3,925,694</u>	<u>3,925,694</u>	<u>0</u>
Equity From Past Years	51,739,183	51,739,183	0
Accumulated Equity - Current Year	<u>(1,691,004)</u>	<u>(2,522,643)</u>	<u>831,638</u>
Total Liabilities & Equity	<u>54,368,009</u>	<u>53,510,302</u>	<u>857,706</u>

Kern Delta Water District
Cash Variance Analysis
October 31, 2022

Cash Received:

Accounts Receivable Collections	480,232
Share of Property Tax Receipts	644,931
Interest Received	250
	<u>1,125,413</u>

Cash Disbursed:

Disbursements for Goods and Services:	
ACWA/JPIA - Annual Auto/Gen Liability Insurance Premium	(145,378)
International Water Screens	(64,842)
United Ag monthly premium - November	(33,474)
Professional Services	(24,173)
San Joaquin Tractor - KIOTI	(19,330)
Diesel/Gas for Fleet	(18,277)
The Bakersfield Californian	(9,375)
Other Disbursements	(79,780)
	<u>(394,629)</u>
Payrolls Paid	(233,420)
	<u>(628,049)</u>

Positive/(Negative) Cash Variance Before FMV Adjustment	497,364
--	----------------

FMV Adjustment to Kern County Funds	485,318
--	----------------

Adjusted Positive/(Negative) Cash Variance	982,682
---	----------------

Kern Delta Water District
Accounts Receivable Variance Analysis
October 31, 2022

Revenue Added to Accounts:

Water Sales - Utility Water	36,230
District Wells Revenue	610
NKWSD 4th Qtr	182,750
Other Misc Revenues:	
Insurance Settlement	21,051
Penalties/Interest/Adjustments	279
	<hr/>
	240,920
	<hr/>

Cash Received on Account:

Water Payments	(139,833)
Misc Payments	(338,169)
Assessments Payments	(2,231)
	<hr/>
	(480,232)

Interest Payments

-
<hr/>
(480,232)

Net positive/(negative) variance

(239,313)

**Kern Delta Water District
Inventory/Prepays Variance Analysis
October 31, 2022**

Additions to Accounts:

Weed Control Chemicals Purchased	3,325
Prepaid Additions	145,378
	<hr/>
	148,703

Usage/Amortization:

Chemicals Consumed During Month	(50,550)
Amortization of Prepaid Accounts	(21,720)
	<hr/>
	(72,270)

Net positive/(negative) variance	76,433
---	---------------

Kern Delta Water District
Statement of Operating Results
Through the Period Ended October 31, 2022

	<u>Current Month</u>	<u>Year to Date</u>	<u>Annual Budget</u>	<u>YTD as %age of Budget (Target is 83%)</u>	<u>Budget Remaining</u>
REVENUE					
State Water Sales	0	0	992,439	0 %	(992,439)
Utility Water Sales	36,230	1,567,127	3,214,296	49 %	(1,647,169)
Seepage Revenue	0	550,201	750,000	73 %	(199,799)
Equalization	0	9,198	9,170	100 %	28
Assessments	(100)	1,007,363	1,011,424	100 %	(4,061)
Share of County Property Tax	644,931	3,056,407	5,371,745	57 %	(2,315,338)
Interest Revenue	249	105,439	236,060	45 %	(130,621)
Other Revenue	969	257,890	175,000	147 %	82,890
Water Transfer Charges	182,750	731,000	731,000	100 %	0
Expense Reimb From Banking	0	0	150,000	0 %	(150,000)
Total Revenue	<u>865,029</u>	<u>7,284,625</u>	<u>12,641,134</u>	<u>58 %</u>	<u>(5,356,509)</u>
EXPENDITURES					
Source of Supply					
State Water Costs	0	2,920,730	3,000,000	97 %	(79,270)
Exchange Fees	0	(6,375)	76,500	(8) %	(82,875)
Watermaster, City, Isabella	1,650	172,957	405,400	43 %	(232,444)
Grower Recharge Program Costs	0	0	0	0 %	0
Miscellaneous Source Costs	0	16,830	731,000	2 %	(714,170)
Total Source of Supply	<u>1,650</u>	<u>3,104,142</u>	<u>4,212,900</u>	<u>74 %</u>	<u>(1,108,759)</u>
Transmission and Distribution					
Labor	229,564	2,225,938	2,747,453	81 %	(521,515)
Employee Benefits	69,816	687,630	887,255	78 %	(199,625)
Maintenance & Repairs	95,049	1,129,782	1,068,648	106 %	61,134
Total Transmission and Distribution	<u>394,429</u>	<u>4,043,350</u>	<u>4,703,356</u>	<u>86 %</u>	<u>(660,006)</u>
Administrative & Other Costs					
Engineering Consultants	0	1,209	100,000	1 %	(98,791)
Legal Expense	555	5,297	60,000	9 %	(54,703)
Special Legal/Engineering	27,491	259,881	300,000	87 %	(40,119)
Office Operations	27,194	278,509	343,427	81 %	(64,918)
Insurance	20,790	186,326	183,610	101 %	2,716
Special Expenses	0	361,601	791,500	46 %	(429,898)
Kern River GSA & SGMA	0	66,861	200,000	33 %	(133,139)
Construction Expense - Peripheral	0	3,971	0	0 %	3,970
Bond Interest Expense	0	68,572	123,541	56 %	(54,969)
FMV Adjustment	(485,318)	129,910	0	0 %	129,910
Depreciation	46,600	466,000	559,200	83 %	(93,200)
Total Administrative & Other	<u>(362,688)</u>	<u>1,828,137</u>	<u>2,661,278</u>	<u>69 %</u>	<u>(833,141)</u>
Total Expenses	<u>33,391</u>	<u>8,975,629</u>	<u>11,577,534</u>	<u>78 %</u>	<u>(2,601,906)</u>
Net Fav/(Unfav) Operating Results	<u>831,638</u>	<u>(1,691,004)</u>	<u>1,063,600</u>	<u>(159) %</u>	<u>(2,754,604)</u>

KERN DELTA WATER DISTRICT
Labor and Benefits Tracker
2022

Actual Cost	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	TOTAL 2022
Wages & Salaries	201,789	214,039	219,763	219,566	251,901	225,206	227,357	220,616	216,137	229,564	2,225,938
Payroll Taxes - Employer Paid	15,019	15,381	16,603	16,324	18,097	16,919	17,443	15,760	14,599	13,246	159,391
Medical/Dental/Vision - Cost	34,547	29,295	32,242	32,123	36,450	32,160	32,160	26,465	30,985	36,425	322,852
Medical/Dental/Vision - Employee Withheld	(4,721)	(4,269)	(4,521)	(4,668)	(4,787)	(4,450)	(4,530)	(3,827)	(4,012)	(4,056)	(43,841)
Life/LTD/AD&D	1,417	1,417	1,362	1,534	1,728	1,570	1,530	1,358	1,668	1,601	15,184
Retirement Plan	20,635	20,030	22,054	21,523	23,687	22,295	22,962	21,637	21,242	21,136	217,200
Uniforms and Other Benefits	720	1,210	1,664	3,714	908	1,759	1,835	1,276	2,294	1,464	16,844
Total Benefits	67,617	63,064	69,403	70,549	76,083	70,253	71,400	62,669	66,776	69,816	687,630
Total Labor and Benefits	269,406	277,103	289,167	290,115	327,984	295,459	298,757	283,285	282,913	299,380	2,913,568
Budgeted Cost											
Wages & Salaries	228,107	206,032	228,259	220,896	235,559	227,961	235,559	235,707	228,534	236,152	2,282,766
Payroll Taxes - Employer Paid	17,451	15,761	17,462	16,899	18,021	17,439	17,487	16,333	15,155	15,269	167,277
Medical/Dental/Vision - Cost	35,808	35,808	35,808	35,808	35,808	35,808	35,808	35,808	35,808	35,808	358,084
Medical/Dental/Vision - Employee Withheld	(5,222)	(5,222)	(5,222)	(5,222)	(5,222)	(5,222)	(5,222)	(5,222)	(5,222)	(5,222)	(52,217)
Life/LTD/AD&D	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	15,000
Retirement Plan	23,633	21,346	23,646	22,884	24,688	23,891	24,688	24,701	23,943	24,741	238,161
Uniforms and Other Benefits	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730	17,303
Total Benefits	74,901	70,924	74,925	73,600	76,526	75,147	75,992	74,851	72,915	73,827	743,609
Total Labor and Benefits	303,008	276,956	303,184	294,496	312,085	303,108	311,551	310,558	301,449	309,979	3,026,375
Budget vs Actual Variance - Fav/(Unfav)											
Wages & Salaries	26,318	(8,007)	8,496	1,330	(16,342)	2,755	8,202	15,091	12,397	6,588	56,828
Payroll Taxes - Employer Paid	2,432	380	859	575	(76)	520	44	573	556	2,023	7,886
Medical/Dental/Vision - Cost	1,261	6,514	3,566	3,686	(641)	3,648	3,648	9,343	4,823	(617)	35,232
Medical/Dental/Vision - Employee Withheld	(501)	(953)	(701)	(554)	(435)	(772)	(692)	(1,395)	(1,210)	(1,166)	(8,376)
Life/LTD/AD&D	83	83	138	(34)	(228)	(70)	(30)	142	(168)	(101)	(184)
Retirement Plan	2,998	1,316	1,592	1,361	1,001	1,596	1,726	3,064	2,701	3,605	20,961
Uniforms and Other Benefits	1,010	520	66	(1,984)	822	(29)	(105)	454	(564)	266	459
Total Benefits	7,284	7,860	5,522	3,051	443	4,894	4,592	12,182	6,139	4,011	55,979
Total Labor and Benefits	33,602	(147)	14,017	4,381	(15,899)	7,649	12,794	27,273	18,536	10,599	112,807

KERN DELTA WATER DISTRICT

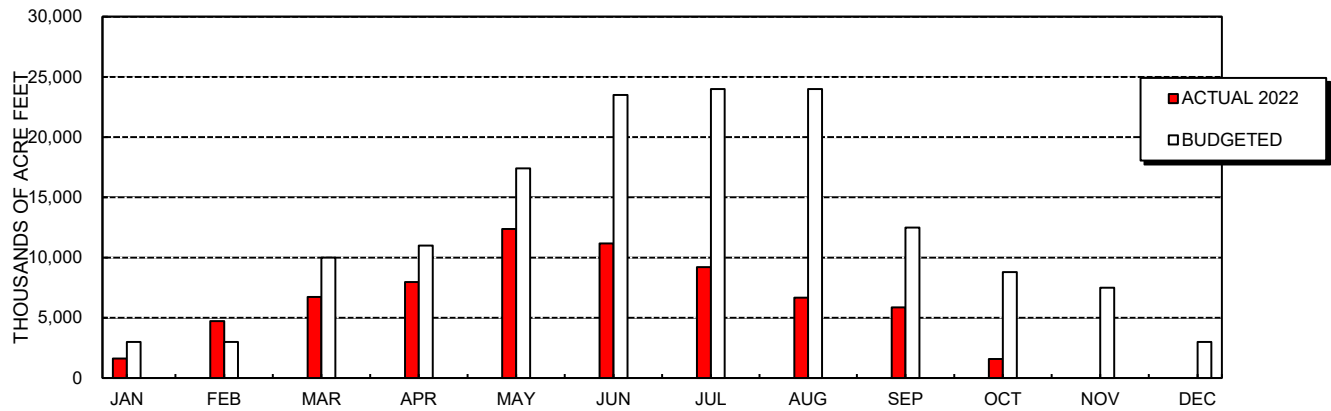
TREASURER'S REPORT

October 2022

	2022	2021	2020	2019
Cash & Securities on hand - October 1	\$ 21,199,500	\$ 22,651,027	\$ 22,259,082	\$ 18,491,672
Add: October receipts	1,125,413	440,317	656,939	2,107,153
Less: October disbursements	(142,731)	(1,100,300)	(1,089,906)	(845,423)
Cash & Securities on hand - October 31, 2022	\$ 22,182,182	\$ 21,991,044	\$ 21,826,115	\$ 19,753,402
Petty Cash \$ 500				
Citizens Business Bank 6,579,260				
Kern County Treasury 5,602,421				
LPL Financial 10,000,000				
\$ 22,182,182				
Restricted Reserves:				
Restricted Reserve Fund - Water Resources Manager	\$ (300,000)	\$ (300,000)	\$ (300,000)	\$ (300,000)
Unrestricted Reserves:				
Pipeline Maintenance	(216,912)	(213,845)	(213,845)	(213,845)
Water Rights Protection & Litigation Reserve	(2,718,358)	(2,718,358)	(3,049,034)	(3,245,934)
2015-A COP Reserve Fund	(4,015,000)	(4,015,000)	(4,015,000)	(372,600)
Operating Reserve	(5,000,000)	(5,000,000)	(5,000,000)	
Capital Reserve	(2,000,000)	(2,000,000)	(2,000,000)	
Groundwater Program Reserve	(3,500,000)	(3,500,000)	(3,500,000)	
Total Reserves	\$ (17,750,271)	\$ (17,747,203)	\$ (18,077,879)	\$ (4,132,379)
Cash Available - October 31, 2022	\$ 4,431,911	\$ 4,243,842	\$ 3,748,236	\$ 15,621,023

**Kern Delta Water District
Monthly Water Sales Volume
in Acre Feet**

	2021	2022										
	Actual (Accum- ulated)	Budgeted		Actual								
		Monthly	(Accum- ulated)	Monthly				Accumulated				% of Budget
				Utility	State	Contracts	Total	Utility	State	Contracts	Total	
JAN	3,757	3,000	3,000	1,503	0	113	1,617	1,503	0	113	1,617	54%
FEB	11,559	3,000	6,000	4,409	0	315	4,724	5,912	0	429	6,341	106%
MAR	20,811	10,000	16,000	6,352	0	379	6,731	12,264	0	808	13,072	82%
APR	30,829	11,000	27,000	7,568	0	394	7,962	19,832	0	1,202	21,034	78%
MAY	42,031	17,400	44,400	11,934	0	443	12,378	31,767	0	1,645	33,412	75%
JUN	54,986	23,500	67,900	10,784	0	392	11,176	42,551	0	2,037	44,588	66%
JUL	62,308	24,000	91,900	9,067	0	147	9,214	51,617	0	2,184	53,801	59%
AUG	66,834	24,000	115,900	6,455	0	212	6,667	58,072	0	2,396	60,468	52%
SEP	69,486	12,500	128,400	5,730	0	143	5,873	63,802	0	2,539	66,341	52%
OCT	71,544	8,800	137,200	1,510	0	74	1,583	65,312	0	2,613	67,924	50%
NOV	72,964	7,500	144,700									
DEC	74,086	3,000	147,700									



KERN DELTA WATER DISTRICT

Aged Accounts Receivable

Past Due Accounts

November 15, 2022

Account	Name	0-30 Days	31-60 Days	61-90 Days	Over 90 Days	Total Past Due
380	Burkehart, John R & Norma L	98.09	96.71	-	-	194.80
592	Costa, Joe & Mary	1,014.11	-	-	-	1,014.11
950	Garcia Family Trust	10.84	10.68	117.56	94.38	233.46
994	Giannelli Farms	16.27	16.03	15.80	1,053.14	1,101.24
2362	Tesch, Greg	10.69	282.64	429.81	-	723.14
4399	Watts, Jared & Douglas	146.16	-	-	-	146.16
5196	Hernandez, Alfredo	137.61	-	-	-	137.61
5743	Cortez, Pablo L.	122.77	-	-	-	122.77
	OTHER	89.26	76.06	25.53	58.83	249.68
		1,645.80	482.12	588.70	1,206.35	3,922.97

**Kern Delta Water Banking Project
Balance Sheet
As of October 31, 2022**

	<u>10/31/2022</u>	<u>09/30/2022</u>	<u>Month-to-Month Variance</u>
Total Assets			
Current Assets			
Cash & Cash Equivalents	6,505,475	6,747,423	(241,948)
Due From MWD	1,313,249	0	1,313,249
Other Receivables	0	1,478	(1,478)
Inventory and Prepaids	162,244	153,869	8,375
Total Current Assets	<u>7,980,968</u>	<u>6,902,770</u>	<u>1,078,198</u>
Fixed Assets			
All Structures	63,200,677	63,200,677	0
Machinery and Equipment	418,064	418,064	0
Less Accumulated Depreciation	<u>12,221,754</u>	<u>12,159,754</u>	<u>62,000</u>
Fixed Assets Net of Depreciation	<u>51,396,987</u>	<u>51,458,987</u>	<u>(62,000)</u>
Other Assets			
Investment in Sunset Banking Project	1,627,928	1,627,928	0
Total Other Assets	<u>1,627,928</u>	<u>1,627,928</u>	<u>0</u>
Total Assets	<u>61,005,883</u>	<u>59,989,685</u>	<u>1,016,198</u>
Total Liabilities & Equity			
Equity			
Capital Contributions From KDWD	8,890,130	8,890,130	0
Equity From Past Years	53,539,365	53,539,365	0
Accumulative Equity - Current Year	<u>(1,423,612)</u>	<u>(2,439,810)</u>	<u>1,016,198</u>
Total Equity	<u>61,005,883</u>	<u>59,989,685</u>	<u>1,016,198</u>
Total Liabilities & Equity	<u>61,005,883</u>	<u>59,989,685</u>	<u>1,016,198</u>

Kern Delta Water Banking Project
Cash Variance Analysis
October 31, 2022

Cash Received:

Received From KDWD - CVC Ops/Power	739
Received From ID#4 - CVC Ops/Power	739
Interest Received	59
	<hr/>
	1,536

Cash Disbursed:

PG&E - Well Power	(315,370)
Bakersfield Well & Pump - Well mtce/repair - AE4, KI7	(23,695)
Weed Chemicals Purchased	(8,375)
Disbursements - Other	(2,125)
	<hr/>
	(349,564)

Positive/(Negative) Cash Variance Before FMV Adjustment	(348,028)
--	------------------

FMV Adjustment to Kern County Funds	106,080
--	----------------

Adjusted Positive/(Negative) Cash Variance	(241,948)
---	------------------

**Kern Delta Water Banking Project
Inventory/Prepays Variance Analysis
October 31, 2022**

Additions to Accounts:

Chemicals Purchased	8,375
	<hr/>
	8,375

Usage/Amortization:

Chemicals Consumed During Month	-
	<hr/>
	-

Net positive/(negative) variance	8,375
---	--------------

Kern Delta Water Banking Project
Statement of Operating Results
As of October 31, 2022

	<u>Current Month</u>	<u>Year to Date</u>
<u>REVENUE:</u>		
MET Revenue	1,313,249	2,349,991
Interest Revenue	59	37,695
Total Revenue	<u>1,313,308</u>	<u>2,387,686</u>
<u>EXPENSES:</u>		
Transfer and Exchange Fees		
TRF Fees	0	9,600
Total Transfer and Exchange Fees	<u>0</u>	<u>9,600</u>
Other Costs		
Power Cost - Wells	315,370	2,017,205
CVC Operating Costs	0	566,206
CVC Power Costs	0	4,582
Spreading OM&R	1,707	180,867
Wells OM&R and Other	24,113	183,975
FMV Adjustment	(106,080)	84,863
Depreciation	62,000	764,000
Total Other Costs	<u>297,110</u>	<u>3,801,698</u>
Total All Expenses	<u>297,110</u>	<u>3,811,298</u>
Favorable/(Unfavorable) Operating Results	<u>1,016,198</u>	<u>(1,423,612)</u>
Estimated 3rd and 4th Qtr Revenue - MWD		<u>2,378,000</u>
Estimated Fav/(Unfav) Operating Results		<u>954,388</u>

KERN DELTA WATER BANKING PROJECT

TREASURER'S REPORT

October

	2022	2021	2020	2019
Cash & Securities on hand - October 1, 2022	\$ 6,747,423	\$ 7,854,187	\$ 13,697,846	\$ 9,397,035
Add: October receipts	1,536	821,519	502,456	1,794,151
Less: October disbursements	(243,484)	(1,437,136)	(662,828)	(1,039,771)
Cash & Securities on hand - October 31, 2022	\$ 6,505,475	\$ 7,238,571	\$ 13,537,474	\$ 10,151,414
Citizens Business Bank	\$ 3,366,712			
Kern County Treasury	3,138,763			
	<u>\$ 6,505,475</u>			
Restricted Cash included in above:				
OM&R Spreading	\$ (129,098)	\$ (259,281)	\$ 901,305	\$ 518,813
OM&R Extraction	(647,434)	(690,438)	(107,951)	(137,772)
OM&R CVC/Delivery Canal	-	-	(3,534,492)	(3,225,816)
Take/Put Fees	(3,900,399)	(2,237,601)	(4,852,365)	(4,382,706)
Total Restricted	\$ (4,676,931)	\$ (3,187,320)	\$ (7,593,503)	\$ (7,227,481)
Cash Available for Construction - October 31, 2022	<u>\$ 1,828,544</u>	<u>\$ 4,051,251</u>	<u>\$ 5,943,972</u>	<u>\$ 2,923,935</u>

**Sunset Water Banking Project
Balance Sheet
As of October 31, 2022**

	Year To Date		Month-to-Month
	10/31/2022	09/30/2022	Variance
	Actual		
Assets			
Current Assets			
Cash & Cash Equivalents	1,987,359	1,248,559	738,800
Due From Banking Partners	0	1,127,929	(1,127,929)
Total Current Assets	1,987,359	2,376,488	(389,129)
Fixed Assets			
Construction in Progress	2,215,965	1,846,411	369,554
Total Fixed Assets at Cost	2,215,965	1,846,411	369,554
Net Fixed Assets	2,215,965	1,846,411	369,554
Total Assets	4,203,324	4,222,899	(19,575)
Liabilities & Equity			
Current Liabilities			
Trade Accounts Payable	0	0	0
Total Current Liabilities	0	0	0
Equity			
Contributions to Equity - KDWD	500,000	500,000	0
Contributions to Equity - KDWBP	1,627,928	1,627,928	0
Contributions to Equity - AEWS	2,127,929	2,127,929	0
Equity From Past Years	(930)	(930)	0
Accumulated Equity - Current Year	(51,603)	(32,028)	(19,575)
Total Equity	4,203,324	4,222,899	(19,575)
Total Liabilities & Equity	4,203,324	4,222,899	(19,575)

**Sunset Water Banking Project
Statement of Operating Results
As of October 31, 2022**

	<u>Current Month</u>	<u>Year to Date</u>
Revenue		
Interest Revenue	17	2,115
Total Revenue	<u>17</u>	<u>2,115</u>
Expenses		
Administrative Expense	0	1,775
FMV Adjustment	19,592	51,943
Total Expenses	<u>19,592</u>	<u>53,718</u>
Fav/(Unfav) Operating Results	<u><u>(19,575)</u></u>	<u><u>(51,603)</u></u>

SUNSET BANKING PROJECT

TREASURER'S REPORT

October

	2022	2021		
Cash & Securities on hand - October 1	\$ 1,248,559	\$ 66		
Add: October receipts	1,127,945	1,000,000		
Less: October disbursements	(389,145)	-		
Cash & Securities on hand - October 31, 2022	\$ 1,987,359	\$ 1,000,066	\$ -	\$ -
Citizens Business Bank 283,003				
Kern County Treasury 1,704,356				
<u>\$ 1,987,359</u>				
Unrestricted Reserves:				
None				
Total Reserves	\$ -	\$ -	\$ -	\$ -
Cash Available - October 31, 2022	\$ 1,987,359	\$ 1,000,066	\$ -	\$ -

Tab IV





**OPERATIONS AND PROJECTS
COMMITTEE MEETING**

**501 Taft Highway
Bakersfield, CA**

**TUESDAY November 1, 2022
10:30 AM**

A G E N D A

- 1. Call to Order**
- 2. Public Comment Period**
- 3. Assistant General Manager's Report:**
 - a. Approve the minutes of the Operations and Projects Committee Meeting of October 4, 2022
 - b. Encroachment Permit Update
 - c. District Facility and Banking Maintenance Report
 - d. Water Banking Construction and Power Invoices
 - e. Pending Development Projects
 - f. Tree Removal Quotes for Kern Island Canal at 10th Street
 - g. Sunset Basins Update
 - h. Old River Basins Update
- 4. Committee Comments**
- 5. Adjourn**

A handwritten signature in black ink that reads "Chris Bellue".

Chris Bellue
Assistant General Manager

Posted: Friday, October 28, 2022
Bakersfield, California

Requests for disability related modifications or accommodations, including auxiliary aids or services may be made by telephoning or contacting Madelyne Rodriguez at the District Office (661-834-4656). Please attempt to make such requests known at least 24 hours before the scheduled meeting. Pursuant to Government Code section 54957.5, any materials relating to an open session item on this agenda, distributed to the Board of Directors after the distribution of the agenda packet, will be made available for public inspection at the time of distribution at the District, 501 Taft Highway, Bakersfield, CA.



MINUTES OF THE OPERATIONS AND PROJECTS COMMITTEE
Tuesday, November 1, 2022

DIRECTORS PRESENT: Mendonca, Spitzer, and Fanucchi

OTHERS PRESENT: From KDWD: General Manager Teglia, Assistant General Manager Bellue, District Counsel Iger, Controller Duncan, and Staff Engineer DeLeon

CALL TO ORDER

Director Mendonca called the meeting to order at 10:30 A.M.

1. PUBLIC COMMENTS

None.

2. ASSISTANT GENERAL MANAGER'S REPORT:

- a. Approve minutes of the Operations and Projects Committee Meeting of October 4, 2022: **M/S/C (Spitzer/Fanucchi) (yes-3, no-0):** The Committee approved the minutes of the Operations and Projects Committee meeting held on October 4, 2022.
- b. Encroachment Permit Update: Mr. Bellue presented an encroachment request from PG&E to install cathodic protection devices on an existing gas line near the Eastside Canal at Quantico Street.
- c. District Facility and Banking Maintenance: Mr. Bellue discussed several items of note including completion of the turnout replacement project on the 13-Ditch, taking inventory for weir and turnout repairs needed on the Eastside Canal, replacement of backhoe window broken by homeless, removal of trees on the Eastside Canal at 30th Street and surface spraying of algae mats. Also noted, the new dump truck was received and is currently being equipped with District decals and license plates. Mr Bellue also discussed a new turnout that will be installed during the shutdown period on the Rim Ditch between the Kern Island Drain and Adobe Road.
- d. Water Banking Construction and Power Invoices: **M/S/C (Fanucchi/Spitzer) (yes-3, no-0):** The Committee recommended the Board approve payment of Water Banking and Power Invoices totaling \$246,747.53 (plus additional PG&E well energy costs) See the attached November 15, 2022, Invoice and Disbursements memo to the Board for a full breakdown of the invoices.
- e. Pending Development Projects: Mr Bellue referenced the Pending Development Projects list and discussed the residential developments affecting the Stine Canal, Branch 2 Canal, and Section 31 Ditch.
- f. Tree Removal Quotes for the Kern Island Canal at 10th Street: **M/S/C (Spitzer/Fanucchi) (yes-3, no-0):** The Committee recommends the Board accept the low quote provided by Alspaw Tree Service for \$40,000 to remove approximately 37 trees from the bank of the canal.
- g. Sunset Basins Update: Staff provided a brief update on this item.
- h. Old River Basins Update: Staff provided a brief update on this item.

3. **ADJOURN**

Director Mendonca adjourned the meeting at 11:24 A.M.

Respectfully submitted,

Joey Mendonca – Chair



To: Kern Delta Water District Board of Directors

From: Steven Teglia

Date: November 15, 2022

Re: Encroachment Permit Applications & Easement Requests

DISCUSSION:

Following are the organizations that have applied for an encroachment permit with Kern Delta Water District and a summary of their intended locations and purposes for encroaching.

Organization: PG&E

Location: Eastside Canal, East California Avenue

Purpose: Install corrosion protection for existing gas line

Anticipated Start Date: TBD

Maintenance Report

October 2022

1. **Structure and Turnout Repairs.** The following jobs were completed during the month
 - a. Replaced box and pipe on the 13 ditch turnout 3-6-22b.
 - b. Inspect turnouts and weirs on the Eastside and make a repair list.
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Replace window on backhoe (#404) that was damaged homeless person during encampment cleanup.
 - c. Fixed air leak and taillights on dump truck (#322).
 - d. Charged AC system on backhoe (#402).
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation and clean well pads.
 - b. Installed new meter on AE-4.
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Took sloper attachment to shop for welding repairs.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Removed tumbleweeds and cleaned the BV Canal.
 - b. Assisted in removing trees on Eastside by the Ice House.
 - c. Repaired wash in on Stine Canal.
 - d. Dipped the Central and Kern Island for debris removal where needed at crossings.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Assist with homeless encampment cleanup Kern Island and Eastside.
 - b. Repaired wash out on 18 North and South.
 - c. Dig for replacement of turnout and pipe on 13 Ditch (3-6-22B).
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Sprayed weeds on Rim, Burness, Randal and part of the Central.
 - b. Used Dozer to remove weeds from bottom of canal on BV from Pensinger to end and started on the Eastside starting from the end working north.
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds;
 - a. Surface sprayed algae mats due to not enough flow to do a drip treatment.
9. **Rodent Control**
 - a. Bait stations were checked and filled throughout the district this month.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, racks and screens on all canals running.
 - b. Cleanup of homeless encampments on Central, Eastside, and Kern Island.
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;

- a. Kern Island – At Columbus, 34th and 30th Streets.
12. **Safety Meetings.** Weekly tailgate safety topics were;
- a. Protect Your Eyes at All Times
 - b. Take 5
 - c. The Importance of Standard Operating Procedures
 - d. New Equipment Review
13. **Water Banking Activities.** The following jobs were completed during the month;
- a. Remove tumbleweeds along banks and fence lines.
14. **Future Projects.** The following projects will be completed as time permits:
- a. Replace turnout on the Eastside at Bear Mountain Blvd.
 - b. Install new turnout for customer on Rim Ditch
 - c. Build catwalk for safer screen cleaning near the head of Stine Canal
15. **Future Water Banking Projects.**
- a. Install permanent staff gauges at basin properties.



Project #	Status	Organization	Project	Facility	Location	Plans		Approval Process		Comments
						Received	Reviewed	EP	Board	
1	P	AEWSD	FFP Inter-tie	Eastside Canal	South of Muller Road	-	-	X	-	Construction slated for December 2022
2	P	AT&T	Install fiber crossing	Central Branch Canal	Panama Lane	X	X	X	-	Construction TBD
3	P	Cal Water	Waterline	Kern Island Main Canal	N Street	X	X	X	-	Insall water line under canal
4	P	Caltrans	Pumpkin Center	Multiple	Taft Hwy	-	-	-	X	Grant Deeds reviewed
5	P	DeWalt	Culvert Extension	Kern Island Main Canal	South of Hosking	X	P	-	X	Ongoing
6	P	EDP Renewables	Canal Access	Rim Ditch	Between I-5 and Ashe	-	-	-	X	Access agreement for solar project
7	P	KC Superintendent of Schools	Block Wall	East Branch Canal	Union Ave					Staff yet to receive plans
8	P	KDWD	Grading plan	Old River Basins	North of Taft Hwy	-	-	-	X	Currently out to Bid
9	P	KDWD	Pumps and pipeline(s)	Sunset Basins	North of Sunset Blvd	X	X	-	X	Construction expected in October
10	P	KDWD	Traveling Screens	Central Branch Canal	North of AE Intake Canal	-	-	-	X	Construction expected in December
11	P	KDWD	Wells	Old River Basins	North of Taft Hwy	-	-	-	X	Permits for new wells underway
12	P	KDWD	Annual Engineering Report	N/A	N/A	-	-	-	-	Under review
13	P	KDWD	2021 Crop Report	N/A	N/A	-	-	-	-	Under review
14	P	Koostra Dairy	Solar Project	Central Branch Canal	West of Adobe Rd	-	-	-	X	No update
15	P	Lane Engineers	Culvert Extension	Kern Island Main Canal	North of Taft Hwy	X	P	-	X	Review completed, plans acceptable
16	P	Lane Engineers	Utility crossing	Kern Island Main Canal	North of Taft Hwy	X	P	X	-	Review completed, plans acceptable
17	P	Laurel Ag	New turnout	Eastside Canal	End of Eastside	X	P	X		Under review
18	P	LAV // Pinnacle	Pipeline & Realignment	Branch One Canal	South of Taft Hwy	-	-	-	X	No update
19	P	McIntosh & Associates	Pipeline & Realignment	Section 31 Ditch	North of McCutchen	X	X	-	X	Waiting for new turnout structure
20	P	McIntosh & Associates	Pipeline & Realignment	Branch II Canal	North of McKee	X	P	-	X	Zeiders working with McIntosh
21	P	McIntosh & Associates	Wrought Iron Fencing	Branch One Canal	East of Hwy 99	X	X	X	-	Waiting for contractor insurance
22	P	McIntosh & Associates	Pipeline & Realignment	Stine Canal	West of Gosford	-	-	-	X	No update
23	P	McIntosh & Associates	Canal realignment	Stine Canal	North of McCutchen	X	P	-	X	No update
24	P	Memorial	Solar Project	Eastside Canal	North of 34th Street	-	-	-	X	No update
25	P	Murray Family Farms	Install sign	Rim Ditch	North of Rim Ditch	X				Sign posts are in
26	P	PG&E	Corrosion protection	Eastside Canal	E California Ave	X	X	X		Waiting for Insurance and EP Fee
27	P	PG&E	Bridge removal	Eastside Canal	North of 30th Street	-	-	-	X	No clear timeline to complete project from PG&E
28	P	PG&E	Undgerounding power, 34th St	Multiple	34th Street	X	X	X	-	No update
29	P	South Valley	Well discharge	Kern Island Main Canal	South of McKee	X	X	X	-	Purge well into canal
30	P	WRMWSD/KDWD	5G Tie-In	Buena Vista	North of S. Lake Rd	-	-	-	-	On going staff discussions
31	C	PG&E	Overhead Power	Central Branch Canal	South of Panama Lane	X	X	X	-	As of 1/13/2022, PG&E has not installed new crossing
32	C	Power Plus!	Temp Overhead Power	Central Branch Canal	Central near KD-02 Site	X	X	X	-	Installed
33	C	Swanson Engineers	Branch One Easement	Branch One Canal	Planz Road	X	X		X	Quitclaim of old easement needs to be recorded
34	C	Cal Water	New water line crossing	13 Ditch	South of Shafter Rd	-	-	X	-	Bore completed. Waiting for temp line to be removed
35	C	PG&E	Overhead Power	Stine Canal	North of McCutchen	X	X	X		Overhead power installed
36	C	KHSD	Pedestrian path	Central Branch Canal	North of Panama Lane	X	X	X	-	Temporary pedestrian path insalled
37	C	McIntosh & Associates	Culvert Extension	Eastside Canal	South of Redbank	X	X	-	X	Culvert Extension completed
38	C	Kern Oil Refining	Relocate vents	Central Branch Canal	Panama Lane	X	X	X	-	Relocation of existing vets
39	C	KDWD	Fencing	Banking Ponds	Romero, KI, B1 Basins	-	-	-	X	Board approved contract with Lamont Fence
40	C	KDWD	East Branch Canal Pipeline	East Branch Canal	South of Casa Loma	-	-	-	-	Busted pipeline



To: Kern Delta Water District Board of Directors

From: Chris Bellue

Date: November 1, 2022

Re: Tree Removal Quotes for KI Canal at 10th Street

RECOMMENDATION:

Staff recommends selecting Alspaw Tree Service, for complete tree removal.

DISCUSSION:

Thirty-seven (37) trees, mostly palms, varying in size from 1-foot to 3-foot diameter are growing within the District's easement on the east bank and near the water line of the Kern Island Canal, between California Avenue and 10th Street. The District has never had access to the east bank in this area because the homes and fencing were built very close to the canal. If the trees were left in place there is an inherent risk of debris and possibly entire trees falling into the canal. The trees regularly drop palm fronds and debris into the Canal plus the erosion from the flowing water has exposed many of the root balls. Because this portion of the canal is in town, it isn't patrolled by District staff as frequently as other areas that are closer to our customers, which presents a risk of blockage not being noticed in a timely manner. The trees provide afternoon shade to the adjacent property so some public outreach would be prudent to alert the residents of the project.

QUOTES FOR REMOVAL OF 5 TREES:

District staff reached out to three companies for tree removal. The quotes are summarized below.

Company		Complete Removal
Alspaw Tree Service		\$40,000
Rancho Tree Service		\$50,000
General Tree Service		\$72,000















2019 - 2021 ANNUAL ENGINEERING REPORT





Table of Contents

1.0 Introduction.....	3
2.0 Operations	5
2.1 Operations Overview	5
2.2 Transfer Water	5
3.0 Current Construction Projects.....	7
3.1 District Office Expansion	7
3.2 Conveyance Facilities	7
3.2.1 Buena Vista Canal Realignment	7
3.2.2 Branch One Canal Realignment.....	8
3.2.3 Centennial Corridor	8
3.2.4 Eastside Canal	10
3.2.5 Kern Island East Branch	10
3.2.6 Kern Island Central Branch Canal at Panama Lane.....	11
3.2.7 Burness Ditch and Stillson Ditch at Taft Highway.....	13
3.2.8 Section 23 Ditch Multi-Use Path	14
3.3 Groundwater Banking Facilities	14
3.3.1 Kern Island Basins	15
3.3.2 Branch One Basins.....	16
3.3.3 Romero Basins	17
3.3.4 Stonefield Basins	19
3.3.5 Buena Vista Basins	19
3.3.6 Houchin Borrow Pit	19
3.3.7 Stine Basins.....	19
3.3.8 Old River Basins.....	20
3.3.9 Howard Frick Recharge Basins.....	20
3.3.10 Sunset Basins	20
3.4 Groundwater Extraction Wells.....	21
3.4.1 Well Preventative Maintenance – 2018	21
4.0 Future Capital Improvement Projects	23
4.1 Conveyance Facilities	23
4.1.1 FFP Eastside Canal Intertie.....	23
4.1.2 Kern Island Canal	24
4.1.3 Rim Ditch “The Notch”	25



4.1.4 Eastside Canal	25
4.1.5 Stine Canal North of California Avenue	25
4.2 Groundwater Extraction Wells.....	26
4.2.1 Metering Wells in Compliance With SGMA.....	26
4.3 Groundwater Recharge Facilities	26
4.3.1 New Groundwater Recharge Properties.....	26
4.3.2 Recharge Measurement.....	26
5.0 Maintenance Activities	28
5.1 Maintenance Activities – 2019	28
5.1.1 Kern Delta Water District Maintenance.....	28
5.1.2 Kern Delta Water Banking Maintenance	29
5.2 Maintenance Activities – 2020	29
5.2.1 Kern Delta Water District Maintenance.....	29
5.2.2 Kern Delta Water Banking Project Maintenance.....	30
5.3 Maintenance Activities – 2021	30
5.3.1 Kern Delta Water District Maintenance.....	30
5.3.2 Kern Delta Water Banking Project Maintenance.....	31



1.0 INTRODUCTION

Located south of the City of Bakersfield and south of the Kern River, the Kern Delta Water District (District) was organized in December 1965 to contract with the Kern County Water Agency (KCWA) for an imported water supply from the State Water Project, and to protect existing Kern River water rights. In 1976, the District acquired the Kern Island Water Company from the City of Bakersfield (City), which excluded the domestic Ashe Water Service Area, per Agreement 76-70 “Agreement for the Sale of Kern River Water Rights and Canals” (Agreement). From the Agreement, the District garnered water rights to five service areas: Buena Vista, Stine, Farmers, Kern Island, and Eastside, along with the respective canal distribution facilities, summarized in Table 1. The District realized early on that improvements to the canal distribution facilities were necessary to maintain continued efficient and reliable operation to meet water user requests.

Table 1: Canal Distribution System

Canal System	Canal Lengths in Miles			Turnouts
	Main	Laterals	Total	
Buena Vista	17	7	24	65
Stine	13	4	17	42
Farmers	11	12	23	31
Kern Island	24	42	65	300
Eastside	20	0	20	79
Total	84	65	149	517

Over the years, the District made concerted efforts to improve the canal distribution systems, seek out and develop water partnerships in response to the growing need to store (bank) water in the San Joaquin Valley during years with above average precipitation, and recover banked water during periods of drought or years with increased irrigation demands. The District has developed a water banking partnership with The Metropolitan Water District of Southern California (MWD) which consists of the construction of conveyance facilities, banking facilities, pipeline delivery systems, and groundwater extraction wells.

The importance of banking water increased due to the steady decline of groundwater levels and the implementation of the Sustainable Groundwater Management Act (SGMA) of 2014. The landmark law requires locally established Ground Water Sustainability Agencies (GSAs) to implement Groundwater Sustainability Plans (GSPs) tailored to their respective management areas. The goal of GSPs is to demonstrate a path to sustainability by the year 2040. The District joined with the City of Bakersfield, Improvement District No. 4 of KCWA, and local agencies in and around the City to form the Kern River Groundwater Sustainability Agency (KRGSA).

The District has compiled an annual report to highlight some of the major developments and improvements within the District over the course of the year. This year’s Annual Engineering Report (Report) captures activities from 2019 through 2021. With the District’s continued commitment to provide a reliable and efficient means of delivering water to its customers, the Report also details maintenance and repair activities, and potential future capital improvement



projects. The report also highlights alterations to District facilities to accommodate the continued urbanization of the City of Bakersfield and further development of water banking projects.

As there are many improvement projects currently in the planning stages, this Report also includes a preliminary Capital Improvement Plan (CIP) for the purposes of identifying projects that will enhance our ability to deliver safe and dependable water supply to our customers and improve our banking projects. The CIP summarizes some of the future construction efforts that will be undertaken by the District, including the construction of banking facilities, groundwater extraction wells, groundwater monitoring wells, and the rehabilitation of District conveyance facilities.



2.0 OPERATIONS

2.1 Operations Overview

The District's main water supply comes from the Kern River (pre-1914 appropriative rights acquired through Agreement 76-70), with an approximate long term average of 205,00 acre-feet per year (af/yr). Other water supplies available to the District include 25,500 af/yr of State Water Project Table A water (long term average of approximately 16,000 af/yr), Friant high flow water when available, and groundwater. In addition to managing its vast canal distribution system, the District also manages approximately 1,122-acres of groundwater banking facilities and twenty groundwater extraction wells (see sections 3.3 and 3.4 respectively of this report for further details). Table 2 below summarizes the water year in percent of historical average and the amount of water banked in those years. The values shown below do not include water banked due to canal seepage.

Table 2: Water Banking Summary

Water Year	%	Spreading Basins ¹ (acre-feet)	Grower Recharge ² (acre-feet)	Total Banked Water (acre-feet)
2015	25	-	-	-
2016	50	-	-	-
2017	274	59,939	10,000	69,939
2018	59	8,840	-	8,840
2019	176	53,432	-	53,432
2020	54	9,886	-	9,886
2021	22	849	-	849

2.2 Transfer Water

In November of 2017, the District reached a settlement with North Kern Water Storage District (Ventura County Superior Court Case NO. 65-2012-00425941-CU-WM-VTA) relating to the District's Kern River Water Allocation Plan and the use and disposition of Kern River water accruing to certain Kern River water rights owned by the District. Although this Report is not intended to summarize the settlement, it is important to note that the District's implementation of the Kern River Water Allocation Plan allows the District greater flexibility to fully utilize District river entitlements.

The ability to more fully utilize the District's river entitlements requires the District to ensure all canals are always in good operating condition for operation on short notice. Prioritizing facility improvements around this new schedule will require accelerated project schedules during canal shutdown periods, especially in December of each year. The use of outside contractors to ensure

¹ Spreading basins owned and operated by the District.

² 2017 Marks the first time the District paid landowners within the District to recharge water on private land.



all projects are completed within available shutdown windows is a tool the District may utilize more heavily in this new norm. Depending on the type of year and the amount of transfer water available, if necessary, secondary canals may be shut down for two to three-week intervals at various times of the year to perform necessary maintenance projects.

Historically, the District hired seasonal canal tenders between March and August. As peak irrigation demand tapered off (peak irrigation demand usually occurs in June and July), these seasonal employees were either retained or let go, depending on the District's needs. The District now keeps its canal tenders year-round and is always prepared to operate all canals and banking projects throughout the year. Calendar year 2018 represents the first year in which these new procedures were used. The District is maximizing the amount of water available for its use and has adjusted to the maintenance and operation demands accordingly.



3.0 CURRENT CONSTRUCTION PROJECTS

3.1 District Office Expansion

The District anticipates hiring more staff and adding office space to keep up with an increasing regulatory environment and the operation of expanding banking facilities. The District began planning a ±3,636-sqft expansion to the current office building in 2019. The expansion includes additional office space, storage space, improved reception area and board room, and an additional conference room. The District retained the services of Skarphol/Frank Associates to design the office expansion. Plans for the office expansion were approved in February 2020 and the project went out to bid by March 2020. The District awarded Black/Hall Construction with the construction contract. The office expansion project commenced in June 2020 and was completed by March 2021.

3.2 Conveyance Facilities

As shown in Table 1, the District owns and operates approximately 149-miles of canals that date back to the late 1800's when the individual canal companies were formed (Stine Canal Company, Buena Vista Canal Company, Farmers Canal Company, Kern Island Irrigating Canal Company, and Eastside Canal Company). The District has made concerted efforts to rehabilitate and expand facilities to maintain and enhance capacity for deliveries.

With many new farming entities, new cropping patterns, and aging water delivery structures, the District has endeavored to provide quality weirs and turnouts to accommodate a changing industry. The District must also adapt to increasing urbanization of agricultural land within its boundaries. Urbanization causes District facilities to be realigned, pipelined, or both, and possibly abandoned altogether. From 2019 through 2021, several improvements were made to District facilities, some by the District, others by private and public entities.

3.2.1 Buena Vista Canal Realignment

In 2019, a private developer approached the District to consider realignment of the Buena Vista Canal on the northeast corner of Harris Road and Buena Vista Road to accommodate a proposed apartment complex. After the District completed its review of the proposal and agreements were finalized (e.g., new canal easement, ditch eradication agreement, etc.), the project was allowed to move forward. The canal was realigned in an open channel and included a slight bend on the northeast corner of the property, a ninety-degree bend on the northwest corner of the property, and tie back into the existing road crossing. The Buena Vista Canal realignment project was completed in early 2020. Photos 1 and 2 on the next page are aeriels showing the canal alignment prior to 2020 and after completion of the project.



Photo 1: Buena Vista Canal alignment before 2020



Photo 2: Buena Vista Canal alignment completed

3.2.2 Branch One Canal Realignment

The Branch One Canal, south of Hosking Avenue was realigned and put into a pipeline to accommodate future commercial development. Approximately 509-feet of open channel canal was put into a 48-inch diameter reinforced concrete pipeline (RCP) and realigned to the north and west end of the property. The project will be completed in two phases: Phase One consists of laying 509-feet of RCP and installing an air vent, Phase Two consist of installing a junction box connecting the new pipeline with the old pipeline, just west of Hughes Lane, and installing a concrete bowl where the pipeline discharges back into an open canal.

3.2.3 Centennial Corridor

The Centennial Corridor Project (Project) plans to connect Highway 58 from where it ends at Real Road, to Interstate 5. The Project will cross only one of the District's facilities, the Stine Canal. Initially, the crossing of the Stine Canal was envisioned to be a bridge crossing, and therefore avoiding the need to extend the existing twin 60-inch RCP culvert at Stockdale Highway further South. However, the Thomas Road Improvement Program (TRIP) changed the design from a bridge crossing the Stine Canal to pipelining approximately 420-feet of the canal to accommodate a dirt embankment over the top of the pipeline. Prior to the start of construction, the City of Bakersfield and the District entered into a Common Use Agreement and a Ditch Eradication and Pipeline Agreement. The pipeline portion was completed in 2020 and the highway remains in various stages of construction. Photos 3 through 5 show the various stages of pipelining the Stine Canal.



Photo 3: Stine Canal Pipeline, looking southeast



Photo 4: Structural backfill over pipeline, looking south



Photo 5: Stine Canal pipeline discharge, looking north



3.2.4 Eastside Canal

The Eastside Canal poses a particular challenge to the District regarding the maintenance and quality of water transported to its customers and banking partners. The alignment of the canal is such that there is very little elevation change at any point along the canal (less than .03%), which equates to about 1.5 feet of drop per mile of canal. Flow velocities in the canal have always been low and result in significant sedimentation deposits, algae, and plant growth. The entirety of the Eastside Canal above State Route 58 has sediment deposits varying from one to three feet in depth. The District continues to remove sediment from the canal as time allows, and in 2020, the District removed sediment on the Eastside Canal between Owens Street and Miller Street (roughly a quarter mile) as shown in Photos 6 and 7. The District anticipates removing sediment from other portions of the canal every year to help improve flow capacity.



Photo 6: Eastside Canal, looking west towards Owens Street



Photo 7: Eastside Canal, looking east towards Robinson Street

3.2.5 Kern Island East Branch

The Kern Island East Branch Canal is a three-mile long canal that diverts from the Kern Island Central Branch Canal, north of Terrace Way and terminates roughly 1,250-feet south of Watts Drive. In 2020, the District cleaned approximately 400-feet of the Kern Island East Branch, north of Casa Loma Drive. This stretch has become overgrown with trees and brush. In 2021, the District made various improvements to facilitate more flow through the Kern Island East Branch, which included making modifications to the diversion structure immediately south of Casa Loma Drive



and modifications to the turnout that feeds the pump station just north of Watts Drive (see Photo 8).



Photo 8: Kern Island East Brach turnout replacement

3.2.6 Kern Island Central Branch Canal at Panama Lane

The Kern Island Central Branch Canal culvert crossing at Panama Lane was extended further south to accommodate the widening of Panama Lane to its full right-of-way width. The culvert extension consisted of extending the twin 60-inch RCP culvert, removing two turnouts on the west bank, relocating one turnout on the east bank, demolishing the existing weir, constructing a new weir further downstream, and installing a concrete canal liner from the new headwall to the new weir. The project included the conversion of a private ditch that served customers east of Cottonwood Road into a buried pipeline. The entire culvert extension project was completed in two weeks, starting around December 15th, 2021, and ending December 31st, 2021. The canal had to be operational by January 1st, 2022. Photos 9 through 12 show the various stages of construction.



Photo 9: Kern Island Central Branch, demolition of existing weir



Photo 10: Kern Island Central Branch, site prep looking south



Photo 11: Kern Island Central Branch, looking north from new weir



Photo 12: Kern Island Central Branch, looking south at new weir



3.2.7 Burness Ditch and Stillson Ditch at Taft Highway

Both the Burness and Stillson Ditches cross Taft Highway via a corrugated metal pipe (CMP) culvert. As early as 2018, it became apparent that these crossings would have to be repaired or replaced as signs of deterioration began to show (a small pothole opened on the Burness Ditch and the Stillson Ditch pipe culvert began to collapse behind the headwall, south of Taft Highway). District Staff began discussing solutions with Caltrans in April of 2019. The District and Caltrans entered a Consent to Common Use Agreement (CCUA) whereby Caltrans would assume responsibility for maintaining the culvert crossings. Both crossings were eventually replaced in September of 2020. The Taft Highway crossing for the Burness Ditch is now a 6-ft by 3-ft box culvert as shown in Photo 13 and the Stillson Ditch crossing is a 24-inch polyvinyl chloride pipe.



Photo 13: Burness Ditch box culvert, looking north



3.2.8 Section 23 Ditch Multi-Use Path

The City of Bakersfield proposed to construct a 12-ft wide Multi-Use Path on the south bank of the District's Section 23 Ditch, along Pacheco Road between Stine Road and Wible Road. The City provided engineering plans to the District for a formal review and comment process. Upon review of the plans and the execution of a Common Use Agreement between the City and the District, the project was allowed to move forward. The District negotiated weed-control services to be paid for by the City as part of the project. The presence of a curb along Pacheco Road and the Multi-Use Path should cut down on the use of the canal bank for parking by the public. Although the District can still access both banks of the 23 Ditch with its equipment, the need for routine maintenance, such as side sloping, will be much less frequent now. Construction began in October 2021 and ended in November 2021 (see Photo 14 below).



Photo 14: Multi-Use Path, looking west

3.3 Groundwater Banking Facilities

The District owns and operates approximately 1,122 gross acres of groundwater banking facilities located along the Kern Island Canal, Branch One Canal, Buena Vista Canal, Stine Canal, Farmers Canal, Smith Judd Canal, and Eastside Canal as shown in Exhibit 1. Table 3 summarizes the District's groundwater banking projects.



Table 3: Kern Delta Water District Groundwater Banking Projects

Banking Facility	Location	Year Constructed	Total Area (Gross Acres)	Spreading Capability (ac-ft/day)	2017 Observed Infiltration (ac-ft/day)
Kern Island Basins	NE Corner of Houghton and South “H” Street	2008	175 ³	70	37
Stine Basins	Stine Canal, South of Taft Hwy	2009 & 2010	40	19	23
Stonefield Basins	Smith Judd Canal, north of Bear Mt. Blvd	2010	79	22	25
Buena Vista Basins	Buena Vista Canal, north of Taft Highway	2010	227	157	91
Romero Basins	Between Ashe Rd and Stine Rd, North of Romero Rd	2015	165	67	45
Howard Frick Basins	Eastside Canal, south of Di Giorgio Road	2015	71	19	21
Houchin Pit	Buena Vista East Canal, North of Bear Mt. Blvd	2010	72	14	14
Branch One Basins	Branch One Canal, north of Curnow Road	2018	74 ⁴	TBD	N/A
Sunset Basins	NW corner of Sunset Blvd and Edison Road	2022	75 ⁵	TBD	N/A
Old River Basins	NE corner of Old River Road and Taft Hwy	TBD	144	TBD	N/A
Totals			1,122	368	256

3.3.1 Kern Island Basins

Located on the northwest corner of South “H” Street and Houghton Road, the Kern Island Basins Project was the first groundwater recharge facility built by the District. The original facility consisted of 157 acres, six ponds, and four groundwater extraction wells. In 2020, the District purchased an additional 19 acres to the north of the existing basins as shown in Exhibit 2. The additional property became the seventh pond at the Kern Island Basins and came with an existing well. After further review, the District will either abandon this well or convert it into a monitoring well. The construction of Pond 7 was completed in 2021, with the District installing a new turnout from Pond 1 to Pond 7 later that year (see Photos 15 and 16).

