Walla Walla River Basin Screening

Final Report
2001 - 2004

DOE/BP-00008054-2

June 2004

This Document should be cited as follows:

Maestretti, Nicole, "Walla Walla River Basin Screening", 2001-2004 Final Report, Project No. 200103900, 8 electronic pages, (BPA Report DOE/BP-00008054-2)

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This report was funded by the Bonneville Power Administration (BPA), U.S. Department of Energy, as part of BPA's program to protect, mitigate, and enhance fish and wildlife affected by the development and operation of hydroelectric facilities on the Columbia River and its tributaries. The views in this report are the author's and do not necessarily represent the views of BPA.

Walla Walla River Basin Screening

Final Report
May 2001 - April 2004

Project Number 2001-039-00
Contract Number 00008054

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June 2004

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Abstract

BPA contract number 2001-039-00 provides 85% cost-share to private landowners to install Washington Department of Fish and Wildlife (WDOE) and National Oceanic and Atmospheric Association (NOAA) compliant fish screens on irrigation pump intakes throughout Walla Walla County on a voluntary basis. The program has been a tremendous success. To date the program has assessed 300 sites, designed systems for 265 sites, and has installed 165 screens. The program continues although the BPA contract is complete. The program's goal is to install compliant fish screens on all irrigation pumps throughout Walla Walla County.

Introduction

The Cooperative Compliance Review Program (CCRP), created by WDFW, created a partnership between WDFW, Walla Walla County Conservation District (WWCCD), Washington Department of Ecology (WDOE), NOAA, Walla Walla Community College Irrigation Technology Department (WWCC), United States Department of Fish and Wildlife Service (USFWS) and private landowners. The group's goal is to screen all surface water intakes in the watershed in order to prevent unnecessary take of area Bull Trout and Steelhead, both of which are listed as threatened under the Endangered Species Act (ESA).

The CCRP process has had tremendous success getting landowners signed up to receive funding to help with the screen installation costs through WWCCD grants. By working together cooperatively our group has formed an assembly-line process that streamlines getting work on the ground. Each agency has a well-defined role that makes the process proceed quickly and efficiently. WWCCD administers the program, WDFW approves plans by providing the landowners with certification of compliance and a Hydraulic Project Approval, WWCC assesses and develops a plan for each site, NMFS approves the screens and assists with Endangered Species Act (ESA) compliance, USFWS assists with ESA compliance and WDOE provides letters of water right verification. The BPA 2001-039-00 contract served as only one of several funding sources for this program. Others sources of funding for this program include the Salmon Recovery Funding Board (SRFB), US Fish and Wildlife Service (USFWS), and Washington Department of Fish and Wildlife (WDFW).

Description of Project Area

The geographic area covered by this funding is Walla Walla County. Walla Walla County is located in the southeastern corner of Washington State. Only water bodies identified by Washington Department of Fish and Wildlife as either providing fish spawning and/or rearing habitat or serving as a migration corridor qualify for fish screen cost share under this program.

Methods and Materials

We developed an assembly-line process for the program due to the number of pump intakes that we are trying to screen throughout the county. Interested landowners fill out an application through WDFW. This application triggers a WDOE verification of the water rights associated with the irrigation diversion. Next, under an agreement with WWCCD, Walla Walla Community College Irrigation Technology Department completes a site assessment and develops a design specific to each pump site. WWCCD incorporates the design(s) into a landowner agreement (maintenance agreement) which the landowner signs. WWCCD then solicits bid offers and awards the projects on a low bid basis. Once the screen has been installed, the completed project is inspected to ensure proper installation. If the project is installed to specifications, the contractor is paid and the landowner is billed for his portion (15%) of the project.

