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39 San Poil Subbasin Inventory of Existing Programs – Aquatic

39.1 Current Management Directions

Within the San Poil Subbasin, fish and wildlife resources are co-managed by the Washington Department of Fish and Wildlife (WDFW) and the Colville Confederated Tribes (CCT) outside of the boundaries of the Colville Indian Reservation and exclusively by the CCT within the boundaries of the reservation. The current management direction is to maintain viable populations (numbers and distribution of reproductive individuals) of native and desired nonnative species of fish and wildlife, and their supporting habitats, while providing sufficient numbers to meet the cultural, subsistence and recreational needs. A complete list of state, federal, and Tribal entities that are involved in management of fish and wildlife or their habitats is included in section 2.4.1, along with a description of the agency's management direction.

39.1.1 Local Government

39.1.1.1 Ferry Conservation District (FCD)

FCD is involved in several partnership efforts from individuals and agencies, to school districts and tribes. As a political subdivision of Washington State government (under the umbrella of the Washington State Conservation Commission), the FCD serves the public in a manner that best provides for the interest and management of natural resources and environmental protection. As the last non-regulatory entity left in the State of Washington, it provides service to individuals, associations, local government, etc. in a neutral manner that promotes being proactive in the planning and management for natural resources.

Though only receiving approximately \$9,700 a year from the Conservation Commission for basic funding, FCD has sought out and applied moneys to the planning and implementation that improves and enhances water quality, as well as fish and wildlife-habitat. FCD was the first in the northwest to use DNA microbial source sampling as a tool to identify problems and problem areas, to start focusing project dollars where the money can do the most good and return the most benefit-to-dollar ratio. The shade and water temperature studies have produced valuable data that are now being used by the United States Forest Service (USFS) and Washington State Department of Ecology (WDOE) to implement TMDL programs throughout northeastern Washington. The District is involved in the partnership efforts with WDOE TMDL projects in three different counties so far, and is contributing equipment and manpower towards these efforts at no charge.

FCD currently is receiving grants from Washington Conservation Commission, WDOE, National Fish and Wildlife Foundation, EPA, and the USFS. Recent grants from the WDOE will fund the Headwaters of the San Poil (HOSP) project to implement projects for landowners, the USFS, Ferry County, Washington State Department of Transportation, and the CCT in the headwaters and mainstem of the San Poil River.

FCD's primary priorities are to reduce the problems associated with EPA 303(d) listed streams to improve water quality. The District implements Best Management Practices (BMPs) that also improve fish and wildlife-habitat.

FCD is currently applying for two more Centennial Clean Water Funded Grants from WDOE. One is to focus on fecal coliform problems and solutions (and other water quality standards) with implementation projects throughout Ferry County. The other is to team with the Forest Service, who has received funding to do an environmental analysis on the proposed action of removing Growden Dam on Sherman Creek in the Upper Columbia Subbasin.

FCD participates in many local and regional planning efforts. The District has also been quite involved in local Water Resource Inventory Area (WRIA) processes and plans on pursuing the Lead Entity on the San Poil WRIA (52). The District's involvement in these planning processes, attendance at local association meetings, starting watershed planning groups, and other stakeholder functions, will keep the District aware of the current resource management concerns.

FCD staff are involved on State Natural Resource committees and associations to assist others with natural resource concerns, and to secure additional funding for the implementation of those solutions. In addition, FCD serves on a three-county Local Working Group to assist the Natural Resource Conservation Service (NRCS) in the selection and implementation of the Environmental Quality and Incentives Program (EQIP) to allocate funding from the U.S. Farm Bill.

As FCD teams with many agencies, often as the liaison between all the partners, it plans to have the same kinds of past success to help landowners and agencies become and/or stay proactive in their efforts to improve and protect their resources. The primary function is providing cost-share incentives for projects, and educating the general public about the need for natural resource protection and environmental enhancement. This is a part of the management strategies for the future.

Ferry County Codes. Nine codes or parts of codes may affect fish and wildlife. Most are urban planning/land use.

Okanogan County <http://www.okanogancounty.org>. Ten codes or parts of codes may affect fish and wildlife. Most are urban planning/land use.

