ARVIN-EDISON WATER STORAGE DISTRICT

REPORT OF DISTRICT OPERATIONS

June 2022

Startup on Sycamore Well #2

20401 East Bear Mountain Blvd.
Mailing: P.O. Box 175
Arvin, CA 93203-0175

Phone: 661-854-5573
Fax: 661-854-5213
E-mail: arvined@aewsd.org
Website: aewsd.org

WATER SUPPLY

Friant Division Central Valley Project (CVP)

- The 2022 Water Year allocation is 15% which amounts to 6,000 AF.
- Exhibit “A” provides additional supply information for 2022 Water Year supplies.

San Joaquin River (SJR) Restoration Program (SJRRP)

- The 2022 Runoff Year is estimated at 1,169,000 AF of natural river runoff in the SJR watershed, which is a “Normal-Dry” year type pursuant to SJR settlement and accordingly, the SJRRP would receive a 245,528 AF of water supply.
- Given a “Normal-Dry” year type there is likely no Unreleased Restoration Flows or Recapture/Recirculation opportunity (no additional supplies).
- 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.

Shasta System CVP

- The 2022 allocation for south of Delta Ag remains at 0%.

State Water Project (SWP)

- The 2022 Table A allocation remains at 5%.

Kern River

- 2022 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 2022 Water Year (93,700 AF).

Metropolitan Water District (MWD) Program

- MWD beginning balance is 119,127 AF in water bank reserves.
- The District obtained its twelfth 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, 2022.
- 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.
- District has begun communicating with MWD staff regarding 2022 call on the program for surface supplies.

Rosedale-Rio Bravo Water Storage District (RRBWSD) Program

- The District’s 2022 beginning account balance for water held in RRBWSD is at 54,461 AF.
- District anticipates receiving 10,000 AF from the program to supplement other surface water supplies
- Districts executed a “2022 Use of CVC/FKC Intertie Agreement” for the RRBWSD-Delano Earlimart banking program.

Kern Delta Water District (KDWD)

- Staff continues meeting with KDWD staff to advance water management opportunities including joint partnership in groundwater recharge facilities and interconnection facilities between Forrest Frick Pumping Plant Discharge Pipeline and the Eastside Canal.
- AEWSD-KDWD-RRBWSD executed a 2022 operational exchange in which AEWSD's 10,000 acre-feet from RRBWSD would be delivered via KDWD from April through September.

District Partnerships

- The District has participated in water management programs with the following districts/agencies in Water Year 2022:

Chowchilla Water District
Del Puerto Water District
Exeter Irrigation District
Fresno County
Ivanhoe Irrigation District
Kern Delta Water District
Kern Water Bank
Lindmore Irrigation District
Orange Cove Irrigation District
Rosedale-Rio Bravo Water Storage District
San Joaquin River Exchange Contractors
San Joaquin River Restoration Program
Saucelito Irrigation District

WATER DEMAND

- District surface water deliveries for the month were 16,106 AF.
- The following is a summary of surface water deliveries for June 2022:

	June 2022		Year to Date	
	Historical	2022 WY	Historical	2022 WY
Turnout Deliveries	19,240	16,117	55,294	48,756
In-Lieu Deliveries	-	-	-	-
Temporary Water	-	-		-
Spreading	-	-	-	-
Total	19,240	16,117	55,294	48,756

- Exhibit "B" illustrates the delivery data
- The month's peak daily in-District demand was 380 cfs, which occurred on the 22nd
- Exhibit "C-1" details Canal Water Quality information
- Exhibit "C-2" presents the Aquatic Pest Control Treatments ($127,927) for Calendar Year 2022

GENERAL

- District vehicles consumed an estimated 4,874 gallons of fuel during the month (average fuel efficiency of 11.2 mpg)

- There were 220 hours lost due to illness (including COVID-19 hours) and 176 hours lost due to on-the-job injuries with one (1) employee out on Workers' Compensation Claim

- On the 7th, held a South of Kern River Public Workshop at Headquarters in the Pump Shop

- Exhibit "D" highlights precipitation, temperature, and wind speed

- Exhibit "E" summarizes energy consumption and power demand to date and for Water Year 2022 it is expected to generate an electrical demand of approximately 138 million kilowatt hours

South of Kern River GSA Public Workshop held On June 7, 2022

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 (facilities, water service areas, boundaries, etc.)
- 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

- 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 was executed; the cultural portion for the NEPA Categorical Exclusion has been completed and executed.
- 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)
- North West Kern Resource Conservation District provides discounted on-farm irrigation distribution uniformity and efficiency testing
    - Phone (661) 281-2746
    - Website (http://northwestkernrcd.org)

Other Activities

- Administration and accounting of on-going water management programs

- Technical support and review of ongoing projects/studies such as:
  - Sunset Groundwater Recharge Facility (w/Kern Delta WD)
    - Coordinating power extension (PG&E, contractors, consultants)
    - Pump station and pipeline design coordination
  - Forrest Frick and Eastside Canal Intertie (w/ Kern Delta WD)
    - Completed environmental compliance with USBR
    - Working with PG&E on facilities extension for new service
    - Plans finalized and out for bid
  - Potential Interconnections (w/ Wheeler Ridge-Maricopa WSD)
    - Coordination with both Districts' staff continued to deliver District water into the 850 Canal, which will ultimately be delivered back into AEWSD overlap lands with Wheeler-Ridge
  - Pump Replacement Program
    - Staff continues to make progress on Phase 2 of the program
  - Turnout Modification Requests
  - Temporary and/or In-Lieu Water Service Contract Requests
    - Freedom Farms
  - Cathodic protection system upgrades
  - Pump Efficiency Testing
    - As needed for replaced pumps
  - Real Time Water Quality Monitoring
    - Remote connection for data access completed and website display is in progress
  - Intertie Pipeline Inspection
    - Coordinating potential use of pipeline diver tool with Xylem
  - Groundwater Metering
    - Coordinate warranty repairs with Manufacturer
  - Standtank Painting
    - Notice of Award went to Capital Coatings, Inc.

SGMA Activities

- Continued coordination meetings and outreach activities
- Continued review of well permits and submitted comment letters to those within or near AEWSD
- Attended various GSA meetings
- Development of a potential Well Mitigation Policy
- Development of County's "Proof of Water" Policy
- Evaluate various Water Budget methodologies
- Development of a customized Groundwater Model for AEWSD
- Continued coordination efforts to complete South of Kern River GSP
  - Various Agreements approved and executed
  - Draft South of Kern River GSA out for public review and/or comments (posted on website www.aewsd.org)

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)
  - City of Bakersfield (Intake Canal)
  - Kern Delta Water District (Intake Canal)
- Reviewing/responding to multiple planning notices
  - Kern County (various developments/potential facility conflicts)
- 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
  - Contract demand analysis
  - WDT 3 impact review
  - Power accounting report
  - Renewable Portfolio Standards review
- 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 construction coordination
    - Currently under construction and completion is anticipated by May 2022
  - Reviewed available local solar renewable energy certificates to Western Renewable Energy Generation Information System (credits to be used by District/PWRPA)
  - Review and coordinate Demand Response Program
  - MWD power correspondence review
  - District Power Master Planning and MicroGrid investigations
  - Forrest Frick Pumping Plant load capacity coordination
- Coordinate long term power analysis for Sunset GW Recharge Facility
- Calendar Year and Water Year power reconciliations and summaries
- Groundwater Service Program
  - Monthly invoicing and program coordination

SPREADING WORKS OPERATIONS (WELLFIELDS AND BASINS)

