

WESTCAS

2011 Fall Conference
October 26-28, 2011

State Reports



"The Voice of Water Quality in the Arid West"

WESTCAS STATE REPORT

STATE: Arizona

NAME OF PRESENTER: Jim Kudlinski

DATE: October 2011

NEW EVENTS SINCE LAST CONFERENCE:

Maricopa County Water Reuse Program

On April 14, 2011, MCESD released a proposal to modify the county's reclaimed water rules. Many of the proposed changes were either duplicative or more stringent than existing State requirements reclaimed water requirements. On June 30th MCESD sent a letter to municipal stakeholders informing them that the County was indefinitely suspending the proposed changes to Chapter 2 of the Maricopa County Environmental Health Code (MCEHC).

KEY WATER ACTIVITIES INVOLVING STATE LEGISLATURE, STATE AGENCIES, FEDERAL AGENCIES:

ADEQ Activities:

Pesticide General Permit (PGP)

On August 29th ADEQ released an email update regarding their progress in issuing the state's PGP. ADEQ reported that they were in the process of responding to comments received on the PGP, which was public noticed in February 2011, and that they would issue the permit to meet the October 31st Court deadline. However, at the date of this writing (October 7th) no permit has been issued.

Storm water Construction General Permit (CGP) 2013

On September 15th ADEQ informally announced their intentions to adopt EPA's draft 2011 Construction General Permit (CGP) and modify it to develop an Arizona-specific permit replacement permit (ADEQ's existing CGP expires in February 2013). ADEQ will hold the first stakeholder meeting on November 2nd. Additional details are available on ADEQ's CGP listserv at

<http://www.azdeq.gov/pipermail/stormwatergp/2011-September/000010.html>

Infrequent Discharger General Permit AZGP2011-001

On September 16th ADEQ public noticed their intentions to issue a general permit that authorizes owners or operators of wastewater treatment plants to discharge treated wastewater to surface waters on an infrequent basis. The permit is only applicable to wastewater treatment plants with a design flow of less than 20 million gallons per day that have routine or emergency point source discharges of wastewater that meet the applicable surface water quality standards (SWQS, 18 A.A.C. 11, Article 1). The general permit would limit the occurrence of routine discharges to no more frequently than two times per calendar year with a duration of no more than 14 consecutive days per discharge event and at least 30 days between discharges; and the emergency discharges occur no more frequently than three times per permit term with a duration of no more than 14 consecutive days per discharge event. The public notice comment period closed on October 17.

WESTCAS STATE REPORT

STATE: California

NAME OF PRESENTER: Alan Dyer

DATE: October, 2011

WATER ISSUES/CURRENT UPDATES:

California water districts are actively engaged in “partnerships” with rural and urban businesses, in schools, industry and other water agencies, including wholesalers and retailers in order to meet the growing population demands for water while still trying to maintain a balance to satisfy state and federal compliance regulations in order to save the Delta Smelt, Santa Ana Sucker and other biological and botanical wildlife. With recent rainfalls and snow melt, water contract deliveries from the Delta to southern California have been increased to 75-80% delivery rate. Water conservation measures are still being implemented and maintained with less demand and falling consumption revenues that have occurred with most water agencies in California.

THE BAY-DELTA CONSERVATION PLAN/CURRENT UPDATES:

As stated previously, everywhere a watershed, planned water upgrade projects, such as treatment plants, pipelines and reservoirs in California, trying to balance the needs of people, industry and environment in a collaborative, cooperation manner is an ongoing challenge in order to meet sound groundwater management issues.

The California Bay-Delta Conservation Plan, as a result of the 2009-10 legislature package is an important step in order to meet the ecological needs in the Delta while ensuring an adequate and reliable water supply for Californians. The water bond (11.14 billion dollars) is an initiative set for the November 2012 ballot and includes substantial funding for (a) water supply reliability, (b) groundwater protection, (c) watershed restoration, (d) surface and ground water storage, (e) conservation, (f) water re-cycling, (g) Delta restoration and (h) drought relief.

