

Mono Basin Restoration Notes

by Lisa Cutting

In 1998 the State Water Resources Control Board approved the Los Angeles Department of Water and Power's (DWP) work plan for complying with and ultimately achieving restoration goals. The Mono Lake Committee was involved in designing the work plan and continues to be involved to make sure the work meets the objectives of the plan.

The Water Board restoration order requires that DWP submit a report annually to all the parties. Included in this report are monitoring results and any recommendations for changes to the restoration program. Changing the restoration plan is an arduous process that doesn't happen easily.

But, as the scientists proceed with restoration activities and learn more about restoration—both what works and what doesn't—sometimes changes to the plan are considered. In technical terms this is called adaptive management. Adaptive management is a process that allows for changes to be made to existing management plans based on new information resulting from monitoring.

Following are some of the more recent developments with the restoration program, including two potential changes to the restoration work plan.

Rush Creek Return Ditch Rehabilitation

Although the Committee reported in the Fall 2001 *Newsletter* that long awaited high restoration flows would course down Rush Creek below Grant Lake Reservoir in the spring, the high flows did not come. DWP had suggested late last year that high test flows would be delivered spring of 2002. However, construction delays prevented these from occurring and Rush Creek only received approximately 160 cubic feet per second (cfs) of its mandated peak flow—which for a dry year like this one is 250cfs. Despite the delay, DWP remains on schedule to complete work this fall and

to send peak restoration flows through the ditch in spring 2003.

The Committee remains vigilant on this issue for good reason. The capacity of the Rush Creek return ditch is instrumental in providing the high seasonal flows needed to generate natural stream building processes. And it is these processes that will ultimately restore Rush Creek.

Rush Creek Channel Openings

As this newsletter goes to print, DWP is beginning work on lower Rush Creek to open a channel that had previously been closed off to flows. This channel is only one of several identified by the Water Board for reopening. Removing the cobble and debris plug that currently exists will allow water to flow again in the spring runoff period.

Opening plugged channel entrances in the stream bottomlands—formerly lush wooded wetlands with multiple channels—is a key element in the restoration order. Entrances to these channels were plugged during the years of diversions and resulting degradation. When occasional releases of water flooded the dry streams, channels were straightened and debris was deposited in the mouth of some of the side channels. Although these channels are currently cut off from water, they remain intact.

Prescribed Burn Program

DWP recently requested that the Water Board eliminate their obligation to conduct the prescribed burn program. In the Water Board approved restoration plan, burns were identified as an important way to improve waterfowl habitat by maintaining open water sites and restoring marsh and seasonal wet meadows.

California Department of Parks and Recreation has conducted two lake-fringing burns, neither of which has shown much benefit for waterfowl. DWP's request is linked to both the lack of waterfowl benefit exhibited by the State's burns and problems associated

with actually performing the burns—primarily regulatory constraints and fire containment issues.

The Committee believes there could be value in conducting a third burn despite the logistical challenges. But the Committee also recognizes that to date, waterfowl are not using the burned areas, in part because burns are not creating the open water habitat as was expected. State Parks has suggested the parties meet to discuss alternative waterfowl strategies that would replace the burns. The Committee is open to these discussions with the understanding that some strategy for improving waterfowl at Mono Lake must be identified. Prescribed burns may or may not be a part of that strategy—it's too soon to tell.

Waterfowl Monitoring Protocol

DWP is also requesting permission from the Water Board to alter the protocol it uses to monitor waterfowl at the lake. Under the current plan, DWP is performing two aerial and several boat surveys each year. The proposal is to switch exclusively to aerial surveys.

The Committee's primary concern is this: will the seven years of data already collected still be useable? Commonly, a change in data collection methods means that the previous data is not comparable to the new data and the analysis of trends must start over. The Committee is working hard with scientific consultants to determine whether under the proposed change, the existing data would be lost—and whether an index can be developed that will allow correlation between the past and future data.