- Exhibit “F” summarizes wellfield production, which totaled 11,743 AF for the month
- Exhibit “G” summarizes gross direct spreading of 202 AF for the month
- 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	2	1967	300	Low Production and Excess Vibrations	Pulled equipment, replacement pump install to be scheduled
Sycamore	17*	1967	300	Low Production Excess Vibrations	Pulled and inspected equipment, replacement pump installed
Sycamore	21	1970	300	Low Production	Pulled equipment, evaluating options
Tejon	77*	1966	300	Excess Vibrations	Pulled equipment, replacement pump installed
Tejon	78	1966	300	Low Production	Pulled and inspected equipment, pump install to be scheduled
Tejon	83	1970	300	Excess Vibrations	Pulled and inspected equipment, replacement pump installed, startup scheduled
Tejon	95	1998	300	Low Production and Excess Vibrations	Equipment pulled, video, replacement pump install to be scheduled

***Back in Service**

- Seven (7) out of 86, or 8%, 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

OPERATIONS DEPARTMENT ACTIVITES

Routine Activities

- Operate and monitor the District’s water distribution and delivery systems including canals, wells, and reservoirs
- 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

Groundwater Pump-in at Sycamore Spreading Well #4

        - 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
- Shut down wellfield (North Canal Spreading Works) to assist PG&E in restoring power issues in the City of Arvin
- Continued water patrol during the prorate period
- Replace leaking air vents on discharge manifolds (Wellfields)
- Responded to standtank overflows (N1-S5, N1-P3, and S38-P2)
- Isolate and locate lateral turnout valves (N1 & N8)
- Flush/clean lateral pipeline and wellfield airvents (North and South side)
- Responded to multiple facilities and pumping plant alarms (reset and primed laterals)
- Responded to various drain back and valve replacements (N1-P4 and N8-P1)
- Addressed various wellfield start-up/shut down issues
- Followed up on spray water meter tracking issues
- Greased and exercised various turnout/wellfield valve operators (North & South side)
- Located various buried isolation valves for marking (Underground Service Alert)

Underground Service Alert (USA) Report

- District initiated 0
- Responded to 110 USA notices to locate District underground facilities
    - 11 required markings of District facilities
    - 38 were renewals
    - 61 with no conflicts

USA Dig Markings for Pipeline

Power Outages and/or Interruptions Involving the Following Systems

- There were numerous power outages for the month (FFPP (2), N1 (1), N8 (1), BR (1), N55 (1), S32 (1), S38 (1), S64 (1), S68 (1), S73)1), HQ (1), North Canal (1), Sycamore Spreading (2), and Tejon Spreading (1).

Laterals Prorates (number of days)

- S38 (1), and N55 (1)

MAINTENANCE DEPARTMENT ACTIVITIES

Routine Activities

- Aquatic and terrestrial weed control (South Canal)
- Routine gardening and maintenance at Headquarters and CIMIS station
- Fence and gate repair (Intake Canal)
- Grading and water truck (Sycamore Ponds)

- Discing (Valos Road and Sycamore Spreading Works)
- Mowing (CIMAS Station, and Sycamore Spreading Works)
- Cleared out forebays (North and South Canal)
- Assisted other Departments as needed (Mechanic, Operations, and Pump Shop)
- Conducted monthly safety meeting

Additional Activities

- Hauled file cabinets and installed dry erase and glass calendar at Bakersfield Office
- Set-up for SGMA Public Workshop held in the Pump Shop
- Cut and lower manifold (Sycamore Ponds Well #2)
- Washed out all air conditioner condensers (Headquarters and in the field)
- Used backhoe, dump truck, grader and dump trailer to build-up well sites to give Pacific Irrigation access to pull wells for repairs and to clean-up dump sites (FFPP, Valos, and End-of-Canal)
- Use personnel and equipment to remove homeless encampment (Panama Lane)
- Used backhoe to repair leak and install clamp (N1-P3)
- Prepared and painted various facilities
  - Pumping plants (N55-P10, N55-P8 and N55-P9)

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	8	A/C Compressor	5
Tires	8	Headlights	2
Tire Repairs	4	Tail Lights	4
Rotors/Drums	2	Wiper Blades	8
Batteries	3	Cabin Filter	6
Fuel Filters	4	Trailer Lights	2
Tune-ups	2	Routine Service	18

- Heavy Equipment Repairs
  - Performed a 5,000-hour service (Challenger Tractor)
  - Repaired blades (rotary cutter), and replaced blades (Grader)
  - Replaced gangs (disc)
  - Installed new tire (trailer)

Tejon Pumping Plant Unit #6 Being Removed for Repairs

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

Additional Activities

- Continued working with Engineering Department on Pump Replacement Program
  - Continued pilot testing for Phase 2 (horizontal pumps)
- Replaced 16-in butterfly valve stem casting broke under Lim torque (N1-P4)
- Installed new sump pump due to failed motor (N8-P4)
- Installed new 12-inch cla-valve due to failed darling 1966 valve (N8-P2 Unit #4)
- Replaced 78 Gravity – 3 HP sprayer pump for traveling water screen
- Installed packing (5 CFS (8) & 10 CFS (8) pumps district-wide)

PUMP & MOTOR REPAIR SUMMARY

	Pumping Plant/Wells	Unit	Size	Time/Hours	Reason
Vertical Pumps	Tejon Pumping Plant	5	20 CFS	33,170	Failed Suction Bell
	S88-P1	1	5 CFS	7,000	Bad Bushings
Vertical Motors	Sycamore Spreading Works	23	300 HP	N/A	Burnt Windings
	Sycamore Spreading Works	38	300 HP	N/A	Lighting Strike
Horizontal Pumps	N8-P2	3	10 CFS	5,286	Bearing failure
	N8-P2	1	10 CFS	7,500	Worn sleeves & rings
Horizontal Motors	None				

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

Electrical Repairs to Startup Well #4

Component	Replaced/Repaired	Component	Replaced/Repaired
Aux Contact Block	1	Softstart	3
Battery Backups	1	Fuses	3
Hour Meters	2	Panel Wiring	1
PLC's/Control Modules	1	Panel Wiring/Circuit Breaker	4
Trip Unit	1	Vega Radar Sensor	1

Additional Activities

- Programed Master SCADA ignition pro designer software, updated graphic designs for pumping plants
- Worked with CEI technician to troubleshoot the “loss of signal” alarms at Lateral N1
- Worked with Agilitech upstream water level sensor (NCSW), replaced with radar sensor and pulled ne shielded cable

FORREST FRICK PUMPING PLANT

- 5,223 AF of water was pumped during the month
- Consultants are designing reverse flow facilities into the Intake Canal to assist in regulating wellfield production during shoulder months to increase peaking water supplies

INTERTIE PUMPING PLANT

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

EXHIBIT "A-1"

