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GROUNDWATER COMMITTEE MEETING MINUTES

Tuesday, February 26, 2019 – 12:00 p.m. to 1:30 p.m.
Boardroom, UWCD G.I. “Irv” Wilde Headquarters
106 North 8th Street, Santa Paula, California

COMMITTEE MEMBERS PARTICIPATING

Michael Mobley, Chair
Robert Eranio

COMMITTEE MEMBERS ABSENT

Ed McFadden

STAFF

Robert C. Siemak, assistant GM (via telephone)
Anthony Emmer, assistant GM
Dr. Maryam Bral, chief engineer
Dan Detmer, supervising hydrogeologist
John Lindquist, senior hydrogeologist
Dr. Jason Sun, senior hydrogeologist/modeler
Kathleen Kuepper, staff hydrogeologist
Eric Elliott, staff hydrogeologist
Kris Sofley, executive assistant

PUBLIC

Akbar Alikhan, Channel Islands Beach Community Services District
Jared Bouchard, Pleasant Valley County Water District
Frank Brommenschenkel
Alden Broome, Broome Ranches
Peter Candy, City of Port Hueneme
Amanda Fagan, US Navy
Jurgen Gramckow, Southland Sod
Martin Gramckow, Southland Sod
Steve Hickox, City of Santa Paula
Nathan Jacobsen, US Navy
Kim Loeb, Ventura County – Fox Canyon GMA
Jeanette Lombardo, California Women for Agriculture
Tony Morgan, DBS&A
Thien Ng, City of Oxnard – Public Works
Tim Nicely, GSI Water Solutions/City of Santa Paula
Susan Rungren, Ventura Water
Richard Sweet, Ventura resident

OPEN SESSION: 12 noon

1. PUBLIC COMMENT

Chair Mobley asked if there were any public comments for the Groundwater Committee.

Richard Sweet asked if the Committee could clarify UWCD's position on the Ventura State Water Interconnect Project, which is being discussed later tonight at the Ventura Water Commission, and its potential impact on Santa Clara River water and also on Ventura State Water. Director Eranio asked for clarification on the second part of Mr. Sweet's question, asking if he was talking about Ventura's exporting or selling off of State Water. Mr. Sweet responded yes, that he was wondering if United had approached Ventura about selling its State Water to United. Director Eranio asked Mr. Emmert if he would like to comment. Mr. Emmert declined to comment on the situation.

2. APPROVAL OF THE AGENDA

Motion

Director Eranio made a motion to approve the agenda for today's Groundwater Committee meeting. Director Mobley seconded the motion. Voice vote, two ayes (Eranio, Mobley), none opposed, one absent (McFadden). Motion to approve the agenda carries 2/0/1.

3. APPROVAL OF THE MINUTES

Motion

Chair Mobley said they would table the approval of the minutes until Director McFadden arrived.

4. FOX CANYON GROUNDWATER MANAGEMENT AGENCY (FCGMA) AGENDA REVIEW (SIEMAK/DETMER/LINDQUIST)

Informational

Dr. Jason Sun discussed the "peer review" conducted by Stanford University of the groundwater models being used by the FCGMA to develop its allocation ordinance and groundwater sustainability plans (GSPs) for the Oxnard and Pleasant Valley basins.

Mr. Lindquist then addressed other items listed in the FCGMA staff report (also included in the PowerPoint presentation) for the GSPs, including progress on the GSPs for Oxnard, Pleasant Valley and Las Posas Valley basins, and United staff comments on the most recent draft Allocation Ordinance.

Several audience members commented following the presentations by Dr. Sun and Mr. Lindquist:

- Jurgen Gramckow, referencing the Ordinance, said there was an error in Article 10.2, and felt it should say "reductions for everybody," which would fix the issue. He asked how much surface water diversions were reduced due to ESA issues at the Freeman. He also said that that adjustments should apply to everyone.
- Mr. Loeb commented about how the Ordinance was being interpreted, saying that the FCGMA allocated surface water and was flexible in additional pumping when surface water isn't available, and that he wasn't sure about the hypotheticals. He said United and Pleasant Valley have the ability to pump additional groundwater and deliveries are

available when groundwater extractions are reduced to balance it out. Mr. Lindquist said groundwater pumping is reduced to make up for surface water deficiency. Mr. Loeb said the Board would look at it. He added that he thought it was helpful to meet like this to discuss the Ordinance so that everyone understands each other.

