

# ARVIN-EDISON WATER STORAGE DISTRICT

## REPORT OF DISTRICT OPERATIONS

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**April 2022**



***District Headquarters Solar Construction Nearing Completion***

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# **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 (no opportunity in 2021).

## **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 3% 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. A similar agreement for 2022 is proposed.

## 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.
- AEWS-DKWD-RRBWS executed a 2022 operational exchange in which AEWS's 10,000 acre-feet from RRBWS 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:

Cawelo Water District  
 Chowchilla Water District  
 Del Puerto Water District  
 Delano-Earlimart Irrigation District  
 Exeter Irrigation District  
 Fresno County  
 Ivanhoe Irrigation District  
 Kern Delta Water District  
 Kern Water Bank

Lindmore Irrigation District  
 Lindsay-Strathmore Irrigation District  
 Orange Cove Irrigation District  
 Rosedale-Rio Bravo Water Storage District  
 San Joaquin River Exchange Contractors  
 San Joaquin River Restoration Program  
 Stone Corral Irrigation District  
 Tea Pot Dome Water District

## WATER DEMAND

- District surface water deliveries for the month were 12,009 AF (1% below average)
- The following is a summary of surface water deliveries for April 2022:

	<b>April 2022</b>		<b>Year to Date</b>	
	Historical	2021 WY	Historical	2021 WY
Turnout Deliveries	12,127	12,009	19,334	18,384
In-Lieu Deliveries	-	-	-	-
Temporary Water	-	-	-	-
Spreading	-	-	-	-
<b>Total</b>	<b>12,127</b>	<b>12,009</b>	<b>19,334</b>	<b>18,384</b>

- Exhibit "B" illustrates the delivery data
- The month's peak daily in-District demand was 371 cfs, which occurred on the 29<sup>th</sup>
- Exhibit "C-1" details Canal Water Quality information
- Exhibit "C-2" presents the Aquatic Pest Control Treatments (\$30,700) for Calendar Year 2022

## GENERAL

- District vehicles consumed an estimated 4,500 gallons of fuel during the month (average fuel efficiency of 11.0 mpg)
- There were 421 hours lost due to illness (including COVID-19 hours) and 256 hours lost due to on-the-job injuries with one (1) employee out on Workers' Compensation Claim
- 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
- Exhibit "I" list various meetings for Directors, 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 (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](http://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://northwestkernrncd.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
  - Draft O&M agreement pending approval
  - Finalizing plans to go out to 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 AEWSO 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
- 123 TCP Treatment Plant Facilities RFP
- Standtank Painting
  - Reviewing received bids

## **SGMA Activities**

- Continued coordination meetings and outreach activities
- Continued review of well permits and submitted comment letters to those within or near AEWSO
- 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 model for the Arvin Management Area (MODFLOW)
- Submit WWGSA First Annual Report
- Submit Multi-Benefit Land Repurposing Program Grant Application for WWGSA and prepared for Grant Interview
- Submit Notice of Intent to Withdraw from KGA
- Submit Notice of Intent to Adopt South Kern GSP
- Amended discrepancies within Data Management System (DMS)

## **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 12,119 AF for the month
- Exhibit “G” summarizes gross direct spreading of 0 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:

<u>Field</u>	<u>Well #</u>	<u>Year</u>	<u>HP</u>	<u>Reason</u>	<u>Work</u>
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, startup scheduled
Sycamore	21	1970	300	Low Production	Pulled equipment, evaluating options
Tejon	77*	1966	300	Excess Vibrations	Pulled equipment, replacement pump installs to be scheduled
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
  - Five (5) see above table

## **OPERATIONS DEPARTMENT ACTIVITES**



*On Site for Underground Service Alert Dig (Lateral S73)*



*Preparing for Well Startup (Tejon Well 77)*

## **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**

- Transition into wellfield operations
- Train personnel for water patrol during the prorated period
- Replace leaking air vents on discharge manifolds (Wellfields)
- Respond to standtank overflow (N55-P3 and S38-P2)
- Isolate and flush flow various gravity turnouts
- Reset displaced isolation valve concrete rings (North and South side)
- Clear out turnout base isolation valves (North and South side)
- Responded to various Pumping Plant alarms (reset and primed laterals)
- Review and edit updated Facilities Guidebook
- Prepare trucks for trade-in and setup new trucks
- Located various buried isolation valves for marking (Underground Service Alert)

## **Underground Service Alert (USA) Report**

- District initiated 4
- Responded to 156 USA notices to locate District underground facilities
  - 26 required markings of District facilities
  - 37 were renewals
  - 89 with no conflicts