39.2 Existing and Imminent Protections

Currently, bull trout are the only federally listed fish species within the San Poil Subbasin. However, it is presumed the distribution of bull trout is not widespread within the Subbasin. Habitat within the Subbasin has not been determined to be within the critical bull trout habitat area as outlined by the United States Fish and Wildlife Service (USFWS) (USFWS 2002). The USFWS reviewed the status of westslope cutthroat trout in 2003 and found that listing under the Endangered Species Act was not currently warranted (Federal Register 2003). Other fish candidates for potential listing may include

redband trout due to hybridization with introduced stocks of rainbow trout and white sturgeon because of a lack of juvenile recruitment and suitable spawning habitat within Lake Roosevelt.

39.3 Inventory of Recent Restoration and Conservation Projects

The two management agencies (WDFW and the CCT) with fisheries management responsibility within the Subbasin have initiated projects through the Northwest Power and Conservation Council's Fish and Wildlife Program. These projects were created to partially mitigate for the loss of anadromous fish due to the creation of the federal hydropower system utilizing native fish restoration and resident fish substitution.

The following BPA funded projects have enhanced the resident fishery (both native and nonnative) in the San Poil Subbasin:

- Habitat/passage improvements – Lake Roosevelt Rainbow Trout Habitat/Passage Improvement Project, #9001800.
 - Implements habitat restoration and passage improvements to streams entering Lake Roosevelt.
 - Monitors and evaluates the effect of these improvements
 - Native fish restoration and RM&E activities on streams
- Artificial production enhancement activities – Colville Tribal Fish Hatchery, #8503800
 - Provides hatchery production for lakes and streams on the Colville Reservation (Mostly outside of the San Poil subbasin).
 - Monitors and evaluates hatchery activities.
 - Resident Fish substitution and RM&E activities on lakes.

The following information provides a more detailed description of the primary BPA funded project (#9001800) and non-BPA funded projects within the San Poil Subbasin.

39.3.1 BPA Funded Project

Lake Roosevelt Rainbow Trout Habitat/Passage Improvement Project (LRHIP) (#9001800)

The goal of the project is to contribute to subsistence and recreational fisheries by protecting and enhancing the production of adfluvial rainbow trout populations through improvement to fish passage and in-stream habitat in tributaries to Lake Roosevelt. Twenty-seven streams were examined during 1990-1991 to assess fish habitat, fish population estimates, and potential limiting factors to adfluvial rainbow trout production. Five (5) streams were selected, four (4) on the San Poil River and the fifth, Blue Creek, was on the Spokane Reservation in the Upper Columbia Subbasin for planning implementation of passage/habitat improvements based upon presence of adfluvial rainbow trout, limiting factors, and potential for improved production. Design and implementation of habitat and passage improvement actions on the four selected streams in the San Poil Subbasin began in 1992 and continued through 1995. Implementation actions affected 20.9 miles of stream course. Specific actions included reinstallation of six culverts, 500 meters of channel reconstruction (meanders) installed in previously

channeled stream courses and installation of 125 in-stream structures to improve passage and improve rearing habitat. Riparian improvements included placing 14,500 riparian plants/shrubs/trees and livestock exclusion fence along 4.5 miles of stream course. Habitat quantity was increased by 11 percent through passage improvement alone.

Activities since 2001 have focused on the restoration of fish habitat conditions in Lower Bridge Creek, an important tributary to the San Poil River in Ferry County, Washington. Previous and current land use activities (deforestation, road building, agriculture activities, quarrying, etc.) within the Bridge Creek watershed have significantly altered hydrologic, hydraulic and sediment transfer processes. These actions have greatly impaired in-channel habitat conditions in the lower portions of the creek, affecting its ability to support spawning and rearing of adfluvial rainbow trout of the San Poil River system. Agriculture and grazing have had the greatest impact on Bridge Creek. Grazing has significantly contributed to the loss of vegetation along the riparian areas. Channelization has impaired the lowermost portion of the restoration segment, and bank erosion upstream has increased the width-to-depth ratio upstream. Both of these factors have limited pool habitat significantly and prevented a stable riparian zone from becoming established along much of the restoration reach. Rainbow trout of the San Poil River system are a culturally important resource to the CCT, and tributary spawning habitat for this stock is limited in the San Poil watershed. Thus the lower reaches of Bridge Creek have been identified for potential restoration of spawning habitat for rainbow trout. The CCT has two restoration objectives for Bridge Creek: (1) create a dependable and unobstructed access from the San Poil River to Bridge Creek, and (2) restore stable and suitable spawning habitat for adfluvial rainbow trout. The design for stabilization has been completed with implementation beginning in December 2003.