- Martin Gramckow said he agreed with Mr. Lindquist and said the boxes are right but FCGMA just missed the mark with language. He said at tomorrow's FCGMA meeting, there will be lots of people with lots of comments and he agrees with Mr. Lindquist, that the Ordinance will address issues if the language is right. He said a committee or group of people who understand the philosophies need to be heard so that the language is right, but there hasn't been any time to speak with Mr. Loeb. He said stakeholders, UWCD, Pleasant Valley CWD, Mr. Loeb, and his staff all need to get down to this level of detail because the last thing anyone wants is to disincentivize surface water users from conjunctive use.
- Mr. Sweet said that the five year drought diagram doesn't make sense to him. Groundwater pumping, even if surface water isn't available, overdraft the basins, and a well owner doesn't have rights unless there is water there. It should all depend on water levels. Mr. Lindquist responded that under the FCGMA's approach to achieving sustainable yield, the wet and dry years average out, even with extended drought.
- Peter Candy, who identified himself as the attorney for Port Hueneme, asked who pays if no sub-allocation exists for a facility. Mr. Lindquist said that the FCGMA addressed the need for sub-allocation, and United believes it takes care of its users. Mr. Candy asked what opportunity is there for folks impacted by sub-allocations. Mr. Lindquist asked Mr. Emmert, UWCD's assistant general manager, to address the question. Mr. Emmert said the OH agreement addresses that and the contract goes back to the 1990s. OH agreement will be updated once FCGMA has new guidelines and PTP, which has 62 individual agreements, makes it a sticky issue. PTP's 62 turnouts serve larger parcels and make it difficult to administer. The group of users and UWCD will have to work out how to administer allocations.
- Jared Bouchard said that the core principal for Freeman Diversions benefits can't be independently carved out. Freeman diversions put water into the ground and it benefits everyone. We need to explore more fully the Ordinance language and make it inclusive and go back to how we track diverted water at the Freeman and how it impacts everyone's water use.
- Alden Broome said the public should be given more information about how the Freeman Diversion and El Rio work. Mr. Lindquist said that staff has been making a number of presentations lately, trying to stress the benefits of conjunctive use, but was not able to get on the agenda to present at tomorrow's FCGMA meeting due to time constraints. Dan Detmer said that a letter was sent to FCGMA, expressing the District's concerns and included several of the slides presented during this meeting.

Mr. Lindquist then asked if the committee had any directions for staff at tomorrow's FCGMA meeting. Chair Mobley said he liked Martin's idea of continuing to work together to tweak the language of the Ordinance without attorneys. Chair Mobley said he would like United staff to verbally comment at the FCGMA meeting, reinforcing the concepts raised in the Groundwater Department's written comments to the FCGMA.

5. MOUND BASIN GROUNDWATER SUSTAINABILITY AGENCY (MBGSA) AGENDA REVIEW (LINDQUIST)

Informational

Mr. Lindquist presented an update on the MB GSA, including: the approval of its basin boundary modifications, continued negotiations with DWR on the final grant scope of work, DWR's drillers drilling-depth limitations,, RFQ for a GSP subcontractor, and the scope of work and level of effort for United's agreement to provide technical support for the MB GSA's GSP development. Mr. Lindquist said the MB GSA's next meeting, on March 21, would address the selection of the GSP consultant. The MB GSA's April meeting may be shifted from April 18 to 25 and could be canceled altogether depending on whether or not there were pressing items before the Board.

