# ARVIN-EDISON WATER STORAGE DISTRICT

## REPORT OF DISTRICT OPERATIONS

## September 2022

***Received Pipe for new Tejon Upstream Structures***

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 30% which amounts to 12,000 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 1,072,000 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 232,470 AF of water supply
- Given the need to meet San Joaquin River Exchange Contract demands, the SJRRP was reduced to zero in April. However, once this demand was starting to be met by the Delta-Mendota Canal in July, the Restoration Administrated updated its flow recommendation to conserve remaining volume of cold water for fall and winter months. As a result, approximately 101,000 acre-feet is being released as Unreleased Restoration Flows URF (see Exhibit A for additional URF 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 (80,000 AF)

## Metropolitan Water District (MWD) Program

- MWD beginning balance is 119,127 AF in water bank reserves
- The District obtained its thirteenth 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 21, 2023
- 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

## 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 | Orange Cove Irrigation District |
| Del Puerto Water District | Rosedale-Rio Bravo Water Storage District |
| Exeter Irrigation District | San Joaquin River Exchange Contractors |
| Fresno County | San Joaquin River Restoration Program |
| Ivanhoe Irrigation District | Saucelito Irrigation District |
| Kern Delta Water District | Shafter-Wasco Irrigation District |
| Kern Water Bank | Sun Pacific |
| Lindmore Irrigation District | Tulare Irrigation District |
| Lindsay- Strathmore Irrigation District | Westside Mutual Water Company |

## WATER DEMAND

- District surface water deliveries for the month were 12,458 AF
- The following is a summary of surface water deliveries for September 2022

| | September 2022 | | Year to Date | |
|---|---|---|---|---|
| | Historical | 2022 WY | Historical | 2022 WY |
| Turnout Deliveries | 15,181 | 12,458 | 113,024 | 91,472 |
| In-Lieu Deliveries | - | - | - | - |
| Temporary Water | - | - | | - |
| Spreading | - | - | - | - |
| Total | 15,181 | 12,458 | 113,024 | 91,472 |

- Exhibit “B” illustrates the delivery data
- The month's peak daily in-District demand was 363 cfs, which occurred on the 7th
- Exhibit "C-1” details Canal Water Quality information
- Exhibit “C-2” presents the Aquatic Pest Control Treatments ($370,385) for Calendar Year 2022

# GENERAL

- District vehicles consumed an estimated 3,325 gallons of fuel during the month (average fuel efficiency of 13.6 mpg)
- There were 415 hours lost due to illness (including COVID-19 hours) and 168 hours lost due to on-the-job injuries with one (1) employee out on Workers' Compensation Claim
- Staff continued to assist landowners with the Drought Allocation Program including administration of the 3rd Reallocation Pool.
- Notified landowners of Winter Maintenance schedule (November 28 through December 18, 2022)
- District is experiencing more frequent theft at various District facilities including Headquarters

***All Employees Attended a Fire Extinguisher Class Held on the 13th at Headquarters***

- On the 13th, all employees attended a Fire Extinguisher Class
- 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 118 million kilowatt hours

# 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 NEPA Categorical Exclusion has been completed.

- 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 out for bids with potential award in September
    - 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
        - Bid was awarded to W.M. Lyles Company
    - 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
        - Frick Unit (Kern IRWMP project with application due in August)
    - 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
        - Project management training with Engineering Technician Jose Santana
        - Notice of Completion has been executed
    - Tejon Spreading Works
        - Design repair for interbasin structure
    - Performed job interviews for new Engineering Technician position

## SGMA Activities

- Continued coordination meetings and outreach activities
- Continued review of well permits
- Attended various GSA meetings
- Development of a potential Well Mitigation Policy
- Draft response to 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 GSP was adopted at the "public hearing" on July 12 (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)
  - PG&E (Intake Canal in two locations)
- 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
    - Construction was completed waiting on County and PG&E for startup
  - 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 4,813 AF for the month
- Exhibit “G” summarizes gross direct spreading of zero AF for the month August
- 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 | Back in Service |
| Sycamore | 21 | 1970 | 300 | Low Production | Back in Service |
| 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 |

- Five (5) out of 86 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 staff/foremen/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 middle of the month and end-of-month meter readings at Interties, Wells, Turnouts, and Pumping Plants (power)

## Additional Activities

- Assisted with the updating of the District's Facility Guide Book with Engineering Department, which consisted of verification of canal-side gravity turnout discharge locations
- Cross-trained staff in wellfield operations and Engineering Department water quality testing
- Continued water patrol during the prorate period
- Sprayed for wasp and spiders around wellfields and pumping plant Motor Control houses
- Perform meter accuracy and flow test (North & South turnouts)
- Responded to multiple facilities and pumping plant alarms (reset and primed laterals)
- Assisted PG&E with shutdowns for Power Demand and Response Program


***Meter Replacement on Turnout W-4***

- Addressed various wellfield start-up/shut down issues
- Stencil identification numbers on turnouts, air vents, and isolation valves
- Repaired or replaced meters (Turnouts A-4, SC-H, W-4) battery replacements on wellfield meters (Unit #7and Unit #11)
- Began Winter Maintenance Project repair list

## Underground Service Alert (USA) Report

- District initiated 0
- Responded to 135 USA notices to locate District underground facilities
  - 19 required markings of District facilities
  - 49 were renewals
  - 67 with no conflicts

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

- Power outages for the month were minimal)

### Laterals Prorates (number of days)

- No laterals were prorated this month

# MAINTENANCE DEPARTMENT ACTIVITIES

### Routine Activities

- Aquatic and terrestrial weed control (South Canal)
- Routine gardening and maintenance at Headquarters and CIMIS station
- Fence and gate repairs (Balancing Reservoir, Intake Canal, and Gosford to Panama Lane)
- Grading and water truck (Sycamore Ponds)
- Discing (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

***No Fall Equipment Installed on Interbasin Structures (Sycamore Spreading Row 1 Pond 1)***

### Additional Activities

- Assisted shop building stop log and installing parts on welding trailer
- Repaired fence hit by fallen tree (Intake Canal) also repaired at (Balancing Reservoir and N1-P5)
- Set generator and pump-in (Chicken Ranch Bridge)
- Mowing (North Ponds)
- Discing at Balancing Reservoir
- Installed anchor support (Sycamore Ponds Row 1)
- Take readings of Piezometers
- Cleaned out warehouse area
- Used dump truck and Gradall to remove build up (Bear Mountain Blvd. bridge)
- Used Grader and water truck (Tejon & North Ponds)
- Prepared and painted various facilities:
  - Lateral S64-P2

