

4. Inventory of Existing Activities

4.1 Existing Legal Protection

4.1.1 Laws/Regulatory Programs

Federally-Mandated Laws and Regulatory Programs

Listed below are a number of federally-mandated laws and regulatory programs that protect fish, wildlife and water quality in the John Day Subbasin.

Endangered Species Act (ESA), 1973: The USFWS and NOAA Fisheries work together to administer the Endangered Species Act. USFWS has responsibility for plant, wildlife and freshwater fish species that warrant listing. NOAA Fisheries has responsibility for anadromous fish species warranting listing. Threatened and endangered plants and animals under the ESA are protected from being jeopardized by federal activities. In addition, the ESA includes the following provisions: restrictions on take and trafficking, requirements for responsible agencies to develop and implement recovery plans for listed species under U.S. jurisdiction, authorization to seek land purchases or exchanges for important habitat, and federal aid to state and commonwealth conservation departments with cooperative endangered species agreements. (<http://endangered.fws.gov/>)

Four sections of the ESA that affect management in the John Day Subbasin are:

1. ESA Section 7 consultations on federal actions: Section 7 of the ESA directs federal agencies to use their legal authorities to conserve threatened and endangered species and, in consultation with the USFWS, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. Section 7 applies to management of federal lands as well as other federal actions that may affect listed species, such as approval of private activities through the issuance of federal permits.

There have been a number of consultations with both NOAA Fisheries and the USFWS in the John Day Subbasin. Table 60 lists the Biological Opinions that have been issued by NOAA Fisheries since 1999 as a result of consultations in the John Day Subbasin (<http://www.nwr.noaa.gov/1publcat/bo/2004/2004.htm>). More information on the listed biological opinions can be obtained from NOAA Fisheries.

Table 60. Biological opinions issued by NOAA Fisheries in the John Day Subbasin since 1999.

Biological Opinion	Date
Biological Opinion on Ongoing and Proposed Bureau of Land Management Activities Affecting Middle Columbia River Steelhead, Central Oregon Resource Area, John Day River Basin, Oregon	Nov. 30, 1999
John Day River (Coles) Bridge Repair Project	April 13, 2000