³ Includes an additional 19 gross acres the District acquired in 2020

⁴ Includes an additional 8.88 gross acres the District acquired in 2020

⁵ This is a joint project with AEWS. The total project size is 150 gross acres; of which 75 are attributable to the District’s total recharge area.



Photo 15: Kern Island Basins Expansion, east levee construction



Photo 16: Kern Island Basins Expansion, new turnout

3.3.2 Branch One Basins

The Branch One Basins, located at the terminus of the Branch One Canal, north of Curnow Road, were completed in 2018, totaling 66 acres. This groundwater recharge facility consists of two ponds, one to the north of the Branch One Canal, and one to the south of the Branch One Canal as shown in Exhibit 3. The District acquired an additional 8 acres immediately east of Pond 2 in 2020. The District incorporated the additional acreage into Pond 2 by removing the eastern levee of Pond 2, and reconstructing it along the eastern property line and consequently extending the southern levee further east. The existing groundwater well located on the northern end of Pond 1 will either be converted into a monitoring well or abandoned after further review by the District. The Branch One Expansion was completed in early 2021. Photos 17 and 18 show construction of the east and south levees respectively.



Photo 17: Branch One Basins Expansion, east levee construction



Photo 18: Branch One Basins Expansion, south levee construction

3.3.3 Romero Basins

The Romero Basins recharge facility is a 165-acre facility, located on the Farmers Canal between Ashe Road and Stine Road, and north of Romero Road (see Exhibit 4). It consists of nine ponds and one groundwater extraction well. The main facility, Ponds 1 through 7 were completed in 2015. During the high-water flow year of 2017, the District constructed Pond 8 to serve as an overflow pond and made slight modifications to Pond 9. The modifications to Pond 9 included taking out an old booster pump and a portion of the pump stand to facilitate water movement to the southern portion of this pond. In 2021, the District hired a contractor to flatten and level the bottom of Pond 9 and maximize the wetted area to the north. The project created a below grade recharge pond and the excess soil was used to build a berm surrounding the pond. The excess soil could be removed at a future date if needed for other projects. The Pond 9 project was completed in July 2021. As mentioned, the site has one groundwater extraction well, FR-02, which is plumbed into the Farmers Canal and the Randall Ditch. No further groundwater extraction wells are planned for the Romero Basins. Photos 19 and 20 show various stages of Pond 9 construction.



Photo 19: Romero Basins, Pond 9 construction, looking south



Photo 20: Romero Basins, Pond 9 construction, looking west



3.3.4 Stonefield Basins

Completed in 2010, the Stonefield Basins consist of four ponds on 79 acres, north of Bear Mountain Boulevard and east of the Smith Judd Canal. The Stonefield Basins can return flow back to the Smith Judd Canal via a return structure in Pond 3 as shown in Exhibit 5. As no return to the Smith Judd Canal exist in Pond 4, the water level in Pond 4 needs to always be less than a foot so it can serve as a capture pond in the event a levee breaches or the water level gets too high in Ponds 1 through 3. The current groundwater extraction well, FR-01, located on the northwest corner of Pond 1, will either be converted into a monitoring well, plumbed into the Smith Judd Canal, or abandoned altogether after further review by the District.

3.3.5 Buena Vista Basins

The Buena Vista Basins are currently the District's largest groundwater recharge facility at 277 acres, ten ponds, and four groundwater extraction wells (see Exhibit 6). The Buena Vista Basins were completed in 2010, the same year as the Stonefield Basins. The District plans to abandon the well in Pond 2 due to the fact the well casing has collapsed and the site is caving in.

3.3.6 Houchin Borrow Pit

The Houchin Borrow Pit is located on the northwest corner of I-5 and Bear Mountain Boulevard as shown in Exhibit 7. While the Houchin Borrow Pit is extremely deep and has a large capacity, the infiltration rates are very low. Care needs to be taken that once the Houchin Borrow Pit is full, the inflow rate needs to be very low.

3.3.7 Stine Basins

Currently, there are three groundwater recharge basins served by the Stine Canal, south of Taft Highway. The first basin, the Stine Regulating Basin, is approximately ½ mile south of Taft Highway. The North and South Triangle Basins are located where the Stine Canal intersects with Houghton Road (see Exhibit 8).

The Stine Regulating Basin is controlled by an overflow structure built on the southwest corner of the site (see Exhibit 9). In 2019, the District discovered that the overflow wall needed to be lowered by one (1) foot to function as intended and hired an outside contractor to saw cut one (1) foot from the overflow wall as shown in Exhibit 9.

The District also hired a land-leveling contractor in 2019 to remove sediment from all three ponds and stockpile excess dirt on the northern levees of each pond. Approximately one foot of topsoil was removed from the west triangle basin which accomplished two things; it exposed the sandy soil and created additional storage for surge flows. The Stine Canal dead ends into a terminal reservoir located about one mile south of this pond and is susceptible to overflowing the banks when excess flows occur. The District converted both triangle ponds from gate control to board control to accept surges.



3.3.8 Old River Basins

In 2021, the District acquired 144 acres of former agricultural land on the northeast corner of Old River Road and Taft Highway. The property came with one production well, Stine-01 (ST-01 for short) capable of producing 3 cubic feet per second (cfs) and the District plans to plumb the well into the canal. Since the acquisition, the District has removed hundreds of feet of old concrete irrigation line and stockpiled the material nearby for use as riprap. The District had the property surveyed and created a conceptual basin design which was given to a design engineer to prepare plans, specifications and bid documents for the construction of the facility. The project should go out to bid in the fall of 2022.

3.3.9 Howard Frick Recharge Basins

Formerly the Di Giorgio Basins, the Howard Frick Recharge Basins are located on the southwest corner of Di Giorgio Road and the Eastside Canal. This 70-acre site consists of six ponds, with the ability to return flow to the Eastside Canal from Pond 2 (see Exhibit 10). Pond 2 is also capable of accepting surge flow from the Eastside Canal via a control structure located south of Di Giorgio Road.

3.3.10 Sunset Basins

The Eastside Canal serves as a common boundary between the District and Arvin-Edison Water Storage District (AEWSD). As both Districts overlie a common groundwater basin and have constructed several joint use facilities in the past to promote water management between the two Districts, both Districts embarked on a project to create a joint-use groundwater recharge facility along the Eastside Canal.

In 2018, 150 acres of potential groundwater recharge land, located on the northwest corner of Sunset Boulevard and Edison Road, was up for sale. The District hired a contractor to drill several exploratory soil borings at the site. Based on the borings, the District determined that the ground was favorable for water banking. Both Districts entered a cost share agreement for the purchase of the subject property. As the property was located outside the District's historical boundaries, the District proceeded with annexation No. 3 to incorporate the newly acquired property into the District.

To maximize the use of the site, AEWSD plans to construct an interconnection between their Forrest Frick Pipeline (FFP) and the District's Eastside Canal. The intertie will be located approximately ¼ mile south of Muller Road and a ¼ mile west of Highway 184 and will be capable of delivering between 30-cfs to 40-cfs into the Eastside Canal.

A hydraulic model was performed on the canal from Muller Road to the end of the canal and it was found that with some minor modifications, the canal should be able to handle the additional flows. Because the elevation of the newly acquired property is higher than the Eastside Canal, the



Sunset Basins will require the construction of pump stations and pipeline(s) to get the water from the canal to the recharge ponds.

The construction of the Sunset Basins will be conducted in two phases: Phase I included the construction of the pond levees, inter-basin structures, a gravity structure to allow banking in Pond 4 by gravity and to allow surge flows to enter the facility. Phase I also included raising the banks of the Eastside Canal below the facility such that the surge flows will be contained in the canal and be capable of flowing into the gravity diversion pond. Phase II consists of the construction of pump stations and a delivery pipeline to the eastern most pond. Construction of Phase I began in November of 2021 and is expected to be completed by February 2022. Phase II and the FFP Eastside Canal Intertie are expected to be completed later in 2022.

3.4 Groundwater Extraction Wells

The District currently owns and operates twenty (20) groundwater extraction wells located throughout the service area. Most of these extraction wells were built between 2009 and 2010. These wells have been and are being serviced monthly to maintain their performance. Table 3 on page 19, includes a list of wells owned and operated by the District and the dates in which they were constructed and/or rehabilitated.

3.4.1 Well Preventative Maintenance – 2018

The last time the District operated wells for payback to our banking partners was during 2016. When a well is turned on, heat is generated in the circuitry of the control panel. The repeated cycle of the heat up and cool down can cause fittings to loosen over time, which in turn creates more heat. It is important to maintain the well panels by checking the resistance of wires from the motor to the panel to ensure the insulations aren't decaying and to inspect all fittings in the panel for tightness. The District retained the services of an electrical contractor to clean and inspect every well control panel owned by the District. The process involved cleaning each control panel enclosure and checking the termination points of all critical wires for tightness. The fans and oil drippers were also inspected and repaired as needed.



Table 4: Well Construction and Rehabilitation

Well Name	Location	Canal to Receive Recovered Water	Year Constructed or Rehabilitated	Capacity (cfs)
KD-01	N/o Fairview Rd & South "H" Street	Kern Island Main Canal	2012	4.7
KD-02	SW/o E Panama Ln & Cottonwood Rd	Central Branch Canal	2012/2014	3.6
KB-01	NW Corner of Kern Island Basins	Kern Island Main Canal	2010	8.82
KB-03	NE Corner of Kern Island Basins	Kern Island Main Canal	2010	9.11/4 ⁶
KB-04	Westside of Kern Island Basins	Kern Island Main Canal	2010	8.84
KB-06	Eastside of Kern Island Basins	Kern Island Main Canal	2010	9.10
KI-07	S/o Berkshire Rd and South "H" St	Kern Island Main Canal	2010	9.80
KI-08	N/o Hosking Ave & South "H" St	Kern Island Main Canal	2010	9.64
AE-01	SW/o District Blvd & Ashe Rd	Stine Canal & Kern Island Main Canal	2010	10.16
AE-02	S/o Panama Ln & Akers Rd	Kern Island Main Canal	2010	9.82
AE-03	S/o Panama Ln & Wible Rd	Branch One Canal and Kern Island Main Canal	2010	10.13
AE-04	S/o Panama Ln & South "H" Street	Kern Island Main Canal	2010	10.02
FR-01	NW Corner of Stonefield Basins	Smith Judd Canal	TBD	TBD
FR-02	SW/o Taft Hwy and Stine Rd	Farmers Canal	2013	5.62
FR-03	SW/o Panama Ln & Stine Rd	Farmers Canal	2012	6.51
BV-02	NE corner of Buena Vista Basin Pond 5	Buena Vista Canal	2010	9.62
BV-03	NW Corner of Buena Vista Basin Pond 5	Buena Vista Canal	2010	9.44
BV-04	NE Corner of Buena Vista Basin Pond 6	Buena Vista Canal	2010	9.69
BV-05	NE Corner of Buena Vista Basin Pond 7	Buena Vista Canal	2010	9.73
ST-01	Old River Basins	Stine Canal	TBD	3.00
Total				165.82

⁶ This well motor was converted to a variable frequency drive and currently operates at 4 cfs



4.0 FUTURE CAPITAL IMPROVEMENT PROJECTS

In addition to several ongoing projects, the District attempts to identify future Capital Improvement Projects that will enhance operations to allow for improved ability to store water, reclaim banked water, and transport water to any of the facilities within the District and to the District's partners. Several canals will require reconstruction efforts, banking facilities will be constructed, existing basins will be maintained, and additional groundwater recovery wells will need to be constructed. The following is a brief summary of CIP's the District is considering taking on in the near future and is not meant to be an all-inclusive list.

4.1 Conveyance Facilities

The District's conveyance facilities have been improved significantly since the initiation of the District's Water Banking Projects. Operation of the District canals is more efficient, and flows are more accurately controlled and measured. The following are additional facilities that the District is considering for the continued expansion of the District's Water Banking Projects.

4.1.1 FFP Eastside Canal Intertie

As outlined in section 3.3.10, AEWSO is proceeding with plans to construct an intertie between their FFP and Kern Delta Water District's Eastside Canal. The plan is to connect a 30-inch diameter pipeline from FFP's Manhole No. 2 and split flows between two 36-inch diameter discharge pipelines that discharge into the Eastside Canal. Figures 1 and 2 show a 60% design for the FFP Eastside Canal Intertie.

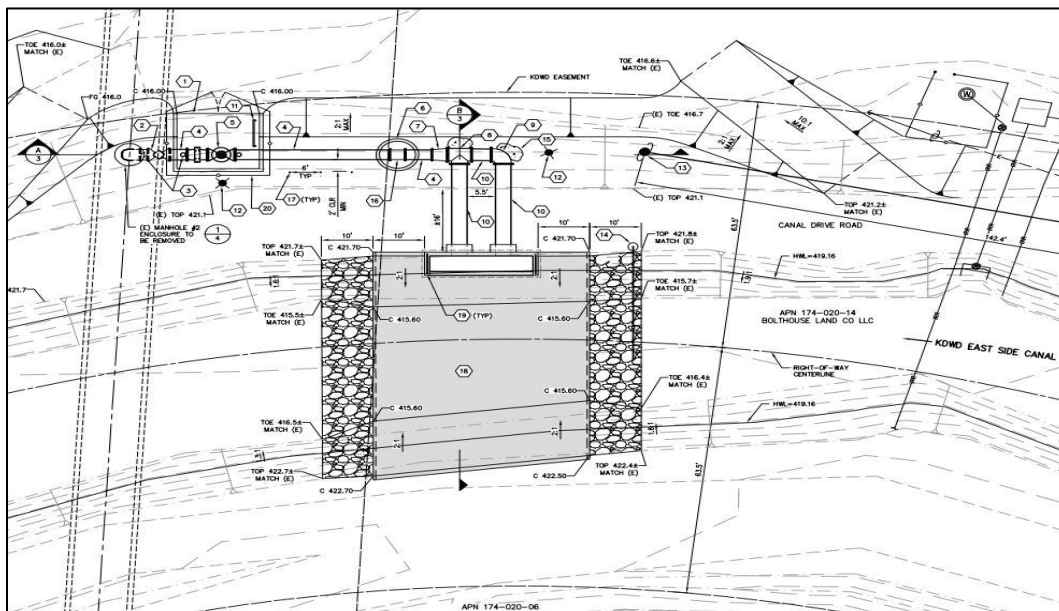


Figure 1: Plan view of the proposed FFP Eastside Canal Intertie



The Kern Island Canal received much needed rehabilitation over the past several years; however, there are still locations that need improvements for the canal to be operated as planned for water banking and irrigation demands.

24 | Page



4.1.3 Rim Ditch “The Notch”

The east bank of the Rim Ditch, approximately three miles south of Bear Mountain Boulevard, is often referred to as the Notch. Historically, the east bank had to be notched out to allow heavy storm flows from the foothills in the Tejon Creek area to flow into the canal. A natural drainage course that receives storm water from Adobe Road, is located just east of the Notch. If the Notch isn't present, storm flows would fill up this drainage course, flood the adjacent field, and eventually breach into the canal.

At about 4:00 AM on Saturday, February 18, 2017, Caliente, Sycamore, Comanche, Tejon, El Paso, Pastoria, and Grapevine Creeks all started flooding the valley floor from heavy rains the night before. All these creeks, except Caliente, come together at Adobe Road and threatened to breach into the Rim Ditch either at the Notch or further downstream at the Herring Road drainage ditch. In 2017, a turntable pump was placed at the Notch to pump water from the drainage ditch into the Rim Ditch. Had this not been done, flood water would have breached uncontrollably into the canal, causing a surge of water and sediment to be sent downstream.

Although the pump worked well in 2017, it is often quite difficult to get equipment to the Notch area due to the slippery and muddy conditions. Furthermore, if stormwater runoff peaks at night, or on a holiday, it can be difficult to get personnel on site on short notice. A profile of a conceptual design to serve as a safety measure to handle both storm water and heavy flows within the canal is shown in Exhibit 14.

4.1.4 Eastside Canal

The District plans to continue the hydraulic model of the Eastside Canal that was started as part of the Sunset Basins Project (see section 3.3.10 for more information) and model the entirety of the canal to identify key areas of improvement. In addition to the hydraulic model, the District will continue to remove sediment build up within the canal as time allows.

4.1.5 Stine Canal North of California Avenue

The head of the Stine Canal comes off the Carrier Canal, south of Truxtun Avenue and west of Highway 99. From an open channel, it then transitions into an 84-inch diameter pipeline as it goes underneath the railroad, then transitions into an open ditch for approximately 295-feet, then transitions into two 60-inch diameter pipes as it goes underneath California Avenue. The District tries to avoid transitions from pipeline, to open channel, back to pipeline in relatively short stretches, as it tends to increase losses within the canal. Other issues that arise from leaving this portion of the canal as an open ditch are the homeless encampments that occur in the canal pipeline and the buildup of trash. Exhibit 15 shows the pipeline alignment as well as proposes continuing the 84-inch line into a transition structure and exits into two 60-inch pipes.



4.2 Groundwater Extraction Wells

To support the District's water banking program, the District anticipates drilling between three to five additional groundwater extraction wells. It is envisioned that two more groundwater extraction wells will be added to the Old River Basins and one groundwater extraction well built at the Howard Frick Basins. The locations of the other two groundwater extraction wells are yet to be determined. It is possible that the well at the Stonefield Basins (FR-01) can be rehabilitated to recover water banked in those basins; however, from initial inspection, this well may need to be abandoned and replaced.

4.2.1 Monitoring Wells in Compliance With SGMA

The District joined with the City of Bakersfield, Improvement District 4 of the Kern County Water Agency and other local agencies to form the KRGSA. The KRGSA completed a final draft of their GSP in December 2019 and submitted it to the state of California in January 2020. The GSP requires the District to monitor the groundwater levels in several groundwater extraction wells on a semi-annual basis. Prior to SGMA, the District tracked the depth to water level in several wells as part of other programs: California Statewide Groundwater Elevation Monitoring (CASGEM), maintenance on District owned wells, State Water Project assessments, and data to KCWA. Further details may be found in the KRGSA's GSP.

4.3 Groundwater Recharge Facilities

4.3.1 New Groundwater Recharge Properties

The District currently owns and operates eleven groundwater recharge sites, totaling 1,122 gross acres, which are used in wet years to recharge the underground aquifer. This total includes the 75-acres of land attributed to the District for the Sunset Basins, the 19-acres to the north of the Kern Island Basins, the 8.88-acres to the east of the Branch One Basin's Pond 2, and the 144-acres of the newly acquired Old River Basins on the northeast corner of Old River and Taft Highway.

The potential of SGMA regulations possibly restricting groundwater pumping is motivation to enhance recharge capabilities. In 2017, the District banked approximately 60,000 acre-feet through direct recharge in its recharge basins. This amount does not include canal seepage, grower recharge, or in-lieu deliveries. Since 2017, the District has purchased additional recharge ground and it is estimated that an additional 94-acres would be needed to achieve the District's goal of banking approximately 90,000 acre-feet per year when high flow water is available.

4.3.2 Recharge Measurement

The District measures recharge amounts using two basic methods: 1) by measurement of water into the basins through waterman gates and subtracting out whatever leaves the lower basins, and/or 2) collecting canal flow rates at the closest weirs upstream and downstream of the basins with the difference in flow being what was recharged. While this is accurate in determining the



overall effectiveness of all ponds at a given site, it does not show the effectiveness of individual ponds.

In the future, staff gauges need to be installed in all the individual ponds to accurately track performance of each pond. In the beginning of 2017, the high flow river water was turbid and most of the canals were running for the first time in a long while, meaning a lot of dirt was suspended in the water. As fine-grained particles enter the basins, it is important to track performance of individual ponds in order to determine when remedial options are considered. Infiltration rates need to be determined during each recharge period and compared to the previous recharge period to track trends. It is normal for spreading ponds to silt up over time, but without collecting the data, it is difficult to evaluate the effectiveness of groundwater recharge.



5.0 MAINTENANCE ACTIVITIES

Maintenance activities are performed on a regular basis throughout the year on all canals, canal crossings, turnouts, District owned wells and recharge basins. These activities are presented below. The following sections are routine maintenance activities performed by the District.

5.1 Maintenance Activities – 2019

The Maintenance staff's operation in the 2019 calendar year continued to incorporate two different areas of maintenance summarized below: normal District maintenance, and water banking maintenance.

5.1.1 Kern Delta Water District Maintenance

The following activities were performed by Kern Delta Water District's maintenance staff during 2019 for regular District operations.

- Repairs were made to numerous turnouts/gates, which are summarized in the attached monthly maintenance reports: Over the course of the year, these gates encountered operational problems, including minor leaking, rusted components, sediment build up, and other problems ranging from slight inconvenience in operating to major problems that limited or even prevented the use of the gates (i.e., slide gate was broken, gate had been buried by sediment, etc.).
- Motor grader sloped and graded all canals within the District throughout the year.
- Tumbleweeds were removed from District canals and property, stacked, and burned.
- Grade boards on the Kern Island, Central Branch, and Eastside Canals were replaced.
- Facility access gates where vandalism or other damage occurred were repaired.
- Tree trimming.
- Bulk items trash pickup and disposal from all canals.
- Used a bulldozer to remove weed overgrowth from the Buena Vista Canal.

Meters: The District has increased the usage of flow meters at both diversion points and at major canal locations. Meter repairs are summarized in the monthly reports.

District Wells: All District wells were serviced monthly. See section 3.4.1 of this report for more information.



5.1.2 Kern Delta Water Baking Maintenance

The following activities were performed by the District maintenance staff during 2019 for District water banking project operations.

- Maintained all baking facilities including washout repairs and erosion.
- Two turnouts into the Branch One Basins were installed: one 36-inch turnout into Pond 1 and one 24-inch turnout into Pond 2.

District Wells: All wells were serviced monthly.

Weed Control: All banking projects and related facilities were maintained regularly, including spraying pre-emergent, active weed control, etc. along roads, slopes, and outer perimeters of the basins. Additionally, all basins were mowed as required.

5.2 Maintenance Activities – 2020

The maintenance staff's operations in the 2020 calendar year continued to incorporate two different areas of maintenance summarized below: normal District maintenance, and water banking maintenance.

5.2.1 Kern Delta Water District Maintenance

The following activities were performed by District maintenance staff during 2020 regular District operations.

- Repairs were made to numerous turnouts/gates, which are summarized in the attached monthly maintenance reports: Over the course of the year, these gates encountered operational problems, including leaking, rusted components, sediment build up, and other problems ranging from slight inconvenience in operating to major problems that limited or even prevented the use of the gates (i.e., slide gate was broken, turnout had been buried by sediment, etc.).
- New turnouts: one on the Eastside Canal, south of Buena Vista Road, one new turnout into the Romero Basins, and one turnout repaired on the 15 Ditch for Boswell.
- Assisted the City of Bakersfield in the repair of the collapsed road crossing of the Stine Canal at McCutchen.
- Installation of new board control boxes on the Smith Judd Extension Canal and on the 18 North Canal.
- Demolition and repair of concrete liner on the Smith Judd Extension Canal drop structure.
- Removed broken section of corrugated pipe on the Stine Canal at Progress Road.
- Raised elevation of the east bank of the Buena Vista Canal at the head of the Buena Vista East and West Canals.
- Cleaned out the bottoms of the Stine Canal and Buena Vista Canal with a dozer.
- Tree trimming.
- Bulk items trash pickup and disposal from all canals.



District Wells: All District wells were serviced monthly. See section 3.4.1 of this report for more information.

5.2.2 Kern Delta Water Banking Project Maintenance

The following activities were performed by the District maintenance staff during 2020 for District water banking project operations.

- Maintained all banking facilities, including washout repairs and erosion.
- Repaired banks at all basins that were damaged by wave action during the 2017 season.

District Wells: All wells were serviced monthly.

Weed Control: All banking projects and related facilities were maintained regularly, including spraying pre-emergent, active weed control, etc. along the roads, slopes, and outer perimeters of the basins. Additionally, all the basins were mowed as required.

5.3 Maintenance Activities – 2021

The Maintenance staff's operation in the 2021 calendar year continued to incorporate two different areas of maintenance summarized below: normal District maintenance, and water banking maintenance.

5.3.1 Kern Delta Water District Maintenance

The following activities were performed by Kern Delta Water District's maintenance staff during 2021 for regular District operations.

- Repairs were made to numerous turnouts/gates, which are summarized in the attached monthly maintenance reports: Over the course of the year, these gates encountered operational problems, including leaking, rusted components, sediment build up, and other problems ranging from slight inconvenience in operating to major problems that limited or even prevented the use of the gates (i.e., slide gate was broken, turnout had been buried by sediment, etc.).
- Motor grader sloped and graded all canals within the District throughout the year.
- Repaired Rim Ditch seepage issues caused by gopher activity and high water levels.
- Removed sediment from Eastside Canal and Farmers Canal.
- Treated and cleaned Central Branch Canal inlet into Costerisan Lake.
- Made improvements to East Branch Canal standpipe, south of Casa Loma to improve flow.
- Replaced old 24" turnout with new 36" turnout on East Branch Canal.
- Repaired internal joint seams on 13 Ditch headgate.
- Rebuilt Branch One Return Box area for more efficient operation of the canal.

Meters: The District has increased the usage of flow meters at both diversion points and at major canal locations. Meter repairs are summarized in the monthly reports.



District Wells: All District wells were serviced monthly. See section 3.4.1 of this report for more information.

5.3.2 Kern Delta Water Banking Project Maintenance

The following activities were performed by the District maintenance staff during 2021 for District water banking project operations.

- Maintained all baking facilities, including washout and erosion repairs.
- Removed irrigation pipelines from Marlette property (Kern Island Basins Expansion) and AC Electric property (Old River Basins).
- Added emergency overflow pipeline into Branch One Basins' Pond 1.

District Wells: All wells were serviced monthly.

Weed Control: All banking projects and related facilities were maintained regularly, including spraying pre-emergent, active weed control, etc. along roads, slopes, and outer perimeters of the basins. Additionally, all basins were mowed as required.



Appendix A

Maintenance Report

January 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install vent covering on Stine Canal at Easton
 - b. Excavate and evaluate turnout installation at #6-0-6 (BV Canal at Pieri Road) for gate/box installation
 - c. Repair wash-ins on Farmers, 20' and Stine Canals
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair truck #320, stops running at times
 - c. Repair ramp on Trailer # T12
 - d. Repair engine on Truck #202
 - e. Finish repairs on engine of Truck # 321 (water in oil)
 - f. Service and repair 430F2 backhoe
3. **District Wells.**
 - a. No service or monthly inspection of District Wells this month.
4. **Motor Grader.** The following canals were sloped and graded;
 - a. Slope portions of the BV and BV East Canal, Branch 2, Randel, 13 Ditch and 20'
5. **Backhoe 1.** The following jobs were completed during the month;
 - a. Complete shutdown projects
 - b. Finish installation of turnouts on Branch 1
 - c. Clean canals of debris blown in by recent storms (Farmers, Smith Judd, Kern Island and 15 Ditch)
6. **Backhoe 2.** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Kern Island, Central, Farmers, 15 Ditch, Stine and BV Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Farmers, BV, Branch 2, 20', 13 Ditch and Kern Island Canals
8. **Aquatic Treatments.** No treatments were made to canals during shutdown.
9. **Rodent Control**
 - a. Bait Stations were filled at 18 N&S, BV and 20-Foot West of Wible Rd.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, trash screens and weirs on all canals
 - b. Remove bulky items from Kern Island, Farmers, Central, East Branch, Stine and BV and haul trash to the landfill.
11. **Fence Repairs.** Fences were repaired at the following locations;
 - a. Kern Island – Columbus and Kentucky Street
 - b. Branch 1 – Panama Lane and White Lane
 - c. Stine at Easton Complex

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Shutdown Project Safety Rap-up
- b. Hits & Misses from the Past Week (1.11.19)
- c. Proper Lifting Procedures
- d. Vehicle Inspection Report
- e. Company New Hands-Free Device Policy

13. Water Banking Activities. The following jobs were completed during the month;

- a. Replace turnout # 3-4-154 on the lined section of the Branch 1 Canal with a new 36" turnout and piping into the large pond of Branch 1 Basins
- b. Replace 18" turnout # 3-4-157 on the Branch 1 Canal with a new 24" turnout and piping into the small pond of the Branch 1 Basins.
- d. Burn Tumbleweeds
- e. Prep fence lines, levees and roadways for pre-emergent application
- f. Spraying of pre-emergent at all Basins

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. 15 Ditch meter installation
- b. Installation of bollards at Easton Complex on Stine Canal
- c. Build catwalk at 551 Weir for cleaning safely
- d. Finish installation of Owl Box throughout district
- e. Build and install screen structures on Eastside Canal turnouts
- f. Build tumbleweed attachment for second backhoe

15. Future Water Banking Projects.

- a. Mow weeds at Stine overflow basin
- b. Install two return structures from basins into Branch 1 Canal
- c. Install small overflow weirs at west side of Romero Basins

**Maintenance Report
February 2019**

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Dig and repair 15" gate #3-0-157 on Kern Island
 - b. Repair backup weir # 5-0-165 with rip-rap on Stine Canal
 - c. Repair washouts on Rim
 - d. Repair wash-ins on Farmers and Stine Canals
 - e. Build and install screen structures on Eastside Canal turnouts
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair truck #202 & 203 and prep for sale
 - c. Service Grader
 - d. Prep new trucks for use (221, 222 and 223)
 - e. Install night lighting for all Ops trucks
3. **District Wells.**
 - a. No service or monthly inspection of District Wells this month.
4. **Motor Grader.** The following canals were sloped and graded;
 - a. Slope portions of the BV, Randel, Eastside and Kern Island
5. **Backhoe 1.** The following jobs were completed during the month;
 - a. Repair Stine, Farmers and Rim from wash-ins and washouts
 - b. Finish installation of board control structures on Branch 1
 - c. Clean canals of debris from storms (Farmers, Smith Judd, Kern Island and 13 Ditch)
6. **Backhoe 2.** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Kern Island, Branch 1, Central, Rim and Eastside
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Farmers, BV, Stine, Eastside, Kern Island Canals and Basins
8. **Aquatic Treatments.** No treatments were made this month.
9. **Rodent Control**
 - a. Bait Stations were not filled this month
10. **Trash Removal.**
 - a. Daily cleaning of racks, crossings, screens and weirs on all canals
 - b. Cleanup on canals to remove debris from Kern Island, Farmers, Randal, Eastside, Central, Branch 1, Stine and BV to remove shopping baskets, tires and debris. All the trash trucks were used to haul debris to the landfill from brush and trash removal.
11. **Fence Repairs.** Fences were repaired at the following locations;
 - a. Kern Island – Columbus, 30 St. and Pacheco

- b. Branch 1 – Panama Lane
- c. Central at Calcutta, South Gate, Wilson and South P
- d. Stine at Summer Tree Lane

12. Safety Meetings. Weekly tailgate safety topics were;

- a. February Projects and Safety
- b. Fresno Valve Gate Installation Safety
- c. Risk Assessment for Jobs
- d. Weekend Projects and Safety
- e. Reporting use of Safety Equipment on Vehicles

13. Water Banking Activities. The following jobs were completed during the month;

- a. Installation of 2 new return structure from basins into Branch 1 Canal
- b. Burn Tumbleweeds on fence lines and at basins
- c. Prep fence lines and roadways for soil sterilant spraying

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. 15 Ditch meter installation
- b. Installation of bollards at Easton Complex on Stine Canal
- c. Build catwalk at 551 Weir for cleaning safely
- d. Finish installation of Owl Box throughout district
- e. Build tumbleweed attachment for second backhoe

18. Future Water Banking Projects.

- a. Install Pipe Line Markers
- b. Install small overflow weirs at west side of Romero Basins

Maintenance Report

March 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install rip-rap on Farmers Canal at Old River Road for sand and level control
 - b. Repair washouts on Rim, Stine and 18 N & S
 - c. Repair washout on Randal at Houghton
 - d. Repair wash-ins on Eastside, BV, Farmers and Stine Canals
 - e. Build and install screen panels at Eastside Canal turnouts
 - f. Install bollards around Stine Canal pipeline-access-port at the Easton Business Complex
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Remove and salvage spray equipment from truck #309 and prep for sale
 - c. Prep Trucks for Sale (202, 203, 204, 205 & 320)
 - d. Service 430F1 backhoe and safety check trailer
 - e. Repair starter solenoid on truck #217
 - f. Repair A/C and cooling system on truck #214
3. **District Wells.**
 - a. No service or monthly inspection of District Wells this month.
4. **Motor Grader.** The following canals were sloped and graded;
 - a. Slope portions of the Kern Island and Central
5. **Backhoe 1.** The following jobs were completed during the month;
 - a. Repair wash-ins and washouts on BV, Stine, Farmers and Rim
 - b. Repair rodent damaged on Stine Canal
 - c. Remove debris from March 5 storm event in the 13 Return, BV, Farmers, Kern Island and Branch 1
6. **Backhoe 2.** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossings on Eastside, Central, Stine, Randal, Burness and East Branch
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV, BV East, Canfield, Stine, Farmers, KI, Branch 1, 15 Ditch, Central and Romero Basins
8. **Aquatic Treatments.** No treatments were made to canals this month.
9. **Rodent Control**
 - a. Installed New Bait Stations along the Rim and BV Canal
 - b. 12 New Owl Boxes were installed throughout the District
10. **Trash Removal.**
 - a. Daily cleaning of racks, crossings, screens and weirs on all canals

- b. Remove debris from the Kern Island, Farmers, Randal, Eastside, Central, Branch 1, Stine and BV. Both trash trucks were used to haul debris to the landfill.

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Columbus, 34th St., 30 St., Calcutta and Pacheco
- b. Branch 1 – Berkshire, Hughes Lane and Panama
- c. Central - Pacheco, South Gate, Wilson and South P
- d. Stine - Summer Tree Lane, Wilson, Pacheco and Bell Terrace

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Reporting Use of Safety Equipment in Vehicles
- b. Time Change Effects & Safety
- c. Work Station Risk & Hygiene
- d. Accident Reporting
- e. Week in Review (Near Misses)

13. Water Banking Activities. The following jobs were completed during the month;

- a. Installation of flood irrigation structures west of Romero Basins for spreading

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. 15 Ditch meter installation
- b. Build catwalk at 551 Weir for cleaning safety
- c. Build tumbleweed attachment for second backhoe

15. Future Water Banking Projects.

- a. Grading on Kern Delta property west of vet hospital to improve spreading capability

**Maintenance Report
April 2019**

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Place metal plates in Rock Dam weir of the Eastside Canal to back up water for a recommissioned delivery point
 - b. Installed new meters on the 15 Ditch (20-Foot)
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Replace mole board blades on grader
 - c. Repair 430 backhoe pins & bushing, bucket connection system and slide on mast
 - d. Repair truck #213 air conditioning system
 - e. Repair cooling system on truck # 214
3. **District Wells.**
 - f. No service or monthly inspection of District Wells this month.
4. **Motor Grader.** The following canals were sloped and graded;
 - a. Slope portions of the BV East and BV
 - b. Grade channels into the north part of the acreage west of horse hospital to enhance water spreading
5. **Backhoe 1 – 430.** The following jobs were completed during the month;
 - a. Repair BV, Stine, Farmers, Eastside and Rim from wash-ins and washouts
 - b. Repair Romero Basin and Stine Canal from rodent damage
 - c. Clean canals of debris (13 Return, Farmers, Kern Island and Branch 1)
6. **Backhoe 2 – 430F2.** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on the Eastside, Central, Stine, Randal, Burness and East Branch
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV, BV East, Canfield, Stine, Farmers, KI, Branch 1, 15 Ditch, Central and Romero Basins, 18 N&S and East Branch
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on the Central, Eastside, 13 Ditch, KI and BV
9. **Rodent Control.**
 - a. Bait Stations were checked and all locations filled throughout this month
 - b. Owl Boxes had bedding installed throughout the District
10. **Trash Removal.**
 - a. Daily cleaning of racks, crossings, screens and weirs was done on all canals
 - b. Removed trash (shopping carts, tires etc.) from the Kern Island, Farmers, Eastside, Central, Branch 1, Stine and BV. Both trash trucks were used to haul debris to the landfill

- c. Tree and brush removal along the upper Kern Island canal for grader passage and homeless prevention

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Columbus, 34th St., 30 St., Calcutta and Pacheco
- b. Branch 1 – Berkshire, Hughes Lane and Panama
- c. Central - Pacheco, South Gate, Wilson, Planz Rd. and South P
- d. Stine - Summer Tree Lane, Park Circle, Wilson, Pacheco and Bell Terrace
- e. BV – White Lane and Mountain Vista
- f. Eastside – Sterling, Kentucky, Oswell and Fairfax

12. Safety Meetings. Weekly tailgate safety topics were;

- a. First Aid Kits
- c. Job Walk for Tree Falling
- d. Daily Vehicle Inspection
- e. Week in Review (Near Misses)

13. Water Banking Activities. The following jobs were completed during the month;

- a. Repair seepage leak at Romero Basins
- b. Repair feeder ditch turnout at BV Basins
- c. Grade flow channels in the area west of the vet hospital for enhanced spreading

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees as needed along canals
- b. Build catwalk at 551 Weir for cleaning safety
- c. Build tumbleweed attachment for second backhoe

18. Future Water Banking Projects.

- a. Add rip-rap and/or slurry around intertie structures
- b. Install Staff Gauges in Basins

Maintenance Report

May 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install rip-rap on Stine and BV Canals to avoid bank erosion
 - b. Repair wash-ins on KI, BV, Eastside and Stine
 - c. Place K-Rails at terminus of Hill Top St. to prevent traffic onto the Eastside Canal to stop dumping
 - d. Repair/Replace meters on Farmers #4-0-143, Branch 1 #3-4-164 and KI #3-0-77
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair cracks to sloper frame on motor grader (#403)
 - c. Replace hydraulic fitting on new backhoe (#404)
 - d. Repair shorted electrical fuel sensor on old backhoe (#402)
 - e. Replace tarps on both trash trucks (#322 and #323)
 - f. Repair air bag system on truck #214
 - g. Repair & paint propane trailer (#T5)
 - h. Repair & paint welding trailer (#T2)
3. **District Wells.**
 - a. No service or monthly inspection of District Wells this month.
4. **Motor Grader #403** The following canals were sloped and graded;
 - a. Slope portions of the BV and Stine
5. **Backhoe #402** The following jobs were completed during the month;
 - a. Repair BV, Stine, Farmers, Eastside and Rim from wash-ins and washouts
 - b. Clean canals of debris (13 Return, Randal and Eastside)
6. **Backhoe #404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossings on Eastside, Central, Farmers, Stine, Randel, Burness, Branch 1 and East Branch
 - b. Clean and remove brush & trees from Kern Island from 58 South to Calcutta
 - c. Clean and remove brush & trees from the BV from Howell south to Ming Avenue
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV, Farmers, KI, Branch 1, Branch 2, Ditch, Central, Romero, 20', 18 N&S and Eastside
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on Central, Eastside, 13 Ditch, KI, 18 N&S, Stine, BV and Farmers
9. **Rodent Control**
 - a. Bait Stations were checked and all locations filled throughout this month

10. Trash Removal.

- a. Daily cleaning of racks, crossings, screens and weirs was done on all canals
- b. Remove debris from the Kern Island, Farmers, Eastside, Central, Branch 1, East Branch, Stine and BV. Both trash trucks were used to haul debris to the landfill.
- c. Tree and brush removal along canal for grader passage and homeless prevention on Kern Island and BV

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Columbus, 30 St., Planz, Calcutta and Pacheco
- b. Branch 1 – So. H, Berkshire, Hughes Lane and Panama Lane
- c. Central - Pacheco, South Gate, Wilson, Planz Rd. and South P
- d. Stine - Summer Tree Lane, Park Circle, Wilson, Pacheco and Bell Terrace
- e. BV – Vista Del Mar Ave. and Mountain Vista
- f. Eastside – Quantico, Sterling, Kentucky, Oswell and Fairfax

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Heat Stress – Part 1 From Employee Hand Book
- b. Heat Stress – Part 1.2
- c. Heat Stress – Part 2
- d. Heat Stress – Part 2.2
- e. Heat Stress – Part 3

13. Water Banking Activities. The following jobs were completed during the month;

- a. Repair bank at DiGiorgio Basins
- b. Repair seepage leak on Branch 1 Basin levee
- c. Repair rodent damage at Branch 1 Basins

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage (Central)
- b. Removal overgrown brush on the Rim for equipment passage
- c. Build catwalk at 551 weir for cleaning safety
- d. Build tumbleweed attachment for second backhoe

18. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place rip-rap around eroded intertie structures
- c. Build Sunset Basins (outside contractor)

Maintenance Report

June 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install rip-rap on Stine, Kern Island and BV Canals to avoid bank erosion
 - b. Repair wash-outs on KI, BV, Eastside and Stine
 - c. Repair meters throughout district; #5-0-168 & 201, 2-0- 290 & 300, 3-0-116, 19, 17 & 93, 4-0-258 & 254, 45-0-200
 - d. Repair gates at 3-0-93 and 5-0-180
 - e. Repair fire damage to office / yard sump
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Front end repairs to Truck #321
 - c. Replace rear window on truck #321
 - d. Repairs to truck #322 air conditioning system
 - e. Repairs to Equipment # 402 electrical wiring loom
 - f. Repairs to truck #210 brake system
 - g. Remove old coolers and install 3 new coolers on shop building
 - h. Repair air conditioning on truck # 207 & 213
3. **District Wells.**
 - a. No service or monthly inspection of District Wells this month.
4. **Motor Grader # 403** The following canals were sloped and graded;
 - a. Slope portions of the Stine, 15 Ditch, Branch 2 and Farmers Canal
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Repair washouts on BV, Stine, Eastside and Rim
 - b. Clean debris from Central and Eastside
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Eastside, Central, Farmers, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Clean and remove brush & trees from Kern Island at Terrace Way
 - c. Clean and remove brush & trees from the head of Central and moving down stream
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV East, Kern Island, Central, Rim, East Branch and Canfield
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on Kern Island, Farmers, Randal, Stine, Central, BV East, BV and Eastside
9. **Rodent Control**
 - a. Bait Stations were checked and all locations filled throughout this month

10. Trash Removal.

- a. Daily cleaning of crossings, screens and weirs on all canals
- b. Cleanup on canals to remove discarded debris from banks and canals of the Kern Island, Farmers, Eastside, Central, Branch 1, East Branch, Stine and BV to remove shopping baskets, tires and debris. Both trash trucks were used to haul debris to the landfill from brush and trash removal.
- c. Tree and brush removal along the Kern Island and Central canal for grader passage and homeless prevention

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Calcutta and Pacheco
- b. Branch 1 – Panama Lane
- c. Central - South Gate, Terrace Way and South P
- d. Stine - Summer Tree Lane and Wilson
- e. BV – White Lane
- f. Eastside – Sterling

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Fall Protection Safety (Harness Safety)
- b. Review of Yard Sump Fire
- c. Emergency Response Plan 1.1 (Plan Outline)
- d. Emergency Response Plan 2.1 (Maintenance's Responsibility)

13. Water Banking Activities. The following jobs were completed during the month;

- a. Repair and clean screens on Stine Pond A
- b. Repair damaged fence at Romero Basin and Farmers Canal

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage (Central)
- b. Removal of overgrown brush from Rim west of Hwy 99

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place rip-rap around eroded intertie structures
- c. Build Sunset Basins (outside contractor)

Maintenance Report

July 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install rip-rap around failing backup weir on the Stine Canal
 - b. Repair wash-outs on 20', 15 Ditch and Rim
 - c. Repair meters; 3-0-93 and 3-0-95
 - d. Replace meters; 5-0-168 and 2-0-300
 - e. Repair turnouts; 3-6-10 and 3-2-238
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Front end repairs to 2015 Tahoe #101
 - c. Front end repairs to 2005 spray truck #321
 - d. Prep truck #316 (old service truck) for sale
 - e. Prep truck #328 (new service truck) for field use
 - f. Major service equipment #403 (Grader)
 - g. Repairs brakes on #215 and #212, #321 (from accident damage) and #285 (side view mirror repair)
 - h. Repair air conditioning system on truck # 215, 321 and 322
3. **District Wells.**
 - a. Monthly service and inspection of District Wells
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Slope portions of the 20', Kern Island, Rim, Central and East Branch
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Repair washouts on BV, Stine and Rim
 - b. Clean debris from Central, Stine, Farmers and Eastside
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Eastside, Central, Farmers, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Clean and remove brush & trees from Central at Terrace Way
 - c. Clean and remove debris along East Branch at Terrace Way
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV, BV East, Kern Island, Central, Branch 2, Eastside, Farmers, Stine and Canfield
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on the; Kern Island, Branch 1, 15 Ditch, Farmers, Randal, Stine, Branch 2, Central, BV East, BV and Eastside

9. Rodent Control

- a. Bait Stations were checked and filled at all locations throughout the District

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, racks and screens on all canals
- b. Cleanup on canals to remove debris from the Kern Island, Farmers, Eastside, Central, Branch 1, East Branch, Stine and BV. Both trash trucks and dump trucks were used to haul debris to the landfill.
- c. Removal of overgrown brush and trimming of trees along the Rim from Hwy. 99 West for grader passage
- d. Tree and brush removal along the Kern Island, Central and East Branch Canal for grader passage and homeless prevention

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Calcutta, Pacheco, 30th St., 34th St. and Columbus
- b. Branch 1 – White Lane and Hughes
- c. Central - South Gate, Terrace Way and South P
- d. East Branch – Terrace Way and South P
- e. Stine – Chester Lane, Garnsey Lane and Ash
- f. BV – White Lane
- g. Eastside – 34th St. and Columbus

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Emergency Response Plan 2.2 (SDS Sheets)
- b. Emergency Response Plan 3.0 (Earth Quake)
- c. Vehicle Accident Reporting Procedures
- d. House Keeping

13. Water Banking Activities. The following jobs were completed during the month;

- a. Weed spraying of fence lines and roadways on BV, Stonefield, Romero, Branch 1, DiGiorgio and Kern Island Basins
- b. Aquatic weed treatments on Smith Judd and Stine at the Bladder Basin
- c. Prepare north property area of Branch 1 Basins for fencing

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage (Central)
- b. Replace dilapidated weir/crossing #543P on Stine (as water levels permit)
- c. Meter and discharge pipe upgrade 4-0-249
- d. Contractor tree removal on Kern Island and Central

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place rip-rap around eroded intertie structures
- c. Construct Sunset Basins

Maintenance Report

August 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install riprap around backup weir on the Stine Canal crossing to help avoid erosion
 - b. Repair meter number; 3-2-248, 2-0-265, 4-0-254 and 4-0-258
 - c. Replace meter number; 3-0-118B
 - d. Repair turnout gate number; 30-20-40 and 3-5-1
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Replace fuel sensor on truck 321
 - c. Battery replacement on truck 214
 - d. Replace fuel pump on truck 207
 - e. Replace windshield on truck #211
 - f. Repair air conditioning system on truck # 208,
 - g. Engine diagnostics by Jim Burke on the old spray rig (#321)
3. **District Wells.**
 - a. Monthly service and inspection of District Wells
 - b. Test for rotation and start wells KB1, KB4, BV2 and BV4 for sampling
4. **Motor Grader # 403** The following canals were sloped and graded;
 - a. Portions of the Kern Island, Eastside, Branch 1, Lower BV and BV East
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Repair washouts on Randal, Stine, Kern Island and Smith Judd
 - b. Clean debris from Central, Stine, Farmers and Eastside
 - c. Load brush from the Central near Terrace Way
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Eastside, Central, Farmers, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Squirrel abatement and bank repair on the Stine
 - c. Repair breach through a rodent hole on the Rim Ditch below the Drain
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV, BV East, Kern Island, 20', Drain, Central, Section 5 Ditch, Branch 1, Eastside, Farmers, 15 Ditch, 13 Ditch, Randal and Burness
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on the Kern Island, Branch 1, 15 Ditch, Farmers, Randal, Stine, Branch 2, Central, BV East, BV and Eastside
9. **Rodent Control**
 - a. Bait Stations were filled throughout the District this month
 - b. Four new bait stations added to the Sine near banking ponds B and C

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, racks and screens on all canals
- b. Remove debris from the Kern Island, Eastside, Central, Branch 1, Stine and BV and haul to Bena landfill.
- c. Tree and brush removal along the Kern Island, Central, BV and Eastside Canals for grader passage and homeless prevention

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Calcutta, Pacheco, 30th St., 34th St. and Columbus
- b. Branch 1 – White Lane and Hughes Area
- c. Central - Terrace Way
- d. East Branch – Terrace Way and South P
- e. Stine – Chester Lane, Garnsey Lane, Arvin Edison Canal crossing and Gosford
- f. BV – Buena Vista Rd. and Discovery Ridge Ave.
- g. Eastside – 34th St. and Columbus

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Record Keeping
- b. Eye Protection
- c. 811 Dig Safety
- d. Owning Your Equipment
- e. September's Projects Safety Review

13. Water Banking Activities. The following jobs were completed during the month;

- a. Weed spraying of fence lines and roadways on BV, Smith Judd, Stonefield, Romero, Branch 1, DiGiorgio and Met Basins
- b. Aquatic treatments for algae and water weeds were made on Smith Judd, Stonefield, Stine at the Bladder and the Branch 1 (Cattails)

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Replace Crossing on 18 N & S Ditch (starting week of Sept. 2)
- b. Replace dilapidated weir/crossing #543P on Stine (week of Sept. 8th)
- c. Repair turnouts, gates and crossings as needed on 13 Ditch (week of Sept.15th)
- d. Meter and discharge pipe upgrade 4-0-249 (as time permits)
- e. Contractor removal of trees on Kern Island and Central Canal

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins when possible
- b. Place riprap around eroded intertie structures as needed
- c. Build Sunset Basins (outside contractor)

Maintenance Report

September 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install new 36" HDPE piping and riprap at 18 North Ditch Crossing
 - b. Extend crossing on 18 South for Brancado/Angone
 - c. Remove dilapidated backup crossing and install a new one Stine at 543
 - d. Repair washouts on Rim Ditch and Smith Judd
 - e. Repair meters 2-0-151 and 2-0-297
 - f. Replace meters 3-6-12 and 45-0-200
 - g. Repair turnout gates; 3-6-12, 3-6-17, 3-6-10, 3-20-15, 3-5-01, 3-5-10 and 3-5-43,
 - h. Replace turnout gates; 3-6-10, 5-0-165 and 5-0-180
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Engine diagnostics run by Cumming's to determine issues with truck #322
 - c. Replace lights in offices
 - d. Repairs ground speed unit on truck #326
 - e. Repairs hydraulic system on truck #321
 - f. Install safety lights truck # 323
 - g. Repair safety lighting on truck # 218
3. **District Wells.**
 - a. No monthly service or inspection of District Wells is month;
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Slope portions of the Kern Island, Branch 1, 18 N & S, 13 Ditch, Farmers, Smith Judd, Branch 2, 15 Ditch, 23 Ditch and portions of the Central
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Structure and Turnout repairs as stated above
 - b. Rodent abatement on Drain
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Eastside, Central, Farmers, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Haul dirt for crossings and backup weirs
 - c. Assist with structure and turnout repairs as stated above
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. East Branch, Eastside, Stine, Kern Island, 13 Ditch, Drain, Central, and Basins (Met, Stonefield and Stine)
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on the; Buena Vista, Eastside, Kern Island and Central

9. Rodent Control

- a. Bait Stations were frequently checked and all locations were filled throughout the District this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, racks and screens on all canals
- b. Remove debris from banks of the Kern Island, Eastside, Central, Branch 1 and Stine. Both trash trucks were used along with dump trucks to haul trash to the landfill.
- c. Tree and brush removal along the Eastside Canal and Farmers for grader passage and homeless prevention.