6. FILLMORE AND PIRU BASINS GROUNDWATER SUSTAINABILITY AGENCY (FPBGSA) AGENDA REVIEW (EMMERT/DETMER)

Informational

Mr. Detmer presented an updated on the FPB GSA, including: the approval of its basin boundary modifications; the execution of its Prop 1 grant; the hiring of Daniel B. Stephens & Associates (former United staff Tony Morgan and Tim Moore included in the team) as consultant to prepare GSPs for the Fillmore and Piru basins; the addition of Lynn Edmonds on the Board, replacing Carrie Broggie, representing the City of Fillmore; and the recent update by United staff on the approach being used to develop the groundwater model for the Fillmore and Piru basins.

Mr. Detmer reported that the FPB GSA's ad hoc committee on stakeholder engagement included two directors from the Board to assist the team from DBS&A, who had also hired an expert in community engagement from Sacramento State. The team was working on a draft engagement plan for the committee's review. That draft will be presented to the full Board for its approval and execution. Mr. Emmert, who serves as the Executive Director for the GSA, added that ideas and contacts for inclusion in the Stakeholder engagement plan included contacts provided by Supervisor Kelly Long, and that on Thursday DWR will be leading a kick off meeting with staff and consultants on the final grant and its administration. He added that Fillmore and Piru are recognized as disadvantaged communities, so the matching funds for the grant award were reduced to only a 25 percent match.

7. SANTA PAULA BASIN TECHNICAL ADVISORY COMMITTEE (TAC) UPDATE (LINDQUIST)

INFORMATIONAL

Mr. Lindquist reported that as Santa Paula is adjudicated and a low priority basin, it is exempt from many SGMA requirements. Annual reports on basin conditions can be found on the United website, with 2017 being reviewed by the Technical Advisory Committee (TAC) and posted on the District's website by mid-year. The Santa Paula Basin Pumpers Association, City of Ventura, and UWCD serve on the TAC, and if anyone has any questions, they can contact John Lindquist or Susan Rungren for information.

Mr. Sweet asked a question about the Santa Paula groundwater basin's perimeter and Mr. Lindquist said DWR decided the boundary lines of each basin.

8. FUTURE AGENDA ITEMS

Chair Mobley said that since this was the first meeting with this new format, the committee was open to hearing suggestions and/or input for how much information to provide. Chair Mobley

suggested including information on the State Water Project (SWP) Interconnection surface water pipeline; Mr. Emmert said that UWCD was a minor participant and supports new water sources for the area and that this project provides flexibility and the Board is supportive. He said he would also make sure United staff was represented at Ventura's Water Commission meeting. He added that United is interested in purchasing Table A water from the SWP, and the Interconnection pipeline would provide a way to bring it to United's facilities.

Chair Mobley asked if there were any questions or comments. Mr. Detmer said he anticipates monthly agendas will focus on the GSA issues for two months, and that each quarter, the monthly meeting will include more department activities.

ADJOURNMENT 1:18 P.M.



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ATTENDANCE LIST

MEETING DATE: Tuesday, February 26, 2019

MEETING: UWCD Groundwater Committee Meeting

The signing or registering of your name on this sign-up form is not required but is voluntary. All persons may attend the meetings of the Board of Directors of United Water Conservation District without signing or registering their names on this form.

Name (Please Print)	Representing
Kim Loeb	Ventura Co / FCGMA
Tony Moran	DSFA
Saad Bouchard	PUCWD
Tim Nicely	GS/ Niche Solp. (for City of SP)
Thien Ng	Oxharvest
Nathan Jacobsen	NAVY
Amenda Fagen	Navy
Peter Candy	PHWA
Jurgen Gylamckow	
MARTIN Gylamckow	
Paula Gonzales	COA, AAU, NFAA
Susan King	San Jose Water
Ricardo Sweet	VENTURA RESIDENT
Alex Brown	
STEVE HICKOX	CITY OF SANTA PAULA
Frank Brummett	

Groundwater Committee Meeting

February 26, 2019



"When we talk about the need for water storage in California, we must take full inventory of the tremendous opportunity of our underground natural storage infrastructure. If we focus on this now, we'll be able to take advantage of the next wet winter."

