ARVIN-EDISON WATER STORAGE DISTRICT

REPORT OF DISTRICT OPERATIONS

March 2021

Interbasin Pipeline and Structure Install
(North Canal Spreading Works)

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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).
- Provided continued dry conditions, the SJRRP is likely to call on AEWSD’s exchange 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 at this time.

State Water Project (SWP)

- The 2021 Table A allocation was reduced from 10% to 5%

Kern River

- 2021 supplies are currently estimated at 30% 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 (over 100,000 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
- Districts executed a 2021 Use of CVC/FKC Intertie Agreement for the RRBWSD-Delano Earlimart banking program.

Kern Delta Water District

- Staff continues meeting 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

- District surface water deliveries for the month were 7,472 AF
- The following is a summary of surface water deliveries for March 2021:

	March 2021		Year to Date	
	Historical	2021 WY	Historical	2021 WY
Turnout Deliveries	7,207	7,472	7,207	7,472
In-Lieu Deliveries	-	-	-	-
Temporary Water	-	-		
Spreading	-		-	
Total	7,207	7,472	7,207	7,472

- Exhibit "B" illustrates the delivery data
- The month's peak daily in-District demand was 303 cfs, which occurred on the 30th
- Exhibit "C-1" details Canal Water Quality information
- Exhibit "C-2" presents the Aquatic Pest Control Treatments ($109,235) for Calendar Year 2021

GENERAL

- Staff continues to practice several safety measures in response to COVID-19
- Staff continues efforts with moving select staff into the new Bakersfield office (4700 Stockdale Avenue Suite 115)
- District vehicles consumed an estimated 4,700 gallons of fuel during the month (average fuel efficiency of 10.9 mpg)
- There were 349 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 work on the final semiannual report is in progress with anticipated submittal 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 April/May
- 2020 USBR Water and Energy Efficiency Grant for DiGiorgio In-Lieu Water Conservation Project – Phase 2 **was not awarded** and staff will be following up with the Bureau on the project scoring to assist with future grant applications
- District is still awaiting results on the Regional Conservation Partnership Program (NRCS) funding for expansion of Tejon Unit gravity pipelines service area (expect April)
- 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
- Review consultants' task orders and rates for the upcoming 2021 water year
- 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 development
    - 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)
    - Review factory test results for 5 CFS vertical pumps
  - Turnout modification requests
    - Canopy Ag (E-29) upsize completed, reconciliation is ongoing
  - Temporary and/or In-Lieu Water Service Contract Requests
    - Bolthouse (Lateral S64)
    - Sunridge (North Canal gravity west towards Eastside Canal)
      - Response letter sent out and discussed with landowner
  - Landowner pipeline replacement (adjacent to 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
  - Standtank Painting
    - Prepare exhibits and coordinate with Contractors for bids

SGMA Activities

- Continued coordination meetings and outreach activities
- Attended various GSA meetings
- Coordinated GSA boundary revisions with neighboring agencies
  - Completed coordination with Wheeler Ridge-Maricopa WSD, Kern Delta WD, Improvement District No. 4, and Tejon-Castac WD
  - 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

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
- 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

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
  - Budget implications from PG&E WDT3 rate increase
  - Interim Rate Settlement proposals
- 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 Renewable Energy Generation Information System (credits to be used by District/PWRPA)
- 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 7,616AF for the month (49% of historical maximum in March)
- Exhibit “G” summarizes gross direct spreading of 138 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” District wells:

Field	Well #	Year	HP	Reason	Work
Sycamore	28	1970	300	Excess Vibrations	Pulled equipment, video, reviewing options
Tejon	82	1970	300	Excessive sand	Video, Repaired casing, installed new pump, startup pending
Tejon*	101	2018	600	Softstart Electrical Short	Contractors troubleshot under warranty, replaced pole

***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 ACTIVITES

Troubleshooting Pump Logic (Spillway)

RRBWSD Exchange Water (Kern Delta Main)

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 North and South side 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 Wells 75,95, and 98)
- Replaced damaged and/or worn air vents (District wide)
- Responded to various Pumping Plant alarms (reset and primed laterals)
- Assisted controls with troubleshooting Spillway pumps
- Cleaned isolation and air vent concrete rings
- Stenciled turnouts and well discharge pipes with labels (as needed)

Underground Service Alert (USA) Report

- District initiated 0
- Responded to 628 USA notices to locate District underground facilities
    - 14 required markings of District facilities
    - 357 were renewals
    - 257 with no conflicts

Power Outages and/or Interruptions Involving the Following Systems

- Laterals N1, N55, District Office, Sycamore Spreading Works, S73, S93, and End of Canal/Spillway

Laterals Prorates (number of days)

- Laterals S38 (1) and S93 (1)

MAINTENANCE DEPARTMENT ACTIVITIES

Routine Activities

- Aquatic and terrestrial weed control (Intake and South Canal)

Fence Repairs (N1-P2)

Pump and Pipeline Painting (N1-P2)

- Routine gardening and maintenance at Headquarters and CIMIS station
- Fence repair (Intake Canal, Wasteway, N1-P2, and N8-P1)
- Grading (Tejon Spreading Works)
- Discing (Wasteway, Sunset Groundwater Recharge, and Tejon 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 (Intake Canal and North side pumping plants)
- Install 24" Interbasin Structure to increase gravity pond fill rates (North Canal Spreading Works)
- Set up furniture at new Bakersfield Office location
- Modify discharge pipeline to align with new discharge head (Tejon Well 82)
- Fabricate metal troughs for moss screens
- Repair pipeline leak (Lateral S73)
- Filled in various washouts (Forrest Frick Pumping Plant)
- Prepped and painted various facilities (Pumping Plant N1-P2)

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	Trailer Lights	1
Tires	4	Wiper Blades	2
Tire Repairs	4	Pulleys	2
Rotors/Drums	2	Batteries	3
Fuel Filters	4	Belts	2
Wheel Bearings	2	Water Pump	1
Headlights	1	Radiator	1
Tail Lights	3		

- Heavy Equipment Repairs
  - Repaired taillights (Trailer)

- Repaired gangs (Disc)
- Repaired air leak (Crane)

PUMP DEPARTMENT ACTIVITIES

Trash Cage Installation (26-P1 Pumpback)

Moss Screen Trough Fabrication

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.