ARVIN-EDISON WATER STORAGE DISTRICT

2022 WATER SUPPLY AND DEMAND

SUPPLY		***AF***	***%***
FRIANT-KERN (F-K)			
CARRYOVER OF 2021 WATER		6,317	
15% OF 40,000 AF CLASS 1		6,000	
0% OF 311,675 AF CLASS 2 (Uncontrolled Season)/RWA		0	
0% OF 311,675 AF CLASS 2		0	
URF TIER 2 BLOCK 1		2,000	
PRIORITY URF		5,600	
	SUBTOTAL	19,917	
FRESNO COUNTY		-600	
SJRRP RETURN		-3,500	
EXETER ID		-282	
IVANHOE ID		-281	
LINDMORE ID		-200	
ORANGE COVE ID		-50	
SAUCELITO ID		-100	
	TOTAL F-K	14,904	12.6%
CROSS VALLEY CANAL (CVC)			
ROSEDALE-RIO BRAVO WSD (KDWD EXCHANGE)		0	
WESTSIDE MUTUAL WC (SUN PACIFIC EXCHANGE)		1,095	
SLR 2022 RECIRCULATION		17	
CHOWCHILLA WD		24	
DEL PUERTO WD		-9	
	TOTAL CVC	1,127	1.0%
STATE WATER PROJECT (AQUEDUCT)			
KT EXCHANGE		0	
	TOTAL AQUEDUCT	0	0.0%
INTERTIE PIPELINE (IPL)			
RETURN TO MWD		0	
	TOTAL IPL	0	0.0%
KERN RIVER			
FRESNO COUNTY		0	
MWD BANKING		0	
KERN DELTA (RRBWSD EXCHANGE)		10,000	
	TOTAL IPL	10,000	8.5%
INTAKE CANAL PUMP-IN (IC)			
KERN DELTA WELLS		0	
KERN DELTA H STREET		0	
	TOTAL KR	0	0.0%
TOTAL IMPORT		**26,031**	**22.0%**
GROUNDWATER PUMPING			
IRRIGATION DEMAND		92,044	
FARM PUMP IN		0	
RETURN TO MWD		0	
	TOTAL PUMPING	92,044	78.0%
TOTAL WATER SUPPLY		118,075	100.0%

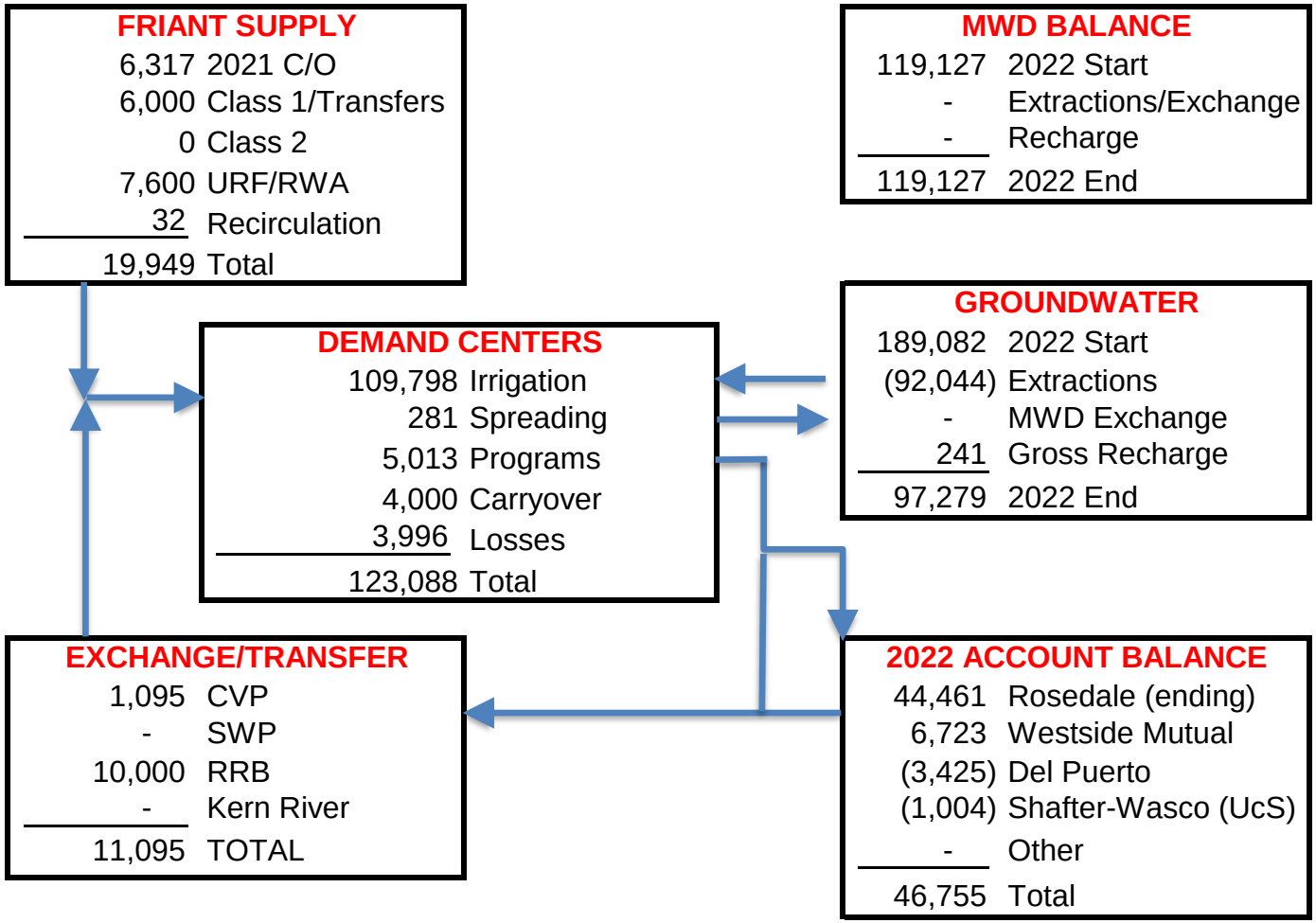
DEMAND		
IRRIGATION DEMAND (MARCH-JUNE)	48,756	41.3%
IRRIGATION DEMAND (JULY-FEBRUARY)	61,042	51.7%
SPREADING (MARCH-JUNE)	281	0.2%
SPREADING (JULY-FEBRUARY)	0	0.0%
CARRYOVER TO 2023	4,000	3.4%
LOSSES/METERING INACCURACIES	3,996	3.4%
TOTAL DEMAND	118,075	100.0%

7/7/2022

Exhibit "A-2"

ARVIN-EDISON WATER STORAGE DISTRICT

2022 WATER MANAGEMENT



Surface Water	18,035	**16%**
Groundwater (57% of Max)	92,044	**84%**
Projected Irrigation Demand	110,079	**100%**

EXHIBIT "B"