Associated Monitoring and Accomplishments:

An important component of the LRHIP is the pre- and post-implementation juvenile and adult trapping, electro-shocking population estimates, horizontal surveys and habitat surveys are conducted for two years before and after implementation. Long term monitoring of all locations where improvements have been done has been initiated using a rotational monitoring system similar to EMAP. Monitoring is to be done each year for current status with general trend monitoring of all watersheds. Pre-implementation surveys, trapping, and electro-shocking has been completed on Bridge Creek. A landowner agreement for protection of improvements was signed and a categorical exclusion was received from BPA and the CCT following public review, interdisciplinary review, approval of all required Tribal permits, and approval of the report on the archaeological survey with shovel tests by the Tribal Historic Preservation Officer (THPO).

Table 39.1. Colville Confederated Tribes inventory of accomplishments for the last five years in the San Poil Subbasin from BPA project (9001800) and associated non-BPA funded projects completed by the Colville Confederated Tribes and other partners

Date Completed	Description Of Implemented Projects	Funding Agency
1998	Horizontal stream post-implementation surveys on 5 project streams, Louie, Iron, Blue, N. Nanamakin, and S. Nanamkin Crks	BPA
1998	Population estimate of juvenile adfluvial adfluvial rainbow trout	BPA
1998	Adult spawning escapement and outmigration surveys (trapping)	BPA
1998	Complete Phase I Report	BPA
1999	Horizontal stream post-implementation surveys on 5 project streams, Louie, Iron, Blue, N. Nanamakin, and S. Nanamkin Crks	BPA
1999	Population estimate of juvenile adfluvial adfluvial rainbow trout	BPA
1999	Adult spawning escapement and outmigration surveys (trapping)	BPA
1999	Complete Phase II Report	BPA
2000	Horizontal stream post-implementation surveys on 5 project streams, Louie, Iron, Blue, N. Nanamakin, and S. Nanamkin Crks	BPA
2000	Population estimate of juvenile adfluvial adfluvial rainbow trout	BPA
2000	Adult spawning escapement and outmigration surveys (trapping)	BPA
2000	FY 1999 Report with data and statistical analysis and pictorial booklet of project	BPA
2001	Horizontal stream surveys on Bridge Creek	BPA
2001	Baseline adult adfluvial rainbow trout trapping in spring and fall kokanee trapping	BPA
2001	Electroshock/population estimates on Bridge Creek	BPA
2001	Baseline habitat survey of Bridge Creek	BPA
2001	Adult spawning escapement and outmigration surveys (trapping)	BPA
2001	New culvert installed at Old State Road and Bridge Creek	Ferry County
2002	FY 2001 Annual Report	BPA
2002	Developed contracts and bids for design/engineering new channel and upper channel stabilization for Bridge Creek improvements	BPA
2002	Adult adfluvial rainbow trout trapping in spring on Bridge, Thirty Mile, N. Nanamkin, Bear Creeks	BPA
2002	Adult spawning escapement and outmigration surveys (trapping)	BPA
2002	Horizontal stream surveys on Thirty Mile Creek	BPA
2002	Baseline habitat survey of Thirty Mile Creek	BPA
2002	Legal survey for section lines and elevational changes for design of Bridge Creek passage/habitat improvements.	BPA
2002	Began NEPA process with NRCS, Ferry County Conservation District, Ferry County, Landowner, Archeological Survey.	BPA
2002	Passage barrier on San Poil River at Bear Creek removed	BPA
2002	Redd surveys on Louie, Iron, N. Nanamkin, S. Nanamkin, Bear, and Bridge Creeks	BPA
2002	Collection of fin clips for DNA Analysis of red band rainbow in Bridge, Barnaby, and Hall Creeks.	BPA
2002	Inventory and GPS of culverts in EDT test section of San Poil Subbasin	BPA
2002	Digitalized and GPS all information into Tribal GIS system	BPA
2002	Defined, and mapped all reaches and barriers (natural and man-made) in EDT test section of San Poil River.	BPA
2002	Documented status and photographed all barriers in EDT test section of San Poil Subbasin.	BPA