## **Power Outages and/or Interruptions Involving the Following Systems**

- Laterals N55 and S73

## **Laterals Prorates (number of days)**

- N24 (1), N41 (2), S38 (7), and S93 (4)



# MAINTENANCE DEPARTMENT ACTIVITIES



*Repairing Fence (South Canal)*



*Mowing (Tejon Spreading Works)*

## Routine Activities

- Aquatic and terrestrial weed control (South Canal)
- Routine gardening and maintenance at Headquarters and CIMIS station
- Fence and gate repair (Intake Canal, Balancing Reservoir, and South Canal)
- Grading (near S38-P1)
- Discing (Balancing Reservoir and Tejon Spreading Works)
- Mowing (Sycamore and Tejon Spreading Works)
- Cleared out forebays (North and South Canal)
- Assisted other Departments as needed (Operations and Pump Shop)
- Conducted monthly safety meeting

## Additional Activities

- Install new 24" slide gate (North Canal Spreading Works)
- Take trucks in for upholstery repairs and prepare for trade-in
- Install dry erase board (Bakersfield Office)
- Clean up yard and haul scrap metal and plastic bottles (spray department) to the recycler
- Trimmed trees (Tejon Spreading Works)
- Prepared and painted various facilities
  - Pumping plants (N41-P1, N41-P2, and N55-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	5	A/C Compressor	1
Tires	8	Headlights	1
Tire Repairs	4	Tail Lights	3
Rotors/Drums	2	Wiper Blades	8
Batteries	3	Cabin Filter	2
Fuel Filters	5	Trailer Lights	1

- Heavy Equipment Repairs
  - Repaired tail lights (dump truck)
  - Repaired marker light (Water Truck)
  - Replaced blades (rotary cutter)
  - Replaced gangs (disc)

## **PUMP DEPARTMENT ACTIVITIES**



*Replacing Failed Motor (Sycamore Well 31)*



*Removing Pump for Repairs (N26-P1)*

### **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)
- Coordinated with consultants on various well repairs

## **PUMP & MOTOR REPAIR SUMMARY**

	<b><u>Pumping Plant/Wells</u></b>	<b><u>Unit</u></b>	<b><u>Size</u></b>	<b><u>Time/Hours</u></b>	<b><u>Reason</u></b>
<b><u>Vertical Pumps</u></b>	N26-P1	1	100 CFS	N/A	Damaged impeller and worn bushings
<b><u>Vertical Motors</u></b>	N8-P1	3	200 HP	8,970	Burnt motor leads
	North Well	22	600 HP	N/A	Failed windings
	Sycamore	5	350 HP	N/A	Damaged upper bearing
	Sycamore	9	300 HP	N/A	Damaged thermistor
	Sycamore	15	300 HP	N/A	Damaged upper bearing
	Sycamore	31	350 HP	N/A	Damaged thermistor
<b><u>Horizontal Pumps</u></b>	N55-P5	2	5 CFS	4,750	Damaged sleeves
<b><u>Horizontal Motors</u></b>	N55-P2	5	200 HP	16,380	Burnt windings

# **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

<b>Component</b>	<b>Replaced/Repaired</b>	<b>Component</b>	<b>Replaced/Repaired</b>
Starter Contacts	1	Softstart	1
Contact Blocks	2	Fuses	3
Hour Meters	1	Coils	1
Trip Units	1	Transducers	1

## **Additional Activities**

- Programming for SCADA and radio system updates and monitored performance
- Worked with consultants on cybersecurity upgrades
- Worked with consultants to repair upstream canal water level sensor (North Canal Spreading Works)
- Worked with Consultants to repair oil sensors (FFPP Unit #6)