11. Fence Repairs. Fences were repaired at the following locations;

- a. Kern Island – Calcutta
- b. Branch 1 – White Lane and Hughes Area
- c. Central – Southgate
- d. East Branch – Bell Terrace & Madison
- e. Stine – Chester Lane, Garnsey Lane
- f. BV – None
- g. Eastside – Kentucky

12. Safety Meetings. Weekly tailgate safety topics were;

- a. 18N&S Projects Safety Review
- b. Stine Projects Safety Review
- c. Homeless Encounters and Safety
- d. Defensive Driving for all staff (by JPIA, Lee Patton)
- e. Digital Water Meters Operation & Maintenance

13. Water Banking Activities. The following jobs were completed during the month;

- a. Weed spraying of fence lines and roadways around basins on BV, Smith Judd, Stonefield, Romero, Branch 1, DiGiorgio and Met Basins

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage
- b. Repair of fencing on canals damaged by vandals and homeless
- c. Repair turnouts, gates and crossings as needed on canals as possible
- d. Meter and discharge pipe upgrade 4-0-249 (as time permits)
- e. Contractor removal of trees on Kern Island and Central Canal
- f. Fabricate and build trailer mounted buffalo / spray system

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins when possible
- b. Place riprap around eroded intertie structures as needed

Maintenance Report

October 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Replace turnouts (gate, box & piping), on Kern Island Canal (3-0-87 & 3-0-90)
 - b. Repair washouts on Rim Ditch and Stine
 - c. Repair erosion areas with riprap on Stine & Branch 2
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to truck #326 (ground speed unit)
 - c. Remove bed from truck #321 (prep for sale)
 - d. Repairs to truck # 217 (brakes)
3. **District Wells.**
 - a. No monthly service or inspection of District wells is month;
4. **Motor Grader # 403.** The following canals were sloped and graded;
 - a. Slope portions of the Kern Island, Central, Section 5, Stine and East Branch
5. **Backhoe # 402.** The following jobs were completed during the month;
 - a. Assist with the turnout replacement referenced in Item 1a above
 - b. Rodent abatement on Rim
 - c. Load/Haul and place dirt and riprap for erosion area repair referenced in Item 1c
6. **Backhoe # 404.** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from the Eastside, Central, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Haul dirt and repair banks due to gopher hole erosion on the Burness
 - c. Loading rip rap, fill and pipe for erosion area abatement and turnout replacement
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. East Branch, Eastside, Rim, Central, BV & BV East
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on the Buena Vista, Eastside and Central
9. **Rodent Control.**
 - a. Bait Stations were checked and filled throughout the District this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, racks and screens on all canals
 - b. Removal of discarded debris from the Kern Island, Eastside, Central, Branch 1 and Stine. Both trash trucks were used along with dump trucks to haul debris to the landfill.
 - c. Tree and brush removal along the Eastside, Central and East Branch for grader passage and homeless prevention.
 - d. Contractor removal of trees on Kern Island and Central Canal

11. **Fence Repairs.** Fences were repaired at the following locations;

- a. Kern Island – Calcutta, 30th St. north to Head at Columbus
- b. Branch 1 – Hughes and White Lane South to 99
- c. Central – Southgate and Terrace Way
- d. East Branch – South P, Terrace Way and Madison
- e. Stine – Park Circle, Planz, Grissom, District and Stine
- f. BV – Camino Media
- g. Eastside – Kentucky, 30th St. north to Columbus

12. **Safety Meetings.** Weekly tailgate safety topics were;

- a. Near Misses for the week
- b. Safety Planning for upcoming projects
- c. Power Tool Failure
- d. Traffic Control & Flagger Procedures
- e. Daily Record Keeping and Accountability

13. **Water Banking Activities.** The following jobs were completed during the month;

- a. Weed spraying of fence lines and roadways around basins
- b. Hand weeding of fence lines (tumbleweeds in preparation for pre-emergence)

14. **Future Projects.** The following projects will be completed as time and scheduling permit:

- a. Replace booster pump meter at Old River and Bear Mtn (4-0-249)
- b. Fabricate and build trailer mounted spray system
- c. Dozer work to clean sand bars and canals bottoms

15. **Future Water Banking Projects.**

- a. Lower overpour at the Stine Bladder Basin
- b. Modify Stine basins for surge control
- c. Install permanent staff gauges in basins
- d. Place riprap around eroded intertie structures as needed
- e. Mow weeds in basins when possible

Maintenance Report

November 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Replace turnouts (gate, box & piping), on Kern Island Canal # 3-0-93
 - b. Repair wash-in on BV at Seven Oaks Golf Course
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Fuel and service rental equipment
 - c. Repairs to truck #326 (electrical issue w/onboard computer)
 - d. Repairs to truck # 325 (DEF System & smog)
 - e. Repairs to truck # 220, 215, 212 and 218 (flat/tire replacement)
3. **District Wells.**
 - a. No monthly service or inspection of District Wells is month;
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Slope portions of the Kern Island, Stine, BV and Romero
 - b. Remove sandbars with bulldozer and motor-grader from bottom of BV Canal at head gate section and between Pensinger Rd. & Windermere St.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist with the replacement of turnouts (dig, backfilling, compaction, transport new equipment, installation of turnouts, piping and Briggs Boxes)
 - b. Load/Haul and place dirt and riprap for wash ins / washouts on canals
 - c. Remove excess dirt from weir immediately below Panama Lane and from various turnouts on BV
 - d. Remove tumbleweeds from basin areas in preparation for pre-emergent spraying
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from the Eastside, Central, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Remove crossing and shape bank on BV South of Panama Ln.
 - c. Haul dirt from crossing area to BV Basin
 - d. Remove dirt/sand bars from turnouts and culverts on BV
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Farmers, Central, Branch 1 and Branch 2
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were done on the; Eastside and Central
9. **Rodent Control**
 - a. Bait Stations were checked, and all locations were filled throughout the District as needed.

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, racks and screens on all canals
- b. Removal of dumping and debris from the Kern Island, Eastside, Central, Branch 1, Farmers and Stine. Both trash trucks were used along with dump trucks to haul debris to the landfill.
- c. Tree and brush removal along the Stine, Farmers and BV for grader passage and homeless prevention.

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St.
- b. Branch 1 – South H, McCourry, Hughes and White Lane
- c. Central – Terrace Way
- d. Stine – Chester Lane, Garnsey and Real Rd.
- e. BV – Comino Media and BV basins

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Accident Reporting basin
- b. Shop/Yard NOV's
- c. Project Safety Review
- d. Shop Safety
- e. Defining Safe Work Area & Unauthorized Entry

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in cells of basins (DiGiorgio, Romero and BV)
- b. Mowing banks of BV Basins
- c. Hand weeding of fence lines at DiGiorgio, Stonefield, Romero and BV basins in preparation for pre-emergent

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Repair dilapidated turnouts, gates, piping and crossings as availability of canals is made possible
- b. Meter and discharge pipe upgrade 4-0-249 (replace old meter w/new style)
- c. Notch out gate overpour at Stine Bladder basin to match high water mark
- d. Fab and build trailer mounted spray system
- e. Dozer work to clean sand bars and bottoms of canals
- f. Prepare for shutdown projects

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins when possible
- b. Place riprap around eroded intertie structures as needed
- c. Spray Pre-emergence as weather permits

Maintenance Report

December 2019

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Replace three turnouts, piping, and gates on the Central Canal; 3-2-172, 208 and 250. Done by outside contractor.
 - b. Install four new turnouts, piping and gates near the following existing turnouts; 3-7-139 (15 ditch), 3-7-119, (20 foot), and 5-3-48 (Branch 2) and 4-0-156 (Farmers).
 - c. Repair gate at 3-20-17 (Rim Ditch near Hwy 99).
 - d. Replace board control crossing on the Farmers south of Bear Mountain; 4-0-561.
 - e. Replace turnout at the end of the Branch 1; 3-4-163.
 - f. Saw cut and remove 1-foot of the overpour wall on the Stine Bladder Basin. Done by outside contractor.
 - g. Convert Stine triangle-basin-inlets to board control for surge protection in the Stine Canal.
 - h. Install 20' of additional piping on Smith Judd crossing 4-5-541.
 - i. Repair fixed blade weir at 4-0-554.
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Fuel rental equipment and service.
 - c. Repairs to truck #326 (electrical issue w/onboard computer).
 - d. Repairs to truck # 217 (Tires).
 - e. Repair seat on forklift (new seat & seat rails).
 - f. Repair steam cleaner recycle system.
 - g. Steam clean shop and surrounding concrete slabs for Christmas party.
3. **District Wells.**
 - a. No monthly service or inspection of District Wells is month;
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Grade the roads surrounding the upper triangle basin on the Stine Canal.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist with the repair and installation of new turnouts mentioned above (dig, backfilling, compaction, hauling and installation).
 - b. Remove excess dirt from weirs on BV.
 - c. Remove tumbleweeds from basin areas.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from the Farmers, Central and Kern Island.
 - b. Remove crossing on the BV Canal south of Panama Lane and replace crossing on the Smith Judd Canal.
 - c. Haul dirt from crossing area to BV Basin.

- d. Remove sand bars and sediment buildup from turnouts and culverts on Farmers, Central and Kern Island.
- 7. **Weed Spraying.** No canals were sprayed during the month;
- 8. **Aquatic Treatments.** No aquatic treatments were done this month.
- 9. **Rodent Control**
 - a. Bait Stations were frequently checked, and all locations were filled throughout the District this month.
- 10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, racks and screens on all canals.
 - b. Remove debris from the Kern Island, Central, BV and Farmers.
- 11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. BV – Block Wall repaired at Windermere.
- 12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Project PPE Safety.
 - b. Shutdown Orientation.
 - c. Week in Review.
 - d. Project Safety- Week in Review.
 - e. Project Safety Meeting and Week in Review.
 - f. Shutdown Rap-up and Review.
- 13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Remove approximately 1 foot of soil from the bottom of the three Stine basins to improve percolation and add volume for surge protection. Done by outside contractor.
 - b. Mowing weeds around banks of basins (DiGiorgio, Romero and Stonfield)
 - c. Spraying Sterilant on roads and fence lines.
 - d. Hand weeding of fence lines for sterilant application (tumbleweeds from storm, Stonefield, Romero and BV).
- 14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Inspect and repair turnouts, screens and crossings on the Eastside Canal when it is drained down sufficiently.
 - b. Install a new turnout on the Eastside Canal below Buena Vista Road.
 - c. Replace meter at Old River and Bear Mountain 4-0-249.
 - d. Build trailer mounted spray system using parts from the old sprat rig.
- 15. **Future Water Banking Projects.**
 - a. Install permanent staff gauges in basins.
 - b. Place riprap around eroded intertie structures as needed.
 - c. Relocate rip rap stored in the Romero basins.
 - d. Finish spraying pre-emergence.
 - e. Design a new surge protection basin for the bottom end of the Stine Canal.

Maintenance Report

January 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install turnout on Eastside, south of Buena Vista
 - b. Install turnout on Farmers into the Romero Basins
 - c. Remove old short crossing and install new 40-foot crossing on the Smith/Judd (finish from shutdown)
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to trucks 215, 210 & 213 lighting system
 - c. Repairs to truck # 214 (computer system, dealer repair)
 - d. Repairs to truck #326 (electrical issue w/onboard computer, Kisco repair)
 - e. Repairs to truck # 106 (Body parts loose, warranty)
 - f. Repairs to truck # 324 (Air Brake System)
3. **District Wells.**
 - a. No monthly service or inspection of District Wells is month;
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. No sloping this month
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist with the installation of new turnout structures and piping (dig, backfill, compaction, transport new equipment)
 - b. Assist with the removal of tumbleweeds from canals
 - c. Bank repair from gopher's damage at DiGiorgio Basins
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from the Eastside, Central, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Assist with private road crossing replacement on Smith/Judd
 - c. Stop leakage at DiGiorgio Basin
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Eastside, Central and Kern Island
8. **Aquatic Treatments.** No treatments were made this month
9. **Rodent Control**
 - a. Bait Stations were checked and all locations were filled this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, racks and screens on all canals
 - b. Cleanup of the banks of the Kern Island, Eastside, Central, Branch 1, Farmers, Stine and Burness. Both trash trucks were used to haul debris to the landfill.

11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – Terrace Way and P Street
 - b. East Branch – Bell Terrace and Madison
 - c. Central – Terrace Way, South Gate and Wilson
 - d. Stine – Chester Lane, Garnsey and Real Rd.
12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Slips, Trips & Falls
 - b. OSHA Revised Injury Reporting Reg's
 - c. Defensive Driving in the Fog
 - d. Week in Review (accidents & mishaps)
13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Tumbleweed removal from fence lines at Met and DiGiorgio Basins
 - b. Repair leakage from gopher hole at DiGiorgio Basin
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Meter and discharge pipe upgrade 4-0-249 (replace old meter w/new style)
 - b. Fabricate and build trailer mounted buffalo / spray system
 - c. Install board control backup on Smith/Judd Extension
15. **Future Water Banking Projects.**
 - a. Install permanent staff gauges in basins when possible
 - b. Place riprap around eroded intertie structures as needed
 - c. Install 2 board control outlets and berm / channel dry cell at Romero Basin

Maintenance Report

February 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Assist the City in the repair of a collapsed pipe on Stine Canal crossing at McCutchen
 - b. Repair wash ins on BV
 - c. Remove sandbars from the Farmers Canal between Gosford and Shafter Rd.
 - d. Repair wash in on lower Kern Island near floating weir
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Start building spray trailer from repurposed parts
 - c. Repairs to truck #326 (spray rig electrical issue w/onboard computer and pumps)
 - d. Repairs to truck # 220 (brakes)
 - e. Repairs truck # 214 (water pump)
 - f. Repairs to #402 backhoe (install extend-a-hoe shims and hard-face buckets)
3. **District Wells.**
 - a. No monthly service or inspection of District Wells is month;
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Portions of Eastside and Central
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load/Haul and place dirt and riprap for wash ins / washouts on canals
 - b. Remove excess dirt from turnouts on Farmers
 - c. Remove tumbleweeds from the Stine, Farmers and Eastside
 - d. Rodent control on Stine
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from the Eastside, Central, Stine, Randal, Burness, Branch 1 and East Branch
 - b. Haul dirt to the Stine to repair collapsed pipe
 - c. Remove tumbleweeds from Central, Kern Island, Burness and Eastside
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Eastside, Central, East Branch and Kern Island
8. **Aquatic Treatments.** No aquatic treatments were performed this month
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the District this month
 - b. Dig and bury squirrel holes on Stine to prevent washouts

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, racks and screens on all canals
- b. Remove discarded debris from the Kern Island, Eastside, Central, Branch 1, Farmers and Stine. Both trash trucks were used to haul debris to the landfill
- c. Tree and brush removal along the Kern Island at 8th Street and on Central at Ming for grader passage and homeless prevention.

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St., Columbus, Fairview and Terrace Way
- b. Branch 1 – South H, Hughes and White Lane
- c. Central – Terrace Way, South Gate, Ming, Planz and Union
- d. Stine – Chester Lane, Garnsey, Real Rd., District and Ash
- e. BV – Old River Rd. and White Lane

12. Safety Meetings. Weekly tailgate safety topics were;

- a. House Keeping
- b. Record Keeping
- c. Hazard Communication Program Part 1
- d. Hazard Communication Program Part 2

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in cells of basins (Horse Hospital Spreading Area)
- b. Fence repair at Met and DiGiorgio
- c. Tumbleweed removal

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Meter and discharge pipe upgrade 4-0-249 (replace old meter w/new style)
- b. Finish building trailer mounted buffalo / spray system
- c. Remove piping obstruction on 20'
- d. Install meters on Stine Canal at Bladder basin

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins when possible
- b. Place riprap and fill around eroded intertie structures as needed
- c. Mow basin bottoms
- d. Spray banks and fence lines for weeds with new trailer mount system

Maintenance Report

March 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install 48-in dia. board control box on the Smith Judd Extension
 - b. Install 36-in dia. board control box in the 18 N ditch by nursery
 - c. Repair gopher hole on Central near 3-2-300
 - d. Install crash post at Hirschfield manhole at northwest corner of Stine & McKee
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Install electrical system to spray trailer T-3
 - c. Repairs to truck #211 & 219 (brakes)
 - d. Repairs to Grader (sloper bolt)
 - e. Repair mower implement drive line
 - f. Repairs to #402 backhoe (adjust extend-a-hoe shims)
3. **District Wells.**
 - a. No monthly service or inspection of District Wells is month;
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Slope portions of Rim, Drain, 13 Ditch, 18 N&S and Kern Island
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load/Haul and place dirt and riprap for wash ins / washouts on canals
 - b. Remove riprap from Smith Judd Extension and place downstream as needed
 - c. Remove tumbleweeds from canals (Central, Kern Island, Farmers & Eastside)
 - d. Rodent control on Central
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from Eastside, Central, Stine, Randal, Burness, Branch 1, Smith Judd and East Branch
 - b. Assist with box installations
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. 18 N&S, 13 Ditch, Drain, Rim, Farmers, Smith Judd, BV and Kern Island
8. **Aquatic Treatments.** No Treatments were done this month for algae mats/aquatic weeds
9. **Rodent Control**
 - a. Bait Stations were checked, and all locations were filled throughout the District
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and trash screens on all canals
 - b. Remove debris from the Kern Island, Eastside, Central, Branch 1, Farmers and Stine and haul to the landfill.
 - c. Tree and brush removal at the Head of the BV for grader passage and homeless prevention.

- d. Remove files and shelving from upstairs offices and transport to Derrel's Mini Storage. Dispose of old files in accordance with District approved file retention policy.
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
- a. Kern Island – 30th St., 34th St., Columbus, Fairview and Terrace Way
 - b. Branch 1 – South H, Hughes and White Lane
 - c. Central – Terrace Way, South Gate, Ming, Planz and Union
 - d. Stine – Chester Lane, Garnsey, Real Rd., District and Ash
 - e. BV – Mountain Vista
 - f. Eastside – Kentucky, Lake, Hailey, Virginia, Quántico & Oswell
12. **Safety Meetings.** Weekly tailgate safety topics were;
- a. Hazard Communication Program Part 3
 - b. Hazard Communication Program Part 4
 - c. DOT Rules Training
 - d. District COVID-19 Policy
13. **Water Banking Activities.** The following jobs were completed during the month;
- a. Install (2) 36-in dia. board control boxes at Romero Basins.
 - b. Mowing weeds at Romero & BV basins
 - c. Fence repair at Romero
 - d. Tumbleweed removal at all basins
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
- a. Meter and discharge pipe upgrade on Farmers (replace/repair meter)
 - b. Trouble shoot, fine tune and begin usage of the trailer mounted spray system
 - c. Oversee removal of piping obstruction on 20' in December (farmer's responsibility)
 - d. Install meters on Stine Canal weir at the Bladder outflow
15. **Future Water Banking Projects.**
- a. Install permanent staff gauges in basins
 - b. Place riprap around eroded intertie structures as needed
 - c. Prepare wells for planned usage in April

Maintenance Report

April 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Finish installing new board control crossing on the 18N ditch near Union Ave.
 - b. Demo panels and pour new concrete panels that were damaged from felt failure undermining concrete structure on the Smith Judd Extension. Added 24-inch high fixed blade weir onto the existing drop structure
 - c. Re-built file storage racks, moved file boxes to offsite storage unit, organized new storage unit, prepped, painted and furnished upstairs temporary offices.
 - d. Repair turnout (45-5-10) stem and frame on the Smith Judd that was damaged by Motor Grader
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs brakes on Trucks # 215, 220 and 285
 - c. Repair fan shroud assembly and replace upper/lower sloper bolts on Motor Grader
 - d. Install proper drainage system for the shop ice machine
 - e. Outside repair (Advanced Muffler) of Trucks #219 and 323 (stolen catalytic converters)
 - f. Outside repair (Cummins) to truck #322 for recurring exhaust system issues
 - g. Repairs to truck #212 from accident
 - h. Prep new truck #225 for use and place into service into Operation Department
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells is month.
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Slope Farmers, Smith Judd, Smith Judd Extension and Upper Kern Island
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load, haul and place dirt from wash ins on Kern Island and BV
 - b. Remove riprap and damaged panels from Smith Judd Extension and stockpile at Stonefield Basins
 - c. Remove tumbleweeds from Kern Island and BV
 - d. Rodent control on Rim and BV
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from Eastside, Central, Stine, Randal, Burness, Branch 1, Smith Judd, Smith Judd Extension and East Branch
7. **Weed Spraying.** The following canals were sprayed during the month with spray trailer;
 - a. Eastside, Stine and Upper Central
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; Treatments were made to the Eastside, Central and Kern Island Canals

9. Rodent Control

- a. Bait Stations were frequently checked, and all locations were filled throughout the District this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs and screens on all running canals
- b. Removed debris from the Kern Island, Eastside, Central, Branch 1, Farmers. Both trash trucks were used to haul debris to the landfill

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St., Columbus, 4th and Terrace Way
- b. Branch 1 – Hughes, White Lane and Panama
- c. Central – Terrace Way, South Gate, Ming, Planz and Union
- d. Stine – Chester Lane, Garnsey, Gosford, District and Ash
- e. BV – Howell
- f. Eastside – 34th St., Kentucky, Lake, Hailey, Virginia, Quántico and Oswell

12. Safety Meetings. Weekly tailgate safety topics were;

- a. District COVID-19 Policy
- b. COVID – 19 Training Part I
- c. COVID – 19 Training Part II
- d. COVID – 19 Updates

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in cells of the Romero and Stine basins
- b. Fence repair at Romero
- c. Weed spraying with spray trailer

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Instruct customer to install new meter and piping at booster pump on Farmers Canal at Old River Road (#4-0-249)
- b. Continue office moves and prepare for office remodel project
- c. Oversee the removal of piping obstruction on 20-foot Ditch in December

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place riprap around eroded intertie structures as needed at DiGiorgio Basin
- c. Oversee Romero Basin earthen plug Project
- d. Install meters in Stine Canal at the Bladder basin

Maintenance Report

May 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Repair plugged pipeline at turnout # 3-0-149 (15 Ditch for Boswell)
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to truck # 210, 221, 217 and 212 (brakes)
 - c. Repairs to Grader (Sloper Bolts)
 - d. Repairs to truck 293 (replace engine oil pump with high mileage pump)
 - e. Repairs to truck #322 (recurring air conditioning issue)
 - f. Prep truck 212 for towing spray trailer
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells is month.
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Slope portions of Farmers, 23 Ditch, BV, and Stine Canals
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load and haul and place dirt for wash ins on Stine.
 - b. Dip and glean canals of trash and debris on Eastside, Central and KI
 - c. Push berms from sloping of canals on Stine and BV
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from Eastside, Central, Stine, Randal, Burness, Branch 1, Smith Judd, and East Branch
 - b. Remove moss from 15 Ditch
7. **Weed Spraying.** The following canals were sprayed during the month with spray trailer;
 - a. Central, Rim & Eastside at Lake Street with pull spray rig
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; Treatments where made to the Eastside, Central and Kern Island Canals
9. **Rodent Control**
 - a. Bait Stations were frequently checked, and all locations were filled throughout the District this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all canals
 - b. Cleanup on canals to remove discarded debris from banks of the Kern Island, Eastside, Central, Branch 1, Farmers. Both trash trucks were used to haul debris to the landfill as needed.
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – 30th St., 34th St., Columbus, 4th, and Terrace Way
 - b. Branch 1 – Hughes, White Lane and McCourry

- c. Central – South Gate, Planz and Wilson
- d. Stine – California & Real, Chester Lane, Garnsey, Gosford, District and Ash
- e. BV – Discovery Ridge and Mountain Vista
- f. Eastside – 34th St., Kentucky, Lake, Hailey, Virginia, Quántico & Oswell

12. Safety Meetings. Weekly tailgate safety topics were;

- a. District Job Description Update
- b. Heat Illness Prevention Program
- c. District Housekeeping
- d. How to Stay Safe in an Earthquake
- e. New Office Prep

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mow bottoms of BV and DiGiorgio basins
- b. Fence repair at Romero
- c. Weed spraying with spray trailer

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage
- b. Continue office moves and mobile office installs
- c. Install 24" piping at 3-0-149 for Boswell
- d. Install meters on Stine at Bladder

15. Future Water Banking Projects.

- a. Place riprap around eroded intertie structures as needed at DiGiorgio Basin
- b. Assist outside contractor in the earthen plug project at Romero Basins

Maintenance Report

June 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Remove broken section of corrugated pipe on Stine Canal at Progress Rd.
 - b. Repair head gates of the 18 N&S and the 13 Ditch
 - c. Raise elevation on canal bank of BV Canal at head of BV East and West (East bank)
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to truck # 221, 106, 220, 210, 219, and 214
 - c. Repairs to Truck #326 (radiator cleaning)
 - d. Set-up new truck for use #224
 - e. Repairs to truck #324 (air leak and service)
3. **District Wells.**
 - a. Monthly service and inspection of all District wells this month.
 - b. Remove motor and well column and clean bowls of KI7
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Slope portions of BV, Eastside, Central, Kern Island Canals and its branch canals, BV East, BV West, 15 Ditch, East Branch, Rim, Drain, and 20-foot.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load, haul and place dirt for washout on Central
 - b. Dip and clean canals of trash and debris on Eastside, Central, and KI
 - c. Place berms on Stine Canal at Progress Road to prevent crossing over dilapidated corrugated pipe.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from canals, turnouts, and weirs on the Eastside, Central, Stine, Randal, 13 Ditch, Branch 1, and East Branch
 - b. Dig and haul dirt to washout on Central
 - c. Remove moss and algae from 13 Ditch and Eastside
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Eastside, East Branch, Central, Rim, Drain, Kern Island, Branch 1 and 18 N&S
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; Treatments were made to the Eastside, Central, 13 Ditch and Kern Island Canals
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the District this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all canals

- b. Remove debris from the Kern Island, Eastside, Central, Branch 1, Farmers. Both trash trucks were used to haul debris to the landfill.

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St., Columbus, 4th and Niles
- b. Branch 1 – Hughes, White Lane and McCourry
- c. Central – South Gate, Planz and Union
- d. Stine – California & Real, Chester Lane, Garnsey, Gosford, District and Ash
- e. BV – White Lane and Old River Road.
- f. Eastside – 34th St., Kentucky, Lake, Hailey

12. Safety Meetings. Weekly tailgate safety topics were;

- a. District Changes Effective 6-15-2020
- b. New Covid -19 Changes
- c. Emergency Action Plan
- d. Daily Equipment Walk Around

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in the bottoms of the BV Basins
- b. Weed spraying with spray trailer

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Meter and discharge pipe upgrade on Farmers #4-0-249
- b. Remove piping obstruction on 20' in December
- c. Install 24" piping at 3-0-149 for Boswell
- d. Install meters on Stine at the Bladder basin discharge

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place riprap around eroded intertie structures as needed at DiGiorgio Basin
- c. Spray weeds and Typha (cattails), with new trailer mount system

Maintenance Report

July 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Remove the failing Progress Rd crossing on Stine Canal west of Gosford Rd.
 - b. Build up the bank of the BV Canal at the BV East Canal intersection
 - c. Repair wash in on Central near Panama Rd.
 - d. Begin cleaning bottom of Stine Canal with rental Dozer
 - e. Repair turnout # 3-0-88 (rebuild stem and rails)
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to truck # 219, 221, 220, 213 and 211
 - c. Repairs to Backhoe Trailer #T11 (frame/spring weld failure)
 - d. Repairs to grader and sloper (fan assembly, exhaust system & sloper arm)
3. **District Wells.**
 - a. Monthly service and inspection of all District wells is month.
 - b. Replace oil drippers on 8 wells
 - c. Clean pads and service wells as Needed
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Slope portions of Central, East Branch, Kern Island, Branch 1, 13-Ditch, Rim, Drain and Farmers.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load, haul, and place dirt for washout on Central
 - b. Dip with debris bucket the Eastside, Central and Kern Island canal screens
 - c. Remove Stine Canal crossing on Progress Road; remove dilapidated corrugated pipe and reshape the canal
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, and tires from the Eastside, Central, Stine, Randal, 13-Ditch, Branch 1 and East Branch
 - b. Dig and haul dirt to backfill washout on Central
 - c. Remove Moss from 13 Ditch, Central and Eastside
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Famers, Smith Judd, Randal, Stine and BV Canals
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; Treatments where made to the Eastside, Central, 13 Ditch, BV, and Kern Island Canals
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the District this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and screens on all canals
- b. Remove brush from cottonwood trees along 13-Ditch return for Grader passage
- c. Remove debris from the Kern Island, Eastside, Central, Branch 1, Farmers. Both trash trucks were used along with dump trucks to haul debris to the landfill.

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St., Columbus, 4th and Niles
- b. Branch 1 – Hughes, White Lane and McCourry
- c. Central – Terrace Way
- d. Stine – California, Chester Lane, Garnsey, Gosford, District Blvd, and Ash
- e. Eastside – 30th, 34th St., Columbus, Kentucky, and Lake St.

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Public Relations
- b. Covid-19 Updates
- c. Slips, Trips & Falls
- d. Effects of Heat
- e. Shop Safety

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in cells of basins (Stonefield)
- b. Weed spraying with spray trailer

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Oversee removal piping obstruction on 20-foot in December
- b. Install 24" piping at 3-0-149 for Boswell
- c. Install meters on Stine at the Bladder basin discharge
- d. Clean bottoms of canal with rental dozer
- e. Repair turnouts on Stine Canal

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place riprap around eroded intertie structures as needed at DiGiorgio Basin
- c. Mow and remove trees at DiGiorgio Basin
- d. Mow weeds when possible (If dry enough to get equipment in basins)
- e. Spray weeds and Typha (cattails), with new trailer mount system

Maintenance Report

August 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Clean bottom of Stine Canal and move to the BV Canal with rental Dozer
 - b. Repair staff gage at the Bloomfield Y on the Central Canal
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to truck # 323, 326, 285 and 327 (air conditioning issues and minor repairs)
 - c. Replaced bent axle on Trailer # T3
 - d. Repair/adjust grader door
 - e. Repair John Deere #401 (clutch cable, radiator tank, fuel leak and shredder issues)
 - f. Smog certification repairs for Truck # 208, prepare for sale
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells is month.
 - b. Replacement of drippers on well oilers as needed
 - c. Clean well pads and service wells as needed
 - d. PG&E repairs to FR2
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Slope portions of Farmers, Randal, Branch 2, and Stine Canal
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Load, haul, and place dirt for washout on Stine
 - b. Dip and clean canals of trash and debris on Eastside, Central and KI
 - c. Remove sediment buildup around turnouts and weirs in the Stine Canal
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds and tires from canals, turnouts, weirs and crossing on Eastside, KI, Central, Stine, Randal, 13 Ditch, Branch 1, and East Branch
 - b. Begin reinstallation well piping from FR-2 to the Randal Ditch at Romero Basins
 - c. Remove sediment buildup around turnouts on Stine Canal
 - d. Remove tumbleweeds on Central (Adobe Road), Farmers, Eastside, East Branch and Branch 1
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV East, BV, Canfield Ditch and Eastside Canal
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; Treatments were made to the 18 N&S, Farmers, Eastside, Central, 13 Ditch, BV, and Kern Island Canals
9. **Rodent Control**
 - a. Checked Bait Stations. All locations were filled throughout the District this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and screens on all canals
- b. Cleanup on canals to remove debris from the Kern Island, Eastside, Central, Branch 1, Farmers. Both trash trucks were used along with dump trucks to haul debris to the landfill.
- c. Remove brush in lot at Chester Lane on the Stine Canal and on East Branch at P and Terrace Way

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St. and Columbus
- b. Branch 1 – Hughes, White Lane and McCourry
- c. Central – Terrace Way
- d. Stine – California Ave, Chester Lane, Garnsey, Gosford, District and Ash
- e. Eastside – 30th, 34th St., Columbus, Kentucky, Lake St.

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Inventory Accountability
- b. The Public and Canal Maintenance
- c. Equipment Maintenance
- d. Districts Fencing Policy

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mow weeds in cells of basins (Equestrian Area and Stine Basin)
- b. Weed spraying with spray trailer (DiGiorgio Basin, Branch 1 and Stonefield)
- c. Romero Basins earthwork completed by outside contractor

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canal banks for grader passage
- b. Repair fencing on canals damaged by vandals, homeless and vehicles
- c. Repair turnouts, gates, piping, and crossings as availability of canals is made possible (BV and Eastside)
- d. Install 24" piping at 3-0-149 for Boswell turnout (October)
- e. Install meters on Stine Canal at the Bladder outlet
- f. Clean bottoms of canal with rental dozer

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Place riprap around eroded entrance structures at DiGiorgio Basins
- c. Mow and remove trees at DiGiorgio Basins
- d. Mow weeds when possible (if dry enough to get equipment in basins)
- e. Spray weeds and Typha (cattails), with new trailer mount system

Maintenance Report

September 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Clean bottom of BV Canal with rental Dozer
 - b. Reposition dislodged trash screen on Kern Island Gate 3-00-107
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment
 - b. Service and repair air brake system on truck # 322
 - c. Replace bent axle on Trailer # T3 (spray trailer)
 - d. Repair Motor Grader sloper attachment
 - e. Replace braker in shop electrical panel
 - f. Service temporary office and shop air conditioning systems
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells is month.
 - b. Clean pads and service wells as needed
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Finish the Stine Canal and begin sloping at the head of BV Canal
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Spot clean areas of BV Canal for turnout repair
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from the Eastside, KI, Central, Stine, Branch 1, and East Branch
 - b. Remove tumbleweeds along the Central and Eastside Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Stine, Branch 2, Randal, Farmers, Central, Section 5 Ditch, and Eastside Canal
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; were made in the Farmers, Central, 13 Ditch and Kern Island Canals
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the District this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all canals
 - b. Remove debris from the Kern Island, Eastside, Central, Branch 1 and haul to the landfill
 - c. Remove brush on the Stine Canal and on East Branch at P and Terrace Way
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – 30th St., 34th St. and Columbus
 - b. Branch 1 – Hughes, White Lane and McCourry St.
 - c. Central – Terrace Way, South Gate and Wilson

- d. Stine – California Ave, Chester Lane, Garnsey, Gosford, District and Ash
- e. Eastside – 30th, 34th St., Columbus, Kentucky, Lake St.

12. Safety Meetings. Weekly tailgate safety topics were;

- a. House Keeping
- b. Workstation Risk and Hygiene
- c. Homeless Encampment Cleanup
- d. Near Misses - Chain Saw Use

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in Romero and BV Basins
- b. Weed spraying with spray trailer at BV and Stine Basins
- c. Dozer work on Romero to push old trees, clean debris, and create a terrace for riprap storage

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage
- b. End of season repairs of turnouts, gates, piping and crossings on Stine and Eastside
- c. Remove piping obstruction on 20 Foot in December
- d. Install 24" piping at 3-0-149 for Boswell turnout on the 14 Ditch
- e. Install meters on Stine Canal at Bladder outlet
- f. Clean bottoms of Eastside Canal with rental dozer when dry
- g. Replace rusted steel supports on BV Canal weirs (6-0-519 and 525)
- h. Continue removal of brush and trees on East Branch between Madison & Casa Loma and assist subcontractor in large tree removal.

15. Future Water Banking Projects.

- a. Install permanent staff gauges and signage in basins
- b. Place riprap around eroded entrance structures as needed at DiGiorgio Basin
- c. Mow and remove trees at DiGiorgio Basins
- d. Mow weeds (If dry enough to get equipment in basins), at Met and DiGiorgio
- e. Spray weeds and Typha (cattails), with new trailer mount system after mowing
- f. Dig & reconnect Well No. FR-2 pipeline in Romero Basin

Maintenance Report

October 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Cleaning around turnouts to improve flow on the BV Canal
 - b. Remove dilapidated pipe on 15 Ditch at Herring Road, reposition pipeline and install new 24" HDPE Pipe
 - c. Re-install 15" pipeline at the Romero Basins (Well No. FR2 discharge pipe into Randal Ditch)
 - d. Tree removal on East Branch to improve flow rates
 - e. Rebuild steel supports in two weirs on BV (6-0-519 & 525)
 - f. Cleaning of culverts and lowering of bottom of canal at Lake St. & Gage St. on Eastside Canal to improve flow
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to Trailer #T11 (ramp repair)
 - c. Repair Motor Grader (Sloper attachment pins & ram repair)
 - d. Replace rear frame on John Deere Mower
 - e. Replace fuel tank on Backhoe #402
 - f. Repairs to brake system on vehicles #210 & 211
 - g. Repair to toolboxes on equipment # 224 & 225
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Finish sloping the BV East, BV West and the BV Canal
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Clean turnouts, weirs and built-up areas of BV Canal for turnout repairs
 - b. Piping installations on 15 Ditch & FR2 Pipeline
 - c. Load and haul Riprap from High School development property to DiGiorgio Basins for future use
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from Central, East Branch and Eastside Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. BV Canal Bottoms, 18 N&S, 13 Ditch, Kern Island, 20", Randal and Branch 1
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; Treatments were made to the Central, 13 Ditch, 18 N&S and Kern Island Canals
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the District this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and screens
- b. Removed debris with both trash trucks from the Kern Island, Eastside, Central, Branch 1 and haul to the landfill
- c. Remove brush and trees on the Eastside and East Branch Canals
- d. Removal of overgrown brush and trees between Madison & Casa Loma on East Branch

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St. and Columbus
- b. Branch 1 – Hughes and White Lane
- c. Central – East Terrace Way, South Gate and Madison
- d. Stine – California, Chester Lane, Garnsey and Gosford
- e. Eastside – 30th, 34th St., Columbus, Kentucky, Lake St.

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Awareness of our surroundings
- b. District house keeping
- c. Near misses from the week
- d. Job site safety
- e. Eye protection at the work sites

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing weeds in cells of basins (finish BV Basins and start DiGiorgio Basins)
- b. Weed spraying with spray trailer on BV and DiGiorgio Basin
- c. Install pipeline that was removed for basin repair in the Romero North East Basin which ran from FR2 Well to the Randal Canal

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Repair dilapidated turnouts, gates, piping, and crossings in the Farmers and Eastside Canals
- b. Remove soil deposits from Eastside Canal in the Gage Street area.
- c. Install meters on Stine Canal at Bladder Basin
- d. Paint refurbished weirs on BV Canal (6-0-519 & 525)
- e. Install 40' of HDPE pipe on Farmers to replace dilapidated pipe crossing

15. Future Water Banking Projects.

- a. Install permanent staff gauges and signage in basins
- b. Place riprap around eroded entrance structures as needed at DiGiorgio Basin
- c. Mow and remove trees at DiGiorgio Basin
- d. Mow weeds at Met, when dry enough to get equipment in basin
- e. Spray weeds and Typha (cattails), with new trailer mount system after mowing Met Basins

Maintenance Report

November 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Cleaning around turnouts and removing sand bars in the Stine, Farmers & Smith Judd Canals
 - b. Stockpile riprap obtained from Del Oro High School site on the Central Canal at trespass points from the Rexland Acres neighborhood
 - c. Remove and replace rusted I-beam supports on two weirs in the Farmers Canal (4-0-530 & 529)
 - d. Remove sediment from the Eastside Canal upstream and downstream of the Gage Street crossing. Stockpile soil on the embankment for future removal.
 - e. Removal of temporary over-bank piping obstruction on 20 Foot was not necessary because the Farmer completed this project as requested
 - f. Install 40' of HDPE pipe to replace a rusted corrugate-pipe crossing on the Farmers Canal
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to Trailer #T10 (ramp jack installed & ramps repaired)
 - c. Repair sloper attachment, pins, and ram hose on Motor Grader
 - d. Repair air conditioning on Backhoe #404
 - e. Repairs to brake system on vehicles #215, 214, 327, 211 & 221
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells and check dripper operation
4. **Motor Grader # 403** The following canals were sloped and graded;
 - a. Finish sloping the Eastside Canal
 - b. Remove tumbleweeds and fill in the abandoned portion of the 31 Ditch
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Clean turnouts, weirs, sand bars and built-up areas along the Stine, Farmers and Smith Judd Canals
 - b. Load and haul Riprap from Del Oro High School to Central Canal
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from Stine and Eastside Canals and the DiGiorgio Basins
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Kern Island, Branch 1, and Eastside (bottom)
8. **Aquatic Treatments.** Surface spraying algae mats and injection treatments for control of algae or vascular aquatic weeds were made to the Central, 13 Ditch and Kern Island Canals
9. **Rodent Control**
 - a. Checked and filled Bait Stations as needed throughout the District
 - b. New Bait Stations were built and installed on the BV Canal

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and screens on actively running canals
- b. Removed debris and illegal dumping from the Kern Island, Eastside, Central, and Branch 1 and haul to the landfill
- c. Removed debris from the Eastside Canal, Stine Canal, and 31 Ditch

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St. and 34th St.
- b. Branch 1 – Wible
- c. Central – Pacheco
- d. Stine – California & Real, Chester Lane, Garnsey, and White Lane
- e. Eastside – 30th, 34th St., Columbus, Kentucky, and Lake St.

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Job Safety Analysis
- b. Week in Review of JSAs
- c. Week in Review
- d. Tool Training and JSAs

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowed weeds in the DiGiorgio Basins
- b. Sprayed weeds with spray trailer at the Kern Island and DiGiorgio Basins
- c. Basin clean-up using rental Bobcat in preparation for sterilant spraying on fence lines, roadways, and banks

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage
- b. Repair turnouts, gates, piping, and crossings in the Farmers, Smith Judd, and Eastside Canals as they dry out
- c. Remove stockpile of sediment that was dredged from the Eastside Canal in the Gage Street crossing area. Haul soil to an offsite location.
- d. Install meters on the Stine Canal at the Bladder outlet
- e. Evaluate proposals for large-tree removal on the 18N Ditch east of Union Avenue

15. Future Water Banking Projects.

- a. Install permanent staff gauges and signage at all basin properties
- b. Place riprap around eroded intertie structures at the DiGiorgio Basins
- c. Mow and continue removing the balance of trees at the DiGiorgio Basins
- d. Mow weeds at the Kern Island Basins when ponds dry out
- e. Spray weeds and Typha (cattails), with trailer mount system in the Kern Island Basins
- f. Spray sterilant on all roadways and fence lines at all basin properties

Maintenance Report

December 2020

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Remove sediment buildup around turnouts in the Kern Island, Branch 1 & Central Canal
 - b. Install new gate, screen, and trash boom on turnout # 3-0-62
 - c. Install new gate on turnout 3-0-88 on the Kern Island
 - d. Replace Central Canal head gates (2-48" Waterman C-10 gates)
 - e. Repair Head Gate on the Branch 1 at Pacheco
 - f. Repair rusted out portions of I-beams on Kern Island Weirs #3-0-600 and 605
 - g. Repair gate on turnout #3-2-220
 - h. Replace gate stem on turnout #3-0-120
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Fixed intake leak on truck 323 to pass smog
 - c. Repair sloper attachment pins on Motor Grader
 - d. Repairs to trucks 212, 285, 210, and 207 to pass smog
 - e. Repairs to brake system on truck #219
 - f. Replace windshield on truck #221
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Sloping the 18 N&S Ditch and 13 Ditch
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Clean turnouts, weirs, and built-up areas on the Kern Island, Central and Branch 1 Canal for turnout repairs
 - b. Assist in turnout repair on KI, Central and Branch 1
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, brush and tires from Kern Island, Central and Branch 1 Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. 13 Ditch
 - b. 18 N&S
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; No treatments were made to canals this month
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the District this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and screens on all canals running
- b. Remove discarded debris from the Kern Island, Central, Branch 1; Both trash trucks were used to haul debris to the landfill from brush and trash removed.

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St. and 34th St.
- b. Branch 1 – Hughes
- c. Central – Terrace Way
- d. Stine – California, Chester Lane, and Garnsey
- e. Eastside – Kentucky and Lake St.

12. Safety Meetings. Weekly tailgate safety topics were;

- a. JSA Review
- b. Shutdown Projects
- c. Shutdown Project Review
- d. Covid-19 Updates
- e. Shutdown Review

13. Water Banking Activities. The following jobs were completed during the month;

- a. Spraying sterilant at the Kern Island Basins
- b. Rental water truck used to incorporate sterilant on Kern Island, Stonefield and BV Basins.
- c. Basin clean-up for sterilant spraying using rental Bobcat to clean-up fence lines and roadways

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Install meters on Stine Canal at the Bladder basin

15. Future Water Banking Projects.

- a. Install permanent staff gauges and signage in basins
- b. Place riprap around eroded entrance structures as needed at DiGiorgio Basin
- c. Mow weeds at Kern Island basins when dry enough

Maintenance Report

January 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Remove sediment buildup in the Farmers and Eastside Canals.
 - b. Remove farmer installed screening, repair or build and install new pre-screens on the Eastside Canal.
 - c. Remove blown-in sand from the Eastside South of Hermosa Rd. to Panama Ln.
 - d. Replace rails, stems and covers on turnouts 2-0-208, 2-0-24, and 2-0-305.
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair electrical cabling, air brakes and emissions on truck # 324.
 - c. Repair sloper blade pins on motor grader.
 - d. Install cross box and repair safety lighting on truck #213.
 - e. Repair brake system on truck #213.
 - f. Repair windshield on trucks 106 & 222.
 - g. Repair ramps and wiring on trailer #T11.
 - h. Start conversion to PTO Drive system on turntable pump.
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation.
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Sloping the Branch 1, Kern Island and Eastside.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Clean sand bars and built-up areas around turnouts and weirs of the Farmers, Branch 1 and Eastside Canals.
 - b. Assist in cleanout of debris on KI, Branch 1 and Eastside
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, brush and tires from Kern Island, Central, Branch 1 and Eastside Canals.
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Sterilant application at head walls of the KI.
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; No treatments were made to canals this month.
9. **Rodent Control**
 - a. Bait stations were frequently checked, and all locations were filled throughout the District this month.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all running canals.

- b. Remove debris from the Kern Island, Central, Branch 1 and use both trash trucks to haul to the landfill.
- 11. **Fence Repairs.** Fences and gates were repaired at the following locations;
 - a. Kern Island – 30th St. and 34th St.
 - b. Branch 1 – Hughes Lane.
 - c. Stine – California, Chester Lane and Garnsey.
 - d. Basins – Kern Island and Romero.
- 12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Slips, Trips and Falls.
 - b. District House Keeping Issues.
 - c. Foul Weather Driving.
 - d. Workstation Risk & Hygiene.
- 13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Spraying sterilant on all Basin fence lines, roads and upper banks.
 - b. Rental water truck used to incorporate sterilant on basins.
 - c. Removal of tumbleweeds from fences from windstorm.
- 14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Install meters on the outlet of the Bladder basin on the Stine Canal.
 - b. Replace District yard access gates.
- 15. **Future Water Banking Projects.**
 - a. Install permanent staff gauges and signage in basins.
 - b. Place riprap around eroded intertie structures at DiGiorgio Basins.
 - c. Mow weeds at Kern Island Basins, when dry enough to get equipment in basin.
 - d. Spray weeds and Typha (cattails), with new trailer mount system after mowing Kern Island Basins.
 - e. Spray sterilant on all slopes for weed control where mower can't reach.

Maintenance Report

February 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Remove blown-in sand from Smith and Judd Canal south of Shafter Rd.
 - b. Repair breach caused by plugging and replace board control crossing on Smith and Judd Canal south of Shafter Rd.
 - c. Repair washed-out crossing on Farmers Canal 1/2 mile west of Ash Rd.
 - d. Installed pre-screens on Eastside Canal.
 - e. Reset staff gauge at the head of Central Canal.
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair horn on truck #216.
 - c. Fixed air leak and replaced air line on truck #324.
 - d. Repair AC and replace mud flap on truck #322.
 - e. Fixed switch on dumping system on truck #323.
 - f. Replaced purge valve on truck #220.
 - g. Start conversion to PTO Drive system on turntable pump.
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation.
 - b. Replace sight level glass on oil tanks as needed to prep for upcoming running season.
 - c. Replace batteries in clocks/timers as needed.
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Sloping and removing sand blown-in sand on Smith and Judd canal south of Shafter Rd.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Clean sand bars and built-up areas around turnouts and weirs of the Farmers, Stine and 18 North and South.
 - b. Replace board control crossing 546 on Smith and Judd Canal south of Shafter Rd.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, brush and tires from Kern Island, Central, Branch 1 and Eastside Canals.
 - b. Clean up East Branch Canal in preparation for startup.
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Sterilant application at head walls of the KI and Branch 1 including pipped sections though neighborhood.
 - b. Spot treated Stine Canal from Ash to end.
 - c. Farmers Canal from Panama Ln to the end of canal.

8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; No treatments were made to canals this month.
9. **Rodent Control**
 - a. Bait stations were frequently checked, and all locations were filled throughout the District this month.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all running canals.
 - b. Remove debris from the Kern Island, Central, Branch 1 and use both trash trucks to haul to the landfill.
11. **Fence Repairs.** Fences and gates were repaired at the following locations;
 - a. Kern Island – 30th St. and 34th St.
 - b. Branch 1 – White Ln and Oleander Dr.
 - c. East Branch – Casa Loma and City yard north of Watts.
 - d. Eastside – Oswell St and Edison Rd.
12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Accident Action Plan and Procedures.
 - b. Equipment Repair Reporting.
 - c. Storage with Proper Labeling.
 - d. Fire Prevention and Fire Response
13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Burn tumbleweeds at the Kern Basins (MET).
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Install meters on the outlet of the Bladder basin on the Stine Canal.
 - b. Replace District yard access gates.
15. **Future Water Banking Projects.**
 - a. Install permanent staff gauges and signage in basins.
 - b. Place riprap around eroded intertie structures at DiGiorgio Basins.
 - c. Mow weeds at Kern Island Basins, when dry enough to get equipment in basin.
 - d. Spray weeds and Typha (cattails), with new trailer mount system after mowing Kern Island Basins.
 - e. Spray sterilant on all slopes for weed control where mower can't reach.

Maintenance Report

March 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Cleaning around turnouts, weirs and removing sand bars to improve flow on the canals.
 - b. Repair turnout # 3-0-AE1 in preparation for deliveries to the Arvin Edison intake canal
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs electrical cabling, turbo, and emissions system on truck # 324
 - c. Repairs EGR, DEF and electrical emissions system on truck #322
 - d. Install cross box and safety lighting on new truck #226.
 - e. Repair brake system on truck #214
 - f. Repair ramps on trailer #T12
 - g. Continue conversion of turntable pump to PTO Drive system
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation, clean well pads, and start/stop wells as needed.
4. **Motor Grader # 403** The following canals were sloped and graded;
 - a. Sloping part of the Kern Island
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Remove tumbleweeds and debris from turnouts, weirs, and screens on the Farmers, Branch 1, Kern Island and Eastside Canals
 - b. Assist in cleanout of debris on KI, Branch 1, and Eastside Canals
 - c. Repair several different leaks on the Rim Ditch due to high water levels and gopher activity.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, brush, and tires from Kern Island, Central, Branch 1 and Eastside Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on the Central and Stine.
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds were made to the Randal and Kern Island
9. **Rodent Control**
 - a. Bait Stations were frequently checked, and all locations were filled throughout the District this month.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all flowing canals

- b. Remove debris from the Kern Island, Central, and Branch 1 canals and haul waste to Bena landfill using both trash trucks.
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
- a. Kern Island - 30th St., 34th St.
 - b. Eastside - Edison
 - c. Branch 1 - Smoke Tree Trailer Park and Harris
 - d. Stine - California, Chester Lane, Garnsey, Pacheco, and White Lane
 - e. Basins - Kern Island, Stonefield and Romero
12. **Safety Meetings.** Weekly tailgate safety topics were;
- a. Fire Prevention Review
 - b. New Forklift Training
 - c. Reporting Accidents and Repairs
 - d. Vehicle Hygiene
13. **Water Banking Activities.** The following jobs were completed during the month;
- a. Spraying weeds on Romero Basins
 - b. Mowing cells at Kern Island Basins
 - c. Removal of tumbleweeds from fences due to windstorms.
 - d. Adjust boards on KI Basins to allow surge flow into regulating pond only.
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
- a. Trim and remove trees/brush as needed along canals for grader passage.
 - b. Install meters on Stine Canal at the Bladder basin outlet.
15. **Future Water Banking Projects.**
- a. Install permanent staff gauges and signage at all basins.
 - b. Mow weeds at all basins.
 - c. Spray weeds and Typha (cattails), with new trailer mount system after mowing Kern Island Basins

Maintenance Report

April 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Repair Rim Ditch seepage issues caused by gopher activity and high-water levels.
 - b. Repair 18 N&S breach on Houghton Road
 - c. Repair wash into the Branch 2 Canal from irrigation water
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair cabling and pony motor on spray rig (Truck # 326)
 - c. Repairs light bracket on Truck #217
 - d. Install cross box and safety lighting to Trucks #227 & 228.
 - e. Repairs windshield on Truck #214
 - f. Weld spray frame on spray trailer (#T3)
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation and clean well pads.
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Sloping parts of the Kern Island and start Central.
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Excavate, remove, and stockpile concrete pipe at the Sunset Basins property
 - b. Remove debris from the KI, Branch 1, and Eastside Canals
 - c. Repair gopher hole seepage areas on the Rim Ditch and 18 N&S
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, brush, and tires from Kern Island, Central, Branch 1 and Eastside Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on Stine & Eastside.
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to Randal, Eastside, Farmers, 13 Ditch, Central and Kern Island
9. **Rodent Control**
 - a. Bait Stations were checked and filled throughout the District this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens
 - b. Remove debris from the Kern Island, Central, and Branch 1 and use both trash trucks to haul to the landfill.
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – 30th St. and 34th St.
 - b. Eastside – Quantico, Columbus and 34th

- c. Branch 1 – Smoke Tree Trailer Park, South Gate and Harris
- d. Stine – California Ave, Chester Lane, Garnsey Lane, Pacheco and White Lane
- e. Basins – KI, Stonefield and Romero

12. **Safety Meetings.** Weekly tailgate safety topics were;

- a. Homeless Encounters & Safety
- b. Driving Safely on Public Highways.
- c. Vehicle Inspection Sheet
- d. Covid Policy Review
- e. Annual Fire Extinguisher Replacement

13. **Water Banking Activities.** The following jobs were completed during the month;

- a. Spraying weeds at Stonefield
- b. Mowing cells at the KI, Stonefield and Romero Basins
- c. Removal of tumbleweeds from fences due to windstorms

14. **Future Projects.** The following projects will be completed as time and scheduling permit:

- a. Install meters on Stine Canal at the Bladder Basin outlet
- b. Finish converting the old Operations office to a multipurpose room

15. **Future Water Banking Projects.**

- a. Install permanent staff gauges and signage at basin properties.
- b. Spray weeds and Typha (cattails), with trailer mount system after mowing
- c. Solicit quotes for vegetation management services at Basin properties.

