

New wetland areas under construction in the Las Vegas Wash



As part of the cooperative efforts among the City of Henderson, the Bureau of Reclamation and the Las Vegas Wash Coordination Committee, a constructed wetlands demonstration project is being created at the City of Henderson's Water Reclamation Facility, near the Henderson Bird Viewing Preserve.

The project team is retrofitting a retention pond at the Henderson Water Reclamation Facility for use as a constructed wetland pond. The goal of the project is to determine the wetland's effect on water quality in a controlled environment.

"This project exemplifies the importance of the partnerships that have been formed for the good of the community," said Las Vegas Wash Coordination Committee Project Manager Kim Zikmund. "This project will help determine what wetlands can do for us in Southern Nevada."

Project planners hope the demonstration wetlands will serve as a guide for future planting projects along the Las Vegas Wash. The vegetation selected for constructed wetlands plays a vital role in the effectiveness of water-quality improvements. Types of plants used are predominantly local, native wetland species because

they are adapted to the local climate, soils and surrounding plant and animal communities. Of the 15 plant species included in the constructed wetlands, nearly all are "emergent," meaning that the roots, but not the entire plant, are submerged.

Though this demonstration wetlands currently is nourished only by highly treated wastewater, it lays the groundwork for determining the effectiveness of wetlands on other flows such as urban runoff. Like natural wetlands, constructed wetlands have slow-moving flow and shallow water depths that allow sediments to settle as the water passes through them. This fosters an environment for a diverse community of

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Wetland areas in the Las Vegas Wash like the one above can serve as a polishing filter for flows passing through them.

Volunteers plant nearly 10,000 trees at Las Vegas Wash “Green-Up”



As part of planned efforts to increase wetlands and wildlife habitat in the Las Vegas Wash, hundreds of volunteers recently joined Clark County Parks and Recreation, Friends of the Desert Wetlands Park and the Las Vegas Wash Coordination Committee to lend a hand to Mother Nature. The volunteers planted nearly 10,000 trees and shrubs in the environmentally sensitive area.

The event, called the Las Vegas Wash “Green-Up,” took the place of the well-known annual wash cleanup event that drew more than 2,000 volunteers last year to pick up garbage in the Las Vegas Wash.

“We replaced the cleanup event this year with the “Green-Up” because there simply wasn’t enough trash left in the wash to hold the same event this year,” said Las Vegas Wash Coordination Committee Biologist Keiba Crear. “Now that we’ve been successful in cleaning up the area, we decided to ask our volunteers to help us revitalize the vegetation in the wash.”

The newly planted trees span a seven-acre area on six separate sites within the wash. The majority of the trees are willows, cottonwoods and mesquites, selected because of their habitat value for native and migratory species.

As well as adding beauty to the wash, the deeply rooted trees will help to serve as a bio-armor against future erosion in the area. Diminished wetlands in the wash, which have decreased nearly 90 percent since the 1970s, can be attributed to increased erosion in recent years resulting from the valley’s growing population.

As directed by the recommendations from the Las Vegas Wash Comprehensive Adaptive Management Plan, the Las Vegas Wash Coordination Committee is working to restore the wash. One element of the management plan is designed to facilitate the revegetation of native wetland and riparian species in the area.



WASH FACTS

 In the 1970s, the Las Vegas Wash supported more than 2,000 acres of wetlands. Today, less than 300 acres remain.

 Native trees such as the cottonwood and willow are an important part of the riparian ecosystem.

 Installation of grade control structures in the Las Vegas Wash will help slow flows and create wetland and riparian habitat.

 Nearly 10,000 trees and shrubs were planted during the 2001 Las Vegas Wash “Green-Up” event.

PROJECT UPDATES

EcoJam 2001 marks opening of Wetlands Park at Las Vegas Wash



Clark County Parks & Recreation, along with co-sponsors Star Nursery and Vegas Trailer, recently hosted EcoJam 2001. The annual educational event is held to increase public awareness of environmental issues and to promote local and national conservation efforts.

This year, the event was held in conjunction with the grand opening of the Clark County Wetlands Park Nature Preserve. Scores of visitors boarded shuttle buses for scheduled tours of the Nature Preserve that winds throughout the environmentally sensitive Las Vegas Wash.

The new Nature Preserve includes a series of wetland and riparian areas that will provide habitat for various plant and animal species, including the great blue heron. The area will house a visitor's center, a small amphitheater, foot paths and thousands of shrubs and trees such as mesquites, goodding willows and cottonwoods.

For more information, visit www.wetlandspark.org.

