

Scientists explore algae anomaly



ast summer, Lake Mead was blanketed by a layer of bright-green algae covering nearly the entire lowermost basin. As boaters and swimmers asked why there was such a widespread algae bloom, Las Vegas Wash Coordination Committee scientists plunged headlong into the mystery.

While the non-toxic algae didn't represent a threat to Southern Nevada's drinking water supply, and actually benefited the lake's aquatic inhabitants, the bloom did create concern in Southern Nevada. Dr. James LaBounty, a member of the Nevada Division of Environmental Protection's algae task force, said although experts have long understood algae blooms, the origin of last year's was cloudy.

The mystery was why the bloom was so much larger than in previous years while the amount of phosphorus entering the lake remained stable. To answer that, scientists turned their attention to other variables that might explain the phenomenon.

"As we continued our investigation, we realized that it was not only the amount of phosphorus, but how it was entering the lake that was responsible," LaBounty said.

LaBounty explained that Lake Mead's lower water level exposed a previously submerged delta in Las Vegas Bay, slowing and dispersing the Las Vegas Wash's flow into Lake Mead. This increased the water's exposure to the surface, making it much warmer than in previous years. This warm water floated across the surface of the much-colder lake water. With phosphorus suddenly available in its "growth zone," the sunlight-dependent algae thrived.

Will Lake Mead again turn a mysterious shade of green this summer? LaBounty said a bloom of similar magnitude is conceivable but unlikely.



Last summer's algae bloom in Lake Mead is unlikely to recur with the same strength in 2002.

"You'll find small areas in which algae thrives more often than not, but last year was highly unusual. Although a large storm event could change conditions, it seems unlikely we'll see a similar phenomenon this year," LaBounty said.



Volunteers clean up and “green up” wash



hundreds of volunteers took an active role in enhancing the Las Vegas Wash earlier this year during Las Vegas Wash

Improvement Month.

The second annual Wash Green-Up volunteer planting, held Feb. 23 along the banks of the wash, served as the finale of the month-long series of activities overseen by the multi-agency Las Vegas Wash Coordination Committee to protect and manage the Las Vegas Wash.

Two weeks earlier, coordination committee members and University of Nevada Las Vegas staff orchestrated a successful effort to remove invasive plants from the Clark County Wetlands Park Nature Preserve, a developed wetlands area immediately southeast of Las Vegas. Between the



Many youth organizations have helped to restore the Las Vegas Wash.

two volunteer events, crews with heavy equipment dragged a dozen automobiles from their dusty graves adjacent to the wash.

Wash Improvement Month gave volunteers an opportunity to participate in critical revegetation efforts. The event evolved from the Las Vegas Wash Cleanup, a tremendously successful annual event that drew thousands of volunteers and eliminated more than 500,000 pounds of trash from the wash area. In addition to volunteer plantings, the Las Vegas Wash Project Team has revegetated 26 acres of land during the past 18 months.



Above: By removing trash and invasive plants from the wash, volunteers help efforts to restore the area.

Right: Hundreds of community volunteers supported cleanup and “green-up” events in 2002.



PROJECT UPDATES

Perchlorate removal system operational



A new remediation system completed in April under the direction of the Nevada Division of Environmental Protection (NDEP) began intercepting groundwater laden with perchlorate, an oxygen-rich salt known in high concentrations to affect the thyroid gland.

As NDEP leads cleanup efforts, the federal Environmental Protection Agency is working toward setting a drinking water standard for perchlorate. Although regulation may be years away, Southern Nevada Water Authority General Manager Patricia Mulroy said Nevada is being proactive with remediation efforts.

“We began aggressively addressing this issue as soon as perchlorate was discovered in the Colorado River,” Mulroy said. “Removing perchlorate from Lake Mead is among our top priorities. However, we recognize that this problem isn’t going to disappear overnight. That’s why we decided to actively support NDEP’s oversight of the remediation efforts, rather than waiting for regulations to be developed.”

Trace levels of perchlorate detected in 1997 throughout the lower Colorado River were traced to the Las Vegas Wash. Scientists determined the unregulated chemical had been seeping into the wash from nearby manufacturing sites.

Once the inflow of perchlorate to the Las Vegas Wash is stemmed, snowfall in the Rocky Mountains will likely be the key determinant of how quickly perchlorate levels decline. SNWA scientists believe one or two “wet” seasons upstream could dramatically reduce perchlorate concentrations throughout the Lower Colorado River by accelerating the rate at which the salt is flushed from the system.



Wildlife surveys gauge wash’s health



Extensive wildlife surveys conducted during the past year are helping environmental planners understand the relationship between the health of the Las Vegas Wash and its ability to provide habitat.

The latest studies by Las Vegas Wash Coordination Committee member agencies help scientists quantify the correlation between habitat quality and species diversity, according to Liz Bickmore, an environmental biologist with the Las Vegas Wash Project Team.

“This research allows us to see how much effect our revegetation and other enhancement projects have on wildlife populations,” Bickmore said.

The surveys focus on developing “species lists” of birds and reptiles living along the 12-mile channel. The latest round of bird surveys added 12 new entries to the list, bringing the number of bird species sighted at the Las Vegas Wash to 119.

Thirteen species of reptiles were observed during the 2001 survey period, including the desert iguana and the unique Western blind snake. Intensive baseline surveys related to fish and small mammals are under way and will be completed next year.



Surveys in the wash indicate the sighting of 119 bird species.

Las Vegas Wash

Coordination
Committee



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Web site at www.lvwash.org or
call the project office at **822-3300**.




Progress made in erosion control






In less than three years, the Las Vegas Wash Coordination Committee and its member agencies have made significant progress in reducing erosion of the Las Vegas Wash. This includes efforts to reduce both deepening of the channel and bank erosion, which carry tons of sediment into Lake Mead.



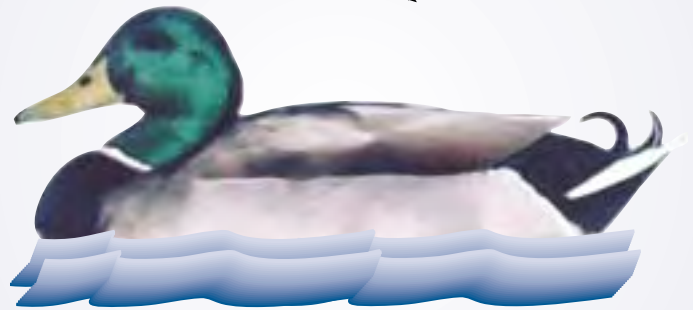
Progress to date:

-  Completed four erosion control structures
-  Stabilized 2.5 miles of the wash's banks
-  Built or improved two miles of trails

On the horizon:

-  Design and construction of five additional erosion control structures
-  Stabilizing an additional three miles of the wash's banks
-  Building or improving an additional two to three miles of trails

Dapper drake



One of the Las Vegas Wash's most distinguished-looking residents, the male mallard (*Anas platyrhynchos*) is easily recognizable by its striking metallic-green head. Ancestor of most domestic ducks, the mallard can be found throughout North America, Europe and Asia.