

**MINUTES OF THE SEPTEMBER 19, 2016
BOARD OF DIRECTORS' MEETING
WATER RESOURCES ASSOCIATION OF YOLO COUNTY**

1. CALL TO ORDER & INTRODUCTIONS

The meeting was called to order at 3:00 p.m. by Chair, Cecilia Aguiar-Curry.

Board members present: Cecilia Aguiar-Curry - City of Winters, Chair
Duane Chamberlain - Yolo County
Brett Lee – City of Davis
Beverly Sandeen – City of West Sacramento
Camille Kirk – University of California Davis

Alternate members present: Tim O’Halloran – Yolo County Flood Control & WCD, WRA Treasurer
Jesse Loren – City of Winters
Kurt Balasek – City of Winters
Mike Hall - Reclamation District 2035
Lewis Bair – Reclamation District 108

Associate members present: Jeanette Wrynski – Yolo County Resource Conservation District

Member agencies absent: Dunnigan Water District
City of Woodland

Public & Agency Staff: Elisa Sabatini, Yolo County, WRA Technical Committee Chair
Donna Gentile – Water Resources Association of Yolo County
David Guy - Northern California Water Association (NCWA)
Kristin Sicke – Yolo County Flood Control & WCD
Max Stevenson - Yolo County Flood Control & WCD
Christine Crawford – Yolo County LAFCO
Tim Busch – City of Woodland
Greg Meyer – City of Woodland
Jennifer Iida - Yocha Dehe Wintun Nation
Richard Reed – Yolo County Supervisor Provenza, District 4
Dan McManus, CA Department of Water Resources
Stan Gryczk - City of Davis
Frank Sieferman Sr., Yolo County Landowners Association
John McKean
Dave Pratt

2. APPROVAL OF AGENDA: The Board motioned, seconded and unanimously approved the agenda.

3. PUBLIC FORUM: No comments from the public.

4. CONSENT ITEMS: The Board motioned, seconded and unanimously approved the consent items.

- a. Approved minutes: June 20, 2016 Board meeting
- b. Received minutes of Executive Committee: 6/13, 7/18/16
- c. Received minutes of Technical Committee: 6/2, 7/7, 8/4/16
- d. Received FY2015-16 Fiscal Year Ending Budget and Summary
- e. Received FY2016-17 financial reports: July – August 2016
- f. Adopted FY16-17 Budget Amendments for additional Project Fund Income

5. INFORMATIONAL ITEMS

a. Report from the WRA Chair: Chair Curry acknowledged that it is a pleasure to be part of the WRA. She noted and thanked the many stakeholders that participate in the WRA’s meetings and

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projects. She congratulated Reclamation District 2035 on their Joint Intake Facility dedication ceremony held last week.

6. UPDATE ON WATER LEGISLATION & REGULATORY ISSUES

- a. Legislation, Regulatory and Delta Updates: David Guy, Northern California Water Association (NCWA), noted there were many bills previously discussed that did not make it to the finish line. There are two water-related bills on the Governor's desk for consideration under his 30-day approval period: Assemblyman Dodd's bill AB 1755 to streamline data management and Assemblyman Gallagher's bill AB 2551 for water storage and construction of Sites Reservoir. Information is starting to surface for all the propositions on the November ballot. One of the water-related propositions is #53, the No Blank Checks Initiative, that many agencies are opposing. There are many concerns about its implementation and possible effects on future infrastructure.

On the federal side, Senator Feinstein is working on a drought bill and Congressman Garamendi has introduced a bill that is very similar to her bill. The House Republicans have a water bill that they are promoting. There are many discussions to determine how to weave all those bills together to get something passed in Congress. Progress is likely to be slow in an election year. NCWA continues to track and support issues that are important to Northern California.

