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**MINUTES**  
**WATER RESOURCES COMMITTEE**  
**Tuesday, May 2, 2023, at 9:00 a.m.**  
**UNITED WATER CONSERVATION DISTRICT**  
**Boardroom, 1701 N. Lombard Street, Oxnard CA 93030**

**Committee Members Present:**

Daniel Naumann, chair  
Mohammed Hasan, director  
Gordon Kimball, director

**Staff Present:**

Mauricio Guardado, general manager  
Anthony Emmert, assistant general manager  
Brian Zahn, chief financial officer  
Dr. Maryam Bral, chief engineer  
Dan Detmer, water resources manager  
Murray McEachron, principal hydrologist  
John Lindquist, supervising hydrogeologist  
Dr. Zachary Hanson, hydrogeologist  
Daryl Smith, Controller  
Josh Perez, chief human resources officer  
Zachary Plummer, technology systems manager  
Ed Reese, technology systems specialist  
Eva Ibarra, clerk for the Committee  
Vanessa Vasquez, administrative assistant

**Public Present:**

Tony Morgan, DBS&A  
Alden Broome, Guadalupe Mutual Water Company  
Jennifer Tribo, Ventura Water  
David Borchard, FCGMA Director

**Call to Order – Open Session**

Director Nauman called the committee meeting to order at 9:00 a.m. The clerk of the committee called roll. All committee members were present (Naumann, Kimball and Hasan).

**1. Public Comment**

Directors asked if there were any public comments. There were none offered.



**2. Approval of Minutes**

Motion to approve the Minutes from April 04, 2023, Water Resources Committee meeting. Director Naumann; second, Director Hasan. Voice vote: three ayes (Naumann, Kimball, Hasan); none opposed. Motion carries unanimously 3/0.

**3. Annual Investigation and Report of Groundwater Conditions within UWCD**

United Water Conservation District's Hydrogeologist Dr. Zachary Hanson presented the background of the Annual Investigation and Report of Groundwater Conditions covering District surface and groundwater models, annual overdraft, District-wide annual overdraft water balance methodology, a summary of findings for estimated annual values, updated "total of annual overdrafts" and accumulated overdraft (see attached slides).

During Dr. Hanson's presentation (slide six, A Summary of Findings for the Estimated Overdraft Values) Director Hasan shared his admiration for how technical the presentation was and asked how the leakage from the Semi-perched Aquifer to the Oxnard Aquifer was determined. Dr. Hanson explained the calibrated model was used to estimate this flow.

Director Naumann asked why the basins haven't filled up with the current storms that have occurred. Water Resources Manager Dan Detmer answered this question stating that years of seawater intrusion has had a residual impact, and it will take more wet years to push the seawater out.

At the end of Dr. Hanson's presentation Director Nauman then asked General Manager Mauricio Guardado if there was a need to condense the information being provided in the Groundwater Conditions presentation. Mr. Guardado felt that the information being conveyed was necessary.

No further questions or comments were offered.

**4. Annual Supply and Demand Assessment for the Oxnard Hueneme System**

Dr. Hanson presented the Oxnard-Hueneme (OH) system annual supply and demand assessment for the period from July 2023 to June 2024. The presentation included the 2020 Five-Year Planning Update documents submitted June 2021, State Requirements as of 2022, an update on drought conditions, Executive Order N-5-23, Projected Water Supply and upcoming actions.

One member of the public asked about the 3,000 acre-feet of potable water noted (slide 3, 2020 5-year Planning Update Documents Update Submitted June 2021) that is provided indirectly to consumers. Dr. Hanson explained that this is used to define an urban water supplier and serves as a threshold for small system users.

No further questions or comments were offered.

**5. Progress on Planning and Design for New EBB Water Project Monitoring Wells**

Supervising Hydrogeologist John Lindquist presented on the progress and planning for the design for new Extraction Barrier and Brackish (EBB) Water Treatment Project monitoring wells that will cover seawater intrusion near Naval Base Ventura County Point Mugu, EBB Water Phase 1 extraction, existing monitoring wells, planned new monitoring wells, monitoring objectives and current project status.



Director Hasan shared his enthusiasm about the project. Director Naumann then requested a project schedule on the EBB Water Treatment Project.