Maintenance Report

May 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Repair Kern Island breach at Bear Mountain Blvd
 - b. Repair wash ins on BV and Stine
 - c. Repair rodent damage on BV, Rim and Stine
 - d. Clean turnouts on BV and Stine
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair smog system sensors/check engine light on truck # 210
 - c. Repair dump bed switches on truck 323
 - d. Service and repair bathroom, coolers and lights in shop and office
 - e. Fuel and service Grader / John Deere
 - f. Repair trailer T12
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation and clean well pads.
 - b. Replace panel lights and dripper glass.
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Central, Eastside and 20-Foot
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Remove and stockpile concrete pipe at Sunset Basins.
 - b. Remove debris prior to startup of the BV and Stine Canals
 - c. Collapse gopher holes on the KI, BV and Stine
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed debris from Kern Island, Central, Branch 1, East Branch, Randal, Farmers, BV and Eastside Canals
 - b. Remove and stockpile concrete pipe at Sunset Basins.
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on BV, Stine, KI and Eastside
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to Central, Randal, Eastside, Farmers, 13 Ditch and Kern Island
9. **Rodent Control**
 - a. Bait Stations were filled throughout the District this month.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens
 - b. Remove debris from the BV, Stine, Central, East Branch, Kern Island & Branch 1; (Both trash trucks were used to haul debris to the landfill)

11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – 30th St., 34th St. and Columbus
 - b. Eastside – Quantico, Columbus and 34th
 - c. Branch 1 – Smoke Tree Trailer Park, South Gate and Harris
 - d. Stine – California and Real, Chester Lane & Garnsey, Grisham and White Lane
 - e. Basins – DiGiorgio and Romero
12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Chemical Safety – Identifying Hazards
 - b. Proper Tarping of Trash Trucks
 - c. Eye Safety / Safety Glasses
 - d. Tire Safety – ID Hazards / Proper Inflation
13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Mowing cells at the Kern Island and Romero Basins
 - b. Removal of tumbleweeds from fences due to windstorms at Kern Island Basins
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Install meters on Stine at Bladder.
 - b. Finish repairs to Multipurpose Room
15. **Future Water Banking Projects.**
 - a. Remove tumble weeds and debris near housing at the Branch 1 Basins.
 - b. Continue pipe removal at Sunset Basins.
 - c. Pipe Removal at Marlette property
 - d. Pipe removal at AC Electric Property

Maintenance Report

June 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Repair Kern Island breach near Houghton Road
 - b. Dig to repair rodent damage on BV and Kern Island
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repairs to Trailer T11 air brake system
 - c. Repair #324 repair air brake supply system
 - d. Fuel & service Grader / John Deere
 - e. Install new machined parts on grader sloper.
 - f. Prepare truck # 285 and #293 for sale.
 - g. Repair air conditioning system on truck #214
 - h. Repair shop air hose reel
 - i. Replace bushings on front and rear bucket and ram heads of the backhoe.
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation and clean well pads.
 - b. Add dripper oil as needed.
4. **Motor Grader # 403** The following canals were sloped, and roads graded;
 - a. Sloping parts of the 20' and BV (after repairs to sloper)
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist in cleanout of debris on KI, Central, BV and Eastside
 - b. Repair gopher hole seepage areas.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush, and tires from Kern Island, Central, Branch 1, East Branch, Randal, Farmers, BV, and Eastside Canals
 - b. Dig to repair rodent holes on KI, BV and Stine
 - c. Dig to repair grower installed berm on the KI below Bear Mountain Blvd.
 - d. Remove palm tree from Romero Basin Area
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on KI, Branch 1, 13 Ditch, 18 N&S, Farmers, Rim, Drain, Central and Stine
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to BV, Central, Randal, Eastside, Farmers, 13 Ditch and Kern Island.
9. **Rodent Control**
 - a. Bait Stations were frequently checked, and all locations were filled throughout the District this month.

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, trash racks and screens on all canals running
- b. Remove debris from the BV, Stine, Central, East Branch, Kern Island & Branch 1; and haul to the landfill with both trash trucks

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St. and Columbus
- b. Eastside – Quantico and Edison, Columbus, Kentucky and 34th
- c. Branch 1 – Smoke Tree Trailer Park
- d. Central -- South Gate and Harris
- e. Stine – California & Real, Chester Lane & Garnsey, Grisham and Part Circle

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Hydration/Heat Illness
- b. Heat Safety Policy and Procedures
- c. JSA Safety Sheets
- d. House Keeping

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing cells at the Kern Island and Romero Basins
- b. Removed tumbleweed and debris from the north boundary area of the Branch 1 basins.
- c. Oversee construction of Kern Island and Romero basin expansion projects.

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Install meters in the Stine Canal at the outlet of the Bladder basin.
- b. 13 Ditch headgate evaluation and possible replacement
- a. Install permanent staff gauges and signage in basins.

Maintenance Report

July 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Repair Farmers and Central Canal wash-ins w/riprap and dirt hauled in from Bladder basin stockpile
 - b. Repair gearing at 3-20-40 weir slide gate on the Rim Ditch
 - c. Repair Turnouts 3-7-27, 5-0-165, 4-0-210 (rails and stems)
 - d. Replace meter register at 551 on Rim Ditch
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair air system conditioning on #322
 - c. Fuel and service Cat motor grader and John Deere tractor
 - d. Repair transmission servo on truck #210
 - e. Repair air conditioning system on truck #323
 - f. Repair brakes on truck #225
 - g. Repair hydraulic oil leak under platform on backhoe #402
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation and clean well pads
 - b. Add dripper oil as needed
 - c. Turned off BV wells
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Stine, Farmers and Smith Judd
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist in cleanout of debris on KI, Central, BV and Eastside
 - b. Repair gopher hole breaches and wash-ins on Central and Rim Ditch
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush and tires from Kern Island, Central, Branch 1, East Branch, Randal, Farmers, BV and Eastside Canals
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on KI, Branch 1, 13 Ditch, 18 N&S, Farmers, Central and Stine
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to BV, Central, Randal, Eastside, Farmers, 13 Ditch and Kern Island
9. **Rodent Control**
 - a. Bait Stations were checked and filled throughout the district this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all canals

- b. Cleanup of discarded debris and turnout moss from canal banks of the BV, Stine, Central, East Branch, Kern Island & Branch 1. Both trash trucks were used to haul debris to the landfill.
 - c. Brush removal on Kern Island between California Ave. and 4th St. to permit grader to pass without damage
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
- a. Kern Island - 30th St., 34th St. and Columbus
 - b. Eastside - Sterling, Columbus, Kentucky, 30th and 34th
 - c. Branch 1 - Hughes & White Lane
 - d. Central - South Gate and Harris & Wible
12. **Safety Meetings.** Weekly tailgate safety topics were;
- a. Screen Safety
 - b. Electrical-Power Tool & Cords
 - c. Staying Focused
 - d. Maintenance Emergency Response Plan
 - e. Emergency Action Plan
 - f. Emergency Action Plan for Field and Response
13. **Water Banking Activities.** The following jobs were completed during the month;
- a. Mowing cells at the DiGregorio, Branch 1 and Romero Basins
 - b. Manage sub-contractors performing weed control at basins
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
- a. Trim and remove trees/brush as needed along canals for grader passage
 - b. Repair dilapidated turnouts, gates, screens, piping and crossings as availability of canals are made possible.
 - c. Install meters on the Stine Canal at the bladder basin outlet
 - d. 13 Ditch headgate – Evaluate leak in mid-August, plan for possible replacement
15. **Future Water Banking Projects.**
- a. Install permanent staff gauges and signage at basin properties

Maintenance Report

August 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Treated and cleaned Central Canal inlet into the lake
 - b. Pour concrete panels on 15 Ditch where it was damaged by a vehicle accident
 - c. Patched external pipe joints at 13 Ditch head gate and inspected internal joints
 - d. Repair turnout # 3-6-60 on Branch II where grower's isolation valve failed and caused wash out around the measuring tube.
 - e. Replace rusted out I-beam supports on weir No. 5-3-527 in the Branch 2 Canal
 - f. Install drive gate on west bank of Eastside Canal at Panama Road to stop illegal dumping
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Weld/repair hitch on spray trailer #3
 - c. Fuel and service motor grader and John Deere tractor
 - d. Repair air-conditioning on truck 327
 - e. Repair sloper on motor grader (#403)
 - f. Rebuild dipping bucket for backhoe (#402)
 - g. Repair short in wiring on pony motor of spray rig # 326
 - h. Repair power steering on truck #323
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation and clean well pads
 - b. Add dripper oil as needed
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Stine
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist in cleanout of debris on KI, Central & Eastside
 - b. Repair gopher hole breaches and wash-ins on the Rim Ditch
 - c. Excavate behind 13 Ditch head gate and expose pipeline
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush, and tires from Kern Island, Central, Branch 1, Randal, Farmers and Eastside Canals
 - b. Assist with excavation of 13 Ditch head gate and pipeline
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on KI, Eastside, Central and East Branch
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to the Central, Randal, Eastside, Farmers, 18 N&S, 13 Ditch and Kern Island

9. Rodent Control

- a. Check and fill bait stations throughout the District

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and trash screens on all canals running
- b. Both trash trucks were used to collect debris from the Stine, Central, Kern Island and Branch 1 and haul to the landfill
- c. Brush Removal on Kern Island at California Ave., 4th St., O St. and Brundage Lane to permit grader passage

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St. and Columbus
- b. Eastside – Columbus, 30th, 34th and Kentucky
- c. Branch 1 – White Lane and Wible
- d. Central -- South Gate and Bell Terrace

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Fire Extinguisher Inspection
- b. Defensive Driving in School Zones
- c. Respirator Use
- d. Seven Common Accident Causes

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mow pond bottoms at the Kern Island, Stonefield, Stine and BV Basins
- b. Provide and track chemical usage for weed control contractors working at basins
- c. Improve inlet into recently improved pond at the Romero Basins by removing old booster pump and pipeline at turnout #4-0-122
- d. Repair fencing and install signs at all basin properties

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush on the Eastside Canal at Columbus
- b. Repair turnouts, gates, screens, piping and crossings as availability of canals are made possible
- c. Install meters on Stine Canal at the Bladder Basin outlet
- d. Mortar seal internal pipe joints at 13 Ditch headgate during shutdown
- e. Repair gate and measure tube at turnout #3-7-27 in the Kern Island Drain
- f. Remove no longer needed board control inside a standpipe on the East Branch Canal at Casa Loma (#3-2-46) to improve flow
- g. Remove rusted corrugate metal pipe crossing (42-inch dia.) and replace with HDPE pipe (48-inch dia.) on the Eastside Canal at Stenderup Avenue (2-0-508)

15. Future Water Banking Projects.

- a. Install permanent staff gauges in basins
- b. Mow weeds in basins as manpower permits
- c. Remove concrete irrigation lines at Old River Basins property

Maintenance Report

September 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Replace farmer's crossing on the Eastside Canal at Stenderup Ave.
 - b. Repair washout on Rim from rodent damage
 - c. Repair wash in on BV, neighbors draining pool into canal
 - d. Repair screens on turnouts 2-0-262, -267, -268, -290 and -298
 - e. Repair Weir 2-0-301(replace rusted out I Beams w/new)
 - f. Removed diversion wall and waterman gate inside the East Branch Canal standpipe at Casa Loma (#3-2-46) to improve flow
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair to Trailer #T11 air relief valve
 - c. Fuel & service Grader / John Deere
 - d. Replace fuel pump in truck #210
 - e. Repair sloper on Grader (#403)
 - f. Repair wiring on dump truck (# 327)
 - g. Build chemical tote stands
 - h. Clean office air conditioners
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation and clean well pads and add dripper oil as needed
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. BV
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist in cleanout of debris on KI and Central
 - b. Repair gopher hole breaches / wash-ins on Rim / BV
 - c. Excavate and remove concrete irrigation pipe from Old River basins property
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush and tires from Kern Island, Central, Branch 1, Randal and Eastside Canals
 - b. Assist with removal of concrete irrigation pipe from Old River basins property.
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on KI, 18 N&S, 13 Ditch, BV and Eastside
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to Central, Randal, 18 N&S, 13 Ditch and Kern Island

9. Rodent Control

- a. Bait Stations were checked, and all locations were filled throughout the district this month

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, and screens on all canals running
- b. Removed debris / moss from canal and banks of the BV, Stine, Central, Kern Island and Branch 1. Used both trash trucks to haul debris to the landfill
- c. Brush Removal on Eastside at Columbus St. to permit grader to pass without damage

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St., 34th St. and Columbus
- b. Eastside – Columbus, 30th, 34th and Kentucky
- c. Branch 1 – White Lane and Hughes
- d. Central – Pacheco

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Ladder Safety
- b. PPE Equipment and It's Importance
- c. Pinch Points and Hand Injuries
- d. Safety Rules and Procedures

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing cells at the Met and Romero basins
- b. Manage weed control by others at basin properties
- c. Remove and break up concrete irrigation pipe from Old River Basins property
- d. Removal of short shaft pump from stand at Old River Basin property and place in storage at Stonefield Basin

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage (Central)
- b. Repair dilapidated turnouts, gates, screens, piping and crossings as availability of canals are made possible on Eastside, Central and Kern Island
- c. Install meters on Stine Canal at the Bladder basin outflow
- d. 13 Ditch headgate / turnout piping repair to internal joint seams set for shutdown
- e. Repair turnout #3-7-27 (repair gate & measuring tube when farmer lowers reservoir, no check valve on system to prevent backflow)
- f. Repair turnouts and remove debris from Central Canal beginning October 18, 2021.

15. Future Water Banking Projects.

- a. Install permanent staff gauges and signage in basins for pipelines/levels
- b. Mow weeds in basins as manpower permits
- c. Continue removal of concrete irrigation lines at Old River Basins property
- d. Repair air vent at Kern Island basins when wells are turned off

Maintenance Report

October 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Repair concrete panel and cable on the Central Canal near Hosking Road
 - b. Repair rails, stem, and screen on turnout # 3-0-146
 - c. Repair catwalk on 3-2-296
 - d. Repair screens on turnouts 3-2-190 and 226
 - e. Repair/replace rusted I-beams on Weirs 3-2-534, 535 and 536
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair sloper extension pull bar on motor grader
 - c. Repair stabilizers on backhoe #402 (line bore frame pins by Coastline Equip.)
 - d. 6,000-hour service on motor grader
 - e. Convert turntable pump to PTO drive to comply with CARB rules
 - f. Tire repair and service to trucks 226, 223, and 224
3. **District Wells.**
 - a. Monthly service and inspection of all District wells to check dripper operation and clean well pads
 - b. Add dripper oil as needed
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Sloping BV East and Eastside Canals
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist in debris removal on Eastside, Stine and Central
 - b. Repair wash-ins on Kern Island
 - c. Excavate concrete pipeline from Old River Basins property
 - d. Load and remove brush on Central at Ming Avenue
 - e. Repair wash in erosion on the Central Canal caused by broken sprinkler at Wayside Park
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush and tires from Kern Island, Central, Stine and Eastside Canals.
 - b. Assist with removal of concrete pipe and hauling of riprap at Old River Basins property.
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Both truck and trailer spray units were used to spray weeds on the KI, Branch 1, BV and Eastside Canals
 - b. Weed spray crew attend CAPCA training for weed control

8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to Randal, 18 N&S, 13 Ditch, and Kern Island
9. **Rodent Control**
 - a. Bait Stations were frequently checked and all locations were filled throughout the district this month
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, and screens on all canals running
 - b. Remove debris from the Stine, Central, Kern Island, Branch 1 and Eastside. Both trash trucks were used to haul to the landfill.
 - c. Brush Removal on Central Canal at Ming and South Gate to permit grader passage.
 - d. Work with County Code Enforcement to remove debris at Wilson on the Central
11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – 30th St
 - b. Stine – Ash
 - c. Branch 1 – White Lane and Hughes
 - d. Central – Pacheco, Wilson and Union at Planz
12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Used Tire Disposal Program
 - b. Maintenance Department Adjustments
 - c. Safety Labeling
 - d. Be Safe (everyone's job)
 - e. CPR Classes
13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Mowing cells at the Kern Island Basins
 - b. Manage weed control sub-contractors at basin properties
 - c. Removal of old concrete pipeline and debris from Old River Basins property
 - d. Break concrete pipe into riprap at Old River Basins and haul to Bladder Basin.
 - e. Coordinate installation of ET station by Land IQ at Buena Vista Basins property
14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Repair dilapidated turnouts, gates, screens, piping and crossings as availability of canals are made possible on 18 N&S, 13 Ditch and Kern Island
 - b. Upgrade East Branch turnout 3-2-71 to 36" board control overflow w/36" pipe
 - c. 13 Ditch headgate / turnout piping repair to internal joint seams set for shutdown
 - d. Repair turnout #3-7-27 (repair gate and measuring tube when farmer lowers reservoir, no check valve on system to prevent backflow)
15. **Future Water Banking Projects.**
 - a. Repair air vent at KI Basins for well 3-0-KB4
 - b. Lower feeder ditch at KI Basins and dredge out sediment deposits
 - c. Install new turnout from feeder ditch to the north

Maintenance Report

November 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Install new turnout and build a new pre-screening and catwalk system on the 13 Ditch adjacent to turnout 3-6-07
 - b. Repair turnout 3-2-296
 - c. Install catwalk, boards, and screen on East Branch turnout 3-2-71
 - d. Repair catwalks and screens on 3-2-190 and 296
 - e. Repair prescreen on turnout and 3-2-226
 - f. Replace rusted I-beams on weirs 3-6-618 and 3-2-534
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Replace lifting ball of sloper blade of motor grader
 - c. Convert turntable pump to PTO drive to comply with CARB rules
 - d. Repair tires and service trucks 327, 218, 221 and trailer T-12
 - e. Repair brakes on trucks 220 and 222
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation and clean well pads
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Sloping to finish Eastside, head of Kern Island and start Central
5. **Backhoe # 402** The following jobs were completed during the month;
 - a. Assist in moving pipe and equipment to staging sites
 - b. Install turnout in new pond at the Kern Island basins
 - c. Repair gopher hole breaches on Rim Ditch
 - d. Replace old 24" turnout with new 36" turnout on East Branch (#71)
 - e. Bury tumbleweeds at various locations
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush and tires from Kern Island, Central and Eastside Canals
 - b. Remove concrete pipe from Branch 1 at Hosking Road
 - c. Installation of new pre-screen and catwalk on 13 Ditch
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Both trucks and trailer spray units were used to spray weeds KI, Farmers and Eastside
 - b. Weed spray crew assisted with cleaning basins for preparation of sterilant spray
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds; treatments were made to Randal and Kern Island

9. Rodent Control

- a. Bait Stations were checked and filled.

10. Trash Removal.

- a. Daily cleaning of crossings, weirs, trash racks and screens on all canals running
- b. Removed debris and moss from canals and banks of the Stine, Central, Kern Island, Branch 1 and Eastside and hauled debris to the landfill.
- c. Work with City Code Enforcement to remove debris at Panama Lane on Farmers Canal and Central Canal at 4th Street

11. Fence Repairs. Fences and Gates were repaired at the following locations;

- a. Kern Island – 30th St, 34th, Columbus and LaFrance
- b. Stine – Stine Road and Garnsey Lane
- c. Branch 1 – Hughes Lane
- d. Central – P St., Wilson, Southgate, and Ming

12. Safety Meetings. Weekly tailgate safety topics were;

- a. Time Change
- b. Common Sense Safety
- c. CPR Classes

13. Water Banking Activities. The following jobs were completed during the month;

- a. Mowing cells at DiGiorgio Basins
- b. Install board control turnout in feeder ditch at Kern Island Basins
- c. Manage weed control by sub-contractors on basin properties
- d. Cleaning basins for future sterilant application
- e. Remove sediment from feeder ditch at Kern Island Basins

14. Future Projects. The following projects will be completed as time and scheduling permit:

- a. Trim and remove trees/brush as needed along canals for grader passage (Central)
- b. Repair dilapidated turnouts, gates, screens, piping and crossings as availability of canals are made possible on 18 N&S and Kern Island
- c. Repair internal joint seams on 13 Ditch headgate
- d. Repair gate and measuring tube on turnout 3-7-27 (no check valve on system to prevent backflow)
- e. Modify Branch 1 return and replace crossing for more efficient operation

15. Future Water Banking Projects.

- a. Install permanent staff gauges and signage in basins for pipelines/levels
- b. Repair air vent on well No. KB4 at Kern Island Basins
- c. Spray sterilant at all basin properties to prevent weed growth

Maintenance Report

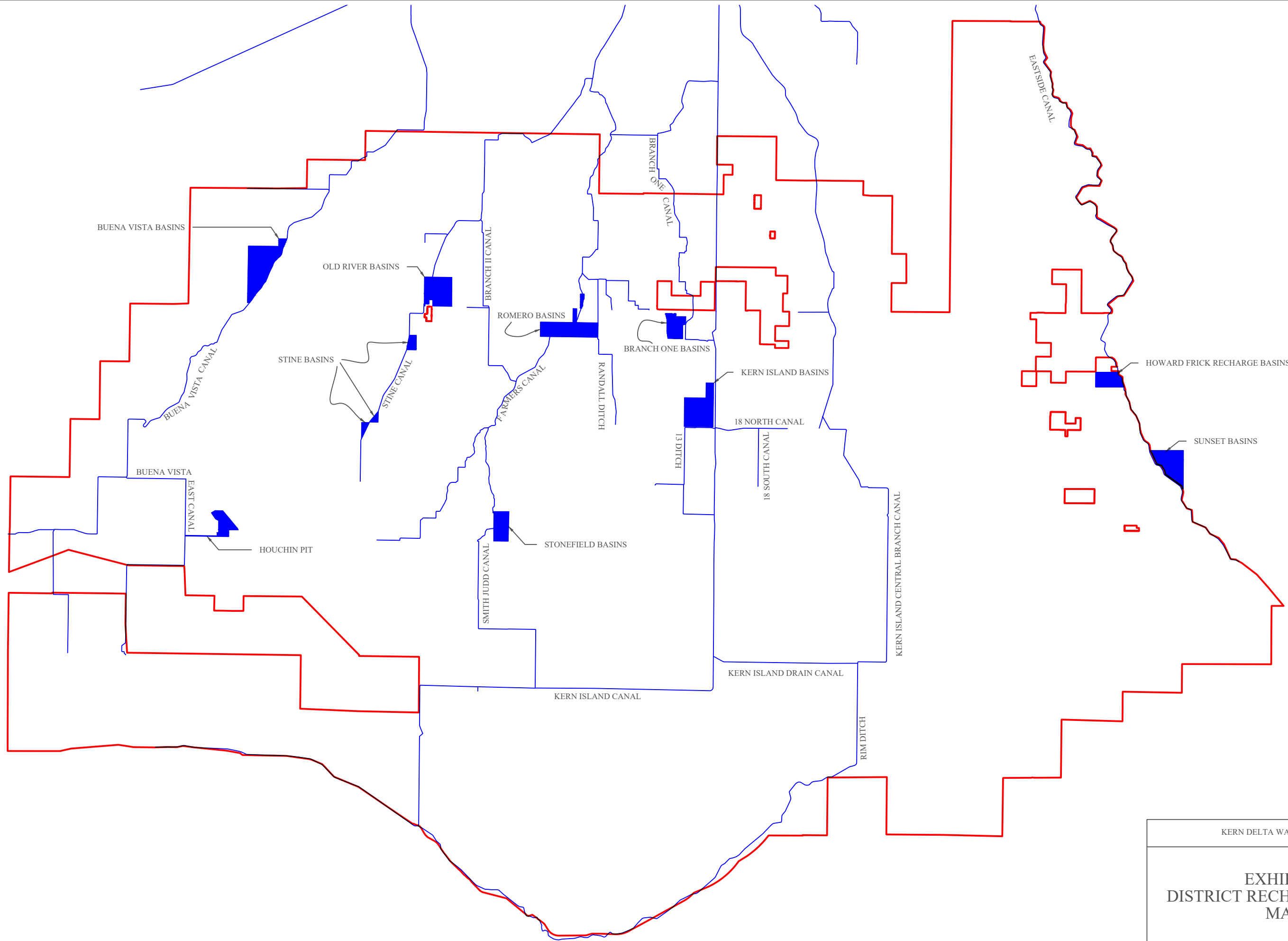
December 2021

1. **Structure and Turnout Repairs.** The following jobs were completed during the month;
 - a. Mortar and repair pipe joints of 13 Ditch head gate
 - b. Repair turnout box I-beams and screen at 3-0-79
 - c. Repair I-beams on KI weirs #600, 603 and 605
 - d. Repair and replace damaged screens at KI Basins Backup Weir 3-0-607
 - e. Replace screens on turnouts 3-0-64, 70, 79 & 86
 - f. Repair weir wall-support at 3-0-603
 - g. Rebuild Branch 1 Return Box area; Remove basin back up structure, old gate/crossing, and overflow return box. Install new return box, backup board control box w/40' of pipe, basin overflow box w/160' of pipe and riprap the entire bowl area.
2. **Shop.** The following jobs were completed during the month;
 - a. Normal service and repairs on District vehicles and equipment.
 - b. Repair valving switch backhoe #402
 - c. Tune and repair trucks #210, 220, 221, 217 and 223
3. **District Wells.**
 - a. Monthly service and inspection of all District Wells to check dripper operation and clean well pads
 - b. Replace panel lights and cracked dripper glass as needed
 - c. Blow out electrical boxes and check for electrical repairs
4. **Motor Grader # 403** The following canals were sloped and roads graded;
 - a. Sloping south end of Central
5. **Backhoe # 402** The following jobs were completed during the month; Assist with rebuilding the Branch 1 return box area.
6. **Backhoe # 404** The following jobs were completed this month;
 - a. Removed mattresses, debris, tumbleweeds, moss, brush and tires from Kern Island as part of annual cleaning
7. **Weed Spraying.** The following canals were sprayed during the month;
 - a. Weeds were sprayed on BV, Stine, KI and Branch 1
8. **Aquatic Treatments.** Treatments including surface spraying for algae mats and injection treatments for control of algae or vascular aquatic weeds;
 - a. No treatments were made is month
9. **Rodent Control**
 - a. Bait Stations were checked and filled throughout the district this month.
10. **Trash Removal.**
 - a. Daily cleaning of crossings, weirs, trash racks and screens on all canals running at beginning of month.

- b. Cleanup on Kern Island canal to remove debris and use both trash trucks to haul debris to the landfill.
- 11. **Fence Repairs.** Fences and Gates were repaired at the following locations;
 - a. Kern Island – 30th St., 34th St. and Columbus
 - b. Eastside – Lake Street
 - c. Branch 1 – Smoke Tree Trailer Park, South Gate and Harris
 - d. Stine – Chester Lane and Garnsey Lane
 - e. Basins – DiGiorgio and Romero
- 12. **Safety Meetings.** Weekly tailgate safety topics were;
 - a. Do the Right Thing
 - b. Eliminate Them
 - c. How to be a Good Driver
- 13. **Water Banking Activities.** The following jobs were completed during the month;
 - a. Mowing cells at Branch 1 basins
 - b. Removal of tumbleweeds from fences due to windstorms at KI, BV and Romero Basins
 - c. Repair air vent on well discharge in the KI Basins
- 14. **Future Projects.** The following projects will be completed as time and scheduling permit:
 - a. Trim and remove trees/brush as needed along canals for grader passage
 - b. Install white board in multipurpose room for training
 - c. Repair gate on the KI Drain and coordinate with farmer to install backflow prevention
 - d. Spray pre-emergence on strategic location of district
- 15. **Future Water Banking Projects.**
 - a. Install permanent staff gauges and signage in basins
 - b. Spraying pre-emergence at all basins

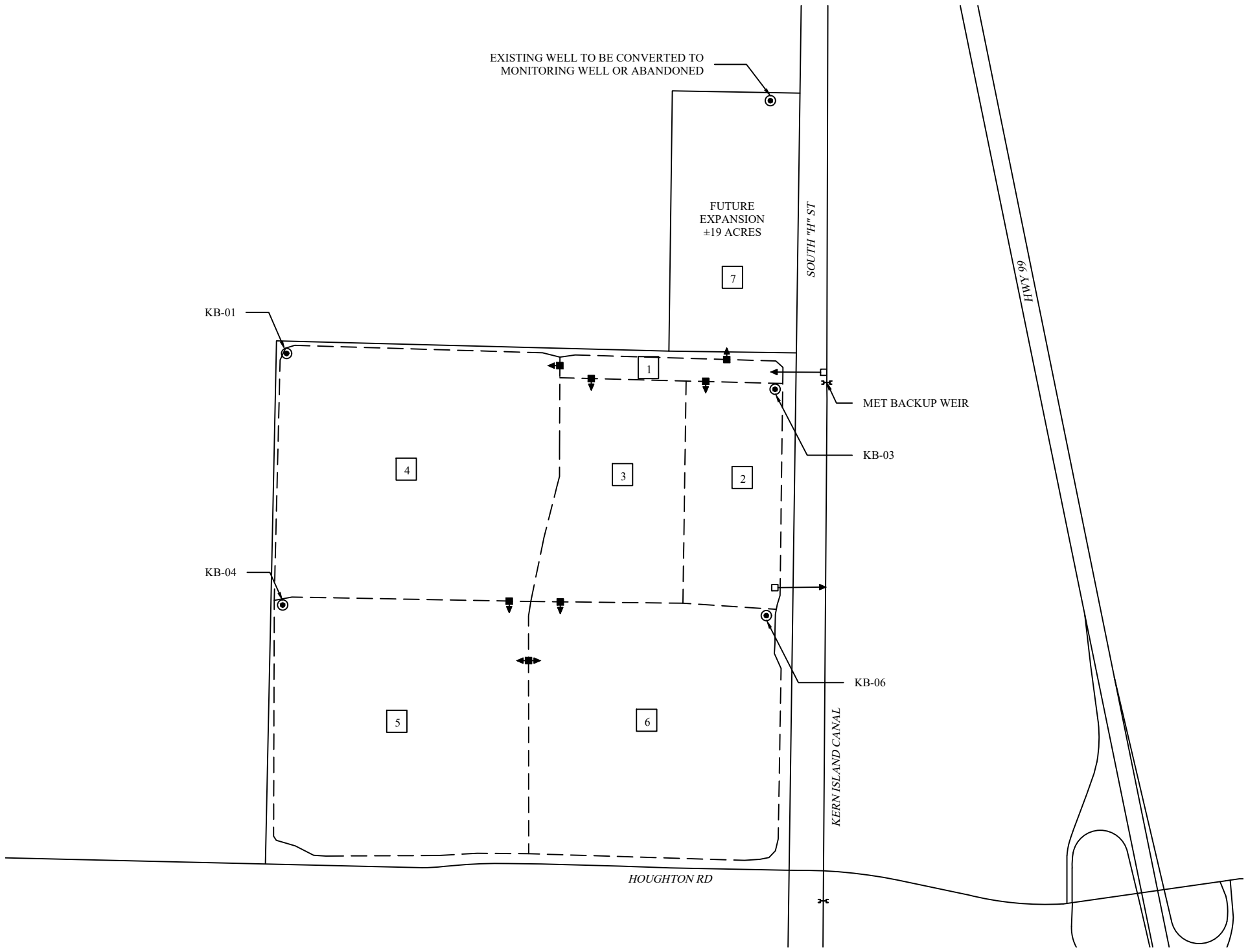


Appendix B



KERN DELTA WATER DISTRICT

EXHIBIT 1
DISTRICT RECHARGE BASINS
MAP

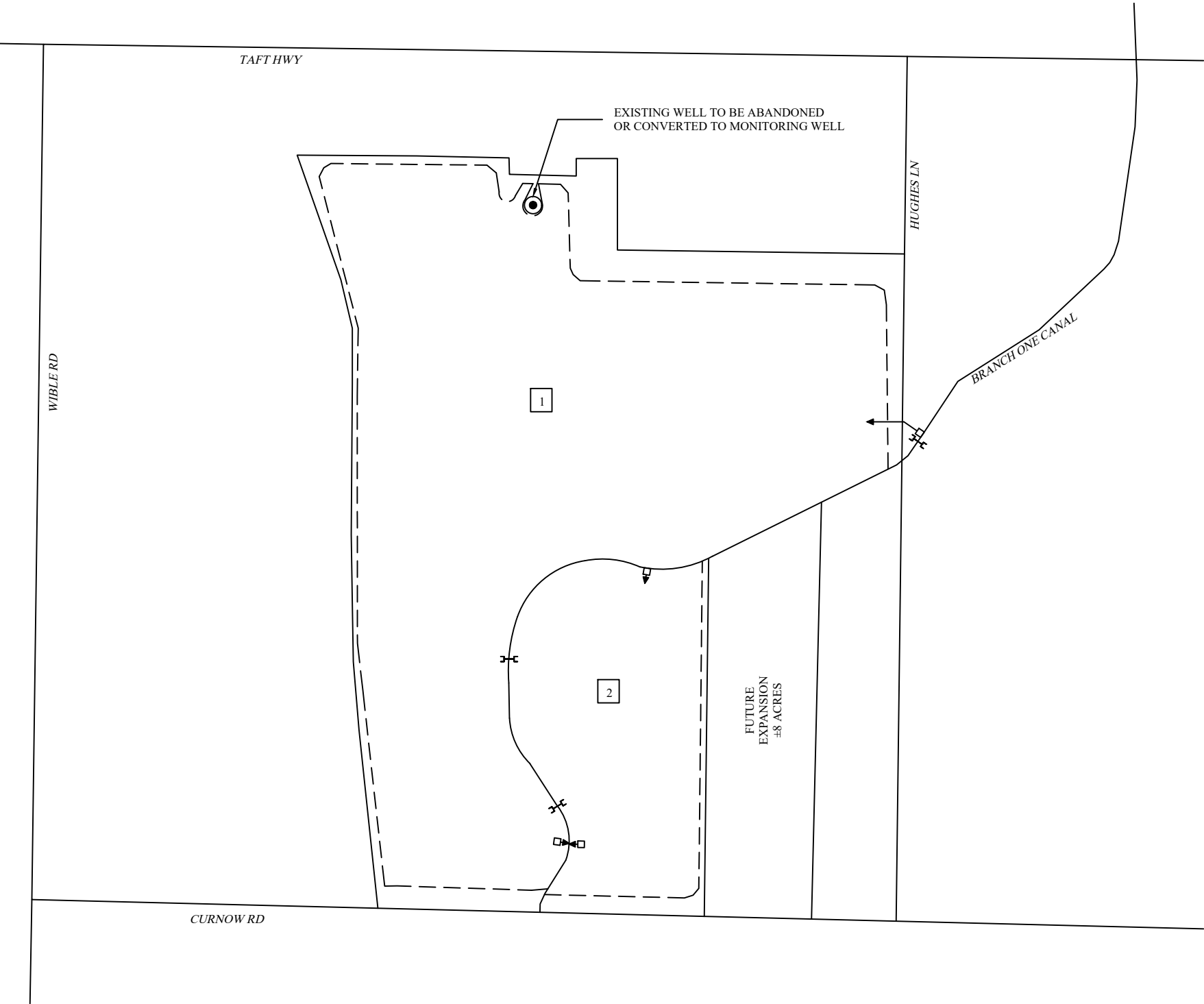


LEGEND

- OF EXISTING LEVEE
- # POND NUMBER
- ABANDONED WELL
- SCALE: NOT TO SCALE
- ◀ INTERBASIN STRUCTURE
- ◀◻ INLET/OUTLET STRUCTURE
- ⊙ EXISTING WELL

KERN DELTA WATER DISTRICT

**EXHIBIT 2
KERN ISLAND BASINS**



LEGEND

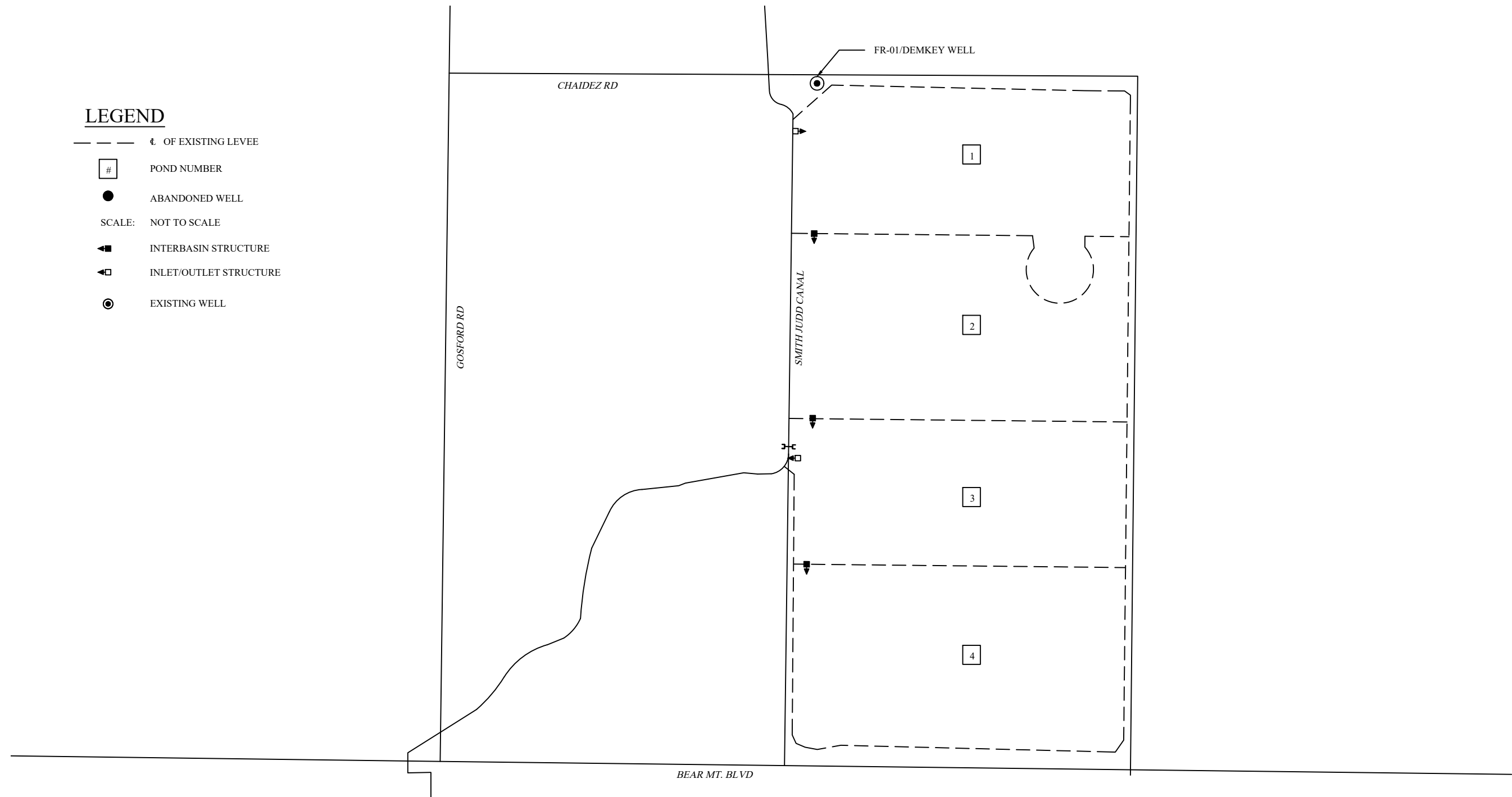
- OF EXISTING LEVEE
- # POND NUMBER
- ABANDONED WELL
- SCALE: NOT TO SCALE
- ◼ INTERBASIN STRUCTURE
- ◻ INLET/OUTLET STRUCTURE
- ⊙ EXISTING WELL

KERN DELTA WATER DISTRICT

**EXHIBIT 3
BRANCH ONE BASINS**

LEGEND

- OF EXISTING LEVEE
- # POND NUMBER
- ABANDONED WELL
- SCALE: NOT TO SCALE
- ◀ INTERBASIN STRUCTURE
- ◀ INLET/OUTLET STRUCTURE
- ⊙ EXISTING WELL

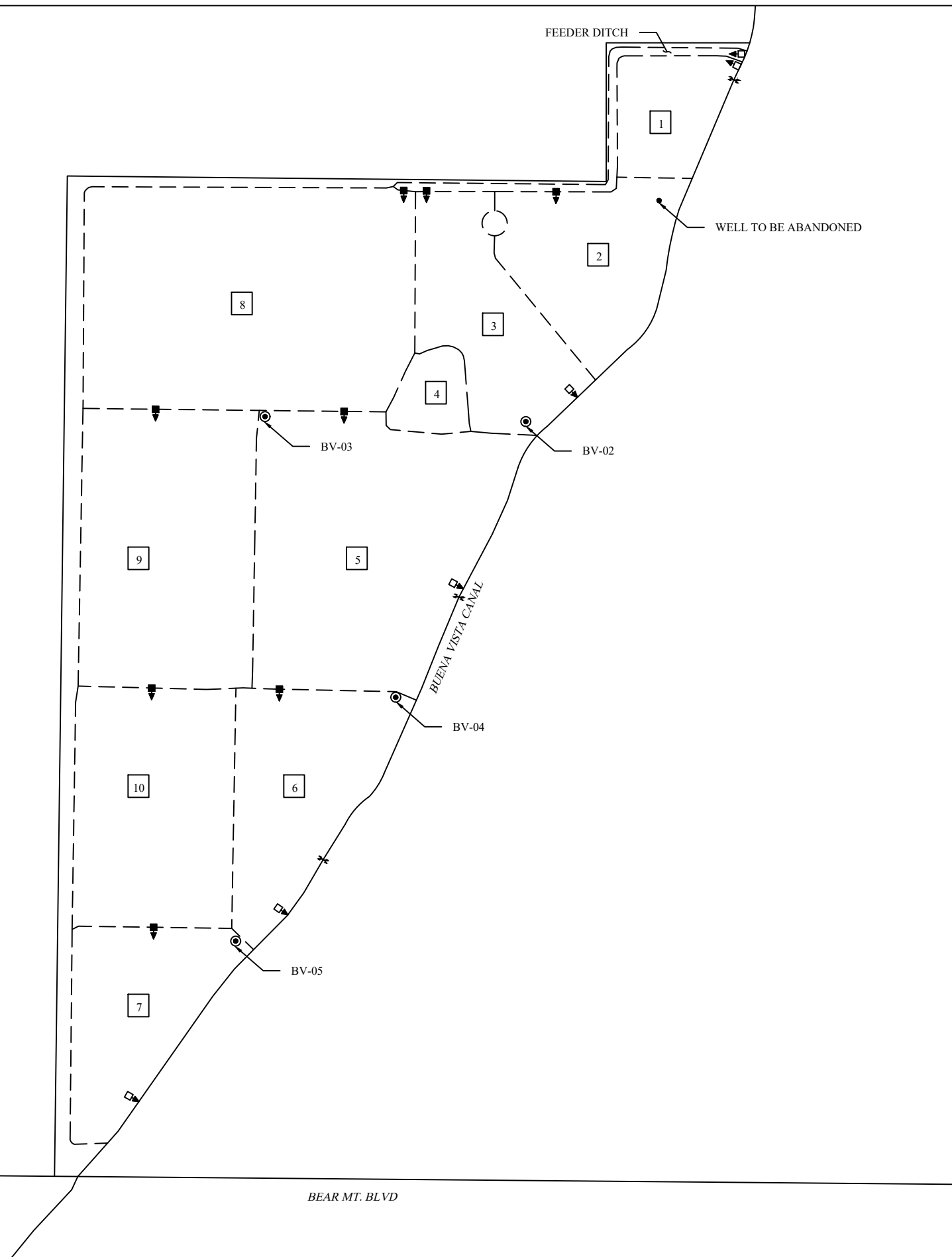


KERN DELTA WATER DISTRICT

EXHIBIT 5
STONEFIELD BASINS

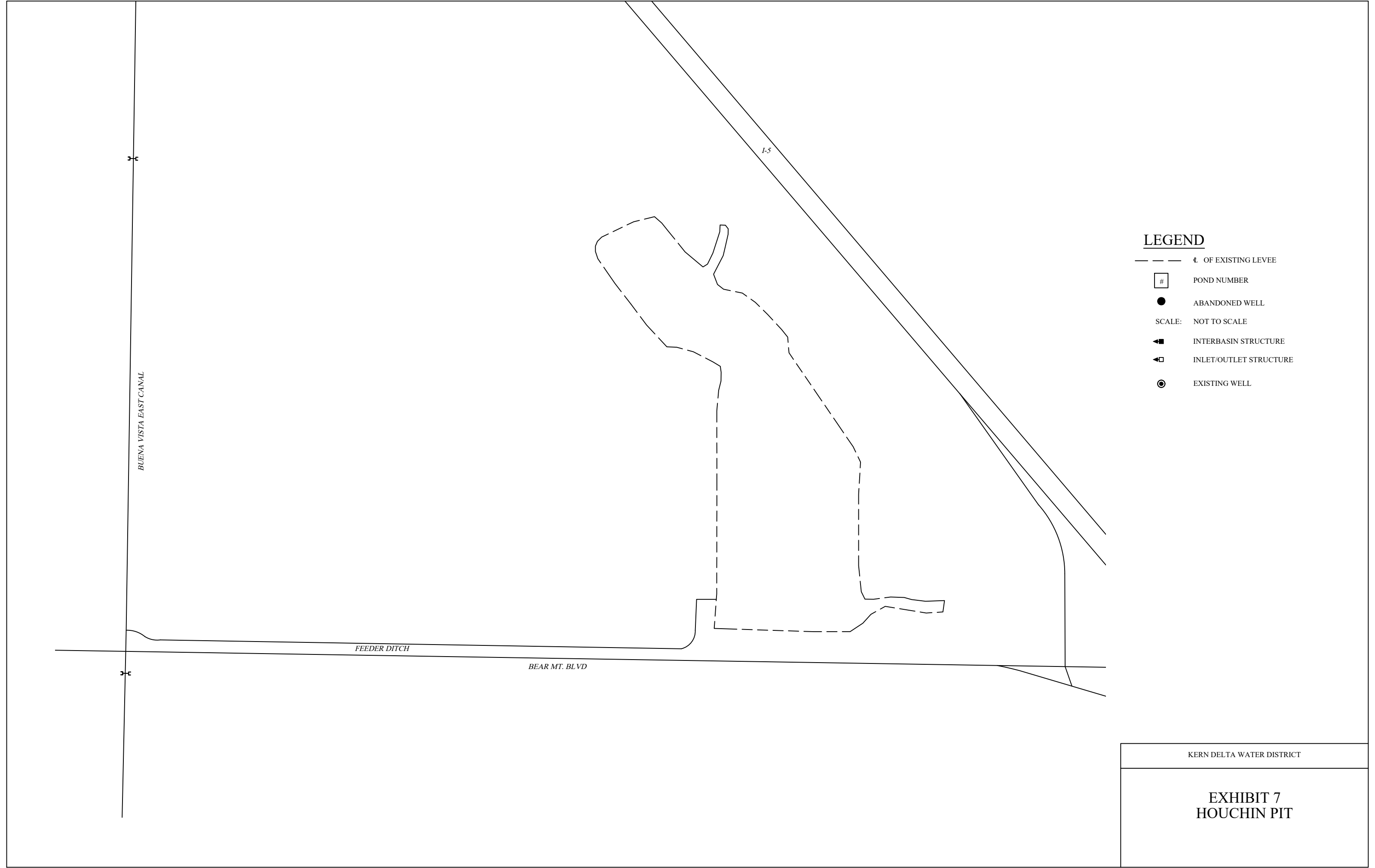
LEGEND

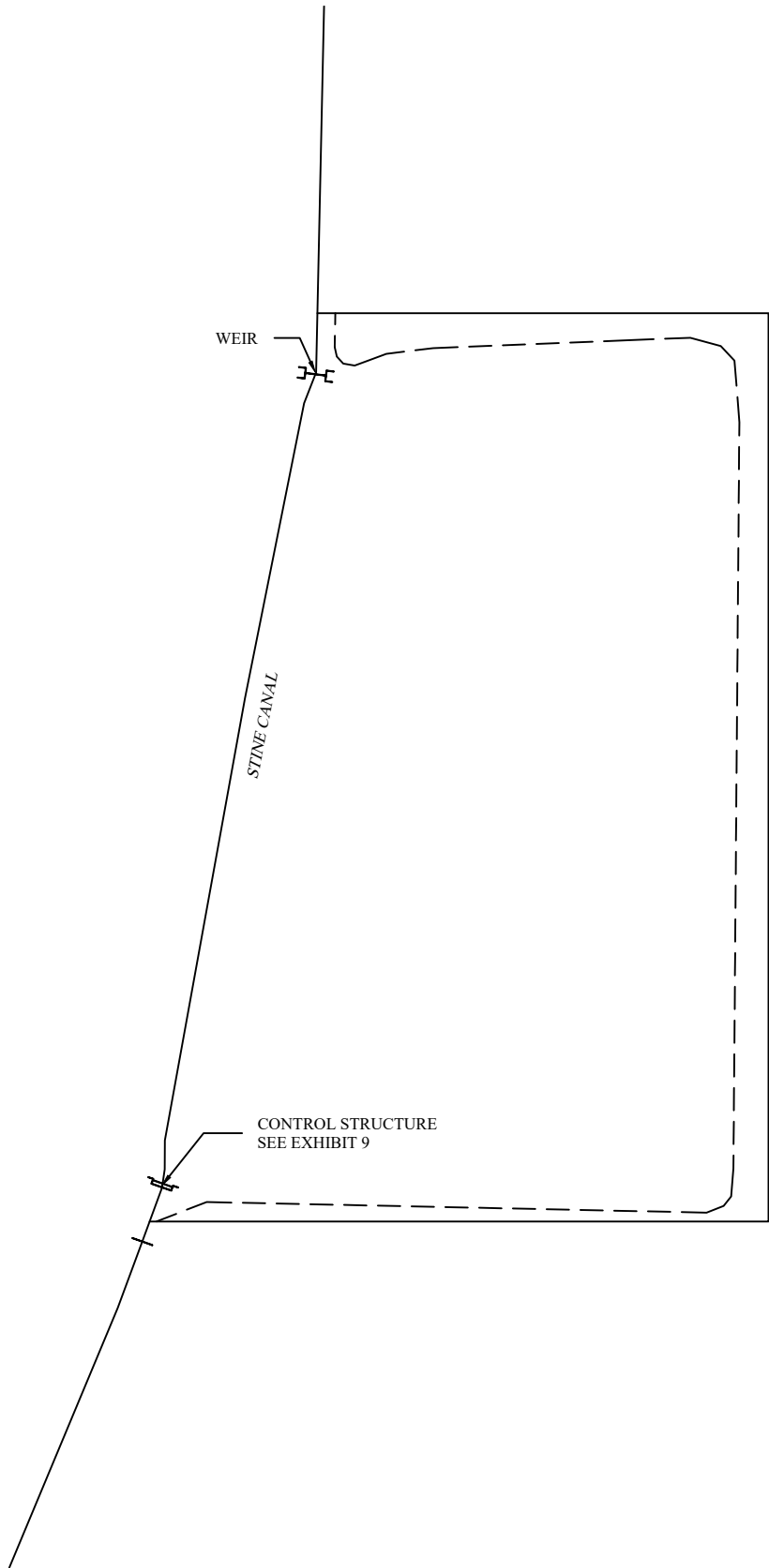
- OF EXISTING LEVEE
- # POND NUMBER
- ABANDONED WELL
- SCALE: NOT TO SCALE
- ◀■ INTERBASIN STRUCTURE
- ◀◻ INLET/OUTLET STRUCTURE
- ⊙ EXISTING WELL



KERN DELTA WATER DISTRICT

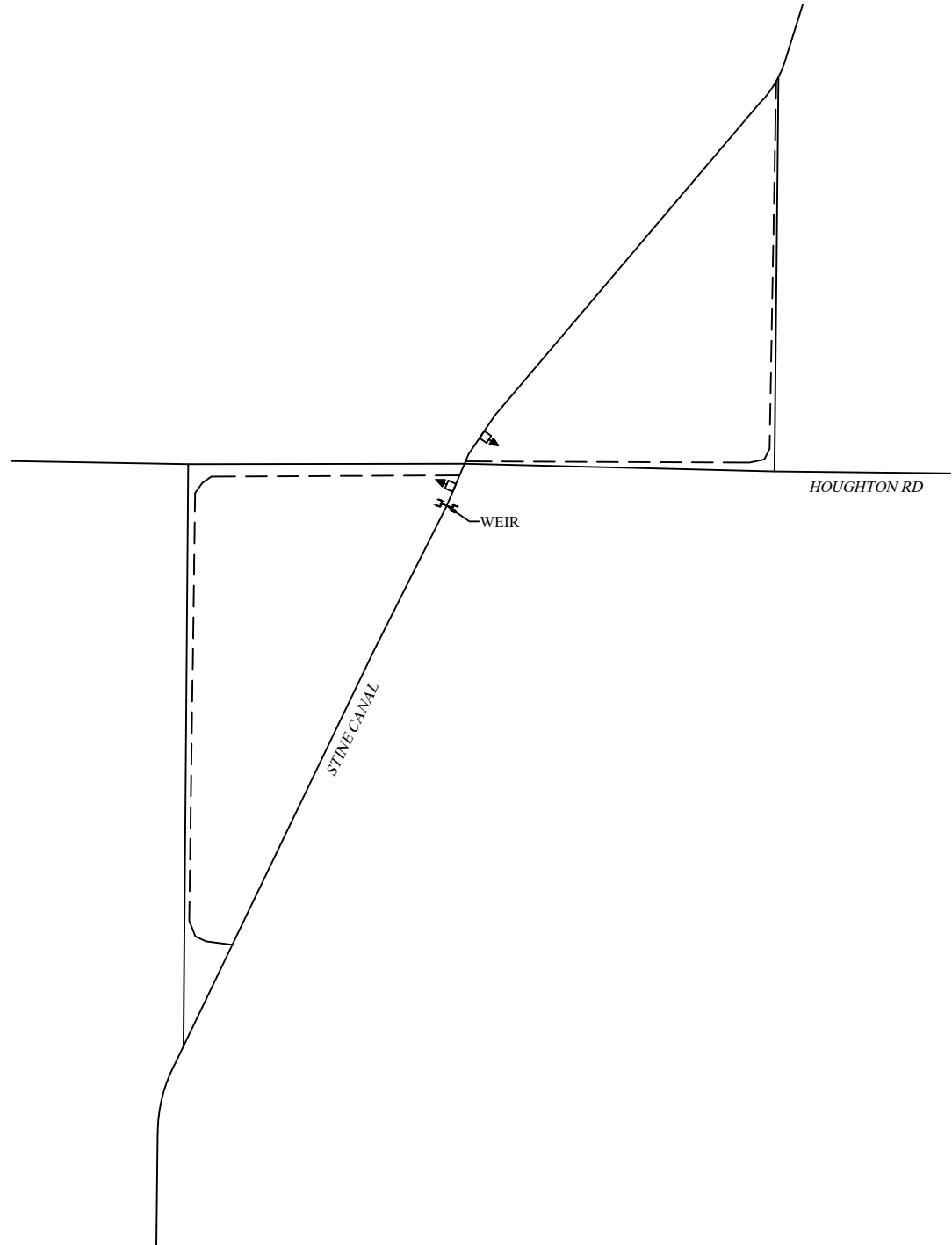
**EXHIBIT 6
BUENA VISTA BASINS**





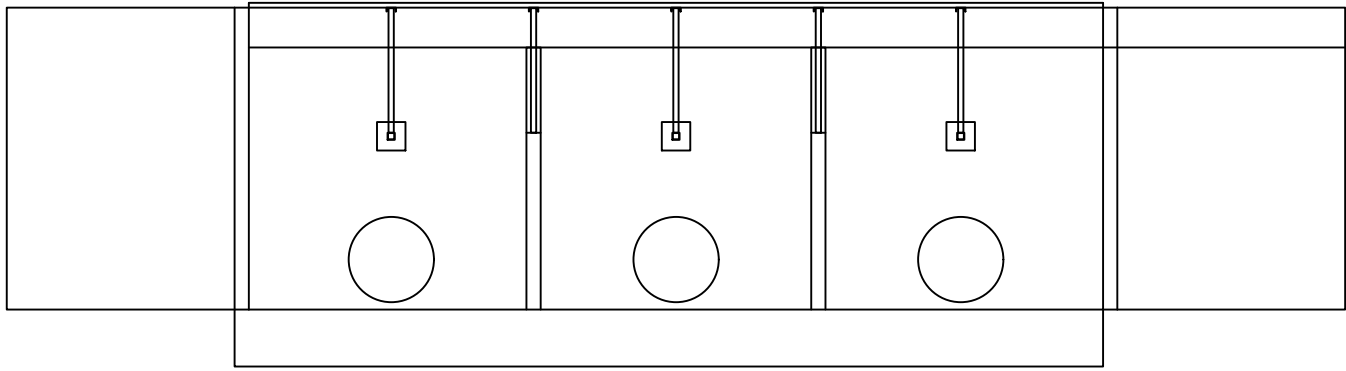
LEGEND

- — — — — OF EXISTING LEVEE
- # POND NUMBER
- ABANDONED WELL
- SCALE: NOT TO SCALE
- ◀■ INTERBASIN STRUCTURE
- ◀◻ INLET/OUTLET STRUCTURE
- ⊙ EXISTING WELL

