ARVIN-EDISON WATER STORAGE DISTRICT

REPORT OF DISTRICT OPERATIONS

February 2021

Drainback Valve Replacement
(Canalside S73-P1 Pump Plant)

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

WATER SUPPLY

Friant Division Central Valley Project (CVP)

- The 2020 Water Year allocation was finalized as follows:
  - 65% Class 1 (26,000 AF)
  - 0% Class 2
- Exhibit "A" provides additional supply information for 2020 Water Year supplies
- The Creek Fire was impacting Millerton Lake operations, which provided minimal releases from upstream Southern California Edison reservoirs, which nearly resulted in prorate conditions on the Friant-Kern Canal and District responded by shifting sources (CVC and wellfield) to assist in reservoir low point concerns. The source shift resulted in increased carryover in Millerton Lake into Water Year 2021.
- The Friant-Kern Canal was back in full service by February 9th. District demands were met with groundwater and/or CVC supplies.
- The 2021 Water Year initial allocation is as follows
  - 20% Class 1 (8,000 AF)
  - 0% Class 2

San Joaquin River Restoration Program (SJRRP)

- The 2020 Runoff Year ended on September 30th and was finalized at 886,025 AF of natural river runoff in the SJR watershed, which is a "Dry" year type pursuant to SJR settlement and accordingly, the SJRRP received 202,197 AF of water supply
- Unreleased Restoration Flow (URF) supplies made available included 41,400 AF to date with 2,070 AF District share and additionally Priority URFs, as a result of prior agreement, generated 4,690 AF. In addition, Friant contractors assisted the SJRRP to reschedule 2020 supplies (over 13,900 AF) into 2021 that resulted in 3,475 AF of leave behind supply for Friant contractors at Class 1 percentages for 2021 use (174 AF to District).
- Recapture supplies are estimated at nearly 23,400 AF (approximately 1,400 AF District share at this time and subject to change).
- SJRRP initially requested 3,800 AF from District in 2020 from the 2016 Exchange (up to 7,000 AF is available), however with the improved hydrology the exchange was deferred
- 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).
- The 2021 Runoff Year is estimated at 739,000 AF of natural river runoff in the SJR watershed, which is a "Dry" year type pursuant to SJR settlement and accordingly, the SJRRP would receive 170,232 AF of water supply and accordingly there is no anticipated call on exchanges. However, provided continued dry conditions, the designation is expected to fall to "Critical High", in which case 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.

Shasta System CVP

- The 2020 allocation for south of Delta Ag was finalized at 20%
- The 2021 initial allocation for south of Delta Ag was announced at 5%

State Water Project (SWP)

- The initial 2021 Table A allocation remains at 10%

Kern River

- 2021 supplies are currently estimated at 33% of average

Water Bank Facilities

- Provided limited surface supply allocations, there was heavy reliance on wellfields for the 2020 Water Year in the amount of 79,869 AF
- Given limited initial surface supply allocations, heavy reliance on wellfields and previously banked water is expected for the 2021 Water Year

Metropolitan Water District (MWD) Water Management Program

- MWD beginning balance is 142,257 AF in water bank reserves
- MWD did not request return for the 2020 Water Year
- 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 Water Quality Subaccount activity to regulate surface water supplies as well as potential call on the program for surface water supplies

Rosedale-Rio Bravo Water Management Program

- The District's 2020 ending account balance for water held in RRBWSD was finalized at 64,462 AF after receiving the maximum program amount of 10,000 AF from May through September
- District has received correspondence from RRBWSD to jointly review provisions of the 2009 long term banking agreement.
- RRBWSD has also requested a 2021 Use of CVC/FKC Intertie Agreement for their 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
- KDWD has begun initiating return of previously banked water to MWD under the KDWD/MWD program for 2021. Assuming District calls on its RRBWSD banking program, an operational exchange is envisioned which would provide the District a return of 10,000 acre-feet from RRBWSD (via KDWD) from April through September

District Partnerships

- The District has participated in water management programs with the following districts/agencies in Water Year 2020:

Belridge Water Storage District
Buena Vista Water District
Chowchilla Water District
City of Lindsay
County of Fresno
County of Tulare
Del Puerto Water District
Fresno Irrigation District
Garfield Water District
Hills Valley Irrigation District
Kern Delta Water District
Kern Tulare Water District
Lewis Creek Water District
Madera Irrigation District
Metropolitan Water District
Pixley Irrigation District
Rosedale Rio Bravo WSD
San Luis Water District
San Joaquin River Restoration Program
Saucelito Irrigation District
Shafter-Wasco Irrigation District
Tri-Valley Water District
Tulare Irrigation District
Westside Mutual Water Company

WATER DEMAND

- District surface water deliveries for the month were 4,067 AF
- The following is a summary of surface water deliveries for February 2021:

	February 2021		**Year to Date**	
	Historical	2020 WY	Historical	2020 WY
Turnout Deliveries	4,329	4,067	133,702	122,947
In-Lieu Deliveries	-	-	-	-
Temporary Water	-	-		108
Spreading	-	55	-	1,173
Total	4,329	4,122	133,702	124,228

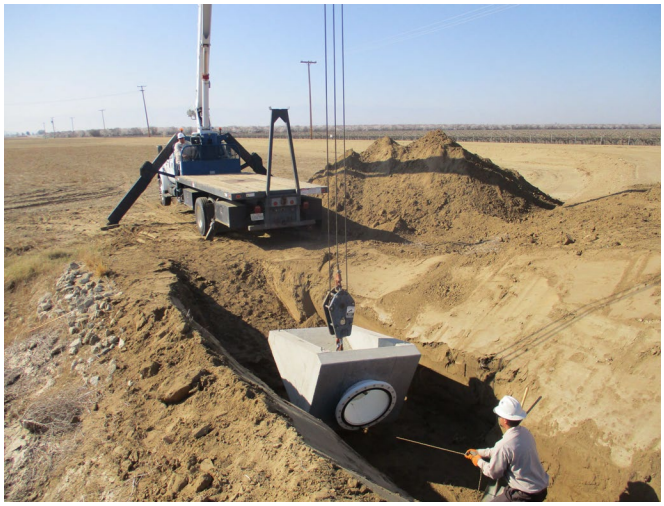
- Exhibit “B” illustrates the delivery data
- The month's peak daily in-District demand was 250 cfs, which occurred on the 23rd
- Exhibit "C-1” details Canal Water Quality information
- Exhibit “C-2” presents the Aquatic Pest Control Treatments ($0) for 2021

GENERAL

- Staff continues to practice several safety measures in response to COVID-19
- Staff initiated efforts towards moving into the new Bakersfield office (4700 Stockdale Avenue Suite 115 and anticipate staffing sometime in April)
- District vehicles consumed an estimated 4,300 gallons of fuel during the month (average fuel efficiency of 11.2 mpg)
- There were 307 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 2020 (approximately 129 million kilowatt hours). 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



