

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

General Manager Mauricio E. Guardado, Jr.

Legal Counsel David D. Boyer

<u>AGENDA</u> WATER RESOURCES COMMITTEE Tuesday, February 2, 2021 at 9 a.m. UNITED WATER CONSERVATION DISTRICT Boardroom, 1701 N. Lombard Street, Oxnard CA 93030

Meeting attendees should be aware that the meetings of the Committee are, as required by law, open to the public and the District has very limited powers to regulate who attends Committee meetings. Therefore, attendees must exercise their own judgement with respect to protecting themselves from exposure to COVID-19, as the District cannot ensure that all attendees at public meetings will be free from COVID-19.

In addition to its public Water Resources Committee Meeting, people may choose to participate virtually using the Webex video conferencing application.

To participate in the Water Resources Committee Meeting via Webex, please click on this link:

Meeting number: 126 808 7595 Password: H2O1 (4261 from phones) Join by phone (audio only) call +1-408-418-9388 (toll rates apply) Access code: 126 808 7595

OPEN SESSION:

Committee Members roll call

1. Public Comment

The public may address the Water Resources Committee on any matter on the agenda or within the jurisdiction of the Committee. All comments are subject to a five-minute time limit.

2. Approval of Minutes - Motion

The Committee will review and consider approving the minutes from the January 5, 2021 Water Resources Committee meeting.

3. Santa Clara River Sanitary Survey (30 minutes: Kuepper)

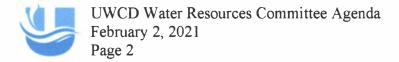
The committee will receive a presentation on the recent update to the Sanitary Survey for the potable water systems operated by the District. These updates are required every five years and are intended to identify potential water quality issues within the watershed.

4. **Basin Hydrologic Conditions** (15 minutes: Detmer)

The committee will receive a presentation summarizing hydrologic conditions in the basins within the District boundaries for the month of December 2020.

5. Water Resources Department Update (5 minutes: Detmer)

Staff is available to provide updates to the Committee on recent Water Resources Department activities and projects.



6. Groundwater Sustainability Agencies Update (20 minutes: Detmer) The committee will receive a presentation on GSA activities and schedules for the Fillmore-Piru Basins, Mound Basin and Fox Canyon Groundwater Management Agency (Oxnard, Pleasant Valley and Las Posas Valley basins).

FUTRE AGENDA ITEMS

ADJOURNMENT

Committee Members:

Edwin T. McFadden III, Chair Daniel C. Naumann Lynn E. Maulhardt

Staff:

Mauricio E. Guardado, Jr., General Manager Maryam Bral, Chief Engineer Dan Detmer, Supervising Hydrogeologist Dr. Jason Sun, Senior Hydrogeologist/Modeler John Lindquist, Senior Hydrogeologist Dr. Zachary Hanson, Hydrogeologist Kathleen Kuepper, Hydrogeologist Eric Elliott, Associate Hydrogeologist Murray McEachron, Principal Hydrologist Dr. Bram Sercu, Senior Hydrologist

The Americans with Disabilities Act provides that no qualified individual with a disability shall be excluded from participating in, or denied the benefits of, the District's services, programs or activities because of any disability. If you need special assistance to participate in this meeting, or if you require agenda material in an alternative format, please contact the District's offices at (805) 525-4431. Notification of at least 48 hours prior to the meeting will enable the District to make appropriate arrangements.

Approved:

Mauriciò E. Guardado, General Manager

Dr. Maryam Bral, Chief Engineer

Posted (Date): January 28, 2021 (time) 1:30pm At: UWCD Headquarters, 1701 N. Lombard Street, Oxnard, CA 93030 (attest) Eva Ibarra

Posted (Date): January 28, 2021 At: www.unitedwater.org (time) 1:30pm

(attest) Eva Ibarra



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

General Manager Mauricio E. Guardado, Jr.

Legal Counsel David D. Boyer

<u>MINUTES</u> WATER RESOURCES COMMITTEE Tuesday, January 5, 2021 at 9am UNITED WATER CONSERVATION DISTRICT Boardroom, 1701 N. Lombard Street, Oxnard CA 93030

Committee Members Present:

Chair Edwin McFadden Director Daniel Naumann Director Lynn Maulhardt

Staff Present:

Mauricio E. Guardado, Jr., General Manager Dr. Maryam Bral, Chief Engineer Brian Collins, Operations and Maintenance Manager Dan Detmer, Supervising Hydrogeologist Eric Elliot, Associate Hydrogeologist Tony Emmert, Assistant General Manager Dr. Zachary Hanson, Hydrogeologist Eva Ibarra, Administrative Assistant II Kathleen Kuepper, Hydrogeologist John Lindquist, Senior Hydrogeologist Murray McEachron, Principal Hydrologist Josh Perez, Human Resources Manager Zachary Plummer, IT Administrator Dr. Bram Sercu, Senior Hydrologist Kris Sofley, Executive Administrative Coordinator/Clerk of the Board Dr. Jason Sun, Senior Hydrogeologist/Modeler

Public Present:

Burt Handy Kim Loeb

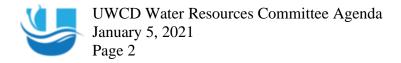
OPEN SESSION: 9:00am

Committee Members roll call.