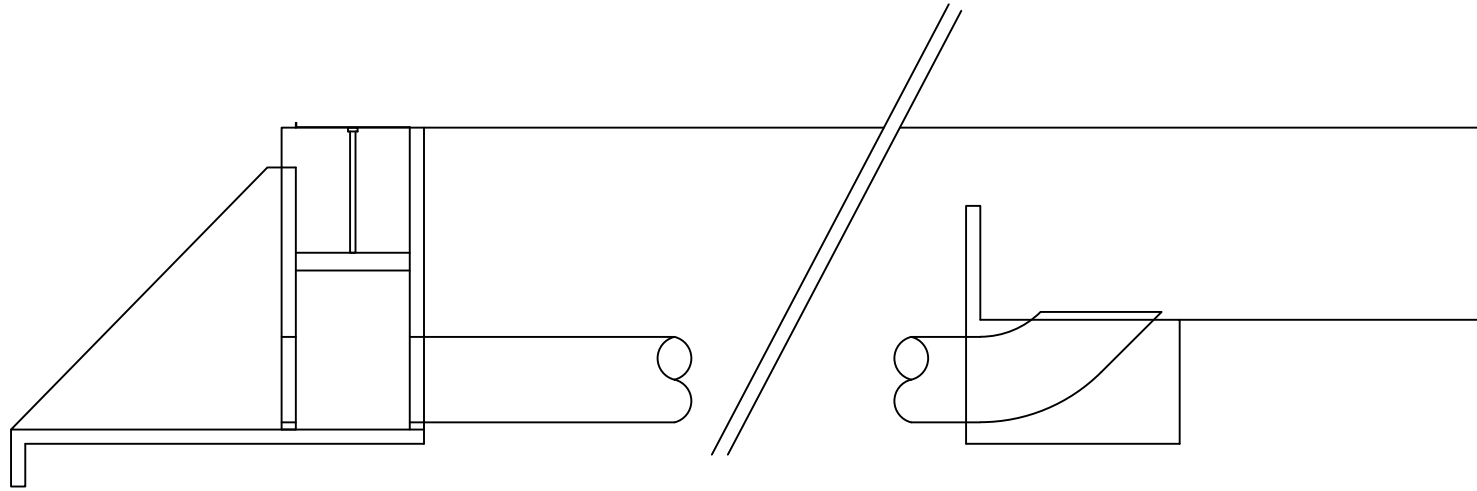


KERN DELTA WATER DISTRICT

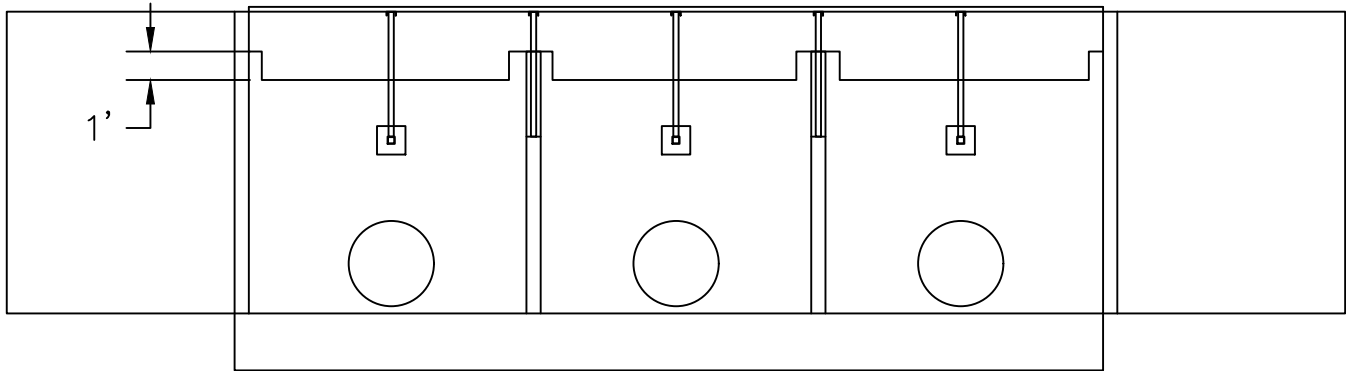
EXHIBIT 8 STINE BASINS



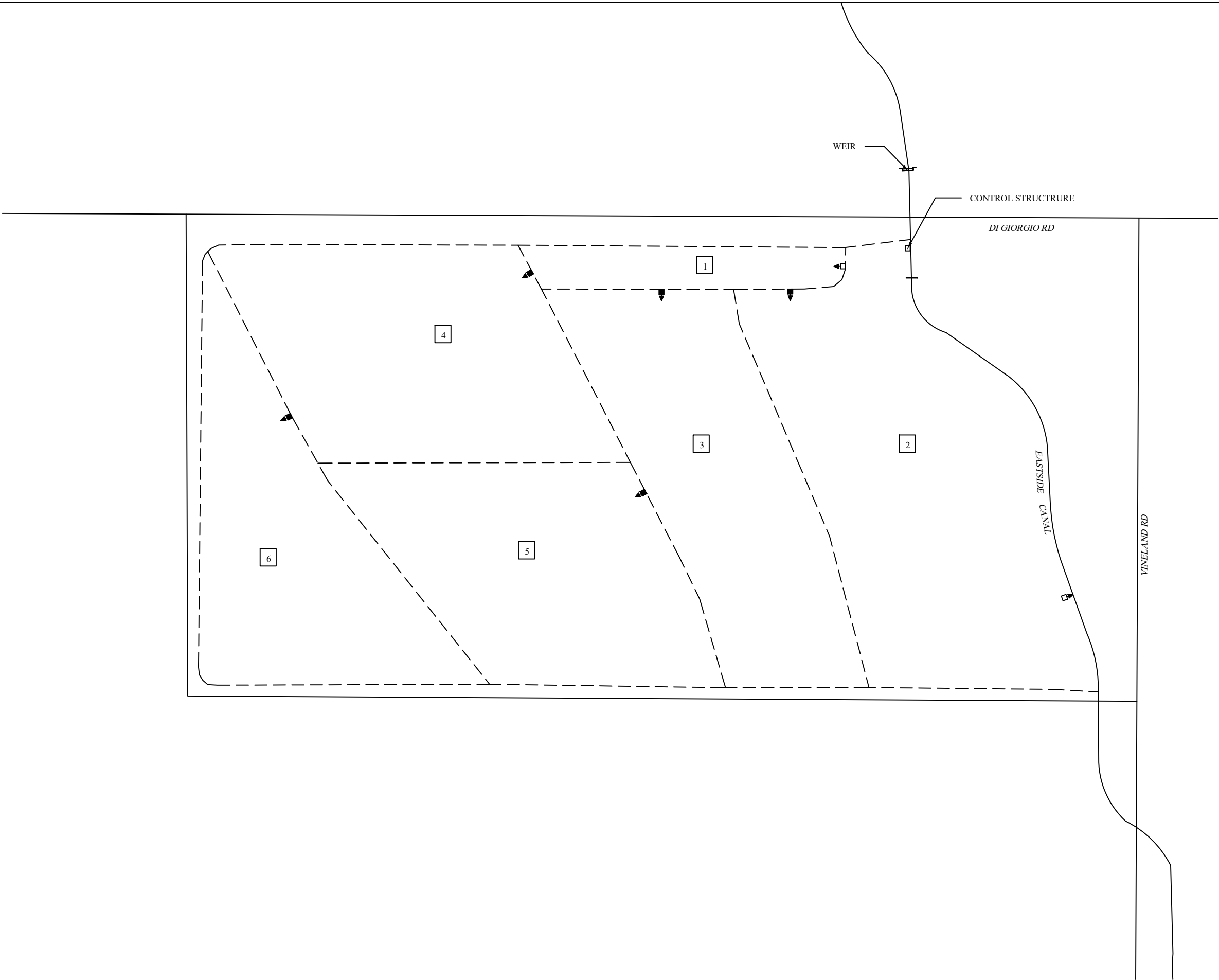
ORIGINAL STRUCTURE - FRONT VIEW



ORIGINAL STRUCTURE - PROFILE VIEW



MODIFIED STRUCTURE - FRONT VIEW



LEGEND

- — — — — OF EXISTING LEVEE
- # POND NUMBER
- ABANDONED WELL
- SCALE: NOT TO SCALE
- ◀ INTERBASIN STRUCTURE
- ◻ INLET/OUTLET STRUCTURE
- ⊙ EXISTING WELL

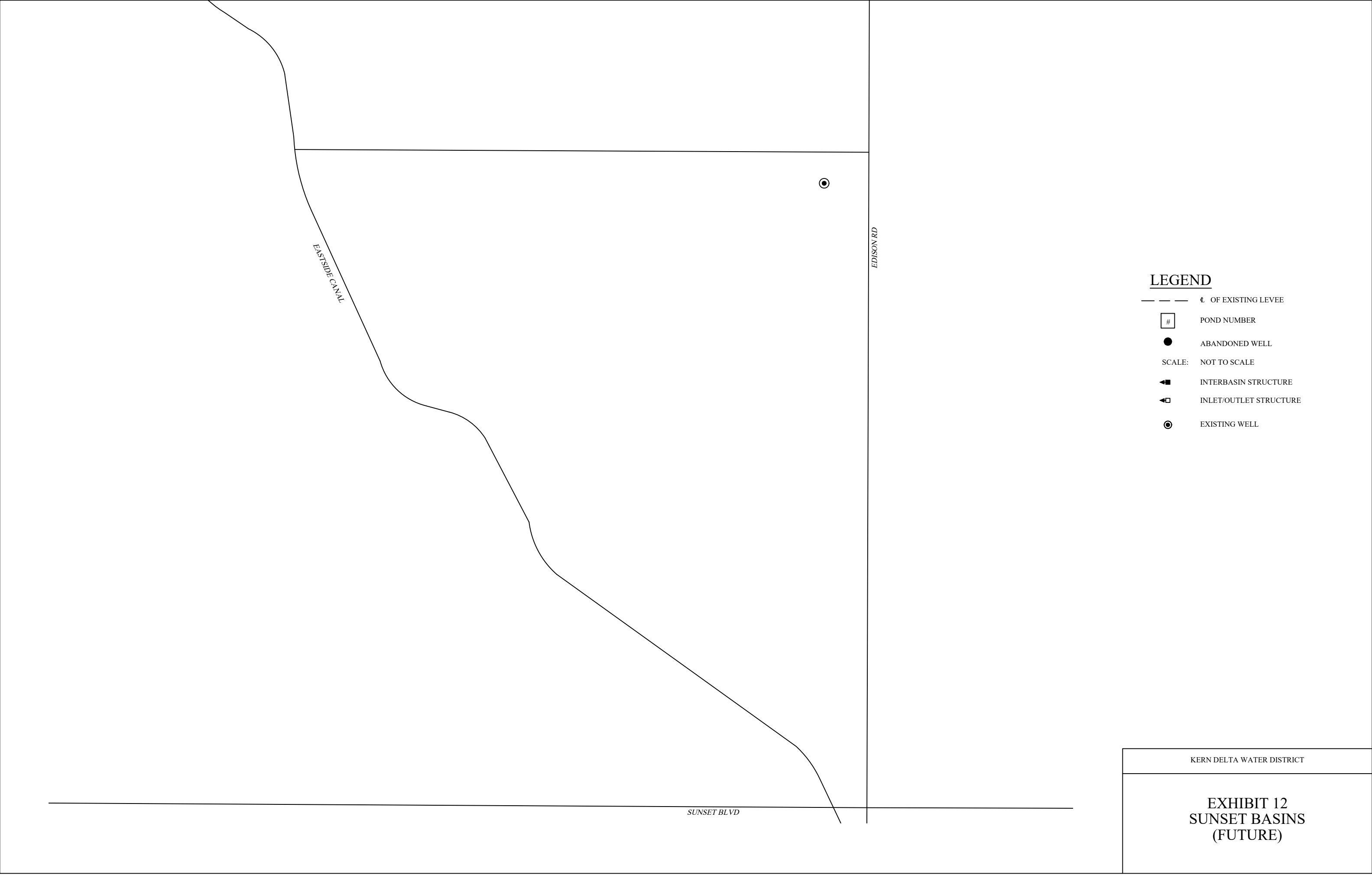
KERN DELTA WATER DISTRICT

**EXHIBIT 10
H. FRICK RECHARGE FACILITY**









KERN DELTA WATER DISTRICT

EXHIBIT 11
KERN ISLAND & CENTRAL
PROPOSED MODIFICATIONS

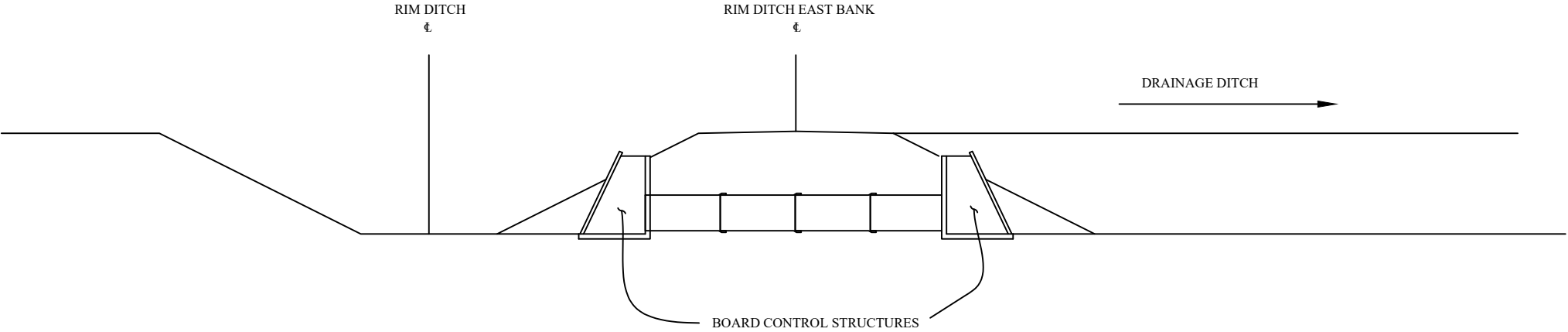


LEGEND

-  OF EXISTING LEVEE
-  POND NUMBER
-  ABANDONED WELL
- SCALE: NOT TO SCALE
-  INTERBASIN STRUCTURE
-  INLET/OUTLET STRUCTURE
-  EXISTING WELL

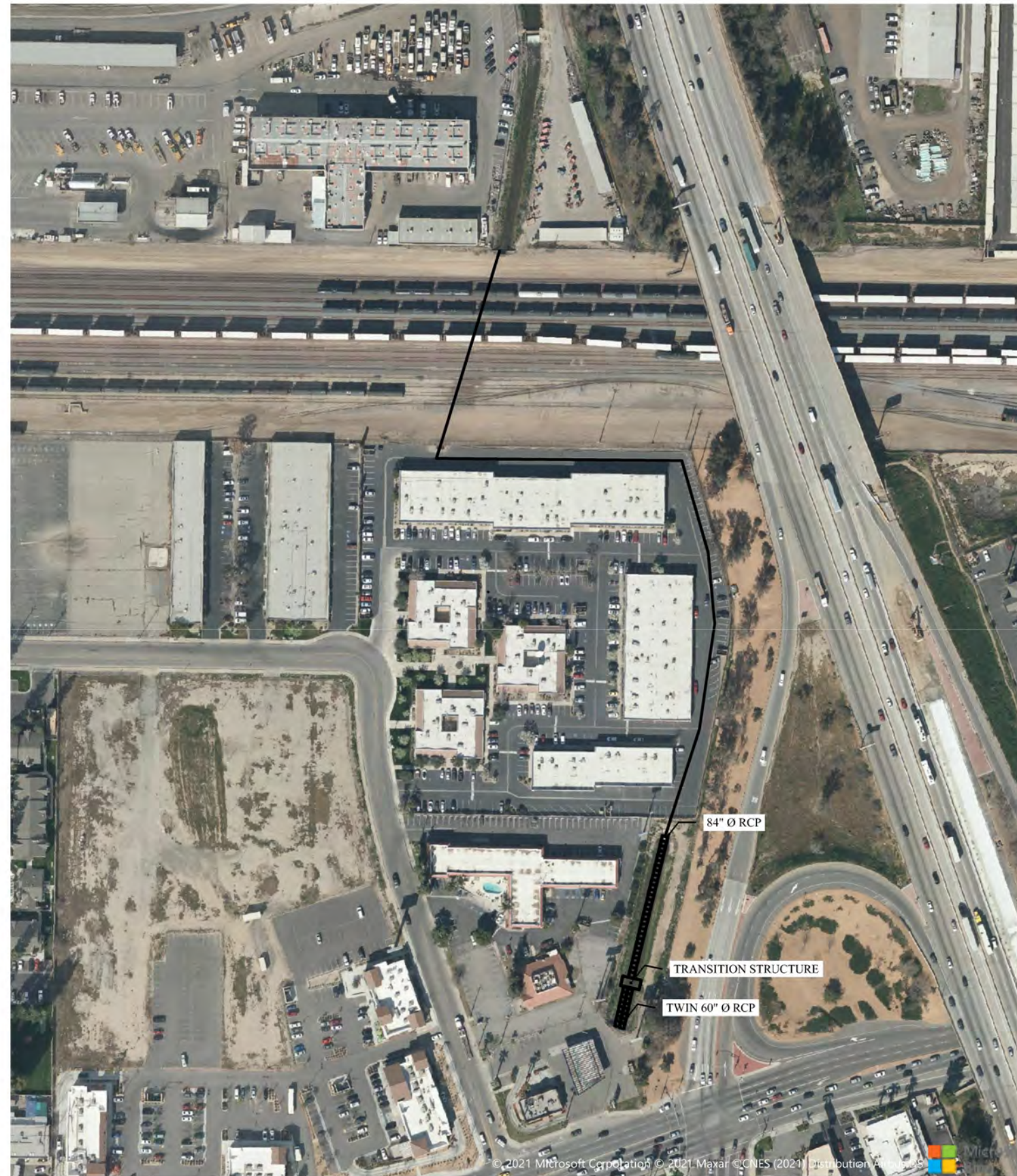
KERN DELTA WATER DISTRICT

**EXHIBIT 12
SUNSET BASINS
(FUTURE)**



KERN DELTA WATER DISTRICT

EXHIBIT 14
NOTCH STRUCTURE
CONCEPTUAL DESIGN



KERN DELTA WATER DISTRICT

EXHIBIT 15
STINE CANAL
NORTH OF CALIFORNIA AVE

Tab V



KERN DELTA WATER DISTRICT

November 9, 2022

	11/9/2022	Last Year
KERN RIVER 3 DAY MEAN INFLOW	195 CFS	154 CFS
KERN RIVER MEAN OUTFLOW	70 CFS	172 CFS
ISABELLA RESERVOIR STORAGE	37,530 ACFT	50,276 ACFT
REQUESTED OUTFLOW	70 CFS	165 CFS

Estimated: (CFS)

KDWD DAILY DIVERTED: (NOVEMBER 9, 2022)	@HEAD	STATE	XCHNG	BANKING
KERN ISLAND	52	0	0	0
EASTSIDE	0	0	0	0
BUENA VISTA -LEVEE	0	0	0	0
STINE	0	0	0	0
OTHER - River Channel	0	0	0	0
K.I. / A.E. Exchange Gate	0	0	0	0
STINE / A.E. Exchange Gate	0	0	0	0
Total CFS	52	0	0	0

Estimated: (Acre Feet)

DIVERTED (OCTOBER 2022)	UTILITY	STATE	PURCHASE	BANKING
KERN ISLAND	946	0	0	0
EASTSIDE	0	0	0	0
C.O.B. Misc.	0	0	0	0
BUENA VISTA	0	0	0	0
STINE	0	0	0	0
FARMERS	0	0	0	0
SOUTH FORK	0	0	0	0
West Side State Sale	0	0	0	0
MONTHLY TOTAL	946	0	0	0
YEAR TO OCTOBER 31, 2022	113,871 ACFT	0	0	0
Year to October 31, 2022 Utility - State - Banking	113,871 ACFT			

ACFT. STORAGE BALANCE AS OF:	10/31/2022	Estimate 11/9/2022	Max Storage
KERN ISLAND	476	450	2,500
BUENA VISTA	0	0	1,500
STINE	0	0	1,500
FARMERS	0	0	1,500
STATE (20) Carryover	0	0	N/A
STATE (21) Contract	0	0	N/A
RRBWSO STORAGE	18,805	18,805	N/A
PIONEER PROJECT STORAGE	23,285	23,285	N/A
TOTAL ACFT.	42,566	42,540	

K.D.W.D. CLIMATOLOGICAL OBSERVATION:

<u>41</u>	MINIMUM TEMPERATURE	<u>30</u>
<u>69</u>	MAXIMUM TEMPERATURE	<u>55</u>
<u>47</u>	PRESENT TEMPERATURE	<u>39</u>
<u>0.32</u>	PRECIPITATION - 24 HR. DAY	<u>0.73</u>
<u>0.64</u>	PRECIPITATION - MONTH	<u>1.04</u>
Seasonal <u>0.64</u>	YEAR TO DATE PRECIP.	<u>1.04</u> Seasonal

ISABELLA CLIMATOLOGICAL OBSERVATION:ISABELLA RESEVOIR:

LAKE ELEVATION (FT.)	2,526.23	OCTOBER AC. FT. INFLOW	7,140
STORAGE ACFT.	37,530	OCTOBER AC. FT. OUTFLOW	9,084
STORAGE CAPACITY	568,075	ACCUMULATIVE ACFT. INFLOW (20-21)	7,140
% OF CAPACITY	7%	ACCUMULATIVE ACFT. OUTFLOW	9,084
COE STORAGE CAPACITY	360,000	% OF COE CAPACITY	10%

Summary of Utility Water Diverted Year to Date: 10/31/2022

	Utility	North Kern*	Other Exchanges
January	4,709	0	0
February	7,597	0	0
March	14,910	0	0
April	14,178	0	0
May	17,790	1,000	0
June	18,099	0	0
July	14,698	0	0
August	11,445	0	0
September	9,499	0	0
October	946	0	0
November			
December			
Total	113,871	1,000	0

Summary of Other Water Diverted Year to Date: 10/31/2022

	State	Purchase	Banking
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	0	0	0
June	0	0	0
July	0	0	0
August	0	0	0
September	0	0	0
October	0	0	0
November			
December			
Total	0	0	0

Water owed to K.D.W.D as of: 10/31/2022

B.V.W.S.D. 2021 State Balance*:	1,275
2022 State Contract: Table A	1,275

Summary of Total State Water Used Year to Date: 10/31/2022

	(OWED)	(USED)
2022 Contract	1,275	0
Total	1,275	0

Quantities in acft.	TOTAL	2,550	Net Owed to KDWD	TOTAL	1,275
----------------------------	--------------	-------	-------------------------	--------------	-------

Maximum Annual State Carryover Balance: 6,000 acre feet *Owed to KDWD on a mutually agreeable year.

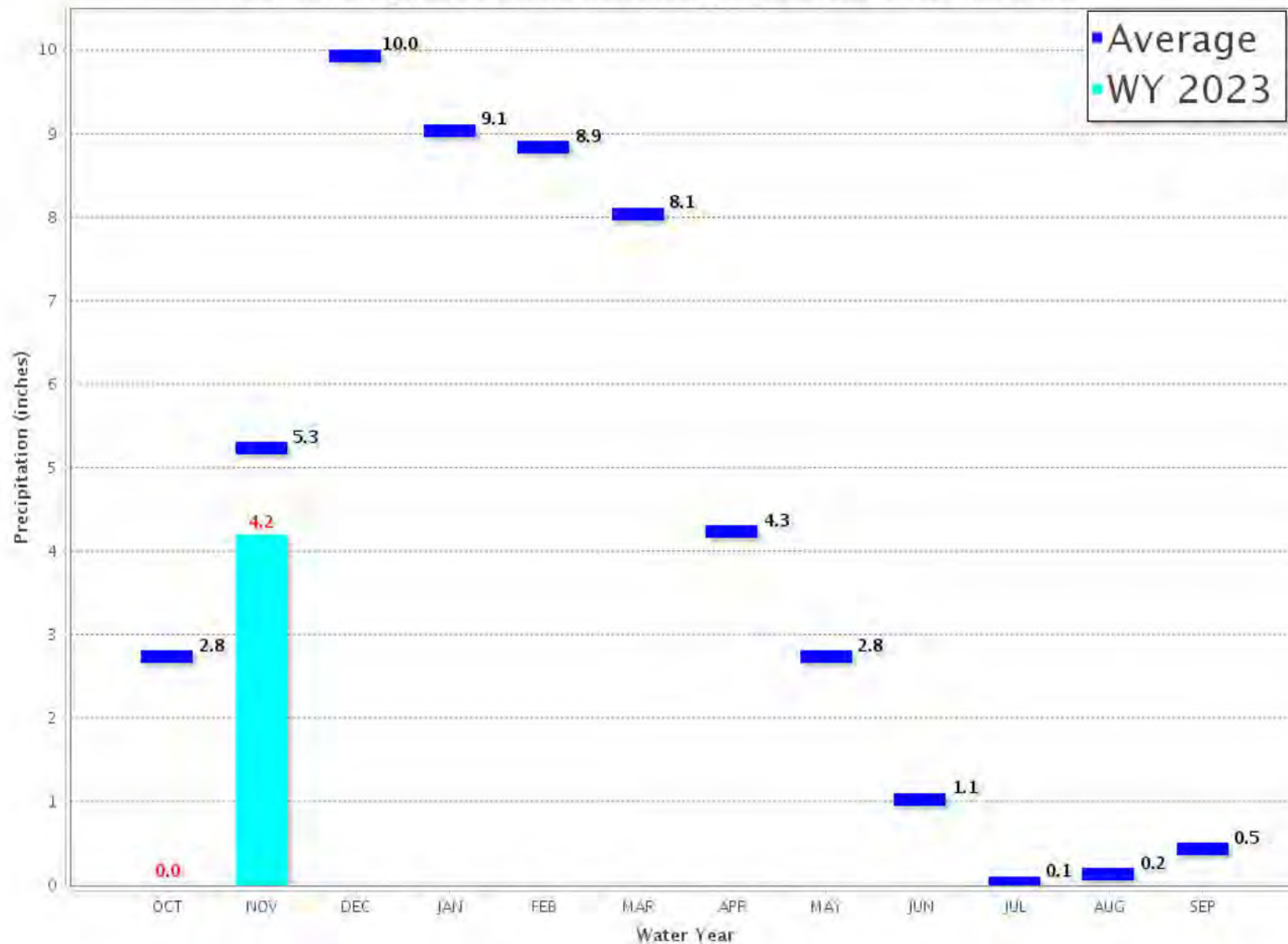


Northern Sierra 8-Station

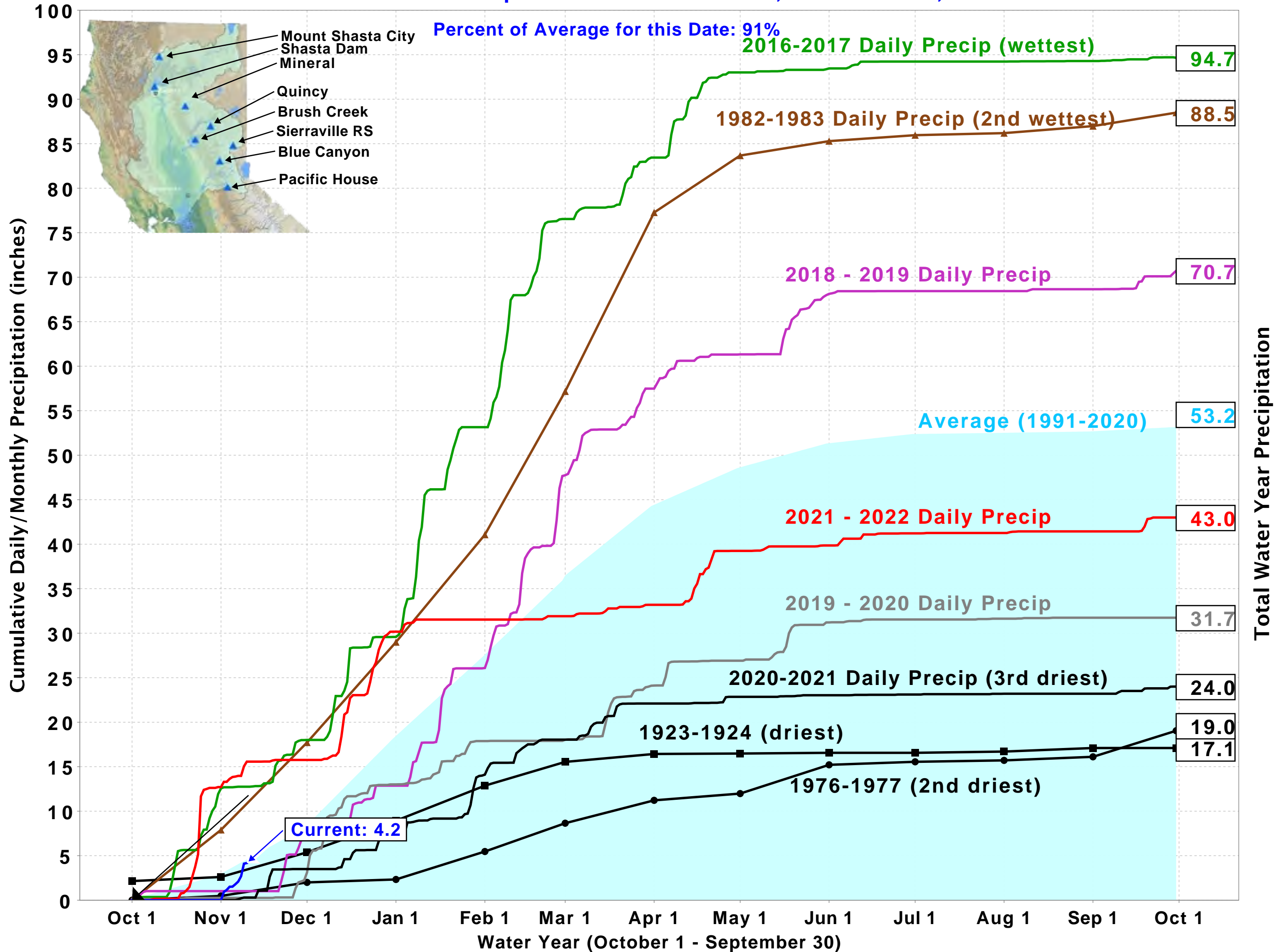
Precipitation Index for Water Year 2023 - Updated on November 10, 2022 09:49 PM

Note: Monthly totals may not add up to seasonal total because of rounding

Water Year Monthly totals are calculated based on Daily precipitation data from 12am to 12am PST



Northern Sierra Precipitation: 8-Station Index, November 10, 2022



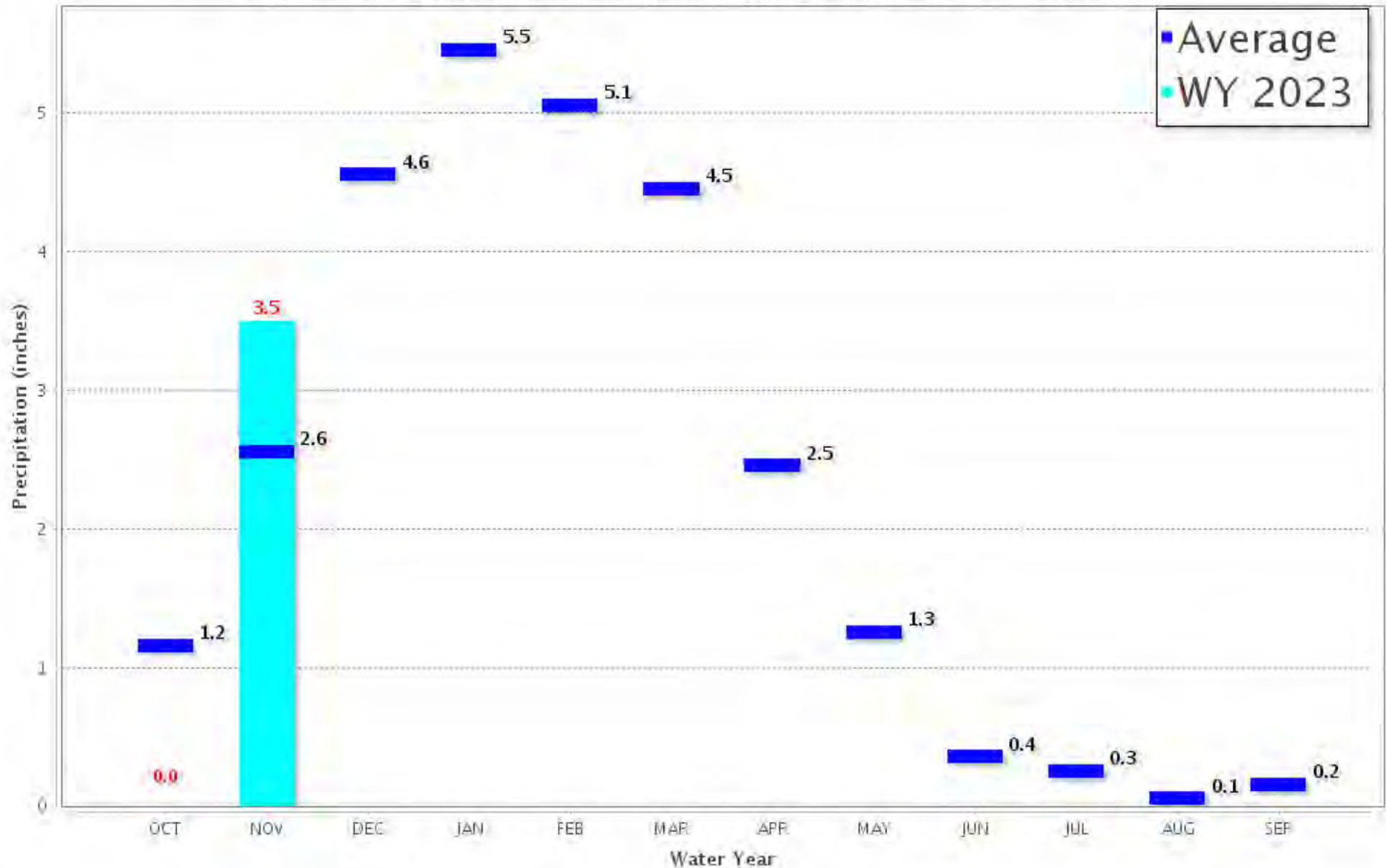


Tulare Basin 6-Station

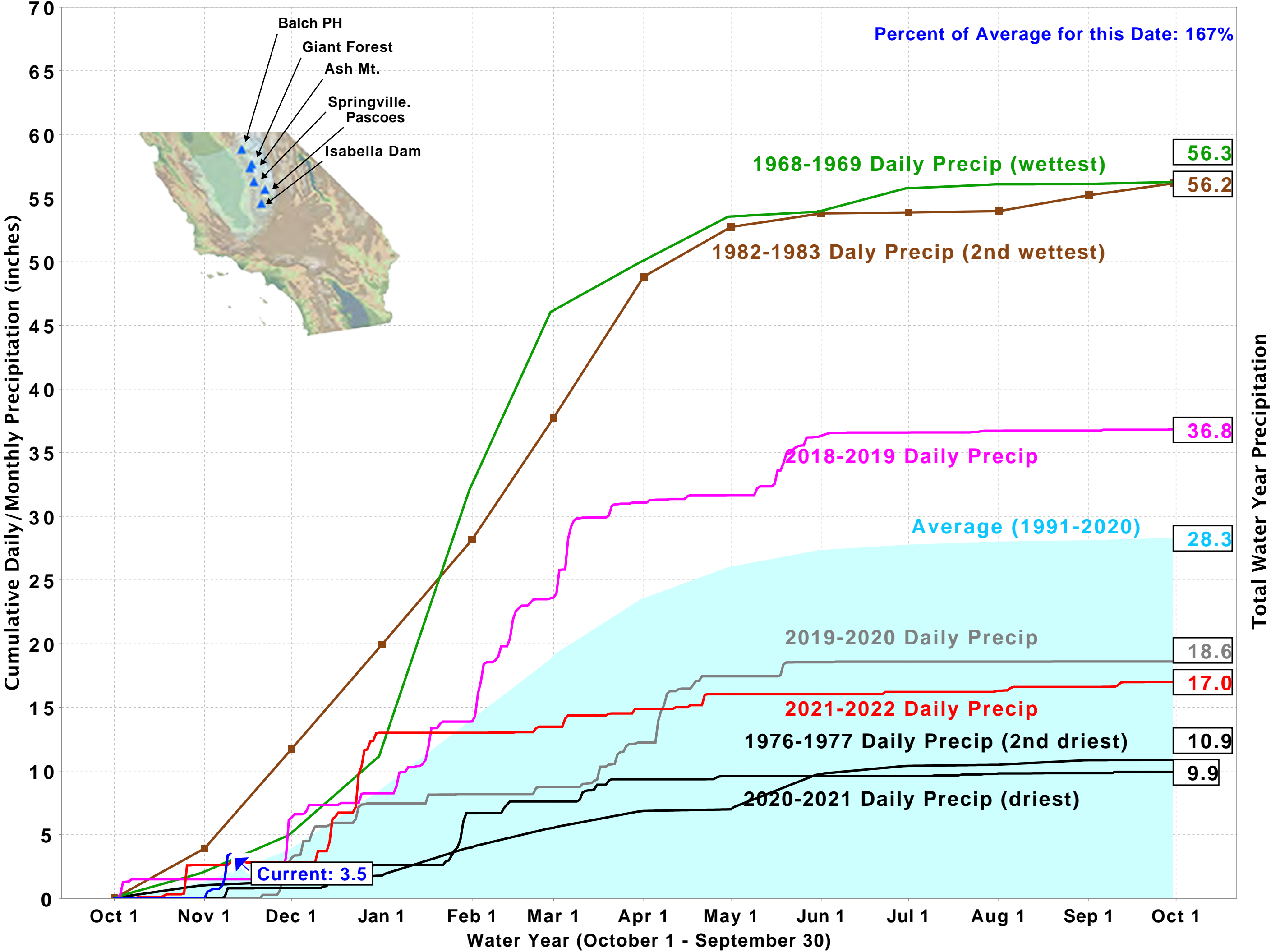
Precipitation Index for Water Year 2023 – Updated on November 10, 2022 09:49 PM

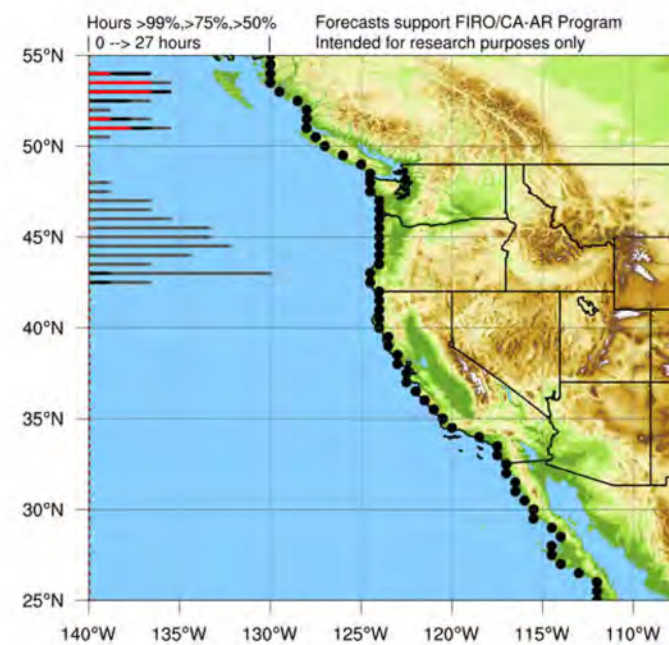
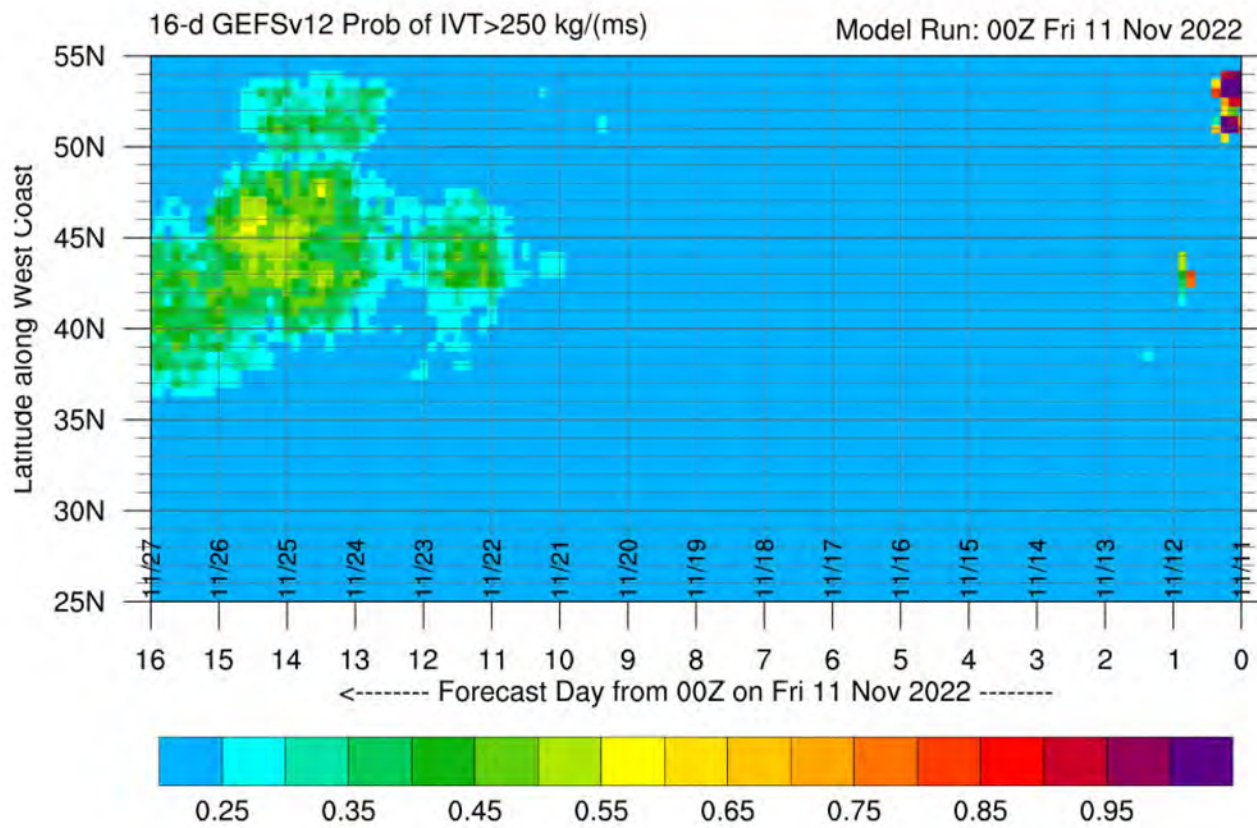
Note: Monthly totals may not add up to seasonal total because of rounding

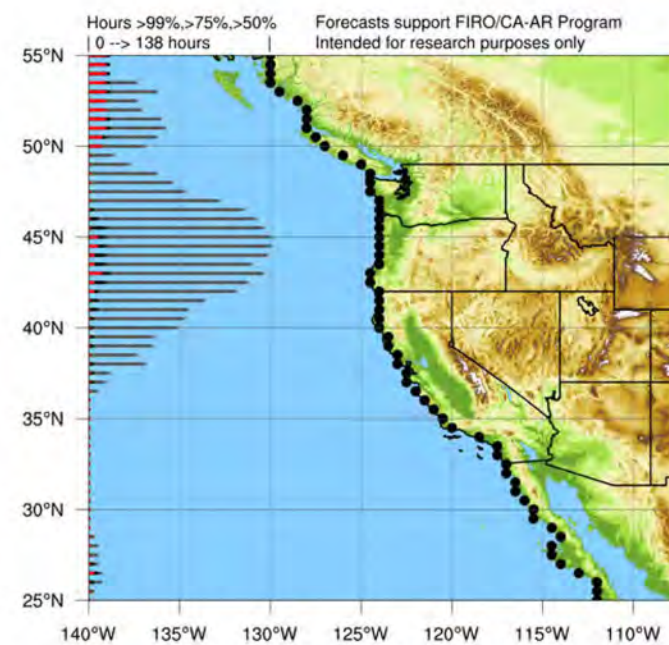
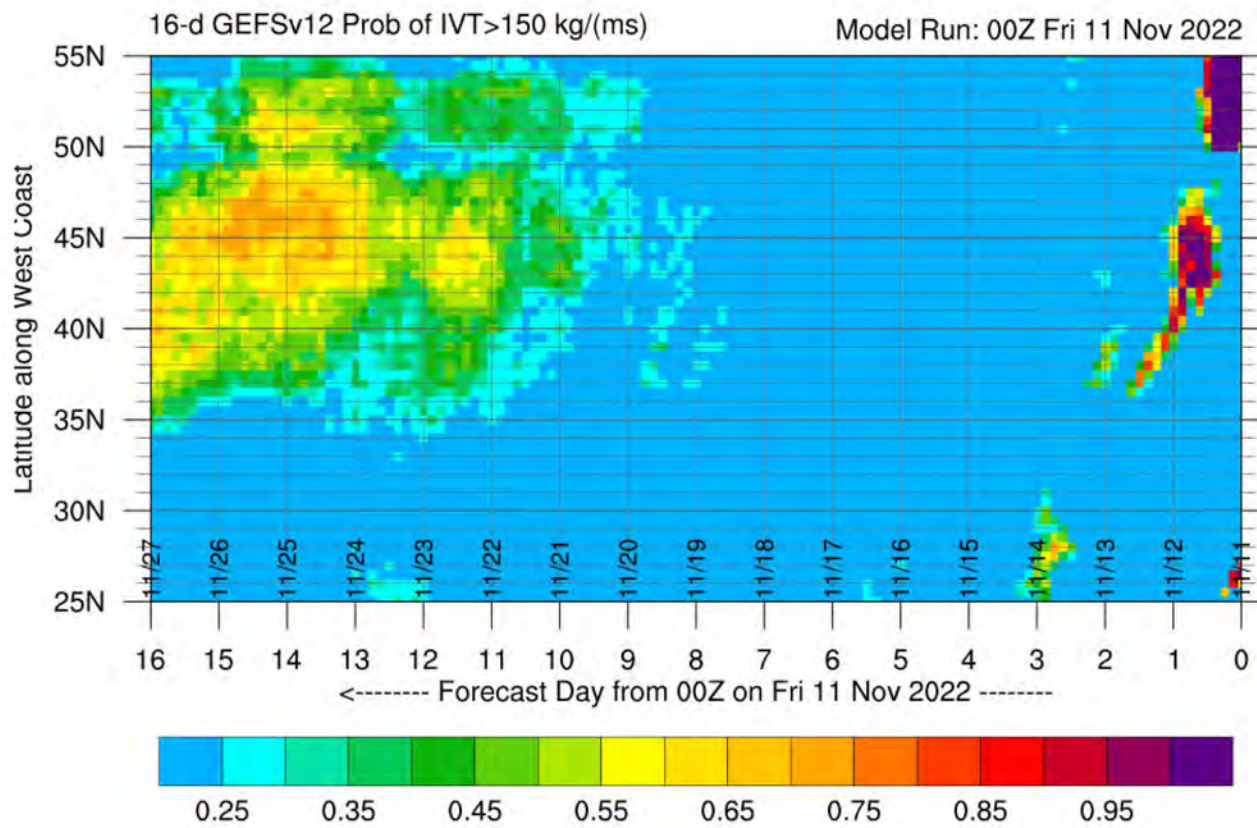
Water Year Monthly totals are calculated based on Daily precipitation data from 12am to 12am PST



Tulare Basin Precipitation: 6-Station Index, November 10, 2022







U.S. Drought Monitor California

November 8, 2022

(Released Thursday, Nov. 10, 2022)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.51	88.09	41.39	16.57
Last Week <i>11-01-2022</i>	0.00	100.00	99.77	91.83	43.06	16.57
3 Months Ago <i>08-09-2022</i>	0.00	100.00	99.77	97.52	45.81	16.53
Start of Calendar Year <i>01-04-2022</i>	0.00	100.00	99.30	67.62	16.60	0.84
Start of Water Year <i>09-27-2022</i>	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago <i>11-09-2021</i>	0.00	100.00	100.00	92.43	80.28	37.62

Intensity:

 None	 D2 Severe Drought
 D0 Abnormally Dry	 D3 Extreme Drought
 D1 Moderate Drought	 D4 Exceptional Drought

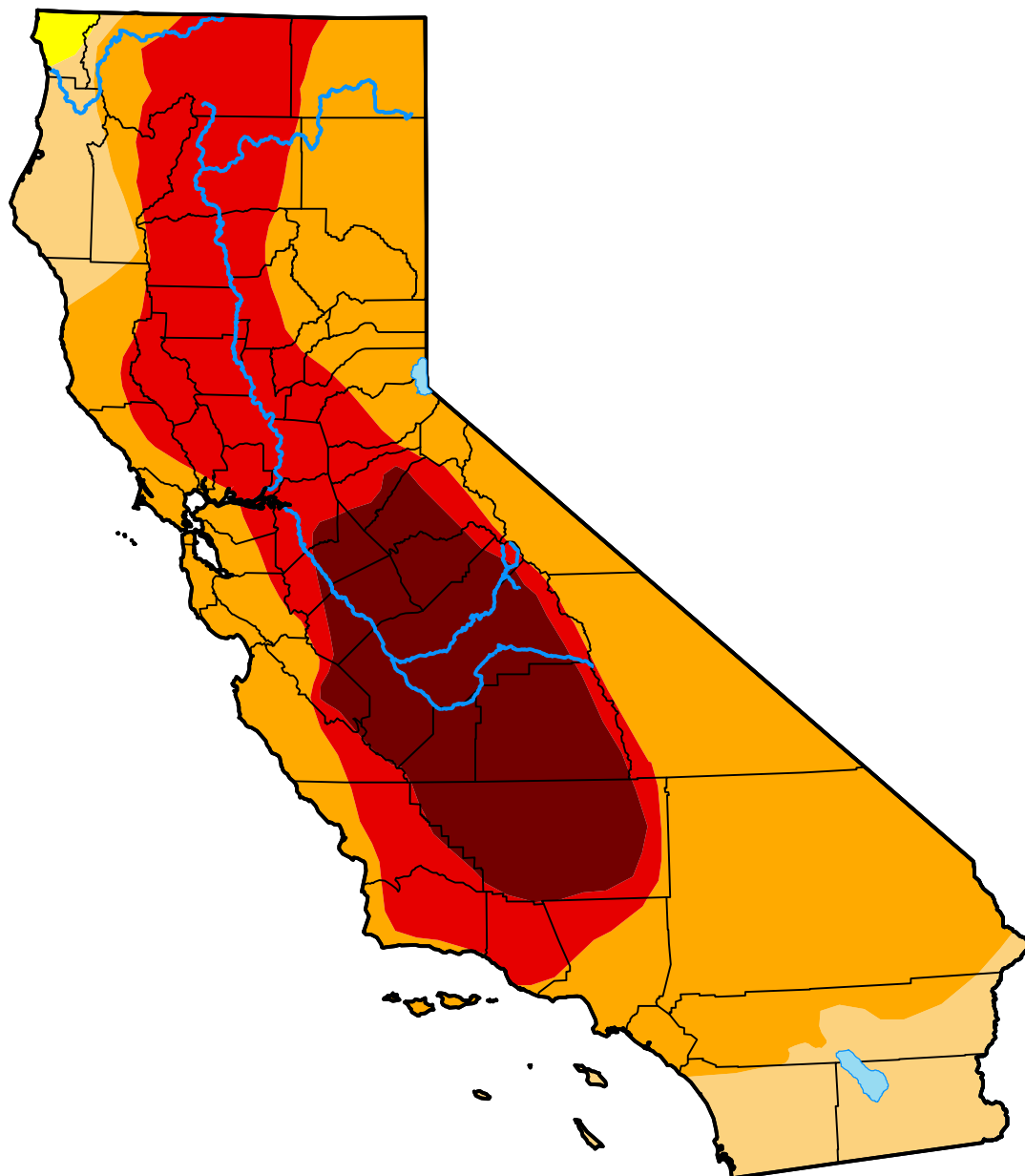
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu



KERN RIVER WATERMASTER

mark@kernriverwm.org

661-333-6981

November 2, 2022

To: Kern River Interests

From: L. Mark Mulkay
Kern River Watermaster

RE: Report of Recent Activities

This is the November 2, 2022, Kern River Watermaster Report. This Report is being prepared earlier than normal due to my attendance at DWR's California Cooperative Snow Survey Program this week. I will also be out of the State next week and I wanted to get this to you prior to leaving. I will try to schedule a meeting of the Kern River Interests in early December to cover a variety of topics including the search for a new Watermaster. Please be prepared to discuss options and alternatives.