Interbasin Structure Installation to increase capacity into gravity ponds (NCSW)

Real Time Water Quality Monitoring Datalogger and Wireless Communication Equipment Installed (Sycamore Checkgate)

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)
    - A one-year time extension due to various reasons (environmental, unexpected well repairs, and COVID-19) was approved by the Bureau with a deadline now of March 31, 2021
    - All 50 sites are complete and minor miscellaneous items including painting remains but will be completed prior to the grant deadline
- 2020 USBR WaterSMART grant application for the Forrest Frick Pipeline/ Eastside Canal Intertie **was awarded** at $500,000 (with a $500,000 local cost share) and a grant contract is anticipated in April
- Awaiting results on the following grant applications:

- 2020 USBR Water and Energy Efficiency Grant for DiGiorgio In-Lieu Water Conservation Project – Phase 2
- Regional Conservation Partnership Program (NRCS) funding for expansion of Tejon Unit gravity pipelines service area

- 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
    - Coordinate potential pipe alignments and environmental coverage area with staff and consultants
    - Review and comment on CEQA document
    - Board consideration of a proposed Mitigated Negative Declaration at the April or May meeting
  - Pump Replacement Program
    - Begin testing and investigation for phase 2 (horizontal 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)
  - Landowner pipeline replacement (adjacent to Sycamore Spreading)
  - Cathodic protection system upgrades
    - FFPP discharge pipeline
  - Pump Efficiency Testing
    - As needed for replaced pumps
  - Investigate Potential Recharge Basins
    - Granite Quarry (East of HQ and Sycamore)
    - HWY 5 Gravel Pit (Mettler)
    - H&H Property (Caliente Creek)
    - Rudnick (Edison Area)
  - Real Time Water Quality Monitoring
    - Installation and electrical integration is in progress
  - CIMIS Station
    - Coordinated landline to cellular conversion with Department of

Water Resources (installation pending)
        - Intertie Pipeline Inspection
            - Working with contractor, proposal received

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, and Improvement District No. 4
    - Coordinating with Tejon-Castac Water District
- Prioritization criteria for Projects and Management Actions
- Development of a potential Well Mitigation Policy
- Evaluate various Water Budget methodologies
- Distributed SGMA letter update to landowners and water users
- Submitted Kern Subbasin Annual Report information for October 2019 to September 2020 time period

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
    - East Niles Community Services District
    - 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
- 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 rate increase letter to Participants

SPREADING WORKS OPERATIONS (WELLFIELDS AND BASINS)

- Exhibit “F” summarizes wellfield production, which totaled 3,933 AF for the month (32% of historical maximum in February)
- Exhibit “G” summarizes gross direct spreading of 55 AF for the month due to Canal balancing operations
- 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
North Canal*	11	2000	300	Excess Vibrations	Pulled equipment, video, replaced pump
Sycamore	28	1970	300	Excess Vibrations	Pulled equipment, video, reviewing options
Tejon	101	2018	600	Softstart Electrical Short	Contractors troubleshot under warranty, replaced pole, startup pending

***Back in Service**

- Seven (7) out of 86, or 8%, of District wells are currently out of service and consultants are reviewing repair options
    - Three (3) long-term failures in Sycamore 34, Tejon 82 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

Limitorque Bypass Valves Replaced (N8-P1)

Marking District Underground Facilities

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
- Monitored emergency water return pump-ins
- Drained back lateral valve repaired (S73-P1)
- Pulled and flushed out debris from various turnouts (A-42, A-99, and T-4)
- 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 damaged and/or worn air vents (District wide)
- Responded to various Pumping Plant alarms (reset and primed laterals)
- Cleaned isolation and air vent concrete rings
- Stenciled turnouts with labels (as needed)
- Reset isolation valve and air-vent location marker poles

Underground Service Alert (USA) Report

- District initiated 0
- Responded to 366 USA notices to locate District underground facilities
  - 18 required marking of District facilities
  - 301 were renewals
  - 47 with no conflicts

Power Outages and/or Interruptions Involving the Following Systems

- Laterals S64, S93, and End of Canal/Spillway

Laterals Prorates (number of days)

- No prorates for the month

MAINTENANCE DEPARTMENT ACTIVITIES

Replacing Bypass Valve (FFPP Unit #3)

Assisting WRMWSD with Tumbleweed Removal

Routine Activities

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

- Completed reconciliation of Groundwater Metering Project sites
- Removed excessive tumbleweeds and debris (Intake Canal and pumping plants N1-P1, N8-P1, and N55-P1)
- Install 24” Interbasin Structure to increase gravity pond fill rates (North Canal Spreading Works)
- Rebuilt and installed bypass valve (FFPP Unit #3)
- Import replacement rock for Pumping Plants (N8-P2 and N8-P4)
- Repaired pinhole leaks (turnout C-55)
- Re-install DWR sign knocked down by high winds (North Canal Spreading Works)
- Repair pipeline leak (Lateral S73)
- Prepped and painted various facilities
  - Pumping Plant S93-P2
  - New pump installed at N55-P6
- Assisted Wheeler Ridge-Maricopa Water Storage District with tumbleweed removal on 850 Canal (District reimbursed at labor and equipment rates)

Mechanic’s Shop Repair Activities

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

Part	Repair/Replaced	Part	Repair/Replaced
Brakes	4	Tail Lights	2
Tires	8	Trailer Lights	1
Tire Repairs	4	Wiper Blades	4
Rotors/Drums	2	Pulleys	2
Fuel Filters	2	Batteries	2
Fuel Pump	1	Belts	2
Headlights	1	Starter	1

- Heavy Equipment Repairs
  - Repaired taillights (trailer)
  - Replaced blades (Grader)
  - Replaced hydraulic hose and belt (Spray truck)

PUMP DEPARTMENT ACTIVITIES

Removal of Failed 50 CFS Unit (Balancing Reservoir Unit #3)

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)
- Rebuilt and installed check valve (S64-P1 Unit #5)
- Installed new sump pump (S64-P1)
- Replaced worn and damaged pump head (S32-P1 Unit #1)
- Received new 5 CFS horizontal pump (inventory)
- Received new packing boxes and couplers for vertical pumps

PUMP & MOTOR REPAIR SUMMARY

	Pumping Plant/Wells	Unit	Size	Time/Hours	Reason
Vertical Pumps	Balancing Reservoir	3	50 CFS	8,150	Worn liner and suction bell
	S88-P1	1	5 CFS	13,975	Worn Shaft
Vertical Motors	Tejon Spreading Works	93	400 HP		Worn Bearings
Horizontal Pumps	N55-P2	6	10 CFS	3,170	Worn sleeves and rings
	S93-P3	4	5 CFS	6,415	Worn sleeves and bearings
Horizontal Motors	None to report				