Chair McFadden (participated virtually), Director Naumann and Director Maulhardt (were in attendance in the Boardroom) Chair McFadden called roll call and confirmed all were present.

1. Public Comment

Chair McFadden asked if there were any public comments for the Water Resources Committee; none were offered.



2. Approval of Minutes - Motion

Motion to approve the January 5, 2021 Water Resources Committee meeting minutes, Director Naumann; Second, Chair McFadden. Roll call vote: two ayes (Naumann and McFadden); none opposed; one abstaining (Maulhardt). Motion carries 2/0/1.

3. Basin Optimization and Water Sustainability Projects

Mr. John Lindquist presented on long-term changes in groundwater production on the Oxnard coastal plain and detailed some of United's recent planning level efforts to optimize yield from the Oxnard and Pleasant Valley basin through a combination of new water supply projects and a redistribution of pumping (see slides).

Director Naumann asked who the members of the Oxnard/Pleasant Valley Stakeholders Group were. Mr. John Lindquist named most of the recipients.

General Manager Mauricio Guardado, Chair McFadden, Director Naumann, and Director Maulhardt all had questions, concerns, and discussed the information provided in Mr. Lindquist's presentation. Mr. Lindquist emphasized the slides provided were strictly informational and were simply a starting point for evaluating costs and feasibility for the combination of projects.

4. Future Hydrology and Climate change Factors; Considerations for Future Modeling Efforts Dr. Bram Sercu presented on how United forward modeling efforts have incorporated future climate change factors for rainfall and runoff, as determined by California Department of Water Resources (see slides).

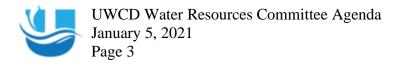
Chair McFadden, Director Naumann, and Director Maulhardt all voiced their opinions on the slide representing potential future diversions at Freeman Diversion. Dr. Bram Sercu explained the factors that comprised the graph as presented.

5. Water Resources Department Update

Dan Detmer provided an update on the Water Resources department and stated most of their efforts have been on the groundwater model. He also stated that Dr. Bral, Mr. Lindquist and himself have been supporting the Core Stakeholder project process. Mr. Detmer mentioned that staff have gathered all available geologic information from the Mugu area in support of the Coastal Brackish desalter project, and that staff will now revise the groundwater flow model in the project area before running scenarios for that project.

6. Groundwater Sustainability Agencies Update

Mr. Detmer provided an update and began by pointing out the Fox Canyon Groundwater Management Agency (FCGMA) is considering a new replenishment fee after hearing general support from groundwater users. He stated that the Fox Canyon Board is working on a contract with a legal firm that will subcontract to a rate-setting firm for analysis and compliance with Prop 26 and Prop 218 before a major rate increase could be implemented. Mr. Detmer provided an update on the facilitator for the FCGMA Core Stakeholder process whose contract has expired, although facilitator Gina Bartlett will continue to serve the legal committee. The Fillmore and Piru Basin GSA and the Mound Basin GSA are well aware of the delivery deadline for GSPs a year from now and are awaiting the modeling results to determine what future water levels might look like and what management actions might be required. FPBGSA continued its discussion of Sustainable Management Criteria and whether any shallow dry wells might be considered



acceptable. There was a Board Workshop on modeling expansion, validation, and future modeling and attention will now shift towards application of model running scenarios. The recent Mound Basin GSA discussions have been largely related to water quality. Staff is working on the 2020 annual report for the Santa Paula Basin.

Director Naumann asked if climate change factors are the same state-wide, and Mr. Detmer explained that they are not.

Director McFadden asked Dr. Sercu about the water diverted through the Freeman. Dr. Sercu explained the percentages.

Director Maulhardt stated that staff needs to prepare for two audiences in order for all to understand information provided, agencies as well as members of the general public.

FUTURE AGENDA ITEMS

None offered.

ADJOURNMENT

Chair McFadden adjourned the meeting at 11:15 am.

I certify that the above is a true and correct copy of the Minutes of the UWCD Water Resources Committee Meeting of January 5, 2021.

Chair Edwin T. McFadden, III

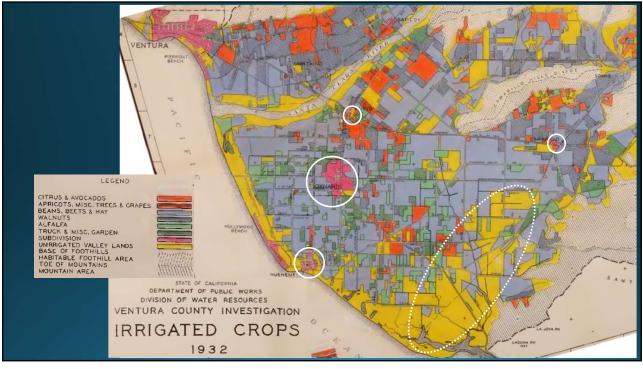
Summary of OPV Stakeholders Group Projects Committee Efforts

