

Streamwatch

High Summer Runoff—132% of Average

by Greg Reis

Between severe drought in the Pacific Northwest and extreme wetness in the Southwest, the Mono Basin ends up on the wet side of things this year. Even within the basin there is a north-south gradient, with forecasters expecting 124% of average runoff in Lee Vining Creek to the north and 139% of average runoff in the Rush Creek watershed to the south. The runoff from both streams is expected to be 132% of average, officially designated as a “wet-normal” year.

In wet-normal years, the Los Angeles Department of Water and Power (DWP) is required to pass the peak flow down Lee Vining, Parker, and Walker creeks. On Rush Creek below Grant Lake Reservoir, which DWP expects might spill in August, DWP is required to release a peak flow of 400 cubic feet per second (cfs). This is 20 cfs more than Grant Lake’s outlet can release, and is achieved by augmenting Rush Creek with water diverted from Lee Vining Creek.

This is an exciting year for Mono Basin creeks. Although lower Rush Creek’s peak flow won’t come anywhere close to that of 1998 due to the low level of Grant Lake, the creek flows will be higher than anything the creeks have experienced since then.

Cold and stormy spring weather is preserving a copious snowpack longer into the warm season, meaning that a sudden warm-up is likely and will lead to even higher peak flows on uncontrolled drainages. ❖

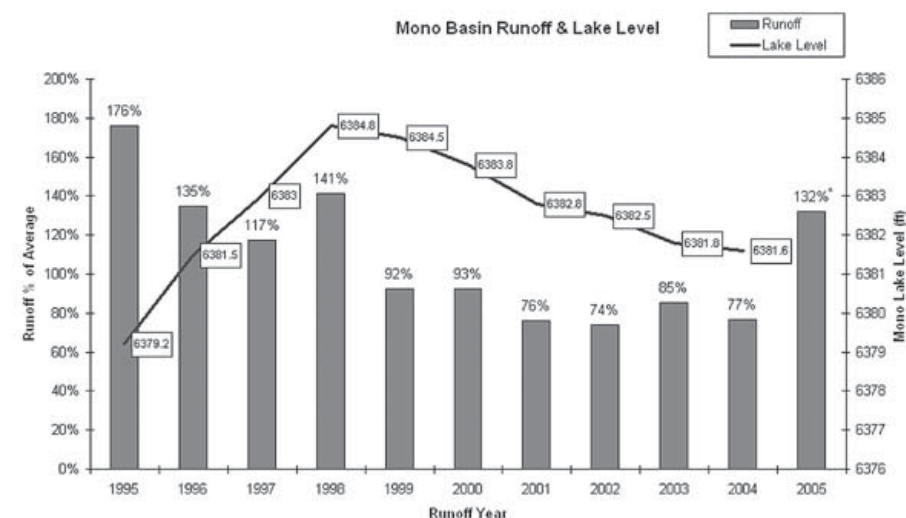
Lakewatch

Mono Lake is Rising!

by Greg Reis

As the Mono Basin thaws out from the snowiest winter in years, the receding snowdrifts are replaced by an abundance of green grass and flowers along the lakeshore. Lee Vining received over 19.5 inches of precipitation (160% of average) since October—the third wettest winter (after 1995 and 1997) since recordkeeping began in 1989. There were over two inches of precipitation in each month between October and March. This consistent wetness has not happened since recordkeeping began.

The winter was also consistently cold, causing almost all of this precipitation to fall as 150 inches of snow in record-setting storms: one third of it in 9 days and over half of it in the 16 days around the start of the New Year. When it wasn’t stormy in January and February, the poconip (freezing fog) set in and kept the deep snow around Mono Lake from melting.



2005 runoff is forecasted to be 132% of average—similar to the 134% forecasted in 1998 (1998 runoff turned out to be 141% of average). Mono Lake rose 1.3 feet between April and August 1998, however Grant Lake was full that April. This year Grant Lake is only one third full and will catch a large portion of Rush Creek’s runoff before it reaches Mono Lake.

This combination of cold, dark, and wet weather limited evaporation from Mono Lake’s surface. It also added water directly into the lake from precipitation. This caused Mono Lake to rise one foot from November to April (the biggest rise during this period since a 1.2 foot rise in 1998). The April level of Mono Lake was 6381.6 feet above sea level (a 0.2 foot drop from April 1, 2004). Based on similar years in the past, Mono Lake is likely to rise a foot by August and then drop about a half a foot by November.

Research scientist Bob Jellison estimates that there is a 30% chance of meromixis (the lake water failing to mix in the fall) occurring this year—if a pulse of runoff comes rapidly into the lake during calm weather.

The November 2004 lake level was the lowest Mono Lake has been since January 1997. It has been falling since it reached a high point of 6385.1 in July 1999. ❖

6417'

Prediversion lake level, 1941

6392'

Target lake level

6382'

Current lake level

6372'

Historic low, 1982