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
Hour Meters	2	12 kV Fuses	3
Trip Unit	1	PLC	3
Circuit Breaker	2	Limitorque	2
Softstart	3	Relays	3

Additional Activities

- Programming for SCADA system updates and monitored performance
- Troubleshot and repaired water level monitor at FFPP
- Installed datalogger and corresponding equipment for real time water quality monitoring (Sycamore Checkgate)
- Worked with contractors to troubleshoot and repair wellfield electrical equipment (Tejon well 71 and 101)

- Met with contractors regarding Radio upgrades as a part of SCADA upgrades

FORREST FRICK PUMPING PLANT

- 385 AF of water was pumped during the month
- Unit #3 motor and pump repairs are underway

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

2020 WATER SUPPLY AND DEMAND

SUPPLY		***AF***	***%***
FRIANT-KERN (F-K)			
65% OF 40,000 AF CLASS 1		26,000	
0% OF 311,675 AF CLASS 2 (Uncontrolled Season)/RWA		0	
0% OF 311,675 AF CLASS 2		0	
CARRYOVER OF 2019 WATER		4,000	
TULARE ID (C/O)		1,500	
MADERA ID (C/O)		442	
DEWATER		637	
SJRRP URF TIER 1 BLOCK 1		0	
SJRRP URF TIER 1 BLOCK 2, 3, 4, AND 5		0	
SJRRP URF TIER 2 BLOCK 1		1,675	
SJRRP URF TIER 2 BLOCK 2		220	
SJRRP URF TIER 2 BLOCK 2		175	
SJRRP PRIORITY URF TIER 2 BLOCK 1		4,690	
SJRRP PRIORITY URF TIER 2 BLOCK 2		617	
SJRRP PRIORITY URF TIER 2 BLOCK 3		490	
ROSEDALE RIO BRAVO WSD		7,205	
	SUBTOTAL	47,651	
FRESNO COUNTY		-495	
KERN TULARE		-210	
CHOWCHILLA WD		-2,000	
MADERA ID		-100	
	TOTAL F-K	44,846	32.7%
CROSS VALLEY CANAL (CVC)			
RECIRCULATION		1,364	
FRESNO COUNTY		600	
SAUCELITO ID		692	
FRIANT FOUR (LC, HV, TV, GWD)		218	
PIXLEY ID		1,275	
CHOWCHILLA WD		1,801	
SHAFTER-WASCO ID (RECIRC)		1,704	
SLR 2019 CARRYOVER		5,642	
ROSEDALE RIO BRAVO WSD		1,949	
SAN LUIS WD		1,150	
DEL PUERTO WD/ BUENA VISTA WSD		-6,750	
CITY OF LINDSAY		86	
LOSSES		-234	
	TOTAL CVC	9,497	6.9%
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	
CITY OF BAKERSFIELD		0	
KERN DELTA (WHEELING EXCHANGE)		0	
	TOTAL IPL	0	0.0%
INTAKE CANAL PUMP-IN (IC)			
KERN DELTA WELLS (RRB EXCHANGE)		846	
KERN DELTA H STREET		0	
BUENA VISTA WD (SJRRP EX)		2,000	
KERN TULARE WD/ WESTSIDE MUTUAL		210	
	TOTAL KR	3,056	2.2%
TOTAL IMPORT		**57,399**	**41.8%**
GROUNDWATER PUMPING			
IRRIGATION DEMAND		79,869	
FARM PUMP IN		0	
RETURN TO MWD		0	
	TOTAL PUMPING	79,869	58.2%
TOTAL WATER SUPPLY		137,268	100.0%

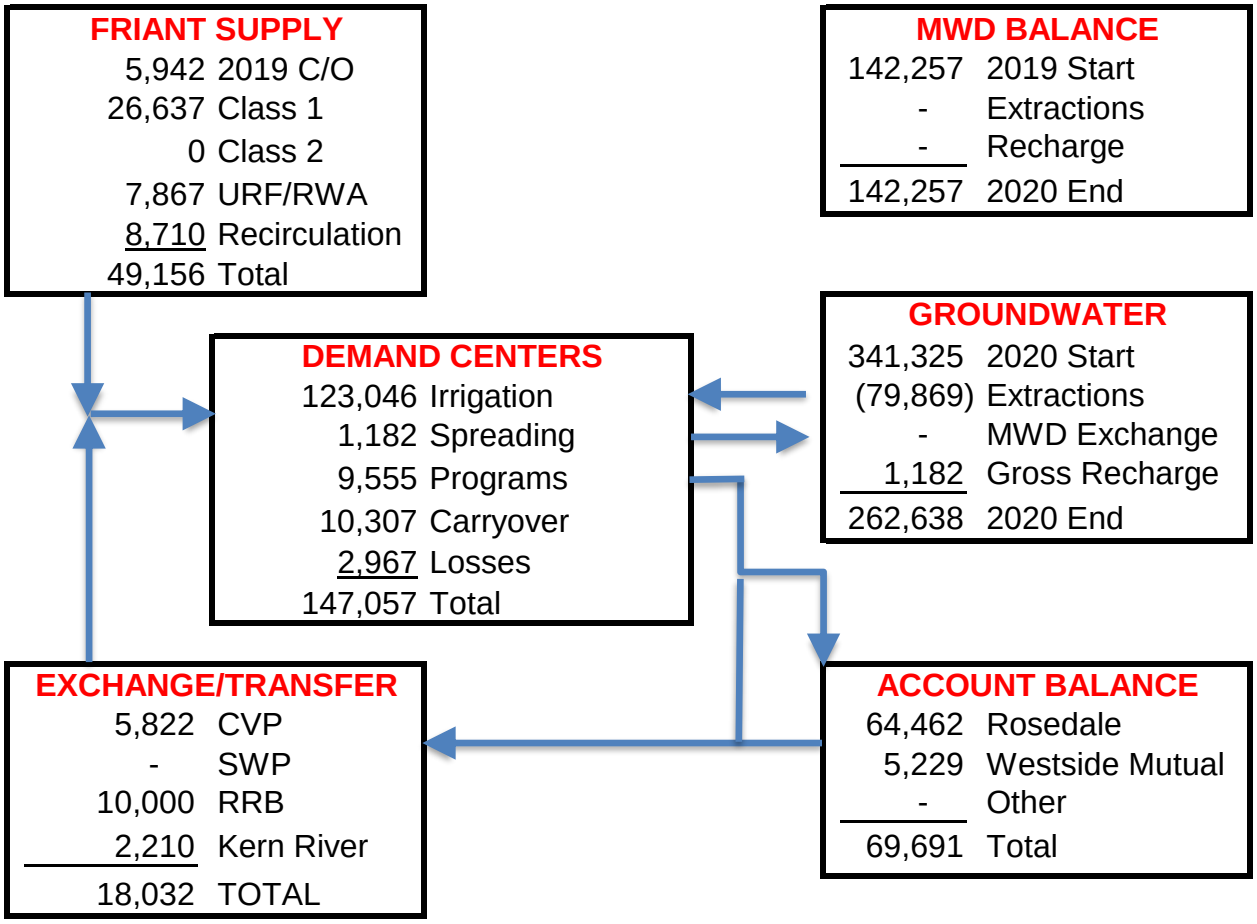
DEMAND		
IRRIGATION DEMAND (MARCH-FEBRUARY)	123,055	89.6%
SPREADING (MARCH-FEBRUARY)	1,173	0.9%
RETURN TO MWD	0	0.0%
WHEELING	0	0.0%
CARRYOVER TO 2021	10,307	7.5%
LOSSES/METERING INACCURACIES	2,733	2.0%
TOTAL DEMAND	137,268	100.0%