Additional Activities

- Continued working with Engineering Department on Pump Replacement Program
  - Initiated Phase 2 (horizontal pumps)
  - Reviewed factory pump test results for Phase 1 (5 CFS vertical pumps)
- Replaced various 5 CFS packing boxes
- Replaced worn check valve spring arms on multiple valves
- Installed stop log and trash cage to prevent pump clogging (26-P1)

PUMP & MOTOR REPAIR SUMMARY

	Pumping Plant/Wells	Unit	Size	Time/Hours	Reason
Vertical Pumps	None to Report				
Vertical Motors	Tejon Wellfield	82	300 HP		Burned motor
Horizontal Pumps	N1-P5	1	5 CFS	3,002	Worn sleeves and rings
	N55-P7	4	5 CFS	damaged meter	Worn bearings
Horizontal Motors	N55-P2	5	200 HP	13,180	Burnt windings
	N55-P5	2	100 HP	685	Worn bearings
	N55-P7	1	50 HP	damaged meter	Worn bearings

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
Starter Controls	1	Relays	1
Softstart	1	Circuit breaker	2
Contact Block	1	Fuses	2
Battery backup	2	12 kV Fuses	6
PLC modules	3		

Additional Activities

- Programming for SCADA system updates and monitored performance
- Assisted contractor with data collection for coordination study (North Canal Spreading Works)
- Worked with contractors to troubleshoot and repair wellfield electrical equipment (Tejon Well 75)
- Assist with phones at new Bakersfield Office

FORREST FRICK PUMPING PLANT

- 250 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

SUPPLY		***AF***	***%***
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	5.9%
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 (RRBWSD EXCHANGE)		10,000	
	TOTAL IPL	10,000	7.6%
INTAKE CANAL PUMP-IN (IC)			
KERN DELTA WELLS		0	
KERN DELTA H STREET		0	
	TOTAL KR	0	0.0%
TOTAL IMPORT		**20,586**	**15.7%**
GROUNDWATER PUMPING			
IRRIGATION DEMAND		110,878	
FARM PUMP IN		0	
RETURN TO MWD		0	
	TOTAL PUMPING	110,878	84.3%
TOTAL WATER SUPPLY		131,464	100.0%

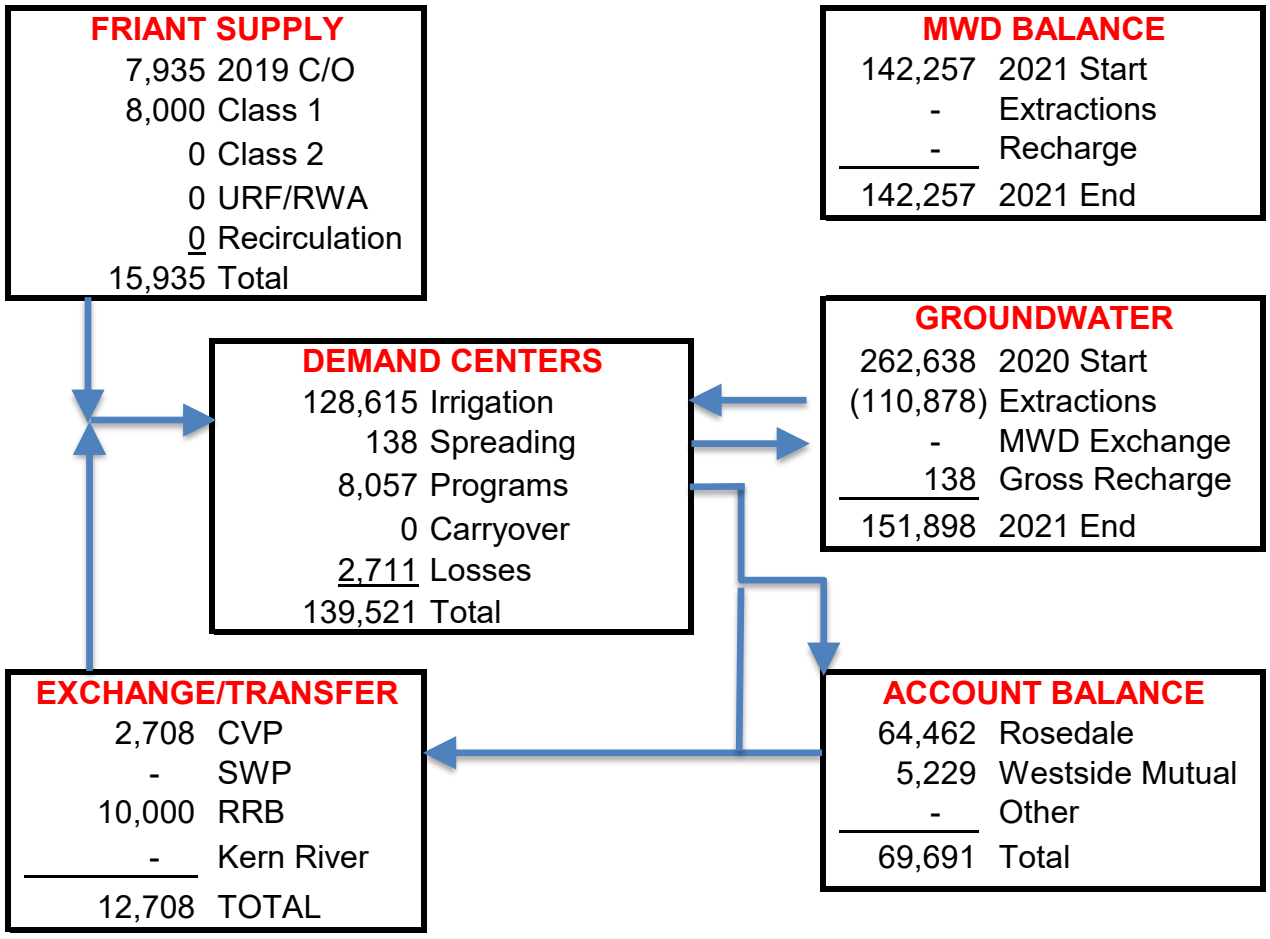
DEMAND		
IRRIGATION DEMAND (MARCH)	7,472	5.7%
IRRIGATION DEMAND (APRIL-FEBRUARY)	121,143	92.1%
SPREADING (MARCH)	138	0.1%
SPREADING (APRIL-FEBRUARY)	0	0.0%
RETURN TO MWD	0	0.0%
WHEELING	0	0.0%
CARRYOVER TO 2021	0	0.0%
LOSSES/METERING INACCURACIES	2,711	2.1%
TOTAL DEMAND	131,464	100.0%

