

Water Resources Association of Yolo County
Technical Committee (TC) – November 5, 2015, 8:30 – 10:30 am
Yolo County Flood Control & WCD, 34274 State Hwy. 16, Woodland

Committee Members:

Elisa Sabatini, Yolo County, TC Chair	Tim O'Halloran, YCFC&WCD
Carol Scianna, City of Winters	Dawn Calciano, City of Davis
Max Stevenson, YCFC&WCD	Nancy Ullrey, Cache Creek Conservancy
Kristin Honeycutt, CA DWR	Barrett Kaasa, CA DWR
Ryan Burnett, City of West Sacramento	Tim Busch, City of Woodland
Bryan Busch, RD 108	Jordan Power, City of Woodland
Jeanette Wrynski, Yolo County RCD	Donita Hendrix, Dunnigan Water District
Donna Gentile, WRA	

Other Attendees:

Dave Pratt	Esther Conrad, Water in the West, Stanford Univ.
David Purkey, Stockholm Environ. Inst.	Muhammad Ahmad, SEI/ UC Davis
Key Loy, West Yost Associates	

Member Agencies Absent:

UC Davis	RD 2035
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- 1. CALL TO ORDER & Introductions** at 8:30 am by Elisa Sabatini.
- 2. APPROVAL AGENDA & Adding Items to Posted Agenda:** Agenda approved as presented.
- 3. APPROVE MEETING MINUTES:** Previous meeting minutes were emailed to the TC for review with today's agenda. Comments on the draft 10/1/15 minutes are due by 11/6/15.
- 4. PUBLIC COMMENT:** No public comments.
- 5. CALIFORNIA DEPT. OF WATER RESOURCES (DWR) Update:** Kristin Honeycutt, DWR, introduced Barrett Kaasa who will be the new DWR representative providing monthly updates to the WRA TC. Barrett summarized his work history and background. Hong Lin is still available to give presentations when requested. Kristin gave updates on the following items.

Integrated Regional Water Management

▪ **Implementation Grants**

- ✓ The draft funding recommendations for 2015 has been released for Public Review and Comment:
http://www.water.ca.gov/irwm/grants/docs/p84_implementation/2015%20P84Implementation_FundingRecommendations_2015_1029.pdf
 - ✓ [Public Workshop on 11/6 at 10 a.m. in Sacramento and comment period closes 11/13](#)
 - ✓ \$231M; 26 proposals – Westside IRWM was successful (\$2.2M for Napa and Solano county projects)
 - ✓ Originally received 37 applications totaling \$306.5M
 - ✓ Expecting awards to be final by December
- **Proposition 1 Funding (\$37 Sac-River Funding Area/\$510M)**
- ✓ Public scoping workshop September 18 – presentation from meeting:
http://www.water.ca.gov/irwm/grants/docs/P1Index/Proposition1IRWMGrantProgramPublicScopingMeeting_Final.pdf
 - ✓ December 2015 – release for public review and comment

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- Draft IRWM Program Guidelines; Draft Planning Grant PSP; Draft DAC Involvement RFP; Draft DAC Project PSP
- ✓ February 2016 – Public meetings
- ✓ March 2016 – Issue final documents; commence Planning Grant and DAC involvement solicitations
- ✓ New Legislation related to IRWM:
 - [SB 985](#): Stormwater Resources Plan incorporated into IRWMP
 - [AB 1249](#): Address areas of nitrate, arsenic, perchlorate, or hexavalent chromium
 - [SB 208](#): Advance payment for certain projects (pending Governor’s approval)
- ✓ Planning funds will likely help with incorporating Stormwater Resources Plan and water contamination discussions into IRWMPs
- ✓ \$5M planning -- \$367.3M implementation (anticipated schedule below)

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Anticipated Order of Solicitations

Fiscal Year	IRWM Program	Funding
FY 15-16	Planning	\$5M
FY 15-16	DAC Involvement	\$51M
FY16-17	DAC Projects	\$51M
FY17-18	Implementation	\$183.65M
FY 19-20	Implementation	\$183.65M