### Mechanic's Shop Repair Activities

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

| Part | Repair/Replaced | Part | Repair/Replaced |
|---|---|---|---|
| Brakes | 4 | A/C Service | 8 |
| Starter | 1 | Belts | 2 |

| | | | |
|---|---|---|---|
| Tires | 8 | Headlights | 2 |
| Tire Repairs | 3 | Tail Lights | 4 |
| Rotors/Drums /Wheel Bearings | 2 | Wiper Blades/Engine Washes | 14 |
| Batteries | 2 | Cabin Filter | 6 |
| Fuel Filters | 4 | Trailer Lights/Spot Lights | 4 |
| Tune-ups | 3 | Routine Service | 19 |

- Heavy Equipment Repairs
  - Repaired gang (Krause disc)
  - Installed new tires (water truck)
  - Installed new clutch (Rotary cutter)
  - Weekly inspection (gas tank and pump)

# 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

***Compressor Pump Repair (N55-P1)***

## Additional Activities

- Continued working with Engineering Department on Pump Replacement Program
  - Continued pilot testing for Phase 2 (horizontal pumps)
- Compressor and well motor/canal facilities oil changes district-wide
- Replaced pump compressor (N55-P1)
- Replaced moss screen incline conveyor belt due to debris (South Canal)
- Installed new springs and check arms on numerous valves district-wide

# PUMP & MOTOR REPAIR SUMMARY

| | Pumping Plant/Wells | Unit | Size | Time/Hours | Reason |
|---|---|---|---|---|---|
| Vertical Pumps | None to Report | | | | |
| Vertical Pumps | None to Report | | | | |
| Horizontal Pumps | N55-P2 | 1 | 2.5 CFS | 6,700 | Sleeves and bearings |
| | S55-P13 | 2 | 2.5 CFS | 8,200 | Sleeve 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 |
|---|---|---|---|
| Auxiliary Contact Block | 2 | Trip Units | 1 |
| Start Equipment | 2 | 12KV Fuses | 1 |
| Hour Meters | 2 | Wiring | 2 |

## Additional Activities

- Programed Master SCADA Ignition Pro Designer software, updated graphic designs for pumping plants
- Worked with CEI and Aspect technicians to troubleshoot the “loss of signal” and “communication shutdown” alarms (Lateral S73-P2)
- Worked with GIGA Electrical to install UPS battery backup, power fail indicator lights and control relays for power “fail” alarm (Laterals S73 and S93)
- Assisted Agilitech crew to replace bad lights at Sycamore Wells and repaired vandalized electrical cable from N1-P5 Unit #1 & #2

***New Bowl Assembly***
***(Howard Frick Pumping Plant)***

# FORREST FRICK PUMPING PLANT

- 7,491 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

# HOWARD FRICK PUMPING PLANT (AQUEDUCT INTERTIE)

- 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 | |
| 30% OF 40,000 AF CLASS 1 | | 12,000 | |
| 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 | |
| URF TIER 2 BLOCK 2 | | 1,581 | |
| PRIORITY URF | | 4,403 | |
| TRANSFER IN URF (TID) | | 870 | |
| TRANSFER IN URF (LSID) | | 1,000 | |
| TRANSFER IN CLASS 1 (SWID) | | 174 | |
| | SUBTOTAL | 33,945 | |
| FRESNO COUNTY | | -600 | |
| SJRRP RETURN | | -3,500 | |
| EXETER ID | | -282 | |
| IVANHOE ID | | -281 | |
| LINDMORE ID | | -214 | |
| ORANGE COVE ID | | -50 | |
| SAUCELITO ID | | -100 | |
| | TOTAL F-K | 28,918 | 24.3% |
| **CROSS VALLEY CANAL (CVC)** | | | |
| ROSEDALE-RIO BRAVO WSD (KDWD EXCHANGE) | | 0 | |
| SLR 2022 RECIRCULATION | | 17 | |
| LINDMORE ID | | 14 | |
| CHOWCHILLA WD | | 24 | |
| SHAFTER-WASCO ID | | 51 | |
| DEL PUERTO WD | | -106 | |
| SLR 1% EVAPORATION LOSS | | 0 | |
| | TOTAL CVC | 0 | 0.0% |
| **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) | | 0 | |
| | TOTAL KERN RIVER | 0 | 0.0% |
| **INTAKE CANAL PUMP-IN (IC)** | | | |
| KERN DELTA WELLS | | 7,331 | |
| KERN DELTA CENTRAL | | 2,669 | |
| | TOTAL INTAKE CANAL | 10,000 | 8.4% |
| **TOTAL IMPORT** | | **38,918** | **32.7%** |
| **GROUNDWATER PUMPING** | | | |
| IRRIGATION DEMAND | | 80,206 | |
| FARM PUMP IN | | 0 | |
| RETURN TO MWD | | 0 | |
| | TOTAL PUMPING | 80,206 | 67.3% |
| ***TOTAL WATER SUPPLY*** | | 119,124 | 100.0% |