4/8/2021

Exhibit "A-2"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER MANAGEMENT



Surface Water	17,875	**14%**
Groundwater (69% of Max)	110,878	**86%**
Projected Irrigation Demand	128,753	**100%**

EXHIBIT "B"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER YEAR DELIVERIES

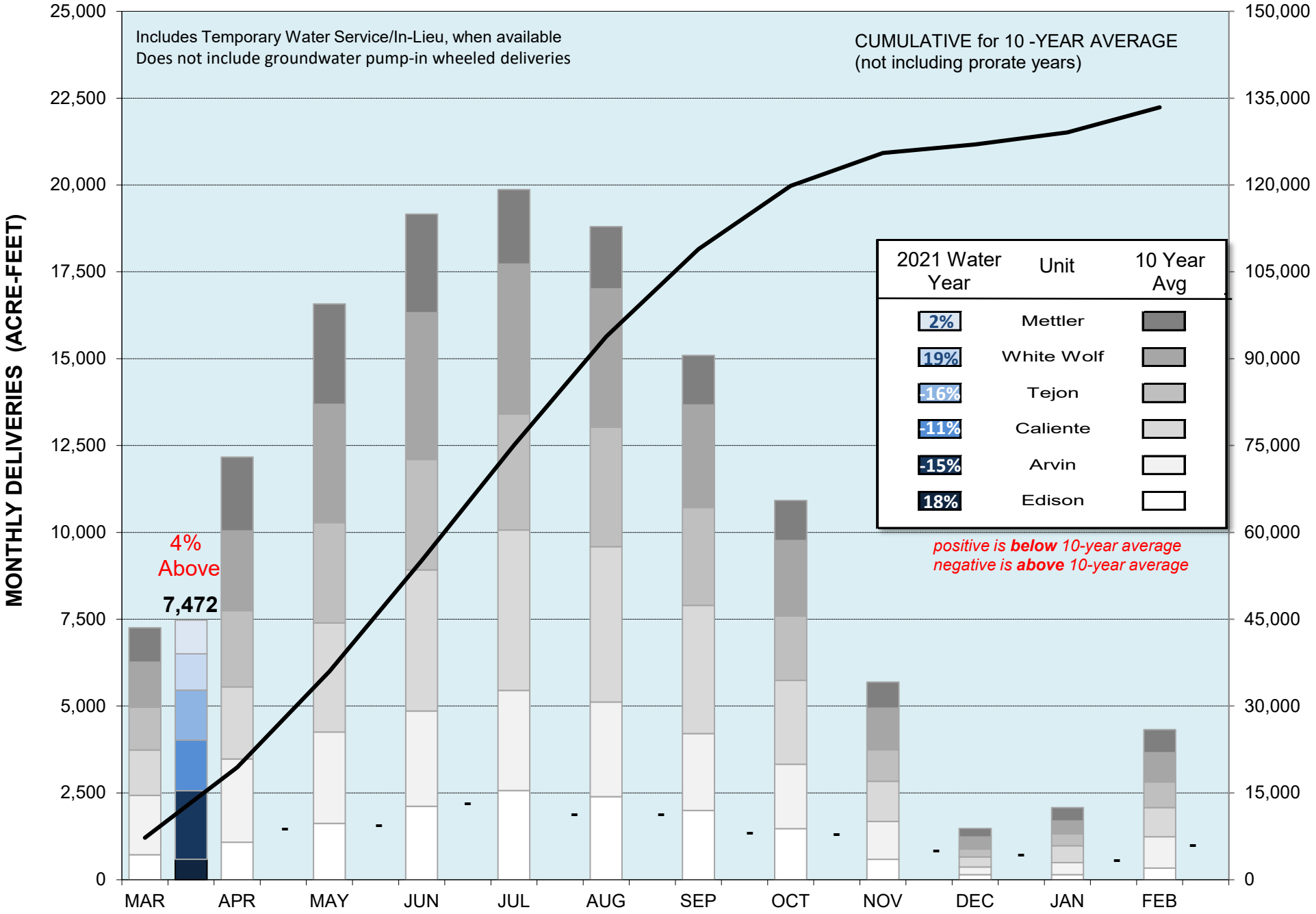


EXHIBIT "C1"