A member of the public asked about data for the Groundwater Sustainability Plan (GSP). He asked at which point in the evaluation process does basin level impact affect drawdown in the basin. Mr. Lindquist replied that there has been discussion with the Fox Canyon Groundwater Management Agency (FCGMA) and stakeholders on how to achieve sustainability. A mitigation plan for the monitoring wells will be shared with the GMA.

The conversation continued with a member of the public requesting a timeframe for the pilot process and where that process would be in the near future. Mr. Lindquist responded that it would depend on the GMA as they are planning a five-year update of the GSP, and this project would be considered. Discussions could start in the summer and outreach would follow.

A member of the public commented that the five-year update would provide the data necessary to provide input. Mr. Detmer replied that the GMA is going to want information on the timing and scale which would be central to discussion. Mr. Guardado added that the District will work with the GMA to enhance modeling to further help reach sustainability goals. He encouraged the members of the public to be present for any future meetings and be part of the discussion.

#### **6. Update on Water in Storage in Castaic Lake and Releases to Downstream Users**

Principal Hydrologist Murray McEachron presented updates on water storage in Castaic Lake and releases to downstream users that included the original terms of the 1978 agreement.

Director Kimball asked about the June 1 deadline for the appropriation of Article 21 water. Mr. McEachron explained that space at Lake Piru would be required to appropriate the water and discussion continued on how river crossings would limit flow and the necessary flow releases needed.

No further questions or comments offered.

#### **7. Water Resources Department and GSA Activities Update**

Mr. Detmer presented department updates that included basin conditions with baseflows that will fill the basins through Summer and Fall, water diversion this year from the Freeman Diversion to Saticoy basins, City of Oxnard recycled water credit and meeting with City of Oxnard before approaching GMA and better water quality. He also added that staff have worked with managing release sediment issues and flushing.

A member of the public asked about Forebay storage capacity before this winter's rain. Mr. Detmer replied that available storage in the Forebay was estimated to be 120,000 acre-feet at the end of the last water year. Due to continuing flows in the Santa Clara River, the Forebay will continue to be replenished throughout the year.

A member of the public then asked about Article 21 water. Mr. Guardado responded that staff is working internally on an extension of the deadline for storing Article 21 water in State reservoirs. Discussions on releasing water from Castaic Lake have taken place and Lake Piru continues spilling. A new plan is being implemented in order to ensure all the water is being captured. A member of



## UWCD Water Resources Committee MINUTES

May 2, 2023

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the public suggested that if the District doesn't have the capacity for Article 21 water, they could send that water to Metropolitan Water District. Mr. Guardado replied that all opportunities to secure these agreements would be explored rather than losing out on them. Article 21 only allows the option to either obtain the water or leave it to the state for appropriation.

Discussion amongst the committee then ensued on sustainability objectives, dealing with sediment in diverted water and increasing diversions. This then led to plans to celebrate an upcoming accomplishment for the District in reaching 4-million-acre feet of water diverted.

The members of the public expressed their appreciation for staff's hard work.

No additional comments or questions were offered.

### **FUTURE AGENDA ITEMS**

No future agenda items. No questions or comments offered.

### **ADJOURNMENT 10:27 a.m.**

Chair Naumann adjourned the meeting at 10:27 a.m.

I certify that the above is a true and correct copy of the Minutes of the Water Resources Committee Meeting of May 2, 2023.

ATTEST:

A handwritten signature in blue ink, which appears to read 'Daniel Naumann', is written over a horizontal line.

Daniel Naumann, Chair



## SUMMARY OF THE ANNUAL INVESTIGATION AND REPORT OF GROUNDWATER CONDITIONS WITHIN UNITED WATER CONSERVATION DISTRICT

Water Resources Committee Meeting

May 02, 2023

Presented By: Zachary Hanson, Ph.D., P.E.



