

ARVIN-EDISON WATER STORAGE DISTRICT

REPORT OF DISTRICT OPERATIONS

April 2021



*Existing Irrigation Pipeline Removal
(Sunset Groundwater Recharge Facility)*

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WATER SUPPLY

Friant Division Central Valley Project (CVP)

- The 2021 Water Year allocation is as follows:
 - 20% Class 1 (8,000 AF)
 - 0% Class 2
- Exhibit “A” provides additional supply information for 2021 Water Year supplies

San Joaquin River Restoration Program (SJRRP)

- The 2021 Runoff Year is estimated at 642,000 AF of natural river runoff in the SJR watershed, which is a “Critical-High” year type pursuant to SJR settlement and accordingly, the SJRRP would receive 70,919 AF of water supply.
- Given a “Critical-High” year there is likely no Unreleased Restoration Flows or Recapture/Recirculation opportunity (no additional supplies to Contractors).
- Provided continued dry conditions, the SJRRP has called on AEWSD’s 2016 exchange agreement of up to 7,000 AF in 2021 and consequently the SJRRP would provide 21,000 AF in return for such exchange.
- District’s RWA credit beginning balance is approximately 90,630 AF (subject to reconciliation and staff review). RWA credits allow the District to purchase water for \$10/AF during wet periods when RWA water is declared (no opportunity in 2020).

Shasta System CVP

- The 2021 allocation for south of Delta Ag remains at 5%, however the USBR noticed contractors the 5% could not be scheduled for delivery until further notice.

State Water Project (SWP)

- The 2021 Table A allocation remains 5%

Kern River

- 2021 supplies are currently estimated at 25% of average

Water Bank Facilities

- Given limited initial surface supply allocations, heavy reliance on wellfields and previously banked water is expected for the 2021 Water Year (111,000 AF)

Metropolitan Water District (MWD) Water Management Program

- MWD beginning balance is 142,257 AF in water bank reserves
- The District obtained its eleventh consecutive year approval from the State Water Resources Control Board regarding a Petition for a Consolidated Place-of-Use (CPOU), which now expires on July 15, 2021
- The CPOU petition includes the ability to exchange all types of Arvin-Edison supplies with MWD including unbalanced exchanges
- The District’s 10-year NEPA documentation is complete and approved until March 21, 2024. Staff, along with MWD, DWR, and Reclamation continue pursuit of a long-term CPOU approval through November 2035
- District has begun communicating with MWD staff regarding 2021 call on the program for surface water supplies

Rosedale-Rio Bravo Water Management Program

- The District's 2021 beginning account balance for water held in RRBWSD is at 64,462 AF.
- District anticipates receiving 10,000 AF from the program to supplement other surface water supplies, which would reduce the account to 54,462 AF.
- Districts executed a 2021 Use of CVC/FKC Intertie Agreement for the RRBWSD-Delano Earlimart banking program.

Kern Delta Water District

- Staff continues negotiations with KDWD staff to advance water management opportunities including joint partnership in groundwater recharge facilities and additional interconnection facilities.
- AEWSD-KDWD-RRBWSD have executed an operational exchange in which AEWSD's 10,000 acre-feet from RRBWSD would be delivered via KDWD from April through September and RRBWSD would deliver 10,000 acre-feet to KDWD (for MWD) from March through December.

District Partnerships

- The District has participated in water management programs with the following districts/agencies in Water Year 2021:

Chowchilla Water District
 Fresno County
 Garfield Water District
 Hills Valley Irrigation District
 Kern Delta Water District
 Lewis Creek Water District

Rosedale-Rio Bravo Water Storage District
 San Joaquin River Restoration Program
 Saucelito Irrigation District
 Shafter-Wasco Irrigation District
 Tri-Valley Water District

WATER DEMAND

- The Board of Directors approved a 2021 Prorate Program of 1.6 AF/AC during the May through September period.
- District surface water deliveries for the month were 13,700 AF.
- The following is a summary of surface water deliveries for April 2021:

	April 2021		Year to Date	
	Historical	2021 WY	Historical	2021 WY
Turnout Deliveries	12,127	13,700	19,334	21,172
In-Lieu Deliveries	-	-	-	-
Temporary Water	-	-		
Spreading	-		-	
Total	12,127	13,700	19,334	21,172

- Exhibit "B" illustrates the delivery data
- The month's peak daily in-District demand was 390 cfs, which occurred on the 21
- Exhibit "C-1" details Canal Water Quality information
- Exhibit "C-2" presents the Aquatic Pest Control Treatments (\$166,826) for Calendar Year 2021

GENERAL



Director of Water Resources Steve Collup (L), Senior Account Clerk Debbie Blouin (C), and Weed/Rodent Control Technician Stephen Smith (R) all Retired within the Last Two Months

- Three (3) employees recently retired: Debra Blouin (Senior Account Clerk), Stephen Smith (Weed/ Rodent Control Technician), and Steve Collup (Director of Water Resources).
- Staff met and coordinated with Landowners in regards to Prorate Program (irrigation schedules and re-allocation pools, and pump-in request).
- Staff initiated meetings with landowners to discuss the upcoming Proposition 218 Election.
- Staff continues to practice several safety measures in response to COVID-19.
- Staff continues efforts with the new Bakersfield office (4700 Stockdale Avenue, Suite 115).
- District vehicles consumed an estimated 4,400 gallons of fuel during the month (average fuel efficiency of 11.0 mpg).
- There were 435 hours lost due to illness (including COVID hours) and zero (0) hours lost due to on-the-job injuries with no employees out on Workers' Compensation Claim.
- Exhibit "D" highlights precipitation, temperature, and wind speed.
- Exhibit "E" summarizes energy consumption and power demand for Water Year 2021 is expected to generate an electrical demand of approximately 142 million kilowatt hours.
- Exhibit "I" list various meetings for management and engineering staff.

ENGINEERING DEPARTMENT ACTIVITIES

Routine Activities

- Review and accounting of District's water supply and related contracts
- Administration or proposals of water management and wheeling agreements

- Groundwater level surveys and associated exhibits
- Water quality testing
- ArcGIS database updates and maintenance
- Inspection/evaluation and/or repair of cathodic protection rectifiers and test stations
- CIMIS station management (<https://cimis.water.ca.gov/Stations.aspx>)
- Land use/crop surveys with data entry
- Monthly/annual reports regarding water deliveries, water use, and energy use

Grants & Funding Opportunity Updates

- 2015 USBR Water Conservation Grant administration (Groundwater Metering Project)
 - All 50 sites are complete and the final semiannual report was submitted in April
- District **was awarded** 2020 USBR WaterSMART grant application for the Forrest Frick Pipeline/ Eastside Canal Intertie at \$500,000 (with a \$500,000 local cost share) and a grant contract is anticipated in May
- 2020 USBR Water and Energy Efficiency Grant for DiGiorgio In-Lieu Water Conservation Project – Phase 2 **was not awarded** and staff met with the Bureau on the project scoring to assist with future grant applications
- Regional Conservation Partnership Program (NRCS) funding for expansion of Tejon Unit gravity pipelines service area **was not awarded** and staff is planning to meet with NRCS staff to discuss project scoring
- NRCS landowner incentive programs assist with implementing various conservation activities, including but not limited to, irrigation system improvements, filtration needs, water/nutrient/pest management, and engine replacement:
 - Phone (661) 336-0967
 - Website (www.ca.nrcs.usda.gov)

Other Activities

- Administration and accounting of on-going water management programs
- Technical support and review of ongoing projects/studies such as:
 - Sunset Spreading Works (w/Kern Delta WD)
 - Basin, pump station and pipeline design reviews
 - Operations and Maintenance Agreement finalized
 - Power options (PG&E vs. PWRPA)
 - Insurance requirements
 - Potential Interconnections (w/ Wheeler Ridge-Maricopa WSD)
 - Easement review
 - Pipeline extension and outlet design (S73-P4 to 850 Canal)
 - Groundwater Service Area District System Expansion CEQA Planning
 - Submitted Notice of Intent and corresponding CEQA documents for publication and public review
 - Board to consider a proposed Mitigated Negative Declaration at the May meeting
 - Pump Replacement Program
 - Begin testing and investigation for Phase 2 (horizontal pumps)
 - Witness factory testing of the 20 CFS single stage vertical turbine pump
 - Turnout modification requests
 - Canopy Ag (E-29) upsize completed, reconciliation is ongoing
 - Temporary and/or In-Lieu Water Service Contract Requests
 - Bolthouse (Lateral S64)