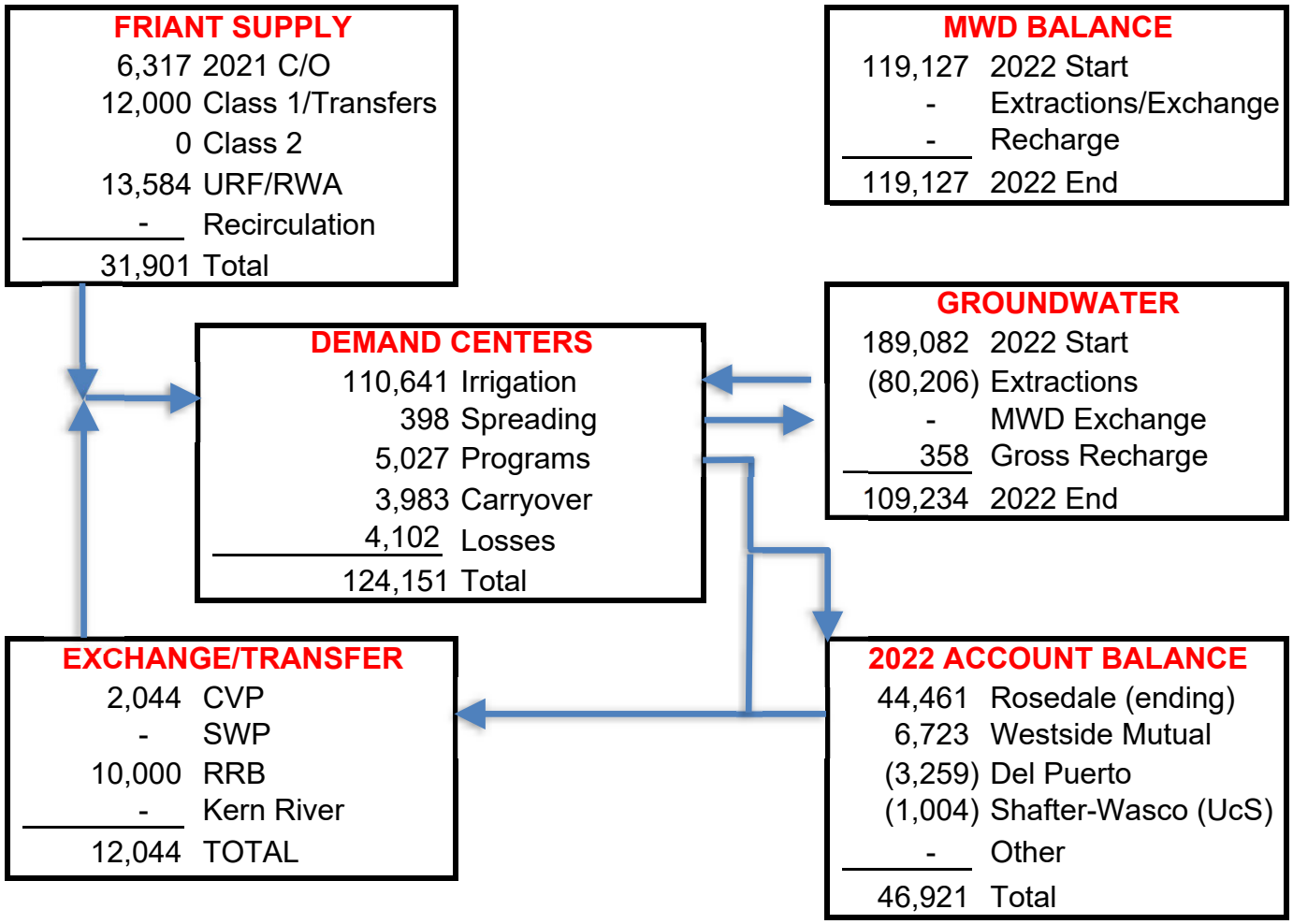
| ***DEMAND*** | | |
|---|---|---|
| IRRIGATION DEMAND (MARCH-SEPTEMBER) | 91,473 | 76.8% |
| IRRIGATION DEMAND (OCTOBER-FEBRUARY) | 19,168 | 16.1% |
| SPREADING (MARCH-SEPTEMBER) | 398 | 0.3% |
| SPREADING (OCTOBER-FEBRUARY) | 0 | 0.0% |
| CARRYOVER TO 2023 | 3,983 | 3.3% |
| LOSSES/METERING INACCURACIES | 4,102 | 3.4% |
| ***TOTAL DEMAND*** | 119,124 | 100.0% |

*10/6/2022*

Exhibit "A-2"

ARVIN-EDISON WATER STORAGE DISTRICT

# 2022 WATER MANAGEMENT




| | | |
|---|---|---|
| Surface Water | 30,833 | 28% |
| Groundwater (50% of Max) | 80,206 | 72% |
| Projected Irrigation Demand | 111,039 | 100% |