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## Annual Investigation and Report Background

- United Water Conservation District is organized and operates pursuant to the **Water Conservation District Law of 1931**, which is set forth in Division 21 of the Water Code.
- “**Water year**” means July 1st of one calendar year to June 30th of the following calendar year.
  - i.e., **Fiscal Year** basis
- Requires annual investigation and report upon the groundwater conditions of the district
  - **Previous Water Year** (July 2021- June 2022)
  - **Current Water Year** (July 2022 – June 2023)
  - **Ensuing Water Year** (July 2023 – June 2024)

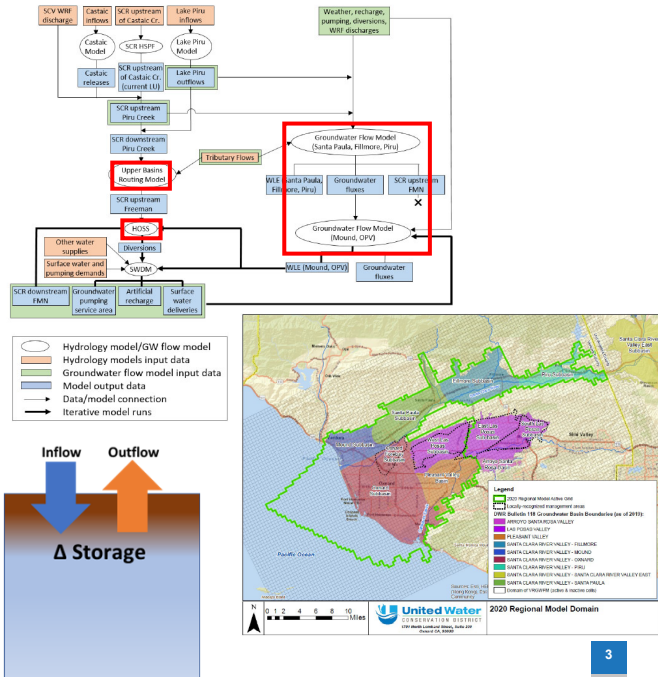


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## Refined Tools

- **District's Up-to-date Upper basins Surface Water Model & HOSS model**  
(**annual update** for previous water year)
  - Streamflow percolation
- **District's Regional GW Model**  
(**1985-2015 averages**)
  - Riparian evapotranspiration
  - Semi-perched aquifer leakage
- **Other Components**  
(**annual update** for previous water year)
  - Artificial recharge
  - Percolated rainfall estimate
  - Groundwater extractions
- **Considerable effort over the past decade(+) to improve numerical tools and understanding**
- **Updated methodology and tools are described in Annual Investigation Appendix**



## Annual Overdraft

- ***“Annual Overdraft” means the amount, determined by the board, by which the production of water from groundwater supplies within the district or any zone or zones thereof during the water year exceeds the natural replenishment of such groundwater supplies in such water year.***  
(Water Code § 75506)
- **Calculated annually, District-wide Annual Overdraft Water Balance**



# District-wide Annual Overdraft Water Balance Methodology

## ▪ District-wide water balance calculation

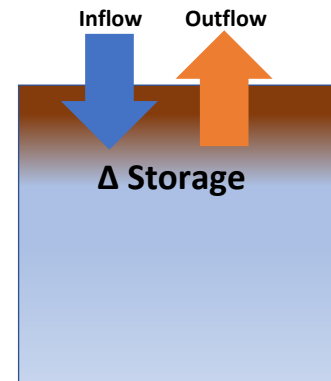
- District Water Balance = Inflows – Outflows

## ▪ Inflows

- Percolated Surface Water (Upper basins, Forebay)
- Artificial Recharge (Upper basins, Forebay)
- Percolated Rainfall (Upper basins, Forebay)
- Return Flow (Ag, M&I) (Upper basins, Forebay)
- Leakage from Semi-Perched (Confined basins)

## ▪ Outflows

- Groundwater Extractions (All Basins)
- Riparian Evapotranspiration (Upper Basins, Forebay)



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# A Summary of Findings for the Estimated Annual Overdraft Values

## ▪ Previous Water Year (July 2021- June 2022): **61,000 AF Overdraft**

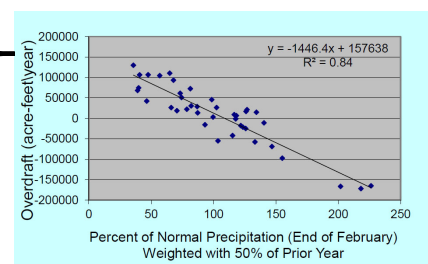
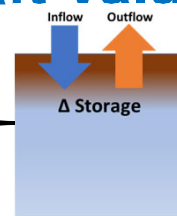
- District-wide Annual Overdraft Water Balance