# **FORREST FRICK PUMPING PLANT**

- 1,554 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

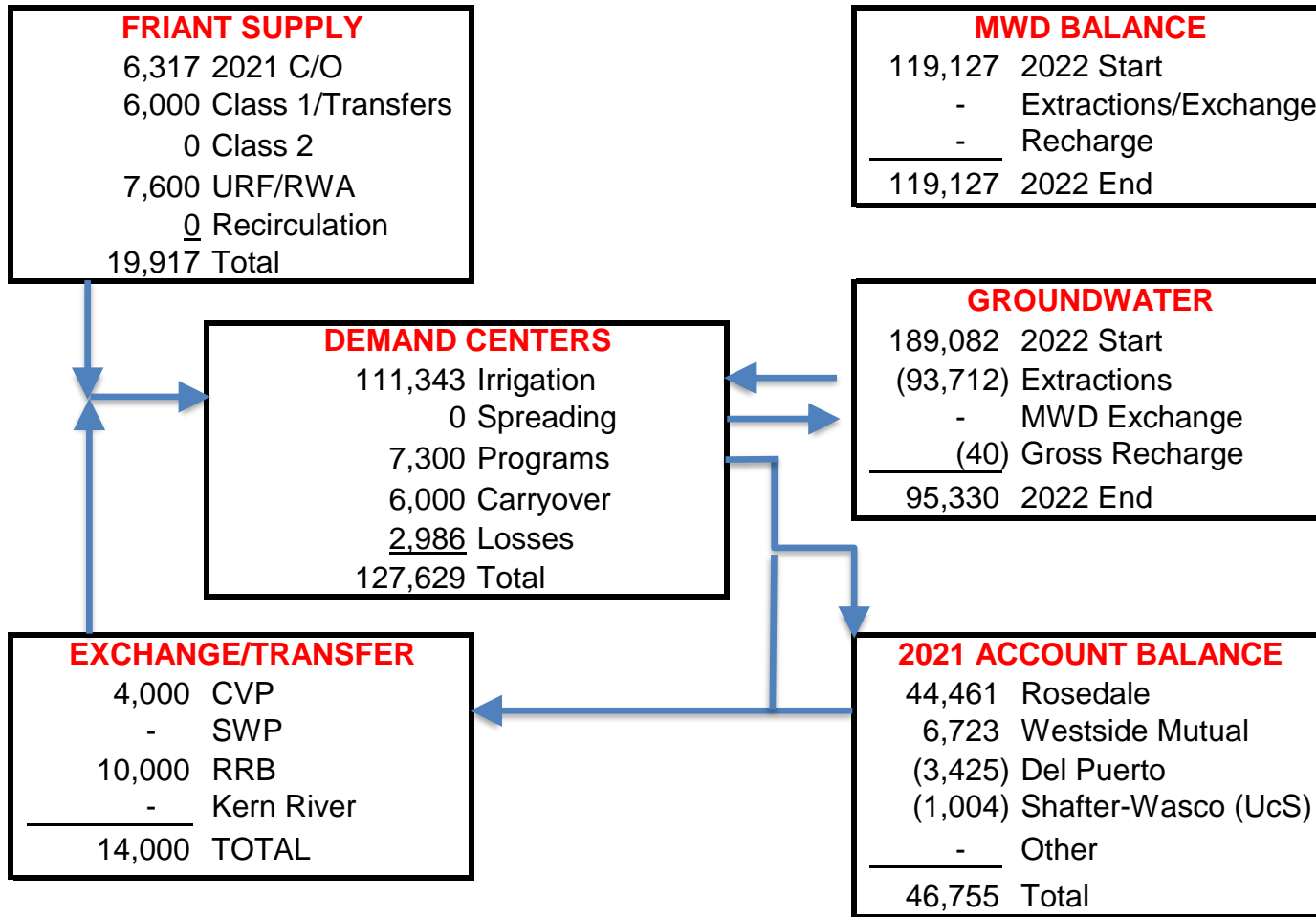
# **INTERTIE PUMPING PLANT**

- 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**

<u>SUPPLY</u>	<u>AF</u>	<u>%</u>
<b>FRIANT-KERN (F-K)</b>		
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	
DELANO-EARLIMART ID	-1,900	
EXETER ID	-350	
IVANHOE ID	-325	
LINDMORE ID	-100	
LINDSAY-STRATHMORE ID	-225	
ORANGE COVE ID	-50	
STONE CORRAL ID	-50	
TEA POT DOME WD	-200	
TOTAL F-K	12,617	10.5%
<b>CROSS VALLEY CANAL (CVC)</b>		
ROSEDALE-RIO BRAVO WSD (KDWD EXCHANGE)	0	
CAWELO WD (SUN PACIFIC EXCHANGE)	4,000	
TOTAL CVC	4,000	3.3%
<b>STATE WATER PROJECT (AQUEDUCT)</b>		
KT EXCHANGE	0	
TOTAL AQUEDUCT	0	0.0%
<b>INTERTIE PIPELINE (IPL)</b>		
RETURN TO MWD	0	
TOTAL IPL	0	0.0%
<b>KERN RIVER</b>		
FRESNO COUNTY	0	
MWD BANKING	0	
KERN DELTA (RRBWS D EXCHANGE)	10,000	
TOTAL IPL	10,000	8.3%
<b>INTAKE CANAL PUMP-IN (IC)</b>		
KERN DELTA WELLS	0	
KERN DELTA H STREET	0	
TOTAL KR	0	0.0%
<b>TOTAL IMPORT</b>	<b>26,617</b>	<b>22.1%</b>
<b>GROUNDWATER PUMPING</b>		
IRRIGATION DEMAND	93,712	
FARM PUMP IN	0	
RETURN TO MWD	0	
TOTAL PUMPING	93,712	77.9%
<b>TOTAL WATER SUPPLY</b>	<b>120,329</b>	<b>100.0%</b>
<b>DEMAND</b>		
IRRIGATION DEMAND (MARCH-APRIL)	18,384	15.3%
IRRIGATION DEMAND (MAY-FEBRUARY)	92,959	77.3%
SPREADING (MARCH-APRIL)	0	0.0%
SPREADING (MAY-FEBRUARY)	0	0.0%
CARRYOVER TO 2023	6,000	5.0%
LOSSES/METERING INACCURACIES	2,986	2.5%
<b>TOTAL DEMAND</b>	<b>120,329</b>	<b>100.0%</b>

