



Board of Directors
Daniel C. Naumann, President
Michael W. Mobley, Vice President
Bruce E. Dandy, Secretary/Treasurer
Sheldon G. Berger
Robert Eranio
Lynn E. Maulhardt
Edwin T. McFadden III

General Manager
Mauricio E. Guardado, Jr.

Legal Counsel
David D. Boyer

MINUTES
REGULAR BOARD MEETING

Wednesday, December 11, 2019, 12:00 P.M.
Board Room, UWCD G.I. "Irv" Wilde Headquarters
106 North 8th Street, Santa Paula, California

Directors Present

Daniel C. Naumann, President
Michael W. Mobley, Vice President
Bruce E. Dandy, Secretary/Treasurer
Sheldon G. Berger, Director
Robert Eranio, Director
Lynn E. Maulhardt, Director
Edwin T. McFadden III, Director

Staff Present

Mauricio E. Guardado, General Manager
David D. Boyer, Legal Counsel
Saparna Pina, Legal Counsel
Anthony Emmert, Assistant General Manager
Robert C. Siemak, Assistant General Manager
Dr. Maryam Bral, Chief Engineer
Brian Collins, Operations and Maintenance Manager
Erin Gorospe, Controller
Joseph Jereb, Chief Financial Officer
Josh Perez, Human Resources Manager
Clayton Strahan, Chief Park Ranger
John Carman, Chief Water Treatment Operator
Dan Detmer, Supervising Hydrogeologist
Tony Huynh, Safety and Security Program Coordinator
Evan Lashly, Associate Ecologist
Tessa Lenz, Assistant Ecologist
Randall McInvale, Assistant Ecologist
Linda Purpus, Senior Environmental Scientist
Kris Sofley, Clerk of the Board

Public Present

Jeanette Lombardo, CA Women in Agriculture
Aubrey Mescher, Rincon Consultants
Tony Morgan, Daniel B. Stephens & Associates
Monica Nueng, Ventura Water

1. FIRST OPEN SESSION 12:00 P.M.

President Naumann called the meeting to order at 12noon and asked Legal Counsel to identify the discussions for Executive (Closed) Session.

Director Boyer reported that the Directors would discuss real property negotiations; four cases of existing litigation – three with the City of San Buenaventura and one with Wishtoyo Foundation; and three cases of potential litigation.

**1.1 Public Comments
Information Item**

President Naumann asked if anyone would like to make a public comment or address the Board. No comments were offered.

1.2 EXECUTIVE (CLOSED) SESSION 12:03 P.M.

President Naumann adjourned the meeting into Executive (Closed) Session at 12:03p.m.

2. SECOND OPEN SESSION AND CALL TO ORDER 1:10 P.M.

President Naumann called the second open session of the meeting to order at 1:10p.m.

2.1 Pledge of Allegiance

President Naumann asked Director Eranio to lead everyone in the Pledge of Allegiance.

**2.2 Public Comment
Information Item**

President Naumann asked if there were any comments from the members of the public present. None were offered.

**2.3 Approval of Agenda
Motion**

President Naumann as the General Manager if there were any changes or deletions to the agenda. Mr. Guardado reported that the agenda had not been changed or amended.

Motion to approve the agenda, Director Mobley; Second, Director McFadden. Voice vote: seven ayes (Berger, Dandy, Eranio, Maulhardt, McFadden, Mobley, Naumann); none opposed. Motion carries unanimously 7/0.

**2.4 Oral Report Regarding Executive (Closed) Session
Information Item**

President Naumann asked District Legal Counsel David D. Boyer to please report out of Executive (Closed) Session.

Mr. Boyer reported that the Board took no action during Executive Session that would be reportable under the Brown Act.

2.5 Board Communication

Information Item

Director Berger reported that he had attended a meeting with the General Manager, the AWA WaterWise Breakfast with the Three GMs presentations, the UWCD Finance Committee meeting yesterday and would be attending the AWA Holiday event tomorrow evening at the new UWCD headquarters.

Director Eranio reported that he had attended the UWCD Groundwater Committee meeting, an AWA Water Issues committee meeting, attended Captain Chism's Christmas Party at the Bard Mansion and that Captain King had retired from Naval Base Port Hueneme. He added that he ran into the District's former legal counsel, now the Mayor of Camarillo, Tony Trembley and Mayor Will Berg of Port Hueneme.

Director Dandy reported his participation at the UWCD Board meeting of November 13, the UWCD Finance Committee meeting of November 12 and the AWA WaterWise Breakfast on November 21. He also attended the AWA Water Issues committee meeting on the 19th and, with President Naumann, attended the Casitas Tour and the Oxnard Chamber meeting on the 18th, at which Mike Flood was the guest speaker and he was happy to see Mr. Guardado, Mr. Siemak and Mr. Emmert in attendance as well. He then reported on the various session he attended as part of the 2019 Fall ACWA Conference in San Diego.

Director McFadden reported his participation at the UWCD Board meeting on November 13, the FPBGSA ad hoc community meetings on the 18th and 25th and the GSA's Board meeting on the 21st, at which time the Agency's draft Guiding Principles were adopted by the Board. He also attended the UWCD Groundwater Committee meeting in November and would be at the FPBGSA meeting on December 19.

Director Maulhardt reported that he had been out of the country for most of November and therefore had nothing to report.

Director Mobley reported participating in the UWCD Finance Committee meeting yesterday and the UWCD Groundwater Committee meeting on November 26. He also participated in the Fox Canyon GMA Special Board meeting on the 13th including a special Closed Session at 11am. He would also be attending the Mound Basin GSA Board meeting on December 19. He also reported that he attended the Association of California Water Agencies (ACWA) Conference in San Diego and felt that although the District's problems may seem challenging, they are really nothing compared to what other agencies are going through up north, with the fallowing of land and severe reductions in water consumption, causing many farmers to just walk away from their fields. He said that many of the agencies were

way behind on the development of Groundwater Sustainability Plans and believes that UWCD has had a positive impact and offered good solutions to all of the water users of Ventura County.

President Naumann reiterated that he and Director Dandy had participated in the Casitas Tour and commented on how the agency has to divert water from the Ventura River to fill its lake. He also said the debris flows resulting from the Thomas Fire also had a negative impact on the area. He reported attending the Oxnard Chamber meeting to hear Mike Flood and attended many interesting sessions during his time at the ACWA event in San Diego. He added that he would be attending the AWA Holiday event on the 12th as well.

2.6 General Manager's Report

Information Item

The General Manager reported that everyone was buzzing at ACWA for the first time in a long time, which he credited to the defeat of SB1, forging partnerships and UWCD being in front of issues and actually being able to influence water policy. He said there was a lot of momentum to continue the District's moves forward and collaborating with others on water policy, all of which contributes to United being much better off in the future. He also reported that the Board members had an opportunity to sit down with Santa Clarita Valley Water Agency directors and continue the discussion of how both agencies can work together on watershed management and State Water issues, and supporting each others' efforts.

2.7 Technology and Security Update

Information Item

Zachary Plummer, IT administrator, provided an update to the Board on the new Office 365 software, its One Drive and web based tools, which include 1 TB of closed storage as well as Access, Excel, One Note, Outlook, Powerpoint, Visco, Word and other programs. Director Maulhardt said that Sharepoint was very user friendly, was much easier to use and had better functionality. Mr. Plummer said that Office 365 has Sharepoint as its backend. Director Berger raised concerns about the Directors being able to access calendars for upcoming events, tours, conferences, et cetera, which Mr. Plummer said was possible if the Directors were using their unitedwater.org email accounts. Then President Naumann complained that email invites are deleted but still show up on his calendar and its very frustrating.

Mr. Guardado said that perhaps those having difficulties should schedule some time with Mr. Plummer so they could learn how to update their mobile devices themselves. Mr. Plummer then continued to discuss the attributes of One Drive and how it simplifies mobile computing.

Director Berger asked if it was possible to be able to interact with the monitors being installed on the Board dais, rather than just using them as a static screen mirroring the projected image. Director Maulhardt agreed that it would be nice to be able to crosscheck presentations with staff reports at the same time. Mr.

Guardado said staff would look into the matter but the main purpose of the monitors on the dais was to insure that Directors could see what was being presented. A number of Directors shared the opinion that as long as the District was investing in the technology, there should be some way for the Directors to have the capability to interact with a device.

Mr. Plummer then turned the presentation over to Tony Huynh, safety and security program coordinator, for an update on the mass notification system that the District is now using. Mr. Huynh said the system was tested during the Maria Fire, being able to send and receive text messages in real time. Pre typed notifications can be stored and then updated and distributed in real-time to all staff, sub groups of specific team members and by geographic area, so messages can be localized. At present, the District is only using the system for emergency notifications, but there are a number of variances to how this tool could be used. Mr. Huynh said that the system was approved by AT&T and Verizon and other agencies for public safety alerts. Mr. Plummer added that it is like a cell phone tower on wheels.

**2.8 Audited FY 2018-19 Comprehensive Annual Financial Report
Information Item**

Gardenia Duran of Rogers, Anderson, Malody and Scott (RAMS) phoned into the meeting to present that Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2019, to the Board. She explained the various sections of the report. She also added that her staff would be available during the transition period as the District selects its new auditing firm. Joseph Jereb addressed the Board saying that he failed to report to the Financial Committee that the District would be looking for a new auditing firm as it was the District's policy to change auditors every five years.

Director Maulhardt added that clean audit results reflect well on staff and gave his complements to the staff and his commitment to continue to provide staff with the tools they need, including an audit team with an independent voice. He added that it's important for Board members to be able to tell constituents of the internal process as well as provide an independent report confirming that the money and numbers are right.

Director Berger said that Fanning and Karrh CPA were interested in rebidding the job as they had been the District's auditors in the past. Mr. Jereb said he was in the process of preparing a request for proposals (RFP) for auditors and would be sure to send the RFP to them.

**2.9 Presentation of Proclamation in Recognition of Director Robert Eranio for
Nearly 20 Years of Service to the District
Ceremonial Item**

President Daniel Naumann read the Proclamation that the Board was presenting to Director Eranio in recognition of his nearly 20 years of service to the District. Dan Detmer also presented Director Eranio with gifts from the staff. Director Eranio

said he wanted to thank District staff for “educating” him during his time on the Board.

2.10 Consider Rescheduling January 2020 Board Meeting

Motion

Motion to reschedule the regular January 2020 Board meeting from January 8, 2020 to January 15, 2020, Director Maulhardt; Second, Director Mobley. Voice vote: seven ayes (Berger, Dandy, Eranio, Maulhardt, McFadden, Mobley, Naumann); none opposed. Motion carries unanimously, 7/0.

3. CONSENT CALENDAR: All matters listed under the Consent Calendar are considered routine by the Board and will be enacted by one motion. There will be no separate discussion of these items unless a Board member pulls an item from the Calendar. Pulled items will be discussed and acted on separately by the Board. Members of the public who want to comment on a Consent Calendar item should do so under Public Comments. (ROLL CALL VOTE REQUIRED)

A. Approval of Minutes

Motion

Approval of the Minutes for the Regular Board Meeting of November 13, 2019.

B. Groundwater Basin Status Reports

Information Item

Receive and file Monthly Hydrologic Conditions Report for the District.

C. Monthly Investment Report

Information Item

Report on the District’s investments and the availability or restriction of these funds. All investments are in compliance with the District’s investment policy, which is reviewed and approved annually by the Board.

Motion to approve the Consent Calendar, Director Maulhardt; Second, Director McFadden. Roll call vote: seven ayes (Berger, Dandy, Eranio, Maulhardt, McFadden, Mobley, Naumann); none opposed. Motion carries unanimously, 7/0.

4. MOTION ITEMS (By Department)

Engineering Department – Maryam Bral

4.1 Resolution 2019-24 CEQA Notice of Exemption and Categorical Exemption Determination for the Iron and Manganese Removal Project at the El Rio Water Treatment Plant and Groundwater Recharge Facility

Motion

Motion to approve Resolution 2019-24, acknowledging the California Environmental Quality Act (CEQA) Notice of Exemption (NOE) form and categorical exemption determination for the Iron and Manganese Treatment project

at the El Rio Water Removal Plant and Groundwater Recharge Facility, allowing staff to file the NOE with the Ventura County Clerk and Recorder's Office, Director Maulhardt; Second, Director Berger. Roll call vote: six ayes (Berger, Eranio, Maulhardt, McFadden, Mobley, Naumann); none opposed; one absent (Dandy). Motion carries unanimously, 6/0/1.

5. PRESENTATIONS AND MONTHLY STAFF REPORTS (By Department)

Park and Recreation Division – Clayton Strahan

5.1 Monthly Park and Recreation Department Report Information Item

Clayton Strahan, Chief Park Ranger, reported on staff's success in attracting a number of different productions – including music videos, commercials, television shows, and feature films, to the Lake Piru Recreation area, generating over \$80,000 in revenue for the year.

Environmental Planning and Conservation Department – Anthony Emmert

5.2 Monthly Environmental Planning and Conservation Department Report Information Item

Staff provided an update on EPC activities for the past month, including ongoing permitting and authorizations for the Freeman Diversion. Ms. Purpus reported that staff had obtained an extension of a permit and authorizations for sediment management and that the HCP was in full throttle, with the next live edit occurring in January and new team member Randall McInvale currently reviewing chapters. Staff is also completing annual reports for submission and is working with NMFS and FERC to define water release triggers and are making significant progress on the fish passage pre-implementation study. Staff is supporting District's efforts on NEPA, FERC's review and reissue of environmental assessment as a biological opinion and FERC licensing to release from Pyramid, working closely with DWR's support for a variance to the limiting language.

5.3 Quagga Mussel Management Efforts Update Information Item

Staff reported working in collaboration with The Nature Conservancy to identify and develop additional monitoring locations. The District's eradication permit is still pending as the District shifts from eradication to monitor and control mode.

Groundwater Department – Maryam Bral

5.4 Monthly Groundwater Department Report Information Item

Mr. Detmer started the Groundwater presentation by reporting four inches of rainfall so far into the new water year. President Naumann asked Mr. Detmer about the amount of available storage within the District and Mr. Detmer said that it was

more difficult to assess storage in other basins but the expansion of the District's groundwater model would help that. He reported that Santa Paula was continuing a downward trend and that most of the Coastal Plain area was below sea level. He said that Mound Basin hasn't experienced any significant changes, and the Oxnard Plain is about 20 feet below sea level and that the District is unable to recharge due to temporary restrictions.

Mr. Detmer reported that the District's groundwater model has been expanded and extended to include most of the Santa Clara River valley, up to and including Fillmore and Piru and that Ventura was using the model for its indirect potable use project. District staff have been running models for the Fox Canyon GMA and City of Ventura and that Dr. Sun is working on launching the Calleguas model project and will also use the groundwater model for the Brackish Water project design.

Reporting on the District's Brackish Water project, Mr. Detmer said that a DWR grant is expected to be awarded in Spring 2020, about \$100,000 grant with a 50 percent match, which has taken about four months to execute and will largely fund staff's efforts to expand the groundwater model effort in that area. He also stated that the U.S. Navy is looking for an alternative water supply so as not to be totally reliant on the OH system and one single pipeline. Navy personnel have proposed a couple of property sites which would meet the needs of the project as proposed, and update meetings are being planned for after the first of the year.

Mr. Detmer said that Oxnard Plain and PV basins remain in critical overdraft and that the Brackish project is a possible alternative to significant pumping reductions proposed in the Draft GSPs for the containment of seawater intrusion. The Oxnard Plain has a number of seawater intrusion sites and seawater continues to move into the basin. The good news, joked Mr. Detmer, is that "there is plenty of brackish water to work with."

Dr. Bral attempted to walk the Board through the details of the project, and explained how using injection barriers, which gets very complicated, and an extraction barrier which is a trough, pumping can continue in the Oxnard aquifers and creates a cone of compression which ultimately can bring additional water supplies into the basins. Brine resulting from the brackish water treatment can be transferred via the existing saline management pipeline or a brine line could be built in Oxnard.

Director Maulhardt said, wells, pumping treatment, the District should have the known quantities of this issue before going down this road. He reminded staff that UWCD is a special district and questioned whether the District had the authority to build and control a long term facility on federal property, and asked if the Commanding Officer had the authority to do this and suggested staff secure legal guidance.

Mr. Guardado said that the main focus of the meeting with the Navy and Captain Chism was to do the background checks, including meeting with the Navy's real

estate department and management; United would lease the property from the Navy; the facility would be built in partnership with the Navy and the various concepts would be developed in a parallel path to determine the best way forward.