ARVIN-EDISON WATER STORAGE DISTRICT

2022 WATER YEAR DELIVERIES

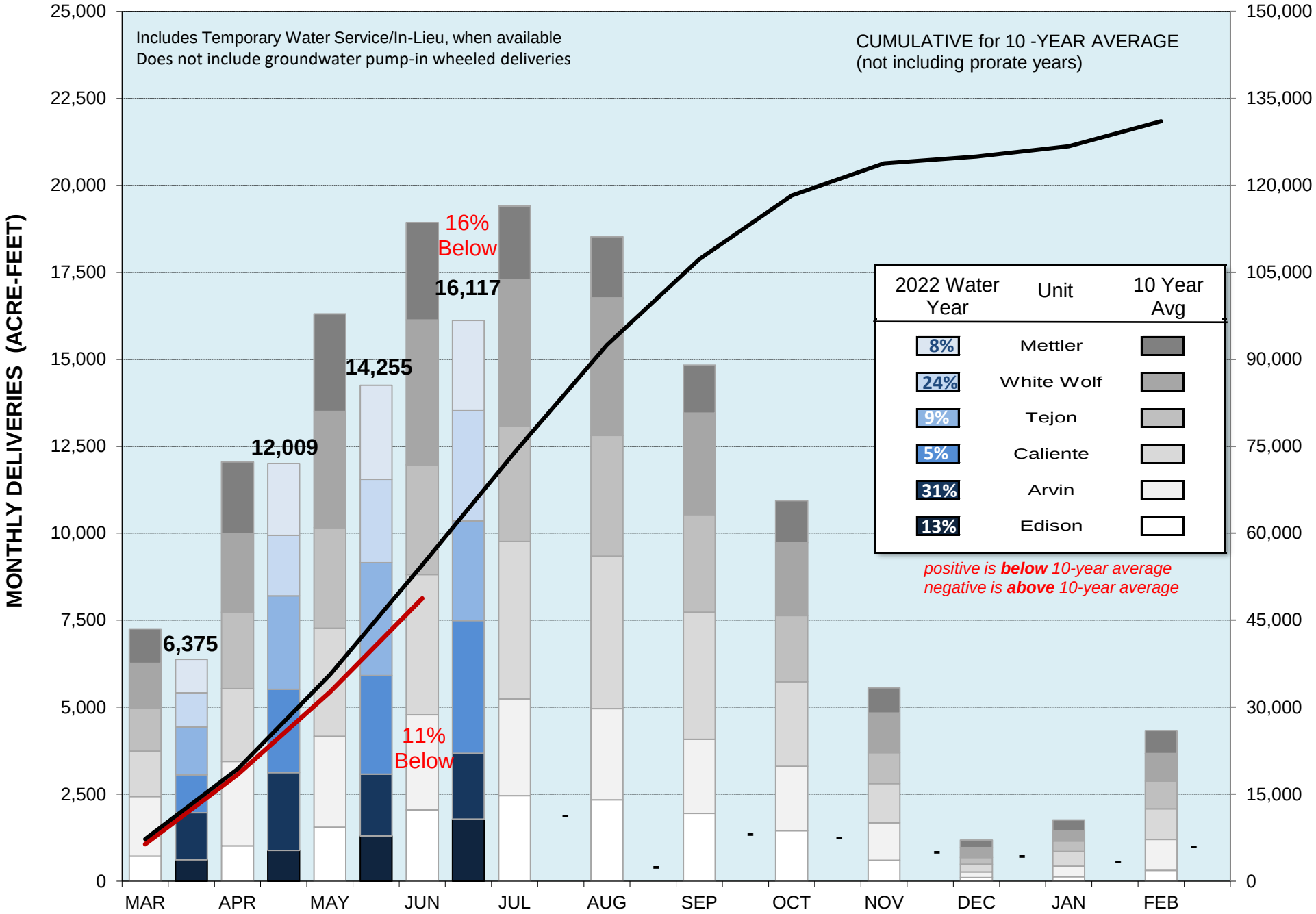


EXHIBIT "C1"