Water Resources Committee Meeting January 5, 2021



OUTLINE

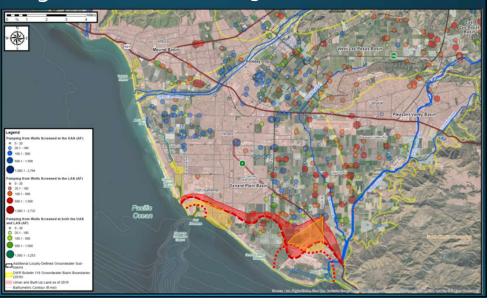
- 1. Background: Why are stakeholders interested in building new water-supply projects?
- 2. Goals of the OPV Stakeholders Projects Committee
- 3. Potential project scenarios
- 4. Path forward

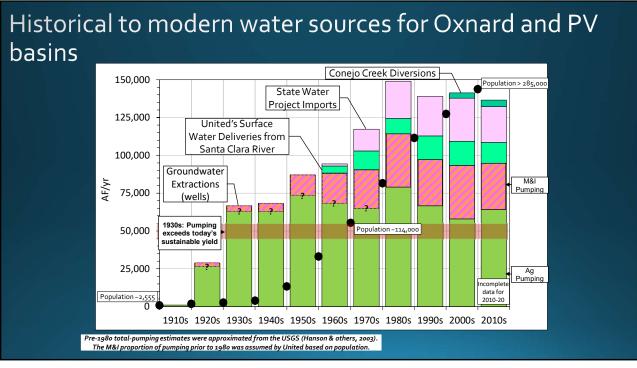


About 425 Wells in Oxnard and Pleasant Valley (OPV) basins extracted groundwater in 2015

Notes:

- ~50 wells in OPV basins pumped ~1 to 5 acre-feet per year (AFY)
- ~ 50 wells in OPV basins pumped less than 1 AFY





Path to Sustainable Yield with Current GSP Projects 100,000 80,000 Water Use (AF/yr) 60,000 Ċ 2035 = 54,600 AFY 2030 SY = 50,600 AFY Initial = 46,100 AFY 40,000 L Ag Reduced Pumping (60%?) 20,000 M&I Reduced Pumping (40%?) Overdraft Sustainable Yield + New Water Sources 0 2020 2030 2035 2025 2040 Water Year

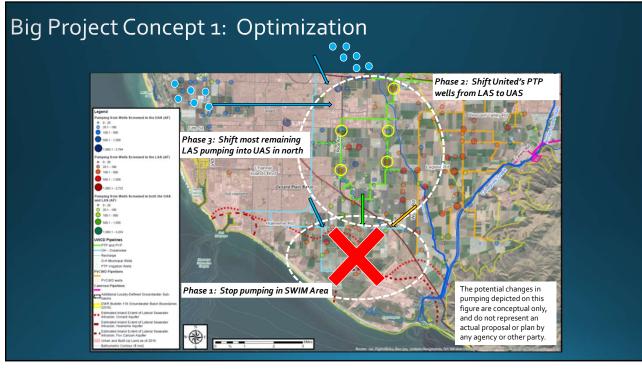
Goals of the OPV Stakeholders Projects Committee

(Sept-Dec 2020)

- 1. Support the Core Group's efforts in identifying a cost effective portfolio of projects and optimization measures that align with the GSP objectives and respond to regional water needs.
- 2. Recommend cohesive strategy to bring these projects into fruition for the Core Group's consideration.

New Projects with Low Infrastructure Requirements or With High Certainty of Being Implemented

Quantity (AFY)	Notes
4,600	Included in GSP
4,500 0	Included in GSP, but later withdrawn
2,700	Included in GSP
	(AFY) 4,600 4,500 0