- Landowner pipeline replacement (adjacent to and within Sycamore Spreading)
- Cathodic protection system upgrades
 - FFPP discharge pipeline
- Pump Efficiency Testing
 - As needed for replaced pumps
- Real Time Water Quality Monitoring
 - Installation and electrical integration is complete, calibration and software setup are in progress
- CIMIS Station
 - Coordinated landline to cellular conversion with Department of Water Resources (installation pending)
- Intertie Pipeline Inspection
 - Working with contractor, proposal received
 - Reviewing alternate inspection methods that do not require a drained pipeline
- Standtank Painting
 - Review Contractor bids and coordinate inspection and labor compliance services

SGMA Activities

- Continued coordination meetings and outreach activities
- Attended various GSA meetings
- Coordinated GSA boundary revisions with neighboring agencies
 - Pending KGA review
- Prioritization criteria for Projects and Management Actions
- Development of a potential Well Mitigation Policy
- Evaluate various Water Budget methodologies
- Submitted Kern Subbasin Annual Report information for October 2019 to September 2020 time period
- Submitted Spring 2021 water level data to KGA
- Completed Projects and Management Actions forms for White Wolf Basin

Requests for Information/Easements/Planning Notices

- Water supply
- Water costs
- Historical groundwater levels
- Monitoring well conversions
- Water quality
- Land use data
- Easements and/or right-of-way encroachments
 - Shell Oil (Intake Canal)
 - Quad Knopf development (Intake Canal)
- Reviewing/responding to multiple planning notices
 - Kern County (various developments/potential facility conflicts)
 - City of Arvin (General Plan Amendment)
- Reviewed/responded to environmental documents, as necessary
 - Cross Valley Canal Environmental Impact Report

Power Related Activities

- Assisted PWRPA consultants with
 - Power coordination and monitoring
 - PWRPA invoice and demand data changes
 - Monthly billing anomalies/meter reconciliations
 - Load forecast updates and rate analysis
 - SAMBA load scheduling replacement review
 - Contract demand analysis
- PG&E Power Safety Public Shutoff coordination
- Coordinated meter database changes with PG&E
- Reviewed long-term power management activities
 - Continued investigation of low head hydro potential (Intake Canal)
 - District Headquarters Solar proposal interconnection agreement
 - Reviewed available local solar renewable energy certificates to Western
- Calendar Year and Water Year power reconciliations and summaries
 - Metropolitan Water District energy reconciliations
- Groundwater Service Program
 - Monthly invoicing, cost-revenue analysis, and program expansion rate study

SPREADING WORKS OPERATIONS (WELLFIELDS AND BASINS)

- Exhibit “F” summarizes wellfield production, which totaled 12,119 AF for the month (81% of historical maximum in March)
- Exhibit “G” summarizes gross direct spreading of 109 AF for the month due to wellfield regulation
- Exhibits “H-1” and “H-2” summarize current static and/or pumping water in table and graphic forms
- Following is a summary of repairs associated with “active” wells:

<u>Field</u>	<u>Well #</u>	<u>Year</u>	<u>HP</u>	<u>Reason</u>	<u>Work</u>
Sycamore	32	1970	300	Excess Vibrations	Pulled equipment, video, replacement pump ordered
Sycamore	28	1970	300	Excess Vibrations	Pulled equipment, video, replacement pump ordered
Tejon	82*	1970	300	Excessive sand	Video, Repaired casing, installed new pump, startup pending

*Back in Service

- Six (6) out of 86, or 7%, of District wells are currently out of service and consultants are reviewing repair options
 - Two (2) long-term failures in Sycamore 34 and Tejon 91
 - Two (2) at Balancing Reservoir require additional investigation (shafts seized)
 - Two (2) see above table
- Well Replacement Program
 - PG&E and consultant coordination to review power service at North Canal and Tejon Spreading Works

OPERATIONS DEPARTMENT ACTIVITIES



Replacing Ball Valve (N55-P6)



Wellfield Operations Continue

Routine Activities

- Operate and monitor the District's water distribution and delivery systems including canals, ponds and reservoirs
- Conducted monthly safety meetings
- Inspected control systems at pumping plants (transducers, Cla-valves, battery back-ups, etc.)
- Assisted personnel in the repair, replacement, and/or maintenance of facilities on an as-needed basis for the following items:
 - Replaced flowmeter batteries (turnouts and wells)
 - Flushed and cleaned various turnouts and appurtenances
 - Greased turnout valve operators
 - Maintained weed control (pumping plants, turnouts, air vents, and isolation valves)
 - Changed lights and panel bulbs (as needed)
 - Inspected/replaced water quality warning labels at turnouts
 - Cleaned and/or replaced air-chamber sight glasses
 - Replaced missing locks and chains (canal gates and turnouts)
- Staff performed end-of-month meter readings at Interties, Wells, Turnouts, and Pumping Plants (power)

Additional Activities

- Continued Wellfield operations and maintenance
 - Maintain oil sight glasses
 - Clean motor control cabinets

- Cleaned forebays due to heavy tumbleweed accumulation (North and South side)
- Cleaned and inspected ball valves, risers, and bushings (North and South Pump Plants)
- Replaced well meters (Tejon Well 82)
- Replaced turnout meters (E-43)
- Replaced damaged and/or worn air vents (District wide)
- Responded to various Pumping Plant alarms (reset and primed laterals)
- Replaced old level transducers with new radar level transducers (District wide)
- Stenciled turnouts and well discharge pipes with labels (as needed)

Underground Service Alert (USA) Report

- District initiated 0
- Responded to 996 USA notices to locate District underground facilities
 - 15 required markings of District facilities
 - 871 were renewals
 - 110 with no conflicts

Power Outages and/or Interruptions Involving the Following Systems

- Laterals N1, N55, District Office, Sycamore Spreading Works, S68, S93, and End of Canal/Spillway

Laterals Prorates (number of days)

- Laterals S38 (1), S64 (1) and S93 (1)

MAINTENANCE DEPARTMENT ACTIVITIES



Mowing Basins (North Canal Spreading Works)



Concrete Pour for New Interbasin Structure Cutoff Wall (North Canal Spreading Works)

Routine Activities

- Aquatic and terrestrial weed control (Intake and South Canal)
- Routine gardening and maintenance at Headquarters and CIMIS station
- Fence repair (Intake Canal and North Canal Spreading Works)
- Grading (Forrest Frick Pumping Plant)
- Discing (Balancing Reservoir and Sycamore Spreading Works)
- Mowing (North Canal Spreading Works)
- Cleared out forebays (North and South Canal)

- Assisted other Departments as needed (Pump Shop and Operations)
- Conducted monthly safety meeting including COVID procedures

Additional Activities

- Removed excessive tumbleweeds and debris (Pumping plants N8-P1 and N55-P1)
- Install 24" Interbasin Structure to increase gravity pond fill rates (North Canal Spreading Works)
- Assist office staff with moving furniture to the new Bakersfield office
- Fabricate and install side rails on trash trailer
- Weld lid on new monitoring well site (near turnout E-22)
- Weld various leaks (turnouts C-71 and T-83)
- Raise oil barrel (Tejon Well 82)
- Hauled rock to various Well sites (North Canal Spreading Works)
- Filled in various washouts (Forrest Frick Pumping Plant)
- Prepped and painted various facilities (Pumping Plant N1-P3, metal troughs for moss screens)

Mechanic's Shop Repair Activities

- Routine weekly inspection on the fuel tank, gas pumps, and generator
- Fleet repairs/replacement parts

Part	Repair/Replaced	Part	Repair/Replaced
Brakes	4	Tail Lights	2
Tires	8	Belts	1
Tire Repairs	3	Trailer Lights	1
Batteries	2	Spot lights	1
Fuel Filters	6	Wiper blades	2
Headlights	1	Trailer Lights	2

- Heavy Equipment Repairs
 - Repaired taillights (Trash trailer)
 - Repaired gangs (Disc)
 - Repaired compressor (Welding trailer)

PUMP DEPARTMENT ACTIVITIES

Routine Pump Maintenance Activities

- Replacing pump packing
- Pump bearing lubrication at various pumping plants
- Maintain drip oil on District Wells
- Inspection and maintenance of air compressors
- Inspection and/or adjustment of travelling water screens/moss screens.



