

Endangered Species/Habitat Protection

QUESTION

The following question was sent to the members of the Legal Affairs Committee and Water Quality Committee via e-mail on March 20, 2007:

“We are reaching out to you as a member of NACWA's Legal Affairs Committee with a request for information. As part of NACWA's movement towards a holistic, watershed approach to environmental stewardship, the Association is increasingly interested in conservation efforts involving habitat and wildlife. Towards this end, NACWA is very interested in learning what our members may be doing to help protect endangered species and their habitats. In order to help obtain this information, we are requesting the following information from you:

1. Are you aware of any programs or projects that your utility may be involved in designed to protect the habitats of local wildlife, including any endangered species?
2. Are you aware if your state has developed a Wildlife Action Plan to help protect wildlife and the natural areas in which they live? If so, has your utility, or other utilities in your state, done anything to help implement the Wildlife Action Plan?
3. Do you know of any other program at the state or local level involving utilities and the protection of habitat and wildlife?”

RESPONSES

NACWA received the following responses from members, organized by the state or city from which the response originated:

Raleigh, NC: The North Carolina state Environmental Management Commission has recently decided a Phase II stormwater permit appeal. One of the issues was whether the Phase II permit was required to include measures specifically protective of an endangered species of fresh water mussels. The permit contained the usual boilerplate condition for the local government to develop a plan to protect the species within two years of designation.

In its decision, the EMC created new permit conditions to protect the endangered species. Those conditions will apply until Endangered Species protective measures are put into place.

The only activity by Raleigh is instream monitoring to protect an endangered species fresh water mussel in a stream that Raleigh is developing as a water supply. The city used the lake until 1985, and is building a new treatment plant. In the EA/FONSI process, the city agreed to undertake monitoring as a mitigation measure. The same mussels in the same stream are the subject of mitigation measures slightly downstream in conjunction with a road/bridge project.

Hillsboro, OR: Clean Water Services has a long and extensive record of these types of activities, such as habitat restoration, riparian restoration, wetlands restoration, flow augmentation, wq trading to shade, etc.

Colorado: The City of Colorado Springs has been involved in protection measures of the currently listed as an endangered species the Prebbles Jumping Mouse.

The City of Grand Junction (not a NACWA member) has done mitigation measures for three endangered Colorado river fish and continues to negotiate over permitting measures regarding the fish. This watershed effort has stalled as a result of Bureau of Reclamation funding cuts.

The City of Englewood owns approximately 7000 acres of dry land wheat fields for its beneficial use program. There are several conservation easements where tilled acreage was returned to prairie condition; however, the easements are not directly related to endangered species.

Kentucky: Under Kentucky's regional planning regulation for significant new wastewater infrastructure at 401 KAR 5:006, an environmental assessment must be conducted relating to the environmental impacts of the project, which would address impacts on wildlife habitat. If State Revolving Fund (SRF) funding is involved, a review is conducted (similar to a NEPA review) which may result in even more focus on those resources.

Indianapolis, IN: Indianapolis is doing a lot to improve the water quality of the river that runs through the City (White River) through various wastewater treatment plant and sewer projects – several will reduce loadings and improve quality. However, there is not a specific Wildlife Action Plan or endangered species plan.

California: The Eastern Municipal Water District is involved in a project on the Santa Margarita River, which was to be a watershed approach starting in the 1992 timeframe. Instead stringent nutrients standards and limits have spawned litigation and hopes by some of renewed watershed approaches. The TMDL process has just begun.

Union Sanitary District, in the south-east part of San Francisco Bay, diverts 5,000,000 gallons of its secondary treated wastewater daily to the Hayward Marsh. This is a freshwater marsh and habitat to lots of aquatic life and birds. San Francisco Bay, of course, is saline. The marsh discharges to the Bay after a considerable stay time.

