



## AGENDA

### REGULAR MEETING OF THE WATER PLANNING COMMITTEE

October 17, 2022

3:30 PM

Conference Room A

#### Call to Order

#### Public Comments

*Members of the public may make comments in-person, virtually, or submit a Public Comment Request Form located at <https://www.evmwd.com/evmwd-publiccomment>, no less than one hour prior to the posted start time of the meeting. Comments shall be made in an orderly manner and profanity, slanderous, or abusive language will not be tolerated. Please note, individuals have a limit of three (3) minutes to make comments and will have the opportunity when called upon.*

#### Discussion Items:

1. Temescal Valley Pipeline Expansion Feasibility Study - Project Update
2. Water Resources At A Glance
3. Key Water Quality Parameters
4. Other
5. Consider Items for Board Review
6. Adjourn

*In the interest of public health and safety, this meeting will be conducted in accordance with provisions of the Brown Act and Assembly Bill 361. Participants who would like to join this meeting remotely can do so in one of the following ways:*

#### For Online Participation:

Go to: [www.zoom.us](http://www.zoom.us)  
Select Join a Meeting  
Enter Meeting ID: 851 8566 0999  
Meeting Password: 92530

#### For Call-in Only:

Call: (720) 707 2699  
Enter Meeting ID: 851 8566 0999  
Meeting Password: 92530



**WATER PLANNING  
COMMITTEE**

*DISCUSSION OUTLINE*

---

**Date:** October 17, 2022

**Originator:** Parag Kalaria- Water Resources

**Subject:** UPDATE ON THE PREPARATION OF THE FEASIBILITY STUDY FOR TEMESCAL VALLEY PIPELINE EXPANSION

---

**STRATEGIC GOAL**

Optimize and Diversify Water Sourcing

**BACKGROUND AND RECOMMENDATION**

Elsinore Valley Municipal Water District (EVMWD) operates the Temescal Valley Pipeline (TVP), which delivers water from Western Municipal Water District's (Western) Mills Gravity Pipeline (MGL) termination point at the Woodcrest Vault to EVMWD's water distribution system. The turnout was planned, designed, and constructed for a capacity of 25.9 million gallons per day (MGD) at the Woodcrest Vault turnout. The TVP can convey up to approximately 13 (MGD) of water by gravity from Western's turnout to EVMWD's service area.

EVMWD is currently projecting an estimated 13 MGD shortfall which will require an expansion of system capacity to meet peak water demands over the next 25 years. A large portion of this future demand will occur in the northwest portion of the EVMWD system in the Alberhill area. For this reason, given its location in the northern portion of EVMWD system, increasing the TVP capacity has been considered as the best option to increase system capacity.

In 2014, EVMWD completed the TVP Feasibility Study, which investigated six multiple expansion alternatives to increase TVP capacity: full parallel pipe, partial parallel pipe, partial replacement pipe, partial parallel pipe installed in phases, pump station, and pump station and partial parallel pipe. Based on the hydraulic analysis and anticipated future demand, both the 2014 TVP Feasibility Study and the 2016 Water System Master Plan (WSMP) recommended increasing the TVP capacity by 12.9 MGD to meet future water demands.

On February 25, 2022, the Board of Directors approved a Professional Services Agreement with GHD Inc. to prepare the Feasibility Study for TVP Expansion. This feasibility study evaluated recommended alternatives from the 2014 TVP Feasibility Study by considering a comprehensive benefits cost analysis approach. The feasibility study analyzed various alternatives to increase TVP capacity by 12.9 MGD, bringing its total capacity to 25.9 MGD. This considered a detailed review of uncertainties and components potentially impacting the cost and constructability of the project including geotechnical, traffic, utility separation, access to easements, environmental constraints/compliance, etc.

During the meeting, Staff will provide an update on the preparation of the Feasibility Study for TVP Expansion.

### **ENVIRONMENTAL WORK STATUS**

This item does not constitute a project under CEQA.

### **FISCAL IMPACT**

None.

Attachments:

PowerPoint Presentation

# Temescal Valley Pipeline Expansion Feasibility Study – Project Update

**WPC**

**October 17, 2022**

1

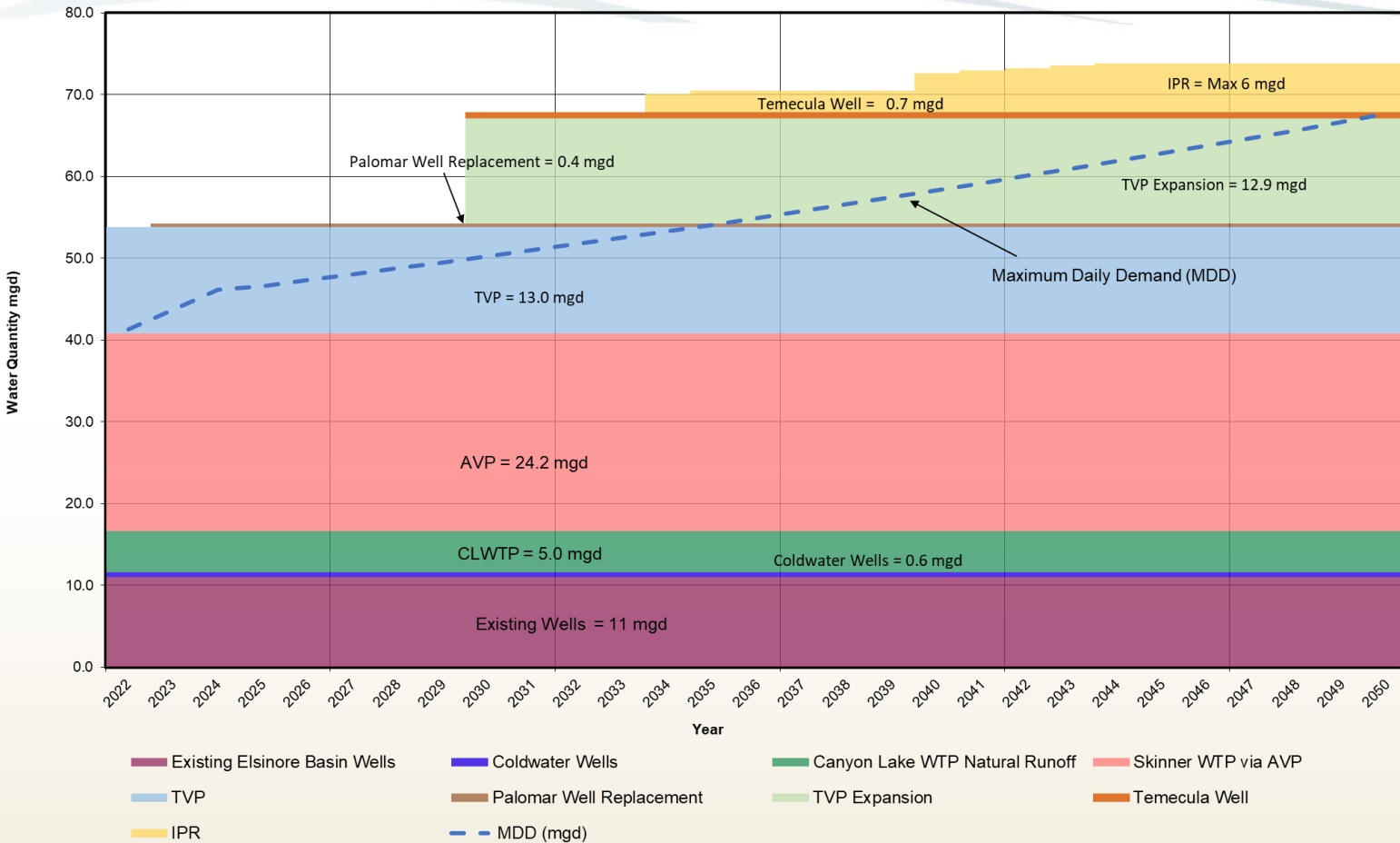


# Agenda

- Capacity and Demand Projection
- 2017 AVP, TVP, and Canyon Lake Feasibility Study
- Overview of TVP Expansion Feasibility Study
- Next Steps

# Projected Water Demand Growth

EVMWD System Capacity



- Water demand expected to increase by 70% in the next 23 years
- 13+ MGD shortfall
- Develop new sources of supply and increase system capacity to satisfy future water demands

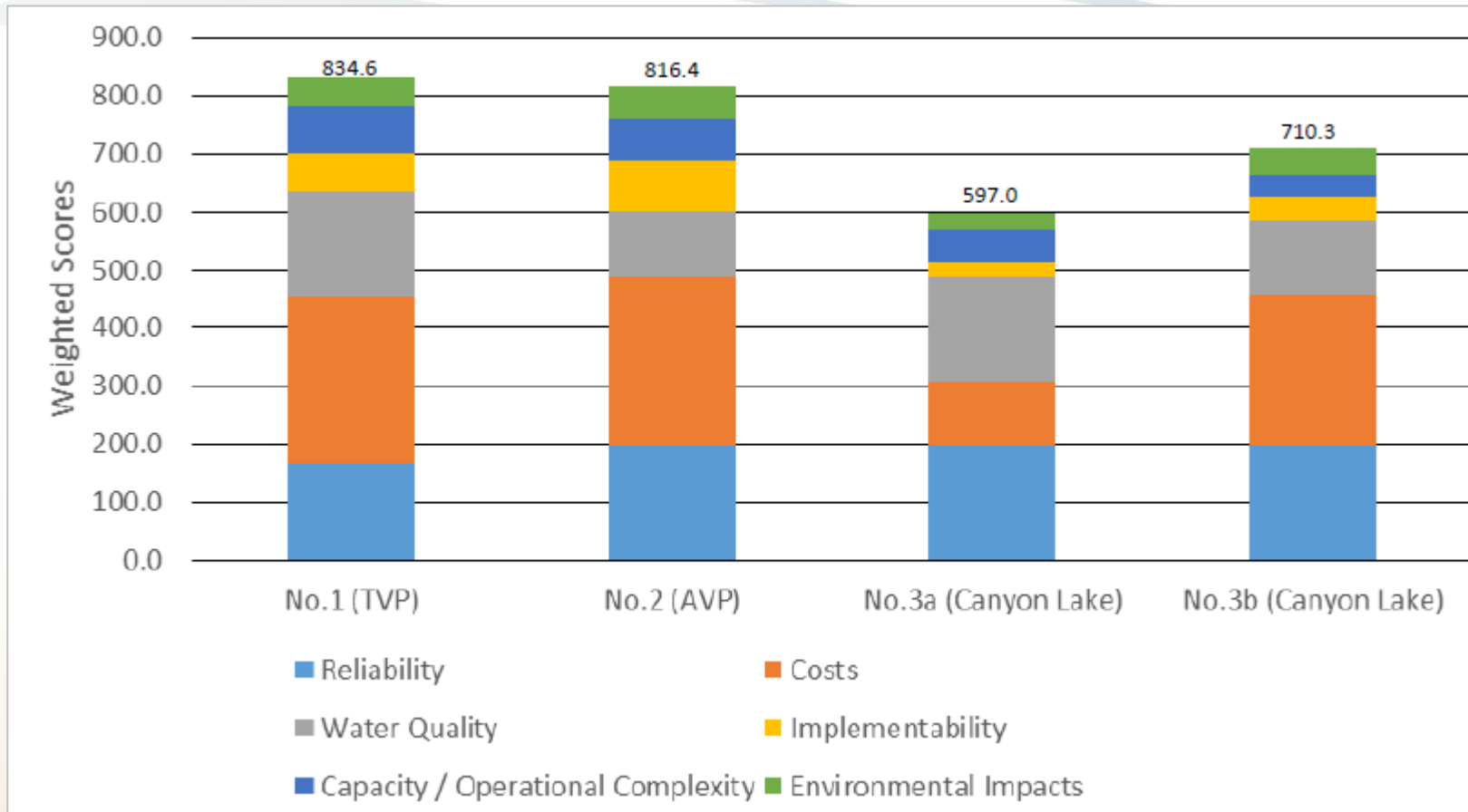


# 2017 TVP, AVP, and Canyon Lake System Capacity Study - Alternatives

## Evaluated Alternatives:

- **Alternative No. 1:** Increasing the TVP operational capacity
- **Alternative No. 2:** Additional capacity from Metropolitan through the Auld Valley Pipeline (AVP)
- **Alternative No. 3a and 3b:** Designing and building a 13.8 MGD upgrade to the Canyon Lake WTP.