Date Completed	Description Of Implemented Projects	Funding Agency
2002	Determined slope of each designated reach, consolidated all water quality and habitat data collected by Colville Tribes over past ten years and input into EDT model for the test section of the San Poil Subbasin.	BPA
2002	Inventory and GPS of culverts in EDT test section of San Poil Subbasin	BPA
2002	Collected GPS data from WA State F&W, STOI, EWU /AI Scholz, CCT for creel sites, study sites, net pens, BOR temperature data collection sites, and USGS monitoring sites on Lake Roosevelt then re-projected and converted to shapefiles for GIS system use and distributed files to interested agencies associated with Lake Roosevelt Management.	BPA
2002	Inventory and GPS of culverts in remaining lower elevation sections of San Poil River for EDT Model on entire San Poil River	BPA
2002	Conducted Electroshock population estimates on 30-MileCk, Jack Ck, and Brush Ck and collected Samples for DNA analysis of possible red band trout.	BPA
2002	Inventory and GPS of culverts in lower reaches of Upper Columbia Subbasin	BPA
2002	Completed water diversion on S. Nanamkin Creek	BPA/Landowner
2003	Adult adfluvial rainbow trout trapping in spring on Bridge, Thirty Mile, Twentythree Mile, Seventeen Mile, Anderson, and Bear Creeks	BPA
2003	Adult spawning escapement and outmigration surveys (trapping)on Bridge, Thirty Mile, Twentythree Mile, Seventeen Mile, Anderson, and Bear Creeks	BPA
2003	Presented project at Lake Roosevelt Forum Conference	Lake Roosevelt Forum
2003	2002 Annual Report	BPA
2003	Redd surveys on Thirty Mile, Twentythree Mile, Seventeen Mile, Anderson, N. Nanamkin, S. Nanamkin, Bear, and Bridge Creeks	BPA
2003	Redd caps enumeration of emerging adfluvial rainbow trout and red band rainbow trout on four selected redds in Bridge, Thirty Mile, S. Nanamkin Creeks	BPA
2003	Bridge Creek riparian fencing for area of improvements	Ferry County Conservation District
2003	Request for Bids for implementing Bridge Creek habitat/passage improvements	BPA
2003	Implementation of designed habitat/passage improvements on Bridge Creek	BPA
2003	Road decommissioning on Lime Ck, stabilization of road washouts on Louie, Twenty-Five Mile, Deadhorse Creeks for sediment reduction, reconnect wetlands on Elbow Lake Road and repair of road.	EPA 319 Clean Water Grants
2003	Inventory and GPS of culverts in remaining high elevation sections of San Poil Sub-basin for EDT Model on entire San Poil Sub-basin	BPA
2003	Determined slope of each designated reach, consolidated all water quality and habitat data collected by Colville Tribes over past ten years and input into EDT model for the remaining sections of the San Poil Subbasin.	BPA
2003	Replace old culverts (fish passage barriers) on Thirty Mile Creek	BPA
2003	Stabilize active erosion on upper Thirty Mile Creek	EPA 319 Clean Water Grants
2003	Out-migrant screw trap operating in West Fork San Poil River	BPA
2003	Electroshock/population estimates on 23-Mile Creek	BPA
2003	Horizontal and habitat stream survey 23-Mile Creek	BPA
2003	Stabilize active erosion on 3 sites of San Poil River between North and South Nanamkin Creeks	EPA 319 Clean Water Grants

Date Completed	Description Of Implemented Projects	Funding Agency
2003	Trapping fall spawning kokanee in West Fork San Poil River	BPA

39.3.2 Non-BPA Funded Projects

Fencing, Range Improvements for Protection of Bridge Creek

Project Description:

Put in off-site water troughs, gates, hard rock crossings, and fencing in area of Bridge Creek restoration project. This project is funded by FCD and is part of the Lake Roosevelt Habitat Improvement Project.