Exhibit "A-2"  
 ARVIN-EDISON WATER STORAGE DISTRICT  
**2022 WATER MANAGEMENT**

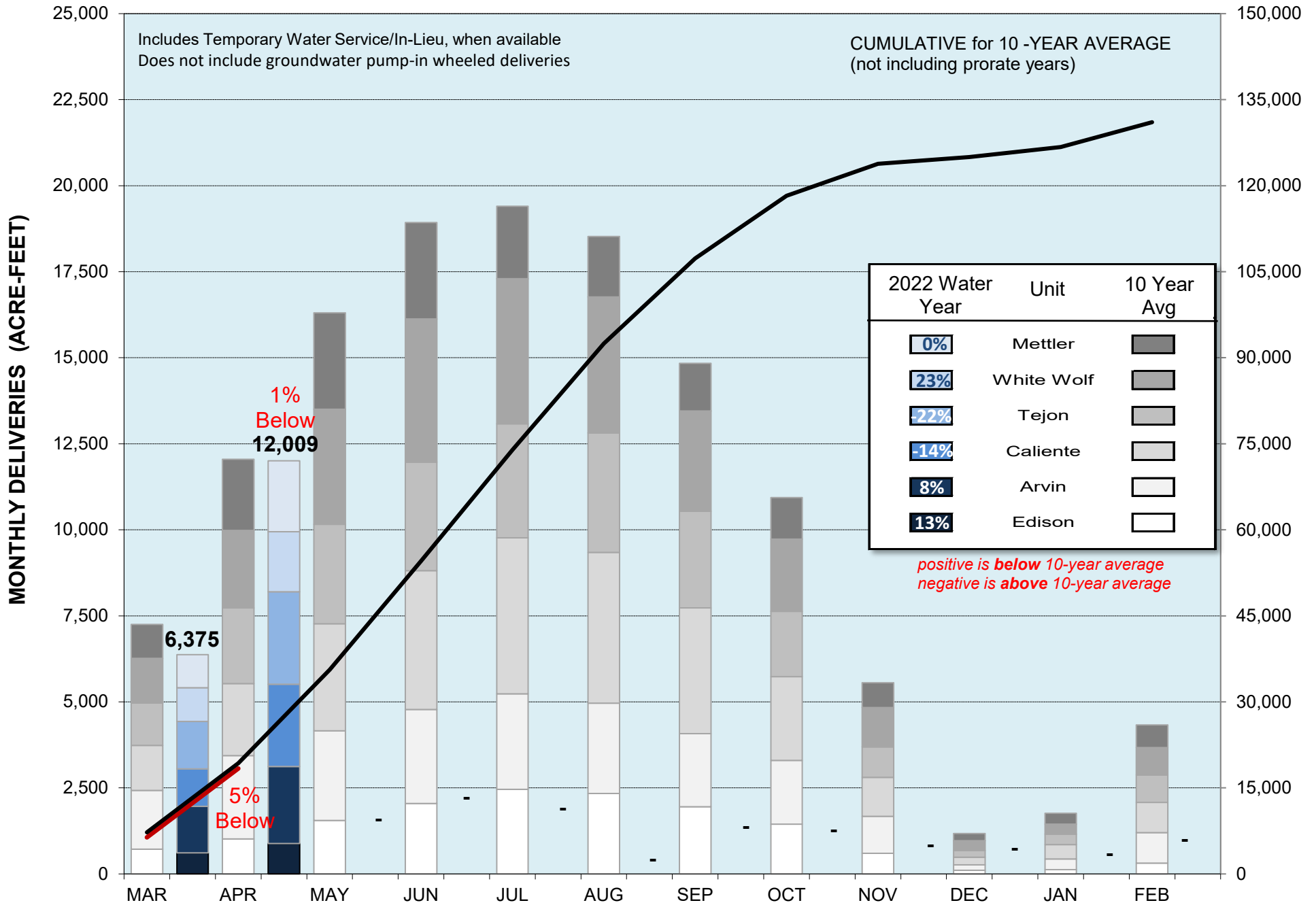


Surface Water	17,631	<b>16%</b>
Groundwater (58% of Max)	93,712	<b>84%</b>
Projected Irrigation Demand	111,343	<b>100%</b>

# 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 cfs	Import Source	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS mg/l	pH	EC umhos/cm	Hardness mg/l	SAR	Gypsum lbs/AF	Boron mg/l	Turbidity NTU	
				mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l									
<b>Intake Canal</b>	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	
	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		
	<b>Average</b>			<b>17.6</b>	<b>0.9</b>	<b>2.1</b>	<b>0.2</b>	<b>18.2</b>	<b>0.8</b>	<b>68.2</b>	<b>1.1</b>	<b>11.2</b>	<b>0.3</b>	<b>3.2</b>	<b>0.1</b>	<b>101.4</b>	<b>8.1</b>	<b>191.5</b>	<b>53.3</b>	<b>1.0</b>	<b>0.5</b>	<b>0.1</b>	<b>3.5</b>	
<b>North Canal</b>	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	
	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		
	<b>Average</b>			<b>18.7</b>	<b>0.9</b>	<b>3.2</b>	<b>0.3</b>	<b>33.4</b>	<b>1.4</b>	<b>103.5</b>	<b>1.7</b>	<b>15.7</b>	<b>0.4</b>	<b>6.0</b>	<b>0.1</b>	<b>145.6</b>	<b>8.2</b>	<b>271.9</b>	<b>59.2</b>	<b>1.8</b>	<b>2.2</b>	<b>0.2</b>	<b>3.3</b>	