## ▪ Current Water Year (July 2022 – June 2023): **69,000 AF Surplus**

- Using precipitation through February of the current year (2023), estimation of overdraft is made from regression with past precipitation and overdraft data

## ▪ Ensuing Water Year (July 2023 – June 2024): **0 to 59,100 AF Overdraft**

- Estimated as value between 0 AF and the calculated past 10-year average overdraft

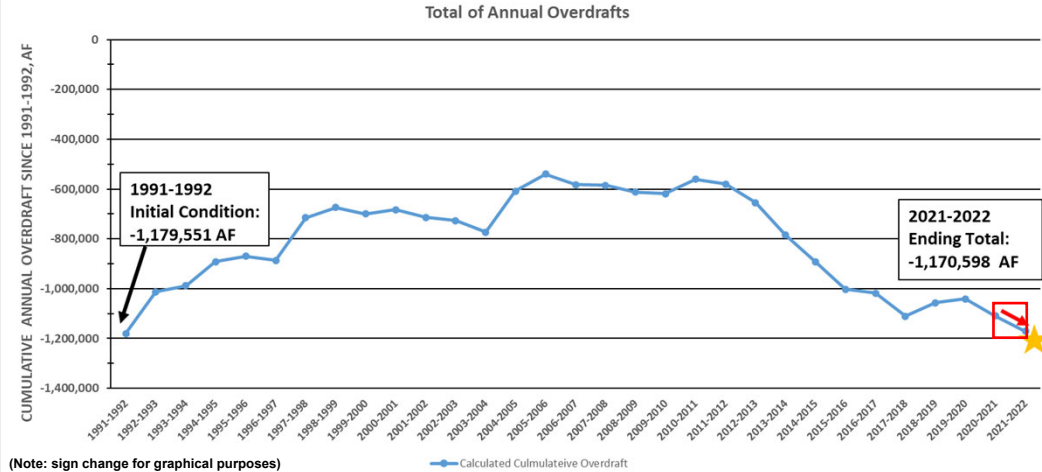


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## Updated “Total of Annual Overdrafts” with Previous Year Appended

- **Previous Water Year** (July 2021- June 2022): **61,000 AF Overdraft**



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## Accumulated Overdraft

- **“Accumulated overdraft”** means the amount of water necessary to be replaced in the intake areas of the groundwater basins within the district or any zone or zones thereof to **prevent the landward movement of salt water into the fresh ground water body, or to prevent subsidence of the land within the district or any zone or zones thereof, as determined by the board from time to time.**  
(Water Code § 75505)



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## Report Available:

<https://www.unitedwater.org/key-documents/#groundwater-conditions>



### *Annual Investigation and Report of Groundwater Conditions Within United Water Conservation District*



*A summary of findings for the previous water year (2021-2022),  
current water year (2022-2023), and ensuing water year (2023-2024)*

**Prepared by  
Water Resources Department**

**UNITED WATER CONSERVATION DISTRICT**

**March 2023**

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## Questions?



Cover Photo: Santa Felicia Dam Spillway  
Photo by John Carman, March 22, 2023

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## OXNARD-HUENEME SYSTEM ANNUAL SUPPLY AND DEMAND ASSESSMENT COVERING: JULY 2023 TO JUNE 2024

Water Resources Committee Meeting  
May 02, 2023

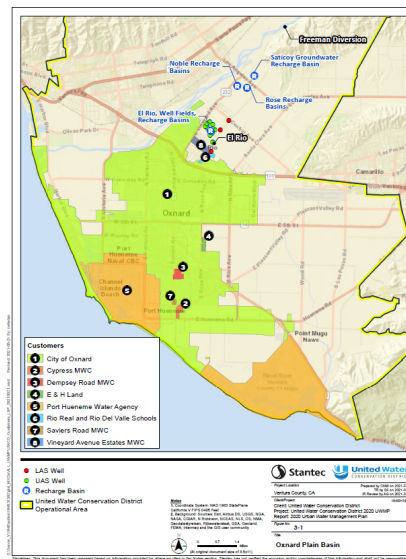
Presented By: Zachary Hanson, Ph.D., P.E.