Oakland, CA: East Bay Municipal Utility District (EBMUD) founded, helped found, or is an active participant in the following:

- 1) Lower Mokelumne River Partnership (founded by EBMUD, USFWS, and CDFG);
- 2) Lower Mokelumne River Stewardship Plan (EBMUD, local jurisdictions, and private landowners participate on the steering committee run by the San Joaquin Resource Conservation District);

- 3) Lower Mokelumne River Safe Harbor Agreement (assisted landowners to develop the agreement);
- 4) Mokelumne Watershed Master Plan (being prepared by EBMUD for District owned lands);
- 5) Cosumnes & Mokelumne Floodplain Integrated Resource Management Plan (active participant);
- 6) Student and Landowner Education and Watershed Stewardship (non-profit assisted by EBMUD);
- 7) Murphy Creek Restoration (EBMUD assisted private landowners to acquire grant funding and provided technical support for restoring this tributary of the Mokelumne River);
- 8) Mokelumne River Spawning Habitat Enhancement Program (EBMUD spawning gravel program);
- 9) Anadromous Fish Restoration Program (USFWS funding for EBMUD restoration programs);
- 10) San Joaquin County Habitat Conservation Plan (EBMUD assisted in this San Joaquin Council of Governments project);
- 11) Ongoing biological surveys for work on EBMUD's Mokelumne Aqueduct and Freeport Project.

EBMUD's East Bay Watershed Master Plan, East Bay Range Resource Management Plan, East Bay Fire Management Plan, East Bay Habitat Conservation Plan (HCP) (in progress) all require pre-project monitoring, development of avoidance and minimization measures, and maintenance of a GIS resource database. EBMUD's biologist staff conducts radio-telemetry studies of California red-legged frogs and irideus rainbow trout, has completed steelhead and Alameda whipsnake studies, and monitors for many other species of concern. EBMUD actively participates in many urban creek advocacy groups and watershed forums, and provides records of sensitive species to the California Natural Diversity Database. EBMUD conducts watershed stream restoration projects to teach school children stewardship, conducts watershed tours and classroom lectures for five local colleges, and grants Watershed Entry Permits for scientific studies for graduate students and professors.

California does have a Wildlife Action Plan (<http://www.dfg.ca.gov/habitats/WDP/>), and EBMUD has helped implement it through the following efforts:

- 1) East Bay Watershed Master Plan – manages watershed lands for protection and enhancement of biodiversity to protect water quality;
- 2) Establishment of conservation easements (in East Bay and Mokelumne areas);
- 3) Agreements with state and federal resource agencies for riverine ecosystem restoration
- 4) Non-native weed abatement programs;
- 5) Watershed education programs for schools;
- 6) Development of supplementary wildlife habitats such as bluebird boxes, wood duck boxes, and bat boxes and monitoring saw whet owls, screech owls, and the local heron and egret rookeries on the watershed, in conjunction with Point Reyes Bird Observatory, California Waterfowl Association, and the Audubon Society.

San Jose, CA: San Jose is involved in the following projects:

California Clapper Rail and Salt Marsh Harvest Mouse Surveys.

The Plant has conducted surveys for CA Clapper Rail and Salt Marsh Harvest Mouse in the marshes along the Plant's nearfield receiving waters. Both species are endangered. Surveys were conducted in 2006 and followed USFWS survey protocol for the two species. The surveys are synoptic in nature, with the main conclusions being presence or absence in specific marsh (vegetation) types. A rough estimate of number of individuals and/or density is possible. Salt Marsh Harvest Mice (previously believed to use only pickleweed dominated Salt Marsh) were found in the upper thatch layer of brackish marshes dominated by bulrush in 2006.

Burrowing Owl 3-COM mitigation area and efforts to minimize of impacts on Burrowing Owls through field maintenance activities.

Plant follows the guidelines of Burrowing Owl Mitigation Guidelines adopted by CA Fish and Game. Burrowing owls are a state species of special concern and protected by the Federal MBTA and State Fish and Game Code. Any destructive field maintenance activities are preceded by a comprehensive survey of the area led by a qualified biologist. Impacts to Burrowing owls or other sensitive wildlife are limited to the maximum extent practicable by designating and delineating no-disturb zones in accordance with the Burrowing Owl Mitigation Guidelines.

A Burrowing Owl mitigation area (~30 acres) is also kept in a minimally disturbed state. It is maintained in a state that provides favorable burrowing owl habitat through on-going horse grazing activity. The area was originally leased to 3-COM as mitigation land. Their mitigation obligations have been fulfilled and the area is maintained with minimal disturbance and effort and is still actively being used by burrowing owls.

Avian Botulism monitoring

The Plant conducts annual monitoring of Plant property that is most susceptible to outbreaks of avian botulism during at-risk season. There is also concurrent monitoring of nearfield receiving water for outbreaks of avian botulism. A coordinated cleanup response is initiated internally and externally in the event an outbreak occurs.