<b>South Canal</b>	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	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	4	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	
	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		
	<b>Average</b>			<b>26.2</b>	<b>1.3</b>	<b>6.8</b>	<b>0.6</b>	<b>34.9</b>	<b>1.5</b>	<b>117.2</b>	<b>1.9</b>	<b>30.4</b>	<b>0.9</b>	<b>7.5</b>	<b>0.1</b>	<b>185.6</b>	<b>8.1</b>	<b>316.6</b>	<b>93.8</b>	<b>1.5</b>	<b>0.9</b>	<b>0.2</b>	<b>2.6</b>	

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

	Date	Flow <sup>1</sup> cfs	Import Source	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS mg/l	pH	EC umhos/cm	Hardness mg/l	SAR	Gypsum lbs/AF	Boron mg/l	Turbidity NTU	
				mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l									
<b>Intertie Pipeline</b>	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	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	
	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	
	<b>Average</b>			<b>27.4</b>	<b>1.4</b>	<b>8.0</b>	<b>0.7</b>	<b>33.5</b>	<b>1.4</b>	<b>115.8</b>	<b>1.9</b>	<b>30.8</b>	<b>0.9</b>	<b>8.3</b>	<b>0.1</b>	<b>189.5</b>	<b>8.2</b>	<b>355.0</b>	<b>100.9</b>	<b>1.4</b>	<b>0.3</b>	<b>0.1</b>	<b>4.2</b>	

