

FIELD INSPECTION REPORT FOR UPPER SAN PITCH RIVER DISTRIBUTION SYSTEM

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1. WEST POINT CANAL DIVERSION

This diversion has an 8.4-ft rated section with a staff gage that is used for measuring the flows. At low flows the measuring section does not work properly and the commissioner can only make an estimate of the flow. The canal in this area is very flat. A lot of sediment was observed in the bottom of the canal near the staff gage.

Recommendation: An accurate measuring device should be installed to measure the flows at this diversion.

2. BAGNAL CANAL DIVERSION

An 11.6 ft rated section of the canal is used to measure the flows at this diversion. There is a gaging station by the side of the canal that is not used by the commissioner. It was not possible to take measurements during our visit because of very low flows. Therefore, the accuracy of the rating table was not determined.

Recommendation: This diversion needs to be inspected at a later date when there are sufficient flows to allow the usage of flow measurement instruments to determine the accuracy of the rating table.

3. NORTH ROCK DAM DIVERSION

There is headgate at the diversion point but not a measuring device. The headgate is in good condition and operating normally. The water commissioner indicated that a rectangular weir will be installed downstream from the diversion point.

Recommendation: Follow-up with the commissioner before the start of the 2003 irrigation season as to the status of the installation of the measuring device.

4. SOUTH ROCK DIVERSION

There is a 3-ft rectangular section in the diversion that is being used as a contracted weir. The commissioner has placed a board on the bottom of the section to make the section perform like a rectangular contracted weir.

Recommendation: An accurate measuring device should be installed to measure the flows at this diversion.

5. MORONI CANAL

There is a 4-ft Parshall flume in this canal. This flume is out of level from side to side by about 0.5 inch and slopes downward by about 1 inch. The flume does not have a staff gage. The commissioner indicated he will contact the Moroni Irrigation Co. to make the necessary improvements to correctly measure the water in the canal. The flows were measured at 10.25 cfs while the discharge table indicated a flow of 8.11 cfs.

Recommendation: The flume needs to be reset in the channel to accurately measure the flows in the canal and a staff gage should be installed.

6. MORONI IRRIGATION CITY DITCH

The 4-ft flume at this location is level. The approach and exit conditions are good, however the bottom of the flume is scoured causing some error in the discharge measurement. The flows were measured at 11.96 cfs while the discharge table indicated a flow of 9.11 cfs.

Recommendation: The flume floor needs to be sandblasted and the cement floor repaired.

7. MORONI IRRIGATION SPRING DITCH

The 3-ft rectangular weir at this diversion is working properly. There was 1.61 cfs of water flowing at the time of the visit.

Recommendation: None.

8. Frandsen McArthur Diversion

This diversion has a 3 ft wide screw head gate and a 2-ft parshall flume installed. There is a sluice gate upstream from the flume that is used for regulation. The flume is level and working properly. Exit and entrance flow conditions are good. The flows were measured at 5.22 cfs.

Recommendation: None.

9. Miner Turpin Diversion Out of Spring Creek

There is a 1-ft flume at this diversion that is sloping approximately an inch towards the left side (view from upstream). The ditch bank where the flume is located has deteriorated. At high flows water could easily flow around the sides of the flume.

Recommendation: The flume needs to be reset and the banks backfilled so that water does not bypass the flume. The commissioner indicated that the owner of this diversion has a backhoe that he could use to fix the banks and that he will contact him to get it fix.

10. M & M Diversion

A 4-ft flume located at this diversion is level and is working properly. The channel is clean and free flowing. The flows were measured at 8 cfs.

Recommendation: None.

11. Fair View City Diversion

This diversion has an 18-inch flume that is submerged and out of level. It slopes downstream by about 1.5 inches. The flume is too close to the diversion and is located immediately upstream from a culvert. The flows were measured at 1.76 cfs while the discharge table indicated a flow of 2.52 cfs.

Recommendation: It is recommended that the culvert be lowered so that water exiting the flume flows freely without backwater effect. The ditch downstream has a good drop which allows lowering the culvert. An alternative is to move the flume downstream from the culvert.

12. The Graveyard Ditch Diversion

The 18-inch flume in this diversion is operating with free flow conditions. The flume is level from side to side but slightly sloping downward by approximately one inch. The channel is clean and free of debris. The staff gage indicated a flow of 1.64 cfs while the measurements that were taken show a flow of 1.56 cfs. Since the water commissioner indicated that he would raise this flume to make it level, a letter does not need to be sent to the diversion owner.

Recommendation: The flume needs to be reset in the channel to accurately measure the flows in the canal.

13. East Milburn Meadow Ditch

There is 4-ft section with a 3-ft metal strip in this diversion. The flows were measured at 0.36 cfs.

Recommendation: None.

14. Brady Ditch Diversion

This diversion has a 1-ft parshall flume that slopes upward. A 3-ft head gate controls the flow to this diversion. The flows were measured at 2.09 cfs.

Recommendation: The flume needs to be reset in the channel to accurately measure the flows in the ditch.

15. West Milburn

This diversion has a 3-ft Screw headgate and a 2-ft metal flume. The flume discharges are at a free-flow condition. The approach section is not straight and uniform. The water is entering the flume at an angle.

Recommendation: The channel upstream from the flume should be straightened so that the flow is relatively smooth and uniformly distributed before it enters the flume.

16. Meadow Ditch Diversion

There is no measuring device at this diversion. The commissioner uses a 4.5-ft concrete section in the channel and a level to estimate the flows. The flows were measure at 0.39 cfs.

Recommendation: To accurately measure the flows at this diversion a measuring device should be installed.