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	06/07/22	30	KD WELLS & KD CENTRAL(100%)	30.0	1.50	4.5	0.37	26.0	1.12	110	1.80	17.0	0.48	8.70	0.14	170	8.4	313	93	1.2	0.37	0.15	2.1
	05/09/22	30	KD WELLS & KD CENTRAL(100%)	20.0	1.00	3.5	0.29	24.0	1.03	98	1.61	9.3	0.26	2.50	0.04	130	8.2	254	64	1.3	1.40	0.16	6.4
	04/07/22	30	KD WELLS & KD CENTRAL(100%)	33.0	1.65	5.3	0.43	25.0	1.08	120	1.97	16.0	0.45	7.70	0.12	180	8.2	320	110	1.0	ND	0.16	3.2
	03/09/22	0	RESIDUAL FKC(100%)	6.0	0.30	0.8	0.06	5.5	0.24	29	0.48	3.3	0.09	0.34	ND	33	7.7	70	18	0.6	0.50	0.03	4.7
	02/08/22	150	FKC(100%)	3.9	0.20	0.6	0.05	4.3	0.19	20	0.33	4.1	0.12	0.50	0.01	20	7.6	53	12	0.1	0.00	0.10	2.8
	01/10/22	60	FKC(100%)	5.2	0.26	0.7	0.06	4.5	0.19	26	0.43	2.8	0.08	0.37	0.01	29	7.5	56	16	0.5	0.45	0.04	4.2
	12/13/21	0	RESIDUAL FKC(100%)	17.0	0.85	1.0	0.08	25.0	1.08	58	0.95	17.0	0.48	6.60	0.11	120	8.1	221	46	1.6	0.12	0.04	1.7
	11/09/21	80	FKC(100%)	16.0	0.80	1.2	0.10	21.0	0.91	67	1.10	13.0	0.37	3.50	0.06	100	8.0	197	46	1.3	0.78	0.09	2.6
	10/07/21	40	CVC(100%)	7.5	0.38	0.7	0.06	8.0	0.34	33	0.54	3.8	0.11	1.10	0.02	43	7.6	79	22	0.8	0.47	0.03	1.8
	09/09/21	60	CVC(100%)	8.0	0.40	0.7	0.06	7.8	0.34	36	0.59	4.3	0.12	1.10	0.02	45	7.8	90	23	0.7	0.54	0.02	2.3
	08/09/21	35	CVC(56%)/KD WELLS(44%)	28.0	1.40	4.0	0.33	21.0	0.91	110	1.80	14.0	0.39	6.80	0.11	150	8.3	274	88	1.0	0.03	0.11	1.6
	07/08/21	35	CVC(56%)/KD WELLS(44%)	27.0	1.35	2.8	0.23	27.0	1.16	110	1.80	18.0	0.51	5.10	0.08	150	8.3	298	80	1.3	0.97	0.12	2.6
	06/04/21	110	FKC(68%)/CVC(18%)/KD WELLS(14%)	22.0	1.10	2.3	0.19	24.0	1.03	80	1.31	16.0	0.45	4.20	0.07	130	8.6	244	66	1.3	0.62	0.11	2.8
	05/07/21	35	KD WELLS & KD MAIN(100%)	27.0	1.35	4.2	0.34	25.0	1.08	96	1.57	12.0	0.34	3.80	0.06	150	8.7	274	84	1.2	0.42	0.15	4.0
	Average			**17.9**	**0.9**	**2.3**	**0.2**	**17.7**	**0.8**	**71.0**	**1.2**	**10.8**	**0.3**	**3.7**	**0.1**	**103.6**	**8.1**	**195.9**	**54.9**	**1.0**	**0.5**	**0.1**	**3.1**
North Canal	06/07/22	94	KD WELLS & KD CENTRAL(18%)/WELLS(82%)	21.0	1.05	3.7	0.30	55.0	2.37	120	1.97	27.0	0.76	11.00	0.18	220	8.4	380	68	2.9	3.20	0.41	2.8
	05/09/22	48	KD WELLS & KD CENTRAL(18%)/WELLS(82%)	26.0	1.30	4.9	0.40	55.0	2.37	140	2.30	30.0	0.84	11.00	0.18	240	8.3	450	85	2.6	2.30	0.41	3.2
	04/07/22	48	KD WELLS & KD CENTRAL(18%)/WELLS(82%)	19.0	0.95	3.8	0.31	27.0	1.16	100	1.64	13.0	0.37	5.80	0.09	130	8.1	241	64	1.5	1.70	0.09	3.6
	03/09/22	38	WELLS(100%)	16.0	0.80	2.9	0.24	43.0	1.85	95	1.56	20.0	0.56	2.10	ND	160	8.6	322	52	2.6	2.80	0.37	4.4
	02/08/22	134	FKC(100%)	5.0	0.25	0.6	0.05	4.4	0.19	23	0.37	5.1	0.14	0.50	0.01	22	8.0	59	15	0.1	0.00	0.10	4.7
	01/10/22	80	FKC(100%)	7.2	0.36	0.8	0.06	4.7	0.20	40	0.66	2.9	0.08	0.36	0.01	39	7.5	69	21	0.5	1.00	0.05	5.1
	12/13/21	0	RESIDUAL FKC(100%)	31.0	1.55	2.7	0.22	21.0	0.91	130	2.13	9.4	0.26	2.80	0.05	150	7.7	310	88	1.0	1.60	0.07	6.7
	11/09/21	58	FKC(100%)	17.0	0.85	1.3	0.11	19.0	0.82	71	1.16	12.0	0.34	2.70	0.04	98	8.2	190	47	1.2	0.94	0.10	3.3
	10/07/21	14	CVC(24%)/WELLS(76%)	20.0	1.00	3.5	0.29	54.0	2.33	130	2.13	23.0	0.65	8.90	0.14	200	8.3	346	63	3.0	3.50	0.40	2.0
	09/09/21	70	CVC(31%)/WELLS(69%)	18.0	0.90	3.6	0.30	56.0	2.41	120	1.97	26.0	0.73	10.00	0.16	200	8.4	369	60	3.1	4.10	0.41	3.0
	08/09/21	14	CVC(10%)/KD WELLS(8%)/WELLS(82%)	24.0	1.20	4.4	0.36	34.0	1.47	130	2.13	15.0	0.42	12.00	0.19	170	8.2	314	77	1.7	2.40	0.12	2.9
	07/08/21	58	CVC(10%)/KD WELLS(8%)/WELLS(82%)	19.0	0.95	3.8	0.31	43.0	1.85	130	2.13	19.0	0.53	8.20	0.13	180	8.3	335	63	2.4	3.40	0.26	1.9
	06/04/21	148	FKC(27%)/CVC(7%)/KD WELLS(6%)/WELLS(60%)	21.0	1.05	4.1	0.34	52.0	2.24	130	2.13	25.0	0.70	10.00	0.16	210	8.4	378	68	2.8	3.50	0.41	4.4
	05/07/21	58	KD WELLS & KD MAIN(18%)/WELLS(82%)	22.0	1.10	4.5	0.37	35.0	1.51	120	1.97	16.0	0.45	7.60	0.12	160	8.2	297	73	1.8	2.00	0.14	1.2
	Average			**19.0**	**1.0**	**3.2**	**0.3**	**35.9**	**1.5**	**105.6**	**1.7**	**17.4**	**0.5**	**6.6**	**0.1**	**155.6**	**8.2**	**290.0**	**60.3**	**1.9**	**2.3**	**0.2**	**3.5**
South Canal	06/07/22	150	KD WELLS & KD CENTRAL(12%)/WELLS(88%)	29.0	1.45	7.6	0.62	50.0	2.16	140	2.30	41.0	1.15	11.00	0.18	240	8.2	437	100	2.1	1.20	0.27	1.3
	05/09/22	30	KD WELLS & KD CENTRAL(12%)/WELLS(88%)	23.0	1.15	5.1	0.42	51.0	2.20	120	1.97	29.0	0.81	16.00	0.26	230	8.5	424	79	2.5	2.60	0.40	3.0
	04/07/22	80	KD WELLS & KD CENTRAL(12%)/WELLS(88%)	33.0	1.65	9.8	0.80	37.0	1.59	140	2.30	37.0	1.04	9.20	0.15	220	8.2	419	120	1.4	ND	0.11	1.2
	03/09/22	20	WELLS(100%)	16.0	0.80	2.9	0.24	42.0	1.81	110	1.80	19.0	0.53	1.60	ND	160	8.6	311	51	2.6	3.80	0.37	5.0
	02/08/22	70	FKC(100%)	5.2	0.26	0.6	0.05	4.4	0.19	24	0.40	3.9	0.11	0.50	0.01	26	7.8	60	16	0.1	0.00	0.10	3.6
	01/10/22	40	FKC(100%)	8.0	0.40	0.8	0.06	4.8	0.21	36	0.59	2.8	0.08	0.35	0.01	37	7.8	73	23	0.5	0.51	0.05	3.8
	12/13/21	N/A	DOWN FOR WINTER MAINTENANCE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/09/21	160	FKC(100%)	18.0	0.90	1.4	0.11	20.0	0.86	74	1.21	12.0	0.34	2.70	0.04	100	8.1	199	51	1.2	0.86	0.10	3.1
	10/07/21	120	CVC(17%)/WELLS(83%)	32.0	1.60	8.6	0.70	49.0	2.11	140	2.30	40.0	1.12	11.00	0.18	240	8.1	428	120	2.0	0.05	0.21	2.0
	09/09/21	110	CVC(23%)/WELLS(77%)	32.0	1.60	9.2	0.75	45.0	1.94	140	2.30	44.0	1.24	10.00	0.16	240	8.3	453	120	1.8	0.06	0.22	1.8
	08/09/21	0	CVC(7%)/KD WELLS(5%)/WELLS(88%)	40.0	2.00	12.0	0.98	45.0	1.94	160	2.62	61.0	1.71	12.00	0.19	280	8.2	525	150	1.6	ND	0.14	1.6
	07/08/21	90	CVC(7%)/KD WELLS(6%)/WELLS(87%)	31.0	1.55	8.7	0.71	41.0	1.77	140	2.30	37.0	1.04	11.00	0.18	230	8.2	440	110	1.7	0.27	0.16	1.5
	06/04/21	160	FKC(21%)/CVC(5%)/KD WELLS(4%)/WELLS(70%)	27.0	1.35	7.4	0.61	46.0	1.98	140	2.30	35.0	0.98	10.00	0.16	220	8.2	406	98	2.0	1.40	0.25	4.9
	05/07/21	120	KD WELLS & KD MAIN(12%)/WELLS(88%)	34.0	1.70	9.7	0.80	40.0	1.72	140	2.30	37.0	1.04	9.70	0.16	230	8.1	420	120	1.6	ND	0.12	1.0
	Average			**25.2**	**1.3**	**6.4**	**0.5**	**36.6**	**1.6**	**115.7**	**1.9**	**30.7**	**0.9**	**8.1**	**0.1**	**188.7**	**8.2**	**353.5**	**89.1**	**1.6**	**1.1**	**0.2**	**2.6**