3/3/2021

Exhibit "A-2"

ARVIN-EDISON WATER STORAGE DISTRICT

2020 WATER MANAGEMENT



Surface Water	44,359	**36%**
Groundwater (49% of Max)	79,869	**64%**
Projected Irrigation Demand	124,228	**100%**

EXHIBIT "B"

ARVIN-EDISON WATER STORAGE DISTRICT

2020 WATER YEAR DELIVERIES

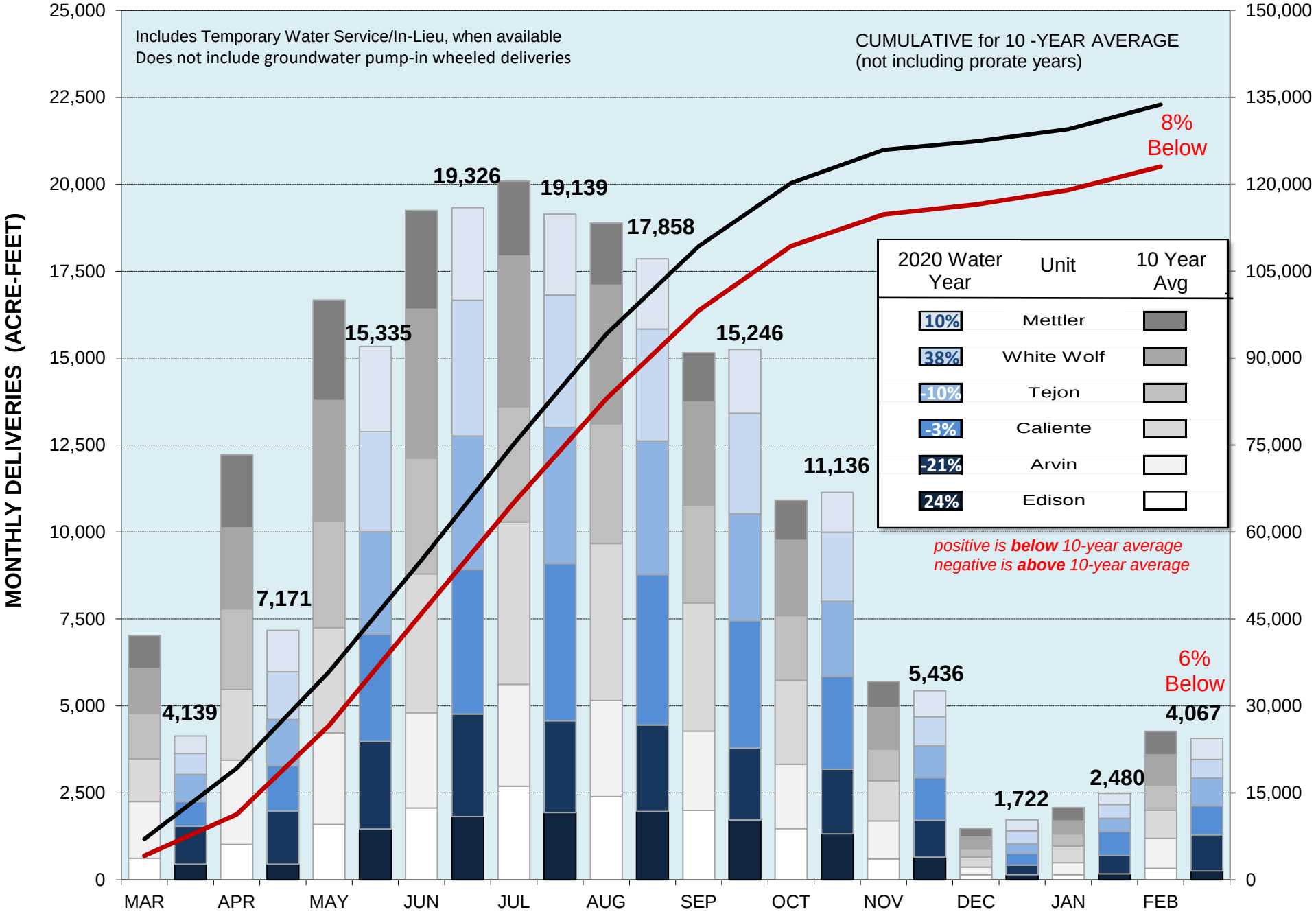


EXHIBIT "C1"

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	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
	01/14/20	0	FKC(100%)	5.9	0.30	0.7	0.06	4.0	0.17	25	0.41	1.1	0.03	0.74	0.01	27	6.8	45	18	0.4	0.24	ND	4.2
	Average			**16.4**	**0.8**	**1.5**	**0.1**	**16.7**	**0.7**	**57.6**	**0.9**	**13.2**	**0.4**	**2.5**	**0.0**	**93.5**	**7.9**	**173.2**	**47.1**	**1.0**	**0.4**	**0.1**	**5.5**
North Canal	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
	01/14/20	0	FKC(100%)	21.0	1.05	8.8	0.72	44.0	1.90	96	1.57	57.0	1.60	ND	ND	200	8.3	366	88	2.0	ND	0.10	7.0
	Average			**20.6**	**1.0**	**4.3**	**0.4**	**39.1**	**1.7**	**102.9**	**1.7**	**22.5**	**0.6**	**5.6**	**0.1**	**169.6**	**8.1**	**312.1**	**68.9**	**2.0**	**2.1**	**0.3**	**3.6**
South Canal	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
	01/14/20	0	FKC(100%)	21.0	1.05	8.8	0.72	41.0	1.77	90	1.48	52.0	1.46	ND	ND	200	7.8	344	88	1.9	ND	0.08	5.5
	Average			**25.7**	**1.3**	**6.8**	**0.6**	**38.9**	**1.7**	**107.5**	**1.8**	**33.7**	**0.9**	**6.9**	**0.1**	**195.1**	**8.2**	**357.6**	**91.4**	**1.8**	**1.3**	**0.2**	**3.0**