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## The Oxnard Hueneme System

- Designed in the early 1950s to move pumping away from coastal areas where seawater intrusion was recognized as a serious problem
- Largest customers are the City of Oxnard and the Port Hueneme Water Agency

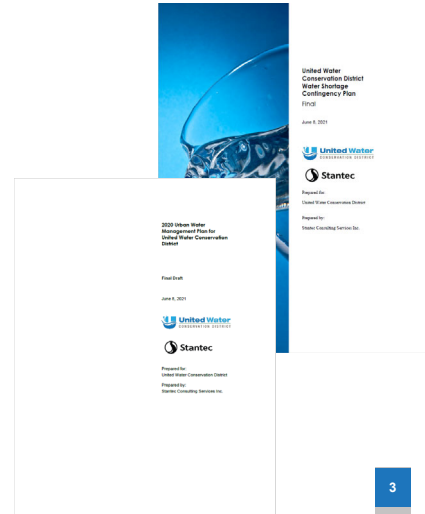


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## 2020 5-year Planning Update Documents Submitted June 2021

- UWCD is a “wholesale urban water supplier,” providing 3,000+ acre-feet of potable water indirectly to consumers
- **2020 Urban Water Management Plan (UWMP)**
  - 5-year update document
- **Water Shortage Contingency Plan (WSCP)**
  - Flexible, living document
- **Both documents were approved by DWR in May 2022**



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## State Requirement as of 2022: Annual Supply and Demand Assessment

- **Reporting due on or before July 1**
- **DWR finalizing updated resources for annual reporting for this year**
  - Guidelines became available April 20, 2022
  - Updates to online submittal portal expected to be available ~May 10, 2023
- **Annual Assessment OH System Projections**
  - Reporting period = July 1, 2023 to June 30, 2024
  - **Supply = Demand = Full allocation (14,337 AF)**



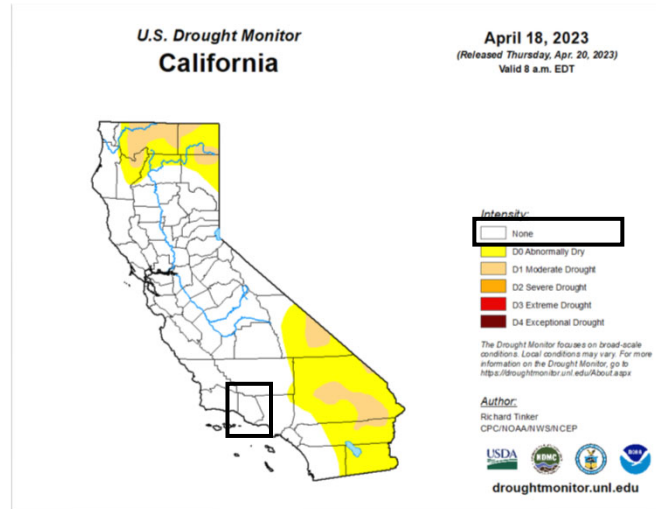
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## Drought Conditions Update

- **Ventura County continues to be included in State of Emergency related to drought**

- Proclamation of State of Emergency issued by Governor Newsom on **October 19, 2021**
- **Although wetter conditions this winter**, all 58 counties are retaining state of emergency designations to allow for drought response and recovery efforts



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## Executive Order N-5-23 on March 24, 2023

- **Ends** the voluntary 15% water conservation target, while **continuing** to encourage that Californians make conservation a way of life;
- **Ends** the requirement that local water agencies implement level 2 of their drought contingency plans;
- **Maintains** the ban on wasteful water uses, such as watering ornamental grass on commercial properties;
- **Preserves** all current emergency orders focused on groundwater supply, where the effects of the multi-year drought continue to be devastating;
- **Retains** a state of emergency for all 58 counties to allow for drought response and recovery efforts to continue
- (Press Release) <https://www.gov.ca.gov/2023/03/24/governor-newsom-eases-drought-restrictions/>
- (Document) <https://www.gov.ca.gov/wp-content/uploads/2023/03/3.24.23-Drought-update-executive-order.pdf?emrc=44334c>



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## Projected Supply, July 2023 – June 2024

- **Full allocation (14,337 AF) projected to be available**
- **No changes regarding FCGMA allocation from last year:**
  - Many parties support the development of new water supply projects to continue farming and support pumping for M&I uses
  - United and others are working to model and implement new projects and basin strategies in order to avoid the significant pumping reductions modeled in the GSP for the Oxnard basin