Sustainable Groundwater Management Program

- **Sustainable Groundwater Planning Grant Program** – [Final GL for SGP Grant Program](#) (\$100M available overall) and [Final PSP for Counties with Stressed Basins](#) solicitation funded by Proposition 1
 - ✓ \$10M available for Counties that are CASGEM compliant and considered Critically-Over-drafted basins
 - ✓ Solicitation closes December 8, 2015 at 5 p.m.
 - ✓ Final Funding Recommendations: Feb. 2016
- **Draft Basin Boundary Emergency Regulations** – Basin boundary emergency regulations adopted by the CA Water Commission on October 21, 2015
 - ✓ Basin Boundary Regulations website: http://www.water.ca.gov/groundwater/sgm/basin_boundaries.cfm
 - ✓ Emergency regulations adopted and Notice of Proposed Emergency Rulemaking distributed and posted on the website and the emergency regulations package submitted to AOL
 - ✓ Basin Boundary Modification requests accepted by DWR within 90 day period (Jan 1, 2016)
- DWR’s Implementation of SB 13 amendments to SGMA for the formation of **Groundwater Sustainability Agencies** http://water.ca.gov/groundwater/sgm/pdfs/SB-13_Announcement_2015-10-28.pdf
 - ✓ **GSA Formation Notification Guidelines for Local Agencies:**
http://water.ca.gov/groundwater/sgm/pdfs/GSA_Notification_Requirements_2015-10-27.pdf
- **GSP Regulations** – 3 public meetings in early 2016; Draft GSP emergency regulations will be posted to the GSP website 30 days before the required public meetings (by June 1, 2016 DWR is required to adopt emergency regulations for evaluating and implementing GSPs to achieve the legislative intent of SGMA)
 - ✓ Draft discussion papers on each topic are available for viewing:

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- [Topic 1 - Pre-SGMA Conditions and Undesirable Results](#)
- [Topic 2 - Measureable Objectives and Interim Milestones](#)
- [Topic 3 - Land Use and County Involvement](#)
- [Topic 4 - Alternative GSP Submittals \(Revised\)](#)
- [Topic 5 - Boundaries – Overlapping and Unmonitored Areas](#)
- [Topic 6 - Intra-Basin Coordination Agreements](#)
- [Topic 7 - Water Budgets and Coordination](#)
- [Topic 8 - State Agency Coordination](#)
- [Topic 9 - Data Collection, Management, and Reporting](#)
- [Topic 10 - Adaptive Management and Focus Areas](#)

- **Facilitation support services** available for local public agencies working to meet requirements of SGMA; majority of available support is reserved for forming GSAs and developing GSPs; priority given to newly forming groups and groups that have not received financial support in the past

FLOOD

- [Small Communities Flood Risk Reduction Program Guidelines](#) have been released for a 60-day public review period (closes 12/11/15; workshop 11/12/15 in Willows 3 – 6 p.m.)
 - ✓ Part of 2012 CVFPP and intended to invest in qualifying projects that reduce flood risks for small communities (non-urban < 10,000 residents)
 - ✓ Help small communities and counties to conduct feasibility studies, and design and construct projects with proven feasibility
 - ✓ Repair erosion sites and remove sediment from channels and bypasses; Evaluate and repair levees and any other SPFC facilities; Implement mitigation measures for a project by funding participation in a natural community conservation plan to facilitate eligible projects
 - ✓ Eligible applicants: local public agency with land use authority within area(s) protected by the SPFC facilities
 - ✓ Consistency with CVFPP State Systemwide Investment Approach
 - ✓ First phase: Feasibility study of flood risk reduction ~\$500k; Design and construction will be through subsequent phases

MISCELLANEOUS

- **DWR to host 10 Urban Water Management Plan (UWMP) workshops for water suppliers to prepare of their 2015 Update:** (From 9:30 am -2:30 pm: Red Bluff is November 13; Sacramento is November 20, with webinar option)
http://www.water.ca.gov/urbanwatermanagement/docs/2015/Workshop_Flyer.pdf
 - Discuss change since 2010 UWMPs
 - 2015 UWMP Guidebook – should be released before 11/13 prior to workshops
 - Standardized Tables
 - Data Submittal
 - Baselines, Targets, and New Pop Tool
 - Reporting Wastewater and Recycled Water
- **Agricultural Water Use Efficiency (AWUE) Funding**
 - \$30M available; \$3M/implementation project & \$300k/other projects
 - Draft GL and PSP (public comment closes 11/6/15)
<http://www.water.ca.gov/wuegrants/Draft%20AgWUE%202015%20Prop%201%20PSP%2010-2-15.pdf>
 - Contact: Fethi BenJemaa 916.651.7025; WUEGrants@water.ca.gov, Fethi.Jemaa@water.ca.gov.
 - Proposals due February 2016

