Palouse Subbasin Management Plan

2. Inventory

FINAL DRAFT ~ May 2004

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2. Inventory

This section, **Inventory,** provides an overview of the management context, including existing resources for protection and restoration in the subbasin. The inventory includes information on existing fish and wildlife protection, restoration, artificial production activities, and management plans within the Palouse subbasin.

2.1 Management Programs and Policies

2.1.1 At the Local Level

At the local level, many groups are involved in fish and wildlife protection projects within the Palouse subbasin, including:

- Conservation Districts
    - Palouse-Rock Lake Conservation District
    - Palouse Conservation District
    - Pine Creek Conservation District
    - Whitman Conservation District
    - Adams Conservation District
    - Spokane County Conservation District
    - Lincoln County Conservation District
    - Latah Soil and Water Conservation District
- Clearwater Resource Conservation and Development Council, Inc.
- Inland Northwest Wildlife Council
- Palouse-Clearwater Environmental Institute
- Palouse Land Trust
- Palouse Prairie Foundation
- Clearwater Basin Advisory Group
- Watershed Advisory Groups
- Idaho Association of Soil Conservation Districts
- Latah County Planning and Zoning Commission
- Whitman County Planning Department
- Spokane County Planning Department
- North and South Latah County Highway Districts
- Whitman County Highway Department
- Local Highway Technical Assistance Council

2.1.1.1 Conservation Districts

Washington Conservation Districts are legal subdivisions of state government, and provide conservation leadership at the local level within the Palouse subbasin. In the State of Washington, the 48 districts are granted operating authority by Chapter 89.08 of the Revised Code of Washington. Conservation Districts were formed in the 1930s to provide a means for local people to solve local resource conservation problems. In 1937, President Roosevelt sent

sample legislation to all of the states that ultimately created the Conservation Districts. The first district in Washington State was the North Palouse Conservation District, formed in 1940.

In Idaho, the Soil Conservation District Law, Idaho Code, Title 22, Chapter 27, establishes the organization and purposes of SCDs across the state. The Latah Soil and Water Conservation District, a non-regulatory subdivision of state government, develops and implements local natural resource conservation programs within Latah County, Idaho. Conservation Districts work closely with the USDA Natural Resources Conservation Service, and are often co-located.

Upland tree plantings have been an on going program of the **Palouse-Rock Lake Conservation District** (PRLCD), located in St. John, Washington. An average of 80,000 trees and shrubs have been planted annually for the last 10 years by PRLCD. The program began in the mid 1980s and continues to date. The plantings are designed to fill a need for thermal cover and food source for upland wildlife, such as deer, elk, pheasant, songbirds, etc. Species of trees and shrubs typically planted include; ponderosa pine, caragana, Douglas hawthorn, serviceberry, rose, and other native species. The earlier plantings are now producing cover and forage value to the target wildlife species.

PRLCD maintains a soil lab to agricultural test soils for nutrients. Area farmers are encouraged to soil test before fertilizing to ensure that nutrients are being used wisely and not leached into streams and lakes. Soil fertility information is provided to area farmers so fertilizer application decisions can be made. Applying only the amounts of nitrogen and phosphorus that are effectively utilized by the crops reduces the nutrient loss from the field to the surface water supplies. This cropland fertility management improves stream and lake water quality by reducing excessive algae growth and associated water quality problems.

PRLCD also has been monitoring Rock Creek and major tributaries since 2000 through a grant from the Washington Centennial Clean Water Fund. Water quality parameters being monitored include water temperature, dissolved oxygen, pH, and suspended sediment. Results will be used to identify potential nonpoint sources of pollution

The **Palouse Conservation District** (Palouse CD) located in Pullman, Washington, has sponsored four watershed planning efforts, including the Missouri Flat Creek Watershed, Paradise Creek Watershed, South Fork Palouse River Watershed, and the North Fork Palouse River Watershed. The Palouse CD is currently the lead in Watershed Resource Inventory Area (WRIA 34) Palouse River Watershed Planning in accordance with WA RCW 90.82. The WRIA 34 planning project will be addressing primarily water quantity and water quality issues. The Palouse CD has been performing a water quality monitoring study on North Fork Palouse River in support of the TMDL planning process.

The Palouse CD also has a tree and shrub planting program. Over the past five years they have planted over 350,000 conservation trees and shrubs (average 70,000 per year). The primary focus has been riparian revegetation and buffer establishment. Approximately 15 miles of streambank have been re-vegetated within past five years.

The **Pine Creek Conservation District**, located in Oakesdale, Washington, implements projects in the subbasin focused on conservation tillage programs. The **Whitman Conservation District** (Whitman CD) located in Colfax, Washington. The Whitman CD has a contract planting

program. Over the last six years they worked with producers to implement upland wildlife plantings of approximately 95,300 plants consisting of mainly Ponderosa pine, rose and caragana mixes. The Whitman CD was the lead agency for the TOPS (Trees on the Palouse) project which produced a Field Handbook; a reference guide which promotes the proper use of trees and shrubs for wildlife habitat, water quality, and soil conservation.

The Whitman CD has delivered a fifth grade conservation education program for the past five years, and continues to do so. The program consists of an overview of the conservation practices in the area with discussion on wildlife habitat, water quality, and soil erosion. The program includes participation in a conservation planting, totaling approximately 800 plants each year. The Whitman CD also coordinates a sixth grade water quality awareness program which consists of an overview of some of water parameters and the relationship with the aquatic life. In 2001, the Whitman Conservation District developed a cost-share program that focusing on the reduction of erosion and sedimentation in the area. The District is a strong supporter of direct seed and/or no-till.

The **Adams Conservation District** (Adams CD) has been involved with watershed planning on the Cow Creek watershed, developing a watershed characterization and implementation plan in 1999-2000. In addition to the watershed plan, the Adams CD implements best management practices for wildlife enhancement within the Cow Creek watershed that includes offsite watering facilities, tree and shrub planting, and riparian fencing. The Adams CD has been involved with watershed planning on the Cow Creek watershed, developing a watershed characterization and implementation plan in 1999-2000. In addition to the watershed plan, the Adams CD continues to monitor water quality in the drainage (1999 to present). The Adams CD continues to monitor other streams within the Palouse subbasin, including Rock Creek (1999 to present), and the Palouse River (2002 to present). The Adams CD implements best management practices for fish habitat enhancement within the Cow Creek watershed that includes offsite watering facilities, tree and shrub planting, and riparian fencing.

The **Spokane County Conservation District** located in Spokane, Washington, implements a water resources program that includes projects in the northern Palouse subbasin. The **Lincoln County Conservation District** located in Davenport, Washington, implements conservation programs across the northwest portion of the subbasin.

The **Latah Soil and Water Conservation District** (Latah SWCD), located in Moscow, Idaho, operates under their Five-Year Operations Plan. In addition to watershed restoration planning and implementation projects, the Latah SWCD coordinates the annual Sixth Grade Environmental Awareness Days. The Latah SWCD serves as the lead in administering the Section 319 funded project which identifies problem areas and implements best management practices on confined animal feeding operations within the Palouse subbasin. The project was initiated in 2001 and continues to present involves five north-central Idaho Conservation Districts. Twenty six projects have been scheduled for implementation within the Palouse subbasin and include the implementation of selected best management practices (BMPs) to reduce sediment, nutrient, and bacteria contributions to receiving waters.