**EXHIBIT "B"**

ARVIN-EDISON WATER STORAGE DISTRICT

# 2022 WATER YEAR DELIVERIES

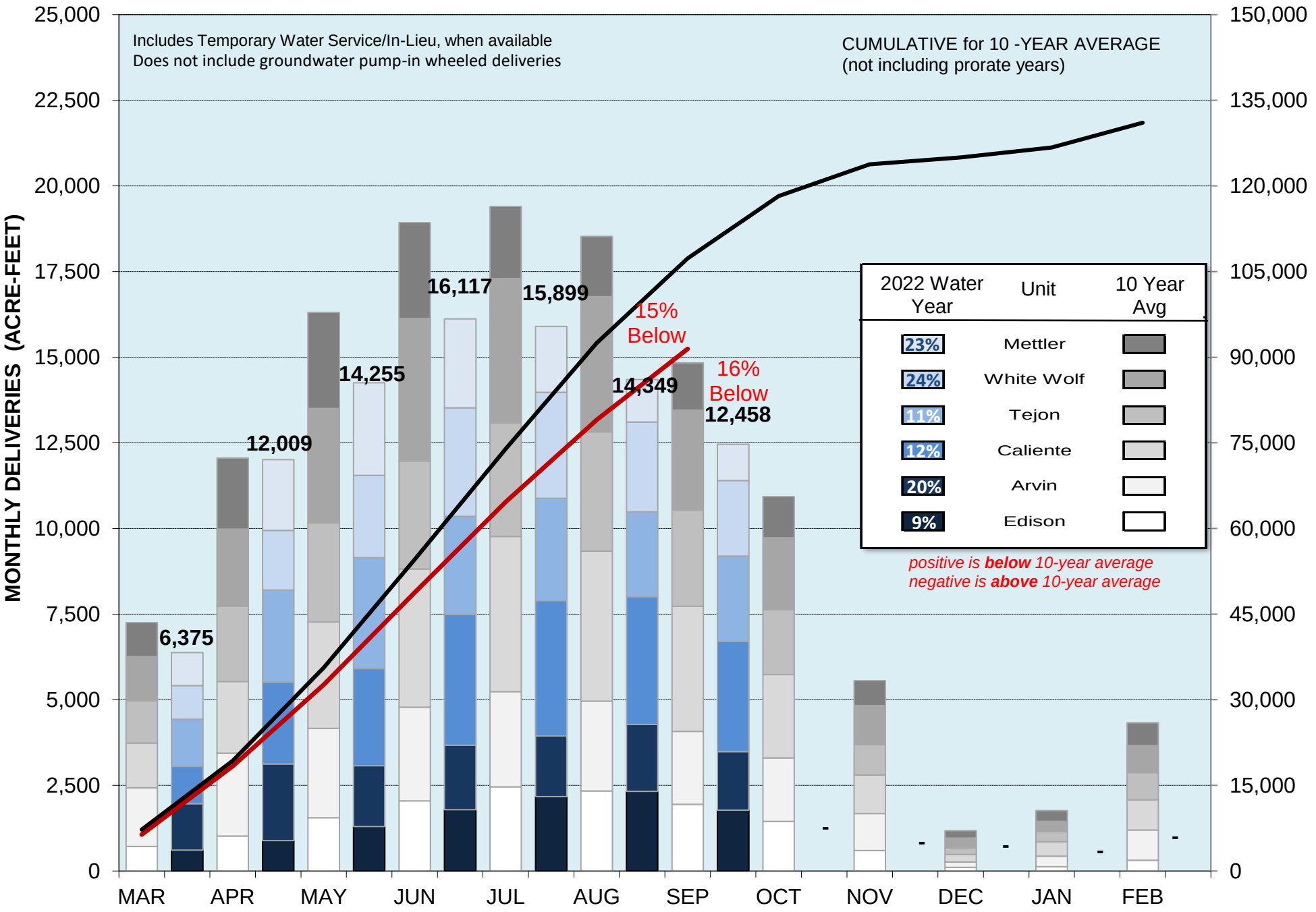


**EXHIBIT "C1"**

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* | 09/06/22 | 230 | FKC(86%)/KD WELLS(14%) | 9.2 | 0.46 | 1.1 | 0.09 | 8.3 | 0.36 | 44 | 0.72 | 4.7 | 0.13 | 1.40 | 0.02 | 53 | 7.87 | 101 | 28 | 0.7 | 0.75 | 0.064 | 2.3 |
| | 08/11/22 | 180 | FKC(82%)/KD WELLS(18%) | 13.0 | 0.65 | 1.4 | 0.11 | 11.0 | 0.47 | 52 | 0.85 | 6.7 | 0.19 | 3.00 | 0.05 | 71 | 8.12 | 135 | 37 | 0.8 | 0.46 | 0.052 | 1.6 |
| | 07/08/22 | 82 | FKC(61%)/KD WELLS(39%) | 23.0 | 1.15 | 2.3 | 0.19 | 19.0 | 0.82 | 90 | 1.48 | 12.0 | 0.34 | 4.80 | 0.08 | 120 | 8.44 | 223 | 67 | 1.0 | 0.98 | 0.096 | 1.9 |
| | 06/07/22 | 30 | FKC(81%)/KD WELLS & KD CENTRAL(19%) | 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 |
| | **Average** | | | **15.7** | **0.8** | **2.0** | **0.2** | **15.0** | **0.6** | **63.8** | **1.0** | **9.1** | **0.3** | **3.5** | **0.1** | **90.3** | **8.0** | **170.4** | **47.9** | **0.9** | **0.5** | **0.1** | **2.8** |
| *North Canal* | 09/06/22 | 120 | FKC(66%)/KD WELLS(11%)/WELLS(23%) | 26.0 | 1.30 | 4.8 | 0.39 | 30.0 | 1.29 | 99 | 1.62 | 18.0 | 0.51 | 9.80 | 0.16 | 180 | 8.2 | 334 | 84 | 1.4 | ND | 0.27 | 1.9 |
| | 08/11/22 | 80 | FKC(59%)/KD WELLS(13%)/WELLS(28%) | 23.0 | 1.15 | 3.7 | 0.30 | 35.0 | 1.51 | 100 | 1.64 | 21.0 | 0.59 | 10.00 | 0.16 | 180 | 8.4 | 323 | 73 | 1.8 | 1.30 | 0.28 | 2.1 |
| | 07/08/22 | 80 | FKC(25%)/KD WELLS(16%)/WELLS(59%) | 27.0 | 1.35 | 4.4 | 0.36 | 43.0 | 1.85 | 120 | 1.97 | 23.0 | 0.65 | 9.30 | 0.15 | 200 | 8.4 | 373 | 87 | 2.0 | 1.40 | 0.29 | 2.8 |
| | 06/07/22 | 94 | FKC(43%)/KD WELLS & KD CENTRAL(10%)/WELLS(47%) | 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 |
| | **Average** | | | **20.0** | **1.0** | **3.2** | **0.3** | **34.4** | **1.5** | **101.3** | **1.7** | **17.5** | **0.5** | **6.9** | **0.1** | **156.4** | **8.2** | **291.4** | **63.1** | **1.8** | **2.0** | **0.2** | **3.5** |
| *South Canal* | 09/06/22 | 70 | FKC(60%)/KD WELLS(10%)/WELLS(30%) | 31.0 | 1.55 | 7.0 | 0.57 | 43.0 | 1.85 | 130 | 2.13 | 37.0 | 1.04 | 12.00 | 0.19 | 240 | 8.3 | 433 | 110 | 1.8 | ND | 0.31 | 1.6 |
| | 08/11/22 | 70 | FKC(53%)/KD WELLS(11%)/WELLS(36%) | 31.0 | 1.55 | 6.7 | 0.55 | 39.0 | 1.68 | 120 | 1.97 | 34.0 | 0.96 | 13.00 | 0.21 | 220 | 8.3 | 399 | 110 | 1.7 | ND | 0.22 | 1.5 |
| | 07/08/22 | 90 | FKC(20%)/KD WELLS(13%)/WELLS(67%) | 33.0 | 1.65 | 7.8 | 0.64 | 41.0 | 1.77 | 140 | 2.30 | 33.0 | 0.93 | 12.00 | 0.19 | 230 | 8.3 | 422 | 110 | 1.7 | ND | 0.21 | 2.4 |
| | 06/07/22 | 150 | FKC(34%)/KD WELLS & KD CENTRAL(8%)/WELLS(58%) | 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 |
| | **Average** | | | **25.5** | **1.3** | **6.1** | **0.5** | **36.2** | **1.6** | **113.4** | **1.9** | **30.3** | **0.9** | **8.6** | **0.1** | **189.5** | **8.2** | **352.5** | **89.2** | **1.6** | **1.1** | **0.2** | **2.4** |