Director Maulhardt said the Board needed analysis and answers and that he didn't want to get backed into a corner. He said it was much more than "talking to the Navy," that the folks in D.C. need to be involved for sign off on the project at the Federal level. He asked if there was a budget for the process, a while it was good news about the grant for the groundwater model, the District could be looking at \$200,000 in analysis and that needs to be done hand and hand with the Navy if they are going to be able to sell it to the higher ups.

Mr. Guardado said staff had mapped out a schedule working with the Navy, and were doing the groundwater modeling to support analysis, and were also providing supporting materials and scientific data, working hand and hand with the Navy to stress the multiple benefits of the project.

Director Maulhardt said all of that was encouraging and that staff should begin mapping out sequential events as there is a whole different level of complexity working with the Navy. Staff needs to prepare selling points, define what happens if the Navy decides to close the base and what can be done to encourage Oxnard to refrain from messing with the Oxnard Hueneme pipeline.

Mr. Guardado said that, by working with the Navy, permitting would be less intensive. Director Maulhardt added that the Board was supportive of the concept and asked if Dr. Sun had the technical answers to bring the Navy along or a list of needs – access, approval of the Secretary of Defense, et cetera. President Naumann added that this project has lots of moving parts and he was happy to see key Navy personnel and Mr. Guardado and Mr. Siemak and staff all working diligently on advancing the project. Mr. Guardado added that staff had proposed a schedule of deliverables which was shared with Navy personnel and they had begun delivering on those asks.

Mr. Detmer said that the Fox Canyon GMA did not have an allocation for this project and staff would have to see if they will support the project. Mr. Guardado said that staff took the opportunity to move from talk to movement and that even though it is hard to get things moving, there were a number of things that had to be confirmed before pulling the actual trigger on the project.

Dr. Sun then presented the latest quantitative analysis from the groundwater model based on 5,000 AF, which was the minimum rate to achieve containment of brackish water. Dr. Sun showed the Board the demonstration which had been prepared for the Navy and shown at the last Groundwater Committee meeting. He explained that the Fox Canyon GMA GSP baseline was used as it was most conservative, and didn't reflect pumping reductions or other projects' impact. He reported that with a 70 percent recovery rate, 20 percent new water could be generated from seawater, while retaining more water from the sea to stop intrusion.

Director Maulhardt said inland pressure is controlled and leveraging by unrestricted seawater intrusion. Dr. Sun replied, not exactly, and explained that it was like closing a gate and pumping more inland actually stops the seawater intrusion. Dr. Bral added that the demonstration was presented at the last Groundwater Committee meeting and that Navy personnel were present at that meeting, too. Director Maulhardt then asked about the cost of the membranes and how often they would need to be replaced. Dr. Bral said that the membranes would last between five and seven years, depending on how brackish the water was and what products were used to clean the membranes. She said that brackish water was inland and that seawater was from the ocean. Mr. Guardado added that the preliminary run of the model was just to get the discussion started, then it comes down to costs. He also said that it isn't necessarily what you charge the direct user, but what the costs are across the whole spectrum of the operation. Dr. Bral again reminded the Board that this was all conceptual at this point, assuming 20,000 acre feet per year was the goal and that the land is available, it could be introduced as a modular process starting at 5,000 acre feet as the initial run, to prove the concept, and then could be expanded as the need arises. The Navy is researching which of the three potential locations would be most beneficial and how to discharge the Brine, if it's in the area of the SMP and also looking at Calleguas' criteria for discharge.

President Naumann said this is a deep dive, and he appreciates the depth of information provided and the extent of the conceptual development. He encouraged staff to continue its work with the Navy. Dr. Bral said with all of the analysis, staff is very excited about the project and the collaboration between groundwater modeling and engineering and the Navy. The larger the plant, the most cost effective/efficient the water, and estimates are about \$45 to \$50 million, not including extraction or pipelines. Mr. Detmer added that Captain Chism is leaving the base and wants to solidify the project before his departure.

5.5 Update on Groundwater Sustainability Agencies (GSAs) and Sustainable Groundwater Management Act (SGMA)
Information Item

Mr. Detmer was asked to provide his GSA/SGMA update at another meeting.

Administration Services – Anthony Emmert

5.6 Monthly Administrative Services Department Report – Anthony Emmert
Information Item

The Board received a summary report on Administration Department activities and had no questions or comments.

Engineering Department – Maryam Bral

5.7 Monthly Engineering Department Report
Information Item

The Board received a summary report on various engineering efforts and activities and had no questions or comments

Operations and Maintenance – Brian Collins

**5.8 Monthly Operation and Maintenance Department Report
Information Item**

The Board received a summary report on monthly operations and maintenance of District facilities and had no questions or comments.

6. BOARD OF DIRECTORS READING FILE

7. FUTURE AGENDA ITEMS

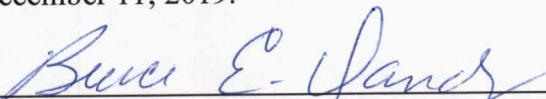
No future agenda topics were offered.

8. ADJOURNMENT 4:32 p.m.


President Naumann adjourned the Board at 4:32p.m. to the **Regular Board Meeting scheduled for Wednesday, January 15, 2020** or call of the President.

I certify that the above is a true and correct copy of the minutes of the Board of Directors meeting of December 11, 2019.

ATTEST:


Bruce E. Dandy, Secretary/Treasurer

ATTEST:


Kris Sofley, Clerk of the Board



United Water

CONSERVATION DISTRICT

MEETING TOOLS

NEW COLLABORATION TECHNOLOGIES AVAILABLE TO UWCD

DECEMBER 11, 2019

OFFICE 365

– or – “Microsoft Cloud”

- What is office 365
 - The latest Office apps, like Word, Excel, PowerPoint, and Outlook.
 - The ability to install on PCs, Macs, tablets, and phones.
 - 1 TB of OneDrive cloud storage.
 - Regular product and feature updates, available at release.

What is Office 365?



What's new in your favorite Office app



Access



Excel



OneNote



Outlook



PowerPoint



Project



Visio



Word



MICROSOFT TEAMS



Host Online Meetings

Use any combo of Audio, Video or a Conference Bridge.



Video Chat

Direct with other staff or conduct web meetings. Internal with Teams users and w\ External Skype user.



Desktop Share

Screen sharing or present your desktop over the web



Share File

Or work on documents together in real time



Chat Rooms

Group Chats and Team Channels for persistent messages and Document Collaboration.



Schedule Teams Based Meetings

Right from Outlook Will append each invite with meeting details



And Even More ways to collaborate

“By ourselves **We** are not able to **Accomplish** much, but as a group **There Is No Limit** to what **We** can **Achieve**. Never underestimate the **Power** of a **Team**.”

ONEDRIVE FOR BUSINESS

- What is OneDrive
- What is it used for
 - Storing, Sync, and Sharing Files
 - Collaborate on Documents
- OneDrive is available on all your devices
- Bonus mobile app
 - Office Lens

What Does OneDrive Offer?



Remote Access



Collaboration



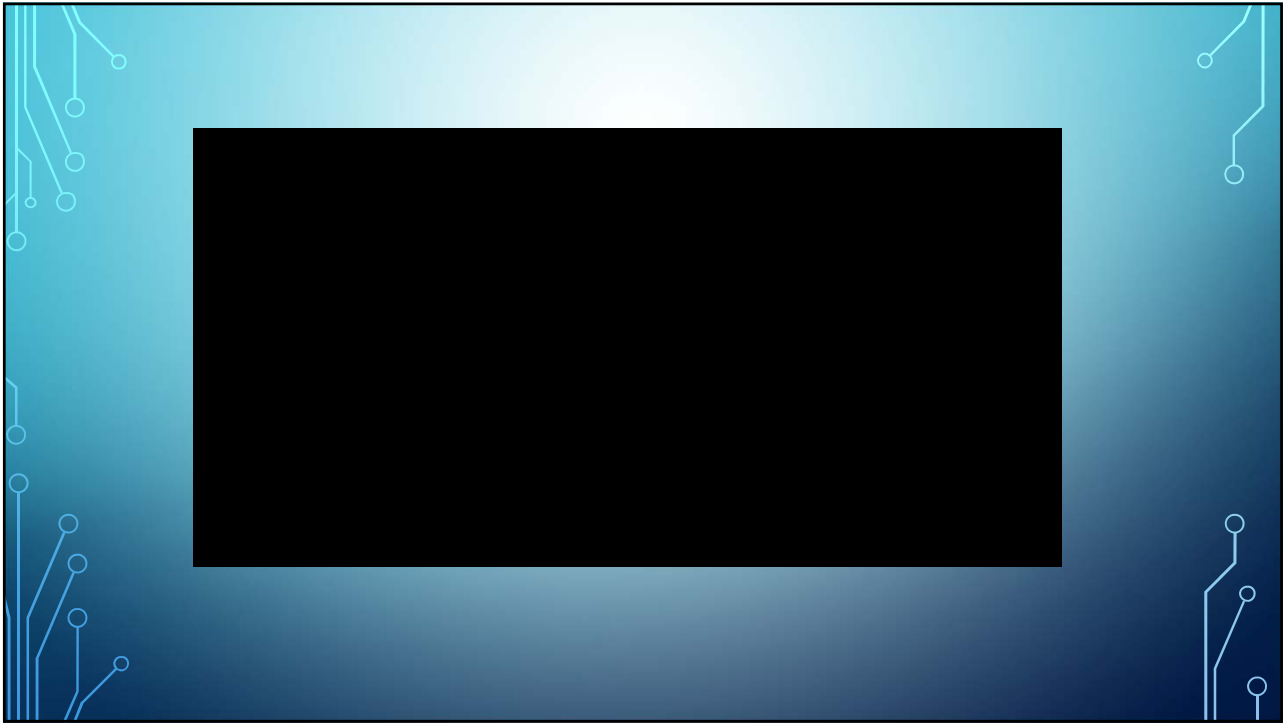
Mobile Access



File Types




Basic Security



MOBILE COMPUTING

- Mobile Computing
 - iPad and Tablet App's
 - Remote Access and Work from Anywhere







United Water


CONSERVATION DISTRICT

MASS NOTIFICATION SYSTEM OVERVIEW

DECEMBER 11, 2019

CALL-EM-ALL

-  Automated text and voice messaging
-  Engage cell phones via mass texting and 1-on-1 conversations
-  Cost: \$35 per month
-  No single point of failure




The screenshot shows the call-em-all website with the headline "Keep people informed when it matters." and a "Get started now for free" button. The website also features a navigation bar with links for Pricing, How It Works, About Us, Resources, Sign In, and Free Trial.



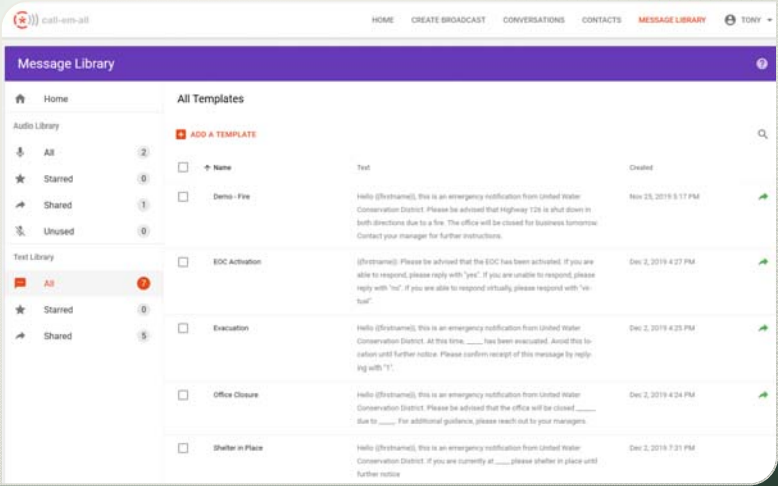
APPLICATIONS

- Evacuations
- Shelter in Place
- Inclement Weather
- Road Closures
- Office Closings



LIBRARY

- Text Library
- Voice Library
- Advantage: Prescript Messaging



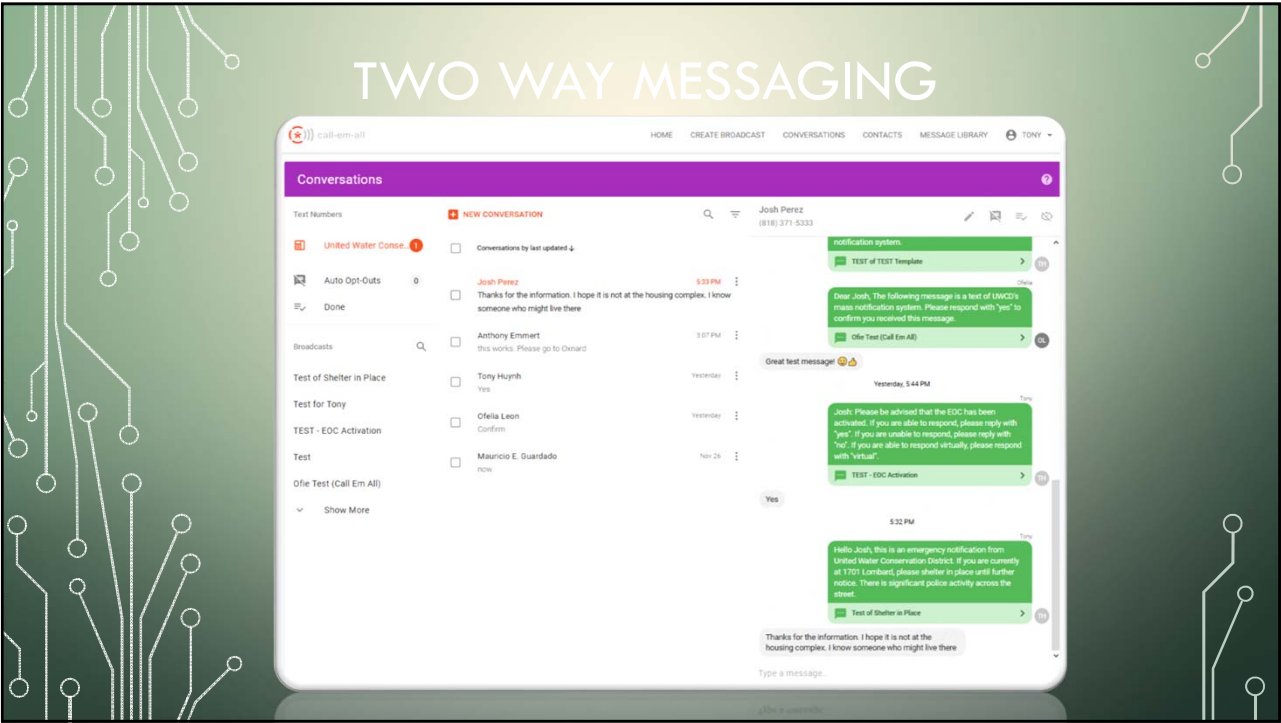
The screenshot shows the 'Message Library' web application. At the top, there is a navigation bar with links: HOME, CREATE BROADCAST, CONVERSATIONS, CONTACTS, MESSAGE LIBRARY, and a user profile for TONY. The main content area is titled 'Message Library' and includes a search icon. On the left, there is a sidebar with 'Audio Library' and 'Text Library' sections. The 'Text Library' section is active, showing a list of templates. The templates include: 'Demo - Fire', 'EOC Activation', 'Evacuation', 'Office Closure', and 'Shelter in Place'. Each template has a checkbox, a name, a description, a date, and a status icon.