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	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
	01/14/20	0	FKC(100%)	21.0	1.05	7.0	0.57	36.0	1.55	84	1.38	43.0	1.21	0.24	0.00	170	7.6	303	81	1.8	ND	0.07	4.2
	Average			**28.4**	**1.4**	**8.3**	**0.7**	**41.4**	**1.8**	**107.9**	**1.8**	**39.5**	**1.1**	**7.6**	**0.1**	**211.4**	**8.3**	**391.1**	**105.4**	**1.8**	**0.1**	**0.2**	**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

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	38-63																	
	01/11/21																		
	01/18/21																		
	01/25/21																		
FEB	02/01/21	40-66																	
	02/08/21																		
	02/15/21																		
	02/22/21																		
MAR	03/01/21	43-67																	
	03/08/21																		
	03/15/21																		
	03/22/21																		
	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																		
	05/11/20																		
	05/17/21																		
	05/24/21																		
	05/31/21																		
JUNE	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	53-85																	
	10/11/21																		
	10/18/21																		
	10/25/21																		
NOV	11/01/21	39-67																	
	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																		

2020 Cost To Date

Treatment	Material	Labor	Total
Captain/Nautique	$0	$0	$0
Phycomy	$0	$0	$0
Cascade	$0	$0	$0
Teton/Hydrothol	$0	$0	$0
Spreading Basins	$0	$0	$0
Total	$0	$0	$0

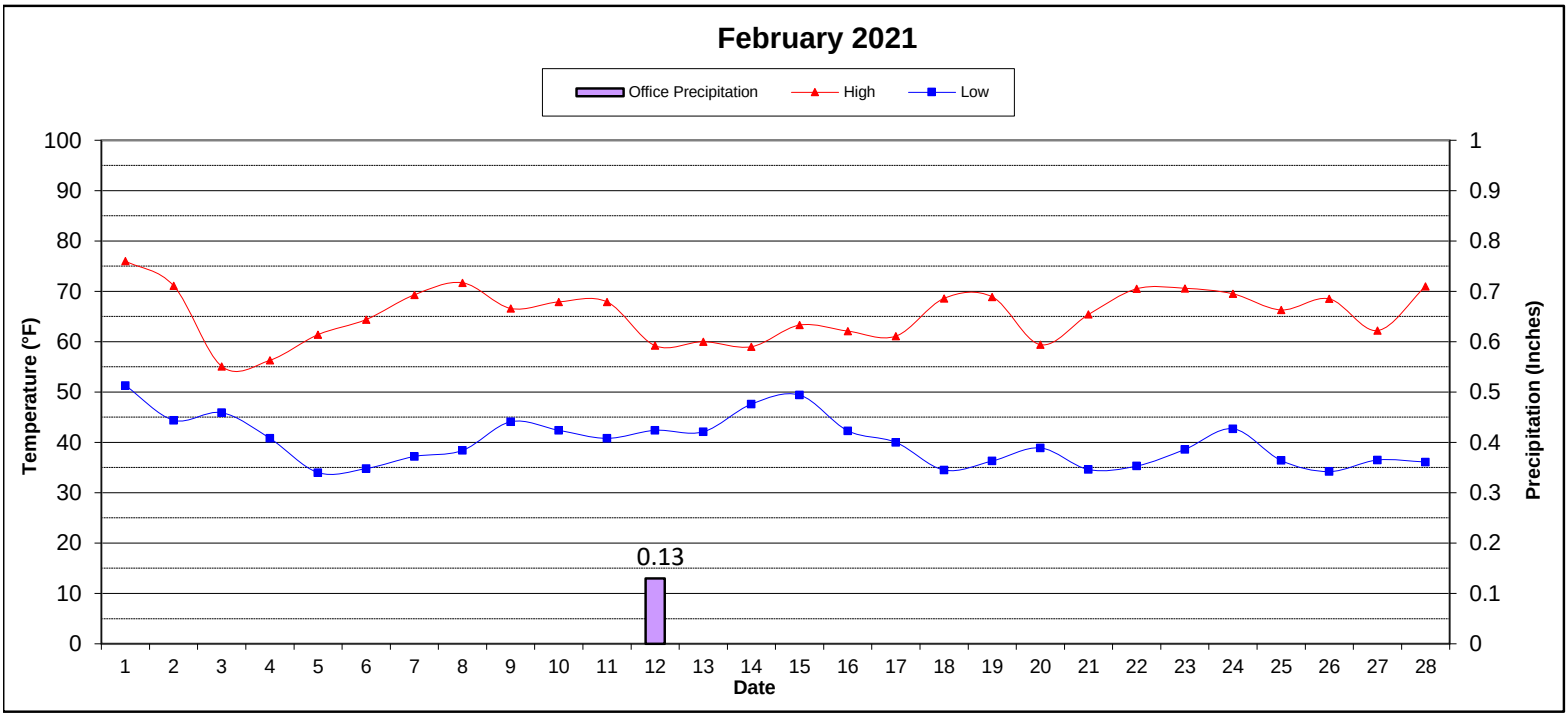
Shaded weeks are actual
Copper treatment (gal/lbs) for algae and pondweed (injected/broadcast)
Phycomycin (hydrogen peroxide) treatment (lbs) for algae (broadcast)
Endothall treatment (gal) for milfoil/basins (injected)
Endothall treatment (gal) for algae (injected)
Sonar/Clearcast/RoundUp Custom/MSO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

Year Type	Amount Spent	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	0.63		1.45		1.33		1.16		0.45	
AVG. YEAR TO DATE	3.68		5.58		5.37		4.70		3.03	
CURRENT MONTH	0.13	21%	0.13	9%	0.11	8%	0.19	16%	0.01	2%
CUMULATIVE (07/01/20 - 06/30/21)	1.95	53%	2.00	36%	1.82	34%	1.02	22%	1.14	38%

TEMPERATURE (6)	(ºF)	DATE	TIME
MAXIMUM TEMPERATURE	76	2/1/2021	3:00 PM
AVERAGE MAXIMUM TEMPERATURE	66		
# DAYS THIS MONTH ABOVE 100 ºF	0		
MINIMUM TEMPERATURE	35	2/5/2021	6:00 AM
AVERAGE MINIMUM TEMPERATURE	40		
# DAYS THIS MONTH BELOW 32 ºF	0		

WIND (6)	M.P.H.	DATE	TIME	DRCTN
MAXIMUM WIND SPEED	12.8	2/2/2021	10:00 PM	SW
AVERAGE WIND SPEED	3.1			
AVERAGE WIND SPEED @ 8:00 AM	2.5			