Isabella Dam Safety Modification Project – The COE November 2022 Situation Report is attached for your review and information. Completions times include:

- The final wall section of the Labyrinth Weir was placed on October 25th. This marks the substantial completion of the Phase II Project.
- Isabella Reservoir is now available to store to its maximum if hydrology produces the water.
- Additional work will be done outside the reservoir section until mid-year 2023 that will not impact reservoir operations.

The Kern River Group did not meet with representatives from the COE during October. The next meeting with the COE is scheduled for 8:00 am, December 7, 2022.

Runoff and Operations – October continued to be dry. The first storm of the water year started yesterday (November 1st) and is predicted to last for a few more days. Inflow into Isabella remains at or below 100 cfs but is expected to increase due to the current storm activity. Attached is the November 1, 2022, Tulare Basin Precipitation 6-Station Index. The Index sits at 0.0 inches of precipitation and 0% percent of average and does not include the most recent storm activity. The COE B120 Forecast will begin in February 2023. Also attached is a four-month Daily Lake Isabella Inflow Analysis (with actuals through November 1st) that compares the last four months with the same period of other similar years.

Public Outreach – Scott Kuney has prepared a draft response to the Us Fish and Wildlife Service regarding the Draft Rules and Designations of Proposed Critical Habitat for both the Kern Canyon Slender Salamander and the Relictual Slender Salamander. The draft is being reviewed by all the Kern River Interests.

California Cooperative Snow Surveys – The 68th Annual Meeting of the California Cooperative Snow Surveys is being held this week (November 2-4, 2022), at the Carmichael Elks Lodge in Carmichael, California. I am attending on behalf of the Kern River Interests.

Aerial Snow Observatory – No report.

Attachments:

- COE Isabella Situation Report, November 2022
- Tulare Basin Precipitation: 6-Station Index, November 1, 2022
- Daily Lake Isabella Inflow Analysis, November 2022



ISABELLA LAKE, CA CONSTRUCTION

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Location & Description

Isabella Lake Dam (consisting of a Main Dam, Auxiliary Dam and service spillway) is located about 40 miles northeast of Bakersfield in Kern County, California, and became fully operational in 1953. The Main Dam is located near the confluence of the north and south forks of the Kern River and the Auxiliary Dam is located about half a mile east of the Main Dam. The Main Dam is a 185-foot-high earth-fill dam, and the Auxiliary Dam is a 100-foot-high earth-fill dam. The service spillway is located between the two dams. The reservoir (Isabella Lake) has a gross storage capacity of 568,075 acre feet.

November 2022



USACE and Contractor pose for a group photo at the Main Dam in celebration of top elevation core materials placement.

Advisory

- USACE are following the latest CDC guidelines to ensure the safety of our employees and our partners, and to take necessary precaution to prevent the spread of COVID-19.
- The Phase II Dams and Spillways contractor continues construction activities. As a result, the site including Engineers Point is an active construction area and is off limits to the public.
- Corps policy prohibits public operation of unmanned aircraft systems, such as drones, on or above federal lands and waters managed by USACE. The policy is intended to ensure critical infrastructure security and public safety.

Looking Ahead (Next 30+ days)

- November 1st marks the start of flood season.
- On October 25th the Contractor placed the final wall section of the Labyrinth Weir and this marks the substantial completion of the Phase II project dam safety risk reduction measures.
- There will be ongoing construction efforts into spring/summer 2023; that will not affect the functionality of the project and includes road work, utilities, emergency spillway concrete apron, site restoration, disposal of waste materials, final clean-up of local rock surfaces, and demobilization.
- In support of the USFS Visitor's Center project, USACE Sacramento District accepted the Offer to Sell for the former Bank of America property on 20 Sept 2022. The Sacramento District is working to close on the property sale and begin design efforts by end of year.

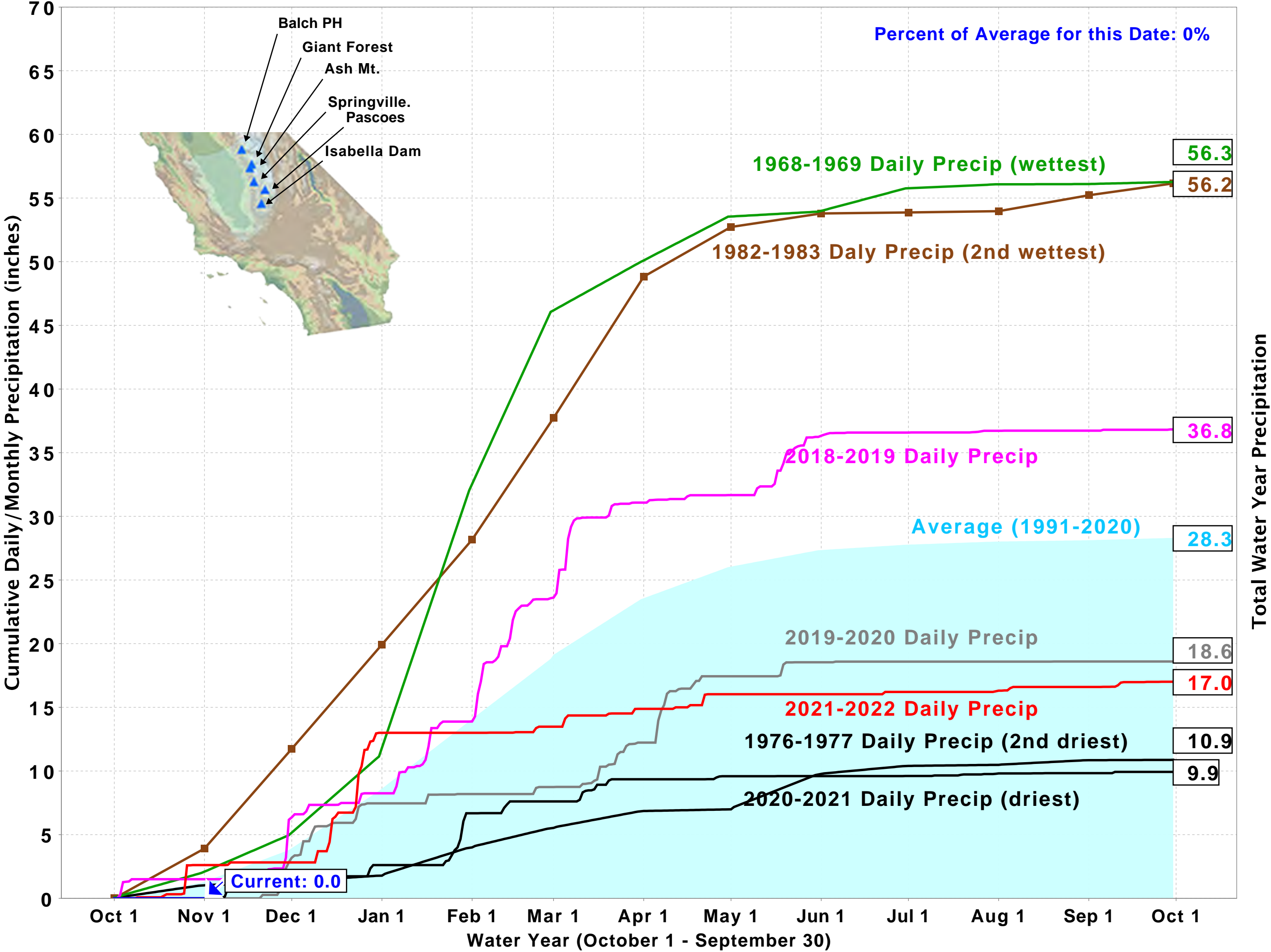
Current Lake Status (as of November 1, 2022)

The current pool resides at 36,369 acre-feet (elevation 2,536 feet-IPD), which is 10% of restricted pool and 21% of flood conservation pool.

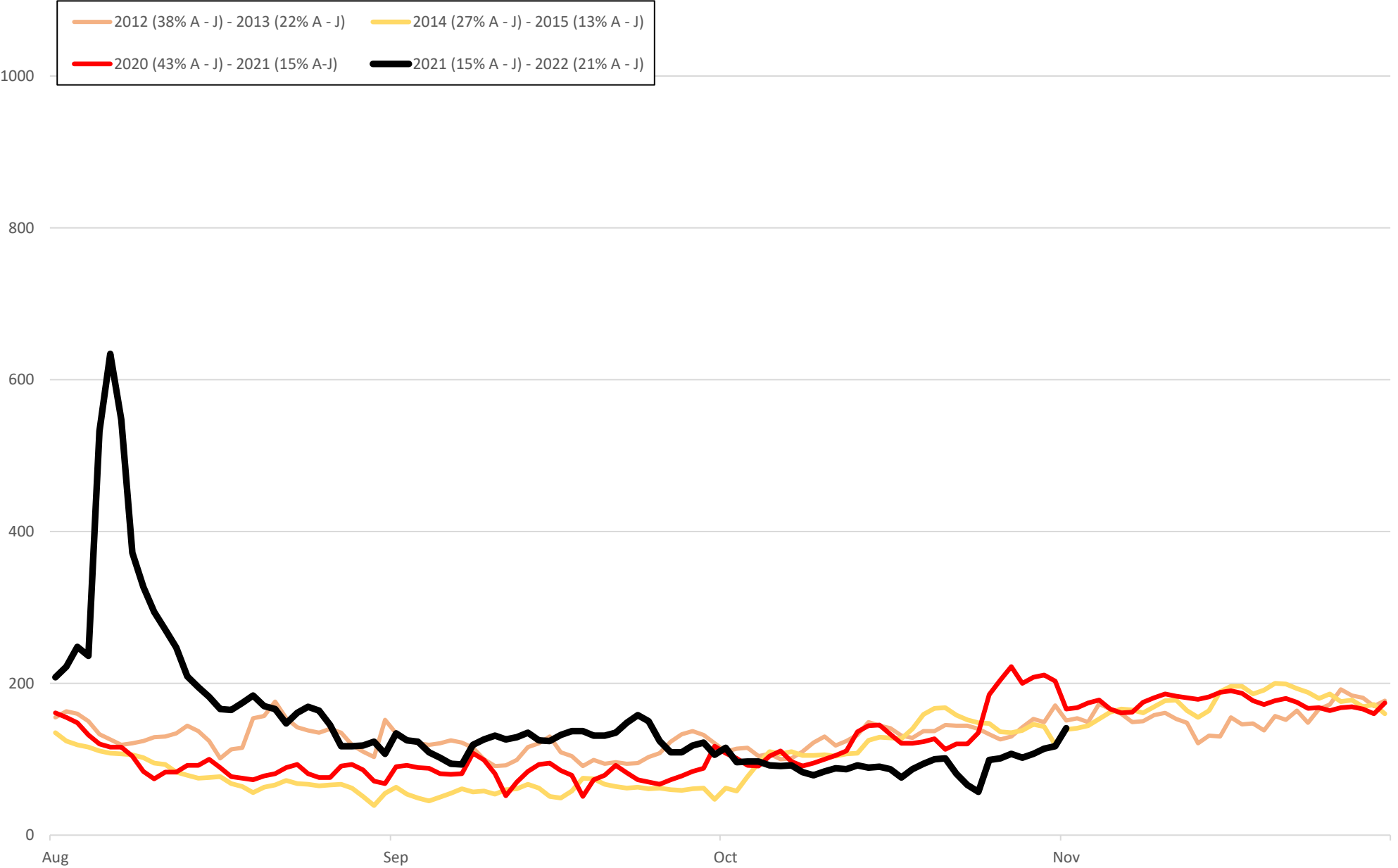
As part of our interim risk reduction measures, Isabella Lake is restricted to 361,250 acre-feet (elevation 2,585.5 feet-IPD) outside of flood season. During flood season (~November-March), flood conservation pool is restricted to 170,000 acre-feet (elevation 2,560.4 feet-IPD). Current lake status can be viewed at https://www.spk-wc.usace.army.mil/plots/california_new.html?name=isb&year=2022&interval=d&tab=plot&window=wy

Completion Milestones	
Pre-Construction Engineering and Design	Complete
Construction of USFS Fire Station and Admin Facilities	Complete
Dams and Spillways Construction	2023
Permanent Operations Facilities	2024
U.S. Forest Service Visitor's Information Center	2025

Tulare Basin Precipitation: 6-Station Index, November 01, 2022

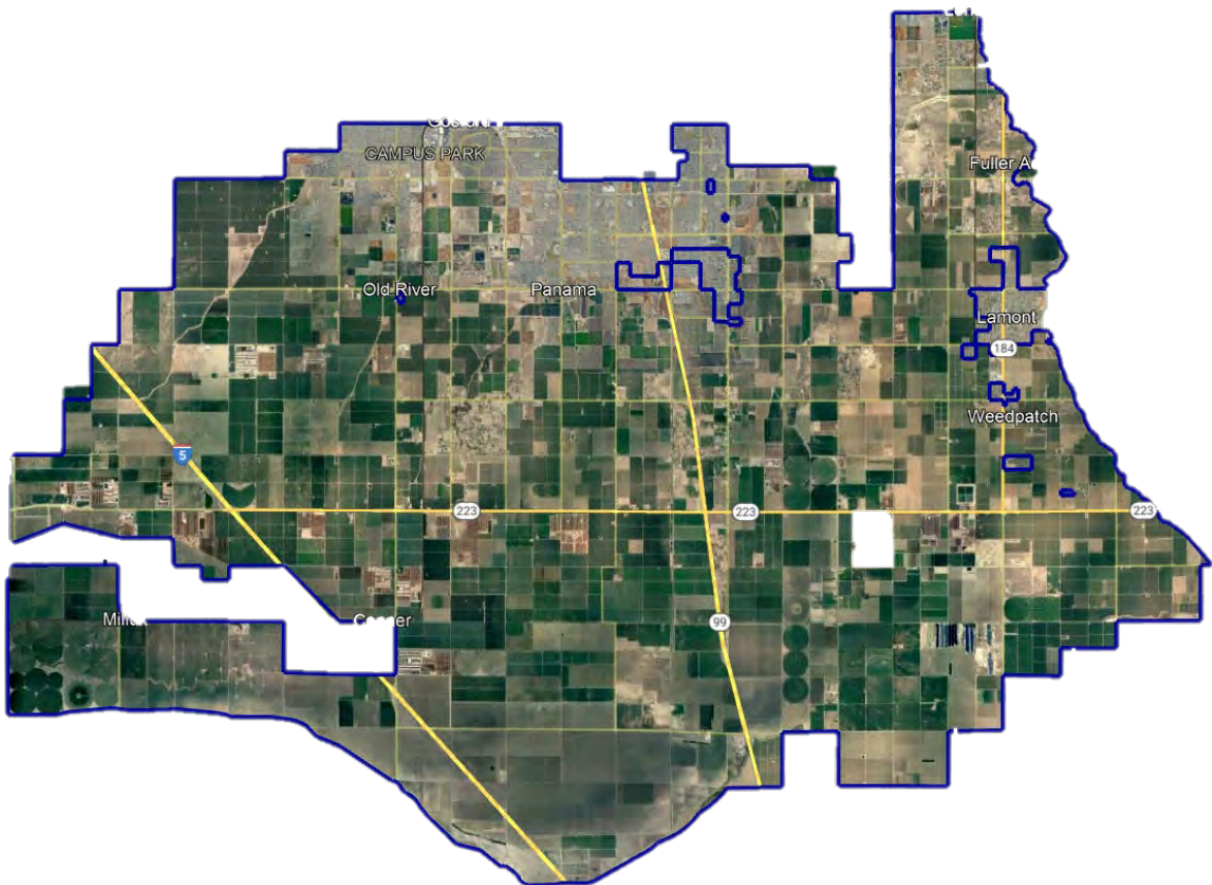


Daily Lake Isabella Inflow Analysis (CFS Days)

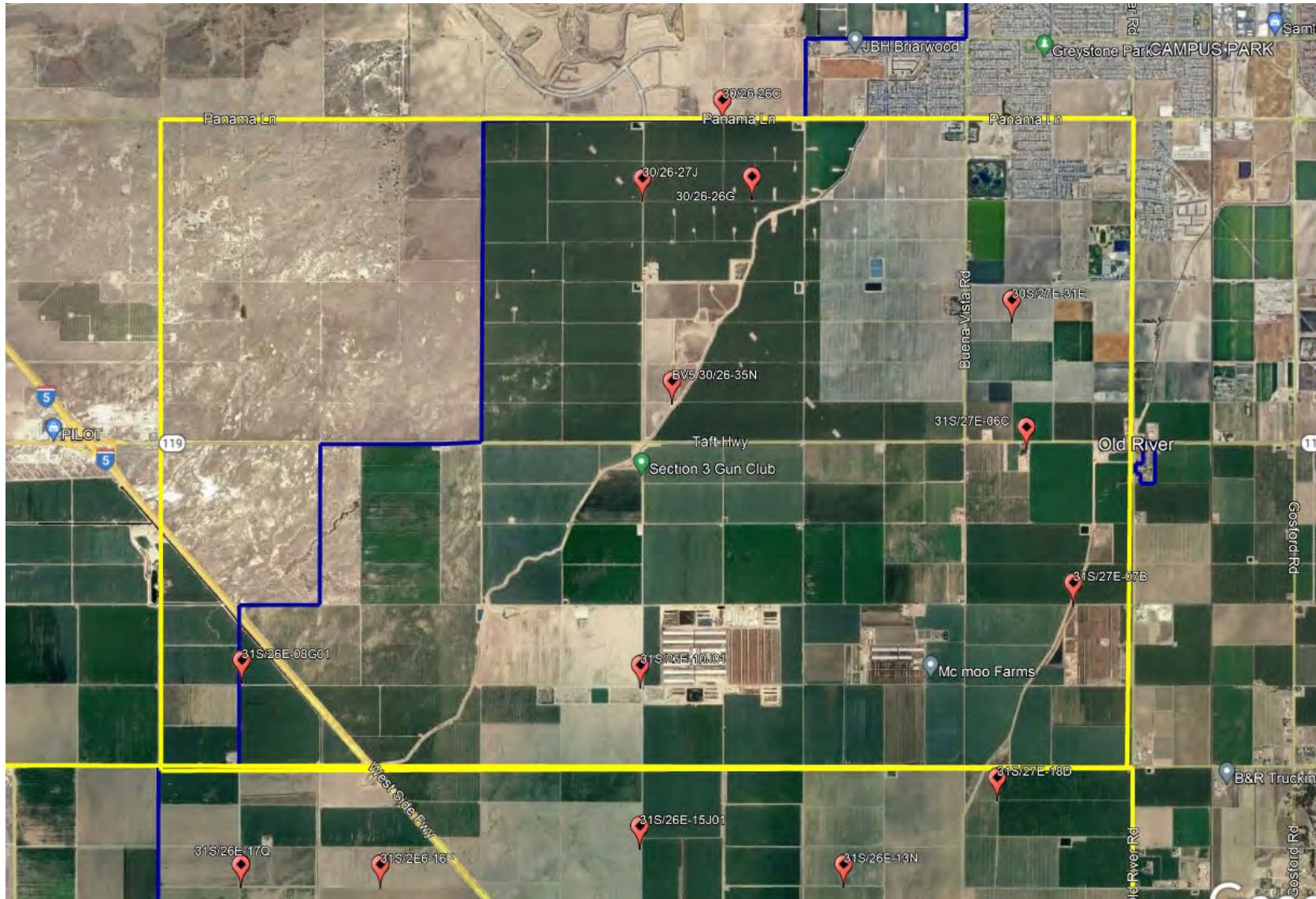




Monthly Groundwater Report



November 2022



2022

Northwest Quadrant		JAN 2018	JAN 2019	JAN 2020	JAN 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	HIGH	LOW	AVERAGE
	30/26-26C	190	R	204	G	G	G	G	G	G	G	G	215	R	213	NR		215	190	206
	30/26-26G	197	R	199	G	G	G	G	G	G	G	G	220	R	213	217		220	197	209
	30/26-27J	198	R	210	G	G	G	G	G	G	G	G	213	218	R	NR		218	198	210
	30/26-35N	181	184	171	169	185	179	187	191	200	R	R	226	219	214	218		226	169	194
	30/27-31E	181	202	219	201	224	223	220	222	R	R	248	R	226	241	237		248	181	220
	31/26-08G	168	NR	204	205	200	R	200	202	168	244	R	R	217	R	201		244	168	201
	31/26-10J	170	202	NR	203	205	200	203	201	R	R	R	R	R	R	240		240	170	203
	31/27-06C	NR	208	215	203	215	212	212	214	R	236	230	249	254	236	240		254	203	225
	31/27-07B	199	R	200	NR	235	236	235	222	234	240	NR	264	227	236	224		264	199	229
	AVERAGE	186	199	203	196	211	210	210	209	201	240	239	231	227	226	225		240	186	214
Northwest District Maximum Depth to Water																		264		
Northwest District Minimum Depth to Water																		168		
Northwest District Average Depth to Water																		212		

G = gated well, unable to access

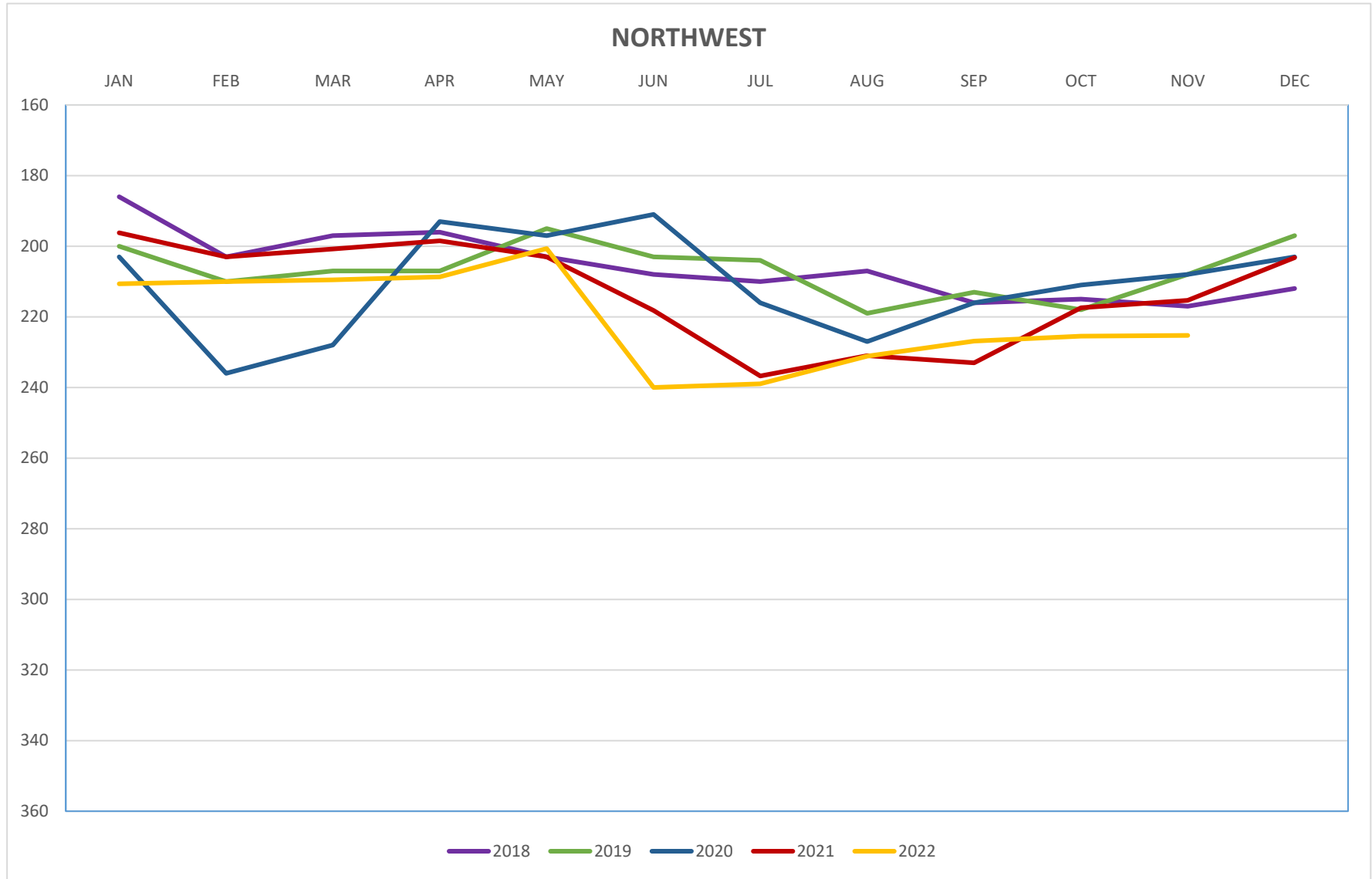
R = running well, no measurement taken

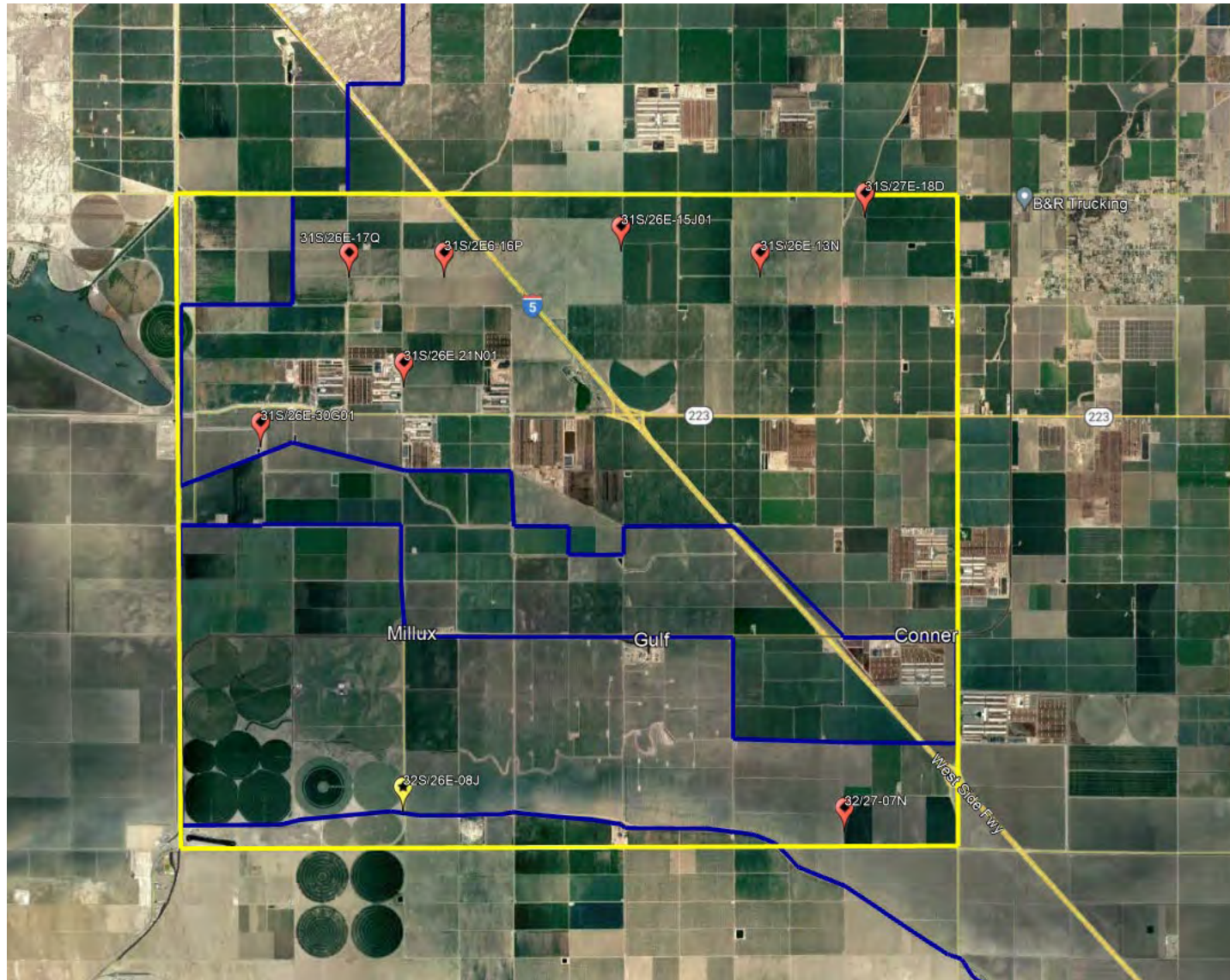
NR = temporary 'no reading', no measurement taken

yellow shading = inactive well

11/11/2022

2022





2022

Southwest Quadrant		JAN 2018	JAN 2019	JAN 2020	JAN 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	HIGH	LOW	AVERAGE
	31/26-13N	180	201	NR	NR	206	216	200	222	R	R	R	R	270	249	237		270	180	220
	31/26-15J	168	205	NR	201	205	214	200	205	R	R	300	248	R	249	238		300	168	221
	31/26-16P	168	207	204	202	200	200	216	201	214	200	201	R	R	R	228		228	168	203
	31/26-17Q	NR	210	203	219	202	218	210	206	231	R	R	R	R	233	234		234	202	217
	31/26-21N	175	238	204	204	228	217	224	217	214	300	R	R	R	262	234		300	175	226
	31/26-30G	159	240	268	203	234	200	230	201	239	R	R	R	264	232	230		268	159	225
	31/27-18D01	NR	206	201	203	222	210	221	R	R	261	288	R	R	R	R		288	201	227
	32/26-08J	189	215	209	212	200	NR	208	206	210	209	209	201	211	251	250		251	189	213
	32/27-07N	NR	200	288	200	201	169	201	180	199	220	247	258	254	239	220		288	169	220
	AVERAGE	173	214	225	206	211	206	212	205	218	238	249	236	250	245	234		250	173	221
Southwest District Maximum Depth to Water																		300		
Southwest District Minimum Depth to Water																		159		
Southwest District Average Depth to Water																		219		

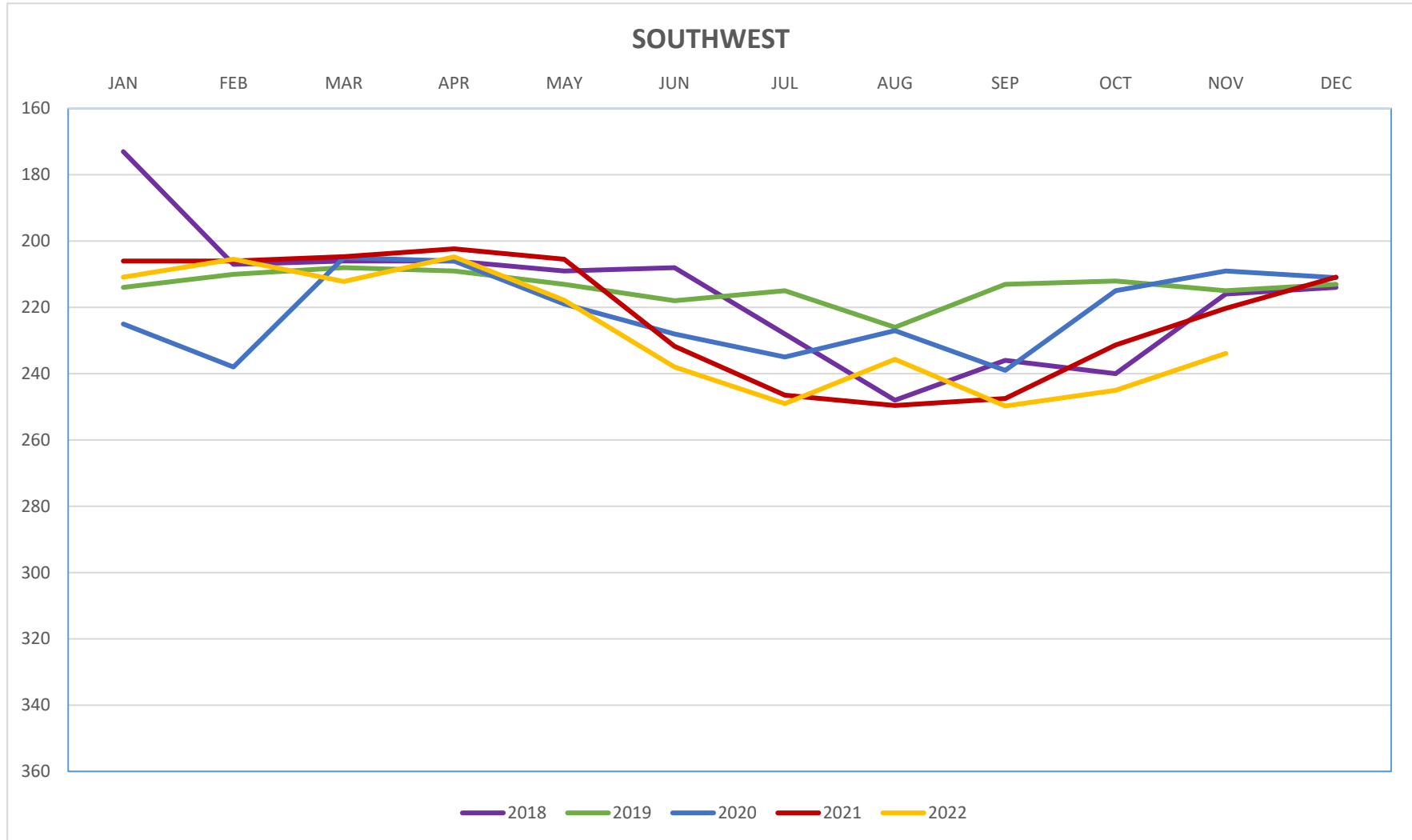
G = gated well, unable to access

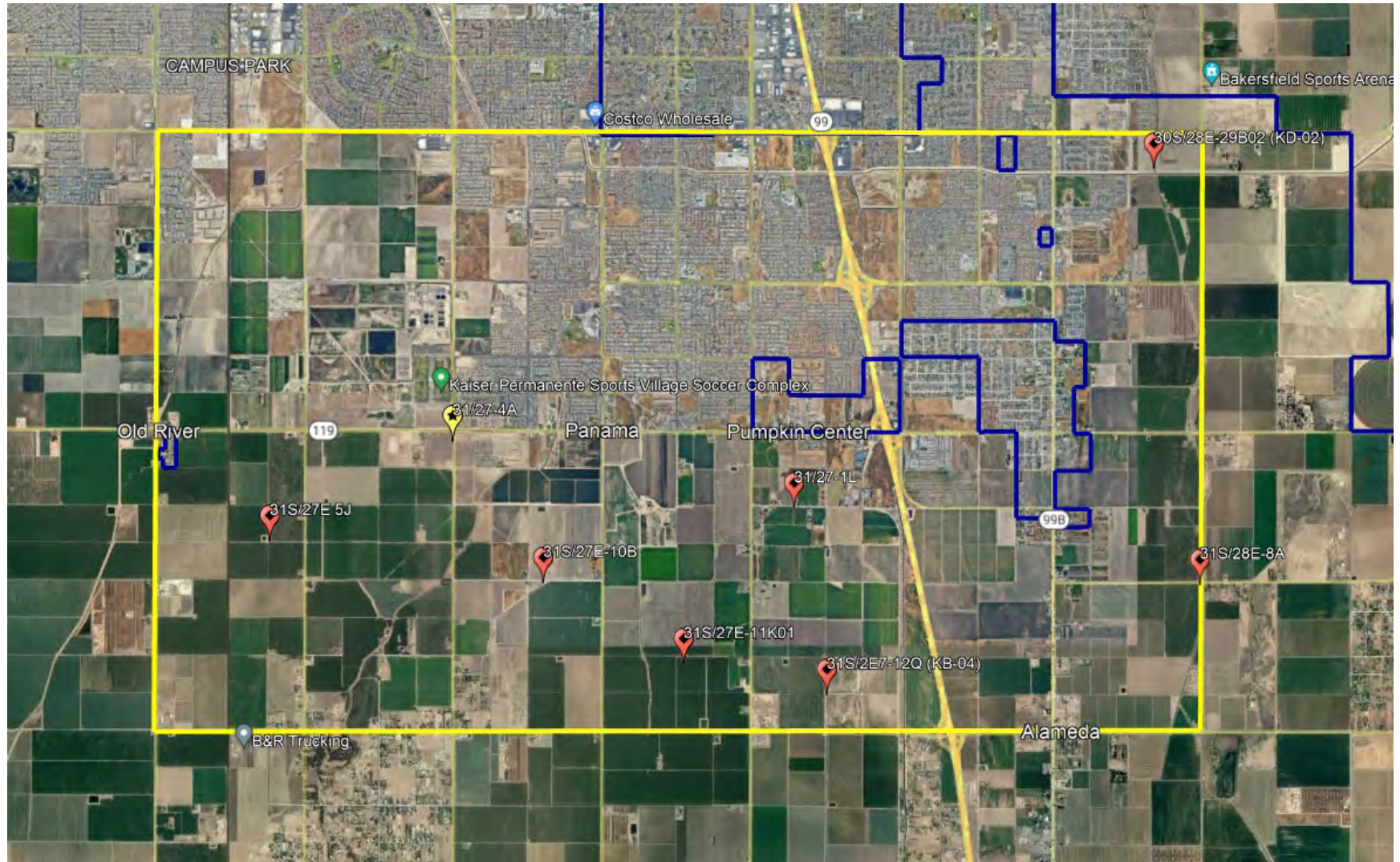
R = running well, no measurement taken

NR = temporary 'no reading', no measurement taken

yellow shading = inactive well

2022





2022

North-Central Quadrant		JAN 2018	JAN 2019	JAN 2020	JAN 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	HIGH	LOW	AVERAGE
	30/28-29B	236	243	229	225	231	233	230	237	241	R	R	R	R	R	250		250	225	236
	31/27-01L	260	220	232	219	170	170	175	216	220	233	R	253	247	R	246		260	170	220
	31/27-04A	176	183	184	179	182	180	180	184	186	190	189	196	197	191	191		197	176	186
	31/27-05J	200	NR	228	207	230	231	236	233	239	R	R	R	R	R	217		239	200	225
	31/27-10B	NR	NR	208	208	210	211	210	R	R	R	R	R	R	R	230		230	208	213
	31/27-12Q	140	140	139	141	174	179	177	163	164	R	NR	R	R	R	R		179	139	157
	31/28-08A	220	243	244	249	264	235	260	248	260	R	R	R	R	263	274		274	220	251
	AVERAGE	205	206	209	204	209	206	210	214	218	212	189	225	222	227	235		235	189	213
North-Central District Maximum Depth to Water																		274		
North-Central District Minimum Depth to Water																		139		
North-Central District Average Depth to Water																		212		

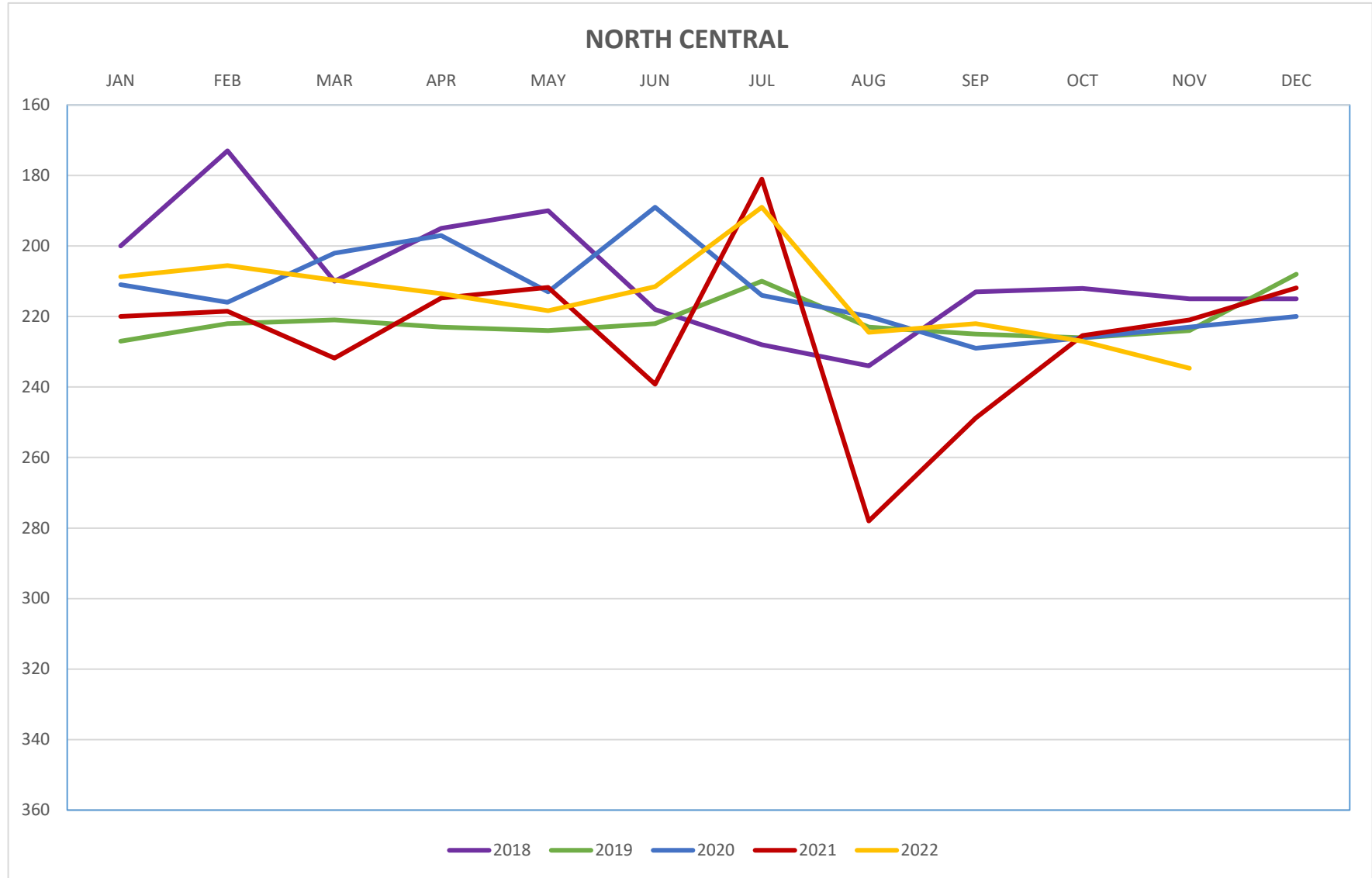
G = gated well, unable to access

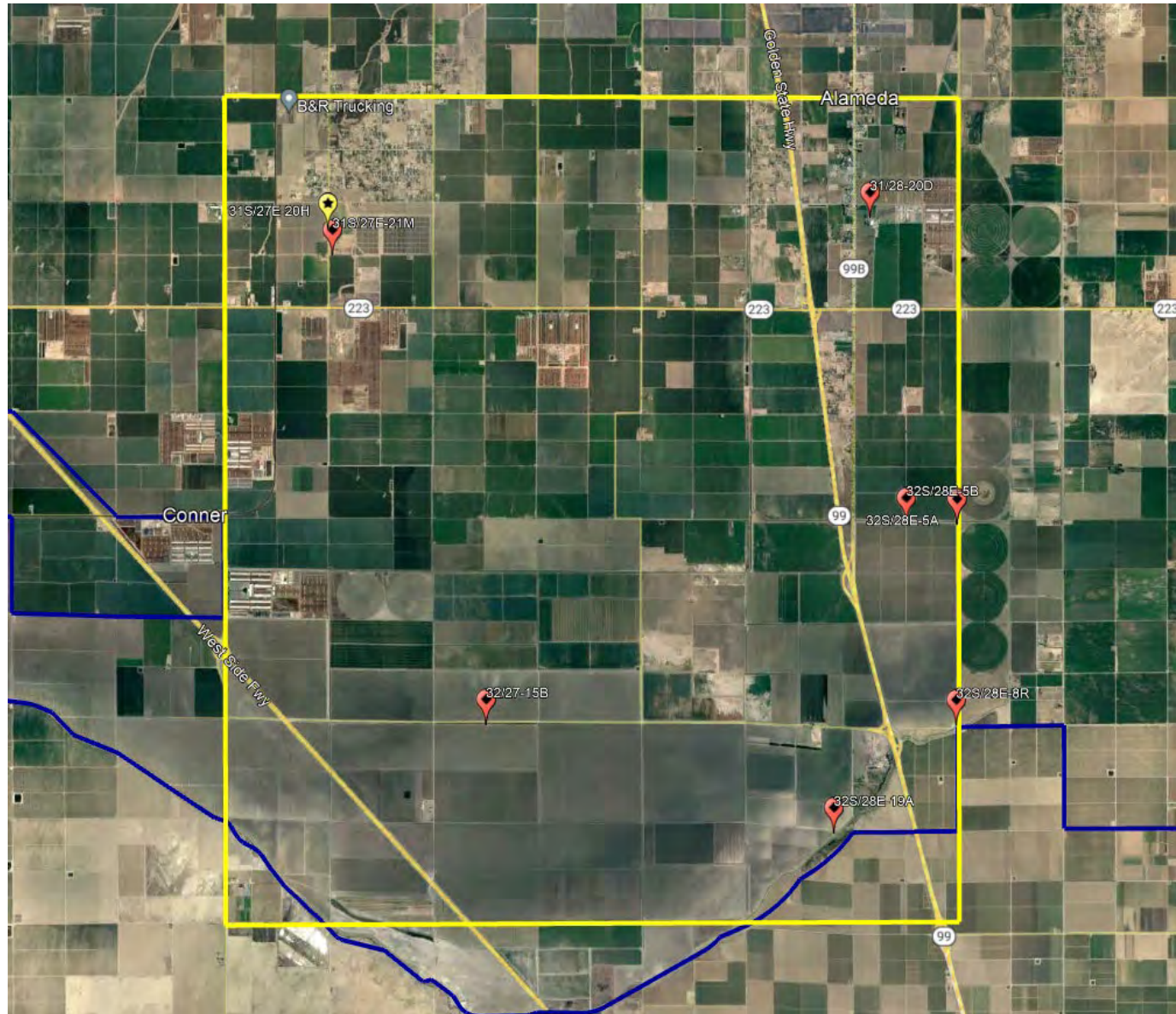
yellow shading = inactive well

R = running well, no measurement taken

NR = temporary 'no reading', no measurement taken

2022





2022

		JAN 2018	JAN 2019	JAN 2020	JAN 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	HIGH	LOW	AVERAGE
South-Central Quadrant	31/27-20H	NR	NR	211	NR	213	215	213	R	206	208	216	213	244	214	203		244	203	214
	31/27-21M	160	L	L	NR	220	220	212	218	219	R	R	242	206	211	219		242	160	213
	31/28-20D	180	190	201	R	202	200	200	G	R	R	R	R	216	203	R		216	180	199
	32/27-15B	196	231	202	200	201	189	202	206	211	231	232	R	NR	233	311		311	189	219
	32/28-19A	NR	215	222	222	255	222	248	248	265	R	292	327	208	312	291		327	208	256
	32/28-05A	NR	250	239	220	214	221	214	217	238	250	289	287	R	290	288		290	214	247
	32/28-05B	NR	226	201	205	221	210	209	216	226	241	260	302	R	277	262		302	201	235
	32/28-08R	NR	224	253	222	255	253	252	250	250	300	317	326	R	NR	293		326	222	266
	AVERAGE	179	223	218	214	223	216	219	226	231	246	268	283	219	249	267		283	179	232
	South-Central District Maximum Depth to Water																	327		
	South-Central District Minimum Depth to Water																	160		
	South-Central District Average Depth to Water																	233		

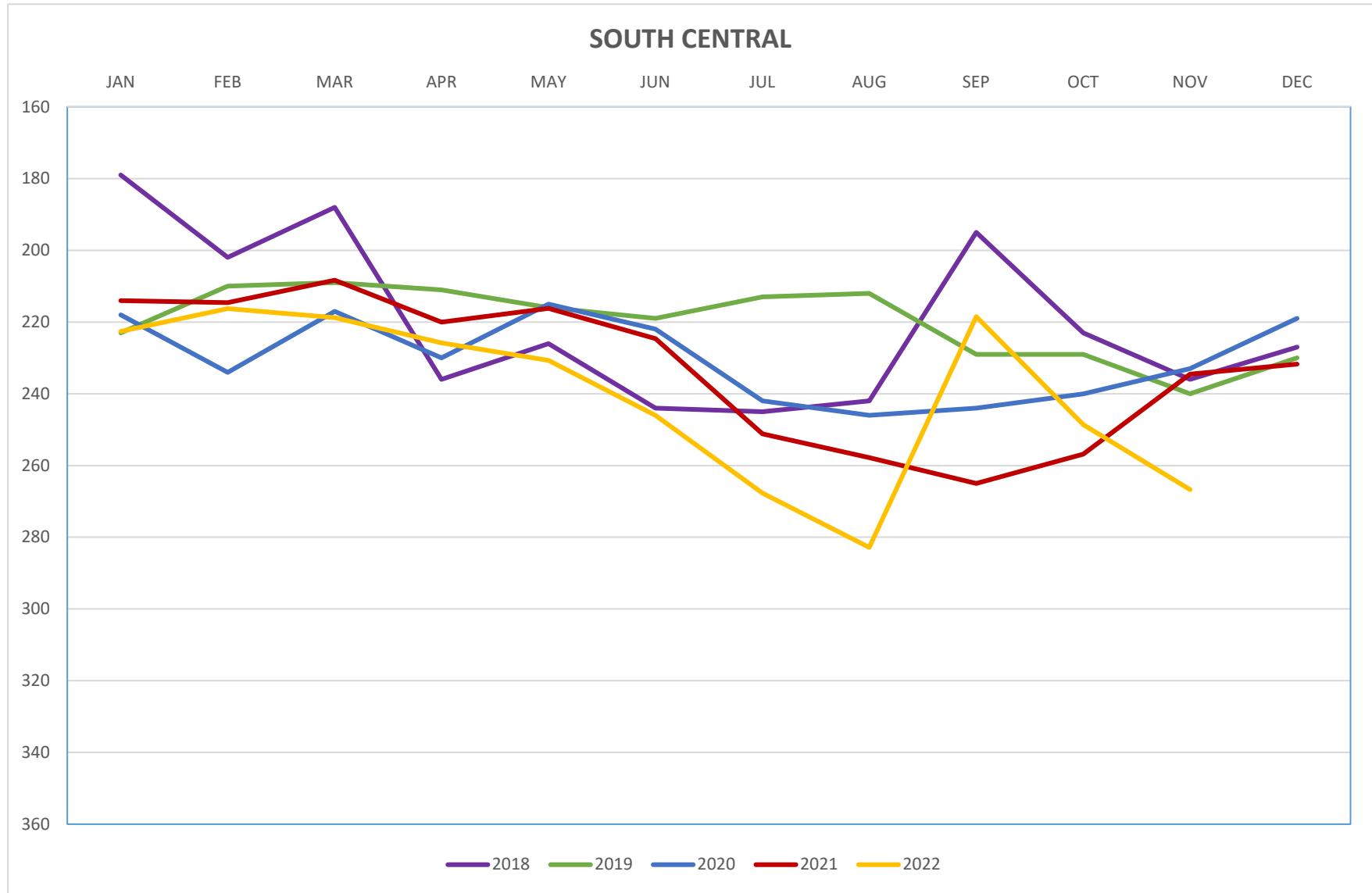
G = gated well, unable to access

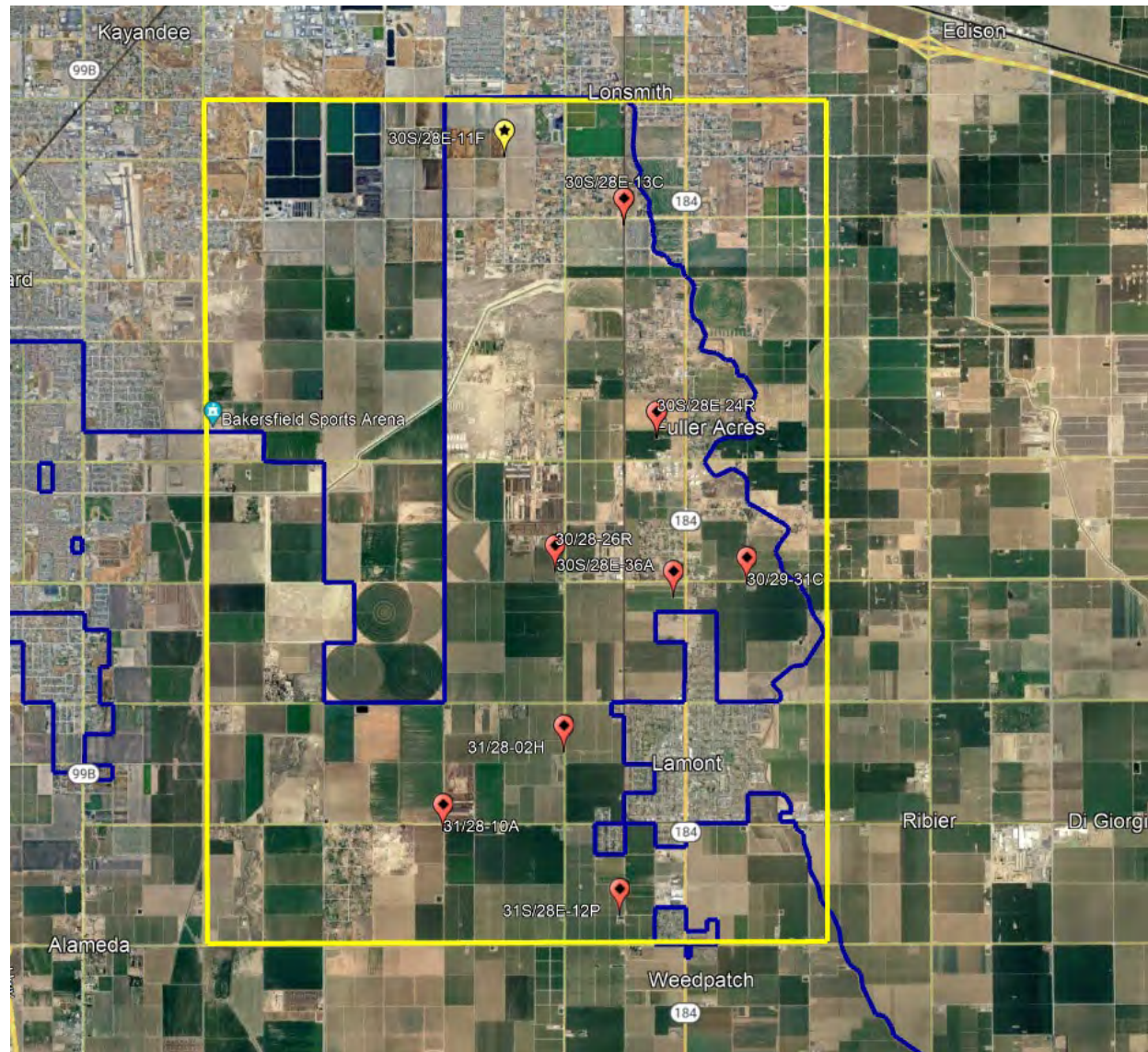
R = running well, no measurement taken

NR = temporary 'no reading', no measurement taken

yellow shading = inactive well

2022





2022

Northeast Quadrant		JAN 2018	JAN 2019	JAN 2020	JAN 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	HIGH	LOW	AVERAGE
	30/28-11F	248	263	263	264	272	271	279	272	279	280	286	281	280	283	280		286	248	273
	30/28-13C	290	R	300	331	320	R	320	310	321	R	R	329	320	325	324		331	290	317
	30/28-24R	NR	306	311	309	NR	NR	NR	R	300	R	R	338	330	336	336		338	300	321
	30/28-26R	NR	287	NR	NR	NR	NR	320	318	328	327	328	R	310	R	NR		328	287	317
	30/28-36A			212	NR	NR	NR	326	336	330	330	R	NR	NR	R	R		336	212	307
	30/29-31C	323	327	338	330	344	335	336	336	340	347	345	349	R	R	352		352	323	339
	31/28-02H	288	291	290	295	326	302	299	R	R	R	339	R	R	254	257		339	254	294
	31/28-10A	249	253	253	258	265	266	268	268	268	276	295	294	R	250	250		295	249	265
	31/28-12P	222	286	284	NR	NR	R	297	291	300	310	R	318	R	315	312		318	222	294
	AVERAGE	270	288	281	298	305	294	306	304	308	312	319	318	310	294	302		319	270	301
Northeast District Maximum Depth to Water																		352		
Northeast District Minimum Depth to Water																		212		
Northeast District Average Depth to Water																		300		

