RIPARIAN PLANTING PROJECTS COMPLETED WITHIN ASOTIN CREEK WATERSHED 2000 - 2002 ASOTIN CREEK RIPARIAN

FINAL REPORT OF ACCOMPLISHMENTS

DOE/BP-00006436-1

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Bonneville Power Administration
Environment, Fish and Wildlife Division
P.O. Box 3621
905 N.E. 11th Avenue
Portland, OR 97208-3621

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Riparian Planting Projects Completed within Asotin Creek Watershed

2000 - 2002 Asotin Creek Riparian Final Report of Accomplishments

BPA Project Numbers;
2000-53 Asotin Creek Riparian Plantings

Cooperators:
Bonneville Power Administration
Natural Resource Conservation Service
Washington Department of Fish and Wildlife
Umatilla National Forest Service, Pomeroy Ranger District
Interagency Committee for Outdoor Recreation
Washington State Conservation Commission
Salmon Recovery Funding Board
Nez Perce Salmon Corps.

BPA Riparian Planting Projects Completed within Asotin Creek Watershed

2000 - 2002 Asotin Creek Riparian Final Report of Accomplishments

BPA Project Numbers;

2000-32-0	Asotin Creek Native Tree Nursery
2000-53-0	Asotin Creek Riparian Plantings
1998-47-0	Asotin Watershed Information and Education

Prepared for:
Bonneville Power Administration
Natural Resource Conservation Service
Washington Department of Fish and Wildlife
Umatilla National Forest Service, Pomeroy Ranger District
Interagency Committee for Outdoor Recreation
Washington State Conservation Commission
Salmon Recovery Funding Board
Nez Perce Salmon Corps.

by:

Bradley J. Johnson
Dist. Manager / Model Watershed Coord. / Lead Entity
Asotin County Conservation District
720 Sixth St., Ste B
Clarkston, WA 99403
brad-johnson@wa.nacdnet.org

Abstract

The Asotin County Conservation District (ACCD) is the primary entity coordinating habitat projects on both private and public lands within the Asotin Creek watershed. The watershed covers approximately 325 square miles in the Blue Mountains of southeastern Washington in Water Resource Inventory Area (WRIA) 35. According to Washington Department of Fish and Wildlife's (WDFW) Priority WRIA's by "At-Risk Stock Significance Map", it is the highest priority WRIA in southeastern Washington. Summer steelhead, bull trout, and Snake River spring chinook salmon which are listed under the Endangered Species Act (ESA), are present in the watershed. WDFW manages it as a Wild Steelhead Reserve; no hatchery fish have been released here since 1997.

The ACCD has been working with landowners, Bonneville Power Administration (BPA), Washington State Conservation Commission (WCC), Natural Resource Conservation Service (NRCS), Washington Department of Fish and Wildlife (WDFW), U.S. Forest Service, Pomeroy Ranger District (USFS), Nez Perce Tribe, Washington Department of Ecology (DOE), National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS) to address habitat projects in Asotin County. Local students, volunteers and Salmon Corps members from the Nez Perce Tribe have been instrumental in the success of the Model Watershed Program on Asotin Creek.

ACCD began coordinating habitat projects in 1995 with the help of BPA funding. Approximately two hundred and seventy-six projects have been implemented as of 1999. The Washington State Legislature was successful in securing funding for threatened and endangered salmon and steelhead recovery throughout the State in 1998. While these issues were new to most of the State, the ACCD has been securing and administering funding for threatened salmonids since 1994.

The *Asotin Creek Riparian Planting 2000-053-00 and Asotin Creek Riparian Fencing 2000-054-00* teamed BPA and the Governor's Salmon Recovery Funding to plant approximately 84,191 trees and shrubs in the Asotin Creek Watershed. In addition BPA and private cost-share dollars were utilized to drill 3 wells, provide 15 off-site alternative water developments (troughs), 5 spring developments, and 9,100 feet of riparian fencing. The trees will provide shade and long-term LWD recruitment to the stream. The wells, alternative water developments, springs and fencing will reduce direct animal impacts on the stream. In one area alone, a well, 3,000 ft of riparian fence with 5 alternative water developments will exclude 300 head of cattle from using the stream as a source of drinking water during the winter months.