OTHER “WATER TAP” NEWS:

- (a) Judge Oliver Wanger, legal friend to California water communities, is being invited to address the ACWA Fall Conference November 29-December 1 in Anaheim, CA as the “keynote” speaker on the topic, “Value of Water” and “New Tools to Communicate the Value of Water.”
- (b) Western Municipal Water District “partners” with UC Riverside to provide free educational workshops for the general public and water customers to help them cultivate beautiful, water efficient landscaping, collaborating with UC master gardeners for the benefit of amateur and commercial gardeners in California.
- (c) San Geronio Pass Water Agency celebrated fifty years of service as a state water contractor that sells state project water to local retailers, such as the Beaumont-Cherry Water District and the city of Banning, CA, according to Jess Davis, General Manager.
- (d) A Riverside water law attorney, Gregory K. Wilkinson from Best, Best & Krieger is among the top 100 lawyers in California based on the annual ranking from The Daily Journal. (There are 172,359 active attorneys in California, according to the State Bar of California.) Wilkinson won a tenuous Federal court case between preserving species at the expense of water sources in California. He argued that before the government could restrict water supplies in the Sacramento/San Joaquin Delta to farms and sinks in order to protect a fish on the ESA list, it would need to address the water needs of humans, first.

- (e) In a related legal case, a dozen Inland San Bernardino County and Riverside County water agencies are fighting protecting for the ESA listing of the Santa Ana sucker. In a spirit of collaboration, water agencies want to obtain federal documents regarding the habitat for the Santa Ana Sucker. The US Fish and Wildlife has designated 9,331 acres of critical habitat to ensure the survival of the fish, but water agencies believe that the US Fish and Wildlife decision “was not based upon accurate scientific evidence”, according to Doug Headrick, General Manager of the San Bernardino Valley Municipal Water District, who notes that the “Fish and Wildlife Agency’s decision threatens area water supplies.” (The “Sucker”, a gray, algae-eating fish was first declared “threatened” under the ESA in the year 2000.)
- (f) California water banks are currently storing imported state project water to supplement local water supplies. Currently, the San Bernardino Valley “Muni” Water District Board of Directors has approved a plan to store water in the Kern Delta Water Storage Facility in Kern County. During “wet years”, Valley District can import more water than it needs for local use. By “banking” it in underground storages, it can call on immediate supply during “dry years”. The cost is about \$200.00 an acre foot, less than any other storage option. Valley District will be able to store 5,000 acre ft. of water per year for a total of 30,000 acre ft. assuring an adequate supply of water for its retail water customers in the Inland Empire, San Bernardino and Riverside Counties.

CALIFORNIA’S WATER CLEAN-UP ISSUES - CONTAMINATION SITES:

On the issue of Hexavalent Chromium, many drinking supplies in the Inland areas have levels exceeding state environmental regulators goals to protect the public.

The State Environmental Protection Agency (EPA) recently announced that the amount of Hexavalent Chromium (known as Chromium 6) that can be present in drinking water without posing a significant health risk is 0.02 parts per billion.

The cities of Riverside, Redlands and the Riverside-based Western Municipal Water District were among Inland providers who last year reported levels of Hexavalent Chromium higher than the new health goals preserved by the California Department of Health mandates.

FUTURE OF CALIFORNIA WATER/REPORT SUMMARY:

Water conservation measures emphasizing “partnerships with businesses, schools and other water agencies” have been implemented with mixed results. Water districts are now faced with fixed costs dealing with treatment/contamination issues and replacement of aging water system equipment with a loss of customer revenues. “Tiered” or flat rate increases have forced retail, residential water users to “brown-out” their yards because of continual increases in water rates.

Respectfully submitted,

ALAN DYER, WESTCAS California State Coordinator
Past President/Director, West Valley Water District
Rialto, CA (1-909-873-1843) ajdyer93@aol.com

WESTCAS STATE REPORT

STATE: Colorado

NAME OF PRESENTER: Mike Eytel for Mary Gardner

DATE: October, 2011

Nutrients

The nutrient issue remains the top issue in Colorado. The Water Quality Control Division proposed their third revision of the draft regulations early this month. The Colorado Water and Power Authority, which manages the state revolving funds, funded a state wide cost/benefit analysis. CDM was hired to perform the analyses and provide a report which was completed as a final draft and presented in late September. Stakeholders from both the “cost” side and “benefit” side have been submitting comments for the final report. Over all, the cost remains higher than the benefits at this time.