ARVIN-EDISON WATER STORAGE DISTRICT

WATER SUPPLY WATER QUALITY SUMMARY

	Date	Flow	Import	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS	pH	EC	Hardness	SAR	Gypsum	Boron	Turbidity
		cfs	Source	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l		umhos/cm	mg/l		lbs/AF	mg/l	NTU
Intake Canal	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
	02/10/20	80	FKC(100%)	3.6	0.18	0.7	0.05	3.5	0.15	18	0.30	1.3	0.04	0.16	0.00	20	6.9	32	12	0.4	0.29	ND	2.9
	Average			**17.6**	**0.9**	**1.6**	**0.1**	**18.7**	**0.8**	**61.4**	**1.0**	**14.6**	**0.4**	**2.5**	**0.0**	**101.6**	**8.0**	**188.8**	**50.2**	**1.1**	**0.5**	**0.1**	**5.9**
North Canal	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
	02/10/20	0	FKC(100%)	4.3	0.22	0.9	0.07	3.7	0.16	23	0.38	1.8	0.05	0.27	0.00	24	6.9	44	14	0.4	0.37	ND	10.1
	Average			**20.7**	**1.0**	**3.9**	**0.3**	**38.8**	**1.7**	**104.6**	**1.7**	**19.6**	**0.6**	**5.7**	**0.1**	**167.4**	**8.1**	**307.6**	**67.6**	**2.0**	**2.1**	**0.3**	**3.2**
South Canal	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
	02/10/20	0	FKC(100%)	5.8	0.29	1.6	0.13	6.0	0.26	29	0.48	6.8	0.19	0.26	0.00	42	7.1	67	21	0.6	0.27	ND	7.9
	Average			**26.6**	**1.3**	**6.8**	**0.6**	**38.8**	**1.7**	**111.1**	**1.8**	**32.5**	**0.9**	**7.2**	**0.1**	**196.6**	**8.2**	**361.8**	**93.6**	**1.7**	**1.3**	**0.2**	**2.8**

EXHIBIT "C1"

ARVIN-EDISON WATER STORAGE DISTRICT

WATER SUPPLY WATER QUALITY SUMMARY

	Date	Flow[1]	Import	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS	pH	EC	Hardness	SAR	Gypsum	Boron	Turbidity
		cfs	Source	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l		umhos/cm	mg/l		lbs/AF	mg/l	NTU
Intertie Pipeline	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
	02/10/20	0	FKC(100%)	22.0	1.10	9.0	0.74	45.0	1.94	54	0.89	52.0	1.46	0.06	0.00	200	9.4	378	92	2.0	ND	0.12	7.3
	Average			**29.2**	**1.5**	**8.5**	**0.7**	**41.9**	**1.8**	**110.5**	**1.8**	**38.9**	**1.1**	**8.4**	**0.1**	**215.0**	**8.4**	**398.4**	**108.2**	**1.8**	**0.1**	**0.2**	**4.3**

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	North																
			Stine Siphon	Bal. Res.	PP 24P1	NCSW	PP 41P1	PP 55P1	Syc. Ponds	Syc. Check	PP 32P1	PP 38P1	Tej. Ponds	Tej. Check	615 Check	729 Check	883 Check	Spill Way	Intertie Forbay
			353+87	145+00	237+00	326+50	413+10	546+00	576+50	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	68-39			15	15	15	15	207				15		15				
	03/01/21				1.5	2	2	2	70	9			2	18.5	2				
	03/08/21			145			200							25		14			
	03/08/21			50			65												
	03/15/21													10	10				
	03/15/21												3		6.5	2			
	03/22/21			366.5	20			10	10										
	03/22/21			85.5	91.5	92			21							15			
	03/22/21			30	30	31													
	03/29/21																		
APR	04/05/21	51-74																	
	04/12/21																		
	04/19/21																		
	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																		
	06/28/21																		
JUL	07/05/21	65-98																	
	07/12/21																		
	07/19/21																		
	07/26/21																		
AUG	08/02/21	60-89																	
	08/09/21																		
	08/16/21																		
	08/23/21																		
	08/30/21																		
SEPT	09/06/21	62-93																	
	09/13/21																		
	09/20/21																		
	09/27/21																		
OCT	10/04/21	46-79																	
	10/11/21																		
	10/18/21																		
	10/25/21																		
NOV	11/01/21	41-71																	
	11/08/21																		
	11/15/21																		
	11/22/21																		
	11/29/21																		
DEC	12/06/21	40-59																	
	12/13/21																		
	12/20/21																		
	12/27/21																		

2021 Cost To Date

Treatment	Material	Labor	Total
Captain/Nautique	$42,891	$2,080	$44,971
Phycomycin	$5,668	$1,456	$7,124
Cascade	$0	$0	$0
Teton/Hydrothol	$51,108	$6,032	$57,140
Spreading Basins	$0	$0	$0
Total	$99,667	$9,568	$109,235

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)