BAROMETRIC PRESSURE (7)	IN. HG	DATE	TIME
AVERAGE PRESSURE @ 8:00 AM	29.66		
MAXIMUM PRESSURE	29.85	2/18/2021	11:00 AM
MINIMUM PRESSURE	29.44	2/1/2021	3:00 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													
TOTAL	9,984,752	39,638,399	110,585	64,913,469	41,587	114,688,792							

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

2/12/2021

EXHIBIT "F"

ARVIN-EDISON WATER STORAGE DISTRICT

2020 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 - 20	0	0%	964	79%	2,216	101%	783	12%	906	16%	4,869	157	32%
APR	0	0%	752	62%	2,153	96%	1,376	20%	2,263	45%	6,544	218	44%
MAY	0	0%	925	74%	2,936	117%	4,007	55%	4,237	78%	12,105	390	80%
JUN	0	0%	788	65%	2,693	81%	4,206	57%	4,693	85%	12,380	399	76%
JUL	0	0%	639	51%	2,271	67%	2,753	37%	2,070	38%	7,733	249	48%
AUG	0	0%	577	46%	2,883	84%	2,319	32%	1,971	38%	7,750	250	49%
SEP	0	0%	464	38%	2,002	83%	2,228	34%	902	20%	5,596	187	39%
OCT	0	0%	840	67%	3,333	151%	2,864	43%	3,057	67%	10,094	336	69%
NOV	0	0%	376	33%	1,476	71%	1,492	28%	1,039	23%	4,383	146	35%
DEC	0	0%	103	9%	764	37%	596	12%	394	10%	1,857	62	16%
JAN - 21	0	0%	273	22%	847	40%	978	20%	527	11%	2,625	88	21%
FEB	0	0%	376	35%	1,233	65%	1,399	29%	925	20%	3,933	131	32%
Total	0		7,077		24,807		25,001		22,984		79,869	218	45%
Ratio	0%		9%		31%		31%		29%		100%	Average	
Wells	4		5		14		34		29		86		
AF/Well	0		1,415		1,772		735		793		929		

EXHIBIT "G"

ARVIN-EDISON WATER STORAGE DISTRICT

2020 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-20	69	251	0	0	0	0	0	0	320	0	0	320
APR	37	0	0	0	0	0	0	0	37	0	0	37
MAY	376	0	0	0	0	0	0	0	376	0	9	385
JUN	47	0	0	0	0	0	0	0	47	0	0	47
JUL	58	0	0	0	0	0	0	0	58	0	0	58
AUG	98	0	0	0	0	0	0	0	98	0	0	98
SEP	75	0	0	0	0	0	0	0	75	0	0	75
OCT	89	0	0	0	0	0	0	0	89	0	0	89
NOV	16	0	0	0	0	0	0	0	16	0	0	16
DEC	2	0	0	0	0	0	0	0	2	0	0	2
JAN-21	0	0	0	0	0	0	0	0	0	0	0	0
FEB	55	0	0	0	0	0	0	0	55	0	0	55
Total	922	251	0	0	0	0	0	0	1,173	0	9	1,182
Ratio	78.0%	21.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.2%	0.0%	0.8%	100%
Ratio	99.2%			0.0%	0.0%		0.0%	0.0%				

Total Pressure	922		0			0			922			922
	100%		0%			0%			100%			100%

EXHIBIT "H-1"

ARVIN-EDISON WATER STORAGE DISTRICT

STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - FEBRUARY 2021

ALL VALUES IN FEET

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
NORTH CANAL (23)	N1	413	457	610	840	44	153
	N2	421	490	700	840	69	210
	N3	433	463	610	840	30	147
	N4	434	492	550	864	58	58
	N5	440	456	650	864	16	194
	N6	439	534	640	920	95	106
	N7	433	461	600	1010	28	139
	N8	442	484	560	970	42	76
	N9	422	538	700	990	116	163
	N10	413	475	560	990	62	85
	N11	417	440	562	1020	23	122
	N12	422	452	600	1030	30	148
	N13	438	475	600	1000	37	125
	N14	420	438	540	900	18	102
	N15	314	513	700	1200	199	187
	N16	350	459	600	1200	109	141
	N17	346	515	610	1200	169	95
	N18	378	510	610	1190	132	100
	N19	433	469	760	1300	36	291
	N20	432	482	820	1020	50	338
	N21	426	482	660	950	56	179
	N22	395	427	680	990	32	253
	N23	395	446	680	990	51	234
	Avg	411	476				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
TEJON (29)	71	453	499	800	1050	46	301
	72	454	533	800	1045	79	267
	73	448	504	800	1018	56	296
	74	439	511	800	1084	72	289
	75	441	464	800	1045	23	336
	76	435	537	700	996	102	163
	77	436	538	800	1066	102	262
	78	437	488	800	1038	51	312
	79	435	477	700	1032	42	223
	80	420	575	800	996	155	225
	81	403	514	700	925	111	186
	82	421	N/A		996	N/A	N/A
	83	412	572	800	996	160	228
	84	422	459	700	955	37	241
	86	462	529	800	996	67	271
	87	444	494	800	984	50	306
	88	455	504	800	948	49	296
	89	435	495	800	996	60	305
	90	454	523	700	996	69	177
	91	415	N/A	700	996	N/A	N/A
	92	480	542	800	996	62	258
	93	461	572	800	996	111	228
	94	470	542	860	996	72	318
	95	483	513	800	996	30	287
	96	483	550	800	996	67	250
	98	468	519	760	1340	51	241
	99	472	516	760	1340	44	244
	100	434	516	760	1340	82	244
	101	438	517	760	1310	79	243
	Avg	445	519				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
SYCAMORE (34)	1	407	446	705	800	39	259
	2	417	456	690	876	39	234
	4	429	457	700	876	28	243
	5	413	438	720	876	25	282
	6	409	471	690	876	62	219
	7	422	471	700	830	49	229
	8	422	459	640	860	37	181
	9	420	450	700	886	30	250
	10	423	451	690	850	28	239
	11	415	447	700	880	32	253
	12	428	470	700	860	42	230
	13	416	451	700	850	35	249
	14	409	448	670	810	39	222
	15	415	489	710	820	74	221
	16	417	512	700	888	95	188
	17	413	431	650	820	18	219
	18	400	423	650	820	23	227
	20	390	436	680	804	46	244
	21	407	444	690	856	37	246
	22	385	399	610	792	14	211
	23	379	393	600	788	14	207
	24	384	409	580	780	25	171
	25	380	398	610	777	18	212
	26	388	416	690	816	28	274
	28	391	442	660	782	51	218
	29	399	415	690	787	16	275
	31	404	425	660	725	21	235
	32	365	448	640	739	83	192
	33	401	475	700	780	74	225
	34	411	N/A	700	781	N/A	N/A
	35	399	466	700	800	67	234
	36	407	430	600	820	23	170
	37	390	413	540	820	23	127
	38	415	450	860	1270	35	410
	Avg	405	443				