Biological Opinion	Date
Effects of the Proposed Murderers Creek Road Reconstruction and Resurfacing Project on Middle Columbia River Steelhead, Malheur National Forest, Grant County, Oregon	May 12, 2000
Antone Junction - John Day River Project and the Antone Junction Quarry (Fort Creek) Culvert Replacement	June 20, 2000
Effects of Proposed Harper Streambank Stabilization Project in Rock Creek watershed on Middle Columbia River Steelhead, John Day River Basin, OR	Sept. 11, 2000
Effects of Livestock Grazing Allotments Administered by the Bureau of Land Management in the John Day River Basin, OR for 2000 and 2001	January 17, 2001
Main Street Left Turn Refuge Project, John Day, Grant County, OR	Feb. 23, 2001
Amendment of Terms and Conditions in January 2, 2001 (Deschutes) and January 17, 2001 (John Day) Biological Opinions on the Effects of Livestock Grazing Allotments Administered by the Prineville District of the Bureau of Land Management on Middle Columbia River Steelhead and their Designated Critical Habitat	March 15, 2001
Amendment of Terms and Conditions in January 2, 2001 (Deschutes) and January 17, 2001 (John Day) Biological Opinions on the Effects of Livestock Grazing Allotments Administered by the Prineville District of the Bureau of Land Management on Middle Columbia River Steelhead and their Designated Critical Habitat	March 15, 2001
Corps of Engineers' Programmatic Consultation for Permit Issuance for 15 Categories of Activities in Oregon	March 21, 2001
Impacts of the Interim Management Agreement for upriver spring chinook, summer chinook, and sockeye on Salmon and Steelhead Listed Under the Endangered Species Act	March 21, 2001
Reinitiation of Endangered Species Act Formal Section 7 Consultation, and Magnuson-Stevens Act Essential Fish Habitat Consultation for Antone Junction - John Day River Project, Wheeler County and Grant County, Oregon	April 16, 2001
Effects of Malheur National Forest, Blue Mountain Ranger District, Livestock Grazing Allotments for FY 2001: Dixie, Mt. Vernon-John Day-Beech Creek, and Murderers Creek, Blue Mountain, Long Creek, and Upper Middle Fork	April 30, 2001
Consultation on Reissuance of the Corps of Engineers' Regional General Permit for Stream Restoration Activities in Oregon Involving Large Wood and Boulder Placement (Corps No. 2000-0001)	June 25, 2001
Impacts of Treaty Indian and Non-Indian Fall Season Fisheries in the Columbia River Basin in Year 2001	August 10, 2001
John Day River (Coles) Bridge #7696 Emergency Repair, Grant County, Oregon (Corps No. 1999-01050)	August 16, 2001
Programmatic Ongoing and Proposed Actions Affecting Middle Columbia River Steelhead on the Deschutes and Ochoco National Forests and Prineville District BLM in the Deschutes River Basin, and the Portion of the Ochoco National Forest in the John Day River Basin	October 24, 2001
Consultation on 15 Research Permits affecting Middle Columbia River Steelhead	Feb. 18, 2002
Middle Fork John Day (Ritter) Bridge Project, Grant County, Oregon	April 9, 2002
Effects of the Rimrock Ecosystem Restoration Projects, Wheeler, Morrow, and Grant County, Oregon	April 16, 2002
Crawford Vegetation Management Project, Grant County, Oregon	April 16, 2002
Rock Creek Bank Stabilization Project, John Day River Basin, Crook County, Oregon	April 22, 2002
Desolation Creek Watershed Demo Projects, Grant County, Oregon	May 29, 2002
Bear Creek Irrigation Siphon Project, Grant County, Oregon	May 29, 2002
Cable Creek Sidewall Replacement Project, Umatilla County, Oregon	June 12, 2002
John Day River Watershed Restoration Program: 2002 Watershed Restoration Projects,	July 3, 2002