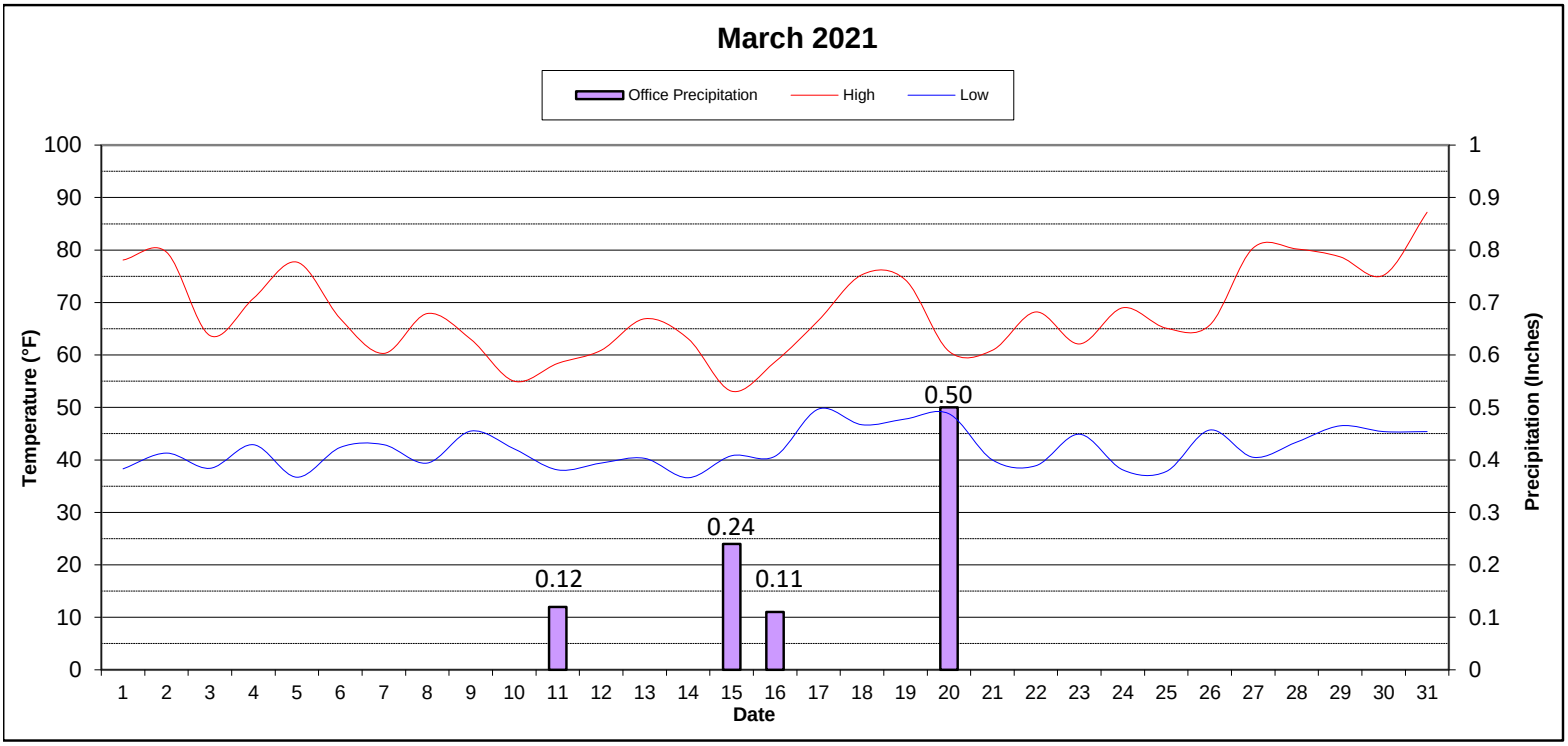
Winter Maintenance

Year Type	Amount	Year
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
Normal-Wet	$24,969	2010

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	1.84		1.59		1.49		1.32		1.77	
AVG. YEAR TO DATE	5.52		7.17		6.86		6.02		4.79	
CURRENT MONTH	1.59	86%	0.97	61%	1.02	68%	1.03	78%	1.28	72%
CUMULATIVE (07/01/20 - 06/30/21)	3.54	64%	2.97	41%	2.84	41%	2.05	34%	2.42	51%

TEMPERATURE (6)	(ºF)	DATE	TIME
MAXIMUM TEMPERATURE	86	3/31/2021	4:00 PM
AVERAGE MAXIMUM TEMPERATURE	68		
# DAYS THIS MONTH ABOVE 100 ºF	0		
MINIMUM TEMPERATURE	39	3/14/2021	7:00 AM
AVERAGE MINIMUM TEMPERATURE	39		
# DAYS THIS MONTH BELOW 32 ºF	0		

WIND (6)	M.P.H.	DATE	TIME	DRCTN
MAXIMUM WIND SPEED	14.4	3/31/2021	6:00 PM	NE
AVERAGE WIND SPEED	3.1			
AVERAGE WIND SPEED @ 8:00 AM	2.1			

BAROMETRIC PRESSURE (7)	IN. HG	DATE	TIME
AVERAGE PRESSURE @ 8:00 AM	29.62		
MAXIMUM PRESSURE	29.75	3/13/2021	10:00 AM
MINIMUM PRESSURE	29.24	3/2/2021	6:00 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

