

## 11408000 MILTON-BOWMAN TUNNEL OUTLET NEAR GRANITEVILLE, CA

**LOCATION.--** Lat 39°27'36.7"N, long 120°36'40.7"W, on right bank 100' downstream from tunnel outlet near upper end of Bowman Lake. 6.9 mi east of Graniteville.

**DRAINAGE AREA.--** 39.8 mi<sup>2</sup>.

**ESTABLISHMENT AND HISTORY.--** May 21, 1928, by Nevada Irrigation District. Weir rebuilt by USGS in 1961; destroyed by NID contractor in Sept 1963. New 7 ft Parshall flume completed in Oct 1964.

**GAGE.--** Design Analysis shaft encoder, H-500 XL, and H-222 DASE GOES Satellite system, and Teledesign radio system. No outside staff.

**CONTROL.--** Control is 7' x 7' steel Parshall flume with angle iron welded across throat of flume. Elevation of floor of flume, gage datum, at entrance: -0.26', at outlet: -0.36'. There may be small shifts due to moss in the flume or changes in the approach conditions. There is no possibility of backwater.

**FLOODS.--** Maximum daily discharge 492 cfs Feb 11, 1941.

**WINTER FLOW.--** Stage-discharge relation may be affected by ice at times.

**REGULATION AND DIVERSIONS.--** Flow completely regulated at tunnel intake. The flow is diverted from the Middle Yuba River at Milton Dam.

Normally, all the Middle Yuba flow is diverted except for a required instream flow below Milton Dam. At times, NID may close the tunnel gates preventing diversion from Middle Yuba River. Usually, water is released from Jackson Meadows Reservoir to be diverted at Milton Dam. There also is a small diversion on Wilson Creek at the tunnel intake portal. There is a natural seepage into the tunnel of about 2 cfs at all times.

**ACCURACY.--**Excellent.

**COOPERATION.--**Nevada Irrigation District operates the gage.

**JUSTIFICATION.--**Required under FERC license 2266 to measure diversion from Middle Yuba River.

**LAND OWNERSHIP.--**Gage is located on land controlled by Nevada Irrigation District.

**REMARKS.--** Hydrologic conditions.--Flow is totally regulated. There are severe rain storms at times which can exceed the tunnel capacity. The drainage area above the diversion is forest land. There has been no development with the exception of the construction of Jackson Meadows Reservoir in 1964.