Marsh habitat mapping and monitoring.

Annual mapping of salt marsh, brackish, transition and fresh marsh habitat in the area under the influence of the Plant's discharge is conducted. Satellite images of the study area are analyzed to differentiate vegetative types and the results are ground-truthed each year. This frequent habitat monitoring tracks changes to important vegetative types in salt marshes that are critical to some sensitive species. It is conducted in an effort to track and determine any habitat type conversions that may occur annually as a result of a number of environmental and anthropogenic factors.

California does have a Wildlife Action Plan. It can be found at the following link: <http://www.dfg.ca.gov/habitats/WDP/report.html>. While the regulatory driver for San Jose's projects is not the Wildlife Action Plan, the efforts above are in agreement with and indirectly support the objectives and actions of the Plan. The above species (harvest mouse, clapper rail and burrowing owl) are specifically called out in the Action Plan. San Jose's efforts contribute to and support the goals and objectives of the plan to conserve these endangered and special status species and their habitats. The city's actions support efforts to monitor and report their occurrence.

The Avian Botulism monitoring and outbreak response is also in agreement with the goals of the plan to reduce threats to wildlife such as disease. The Marsh habitat mapping is in agreement with the Plan's goals of monitoring changes to habitat for sensitive species. Through all of these and other projects, San Jose and its contractors have periodically contributed species accounts and records to the California Natural Diversity Database (CNDDDB). This is a key species account and record used for monitoring the distribution and status of wildlife species for the CA Wildlife Action Plan.

New Orleans, LA: The Sewerage and Water Board of New Orleans, in partnership with its neighbor, St. Bernard Parish, will be undertaking a project using natural wetlands to assimilate treated municipal effluent to replace damaged infrastructure, prevent future storm damage and restore approximately 10,000 to 30,000 acres of critical cypress wetlands in an area east of the city of New Orleans and in St. Bernard Parish. The project will be environmentally beneficial to the affected areas and cost effective for the city's operation.

Columbus, OH: The Pilot Wetlands Mitigation Project constructed along Clover Groff Ditch in the Hellbranch Run Watershed created over six acres of herbaceous and wooded wetlands that will enhance protection of wildlife and provide a much needed wetland habitat within highly urbanized Franklin County.

City of Columbus Department of Public Utilities is the major supporter of the Scioto River Watershed Conservation Reserve Enhancement Program (CREP) with a \$2 million annual match commitment. The CREP offers incentives to farmers who adopt conservation practices such as riparian buffers, tree planting, and wetland restoration that enhance water quality, protect plant and animal life and safeguard drinking water. Other projects in the Scioto Basin include assistance with green infrastructure acquisition in the Darby and Olentangy Watersheds as well as natural stream channel design and stream and riparian restoration projects.

In partnership with the Ohio Environmental Protection Agency, Ohio State University, Friends of the Lower Olentangy River and the U.S. Army Corps of Engineers, the Lower Olentangy Ecosystem Restoration Project expects to improve water quality and protect and improve riparian habitat for wildlife and endangered species in the lower Olentangy River. This will be done by examining a variety of alternatives for modification or removal of the lowhead dam in this stretch of the lower Olentangy River.

The State of Ohio Department of Natural Resources Wildlife Action Plan was approved by the U.S. Fish and Wildlife Service in January 2007. When the implementation schedule begins there will be opportunities for participation by City of Columbus utilities.

Nashville, TN: The majority of the highest ranked endangered species in Tennessee are aquatic animals. The Mill Creek Watershed in Davidson County is home to an endangered species of Crayfish, *Orconectes shoupi*, otherwise known as the Nashville Crayfish.

Metro Water Services has undertaken several initiatives to educate the community and change regulations in order to protect this and other endangered species. In 2003, a seminar was held and presentations were given by the State Division of Water Pollution Control, TN Division of Natural Heritage, U.S. Fish and Wildlife as well as the Corps of Engineers. These presentations are posted on the web at <http://www.nashville.gov/water/index.htm>.

In addition to community education, Metro Water Services has recently revised its stormwater regulations to better protect the environment by improving and/or protecting water quality and aquatic life. Stormwater regulations and other information regarding stormwater management program can be found on the web at <http://www.nashville.gov/stormwater/index.htm>.