Biological Opinion	Date
John Day River Basin, Grant, Oregon	
Minerals Activities on Lands Administered by the Umatilla and Wallowa-Whitman National Forests in the North Fork John Day River Subbasin, Oregon, FY2002-2007	July 25, 2002
Impacts of Treaty Indian and Non-Indian Fall Season Fisheries in the Columbia River Basin in Year 2002	August 15, 2002
Effects of Malheur National Forest Grazing Program for FY2002	August 26, 2002
Badger Creek Project, John Day River Basin, Wheeler County, Oregon	August 27, 2002
Strawberry Creek Geographic Priority Area 2002-2006 Watershed Restoration Projects, Upper John Day Subbasin, Grant County, Oregon (29 projects)	October 1, 2002
Effects of Livestock Grazing Allotments Administered by the Bureau of Land Management in the John Day River Basin, Oregon for 2002 and 2003	October 21, 2002
Research action regarding Pacific lamprey (<i>Lampetra tridentata</i>) proposed by the Confederated Tribes of the Umatilla Indian Reservation of Oregon (CTUIR)	November 15, 2002
Tower Fire Recovery Projects, Umatilla National Forest, Grant and Umatilla County, Oregon	January 13, 2003
Federal Highway Administrations' Programmatic Consultation for Statewide Drilling, Surveying, and Hydraulic Engineering Activities in Oregon	Feb. 6, 2003
Paulina Ranger District Culvert Replacement and Large Wood Placement Project, John Day River Basin, Wheeler County, Oregon	March 19, 2003
Blue Culvert Projects, Malheur National Forest, Grant County, Oregon	March 21, 2003
Integrated Noxious Weed Management Program for FY2003-2013, Bureau of Land Management Vale District, Union, Wallowa, Grant, and Umatilla Counties, Oregon Amendment, July 11, 2003	May 2, 2003
Emergency Fire Suppression and Burned Area Emergency Rehabilitation Activities and for High-Roberts and Easy Wildland Fires, Malheur National Forest, Grant County, Oregon	June 18, 2003
Programmatic Standard Local Operating Procedures for Endangered Species (SLOPES II) for Certain Regulatory and Operations Activities Carried Out by the Department of Army Permits in Oregon and the North Shore of the Columbia River	July 8, 2003
Amendment: Integrated Noxious Weed Management Program for FY2003-2013, Bureau of Land Management Vale District, Union, Wallowa, Grant, and Umatilla Counties, Oregon	July 11, 2003
Supplemental Biological Opinion to the 2001 U.S. v. Oregon "Interim Management Agreement for Upriver Spring Chinook, Summer Chinook, and Sockeye on Salmon and Steelhead Listed under the Endangered Species Act," Covering Winter, Spring, and Summer Season Treaty Indian and Non-Indian Columbia River Basin Fisheries for 2003-2005	July 11, 2003
Effects of the Malheur National Forest Grazing Program for CY2003, Middle Fork and Upper John Day River Subbasins, Oregon	July 14, 2003
John Day Watershed Restoration Projects 2003, Upper John Day Subbasin, Grant County, Oregon	July 25, 2003
Impacts of Treaty Indian and Non-Indian Fall Season Fisheries in the Columbia River Basin in Year 2003, on Listed Salmon and Steelhead	July 30, 2003
Programmatic for the Bonneville Power Administration Habitat Improvement Program (HIP) in the Columbia River Basin	August 1, 2003
Proposed Pine Creek Fish Passage Restoration Project in the Lower John Day River Subbasin, Grant County, Oregon	August 25, 2003
Effects of the USDA Forest Service and USDI Bureau of Land Management Ongoing and Proposed Actions for FY2003 to FY2013 in the North Fork John Day River Subbasin, Oregon	August 26, 2003
U.S. Forest Service Programmatic Culvert Replacement Activities in Washington and Eastern Oregon	Sept. 2, 2003
Proposed Bridge Creek Fish Passage and Irrigation Improvement Projects, West Fork Bridge Creek, Lower John Day River Subbasin, Wheeler County, Oregon	Nov. 10, 2003

Biological Opinion	Date
Emergency Fire Suppression Activities for the Bull Springs 2 Fire, Umatilla National Forest, Grant County, Oregon	Nov. 20, 2003
Little Canyon Mountain Timber Sale and Stewardship Project, Prineville District, John Day River Subbasin, Grant County, Oregon	January 2, 2004

Information on consultations that have been conducted by the USFWS can be obtained from the USFWS website: <http://r1consult.fws.gov/Consultations.nsf/Default?OpenForm>.

2. ESA Section 9 regulations regarding “take” during non-federal actions: Protection is authorized by Section 9 of the ESA, which makes it illegal to take, import, export, or engage in interstate or international commerce in listed animals except by permit for certain conservation purposes. It is unlawful to collect or maliciously damage any endangered plant on lands under federal jurisdiction. Removing or damaging listed plants on state and private lands in deliberate violation of state law, or in the course of violating a state criminal trespass law, also is illegal under the ESA.
3. 4(d) Rule: ESA Section 4(d) rules provide protections for species listed as "threatened." These 4(d) rules put take prohibitions in place *except* for specific categories of activities that contribute to conserving listed salmon and steelhead. (<http://nwr.noaa.gov/1publcat/bo/2004/2004.htm>)
4. Habitat Conservation Plans (HCP): ESA Section 10(a)(1)B provides an opportunity for private landowners, corporations, state and local governments and other non-federal landowners who wish to conduct activities that might incidentally harm (or “take”) a listed species to obtain an incidental take permit from the responsible agency (USFWS or NOAA Fisheries). To obtain a permit, the applicant must develop an HCP designed to offset any harmful effects the proposed activity might have on the species. Landowners can contact their local USFWS and NOAA Fisheries office to determine whether a contemplated activity is likely to require an incidental take permit. To date there have been no HCPs developed in the John Day Subbasin.

