

Green River Headworks Modifications

Tacoma, Washington

Owner: City of Tacoma

Description: INCA Engineers, Inc., A Tetra Tech Company (INCA) provided pre-bid and engineering during construction services to raise the height of the existing diversion dam, modify the intake structures, add a fish screen and fish ladder, and construct a fish sorting facility.

There are three major components to the fish passage portions of this project:

- 1) the intake screen;
- 2) the juvenile fish bypass system; and
- 3) the adult fish facilities.

The intake screen is a conventional profile wire screen, approximately 120 feet long and 24 feet high. A screen cleaner was included in the design. The juvenile fish bypass system includes a bypass pool, automatic control weir, flume, and discharge structure. The adult fish facilities includes a new vertical slot fish ladder approximately 240 feet long.

INCA's designs for the fish passage facilities were coordinated with the new dam and intake, on the upstream end of the project, and with the fish trap and sort facility on the downstream end of the project. Subsequent work involved review of the construction documents to determine if revisions were necessary due to code changes or changes in component manufacturers and requirements for engineering during construction.