Maurice Hall, EDF blog "The Hidden Opportunity for Water Storage in California," June 1, 2017



Saticoy
Spreading
Grounds
2017

Agenda Items 1 through 3

1. PUBLIC COMMENT
2. APPROVAL OF THE AGENDA
3. APPROVAL OF THE MINUTES

4. Fox Canyon Groundwater Management Agency (FCGMA) Agenda Review

FCGMA's "Regular Agenda" for Feb. 27, 2019:

4. John K. Flynn Groundwater Stewardship Award
5. FCGMA Board Member Appointments and Committee Assignments
6. *Peer Review of the United WCD and Calleguas MWD Groundwater Models*
7. *Groundwater Sustainability Plan (GSP) Update*
8. *Proposed Ordinance to Establish a New Pumping Allocation System for the Oxnard and Pleasant Valley Basins*

Item 6, Peer Review of Models

- FCGMA asked Dudek to subcontract a Stanford University professor to review United and Calleguas MWD models
- Review focused on:
 - Consistency of numerical models with conceptual understanding of basins included in models
 - Quantifying uncertainties

Item 6, Peer Review of Models (continued)

- "The UWCD numerical model is **consistent** with the accepted conceptual model of the Oxnard Subbasin, Pleasant Valley Basin, and Western Management Area of the Las Posas Valley Basin."
- "The fact that the most sensitive parameter assignments were **well-constrained** by observations reduces uncertainty and provides good confidence in model predictions of groundwater levels overall."
- "The values assigned in the model were **consistent** with horizontal hydraulic conductivities determined from aquifer testing in that area..."
- "...the UWCD model is **reliable** to use in the initial estimation of the basin wide sustainable yield."

Uncertainty Analysis

- The goal is to identify the uncertainty of groundwater flowrates.
- Generated 120 realizations by randomly adjusting the model input parameters
 - Aquifer properties: HHK, VHK, Storage coefficient
 - Surface recharge
 - Stream conductance
 - GHB with seawater outcrop

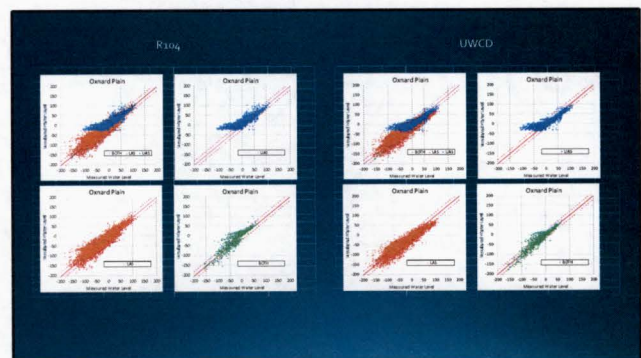
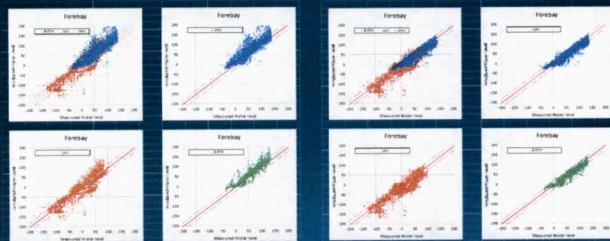
UWCD Comments on Stanford/DUDEK Uncertainty Analysis