# Previous TVP, AVP, and Canyon Lake System Capacity Study – Results



- Alternative No. 1 to expand the TVP was the preferred recommended alternative
- It was recommended to perform detail study to evaluate TVP alignment and options





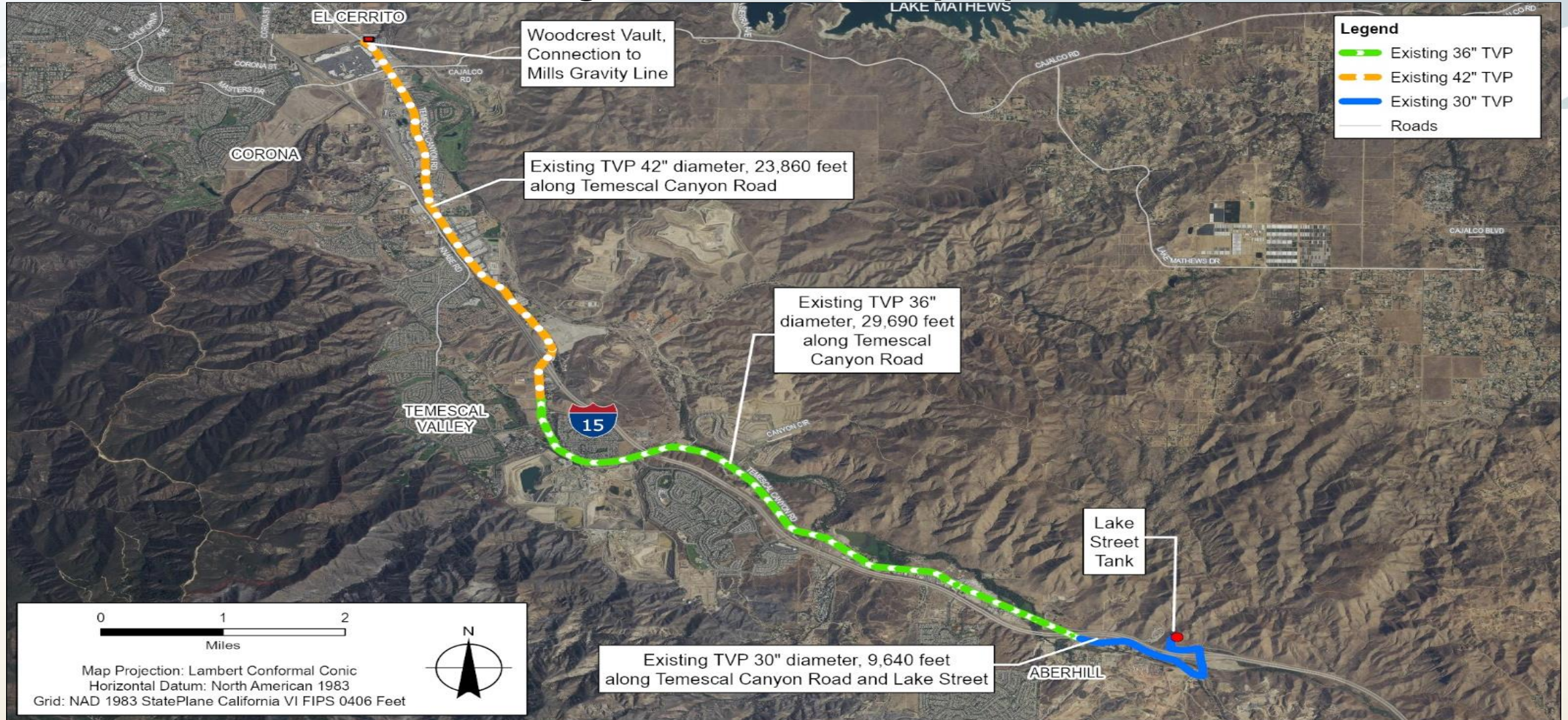
# TVP Expansion Feasibility – Consultant Selection

- RFP Released on September 8, 2020
- 4 Proposals received on October 8, 2020:
  - GHD Inc
  - Kennedy/Jenks Consultants, Inc.
  - CDM Smith
  - Stantec Consulting Services
- Staff selected GHD as the most qualified Consultant
- Board of Directors approved Professional Services Agreement with GHD on February 25, 2021



# TVP Expansion Feasibility – Background and Purpose

## Existing Temescal Valley Pipeline



# TVP Expansion Feasibility – Alternatives

## Seven (7) alternatives considered

1. Full parallel pipe
2. Full replacement pipe
3. Partial parallel pipe
4. Partial replacement pipe
5. Pump station
6. Pump station and partial parallel pipe
7. Pump station and partial replacement pipe

For this analysis, all parallel pipe alternatives (1, 3 and 6) using the original TVP alignment and Alternative New TVP 2 only.

# TVP Expansion Feasibility – Evaluation Criteria

- Each of the 7 alternatives were evaluated on 8 criteria
- Staff provided significant feedback during criteria definition and alternative selection

Evaluation Criteria	Weighting Factors	Basis
Total TVP Capacity	19%	Minimum delivery of 41 cfs to the Lake Street Tank at 100% MGL demand and a minimum pressure of 10 psi
Constructability	9%	Amount rock excavation, grade of slope, ease of construction, traffic interruption, road crossings and duration of construction
Cost	18%	Equivalent Annual Cost (EAC) based on lifetime costs including capital costs, annual operations and maintenance costs and replacement costs
Disruption to Water Supply	6%	Disruption to District water supply during construction
Environmental Impacts	15%	Review of sensitive vegetation, sensitive plant and animal species, jurisdictional resources, conserved lands and critical habitat, cultural resources, community issues (i.e. noise), and environmental compliance
Pipeline Corridor Availability	9%	Potentially moving utilities and/or acquiring new easements
System Operational Complexity	9%	Requirement for experienced personnel for operations and maintenance activities
Reliability & Redundancy	15%	Reliability and Redundancy during an unplanned event

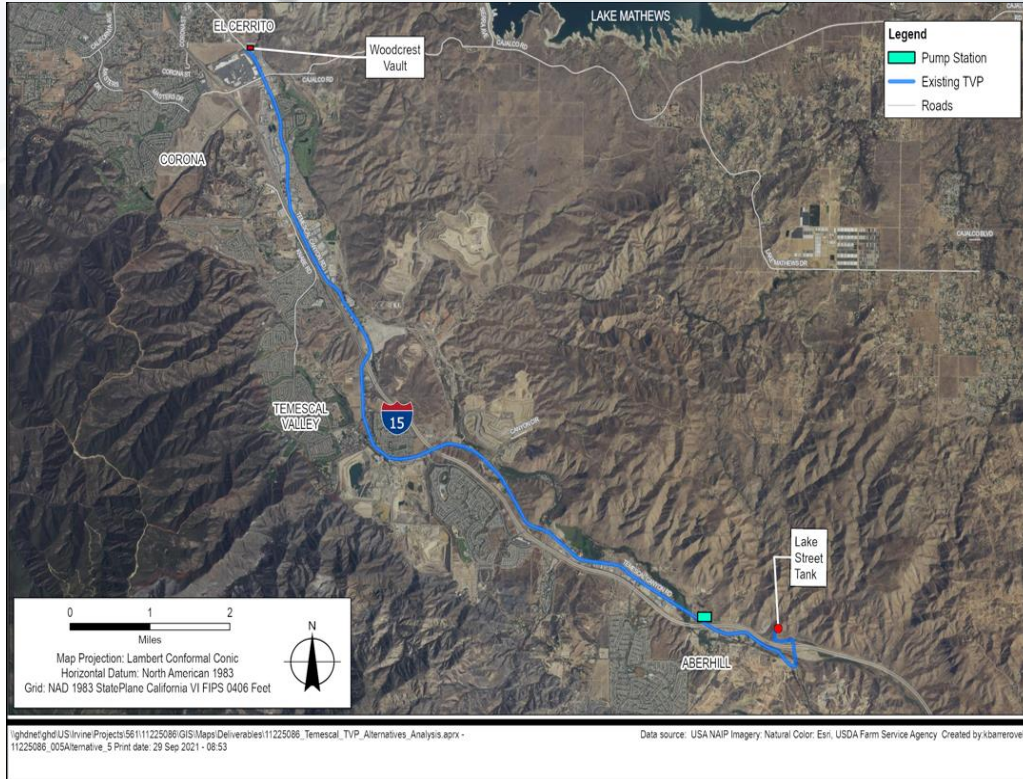


# TVP Expansion Feasibility – Results

- Preferred Alternative:  
Alternative 5 - Pump Station
- Alternative 5 highlights:
  - ✓ Lowest cost alternative
    - ✓ Est. \$18M (2021)
  - ✓ Least disruption to water supply
  - ✓ Better environmental impact score
  - ✓ Higher operational complexity
  - ✓ Limited redundancy

Alternative	Study Score	Heavily Weighted Evaluation Criteria								Average Score
		A - Total TVP Capacity	B - Constructability	C - Cost	D - Disruption to Water Supply	E - Environmental Impacts	F - Pipeline Corridor Availability	G - System Operational Complexity	H - System Reliability & Redundancy	
1 - Full Parallel Pipe	812	857	774	783	857	810	814	857	817	820
2 - Full Replacement Pipe	566	662	540	482	520	608	662	662	482	576
3 - Partial Parallel Pipe	811	852	764	803	852	798	808	852	792	815
4 - Partial Replacement Pipe	605	684	555	553	551	625	684	684	504	605
5 - Pump Station	846	873	853	873	873	839	833	813	773	842
6 - Pump Station and Partial Parallel Pipe	816	858	798	823	858	808	815	848	775	822
7 - Pump Station and Partial Replacement Pipe	657	726	640	623	606	670	722	720	554	658

# TVP Expansion Feasibility – Alternative 5 Details

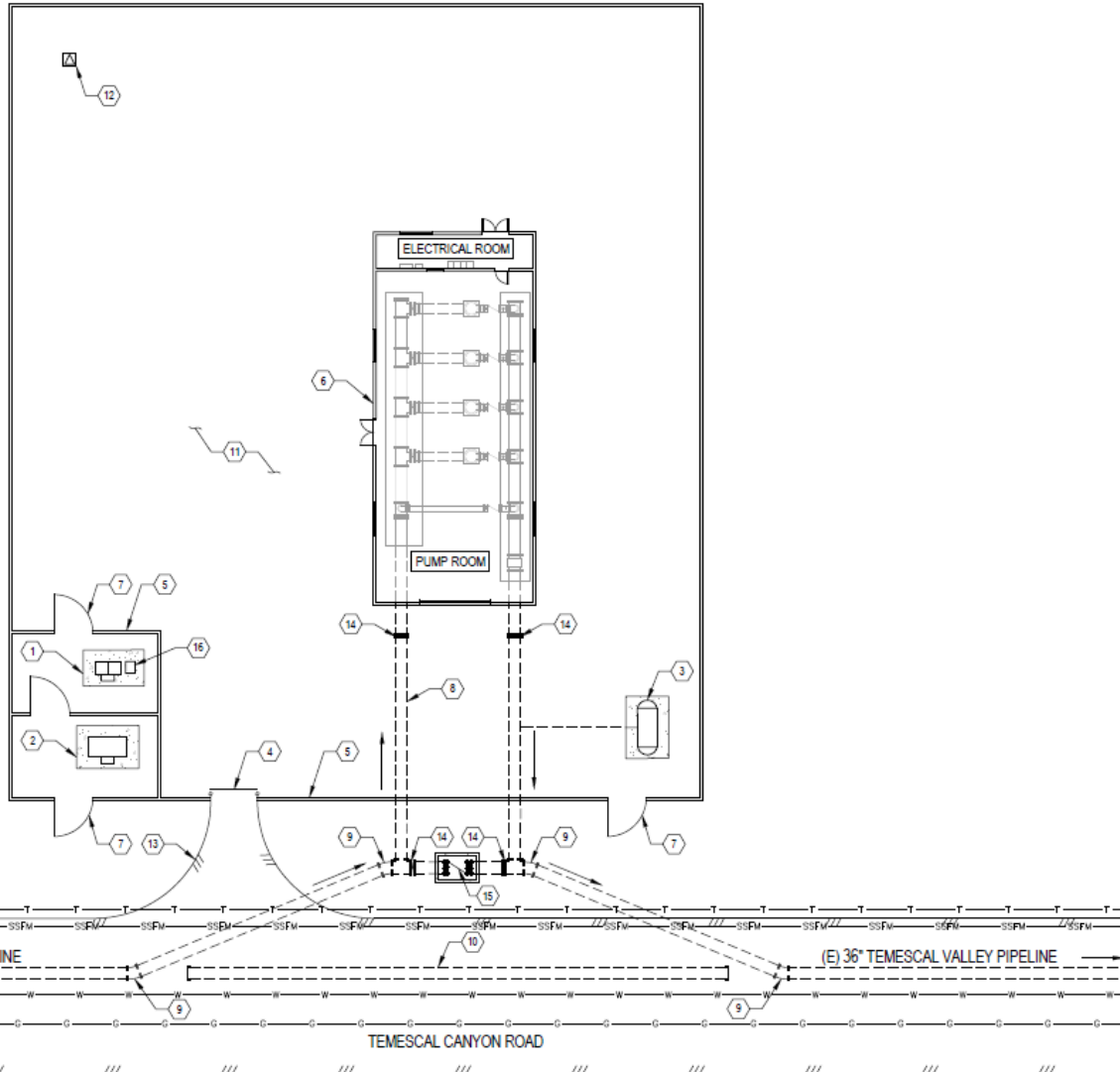


## Summary

- Locate on District property, shared with future Lee Lake Wells site
- No pipe line component
- 3 duty + 1 standby pumps 300 HP each
- Increases TVP capacity to 41 cfs
- Dedicated 36" pump station bypass piping



# TVP Expansion Feasibility – Site Plan



## SHEET KEYNOTES

1. METERING SWITCHBOARD.
2. TRANSFORMER ON 6' X 10' PAD WITH SLAB BOX AND GROUNDING PER SCE REQUIREMENTS.
3. SURGE TANK.
4. 12' WIDE ROLLING GATE WITH CARD READER OPERATOR PER EVMWD STANDARD DRAWING SD-2.
5. 8' HIGH SPLIT FACE CMU BLOCK WALL, COLOR TAN.
6. PUMP STATION, SEE FIGURE 4.3.
7. 4' WIDE SINGLE GATE PER EVMWD STANDARD DRAWING SD-1.
8. 36" DI PIPE.
9. 36" 22.5° ELBOW.
10. PLUG AND ABANDON EXISTING WATER MAIN.
11. CONCRETE PAVEMENT.
12. ANTENNA TOWER.
13. AC DRIVEWAY.
14. 36" BUTTERFLY VALVE SIM TO EVMWD STANDARD DETAIL W-13.
15. 36" CHECK VALVE, RESTRAINED EACH SIDE IN PRECAST 10'X8' VAULT.
16. MANUAL TRANSFER SWITCH WITH RECEPTACLE FOR PORTABLE GENERATOR.

# Next Steps

1

Revise design following feedback from workshop.

2

Update preliminary design report following workshop.

3

Generate preliminary cost estimate.

4

Deliver preliminary design package.



# QUESTIONS?





**WATER PLANNING  
COMMITTEE**

*DISCUSSION OUTLINE*

---

**Date:** October 17, 2022  
**Originator:** Parag Kalaria- Water Resources  
**Subject:** WATER RESOURCES AT A GLANCE

---

**STRATEGIC GOAL**

Optimize and Diversify Water Sourcing

**BACKGROUND AND RECOMMENDATION**

Staff will provide an update on EVMWD's Water Resources At A Glance Report during the meeting.

**ENVIRONMENTAL WORK STATUS**

Not applicable.

**FISCAL IMPACT**

None.