Associated Monitoring:

Improvements will be monitored in connection with the Bridge Creek improvements.

Accomplishments:

Obtained solar pump for water troughs, installation will follow implementation of improvements

Notes:

All work on in-stream habitat improvements and bank stabilization on the 2550 feet of Bridge Creek starting at the new culvert at the Old State Road have been completed. Post implementation finish work included erosion matting, native grass seeding, and tree planting with willow, red osier dogwood, cottonwood, and pine. Design work for passage improvements reconnecting Bridge Creek to the San Poil River will be done in 2004 with implementation in 2005

Rochelle Habitat Enhancement

Project Description:

Install 6 cross-channel log weirs to help rebuild fish habitat; place rock toe and soil bioengineered bank stabilization; plant hardwood shrubs for wildlife habitat.

Associated Monitoring:

Semiannual inspection by FCD staff.

Accomplishments:

950 feet of improved streambank, 475 feet of improved instream fish habitat, reduction of potential high-water damage.

Thirty Mile Creek Culvert Replacement

Project Description:

Replace perched culvert at lower Thirty Mile Creek with bottomless arch to improve fish passage. This project is funded by the EPA and is sponsored by the CCT as part of the Lake Roosevelt Habitat Improvement Project. The end date is 2004.

Associated Monitoring:

Improvements will be monitored for two years post implementation and then in

connection with the long-term monitoring done in the spring with fish trapping.

Accomplishments:

Contracting process is underway for work to be done in late summer of 2004..

Thirty Mile Creek, Lime Creek, Louie Creek, and San Poil River Improvements for Sediment Reduction

Project Description:

Repair of road washouts that were adding sediment to the San Poil River and its tributaries. Types of work included removal of old culverts, re-sloping road cuts, installing water bars, adding rock and boulders to dissipate stream energy that has been actively eroding. This project was funded by the EPA and sponsored by the CCT as part of the Lake Roosevelt Habitat Improvement Project. It ended in November 2003.

Associated Monitoring:

Improvements will be monitored for two years post implementation and then in connection with the long-term monitoring done in the spring with fish trapping.

Accomplishments:

Work on Lime Creek, Deadhorse Creek, Twenty-five Mile Creek, Thirty Mile Creek has been completed. Additional culvert replacement on Thirty Mile Creek and stabilization of actively eroding areas along the San Poil River between South Nanamkin and North Nanamkin Creeks are under contract and are about to be implemented. Louie Creek stabilization and road relocation have been contracted and are awaiting final approval by BIA Roads.

Notes:

A wetland project to reconnect two wetlands that had been disconnected by a road in the wetland located above the North Fork of Hall Creek in the Upper Columbia Subbasin was also done with the 319 Clean Water Grant monies.

Annabelle Creek Culvert Replacement

Project Description:

Replace perched culvert at a tributary to Scatter Creek with a partially buried concrete culvert to provide fish passage. This project was funded by the Colville National Forest.

39.4 Strategies Currently Being Implemented Through Existing Projects

39.4.1 Limiting Factors and Strategies Currently Being Implemented

As described in Section 2.4, a database was developed that lists the recent projects that have been implemented in the Subbasin. Each project was coded for the limiting factors that were addressed, and the strategies that were employed.

In the San Poil Subbasin, 16 recent restoration and conservation projects were identified. Of the projects identified, 10 were focused on resident fish, 3 primarily benefited wildlife, and 3 benefited both fish and wildlife.

The focus of many of the recent projects in the San Poil Subbasin (60 percent) has been on addressing habitat related limiting factors. Habitat quality (14 percent), water quality or quantity (15 percent), habitat quantity (12 percent) and barriers (19 percent) have all received attention in recent years (Figure 39.1). The lack information has been addressed by 10 percent of the recent projects. Disease, competition, predation, and hybridization are limiting factors that have been addressed by 20 percent of the recent projects. Indirect mitigation was addressed by 10 percent of projects.