2.1.1.2 Clearwater Resource Conservation and Development Council, Inc.

The **Clearwater Resource Conservation and Development Council, Inc.** (RC&D) is a locally initiated, sponsored and directed program in which the public, primarily through their elected representatives, work to enhance the quality of life through projects and activities emphasizing land conservation, community development, water management, and other environmental concerns. The Clearwater RC&D is an organization whose mission is to enhance the quality of life for the residents of north-central Idaho by maintaining and improving the economic, social and environmental conditions within the region. The council is the governing body of the Clearwater RC&D Area. The Clearwater RC&D is involved in development and protection of natural resources through such projects as cooperating in improvement of Spring Valley Reservoir and Moscow City Parks, supports the Clearwater Basin Weed Advisory Group and the Alternative Forest Products Advisory Group, and provides low-cost trees for conservation plantings. USDA Natural Resources Conservation Service provides a coordinator to the Clearwater RC&D, who's office is located in Moscow, Idaho.

The Clearwater R&CD sponsored the development of Hordeman pond which is within the city limits of Moscow. The small pond is planted annually by Idaho Department of Fish and Game with catachble size rainbow trout.

2.1.1.3 Inland Northwest Wildlife Council

The mission of the **Inland Northwest Wildlife Council** (INWC) is to act in accordance with what is best for all fish and wildlife species while emphasizing and maintaining responsible sportsmanship: to work for the betterment of fish and wildlife; to create a positive sportsmanlike image; to protect, create and enhance fish and wildlife habitat and the environment, with special attention given to our immediate geographical area. The INWC has been active in the Palouse subbasin since the early 1990s with projects including:

- INWC assisted in planting 12,875 trees and shrubs on several private properties in Whitman County in 1999. Over 12,000 shrubs were planted on 24 acres on 3 separate private properties (2000), and 6,700 shrubs and trees were planted on 24 acres on 2 separate properties in 2001.
- Revere Area Habitat where a 30 acre plot was planted to grass and alfalfa, and 1,500 shrubs were planted along the edge of a new field in 1997. An additional 3,000 shrubs and trees were planted on bluffs above grass/alfalfa fields (1998), and 8,700 shrubs and trees were planted on 1,500 acres (2000).
- Food plot funding was provided for planting of 18-20 acres of food plots on 12-15 different properties in Whitman County. Planning of the food plots has been done by Washington Department of Fish and Wildlife staff from 1994 to present.
- Winter bird feeders project funds the building and maintenance of 35 winter bird feeders from 1993 to present.
- A guzzler for upland wildlife water supply was installed in 2000.

2.1.1.4 Palouse-Clearwater Environmental Institute

Palouse-Clearwater Environmental Institute (PCEI) is a 501(c)(3) non-profit organization based in Moscow, Idaho. The mission of PCEI is to increase citizen involvement in decisions that affect our region's environment. Through community organizing and education, PCEI assists members of our communities in making environmentally sound and economically viable decisions that promote a sustainable future. The primary goals of the organization are to:

- Promote the ecological health and social welfare of the Palouse-Clearwater region.
- Actively participate in the conservation, preservation, and restoration of environmentally sensitive lands, natural areas, and unique ecosystems.
- Provide forums for the free exchange of views in matters of concern to the public.
- Inform and educate the public on issues of importance to the sustainable future of the Palouse-Clearwater region, thus promoting a well-informed, active and concerned citizenry.

PCEI consists of four main program areas: Watersheds, Environmental Education, Community Gardens, and Alternative Transportation. The Watersheds Program has been actively engaged in watershed restoration since the early 1990's, beginning with Adopt-a-Stream programs, litter clean-up, and storm drain labeling. PCEI implemented restoration projects on Paradise Creek, the South Fork of the Palouse River and several watersheds outside the Palouse subbasin. These projects range in size from backyards to large swaths of rural agricultural areas. Restoration treatments include streambank stabilization and resloping, restoration of floodplain connectivity, wetlands construction, revegetation with native riparian species, and restoration of channel complexity. All restoration projects are collaborative, science-based and community-centered, heavily utilizing volunteers and striving to build collaborative relationships with multiple agencies, families, schools, and other organizations. The primary targets of watershed restoration efforts have been water quality improvements involved in TMDL development and implementation, including reductions in sediments, bacteria, nutrients, and temperature. PCEI emphasizes preservation and restoration of native habitats for the long-term survival of native species of plants and animals.

2.1.1.5 Palouse Land Trust

The **Palouse Land Trust** was formed in 1995 to help landowners and communities in the Palouse region conserve and protect unique and open areas. The major mechanism in accomplishing this is through conservation easements. Several projects managed by the Palouse Land Trust within the Palouse subbasin include the Fosberg Preserve (conservation easement), the Berman Creekside Park Adopt-A-Plant project, Rose Creek Conservation Area, and the Idler's Rest Conservation Trust.

2.1.1.6 Palouse Prairie Foundation

The **Palouse Prairie Foundation** formed in 2002. Their mission is to promote preservation and restoration of native Palouse Prairie ecosystems in Latah and Whitman Counties through public awareness, education, literature resource, encouraging responsible local seed production, and acting as a leader or consultant in Palouse Prairie restoration efforts.

2.1.1.7 Clearwater Basin Advisory Group

Basin advisory groups (BAG) were created by Idaho state water quality code (Idaho Code §39-3613). The duties of each BAG are specified by Idaho Code §39-3614. The BAGs were designated by the director of the Idaho Department of Health and Welfare to advise the director on water quality objectives for each river basin in the state. The **Clearwater BAG** is composed of ten members representing industries and interests affected by the implementation of water quality programs within the Clearwater basin. The BAGs make recommendations to IDEQ concerning monitoring, designated beneficial use status revisions, prioritization of impaired waters, and solicitation of public input. Although the Palouse River is not part of the Clearwater River basin, water quality issues in the Palouse River drainage are part of the Clearwater BAG responsibilities.

2.1.1.8 Watershed Advisory Groups

Watershed advisory groups (WAG) were created by Idaho state water quality code (Idaho Code §39-3615). WAGs, with members appointed by BAGs, were formed to provide advice to the Idaho Department of Environmental Quality for specific actions needed to control point and nonpoint sources of pollution within watersheds where designated beneficial uses are not fully supported. WAG duties are specified in Idaho Code §39-3616. The code specifically calls for creation of WAGs for water bodies that were labeled as "high priority" on the TMDL schedule established for Idaho state.

The **Paradise Creek Watershed Advisory Group** (WAG), through the Latah SWCD, wrote the Paradise Creek Total Maximum Daily Load (TMDL) Implementation Plan (PCWAG 1999). The Paradise Creek TMDL Implementation Plan outlined activities, structures, treatment facilities, and nonpoint source management practices designed to achieve desired load reductions. The plan was successful in securing approximately $1 million from the EPA 319 funds to match with other funds to implement specific practices that achieve load reductions on forest land, agricultural land, roads, confined animal operations and urban land. Included in the Paradise Creek implementation was conservation tillage on 1,300 acres. The implementation was coordinated by the Latah SWCD and continued through 2003. Multiple government and private partners were involved, including the City of Moscow, University of Idaho, DEQ, EPA, Idaho Soil Conservation Commission, Natural Resources Conservation Service, North Latah County Highway District, Idaho Association of Soil Conservation Districts, private landowners, Palouse-Clearwater Environmental Institute, Bennett Tree Farms, Wildlife Habitat Institute, Bonterra and other private companies.

The **Palouse River WAG** was formed in 2003 to develop the Palouse River Tributaries Subbasin TMDL Implementation Plan (Plan not complete to date).

2.1.1.9 Idaho Association of Soil Conservation Districts

The **Idaho Association of Soil Conservation Districts** (IASCD), perform water quality monitoring throughout the Palouse subbasin. Included in their areas of study are Cow Creek (Idaho), South Fork Palouse River, Paradise Creek, and the Palouse River (NFPR portion of the Idaho Palouse River system). Water quality data is used in part by local, state, and federal entities to develop TMDLs.

