LCRA Clean Rivers Program
Mid-Central Basin Water Quality Advisory Committee
Meeting Summary
Jan. 20, 2015
LCRA Redbud Center
Austin, Texas

The meeting began at 1 p.m. with 21 attendees present. LCRA Water Quality Supervisor Bryan Cook welcomed everyone and thanked them for coming. He introduced David Cowan, LCRA Clean Rivers Program (CRP) coordinator. Cowan greeted everyone and asked attendees to introduce themselves and state their affiliations.

Cowan began the first presentation by giving an overview of the Clean Rivers Program in the Colorado River basin and the Water Quality Advisory Committee regions – Upper, Hill Country, Mid-Central and Lower. He then introduced Robin Cypher, aquatic scientist with the Texas Commission on Environmental Quality (TCEQ). Cypher is responsible for assessing water quality in the Colorado River basin. Cypher explained the data assessment cycle and process: request data, conduct assessment, review data provided, accept public comment on draft, receive TCEQ approval, accept Environmental Protection Agency review and approval. The Draft 2014 Texas Integrated Report is available for public comment until Feb. 2 (see http://www.tceq.texas.gov/waterquality/assessment/public_comment). The report is on TCEQ 's agenda for June 3.

Elisabeth Welsh, program director for the Austin Youth River Watch, asked about the use of water quality data collected by volunteers. Cypher explained TCEQ does not formally assess volunteer data in this process, but TCEQ does review volunteer data to aid in source identification and provide better spatial coverage to identify areas of emerging concern. Welsh also asked about the plausibility of a continuous water quality monitoring station downstream of Austin, especially during the summer while we are in a drought. The group agreed it could be done, and Cowan said he would bring it up at the Clean Rivers Program coordinated monitoring meeting this spring.

Cowan reviewed each of the central basin waterways listed as impaired in section 303(d) of the draft 2014 report (see Table 1 below). The only new impairment for the central basin is on Onion Creek, listed as impaired for exceeding the standard for sulfate. Cowan explained this is likely a direct result of lower water flows during the drought. He explained four out of five of the water bodies assessed in the central region of the watershed met the Texas Surface Water Quality Standards, and there are ongoing projects to address the impaired water bodies.

Table 1. List of water quality impairments in the 2014 Draft Texas Integrated Report for the central region of the Colorado River basin.

Seg	Water Body	County	Parameter(s)	Year Listed	Actions Taken
1407A	Clear Creek	Burnet	Al in water	2010	On-site remediation and monitoring.
			Sulfate	2010	
			TDS	2010	
			pH	2010	
			Ni in water	2014	
			Zn in water	2014	
1403	Lake Austin	Travis	DO	1999	Aerators installed in Mansfield Dam. TCEQ adopted a TMDL in 2000. Verification monitoring was completed in 2014. Should be delisted in 2016.
1403J	Spicewood trib to Shoal Creek	Travis	Bacteria	2002	TMDL completed. On TCEQ Commissioners agenda for January 21. COA monitoring
1403K	Taylor Slough South	Travis	Bacteria	2002	TMDL completed. On TCEQ Commissioners agenda for January 21. COA monitoring
1428B	Walnut Creek	Travis	Bacteria	2006	TMDL completed. On TCEQ Commissioners agenda for January 21. COA monitoring
1429C	Waller Creek	Travis	Bacteria	2004	TMDL completed. On TCEQ Commissioners agenda for January 21. COA monitoring
			Benthics	2002	Monitoring postponed until construction of Waller Tunnel is complete
1428C	Gilleland Creek	Travis/ Bastrop	Bacteria	2004	EPA approved a TMDL in 2009. Implementation plan was adopted by TCEQ in 2011. Implementation is ongoing.
1427	Onion	Hays/Travis	Sulfate	2014	New Listing
1427A	Slaughter Creek	Travis	Benthics	2002	TCEQ plans a use attainability analysis once the drought is over and base flows resume
1403A	Bull Creek	Travis	DO	2010	Monitoring frequency increased