On the regulatory front, David congratulated Reclamation District 2035 and the many salmon recovery efforts underway in the Sacramento Valley. Reclamation District 108 will have a dedication event for the Wallace Weir Fish Rescue Facility project on October 6th. David highlighted a number of local Reclamation Districts (including #2035 & #108) that are contributing water into the Bypass to provide food for the Delta Smelt. As fall approaches discussions are underway to add stored water into the Pacific Flyway for birds until the winter rains start. He also mentioned the State Water Resources Control Board's (SWRCB) Phase 1 of the Water Quality Control Plan Update to add water to the 3 tributaries of the San Joaquin River for beneficial uses in the Delta Estuary. Phase 1 does not affect the Sacramento Valley, but Phase 2 of this process would. NCWA is engaging the SWRCB in early discussions in order to head-off any potential future impasses to Sacramento River flows. California Water Fix proponents, DWR and the US Bureau of Reclamation, are in the process of requesting permits for a point of diversion change to the North Delta. The issue before the SWRCB is primarily focused upon the operations of the projects in conjunction with the conveyance through the Delta. Northern California water rights holders have strongly protested this change. NCWA and the Sacramento Valley Water Users are coordinating their efforts as part of the protest and will be presenting their case in chief, with expert witnesses, starting in October 2016.

7. WRA TECHNICAL COMMITTEE UPDATE, Elisa Sabatini, Committee Chair

- a. Technical Committee (TC) Activities and Westside IRWMP Update – Elisa highlighted a few items from recent meetings. The WRA (YCFCD project manager and fiscal agent) received a Prop. 1 Stormwater Resource Planning grant for \$325,000 leveraging about \$750,000 for projects to develop a watershed wide storm water resources plan. Once the plan is completed we will be eligible to apply for implementation funding in 2018. The grant money will also be used to expand the current Water Evaluation and Planning System (WEAP) model to all of Yolo County (developed by the Stockholm Environment Institute).

Since 1999, the WRA established and has continued to conduct subsidence network monitoring in Yolo County. The last monitoring observation was done in 2008. There was a break in

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monitoring due to an economic turnaround. However, with funding contributions from the WRA, Yolo County, YCFC&WCD and RD 2035, an observation event was conducted in June/July 2016. Volunteer staffing for the observation event was provided by the Yolo County, YCFC&WCD, the City of Winters and UC Davis, in cooperation with DWR, and Caltrans. A final report by Frame Surveying & Mapping should be available by October. She also mentioned the WRA's collaboration with Stanford University's subsidence research study in Yolo County. Elisa noted the presentations to the TC as listed in the September Board agenda on page 42.

8. **SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA)**, Tim O'Halloran, Yolo County Flood Control & Water Conservation District (YCFC&WCD), provided an update from the SGMA Working Group on SGMA implementation in Yolo County. He started with a brief overview of historic groundwater well levels monitored by the YCFC&WCD. He illustrated current water conditions with a table that compares the historic depth of water in 11 of the District's monitoring wells from 2010 to 2016. Conditions have improved from the driest times experienced in the last 5 years of drought. Tim illustrated graphical data of the rise in agricultural well permits from 2012 to 2015 and the marked decreased in 2016 (data from Yolo County Environmental Health Division). It was not delineated how many of these were new or replacement wells.

Tim gave an overview of the SGMA compliance phases in the coordinated, collaborative effort between the WRA and the Yolo County Farm Bureau (YCFB) (ref. Tim's PPT presentation posted here: http://www.yolowra.org/meeting_directors.html). The process started with the SGMA education and outreach meetings in March 2016. Basin Boundary Modification were submitted to DWR to update the current Yolo County Bulletin 118 boundaries. A Groundwater Sustainability Agency (GSA) model was presented to the all eligible GSA entities in Yolo County. The SGMA Working Group met twice to vet the concept of an umbrella GSA with five Management Areas. These Management Areas (identified from reports by Luhdorff & Scalmanini and DWR) represent all 26 of the eligible entities participating in this SGMA process. The Management Areas will provide maximum local authority while following consistent rules to be defined by the GSA. The GSA will have limited authority for regional planning and reporting and the JPA bylaws will define these authorities and responsibilities. Working Group meetings will continue to be scheduled throughout the remainder of the year as they work out more of these details. Tim presented a GSA Formation Timeline flow chart of task and activities culminating by the June 30, 2017 deadline set by SGMA. The consensus of the Working Group so far is to develop a governance format that incorporates the current responsibilities of the WRA and the GSA's future role. The GSA formation timeline allows time for each of the participating agencies' Boards/Councils to review and approve the JPA's charter once agreed upon by the Working Group.