6. FUNDING UPDATES:

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- Max Stevenson reported that Solano and Napa county projects from the Westside-Sacramento IRWMP are recommended for a \$2.1 million grant award under the Prop. 84, 2015 IRWMP grant solicitation. YCFC&WCD will be the fiscal agent. (Ref. DWR update above.)
- Tim O'Halloran informed that the Proposition 1 Water Use Efficiency draft PSP and guidelines were released a few weeks ago. Guidelines are stringent with a 50% cost share. The maximum award is \$3 million. (Ref. DWR update above.)
- Bryan Busch reported that the US Bureau of Reclamation will release another WaterSMART grant opportunity. <http://www.usbr.gov/watersmart/grants.html>
- Jeanette Wrynski informed that the Delta Conservancy (Prop. 1) have re-opened the solicitation and re-assigned point-value to some of the ranking categories. If you submitted a proposal you may wish to revise your existing concept proposal, or take advantage of this opportunity to submit a new proposal. RFP deadline extended 45 days to early January. <http://deltaconservancy.ca.gov/>

7. WATER LEGISLATION & REGULATORY ISSUES UPDATE: Tim O'Halloran reported that California Water Fix project comments were due last week. NCWA (including RD 108), ACWA (including YCFCWCD) and Yolo County submitted comments. Reportedly over 10,000 comments were received!

SB 88 is a trailer bill addressing measurement and reporting requirements to the State Water Board for diverters greater than 10 acre-feet. Regulations are being written now. Water right holders who are impacted are paying careful attention to how the regulations are being interpreted.

Elisa asked Bryan Busch to give an update on RD 108's Knights Landing Colusa Basin outfall gates/fish barrier project which is almost complete. Carol Scianna and Kristin Honeycutt reported on SB 385 (chromium-6). The State Board has extended the time to achieve water quality compliance for hexavalent chromium to 5 years (by January 2020). Carol and Elisa are coordinating a regional meeting for small to medium size agencies to discuss concerns about groundwater constituents like chromium-6. This forum will discuss solutions, costs and coordinate activities/projects. Send an email to Donna if you are interested in receiving information about this meeting, info@yolowra.org.

8. SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) PLANNING & IMPLEMENTATION:

- a) Update on progress with Facilitated Outreach process and timeline: Tim O'Halloran reported on the Ad Hoc Committee (Committee) appointed by the WRA Board at their September meeting to develop and approve the final scope of work for the Center for Collaborative Policy (CCP) under contract with DWR. The Committee met twice in October with Dave Ceppos and finalized CCP's scope of work that was submitted to DWR for review in early November. Hong Lin has also been involved in these meetings. The Work Order outlines the next steps for planning public outreach to identify a GSA or GSA(s).

Tim distributed a DWR press release from 10/28/15 on SB 13 amendments to SGMA that addresses changes to GSA formation ([http://www.water.ca.gov/groundwater/sgm/pdfs/SB-13 Announcement 2015-10-28.pdf](http://www.water.ca.gov/groundwater/sgm/pdfs/SB-13%20Announcement%202015-10-28.pdf)). SB 13 was passed in September 2015 and becomes law in January 2016. In particular, SB 13 addresses resolution of overlapping GSA service area boundaries before they can proceed as a GSA. If the Yolo region chooses to modify the boundaries from Bulletin 118, we have 90 days from January 1st to do so. The question remains what do the other county agencies want to do and who else is considering submitting boundary adjustments. Boundary amendments could impact neighboring regions and operating agreements would need to be established as appropriate. DWR has relaxed the requirements for boundary amendments by requiring 75% buy-in versus 100%. Tim explained there are two reasons for

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adjusting the boundaries: political and/or geotechnical. Applications submitted to request modifications must address the reasons for changing. Tim reviewed the timeline for establishing a GSA set by the SGMA legislation. Tim distributed two recent Sacramento Bee articles commenting on managing groundwater (<http://www.sacbee.com/opinion/opn-columns-blogs/dan-morain/article41974266.html> and <http://www.sacbee.com/opinion/op-ed/soapbox/article41900592.html>.)