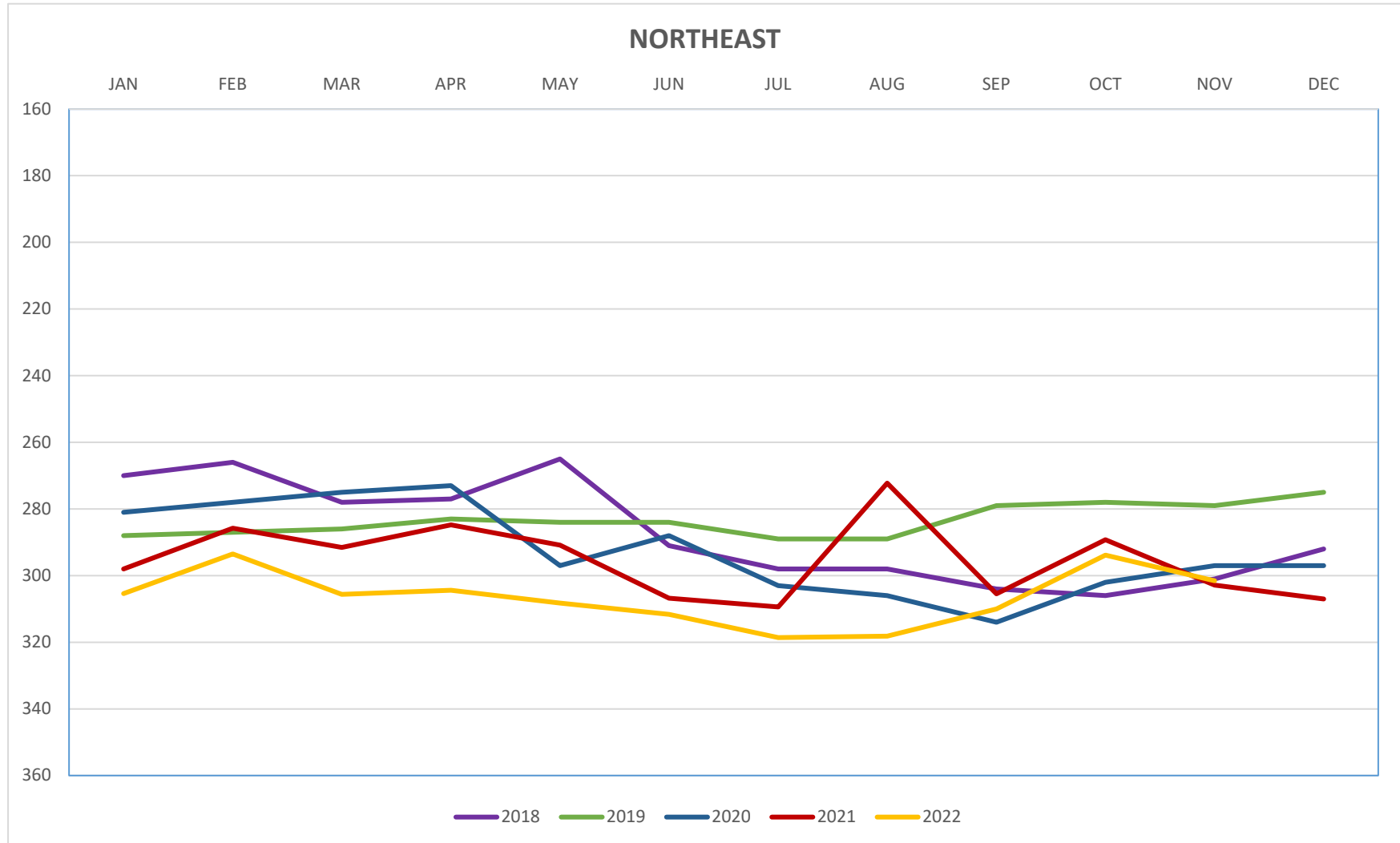
G = gated well, unable to access

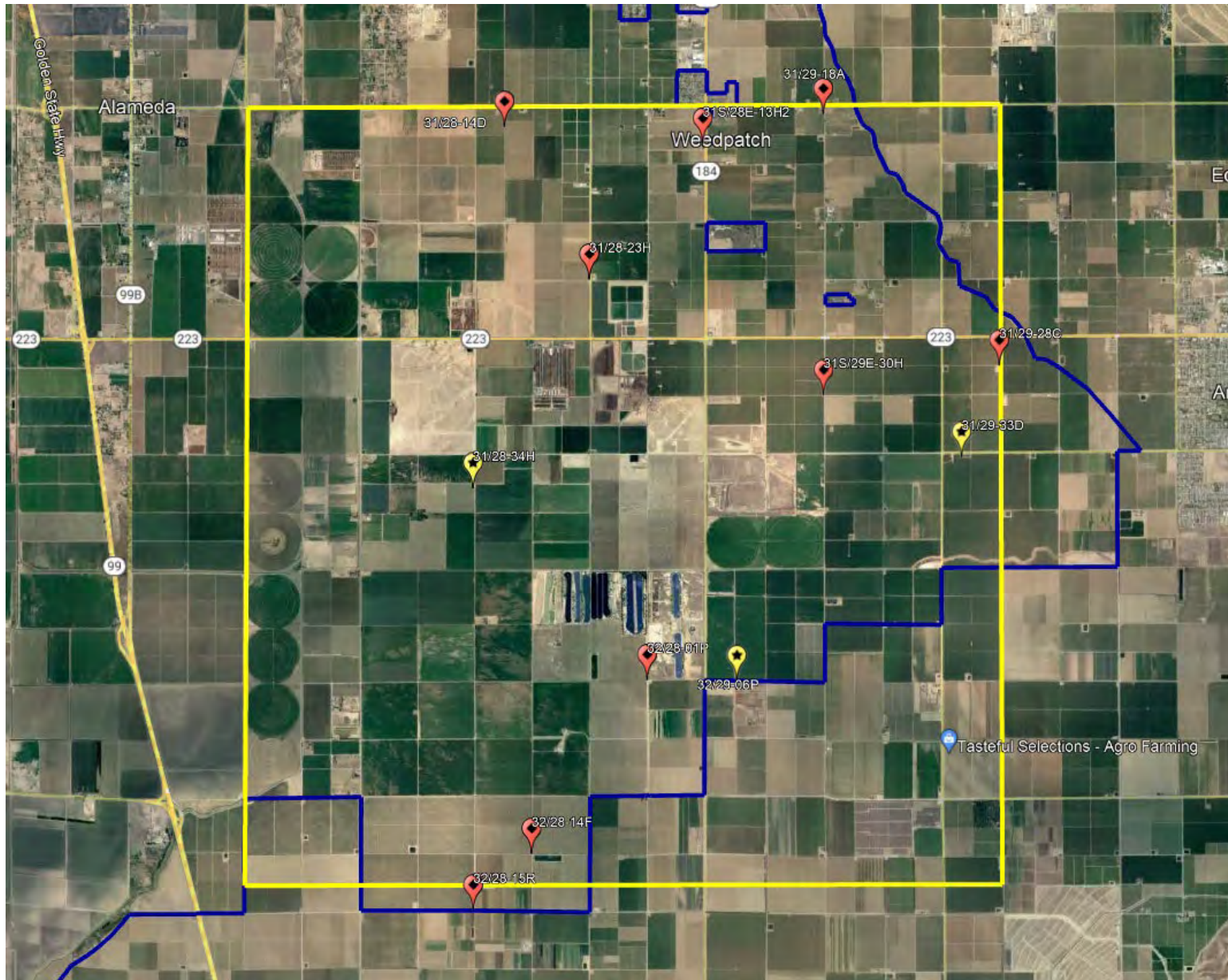
R = running well, no measurement taken

NR = temporary 'no reading', no measurement taken

yellow shading = inactive well

2022





2022

		JAN 2018	JAN 2019	JAN 2020	JAN 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	HIGH	LOW	AVERAGE
Southeast Quadrant	31/28-13H2		NR	NR	NR	290	290	295	290	294	R	R	296	292	R	294		296	290	293
	31/28-14D	233	239	230	235	247	232	252	244	247	R	R	260	259	256	248		260	230	245
	31/28-23H	278	290	286	275	276	330	306	NR	250	NR	NR	R	320	246	248		330	246	282
	31/28-34H	NR	337	206	204	203	224	205	205	R	R	R	218	220	NR	NR		337	203	225
	31/29-18A	234	335	333	241	349	348	349	344	352	354	363	354	380	360	357		380	234	337
	31/29-28C	219	347	344	NR	NR	R	R	200	202	202	209	209	R	R	207		347	200	238
	31/29-30H	NR	NR	NR	331	353	331	NR	340	R	340	R	R	R	R	NR		353	331	339
	31/29-33D	294	342	250	338	239	340	340	342	340	346	335	330	357	358	353		358	239	327
	32/28-14F	NR	NR	222	241	NR	225	226	NR	NR	NR	NR	NR	211	NR	NR		241	211	225
	32/28-15R	300	263	272	291	314	314	305	NR	NR	R	R	R	R	361	365		365	263	309
	32/28-01P	NR	NR	NR	NR	207	196	204	206	NR	R	R	235	R	NR	NR		235	196	210
	32/29-06P	NR	183	177	208	NR	NR	199	203	NR	228	225	201	232	233	227		233	177	211
	AVERAGE	260	292	258	263	275	283	268	264	281	294	283	263	284	302	287		302	258	277
	Southeast District Maximum Depth to Water																	380		
	Southeast District Minimum Depth to Water																	177		
	Southeast District Average Depth to Water																	276		

G = gated well, unable to access

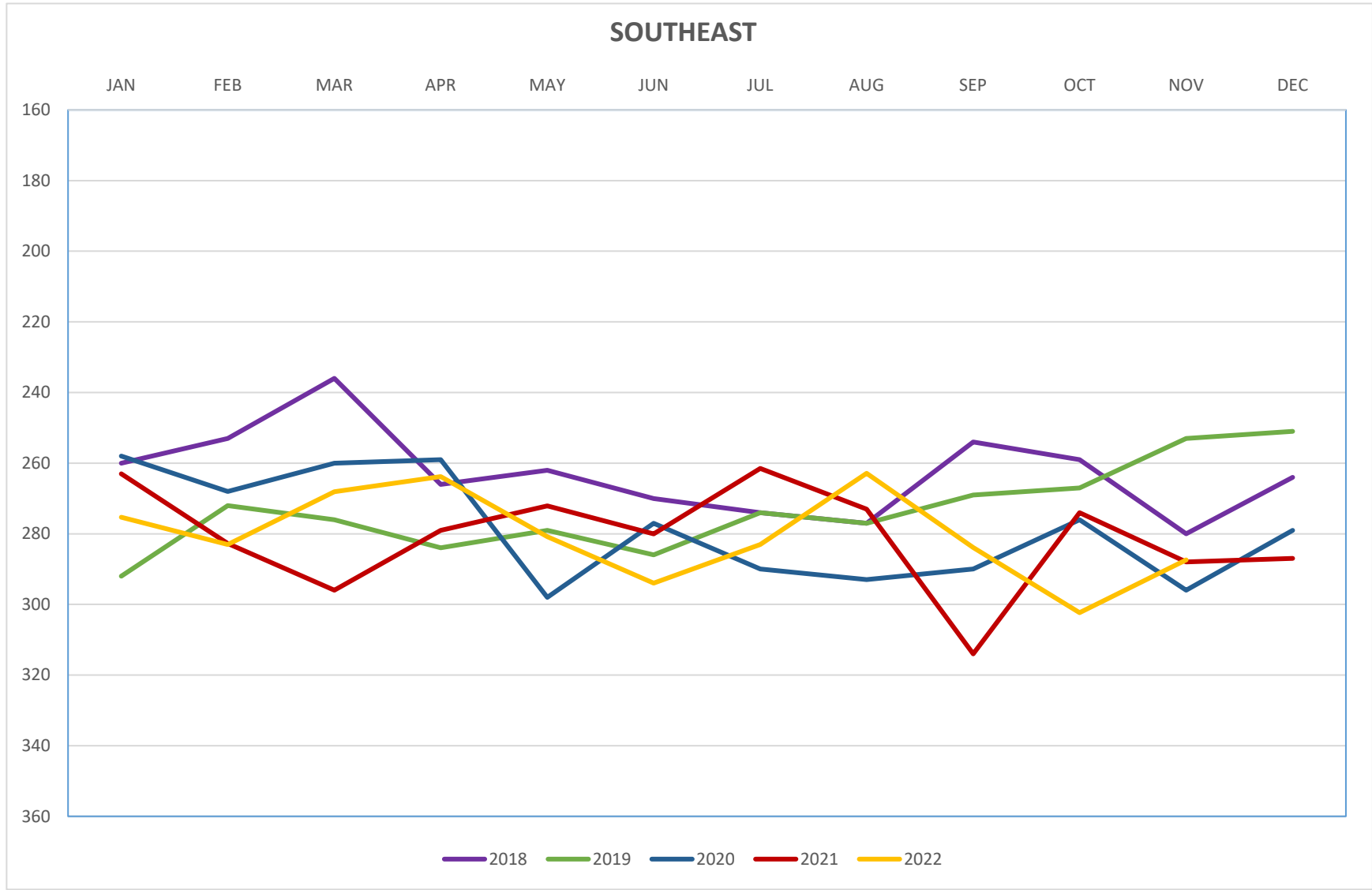
R = running well, no measurement taken

NR = temporary 'no reading', no measurement taken

yellow shading = inactive well

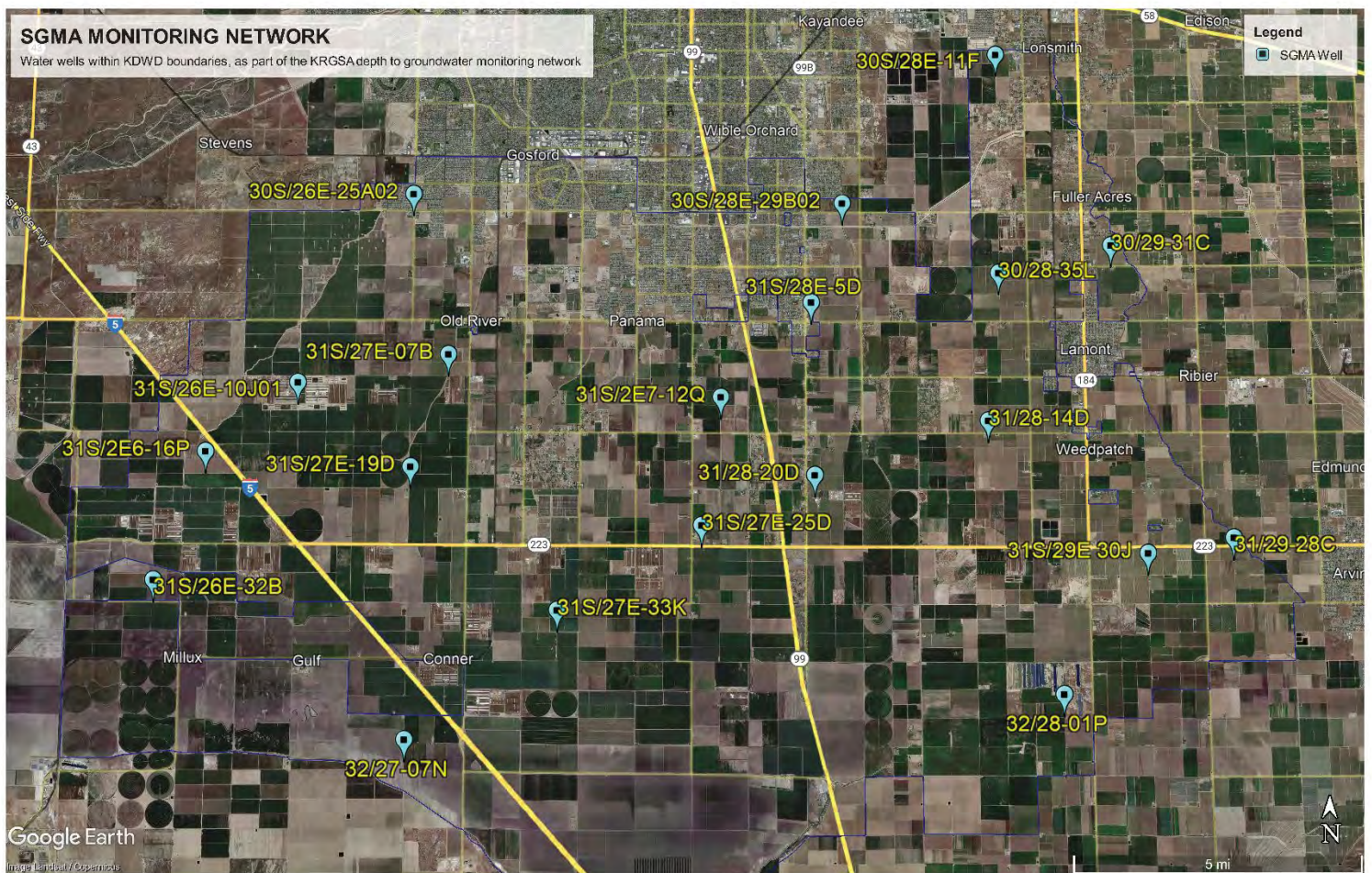
11/11/2022

2022





Monthly SGMA Wells Monitoring Report

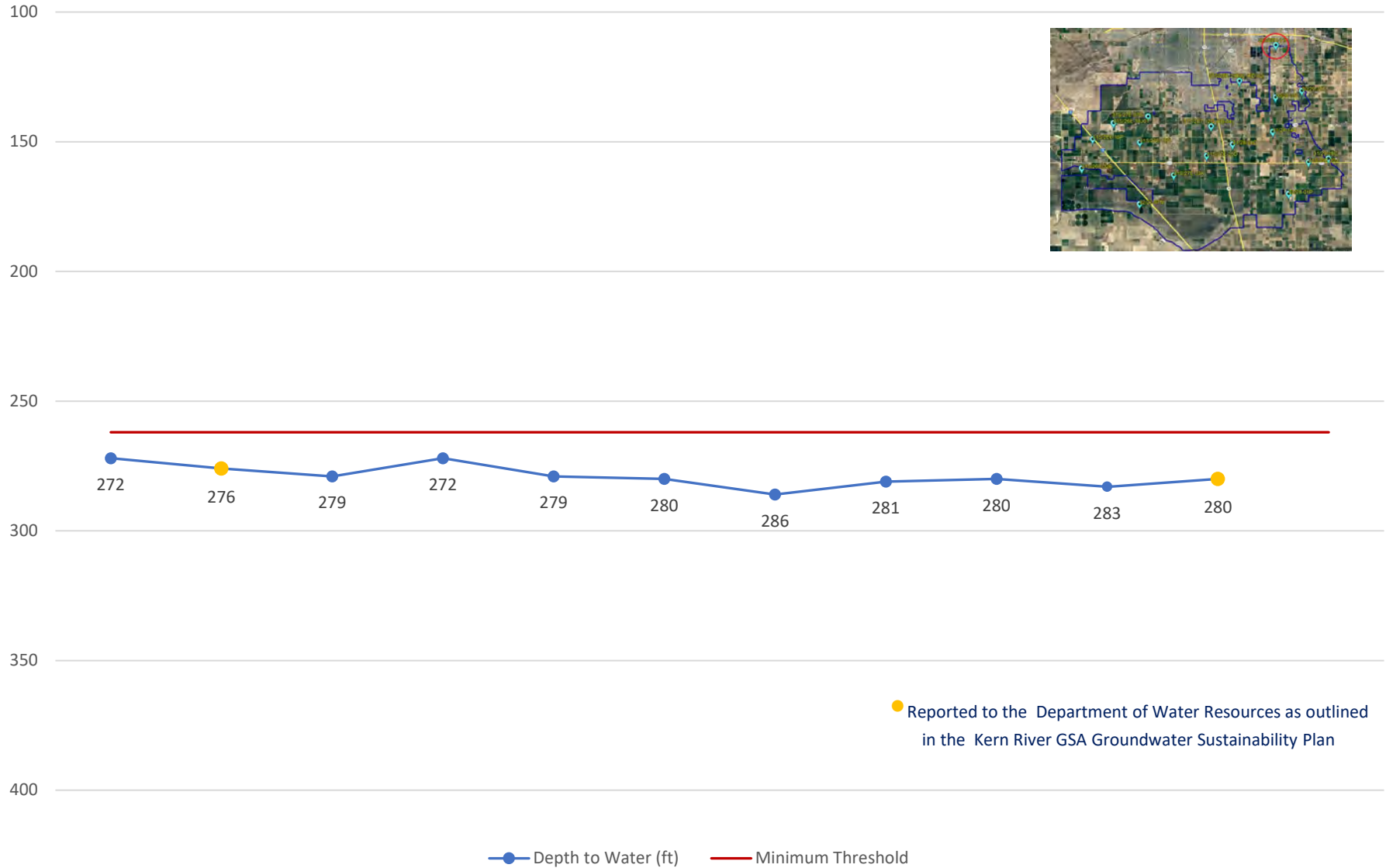


November 2022

RMW-030 30S/28E-11F

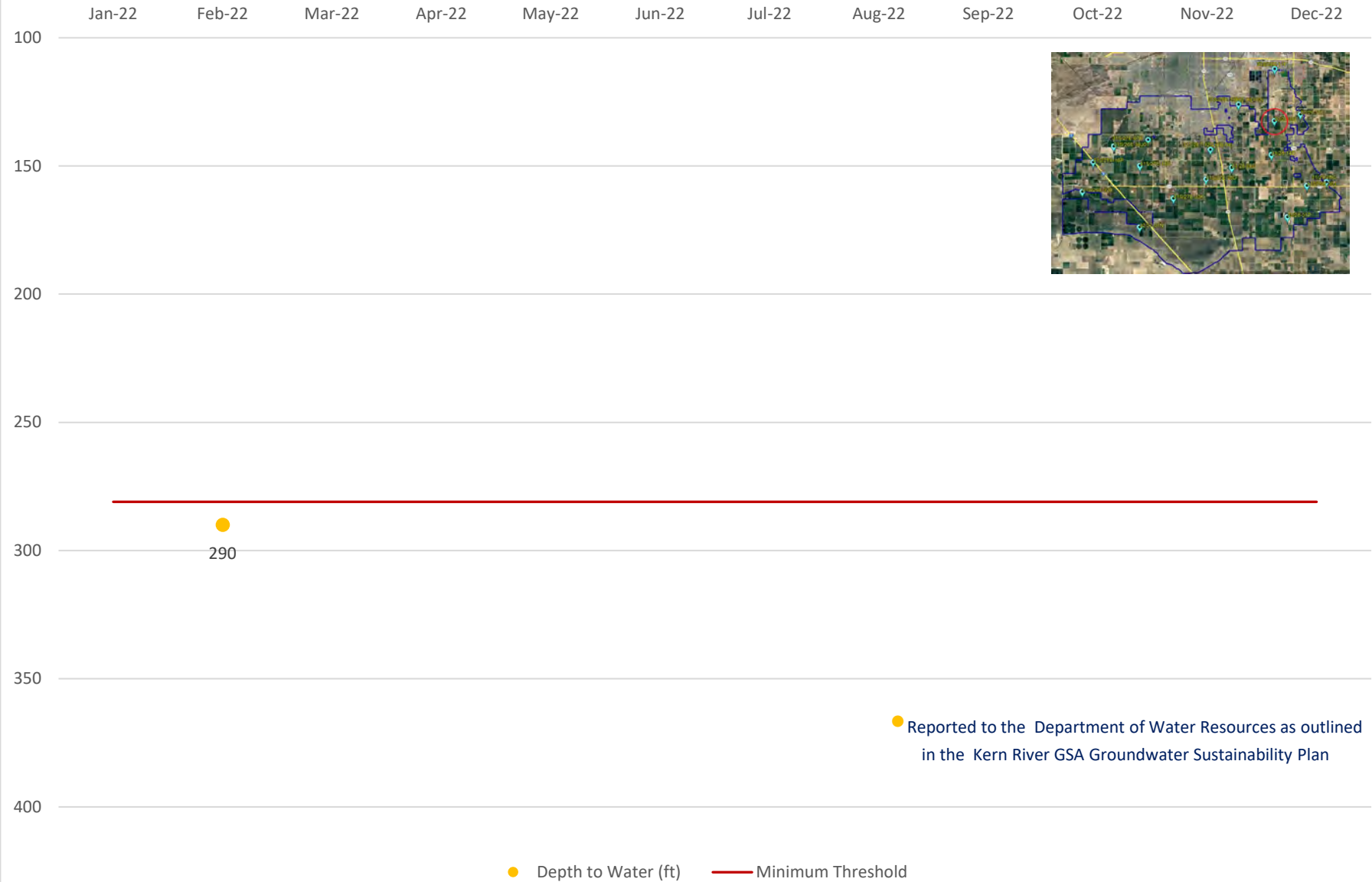
not to exceed 262' (depth to water)

Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22



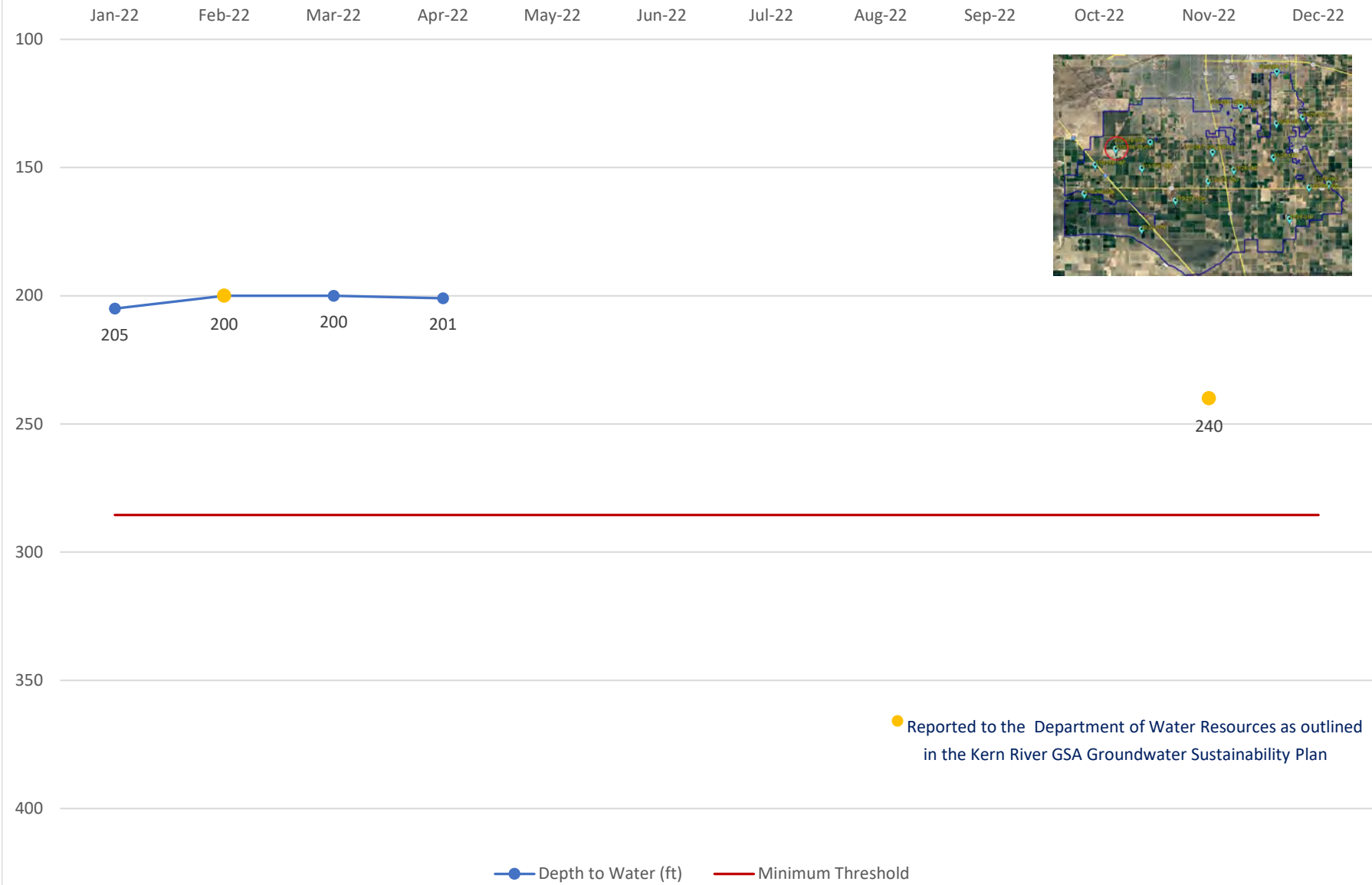
RMW-034 30S/28E-35L

not to exceed 281' (depth to water)



RMW-035R 31S/26E-10J

not to exceed 285.5' (depth to water)



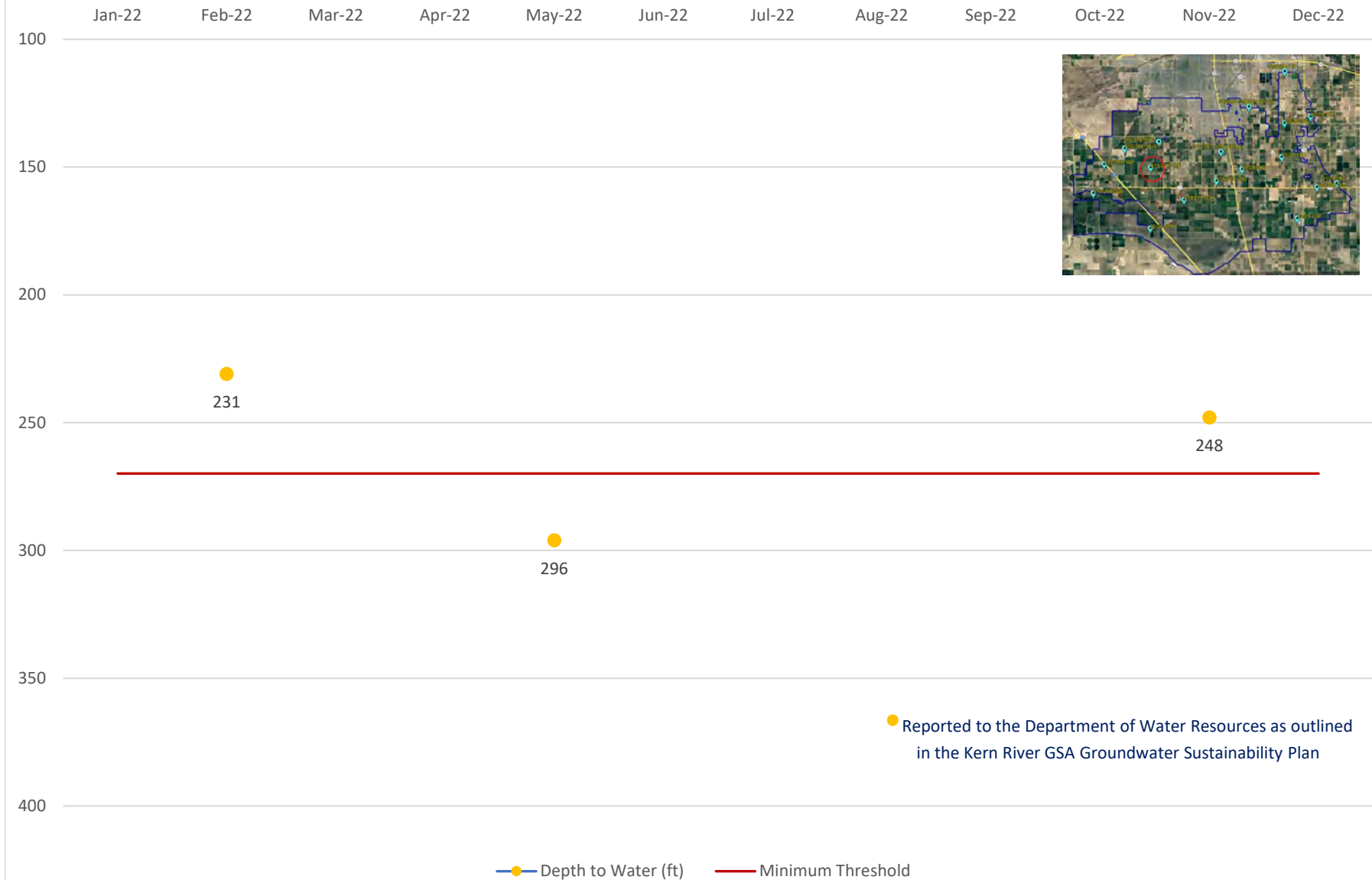
RMW-037 31S/26E-16P

not to exceed 293' (depth to water)



RMW-038 31S/27E-19D

not to exceed 269.9' (depth to water)



RMW-040 31S/27E-25D

not to exceed 250' (depth to water)



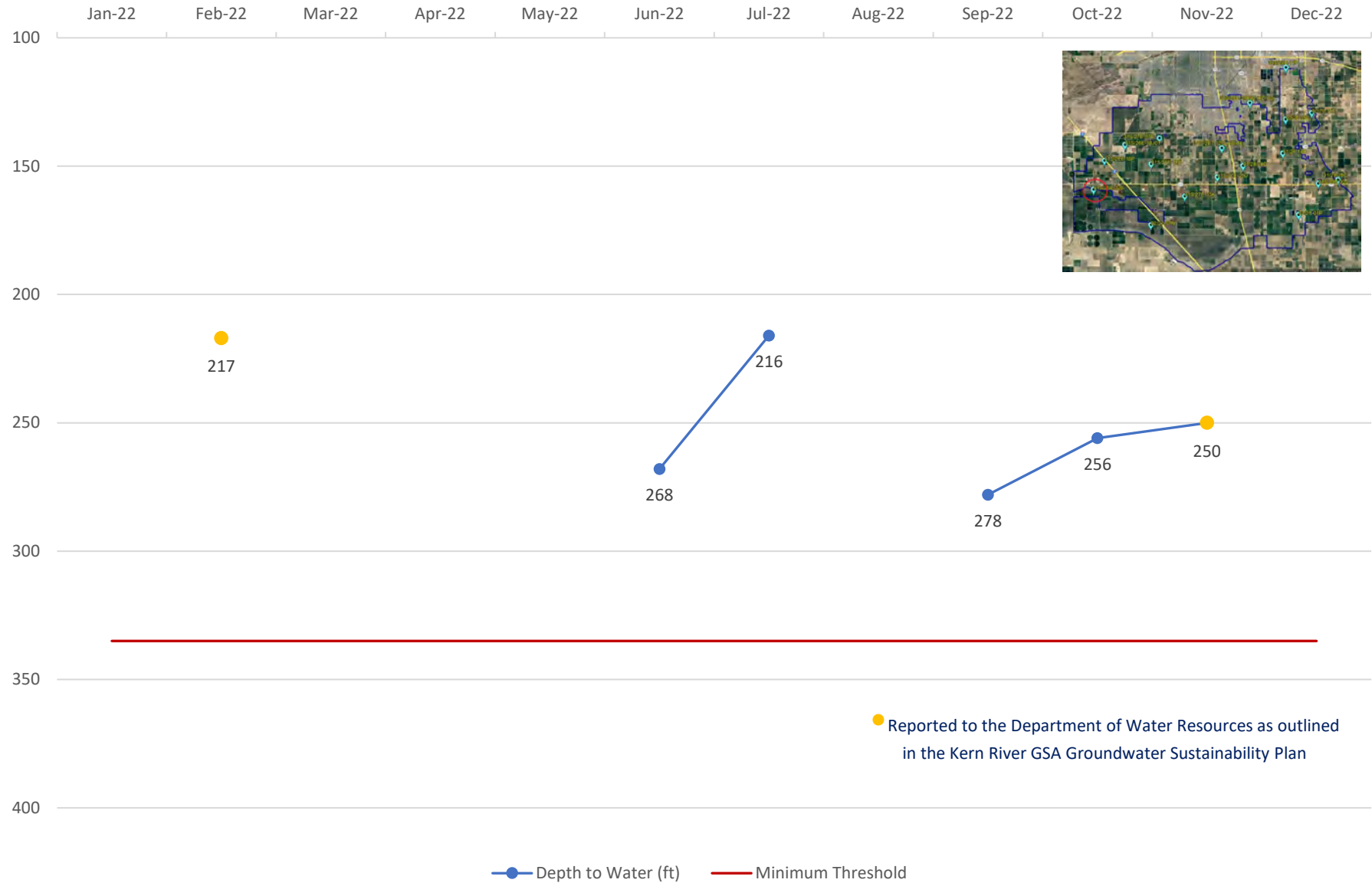
RMW-041 31S/29E-30J

not to exceed 336' (depth to water)



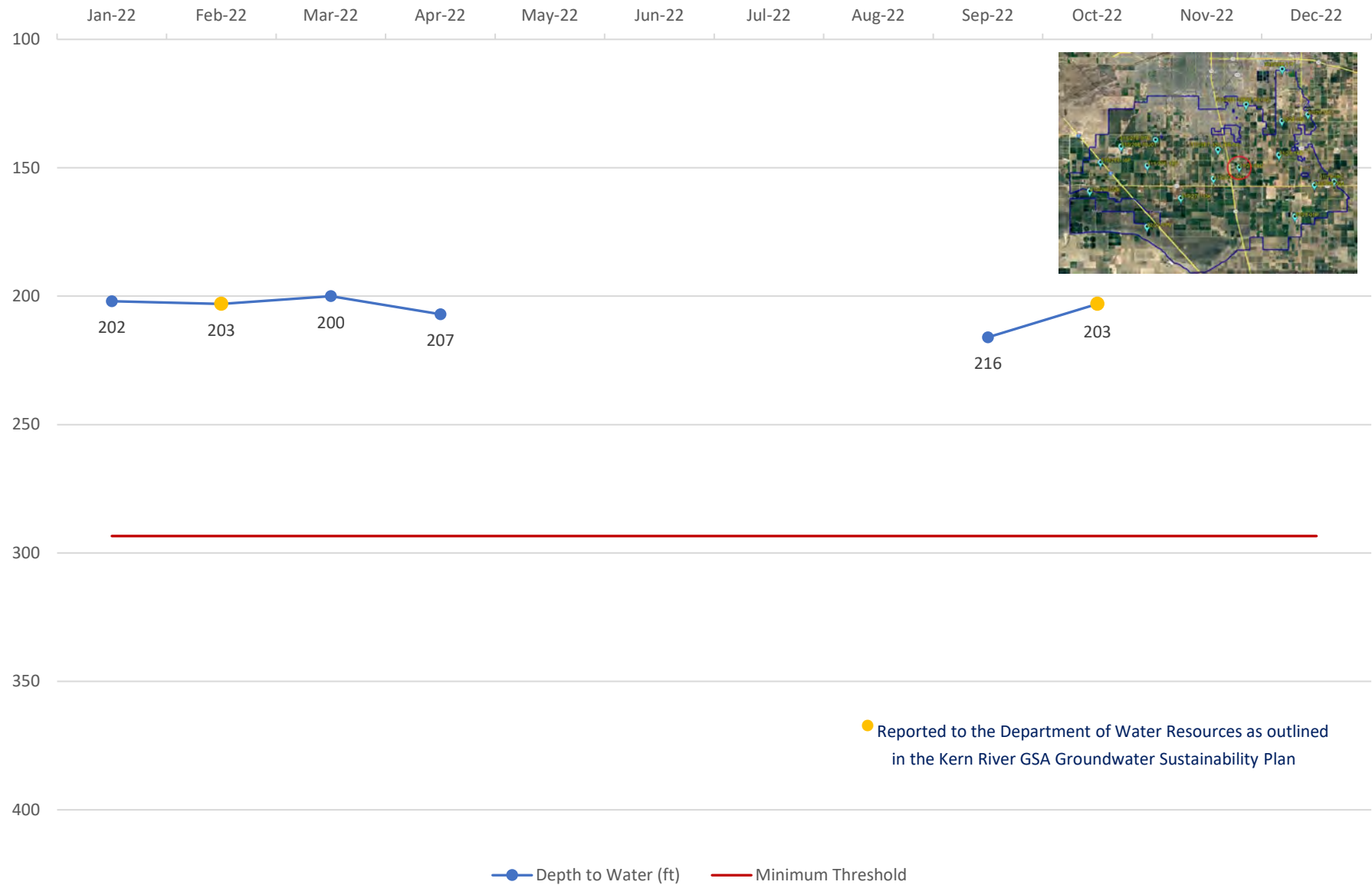
RMW-042 31S/26E-32B

not to exceed 335' (depth to water)



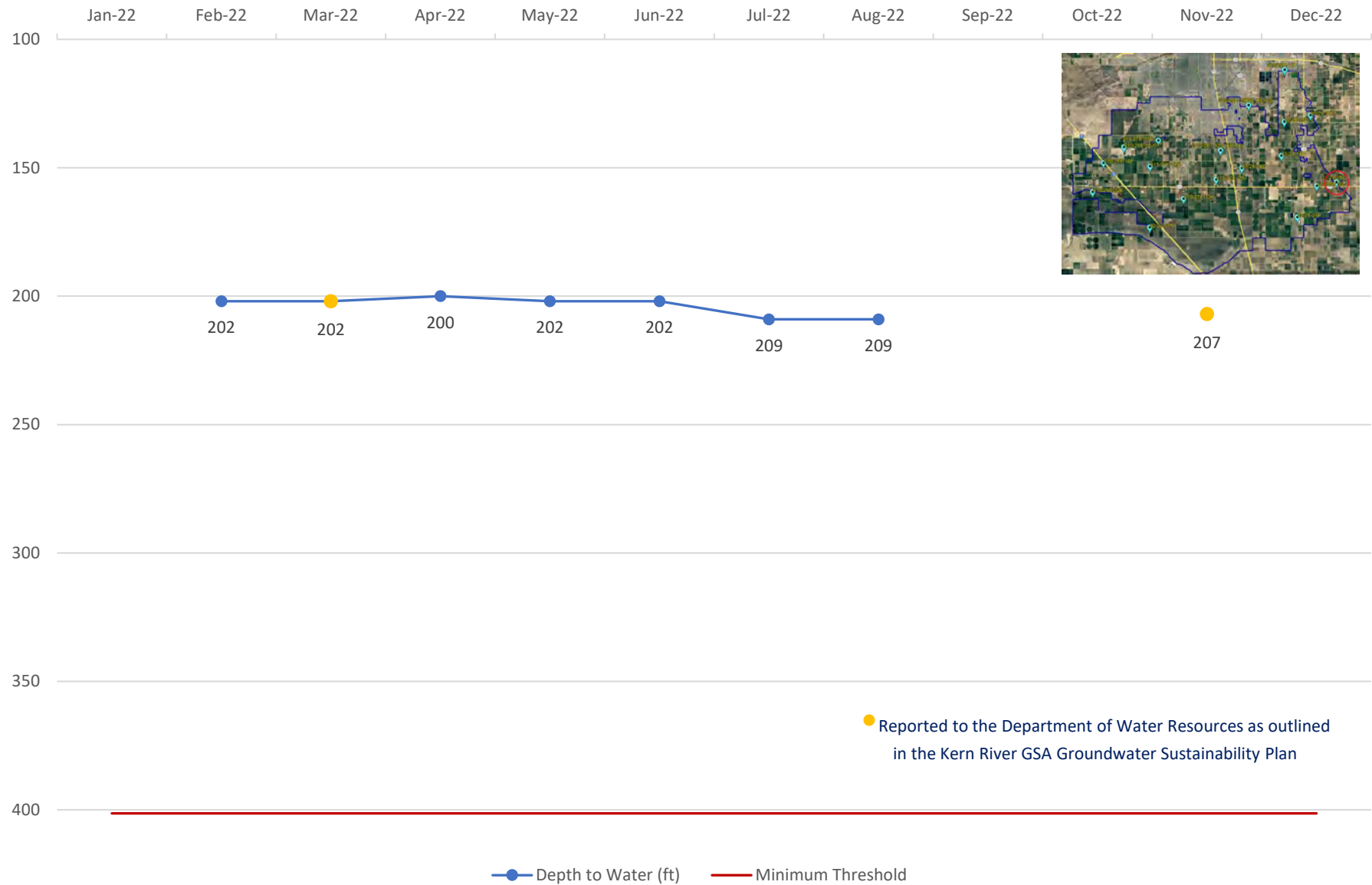
RMW-192 31S/28E-20D

not to exceed 293.4' (depth to water)



RMW-193 31S/29E-28C

not to exceed 401.4' (depth to water)



RMW-195 31S/27E-07B

not to exceed 276' (depth to water)



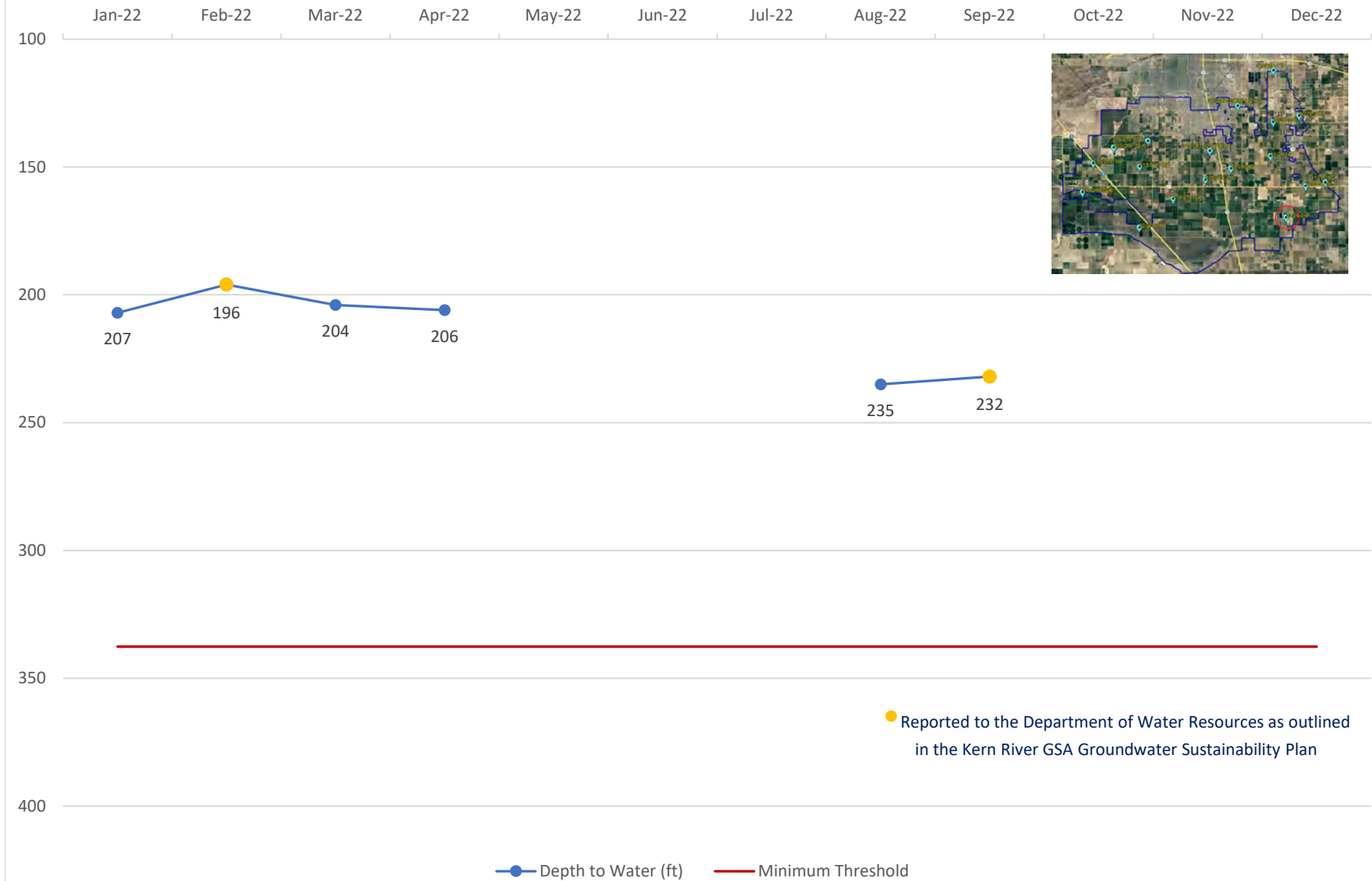
RMW-196 31S/27E-12Q

not to exceed 283' (depth to water)