DWP's annual waterfowl monitoring program is an important part of the Water Board order because of the irreplaceable habitat lost when Rush and Lee Vining creeks were dewatered and the lake level dropped 45 vertical feet. Shoreline lagoons and creek deltas were permanently damaged and birds were no

Continued on page 16

Mono Basin Clearinghouse Updates

The Mono Basin Clearinghouse, on the web at www.monobasinresearch.org, has become a tremendously valuable source of scientific information on the Mono Basin. If you haven't checked it out lately, please do! Here are highlights of the recent additions:

- Pacific Flyway Waterfowl Investigations, Mono Lake, 1948, by W. Dombrowski. The quintessential report on pre-lake-decline waterfowl numbers.
- Aquatic Habitat Characteristics and Trout Demography In Selected Sections of Five Eastern Sierra Streams, by Donald W. Sada, May 6, 2000. Previously unpublished, from one of the largest Sierran trout datasets ever compiled.
- Research profile: Dr. Jill Mateo from Cornell University has provided a great writeup and photos of her research on Belding's Ground Squirrels.
- Research profile: Tom Hahn from UC Davis was kind enough to summarize the three projects he is involved with in studying birds at Tioga Pass: Long term study of the biology of Mountain White-crowned Sparrows, Biology of Cassin's Finches, and Comparative Reproductive Biology of Cardueline Finches.

These are only the most recent additions. There is also information on the Mono Lake Microbial Observatory, the Eastern Sierra Riparian Songbird Conservation Project, Alkali Fly Research, California Gull research, Meromixis, and Air Quality. Links to documents on other websites include the National Research Council Report on Mono Lake: The Mono Basin Ecosystem: Effects of Changing Lake Level (1987).

New reports are added each each month. If you would like to be added to the updates email list, please send an email requesting to be added to greg@monolake.org.

More Tamarisk Found on Restoration Work Day

On September 1, 2002, eight volunteers participated in a Restoration Work Day to help find, remove, and mark tamarisk along lower Rush Creek. Tamarisk, also called Salt Cedar, is an invasive tree native to the Middle East that dries up watercourses and out-competes native vegetation in the desert southwest.

Lower Rush Creek has been targeted for tamarisk removal over the last two years, but the volunteers managed to find a couple of remaining pockets of tamarisk trees. The larger trees were flagged to be removed with the weed wrench before they bloom next year. The crew also found two plants blooming and removed the seeds and blossoms.

The volunteers returned to Lee Vining hot and dusty and were treated to pizza for their hard work. To round out the Restoration Work Day, participants attended local author Dave Carle's book signing for *Burning Questions: America's Fight with Nature's Fire* in the Committee's Information Center and Bookstore. Wrapping up the afternoon was the State of the Lake presentation in the slide show room. (See page 10 for more on State of the Lake.)

Due to the popularity and success of the Mono Basin Bird Chautauqua, the Committee is no longer holding Restoration Days on Labor Day weekend. However, Restoration Work Days will occur each year as needed. See the Mono Lake Calendar of Events at www.monolake.org/main/calendar.htm for upcoming work days. If you would like to celebrate National River Cleanup Week and help pull the remaining tamarisk on lower Rush Creek, mark your calendars for Saturday May 17, 2003!

Restoration Work Day

May 17, 2003

Come lend a hand!

Call (760) 647-6595.

Restoration Notes from page 8

longer able to use these areas.

The Water Board order mandates specific actions for restoring waterfowl habitat at Mono Lake. The waterfowl monitoring reveals how the birds are responding to the rising lake level and how their habitat is changing. Because waterfowl monitoring is expected to continue until 2014, the year set by the Water Board to assess the progress of restoration at Mono Lake, it's important that these changes to the plan are thoughtfully analyzed and evaluated.

Lee Vining Creek Sediment Bypass

Sediment positively influences the biological productivity of a stream. In a natural stream system, sediment is carried downstream in high water flow events and is eventually

deposited. Natural processes depend on this sediment in many ways—fish need gravels for spawning; aquatic insects use sediment for habitat; and stream vegetation use it as a substrate to begin growing. A diversion dam currently prohibits the passage of most coarse sediment on Lee Vining Creek.

In the spring of 2002 DWP released a report outlining several alternatives for ensuring that sediment is passed down Lee Vining Creek. The DWP report focused on sluicing, which would simply use naturally occurring high flows to push the sediment through. The Lee Vining Creek diversion dam would need to be retrofitted so the sediment could pass through or around the dam. Committee scientists and staff are currently evaluating all of the proposed options. ❖