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	06/07/22	0	KD WELLS & KD CENTRAL(12%)/WELLS(88%)	29.0	1.45	8.1	0.66	45.0	1.94	130	2.13	38.0	1.07	11.00	0.18	230	8.4	426	110	1.9	0.73	0.24	4.3
	05/09/22	0	KD WELLS & KD CENTRAL(12%)/WELLS(88%)	30.0	1.50	8.7	0.71	42.0	1.81	130	2.13	37.0	1.04	10.00	0.16	230	8.5	440	110	1.8	0.75	0.19	5.4
	04/07/22	0	KD WELLS & KD CENTRAL(12%)/WELLS(88%)	33.0	1.65	9.5	0.78	36.0	1.55	140	2.30	35.0	0.98	9.50	0.15	220	8.2	402	120	1.4	ND	0.12	2.7
	03/09/22	0	WELLS(100%)	15.0	0.75	3.0	0.25	15.0	0.65	65	1.07	10.0	0.28	4.10	0.07	90	8.2	187	51	0.9	0.24	0.07	4.4
	02/08/22	-40	FKC(100%)	6.7	0.34	0.8	0.06	4.5	0.19	26	0.43	4.4	0.12	0.50	0.01	29	8.1	76	20	0.0	0.00	0.10	7.0
	01/10/22	-40	FKC(100%)	9.8	0.49	0.9	0.08	5.7	0.25	41	0.67	3.5	0.10	0.54	0.01	44	7.9	87	28	0.5	0.45	0.05	4.5
	12/13/21	N/A	DOWN FOR WINTER MAINTENANCE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/09/21	0	FKC(100%)	22.0	1.10	4.6	0.38	31.0	1.34	93	1.52	18.0	0.51	4.90	0.08	150	8.4	299	73	1.6	0.72	0.20	4.0
	10/07/21	0	CVC(17%)/WELLS(83%)	38.0	1.90	12.0	0.98	48.0	2.07	150	2.46	49.0	1.38	12.00	0.19	270	8.3	477	140	1.7	ND	0.17	4.5
	09/09/21	0	CVC(23%)/WELLS(77%)	37.0	1.85	12.0	0.98	44.0	1.90	160	2.62	49.0	1.38	13.00	0.21	260	8.2	496	140	1.6	ND	0.14	5.3
	08/09/21	0	CVC(7%)/KD WELLS(5%)/WELLS(88%)	31.0	1.55	10.0	0.82	43.0	1.85	130	2.13	44.0	1.24	11.00	0.18	240	8.5	451	120	1.7	ND	0.15	2.4
	07/08/21	0	CVC(7%)/KD WELLS(6%)/WELLS(87%)	32.0	1.60	9.9	0.81	43.0	1.85	150	2.46	40.0	1.12	11.00	0.18	240	8.3	453	120	1.7	0.04	0.17	1.8
	06/04/21	0	FKC(21%)/CVC(5%)/KD WELLS(4%)/WELLS(70%)	28.0	1.40	8.6	0.70	42.0	1.81	130	2.13	35.0	0.98	9.70	0.16	220	8.3	411	110	1.8	0.58	0.19	7.0
	05/07/21	0	KD WELLS & KD MAIN(12%)/WELLS(88%)	36.0	1.80	11.0	0.90	40.0	1.72	150	2.46	38.0	1.07	11.00	0.18	240	8.1	439	130	1.5	ND	0.13	3.4
	Average			**26.7**	**1.3**	**7.6**	**0.6**	**33.8**	**1.5**	**115.0**	**1.9**	**30.8**	**0.9**	**8.3**	**0.1**	**189.5**	**8.3**	**357.2**	**97.8**	**1.4**	**0.4**	**0.1**	**4.4**

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

2022 AQUATIC PEST CONTROL TREATMENTS TO CANALS & SPREADING BASINS

Treatment Weeks (Monday)		Temps	Intake	North						South									
			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	01/03/22	36-62																	
	01/10/22																		
	01/17/22																		
	01/24/22																		
	01/31/22																		
FEB	02/07/22	33-67																	
	02/14/22																		
	02/21/22																		
	02/28/22																		
	02/28/22																		
MAR	03/07/22	43-73																	
	03/14/22																		
	03/21/22																		
	03/28/22																		
APR	04/04/22	48-77					10	20	20										
	04/04/22					65	2.5	5	5				9			9			
	04/11/22						5	10	10				5	10					
	04/11/22						2.5	2.5	2.5				11	2.5		7			
	04/18/22						10	10											
	04/18/22						2.5	2.5					17			7			
	04/25/22						10	10					10	10	10				
	04/25/22						2.5	2.5					14.5	2.5	2.5	4			
MAY	05/02/22	53-83					2.5	2.5	275	15	14		16			11			
	05/02/22						10	10											
	05/09/22												10		10				
	05/09/22												2.5		2.5				
	05/16/22						2.5	2.5		16	16								
	05/16/22						10	10											
	05/23/22												10			10	10		
	05/23/22					65	194						32.5			2.5	2.5		
	05/30/22					97	32						15			11			
JUN	06/06/22	63-93						10	2.5	21	21		24						
	06/13/22							10	2.5				20	10	2.5	11			
	06/20/22						5	240	80	16	16		12			6			
	06/20/22						10	10											
	06/27/22						2.5	10					23			19			
JUL	07/04/22																		
	07/11/22																		
	07/18/22																		
	07/25/22																		
AUG	08/01/22																		
	08/08/22																		
	08/15/22																		
	08/22/22																		
	08/29/22																		
SEPT	09/05/22																		
	09/12/22																		
	09/19/22																		
	09/26/22																		
OCT	10/03/22																		
	10/10/22																		
	10/17/22																		
	10/24/22																		
	10/31/22																		
NOV	11/07/22																		
	11/14/22																		
	11/21/22																		
	11/28/22																		
DEC	12/05/22																		
	12/12/22																		
	12/19/22																		
	12/26/22																		

2022 Cost To Date

Treatment	Material	Labor	Total
Captain/Nautique	$33,972	$3,430	$37,402
Phycomycin	$10,150	$9,660	$19,810
Cascade	$0	$0	$0
Teton/Hydrothol	$83,804	$23,835	$107,639
Spreading Basins	$0	$0	$0
Total	$127,927	$36,925	$164,852

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)

