Issue 3



Citizen Monitoring Program Newsletter of the California State Water Resources Control Board

Winter 2003

Exploring & Monitoring Local Sacramento Parkways on National Water Quality Monitoring Day

By Mary Tappel, State Water Resources Control Board

On National Water Quality Monitoring Day, we rediscovered that there is nothing better then immersing yourself in your own community and watershed to really see a lot of what is going on. A surprising volume of water quality related information can be ascertained and/or inferred from the actual appearance of local waterways, patterns of public use, and, in Sacramento, the overall condition of our public parkways.

On Friday, October 18th, the State Water Board's Clean Water Team staff visited eight of our eleven planned monitoring sites in local waters. The diversity in the types of waters we sampled and analyzed for temperature, turbidity, dissolved oxygen, and pH was quite broad considering the relatively few miles we actually drove from the near vicinity of our State Capitol building in downtown Sacramento. We started sampling in the riparian restoration ponds and smaller streams of the City of Sacramento's new Ueda Parkway. From our furthest north point, we traveled roughly six miles to the confluence of two of the state's larger rivers, the Sacramento and the American, with the State Capitol building only a few miles to the east of us.

On Monday, we continued our exploration and sampling both downstream at the confluence of the Sacramento and American Rivers, and further up the American River Parkway to sample more upstream ponded and flowing waters. All together, the diversity of our local environment and its waters, and the wildlife living within a largely urbanized area is amazing, and provides us with greater appreciation of our local environment.

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We brought along some of our public outreach material to provide to any interested or concerned people encountered on the route: although we didn't actually meet anyone. The continuous theme of this

outreach material is to prevent water pollution for the sake of both human and wildlife health.

We also wanted to be able to assure people that we were not in the process of trying to bring down a 'regulatory hammer' on any person, people, organization, private business, or governmental entity, no matter what we might find in or along local waters. Of course, if we had encountered clear evidence of an illegal and apparently environmentally damaging discharge, spill, or dump, we would have reported it immediately to the Central Valley Regional Water Quality Control Board's Sacramento office, which has jurisdiction in this area.

The early fall weather was predictably very good on both field days. Water sample collection and subsequent analysis went smoothly, except when one vial (from the Year of Clean Water [YOCW] National Water Monitoring Day kits) broke. Fortunately, we had two kits along to make sure we had backup supplies. For the field work, it helped to test the YOCW kits in the office first to flush out the details of methods, timing, and logistics. We realized we needed to bring separate containers for the small amount of waste water generated from the dissolved oxygen and pH analyses. This waste water was temporarily stored in the vehicle prior to disposal down an inside sanitary drain for treatment. In addition, we brought separate drinking and wash waters, as well as hand towels.

We also preplanned the most efficient driving and monitoring route because we had numerous sites planned for sampling. Starting from the north, we sampled a ponded restoration area and the northern Steelhead Creek (formerly named the Natomas East Main Drainage Canal or NEMDC). Proceeding south, we then sampled the following creeks from north to south: Dry Creek, Robla Creek, Linda Creek (we found a ponded area), and Arcade Creek. We sampled Steelhead Creek again after these tributaries joined it.

In the well known American River Parkway downstream further to the south we sampled the waters of Bannon Slough (what Steelhead Creek becomes), and a downstream section of the American River at Discovery Park. We also sampled Sacramento River waters upstream several miles to the north (our lunch break), and immediately downstream of its confluence with the American River. All together, we sampled some four ponded areas, nine smaller creek sections, and four larger (flowing) river sites on our two field days. Seventeen water samples were analyzed for temperature, pH, turbidity, and dissolved oxygen. Waters sampled ranged from fairly clean to quite visibly polluted stagnant areas, with most waters sampled falling somewhere in between. Consequently, there were some understandable differences in YOCW analysis kit test results. Our trips included discussion of some of the implications of our different test results (for example, the importance of having higher dissolved oxygen for threatened anadromous fish).

State Water Board student assistants and staff reviewed the sampling plan before the trip. The practice and preparation activities were enormously helpful, being informative and reassuring, as well as time saving when doing the actual field work.



Due to the large area we planned to cover, and both the number and variety of waters we tested, we spread the sample collection and analysis over two days. This worked well, resulting in no time pressure. It was, therefore, easy to place safety first, and avoid having to repeat sampling or analytical steps. We used stops at nearby businesses for rest rooms, snacks, and drinks. These breaks added a fun and community exploration element to this field work.

Waterfowl were the major wildlife observed on our field days, and the binoculars came in handy. We also observed much litter, along with evidence of eutrophication in many of the waters. Scattered vandalism was evident and a concern for us who value our natural



resources and local public parkways.