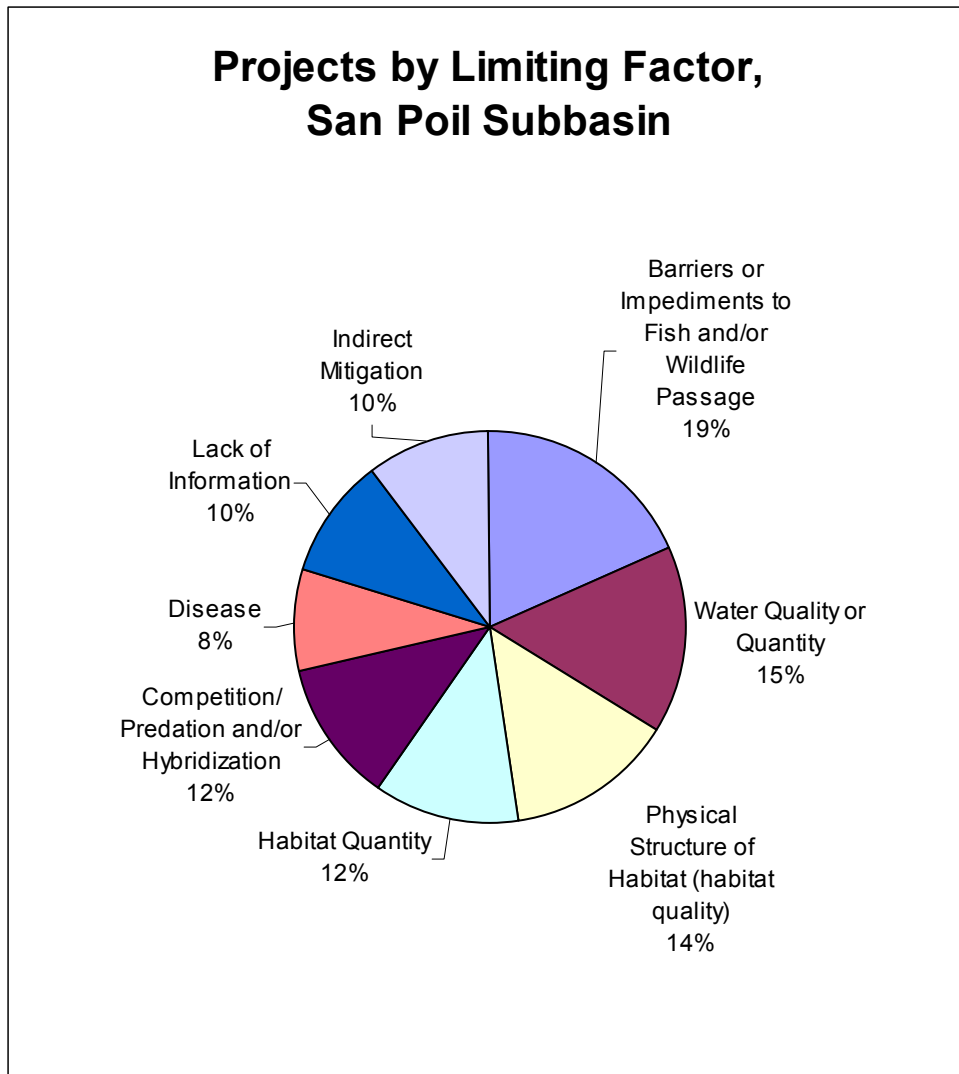


Figure 39.1. Proportion of projects in the San Poil Subbasin that relate to specific limiting factors

A wide array of strategies have been employed in the San Poil Subbasin (Figure 39.2). The only strategy that has not been extensively employed by the projects in the database is enforcement/protection. Although the CCT do have Resource Protection Enforcement

Officers that patrol the San Poil along with all areas of the Colville Reservation. Changes in State and Tribal Fishing Regulations have been made to increase protection of the adfluvial rainbow trout during spawning migration.