WY2020 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 20	95,753	1,476,829	16,849	3,881,621	3,823	5,474,875	1,533	10,528	331	12,611	6	25,009	29%
APR	221,449	2,147,169	5,002	5,438,892	3,752	7,816,263	1,875	13,366	167	16,800	6	32,214	34%
MAY	1,089,316	5,057,948	30,062	10,430,220	3,725	16,611,272	3,857	14,586	341	17,217	8	36,009	62%
JUN	1,299,537	5,879,720	15,360	11,414,283	4,064	18,612,964	3,068	14,283	344	17,616	7	35,318	73%
JUL	2,396,936	6,296,885	5,352	7,058,878	4,378	15,762,429	5,018	14,913	247	10,929	7	31,114	68%
AUG	2,198,347	6,072,964	12,514	6,416,516	4,369	14,704,710	5,276	14,553	334	10,664	8	30,835	64%
SEP	2,035,402	5,247,731	8,403	4,498,489	3,786	11,793,811	4,615	14,295	336	7,042	7	26,295	62%
OCT	390,903	3,896,093	12,085	8,364,607	3,897	12,667,585	2,941	13,483	329	14,170	6	30,929	55%
NOV	185,774	1,918,513	2,659	3,664,094	3,477	5,774,518	2,683	11,415	326	14,268	10	28,702	28%
DEC	39,745	709,491	1,148	1,586,220	3,285	2,339,889	829	8,353	64	4,986	6	14,238	22%
JAN 21	31,590	935,056	1,150	2,159,648	3,032	3,130,476	57	9,013	2	6,897	6	15,975	26%
FEB	114,416	1,360,483	4,915	3,189,927	3,222	4,672,964	423	10,057	173	12,557	6	23,216	30%
TOTAL	10,099,168	40,998,882	115,500	68,103,396	44,809	119,361,756							

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

3/10/2021

EXHIBIT "F"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER YEAR WELLFIELD PRODUCTION - AF

Month	Bal Res		North Canal 5		Wellfield						Total		
					North		Sycamore		Tejon				
	AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max	AF	AF / Day	% of Historical Max
MAR - 21	0	0%	720	59%	2,580	116%	2,327	36%	1,989	36%	7,616	246	49%
APR													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN - 22													
FEB													
Total	0		720		2,580		2,327		1,989		7,616	246	49%
Ratio	0%		10%		34%		31%		26%		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												
MAY												
JUN												
JUL												
AUG												
SEP												
OCT												
NOV												
DEC												
JAN-22												
FEB												
Total	138	0	0	0	0	0	0	0	138	0	0	138
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%				

Total Pressure	138		0			0			138			138
	100%		0%			0%			100%			100%

EXHIBIT "H-1"

ARVIN-EDISON WATER STORAGE DISTRICT

STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - MARCH 2021

ALL VALUES IN FEET

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
NORTH CANAL (23)	N1	428	471	610	840	44	139
	N2	457	527	700	840	69	173
	N3	416	446	610	840	30	164
	N4	427	485	550	864	58	65
	N5	440	451	650	864	12	199
	N6	485	580	640	920	95	60
	N7	471	498	600	1010	28	102
	N8	391	431	560	970	39	129
	N9	424	540	700	990	116	161
	N10	430	492	560	990	62	68
	N11	407	430	562	1020	23	132
	N12	443	473	600	1030	30	127
	N13	445	482	600	1000	37	118
	N14	448	466	540	900	18	74
	N15	315	514	700	1200	199	186
	N16	350	459	600	1200	109	141
	N17	343	512	610	1200	169	98
	N18	383	515	610	1190	132	95
	N19	507	543	760	1300	36	217
	N20	548	598	820	1020	50	222
	N21	552	608	660	950	56	52
	N22	415	447	680	990	32	233
	N23	415	415	680	990	0	265
	Avg	432	495				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
TEJON (29)	71	564	611	800	1050	46	189
	72	455	534	800	1045	79	266
	73	507	541	800	1018	35	259
	74	495	567	800	1084	72	233
	75	502	525	800	1045	23	275
	76	437	538	700	996	102	162
	77	449	551	800	1066	102	249
	78	479	530	800	1038	51	270
	79	390	432	700	1032	42	268
	80	437	592	800	996	155	208
	81	409	520	700	925	111	180
	82	445	N/A		996	N/A	N/A
	83	450	555	800	996	105	245
	84	386	423	700	955	37	277
	86	490	557	800	996	67	243
	87	481	531	800	984	50	269
	88	490	608	800	948	118	192
	89	454	629	800	996	175	171
	90	482	551	700	996	69	149
	91	440	N/A	700	996	N/A	N/A
	92	544	606	800	996	62	194
	93	481	553	800	996	72	247
	94	514	585	860	996	72	275
	95	499	529	800	996	30	271
	96	468	648	800	996	180	152
	98	494	545	760	1340	51	215
	99	506	550	760	1340	44	210
	100	459	531	760	1340	72	229
	101	404	483	760	1310	79	277
	Avg	469	549				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
SYCAMORE (34)	1	465	504	705	800	39	201
	2	429	468	690	876	39	222
	4	453	481	700	876	28	219
	5	477	503	720	876	25	217
	6	417	479	690	876	62	211
	7	440	489	700	830	49	211
	8	400	437	640	860	37	203
	9	478	508	700	886	30	192
	10	416	444	690	850	28	246
	11	451	483	700	880	32	217
	12	464	506	700	860	42	194
	13	455	490	700	850	35	210
	14	460	499	670	810	39	171
	15	433	507	710	820	74	203
	16	426	545	700	888	119	155
	17	424	511	650	820	88	139
	18	407	428	650	820	21	222
	20	424	470	680	804	46	210
	21	407	444	690	856	37	246
	22	416	430	610	792	14	180
	23	424	438	600	788	14	162
	24	416	441	580	780	25	139
	25	396	428	610	777	32	182
	26	407	452	690	816	45	238
	28	401	452	660	782	51	208
	29	408	452	690	787	44	238
	31	407	428	660	725	21	232
	32	400	483	640	739	83	157
	33	446	520	700	780	74	180
	34	424	N/A	700	781	N/A	N/A
	35	405	472	700	800	67	228
	36	408	435	600	820	27	165
	37	412	435	540	820	23	105
	38	455	490	860	1270	35	370
	Avg	428	471				