OUT OF SERVICE (4)
AIRLINE FAILURE (5)
FAILED (3)
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

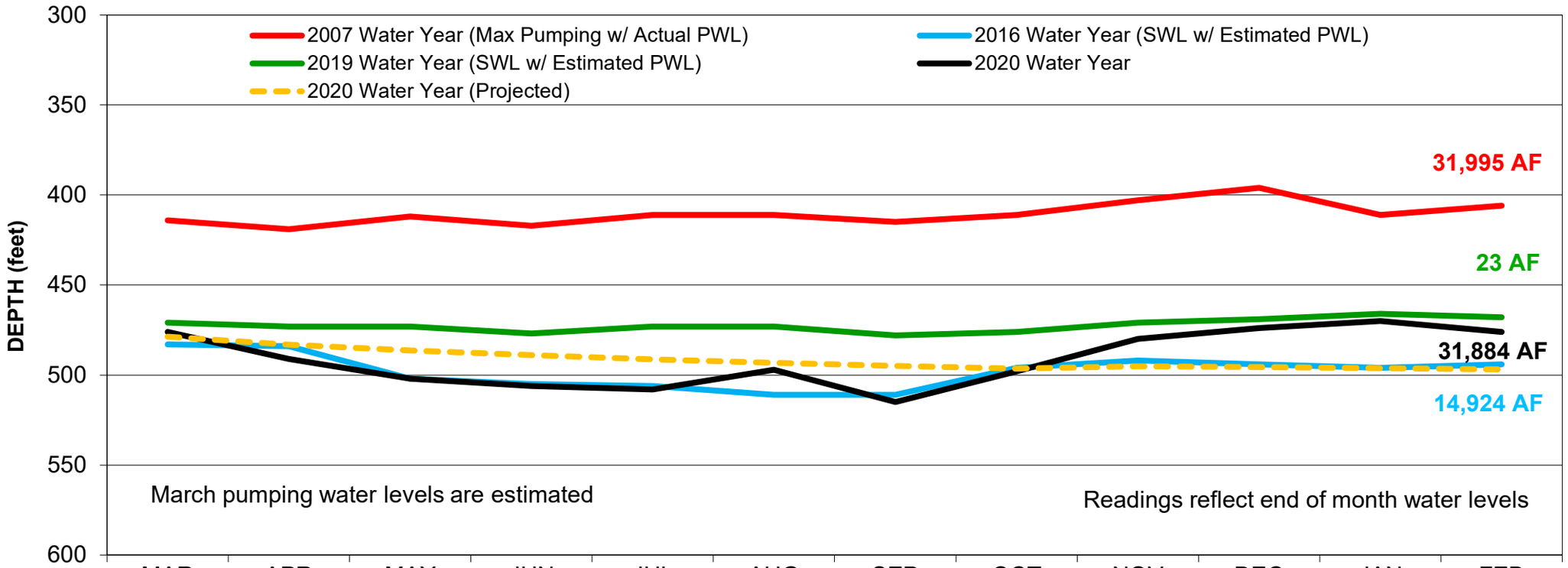
READINGS END OF	STATIC LEVELS N. CANAL	STATIC LEVELS SYCAMORE	STATIC LEVELS TEJON	PUMPING LEVELS N. CANAL	PUMPING LEVELS SYCAMORE	PUMPING LEVELS TEJON
FEB-20	400	364	408	468	404	481
MAR	408	375	405	476	415	484
APR	424	409	443	491	453	522
MAY	432	415	496	502	462	566
JUN	439	422	505	506	478	575
JUL	441	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
CHANGE TO-DATE	-11	-41	-37	-8	-39	-38

EXHIBIT "H-2"