Acknowledgements

We express our appreciation to the Bonneville Power Administration (BPA), Washington State Salmon Recovery Funding Board (SRFB) and, Interagency Committee for Outdoor Recreation (IAC) for funding considerations. We would especially like to thank Mark Shaw of BPA, Rollie Geppert and Tammy Owings of the IAC for their unending commitment to contracts and answering questions. Jim Schroeder and Courtney B. Smith of the Clarkston NRCS Field Office, Bill Broughton of the Washington State Conservation Commission, Cheryl Sonnen and Megan Browne and the Asotin County Conservation District Board of Supervisors for their support and guidance. We also thank Rick Stauty of the Pomeroy NRCS Field Office, Larry Cooke, Scott Lambert and Tim Dring of the NRCS State Office Stream Team, Steve Martin and Tom Schirm from Washington Department of Fish and Wildlife (WDFW), Bob Bugert of the Governor's Salmon Recovery Office (GSRO), and Del Groat of the Umatilla National Forest Service – Pomeroy Ranger District for their recommendations and cooperation in these planting projects.

Special thanks to the Asotin County Commissioners and participating landowners for their input and cooperation.

Thanks to Dayton Tractor Inc. and Latah Tree Farms for their long hours and minimal impact of our natural resources during riparian planting projects; and to the Nez Perce Salmon Corps for their labor and commitment to protecting and restoring Asotin Creek watershed habitat.

Additionally to Johnny Johnston, of WDFW, for his long hours and dedication and commitment to riparian plantings along Asotin Creek and its tributaries. During his days off, Johnny volunteered to help collect willow and cottonwood cuttings for planting projects. The Washington State Conservation Corps (DOE) donated labor for a fencing project at Headgate Park and removal of existing fences inside Conservation Reserve Enhancement Buffers.

These projects were a cooperative effort between many different agencies and private landowners. Without the commitment and dedication of all these individuals, our projects would not be as successful. We appreciate everyone's hard work and look forward to continuing working together on habitat projects in Asotin County.

Asotin Creek Watershed History

Asotin Creek, a tributary to the Snake River at (Rm) 145 drains approximately 325 square miles of Asotin and Garfield Counties. Headwaters originate in the Blue Mountains (6,200 ft) and flow east into the Snake River (800 ft) at Asotin, WA. Located in WRIA # 35, the highest priority WRIA in southeastern Washington according to WDFW's "At-Risk Stock Significance Map," Asotin Creek is part of the Governor's Snake River Salmon Recovery Region.

Asotin Creek remains an important Snake River tributary for anadromous salmonid production in Washington and has been given the distinction of a reserve for Wild Steelhead under current WDFW management policy. Charley Creek, an upper tributary, historically has some of the highest densities of juvenile steelhead in southeastern Washington according to WDFW fisheries surveys.

ESA listed stocks of summer steelhead, bull trout and spring chinook along with resident rainbow trout utilize the watershed. Indigenous anadromous fish species most actively targeted for management are summer steelhead, bull trout, and spring chinook salmon. The goals for these species are to restore sustainable, naturally producing populations to support tribal and non-tribal harvest and cultural and economical practices while protecting the biological integrity and genetic diversity of these species in the watershed. The broad general strategies used to achieve the habitat objectives include protecting and restoring prioritized habitat through the use of in-stream, riparian and upland best management practices.

The *Asotin Creek Model Watershed Plan (Plan)* was printed in 1995. It was the first BPA funded Model Watershed Plan completed in Washington that deals specifically with watershed restoration and protection focused on fish habitat restoration. Anadromous salmonid production in Asotin Creek is impacted by high summer stream temperatures, sediment deposition, turbidity, loss of riparian vegetation and lack of suitable resting and rearing pool habitat as recognized by the *Plan*. Decreasing stream water temperatures and protecting fragile streambanks are goals identified in the *Plan.* The Asotin Creek Riparian Planting and Fencing Projects were identified and proposed for funding by ACCD as a means to achieve these goals.

Successful completion of past BPA, SRFB and WCC habitat projects and working relationships with watershed residents and interested parties have resulted in projects being completed to address factors limiting salmonids. Fencing and alternative water developments have been completed to reduce direct animal impacts to the stream and riparian planting projects have been identified as a high priority.

On March 16, 1999 the National Marine Fisheries Service (NMFS) listed seven additional salmon species as Threatened under the federal Endangered Species Act, bringing the total statewide listings to sixteen. Spring chinook were listed in 1992, steelhead in 1997 and bull trout in 1998, all of which occur in Asotin Creek. The new listings in March did not affect ACCD projects as much as other areas of the state. The ACCD has been working with the NMFS and USFWS to obtain permits for its BPA In-Stream Habitat Projects. Biological Assessments were submitted for and approved through this process and the ACCD has developed a good working relationship with the landowners, federal and state agencies, and tribes.

NMFS believes that any successful recovery strategy must demonstrate:

- Substantive protective and conservation elements.
- A high degree of certainty that it will be implemented.
- A comprehensive monitoring program.
- A recognition of the need for partnerships between federal, state, local and tribal governments.