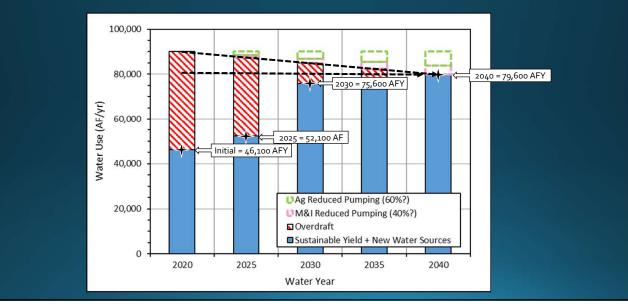






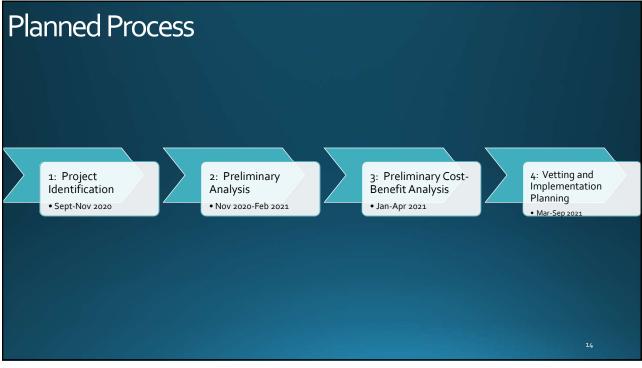
Potential Project-Implementation Scenarios					
Project	GSP: Reduction w/ Projects	GSP: Reduction w/ Projects (revised)	SWI Barrier Focus	Optimization Focus	Hybrid Approach
Recycled water to farms (2021)	4,600				
Recycled water to recharge ()	4,500				
Incentivized fallowing (2021)	2,700				
SWP Interconnect flushing (2027)	o				
Freeman Expansion Ph. 1 (2028)	o				
Freeman Expansion Ph. 2 (2036)	o				
SWP Art. 21, exchanges, transfers (2021)	o				
Optimization Ph. 1 (2027)	o				
Optimization Ph. 2 (2030)	o				
Optimization Ph. 3 (2035)	0				
Brackish Water Ext. Ph. 1 (2027)	0				
Brackish Water Ext. Ph. 2 (2035)	0				
Reduced pumping (from 90,000 AFY)	39,000				

Options for Modeling Rampdown under a Hybrid (SWI Barrier + Optimization) Scenario



Other Potential Future Projects that Could be Modeled at a Later Date

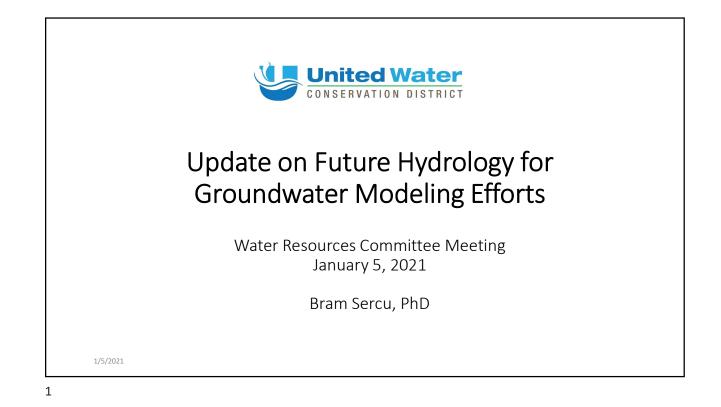
Project	Quantity (AFY)	Notes
Conejo Creek Storage (2030)	2,500?	Being developed by Camrosa MWD
M&I water market/alternative sources	???	Being developed by Curtis Hopkins
AWPF expansion for other uses	4,500?	Oxnard suggested they may have more recycled water available for projects

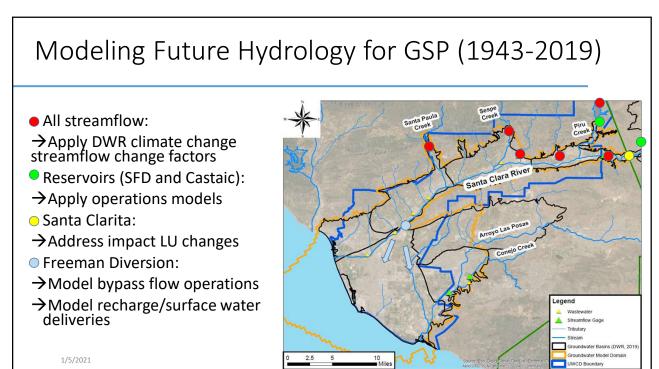


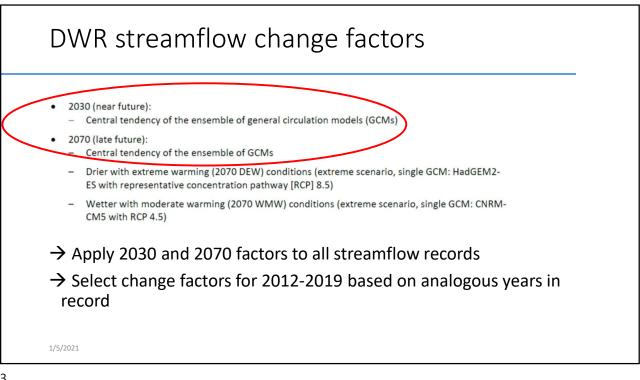
"The probability of success is difficult to estimate; but if we never search the chance of success is zero."