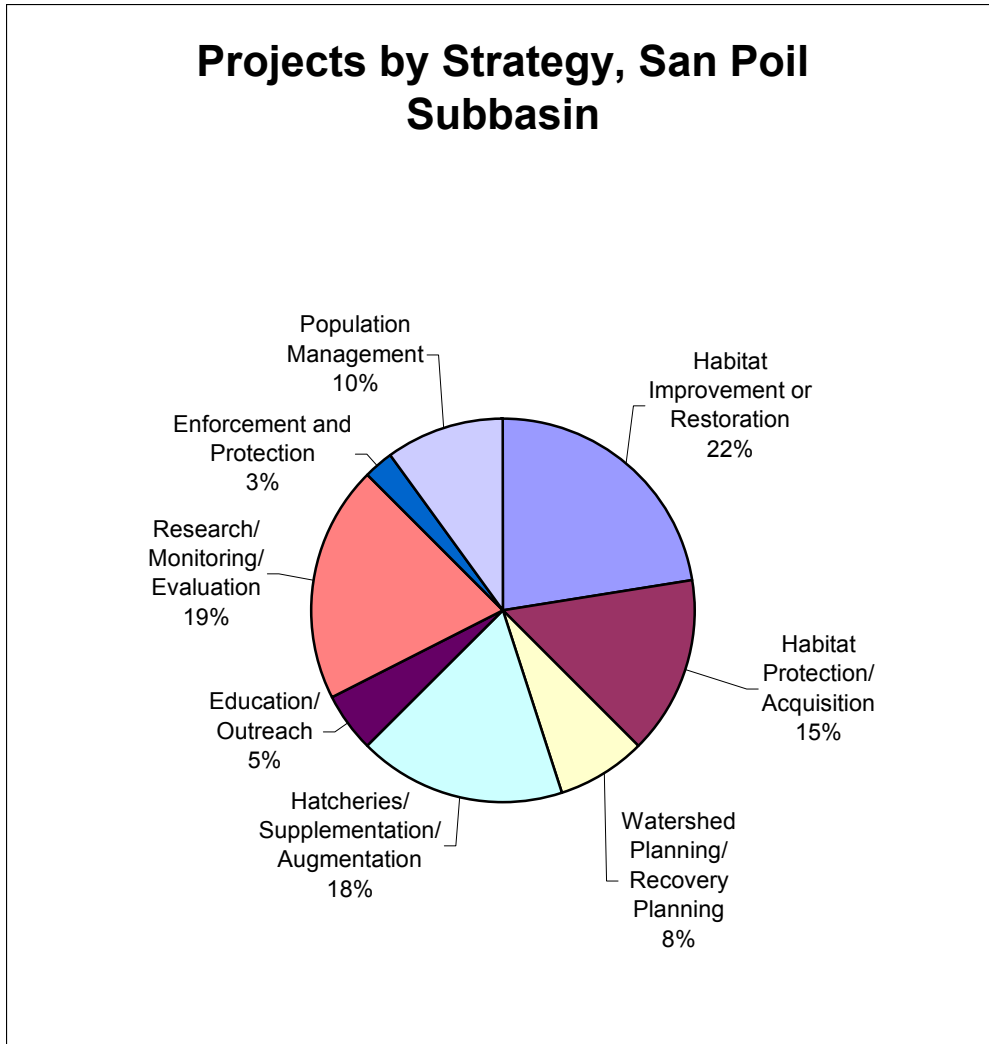


Figure 39.2. Proportion of projects in the San Poil Subbasin that relate to specific strategies

39.4.2 Gaps Between Actions Taken and Actions Needed

The Technical Guide for Subbasin Planners requires that gaps between actions taken and actions needed be identified. This perspective will help determine whether ongoing activities are appropriate or should be modified and lead to new management activity considerations.

In the IMP, the Technical Coordination Group provided information on the gaps between the actions taken and the actions needed based on their knowledge and experience in their subbasins. The input is described below.

There were only 16 total projects identified in this Subbasin for both fish and wildlife combined. The most obvious gap between the actions taken and the actions needed in the San Poil is the lack of any action.