New Fabricated Moss Screen Trough (S73-P1)



**Witnessing 20 CFS Testing
(Ruhrpumpen Facility)**

Additional Activities

- Continued working with Engineering Department on Pump Replacement Program
 - Initiated Phase 2 (horizontal pumps)
- Pulled out new 5 CFS canal side pump for follow up inspection
 - Pump bearings and impeller were found to be in good condition
- Replaced sump pump (pumping plant S64-P2 and S64-P3)
- Replaced check valve (Unit #3 at S64-P3)
- Installed new shaft coupler guards for horizontal pumps (District wide)

PUMP & MOTOR REPAIR SUMMARY

	<u>Pumping Plant/Wells</u>	<u>Unit</u>	<u>Size</u>	<u>Time/Hours</u>	<u>Reason</u>
<u>Vertical Pumps</u>	None to Report				
<u>Vertical Motors</u>	None to Report				
<u>Horizontal Pumps</u>	N1-P8	1	5 CFS	12,803	Worn bearings
	N55-P6	1	5 CFS	damaged meter	Worn bearings
<u>Horizontal Motors</u>	N1-P8	1	100 HP	12,803	Worn bearings and shaft
	N55-P3	3	200 HP	1,555	Burnt motor
	N55-P3	4	100 HP	64,815	Worn bearings and shaft

CONTROLS DEPARTMENT ACTIVITIES

Routine Activities

- SCADA/radio maintenance or troubleshooting
- Monthly and annual inventory
- Testing and repair/replacement of distribution system and well facility electrical components as needed

Component	Replaced/Repaired	Component	Replaced/Repaired
Contact Block	5	Circuit breaker	2
PLC modules	2	Softstart	2
Relays	3	Control fuses	2
480v Transformer	1	12 kV Fuses	3

Additional Activities

- Programming for SCADA system updates and monitored performance
- Replaced 24V motor (North Checkgate and 615 Checkgate)
- Replaced tank level indicator (N55-P5)

FORREST FRICK PUMPING PLANT

- 2,296 AF of water was pumped during the month
- Unit #3 motor and pump repairs are progressing

INTERTIE PUMPING PLANT

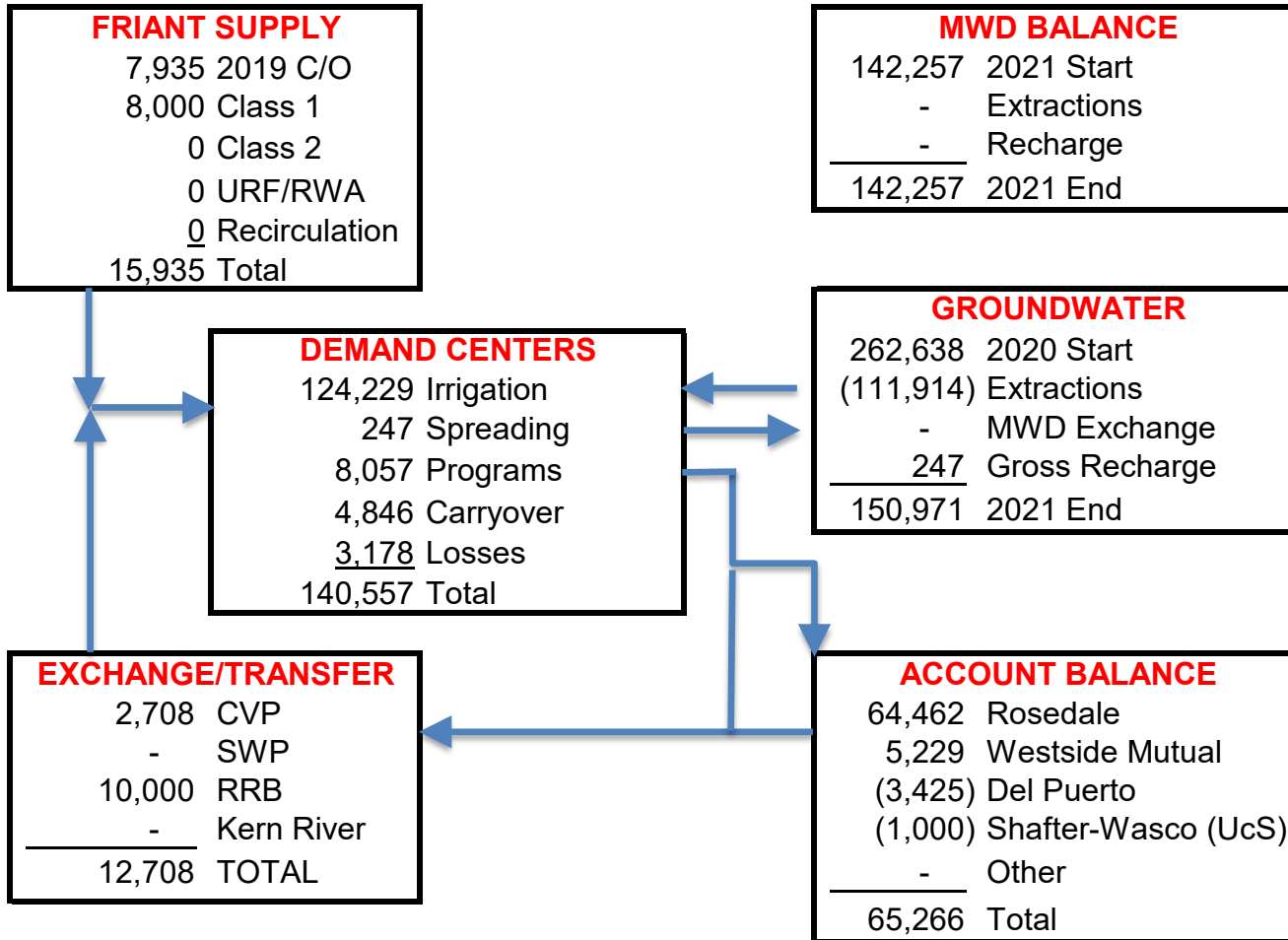
- There was no import (gravity delivery) or export (pumped delivery) of water (0 AF) through the Intertie Pipeline Pumping Plant

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EXHIBIT "A-1"
ARVIN-EDISON WATER STORAGE DISTRICT
2021 WATER SUPPLY AND DEMAND

<u>SUPPLY</u>	<u>AF</u>	<u>%</u>
FRIANT-KERN (F-K)		
20% OF 40,000 AF CLASS 1	8,000	
0% OF 311,675 AF CLASS 2 (Uncontrolled Season)/RWA	0	
0% OF 311,675 AF CLASS 2	0	
CARRYOVER OF 2020 WATER	7,611	
SHAFTER-WASCO ID	174	
WESTSIDE MUTUTAL	0	
TULARE ID	0	
MADERA ID	0	
SUBTOTAL	15,785	
FRESNO COUNTY	-600	
GARFIELD WD	-61	
HILLS VALLEY ID	-22	
TRI VALLEY WD	-7	
LEWIS CREEK WD	-21	
SAUCELITO ID	-346	
SJRRP RETURN	-7,000	
TOTAL F-K	7,728	5.8%
CROSS VALLEY CANAL (CVC)		
RECIRCULATION	0	
FRESNO COUNTY	150	
PIXLEY ID	12	
SLR 2020 CARRYOVER	2,696	
TOTAL CVC	2,858	2.2%
STATE WATER PROJECT (AQUEDUCT)		
KT EXCHANGE	0	
TOTAL AQUEDUCT	0	0.0%
INTERTIE PIPELINE (IPL)		
FLOOD EMERGENCY RETURN	0	
TOTAL IPL	0	0.0%
KERN RIVER		
FRESNO COUNTY	0	
MWD BANKING	0	
KERN DELTA H ST (RRBWS D EXCHANGE)	10,000	
TOTAL IPL	10,000	7.5%
INTAKE CANAL PUMP-IN (IC)		
KERN DELTA WELLS	0	
KERN DELTA H STREET	0	
TOTAL KR	0	0.0%
TOTAL IMPORT	20,586	15.5%
GROUNDWATER PUMPING		
IRRIGATION DEMAND	111,914	
FARM PUMP IN	0	
RETURN TO MWD	0	
TOTAL PUMPING	111,914	84.5%
TOTAL WATER SUPPLY	132,500	100.0%
DEMAND		
IRRIGATION DEMAND (MARCH-APRIL)	21,172	16.0%
IRRIGATION DEMAND (MAY-FEBRUARY)	103,057	77.8%
SPREADING (MARCH-APRIL)	247	0.2%
SPREADING (MAY-FEBRUARY)	0	0.0%
RETURN TO MWD	0	0.0%
WHEELING	0	0.0%
CARRYOVER TO 2022	4,846	3.7%
LOSSES/METERING INACCURACIES	3,178	2.4%
TOTAL DEMAND	132,500	100.0%