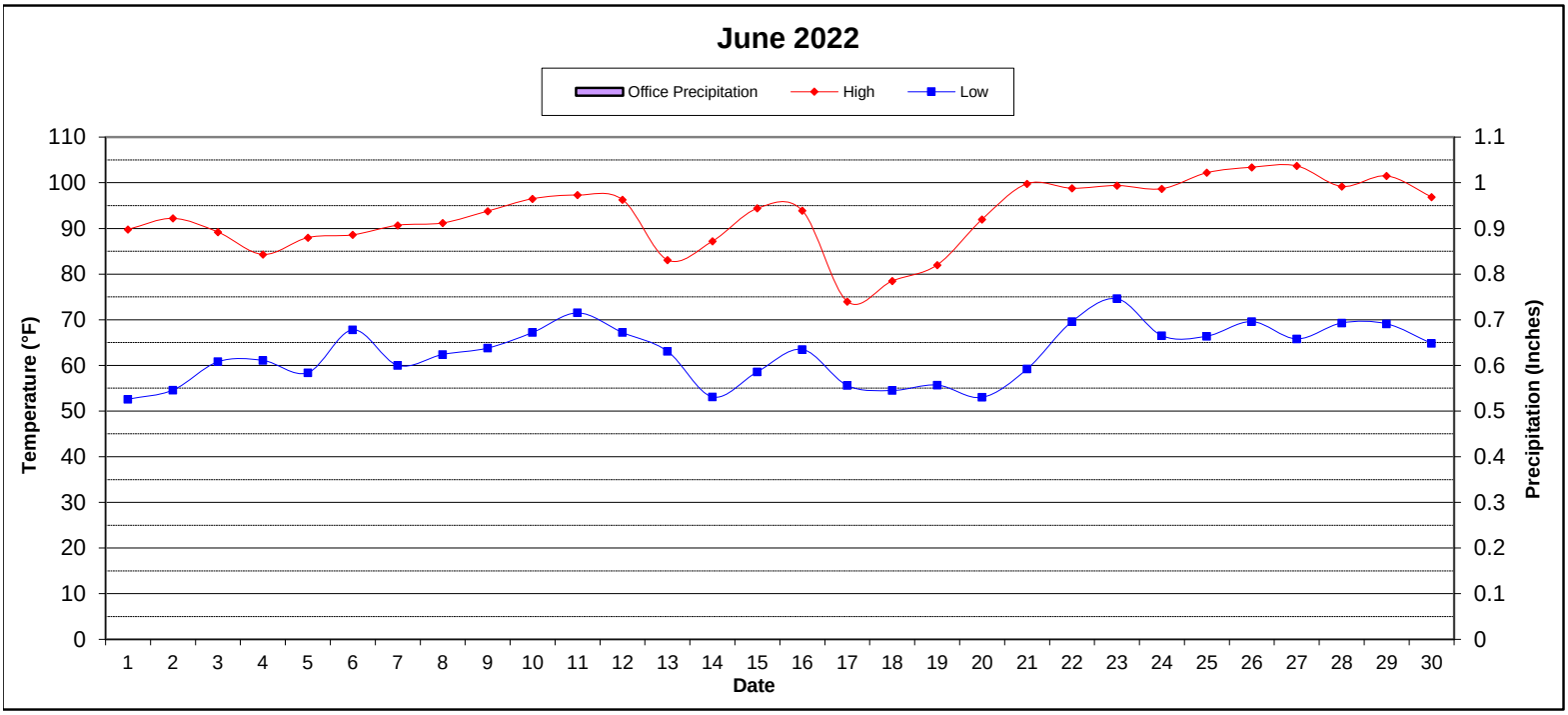
Winter Maintenance

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Year Type	Critical-High	Dry	Wet	Normal-Dry	Wet	Normal-Dry	Critical-Low	Critical-High	Dry	Dry	Wet	Normal-Wet	Normal-Wet	Normal-Dry	Dry	Wet	Wet	Normal-Dry	Normal-Dry
Amount	$420,296	$399,808	$105,928	$235,599	$222,685	$186,034	$262,734	$367,563	$528,770	$504,159	$233,449	$24,969	$226,466	$341,506	$464,165	$341,920	$89,797	$65,324	$106,107

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	0.04		0.09		0.07		0.07		0.04	
AVG. YEAR TO DATE	7.33		8.46		8.13		7.13		7.39	
CURRENT MONTH	0.00	7%	0.00	0%	0.00	0%	0.00	0%	0.00	0%
CUMULATIVE (07/01/21 - 06/30/22)	6.76	92%	7.81	92%	9.60	118%	6.98	98%	7.16	97%

TEMPERATURE *(6)*	(ºF)	DATE	TIME
MAXIMUM TEMPERATURE	103	6/27/2022	4:00 PM
AVERAGE MAXIMUM TEMPERATURE	93		
# DAYS THIS MONTH ABOVE 100 ºF	4		
MINIMUM TEMPERATURE	55	6/1/2022	4:00 AM
AVERAGE MINIMUM TEMPERATURE	63		
# DAYS THIS MONTH BELOW 32 ºF	0		

WIND *(6)*	M.P.H.	DATE	TIME	DRCTN
MAXIMUM WIND SPEED	17.3	6/22/2022	7:00 PM	NE
AVERAGE WIND SPEED	4.6			
AVERAGE WIND SPEED @ 8:00 AM	3.9			

BAROMETRIC PRESSURE *(7)*	IN. HG	DATE	TIME
AVERAGE PRESSURE @ 8:00 AM	29.41		
MAXIMUM PRESSURE	29.55	6/19/2022	9:00 AM
MINIMUM PRESSURE	29.14	6/16/2022	8:00 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

WY2022 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 22	97,947	2,033,650	1,275	5,215,376	3,443	7,351,691	1,904	12,244	2	14,649	7	28,805	34%
APR	389,787	3,790,053	1,224	9,611,736	3,469	13,796,269	1,515	13,874	2	19,143	6	34,540	55%
MAY	607,866	4,566,990	13,773	11,461,732	3,770	16,654,130	2,715	14,821	341	19,138	6	37,022	60%
JUN	1,007,223	5,354,176	11,609	11,547,317	3,949	17,924,273	2,998	15,012	170	18,920	7	37,107	67%
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN 23													
FEB													
TOTAL	2,102,822	15,744,868	27,881	37,836,161	14,631	55,726,363							

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

7/4/2022

EXHIBIT "F"

ARVIN-EDISON WATER STORAGE DISTRICT

2022 WATER YEAR WELLFIELD PRODUCTION - AF

Month	Bal Res		North Canal 5		Wellfield						Total		
					North		Sycamore		Tejon				
	AF	Max	AF	Max	AF	Max	AF	Max	AF	Max	AF	AF / Day	% of Historical Max
MAR - 22	0	0%	988	81%	2,003	78%	1,886	29%	1,495	27%	6,372	206	41%
APR	0	0%	1,113	92%	2,943	96%	3,531	51%	3,503	70%	11,090	370	74%
MAY	0	0%	1,108	89%	3,402	92%	3,868	53%	4,018	74%	12,397	400	82%
JUN	0	0%	1,026	51%	3,160	86%	3,775	188%	3,782	189%	11,743	379	78%
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN - 23													
FEB													
Total	0		4,236		11,509		13,060		12,798		41,603	113	23%
Ratio	0%		10%		28%		31%		31%		100%	Average	
Wells	4		5		14		34		29		86		

EXHIBIT "G"

ARVIN-EDISON WATER STORAGE DISTRICT

2022 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-22	0	0	0	0	0	0	0	0	0	0	0	0
APR	0	0	0	0	0	0	0	0	0	0	0	0
MAY	79	0	0	0	0	0	0	0	79	0	0	79
JUN	202	0	0	0	0	0	0	0	202	0	0	202
JUL												
AUG												
SEP												
OCT												
NOV												
DEC												
JAN-23												
FEB												
Total	281	0	0	0	0	0	0	0	281	0	0	281
Ratio												
Ratio												

Total Pressure	281		0			0			281			281

EXHIBIT "H-1"

ARVIN-EDISON WATER STORAGE DISTRICT

STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - JUNE 2022

ALL VALUES IN FEET

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
NORTH CANAL (23)	N1	428	488	610	840	60	122
	N2	448	559	700	840	111	141
	N3	381	407	610	840	25	203
	N4	441	465	550	864	23	85
	N5	458	468	650	864	9	182
	N6	520	619	640	920	99	21
	N7	489	508	600	1010	18	92
	N8	433	470	560	970	37	90
	N9	460	557	700	990	97	143
	N10	469	513	560	990	44	47
	N11	440	465	562	1020	25	97
	N12	487	512	600	1030	25	88
	N13	489	515	600	1000	25	85
	N14	445	466	540	900	21	74
	N15	384	520	700	1200	136	180
	N16	386	464	600	1200	79	136
	N17	407	513	610	1200	106	97
	N18	443	575	610	1190	132	35
	N19	484	527	760	1300	43	233
	N20	601	638	820	1020	37	182
	N21	473	557	660	950	84	103
	N22	472	493	680	990	21	187
	N23	465	480	680	990	15	200
	Avg	457	512				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
TEJON (29)	71	590	620	800	1050	30	180
	72	574	599	800	1045	25	201
	73	560	590	800	1018	30	210
	74	546	587	800	1084	42	213
	75	557	574	800	1045	16	226
	76	548	591	700	996	44	109
	77	534	636	800	1066	102	164
	78	530	590	800	1038	60	210
	79	536	575	700	1032	39	125
	80	527	622	800	996	95	178
	81	508	538	700	925	30	162
	82	444	492	800	996	49	308
	83	562	615	800	996	53	185
	84	423	462	700	955	39	238
	86	587	618	800	996	30	182
	87	578	604	800	984	25	196
	88	574	611	800	948	37	189
	89	539	567	800	996	28	233
	90	455	501	700	996	46	199
	91	N/A	N/A	700	996	N/A	N/A
	92	590	634	800	996	44	166
	93	605	647	800	996	42	153
	94	599	638	860	996	39	222
	95	528	554	800	996	26	246
	96	597	696	800	996	99	104
	98	571	603	760	1340	32	157
	99	562	607	760	1340	45	153
	100	544	577	760	1340	33	183
	101	542	602	760	1310	60	158
	Avg	547	591				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
SYCAMORE (34)	1	474	520	705	800	46	185
	2	480	528	690	876	49	162
	4	508	543	700	876	35	157
	5	517	551	720	876	35	169
	6	454	519	690	876	65	171
	7	501	554	700	830	53	146
	8	444	478	640	860	35	162
	9	504	545	700	886	42	155
	10	491	531	690	850	39	159
	11	494	548	700	880	53	152
	12	506	548	700	860	42	152
	13	467	545	700	850	79	155
	14	432	524	670	810	92	146
	15	486	645	710	820	159	65
	16	481	642	700	888	162	58
	17	442	571	650	820	129	79
	18	463	502	650	820	39	148
	20	456	488	680	804	32	192
	21	468	489	690	856	21	201
	22	437	464	610	792	28	146
	23	448	487	600	788	39	113
	24	462	499	580	780	37	81
	25	451	481	610	777	30	129
	26	454	501	690	816	46	189
	28	420	484	660	782	65	176
	29	471	501	690	787	30	189
	31	454	489	660	725	35	171
	32	421	522	640	739	102	118
	33	467	548	700	780	81	152
	34	N/A	N/A	700	781	N/A	N/A
	35	464	543	700	800	79	157
	36	461	491	600	820	30	109
	37	461	486	540	820	25	54
	38	469	505	860	1270	36	355
	Avg	467	523				