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## No Major Actions, July 2023 – June 2024

- **Full allocation (14,337 AF) projected to be demanded**
- **No shortage expected**
  - Shortage = Supply – Demands
  - Shortage = 14,337 AF – 14,337 AF = 0 AF
- **Minor actions planned**
  - Inform OH User's of regulatory changes and the projected availability of full allocation
  - Remind small water systems and schools of upcoming regulatory requirements for drought planning (Senate Bill 552)



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## Next Steps

- **Review** DWR Annual Assessment Informational Update planned for May 12, 2023
- **Present** to OH Users at Upcoming Users' Meeting on May 16, 2023
  - Support any follow-up discussions with OH Users regarding Executive Order N-5-23 updates and/or locating Senate Bill 552 (small systems planning) resources
- **Submit final** annual supply and demand assessment report to DWR by July 1, 2023
- **Post** final annual supply and demand assessment report to UWCD website following submission to DWR
  - <https://www.unitedwater.org/key-documents/#water-supply>



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## Questions?



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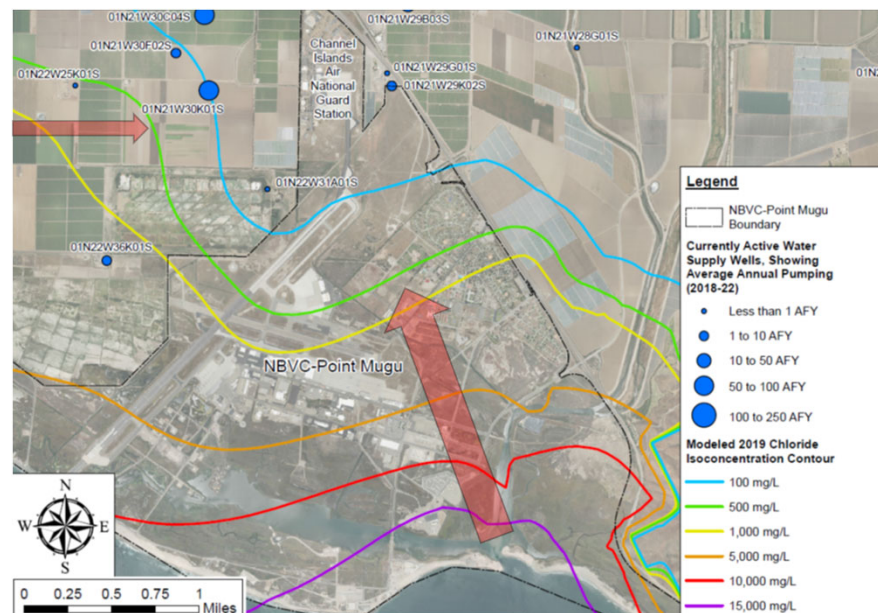
## 5. PROGRESS ON PLANNING AND DESIGN FOR NEW EBB WATER GROUNDWATER MONITORING WELLS

Presented by: John Lindquist, Supervising Hydrogeologist  
Water Resources Committee Meeting  
May 2, 2023



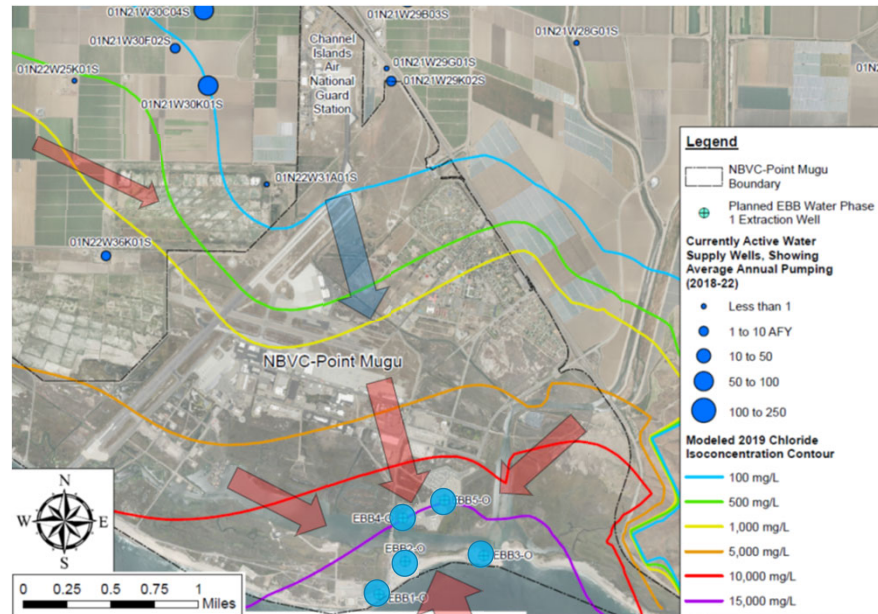
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## Seawater Intrusion Near NBVC-Pt. Mugu Today