Template Name	Description	Date	Status
Demo - Fire	Hello (Firstname), this is an emergency notification from United Water Conservation District. Please be advised that highway 128 is shut down in both directions due to a fire. The office will be closed for business tomorrow. Contact your manager for further instructions.	Nov 25, 2019 9:17 PM	✓
EOC Activation	(Firstname), Please be advised that the EOC has been activated. If you are able to respond, please reply with "yes". If you are unable to respond, please reply with "no". If you are able to respond virtually please respond with "virtual".	Dec 2, 2019 4:27 PM	✓
Evacuation	Hello (Firstname), this is an emergency notification from United Water Conservation District. At this time, _____ has been evacuated. Avoid this location until further notice. Please confirm receipt of this message by replying with "I".	Dec 2, 2019 4:25 PM	✓
Office Closure	Hello (Firstname), this is an emergency notification from United Water Conservation District. Please be advised that the office will be closed _____ due to _____. For additional guidance, please reach out to your managers.	Dec 2, 2019 4:24 PM	✓
Shelter in Place	Hello (Firstname), this is an emergency notification from United Water Conservation District. If you are currently at _____ please shelter in place until further notice.	Dec 2, 2019 7:31 PM	✓

CONTACTS

- By Department
- By Geography
- By Groups

SAMPLE NOTIFICATION











JAY LENO'S GARAGE, BMW & VOLKSWAGEN COMMERCIALS



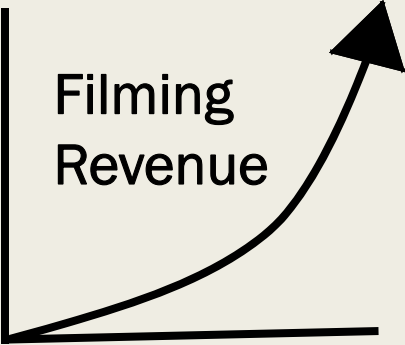
NETFLIX'S BABYSITTER 2



BABYSITTER 2 STUNTS

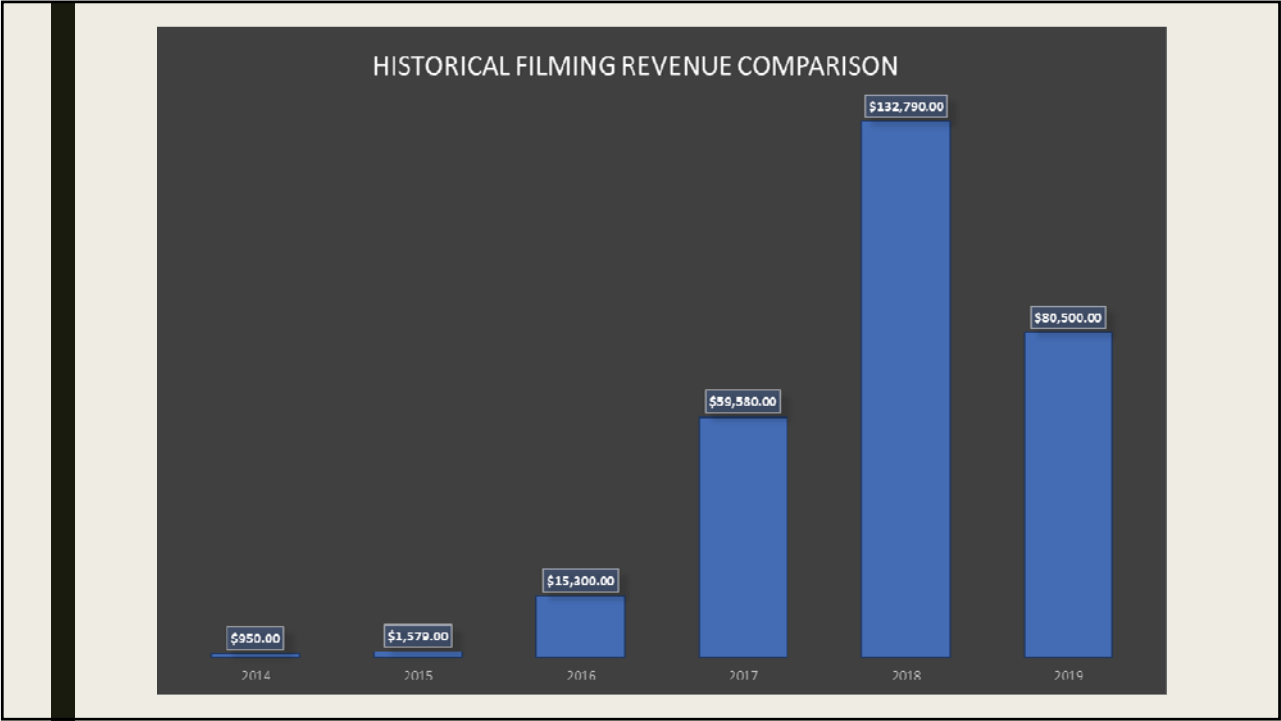


Lake Piru
2019 Filming Revenue to Date:

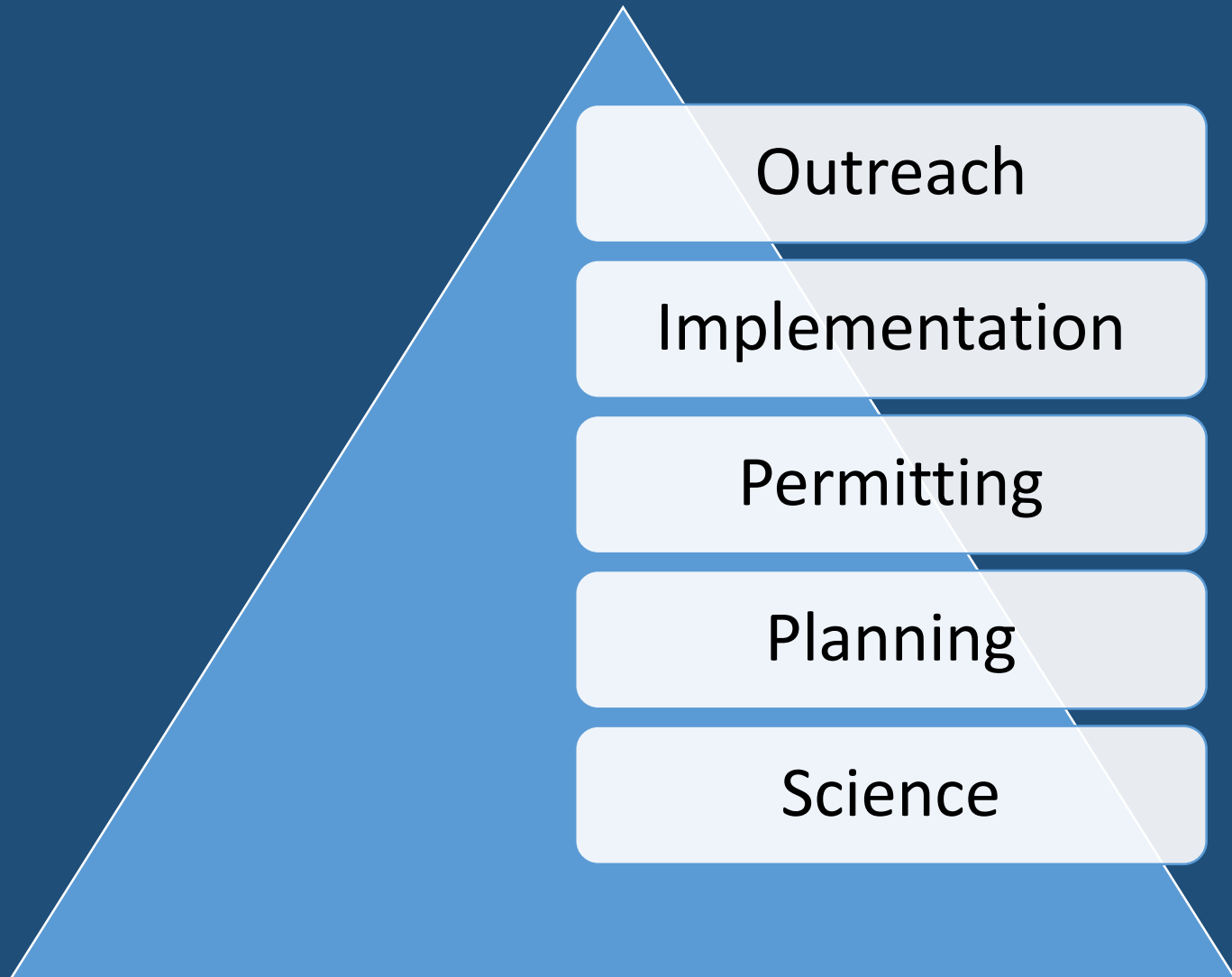


Filming
Revenue

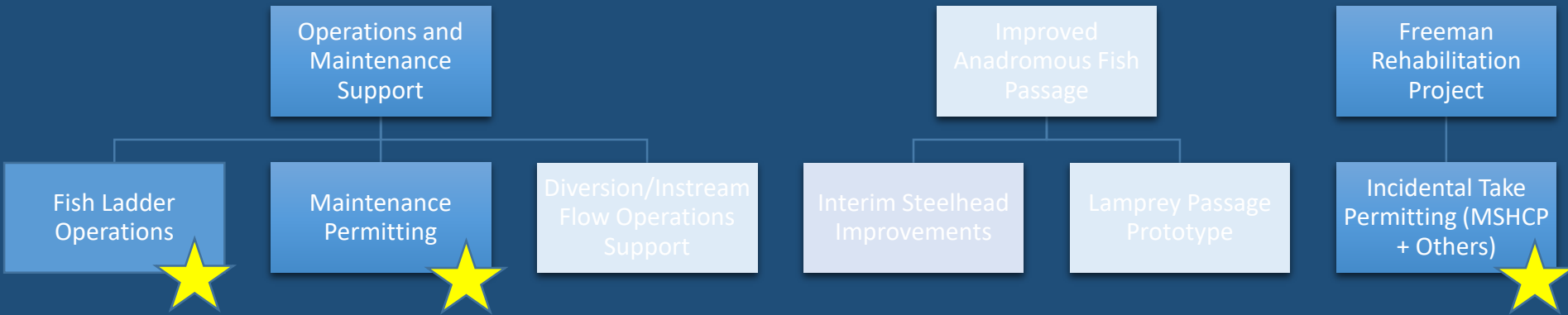
\$80,500



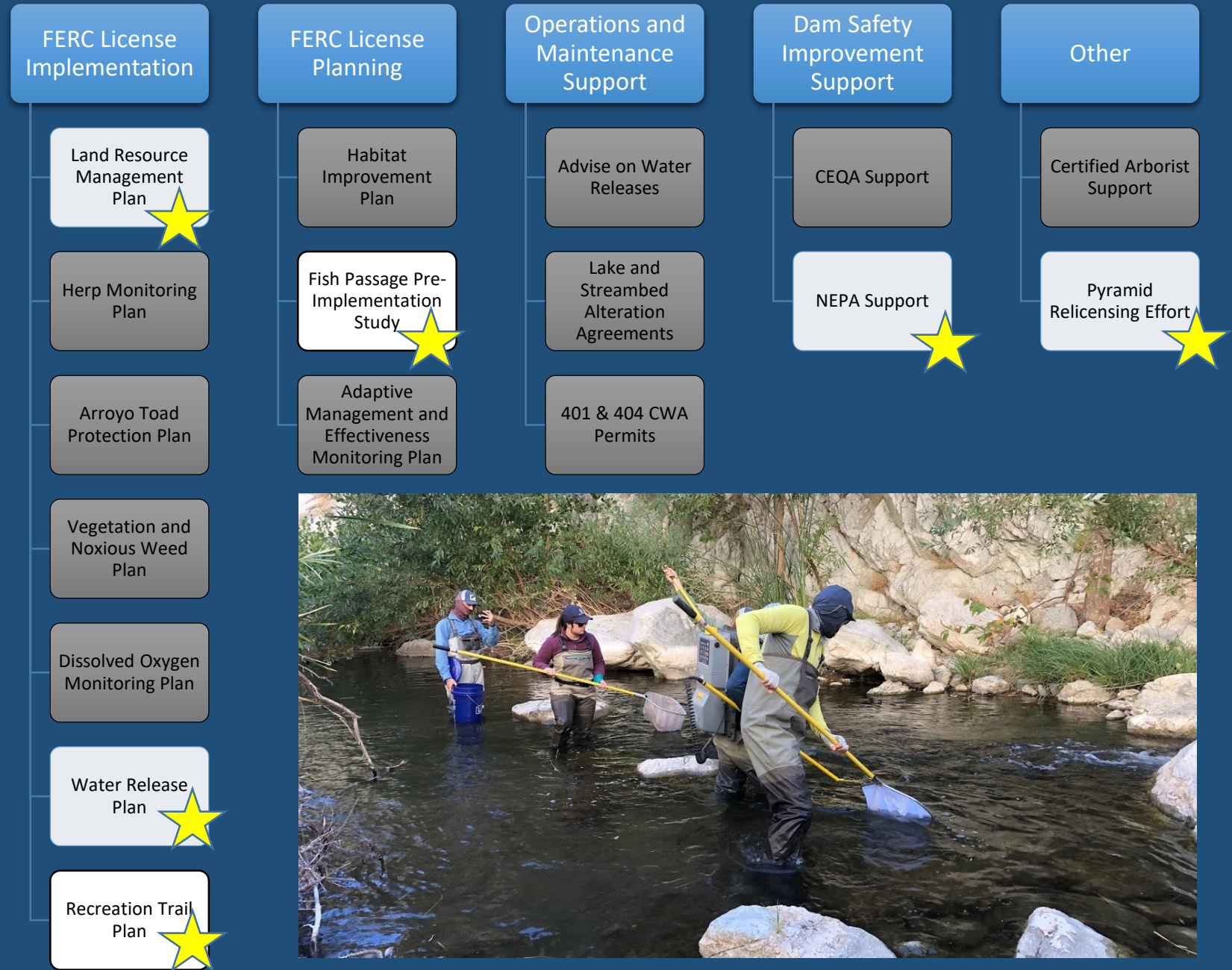
5.2 Environmental Planning and Conservation Department Report



Environmental Support for the Freeman Diversion Project



Environmental Support for the Santa Felicia Project



5.3 Quagga Mussel Management Efforts Update

Monitoring Program



Water Quality
(Field)

Veliger Sampling
(Field/Lab)

- Piru Creek
- Moss Screen

Surface Surveys
(Field)

Recruitment Plates
(Field/Lab)

Growth Plates
(Field/Lab)

Control

Cobble Scraping

Lower River
Treatment Study
Support

Planning

Quagga Treatment
Plan

Treatment Permitting

Ecological Risk
Assessment

Completed

Special Local Need
Permit



NPDES - SIP

CEQA

Incidental Take
Permitting



GROUNDWATER DEPARTMENT UPDATE

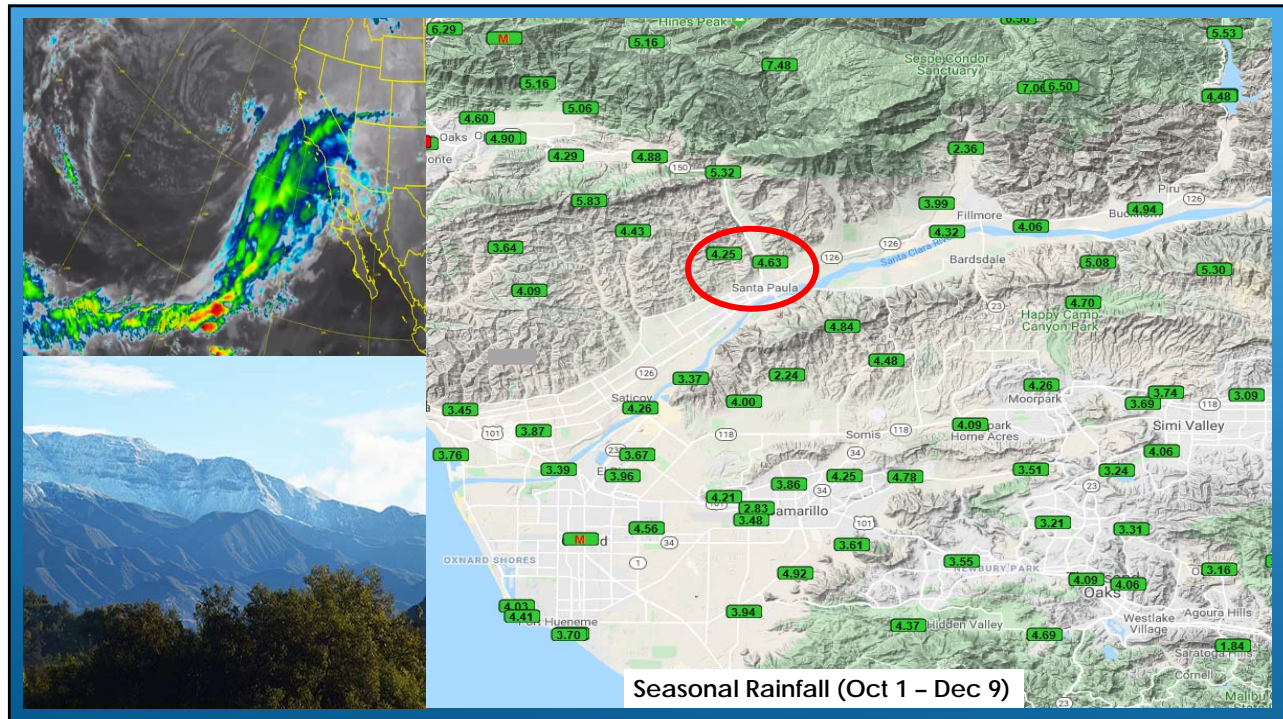
Topics:

1. Recent rainfall and El Nino forecast
2. Groundwater conditions
3. Groundwater model expansion and application
4. Progress on brackish-water project evaluation

1

1. RECENT RAINFALL AND EL NINO FORECAST

2



El Niño/Southern Oscillation (ENSO) Update

Recent Evolution, Current Status and Predictions:

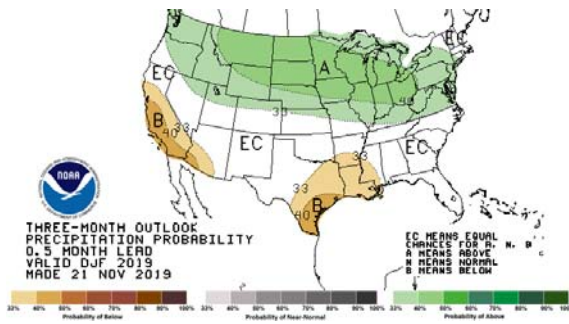
- ENSO-neutral conditions are present.
- Equatorial sea surface temperatures (SSTs) are near-to-above average across much of the Pacific Ocean.
- The pattern of anomalous convection and winds are generally consistent with ENSO-neutral.
- ENSO-neutral is favored during the Northern Hemisphere winter 2019-20 (~70% chance), continuing through spring 2020 (60 to 65% chance)

Update prepared by:
Climate Prediction Center / NCEP
2 December 2019

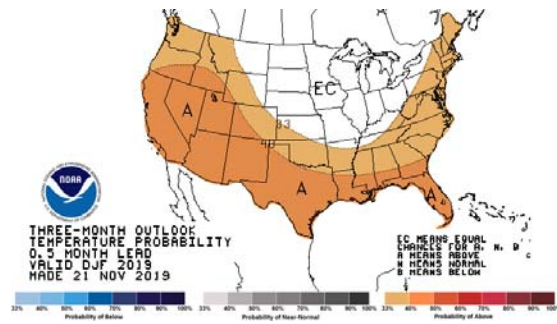


December 2019 – February 2020

Precipitation



Temperature

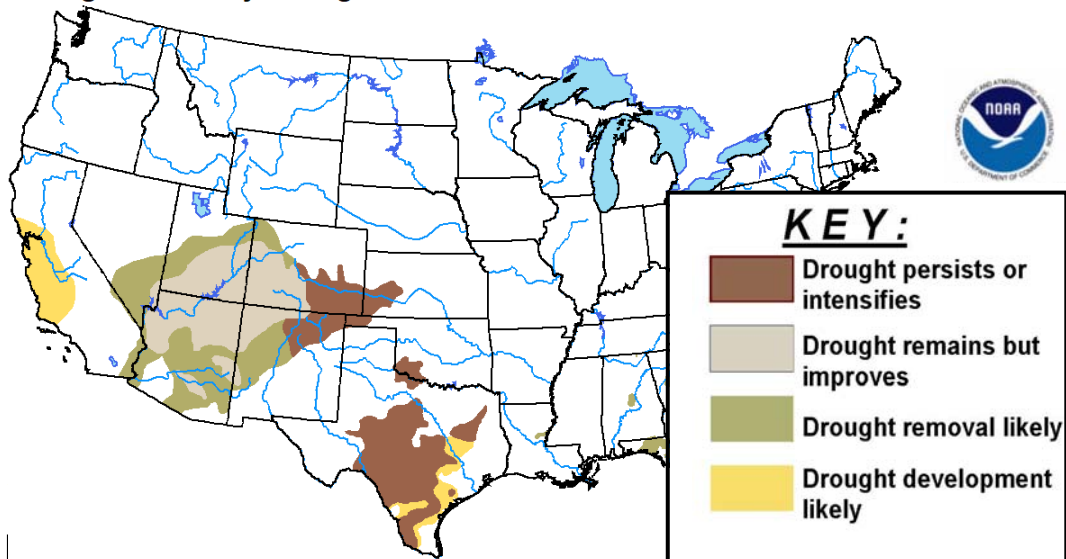


5

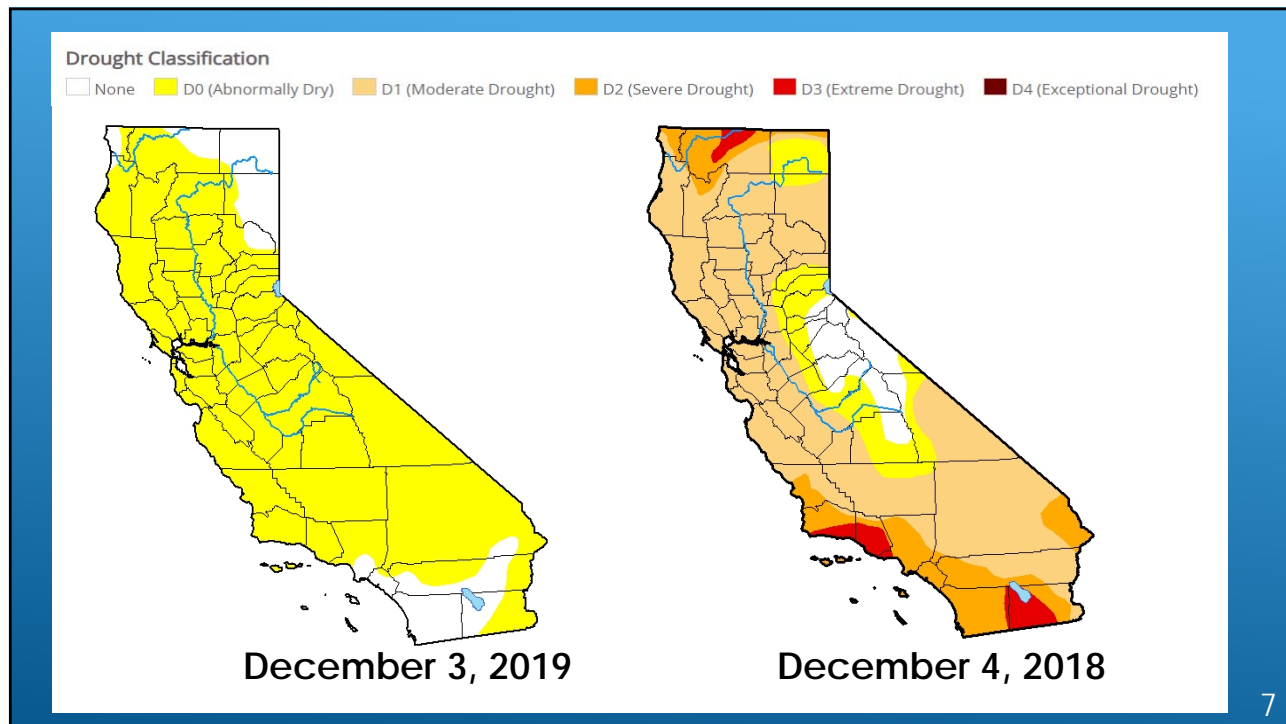
U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

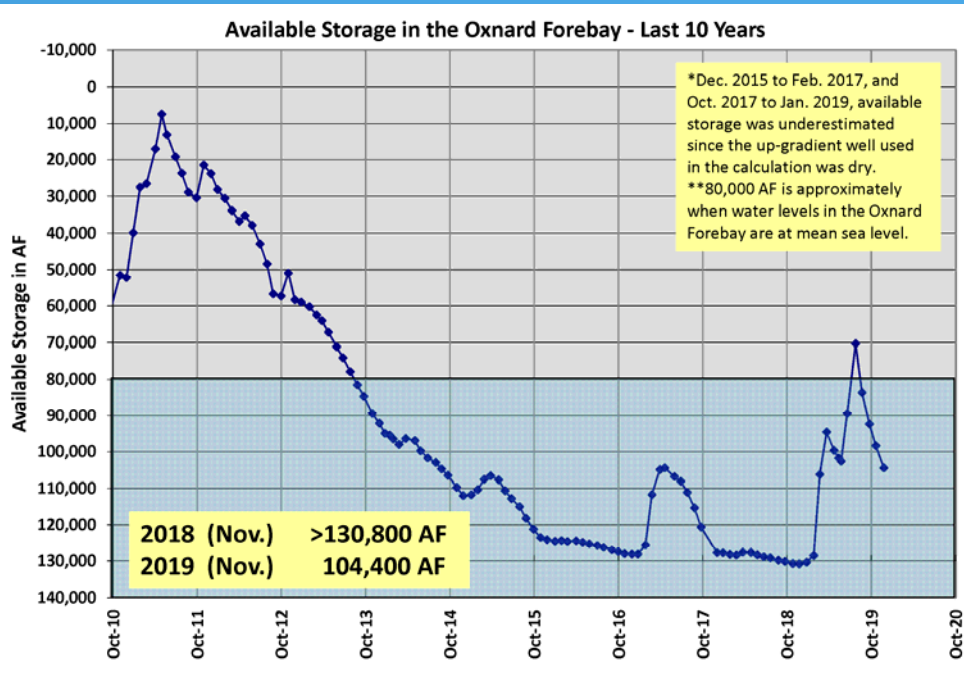
Valid for November 21, 2019 - February 29, 2020
Released November 21, 2019