OUT OF SERVICE (4)

AIRLINE FAILURE (7)

FAILED (2)

86 TOTAL WELLS

*Bowl depth measured to top of pump

*Pumping levels are estimated based on previous draw down records. (6 month average)

*Airline failure levels were obtained with acoustic sounder

MONTHLY SUMMARY - AVERAGE WATER LEVELS

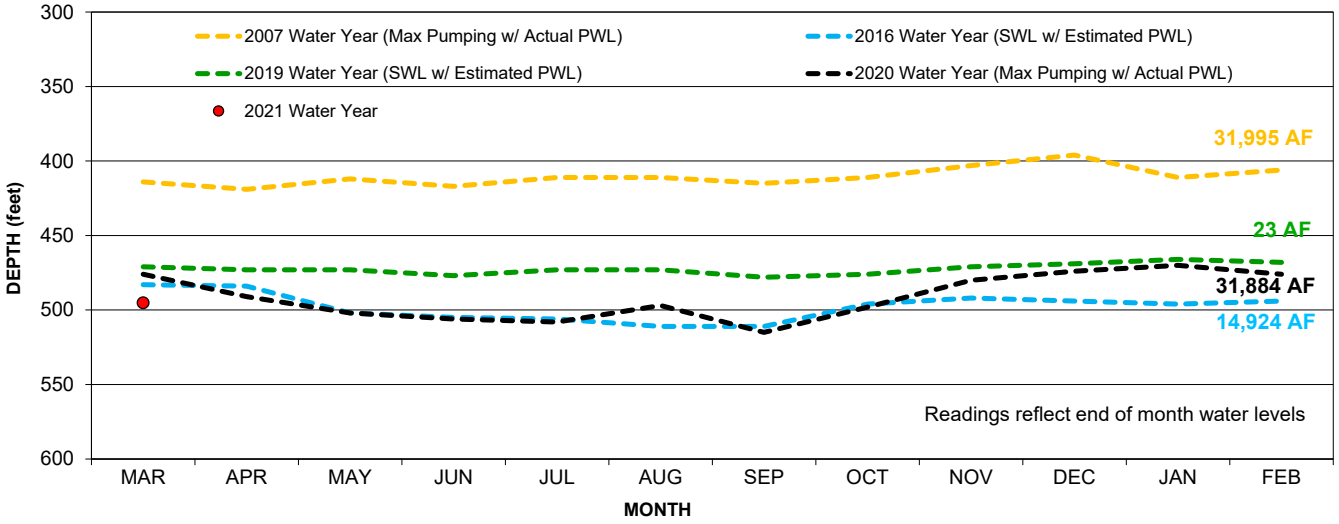
READINGS END OF	STATIC LEVELS N. CANAL	STATIC LEVELS SYCAMORE	STATIC LEVELS TEJON	PUMPING LEVELS N. CANAL	PUMPING LEVELS SYCAMORE	PUMPING LEVELS TEJON
MAR-20	408	375	405	476	415	484
APR	424	409	443	491	453	522
MAY	432	415	496	502	462	566
JUN	439	422	505	506	478	575
JUL	441	427	495	508	466	569
AUG	440	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
CHANGE TO-DATE	-24	-53	-64	-19	-56	-65

EXHIBIT "H-2"