Clean Water Act, 1972: The Clean Water Act (CWA) is the cornerstone of surface water quality in the United States. The Act does not deal directly with ground water or with water quality issues. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce pollutant discharges into waterways, finance municipal wastewater treatment facilities and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical and biological integrity of the nation’s waters so that they can support the protection and propagation of fish, shellfish, and wildlife and recreation on the water. (<http://www.epa.gov/watertrain/cwa/>)

The state of Oregon has a number of regulations in place to meet the requirements of the Clean Water Act.

1. CWA programs administered by the Oregon Department of Agriculture (ODA):
 - A. Confined Animal Feeding Operations (CAFO) regulations: The National Pollutant Discharge Elimination System (NPDES) regulates the discharge of

pollutants from point sources to waters of the United States. Concentrated Animal Feeding Operations (CAFOs) are point sources, as defined by the Clean Water Act. The ODA CAFO permit program began in the early 1980s to prevent CAFO wastes from contaminating groundwater and surface water. CAFOs are generally defined as the concentrated confined feeding or holding of animals in buildings, pens or lots where the surface is prepared to support animals in wet weather or where there are wastewater treatment facilities (e.g., manure lagoons). CAFO wastes include but are not limited to manure, silage pit drainage, wash down waters, contaminated runoff, milk wastewater, and bulk tank wastewater. The ODA's Natural Resource Division provides assistance to help livestock and other animal agricultural producers comply with water quality regulations. (<http://oda.state.or.us/nrd/cafo/prg.html>).

- B. Senate Bill 1010 (ORS 568.900-568.933) (Agricultural Water Quality Management Act [AgWQM]), 1993: In 1993 the Oregon Legislature passed Senate Bill 1010 - the Agricultural Water Quality Management Act - which provides for the ODA to be the lead agency working with agriculture to address water pollution. The AgWQM Act directs ODA to work with farmers and ranchers to develop Agricultural Water Quality Management Area Plans (AgWQMAP) and rules for watersheds.

Listed below are the AgWQMAPs that have been developed in the John Day subbasin. (http://www.oda.state.or.us/nrd/water_quality/manprac.html)

- i. North and Middle Forks John Day AgWQMAP, 2002
 - ii. Upper Mainstem and South Fork John Day River AgWQMAP, 2003
 - iii. Middle John Day AgWQMAP, 2003
 - iv. Proposed Lower John Day AgWQMAP, 2004
2. CWA Programs administered by the Oregon Department of Environmental Quality (ODEQ):
- A. In the John Day Subbasin the federal Clean Water Act is implemented largely through the state's preparation of water quality standards, Total Maximum Daily Loads (TMDLs) and TMDL implementation plans. Through monitoring in the subbasin, water quality concerns have been identified for these constituents: temperature, bacteria, sedimentation, biologic criteria (aquatic invertebrates), pH and dissolved oxygen. The ODEQ is working with stakeholders to prepare numeric targets for maximum allowable levels of "pollutants" (TMDLs) in streams and rivers. These goals are scheduled for completion in 2006.

The implementation of this process occurs through management planning (typically refinements of existing plans or programs), such as the Agricultural Water Quality Management Area Plans (SB 1010), the Oregon Forest Practices Act, county comprehensive plans, and federal policies on BLM and Forest Service lands. These plans vary from voluntary to proscriptive (though all should have reasonable assurance of implementation). Any oversight that occurs is

normally done through the local, state or federal land use authority.
(<http://www.deq.state.or.us>)