**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* | 09/06/22 | 0 | FKC(60%)/KD WELLS(10%)/WELLS(30%) | 23.0 | 1.15 | 6 | 0.49 | 37.0 | 1.59 | 97 | 1.59 | 30.0 | 0.84 | 7.90 | 0.13 | 190 | 8.51 | 355 | 81 | 1.8 | 0.35 | 0.25 | 3.9 |
| | 08/11/22 | 0 | FKC(53%)/KD WELLS(11%)/WELLS(36%) | 27.0 | 1.35 | 6.6 | 0.54 | 42.0 | 1.81 | 110 | 1.80 | 34.0 | 0.96 | 11.00 | 0.18 | 220 | 8.38 | 396 | 94 | 1.9 | 0.19 | 0.26 | 3.4 |
| | 07/08/22 | 0 | FKC(20%)/KD WELLS(13%)/WELLS(67%) | 34.0 | 1.70 | 8.5 | 0.70 | 43.0 | 1.85 | 140 | 2.30 | 36.0 | 1.01 | 12.00 | 0.19 | 240 | 8.23 | 442 | 120 | 1.7 | ND | 0.24 | 2.3 |
| | 06/07/22 | 0 | FKC(34%)/KD WELLS & KD CENTRAL(8%)/WELLS(58%) | 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 |
| | **Average** | | | **25.8** | **1.3** | **7.0** | **0.6** | **33.6** | **1.4** | **108.6** | **1.8** | **29.8** | **0.8** | **8.3** | **0.1** | **185.6** | **8.3** | **348.8** | **92.8** | **1.4** | **0.4** | **0.2** | **4.2** |

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

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

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

ND: NONE DETECTED.

NA: NOT AVAILABLE OR NOT TESTED.

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

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

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

NORTH: SAMPLE TAKEN DOWNSTREAM OF SYCAMORE CHECK GATE.

SOUTH: SAMPLE TAKEN DOWNSTREAM OF TEJON CHECK GATE.

INTERTIE: TERMINUS OF SOUTH CANAL (S93 FOREBAY).

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

NITRATE: NITRATE IN WATER SLIGHTLY REDUCES FERTILIZER REQUIREMENT.

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

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

TDS: TDS < 450 IS ACCEPTABLE FOR UNRESTRICTED USE.

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

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

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

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

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

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

**EXHIBIT "C-2"**

ARVIN-EDISON WATER STORAGE DISTRICT

## 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 | 69-100 | | | | | | 2.5 | 10 | | | | | 15 | | 10 | 21 | | |
| | 07/11/22 | | | | | | | 88.0 | 275.0 | 14 | 14 | | | 7 | | 5 | | | |
| | 07/18/22 | | | 105 | | | | 10 | 10 | | | | | | | | | | |
| | 07/18/22 | | | 31 | | | | | 1 | | | | 18 | | | 9 | | | |
| | 07/25/22 | | | | | | 10 | 120.5 | 170 | | | | 11 | | | 25 | | | |
| AUG | 08/01/22 | 70-101 | | | 127 | 38 | 148 | 65 | 5 | | | | 12 | | | 5 | | | |
| | 08/01/22 | | | | | | 46 | 10 | 10 | | | | | | | | | | |
| | 08/08/22 | | | | | | | | | 26 | 18 | | 11 | | | 10 | | | |
| | 08/15/22 | | | | | 65 | 204 | 88 | 250 | | | | 8 | | 10 | 9 | 10 | | |
| | 08/22/22 | | | | | | 10 | 10 | 5 | 23 | 23 | | 13 | | | 13 | | | |
| | 08/29/22 | | | | | | 5 | 10 | 10 | | | | 10 | | | 8 | | | |
| SEPT | 09/05/22 | 70-95 | | | | | 250 | 80 | 250 | 80 | | | 19 | | | 8 | | | |
| | 09/12/22 | | | | | | | 2.5 | 2.5 | 23 | 23 | | 17 | | 2.5 | 12 | | | |
| | 09/12/22 | | | | | | | 10 | 10 | | | | | | 10 | | | | |
| | 09/19/22 | | | | | 127 | 19 | | | | | | | 7 | | 7 | | | |
| | 09/26/22 | | | | | | 148 | 48 | | | | | | 5 | 8 | | | | |
| 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 | $110,849 | $11,060 | $121,909 |
| Phycomycin | $15,062 | $12,565 | $27,627 |
| Cascade | $0 | $0 | $0 |
| Teton/Hydrothol | $223,631 | $46,760 | $270,391 |
| Spreading Basins | $0 | $0 | $0 |
| Total | $349,542 | $70,385 | $419,927 |