2.1.1.10 Latah County Planning and Zoning Commission

The **Latah County Planning and Zoning Commission** oversees development in Latah County. The Palouse subbasin encompasses the majority of Latah County. Latah County has adopted land use ordinances pursuant to the authority granted in Title 67, Chapter 65, of the Idaho Code and Article 12, Section 2, of the Idaho Constitution. Land use ordinances are adopted and implemented to achieve the following goals: 1) promote the health, safety, and general welfare of the people of the respective county; 2) insure that the goals and purpose of the Idaho Local Planning Act are accomplished and facilitated; 3) fulfill the statutory mandate of Idaho Code 67-6503; 4) control construction and uses of land which may do irreparable harm to existing buildings, uses of land, and the economic and social stability of the county.

Latah County also has a flood plain ordinance that regulates the lowest allowable elevation for construction within the flood plain. Latah County is revising the land use ordinance and if adopted as drafted will provide for setbacks from intermittent and perennial streams for winter animal feeding areas and a riparian area protection zone that will prohibit construction within 100 feet of a stream.

2.1.1.11 Whitman County Planning Department

Several county ordinances are in place that affect land use in Whitman County and are administered by the **Whitman County Planning Department**, including the following ordinances: Zoning, Subdivision, State Environmental Policy Act, Shorelines Management Act, Flood Hazard Areas, Wetlands, Fish and Wildlife Habitat Conservation Areas, and Critical Aquifer Recharge Area Designation and Protection.

2.1.1.12 Spokane County Planning Department

The **Spokane County Planning Department** administers several ordinances in Spokane County including the Aquifer Fees, whereas the County is authorized to impose monthly fees on property owners in order to finance the activities of the aquifer protection area, and the Critical Areas Ordinance for the Protection of Wetlands, Fish and Wildlife Habitats, Geo-hazard Areas and Critical Aquifer Recharge Areas, where the County implements the overall critical areas goals, and the specific goals and policies for wetlands, fish and wildlife habitat, geo-hazard areas, and critical aquifer recharge areas contained in the Spokane County comprehensive plan, Chapter 10 Natural Environment.

2.1.1.13 Highway Districts and Departments

Best management practices for erosion and sediment control in county road construction and maintenance within the subbasin is administered by both the **North and South Latah County Highway Districts** and **Whitman County Road Departments**. North and South Latah County Highway Districts are responsible for road construction and maintenance for all county roads in Latah County, Idaho. The Whitman County Road Department is divided into three districts and is responsible for all road construction and maintenance within Whitman County, Washington. District 1 includes the road networks for the towns of St. John, Oakesdale, Rosalia, and Farmington. District 2 includes the road networks for the towns of Garfield, Elberton, Palouse, Pullman, and Colton. District 3 includes the road networks for towns Endicott, Winona, Colfax and LaCrosse.

2.1.1.14 Local Highway Technical Assistance Council

The **Idaho Legislature created the Local Highway Technical Assistance Council** (LHTAC) in 1994 to assist local government road districts to secure federal road funds for qualifying projects. The Idaho Association of Counties, Idaho Association of Cities, and Association of Highway Districts appoint members to the council, which is comprised of three members from each organization.

2.1.1.15 Indian Tribes

Indian tribal areas of interest are displayed in the Upper Columbia River Basin Draft Environmental Impact Statement (1997). That document displays the following three tribes as having an area of interest within portions of the Palouse subbasin: **Coeur d'Alene Tribe, Nez Perce Tribe, and Spokane Tribe**. No fisheries or wildlife management projects have been focused on the Palouse subbasin by any of the tribes.

2.1.1.16 Idaho Trout Unlimited

A chapter of the **Idaho Trout Unlimited, Three Rivers Chapter**, has recently formed in the area. Established in the spring of 2004, the Three Rivers Chapter's focus includes the Palouse River watershed within Idaho. Idaho Trout Unlimited's mission is to conserve, protect and enhance the watersheds and cold water fisheries of the state of Idaho.

2.1.1.17 Pullman Civic Trust

The **Pullman Civic Trust's** focus is citizens building a better community through civic and environmental projects in Pullman, Washington since 1983. Recent projects within the Palouse subbasin include the Bill Chipman Palouse Trail and the Downtown Pullman Riverwalk.

2.1.1.18 Moscow Civic Association

The **Moscow Civic Association**, established in 2002, works towards the mission of the Moscow Civic Association is to protect and enhance inclusive and cooperative community values by broadening public discourse, organizing and inspiring civic participation, and striving toward progressive and sustainable community development

2.1.2 At the State Level

At the state level, many agencies are involved in fish and wildlife protection projects within the Palouse subbasin, including:

- Washington Department of Fish and Wildlife
- Idaho Department of Fish and Game
- Idaho Conservation Data Center
- Washington Department of Ecology
- Idaho Department of Environmental Quality
- Washington Department of Natural Resources
- Washington State Conservation Commission
- Idaho Soil Conservation Commission
- Idaho Department of Lands
- Idaho Department of Water Resources
- Idaho Transportation Department
- Idaho Department of Parks and Recreation
- University of Idaho
- Washington State University
- Eastern Washington University

2.1.2.1 Washington Department of Fish and Wildlife

The **Washington Department of Fish and Wildlife** (WDFW**)** has worked with private landowners to restore habitat within the Palouse subbasin since the early 1960s. This early Habitat Development Program (currently WDFW's Upland Wildlife Restoration Program) involved establishing habitat plots up to 3 acres in size on unfarmed areas usually on poor or rocky soils for upland game bird use. In the 1980's partnerships between WDFW, Natural Resources Conservation Service (NRCS), local Conservation Districts, and private landowners made watershed scale habitat restoration projects possible. Today, this multi agency/private landowner partnership continues to enhance, protect, maintain, and increase wildlife habitat throughout the subbasin.

Three WDFW hatchery facilities, including the Spokane Hatchery, Ford Hatchery, and to a limited extent, the Lyons Ferry Hatchery, produce trout utilized for stocking fish into lowland lakes, and selected stream reaches within the Palouse subbasin. The primary goal of stocking efforts is to provide recreational fishing opportunity.

The WDFW currently has one person located in the St. John USDA Farm Services office who works closely with the Palouse Rock Lake Conservation District (PRLCD).

Through cooperative agreements with private landowners, Upland Wildlife Restoration Program improves and restores riparian, upland, and shrub-steppe habitats used by both resident and migratory wildlife species within the Palouse subbasin. Projects typically include establishing riparian pheasant nesting cover, planting shrubs and trees (for thermal and escapement cover), seeding wildlife food plots, developing water sources (e.g. guzzlers, ponds, spring developments), and maintaining winter game bird feeders.

Like WDFW's Upland Wildlife Restoration Program, USDA's Conservation Reserve Program has provided WDFW with another opportunity to work with local conservation agencies and landowners to improve wildlife habitat throughout the subbasin. WDFW biologists assist landowners with selecting and/or planting herbaceous seed mixes, trees, and shrubs. WDFW, in conjunction with the Palouse Rock Lake Conservation District, Washington Department of Natural Resources, Department of Corrections inmate labor, Washington Conservation Corps, and volunteers has planted over 1,000,000 trees and shrubs within the subbasin since the early 1980s.

While habitat restoration is WDFW's main priority within the subbasin, the Upland Wildlife Restoration Program requires all cooperators to sign public access agreements in conjunction with habitat projects. Landowners voluntarily open their land to hunting, fishing, and/or wildlife viewing in return for habitat enhancements. Currently, WDFW biologists work with 72 cooperators who have opened 72,928 acres to public hunting within the Palouse Subbasin under the "Hunting by Written Permission" and "Feel Free to Hunt" programs. WDWF also has a total of 61 "Cooperative Habitat Agreements" within the subbasin prior to requiring public access.