Results and Discussion of Results Obtained From the Year's Work

The program has been very successful. To date, we have assessed 300 sites, designed systems for 265 sites, and installed 165 screens. The program continues to grow as a result of local landowners' voluntary compliance efforts. By installing compliant fish screens we are able to protect 100% of fish from take, damage, or stress from each intake. Prior to the screen program, we believe that up to 99% of irrigation pump intakes were either unscreened or improperly screened. Another benefit of the program is that landowners are able to stave off enforcement actions by WDFW and NOAA, and reduce the possibility of third party lawsuits. In addition, landowners learn to interpret their water rights and how to satisfy WDFW permitting requirements. In some cases, landowners have chosen to fulfill the screening requirements at their own cost using our designs as templates for their irrigation systems. In fact, one group of ditch irrigators decided to screen off their entire ditch instead of each individual pump intake off the ditch. The result was one screen protecting fish from potential take of 24 systems. We also have record of five other irrigators who chose to install screens at their own expense.

In Walla Walla County one of the challenges has been to design projects that work in low water flow conditions. Throughout the contract period our design team was able to develop new solutions for screening intakes that we originally thought would require the installation of large, expensive, pool forming in-stream structures (required to provide enough depth to use active drum screens). Depending on the project site, the team designed a network of low profile passive self-cleaning screens. For example, if a landowner had low water flow and needed a screen that could deliver up to 400 gpm, and a simple 500 gpm screen was too large (needed more stream depth), the assessment team assessed the stream geology and designed either a manifold screen (multiple smaller screens mounted in a frame parallel to one another) or a T or U configuration with two 250 gpm screens, thus providing the landowner with the lowest possible profile screen set up available. Our new solutions/designs are much less expensive than the originally budgeted active drum screens. WDFW is very pleased with these designs because they

reduce streambed disturbance in three ways: 1) there is no need to use heavy equipment for installation, 2) there is no placement of rock material below the high-water line, and 3) there is no longer a rock structure to maintain/repair after high-water events.

During the contract period, we were faced with some challenges and unforeseen circumstances that had an effect on the number of screens we installed. One of the challenges we have faced was acquiring water right verification letters in a timely manner. This was due in part to multiple staff changes within Washington Department of Ecology (WDOE) during the contract period. Although WDOE staff members were assigned to the program, much of their time was spent working on other assignments. The result was that fewer water right verification letters were being written than the program needed. This in turn slowed down the installation process greatly because our program required that water right verification letters be supplied prior to any screen installation. Another challenge was getting landowners to meet to discuss and sign a maintenance agreement for their screen. This is due to their fear of signing a binding agreement with a "quasi-governmental" agency. After an explanation of the reasoning behind the agreement (i.e. it is a large investment on part of the grant agency and they want to ensure that the project is maintained), the landowners usually sign with no problem.

Summary and Conclusions

Overall, this program has been a tremendous success. It is a win-win solution for a very important issue in our basin. The fish are protected from accidental take and landowners are protected from State and Federal enforcement actions and third party lawsuits. In addition, we are helping meet the goals of the Early Action Plan for Walla Walla County, which is a plan that set specific goals of conservation work to be completed during the interim of the development of the Habitat Conservation Plan.

Summary of Expenditures, Including a List of Major Property Purchased During the Fiscal Year.

As earlier described, the Cooperative Compliance Fish Screen Program is a cooperative effort between multiple agencies. To install a screen, we need public outreach, landowner contact, water rights verification, permitting, irrigation system assessments and designs, landowner agreements, the screen and its installation, and finally, inspection and maintenance of the installed screen.

Our grant contract with BPA provided funding for the irrigation system assessments and designs, preparation and completion of landowner agreements, the screens and their installations, and overall program management. Additional funding (match) for these components has been provided by the Salmon Recovery Board, the United States Fish and Wildlife Service and landowners. These funds will be expended over the next two years as the program continues. Washington Department of Fish and Wildlife's contribution covered permitting, program management, and some landowner contacts.

For the most part the original budget was completed as planned. Due to new, efficient passive screen designs, the screens themselves cost considerably less than originally anticipated. The District was able to complete its work under budget saving BPA $89,000 on screens and $6,000 in other miscellaneous expenses.