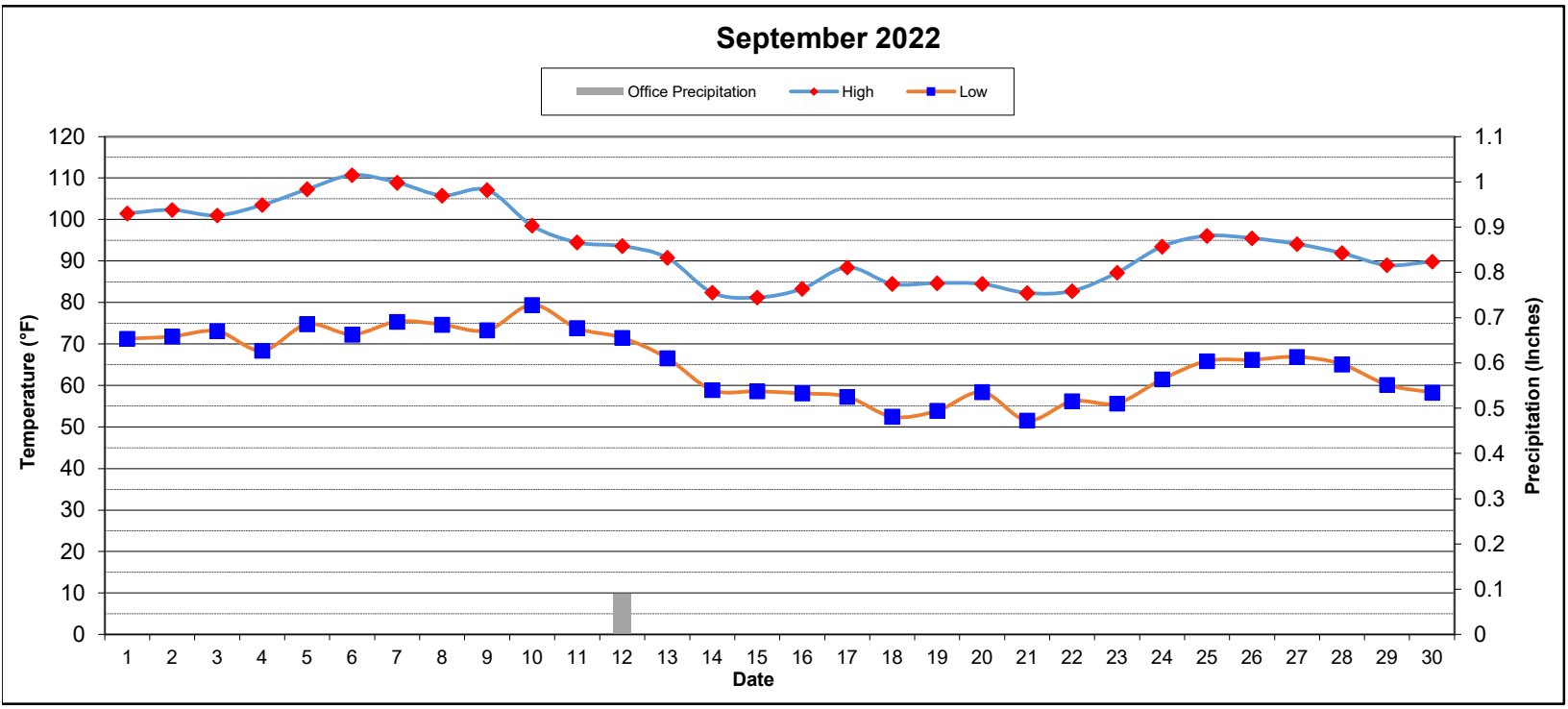
Shaded weeks are actual
Copper treatment (gal/lbs) for algae and pondweed (injected/broadcast)
Phycomycin (hydrogen peroxide) treatment (lbs) for algae (broadcast)
Endothall treatment (gal) for milfoil/basins (injected)
Endothall treatment (gal) for algae (injected)
Sonar/Clearcast/RoundUp Custom/MSO (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 | 0.10 | 7% | 0.09 | 100% | 0.03 | 43% | 0.34 | 486% | 0.23 | 575% |
| 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 | 115 | 9/6/2022 | 4:00 PM |
| AVERAGE MAXIMUM TEMPERATURE | 98 | | |
| # DAYS THIS MONTH ABOVE 100 ºF | 9 | | |
| MINIMUM TEMPERATURE | 60 | 9/18/2022 | 4:00 AM |
| AVERAGE MINIMUM TEMPERATURE | 72 | | |
| # DAYS THIS MONTH BELOW 32 ºF | 0 | | |

| WIND (6) | M.P.H. | DATE | TIME | DRCTN |
|---|---|---|---|---|
| MAXIMUM WIND SPEED | 18.0 | 9/5/2022 | 7:00 PM | NE |
| AVERAGE WIND SPEED | 4.1 | | | |
| AVERAGE WIND SPEED @ 8:00 AM | 3.6 | | | |

| BAROMETRIC PRESSURE (7) | IN. HG | DATE | TIME |
|---|---|---|---|
| AVERAGE PRESSURE @ 8:00 AM | 29.41 | | |
| MAXIMUM PRESSURE | 29.90 | 9/1/2022 | 9:00 AM |
| MINIMUM PRESSURE | 29.10 | 9/27/2022 | 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 | 1,415,785 | 5,520,288 | 8,626 | 8,849,588 | 4,243 | 15,798,529 | 4,166 | 14,719 | 357 | 13,224 | 8 | 32,473 | 65% |
| AUG | 1,960,480 | 5,394,388 | 1,248 | 5,302,189 | 4,559 | 12,662,864 | 17,676 | 13,727 | 2 | 7,616 | 7 | 39,028 | 44% |
| SEP | 1,709,286 | 4,707,633 | 1,219 | 4,157,268 | 4,254 | 10,579,659 | 5,313 | 14,201 | 2 | 7,907 | 9 | 27,432 | 54% |
| OCT | | | | | | | | | | | | | |
| NOV | | | | | | | | | | | | | |
| DEC | | | | | | | | | | | | | |
| JAN 23 | | | | | | | | | | | | | |
| FEB | | | | | | | | | | | | | |
| TOTAL | 7,188,373 | 31,367,177 | 38,974 | 56,145,206 | 27,687 | 94,767,416 | | | | | | | |

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

10/7/2022

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 | % 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 - 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 | 0 | 0% | 1,105 | 88% | 3,510 | 92% | 2,409 | 32% | 2,636 | 49% | 9,660 | 312 | 59% |
| AUG | 0 | 0% | 852 | 68% | 2,086 | 55% | 1,290 | 18% | 1,707 | 33% | 5,934 | 191 | 37% |
| SEP | 0 | 0% | 741 | 61% | 1,709 | 52% | 1,069 | 16% | 1,294 | 29% | 4,813 | 160 | 34% |
| OCT | | 0% | | 0% | | 0% | | 0% | | 0% | 0 | 0 | 0% |
| NOV | | 0% | | 0% | | 0% | | 0% | | 0% | 0 | 0 | 0% |
| DEC | | 0% | | 0% | | 0% | | 0% | | 0% | 0 | 0 | 0% |
| JAN - 23 | | 0% | | 0% | | 0% | | 0% | | 0% | 0 | 0 | 0% |
| FEB | | 0% | | 0% | | 0% | | 0% | | 0% | 0 | 0 | 0% |
| Total | 0 | | 6,933 | | 18,814 | | 17,829 | | 18,435 | | 62,010 | 168 | 34% |
| Ratio | 0% | | 11% | | 30% | | 29% | | 30% | | 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 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 | 0 | 0 | 117 |
| AUG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SEP | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OCT | | | | | | | | | | | | |
| NOV | | | | | | | | | | | | |
| DEC | | | | | | | | | | | | |
| JAN-23 | | | | | | | | | | | | |
| FEB | | | | | | | | | | | | |
| Total | 398 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 398 | 0 | 0 | 398 |
| Ratio | | | | | | | | | | | | |
| Ratio | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Pressure | 398 | | 0 | | | 0 | | | 398 | | | 398 |
| | | | | | | | | | | | | |

EXHIBIT "H-1"