Washington Priority Habitats and Species (PHS) is WDFW's guide to management of fish and wildlife critical areas habitat on all state and private lands as related to the Growth Management Act of 1990. The recommendations address upland as well as riparian habitat and place emphasis on managing for the most critical species and its habitat.

The 2,290 acre Revere property was purchased under the Lower Snake River Compensation Plan primarily for upland game bird habitat and includes 150 acres of irrigated cropland. The property lies within the channeled scablands south of Lamont, Washington and supports a typical shrub-steppe plant community and wildlife assemblage that includes mule deer, pheasant, quail, raptors, waterfowl and a myriad of other wildlife species. Extensive habitat enhancements have been implemented on the Revere property in order to meet mitigation goals and include: planting 35 acres of trees and shrubs in quarter acre plots along 3 miles of Rock Creek and in upland ravines; seeding 42 acres of a grass and forbs for nesting cover; and maintaining 8 acres of annual food plots. Current and future enhancements are being funded by sportsman groups (including the Inland Northwest Wildlife Council and Ducks Unlimited) and grants. Grant proposals are currently underway for additional nesting cover and wetland developments.

All the fishable lakes within the subbasin are managed by WDFW for recreation. WDFW is the enforcement arm of federal laws governing fish and wildlife. Through the Washington State Hydraulics Code (RCW 75.20.100-160) and other applicable regulations, habitat enhancement and protection for wetland, riparian, instream, and other habitat types is administered. WDFW performs limited fish population assessments within subbasin lakes and streams for fish management purposes, and participates in limited water quality monitoring programs. The agency develops sport fishing regulations. Coordination with federal, state, tribal, and local government entities for land use land application and development for protection of fish and wildlife resources, and outreach educational efforts for fish, wildlife, and habitat issues are also among the agency's duties.

WDFW implements the Strategy to Recover Salmon. The strategy is a guide which articulates the mission, goals, and objectives for salmon recovery. The goal is to restore salmon, steelhead, and trout populations to healthy harvestable levels and improve those habitats on which the fish

rely. The early action plan identifies specific activities related to salmon recovery that state agencies did undertake in the 1999-2001 bienniums and formed the first chapter in a long-term implementation plan currently under development. The early actions were driven by the goals and objectives of the Strategy. Many of the expected outcomes from the early actions will directly benefit regional and local recovery efforts.

WDFW implements the Bull Trout and Dolly Varden Management Plan which describes the goal, objectives and strategies to restore and maintain the health and diversity of self-sustaining bull trout stock and their habitats. The Wild Salmonid Policy for Washington is also implemented by WDFW. The Policy describes the direction the WDFW will take to protect and enhance native salmonid fish. The document includes proposed changes in hatchery management, general fish management, habitat management and regulation/enforcement. The Draft Steelhead Management Plan describes the goals, objectives, policies and guidelines to be used to manage the steelhead resource and is followed by WDFW. The Draft Snake River Wild Steelhead Recovery Plan is an assessment of problems associated with the continuing decline in natural steelhead populations within the Snake River basin and includes recommendations to reverse the decline. The WDFW manages fisheries and fish populations to provide diverse recreational opportunity and conserve or enhance indigenous populations.

The Lower Snake River Compensation Plan (LSRCP) is a program funded by Bonneville Power Administration and the US Fish and Wildlife Service through the LSRCP office. The WDFW administers and implements the Washington portion of the program. The program mitigates for the loss of fish populations and recreational opportunities resulting from construction of the four lower Snake River dams. Specific mitigation goals include “in-place” and “in-kind” replacement of adult salmon and steelhead. The WDFW developed implementation plans as part of the LSRCP program and includes the Fishery Management and Evaluation Plan (FMEP). The FMEP is a plan required by National Oceanic and Atmospheric Administration-Fisheries Program for all fisheries in the Snake River and its tributaries in Washington. The Plan is an assessment of fisheries effects on listed anadromous salmonids.

Within the Palouse subbasin there are sixteen lakes that are actively managed by WDFW. Five management strategies are applied to these lakes (Donley 2004): trout only opening day lowland lake; mixed species opening day lowland lakes; selective gear trout only opening day lowland lake; mixed species year round lowland lakes; and warmwater fisheries year round lowland lakes. Additionally, there are lakes with special rules intended for resource protection. The rules for all WDFW lakes within the subbasin are available in the annually published WDFW Fishing Rules pamphlet.

WDFW is working on Ecoregional Conservation Assessments to develop a portfolio of sites to conserve biological diversity. The portfolio will consist of a network of conservation sites which, if properly managed, should conserve most of an ecoregion’s biological diversity in a cost-efficient manner (a minimum set of reserves). The process is data intensive. Data are compiled for both coarse filter (communities) and fine filter (species) targets including: known locations of occurrences, land cover maps, habitat maps, land ownership, and other spatial data. This approach to conservation of resources, through protection of biodiversity, represents a departure from historic species by species management.

2.1.2.2 Idaho Department of Fish and Game

The **Idaho Department of Fish and Game** (IDFG) has statutory responsibility for managing the wildlife populations in the Palouse subbasin in Idaho. IDFG management plans and policies relevant to wildlife management in the Palouse subbasin include the *A Vision for the Future: Idaho Department of Fish and Game Policy Plan, 1990-2005*; *White-tailed Deer, Mule Deer and Elk Management Plan* (1999); the *Black Bear Management Plan 2000-2010* (1998); the *Non-game Plan 1991-1995*; the *Upland Game Plan 1991-1995*; the *Waterfowl Plan 1991-1995*; the *Moose, Sheep and Goat Plan 1991-1995*; the *Mountain Lion Plan 1991-1995* and the *Furbearer Plan 1991-1995*.

The Habitat Improvement Program (HIP) is a program administered by IDFG to create and improve habitat for upland game and waterfowl on public and private land. Initiated in 1987, the program is designed primarily to help private landowners to use their property to the benefit of upland game birds and waterfowl. Landowners are provided with financial assistance for waterfowl nesting structures, wildlife ponds, irrigation systems, fence materials, food plots, and herbaceous, shrub and tree plantings to provide food, and nesting, brood-rearing and winter cover.

In Latah County, from 1987-2003, 4,430 acres had been improved through HIP (3,961 acres for upland birds and 469 acres for waterfowl). Nesting cover, woody cover, food plots, ponds and nest structures were the main practices implemented. The database currently does not allow a breakout by watershed, but it is estimated that 3,410 acres and 249 acres for upland birds and waterfowl, respectively, are in the Idaho portion of the Palouse subbasin.

The IDFG is working with the University of Idaho Landscape Lab to map critical wildlife habitat and vertebrate species richness. This information can be used by the Latah County Planning Commission to identify which habitats are most critical to protect, and where conservation of soil, water and open space resources is most critical, and where and how restoration efforts might be most effective.

In Idaho, there are no artificial fish production facilities in the Idaho portion of the Palouse subbasin. IDFG stocks fish (catchable size rainbow trout) to provide angler recreation and harvest opportunity in the Palouse River near Laird Park, Camp Grizzly and Hordeman pond (within the city limits of Moscow).

IDFG has statutory responsibility for managing the fish populations in the Palouse subbasin in Idaho. IDFG management plans and policies relevant to fisheries management in the Palouse subbasin include the *A Vision for the Future: Idaho Department of Fish and Game Policy Plan, 1990-2005*, and the *Idaho Department of Fish and Game Five Year Fish Management Plan: 2001-2006*.