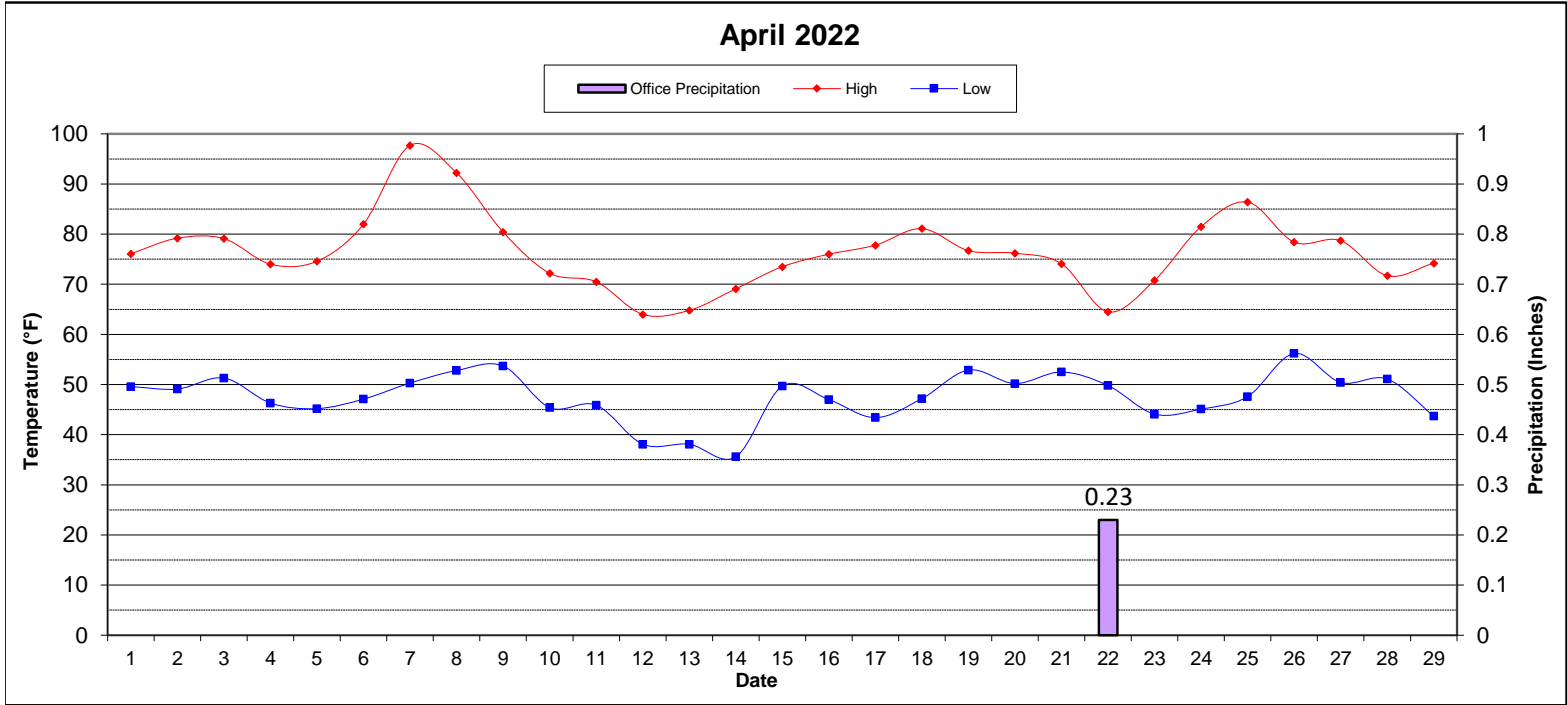
Water Supply Water Quality Note: <sup>1</sup> Positive flow rate is reverse flow into the District. Where the reported value is ND, the method detection limit is entered.  
Water Supply Water Quality Note: <sup>2</sup> Reverse flow into the District South Canal (Sycamore check gate was closed).  
Water Supply Water Quality Note: <sup>3</sup> Constituent ran past sample hold time.

ND:	NONE DETECTED.	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.
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).	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.
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.	HARDNESS:	HARD WATER, INDICATING CALCIUM AND MAGNESIUM, IS BENEFICIAL FOR AGRICULTURE.
NITRATE:	NITRATE IN WATER SLIGHTLY REDUCES FERTILIZER REQUIREMENT.		
BICARBONATE:	BICARBONATE < 1.5 me/l IS SATISFACTORY FOR OVERHEAD SPRINKLERS.	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
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.	BORON:	BORON < 0.50 mg/l IS SATISFACTORY FOR ALL CROPS. EXCESSIVE BORON IS PHYTOTOXIC (BURNS) TO PLANTS.





**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	0.85		0.85		0.84		0.70		0.90	
AVG. YEAR TO DATE	6.63		8.04		7.75		6.74		6.23	
CURRENT MONTH	0.18	7%	0.23	27%	0.22	26%	0.25	36%	0.25	28%
CUMULATIVE (07/01/21 - 06/30/22)	6.58	99%	7.81	97%	9.60	124%	6.98	104%	7.16	115%

TEMPERATURE (6)	(°F)	DATE	TIME
MAXIMUM TEMPERATURE	96	4/7/2022	4:00 PM
AVERAGE MAXIMUM TEMPERATURE	77		
# DAYS THIS MONTH ABOVE 100 °F	0		
MINIMUM TEMPERATURE	39	4/14/2022	3:00 AM
AVERAGE MINIMUM TEMPERATURE	48		
# DAYS THIS MONTH BELOW 32 °F	0		