--Giuseppe Cocconi and Philip Morrison, 1959

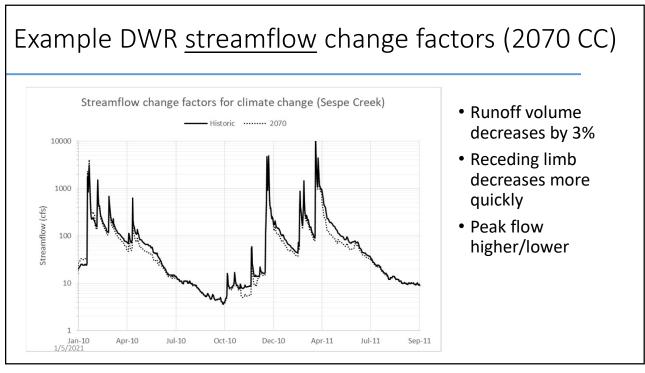
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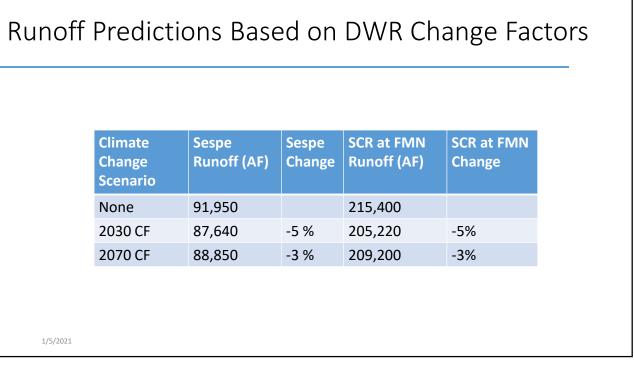