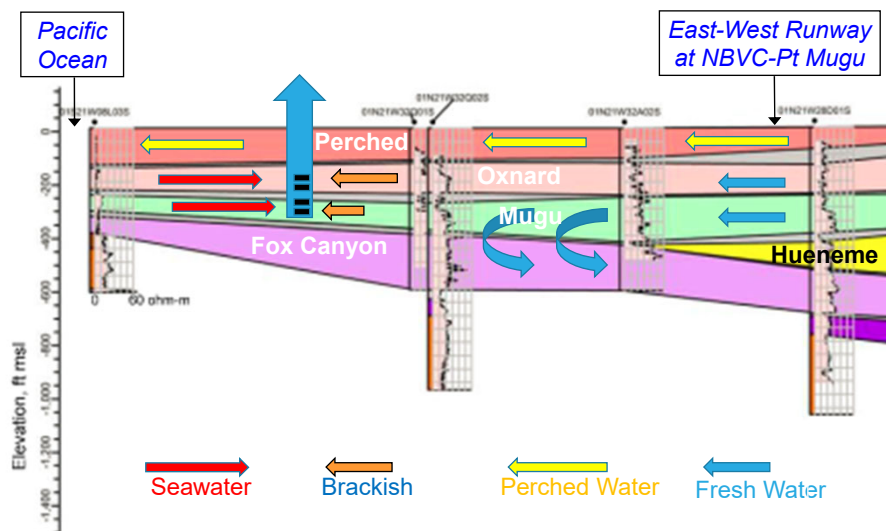
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## EBB Water Phase 1 Extraction



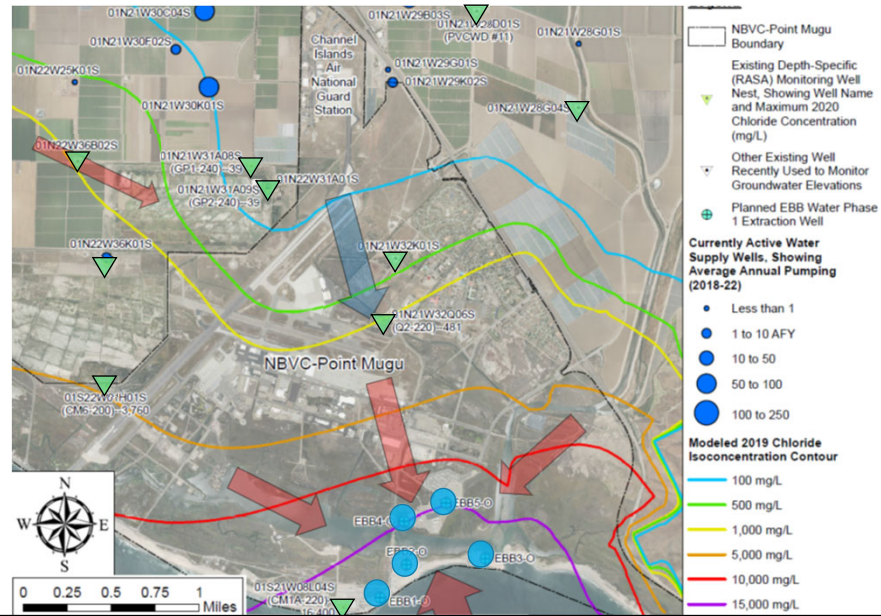
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## It's Even More Complicated than the Map View



