



Water-Data Report 2007

**383719118424401 Walker Lake Core C25**

Walker Basin  
Walker Lake Subbasin

LOCATION.--Lat 38°37'19", long 118°42'44" referenced to North American Datum of 1983, Mineral County, NV, Hydrologic Unit 16050304.

DRAINAGE AREA.--3,950 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

REMARKS.--Walker Lake is a perennial, natural terminal lake that became at-risk because of upstream agricultural diversions. Between 1882 and 1994, upstream diversions caused Walker Lake to decline about 140 feet and the total dissolved solids (TDS) concentrations to increase from 2,500 mg/L to 13,300 mg/L. The Lahontan cutthroat trout (LCT), a threatened species that is native to Walker Lake, has adapted to the high TDS of terminal basins. However, diversions have lowered lake levels and increased TDS to concentrations that threaten the survival of the LCT. The objectives of this project are to develop (1) an improved water budget for Walker Lake and (2) the capability to predict how changes in irrigation practices in and below Mason Valley will affect flows in the lower Walker River so alternatives for supplementing flows can be evaluated.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

| Date       | Time | Sample type   | DepthTo<br>bottom<br>at<br>sample<br>loca-<br>tion,<br>feet<br>(81903) | Sam-<br>pling<br>depth,<br>feet<br>(00003) | Deu-<br>terium/<br>Protium<br>ratio,<br>water,<br>unfltrd<br>per mil<br>(82082) | O-18 /<br>O-16<br>ratio,<br>water,<br>unfltrd<br>per mil<br>(82085) | Sediment<br>core<br>sample,<br>upper<br>depth,<br>in inches<br>(81900) | Sediment<br>core<br>sample,<br>lower<br>depth,<br>in inches<br>(81901) |
|------------|------|---------------|--|--|---|---|--|--|
| <b>Jul</b> |      |               |  |  |   |   |  |  |
| 25...      | 1150 | Pore water    | 39.0   | 39.2                                       | -29.90  | .61   | 1.0  | 4.0  |
| 25...      | 1151 | Environmental | 39.0   | 38.9                                       | -27.90  | .82   | --   | --   |
| 25...      | 1152 | Environmental | 39.0   | 19.5                                       | -26.30  | .89   | --   | --   |