Colorado Proposed Regulation Contains Three Tiers

- **Tier I—Control Regulation 85 with Technology based standards for existing Domestic WWTP**
- **Tier II—Control Regulation 85 Technology based standards for new Domestic WWTP**
- **Tier III—Regulation 31 state numeric water quality standards**

Implementation Dates

- **Tier I—All Domestic WWTP discharging prior to May 31, 2012**
- **Tier II—All new Domestic WWTP discharging after May 31, 2012**
- **Tier III—Adoption of standards May 31, 2017 to be implemented where necessary between this date and May 31, 2022**

Standards

- **Tier I—Total Phosphorous 1.0 mg/l annual median
Total Inorganic Nitrogen 10 mg/l annual median**
- **Tier II--Total Phosphorous 0.7 mg/l annual median
Total Inorganic Nitrogen 7 mg/l annual median**
- **Tier III—**

Total Phosphorus

Lakes and Reservoirs, cold, >25 acres 20 ug/L 1

Lakes and Reservoirs, warm > 25 acres 80 ug/L 1

Lakes and Reservoirs, <=25 acres RESERVED

Rivers and Streams – cold 110 ug/L 2

Rivers and Streams - warm 160 ug/L 2

1 summer average Total Phosphorus (ug/L) in the mixed layer of lakes (median of multiple depths), allowable exceedance frequency 1-in-5 years.

2 5- year median Total Phosphorus (ug/L) in rivers and streams, not to exceed.

Total Nitrogen

Lakes and Reservoirs, cold, >25 acres	410 ug/L 1
Lakes and Reservoirs, warm, > 25 acres	850 ug/L 1
Lakes and Reservoirs, <=25 acres	RESERVED
Rivers and Streams – cold	400 ug/L 2 2
Rivers and Streams - warm	2000 ug/L 2

1 summer average Total Nitrogen (ug/L) in the mixed layer of lakes (median of multiple depths), allowable exceedance frequency 1-in-5 years.
2 5- year median Total Nitrogen (ug/L) in rivers and streams, not to exceed.

Chlorophyll *a* Values

Waterbody type	PWSRDUWS
Lakes and Reservoirs, cold, >25 acres	8 ug/L 2 5 ug/L2
Lakes and Reservoirs, warm, > 25 acres	20 ug/L 2
Lakes and Reservoirs, <=25 acres	RESERVED
Rivers and Streams – cold	150 mg/m 1 1
Rivers and Streams - warm	150 mg/m 1 1

11 mg/m² chlorophyll of attached algae, not to exceed.
2 2summer average chlorophyll (ug/L) in the mixed layer of lakes (median of multiple depths), allowable exceedance frequency 1-in-5 years.

Exceptions

Within the two regulations there are listed a number of exceptions, Best Management Practices for non-point, storm water and agriculture. A proposed monitoring program is listed in order to collect watershed data. If interested in the details or a copy of the full proposed regulations please contact Mary Gardner and mgardner@englewoodgov.org

303(d) Listing for Impaired Waters and Monitoring and Evaluation

Colorado Division of Water Quality Control has published its Prehearing statement with the list of impaired waters and those that will require monitoring and evaluation. Party Status has been sought by a large number of parties. The hearing will be held December 12, 2011.

Policy 96-1

The Division published a new Design Criteria policy and guidance document in August. Numerous responses and comments were received to the affect that it was cumbersome and much too detailed. Since then, the Division pulled back the document and formed a workgroup for stakeholders to be involved in developing the guidance document.

WESTCAS STATE REPORT

STATE: New Mexico

NAME OF PRESENTER: Charlie Nylander for Joshua Rosenblatt

DATE: October, 2011

Stormwater Issues:

- Region 6 EPA is expecting to issue the watershed-based permit for the middle Rio Grande in Fall/Winter 2012. The ad hoc Albuquerque Area MS4 Watershed Permit Pilot Project planning team includes representatives of the 21 entities that will require MS4 permits. The general permit will allow for some things to be done cooperatively – Storm Water Management Plan, Public outreach, public education, monitoring. Other requirements will have to be completed individually.
- The issuance of Phase 2 permits in the Albuquerque area has been held up in the Endangered Species Act consultation. That process has been completed and at least 3 permits have been issued this summer. The Phase 2 permits will be superseded by the watershed-based permit when it is issued.
- In the southern region the soil and water conservation districts, EBID, Dona Ana county and some other entities have been developing a Stormwater Management Coalition with the hopes of eventually forming an Authority to combine floodwater control, and stormwater capture and directing threatening flood waters into EBID and other potential mechanisms of averting damaging damage while putting the water into storage for some type of beneficial use.