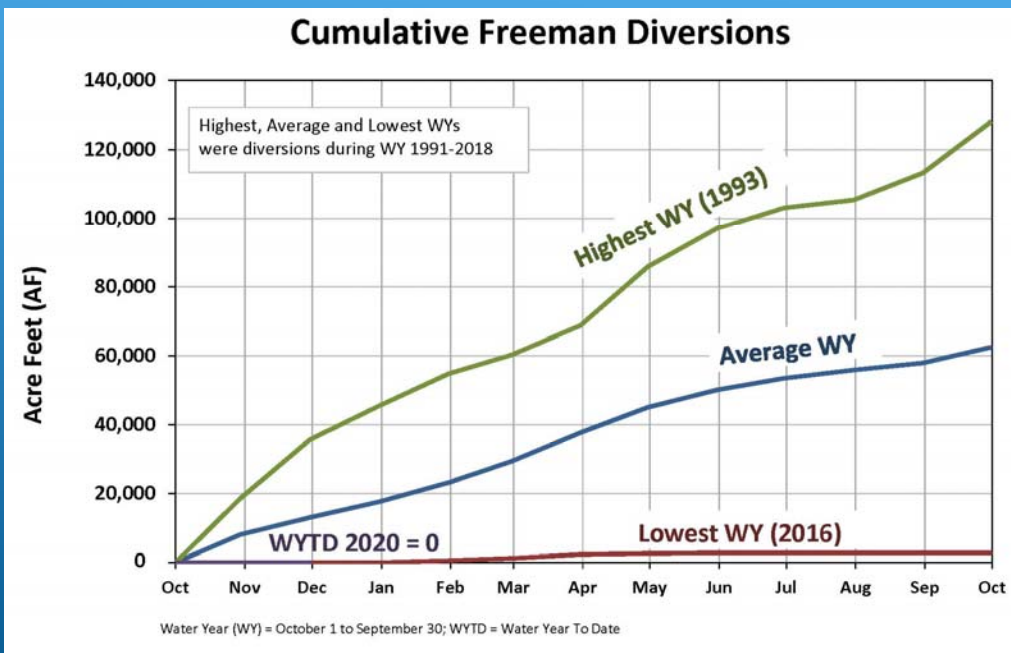
6



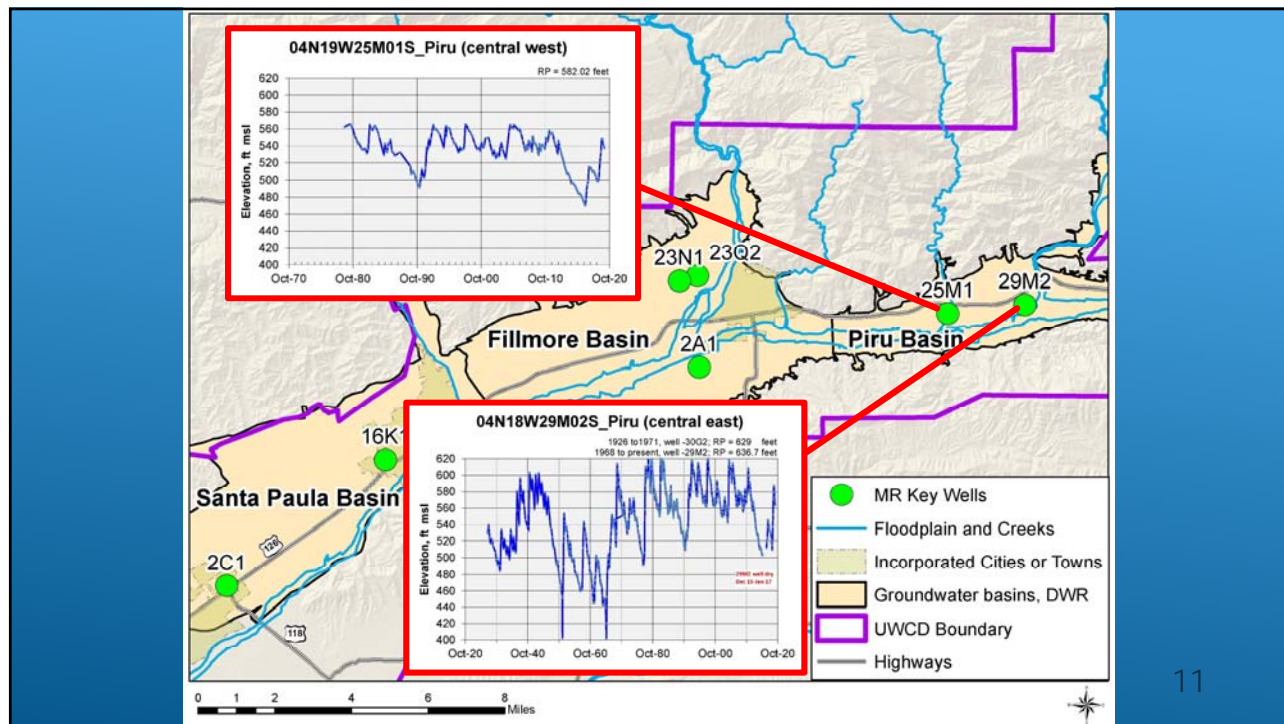
2. GROUNDWATER CONDITIONS



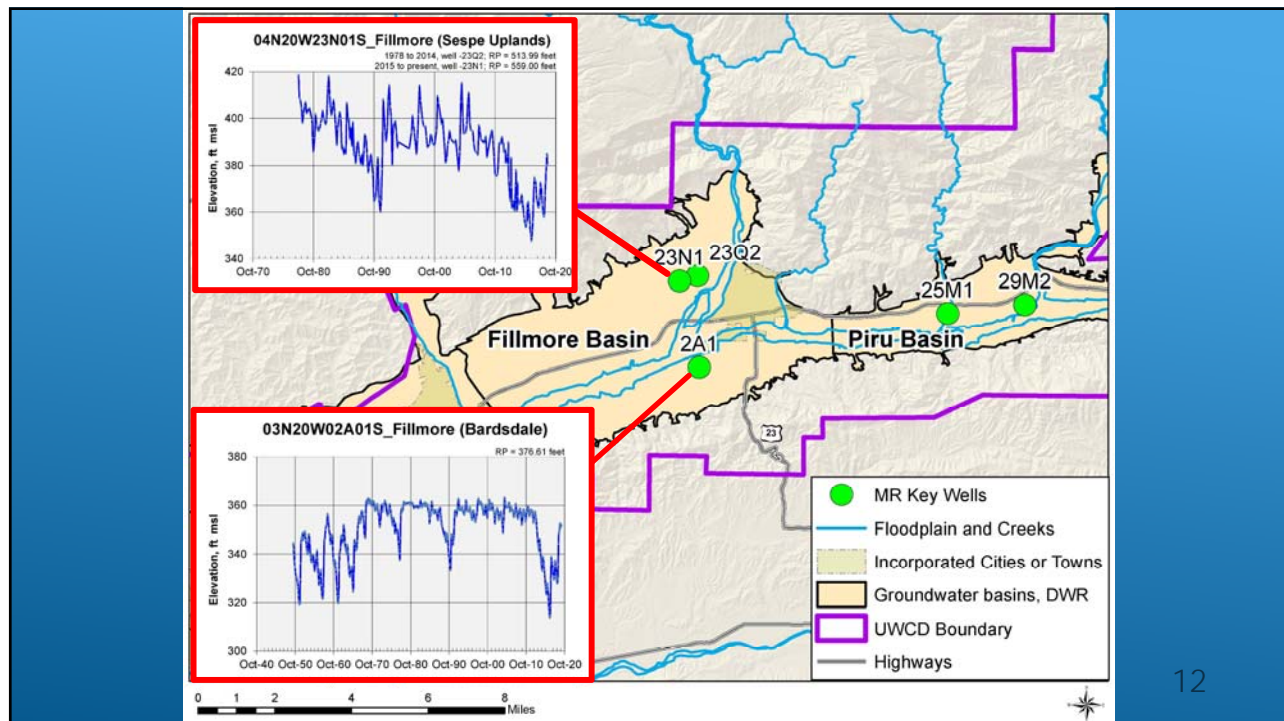
9



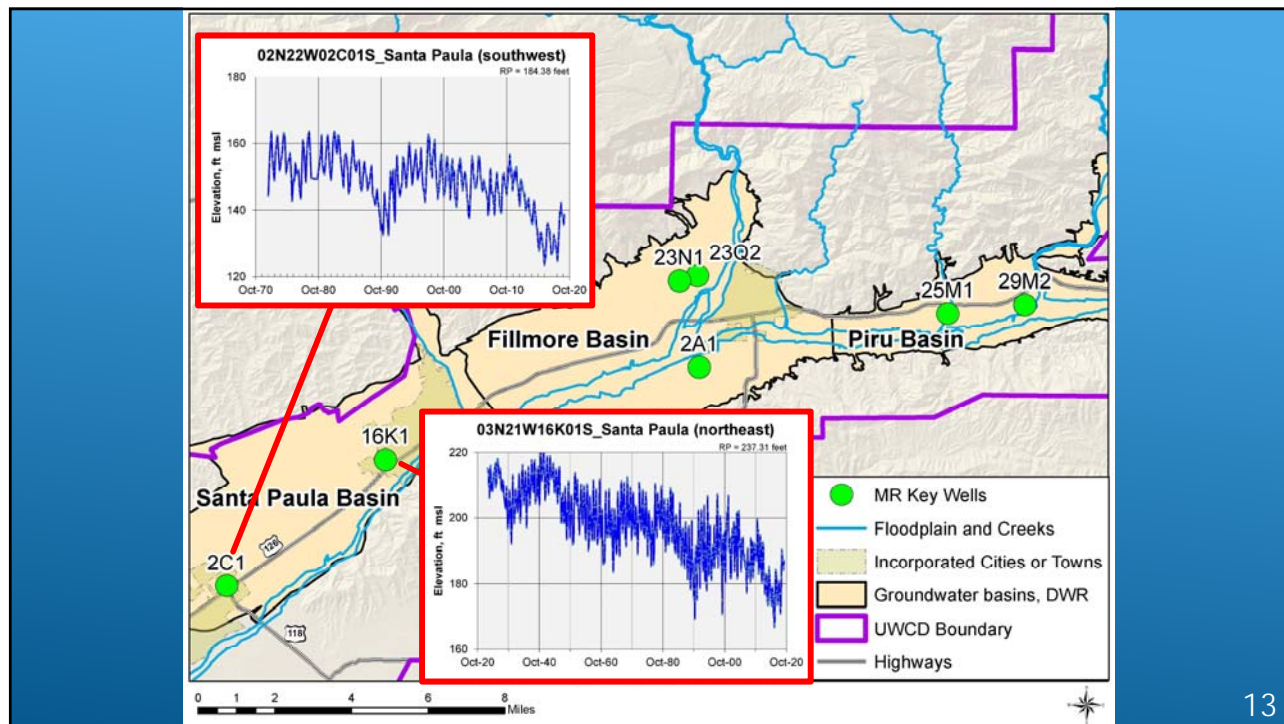
10



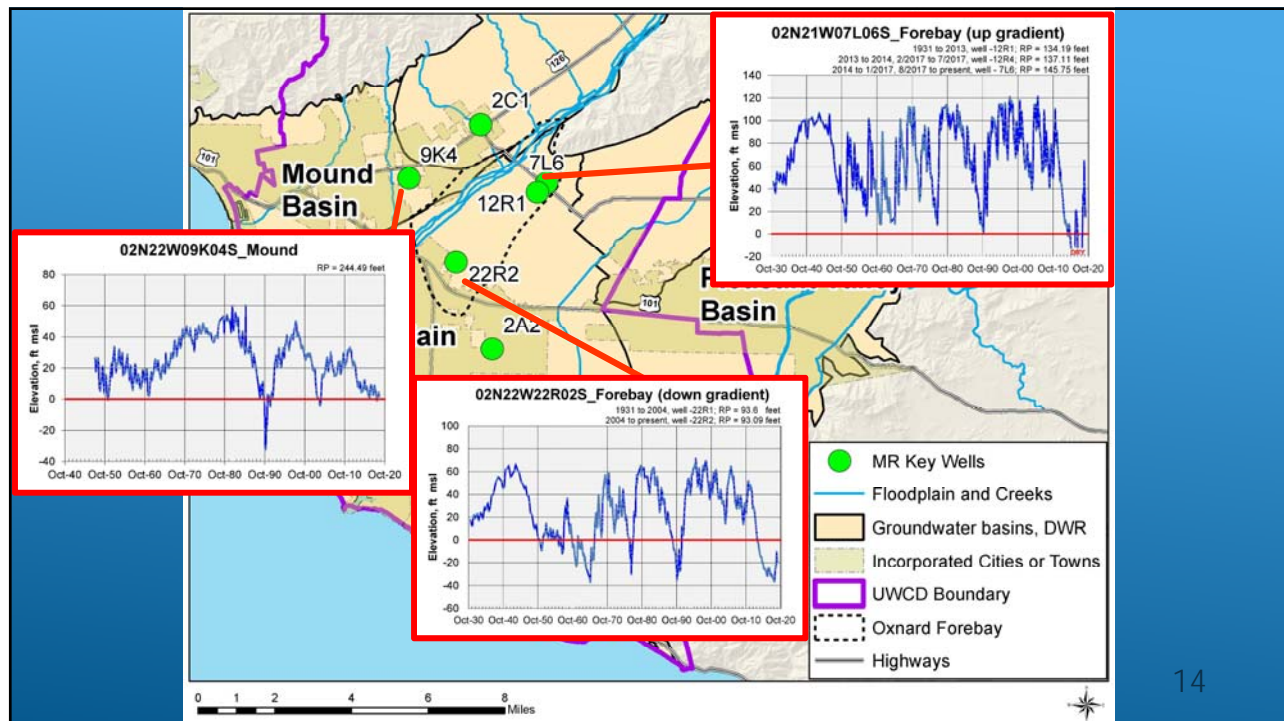
11



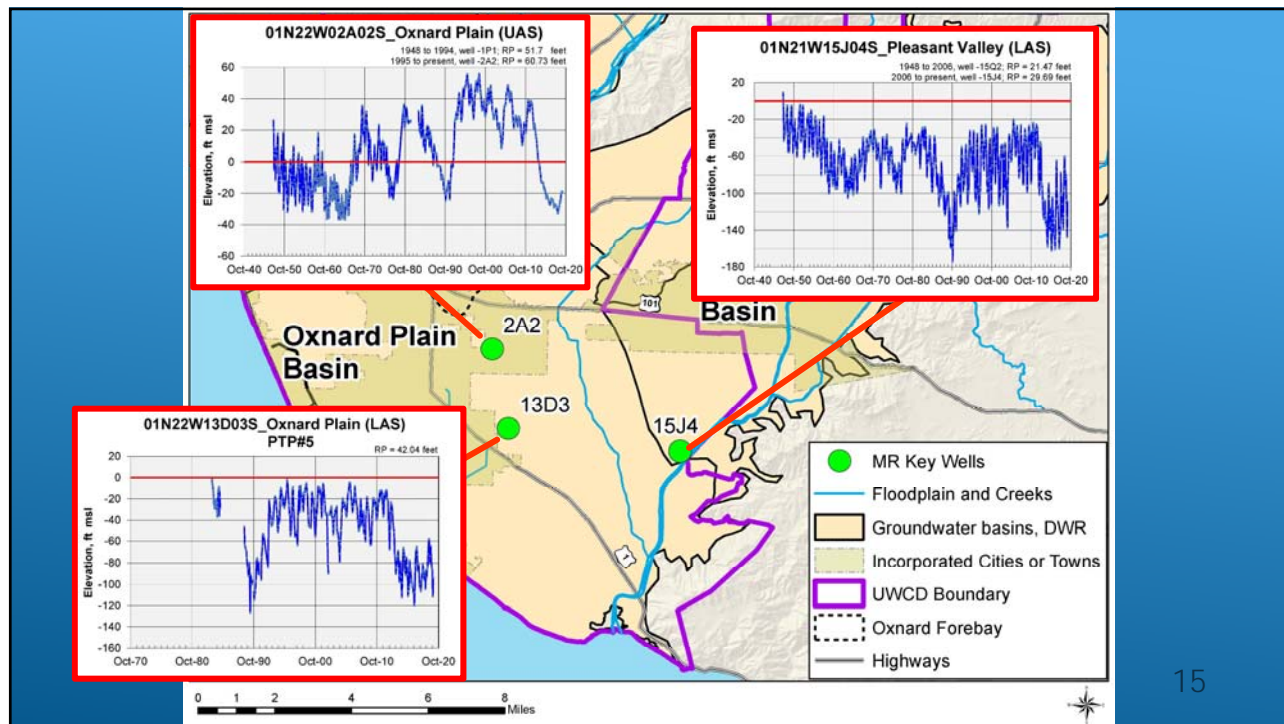
12



13

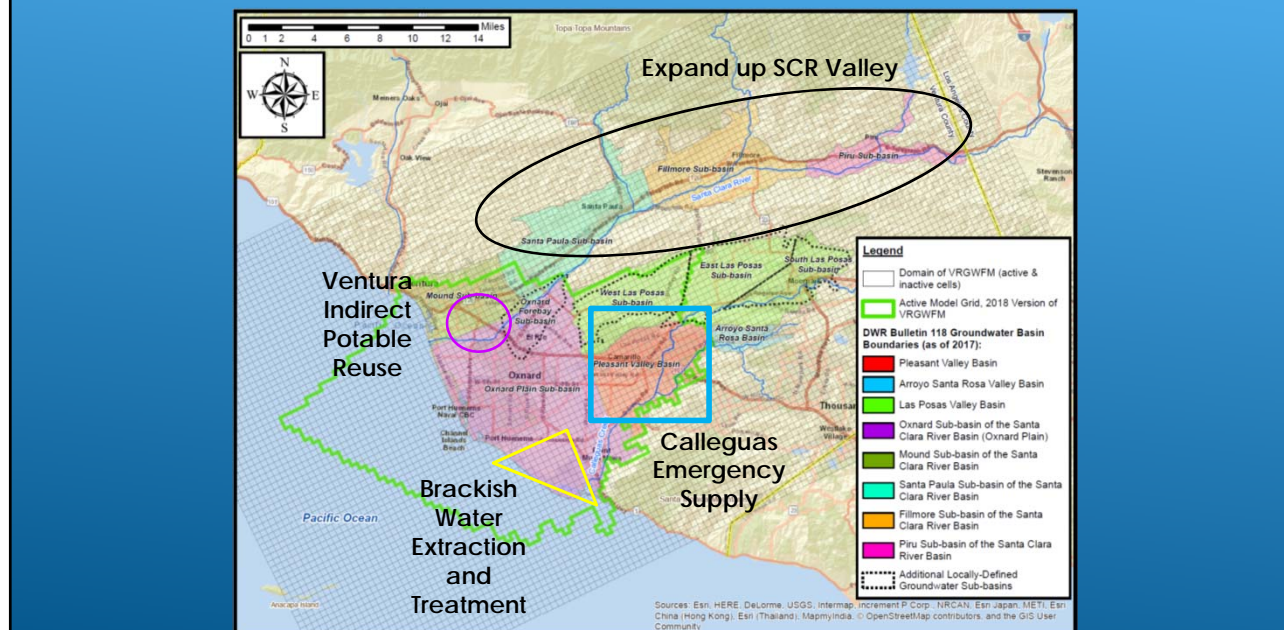


14



15

3. GROUNDWATER MODEL EXPANSION AND APPLICATION



4. PROGRESS ON BRACKISH-WATER PROJECT EVALUATION

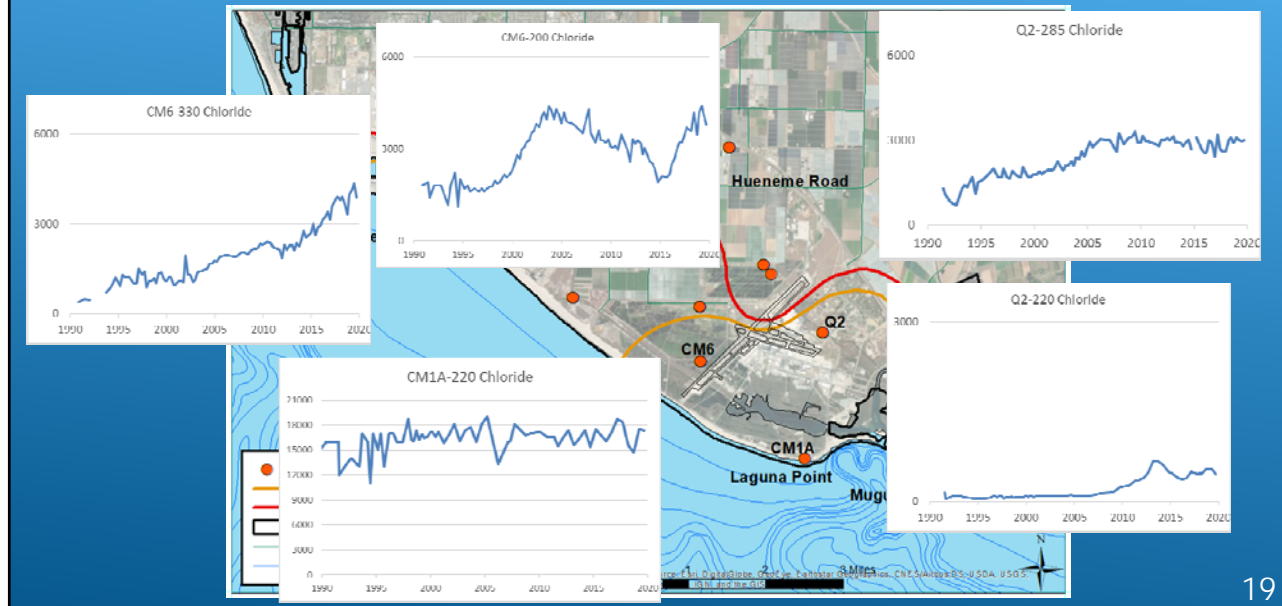
1. DWR grant expected in spring 2020
2. U.S. Navy very supportive and assisting with planning

Coastal Extraction Barrier and Brackish Water Treatment Plant: A Project Concept for Sustainability

Despite long-term efforts to operate the Oxnard Plain and Pleasant Valley basins sustainably, these basins remain critically overdrafted

This project is a possible alternative to significant pumping reductions proposed in the Draft GSPs for the containment of seawater intrusion

SOUTHERN OXNARD PLAIN, EPISODES OF SWI



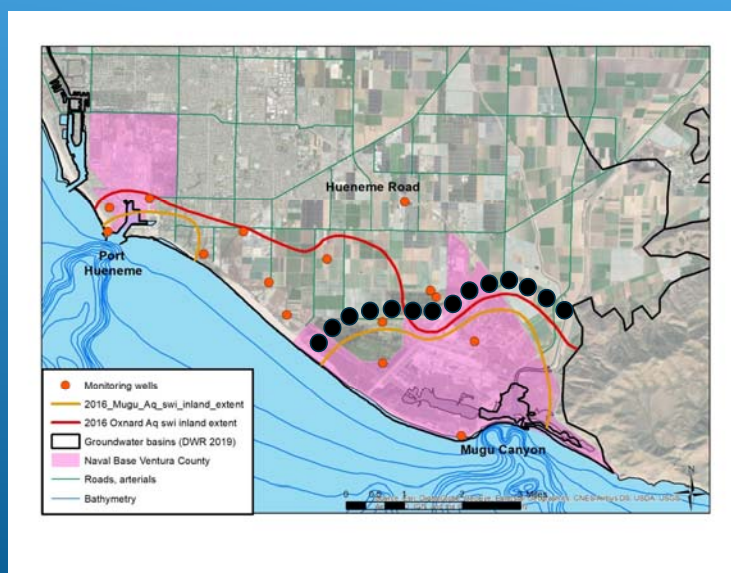
INJECTION BARRIER CONCEPT

Surround areas of degraded water quality with an array of injection wells, closely spaced

Inject enough water to create a groundwater ridge/divide to prevent further inland intrusion

Difficult to site, hard to confirm that an effective barrier is being maintained

What water might be used?



