Streamwatch

Stream Restoration Update

by Greg Reis

At the Los Angeles Department of Water and Power's (DWP) bi-annual restoration meeting in Sacramento in November DWP staff and consultants provided updates on how 2003 operations and monitoring went, and informed the Mono Lake Committee of what the streams can expect in 2004. The following are just a few highlights.

Runoff Forecasting

Because DWP's runoff forecast model was not able to incorporate the significant increase in snowpack that occurred this past April, the May 1st 2003 Mono Basin runoff forecast was much lower than actual runoff and much lower than what was projected for all the surrounding watersheds. The under-forecast meant that peak stream flows for Rush Creek were 50 to 130 cubic feet per second (cfs) less than what they should have been had the forecast, and thus the year-type, been accurately projected. DWP is evaluating improvements to its runoff forecast models.

Committee Requests Flow Test

At the April restoration meeting the Committee requested that DWP release a test flow of 380 cfs down the newly-rehabilitated Mono Gate One Return Ditch (which releases water from Grant Lake Reservoir to Rush Creek). This request was denied. In November, the Committee asked the State Water Resources Control Board to order this release in 2004. 380 cfs is the new capacity of the ditch as well as the flow required to be released when runoff exceeds 82.5% of average. Since the 1998 restoration order, Rush Creek has not received its required peak flow (see Policy Notes, Summer 2001 *Newsletter* for details), and the Committee believes it is important not to miss another year and to make sure the ditch can handle the flow. In December the Committee met with DWP and is currently discussing conditions under which a test flow may occur.

Fisheries Monitoring in Rush Creek

In 2004 there will be a fish movement study in Rush Creek conducted by Ross Taylor & Associates. The monitoring team has questions about where large fish move in the stream and why they find few fish past age three.

Tree Planting

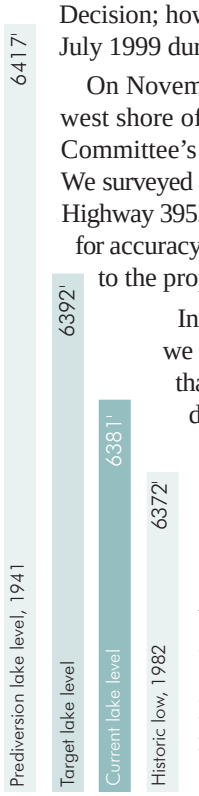
In April 2004, the Committee plans to plant cottonwood and willow cuttings at the County Road culvert on Rush Creek. These will be the first trees planted on Rush Creek since 1997. The intention is to protect the culvert from erosion during high flows. ❖

Lakewatch

A Journey Back to 6392

by Greg Reis

On December 1st, 2003, Mono Lake stood at an elevation of 6381.3 feet above sea level. This is a half-foot lower than at the same time last year. The last time it was this low was in March 1997. This is 6.7 feet higher than at the time of the 1994 State Water Resources Control Board Decision; however the lake has dropped 3.8 feet since July 1999 during the last five fairly dry years.



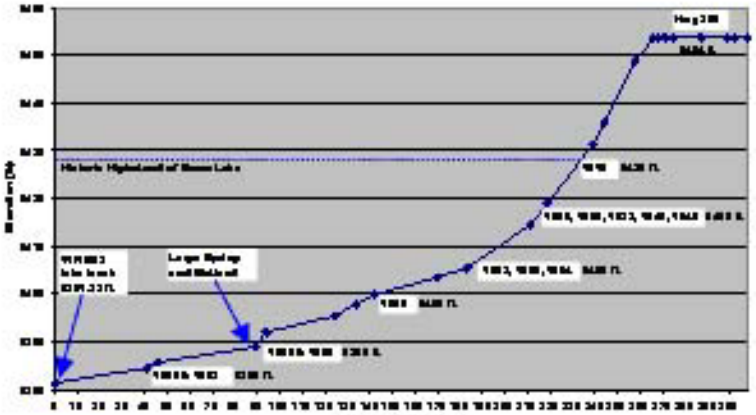
On November 19th, I investigated a section of the west shore of Mono Lake with Jen Nissenbaum, the Committee's new Eastern Sierra Policy Coordinator. We surveyed a ground surface profile from the lake to Highway 395. Our purpose was to check Caltrans' DEIR for accuracy and to see how close the lake will come to the proposed highway at higher lake levels.

In addition to what we were looking for, what we found were lake terraces and wavecut scarps that were created when the lake had risen briefly during its long decline—like fossil evidence of high runoff years. Terraces are created only as the lake rises and as waves beat back the cliff face, and are not created when the lake declines steadily.

About 42 feet from the lakeshore we found the first scarp: a steep 1.2 foot rise beginning at 6384.5 feet above sea level. This was created between January and July 1999, when Mono Lake rose from 6384.3 to 6385.1 (it receded back to 6384.5 by October).

Walking inland up the next 43-foot-wide terrace, we reached the base of the next scarp at the beautiful and gurgling Lone Olive Spring, named by Jen for the single (nonnative) Russian Olive growing there. This 3.2-foot scarp begins at 6388.8 and was created in 1967 and 1969, two very wet years, when Mono Basin runoff was 162% and 174% of average respectively, exports were minimal, and the lake level reversed its steady decline and rose approximately 3 feet in the winter and spring of each of those years. The sudden seasonal rises at similar elevations created this scarp.

Lake to Highway Profile at Lone Olive Spring – Existing Ground Surface



After climbing this scarp, the next 29-foot-wide terrace led us to a final 4.5-foot high scarp, more gradual than the others, and mysterious in origin, created at 6395 feet. This is where Mono Lake was in 1962, and close to where it will be in 20 years, if the models are correct and the climate cooperates. ❖