9. WRA PROJECT FUND BUDGET:

- a) Status of FY2015-16 Projects: Donna reported that the process of preparing agreements including supporting scope of work and budget are being executed with all lead agencies receiving allocations.

Donna requested input from the WRA member agencies for the 2015 Annual Newsletter that will be published in January. She would like project photos and information from the past year. Please forward photos or information to her within the next 4 weeks. We would also like to highlight water conservation numbers for 2013, 2014 and 2015 to illustrate how well Yolo cities are meeting or exceeding the Governor's mandated conservation quotas. Donna will also be requesting this pertinent data.

- b) Status of Subsidence Network Monitoring Project for FY15-16: Tim O'Halloran has received draft contract from Jim Frame Surveying to review. He gave a brief overview of the surveying process, which is planned for the spring of 2016 to match the previous surveys. Tim will contact RD 2035 to confirm their financial participation in the Subsidence Monitoring event.

10. PRESENTATION: City of Woodland's Aquifer Storage & Recover (ASR) Project - Tim Busch, City of Woodland, gave some history on the City's water supply operations. Woodland relies on groundwater and they currently have 19 wells supplying water to the community. The water is safe to drink, but the quality is declining with increasing nitrates, selenium and chromium-6 levels. Water quality regulations are becoming stricter and it is becoming harder for the wastewater treatment plant to maintain compliance with State standards. The City will switch to Sacramento River Water in the summer of 2016 with the completion of the surface water treatment plant project. All groundwater wells will be turned off to convert to surface water sources. Tim illustrated with a map of Woodland's future water system with ASR infrastructure. ASR Well #28 has been completed and ASR wells #29 and #30 should be completed by the end of next year. They will operate the wells for at least one year before constructing two additional wells. Tim explained balancing winter and summer water supply demands and surface water rights restrictions. He discussed the reasons why the ASR project was developed and how it benefits Woodland's water supply needs. The local geology is very suitable for an ASR program. The City has been working with West Yost Associates for several years to plan the ASR program in conjunction with the surface water project. The five ASR wells will allow the ability to store approximately 5,500 acre-feet per year at buildout (~1.8 billion gallons). Tim explained how this stored water can be utilized in the summer and stored for use in times of drought. In the summer, the City and its residents use approximately 5-6 million gallons/month, so 1.8 billion gallons translates into a 3-4 month's supply if it was used exclusively.

The City and West Yost performed injection testing at Well #28 with Lawrence Livermore Labs. They used a Xenon gas tracer to differentiate between injected groundwater and native groundwater sources. The testing determined there was a 98% recovery rate of water injected into the aquifer. Tim illustrated ASR methods graphically to depict stored surface water, native groundwater and the various types of aquifer ground materials (clay, sand, soil, gravel) and their properties. He explained how groundwater moves in the aquifer at different depths. Tim discussed the many requirements for filter pack media for ASR wells, which has typically been gravel. A Germany company manufactures a better filter pack material made of glass beads

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that has more effective permeability. Additionally, the glass beads deter bacterial growth and maintain a cleaner water quality. Glass beads are becoming more of an industry standard and only added \$10,000 to the project cost for each well. He passed around a sample of the glass beads. Tim and Ken Loy answered questions. Tim's PPT presentation can be viewed at: http://www.yolowra.org/meeting_technical.html.