Tim reviewed some of the components that need to be part of the Groundwater Sustainability Plan (GSP). The PPT handout listed some of the GSP components required to be included. The next focus of discussions will be addressing the "white areas" not governed by any of the current Management Areas. The State legislation considers the County as the default backstop for these white areas, but all entities will be part of these discussions to identify a solution. Tim commented that some people may be concerned about how the voting right of the GSA will be determined. He feels that will not be as much of a concern after the technical work documents that our groundwater supply is sustainable. He sees this as a technical consensus-based driven exercise that will address the six "undesirable results" as presented in the SGMA guidelines: lowering groundwater levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence and surface water depletion. Tim discussed next steps: additional GSA formation Working Group meetings, organizing meetings with private well owners to receive their input on the SGMA process,

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continuing our analysis work with SEI and their WEAP model, and receiving data from the 2016 Yolo subsidence network monitoring observation report from Frame Surveying & Mapping. Tim answered questions and received comments. Cecilia encouraged anyone who would like more information or a presentation about SGMA to please contact the WRA.

9. **DWR DATA and TOOL REQUIREMENTS for SGMA and DWR SUBSIDENCE MONITORING UPDATE**, Dan McManus, Sustainable Groundwater Management Section, CA Department of Water Resources (DWR). Dan's presentation will provide an overview of the groundwater data dependent GSP regulation articles, an update on DWR's data tools that might help with decision-making for SGMA implementation and a brief update on DWR's subsidence monitoring conducted in 2016.

Dan began with a discussion of GSP "Plan Contents" from Article 5 of the regulations. The Plan needs to include a basin setting description that should include a hydrogeologic conceptual model, description of current and historical basin groundwater conditions, a water budget, sustainable management criteria, a monitoring network database and many maps to illustrate the basin. Dan's PPT presentation listed each of these items in more detail, which can be accessed here: http://www.yolowra.org/meeting_directors.html. It is important to include your data gaps and the uncertainty of your conceptual model to provide a built-in buffer when you are defining minimum thresholds for undesirable results as sustainability indicators for your GSP. Dan explained the requirement of a GSP to include a water budget. Per the Article 5 code, a water budget is an accounting and assessment of the total annual volume of groundwater and surface water entering and leaving the basin. It includes historical, current and projected water budget conditions and the change in the volume of water stored. Each GSP shall rely on the best available information and science to quantify the basin's water budget. Dan reviewed the criteria for sustainable management that includes sustainability indicators, minimum thresholds for each indicator and measurable objectives, which are quantifiable goals for the maintenance or improvement of specified groundwater conditions. A monitoring network must be developed for collecting sufficient data to demonstrate short-term, seasonal and long-term trends in groundwater and related surface conditions. The network can also incorporate data from other programs such as CASGEM.

DWR has many programs and data tools to collect and disseminate information on water resources: http://water.ca.gov/data_home.cfm. Dan reviewed the wide variety of online data topics available and how to access the data, maps and reports for many water-related issues. The Water Data Library is an interactive tool to access well monitoring data indicators related to groundwater levels, water quality, and surface water by location. He discussed the existing statewide datasets and the potential new datasets that are planned to be added in the next several years. He provided a list of key DWR groundwater data sites:

- **Water Data Library** (water level data): www.water.ca.gov/waterdatalibrary/
- **CASGEM** (water level data): www.water.ca.gov/groundwater/casgem/
- **DWR Groundwater Information Center**
 - Main Page - www.water.ca.gov/groundwater/gwinfo/index.cfm
 - Maps and Reports - www.water.ca.gov/groundwater/maps_and_reports/index.cfm
- **GIC Interactive Map** (water level and subsidence maps)
www.water.ca.gov/groundwater/MAP_APP/index.cfm
- **SGMA Water Management Planning Tool** (boundaries map)
 - Main Page - <http://www.water.ca.gov/groundwater/sgm/>
 - Interactive map - www.water.ca.gov/groundwater/boundaries.cfm

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Dan prefaced his update on subsidence monitoring with an illustration and definition of inelastic subsidence materials and the benefits of using an extensometer for monitoring. He reviewed two Yolo County extensometer sites monitored by DWR with a graph of historical groundwater level measurements in Zamora (1992 to 2016) and Conaway Ranch (2011 to 2016) and what contributed to the land subsidence during the recent drought conditions experienced. Glenn County conducted subsidence monitoring in spring 2015. He compared that data to their last monitoring measurements done in spring 2004 and the differences observed. Dan discussed other subsidence surveys in the Sacramento Valley. A "hot spot" of subsidence in Arbuckle appeared in the NASA/JPL Central Valley Remote Sensing Report (InSAR technology) in January 2015 compared to May 2014. Based on that data, DWR re-surveyed the Arbuckle area (land-based GPS) in spring of 2016. The Sacramento Valley Land GPS Subsidence Monument Grid was established in 2008 and has not been resurveyed since. He showed a map with height differentials of -2.08 ft. and -1.64 ft. surrounding Arbuckle. They are not sure exactly when this subsidence occurred, but speculate that it mostly happened in 2014/2015. Dan further illustrated the Arbuckle area's subsidence with a contour map of elevation changes. DWR also compared this area of subsidence to domestic and large production well density. The quantity of domestic wells was as expected (6-10 wells/section), but the large production well density was 9-10 wells/section, which represents a more significant amount of pumping. Dan displayed a Groundwater Elevation Change Map showing a 60 ft. decline in groundwater levels in the Arbuckle depression area from spring 2011, which was a wet year, to spring 2016. He reviewed a list of potential subsidence related impacts, such as damage to roads, buildings, and buried utilities. He discussed well damage in Colusa and Arbuckle and a section of the Tehama-Colusa Canal that buckled near Arbuckle. Under SGMA significant and unreasonable land subsidence, reduction of groundwater storage and chronic lowering of groundwater levels indicating a depletion of supply should all be considered when assessing the basin's characteristics. Dan mentioned that DWR will be resurveying the entire Sacramento Valley grid in spring 2017 and comparing data to the 2008 GPS survey. Seth Lawrence, Northern Region Office, is the project manager and will be contacting Yolo area agencies for their in-kind participation for this collaborative effort. Dan answered questions.

10. WOODLAND-DAVIS SURFACE WATER SUPPLY PROJECT IMPLEMENTATION

- a. Update from the City of Davis, Stan Gryczk, Assistant Director Public Work: Stan informed that the City of Davis, in conjunction with Woodland Davis Clean Water Agency (WDCWA), prepared a report with recommendations for the initial steps prior implementation. Before the introduction of surface water into their system, the City injected orthophosphates into three deep wells in February 2015 and flushed approximately 79 miles of water mains with a history of water quality complaints. On June 3rd they began introducing surface water into one of the five distribution system turnouts planned. They began by introducing 1.5 million gallons of surface water per day and slowly increased to 4.5 million gallons/day over a period of days. The City's system is now at 4.7 million gallons/day of surface water for a little over one month. Overall the process went smoothly. They are conducting weekly water quality sampling. Stan informed that this sampling information and a site map is available on the City's website under distribution system water quality information: <http://cityofdavis.org/city-hall/public-works/water/water-quality-information/distribution-system-water-quality-information>. The actual sampling assisted in identifying how far the surface water was flowing, which was more to the north and further east than thought from earlier modeling conducted. The City is still blending surface water (~30-35%) and groundwater supplies (~60-65% from deep wells and very little from intermediate depth wells).

