

Project Title: Operation and Maintenance of the Fish Screen and Maintenance of the Fish Passage Facility at the Redlands Water and Power Company Diversion Dam.

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Project Summary: The Redlands Water and Power Diversion, located on the Gunnison River near Grand Junction, Colorado, diverts water into the Redlands Power Canal. A fish passage structure was constructed around the diversion dam in 1996. A fish screen and fish return pipeline was constructed in the canal in 2004. The fish passage is operated by the U.S. Fish and Wildlife Service. Redlands operates and maintains the fish screen and performs maintenance on the fish passage.

Study Schedule: Redlands makes every effort to operate the fish screen whenever diverting water into the Power Canal. Maintenance on the fish passage is performed after the U.S. Fish and Wildlife Service complete annual operation.

Relationship to RIPRAP: Colorado River Action Plan: Mainstem II.B.3.

Accomplishment of FY 2016 Tasks and Deliverables, Discussion of Initial Findings and shortcomings:

The following major maintenance activities were completed on the fish passage:
Refer to US Fish and Wildlife Service – Dale Ryden

Redlands Water and Power Co. cooperated with FWS on maintenance

The following improvements were made to the fish passage:

Refer to US Fish and Wildlife Service – Dale Ryden

Redlands Water and Power Co. cooperated with FWS on maintenance

The fish screen was operated during the following periods:

Online	05/02/16	Put unit online
Bypassed	05/18/16	Bypassed due to mechanical upstream limit switch being stuck
Online	05/18/16	Mechanical upstream limit switch repaired, put unit back online
Bypassed	07/14/16	Bypassed due to trash rake not operating. Replace frayed T-post cable
Online	07/19/16	Install new cable on T-post, put unit back online
Bypassed	10/24/16	Unit bypassed for the season

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

Replace magnetic switch on downstream limit switch indicators.

Parts and materials were purchased to allow RWP to service the compressor including filters and hydraulic oil.

Have machine shop build a stronger cable guide and install on trash rake t-post.

The following improvements were made to the fish screen:

RWP removed old gravel and dirt and hauled in new gravel to the Fish Screen lot. This was done to repair flash flooding damage which happened two years ago. The flash flooding covered the gravel with dirt causing the lot and area by the gate to be constantly muddy.

Noxious weeds such as; Russian Olive, Salt Cedar, Kosha, Cocklebur and Knapweed were sprayed.

The two storage sheds were painted to protect against the outdoor elements.

Several security light fixtures were repaired. RWP repaired three light fixtures that were damaged by a dead short due to an overheated wire. Bugs were removed from all fixtures and diffusers were cleaned. The light bulbs were also replaced in all light fixtures.

Precast concrete blocks were purchased and put in place to backstop weed piles which are removed from the trash rake.

Several dump truck loads of driftwood, trash, weeds, etc. from the trash rake were hauled away and disposed of.

The following improvements were made to the fish passage:

RWP repaired and replaced portions of the fence at the Fish Passage as trespassers cut holes in the fence to gain access to the inside of the Fish Passage area. The holes in the fence allowed them to enter the Fish Passage and steal safety chains from the walkway. The safety chains that were stolen were redesigned and replaced. Several fence posts on the outer perimeter chain link fence were replaced as they were intentionally damaged by vehicles.

Recommendations:

Project Status: On schedule and on budget.

FY 2016 Budget Status:

Funds Provided: \$51,503.80

Funds Expended: \$51,503.80

Status of Data Submission (where applicable): Not applicable

A handwritten signature in blue ink that reads "Kevin E. Jones". The signature is written in a cursive style with a large initial 'K' and a long, sweeping tail on the 's'.

Kevin E. Jones, Superintendent
REDLANDS WATER AND POWER COMPANY