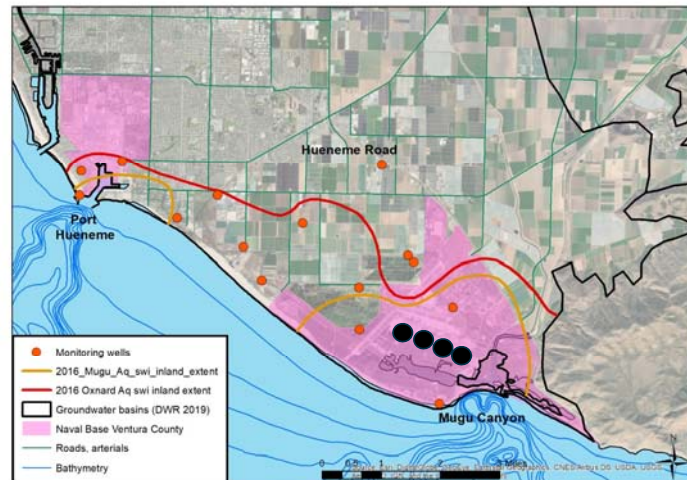
EXTRACTION BARRIER CONCEPT

Use extraction wells to create groundwater trough/depression

Water flows towards extraction wells from all directions

Seawater should not advance inland past the extraction barrier wells

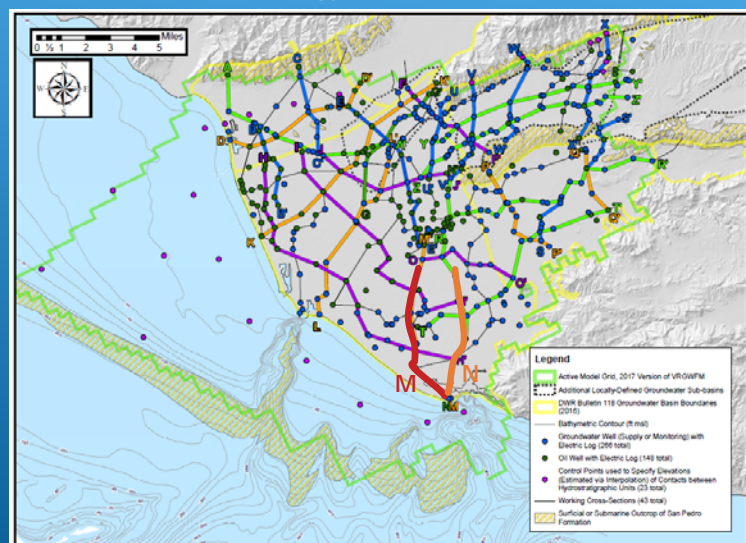
Treat produced brackish water and put to beneficial use (offset groundwater pumping within the basins)



21

AQUIFERS WERE
MAPPED AS PART
OF THE
DEVELOPMENT OF
UNITED'S
REGIONAL
GROUNDWATER
FLOW MODEL

Cross Section
Lines

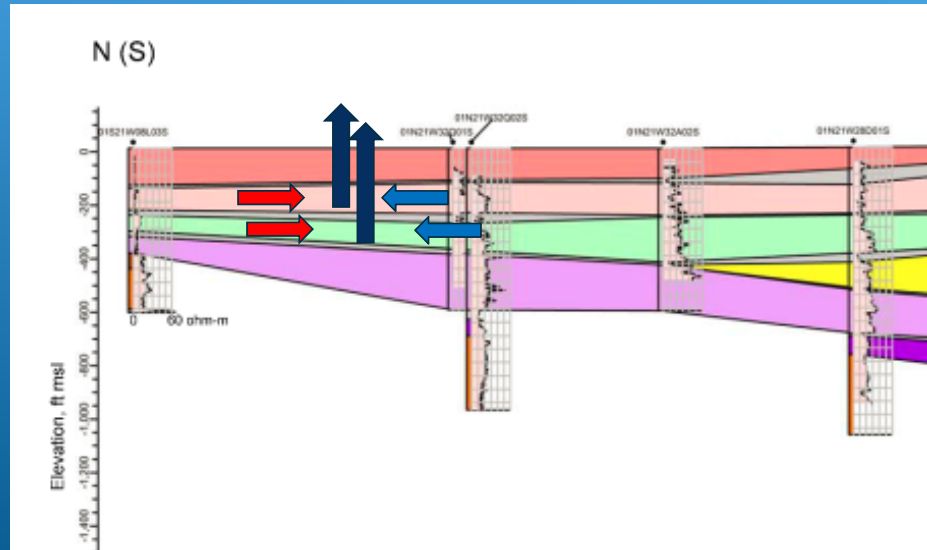


22

SECTION N-N' DETAIL AND HORIZONTAL FLOW WITH PROJECT

Extraction wells induce flow towards coastal zone from inland areas

Also onshore flow of seawater

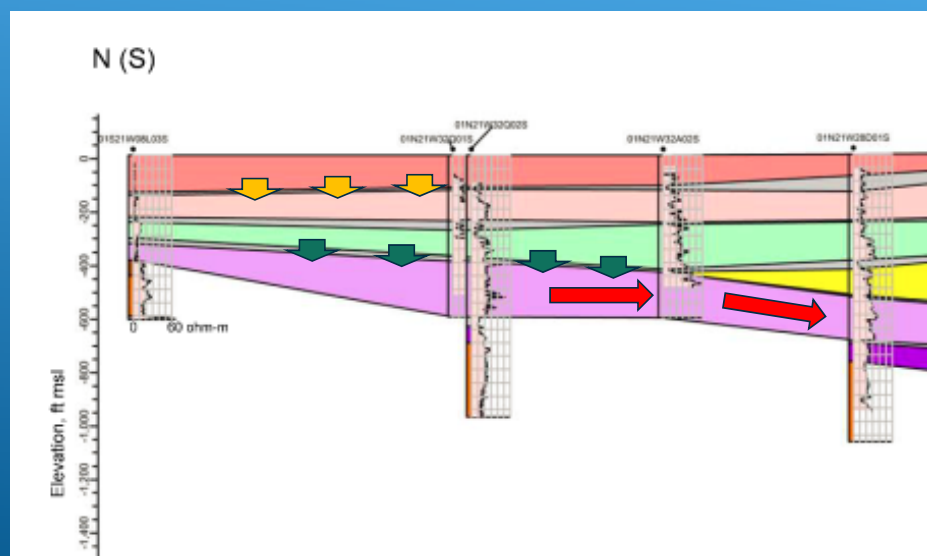


25

SECTION N-N' DETAIL AND VERTICAL FLOW WITH PROJECT

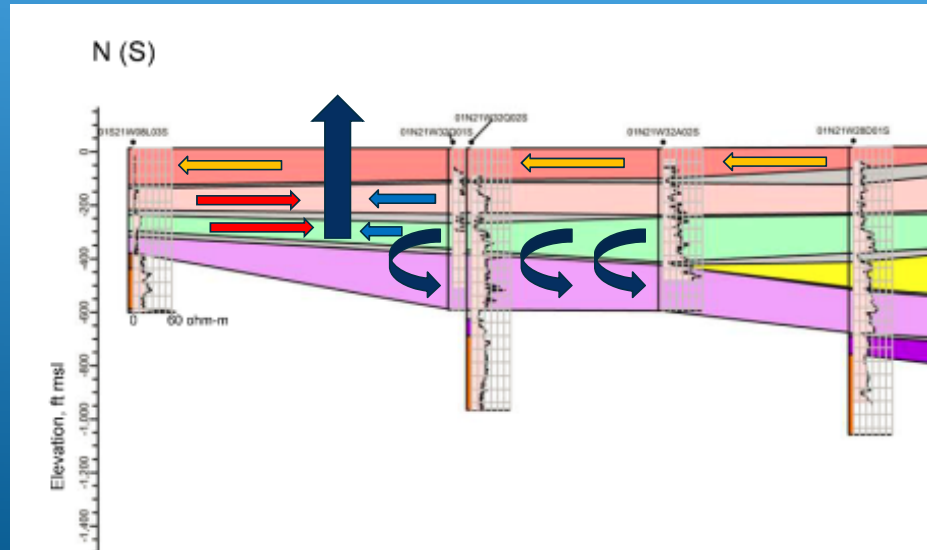
Must assess potential for inducing flow down from the Semi-perched aquifer

Also will assess flow from Mugu aquifer to the underlying FCA, strong downward gradient exists



26

SECTION N-N' DETAIL AND CONCEPTUAL PROJECT OPTIMAL FLOW

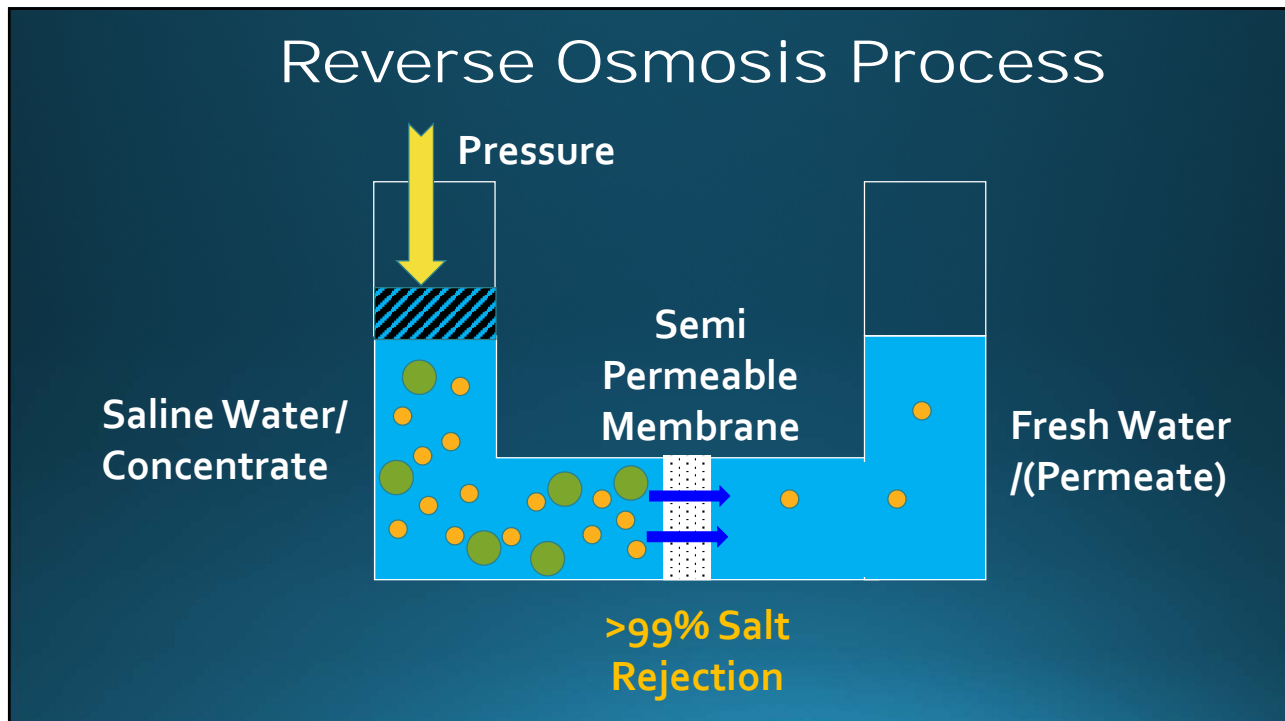
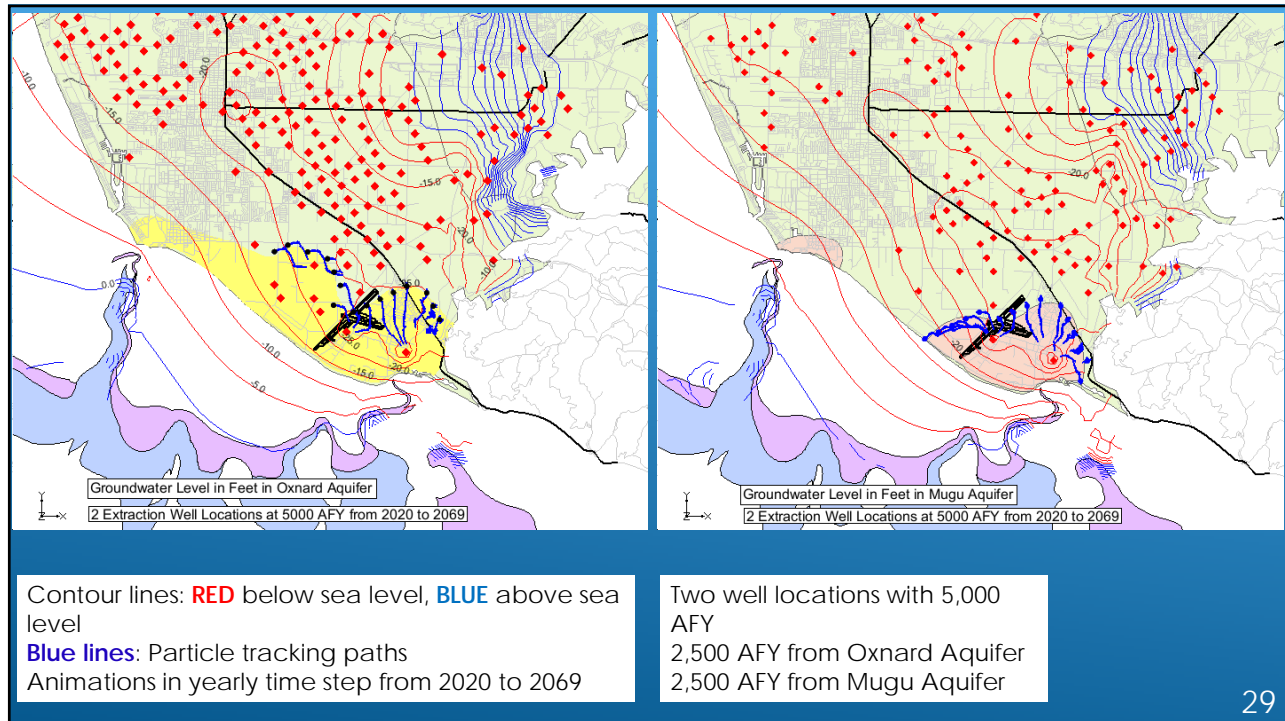