Attachments:

Water Resources At A Glance Report

# Water Resources at Glance

## October 17, 2022

WPC

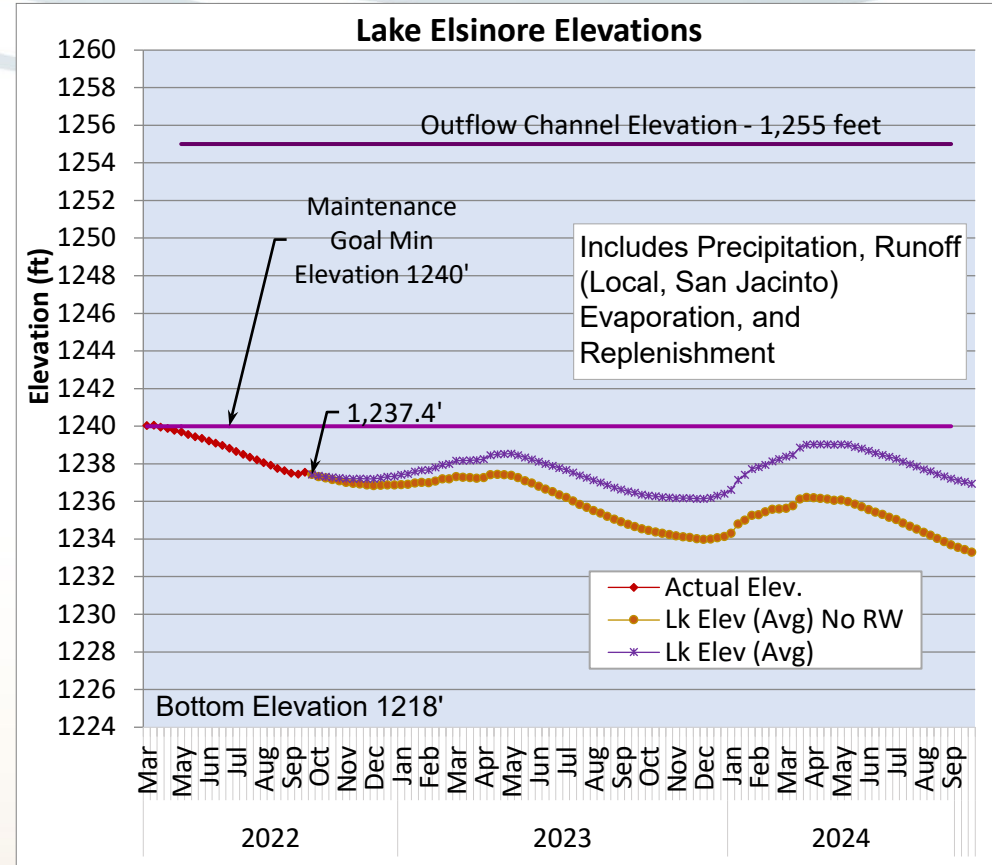
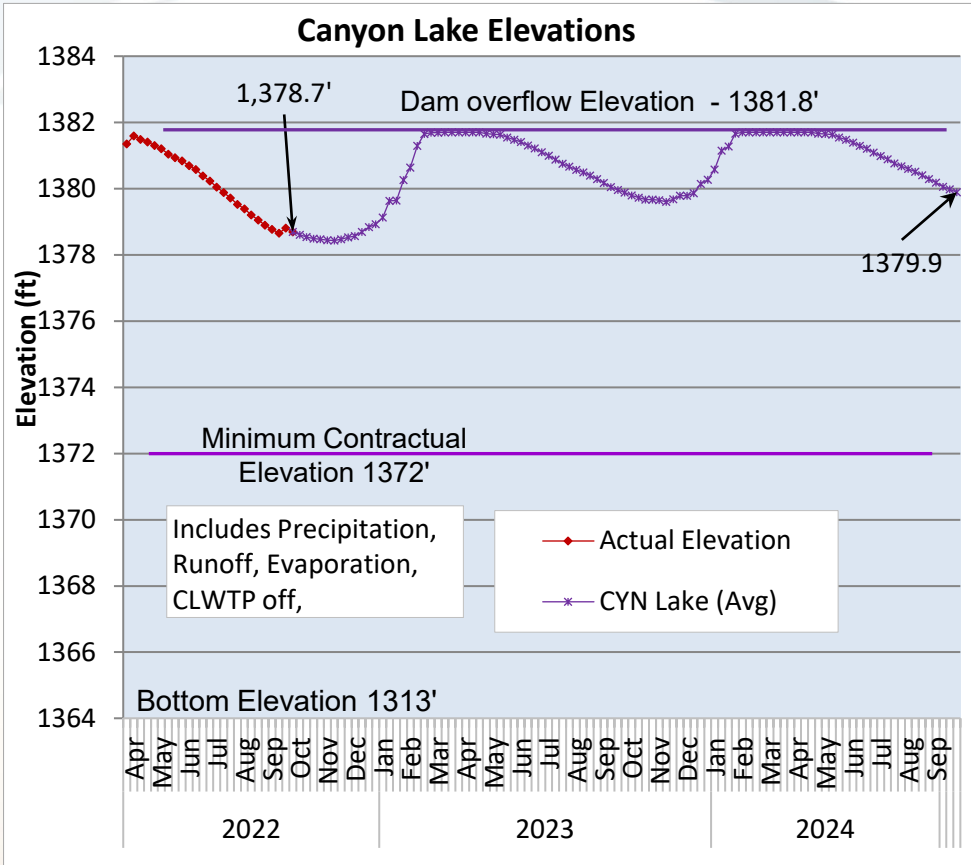
1

October 17, 2022



Elsinore Valley Municipal Water District

# Lake Levels

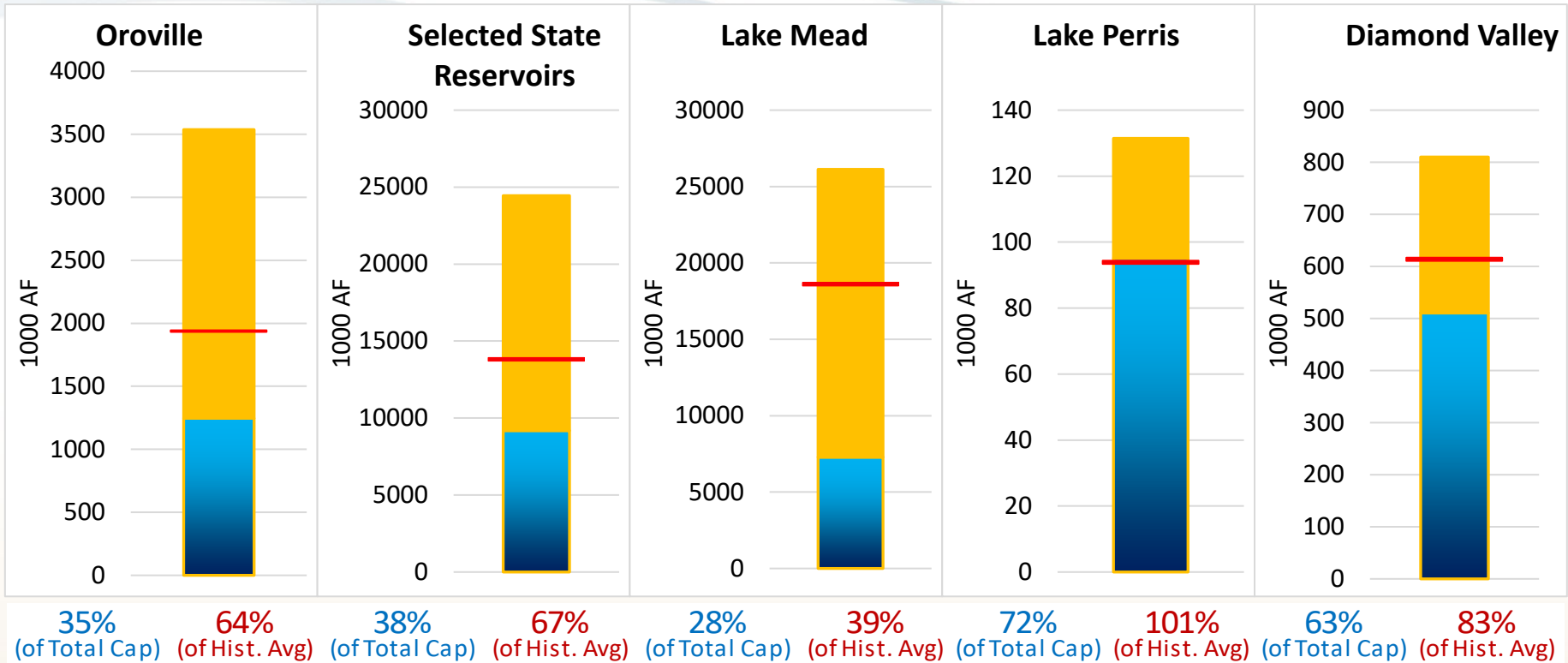


# Imported Water Reliability As of Sep 26, 2022

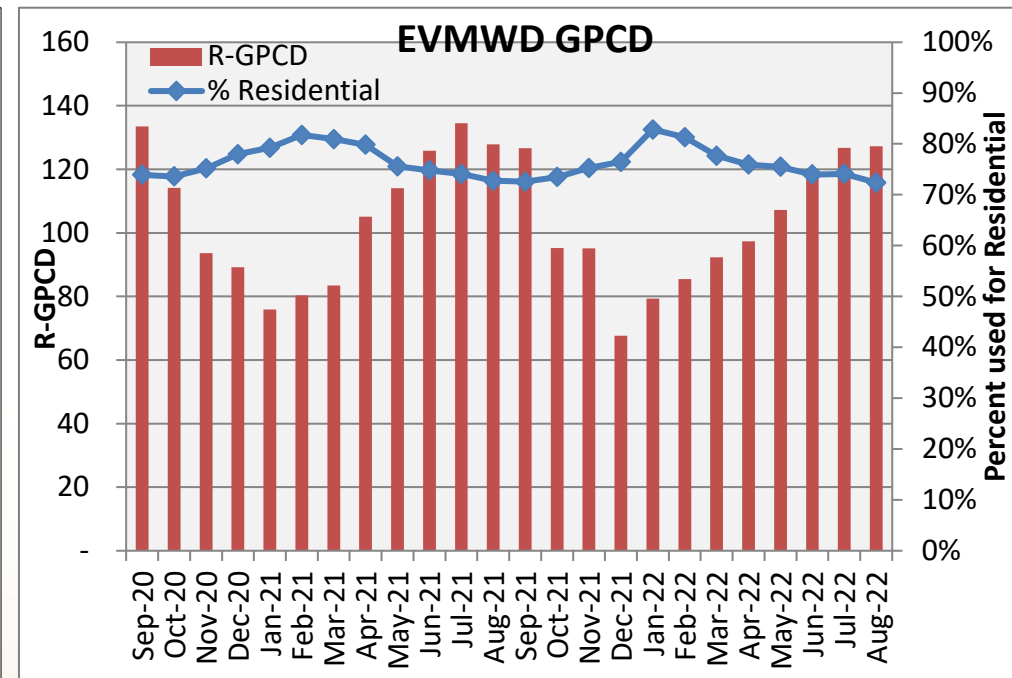
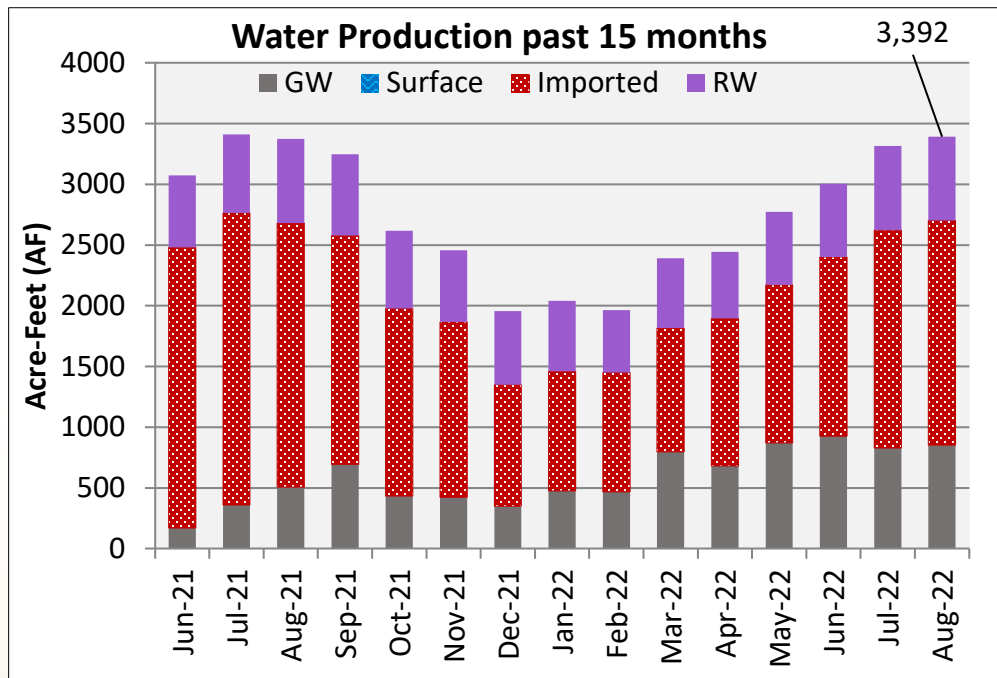
State Snow/ Precipitation Survey		
Snow	Statewide Average water equivalent <sup>(1)</sup>	0.1"
	Statewide Percent of April 1 <sup>(1)</sup>	0%
	Statewide Percent of Normal <sup>(1)</sup>	0%
Precip.	No. Sierra Region (Sacramento River) <sup>(1)</sup>	42.0"
	Percent of Average <sup>(1)</sup>	79%
	South Coast Region % of Av. <sup>(2)</sup>	73%
	Elsinore Precip. <sup>(1)</sup>	7.07"
	Percent of Average <sup>(1)</sup>	60%
★	2022 Initial State Allocation to Metropolitan WDSC (95,575 AF)	5%
Notes	(1) Oct 2021. to 9/26/2022 (2) Oct. 2021 to end Aug. 2022	