- 11. PRESENTATION: Water Evaluation & Planning System Model (WEAP)** - Tim O'Halloran introduced David Purkey from the Stockholm Environment Institute (SEI) and added that the YCFC&WCD (YCFC) has been collaborating with SEI for about 4 years on different modeling projects. Today David will introduce information about SEI and the WEAP software. He will share some of the recent work SEI has done in Yolo County and how it could be used in response to Yolo's SGMA implementation goals. He acknowledged that Kristin Honeycutt, DWR, is well acquainted with WEAP during her involvement with the Yuba County Water Agency's utilization of WEAP for their IRWMP. SEI's is an international research "think tank" headquartered in Stockholm with a U.S. office in Davis. Their goal is to be an active interface between scientific research and the policy/decision-making process through the utilization of WEAP software. He detailed the many aspects of SEI's work in climate policy, energy planning, disaster preparedness and water resources to name a few. They have been developing WEAP for 25 years, which has become a standard modeling platform used worldwide. He explained how WEAP integrates the many aspects of water resources systems (physical infrastructure and hydrologic conditions) to run simulations for future climate projections. These simulation scenarios help decision-makers make better management decisions and understand potential risk factors. Changing scenarios, such as land use and population growth, can be incorporated into the model rather than making assumptions about past hydrology repeating itself in the future. This is important when taking into account changing agricultural scenarios and planning for SGMA implementation. More information about WEAP can be accessed at this website: <http://www.weap21.org/>.

David discussed some of SEI's work for Yuba County Water Agency and in Yolo County. SEI developed a Cache Creek model that is mainly focused on the YCFC's operations. The Cache Creek model can be useful as a starting point, if SGMA planning efforts want to extend this model to the entire county's water system. David detailed the elements that were used to develop the Cache Creek model, such as the Solano Decree, climate-driven hydrology, water rights, infrastructure and crop water demands. David explained how the "Robust Decision Support" (RDS) framework approach was used with YCFC to develop a formal vulnerability assessment of the YCFC's Cache Creek system. RDS is based on 3 key steps: participatory scoping, evaluation of multiple futures and management strategies leading to a robust strategy. Every stakeholder has a different definition of success. This exercise allows the varying definitions of success to be evaluated to produce a result that responds to a variety of concerns and results in agreeable management options and strategies.

He explained in further detail the problem formation used, described as the XLRM framework (Figure 1 and reference David's PPT presentation: http://www.yolowra.org/meeting_technical.html.) They created three climate scenarios using WEAP for a severe drought, wet climate and average climate. David illustrated the results of these factors in a graph.

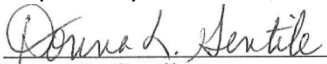
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Figure 1: SEI’s Problem Formation for the District

X (exogenous factors/ uncertainties)	L (levers/management strategies)
Climate	1: BAU (Current management)
Landuse	2,3,4: District pumping with 2, 10, and 20 pumps respectively
New regulations (SGMA)	5: Winter recharge
	6: Periphery ponds
	7: Combined
R (relationships/model)	M (performance measures/metrics)
Cache Creek model (in WEAP)	Water supply reliability
	Financial viability
	Groundwater sustainability

David reviewed YCFC’s management options, objectives and performance metrics they could use to evaluate their options for the factors modeled. SEI did 84 model runs, using the 7 management strategies, 3 climate futures, 2 land use and 2 regulatory futures, to capture an aggregate of potential future conditions. David explained how water managers need to look at this large amount of ensemble data differently than a single output model typically used by water planners in the past. The climate of the past is not going to repeat itself perfectly in the future. The data results generated innovative visualizations using Tableau software and presented to YCFC over a several meetings. The aggregate results presented strategies for YCFC to consider for water supply reliability, the sustainability of both finances and groundwater resources of their operations. He summarized the strategies that emerged as front-runners for YCFC. David listed 6 benefits of using this approach: a formal participatory process, inclusive across multiple stakeholders and objectives, defines specific standards of “sustainability”, embeds deliberations with quantitative analysis, facilitates explicit handling of uncertainty and knowledge co-creation facilitates negotiations. He answered questions.

- 12. MEMBER INFORMATION:** YCFC&WCD, Winters, Davis, Dunnigan Water District, and Westside IRWMP/Jeanette Wrynski gave short updates on activities.
- 13. NEXT REGULAR TC MEETING DATE:** December 3, 2015, 8:30 - 10:30 a.m., Yolo County Flood Control & Water Conservation District Board Room.
- 14. ADJOURN** at 10:50 am

Respectfully submitted,

 Donna L. Gentile
 Board Secretary & Administrative Coordinator