# ARVIN-EDISON WATER STORAGE DISTRICT

## STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - SEPTEMBER 2022

ALL VALUES IN FEET

| | WELL # | STATIC LEVEL | PUMPING LEVEL | BOWL DEPTH | TOTAL DEPTH | DRAW DOWN | BOWL COVERAGE |
|---|---|---|---|---|---|---|---|
| NORTH CANAL (23) | N1 | 432 | 492 | 610 | 840 | 60 | 118 |
| | N2 | 453 | 557 | 700 | 840 | 104 | 143 |
| | N3 | 384 | 409 | 610 | 840 | 25 | 201 |
| | N4 | 444 | 467 | 550 | 864 | 23 | 83 |
| | N5 | 461 | 472 | 650 | 864 | 12 | 178 |
| | N6 | 518 | 610 | 640 | 920 | 92 | 30 |
| | N7 | 478 | 501 | 600 | 1010 | 23 | 99 |
| | N8 | 424 | 458 | 560 | 970 | 35 | 102 |
| | N9 | 455 | 554 | 700 | 990 | 99 | 146 |
| | N10 | 467 | 510 | 560 | 990 | 43 | 50 |
| | N11 | 428 | 456 | 562 | 1020 | 28 | 106 |
| | N12 | 475 | 503 | 600 | 1030 | 28 | 97 |
| | N13 | 478 | 505 | 600 | 1000 | 28 | 95 |
| | N14 | 450 | 473 | 540 | 900 | 23 | 67 |
| | N15 | 393 | 529 | 700 | 1200 | 136 | 171 |
| | N16 | 393 | 469 | 600 | 1200 | 76 | 131 |
| | N17 | 414 | 520 | 610 | 1200 | 106 | 90 |
| | N18 | 452 | 584 | 610 | 1190 | 132 | 26 |
| | N19 | 470 | 515 | 760 | 1300 | 45 | 245 |
| | N20 | 594 | 628 | 820 | 1020 | 35 | 192 |
| | N21 | 471 | 552 | 660 | 950 | 81 | 108 |
| | N22 | 463 | 484 | 680 | 990 | 21 | 196 |
| | N23 | 457 | 472 | 680 | 990 | 15 | 208 |
| | Avg | 454 | 510 | | | | |

| | WELL # | STATIC LEVEL | PUMPING LEVEL | BOWL DEPTH | TOTAL DEPTH | DRAW DOWN | BOWL COVERAGE |
|---|---|---|---|---|---|---|---|
| TEJON (29) | 71 | 608 | 638 | 800 | 1050 | 30 | 162 |
| | 72 | 571 | 599 | 800 | 1045 | 28 | 201 |
| | 73 | 544 | 578 | 800 | 1018 | 35 | 222 |
| | 74 | 560 | 599 | 800 | 1084 | 39 | 201 |
| | 75 | 548 | 567 | 800 | 1045 | 18 | 233 |
| | 76 | 538 | 587 | 700 | 996 | 49 | 113 |
| | 77 | 527 | 622 | 800 | 1066 | 95 | 178 |
| | 78 | 530 | 590 | 800 | 1038 | 60 | 210 |
| | 79 | 520 | 578 | 700 | 1032 | 58 | 122 |
| | 80 | 518 | 618 | 800 | 996 | 99 | 182 |
| | 81 | 434 | 481 | 700 | 925 | 46 | 219 |
| | 82 | 434 | 485 | 800 | 996 | 51 | 315 |
| | 83 | 557 | 611 | 800 | 996 | 53 | 189 |
| | 84 | 418 | 455 | 700 | 955 | 37 | 245 |
| | 86 | 590 | 620 | 800 | 996 | 30 | 180 |
| | 87 | 567 | 594 | 800 | 984 | 28 | 206 |
| | 88 | 564 | 601 | 800 | 948 | 37 | 199 |
| | 89 | 539 | 569 | 800 | 996 | 30 | 231 |
| | 90 | 467 | 504 | 700 | 996 | 37 | 196 |
| | 91 | N/A | N/A | 700 | 996 | N/A | N/A |
| | 92 | 594 | 636 | 800 | 996 | 42 | 164 |
| | 93 | 620 | 636 | 800 | 996 | 16 | 164 |
| | 94 | 608 | 647 | 860 | 996 | 39 | 213 |
| | 95 | 539 | 565 | 800 | 996 | 26 | 235 |
| | 96 | 590 | 689 | 800 | 996 | 99 | 111 |
| | 98 | 571 | 610 | 760 | 1340 | 39 | 150 |
| | 99 | 554 | 586 | 760 | 1340 | 32 | 174 |
| | 100 | 544 | 577 | 760 | 1340 | 33 | 183 |
| | 101 | 531 | 591 | 760 | 1310 | 60 | 169 |
| | Avg | 542 | 587 | | | | |

| | WELL # | STATIC LEVEL | PUMPING LEVEL | BOWL DEPTH | TOTAL DEPTH | DRAW DOWN | BOWL COVERAGE |
|---|---|---|---|---|---|---|---|
| SYCAMORE (34) | 1 | 467 | 506 | 705 | 800 | 39 | 199 |
| | 2 | 483 | 526 | 690 | 876 | 43 | 164 |
| | 4 | 497 | 536 | 700 | 876 | 39 | 164 |
| | 5 | 507 | 538 | 720 | 876 | 30 | 182 |
| | 6 | 441 | 503 | 690 | 876 | 62 | 187 |
| | 7 | 511 | 541 | 700 | 830 | 30 | 159 |
| | 8 | 448 | 483 | 640 | 860 | 35 | 157 |
| | 9 | 501 | 545 | 700 | 886 | 44 | 155 |
| | 10 | 477 | 514 | 690 | 850 | 37 | 176 |
| | 11 | 471 | 520 | 700 | 880 | 49 | 180 |
| | 12 | 483 | 513 | 700 | 860 | 30 | 187 |
| | 13 | 446 | 492 | 700 | 850 | 46 | 208 |
| | 14 | 407 | 448 | 670 | 810 | 42 | 222 |
| | 15 | 474 | 606 | 710 | 820 | 132 | 104 |
| | 16 | 474 | 615 | 700 | 888 | 141 | 85 |
| | 17 | 433 | 562 | 650 | 820 | 129 | 88 |
| | 18 | 449 | 470 | 650 | 820 | 21 | 180 |
| | 20 | 449 | 500 | 680 | 804 | 51 | 180 |
| | 21 | 452 | 512 | 690 | 856 | 60 | 178 |
| | 22 | 439 | 464 | 610 | 792 | 25 | 146 |
| | 23 | 441 | 475 | 600 | 788 | 35 | 125 |
| | 24 | 448 | 483 | 580 | 780 | 35 | 97 |
| | 25 | 434 | 464 | 610 | 777 | 30 | 146 |
| | 26 | 443 | 496 | 690 | 816 | 53 | 194 |
| | 28 | 411 | 478 | 660 | 782 | 67 | 182 |
| | 29 | 459 | 480 | 690 | 787 | 21 | 210 |
| | 31 | 452 | 487 | 660 | 725 | 35 | 173 |
| | 32 | 414 | 506 | 640 | 739 | 92 | 134 |
| | 33 | 460 | 522 | 700 | 780 | 62 | 178 |
| | 34 | N/A | N/A | 700 | 781 | N/A | N/A |
| | 35 | 464 | 538 | 700 | 800 | 74 | 162 |
| | 36 | 465 | 508 | 600 | 820 | 43 | 92 |
| | 37 | 467 | 492 | 540 | 820 | 25 | 48 |
| | 38 | 471 | 507 | 860 | 1270 | 36 | 353 |
| | Avg | 459 | 510 | | | | |