2.1.2.3 Idaho Conservation Data Center

The **Idaho Conservation Data Center** (CDC) is the central repository for information related to the state's rare plant and animal populations. The operating philosophy of the CDC is to provide accurate, comprehensive, and timely information on Idaho's rare species to decision makers at the earliest stages of land management planning. The staffs of the CDC are involved with rare

plant and natural area surveys and the development of conservation strategies. These activities assist government agencies and private organizations to identify unique areas for protection from disturbance and development. Studies conducted by the CDC have documented rare plant communities or surveyed preserves (see *Assessment*). Recommendations were made to protect the unique areas, including:

- Harvard-Palouse River Bottomland—surveyed one of the last intact native riparian bottomland zones in the Palouse River. Comprised of 226 acres, it contains the federally listed as endangered, water howellia (*Howellia aquatilis*), and possibly Palouse tauschia (*Tauschia tenuissima)*.
- Moscow Mountain Old Growth Cedar—an old growth western cedar grove was found and the surrounding area surveyed. Western cedar up to 10 feet in diameter and over 800 years old occupy the area. The site is owned by the Idaho Department of Lands with a lease to the Nature Conservancy.
- Idler's Rest - owned by the Nature Conservancy, this preserve contains a cedar grove with trees 24 inches in diameter and over 110 feet tall.
- South End Paradise Ridge - documented excellent condition Idaho fescue grassland with an occurrence of a rare plant association and rare plant species.
- Cameron Prairie - found an unplowed north slope "eyebrow" of Palouse Prairie, with high community and floristic diversity. An Idaho fescue-snowberry association and Palouse goldenweed can be found there.

2.1.2.4 Washington Department of Ecology

Interstate waters like the Palouse River and its tributaries are required by the Federal Clean Water Act to meet the receiving state's water quality standards at the state line. Both Idaho and Washington follow similar standards for water quality. The **Washington Department of Ecology** (Ecology), and the Idaho Department of Environmental Quality are the respective state agencies who have adopted water quality standards to protect public health and welfare, enhance the quality of water, and protect biological integrity. TMDLs must be completed on §303(d) listed streams for each parameter that exceeds state water quality standards (§303(d) listed streams are identified and discussed in the *Assessment* section of this document). The purpose of the TMDL is to determine the amount of pollution a waterbody can receive and still support designated uses such as industrial, agriculture, drinking, recreation, and fish habitat.

The only TMDL near completion within the Washington listed §303(d) streams of the subbasin is the North Fork Palouse River TMDL for fecal coliform bacteria, with expected completion in 2004.

2.1.2.5 Idaho Department of Environmental Quality

The **Idaho Department of Environmental Quality** (DEQ) conducts biological and physical habitat surveys of water bodies under the Beneficial Use Reconnaissance Project (BURP); the primary purpose is to determine the support status of designated and existing beneficial uses. DEQ completed BURP surveys on 28 streams in the Palouse subbasin for §303(d) list development and assessment. The DEQ developed a TMDL for the Palouse River Subbasin (Henderson 2003). Cow Creek (Idaho) and South Fork Palouse River are on the §303(d) list with a TMDL scheduled for completion in 2005. Paradise Creek, a major tributary to the South

Fork Palouse River, is the only Idaho stream in the drainage where a TMDL implementation plan has been developed. DEQ developed the Paradise Creek Water Body and Total Maximum Daily Load (DEQ 1997), which was approved by the Environmental Protection Agency (EPA) in 1998. From this, the Paradise Creek WAG, through the Latah SWCD, wrote the Paradise Creek TMDL Implementation Plan (PCWAG 1999).

The DEQ has primacy to administer the Clean Water Act §319 Nonpoint Source Management Program in Idaho. The program is responsible for administering grants awarded annually on a competitive basis and for providing technical support to watershed implementation activities. Funding projects must focus primarily on improving the water quality of lakes, streams, rivers, and aquifers. Projects must be consistent with the Idaho Nonpoint Source Management Plan for which there are seven project sectors: agriculture, urban storm water runoff, transportation, silviculture, mining, ground water activities, and hydro-habitat modification. Projects located in watersheds with an approved TMDL are priorities in this program.

2.1.2.6 Washington Department of Natural Resources

Washington Department of Natural Resources (DNR) administers the state Forest Practices Board rules, which guide logging, road-building, and other work across the state on forest lands. DNR geologists regulate restoration of lands when they are mined, or when sand and gravel is removed. Geologists also monitor oil, gas, and geothermal exploration. DNR is the state's largest on-call fire department who fight fires on private and state-owned forest lands across the state. DNR offers scientific and technical assistance to landowners on agricultural conservation, forest stewardship, and community forestry. DNR is the steward of state natural areas, which are protected for their unique or rare ecosystems or significant natural features.

DNR's **Washington Natural Heritage Program** (WNHP) maintains the most complete information available for Washington's rare plant species and endangered ecosystems (Gamon 2004). The WNHP collects data about existing native ecosystems and species to provide an objective, scientific basis from which to determine protection needs. The program also develops and recommends strategies for protection of the native ecosystems and species most threatened in Washington. Through referrals and field inventories, program staff collects information about the components of natural diversity in Washington. This includes rare plant and animal species and terrestrial and aquatic ecosystems. The Natural Heritage Information System is continually updated with information from field surveys, literature searches, review of museums and herbarium collections, and communication with other scientific and natural resource organizations.

2.1.2.7 Washington State Conservation Commission

The **Washington State Conservation Commission** (WCC) supports conservation districts in Washington, promoting conservation stewardship by funding natural resource projects. WCC provides basic funding to conservation districts as well as protect implementation funds, professional engineering grants, and the Dairy Program grants and loans, which is a program designed to prevent the degradation of surface and ground waters.

The Agriculture, Fish and Wildlife program (AFW) is a collaborative process and involves negotiating changes to the existing NRCS Field Office Technical Guide (FOTG) and the

development of guidelines for Irrigation Districts to be used to enhance, restore, and protect habitat for endangered fish and wildlife species, and address state water quality needs. This two-pronged approach has developed into two processes, one involving agricultural interests and the second one concerns Irrigation Districts across the state.

2.1.2.8 Idaho Soil Conservation Commission

The **Idaho Soil Conservation Commission** (SCC) was created by the Idaho legislature in 1939 and consists of five commission board members appointed to five-year terms by the Idaho Governor. SCC staff provides technical and administrative support to the 51 Conservation Districts in Idaho. SCC has provided funding through direct grants, grants and loans through the Resource Conservation and Rangeland Development Program (RCRDP), and through financial incentives under the Water Quality Program for Agriculture (WQPA), all of which supplement the EPA 319 funds on agricultural lands. The purpose of the RCRDP is to improve those rangeland and riparian areas with the greatest public benefit.

The intent of WQPA is to contribute to protection and enhancement of the quality and value of Idaho's waters by controlling and abating water pollution from agricultural lands. The program provides financial assistance to Soil Conservation Districts who conduct water quality planning studies and implement water quality projects.

The SCC administers the Natural Resources Conservation Income Tax Credit. Landowners are eligible for tax credits for conservation practices that address at least one of four categories. These include threatened and endangered species; TMDL; riparian fencing; or fish barrier removal. Special emphasis is placed on water quality improvement and rare species conservation.

The SCC also administers the Idaho Agricultural Pollution Abatement Plan (AgPlan). The fourth revision of the AgPlan was certified by Governor Dirk Kempthorne in March 2003. The Ag Plan is Idaho's response to Section 208 of the federal Clean Water Act (PL 92-500) and represents the agricultural portion of the State Water Quality Management Plan. The Ag Plan is the implementing action plan for all nonpoint source agricultural sector activities in the state. The implementation strategy contains six actions items, including:

- Identify waters with beneficial uses threatened or impaired by agricultural activities.
- Prioritized waters to determine implementation effort needed.
- Identify management strategies for implementation.
- Define authorities, regulations, and commitments to ensure implementation occurs.
- Implement feedback loop process.
- Communicate evaluation results, conclusions, and recommendations.