Exhibit "A-2"
 ARVIN-EDISON WATER STORAGE DISTRICT
2021 WATER MANAGEMENT



Surface Water	12,562	10%
Groundwater (69% of Max)	111,914	90%
Projected Irrigation Demand	124,476	100%

EXHIBIT "B"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER YEAR DELIVERIES

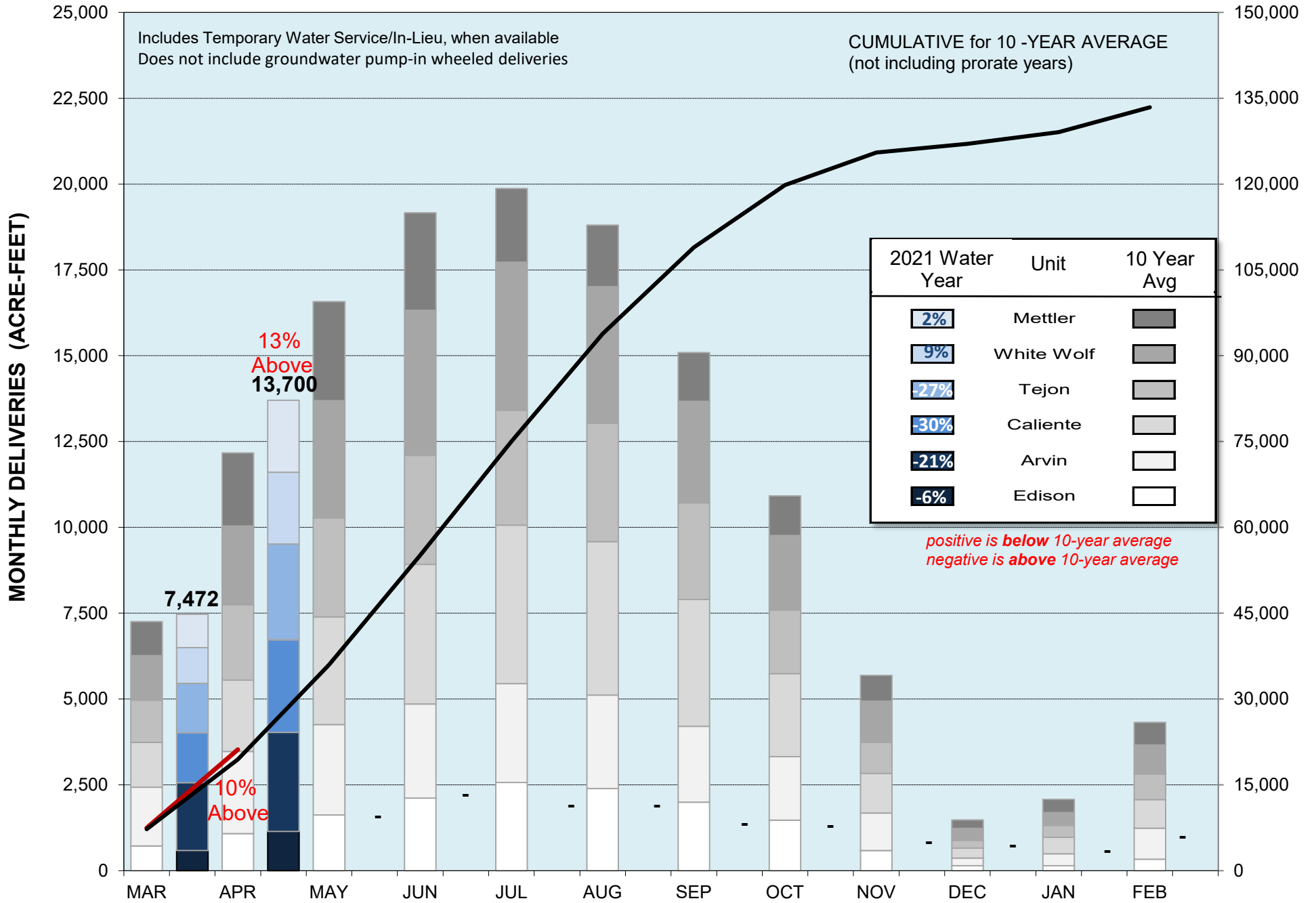


EXHIBIT "C1"
ARVIN-EDISON WATER STORAGE DISTRICT
WATER SUPPLY WATER QUALITY SUMMARY

	Date	Flow cfs	Import Source	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS mg/l	pH	EC	Hardness	SAR	Gypsum	Boron	Turbidity
				mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l			umhos/cm	mg/l		lbs/AF	mg/l	NTU
Intake Canal	04/07/21	27	KD WELLS & KD MAIN(100%)	24.0	1.20	3.3	0.27	24.0	1.03	91	1.49	12.0	0.34	2.20	0.04	130	8.6	243	73	1.2	0.76	0.18	5.0
	03/12/21	0	RESIDUAL CVC(100%)	22.0	1.10	1.5	0.12	32.0	1.38	78	1.28	21.0	0.59	0.99	0.02	140	8.7	263	62	1.8	1.10	0.17	9.4
	02/11/21	22	CVC(100%)	24.0	1.20	1.3	0.11	9.1	0.39	74	1.21	4.7	0.13	2.10	0.03	87	8.6	162	64	0.5	0.33	0.04	16.8
	01/11/21	0	RESIDUAL FKC(100%)	13.0	0.65	0.7	0.06	5.6	0.24	52	0.85	3.3	0.09	0.46	0.01	52	8.3	101	36	0.4	0.53	0.02	9.2
	12/10/20	0	RESIDUAL FKC(100%)	10.0	0.50	0.6	0.05	4.1	0.18	37	0.61	2.8	0.08	0.94	0.02	40	7.5	85	28	0.3	0.21	0.02	4.5
	11/05/20	15	RESIDUAL CVC(100%)	27.0	1.35	1.7	0.14	29.0	1.25	89	1.46	21.0	0.59	1.80	0.03	150	8.7	258	75	1.5	0.63	0.12	2.4
	10/09/20	50	CVC(100%)	23.0	1.15	1.2	0.10	31.0	1.34	81	1.33	26.0	0.73	4.80	0.08	150	8.4	286	63	1.7	0.79	0.12	1.5
	09/10/20	200	FKC(100%)	6.1	0.31	0.7	0.05	6.9	0.30	30	0.49	3.2	0.09	1.40	0.02	38	7.2	64	18	0.7	0.55	0.02	3.0
	08/11/20	230	FKC(74%)/CVC(9%)/Kern River(17%)	19.0	0.95	2.2	0.18	19.0	0.82	68	1.11	9.1	0.26	2.30	0.04	98	7.7	176	55	1.1	0.02	0.05	2.9
	07/09/20	200	FKC(100%)	12.0	0.60	1.2	0.10	12.0	0.52	42	0.69	8.6	0.24	3.00	0.05	67	7.4	130	36	0.9	ND	0.04	1.9
	06/05/20	120	FKC(71%)/CVC(29%)	21.0	1.05	1.9	0.16	17.0	0.73	66	1.08	14.0	0.39	5.90	0.10	110	7.8	206	59	1.0	ND	0.02	3.9
	05/08/20	108	FKC(93%)/KD WELLS(7%)	25.0	1.25	2.1	0.17	29.0	1.25	83	1.36	23.0	0.65	8.00	0.13	160	8.0	295	71	1.5	ND	0.04	8.9
	04/13/20	0	RESIDUAL FKC(100%)	18.0	0.90	1.9	0.16	23.0	0.99	76	1.25	19.0	0.53	0.55	0.01	120	7.9	227	53	1.4	0.81	0.10	6.8
	03/13/20	0	FKC(100%)	22.0	1.10	4.3	0.35	41.0	1.77	65	1.07	47.0	1.32	3.00	0.05	190	9.0	357	71	2.1	ND	0.10	8.2
	Average			19.0	1.0	1.8	0.1	20.2	0.9	66.6	1.1	15.3	0.4	2.7	0.0	109.4	8.1	203.8	54.6	1.2	0.6	0.1	6.0
North Canal	04/07/21	80	KD WELLS & KD MAIN(14%)/WELLS(86%)	20.0	1.00	4.3	0.35	34.0	1.47	110	1.80	17.0	0.48	5.50	0.09	150	8.3	274	68	1.8	1.90	0.16	2.4
	03/12/21	58	WELLS(100%)	22.0	1.10	3.9	0.32	40.0	1.72	120	1.97	17.0	0.48	7.00	0.11	170	8.2	303	70	2.1	2.20	0.19	1.2
	02/11/21	14	CVC(21%)/WELLS(79%)	23.0	1.15	4.5	0.37	27.0	1.16	110	1.80	16.0	0.45	6.90	0.11	140	8.2	261	75	1.3	0.97	0.07	1.3
	01/11/21	14	WELLS(100%)	21.0	1.05	3.9	0.32	36.0	1.55	120	1.97	19.0	0.53	5.60	0.09	160	8.1	302	68	1.9	2.60	0.21	2.4
	12/10/20	0	WELLS(100%)	23.0	1.15	3.4	0.28	60.0	2.59	130	2.13	25.0	0.70	3.80	0.06	220	8.1	423	72	3.1	3.10	0.57	4.2