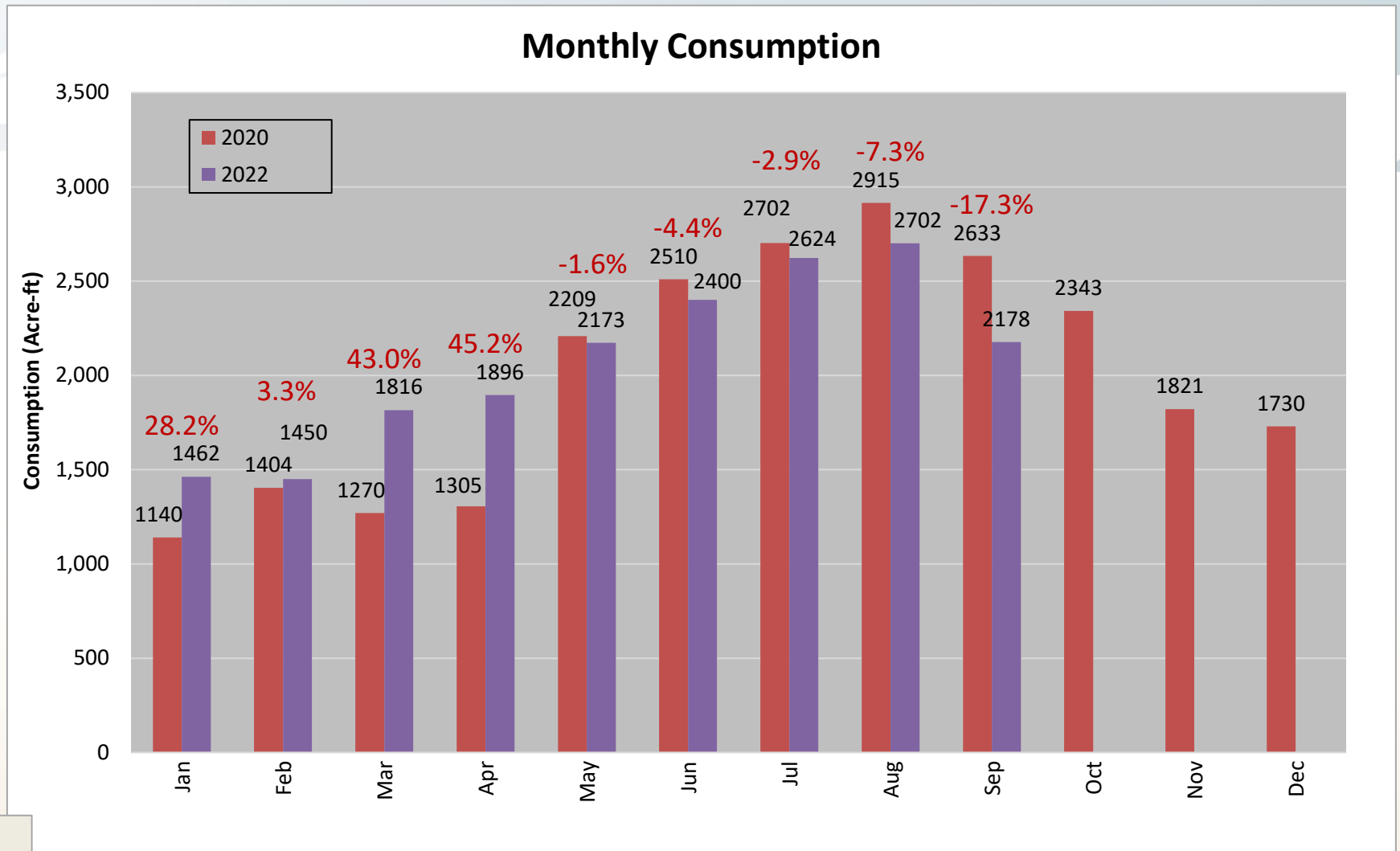
# Imported Water Reliability As of Sep 26, 2022



# Water Production and Drought Stage



# Monthly Water Consumption Comparison



**Statewide**  
 July -10.5%  
 Aug -10.5%





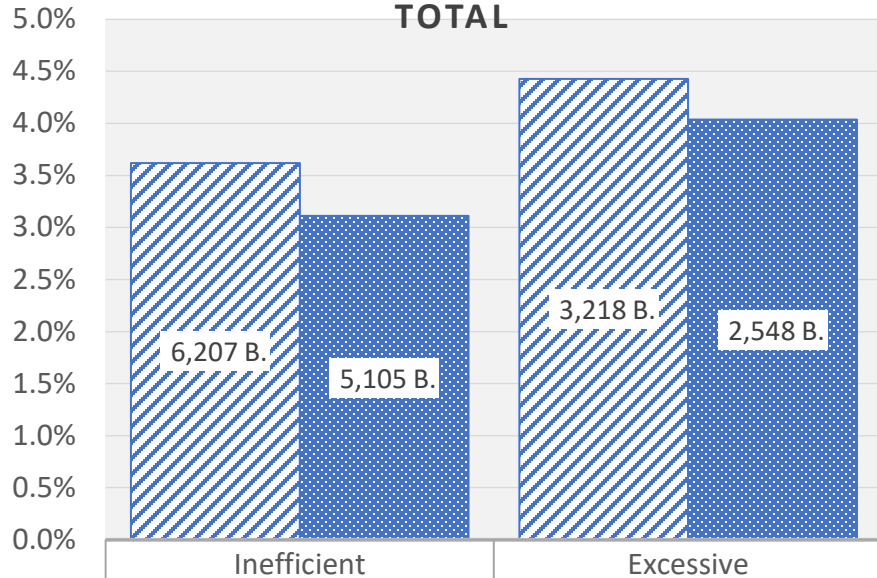
# Asset Transfer Agreement - MGL

Fiscal Year	Capacity Utilized (CFS)	Value of Capacity Utilized (\$)
FY 2015	457	\$165,485
FY 2016	644	\$233,095
FY 2017	602	\$217,999
FY 2018	992	\$359,209
FY 2019	775	\$280,574
FY 2020	844	\$305,859
FY 2021	1047	\$379,072
FY 2022	995	\$360,256
FY 2023 - As of August-2022	235	\$85,057
Total Capacity Utilized	6589	\$2,386,604
Max Value of Lease Rights	<b>7300</b>	\$2,644,000
Remaining Value of Lease Rights	711	\$257,396



# Inefficient and Excessive Water Usage

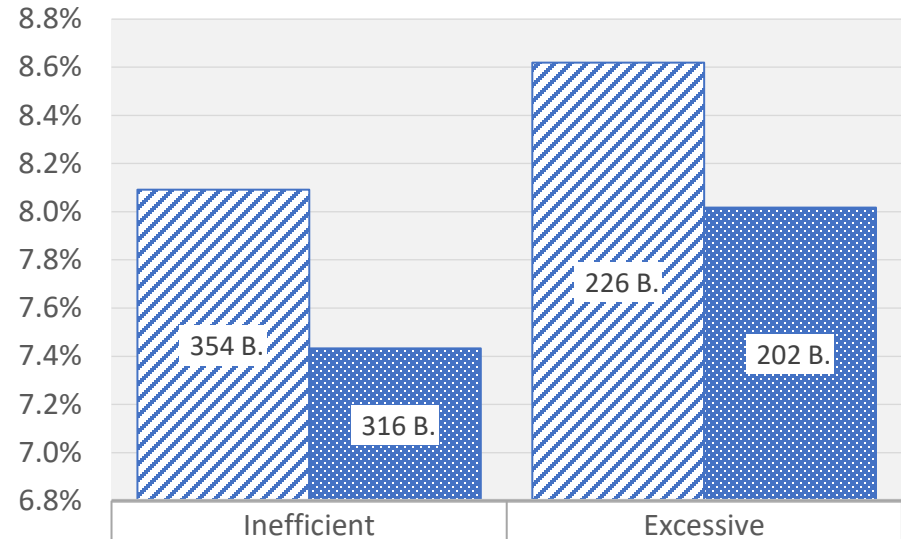
**DOMESTIC WATER USAGE  
BLOCKS 3 - 4 AS A PERCENTAGE OF  
TOTAL**



■ FY2022	3.6%	(130.4 AF)	4.4%	(159.4 AF)
■ FY2023	3.1%	(106.3 AF)	4.0%	(137.9 AF)

■ FY2022 ■ FY2023

**LANDSCAPE IRRIGATION WATER USAGE  
BLOCKS 2 - 3 AS A PERCENTAGE OF  
TOTAL**



■ FY2022	8.1%	(70.4 AF)	8.6%	(74.9 AF)
■ FY2023	7.4%	(62.0 AF)	8.0%	(66.9 AF)

■ FY2022 ■ FY2023

Note:

Data displayed begins with July to end of August (2 months)

B. = Number of Bills

# Inefficient and Excessive Water Usage

**Domestic % Volume of Water Block 3 -4**

Director Division	Inefficient FY 2023 AF	Inefficient% FY 2023	Excessive FY 2023 AF	Excessive% FY 2023
1 - D. Burke	30.2	28.4%	38.59	28.0%
2 - H. Ryan	12.76	12.0%	24.46	17.7%
3 - C. Edmondson	16.18	15.2%	17.75	12.9%
4 - P. Williams	20.57	19.4%	24.01	17.4%
5 - A. Morris	26.57	25.0%	33.1	24.0%
<b>Total (%)</b>	<b>106.28</b>	<b>100.0%</b>	<b>137.91</b>	<b>100.0%</b>

**Landscape Irrigation % Volume of Water Block 2 -3**

Director Division	Inefficient FY 2023 AF	Inefficient% FY 2023	Excessive FY 2023 AF	Excessive% FY 2023
1 - D. Burke	10.85	18.0%	9.36	15.0%
2 - H. Ryan	22.2	36.8%	30.87	49.5%
3 - C. Edmondson	6.29	10.4%	7.34	11.8%
4 - P. Williams	5.69	9.4%	2.98	4.8%
5 - A. Morris	15.22	25.3%	11.85	19.0%
<b>Total (%)</b>	<b>60.25</b>	<b>100.0%</b>	<b>62.4</b>	<b>100.0%</b>

# Summary of Total Accounts in Autopay

Total Accounts				
Division	Director	Total	AutoPay	%
1	Darcy Burke	11,252	4,900	44%
2	Harvey Ryan	9,320	3,354	36%
3	Chance Edmondson	8,115	2,854	35%
4	Phil Williams	8,136	3,041	37%
5	Andy Morris	8,442	3,542	42%

# QUESTIONS?

11



**WATER PLANNING  
COMMITTEE**

*DISCUSSION OUTLINE*

---

**Date:** October 17, 2022  
**Originator:** Parag Kalaria- Water Resources  
**Subject:** KEY WATER QUALITY PARAMETERS

---

**STRATEGIC GOAL**

Protect Public Health and Environmental Resources

**BACKGROUND AND RECOMMENDATION**

Staff will provide an update on EVMWD's Key Water Quality Parameters during the meeting.

**ENVIRONMENTAL WORK STATUS**

Not applicable.

**FISCAL IMPACT**

None.

Attachments:

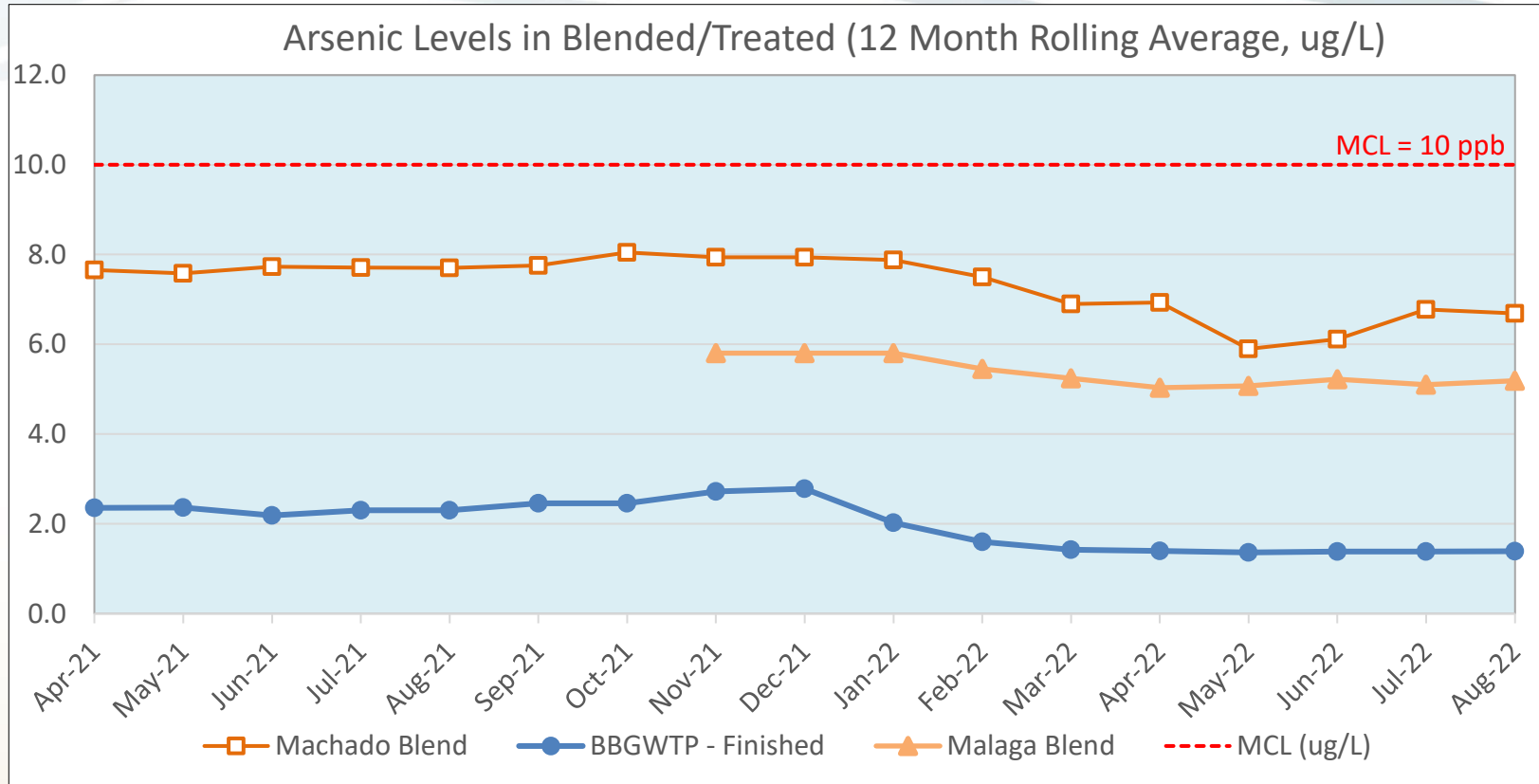
Key Water Quality Parameters Report

# Key WQ Parameters At A Glance

WPC  
October 17, 2022



# Arsenic (12 Month Rolling Average)



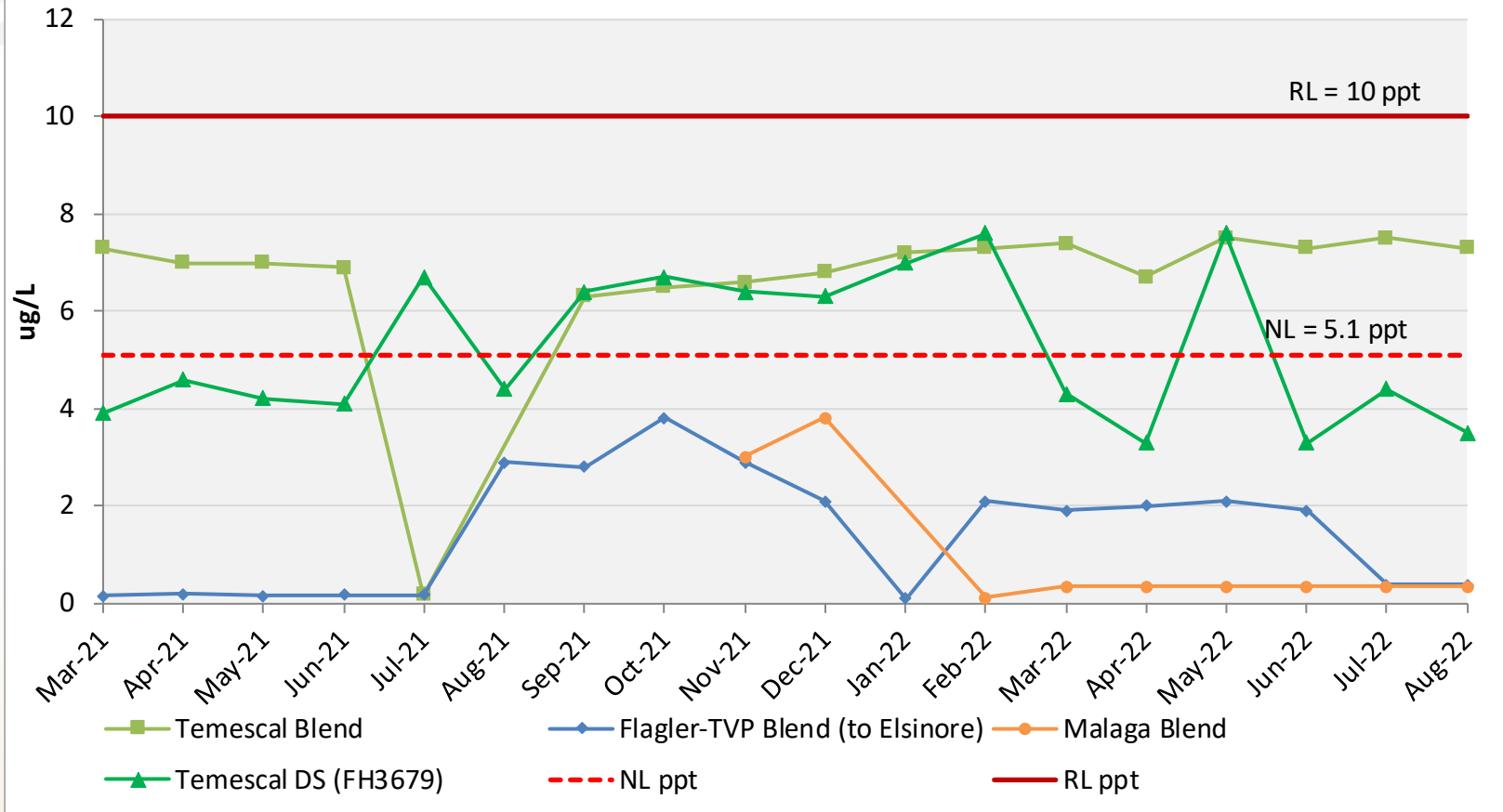
Group	Sample Source	Range (ppb)
SB	Cereal 3 Well	34 - 54
SB	Cereal 4 Well	12 - 46
SB	BBGWTP - Finished	0 - 3
SB	Summerly Well	0 - 2.6
SB	Cereal 1 Well	8.5 - 19
SB	Corydon Well	6.3 - 14
SB	Malaga Blend	0 - 6.4
MB	Joy St. Well	5.40 - 11
MB	Machado Well	2.4 - 5.2
MB	Machado Blend	5.6 - 9
DE	Terracotta Well	0 - 3.7





# PFOA

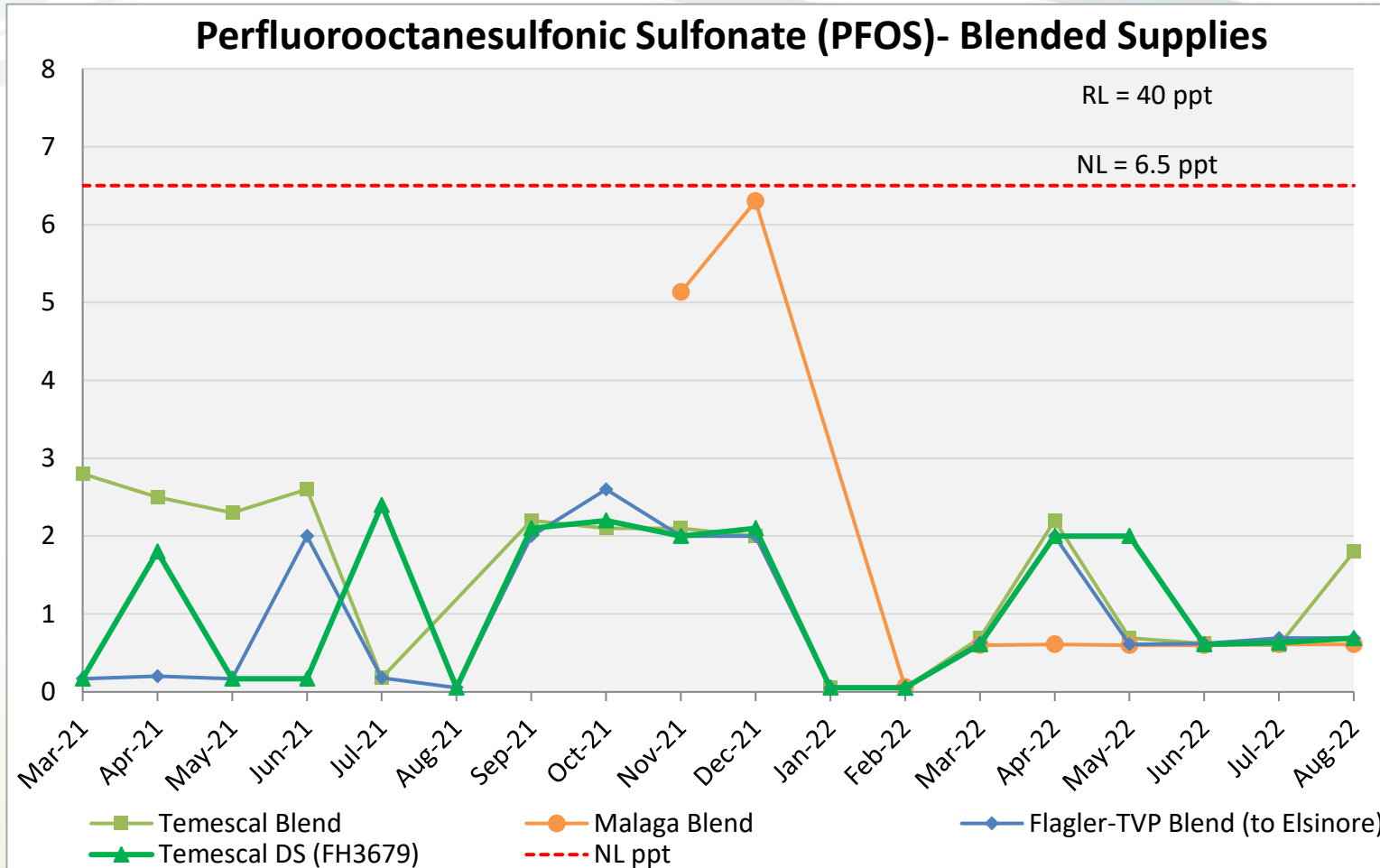
## Perfluorooctanoic acid (PFOA) - Blended Supplies



Group	Sources	Range (ppt)
NB	Temescal Valley Connection	2-2
NB	Flagler 2A	8.6-17
NB	Flagler 3A	11-16
NB	FWTF Treated	9.8-14
NB	TVP-Flagler Blend	2.5-3.6
NB	Mayhew	0.09-2.6
NB	Station 71	2-7.8
NB	Temescal Blend	0.16-7.5
NB	Coldwater Pump & PRV Station	2.5-7.4
<b>NB</b>	<b>Flagler-TVP Blend (to Elsinore)</b>	<b>0.09-3.8</b>
SB	Cereal 3 Well	0.1-2
SB	Cereal 4 Well	0.09-2
SB	BBGWTP - Finished	0.09-0.38
SB	Summerly Well	8.3-11
SB	Cereal 1 Well	0.33-2.3
SB	Corydon Well	0.09-2
<b>SB</b>	<b>Malaga Blend</b>	<b>0.1-3.8</b>
MB	Joy St. Well	0.15-2.4
MB	Machado Well	2-2
DE	Terracotta Well	0.16-0.18



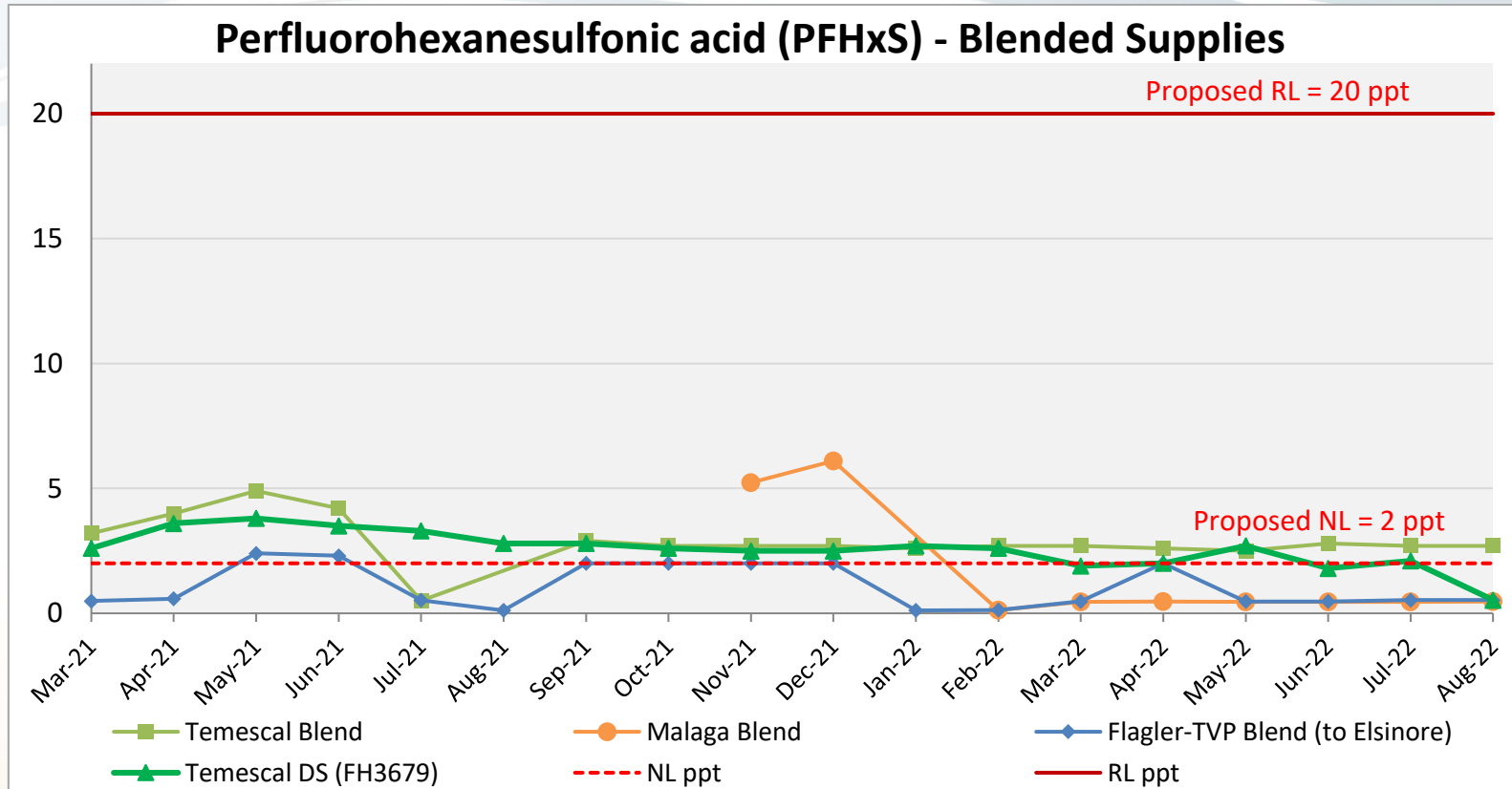
# PFOS



Group	Sources	Range (ppt)
NB	Temescal Valley Connection	2-2.2
NB	Flagler 2A	3.6-7.6
NB	Flagler 3A	8.2-10
NB	FWTF Treated	5.4-7
NB	TVP-Flagler Blend	0.06-2.5
NB	Mayhew	0.06-2
NB	Station 71	0.06-2.6
NB	Temescal Blend	0.06-2.8
NB	Coldwater Pump & PRV Station	0.05-2.3
NB	Flagler-TVP Blend (to Elsinore)	0.05-2.6
SB	Cereal 3 Well	0.06-2
SB	Cereal 4 Well	0.06-2
SB	BBGWTP - Finished	0.05-0.69
SB	Malaga Blend	0.06-6.3
SB	Summerly Well	14-18
SB	Cereal 1 Well	0.59-2.8
SB	Corydon Well	0.05-2
MB	Joy St. Well	0.17-1.3
MB	Machado Well	2-2
DE	Terracotta Well	0.17-0.2