- B. Water Quality Limited Streams (303(d) Lists): DEQ is required by the federal Clean Water Act to maintain a list of stream segments that do not meet water quality standards. The 303(d) list takes its name from the section of the Clean Water Act that makes the requirement. The U.S. Environmental Protection Agency approved DEQ's 2002 303(d) list on March 24, 2003. The list can be found on the Oregon Department of Environmental Quality webpage <http://www.deq.state.or.us/wq/303dlist>. Streams in the John Day Subbasin that are on the 303(d) list are listed in Section 3.1.2 of this document.
3. CWA programs administered by the Oregon Division of State Lands (DSL): Section 404 of the Clean Water Act established a permit program to be administered by the U.S. Army Corps of Engineers to regulate the non-point source discharges of dredged or fill material into waters of the United States. Permits are required for projects involving 50 cubic yards or more of removal or fill material in wetlands and streams. Permits are also required for any volume of removal or fill in a stream designated as essential salmon habitat or the bed and banks of scenic waterways. Permit applications are reviewed by ODFW and may be modified or denied based on project impacts to fish. Projects in habitat where ESA-listed fish are present require formal consultation with NOAA Fisheries to insure compliance with the Endangered Species Act. The removal-fill law requires a permit for most removal and fill activities in areas designated as essential indigenous salmonid habitat (map available at <http://statelands.dsl.state.or.us>). The vast majority of the John Day River is designated as having essential salmonid habitat. Joint application forms for Division of State Lands – Army Corps of Engineers removal-fill permits can be obtained from the Oregon Division of State Lands. (<http://statelands.dsl.state.or.us>)

Migratory Bird Treaty Act, 1989: The Migratory Bird Treaty Act is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to both countries. The act decreed that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected.

National Forest Management Act, 1974: The National Forest Management Act reorganized, expanded and otherwise amended the Forest and Rangeland Renewable Resources Planning Act of 1974, which called for the management of renewable resources on national forest lands. The National Forest Management Act requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. This is the primary statute governing the administration of national forests. Portions of the Malheur, Umatilla, Wallowa-Whitman, and Ochoco national forests are in the John Day Subbasin.

Federal Land Policy and Management Act, 1976: The Federal Land Policy and Management Act of 1976 (FLPMA) is the most comprehensive law that dictates the BLM's policies, procedures and management actions. Congress recognized the value of the remaining public lands by declaring that these lands would remain in public ownership. Congress also utilized the term "multiple use" management, defined as "management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people."

Wilderness Act, 1964: In 1964 Congress passed the Wilderness Act to secure for present and future generations of American people the benefits of an enduring resource of wilderness. They established a National Wilderness Preservation System to be composed of federally-owned areas designated by Congress as "wilderness areas" and administered for the use and enjoyment of the American people in such manner that will leave them unimpaired for future use and enjoyment as wilderness. No federal lands shall be designated as "wilderness areas" except as provided for in this Act or by a subsequent Act. Wilderness areas within the John Day Subbasin are addressed in Section 4.1.3.

Federal Wild and Scenic Rivers Act, 1968: Portions of the lower mainstem, North Fork and the South Fork of the John Day River are designated as Wild and Scenic Rivers. The Wild and Scenic Rivers Act identified certain rivers of the nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values. The act directed that these rivers shall be preserved in free-flowing condition, and they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Wild and Scenic Rivers Act does not generally lock up a river like a wilderness designation. The idea is not to halt development and use of a river; instead, the goal is to preserve the character of a river. Uses compatible with the management goals of a particular river are allowed, with change expected to happen. Developments not damaging to the outstanding resources of a designated river, or curtailing its free flow, are usually allowed. Wild and Scenic rivers receive one of three designations, or a combination thereof:

1. Wild – Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shoreline essentially primitive and waters unpolluted.
2. Scenic – Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
3. Recreational – Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

State-Mandated Regulatory Programs

Listed below are a number of state-mandated laws and regulatory programs that protect fish, wildlife and water quality in the John Day Subbasin.