WIND (6)	M.P.H.	DATE	TIME	DRCTN
MAXIMUM WIND SPEED	16.3	4/11/2022	9:00 PM	NW
AVERAGE WIND SPEED	4.6			
AVERAGE WIND SPEED @ 8:00 AM	4.5			

BAROMETRIC PRESSURE (7)	IN. HG	DATE	TIME
AVERAGE PRESSURE @ 8:00 AM	29.55		
MAXIMUM PRESSURE	29.75	4/13/2022	8:00 AM
MINIMUM PRESSURE	29.34	4/3/2022	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**  
**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													
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN 23													
FEB													
<b>TOTAL</b>	97,947	2,033,650	1,275	5,215,376	3,443	7,351,691							

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  
 2022 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 - 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													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN - 23													
FEB													
<b>Total</b>	0		2,101		4,946		5,417		4,998		17,462	58	12%
<b>Ratio</b>	0%		12%		28%		31%		29%		100%	<b>Average</b>	
<b>Wells</b>	4		5		14		34		29		86		



**EXHIBIT "H-1"**  
**ARVIN-EDISON WATER STORAGE DISTRICT**  
**STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - APRIL 2022**  
 ALL VALUES IN FEET

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
<b>NORTH CANAL (23)</b>	N1	425	488	610	840	62	122
	N2	444	554	700	840	111	146
	N3	381	407	610	840	25	203
	N4	437	460	550	864	23	90
	N5	454	463	650	864	9	187
	N6	513	617	640	920	104	23
	N7	480	501	600	1010	21	99
	N8	417	463	560	970	46	97
	N9	448	557	700	990	109	143
	N10	449	503	560	990	54	57
	N11	426	456	562	1020	30	106
	N12	478	503	600	1030	25	97
	N13	480	505	600	1000	25	95
	N14	441	461	540	900	21	79
	N15	381	518	700	1200	136	182
	N16	381	460	600	1200	79	140
	N17	395	501	610	1200	106	109
	N18	438	570	610	1190	132	40
	N19	468	519	760	1300	51	241
	N20	591	628	820	1020	37	192
	N21	464	540	660	950	76	120
	N22	460	485	680	990	25	195
	N23	457	468	680	990	11	212
Avg	448	505					

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
<b>TEJON (29)</b>	71	543	567	800	1050	24	233
	72	539	576	800	1045	37	224
	73	537	569	800	1018	32	231
	74	532	571	800	1084	39	229
	75	537	557	800	1045	21	243
	76	524	573	700	996	49	127
	77	518	601	800	1066	83	199
	78	518	555	800	1038	37	245
	79	515	557	700	1032	42	143
	80	507	631	800	996	125	169
	81	487	531	700	925	44	169
	82	418	469	800	996	51	331
	83	537	590	800	996	53	210
	84	438	488	700	955	50	212
	86	551	597	800	996	46	203
	87	544	574	800	984	30	226
	88	532	569	800	948	37	231
	89	511	544	800	996	32	256
	90	434	478	700	996	44	222
	91	N/A	N/A	700	996	N/A	N/A
	92	560	606	800	996	46	194
	93	558	610	800	996	52	190
	94	569	615	860	996	46	245
	95	498	528	800	996	30	272
	96	581	680	800	996	99	120
	98	543	578	760	1340	35	182
	99	535	574	760	1340	39	186
	100	462	522	760	1340	60	238
	101	484	543	760	1310	59	217
Avg	518	566					

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
<b>SYCAMORE (34)</b>	1	446	488	705	800	42	217
	2	454	503	690	876	49	187
	4	476	511	700	876	35	189
	5	489	526	720	876	37	194
	6	420	482	690	876	62	208
	7	462	515	700	830	53	185
	8	416	451	640	860	35	189
	9	478	520	700	886	42	180
	10	454	494	690	850	39	196
	11	453	501	700	880	49	199
	12	471	511	700	860	39	189
	13	441	513	700	850	72	187
	14	402	451	670	810	49	219
	15	467	611	710	820	143	99
	16	462	601	700	888	139	99
	17	428	553	650	820	125	97
	18	442	463	650	820	21	187
	20	440	472	680	804	32	208
	21	450	468	690	856	18	222
	22	425	451	610	792	25	159
	23	422	448	600	788	25	152
	24	434	462	580	780	28	118
	25	418	441	610	777	23	169
	26	429	468	690	816	39	222
	28	397	441	660	782	44	219
	29	452	475	690	787	23	215
	31	441	468	660	725	28	192
	32	411	511	640	739	99	129
	33	451	531	700	780	81	169
	34	N/A	N/A	700	781	N/A	N/A
	35	441	513	700	800	72	187
	36	452	482	600	820	30	118
	37	452	477	540	820	25	63
	38	458	494	860	1270	36	366
Avg	444	494					