	11/05/20	48	WELLS(100%)	23.0	1.15	4.1	0.34	50.0	2.16	120	1.97	21.0	0.59	6.20	0.10	200	8.3	343	74	2.4	2.90	0.35	2.0
	10/09/20	48	CVC(29%)/WELLS(71%)	19.0	0.95	3.9	0.32	42.0	1.81	120	1.97	21.0	0.59	6.20	0.10	180	8.2	336	63	2.3	3.30	0.34	1.3
	09/10/20	134	FKC(71%)/WELLS(29%)	18.0	0.90	2.6	0.21	29.0	1.25	73	1.20	12.0	0.34	5.00	0.08	120	7.9	225	56	1.6	0.29	0.20	2.5
	08/11/20	196	FKC(51%)/CVC(6%)/Kern River(12%)/WELLS(31%)	35.0	1.75	7.6	0.62	42.0	1.81	110	1.80	22.0	0.62	15.00	0.24	220	8.0	378	120	1.7	ND	0.22	4.3
	07/09/20	164	FKC(66%)/WELLS(34%)	21.0	1.05	3.2	0.26	31.0	1.34	88	1.44	18.0	0.51	6.70	0.11	150	7.8	279	65	1.6	0.60	0.19	2.1
	06/05/20	106	FKC(24%)/CVC(10%)/WELLS(66%)	24.0	1.20	4.7	0.39	40.0	1.72	110	1.80	24.0	0.67	7.50	0.12	180	8.1	344	78	2.0	1.10	0.26	3.1
	05/08/20	130	FKC(42%)/KD WELLS(3%)/WELLS(55%)	20.0	1.00	4.6	0.38	48.0	2.07	120	1.97	27.0	0.76	4.70	0.08	200	8.1	358	69	2.5	2.80	0.44	2.3
	04/13/20	28	WELLS(100%)	18.0	0.90	4.1	0.34	42.0	1.81	100	1.64	24.0	0.67	1.60	0.03	180	8.7	335	63	2.3	2.70	0.38	3.9
	03/13/20	106	WELLS(100%)	18.0	0.90	3.8	0.31	53.0	2.28	120	1.97	27.0	0.76	2.80	0.05	200	8.6	375	60	3.0	4.40	0.51	3.4
	Average			21.8	1.1	4.2	0.3	41.0	1.8	110.8	1.8	20.7	0.6	6.0	0.1	176.4	8.2	324.0	71.5	2.1	2.2	0.3	2.6
South Canal	04/07/21	140	KD WELLS & KD MAIN(9%)/WELLS(91%)	32.0	1.60	9.0	0.74	39.0	1.68	140	2.30	32.0	0.90	9.00	0.15	210	8.2	381	120	1.6	ND	0.15	1.6
	03/12/21	50	WELLS(100%)	33.0	1.65	8.5	0.70	40.0	1.72	140	2.30	35.0	0.98	11.00	0.18	220	8.2	403	120	1.6	ND	0.18	2.2
	02/11/21	20	CVC(18%)/WELLS(82%)	35.0	1.75	9.1	0.75	38.0	1.64	120	1.97	37.0	1.04	15.00	0.24	220	8.4	410	120	1.5	ND	0.11	1.6
	01/11/21	10	WELLS(100%)	43.0	2.15	13.0	1.07	48.0	2.07	140	2.30	80.0	2.25	7.40	0.12	290	8.1	546	160	1.7	ND	0.16	1.6
	12/10/20	0	WELLS(100%)	22.0	1.10	3.7	0.30	63.0	2.72	120	1.97	24.0	0.67	2.90	0.05	220	8.6	423	69	3.3	3.40	0.61	1.7
	11/05/20	70	WELLS(100%)	32.0	1.60	7.8	0.64	50.0	2.16	140	2.30	35.0	0.98	9.60	0.15	230	8.1	412	110	2.1	0.16	0.28	1.9
	10/09/20	100	CVC(21%)/WELLS(79%)	30.0	1.50	8.6	0.70	38.0	1.64	140	2.30	34.0	0.96	10.00	0.16	220	8.1	407	110	1.6	0.22	0.16	1.2
	09/10/20	200	FKC(68%)/WELLS(32%)	22.0	1.10	4.1	0.34	30.0	1.29	81	1.33	18.0	0.51	6.60	0.11	140	7.8	250	72	1.5	ND	0.19	3.6
	08/11/20	130	FKC(46%)/CVC(5%)/Kern River(11%)/WELLS(38%)	35.0	1.75	7.5	0.61	58.0	2.50	140	2.30	36.0	1.01	10.00	0.16	260	7.9	430	120	2.3	ND	0.34	1.9
	07/09/20	130	FKC(59%)/WELLS(41%)	25.0	1.25	5.3	0.43	32.0	1.38	98	1.61	25.0	0.70	8.90	0.14	170	7.9	327	84	1.5	ND	0.16	1.5
	06/05/20	140	FKC(17%)/CVC(7%)/WELLS(76%)	31.0	1.55	8.8	0.72	41.0	1.77	140	2.30	34.0	0.96	9.60	0.15	220	8.1	407	110	1.7	ND	0.16	1.7
	05/08/20	160	FKC(32%)/KD WELLS(3%)/WELLS(65%)	25.0	1.25	7.4	0.61	35.0	1.51	130	2.13	44.0	1.24	6.50	0.10	220	8.0	419	93	1.6	1.10	0.19	2.4
	04/13/20	0	WELLS(100%)	17.0	0.85	5.0	0.41	21.0	0.91	75	1.23	17.0	0.48	1.50	0.02	120	8.8	234	64	1.1	0.86	0.07	5.5
	03/13/20	60	WELLS(100%)	16.0	0.80	4.6	0.38	43.0	1.85	62	1.02	29.0	0.81	1.90	0.03	180	9.5	331	58	2.4	3.30	0.35	4.6
	Average			28.4	1.4	7.3	0.6	41.1	1.8	119.0	2.0	34.3	1.0	7.9	0.1	208.6	8.3	384.3	100.7	1.8	1.5	0.2	2.4