Water Quality Standards Issues:

- New Mexico is using the ecoregion approach to setting nutrient limits in discharge permits. The Canadian Basin in northwest New Mexico is the first to have numeric nutrient limits applied. While the NMED uses a weight-of-evidence approach for determining impairments in streams, they use the ecoregion numeric limits for effluent limitations. This is a significant issue for the cities of Raton and Tucumcari, who have recently upgraded their WWTPs. NMED acknowledges that achieving the nitrogen and phosphorus effluent limits is not feasible given the available treatment technology.
- The changes in the NM WQS adopted in the Triennial Review held in 2009 have been approved by EPA in 2011. One substantial change is that there are no ephemeral streams in New Mexico until they are classified as ephemeral through a UAA process, added to the list of classified streams, and approved by EPA. Roughly 25% of the NPDES permits in NM formerly discharged to ephemeral streams. When their permits come up for renewal they will find that they have new designated uses: aquatic life and primary contact.
- The EPA recently approved NM's "Hydrology Protocol", the basis for an expedited UAA for ephemeral streams. If there is a discharge to an ephemeral stream or even a planned discharge to an ephemeral stream, it won't meet the criteria for an ephemeral stream and the designated uses for a perennial stream will be preserved for the receiving water.

Drinking Water:

- On August 18, 2011, the NMED submitted a petition to the Environmental Improvement Board (EIB) seeking modification to the State of New Mexico drinking water regulations at 20.7.10 New Mexico Administrative Code. One modification was to add a definition of "Human Consumption" that includes bathing, showering, dishwashing, etc.

On the Horizon:

Energy Efficiency & Production: What's the right mix for your facility? Funding?

Albuquerque WWTP - in a deal with Sun Edison the Albuquerque Water Authority's Southside Water Reclamation Plant is adding a 1 MW solar component to part of a multi-million dollar upgrade. Sun Edison pays and operates the solar infrastructure under a 20 year fixed rate purchase agreement. At the end of the 20 year period the Water Authority can initiate a purchase option or enter into another agreement.

WESTCAS New Mexico State Coordinator Joshua Rosenblatt has made available a summary paper summarizing the new development of a life cycle economic model – LCAMER – that evaluates site specific cost benefit and payback period of both energy efficiency options and energy generation options at wastewater treatment plants. Once the work of entering all the input data for plant operations and infrastructure are complete, the model has proven to provide administrators and plant managers with seeing a system-wide economic analysis of any modification scenarios the management wants to explore. Any plant alternations, from changing pumps to added biogas generation and storage can be analyzed using the model. The LCAMER model will also provide greenhouse gas emissions output with each scenario.

This and other models provide enhanced decision making tools for projects that require significant amounts of funding, while answering the questions of what is the best fit for your system, in your location, considering your budget.

The paper was developed as a part of Joshua's pursuit of Masters in Public Administration, with emphasis in: utilities, energy and water security, resource management policy, politics, and alternative agriculture. The model was developed under WERF research award. The paper has been submitted to Dawn Moore, WESTCAS Administrator for distribution to anyone interested in the subject. Additional details can be found on the WERF website in the LCAMER topic. Thanks to Kelly Collins and CDM for sponsoring Joshua by sharing their WERF membership, so that full access to the model and case study data would be made available to Joshua.

WESTCAS STATE REPORT

STATE: Texas

NAME OF PRESENTER: Peggy Glass, Ph.D.

DATE: October, 2011

Hot topics in Texas, at present, include infrastructure funding, drought impacts, development of shale gas (“fracing”), zebra mussels, and regulatory programs based on water quality standards for nutrients, dissolved solids, bacteria, and whole effluent toxicity (WET). Each is summarized below.

Infrastructure Funding

The State Revolving Fund, administered by the Texas Water Development Board (TWDB), enables many utilities that need to construct water and wastewater facilities and flood control projects to obtain bond funding at a lower interest rate. The State backs the bonds, but the utility repays the debt. Therefore, the bonds that are issued are not an expense to the State. The existing bonding capacity of the fund is almost entirely dedicated to existing projects, and by 2013 TWDB will not be able to assist additional projects unless the agency gets additional bonding authority pursuant to an amendment to the State constitution. Passage of “Prop 2” on the November 8 Texas ballot will authorize an additional \$6 billion in bonding authority for the TWDB. Water organizations are working hard to get the word out about the importance of passing this amendment and to clarify that the approval will not increase the State’s debt burden because this is a self-sustaining program.