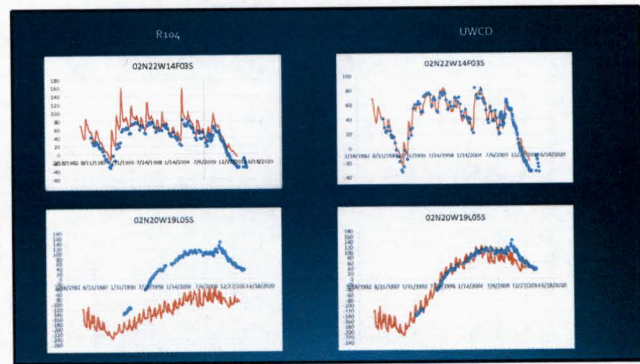
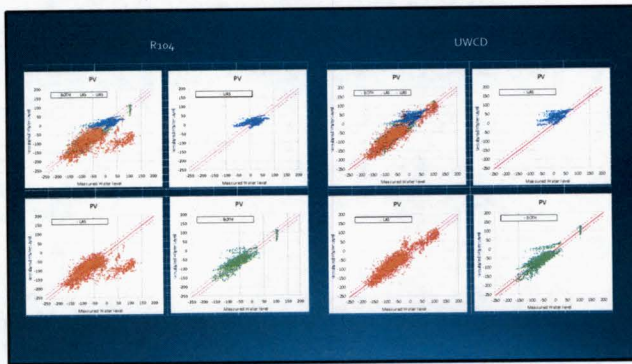
- Due diligence check as UWCD internal project
- Several discrepancies were identified and conveyed to FCGMA/DUDEK
- Collaboration with DUDEK in resolving the discrepancies in
 - flow budget calculation
 - STR files
 - GHB conductance related to seawater flux

Realizations vs. Calibrated UWCD Model

- From the result of 120 realizations with larger residual errors, the UWCD Model is shown to be optimally calibrated with smallest residual statistics
- For optimally calibrated models, the realization simulations tend to be worse than the calibrated model

R104 vs. UWCD





Item 7, GSP Update

Key points from FCGMA staff report:

- "Board directed that completion of the GSPs for the Oxnard Subbasin and Pleasant Valley Basin be prioritized over the Las Posas Valley Basin GSP."
- "The sustainable yields and MT/MOs may look significantly different in the 5-year GSP update based on feasibility analyses of future projects not available for these initial GSPs."
- "...the primary sustainability goal is increasing groundwater elevations in each principal aquifer inland of the coast to levels that limit seawater intrusion beyond the currently impacted area..."

Item 8, Revised Draft Allocation Ordinance

- Several major revisions during the past 6 months
- United staff focused on providing stakeholders with data and thoughts on practical effects of ordinance
 - Avoided advocating for any particular Ag or M&I stakeholders attempting to increase their allocations
- Proposed effective date of October 1, 2019
- Allocation reductions to be determined after sustainable yield of basins identified in GSPs

United Staff Concerns Regarding Ordinance

1. The current Ordinance language does not make it clear that a well field can be a single "extraction facility."

Staff would like to ensure that extraction allocations can be easily shifted between wells in a well field (e.g., OH or PTP well fields).

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United Staff Concerns Regarding Ordinance

2. Santa Clara River (SCR) surface water potentially allocated in a manner inconsistent with groundwater allocations.

Likely to discourage stakeholders from accepting future in-lieu surface-water deliveries, and threatens the conjunctive use concept overall.

3. Reconsideration of surface-water "allocations" every 5 years will lead to excessive and unnecessary volatility in water-supply planning.

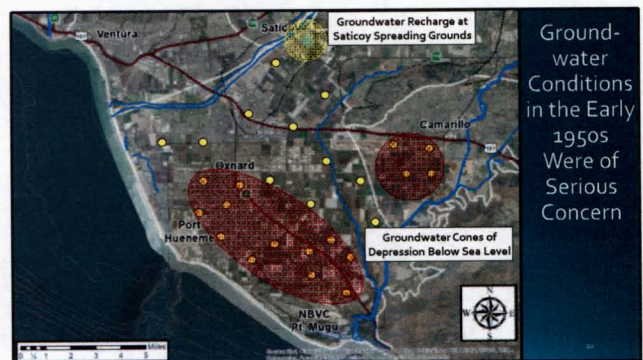
We suggest 10 years, to "smooth" out much variability.