# PFHxS: Proposed Notification and Response Levels

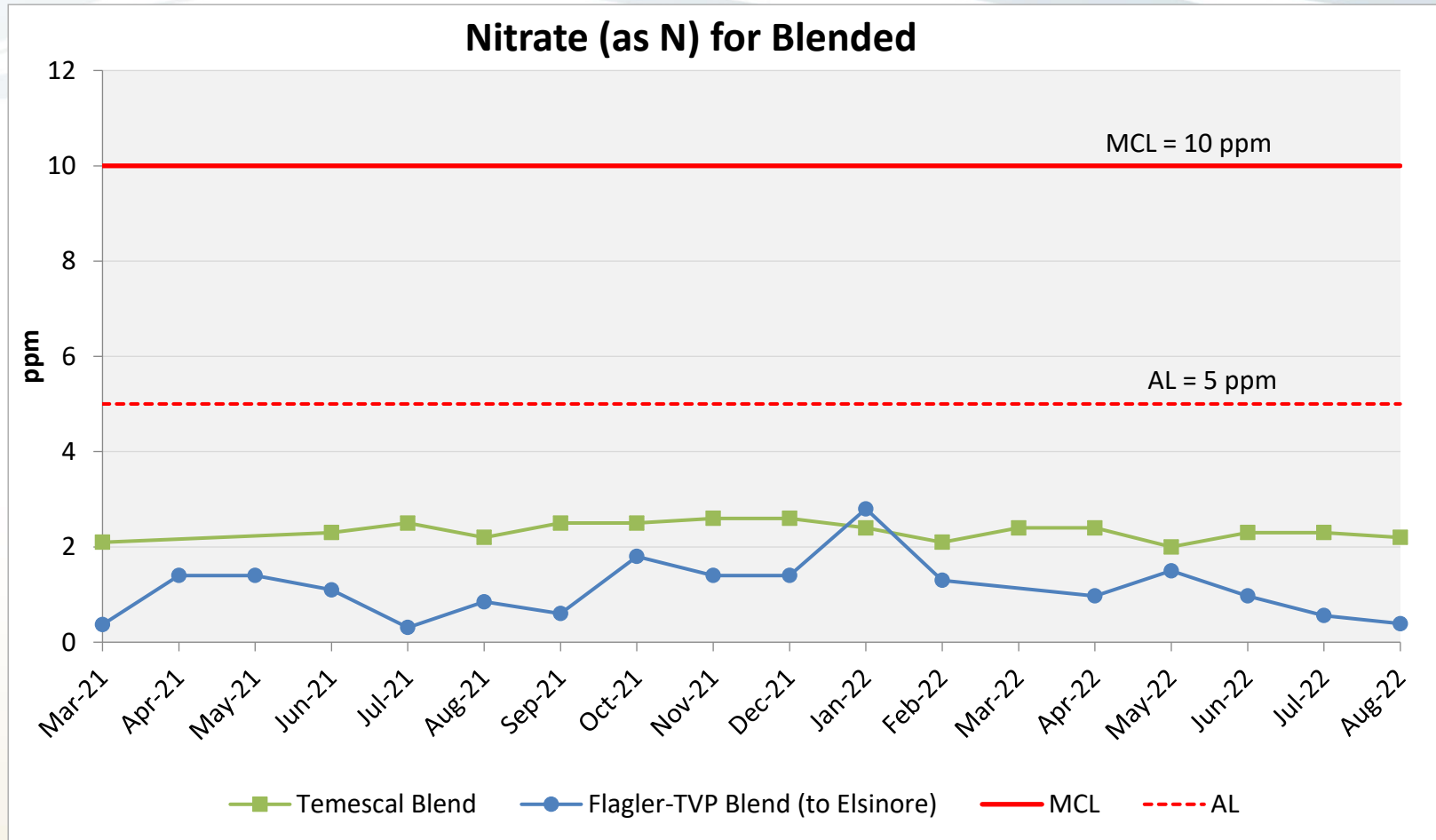


Group	Sources	Range (ppt)
NB	Temescal Valley Connection	2-2
NB	Flagler 2A	3.1-6.9
NB	Flagler 3A	4.8-6.9
NB	FWTF Treated	3.5-4.3
NB	TVP-Flagler Blend	0.13-2
NB	Mayhew	0.12-3
NB	Station 71	2.2-4.3
NB	Temescal Blend	0.51-4.9
NB	Coldwater Pump & PRV Station	0.12-2.9
NB	Flagler-TVP Blend (to Elsinore)	0.12-2.4
SB	Cereal 3 Well	0.13-2
SB	Cereal 4 Well	0.12-3.7
SB	BBGWTP - Finished	0.12-0.53
SB	Malaga Blend	0.13-6.1
SB	Summerly Well	14-25
SB	Cereal 1 Well	2.2-8
SB	Corydon Well	0.48-4.3
MB	Joy St. Well	1.7-2.4
MB	Machado Well	2-2
DE	Terracotta Well	0.58-2.1

- February 2020: DDW initiated the NL development process
- March 2022: OEHHA released NL recommendations
- August 2022: DDW presented proposed NL and RL to the State Water Board
- SWRCB's revised PFAS Monitoring Orders expected by October



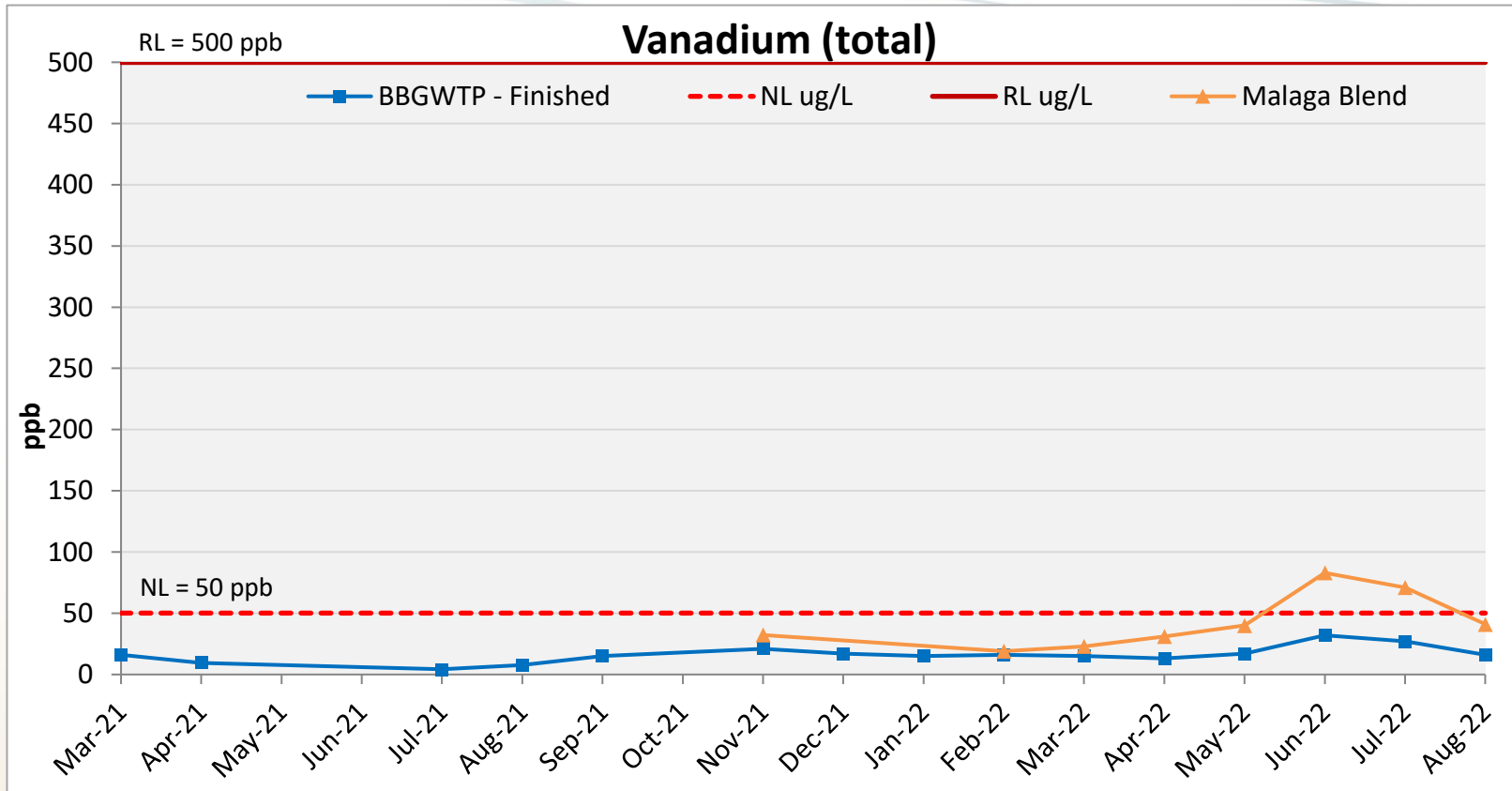
# Nitrate



Group	Sampling Point Name	Last	Range (ppm)
NB	Flagler 2A	6.1	5.6-7.7
NB	Flagler 3A	2.3	2.3-4.7
NB	Mayhew	2.5	1.5-2.6
NB	Station 71	2.4	2.1-2.6



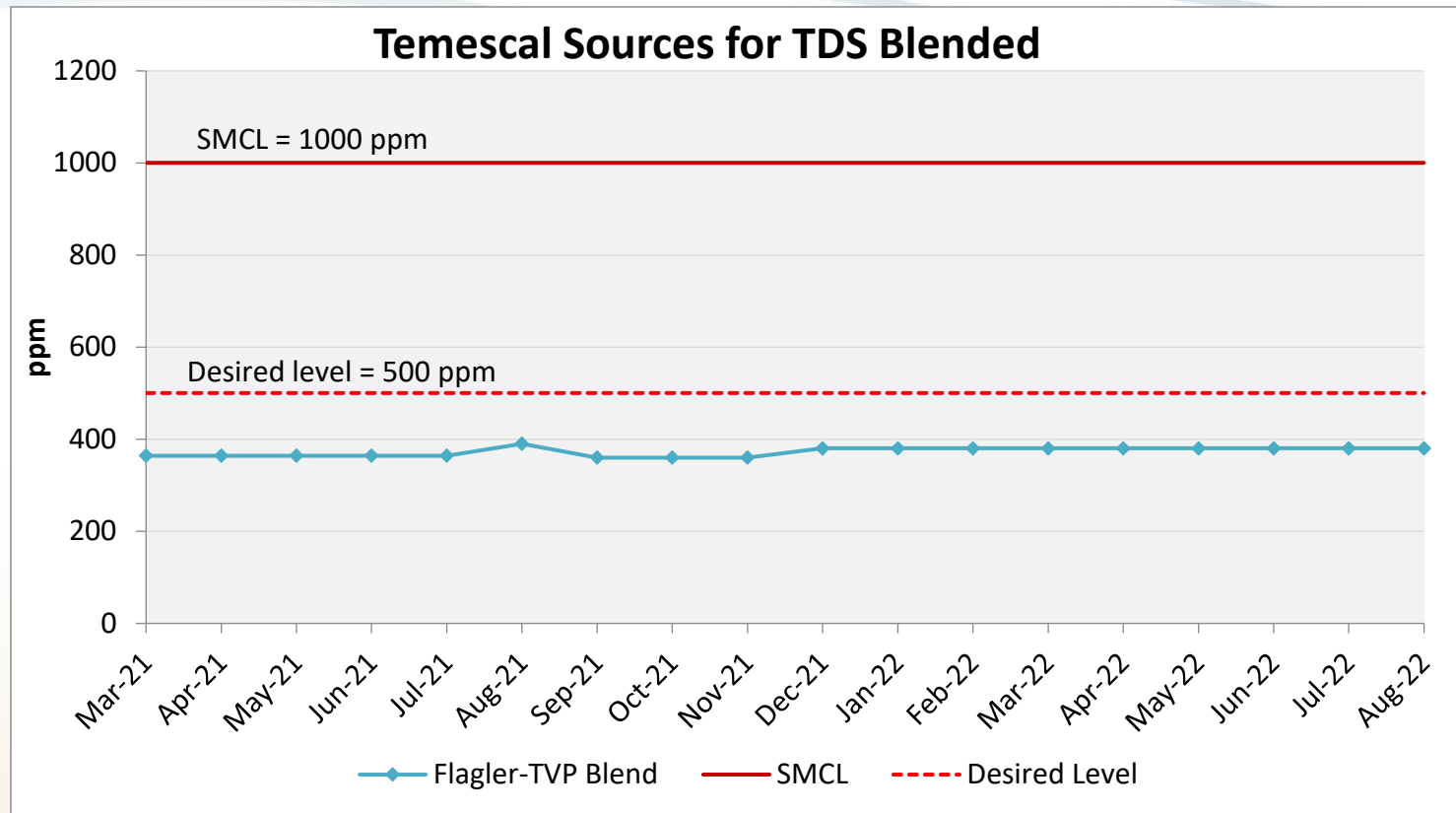
# Vanadium



Group	Sample Source	Range (ppb)
SB	Cereal 3 Well	79 - 400
SB	<b>Cereal 4 Well</b>	88 - 280
SB	<b>BBGWTP - Raw Influent</b>	150 - 380
SB	BBGWTP - Finished	4.2 - 32
SB	Malaga Blend	19 - 83
SB	Summerly Well	25 - 26
SB	Cereal 1 Well	18 - 140
SB	Corydon Well	0 - 180



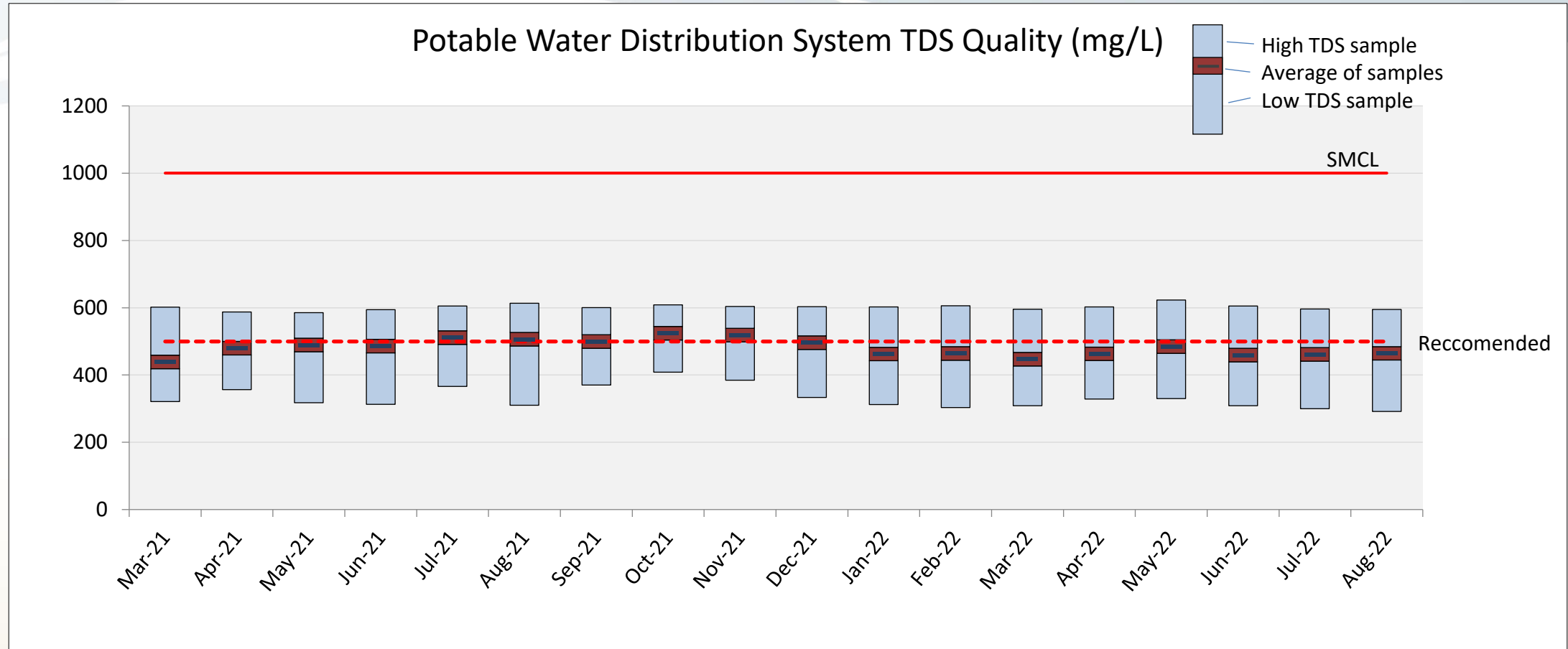
# TDS (Northern Blending)