Real-time water-quality monitoring gauges floating wetlands' effectiveness

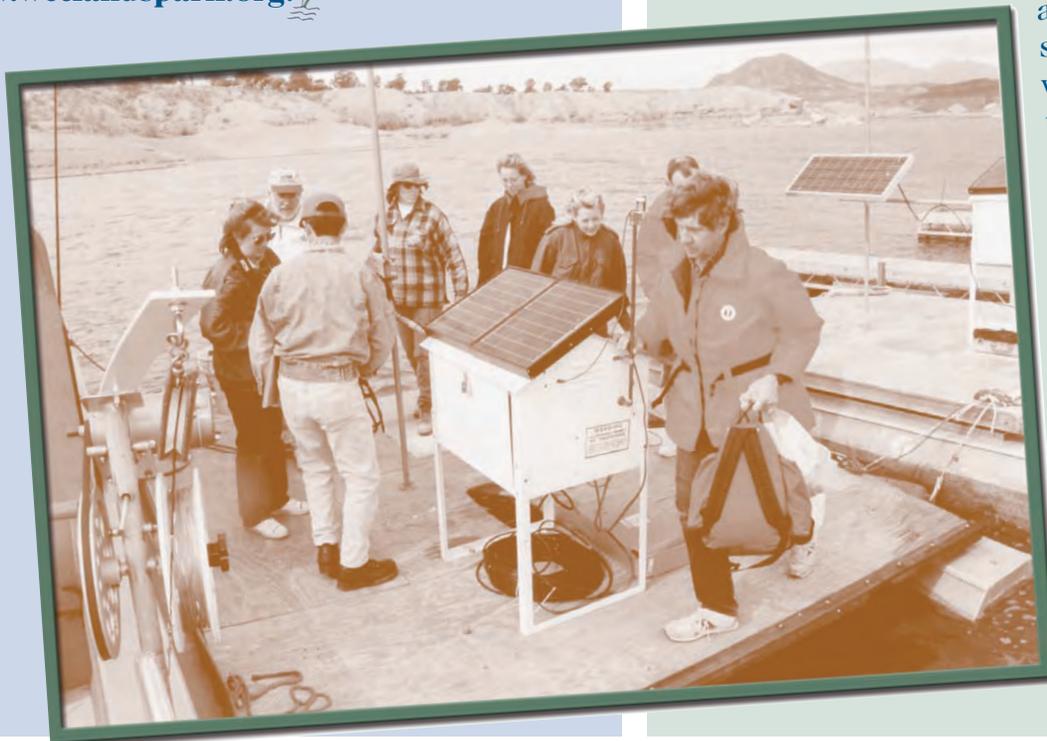


In conjunction with the Bureau of Reclamation's floating constructed wetlands project, the U.S. Geological Survey (USGS) is initiating a "real-time" water-quality monitoring system. The objectives of this system are twofold: First, it represents the first effort to observe water-quality changes as they occur; second, it will allow scientists to better understand the ability of floating wetlands to "polish" water flows.

According to Dan Bright from the USGS, the collected data will be used to measure changes in such water-quality indicators as total dissolved solids. In addition to measuring water quality throughout the water column through a unique air-bladder system, the USGS' equipment will send that data via cellular transmitters to scientists.

One monitoring platform is already in place; the other will be stationed downstream from the Bureau of Reclamation's floating wetlands platforms at Las Vegas Bay. By summer, the public will have access to this information through two Web sites:

lvwaterquality.org
and nv.usgs.gov.



Staff from USGS and the Las Vegas Wash project team stand on the platform that houses the real-time water-quality monitoring system in Las Vegas Bay.

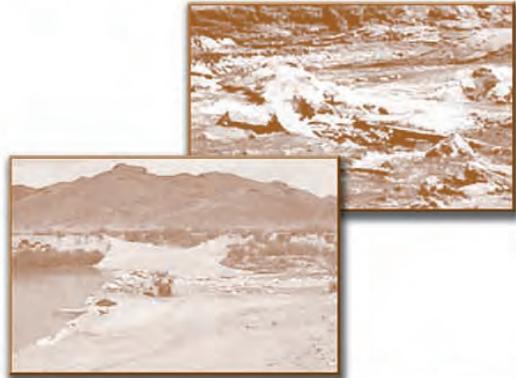
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microorganisms that aid in water-quality improvements. Specifically, wetland vegetation helps reduce levels of nitrogen, phosphorus and total suspended solids in water.

In addition to their function as a water-quality enhancer, constructed wetlands are often used as educational and research laboratories for bird watching and landscape improvement. All of the plants included in this project are utilized by native birds in some manner.

The final appearance of the project will resemble that of a triangular-shaped pond about eight acres in size. Both the water and the plants will be monitored on an ongoing basis. 

Watch Our Wetlands Grow



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Monitor wetlands restoration efforts
and learn more about the
Las Vegas Wash anytime at www.lvwash.org

Las Vegas Wash



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For more information, visit our
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