2.1.2.9 Idaho Department of Lands

The **Idaho Department of Lands** (IDL) manages several thousand acres of timberland in the Palouse subbasin and administers the Idaho Forest Practices Act. The Ponderosa Area (Deary, Idaho office) administers approximately 80,000 acres of which are in the Palouse subbasin.

IDL also assist private landowners to develop timber management plans that comply with site-specific best management practices in tributary watersheds to protect riparian areas and water quality. The IDL administers the Stewardship Incentives Program (SIP) which provides cost-share dollars to perform forestry practices. The 2002 Farm Bill replaced SIP with the Forest Land Enhancement Program (FLEP) which now assists in implementing the state's Stewardship Program.

The IDL is also responsible for administering surface mining laws, as well as for administering and enforcing the Idaho Lake Protection Act, which requires permits for work on or above the lake bed and below the ordinary high water mark.

The Idaho Forest Practices Act Title 38, Chapter 13, Idaho Code (FPA), was passed by the state Legislature in 1974 since amended nine times. FPA constitutes the minimum standards for the conduct of forest practices and describe the administrative procedures necessary to implement those standards. The FPA defines forest land as federal, state, and private land growing forest tree species which are, or could be, at maturity, capable of furnishing raw material used in the manufacture of lumber or other forest products. Although the FPA rules apply to activities on federal and private lands within the state of Idaho, the state does not hold management authority over these lands. FPA also sets standards for timber harvest practices in Stream Protection Zones (SPZ) around streams. Harvest practices must retain at least 75% of existing shade, and leave trees are designated by distance from stream, stream width, tree diameter, and number of trees. Class I streams, including lakes, are those used for domestic water supply and/or are important for spawning, rearing or migration of fish. The Class I SPZ is the area encompassed by a slope distance of 75 feet on each side of ordinary high water marks. The Class II SPZ is the area encompassed by a slope distance of 30 feet on each side of ordinary high water marks. Class II streams that do not contribute flow to Class I streams have minimum Stream Protection Zones of 5 feet.

2.1.2.10 Idaho Department of Water Resources

The **Idaho Department of Water Resources** (IDWR) is responsible for enforcing the Stream Channel Protection Act, which requires permits for in-channel work or developments. State agencies, including the DEQ and IDFG, have the opportunity to review and comment on the potential environmental effects of the projects. IDWR also manages Idaho's water rights program. Idaho Code gives the Water Resource Board the authority to hold instream flow water rights for the purpose of maintaining minimum streamflows to protect a variety of instream uses. No minimum streamflows have been established on rivers within the Palouse subbasin to protect fish habitat, recreation, aquatic life, and wildlife habitat.

2.1.2.11 Idaho Department of Transportation

The **Idaho Department of Transportation** (ITD) develops project plans through the State Transportation Improvement Program (STIP) which includes a five-year project implementation phase and a one-year project development phase. Corridor planning is conducted in more urban areas of Idaho in addition to STIP, but has not been implemented as a planning methodology in the Palouse subbasin (ITD District 2). Projects planned for implementation within the next 5 years in the Palouse subbasin by the ITD include:

- Electrical Substation to Smith Creek (north of Potlatch)
- Top of Lewiston Hill to Genesee
- Genesee to Thorn Creek Road
- Thorn Creek Road to Moscow
- Washington Street, 8th to 1st (Moscow)
- Washington stateline to Junction US 95
- Moscow Alternate Route (project development stage)
- Mountainview Road
- A Street to Rodeo Drive (Moscow)
- Latah Trail (Phase I)
- Latah Trail (Phase II)
- Potlatch Railroad Depot
- Potlatch City Hall
- Pedestrian Pathway (Moscow)

2.1.2.12 Idaho Department of Parks and Recreation

The Idaho Department of Parks and Recreation (IDPR) manage state parks and the registration program for snowmobiles, boats and off-highway vehicles. McCrosky State Park is located along the northern boundary of the Palouse subbasin. The 5,300-acre park was given to the state of Idaho in 1955.

2.1.2.13 University of Idaho

The **University of Idaho** (UI) has been directly involved in several activities addressing fish, wildlife and water quality issues through faculty and students within the College of Agricultural and Life Sciences, the College of Natural Resources, and the College of Science. In conjunction with the Paradise Creek TMDL Implementation Plan, the UI has proposed or completed a stormwater pollution prevention plan, a wetland treatment facility, channel realignment and streambank vegetation project, and animal waste biofiltration system. The UI, in partnership with Moscow High School, is engaged in Monitoring Amphibians on the Palouse.

The UI Experimental Forest is a multiple-use, working forest of over 7,000 acres administered by the College of Natural Resources. Activities such as timber, watershed, wildlife and range management, as well as many types of recreation, take place on the forest. Objectives of the forest are to provide students at the university a field laboratory in which to observe and practice what they have learned in the classroom, to provide an area in which to demonstrate to the public the latest forest land management techniques, to provide a land base for research projects conducted by faculty and students of the college. UI Student chapters of professional societies, such as the Wildlife Society, Society of Range Management, and Society of American Foresters, and American Fisheries Society actively participate in surveys, educational outreach and watershed improvement activities.

2.1.2.14 Washington State University

Washington State University (WSU) has been directly involved in several activities addressing fish, wildlife and water quality issues through faculty and students within the College of Agricultural, Human and Natural Resource Sciences and the College of Sciences. The **WSU**

Center for Environmental Education implements programs throughout the region including a Habitat Restoration Volunteer Program, and work with Tribes, conservation districts, watershed councils and other groups throughout the Snake River and mid-Columbia basins to provide watershed planning, assessment and monitoring.

2.1.2.15 Eastern Washington University

Eastern Washington University (EWU), located in Cheney, Washington has been actively involved in addressing fish and water quality issues within the Palouse subbasin. Several studies within the subbasin have included fisheries and water quality evaluations, as well as management recommendations.

2.1.3 At the Federal Level

At the federal level, many agencies are involved in fish and wildlife protection projects within the Palouse subbasin, including:

- USDA Farm Services Administration and Natural Resources Conservation Service
- USDA Forest Service
- US Fish and Wildlife Service
- US Geological Survey
- US Environmental Protection Agency
- US Army Corps of Engineers
- NOAA
- USDI Bureau of Land Management

2.1.3.1 United States Department of Agriculture Farm Services Agency and Natural Resources Conservation Service

USDA **Farm Services Administration** (FSA) and the **Natural Resources Conservation Service** (NRCS) administer and implement the federal Conservation Reserve Program (CRP) and Continuous Conservation Reserve Program (CCRP). The enrollment of agricultural land with a previous cropping history into CRP has removed highly erodable land from commodity production. The land is converted into herbaceous or woody vegetation to reduce soil and water erosion. CRP contracts are for a minimum of 10 years and have resulted in an increase in wildlife habitat. Practices that occur under CRP include planting vegetative cover, such as introduced or native grasses, wildlife cover plantings, conifers, filter strips, grassed waterways, riparian forest buffers, and field windbreaks.

The CCRP focuses on the improvement of water quality and riparian areas. Practices include shallow water areas, riparian forest buffers, filter strips, grassed waterways and field windbreaks. Enrollment for these practices is not limited to highly erodable land, as is required for the CRP, and carries a longer contract period (10-15 years), higher installation reimbursement rate, and higher annual annuity rate.

The amount of CRP and CCRP acreage within the Palouse subbasin is not available. The FSA database is tabulated by county, and does not delineate between watersheds. Therefore, some of the reported total acreage is outside of the Palouse subbasin. Currently there are over 140,000

acres enrolled in CRP and CCRP in Whitman County (representing only 10% of the cropland in Whitman County) and 45,000 acres enrolled in CRP and CCRP in Latah County.

