

I. Project Title: Operation and Maintenance of the Fish Screen and Fish Passage Facility at the Grand Valley Irrigation Company Diversion in Palisade.

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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 2010 Tasks and Deliverables, Discussion of Initial Findings and shortcomings:

The following major maintenance activities were completed on the fish screen:

1. Met 10/09 with Bob Norman, Mark Wernke to discuss replacing PLC, new control screen touch pad, moving transducers, new monitor in headgate attendants house, River level monitor and possible replacement of some wedgewire screens with Hydrolox travelling screens.
2. 11/3/2009 Shut down screen and PLC; ran air to desilt bottom step, canal off this day for the season.
3. 11/09 Initiate purchase of new PLC for screen and appurtenances, met with MountainPeaks Control and GVIC headgate attendant to discuss retrofit.
4. 12/01/09 GVIC attended Fall recovery meeting year end wrap up, discussed 2009 season operations.
5. 1/10 Repaired pre-cleaner racks and fins.

6. 1/10 GVIC placed new conduit for transducer wires, hung new stilling wells for transducers.
7. 1/10 Purchased for Fishscreen: New control (PLC), new operator panel, new radio modems to talk to maingates/gauge house and headgate attendants house and PC, utilized laptop PC provided with original PLC year 2002.
8. 4/9/10 GVIC staff and attendant train on PLC and associated equipment.
9. 4/12/10 Open main headgates with Fishscreens down and operating.
10. 4/28/10 Attend spring fish recovery meeting.
11. 8/18/10 PLC failure, main drive motor failure.
12. 8/19/10 Changed belt on main drive pulley.
13. 9/10/10 Met with SSD Plastics to discuss replacing wearplates on six lower screens.
14. 10/04/10 Number 2 brusharm air plugged, found plugged end, first experience with this condition.
15. 10/18/10 GVIC met with BoR and FWS on annual inspection and anticipated workplans.
16. 11/03/10 Contract with SSD Plastics on wearplate replacement on six screens.

The fish screen was operated during the following periods:

11/10/10

FISHSCREEN OPERATIONS - 2010

On Date/Time	Off Date/Time	Days On	Days Off	Shutdown Reason
Water on - 4/12				
04/12 - 8:00 am	4/15 - 5 :00 pm	4	1	Drive Pulley Belt Failure
4/16 - 12:01 pm	4/22 - 5:10 pm	6	5	Excessive River debris
4/27 - 12:00 am	4/29 - 10:00 am	2	4	Excessive River debris
5/3 - 1:00 pm	5/23 - 3:00 am	20	29	Excessive River debris
6/22 - 8:00 am	7/31 - 2:00 am	40	12	Excessive River debris (Heavy Storms)
8/12 - 8:45 am	8/17 - 12:00 pm	5	3	PLC failure, lightening strikes, motor failur
8/20 - 9:00 am	9/23 - 7:30 am	34	4	Excessive River debris
9/27 - 10:30 am	10/25 - 8:00 am	28	7	Excessive River debris
Water off - 11/1				

139 65
Days on Days off

Total Run 204 Days
68% on
32% off

VI. The following major maintenance activities were completed on the fish passage.

1. Repaired west River bank damage with large basalt boulders due to high runoff in 2009 season.
2. Attempt to fix bladder gate controls on Obermeyer.
3. 10/18/10 GVIC met BoR and FWS on annual inspection and work plans.
4. 10/19/10 GVIC met Bob Norman to discuss new PLC for Obermeyer controls.
5. Obermeyer compressor problems, filters and gauges.

The Fish Passage was raised and lowered on these dates:

10/6/10 Raised Obermeyer gate due to River down, 3:00 AM.

10/10/10 Lowered Obermeyer gate 2:30 PM; Fish passage closed for 2.5 days

VII. Expenditures FY 2010:

Total fiscal period November 1, 2009 – October 31, 2010

Screen/Passage
\$74,715.17

Funds Initially provided per Work Plan
\$76,336.89

Major Expenses

Electric/Screen
\$12,812.06

Electric/Passage
\$743.81

Major Improvements/Screen
\$32,697.00

Major Improvements/Passage
\$3,000.00

VIII. Recommendations:

1. New PLC for Obermeyer gate control.
2. Operate Obermeyer gate from new touch panel on Fishscreen PLC.
3. New air hoses on festoon system PLC.
4. Replace slides on six screens.
5. Blast stainless steel on Fishscreens and structure to remove rust deposits and deter pitting.
6. Possible additional brusharm, three existing.
7. Possible screen replacements with Hydrolox travelling screens.
8. Video camera by-pass pipeline, first time since 2002.

IX. Signed:

Charles D. Guenther

Date