Drought

This past year has been the hottest and driest on record in Texas. The entire state has been affected. Stream flows, to the extent they even exist, are at record lows unless sustained by effluent discharges; and it may get worse. Some meteorologists are predicting the drought will last until 2020. This has led to a number of serious issues: water supplies have been exhausted for some communities, water quality in streams that still have water has deteriorated, and wildfires have devastated large areas. The upside, if there is one, is that there is serious interest in reuse opportunities.

Zebra Mussels

Zebra mussels have reached some reservoirs in North Texas. This is, of course, a problem because of the impact on pumps, pipelines, etc. However, it is also a problem for water suppliers trying to maintain supplies during the drought. Some suppliers rely on water transfers between reservoirs to maintain water levels in the primary supply reservoir. Because of concerns that these transfers will expedite the transfer of zebra mussels, state and federal agencies are still trying to determine under what conditions the transfers can be allowed. Until this is resolved and possibly after depending on the resolution, water suppliers are facing potentially serious water supply challenges due to the limitation of these water transfers.

Shale Gas Production

Large areas of Texas are underlain by shales that can produce gas using the relatively new techniques of hydraulic fracturing of the formation (“fracing”) and horizontal drilling. This practice has a host of water-related issues including, but not limited to, the following:

- Water supply for the fracing. Four-to-eight million gallons are required for each gas well that is developed, and the water is needed within a period of days.

- Wastewater disposal. Both flowback from the fracturing operation and production water contain extremely high concentrations of total dissolved solids (TDS) plus other contaminants. Flowback water can contain 10,000 – 40,000 mg/L of TDS, and production water can contain 40,000 – 140,000 mg/L TDS.
- Potential for contamination of potable aquifers. Possible contaminants include methane gas, TDS, and drilling chemicals.

Water Quality Standards

Hot topics related to water quality standards include nutrients, TDS, bacteria, and WET. A brief summary of each follows:

Nutrients

Texas has adopted water quality standards for chlorophyll-*a* for 75 reservoirs. The standards are based on historical concentrations. Therefore, some of the reservoirs have standards greater than 20 ug/L chlorophyll-*a*. It is not clear whether U.S. Environmental Protection Agency (EPA) Region 6 will approve these. It is also not clear whether EPA will insist on phosphorus and nitrogen water quality standards for the reservoirs. The TCEQ is developing nutrient criteria for streams. They have not yet decided what parameter(s) will be the basis of the standards. The first stakeholders meeting on stream nutrient standards is expected to be early in 2012, and TCEQ hopes to adopt stream standards in 2013. Basic work has begun on nutrient standards for estuaries, but those will probably not be included in the 2013 water quality standards revisions.

Total Dissolved Solids

TCEQ is becoming more rigorous in their evaluation of TDS, chloride, and sulfate concentrations in effluents. The situation for permittees is made more difficult by the fact that standards for TDS, chloride, and sulfate are based on historical levels and not on impacts on uses. In addition, in some cases, surface water concentrations are increased because of the drought. The potential of a permit limit for one or more of these parameters is daunting since there is not a viable treatment method for most permittees. It can be particularly challenging for municipal permittees where residents use home water softeners and, in some cases, just due to the natural increases in TDS associated with the generation of wastewater.

Bacteria

The big issue with respect to bacteria is how to develop meaningful Total Maximum Daily Loads (TMDLs) for the many water segments listed on the 303(d) list of impaired waters due to exceedances of the water quality standards for bacteria. The standards do not provide an exemption for stormwater runoff, which always contains high densities of bacteria. In addition, identifying the sources of bacteria that need to be, and can be, controlled is still a challenge.

Whole Effluent Toxicity

TCEQ and EPA Region 6 have not yet fully resolved how WET will be implemented in Texas with respect to (1) the determination of Reasonable Potential (RP) and, hence, the need for a permit limit or (2) with respect to permit language. The Texas WET Coalition (comprised of the Texas affiliates of the Water Environment Federation, National Association of Clean Water Agencies, American Water Works Association, and National Water Resource Association) has met with Texas legislators regarding the proposed approach to sublethal WET permit limits, and legislators sent letters of concern to EPA Region 6. In addition, the Texas WET Coalition met with members of the Texas Congressional delegation. In response to those meetings, the Texas delegation sent a letter of concern to EPA Headquarters. The letter was signed by 25 Texas Congressional representatives including Republicans and Democrats and both Senators. However, EPA has remained unwilling to consider modifications to any of the provisions that Texas permittees find burdensome.