

Streamwatch

Second wet year in a row causes Grant Lake Reservoir to spill

by Greg Reis

The final 2006 runoff forecast is 147% of average—a “wet” year according to the Water Board order. The Los Angeles Department of Water and Power (DWP) admits there is uncertainty in the forecast, since some data normally available from Southern California Edison (SCE) is missing.

Available evidence suggests that runoff will be higher than 147%. Last year’s runoff was 150% of average, and this year’s precipitation and snowpack were greater. Precipitation in April set a new record and was well above average in May. Every other basin in the Sierra has a higher runoff forecast than the Mono and Owens basins. The basins to the north and west are likely to see about 180% of average runoff, and even the eastside’s Walker Basin is slated for 188% of average runoff.

Another major difference from last year is that the snowpack is greater at

the highest elevations—over 180% of average in places—and is much less at the lower elevations. This means the pattern of runoff could be different, with higher flows later into the summer.

On May 22, 2006, Grant Lake Reservoir spilled for the first time since 2000. Last year’s high runoff filled the reservoir, and this year that water is spilling over the dam, delivering higher flows to lower Rush Creek and Mono Lake. Last year’s peak flow above the reservoir almost reached 450 cubic feet per second (cfs), and a similar flow could be expected to spill over the dam this year.

This year DWP is required to deliver 450 cfs to lower Rush Creek for five days, followed by 400 cfs for ten days. This means DWP may still have to augment Rush Creek with water diverted from Lee Vining Creek to meet the peak flow requirements on Rush, as it

did last year when it wasn’t able to take advantage of a spill.

Everyone involved in the restoration effort would like to see the Rush Creek peak flow maximized this year, and it remains to be seen if the weather, SCE reservoir releases upstream, and the Lee Vining augmentation will combine to meet our expectations. ❖

Greg Reis is the Committee’s Information Specialist. He’d like to acknowledge the passing away in February of Luna Leopold, the son of Aldo Leopold. Considered by many to be the father of river restoration, Luna advanced the scientific knowledge of how rivers work more than any other individual. A list of 182 of his publications, many available to download, can be found on the Web here: <http://eps.berkeley.edu/people/lunaleopold/>.

Lakewatch

Mono Lake may reach levels not seen since 1972; meromixis returns

by Greg Reis

This year Lee Vining had its 2nd wettest winter on record: 22 inches of precipitation by the end of May. This is 184% of average. March was the coldest and April was the wettest on record, and May rainfall was almost 170% of average.

On April 1, 2006, Mono Lake was the same level as it was on that day in 1998: 6383 feet above sea level. In 1998 the lake rose 1.5 feet by the end of August, and that year there was almost no rainfall from April through August. Already at the end of May, this year, Mono Lake is rising a tenth of a foot

faster each month.

This year, with a wetter April and May and reservoirs holding 5,000 acre-feet more water, combined with greater runoff forecasted this year than in 1998, Mono Lake is likely to rise two feet by the end of August and could possibly exceed its 1999 highstand of 6385.1 feet.

It is possible that Mono Lake will be spreading back into territory that hasn’t been submerged by lakewater since 1972! This would put it within six feet of the target level of 6391 feet.

There are some other ramifications of a big water year as well. The boardwalk platform at the end of the County Park boardwalk will have the lake underneath it, raising a question for the State Reserve: should they pull it up this year

in anticipation of a wet year next year, or wait to see if next year is dry? Trails at South Tufa are also being rerouted to higher ground.

Most significant for the lake ecosystem is UC Santa Barbara researcher Dr. Robert Jellison’s observation that the lake failed to complete its annual mixing process during the winter (called meromixis). He says the upper mixed layer is relatively deep, so for now the stratification is having minimal effects on lake productivity. The inflow of fresh water this year, however, will likely result in more noticeable effects next year. For more information on meromixis visit www.monolake.org. ❖