Conservation Reserve Enhancement Program (CREP) is a joint partnership between USDA and the State of Washington, and is administered by FSA and Washington State Conservation Commission. The CREP program started in 1998 to provide incentives to restore and improve salmon and steelhead habitat on private land. The program is voluntary for landowners, the land enrolled in CREP is removed from production and grazing under 10 or 15 year contracts. In return, landowners plant trees and shrubs to stabilize the stream bank and to provide a number of additional ecological functions. Landowners receive annual rent, incentive and maintenance payments and cost share for practice installations. Payments made by FSA and WCC, can result in no cost to the landowner for participation. The Palouse River below Palouse River Falls is CREP eligible. Currently, no contracts are in place.

Wildlife Habitat Incentive Program (WHIP), administered and implemented by NRCS, provides financial incentives to develop wildlife habitat on private lands. Participants agree to implement a wildlife habitat development plan and NRCS agrees to provide cost-share assistance for the initial implementation of wildlife habitat development practices. This agreement generally lasts a minimum of 10 years from the date that the contract is signed. WHIP projects within the subbasin include acres in Whitman County and Latah County.

The NRCS administered and implemented Environmental Quality Incentives Program (EQIP) provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers to comply with federal, state, and tribal environmental laws, and encourages environmental enhancement. The purposes of the program are achieved through the implementation of a conservation plan that includes structural, vegetative, and land management practices on eligible land. Five- to ten-year contracts are made with eligible producers. Cost-share payments may be made to implement one or more eligible structural or vegetative practices, such as animal waste management facilities, terraces, filter strips, tree planting, and permanent wildlife habitat. Incentive payments can be made to implement one or more land management practices, such as nutrient management, pest management, and grazing land management. The amount of acres involved EQIP contracts within the subbasin in Whitman County and Latah County is not available.

Another NRCS administered and implemented program is the Wetlands Reserve Program (WRP). This voluntary program is designed to restore wetlands. Participating landowners can establish conservation easements of either permanent or 30-year duration, or can enter into restoration cost-share agreements where no easement is involved. In exchange for establishing a permanent easement, the landowner receives payment up to the agricultural value of the land and 100 percent of the restoration costs for restoring the wetlands. The 30-year easement payment is 75 percent of what would be provided for a permanent easement on the same site and 75 percent of the restoration cost. The voluntary agreements are for minimum 10-year durations and provide for 75 percent of the cost of restoring the involved wetlands. Easements and restoration cost-share agreements establish wetland protection and restoration as the primary land use for the duration of the easement or agreement. WRP projects within the subbasin include approximately acres in Whitman County and Latah County.

2.1.3.2 United States Department of Agriculture Forest Service

USDA Forest Service (USFS) Palouse Ranger District is located in Potlatch, Idaho and administers programs within the Clearwater National Forest (CNF) and Idaho Panhandle National Forest (approximately 54,000 acres of national forest are included in the Idaho portion of the subbasin). The 1987 CNF Forest Plan is the primary document guiding federal forest management in the subbasin. The CNF Forest Plan is currently under revision, with expected completion by 2007.

PACFISH (anadromous fish) and the Inland Native Fish Strategy (resident fish) interim strategies are measures designed to protect habitats and populations of fish. PACFISH and InFish were developed as interim approaches to protect populations and habitats of fish species of concern on lands managed by the USFS and the Bureau of Land Management.

PACFISH was adopted as an amendment to the CNF Forest Plans in 1995. The strategies restrict actions in Riparian Habitat Conservation Areas (RHCA), most notably by defining the standard width of the four categories of RHCAs. The categories include fish-bearing streams, permanently flowing non-fish bearing streams, ponds, lakes, and wetlands greater than one acre and intermittent streams, wetlands less than one acre, landslides, and landslide-prone areas. Deviation from the defined RHCA width requires consultation with National Oceanic and Atmospheric Administration Fisheries and United States Fish and Wildlife Service. Analysis to determine the effectiveness of PACFISH and InFish has not been done or the results of that analysis are not widely known (Ecovista 2003).

In 1996, the Inland Native Fish Strategy (InFish) strategy was adopted by the USDA Forest Service CNF to protect resident fish species. Watershed monitoring programs have been developed with regularly scheduled sampling activities conducted as budgets allow. Habitat conditions and fish populations have been surveyed in almost 60 miles of stream on the CNF since 1990. Eight water temperature, one sediment, and ten channel morphology monitoring stations have been established in the Palouse River drainage on national forest lands. In addition, three habitat and biological assessment stations are in place in Palouse River tributaries to monitor land use effects. Riparian and water quality mitigation measures such as road obliteration to reduce sediment (approximately 19 miles) have accelerated recovery of the Palouse River and many of its tributaries. The CNF conducted an Ecological Assessment of the Upper Palouse Subbasin in 1998 that identified watershed improvement projects and suggested revisions to the Forest Plan that will also help watershed recovery.

The CNF develops annual monitoring and evaluation plans. The primary goal of monitoring is to determine if land management activities are meeting Forest Plan standards and objectives. The CNF divides monitoring strategies into two major areas, including on-site and instream monitoring. On-site monitoring includes baseline, implementation, BMP effectiveness and PACFISH and InFish compliance. Instream monitoring addresses the relationship between land disturbance activities and water quality and fisheries habitat. It includes baseline, effectiveness, and validation monitoring.

2.1.3.3 United States Department of Interior Fish and Wildlife Service

The **United States Department of Interior Fish and Wildlife Service** (USFWS) administers the federal Endangered Species Act (ESA). The USFWS also administers the Partners for Wildlife Program. The purpose of the program is to restore and enhance fish and wildlife habitat on private lands through partnerships. A special emphasis is placed on the restoration of riparian areas, wetlands and native plant communities, especially if they benefit rare plant and animal species. Cost share partners can include WHIP, EQIP, WRP and state and private programs.

The Private Stewardship Grant Program (PSGP) is administered by the USFWS, and provides grants and other assistance on a competitive basis to individuals and groups engaged in private, voluntary conservation efforts that benefit species listed or proposed as endangered or threatened under the Endangered Species Act of 1973, as amended (Act), candidate species, or other at-risk species on private lands within the United States. Eligible projects include those by landowners and their partners who need technical and financial assistance to improve habitat or implement other activities on private lands. Under the PSGP, privately owned means land that is not owned by a governmental entity. The PSGP supports on-the-ground conservation actions as opposed to planning or research activities, and we will not fund the acquisition of real property either through fee title or easements.

The USFWS administers the Lower Snake River Fish and Wildlife Compensation Plan (LSRCP). This plan was authorized by the Water Resources Development Act of 1976, Public Law 94-587 to mitigate and compensate for fish and wildlife losses caused by the construction and operation of the four lower Snake River dams and navigation lock projects. The fishery resource compensation plan identified the need to replace adult salmon and steelhead and resident trout fishing opportunities. The size of the anadromous program was based on estimates of salmon and steelhead adult returns to the Snake River basin prior to the construction of the four lower Snake River dams. A summary document describing the LSRCP and its role in individual subbasins has been compiled and submitted under separate cover to the Independent Science Review Panel and the Columbia Basin Fish and Wildlife Authority.

The USFWS also administers the 15,656 acre Turnbull National Wildlife Refuge near the Cheney, Washington on the northern edge of the Palouse subbasin. Refuge management is guided by various federal laws and executive orders, service policies, and international treaties, the mission and goals of the National Wildlife Refuge System, and the designated purpose of the refuge unit as described in establishing legislation, executive orders, or other documents establishing, authorizing, or expanding a refuge. Refuge managers evaluate compatibility of all public, economic, and military uses proposed or occurring on the refuge. No refuge use may be allowed or continued unless it is determined to be compatible.