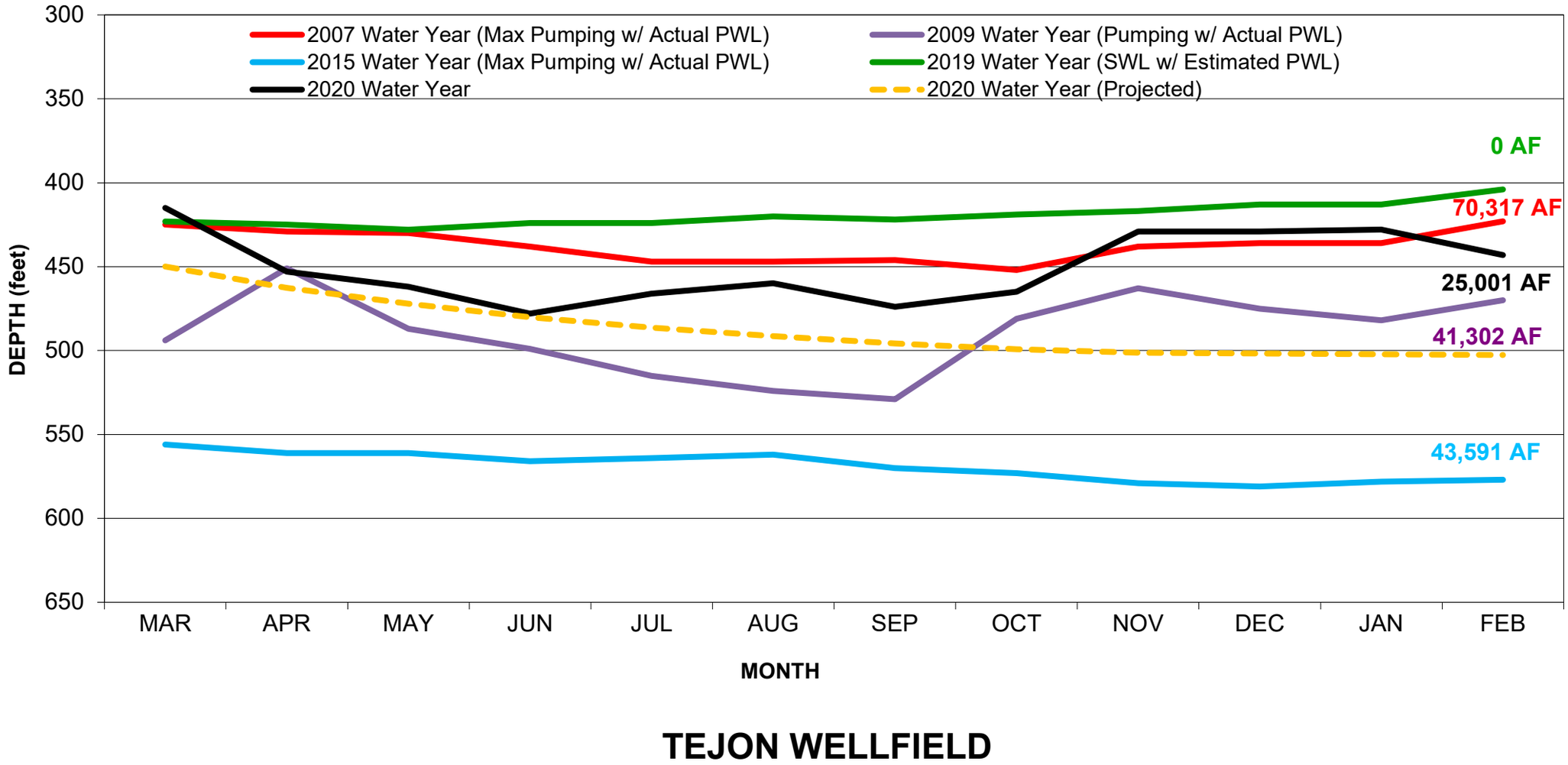
ARVIN-EDISON WATER STORAGE DISTRICT

WELLFIELD PUMPING WATER LEVELS - 2007-09, 2013-16, AND 2018-20

NORTH CANAL



SYCAMORE WELLFIELD



TEJON WELLFIELD

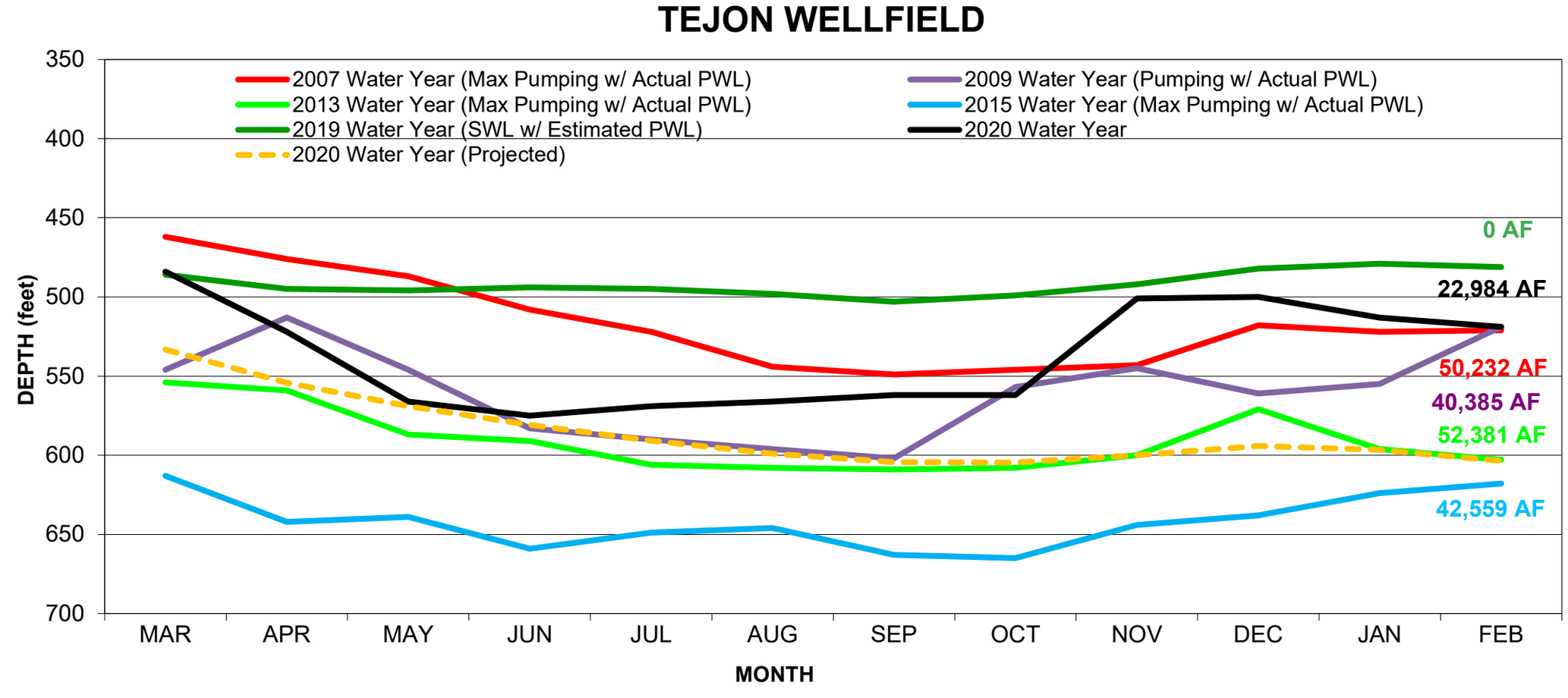


EXHIBIT "I"

February 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 JDA (TC)	2 SGMA Update w/New Current (Zoom)	3 Concentric Presentation Sunset Spreading w/KDWD (GoToMeeting) PWRPA (WebEx)	4 District Issues w/ Camp URF Exchange (Zoom) KRWCA w/Johnston	5 District Issues w/ Camp	6
7	8 PWRPA (WebEx)	9 AEWSD BOD (WebEx)	10 Website Review (WebEx) Low Head Hydro Update	11 Projects Update w/P&P (MT)	12 Friant Managers (WebEx)	13
14	15 	16 FWA EC w/Camp Power Purchase w/RBI (TC) Sunset Spreading w/ Young Wooldridge (TC)	17 SCADA & Radio Upgrades Prop 218 Update w/P&P (MT) Low Head Hydro Update (Zoom)	18 Friant & SJREC Programs	19 Kern Managers (Zoom) Deer Creek FKC Banking Update (MT) Westlands SJR Permit (WebEx)	20
21	22 WQ Small Group w/USBR (WebEx) KGA EC (Pascoe)	23 CVP Allocation (TC) Prop 218 Update w/P&P FWA Finance Committee (Giumarra)	24 KGA Prep w/ Pascoe KGA BOD w/Pascoe (Zoom) CVC AC (GoToMeeting) FKC Fix w/USBR (MT)	25 FWA BOD w/ Camp (WebEx)	26 WQ Small Group	27
28	SCC—Red JSM—Blue MD—Orange Staff—Green Board—Brown	BOD - Board of Directors CVC - Cross Valley Canal EC- Executive Committee ETGSA– Eastern Tule GSA FWA - Friant Water Authority	GSA - Groundwater Sustainability Agency GSP - Groundwater Sustainability Plan KGA - Kern Groundwater Authority KCWA - Kern County Water Agency KRGSA - Kern River GSA KRWCA - Kern River Watershed Coalition Authority	MTs - Microsoft Teams MWD - Metropolitan Water District RFG - Restoration Flow Guidelines RWA– Restoration Water Account SJRRP - San Joaquin River Restoration Program	TC- Teleconference WWGSA - White Wolf GSA WMP - Water Mgmt. Program WQ - Water Quality	