

- I. Project Title: Operation and Maintenance of the Fish Screen and Fish Passage Facility at the Grand Valley Irrigation Company Diversion.
- II. Prepared by: Charles D. Guenther
Grand Valley Irrigation Company
688 26 Road
Grand Junction, CO 81506
Phone (970) 242-2762
Email: gvic@sprynet.com
- III. Project Summary: The Grand Valley Irrigation Company (GVIC) diversion, located on the Colorado River (River) near Palisade, Colorado, diverts water in the GVIC Mainline Canal. A fish passage structure was constructed in the River on the downstream side of and adjacent to GVIC's diversion structure in 1998–1999 during the off water season. The fish screen was constructed in the GVIC canal below the diversion gates on the River in 2002. This fish passage and fish screen is owned by the US Fish and Wildlife Service. GVIC operates and maintains the fish screen and the fish passage through a cooperative agreement with the United States.
- IV. Study Schedule: GVIC makes every effort to operate the fish screen whenever diverting water in the GVIC canal. Maintenance of the fish screen/passage is performed after the US Fish and Wildlife Service, the Bureau of Reclamation and GVIC complete annual inspection.
- V. Accomplishment of FY 2009 Tasks and Deliverables, Discussion of Initial Findings and shortcomings:
The following major maintenance activities were completed on the fish screen:
1. Replaced all six brushes on brush arms on screen.
 2. Installed heaters and block overload – main starter on air compressor.
- The fish screen was operated during the following periods:
1. Operational at water run start, April 1.
 2. Out of operation, screens plugged off, raised six screens, air compressor problem, April 4-April 15.
 3. Operational, found faulty wire on pulley system drive motor, still air compressor problem – main motor overload code, screens down 10:00 AM, April 15.
 4. Out of operation, air compressor main motor overload code, contacting Air Compressor Service, raised screens, reset run time, lowered screens, started up again same day, April 16.
 5. Out of operation, PLC problem code, pulled screens in late PM, April 22.
 6. Operational after installing new heater for air compressor breakers, meeting with Blackhawk, many hours trouble shooting and replacing parts (see monthly statements) lowered running air pressure, per Bob Norman. Could not keep in continuous mode, May 22.
 7. Out of operation, pulled screens (6) late night, due to excessive rains, small debris in River, June 26.

8. Operational., cleaned and lowered screens after River cleared up, June 30.
9. Out of operation, extensive debris in River, continuous function unable to keep up, GVIC experienced 250 CFS drop, July 27, 12:00 AM.
10. Operational, found East micro-switch broke and wet, repaired, River cleaned up, lowered screens, July 29.
11. Operational, raised and lowered screens to remove excessive algae from River, back in operation same day, August 16.
12. Out of operation, GVIC water out for season, shut down PLC, November 4.

The following major maintenance activities completed on the fish passage:

1. None

The following major improvement activities completed on the fish passage:

1. None

Fish Passage/Obermeyer Gate Operations

1. Raised gate partially, due to low River, September 2.
2. Lowered all open, River back up, September 30.

Fish passage/Obermeyer Gate fully open rest of season.

- VI. Recommendations: New PLC for fish screen possibly additional brush arms for 230' of screen, BoR considering travelling Hydrolox screens for portion of screen.
- VII. Project Status: New PLC is in process of defining parts needed and ordering through Mountain Peak Controls
- VIII. FY2009 – Budge Status
 - A. Funds Provided: \$42,558.29
 - B. Funds Expended: \$42,558.29
- IX. Signed: Charles D. Guenther 01/05/2010
 Charles D. Guenther Date