Cowan then introduced Lisa Hatzenbuehler, LCRA Water Quality Protection manager, and Dean Thomas, a senior engineer in LCRA's Water Quality Protection group. Hatzenbuehler talked about TCEQ's discharge ban for the Highland Lakes. The ban, Hatzenbuehler explained, prohibits the discharge of pollutants, including treated wastewater effluent, into the Highland Lakes. In the late 1980s, the Texas Water Commission (predecessor of TCEQ) adopted the rules to protect the water quality of the Highland Lakes. There are other water bodies that have watershed protection rules in place, but no other lakes in Texas have a similar ban on wastewater discharges. Four wastewater treatment plants were grandfathered into TCEQ's discharge ban rules because they were active before the rules were adopted (one of these plants has since gone off-line and is no longer discharging effluent). All other wastewater treatment facilities use their wastewater effluent to irrigate golf courses, common areas, etc. If TCEQ lifted the discharge ban and these facilities discharged effluent into the lakes, it would add significantly more nutrients to the lakes, resulting in more algal growth and decreased water clarity. The amount of water treated effluent would add to Lake Travis is about 8,000 acre-feet per year, compared to the roughly 1.1 million acre-feet that the lake can hold at its full elevation.

Following Hatzenbuehler's presentation and a break in the agenda, Thomas talked about Colorado River Environmental Models (CREMS). LCRA developed CREMS to help determine the impacts wastewater discharges and nonpoint sources of pollution could have on the Highland Lakes. Specifically, CREMS is a group of coupled watershed and reservoir computer models capable of capturing major spatial and temporal patterns in LCRA reservoirs. The main objective of the models is to quantitatively assess water quality responses associated with projected growth and proposed water quality management practices. The components of CREMS include a soil and water assessment tool, linking tools and a reservoir model called CE-QUAL-W2. Thomas explained the different components and uses of CREMS and said further work includes sediment sampling and analysis, nutrient mass balance, sediment diagenesis study, and general model support and maintenance.

Monica McGarrity, an aquatic invasive species biologist at Texas Parks and Wildlife Department (TPWD), discussed TPWD efforts to monitor zebra mussels. She explained the history of zebra mussels in the United States and their current distribution. She also discussed the economic, ecological and recreational impacts of zebra mussels. McGarrity stated the Highland Lakes are highly suitable habitats for a zebra mussel invasion because the lakes have a variety of the physical habitat characteristics the zebra mussels require. In 2014, TPWD identified 33 lakes to monitor for zebra mussels. At each site, TPWD collects two plankton samples. TPWD analyzes one sample using cross-polarized light microscopy and analyzes the other sample using polymerase chain reaction DNA analysis. In addition, there are several sites with settlement samplers, and partners such as LCRA conduct routine surveys. The only newly infested lake added to the list in 2014 was Lake Waco.

The final presenter was Lisa Benton, Water Quality coordinator at LCRA, who spoke briefly about plans for a new process to manage aquatic vegetation on lakes LBJ, Inks and Marble Falls. LCRA manages and treats the aquatic invasive plants hydrilla and water hyacinth. Benton explained the increase in growth of another invasive plant, Eurasian watermilfoil, has become a real issue for lakeside property owners along these three pass-through lakes. As a result, several lakeside residents have filed treatment proposal forms with TPWD and LCRA to apply herbicides in the lakes to manage the weeds. In an effort to better coordinate the process and ensure protection of lake water users from herbicides, LCRA has developed a new approach that will be released to the public in the coming weeks. More details will be sent to Water Quality Advisory Committee members when information about this new aquatic vegetation management process is available.

Cowan then opened a roundtable discussion. Brent Bellinger, limnologist for the City of Austin Watershed Protection Department (WPD), updated attendees on his work to characterize food web dynamics and water quality patterns in Austin reservoirs. Brady Ansley, environmental specialist with Travis County Transportation and Natural Resources, explained the county has developed a surface water quality monitoring program that will include locations in Travis County not covered by the City of Austin WPD.

The meeting adjourned at 4 p.m.