In summary, recent field experience in our own local watershed enhances staff's ability to advise local watershed groups.

It is crucial for both staff morale and effectiveness to get out in the field periodically and make a community and watershed connection. We also need to stay practical and realistic in our community outreach efforts. Without an occasional reality grounding, community outreach efforts cannot be effective or ultimately satisfying and valuable to ourselves, the general public, and, most importantly, our watershed's health.

Clean Water Act Celebration

By Kathy Grant, City of Lodi

The City of Lodi celebrated the 30th Anniversary of the Clean Water Act (CWA) in a two-month long series of student and community events. The Storm Drain Detectives, a City of Lodi Public Works sponsored citizen monitoring group, was the catalyst for several innovative community service projects. This partnership between

monthly river testing by the Storm Drain Detectives. This program uses top of the line water quality equipment, the expertise of Public Works employees, teachers and students from the local high schools. Last year's work won the praise of local county government when they were awarded one of the Environmental

schools, volunteers and City of Lodi Public Works is in its third year, originally funded by an SWRCB waste water fine, the program now is funded in part by the city. A CALFED Watershed Education grant was also instrumental in funding

the various new outreaches.



Excellence awards for working towards stopping pollution in our community. See their website at www.lodi.gov and search for Storm Drain Detectives (SDD) to get more information.

The third event was the Lodi High School's Environmental Club and Public Works "Lift Station Clean

Beginning with a workshop in early September, a local environmental compliance consultant, John Teravski, donated his time by presenting to City employees and the Storm Drain Detectives, an overview of the Clean Water Act, called "Clean

Water- It's the Law!" This session brought together over 50 people from many sectors of the community, including high school science teachers, students, Public Works Water/Waste Water employees, City Hall staff, and even local builders. The event was

followed by a CWA birthday cake and water for all!

The CWA workshop was followed by the regular

to document the street trash that had fallen below into the reservoir used to hold local gutter "nuisance water" before it is pumped up, or

Out". On October 18, 2002, the official

anniversary of the CWA, some 20 students,

teachers, City of Lodi employees and the media

met at one of the city's storm water lift stations

"lifted" out into a local canal. Students recorded garbage by categories. Their findings will also be posted on the SDD website.

The final event took the most preparation. "Clean a Curb Day" (CaC Day) was developed by City of Lodi staff as an answer

to a request by a local primary school that October 28, a track change day, be used to do a service project by their K-3 school site. Track change day means that the overcrowded site had

almost 200 students that needed to be actively engaged somewhere else other than a classroom. Hence, CaC Day was born. School staff training was given to all the teachers by city staff, explaining the basic problems of local storm water pollution. Curriculum from local agencies was shared, including U.S. Fish and Wildlife, East Bay Municipal Utility District and City of Stockton Storm Water Education Program. Storm water model demonstrations were given weeks ahead of time. The Chinook salmon was chosen as the animal that was printed on the bi-lingual storm water education door hangers, later colored by the students and then distributed on CaC Day.

CaC Day held many surprises! Forty-five minute activities kept the classes of students moving all morning. Starting with a short educational assembly, the classes then broke out into classroom groups and rotated through the various pre-planned storm water

Two Days at Lake Havasu

By David Todd, Chemehuevi Indian Tribe

Erick Burres of the California State Water Resources Control Board and Shelia Ault of the California Regional Water Quality Control Board in Palm Desert provided a training session for group leaders on Friday October 11, 2002. The training session was held at the Chemehuevi Indian Tribe's (CIT) new Community Center Building. They brought many different reference materials and handouts with them. During the following day, hands-on field work was conducted. The CIT and its Environmental Programs Office extend their thanks and appreciation to these state agencies for bringing this high quality activity to our Reservation .



The State and Regional Water Board staffs brought a very wide range of reference materials, handouts and equipment to the Reservation.

focused activities. The PE teacher invented several games focusing on the environment, including a salmon golf course. The reading specialist turned artist and created a mural of the river -including a storm water outfall pipe! Students painted their favorite animal, house or plant and added it to the mural in a collage fashion. Lodi Police Department volunteers led small classes of students who used little dustpans, brooms and buckets to clean up their designated section of local streets. Ninetynine pounds of trash were removed from the streets that day! The last task of the day was the planting of 200 flower bulbs around the school campus. Quite a feat for little K-3 students!

By 11:30 AM, a Publics Works official visited the site, viewed the student art work and presented the classes with certificates. Finally, keeping with the party spirit of the 30th anniversary of the CWA, 650 cupcakes were shared by the whole school. Even those who had a classroom for the day and who were not part of the curb clean up, look forward to celebrating the 31st anniversary of the CWA!