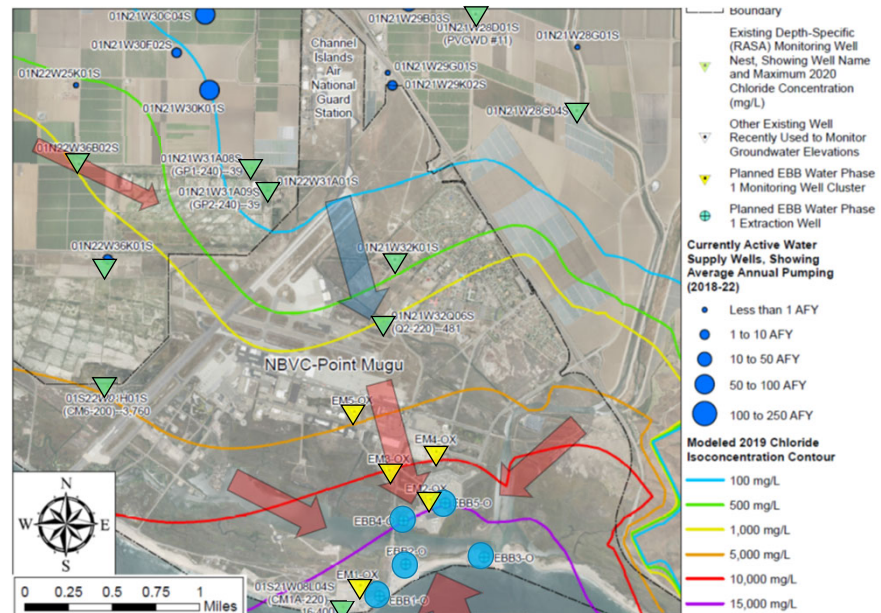
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## Existing Monitoring Wells



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## Planned New Monitoring Wells



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## Monitoring Objectives

### Initial—provide more data to inform EBB Water design

- Improve **local** understanding of hydraulic conductivities (horizontal and vertical)
- Provide **local** geochemical information
- Establish baseline groundwater level and quality information before EBB Water begins operation

### Longer-term—confirm EBB Water is working as expected

- Verify modeled groundwater elevations and gradients
- Not drawing in fresh groundwater earlier than anticipated
- Detect potential problems (e.g., unexpected constituents) **before** they reach the extraction wells



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## Current Status

- Progress to date:
  - We know where and to what depth we would like the new monitoring wells
  - Navy working on monitoring well license amendment
- Schedule:
  - Staff will recommend a design and construction oversight consultant to your Board in June
  - Plan to install wells in late 2023 through early 2024
- Budget:
  - \$1.3 million from SGM grant, \$0.9 million from United
  - At this time, no budget overruns forecasted
    - The most expensive budget items (monitoring wells) have yet to be bid
    - Number and depths of planned wells can be adjusted to stay within budget



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| **Questions?**





## Update on Water in Storage in Castaic Lake and Releases to the Downstream Users

by Murray McEachron  
5/2/2023



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### Original Terms of the 1978 agreement:

- When inflows to Castaic Lake exceed 100 CFS the DWU's may request that DWR stores all runoff
- The stored water can later be released from Castaic Lake at a prescribe rate and duration designed to maximize percolation in the downstream aquifers.
- If the stored water is not released by May 1 of each year, then the water is appropriated by DWR.

	NATURAL INFLOWS AC-FT	Releases to match Inflow (not stored water releases)	Stored water release (mostly flood flows) AC-FT	Appropriate By DWR AC-FT
1998	96,972	49,193	0	47,779
1999	8,611	8,373	238	0
2000	8,419	4,309	4,110	0
2001	13,778	5,799	7,979	0
2002	720	720	0	0
2003	4,336	3,082	1,254	0
2004	1,934	1,067	867	0
2005	133,811	93,413	0	40,398
2006	17,735	9,314	8,421	0
2007	1,042	1,042	0	0
2008	13,155	4,514	8,641	0
2009	4,099	3,062	1,037	0
2010	14,916	4,716	10,200	0
2011	20,805	9,805	11,000	0
2012	1,423	1,423	0	0
2013	188	188	0	0
2014	3,166	3,166	0	0
2015	279	279	0	0
2016	713	713	0	0
2017	12,219	7,219	5000	0
2018	1,322	1,322	0	0
2019			15,000+-	0
Averages	17,126	10,129	3,352	4,008

2023 Total Flood Flows released to date:  
26,100 AF

2023 Total Flood Flows Release to the end of  
May: 55,700 AF

2