EXHIBIT "C1"
ARVIN-EDISON WATER STORAGE DISTRICT
WATER SUPPLY WATER QUALITY SUMMARY

	Date	Flow ¹ cfs	Import Source	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS	pH	EC	Hardness	SAR	Gypsum	Boron	Turbidity
				mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l								
Intertie Pipeline	04/07/21	0	KD WELLS & KD MAIN(9%)/WELLS(91%)	36.0	1.80	12.0	0.98	41.0	1.77	150	2.46	39.0	1.10	10.00	0.16	240	8.3	431	140	1.5	ND	0.15	4.1
	03/12/21	0	WELLS(100%)	32.0	1.60	9.1	0.75	42.0	1.81	120	1.97	35.0	0.98	11.00	0.18	220	8.5	406	120	1.7	ND	0.16	3.6
	02/11/21	0	CVC(18%)/WELLS(82%)	33.0	1.65	8.9	0.73	50.0	2.16	120	1.97	48.0	1.35	10.00	0.16	240	8.3	448	120	2.0	ND	0.23	3.9
	01/11/21	0	WELLS(100%)	40.0	2.00	12.0	0.98	48.0	2.07	130	2.13	70.0	1.97	23.00	0.37	300	8.2	547	150	1.7	ND	0.15	9.0
	12/10/20	0	WELLS(100%)	30.0	1.50	8.5	0.70	61.0	2.63	110	1.80	58.0	1.63	4.30	0.07	260	8.4	513	110	2.6	ND	0.39	9.4
	11/05/20	0	WELLS(100%)	30.0	1.50	8.6	0.70	41.0	1.77	120	1.97	27.0	0.76	8.70	0.14	200	8.5	362	110	1.7	ND	0.15	1.8
	10/09/20	0	CVC(21%)/WELLS(79%)	30.0	1.50	8.9	0.73	38.0	1.64	120	1.97	38.0	1.07	9.50	0.15	220	8.4	414	110	1.6	ND	0.15	3.9
	09/10/20	0	FKC(68%)/WELLS(32%)	24.0	1.20	4.9	0.40	35.0	1.51	83	1.36	24.0	0.67	6.30	0.10	170	8.5	284	80	1.7	ND	0.20	2.8
	08/11/20	0	FKC(46%)/CVC(5%)/Kern River(11%)/WELLS(38%)	30.0	1.50	8.4	0.69	47.0	2.03	100	1.64	36.0	1.01	9.50	0.15	220	8.4	375	110	2.0	ND	0.17	2.2
	07/09/20	0	FKC(59%)/WELLS(41%)	27.0	1.35	5.7	0.47	35.0	1.51	100	1.64	27.0	0.76	8.40	0.14	180	8.0	340	90	1.6	ND	0.19	1.9
	06/05/20	0	FKC(17%)/CVC(7%)/WELLS(76%)	30.0	1.50	8.4	0.69	43.0	1.85	130	2.13	32.0	0.90	8.50	0.14	210	8.0	392	110	1.8	ND	0.19	1.6
	05/08/20	0	FKC(32%)/KD WELLS(3%)/WELLS(65%)	27.0	1.35	9.3	0.76	34.0	1.47	130	2.13	30.0	0.84	7.30	0.12	200	8.1	380	110	1.4	0.22	0.16	1.8
	04/13/20	0	WELLS(100%)	29.0	1.45	9.3	0.76	36.0	1.55	130	2.13	33.0	0.93	6.20	0.10	210	8.3	390	110	1.5	ND	0.15	5.4
	03/13/20	0	WELLS(100%)	25.0	1.25	7.5	0.61	31.0	1.34	100	1.64	35.0	0.98	4.90	0.08	180	8.6	349	93	1.4	0.03	0.10	5.8
		Average			30.2	1.5	8.7	0.7	41.6	1.8	117.4	1.9	38.0	1.1	9.1	0.1	217.9	8.3	402.2	111.6	1.7	0.1	0.2

Water Supply Water Quality Note: ¹ Positive flow rate is reverse flow into the District. Where the reported value is ND, the method detection limit is entered.

Water Supply Water Quality Note: ² Reverse flow into the District South Canal (Sycamore check gate was closed).

Water Supply Water Quality Note: ³ Constituent ran past sample hold time.

ND: NONE DETECTED.

NA: NOT AVAILABLE OR NOT TESTED.

mg/l: MILLIGRAMS PER LITER; SAME AS PARTS PER MILLION (ppm).

me/l: MILLEQUIVALENTS PER LITER; SAME AS EQUIVALENTS PER MILLION (epm).

INTAKE: SAMPLE TAKEN AT COTTONWOOD RD. SOUTH OF PANAMA LANE.

NORTH: SAMPLE TAKEN DOWNSTREAM OF SYCAMORE CHECK GATE.

SOUTH: SAMPLE TAKEN DOWNSTREAM OF TEJON CHECK GATE.

INTERTIE: TERMINUS OF SOUTH CANAL (S93 FOREBAY).

SODIUM: FOR SURFACE IRRIGATION: SAR < 3 IS GOOD. FOR SPRINKLER IRRIGATION: SODIUM < 3 me/l IS GOOD.

NITRATE: NITRATE IN WATER SLIGHTLY REDUCES FERTILIZER REQUIREMENT.

BICARBONATE: BICARBONATE < 1.5 me/l IS SATISFACTORY FOR OVERHEAD SPRINKLERS.

CHLORIDE: FOR SURFACE IRRIGATION CHLORIDE < 4 me/l IS GOOD.

TDS: TDS < 450 IS ACCEPTABLE FOR UNRESTRICTED USE.

GYPSUM: AMOUNT OF CALCIUM SULFATE IN POUNDS PER ACRE-FOOT OF WATER APPLIED. INCREASES WATER PERMEABILITY AND HELPS CORRECT EXCESS SODIUM. INCREASES CLAY FLOCCULATION FOR INCREASING PERMEABILITY.

pH: A MEASURE OF ACIDITY. A pH < 7 IS ACIDIC, pH = 7 IS NEUTRAL, pH > 7 IS BASIC. NORMAL RANGE IS 6.5 - 8.4. A pH > 8 MAY NEED TO BE BUFFERED FOR PESTICIDE APPLICATION. AFFECTS NUTRIENT AVAILABILITY.

EC: ELECTRICAL CONDUCTIVITY. A MEASURE OF WATER SALINITY; SOIL - IN MILLIMHOS PER CENTIMETER (mmho/cm); WATER - MORE OFTEN, IN MICROMHOS PER CENTIMETER (umhos/cm). EC < 700 (umhos/cm) HAS NO RESTRICTIONS FOR AGRICULTURAL USE. EC < 200 (umhos/cm) CAN REDUCE INFILTRATION RATE.

HARDNESS: HARD WATER, INDICATING CALCIUM AND MAGNESIUM, IS BENEFICIAL FOR AGRICULTURE.

SAR: SODIUM ADSORPTION RATIO. A RATIO OF SODIUM TO CALCIUM AND MAGNESIUM. EVALUATE WITH EC. SAR = 0 - 3 AND EC > 400 ACCEPTABLE SAR = 3 - 6 AND EC > 900 ACCEPTABLE

BORON: BORON < 0.50 mg/l IS SATISFACTORY FOR ALL CROPS. EXCESSIVE BORON IS PHYTOTOXIC (BURNS) TO PLANTS.

EXHIBIT "C-2"
ARVIN-EDISON WATER STORAGE DISTRICT
2021 AQUATIC PEST CONTROL TREATMENTS TO CANALS & SPREADING BASINS

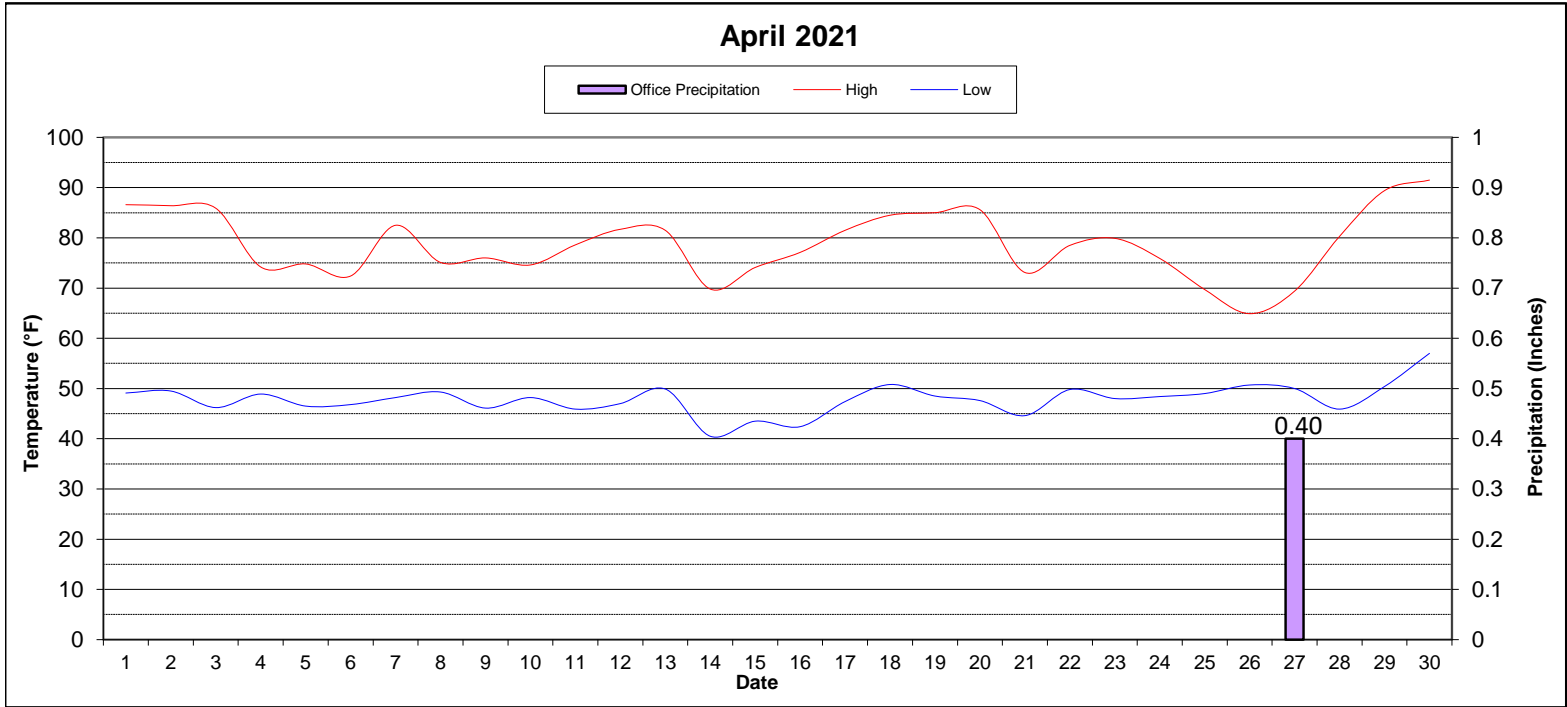
Treatment Weeks (Monday)		Temps	Intake Stine Siphon	North						Syc. Check	PP 32P1	PP 38P1	Tej. Ponds	Tej. Check	615 Check	729 Check	883 Check	Spill Way	Intertie Forbay				
			353+87	Bal. Res.	PP 24P1	NCSW	PP 41P1	PP 55P1	Syc. Ponds	664+30	291+50	386+30		458+40	615+00	729+10	883+00	885+45	900+27				
JAN	01/04/21	38-58																					
	01/11/21																						
	01/18/21																						
	01/25/21																						
FEB	02/01/21	36-69																					
	02/08/21																						
	02/15/21																						
	02/22/21																						
MAR	03/01/21	68-42																					
	03/01/21																						
	03/08/21																						
	03/08/21																						
	03/15/21																						
	03/15/21																						
	03/22/21																						
	03/22/21																						
	03/22/21																						
	03/29/21																						
03/29/21																							
04/05/21																							
04/12/21		78-47																					
04/12/21																							
04/12/21																							
04/19/21				17																			
04/26/21																							
MAY	05/03/21	54-86																					
	05/10/21																						
	05/17/21																						
	05/24/21																						
	05/31/21																						
JUN	06/07/21	63-93																					
	06/14/21																						
	06/21/21																						
JUL	06/28/21	65-98																					
	07/05/21																						
	07/12/21																						
	07/19/21																						
AUG	07/26/21	60-89																					
	08/02/21																						
	08/09/21																						
	08/16/21																						
	08/23/21																						
SEPT	08/30/21	62-93																					
	09/06/21																						
	09/13/21																						
	09/20/21																						
OCT	09/27/21	46-79																					
	10/04/21																						
	10/11/21																						
	10/18/21																						
	10/25/21																						
NOV	11/01/21	41-71																					
	11/08/21																						
	11/15/21																						
	11/22/21																						
DEC	11/29/21	40-59																					
	12/06/21																						
	12/13/21																						
	12/20/21																						
	12/27/21																						

