

SWIFT RESERVOIR FLOATING SURFACE COLLECTOR

Project Summary

The Switch Reservoir is approx. 12 miles long, 1,000 feet above sea level at full pool and 878 feet above sea level at minimum pool. This project was to install a Floating Surface Collector on the Swift Reservoir. This included a Juvenile downstream passage: trap and haul with Floating Surface Collector (FSC) and guide nets in the Swift Reservoir.

The FSC has an access trestle that allows for truck access to the mooring tower. near the turbine intake at Swift No. 1 was constructed and began operating in December 2012. It consists of: a fish collection barge, truck access trestle and mooring tower, and barrier net and net transition structure (NTS). Swift's juvenile collection system is similar in design to the FSC and NTS in operation at the Upper Baker Dam. The FSC is 170 feet long, 60 feet wide, and 53 feet tall and provides attraction flow for the juvenile salmonids to enter the NTS. The NTS has a funnel design and electric pumps, both of which keep the flow moving quickly into the collector and create a stream channel with a capture velocity of about 7 feet per second with 600 cubic feet per second attraction flow during normal operations. The fish are attracted and "captured" within the stream channel, which guides them into the collection facility where they are sorted by life stage and into holding tanks for sampling and transport.



Equipment and Systems Overview

- Fish collection barge
- Truck access trestle
- Mooring tower
- Barrier net
- Net transition structure (NTS)
- Bypass Isolation Switch
- 600V Class MCC
- Lightning Protection
- Grounding
- Conduit and Wire
- ATS
- General Purpose Induction Motors
- AFD's
- Underground Conduit

Offeror Role

Subcontractor

Owner Information

PacifiCorp Energy
825 NE Multnomah, LCT 1500
Portland, OR 97232
Jerry Martin, 503-783-0620

Contract Amount & Type

\$2,669,094, *firm fixed price*

Customer Information

Natt McDougall Company
20182 SW 112th Ave,
Tualatin, OR 97062
(503) 783-0620

Project Start and Finish Dates

3/24/2011-12/13/2013

Project Location

Swift Reservoir—Cougar, WA

Burke Electric Scope

Electrical construction including installation, testing, and commissioning. Underground conduit, grounding, equipment installation. Furnish and install Adjustable Frequency Drives. Install general purpose motors. Furnish and install secondary integral unit substations, 600V Class Motor Control centers, bypass isolation ATS, and lightning protection systems.

Burke Electric Project Personnel

General Foreman: Keith Fenstermaker
Project Manager: Chris Sundesten
Dominic Burke: Owner
Safety Manager: Chris Sundesten