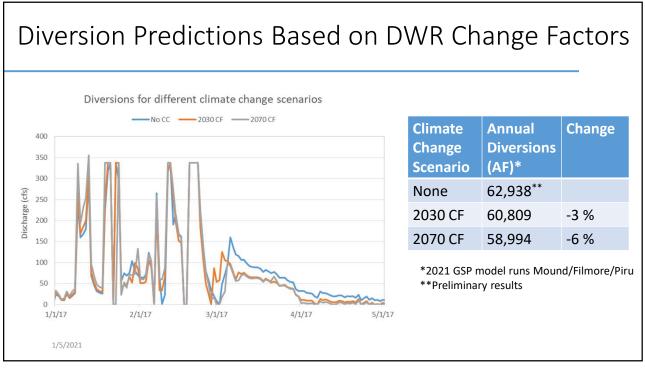


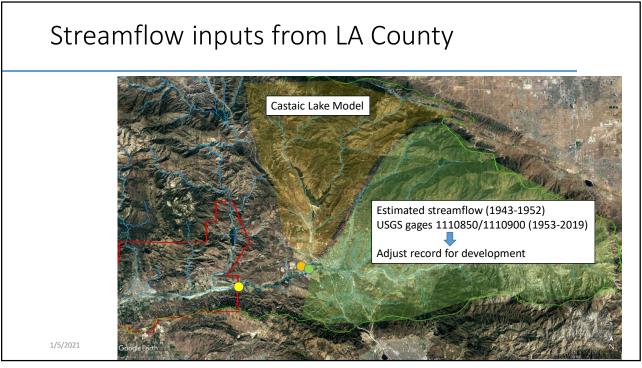


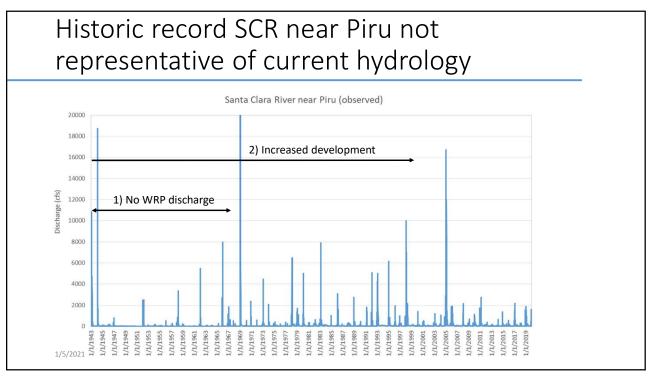


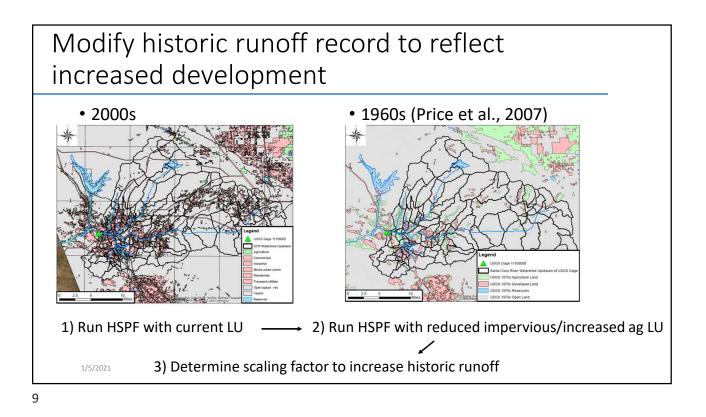


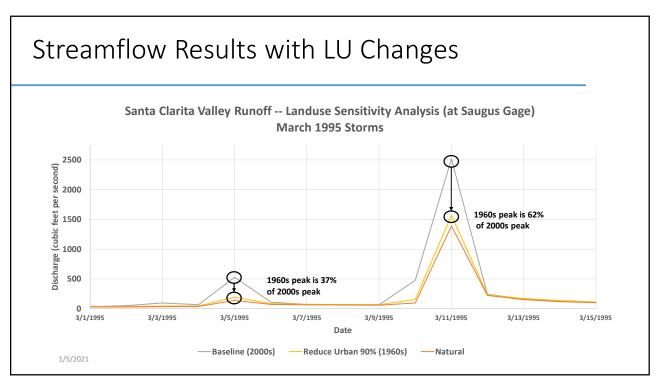


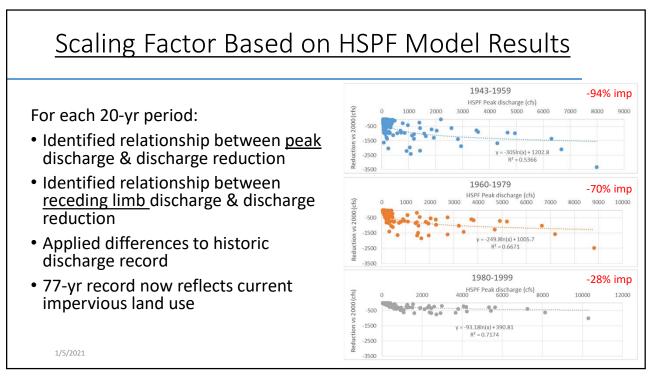


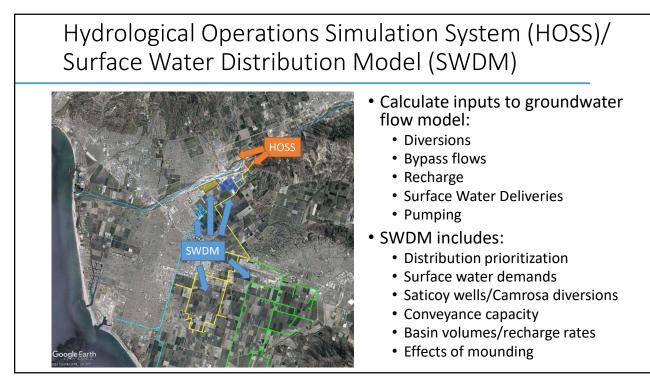


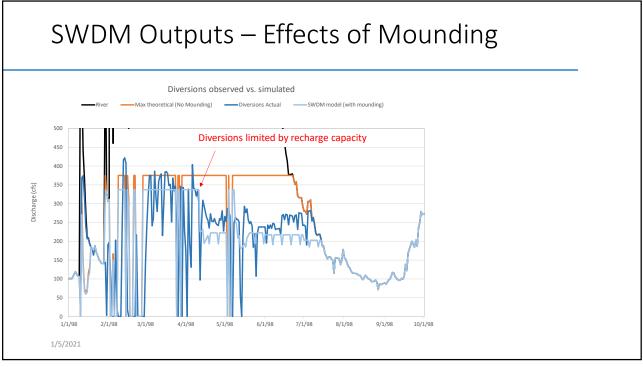


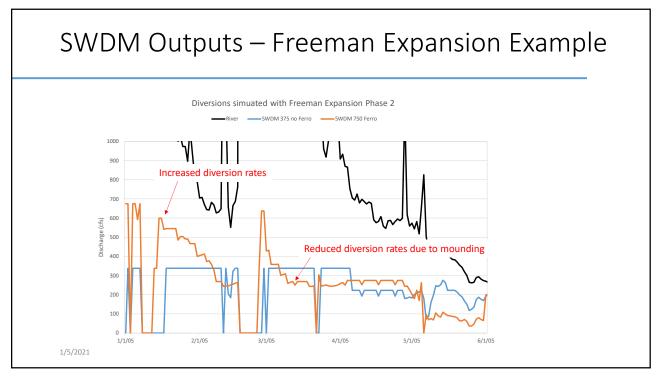


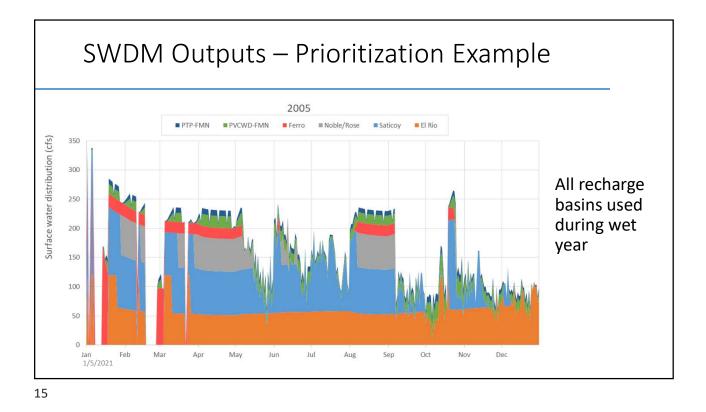


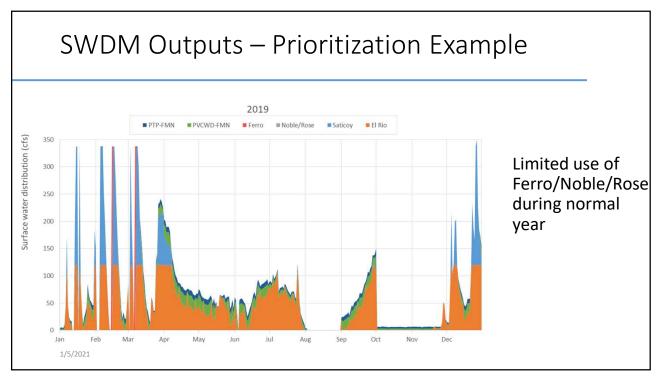














Staff Report

То:	Water Resources Committee		
Through:	Mauricio E. Guardado, Jr., General Manager		
From:	Maryam Bral, Chief Engineer Dan Detmer, Supervising Hydrogeologist		
Date:	January 26, 2021 (February 2, 2021, meeting)		
Agenda Item:	5. Monthly Water Resources Department Report Information Item		