2021 Cost To Date	Treatment	Material	Labor	Total
	Captain/Nautique	\$61,028	\$3,376	\$64,404
	Phycomycin	\$8,873	\$2,560	\$11,433
	Cascade	\$0	\$0	\$0
	Teton/Hydrothol	\$80,125	\$10,864	\$90,989
	Spreading Basins	\$0	\$0	\$0
	Total	\$150,026	\$16,800	\$166,826

Shaded weeks are actual
 Copper treatment (gal/lbs) for algae and pondweed (injected/broadcast)
 Phycomycin (hydrogen peroxide) treatment (lbs) for algae (broadcast)
 Endothall treatment (gal) for milfoil/basins (injected)
 Endothall treatment (gal) for algae (injected)
 Sonar/Clearcast/RoundUp Custom/MSO (gal)
 Winter Maintenance

Year Type	Amount	Year
Critical-High	\$166,826	2021
Dry	\$399,808	2020
Wet	\$105,928	2019
Normal-Dry	\$235,599	2018
Wet	\$222,685	2017
Normal-Dry	\$186,034	2016
Critical-Low	\$262,734	2015
Critical-High	\$367,563	2014
Dry	\$528,770	2013
Dry	\$504,159	2012
Wet	\$233,449	2011

EXHIBIT "D"
ARVIN-EDISON WATER STORAGE DISTRICT
SUMMARY OF CLIMATOLOGICAL OBSERVATIONS



PRECIPITATION	BAL RES (1)		OFFICE (2)		SYCAMORE (3)		TEJON (4)		INTERTIE (5)	
	INCHES	% AVG.	INCHES	% AVG.	INCHES	% AVG.	INCHES	% AVG.	INCHES	% AVG.
AVG. MONTHLY	1.07		0.87		0.85		0.71		1.12	
AVG. YEAR TO DATE	6.59		8.04		7.71		6.73		5.91	
CURRENT MONTH	0.25	23%	0.40	46%	0.40	47%	0.30	42%	0.34	30%
CUMULATIVE (07/01/20 - 06/30/21)	3.79	58%	3.37	42%	3.24	42%	2.35	35%	2.76	47%

TEMPERATURE (6)	(°F)	DATE	TIME
MAXIMUM TEMPERATURE	91	4/30/2021	4:00 PM
AVERAGE MAXIMUM TEMPERATURE	79		
# DAYS THIS MONTH ABOVE 100 °F	0		
MINIMUM TEMPERATURE	43	4/14/2021	5:00 AM
AVERAGE MINIMUM TEMPERATURE	48		
# DAYS THIS MONTH BELOW 32 °F	0		

WIND (6)	M.P.H.	DATE	TIME	DRCTN
MAXIMUM WIND SPEED	13.3	4/13/2021	4:00 PM	SW
AVERAGE WIND SPEED	2.8			
AVERAGE WIND SPEED @ 8:00 AM	2.3			

BAROMETRIC PRESSURE (7)	IN. HG	DATE	TIME
AVERAGE PRESSURE @ 8:00 AM	29.51		
MAXIMUM PRESSURE	29.69	4/4/2021	9:00 AM
MINIMUM PRESSURE	29.24	4/11/2021	7:00 PM

NOTES

(1) October 2018 to Present data gathered from District rain gauges
(2) 1975 to Present data gathered from District rain gauges
(3) 1968 to Present data gathered from District rain gauges
(4) 1967 to Present data gathered from District rain gauges
(5) October 2018 to Present data gathered from District rain gauges
(6) Data retrieved from CIMIS (<http://www.cimis.water.ca.gov/WSNReportCriteria.aspx>)
(7) Data retrieved from Weather Underground (<https://www.wunderground.com/us/ca/arvin/zmw:93203.1.99999>)
Precipitation Day is 8:00 AM to 8:00 AM

EXHIBIT "E"
ARVIN-EDISON WATER STORAGE DISTRICT
WY2021 ENERGY CONSUMPTION AND POWER DEMAND

ENERGY CONSUMED - KWH							TOTAL DEMAND - KW						
Month	Forrest Frick PP	Distrib. System	Spreading	Wells	Intertie PP	Total	Forrest Frick PP	Distrib. System	Spreading	Wells	Intertie PP	Total	Load Factor
MAR 21	88,700	2,479,579	14,996	6,161,961	3,553	8,748,789	1,197	12,574	173	15,643	6	29,593	40%
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN 22													
FEB													
TOTAL	88,700	2,479,579	14,996	6,161,961	3,553	8,748,789							

Notes: - Since 2005 KW records reflect non-simultaneous demands.
- Energy use for lighting accounts for approximately 90,000 kWh/month at District wellfields and 4,000 kWh/month at the Intertie Pumping Plant

EXHIBIT "F"
 ARVIN-EDISON WATER STORAGE DISTRICT
2021 WATER YEAR WELLFIELD PRODUCTION - AF

Month	Bal Res		North Canal 5		Wellfield						Total		
	AF	% of Historical Max	AF	% of Historical Max	North		Sycamore		Tejon		AF	AF / Day	% of Historical Max
					AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max			
MAR - 21	0	0%	720	59%	2,580	116%	2,327	36%	1,989	36%	7,616	246	49%
APR	0	0%	908	75%	3,051	135%	4,150	60%	4,010	80%	12,119	404	81%
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN - 22													
FEB													
Total	0		1,628		5,631		6,477		5,999		19,735	246	49%
Ratio	0%		8%		29%		33%		30%		100%	Average	
Wells	4		5		14		34		29		86		