MONTHLY SUMMARY - AVERAGE WATER LEVELS						
READINGS	STATIC LEVELS			PUMPING LEVELS		
END OF	N. CANAL	SYCAMORE	TEJON	N. CANAL	SYCAMORE	TEJON
JUN-21	453	464	532	510	532	599
JUL	445	469	540	504	541	600
AUG	445	462	548	501	529	605
SEP	448	464	550	506	532	607
OCT	432	445	512	489	502	566
NOV	434	429	501	488	483	547
DEC	431	426	477	486	480	524
JAN	430	421	465	484	476	512
FEB	434	421	463	491	474	510
MAR	435	435	471	492	480	517
APR	448	444	518	505	494	566
MAY	453	471	547	509	525	593
JUN-22	457	467	547	512	523	591
CHANGE TO-DATE	-4	-3	-15	-2	9	8

OUT OF SERVICE (9)

AIRLINE FAILURE (12)

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)

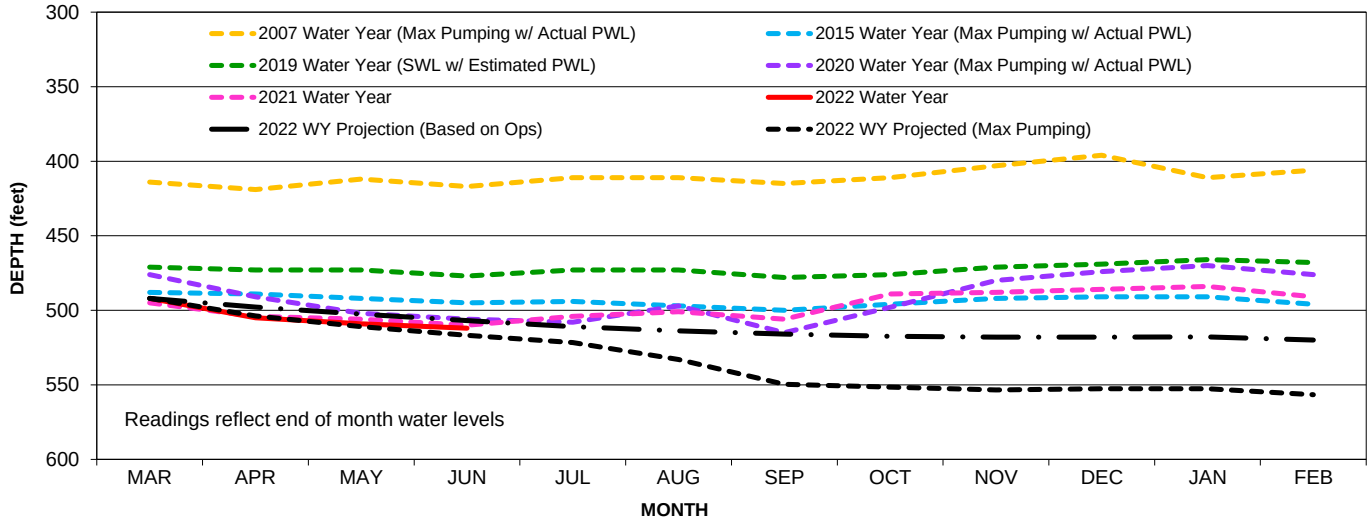
*Airline failure levels were obtained with acoustic sounder

EXHIBIT "H-2"

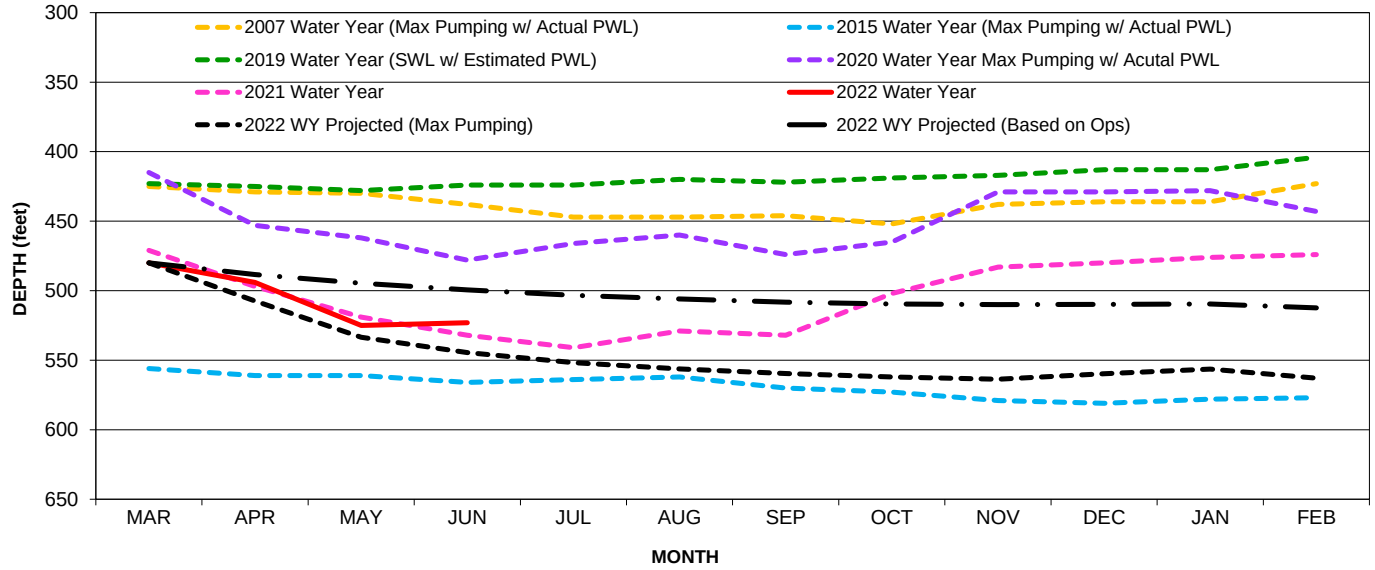
ARVIN-EDISON WATER STORAGE DISTRICT

WELLFIELD PUMPING WATER LEVELS - 2007, 2015, AND 2019-22

NORTH CANAL



SYCAMORE WELLFIELD



TEJON WELLFIELD