Staff Recommendation:

Receive a summary report on various Water Resources departmental activities.

Discussion:

As noted in our previous staff reports, the majority of staff continue to work from home and communicate via teleconferencing during the Covid-19 pandemic.

Staff Activities

In addition to the Department's routine, ongoing groundwater monitoring and reporting program and its support of Groundwater Sustainability Agencies (summarized in a separate staff report), notable efforts and activities conducted by staff during the past month included the following:

- Groundwater modeling:
 - Staff has expanded the active domain of United's numerical groundwater flow model to incorporate the Piru, Fillmore and Santa Paula basins. The model was calibrated through 2015 and validated through the 2016-2019 period. Now that the expanded model has been validated, staff are preparing model documentation and applying the model for a number of urgent tasks, as described below and in the SGMA update staff report.
 - Staff has worked with Ventura County Watershed Protection District staff to use their existing HSPF surface water flow model to simulate runoff from the upper Santa Clara River watershed for future model runs in support of area Groundwater Sustainability Agencies (GSAs).

Agenda Item: 5. Monthly Water Resources Department Report Information Item Information Item

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- Staff has completed the work required to apply climate change factors to historical streamflow and rainfall records, as required to simulated future hydrology for the local GSAs. Initial forward modeling runs have been executed and delivered to the Mound and Fillmore-Piru Basin GSAs
- Staff continue to help the Environmental Services Department (ESD) evaluate effects of existing and potential future surface-water flow conditions at the Freeman Diversion.
 - Staff are assisting ESD in evaluating fish passage modifications under consideration for United's Habitat Conservation Plan (HCP).
- Staff continue to assist with planning and coordination for release of Table A water and supplemental State Water Project water acquired from the Santa Clarita Valley Water Agency and the City of San Buenaventura.
- Staff has entered available lithologic information from wells in the Mugu area into a RockWorks database and has constructed cross-sections in order to map the continuity of confining units in the vicinity of the proposed Coastal Brackish Groundwater Extraction and Treatment Project. Aquifer and confining unit picks from individual borings can now be used to generate surfaces and layer thicknesses for local model refinements.
- Staff are analyzing sediment load at the Freeman Diversion and removal options for accumulated sediment from the desilting basin.
- Staff continue to support the Engineering Department with development and design of water-supply projects within the District's service area.
- Field staff completed the monthly monitoring run for groundwater elevations and sampling of the non-coastal monitoring wells.



Staff Report

То:	Water Resources Committee	
Through:	Mauricio E. Guardado, Jr., General Manager	
From:	Maryam Bral, Chief Engineer Dan Detmer, Supervising Hydrogeologist	
Date:	January 26, 2021 (February 2, 2021, meeting)	
Agenda Item:	6. Update on Groundwater Sustainability Agencies (GSAs) and Sustainable Groundwater Management Act (SGMA) <u>Information Item</u>	

Staff Recommendation:

Receive a summary report of Water Resources Department activities related to the Sustainable Groundwater Management Act (SGMA) and Groundwater Sustainability Agencies (GSAs) for the groundwater basins within District boundaries.

Discussion:

Fox Canyon Groundwater Management Agency (FCGMA)

Staff continue to monitor and, where appropriate, participate in the FCGMA's groundwater sustainability planning and implementation efforts in the Oxnard, Pleasant Valley, and Las Posas Valley (western management area) basins, as follows:

Board of Directors meetings – The next regular FCGMA Board meeting is scheduled for January 27 at 1:30 pm. The meeting will be held after the submission of this report and, therefore, a summary will be included in next month's staff report. Notable agenda items include:

- The Board will consider approving a contact with Dudek to prepare groundwater sustainability plan (GSP) annual updates for the Las Posas Valley basin, Oxnard basin, and Pleasant Valley basin. The contract also includes conduct of feasibility studies for new water supply projects.
- The Board will consider approving a contact with Jarvis Fay & Gibson to provide services related to the development and adoption of groundwater augmentation fees consistent with Prop 26 and Prop 218 requirements for the Oxnard and Pleasant Valley (OPV) basins.
- Staff will provide the Board an update on plans to continue stakeholder engagement in the OPV basins.