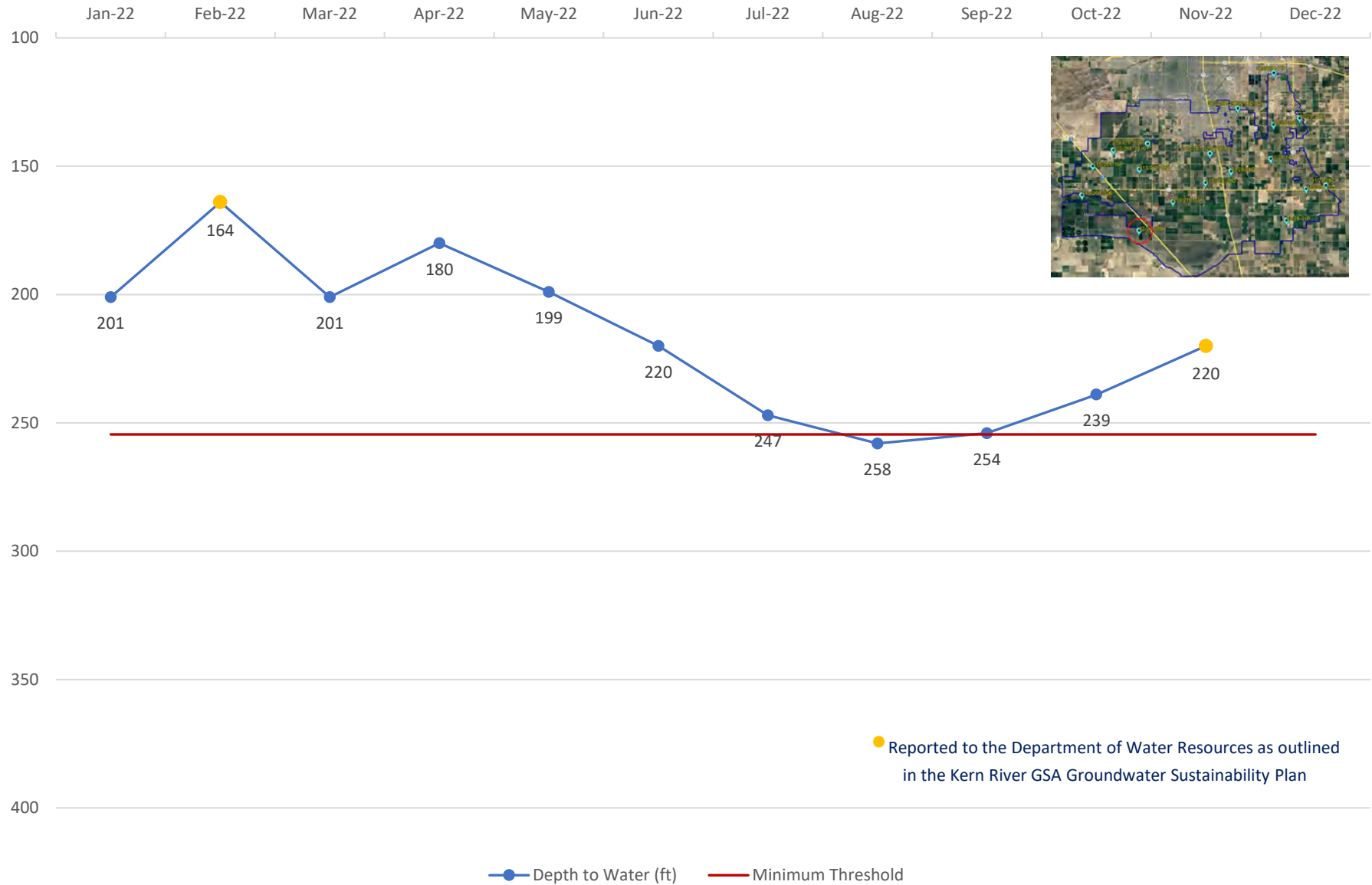
RMW-197 32S/28E-01P

not to exceed 337.6' (depth to water)



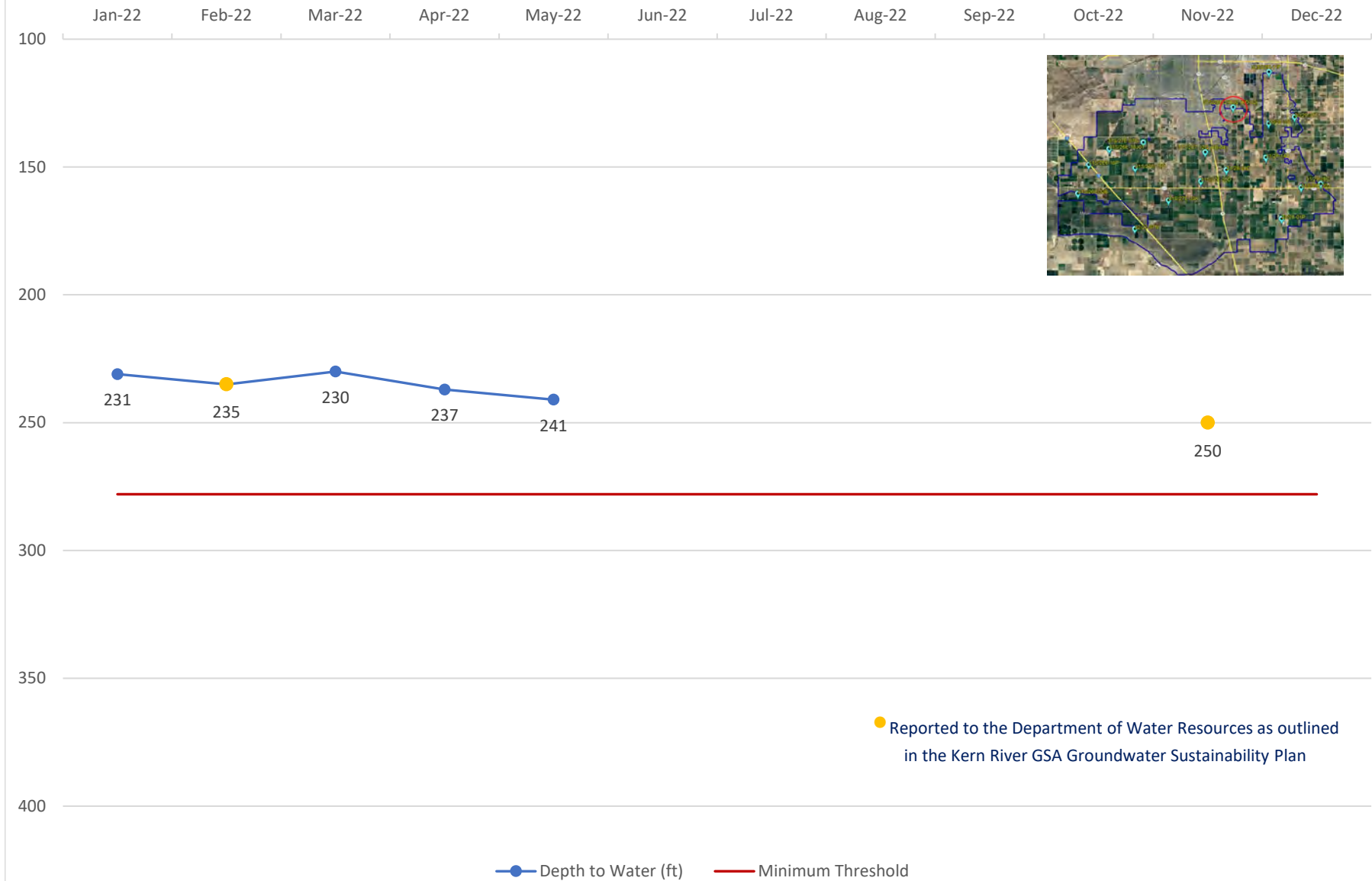
RMW-200 32S/27E-07N

not to exceed 254.5' (depth to water)



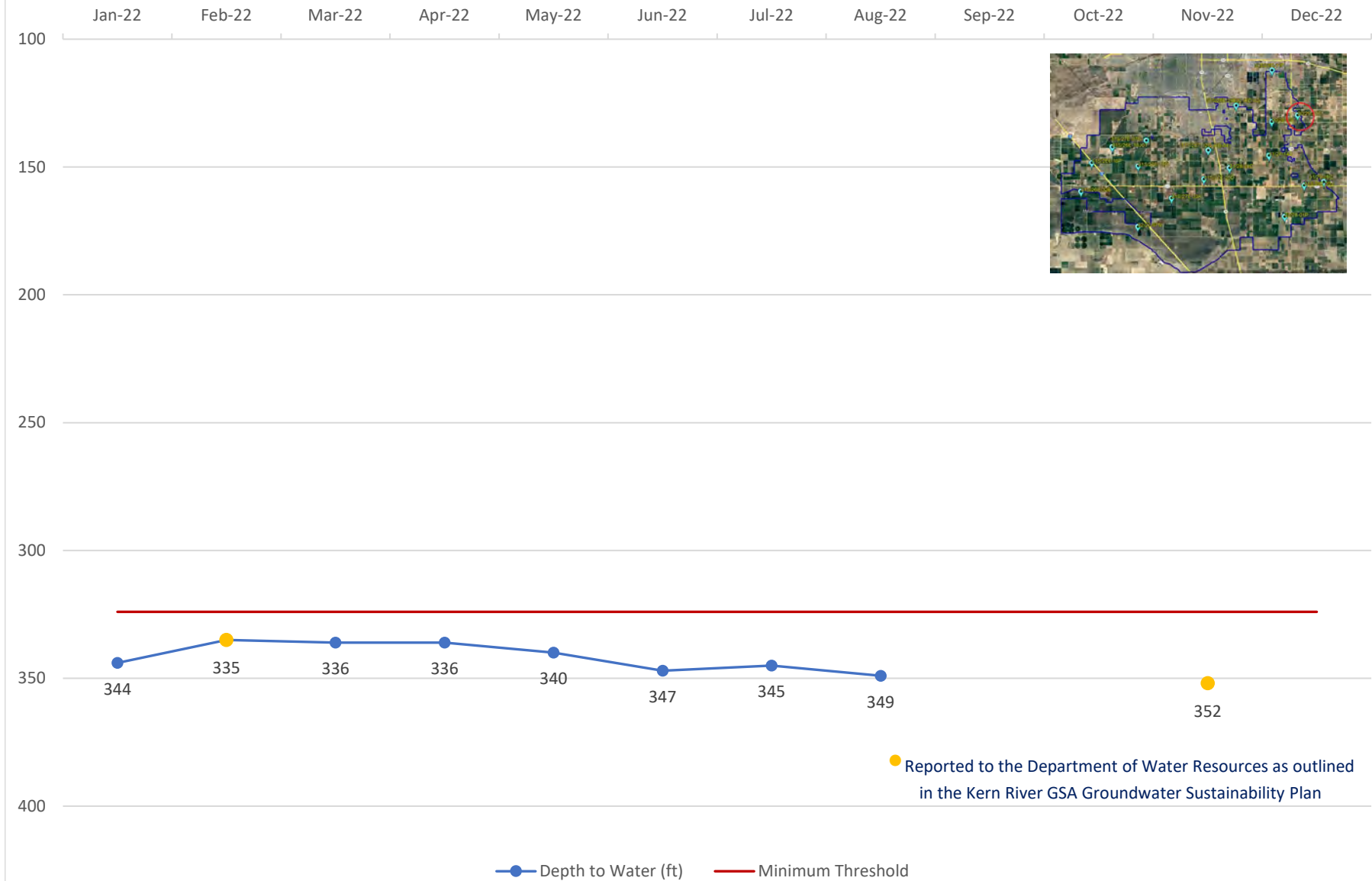
RMW-216 30S/28E-29B

not to exceed 278' (depth to water)



RMW-217 30S/29E-31C

not to exceed 324' (depth to water)



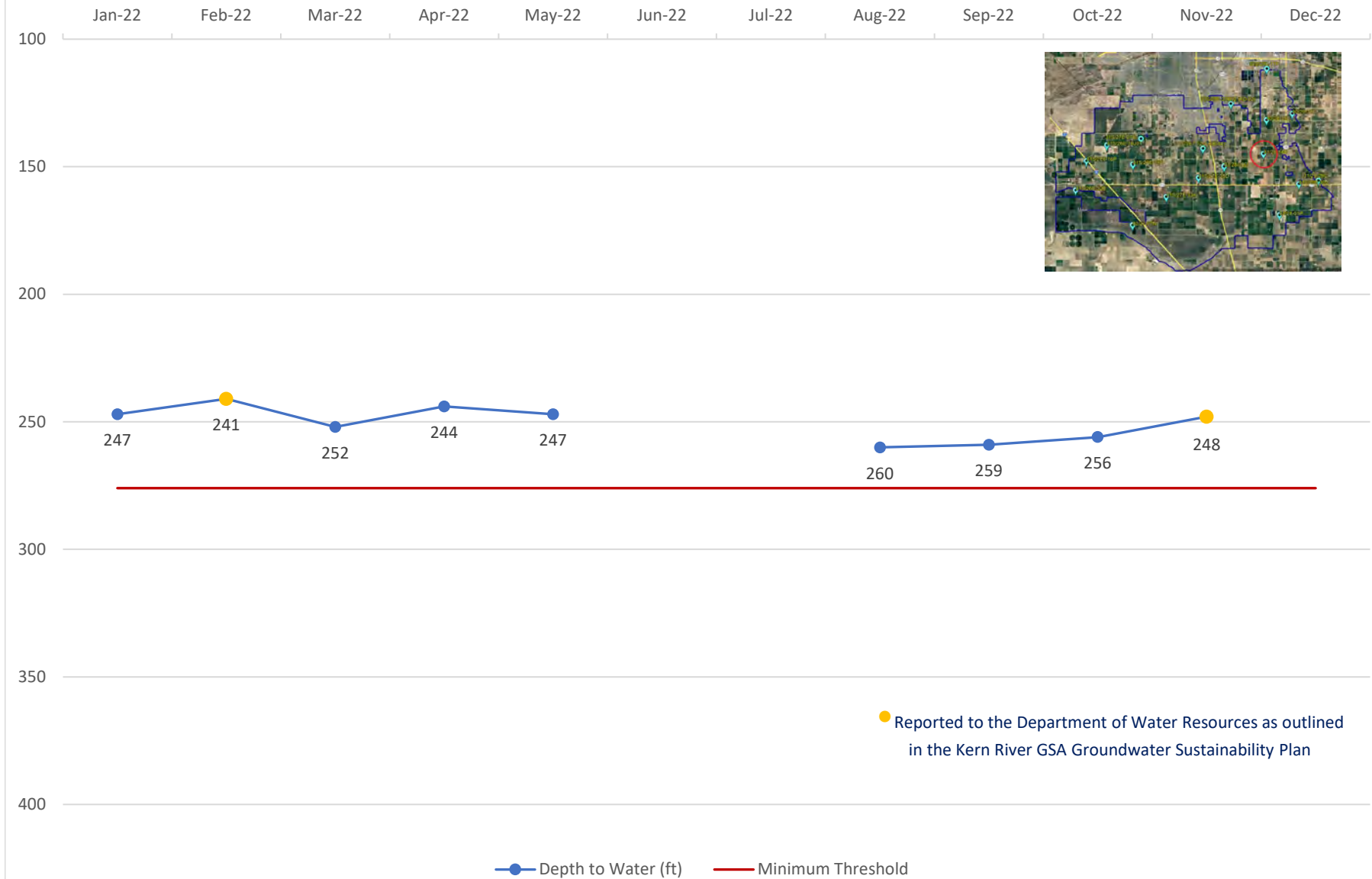
RMW-218 31S/27E-33K

not to exceed 202' (depth to water)



RMW-219 31S/28E-14D

not to exceed 276' (depth to water)



Tab VI





To: Kern Delta Water District Board of Directors

From: Steven Teglia – General Manager

Date: November 15, 2022

Re: Agenda Item VI B. – External Agency Report

RECOMMENDATION:

Receive report, informational item only.

DISCUSSION:

Staff participates in / monitors multiple external agency meetings monthly. Below is a summary including items of note from the various meetings:

[Kern County Water Agency:](#)

- The KCWA Board met October 27, 2022.
- Next meeting will be November 16, 2022.
- 2022 allocation for SWP – 5%.
- Delta Conveyance project timeline (attached).
- Summary of groundwater and overdraft correction accounts (attached).
- Holly Melton retiring end of November 2022.
- Report on 2022 State Water Project and Central Valley Project Allocations and Operations.

Kern Fan Authority:

- The KFA meeting of October 26, 2022 was canceled.
- 2022 Water Supply Review.
- Review of KCWA Board agenda.
- Local SGMA activities.
- Other activities (IRWMP/CVSALTS).

[Kern River Groundwater Sustainability Agency \(KRGSA\):](#)

- The KRGSA met November 3, 2022 (agenda attached).
- CASP Letter to KRGSA.
- Basin SGMA Implementation Grant update (Basin Study/Land IQ/Subsidence Monitoring/Monitoring Network Improvements) and approval of cost share.
- Authorization to participate in basin cost share for 2022 GSP annual report.
- Approval of 2023 KRGSA meeting calendar.

Kern Groundwater Authority (KGA):

- The KGA met October 26, 2022 (agenda attached).
- City of Shafter 30-day withdrawal letter.
- SWID & North Kern GSA formation discussion.

Kern River Watershed Coalition Authority (KRWCA)(ILRP):

- The KRWCA meeting of November 3, 2022 was canceled.
- Kern Water Collaborative Update.
- On Farm Drinking Water Well reports due Dec. 31, 2022 (BC Labs removed / BSK Labs added).
- Next meeting January 5, 2022.

South Valley Water Resources Authority:

- The SVWRA met November 4, 2022.
- Fish Friendly Diversion Pilot Project update/discussion regarding project funding.
- Blueprint activity update.
- 2023 Budget.

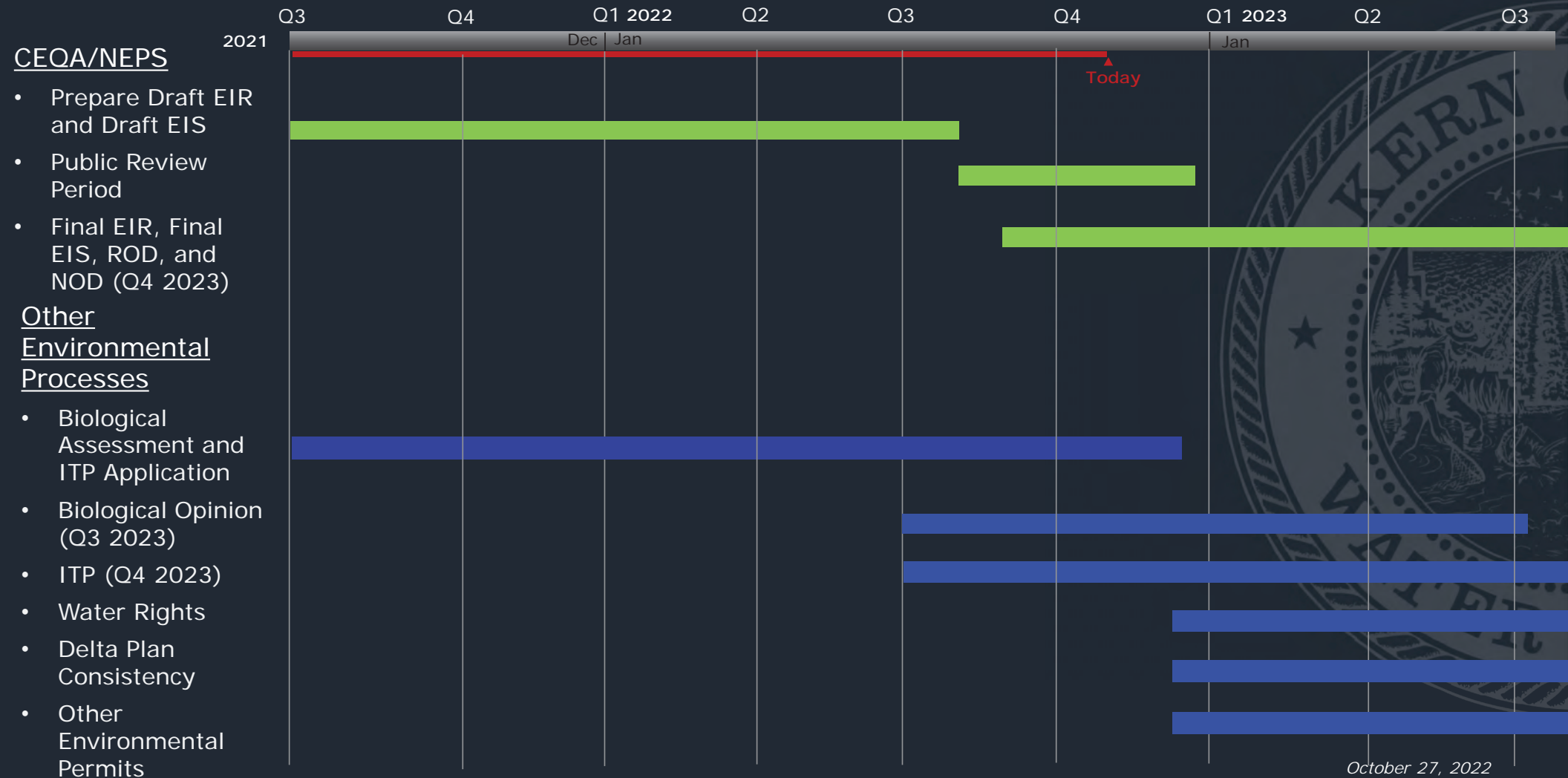
Integrated Regional Water Management Plan (IRWMP):

- No recent meetings.

Water Association of Kern County (WAKC):

- The WAKC met November 9, 2022 (annual meeting dinner).
- Water Leader of the Year: Dan Waterhouse
- Water Legacy Award: Gene Lundquist
- 2023 Water Summit planning.

Delta Conveyance Planning and Permitting Timeline



**Kern County Water Agency
Estimated Summary of Groundwater Bank Accounts
As of September 30, 2022**

Preliminary - Subject to Revision

Quantities in acre-feet

District	Estimated Balance as of December 31, 2021	Estimated Balance as of September 30, 2022					
		Pioneer Property	2800 Acres	Pioneer Project Subtotal	Berrenda Mesa	Kern Water Bank	Total
Belridge WSD	76,542	62,090	4,366	66,456	2,270	0	68,726
Berrenda Mesa WD	81,312	55,620	1,935	57,555	5,590	0	63,145
Buena Vista WSD	37,703	31,064	1,939	33,003	0	4,700	37,703
Cawelo WD	0	0	0	0	0	0	0
Dudley Ridge WD	40,084	0	0	0	0	33,864	33,864
Henry Miller WD	5,365	5,365	0	5,365	0	0	5,365
Improvement District No. 4	209,231	38,616	5,556	44,172	0	142,570	186,742
Kern County Water Agency	191,091	103,700	60,099	163,799	3,499	17,958	185,256
Kern Delta WD	23,285	23,285	0	23,285	0	0	23,285
Lost Hills WD	80,661	49,863	21,582	71,445	4,865	0	76,310
Rosedale-Rio Bravo WSD	37,391	22,391	0	22,391	0	0	22,391
Semitropic WSD	228,644	23,611	42	23,653	0	190,816	214,469
Tehachapi-Cummings CWD	5,820	0	0	0	0	5,820	5,820
Tejon-Castac WD	56,240	2,193	1,247	3,440	0	49,845	53,285
Westside Mutual Water Co.	330,591	0	0	0	0	251,204	251,204
Wheeler Ridge-Maricopa WSD	149,285	3,810	10,608	14,418	5,721	81,954	102,093
Total	1,553,245	421,608	107,374	528,982	21,945	778,731	1,329,658

**Kern County Water Agency
Estimated Summary of Overdraft Correction Accounts
As of September 30, 2022**

Preliminary - Subject to Revision

Quantities in acre-feet

District	Estimated Balance as of December 31, 2021	Estimated Balance as of September 30, 2022				
		Pioneer Property	2800 Acres	Pioneer Project Subtotal	Berrenda Mesa	Kern Water Bank ^[1] Total
Buena Vista WSD	46,247	39,246	0	39,246	0	7,001
Henry Miller WD	65,209	42,526	375	42,901	2,584	19,724
Kern County Water Agency	55,030	35,356	7,121	42,477	0	12,553
Kern Delta WD	80,079	57,032	409	57,441	1,508	21,130
Rosedale-Rio Bravo WSD	214,829	158,627	4,190	162,817	2,725	49,287
Total	461,394	332,787	12,095	344,882	6,817	109,695

^[1] Does not include purchase of 2011 4% reserve water.



Board Members:
Rodney Palla, Chair
Gene Lundquist
Bruce Freeman

KERN RIVER GSA REGULAR MEETING

Thursday, November 3, 2022
10:00 a.m.

City of Bakersfield Water Resources Department
1000 Buena Vista Road, Bakersfield CA 93311
Large Conference Room

AGENDA

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **PUBLIC STATEMENTS**
4. **APPROVAL OF MINUTES** of the October 6, 2022, Regular Meeting
5. **NEW BUSINESS**
 - A. Correspondence Received (City Clerk, Maldonado)
 - i. CASP Response Letter to KRGSA Amended GSP
 - B. Finance Updates (McKeegan)
 - ii. Receive and File Financial Report
 - C. Management Group Updates (Beard, Maldonado, Teglia)
 - i. Basin Coordination Committee Updates
 1. SGMA Implementation Grant Round 2
 - a. Update and adoption of Resolution Authorizing KGA to submit application for SGM Grant Program
 - b. Approval of basin cost share for grant application and administration
 2. 2022 GSP Annual Report
 - a. Authorization to participate in basin cost share for Todd Groundwater & Land IQ/ITRC
 - ii. Approval of 2023 KRGSA Meeting Calendar
6. **COMMITTEE COMMENTS**
7. **ADJOURNMENT**

KERN GROUNDWATER AUTHORITY

Regular Meeting of Board of Directors

October 26, 2022 8:00 a.m.

All parties/public may attend the meeting via teleconferencing and offer public comments by phone, using the call-in information below:

Zoom: <https://zoom.us/j/94634537623?pwd=OENoWTR3ZGdVZkJUVEqzS0l3NjRadz09>

Meeting ID: 946-3453-7623

Passcode: 348452

Telephone Dial-in: (669)900-6833

Kern Groundwater Authority Board of Directors Agenda

This meeting is held in accordance with the Governor's Executive Order N-29-20 and portions of the Brown Act pursuant to Section 54956 of the California Government Code and the Kern Groundwater Authority Joint Powers Agreement.

1. Roll Call - Quorum Determination

In the absence of a quorum of the Board the meeting will be adjourned.

2. Flag Salute

3. Public Input

This portion of the meeting is set aside to provide the public an opportunity to bring to the attention of the Board matters of which the Board may not be aware and which are not on the current agenda. No action can be taken on any matter raised during this portion of the meeting; however, a Board member may request that the matter be placed on any future agenda for further review and possible action. Members of the public may directly address the Board of Directors on any item of interest within the Board's subject matter jurisdiction, before or during the Board's consideration of the item. The President may limit the time allowed for comment.

4. Approval of Minutes

a. **September Regular Board Meeting Minutes***

5. Treasurer's Report

a. **Financial Report & Accounts Payable (Approve) –September***

6. Attorneys Report

- a. Discussion on the DWR Inadequate Letter to Tulare Lake Basin
- b. Discussion on the comment letter submitted – Racial Equity Action Plan

7. Executive Director Report

- a. **Discussion & approval - Aquilogic Proposal to assist KGA in subsidence***
- b. **Discussion & approval - Last Cash Call for 2022 Budget***

-
- c. Discussion Shafter-Wasco Irrigation District to become a GSA*
 - d. Discussion North Kern Water Storage District to become a GSA*
 - e. Discussion & approval for the Implementation Grant Resolution – Second Round
 - e. Accomplishments & Forward Work Plan

8 New Business

This Portion of the Meeting is set aside to provide each Board member an opportunity to bring to the attention of other Board members and the public matters which have come to their attention and/or which may be appropriate for future consideration. No action can be taken on any matter raised during this portion of the meeting; however, a Board member may request that the matter be placed on any future agenda for further review and possible action.

9. Correspondence

- a. City of Shafter – 30-day Withdrawal Letter from KGA

10 Closed Session

- a. Conference with Legal Counsel – Potential Litigation: Closed Session pursuant to Government Code Section 54956.9(d)(2), (e)(2)(two matter)

11 Adjournment

A person with a qualifying disability under the Americans with Disabilities Act of 1990 may request the Authority provide disability-related modification or accommodation in order to participate in any public meeting of the Authority. Such assistance includes appropriate alternative formats for the agendas and agenda packets. Requests should be made in person, by telephone, facsimile and/or written correspondence to the Authority office, at least 48 hours before a public Authority meeting. Written materials related to an item on this agenda to be considered in open session that are public documents and that are distributed to board members after the posting of the agenda, will be made available for public inspection when they are so distributed at the office of the Authority located at 1800 30th Street, Ste #280, Bakersfield, California during normal business hours. Documents that are public documents provided by others during a meeting will be available at the same location during business hours after the meeting.



To: Kern Delta Water District Board of Directors

From: Steven Teglia – General Manager

Date: November 15, 2022

Re: Agenda Item VI C. – Water Banking Projects Report

RECOMMENDATION:

Receive report, informational item only.

DISCUSSION:

Below is a summary of activities of note related to various water banking projects/activities of interest to the District.

Kern Fan Recovery Activity:

- As of November 8, 2022, Kern Fan groundwater recovery was approximately 494cfs from 156 wells, as reported via KCWA weekly call.
- See attached graphs provided by KCWA for 2022 Kern Fan recovery information through September 30, 2022.

Pioneer Participant Meeting:

- The Pioneer Project Participants met November 10, 2022.
- Update/overview of pending projects.
- Approval of 2023 Pioneer Project Budget.

Kern Fan Monitoring Committee:

- The Kern Fan Monitoring Committee meeting of September 21, 2022 was canceled.
- Update on reports.
- Review of water level monitoring hydrographs.
- Next meeting January 18, 2023

KDWD Water Banking Project:

- MET has provided the District with an official request for the return of regulated water for calendar year 2022. The District has initiated the return of regulated water to MET via several exchanges. This includes exchanges with ID-4 and a three-party exchange with Rosedale Rio Bravo and Arvin Edison.
- SBVMWD has requested the return of regulated water for calendar year 2022. The District has scheduled this return via the exchanges listed above.
- MET has further notified the District that they intend to call for the return of regulated water in 2023 as well. District staff is planning for this request.

- Currently, all in District recovery activities are complete for 2022. We will be initiating recovery of previously banked water early in 2023 per the request received.

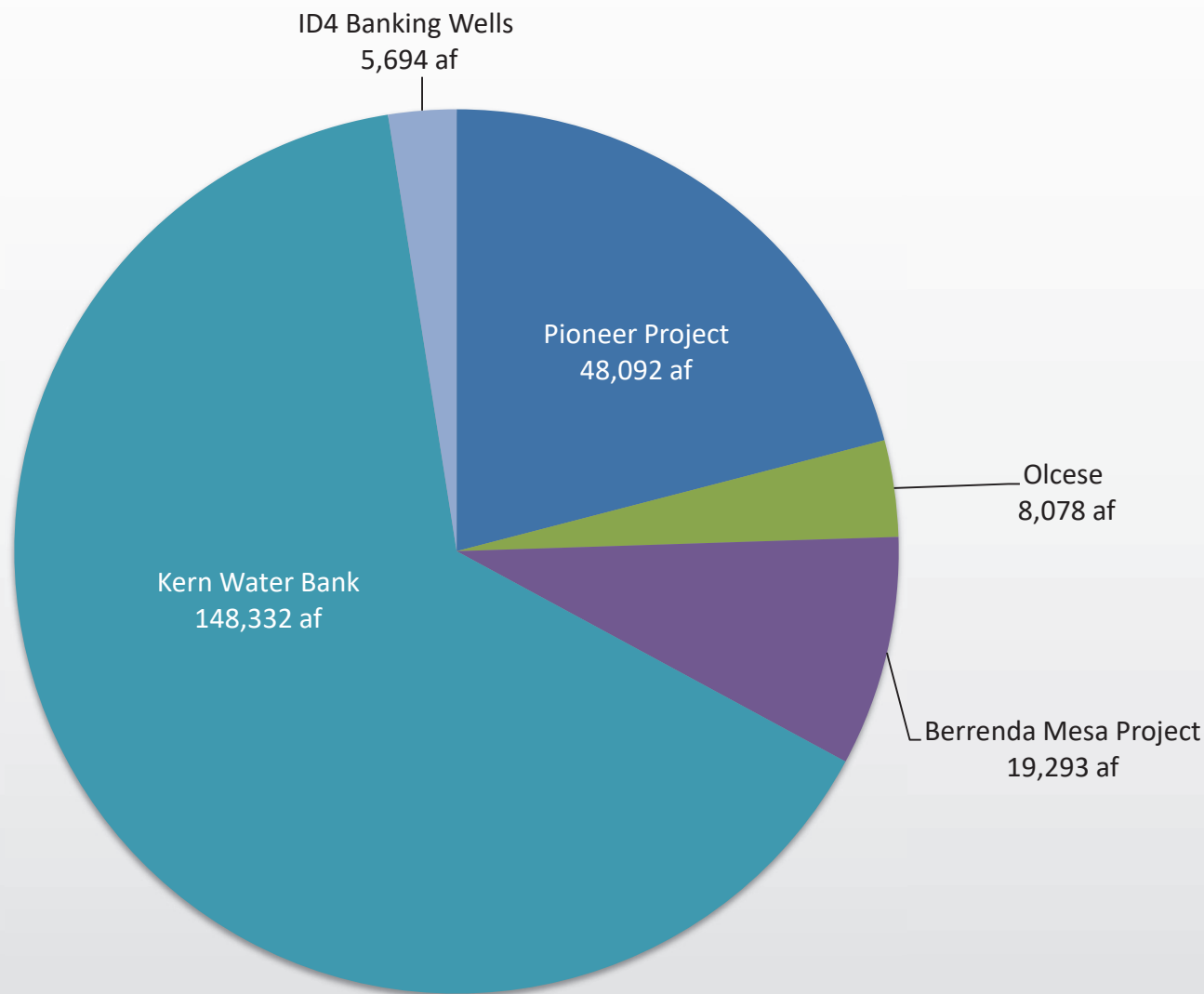
Cross Valley Canal Advisory Committee:

- The CVC Advisory Committee met October 17, 2022.
- Update on Pre-Expansion Hydraulic Analysis Study.
- KCWA/DWR analysis of loss calculations.
- Discussion regarding Kern Fan Groundwater Storage Project CVC Alternative.
- See attached graphs provided by KCWA regarding CVC utilization.

Kern Fan Banking Projects

2022 Estimated Gross Recovery by Project

Through September 30, 2022

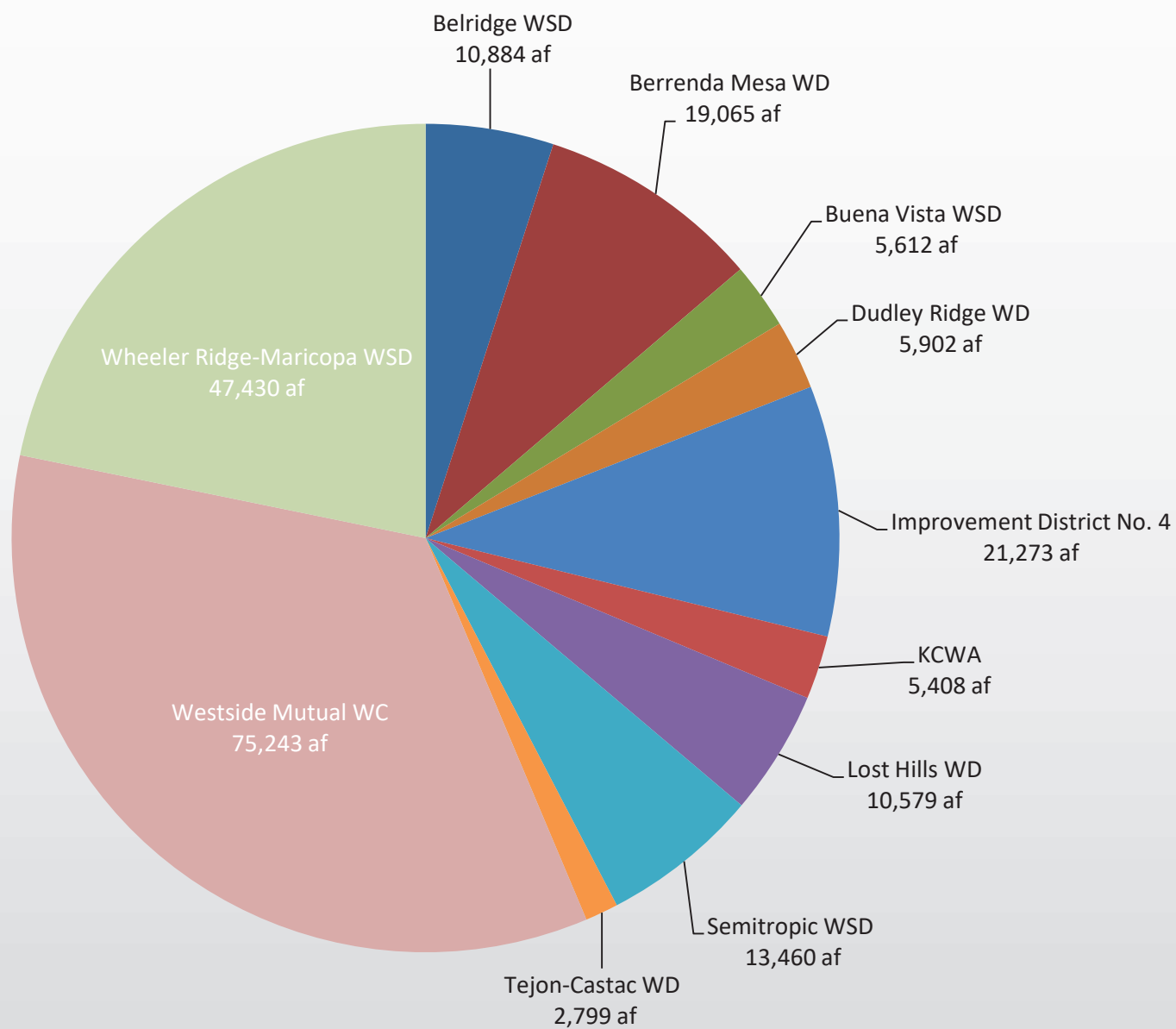


Total Gross Recovery 229,489 af

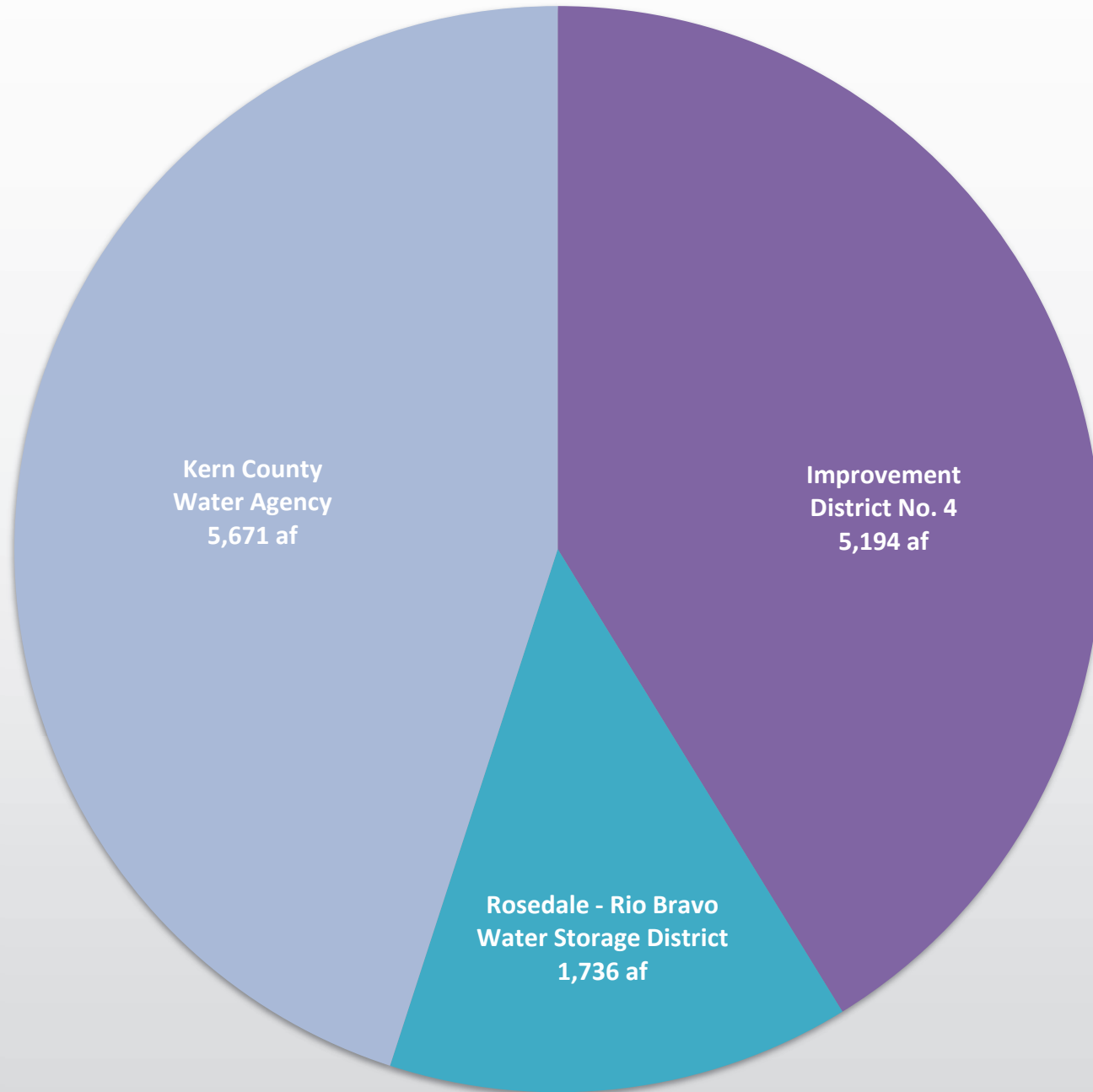
Kern Fan Banking Projects

2022 Estimated Recovery by Participant

Through September 30, 2022

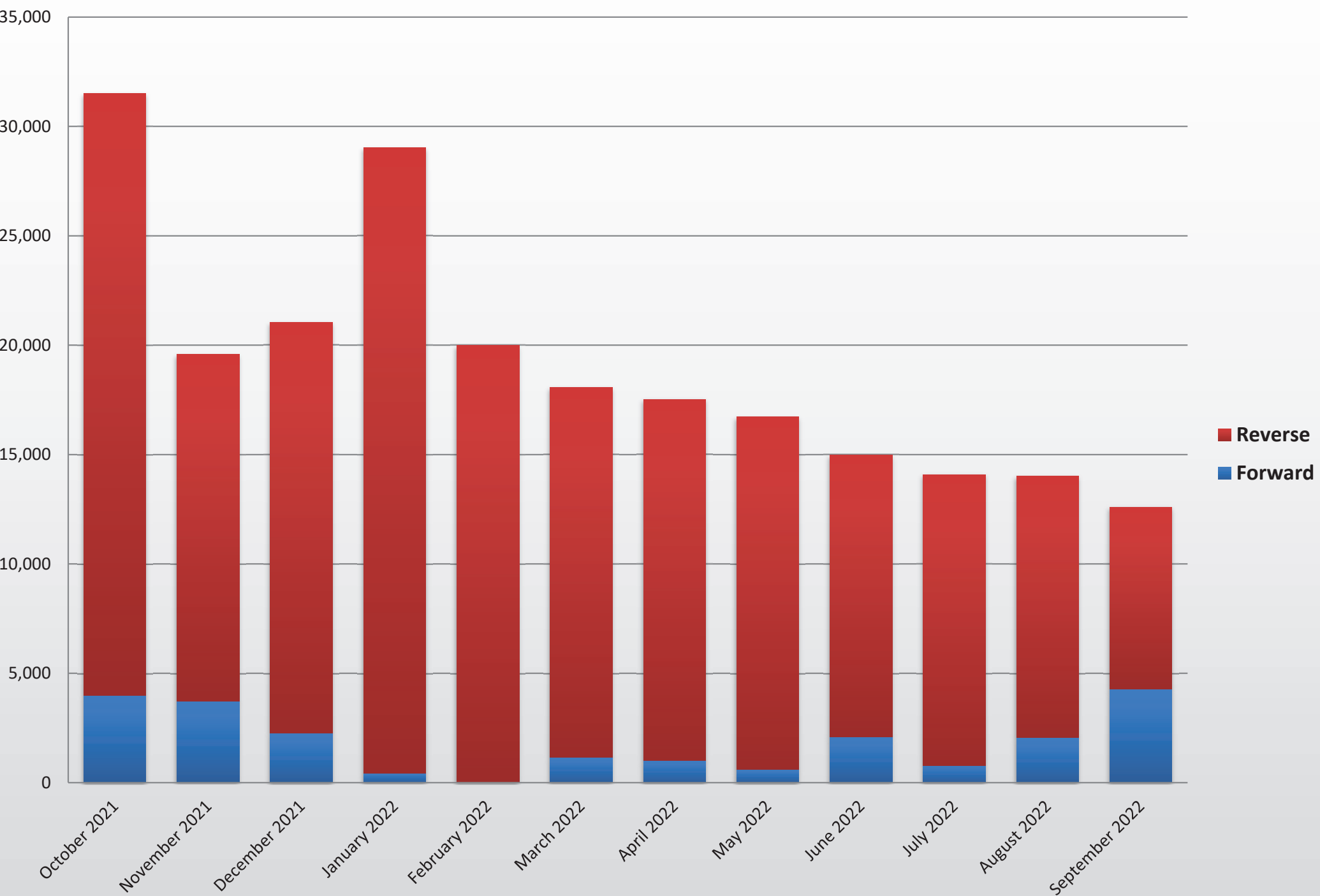


**Cross Valley Canal
September 2022 Deliveries
Total deliveries 12,601 af**



Cross Valley Canal

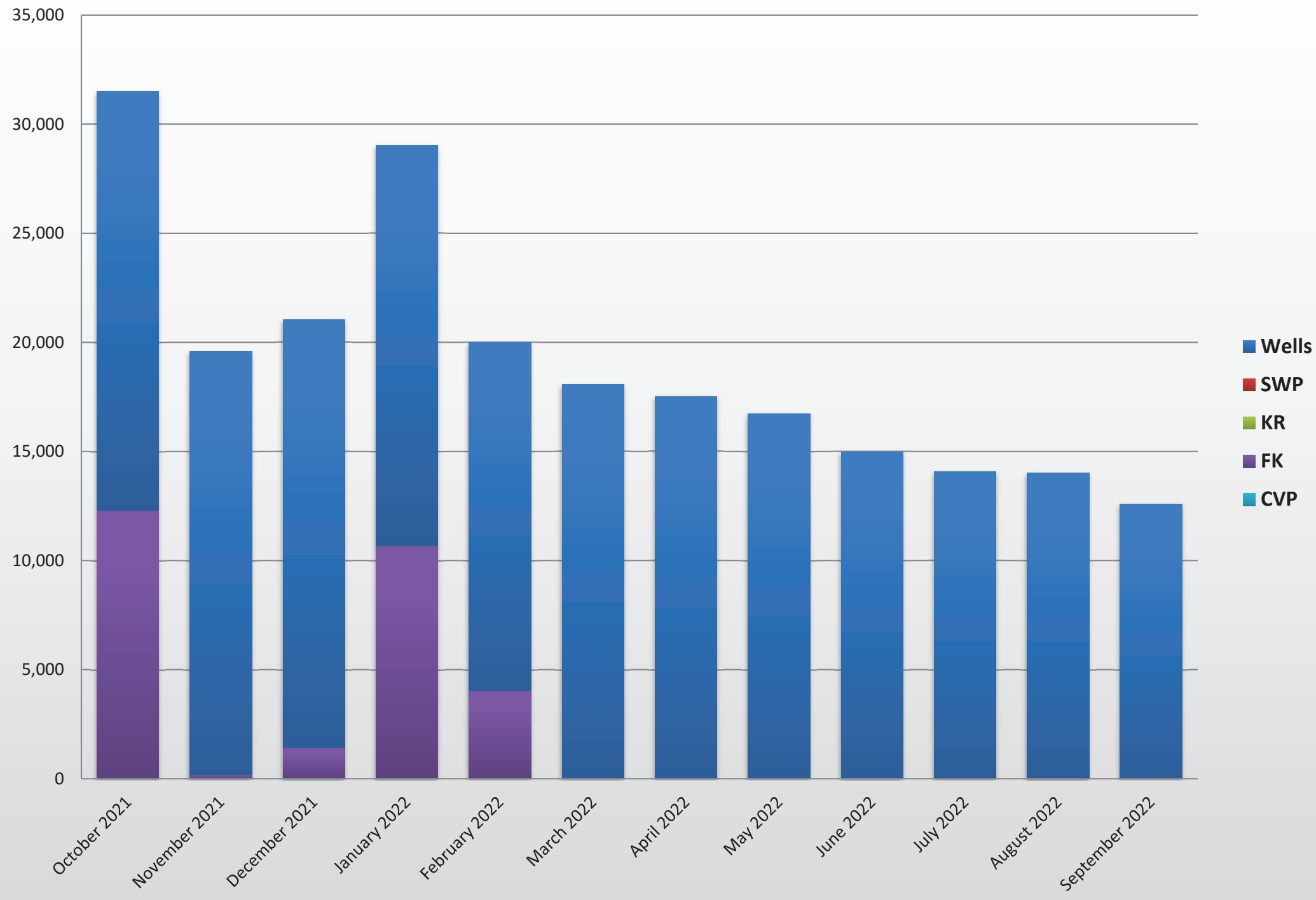
Twelve Month Delivery by Direction

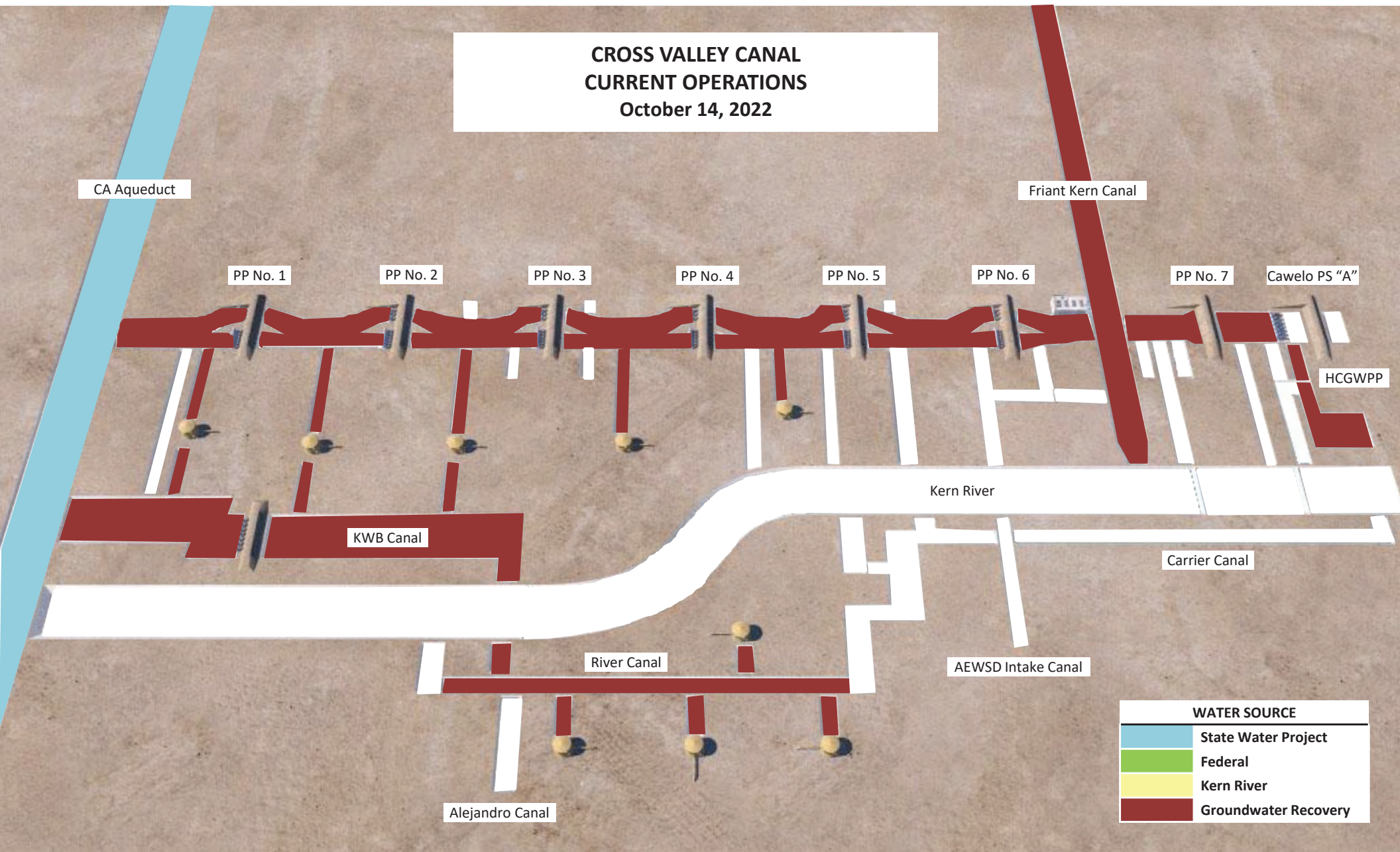


Cross Valley Canal

Twelve Month Delivery by Source

Attachment 3





Cross Valley Canal
Pump and Flow Configuration
 Last Updated on October 17, 2022

'A' Pumping Plants												'B' Pumping Plants					Total cfs
		A	B	C	D	E	F	G	H	J	Total cfs	K	L	M	N	Total cfs	
Pumping Plant No. 1	Estimated Horsepower	100	250	565	565	565	565	250	100			800	800	800			
	Estimated Flow Rate (cfs)	31	70	180	180	180	Reverse Flow	70	31		742	167	167	167		500	1,211
Pumping Plant No. 2	Estimated Horsepower	100	250	565	565	400	565	250	100			700	700	700			
	Estimated Flow Rate (cfs)	Service	70	180	180	Service	Reverse Flow	70	31		562	167	167	167		333	895
Pumping Plant No. 3	Estimated Horsepower	100	250	565	565	565	250	100	250	100		700	700	700			
	Estimated Flow Rate (cfs)	31	70	180	Service	180	70	31	70	31	843	167	167	167		500	1,343
Pumping Plant No. 4	Estimated Horsepower	100	250	565	565	565	250	100	250	100		700	700	700			
	Estimated Flow Rate (cfs)	31	70	180	180	180	70	31	70	Service	812	167	167	167		500	1,312
Pumping Plant No. 5	Estimated Horsepower	100	250	565	565	565	250	100	250	100		700	700	700			
	Estimated Flow Rate (cfs)	31	70	180	180	180	70	31	70	31	843	Service	Service	Service		0	843
Pumping Plant No. 6	Estimated Horsepower	100	250	565	565	565	250	250	100			200	600	600	350		
	Estimated Flow Rate (cfs)	31	70	180	180	180	70	70	Service		781	40	193	193	90	302	1,276
Pumping Plant No. 7	Estimated Horsepower	100	250	250	250	250	100										
	Estimated Flow Rate (cfs)	31	70	70	70	70	Service				311						311