### 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 |
|---|---|---|---|---|---|---|
| SEP-21 | 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 | 457 | 467 | 547 | 512 | 523 | 591 |
| JUL | 454 | 462 | 542 | 510 | 517 | 588 |
| AUG | 453 | 452 | 533 | 509 | 504 | 578 |
| SEP-22 | 454 | 459 | 542 | 510 | 510 | 587 |
| CHANGE TO-DATE | -6 | 5 | 8 | -4 | 22 | 20 |

OUT OF SERVICE (9)

AIRLINE FAILURE (14)

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)

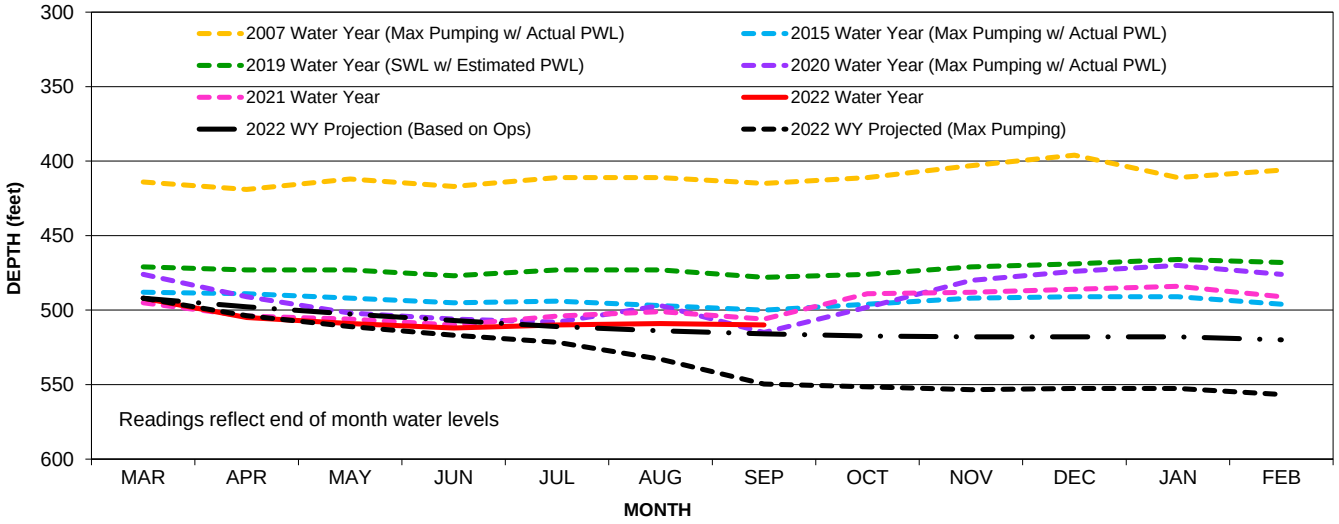
*Airline failure levels were obtained with acoustic sounder

**EXHIBIT "H-2"**

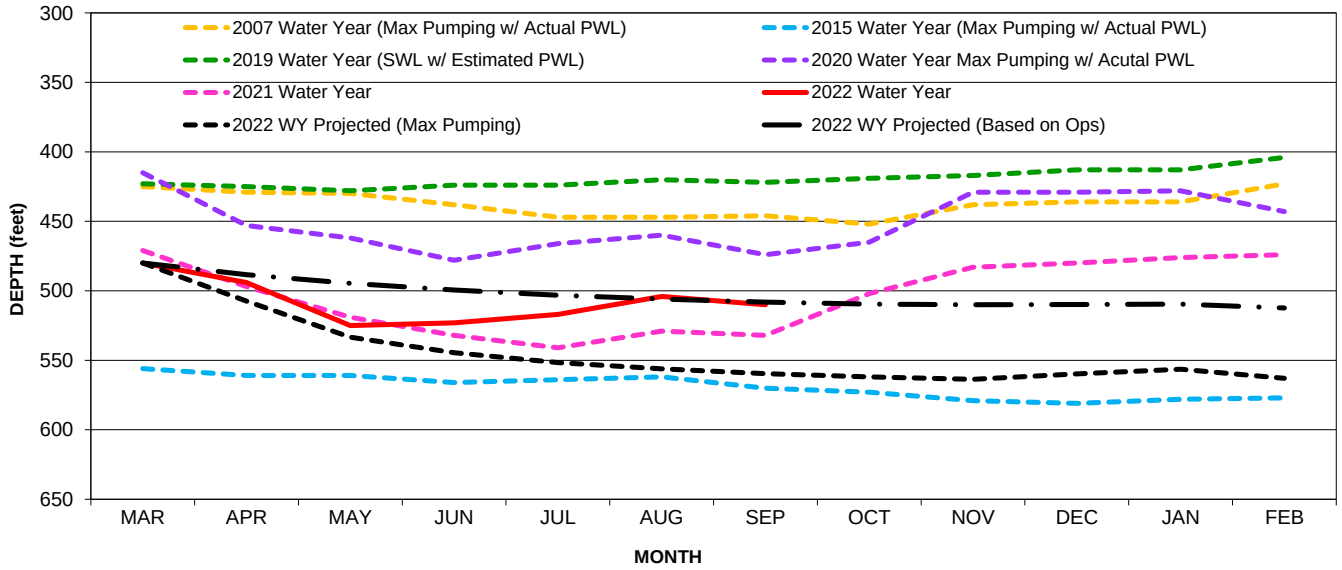
ARVIN-EDISON WATER STORAGE DISTRICT

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

## NORTH CANAL




## SYCAMORE WELLFIELD




## TEJON WELLFIELD