Denver, CO: In June 2006 the Metro District completed the South Platte River Segment 15 Aquatic Life/Habitat Assessment Project (CDM 2006) that identified various aquatic life species presented or expected to be found in the 26 mile reach of the South Platte River north of Denver. That Project included a detailed analysis of all of the aquatic life data for the River, a literature review to identify the preferred habitat of these species, an assessment of future hydrology in the River, and identified potential habitat improvements that would benefit the largest number of species. The Project and the Final Report were developed in consultation with the Colorado Water Quality Control Division, the Colorado Division of Wildlife, and U.S. EPA Region VIII. While no federally listed endangered species were identified in this portion of the South Platte River, it was decided very early in the project that the focus would be native species several of which are considered “species of special concern” by the Colorado Division of Wildlife. In July 2006, the Metro District Board of Directors adopted the Final Report and its recommendations for the District’s plan to make aquatic life habitat improvements in the River, and the Metro District entered into a Memorandum of Understanding with the three regulatory agencies that committed the District to implement the recommendations of the Final Report at a cost of up to \$6 million. The District is currently in predesign of the first phase of these improvements, which will involve constructing one example of each of the various habitat improvements followed by 2 years to monitor the effectiveness and sustainability of these improvements. Information gathered during phase 1 will then guide the future phases of this effort.

Phoenix, AZ: The City of Phoenix, along with partnering Sub-Regional Operating Group (SROG) members (Scottsdale, Tempe, Glendale and Mesa), is working with the US Army Corps of Engineers on the Tres Rios Ecosystem Restoration and Flood Control Project. This project is located west of downtown Phoenix, and was born out of the need to protect homes downstream of the 91st Avenue Wastewater Treatment plant (WWTP) from flooding in the Salt River, as well as preserve the effluent discharge from the plant to the river. Due to revised Aquifer Protection Permit (APP) rules adopted by the Arizona Department of Environmental Quality (ADEQ), very expensive equipment would be needed to treat the WWTP effluent to the new APP standards and in turn this would have resulted in SROG finding other options for the WWTP effluent discharge (i.e. not discharging to the river). In turn, this would have caused great damage to the riparian habitat that has developed in the Salt River over the past 40 years from the WWTP effluent.

As part of the project, ADEQ agreed to eliminate the revised APP requirements for WWTP effluent discharge and allow us to send this effluent to a wetlands for tertiary treatment, then discharge to the river and thus keep the river flowing in this area. Part of the overall Tres Rios project plan is to expand the existing riparian corridors which will continue to support habitat for native wildlife. There is documented habitat for some endangered species in our area, and we will be working on a Safe Harbor Agreement in due time. We are currently constructing the flood control levee, and are in design for the wetlands. The project timeline is a function of federal funding, but we hope to have the main portions of the wetlands and flood control levee constructed within the next two to three years.

Cedar Rapids, IA: Cedar Rapids is not currently involved with any other programs at a state or local level involving utilities and the protection of habitat or wildlife, but the Fisheries Division of the State of Iowa Natural Resources has initiated a program to attempt re-introduction of endangered mussels into several rivers and one of the re-introduction sites is several miles downstream from the city's outfall. Follow-up inspections at this site (and others) have shown very poor survival rates. Other sites have shown good to excellent survival rates. During a requested public hearing on renewal of the city's NPDES permit last September the issue of poor survival downstream of the outfall was prominently mentioned by a number of interested groups. The State of Iowa has indicated that they do not currently consider the effluent discharge to be a significant factor in mussel survival (i.e. one site on the Iowa river, approximately 30 miles south and also below a POTW outfall, demonstrated excellent survival but it is downstream of a flood control reservoir and sediment loads are very different than those present in the Cedar River).

Sacramento, CA: The Sacramento Regional County Sanitation District manages its 2,650-acre Bufferlands surrounding the Sacramento Regional Wastewater Treatment Plant with an emphasis on wildlife habitat conservation. The primary reason for the Bufferlands program is, as implied by its name, to provide a buffering function between the treatment plant and the surrounding community. Additionally, these land stewardship and habitat management efforts benefit hundreds of wildlife species including many State and Federally listed threatened and endangered species. More information on this program can be found at www.srcsd.com or at www.bufferlands.com.