MONTHLY SUMMARY - AVERAGE WATER LEVELS						
READINGS END OF	STATIC LEVELS			PUMPING LEVELS		
	N. CANAL	SYCAMORE	TEJON	N. CANAL	SYCAMORE	TEJON
APR-21	439	436	479	504	497	564
MAY	439	454	520	506	519	575
JUN	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-22	448	444	518	505	494	566
CHANGE TO-DATE	-9	-8	-39	-1	3	-2

OUT OF SERVICE (5)	*Bowl depth measured to top of pump
AIRLINE FAILURE (15)	*Pumping levels are estimated based on
FAILED (2)	previous draw down records. (6 month average)
86 TOTAL WELLS	*Airline failure levels were obtained with acoustic sounder



# EXHIBIT "I"

## April 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<b>Board—Red</b> <b>JSM—Blue</b> <b>MD—Orange</b> <b>Staff—Green</b>	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	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 NKWSD - North Kern 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 WQSA - Water Quality Sub Account	<b>1 FFPP Load Capacity w/WAPA (TC)</b>  <b>FFPP Load Capacity w/Legal Counsel (TC)</b>  <b>Kern Managersw/Yurosek (Zoom)</b> <b>Friant Managers (MTs)</b>	<b>2</b>
<b>3</b>	<b>4 Redwood AES Solar Proposal (MTs)</b>  <b>P&amp;P Project Update</b> <b>Finance Plan</b> <b>JDA (TC)</b> <b>Low Head Hydro w/ COB (MTs)</b>	<b>5 FFPP Load Capacity w/PG&amp;E/WAPA (WebEx)</b>  <b>Groundwater Model Update w/EKI (MTs)</b>	<b>6 PWRPA BOD (WebEx)</b> <b>SGMA Update w/EKI/Bezdek (MTs)</b>  <b>KGA EC (Yurosek)</b>  <b>Water Supply w/FWA (MTs)</b>	<b>7 KGA Managers w/ Yurosek</b>	<b>8 AC Electric (TC)</b> <b>ETGSA (Camp)</b>  <b>Kern Basin w/DWR/Yurosek/ Martinez</b>  <b>WRMWSd Coordination w/ Camp/Yurosek</b>  <b>Water Supply w/USBR (MTs)</b> <b>HOMER re PID (TC)</b>	<b>9</b>
<b>10</b>	<b>11 Standtank Painting Pre-Construction</b>  <b>ETGSA (Camp)</b>	<b>12 AEWSd BOD</b>	<b>13 Water Supply w/FWA (MTs)</b>	<b>14 KGA Managers w/ Yurosek on Zoom</b>  <b>AEWSd Pension Committee (WebEx)</b>  <b>Millerton Lake Forecasting (MTs)</b>	<b>15 Kern Manager w/Yurosek (Zoom)</b>	<b>16</b>
<b>17</b>	<b>18 FWA EC w/Camp (Lindsay)</b>  <b>DWR on Executive Order (Zoom)</b>  <b>CVC Ad-Hoc Comm</b>	<b>19 Sorensen Engineering (HQ Kern Plant)</b>  <b>ETGSA (Camp)</b>	<b>20 SGMA Update w/EKI/ Bezdek (MTs)</b>	<b>21 KGA Managers w/ Yurosek (Zoom)</b>  <b>AEWSd Special BOD</b>	<b>22 Kern Managers (Yurosek)</b>	<b>23</b>
<b>24</b>	<b>25 FWA Finance Comm (Giumarra) (WebEx)</b>	<b>26 SGMA Update w/ DWR (TC)</b>  <b>SGMA Update w/Camp/ Yurosek (TC)</b>	<b>27 KGA Prep w/Camp/Yurosek</b> <b>KGA BOD w/Yurosek</b> <b>FKC WQ w/Adams/EKI (TC)</b> <b>FKC Subsidence for Kern GSP</b>  <b>CVC Ad-Hoc Comm (GoToMeeting)</b>	<b>28 FWA BOD w/Camp (Visalia)</b> <b>Friant O&amp;M w/Orvis (Visalia)</b> <b>General Counsel</b>  <b>Kern Managers (Yurosek)</b>	<b>29 Ecogreen Solutions</b>  <b>Kern Managers w/Yurosek</b> <b>HOMER re PID (Zoom)</b>  <b>General Counsel Transition</b>	<b>30</b>