Interim mission and goals were developed through a Comprehensive Conservation Plan development process initiated in the late 1990's. Once the Comprehensive Conservation Plan is approved they will be adopted. The mission of the Turnbull National Wildlife Refuge is to restore and maintain ecosystem processes that provide for a natural diversity of flora and fauna native to the wetland, steppe, and ponderosa pine communities of eastern Washington. Accompanying goals include 1) Provide habitat conditions essential to the conservation of birds and other wildlife within a variety of wetland complexes; 2) Protect and restore water quality and

quantity sufficient to maintain native wetland flora and fauna; 3) Restore refuge forest to a natural distribution of stand structural and successional stages to benefit forest dependent wildlife; 4) Protect and restore the natural distribution and diversity of grassland and shrub steppe habitats to benefit wildlife; 5) Support the conservation of threatened and endangered species in their natural ecosystems; 6) Support the maintenance of biologically effective landscape linkages and corridors between the Refuge and other intact areas of vegetation zones representative of this region; and 7) Provide quality environmental education, interpretation, research and wildlife-oriented recreation compatible with the refuge purposes and mission.

2.1.3.4 United States Geological Survey

The **Idaho Gap Analysis Program** of **United States Geological Survey** (USGS) **Idaho GAP Analysis Lab** has summarized the Biodiversity and Land Use History of the Palouse Bioregion and is the repository for geographic information system (GIS) data for the Idaho portion of the Palouse Subbasin. It is actively working with Latah County to protect critical wildlife, plant, water and open space resources through land use planning and zoning. The main objectives of GAP are to map current land cover, predict the distribution of vertebrate species, document the representation of vertebrate species and land cover types in areas managed for the long-term maintenance of biodiversity, and provide this data to the public. This is accomplished through the cooperation of many state and federal organizations.

2.1.3.5 United States Protection Agency

The **United States Environmental Protection Agency** (EPA) administers the federal 1972 Clean Water Act. Section 303(d) of the Clean Water Act requires states to develop a list of water bodies that do not meet water quality standards. This section further requires TMDLs be prepared for listed waters. Both the list and the TMDLs are subject to EPA approval. The federal Clean Water Act Section 319 grant program is an EPA funding program for water quality restoration work. In Idaho, the DEQ is the lead agency for implementation of the §319 program. DEQ administers the Idaho Nonpoint Source Management Program and insures the §319 requirements of the Clean Water Act are met.

2.1.3.6 United States Army Corps of Engineers

The **United States Army Corps of Engineers** (USACE) is the agency responsible for issuing the federal Clean Water Act Section 404 permit for the placement of dredged or fill material into waters of the United States, including wetlands. This includes excavation activities that result in the discharge of dredged material that destroy or degrade waters of the United States. Under Section 401 of this act, the Idaho DEQ is required to issue a water quality certification for these permitted projects. The water quality certification sets conditions to the permit to assure that the activity will comply with state water quality standards. USACE permits are also required under Section 10 of the Rivers and Harbors Act of 1899 for work or structures waterward of the ordinary high water mark of or affecting, navigable waters of the United States.

2.1.3.7 National Oceanic and Atmospheric Administration

The **National Oceanic and Atmospheric Administration** (NOAA) Restoration Center's Community-Based Restoration Program's objective is to bring together citizen groups, public and nonprofit organizations, industry, corporations and businesses, youth conservation corps, students, landowners, and local government, state and federal agencies to restore fishery habitat across Coastal America. The program partners with national and regional organizations to solicit and co-fund proposals for locally-driven, grass roots restoration projects that address important habitat issues within communities. No projects within the Palouse subbasin have been previously funded by this program.

NOAA Fisheries has recently developed several documents and initiatives for the recovery of Endangered Species Act listed Snake River steelhead, Chinook and sockeye. The Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) and the Basinwide Salmon Recovery Strategy issued at the end of 2000 contain actions and strategies for habitat restoration and protection for the Columbia River Basin. Action agencies are identified that will lead fast-start efforts in specific aspects of restoration on nonfederal lands. Federal land management will be implemented by current programs that protect important aquatic habitats (PACFISH, ICBEMP). Actions within the FCRPS BiOp are intended to be consistent with or complement the Northwest Power and Conservation Council's amended Fish and Wildlife Program and state and local watershed planning efforts.

NOAA Fisheries initiated recovery planning with the establishment of a Technical Recovery Team for the Interior Columbia, which includes Snake River stocks. The Technical Recovery Team will identify delisting criteria and viability criteria for populations within subbasins, identify factors that limit recovery, and identify early actions for recovery among other things. A stakeholder-based forum will develop a formal recovery plan from these products.

Under the 2000 FCRPS BiOp, NOAA Fisheries expects the Bonneville Power Administration, the Corps of Engineers, and the Bureau of Reclamation to meet their ESA obligations in part through offsite mitigation. Subbasin plans will become local recovery plans or will become a substantial component of NOAA Fisheries recovery planning. The BiOp relies on subbasin plans to identify and prioritize specific actions needed to recover listed salmon and steelhead in tributary habitats. NOAA Fisheries expects subbasin plans to include implementation of the BiOp's offsite mitigation actions in the Reasonable and Prudent Alternative (RPA). Specifically, subbasin planning should provide for RPA habitat actions 149 through 163 and harvest and hatchery RPA actions 164 through 178 that pertain to and require local planning and management. NOAA Fisheries also expects subbasin plans to incorporate the research, monitoring, and effective strategies and actions, particularly those described in RPA action 179, 180, and 183 (see Appendix F for a summary of RPAs pertinent to the Palouse subbasin).

The USFWS issued a biological opinion in December, 2000 to the U.S. Army Corps of Engineers, Bonneville Power Administration, and the Bureau of Reclamation on the effects of the FCRPS on listed species and their critical habitat. The Columbia River Fish Management Plan (CRFMP) is an agreement resulting from the U.S. District Court case of US v. Oregon (Case No. 68-513). This agreement between federal agencies, Indian tribes and state agencies (except Idaho) set guidelines for the management, harvest, hatchery production, and rebuilding of Columbia River Basin salmonid stocks. Appropriate harvest levels and methods were

established for various levels of attainment of interim population goals for spring Chinook, summer Chinook, sockeye, fall Chinook, summer steelhead, and Coho salmon. The plan guaranteed the treaty Indian fisheries a minimum of 10,000 spring and summer Chinook annually, not dependent on run size. The original CRFMP terminated in 1998; it is currently being renegotiated, with completion anticipated by December 2003. In the interim, seasonal fish management plans have been drafted and agreed to by relevant parties.

2.1.3.8 United States Department of Interior Bureau of Land Management

The **Bureau of Land Management** (BLM) Spokane District office manages BLM public lands in the Washington portion of the Palouse subbasin which includes a range of habitats found on the public lands such as the central Columbia Basin sagebrush regime, many riparian zones, and the coniferous forest and sub-alpine areas of northeast Washington. The BLM manages other public lands cooperatively with WDFW. Many private groups and organizations provide financial support for habitat restoration efforts, project construction, scientific inventory and monitoring studies. These include national organizations, state and regional entities, and local groups and agencies (including the INWC). Parcels managed and monitored by BLM within the subbasin include the Packer Creek and South Sprague Parcels, with results published as, "Migratory Landbird Species Use of Riparian and Shrub Steppe Systems on 2 Sites in Eastern Washington" (Vial and Whitney 2002). BLM's Escure Ranch Parcel includes wildlife management and monitoring such as inventories of bird species across the subbasin including observations in the Escure Management Area (Vial and Whitney 2001).