13

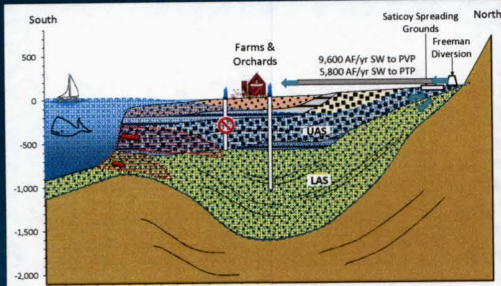
Problem Statement

- Conjunctive use of groundwater and Santa Clara River surface water (*in lieu* of pumping) in the Oxnard and PV basins has **rewarded** all users:
 - higher water levels, mitigated seawater intrusion in UAS, less cost/energy use/GHG emissions
- In the current allocation ordinance language, those who receive PTP and PVP surface water *in lieu* of groundwater pumping **risk** losing a greater portion of their historical allocation compared to other water users.
- This could discourage expanded conjunctive use in the future
 - Lower basin sustainable yield, increased cost/energy use/GHGs

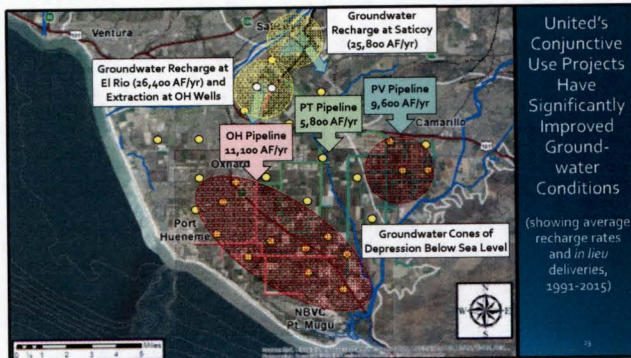
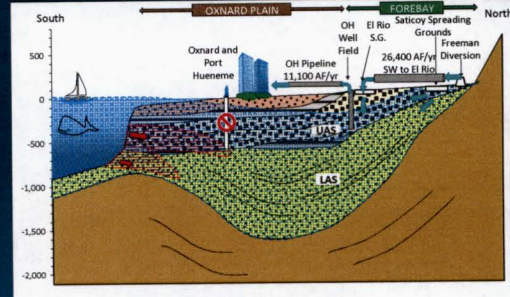
14



PT and PV Pipelines Were Intended to Help



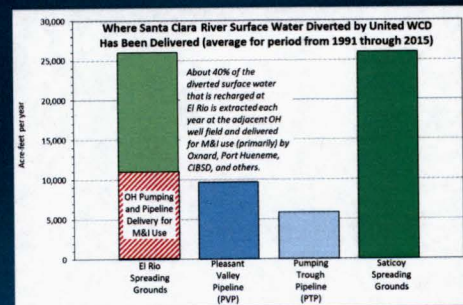
OH Pipeline Was Nearly Identical in Concept



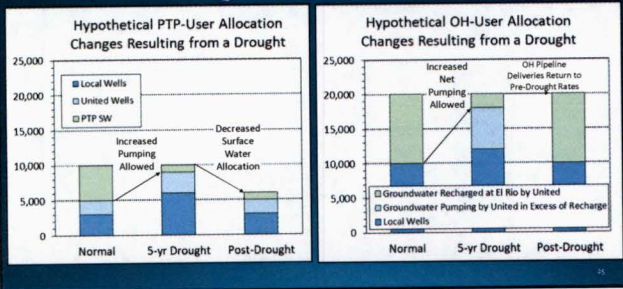
United's
Conjunctive
Use Projects
Have
Significantly
Improved
Ground-
water
Conditions

(showing average
recharge rates
and in lieu
deliveries,
1991-2015)

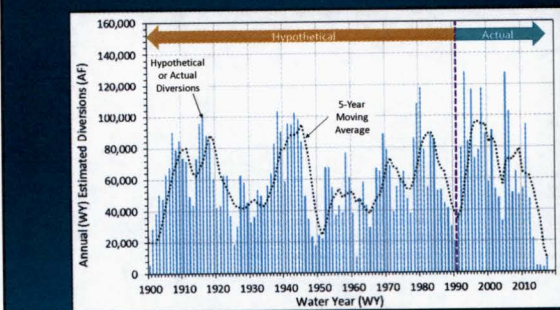
The OH Pipeline Receives More Water than the Other Pipelines