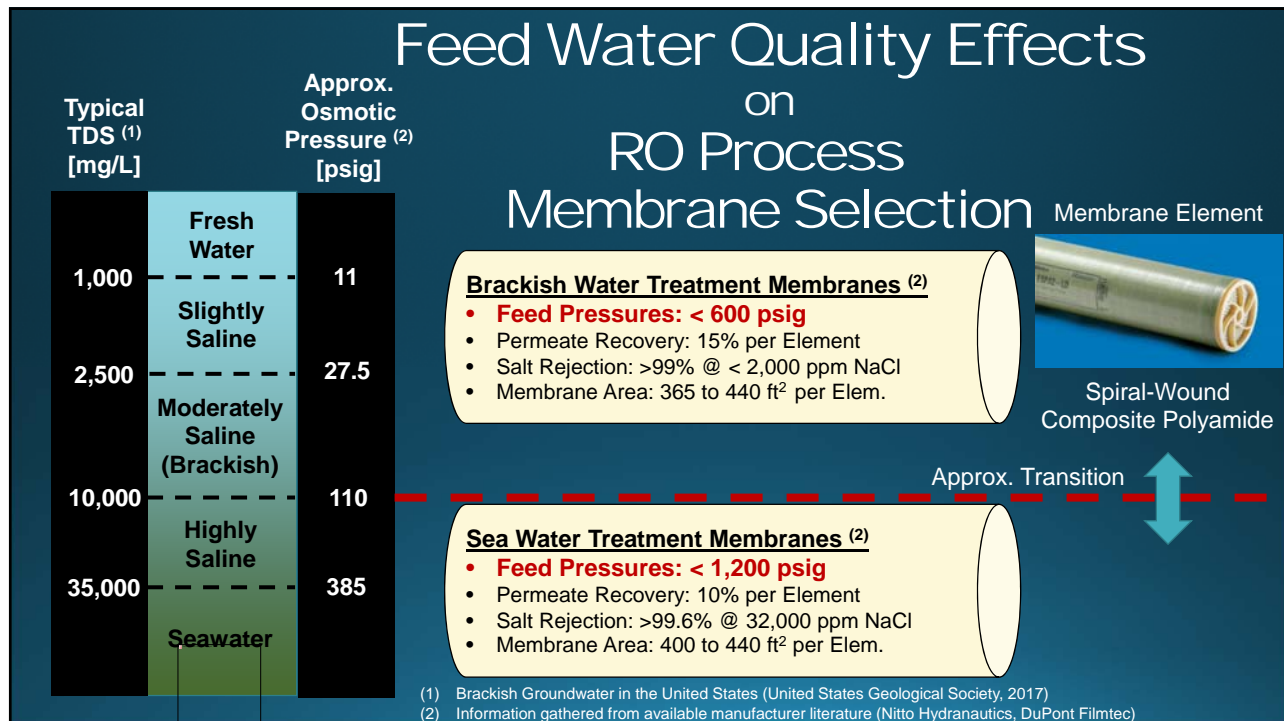
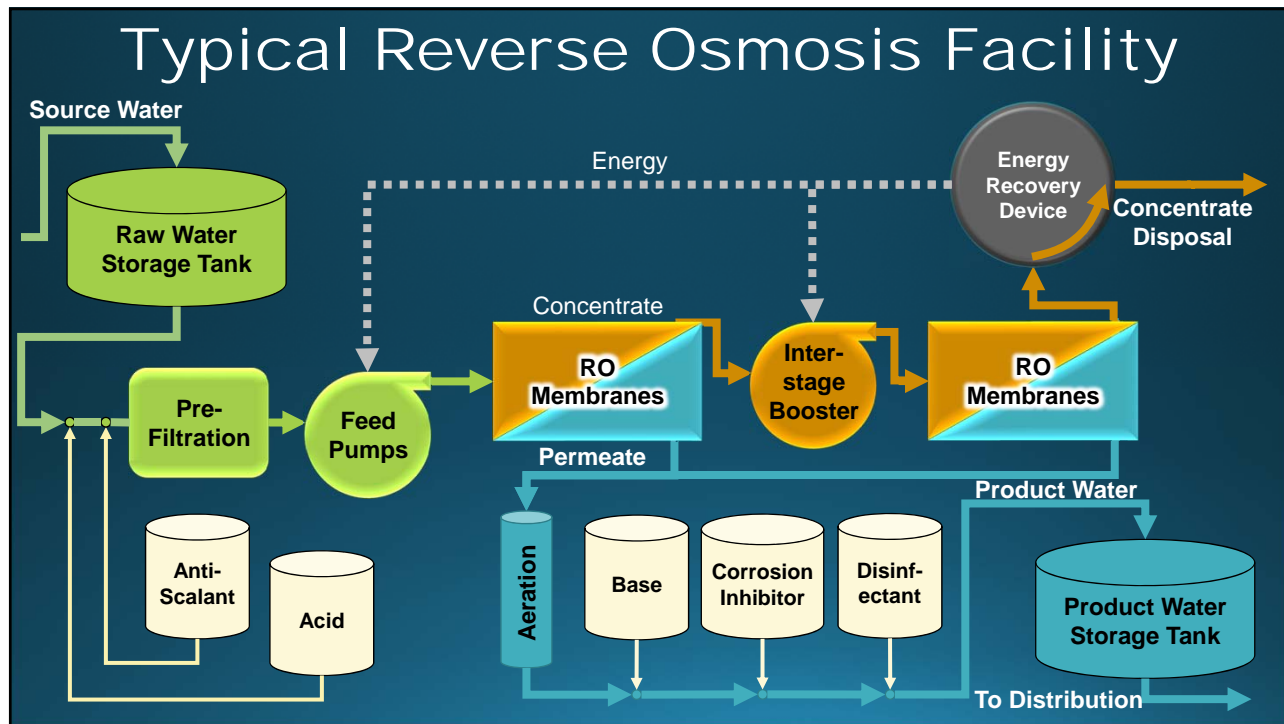
27

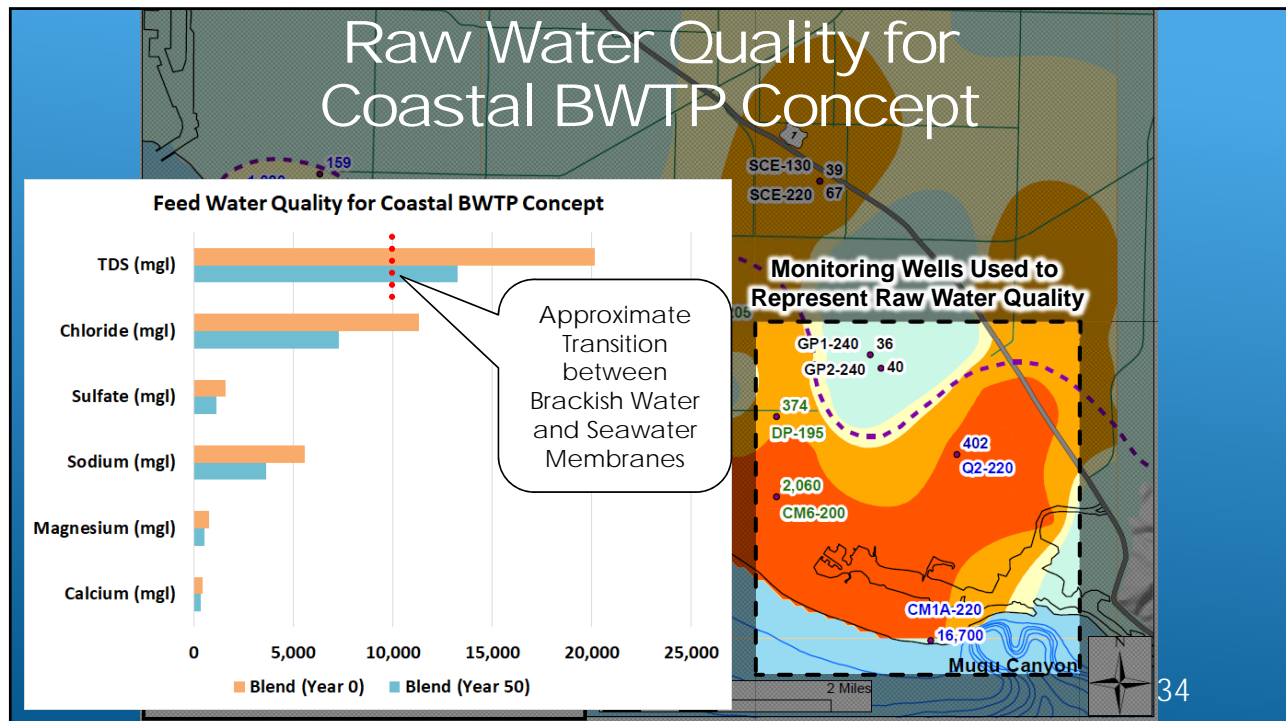
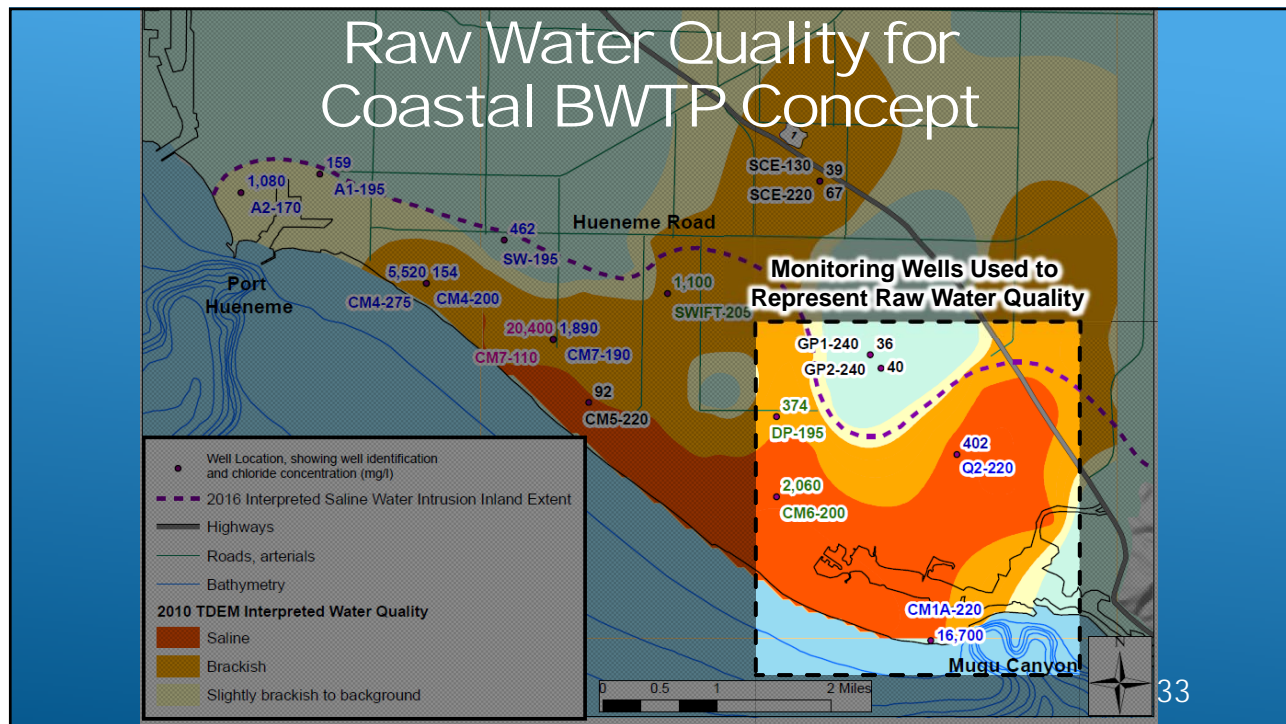
Preliminary Groundwater Model Scenario

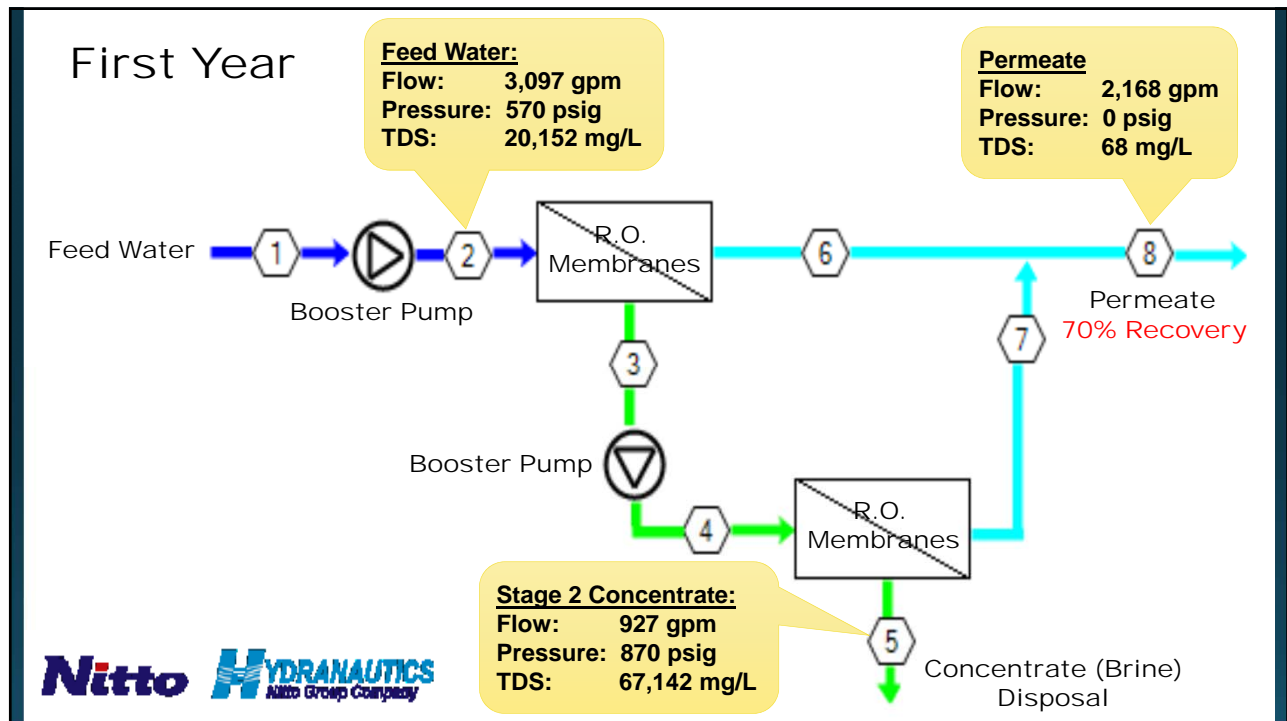
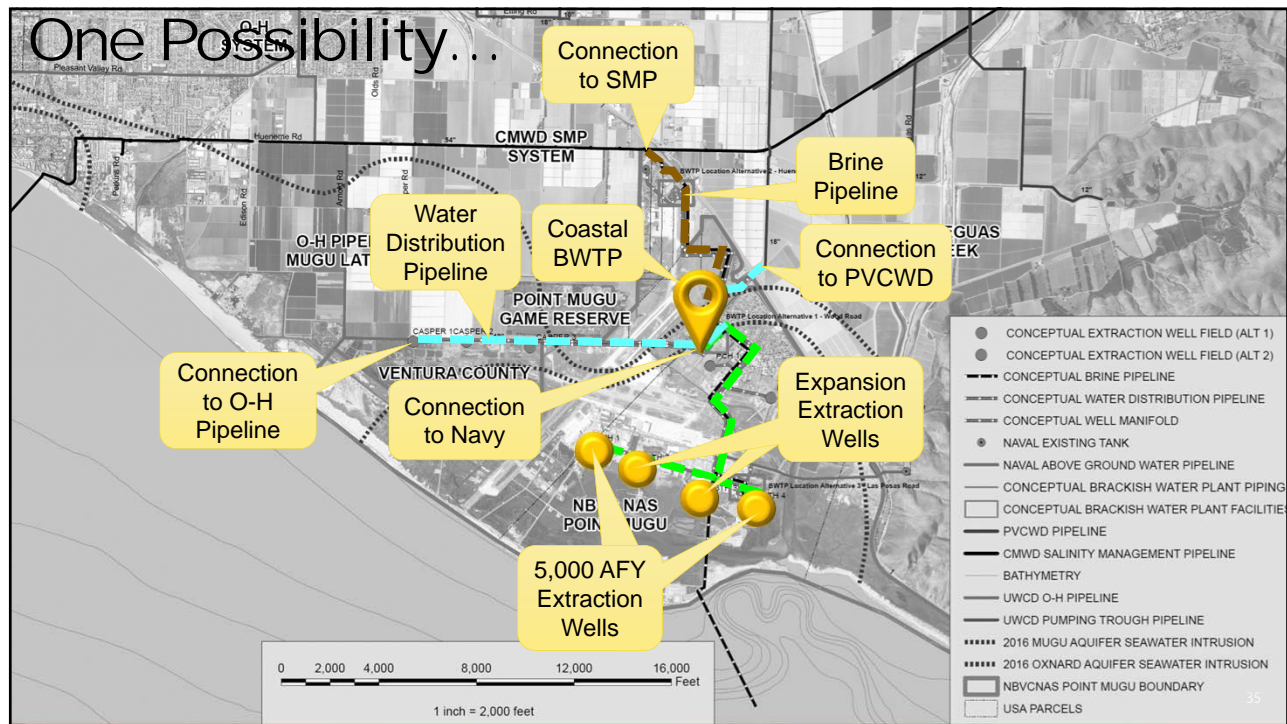
- Extraction Rate: 5,000 acre-ft per year
 - 2,500 AF from Oxnard aquifer
 - 2,500 AF from Mugu aquifer
- FCGMA's GSP baseline scenario:
 - No pumping reductions
 - No other projects
- Simplified model assumption, no distribution (project water did not offset pumping in the basin)
- With 70% recovery rate, 20% new water is generated from seawater