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Day One was spent reviewing water pollution causes and cures. This part of the activity included multimedia presentations and open discussions about water in general and specific concerns that may be unique to living on the shore of a large lake that is fed by a river.

Day Two concluded with an exercise in instrument calibration. The State and Regional Water Board staffs brought equipment that ranged from the simple to the more complex. Correct calibration methods were discussed and demonstrated. Suggestions were also provided for more effective use of our own equipment.



Day Two – The Water Testers are getting an explanation of WHY they are testing the water and WHAT the results of the tests will mean.



Shelia Ault (left) records test data. The test results obtained by the students and adult leaders will be up-loaded to a National Water database. The national effort to provide a snapshot of the Nation's water quality is being conducted to honor the 30th Anniversary of the Clean Water Act (CWA). The national project encompasses the period of October 12th to the 20th.

Test results can be view at: www.yearofcleanwater.org

(on the right) Day Two - Here we are at the first test site. This is a riparian/beach area that is being restored. In order to assure that the restoration activities are progressing properly, water is tested for a variety of conditions. The students from the Chemehuevi Valley Elementary School, an adult leader and a college student-intern working with the California Regional Water Quality Control Board work among new willows and discuss what they are seeing at this site.





Erick Burres from the California State Water Board holds one of the color indicator tests in his hand. The vial has a chemical in it that causes the color of the water to change. The color of the water will indicate if the water is OK or if there is a potential problem.

Fortunately, all test sites monitored for the National Water Data Base were OK. Alex McKay, a college intern working with the California Regional Water Quality Control Board records the test results for this test. In the background, Jill Pate, CIT's Recreation Director, records test results and observations for the tests being done by the Chemehuevi Valley Elementary students.

Day Two – The second site. The first site was an isolated riparian/beach area that does not get much human activity. Site two is along the Tribe's campground shore where there is a lot of human activity. The activity consists of swimming, wading, boating and lots of jet-skis. People enjoying the campground will sit on the beach, bringing their lawn chairs with them. A common practice at Lake Havasu is to beach boats and jetskis. Site two is an area of high human impact over a large area. This is also an area that is popular with our wildlife as a water source.





Day Two – Site three. Here students are using the Secchi Disk to determine turbidity (clarity of the water). This site is in the Marina at Havasu Landing. The area has very high human impact in a confined area. The Marina is extremely popular with boaters and jet-ski enthusiasts. It is one of the few places where boats can be fueled "on-thelake". Other marinas require leaving the main body of the lake and using channels to get to the fuel docks.

Shelia Ault, Marcus Black, Cheryl Nelson, Shawn Mendoza, Erick Bures, Lena Silversmith, and James Mendoza look on as the Secchi Disk is used to gauge water clarity.

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Day Two –Site four. This small cove has limited human impact and about the same amount of wildlife use as the second site. The water here is relatively shallow with circulation impaired by a projection of bulrushes/cattails.

Well, time to put the shoes on and head for home.

Data collected on October 12th will be put on the Internet site along with data from across the nation – www.yearofcleanwater.org .

The Chemehuevi Indian Tribe and its Environmental Programs Office thank the students for their participation and also thank the California State Water Resources Control Board and the California Regional Water Quality Control Board for the opportunity to have this activity on the Reservation.



Chemehuevi Indian Tribe Contact Information



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CIT Environmental Program Department, the California State Water Resources Control Board and California Regional Water Quality Control Board Present 2 Days (October 11 and 12, 2002) to Honor the 30th Anniversary of the Clean Water Act

Boy Scouts Participated in Water Quality Monitoring Event

By Joseph Haikal, County of Orange Public Facility and Resources Department



Joseph Haikal, a Boy Scout Leader and a Civil Engineer/Project Manager for the County of Orange Public Facility and Resources Department planned a Citizen Water Quality Monitoring Event on October 20th, 2002 in support of the Year of Clean Water. The event took place at Aliso Beach at the mouth of Aliso Creek in the City of Laguna Beach.



Approximately 125 people, including boy scouts, their families and neighbors, and County of Orange employees, participated in monitoring and sampling the water along the Beach and Creek. Joseph coordinated the event with the Orange County Coastkeepers, the Boy Scouts of America and the County of Orange Harbor Beaches and Parks and the Watershed and Coastal Resources Departments. The Orange County Coastkeeper provided kid-friendly water



quality test kits to each Boy Scout and volunteer participants and provided important water quality education to help improve the health of Orange County's 13 watersheds. The test kits sampled the water for Turbidity, Disolved Oxygen, Temperature, and pH. The data collected on this day were entered into a national databank and is accessible via the web at: <u>www.yearofcleanwater.org</u>.

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