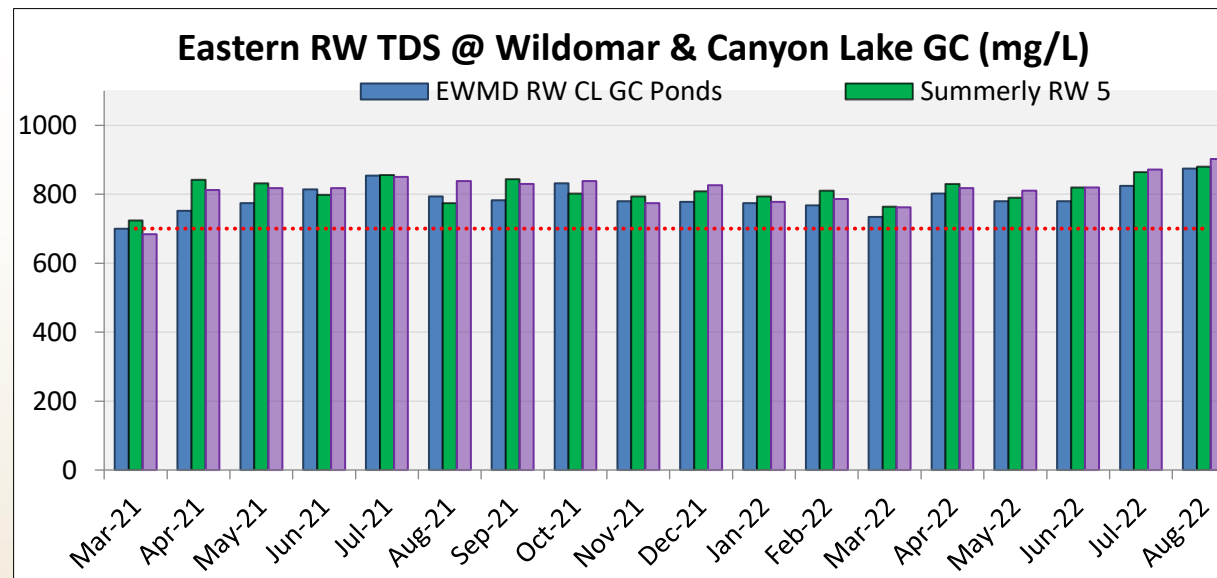
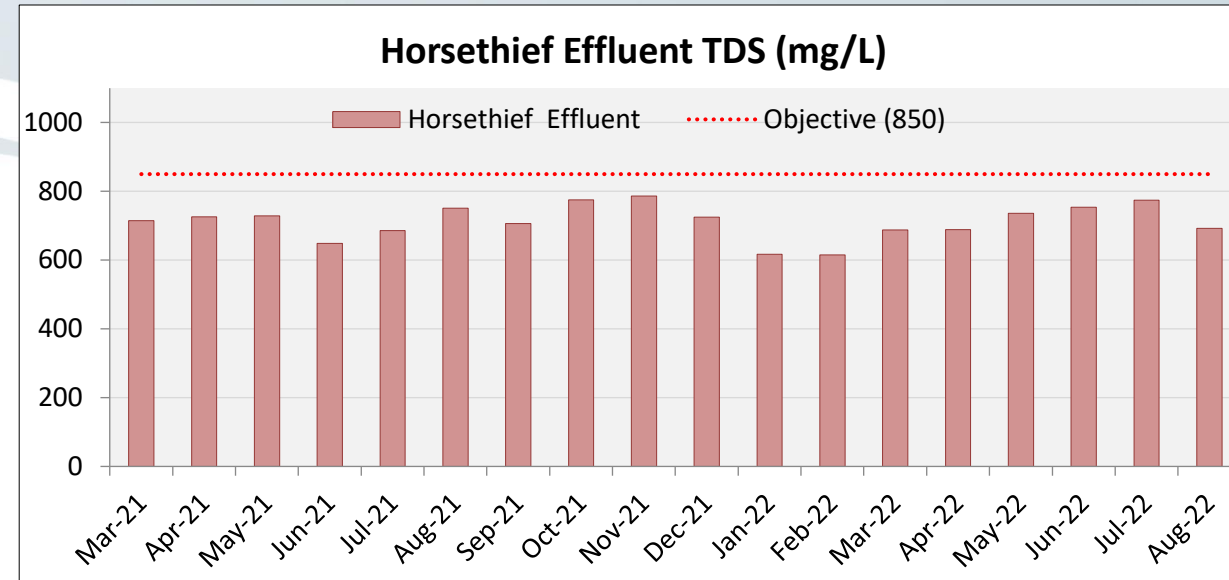
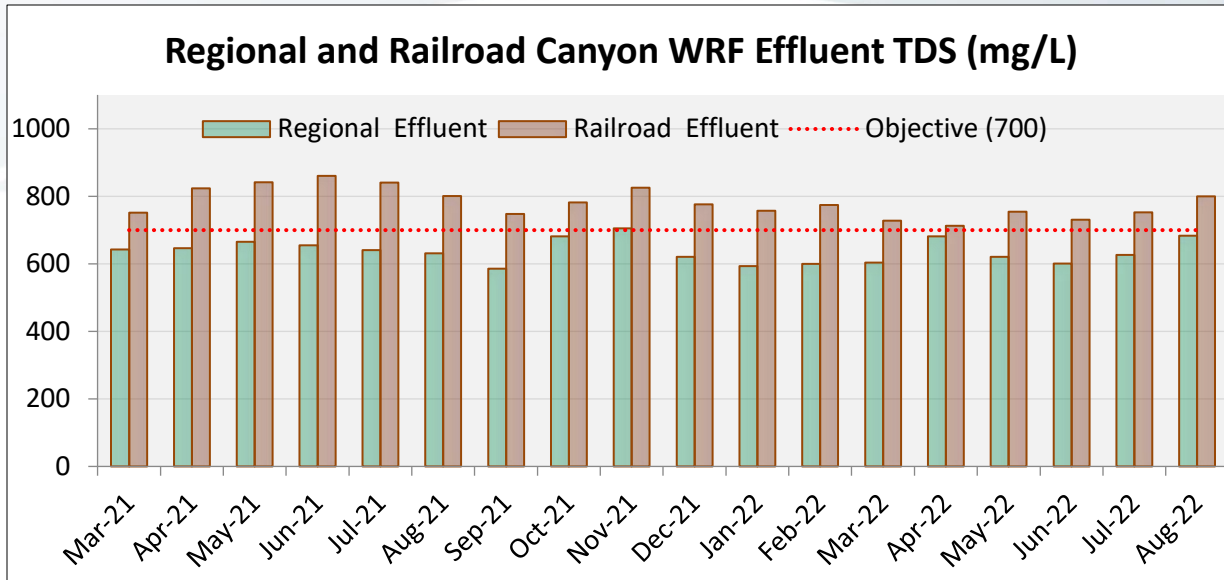
Sources	Range (ppm)
<b>Flagler 2A</b>	942-1100
<b>Flagler 3A</b>	856-952
Mayhew	334-434
Station 71	422-502
Temescal Valley Connection	240-342



# TDS (Distribution System Range)



# Recycled Water - TDS





# QUESTIONS?



# PFOA/PFOS - EPA Draft Regulations Under CERCLA

Water Planning Committee  
October 17, 2022



# What is the new EPA Rule

## **RULE**

- PFOA and PFOS (and their salts and isomers) Designated as Hazardous Substances under CERCLA (Superfund) Section 102(a)
- Action taken under EPA Administrator Regan's PFAS Strategic Roadmap
- When finalized, PFOA/PFOS exceeding reportable quantities (RQ) would need to report to National Response Center
- The RQ is 1 pound or more in 24-hour period

## **PUBLISHED Date (Draft Rule)**

- Sept 6, 2022; 60 days comments period ends Nov 7, 2022 (40 CFR 302)

## **REASON**

- To protect public health because evidence exists that these chemicals present danger to public health,
- Improve transparency and accountability of locations and quantities released,
- Encourage better waste management & treatment
- Help to hold polluters accountable for cleaning up contamination

EPA – US Environmental Protection Agency; PFOA - perfluorooctanoic acid ;  
PFOS - perfluorooctanesulfonic acid, CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act;  
PFAS - per- and polyfluoroalkyl substances; CFR – Code of Federal Register RQ- Reportable Quantity

# Entities Affected by the Rule

- PFOA/PFOS Manufacturers
- PFOA/PFOS Processors
- Manufacturers of Products Containing PFOA/PFOS
- Downstream Product Manufacturers & Users of PFOA/PFOS
- Waste Management & Wastewater Treatment Facilities

***A designation alone does not require the EPA to take response actions, does not require any response action by a private party, and does not determine liability for hazardous substance release response costs.***

# Direct Impacts of Hazardous Designation

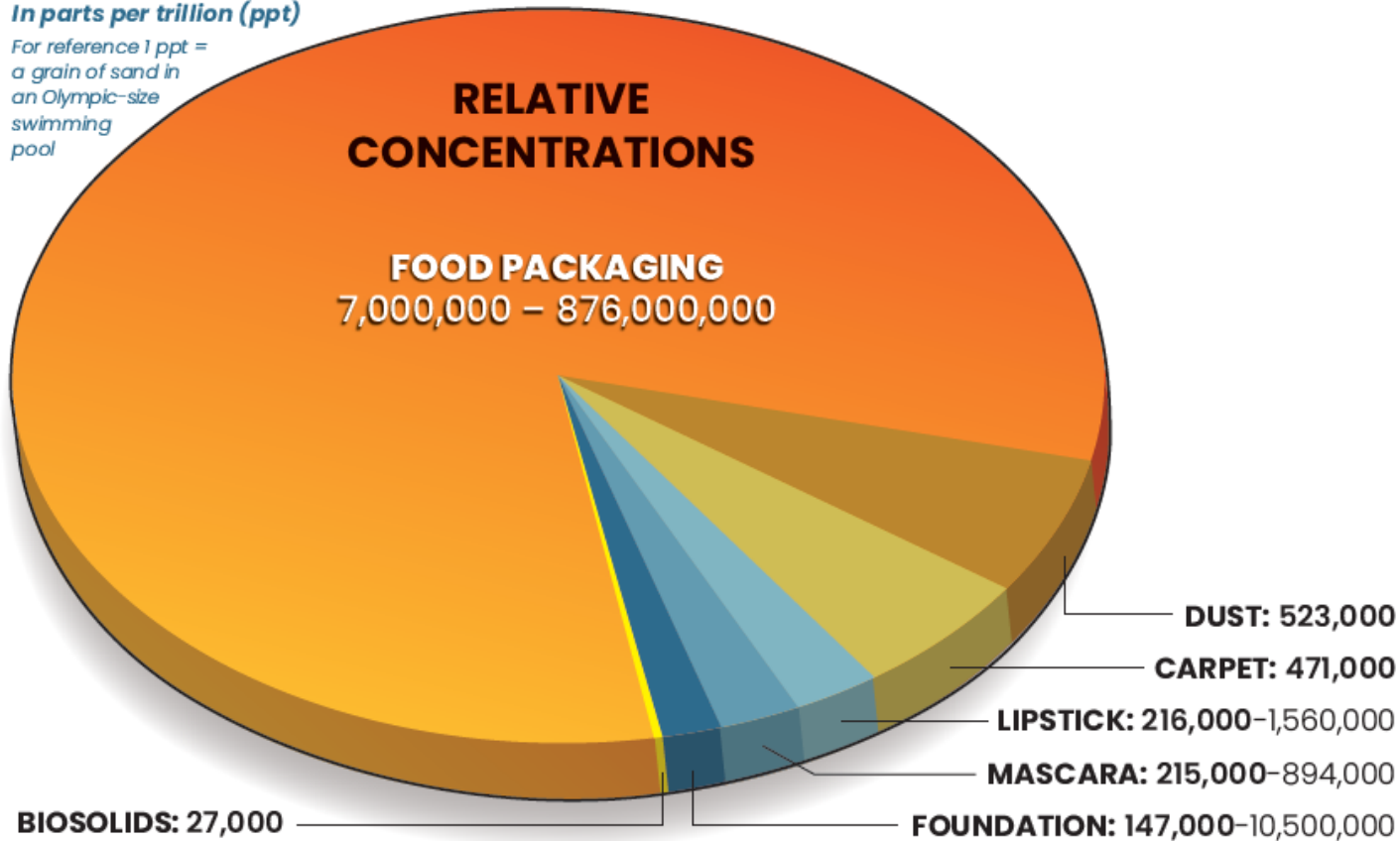
Three direct impacts -

1. Trigger reporting obligations when PFOA or PFOS released above the reportable quantity
2. Obligations on the U.S. Government for transferring certain properties
3. Obligation on DOT to list and regulate CERCLA designated hazardous substances as hazardous materials

# PFAS Relative Concentrations

*In parts per trillion (ppt)*

*For reference 1 ppt =  
a grain of sand in  
an Olympic-size  
swimming  
pool*



PFAS Compound	State	Level
PFOA	Notification Level	5.1 ppt
	Response Level	6.5 ppt
PFOS	Notification Level	10 ppt
	Response Level	40 ppt