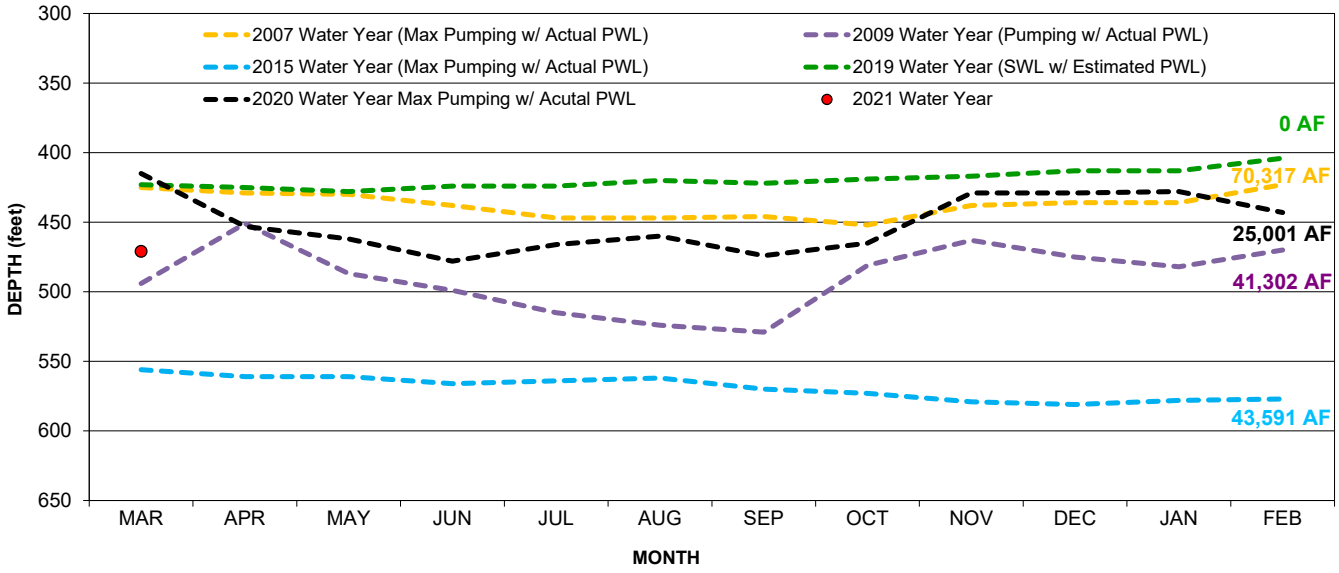
ARVIN-EDISON WATER STORAGE DISTRICT

WELLFIELD PUMPING WATER LEVELS - 2007-09, 2013-16, AND 2018-21

NORTH CANAL



SYCAMORE WELLFIELD



TEJON WELLFIELD

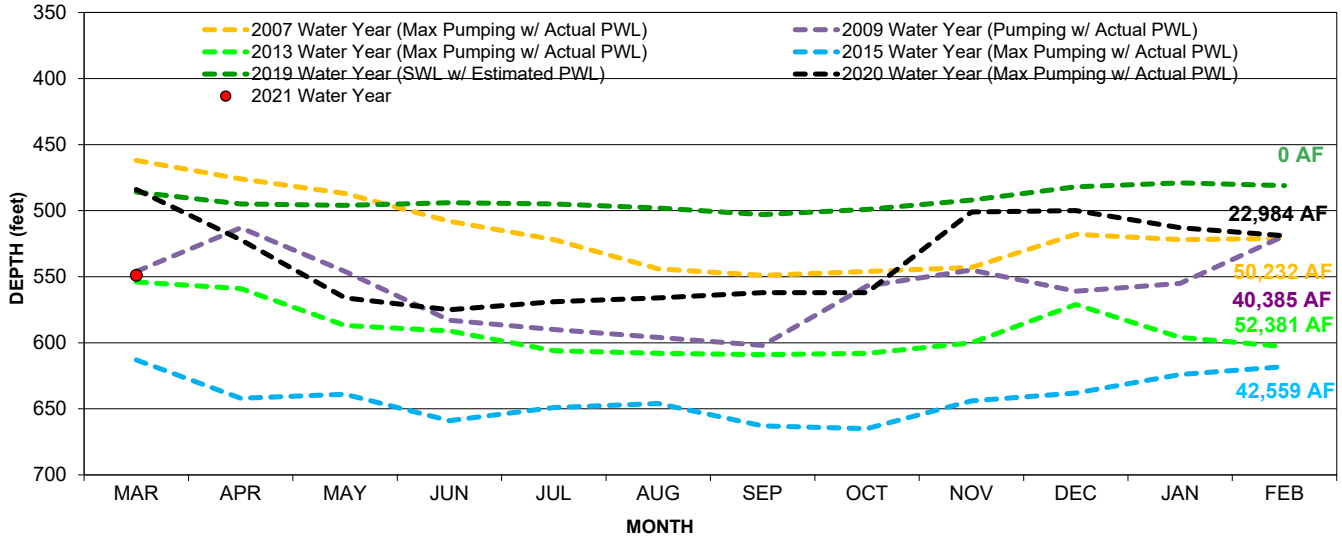


EXHIBIT "I"

March 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
JSM—Blue MD—Orange Staff—Green Board—	1 JDA (TC)	2 WWGSA BOD w/ Martinez/Giumarra (Zoom) Westside CVP Operations (Microsoft	3 ACWA/JPIA w/ Nixon (Microsoft Teams) PWRPA BOD (WebEx)	4	5	6
7	8 Prop 218 Update w/ P&P (Microsoft Teams) District Issues w/Kuney (TC) District Issues w/Camp FWA/SLDMWA RE DMC (Camp)	9 AEWSD BOD	10 FKC Pump-In w/ FWA Staff (WebEx) FKC Fix w/Camp (Microsoft Soft) Freedom Farms	11 CVC Discussions w/ Kern Tulare WD Debbie Blouin Retirement Luncheon	12 Foremen's Meeting Kern Managers SGMA (Zoom) Friant Managers (WebEx)	13
14	15 FWA EC w/Camp (Lindsay) CVC Issues w/YW (TC) KGA EC (RRBWSD) (Pascoe)	16 FKC Fix w/Camp (TC) Bond Counsel Update (TC) Power Purchase w/ RBI (TC)	17 District Tour w/ Berryhill (P&P) SGMA w/EKI & Bezdek (Microsoft Teams)	18 Aqueduct Pump-in Facilitation (TC) PWRPA Special BOD (WDT3) (Microsoft Teams)	19 Kern Basin Annual Report (RRBWSD)	20
21	22 WQ Small Group (WebEx) Special FWA EC w/Camp (WebEx) FWA Finance (WebEx) (Giumarra)	23 CVC Hydraulic Ad-Hoc (GoToMeeting) JPIA & AON w/ Robbins	24 KGA BOD w/ Pascoe (Zoom) CVC Advisory Committee (GoToMeeting)	25 123TCP w/Robbins/ Kuney (WebEx)	26 FWA BOD w/Camp (Visalia)	27
28	29 AEWSD Special BOD	30 DWR Bulletin 118 (Zoom) Central Valley Operations Update (Microsoft Teams)	31 WDT3 w/ PWRPA	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 FWA - Friant Water Authority GSP - Groundwater Sustainability Plan KGA - Kern Groundwater Authority	KC - Kern County KCWA - Kern County Water Agency KRGSA - 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. WRMWSD - Wheeler Ridge-Maricopa Water Storage District WWGSA - White Wolf Groundwater Sustainability WMP - Water Mgmt. Program