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Phase 2 of their implementation will start soon now that one more turnout is constructed and ready. Phase 3 for the introduction of the remaining three turnouts was scheduled for December 2016, but construction is ahead of schedule and will be ready to come online by early October. The City will keep one neighborhood well in reserve for emergencies only, but the distribution system will primarily be the five surface water turnouts constructed. The City received a number of complaints the first week surface water was introduced. The complaints were focused in one area and were likely due to the fact that a deep well had been brought back online rather than problems with surface water quality. They are continuing to flush water mains in other areas of the city in preparation for Phase 2. As part of the implementation the City was required to do additional lead and copper sampling at home sites (~70 sites tested). The City is under the allowed limits for these constituents. The final report will be available on their website when completed. Other resident questions are being addressed. The vast majority of questions are about whether they can stop using their water softeners.

- b. *Update from the City of Woodland, Tim Busch, Principal Utilities Engineer:* Tim illustrated Woodland's water system with a map outlining the completed and planned well infrastructure for the surface water project and their aquifer storage and recovery (ASR) project. Tim's PPT presentation can be access on the WRA's website: http://www.yolowra.org/meeting_directors.html. Well #16 is a transmission main blending well and is connected to the surface water distribution system. Two more wells, #24 and #26, will also be connected as blending wells. The blending wells will assist Woodland in lowering chromium 6 levels below the new State limits. Well #28 is a completed ASR well. Two more ASR, wells #29 and 30, are currently under construction and will be completed in about 1 year. Hopefully two more wells will eventually be added to the ASR project for a total of five. Woodland started receiving surface water from the WDCWA Regional Water Treatment facility on June 1st. They started introducing 4 million gallons/day of surface water into the system and slowly increased to 9 million/day. The initial problems experienced were related to three water main breaks that happened all at the same time. The water pump has a high pressure shut-off and the pumps were accidently turned off.

Woodland studied other cities that converted to surface water in preparation for implementation of this project. A strategy for introducing surface water was developed from recommendations studied, such as water distribution system flushing, anti-corrosion treatment of old pipes with pH control and orthophosphate injection, and water quality testing. If water discoloration issues are experienced, it would take 1 to 4 months to resolve. The City tested for 12 constituents in 10 locations throughout the city. Tim illustrated with graphs of constituent sampling for hardness, chromium, and chlorine. He discussed the water quality improvements demonstrated by the sampling data as surface water was introduced. Tim reviewed the challenges of an aging water distribution system and showed the various ages of pipes throughout the city. The oldest water pipelines were installed in the early 1900's. Some of the water quality issues are due to particulates from these older corrosive pipes. The City has hired consultants to assist in resolving water quality issues more quickly and evaluating the chemistry of the water system at the Regional Facility and throughout the distribution system. The City and consultants are also developing a unidirectional flushing system, continuing water quality testing and coordinating with the Division of Drinking Water. Many residents have acknowledged the improved water quality, while some are complaining about a stronger chlorine odor. If a resident or business has a water quality issue, please call 661-5962 between 7 am and 4 pm or email pubworks@cityofwoodland.org.

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- 11. MEMBERS' REPORTS & FUTURE AGENDA ITEMS:** Lewis Bair reminded everyone about the groundbreaking for the Wallace Weir Fish Rescue Facility project on October 6th at 10 am.
- 12. NEXT REGULAR MEETING:** Monday, November 14, 2016 from 3-5 pm, Woodland Community & Senior Center.
- 13. ADJOURNMENT:** The meeting adjourned by Chair Cecilia Aguiar-Curry at 5:00 p.m.

Respectfully submitted,



Donna L. Gentile
Board Secretary & Administrative Coordinator