# PFOA/PFOS Quantities in District Wastewater Facilities

Treatment Plant	Influent Concentration (PPT)		Effluent Concentration (PPT)		Biosolids Concentration (PPT)		Influent Loads (lbs/day)	Effluent Loads (lbs/day)	Biosolids Loads (lbs/day)
	PFOA	PFOS	PFOA	PFOS	PFOA	PFOS	PFOA+PFOS	PFOA+PFOS	PFOA+PFOS
RWRF	14-17	7.5-19	15-20	1.3-8.5	7,600 - 18,000	8,500 - 10,000	0.0019	0.0015	0.0006
RRCWRF	14-25	8-14	19-28	1.3-15	NA	NA	0.0002	0.0002	NA

**Note: Loads based on highest concentrations of sampling events of 2020-2021. Plant flow/biosolids based on max day.**

# Impact of Rule on the District

- The largest facility (Regional Plant) discharges appear to be more than 2 orders of magnitude below the Reportable Quantity
  - RQ = 1 lb/24hr
  - EVMWD = 0.0006 lb/24hr
- Minimal fiscal impacts
  - Testing
  - Reporting
  - Disposal (trucking) costs



# **CASA Response to the EPA Rule (Draft Letter under Review)**

## **Key points in the CASA Draft Response Letter to EPA**

- **The Proposed Rule Without Clear Exclusions for Certain Public Utilities could Subject Local Water/Wastewater Agencies and their Ratepayers to Unwarranted Financial Liability.**
- **Clarifying Exemptions for Water, Wastewater and Biosolids are Essential**
- **It is important to consider the true cost of the proposed designation regardless whether CERCLA section 102(a) does not require such an analysis.**



# THANK YOU



# Joint Water Supply Study

## Board Member Workshop #2

October 18, 2022



# Agenda

- 1. Welcome and Introductions**
- 2. Meeting Objectives**
- 3. Overview of Concept Evaluation**
  - Evaluation process
  - Concept scoring results
- 4. Discussion on Concepts to Advance**
  - Review concepts to advance
  - Get feedback and confirm concepts
- 5. Discussion on Pathway Forward/Next Steps**

# Meeting Objectives

Present results of concept evaluation

Discuss and confirm recommendations

Provide direction on pathway forward

# 13 Concepts Were Evaluated

## A: Ocean Desalination

New Camp  
Pendleton

## D: Brackish Desalination w/ Stormwater Capture

## H: Imported Water

New Water Rights,  
External Surface  
Storage

## K: Imported Water

Wet Year Water, Local  
Groundwater Storage

## B: Ocean Desalination

Planned Doheny

## E: Recycled Water

Direct or Indirect  
Potable

## I: Imported Water

Wet Year Water, New  
Local Surface Storage

## L: Imported Water

Wet Year Water,  
External  
Groundwater Storage

## C: Ocean Desalination

Rosarito, Mexico

## F: Recycled Water

In-Lieu

## J: Imported Water

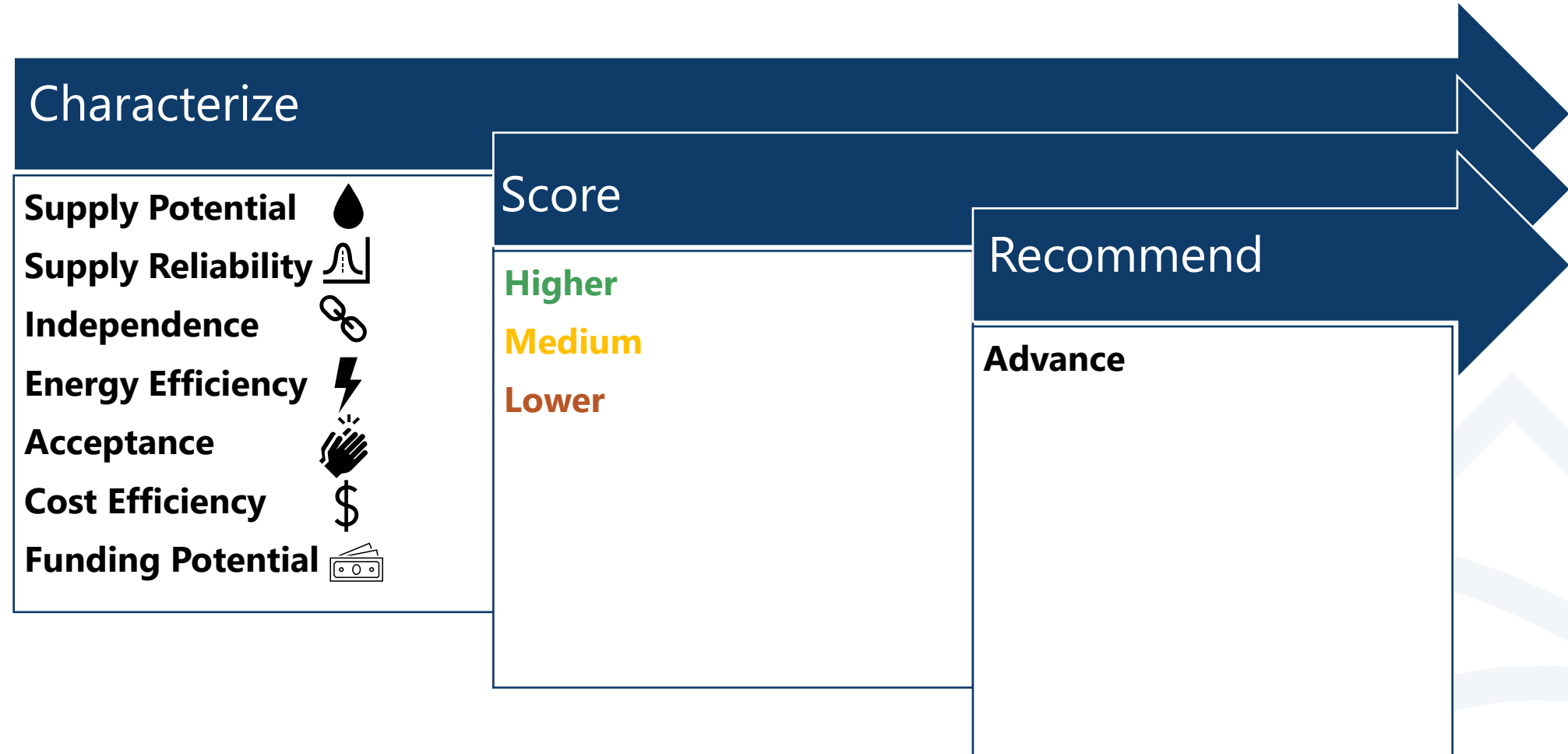
Wet Year Water,  
Existing Local Surface  
Storage

## M: Imported Water

Farm Efficiency,  
Local Storage

## G: Stormwater Capture & Recharge

# Concept Evaluation Process



# Concept Scoring Results

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Ocean Desal - New Camp Pendleton	Ocean Desal - Planned Doheny	Ocean Desal - Rosarito Mexico	Brackish Desal w/ Stormwater	Recycled Water - IPR/DPR	Recycled Water- In-lieu	Stormwater Capture and Recharge	Imported Water - New Water Rights with External Surface Storage	Imported Water - Wet Year Water; New Local Surface Storage	Imported Water - Wet Year Water; Existing Local Surface Storage	Imported Water - Wet Year Water; Local Groundwater Storage	Imported Water - Wet Year Water; External Groundwater Storage	Imported Water - Farm Efficiency; Local Storage
Supply Potential	Green	Orange	Orange	Yellow	Yellow	Orange	Yellow	unknown	unknown	unknown	unknown	unknown	unknown
Supply Reliability	Green	Green	Green	Yellow	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Independence	Green	Yellow	Orange	Green	Green	Yellow	Yellow	Yellow	Green	Green	Green	Yellow	Orange
Energy Efficiency	Orange	Orange	Orange	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green
Acceptance	Yellow	Yellow	Orange	Green	Yellow	Green	Green	Yellow	Yellow	Green	Green	Yellow	Yellow
Cost Efficiency	Yellow	Yellow	Orange	Yellow	Green	Green	Green	Yellow	Yellow	Green	Green	Yellow	Green
Funding Potential	Yellow	Yellow	Orange	Green	Green	Yellow	Green	Orange	Orange	Yellow	Green	Orange	Yellow



# 3 Concepts are Recommended for Further Refinement

## Ocean Desalination

New Camp  
Pendleton








## Stormwater Capture & Recharge

## Imported Water

Wet Year Water, Local  
Groundwater Storage


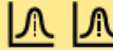





# Ocean Desalination – New Camp Pendleton

- ▶ Ocean desal is the largest source of new water available.
- ▶ This is the best ocean desal concept for a regional partnership to enhance supply reliability, supply potential and independence.

<p>A new ocean desalination plant (~50mgd) located on or near Marine Corps Base Camp Pendleton (Oceanside, CA) as well as a 30-mile pipeline (and associated facilities) to convey year-round, new supply to the Joint Agency's combined service area.</p> <p><b>Timing: Long-term</b></p>	<p><b>Supply Potential</b> </p> <p>Given that this is a new ocean desalination facility the supply potential is essentially limitless. For the purposes of this study, it is assumed that the concept will produce 50,000 AFY which is comparable to similar projects.</p>
<p><b>Supply Reliability</b> </p> <p>Ocean desalination provides a new, year-round supply that is not impacted by seasonal, annual nor long-term hydrologic and availability fluctuations.</p>	<p><b>Independence</b> </p> <p>By constructing, owning and operating all facilities, the Joint Agencies will have maximum control over supplies. Since water can be provided directly as-needed, no storage is needed to preserve supply for drought.</p>
<p><b>Energy Efficiency</b> </p> <p>The process of desalinating ocean water is highly energy intensive. Long-range conveyance of the supply will also require significant pumping adding to the energy consumption.</p>	<p><b>Acceptance</b> </p> <p>Given the recent Coastal Commission denial of a final permit for a desalination plant in Huntington Beach, the current climate for desalination plant is not favorable. However, given the recently released Water Supply Strategy by Governor Newsom, there could be incentives for coastal desalination projects in the future.</p>
<p><b>Cost Efficiency</b> </p> <p>Costs are comparable to other large-scale projects that would bring next tier new water to the area, but higher than further development of local supplies.</p> <p><b>Cost Range: \$2,500-3,000/AF</b></p>	<p><b>Funding Potential</b> </p> <p>Current funding programs do not favor desalination as they are focused primarily on maximizing local supplies that bring multiple other benefits beyond supply. Funding has also been focused on disadvantaged communities. However, there may be future funding for large-scale new water projects in response to Governor's Strategy. <b>Other #i</b></p>

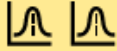





# Stormwater Capture & Recharge

- ▶ Stormwater provides a low cost, energy efficient, locally controlled supply.
- ▶ This concept builds upon an existing project idea and would receive strong funding and regulatory support.

<p>Concept would be to construct a rubber dam to capture excess wet weather flows on Santa Ana River to capture and divert additional flows downstream of existing diversions. Flows would be used for groundwater recharge and storage in Riverside North basin or SBBA.</p> <p><b>Timing: Short-term</b></p>	<p><b>Supply Potential</b> </p> <p>Potential supplies of up to 15,000 AFY and may vary based on water rights and further supply availability analysis.</p>
<p><b>Supply Reliability</b> </p> <p>Reliability is dependent on wet weather flows in the region. Supply reliability could also be impacted by water rights determinations.</p>	<p><b>Independence</b> </p> <p>Facilities would be owned and operated within the region. However, the project would also rely on the US Army Corps of Engineers and other external agencies for operations and supply availability.</p>
<p><b>Energy Efficiency</b> </p> <p>Locally captured and stored water is among the most energy-efficient supply options available. Conveyance and treatment would be minimal as it is a local high-quality supply. Production of supply would be similar to existing groundwater energy use.</p>	<p><b>Acceptance</b> </p> <p>Stormwater capture and recharge projects are promoted at the State level and generally viewed by public as an obvious supply to be tapped. Water rights could become an issue in the future but should be able to be resolved.</p>
<p><b>Cost Efficiency</b> </p> <p>Unit costs for locally captured stormwater and storage in groundwater basins are at the lowest end of the supply study concepts.</p> <p><b>Cost Range: ~\$1,000/AF</b></p>	<p><b>Funding Potential</b> </p> <p>Multiple funding opportunities currently exist for a variety of stormwater capture and groundwater recharge/storage projects.</p> <p style="text-align: right;"><b>Other #i</b></p>

# Imported Water – Wet Year Water with Local Groundwater Storage

- ▶ All imported water concepts rely upon an unknown future supply potential.
- ▶ This concept prioritizes leveraging local groundwater basins as the best form of storage before considering other storage options.

<p>Purchase wet year imported water supply from MWD and establish an agreement among Joint Agencies to store water in a local groundwater basin, either through expansion of SARCCUP program and/or leverage existing local groundwater storage (e.g. Elsinore or Temecula Valley Basin)</p> <p><b>Timing: Short-term to mid-term</b></p>	<p><b>Supply Potential</b></p> <p>Supply potential is variable and would depend on 1) frequency and volume of available wet year imported water supplies, 2) capacity for storage in local groundwater basins, and 3) capacity of groundwater extraction wells.</p>
<p><b>Supply Reliability</b> </p> <p>Supply source is the purchase of extra wet year imported water, which would be stored in existing local groundwater basins and for use in a dry year. While local storage is a plus, the frequency of wet years that provide extra water to the SWP and CRA systems has decreased over the past 10 years.</p>	<p><b>Independence</b> </p> <p>This concept involves establishing and expanding local Joint Agency partnerships to further leverage locally controlled groundwater storage. Cooperative agreements with MWD and potentially other entities for purchase of wet year water supply would be required.</p>
<p><b>Energy Efficiency</b> </p> <p>Energy intensity is likely to be consistent with current conveyance of imported water supplies and production from existing local groundwater basins.</p>	<p><b>Acceptance</b> </p> <p>Maximizing existing local groundwater storage is a common and a generally supported option for water management. The SARCCUP program has already received general support and a high level of acceptance.</p>
<p><b>Cost Efficiency</b> </p> <p>Unit costs are assumed to include the purchase of wet year imported water at standard purchase price, as well as groundwater extraction costs.</p> <p><b>Cost Range: \$1,200-\$2,000</b></p>	<p><b>Funding Potential</b> </p> <p>Maximizing local groundwater storage is a statewide priority, and external funding to support costs associated with expanding local banking capabilities is currently available and likely to continue. The SARCCUP program has already specifically received significant funds.</p>

# Recommended Next Steps

1. Jointly fund the development/determination of refinement steps (w/ budget) for each of the concepts selected to advance
2. Prioritize the selected concepts based on refinement steps, cost, level of effort, and potential return on investment
3. Execute partnership agreement(s) to implement refinement steps for prioritized concept(s)
4. Proceed with refinement steps