Agenda Item:6.Update on Groundwater Sustainability Agencies (GSAs) and
Sustainable Groundwater Management Act (SGMA)

Information Item

Page 2

Executive Committee meeting – The FCGMA Board's Executive Committee held a meeting on January 21. The primary topic of this meeting was a staff update on continuing stakeholder engagement in the OPV basins and introduction of the FCGMA's new consulting facilitation team (from The Hallmark Group).

• The Board will consider approving a contact with Dudek to prepare groundwater sustainability plan (GSP) annual updates for the Las Posas Valley basin, Oxnard basin, and Pleasant Valley basin. The contract also includes conduct of feasibility studies for new water-supply projects.

OPV Core Stakeholder Group meetings -

The OPV Core Stakeholder Group and Project Committee has changed to a FCGMA-led effort and will continue OPV stakeholder engagement through the FCGMA Executive Committee.

The Projects Committee of the OPV Core Stakeholder Group will continue its efforts through the FCGMA Committee meetings.

Selected United staff and counsel also attended the January 19 meeting of the Legal *Ad Hoc* Committee of the OPV Core Stakeholder Group. Discussions by this committee are subject to a non-disclosure agreement.

Fillmore and Piru Basins Groundwater Sustainability Agency (FPBGSA)

Staff continue to participate in FPBGSA activities supporting SGMA compliance and GSP preparation for the Fillmore and Piru basins, as follows:

Board of Directors meetings – The FPBGSA held a regular Board meeting on January 21 at 5:00 pm. Notable topics included:

- A report from Daniel B. Stephens & Associates on development of the draft Sustainable Groundwater Management Criteria. Discussion centered on results of forward modeling runs using California Department of Water Resources specified climate factors.
- A presentation from Christopher Kibler, PhD candidate at University of California Santa Barbara, on the findings of his recent study on interactions between droughts and health of riparian vegetation with local ecosystem context provided by Stillwater Sciences.
- A presentation from UWCD principal Hydrologist, Murray McEachron, on the 2020 water release and other releases in recent years from Lake Piru and the benefit to groundwater recharge and groundwater elevations in the Piru and Fillmore basins.
- A brief update from Daniel B. Stephens & Associates and United staff on progress related to the DWR grant for new monitoring wells in the Piru and Fillmore basins and options for using existing shallow production wells as new monitoring locations.

Agenda Item:6.Update on Groundwater Sustainability Agencies (GSAs) and
Sustainable Groundwater Management Act (SGMA)

Information Item

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Communication and Outreach – A third Stakeholder Workshop was held on December 9 to discuss historical and current water budgets for the basins. Dr. Jason Sun presented an update on United's groundwater model, including expert panel review, input parameters, and model validation.

GSP preparation – Consultant DBS&A have reported progress on various work products in support of GSP development and noted the availability of a web-based data management and mapping system that includes well construction information and available water level and water quality records for wells within the Piru and Fillmore basins.

Modeling – Staff have completed the hydrostratigraphic conceptual model for the Santa Paula, Fillmore, and Piru basins, and have completed calibration of the active domain of United's numerical groundwater flow model for the base period years 1985-2015. Staff has completed a model update for the years 2016-2019 and performed a model validation exercise. Staff has worked with Ventura County Watershed Protection District staff to use their existing HSPF surface water flow model to simulate runoff from the upper Santa Clara River watershed for future model runs in support of area GSAs. Staff has completed the work required to apply climate change factors to historical streamflow and rainfall records, as required to simulated future hydrology in the study area. The initial future runs applying 2030 and 2070 climate change factors and forecasted groundwater pumping have been completed and provided to the technical consultant for the GSA.

Mound Basin Groundwater Sustainability Agency (MBGSA)

Staff continue to participate in MBGSA activities supporting SGMA compliance and GSP development for the Mound basin, as follows:

Board of Directors meetings –

The MBGSA Board held a regular meeting on January 21. Notable topics of discussion included:

• The Board received a status update from Executive Director Bryan Bondy on GSP development and schedule, including selecting a date for the next stakeholder workshop (March 4 at 6:00 PM).

GSP preparation – United staff continue to compile and review data to support preparation of the Mound basin GSP, in general accordance with United's agreement with the MBGSA. United has delivered model runs for potential future groundwater levels and flows in Mound Basin under various future climate change scenarios and is developing draft text, tables, and figures in support of the water-budget section of the GSP.

Agenda Item:6.Update on Groundwater Sustainability Agencies (GSAs) and
Sustainable Groundwater Management Act (SGMA)

Information Item

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Santa Paula Basin Technical Advisory Committee (TAC)

Staff continue to participate in the Santa Paula basin TAC in support of the Santa Paula Basin Judgment and in conformance with SGMA reporting requirements for adjudicated basins, as follows:

- Staff are preparing a draft version of the Santa Paula Basin Annual Report for 2020.
- The TAC meeting scheduled for June 2020 has been postponed; a specific date and time have not been selected yet. It is anticipated that the Technical Working Group of the TAC will meet prior to the next TAC meeting, to discuss the current status of United's groundwater flow model expansion and how the effectiveness of the proposed yield-enhancement measures might be forecasted using the model. The Technical Working Group is also expected to discuss the "Triggers" proposal/memorandum at an upcoming meeting.