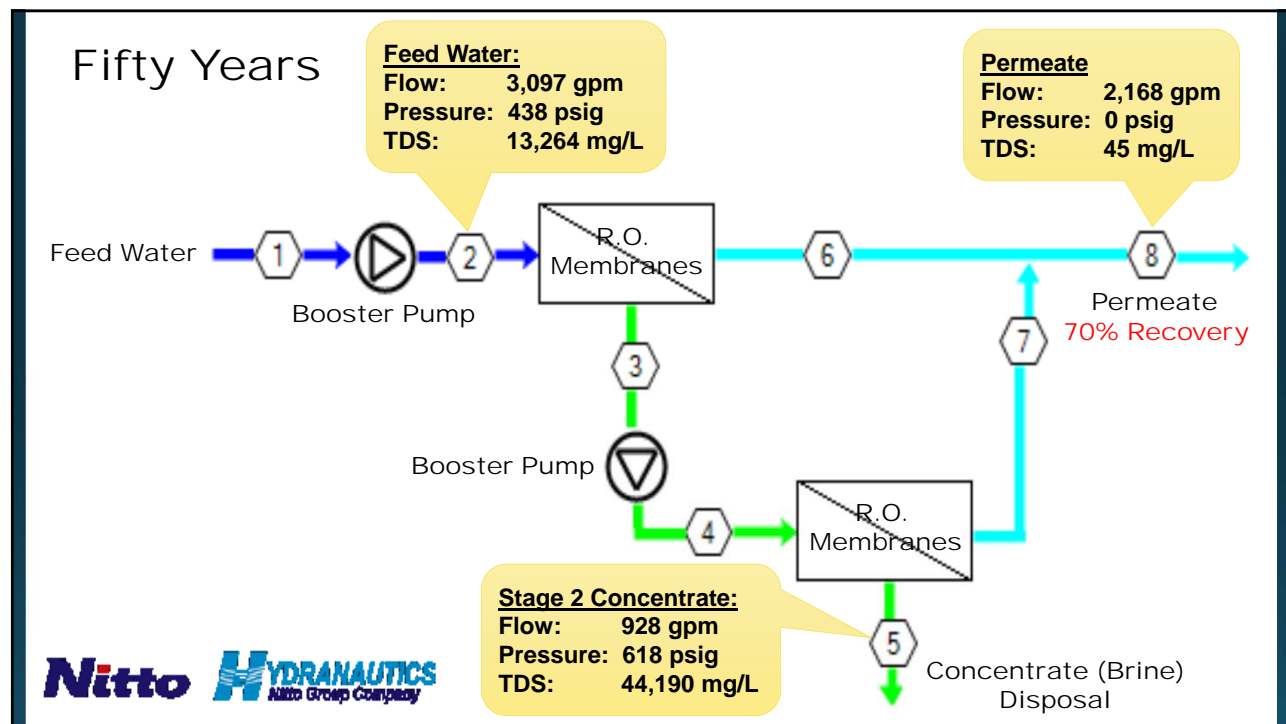
28









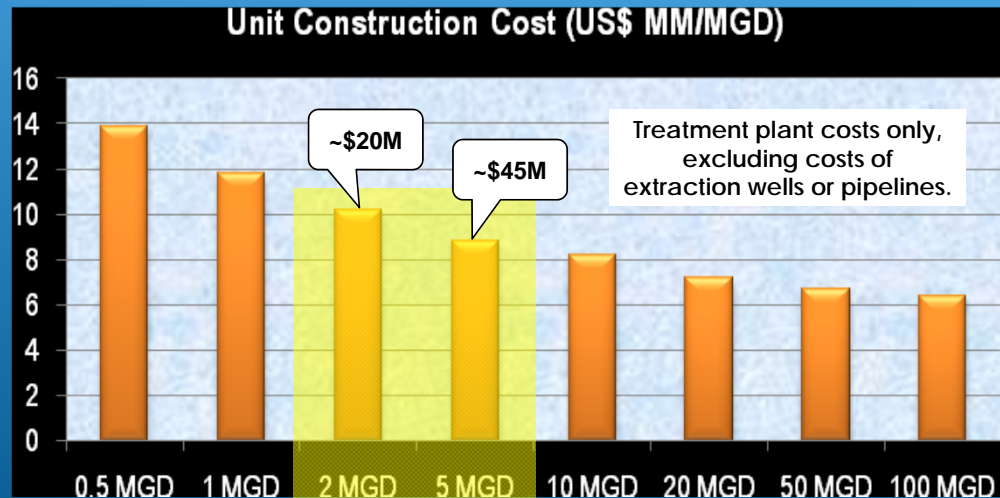


Post-Treatment Water Quality Considerations

Parameters	Drinking Water Requirements	Agricultural Requirements	
		Slight to Moderate Yield Loss	Severe Yield Loss (Crop Growth Ceases)
Electrical Conductivity (EC) [dS/m]	0.9 – rec. limit ⁽²⁾ 1.6 – upper limit ⁽²⁾ 2.2 – short-term limit ⁽²⁾	0.9 to 1.7 – strawberries ⁽³⁾ 1.6 to 3.2 – oranges ⁽³⁾ 2.3 to 6.6 – celery ⁽³⁾	>2.7 – strawberries ⁽³⁾ >5.3 – oranges ⁽³⁾ >12 – celery ⁽³⁾
Total Dissolved Solids (TDS) [mg/L]	500 – rec. limit ⁽²⁾ 1,000 – upper limit ⁽²⁾ 1,500 – short-term limit ⁽²⁾	450 – 2,000 ⁽⁴⁾	> 2,000 ⁽⁴⁾
Chloride [mg/L]	250 – rec. limit ⁽²⁾ 500 – upper limit ⁽²⁾ 600 – short-term limit ⁽²⁾	105 – 350 ⁽⁴⁾	> 350 ⁽⁴⁾
Nitrate (as Nitrogen) [mg/L]	10 ⁽¹⁾	5 – 30 ⁽⁴⁾	> 30 ⁽⁴⁾
Boron [mg/L]	None	0.7 – 3.0 ⁽⁴⁾	> 3.0 ⁽⁴⁾

- (1) Primary Maximum Contaminant Levels (California State Water Resources Control Board, 2018)
 (2) Secondary Maximum Contaminant Levels (California State Water Resources Control Board, 2018)
 (3) Water Quality for Agriculture (Ayers and Westcott, 1985)
 (4) Technical Guidelines for Irrigation Suitability Land Classification (U.S. Bureau of Reclamation, 2005)

POTENTIAL CAPITAL COSTS



Reference: Seawater Desalination Costs. WaterReuse Association. January 2012.

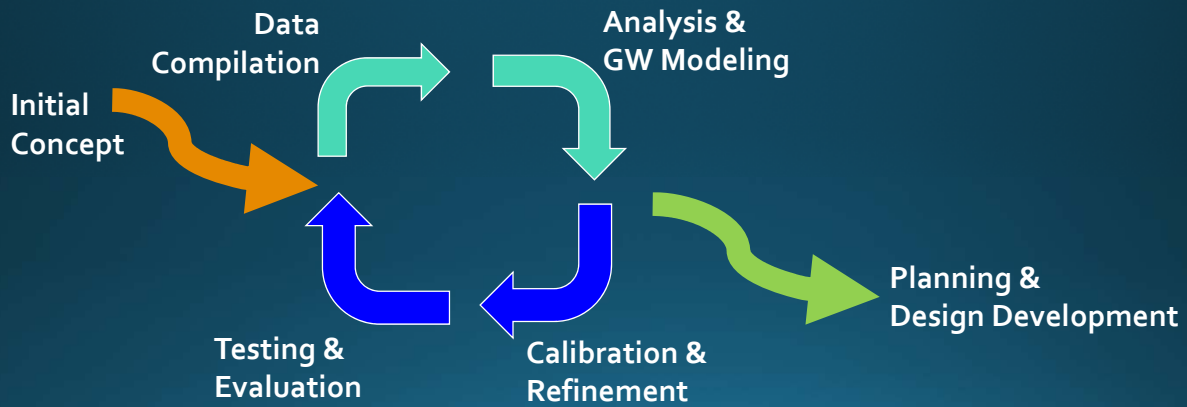
39

Seawater RO Desalination Costs

Plant Capacity, Location	Online Since	Capital Cost	Annual O&M Cost per 1000 gal	Cost of Water per 1000 gal	Cost of Water per Acre-foot
0.6 MGD Sand City, CA	2010	\$11.9 M	\$2.6	\$4.2	\$1,369
25 MGD Tampa Bay, FL	2008	\$138 M	\$1.4	\$3.6	\$1,173
50 MGD Carlsbad, CA	2015	\$860 M	\$3.6	\$6.5	\$2,118
7.5 MGD (8,400 AFY) Santa Barbara, CA	2017	\$48 M	\$2.2	\$4.4	\$1,434

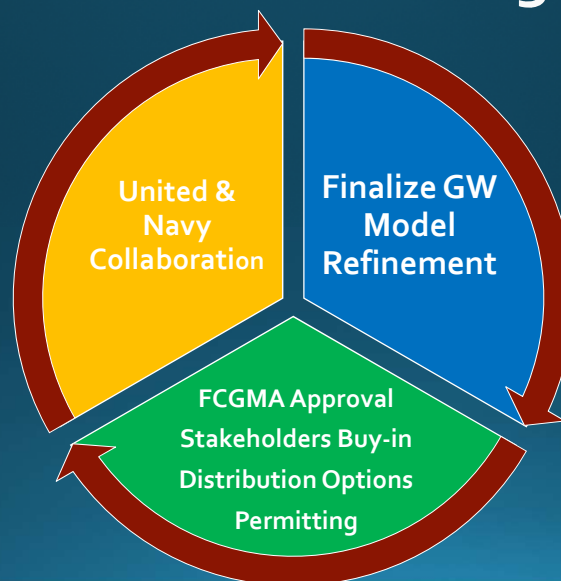
Reference: N. Voutchkov, PE, BCEE, Water Global Consultants, Seawater Desalination Current Status and Trends May 13, 2019

Path Forward – Data Processing



41

Path Forward – Continue Building Partnerships



42

Path Forward – Engineering Planning and Design

Key Design Considerations

- Environmental Impact Analysis and Permitting
- Extraction Wellfield Size
- Coastal BWTP Capacity and Location
- Feed Water Quality
- Treated Water Quality Goals and Distribution Options
- Brine Discharge Alternatives
- Pilot Testing to Confirm Design Criteria
- Design Development
- Construction

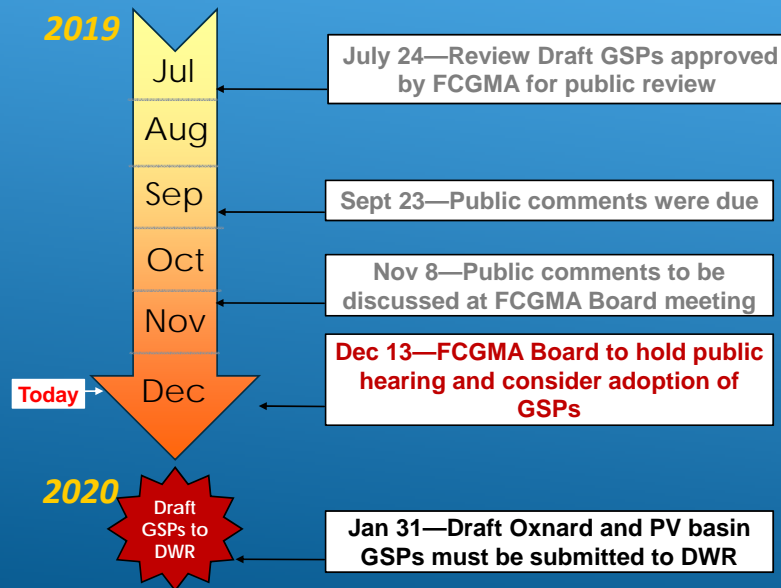
43



5.5 SGMA UPDATE

44

FCGMA GSP Schedule Update



45

Summary of Recent FCGMA BoD Activities:

- October 23:
 - Modified Emergency Ordinance E to return M&I allocations to TEA baseline amounts
 - Adopted "New Pumping Allocation System for the Oxnard and Pleasant Valley Basins"
- November 28:
 - ~20-minute review of public comments on draft GSPs for Oxnard, Pleasant Valley, and Las Posas Valley basins
 - Very few questions, no public comments

46

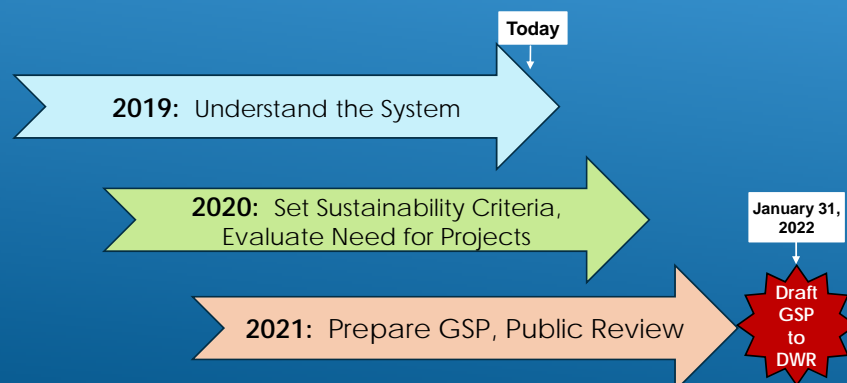
Key Agenda Items for Dec. 13 BoD Meeting:

- ▶ Item 4: Public hearing to consider adoption of the GSPs for the Oxnard, Pleasant Valley, and Las Posas Valley basins
- ▶ Item 5: Form JPA with Ventura County to “provide sustainable groundwater management” outside of FCGMA boundaries
 - ▶ Includes area of Saticoy spreading grounds
- ▶ Item 7: Allow M&I pumpers to return to full TEA allocation under Emergency Ordinance E (rescind existing reductions)
- ▶ Items 8 & 9: Authorize an additional \$650,000 for special counsel, using “Groundwater Extraction Management Enforcement Surcharge” funds

47

Fillmore-Piru Basins GSA

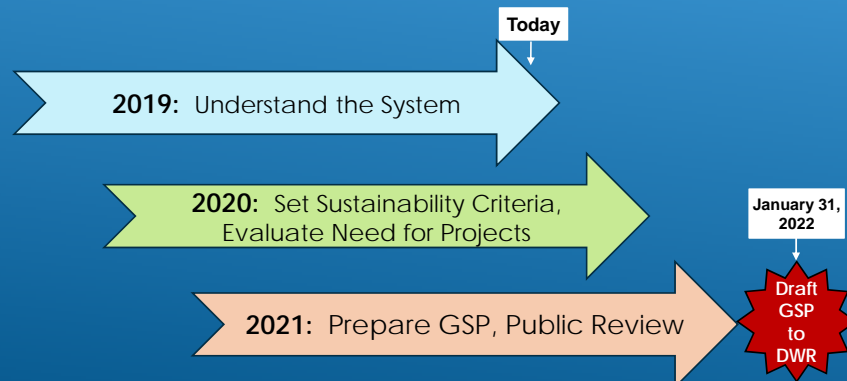
- ▶ Numerical model expansion underway
- ▶ Ad-hoc Committee developing approach for stakeholder involvement



48

Mound Basin GSA

- ▶ United staff preparing hydrographs, water quality maps, and forecasted groundwater elevation graphs
- ▶ Existing model can be used for Mound basin



49

Santa Paula Basin TAC

- ▶ 2018 Annual Report near final (pending TAC approval)
- ▶ Starting 2019 Annual Report

50