The ACCD supports this approach, however local citizens and landowners need to be recognized as partners by all government agencies. Without cooperation and partnerships at the local level this process will not be successful.

In April of 2002 the NMFS released their **Interim Abundance and Productivity Targets for Pacific Salmon and Steelhead Listed under the Endangered Species Act in the Interior Columbia Basin**. **Interim Objectives – Snake River Steelhead ESU** for Asotin Creek **Interim Abundance Targets of 400**. This provides a preliminary and general sense of ESA recovery objectives currently under development. These interim targets are only a starting point. NMFS will replace these targets with scientifically more rigorous and comprehensive recovery goals using viability criteria developed through the Interior Columbia Technical Recovery Team (TRT) process that commenced in October, 2001 (according to a letter from Bob Lohn of NMFS to Larry Cassidy of the NWPPC).

The projects in this report have been completed to help reduce direct impacts to salmonid bearing streams in the Asotin Creek watershed. Riparian planting, fencing, and alternative water developments on private property inform and educate local individuals on the importance of healthy riparian areas and how it impacts anadromous salmonid production.

BPA Riparian Planting Projects Completed by Year

Riparian Project	FY 1999	FY 2000	FY 2001	FY 2002	**TOTALS**
Riparian Plantings	5,550	6,500	14,506	4,535	**31,091**
Asotin Creek CREP				102.7 ac 2.6 stream miles 180 ft avg buffer	**102.7 ac** **2.6 stream miles** **180 ft avg buffer**
County CREP				295.5 ac 7.4 stream miles 162 ft avg buffer	**295.5 ac** **7.4 stream miles** **162 ft avg buffer**
BPA FUNDS EXPENDED BY YEAR	$29,818.19	$20,297.07	$80,299.50	$5,913.01	**$136,327.77**

Riparian Tree Planting Projects on Asotin Creek

Riparian Planting Pictures;

Photos on following three pages are early riparian planning projects on Asotin Creek. After floods of 1996 and 97 hand planting and the small track hoe techniques worked well for the first two years.

Riparian Tree Planting Projects on Asotin Creek

Digging holes along streambank to plant Red Osier Dogwoods

Hand planting Ponderosa Pine and Douglas Fir amongst Cottonwoods on Southfork

Riparian Tree Planting Projects on Asotin Creek

Stinger used to plant Willow and Cottonwood whips

Pushing the Willow Whip down while the stinger is being pulled up

Throwing woody debris into stream for habitat complexity and bank stabilization

Riparian Tree Planting Projects on Asotin Creek

Holes were dug using trackhoe in background and waiting for dirt

Dirt being carried to holes and Ponderosa Pine Trees planted into dirt

Salmon Corps Revegetating 1998 In-Stream Habitat Restoration Projects

Riparian Tree Planting Projects on Asotin Creek

Riparian Planting Pictures;

This photo collage is depicting our riparian projects from start to finish. An innovative contractor has developed al the equipment necessary for rooting and planting trees and shrubs in adverse riparian conditions. Previous to these techniques, we were not seeing a high planting success rate in the watershed.

FY 2002 Riparian Planting Project on Asotin Creek

Mud pump used to fill cartridges with rooting medium (mud slurry). Baskets are placed on the left and conveyor belt advances each basket until all cartridges are filled.

Soil mix, water and rooting hormone slurry mixed and injected into cartridges. Ten cartridges are filled at a time and each black basket holds 100 cartridges, plant stock is then hand planted into cartridges

FY 2002 Spring Rooted Planting on Asotin Creek

Lowboy with rooted ponderosa pine, cottonwood trees and support equipment

Staging area for rooted tree planting projects on Asotin Creek

FY 2002 Spring Cottonwood and Willow Whip Plantings

Excavator with Expanding Stinger for planting cottonwood and willow whips

Expanding Stinger into rip rap toe along county road and releasing whip, planting into an area denude of vegetation

FY 2002 Spring Rooted Planting on Asotin Creek

D-8 Cat with material being loaded for riparian planting project

D-8 cat planting into cobbles and fine sediment (trenches run back to stream)

FY 2002 Riparian Planting Project on Asotin Creek

D-8 Cat with ripper planting cottonwood poles and rooted material

Stinger in background planting willows along stream channel and Ripper planting gravel bar with poles and rooted material

FY 2002 Rooted Plantings on Asotin Creek

Inserting rooted ponderosa pine tree into stinger for planting

Ponderosa pine tree planted and stinger being pulled out of the ground
(notice support: small tractor, four wheeler w/trailer & boxes with trees)

FY 2002 Cottonwood and Willow Whip Plantings on Asotin Creek

Expandable Stinger revegetating inaccessible streambanks

Capable of reaching into areas & planting at depths up to four feet