EXHIBIT "G"
 ARVIN-EDISON WATER STORAGE DISTRICT
2021 WATER YEAR GROSS SPREADING - AF

Month	Bal Res	North Gravity	North Pressure	Sycamore	Tejon Gravity	Tejon Pressure	Murray Gravity	Landowner Recharge	Subtotal	In-Lieu	Temporary Water	Total
MAR-21	138	0	0	0	0	0	0	0	138	0	0	138
APR	109	0	0	0	0	0	0	0	109	0	0	109
MAY												
JUN												
JUL												
AUG												
SEP												
OCT												
NOV												
DEC												
JAN-22												
FEB												
Total	247	0	0	0	0	0	0	0	247	0	0	247
Ratio	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100%
Ratio	100.0%			0.0%	0.0%		0.0%	0.0%	100.0%	0.0%	0.0%	100%

Total Pressure	247		0			0			247			247
	100%		0%			0%			100%			100%

EXHIBIT "H-1"
ARVIN-EDISON WATER STORAGE DISTRICT
STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - APRIL 2021
 ALL VALUES IN FEET

		STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
NORTH CANAL (23)	N1	430	474	610	840	44	136
	N2	434	536	700	840	102	164
	N3	435	446	610	840	11	164
	N4	435	451	550	864	16	99
	N5	442	454	650	864	12	196
	N6	494	590	640	920	96	50
	N7	459	482	600	1010	23	118
	N8	403	442	560	970	39	118
	N9	434	550	700	990	116	150
	N10	440	502	560	990	62	58
	N11	421	444	562	1020	23	118
	N12	459	489	600	1030	30	111
	N13	456	491	600	1000	35	109
	N14	452	470	540	900	18	70
	N15	318	517	700	1200	199	183
	N16	355	464	600	1200	109	136
	N17	346	515	610	1200	169	95
	N18	387	519	610	1190	132	91
	N19	484	520	760	1300	36	240
	N20	553	603	820	1020	50	217
	N21	570	626	660	950	56	34
	N22	440	500	680	990	60	180
	N23	441	501	680	990	60	179
Avg		439	504				

		STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
TEJON (29)	71	500	546	800	1050	46	254
	72	500	579	800	1045	79	221
	73	491	526	800	1018	35	274
	74	480	552	800	1084	72	248
	75	484	507	800	1045	23	293
	76	480	582	700	996	102	118
	77	475	577	800	1066	102	223
	78	473	524	800	1038	51	276
	79	470	512	700	1032	42	188
	80	464	619	800	996	155	181
	81	454	565	700	925	111	135
	82	445	560	800	996	115	240
	83	450	555	800	996	105	245
	84	464	501	700	955	37	199
	86	515	582	800	996	67	218
	87	506	556	800	984	50	244
	88	502	620	800	948	118	180
	89	478	653	800	996	175	147
	90	492	562	700	996	70	138
	91	322	N/A	700	996	N/A	N/A
	92	491	553	800	996	62	247
	93	523	595	800	996	72	205
	94	520	592	860	996	72	268
	95	528	558	800	996	30	242
	96	485	665	800	996	180	135
	98	510	561	760	1340	51	199
	99	501	545	760	1340	44	215
	100	478	550	760	1340	72	210
	101	410	489	760	1310	79	271
Avg		479	564				

		STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
SYCAMORE (34)	1	453	497	705	800	44	208
	2	152	523	690	876	371	167
	4	494	522	700	876	28	178
	5	511	538	720	876	27	182
	6	424	528	690	876	104	162
	7	489	538	700	830	49	162
	8	432	469	640	860	37	171
	9	506	536	700	886	30	164
	10	502	530	690	850	28	160
	11	482	514	700	880	32	186
	12	489	531	700	860	42	169
	13	480	515	700	850	35	185
	14	455	524	670	810	69	146
	15	445	529	710	820	84	181
	16	440	612	700	888	172	88
	17	440	592	650	820	152	58
	18	428	449	650	820	21	201
	20	420	463	680	804	43	217
	21	448	484	690	856	36	206
	22	411	441	610	792	30	169
	23	433	452	600	788	19	148
	24	447	471	580	780	24	109
	25	414	469	610	777	55	141
	26	424	471	690	816	47	219
	28	403	454	660	782	51	206
	29	411	455	690	787	44	235
	31	445	464	660	725	19	196
	32	388	471	640	739	83	169
	33	418	492	700	780	74	208
	34	425	N/A	700	781	N/A	N/A
	35	410	477	700	800	67	223
	36	410	437	600	820	27	163
	37	435	458	540	820	23	82
	38	458	493	860	1270	35	367
Avg		436	497				

MONTHLY SUMMARY - AVERAGE WATER LEVELS						
READINGS END OF	STATIC LEVELS			PUMPING LEVELS		
	N. CANAL	SYCAMORE	TEJON	N. CANAL	SYCAMORE	TEJON
APR-20	424	409	443	491	453	522
MAY	432	415	496	502	462	566
JUN	439	422	505	506	478	575
JUL	441	427	495	508	466	569
AUG	440	421	491	479	460	573
SEP	449	435	491	515	474	563
OCT	433	426	489	498	465	562
NOV	415	392	433	480	429	500
DEC	408	391	442	474	429	500
JAN-21	405	390	439	470	428	513
FEB	411	405	445	476	443	519
MAR	432	428	469	495	471	549
APR	439	436	479	504	497	564
CHANGE TO-DATE	-15	-27	-36	-13	-44	-42

OUT OF SERVICE (4)	*Bowl depth measured to top of pump
AIRLINE FAILURE (7)	*Pumping levels are estimated based on previous draw down records. (6 month average)
FAILED (2)	
86 TOTAL WELLS	*Airline failure levels were obtained with acoustic sounder

EXHIBIT "I"

April 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
JSM—Blue MD—Orange Staff—Green Board—Brown	ACWA - Association of California Water Agencies ACSD - Arvin Community Services District BOD - Board of Directors COB - City of Bakersfield CVC - Cross Valley Canal CVPIA - Central Valley Project Improvement Act EC - Executive Committee ETGSA - East Tule Basin GW Sustainability Agency ETFOG - Friant Operational Guidelines EIR - Environmental Impact Report FWA - Friant Water Authority GSP - Groundwater Sustainability Plan	KGA - Kern Groundwater Authority KC - Kern County KCWA - Kern County Water Agency KRGS - Kern River Groundwater Sustainability Agency KRWCA - Kern River Watershed Coalition Authority MAR - Managed Aquifer Recharge MTs - Microsoft Teams MWD - Metropolitan Water District RFG - Restoration Flow Guidelines RWA - Restoration Water Account SJVWIA - San Joaquin Valley Water Infrastructure Authority SJRRP - San Joaquin River Restoration Program	SGMA - Sustainable Groundwater Management Act TF - Temperance Flat Steering Committee TC - Teleconference WAKC - Water Association of Kern County WBC - Wage & Benefit Comm. WRMWS - Wheeler Ridge-Maricopa Water Storage District WWGSA - White Wolf Groundwater Sustainability WMP - Water Mgmt. Program WQSA - Water Quality Sub-Account	1 KRWCA BOD w/ Johnston (Microsoft Teams) FFPP/Eastside Canal Grant w/USBR (TC)	2	3
4	5 JDA (TC)	6 Water Quality w/ Legal Counsel (TC)	7 PWRPA BOD (WebEx) Standtank Painting Pre-Construction Mtg. 1	8	9 Friant Managers (WebEx) Standtank Painting Pre-Construction Mtg. 2 Smith's Retirement Luncheon (HQ)	10
11	12 FWA EC w/Camp (Lindsay)	13 AEWSD BOD	14 Sunset Spreading Works Design w/Kern Delta WD AE 101 w/Watts Farming Contract Demand for PG&E White Wolf Tech Committee	15 Pension Plan Advisory Committee FWA Special BOD w/ Camp (WebEx) SJRRP - Millerton Lake Operations (Microsoft Teams)	16 Kern Managers - SGMA (RRBWSD)	17
18	19 Water Quality Small Group (WebEx) KGA EC (RRBWSD) (Pascoe) Water Quality w/EKI & Legal Counsel	20	21 PWRPA WDT3 w/ Westlands WD (WebEx) Prop 218 w/ACSD (Lamont) CVC Ad-Hoc & CVC Closed Session (GoToMeeting) Landowner Prorate Meetings	22	23 CVC EIR Review	24
25	26 Water Quality Small Group w/USBR (WebEx) FWA Finance Committee (Giumarra)	27 Prop 218 w/Lehr Brothers (Edison) Prop 218 w/Bolthouse (Bakersfield)	28 KGA BOD Prep w/Pascoe KGA BOD w/Pascoe (Zoom) Kern Managers (Zoom) USBR Grant (TC)	29 FWA BOD w/Camp (WebEx)	30 CVC Hydraulic Ad-Hoc (GoToMeeting)	