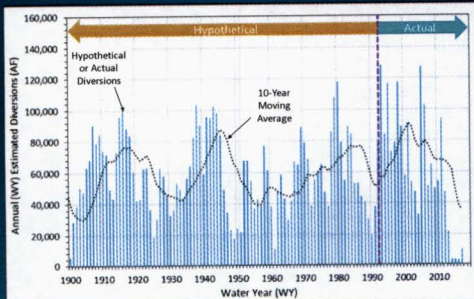
What Happens if Surface-Water Allocations are Reduced Following the Next 5-Yr Drought?



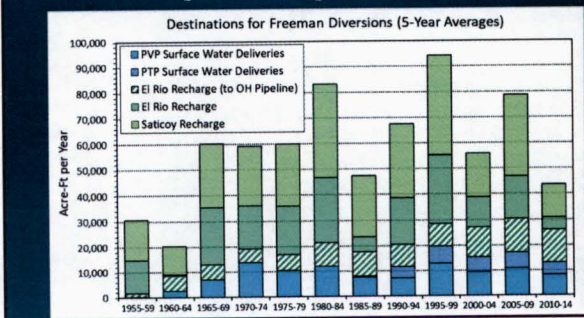
United's Diversions Can Vary Significantly in 5 Years



Variability is Diminished Using 10-Year Averages



What Have Past 5-Year Average Pipeline Deliveries Been?



What Makes Sense?

Allocation ordinance should return to treating surface water delivered *in lieu* of pumping the same as groundwater.

1. PTP and PVP users originally accepted conjunctive use on the premise that delivered surface water would be equal to groundwater.
2. Current language is a big disincentive to accept *in lieu* surface water or expanding conjunctive use
 - Encouraging conjunctive use improves sustainable yield for all users, lowers costs for water, improves environmental conditions

5. Mound Basin Groundwater Sustainability Agency (MBGSA) Agenda Review

Recent Activities (as of Feb. 21 Board meeting)

- Basin boundary modifications approved
- Prop. 1 grant for GSP preparation in negotiation
- DWR technical support in monitoring-well installation may not be possible due to depth of planned well
- RFQ for GSP support contractor "on the street"
- Contract language, SOW, and LOE for United staff support on GSP preparation seems acceptable to both parties

Agenda for Next Meeting

- Next meeting: March 21 at 1:00 pm
- Future agenda items:
 - GSP-consultant RFOs/selection
- April meeting shifted from April 18 to April 25
 - may be cancelled if not needed

6. Fillmore and Piru Basins Groundwater Sustainability Agency (FPBGSA) Agenda Review

Recent Activities (as of Feb. 21 Board meeting)

- Basin boundary modifications approved
- Prop. 1 grant for GSP preparation executed
- GSP-consulting contract executed
 - Daniel B. Stephens & Associates, Inc.
 - United providing significant technical support
- Lynn Edmonds, City of Fillmore, joined the FPBGSA as a member Director on the Board
- United staff presented model development approach

Agenda for Next Meeting

- Next meeting: March 21 at 5:00 pm
- Future agenda items:
 - Stakeholder engagement *ad hoc* subcommittee progress

5.7. Santa Paula Basin Technical Advisory Committee (TAC) Update

Recent Activities

- Basin boundary modifications for adjacent Fillmore and Mound basins approved
 - No changes to Santa Paula Basin Settlement Boundary
- Draft 2017 Annual Report submitted to TAC
 - Groundwater elevations rose, overall, in SP basin in 2017
 - Must complete SGMA reporting for adjudicated basins by April 1, 2019
- TAC Working Group on groundwater elevation "triggers" making progress

Agenda for Next Meeting

- Next TAC meeting: Feb. 28 (not a public meeting)
- Future agenda items:
 - Report on TAC Working Group progress regarding "triggers" document
 - Review planned SGMA adjudicated-basin reporting data

8. FUTURE AGENDA ITEMS

ADJOURNMENT

Thank you!