

Bonneville Second Powerhouse Corner Collector Entrance Gate & Piping System

Cascade Locks, OR

Owner: USACE, Portland District

Description: This project includes detail design and preparation of contract plans and specifications for a 15-foot wide by 28-foot high entrance wheel gate for a surface collection system to enhance downstream migration of juveniles past the Second Powerhouse at Bonneville. The design included provisions to supply flushing water to fish transport channel and modifications for relocating the powerhouse unwatering pump discharge pipe in the conveyance channel.

INCA Engineers prepared plans and specifications for the entrance gate and associated storage systems, design of piping systems including the relocation of the unwatering pump discharge in the conveyance channel and piping for flushing water system, and design coordination with hydraulic and biological work.

Mechanical engineering design, contract drawings and specifications, and itemized quantity takeoffs on relocation of the existing underwatering pump discharge pipe located in the ice and trash sluiceway; and design of modifications to the existing add-in water system for the collection channel and new piping to provide flushing water for the Second Powerhouse Corner Collector channel.

Electrical engineering design, contract drawings and specifications, and itemized quantity takeoffs necessary to operate the flushing water piping system control valves.