Oregon Department of Fish and Wildlife Regulations and Policies:

1. **Fish Management and Hatchery Operation, 1992 (OAR Chapter 635, Division 007):**

This Division in the Oregon Administrative Rules addresses fish management and hatchery operations. This division outlines policies that help direct the ODFW on management in the John Day Subbasin. Some of the key policies are listed below:

A. **Native Fish Conservation Policy (OAR Chapter 635, Division 007-0502):** The intent of the Native Fish Conservation Policy is to provide a basis for managing hatcheries, fisheries, habitat, predators, competitors, and pathogens in balance with sustainable production of naturally produced native fish. The policy has three areas of emphasis. The first is defensive to ensure the avoidance of serious depletion of native fish. The second is more proactive to restore and maintain native fish at levels providing ecological and societal benefits. The third ensures that, consistent with native fish conservation, opportunities for fisheries and other societal resource uses are not unnecessarily constrained. This approach will allow Oregon to play a vital role in the recovery of ESA-listed species and the prevention of future listings. The John Day River currently is exclusively native fish as no hatchery fish have been introduced into the river system. (ODFW, Native Fish Conservation Policy, November 8, 2002 and revised September 12, 2003)

B. **Fish Hatchery Management Policy (OAR Chapter 635, Division 007-0542):**

The ODFW has developed a Fish Hatchery Management Policy. The purpose of the policy is three fold:

- i. The Hatchery Management Policy complements and supports the Native Fish Conservation Policy OAR 635-007-0502 through 635-007-0506 and will be implemented through conservation plans developed for individual species management units, hatchery program management plans, or other formal agreements with management partners. The Hatchery Management Policy provides a foundation for the management and reform of hatcheries in Oregon, whereas the Native Fish Conservation Policy establishes the process for defining the specific use of the hatchery tool in specific watersheds. (ODFW, Fish Hatchery Management Policy, May 9, 2003).
- ii. This policy describes best management practices that are intended to help ensure the conservation of both naturally produced native fish and hatchery produced fish in Oregon through the responsible use of hatcheries. The conservation of hatchery produced fish is important to maintain opportunities for fisheries and aid conservation of naturally produced native fish.
- iii. The purpose of the Hatchery Management Policy is to describe the hatchery tool and its range of applications. The Hatchery Management

Policy also provides general fish culture and facility guidelines and measures to maintain genetic resources of native fish populations spawned or reared in captivity. This policy applies to all Department hatchery operations and programs including Salmon and Trout Enhancement Program (STEP), fish propagation projects (OAR 635-009-0090 through 635-009-0240) and Cooperative Salmon Hatchery Programs (OAR 635-009-0400 through 635-009-0455).

- C. **Fish Health Policy (OAR Chapter 635, Division 007-0965):** The Oregon Department of Fish and Wildlife have developed a policy for fish health. The Department must restrict the introduction, amplification, and dissemination of disease agents in hatchery produced fish (hatchery produced stock or naturally produced native stock) and in natural environments by controlling egg and fish movements and by prescribing a variety of preventative, therapeutic, and disinfecting strategies to control the spread of disease agents in fish populations of the state. This entails inspecting and detecting disease agents from fish in all hatchery facilities and natural environments. It also entails containing and treating disease agents to minimize impacts on fish populations. (ODFW, Fish Health Management Policy, September 12, 2003).
2. **Fish Passage Program (OAR Chapter 635, Division 412):** This chapter states, “No person shall construct or maintain any artificial obstruction across any waters of this state that are inhabited, or were historically inhabited, by native migratory fish without providing passage for native migratory fish.” (OAR 635-412-0020). On August 8th, 2001, Governor Kitzhaber signed into law HB 3002, a fish passage statute. One of the main objectives of HB 3002 was to craft legislation that combined the existing statutes into one meaningful piece of legislation, was reasonable for owners/operators, benefited migratory fish, and had enough flexibility for the Oregon Fish and Wildlife Commission to waive passage requirements under appropriate circumstances. Another object of the legislative was to encourage cooperation and minimize the burden to owners and operators of artificial obstructions, while maintaining the authority of the Fish and Wildlife Commission to enforce its laws. This policy also requires the ODFW to complete and maintain a statewide inventory of artificial obstructions to include: an evaluation of existing barriers to fish passage, the fish species impacted, the extent of lost fish habitat, opportunities to restore fish passage and other important biological and economic factors. It also requires the creation of a Fish Passage Task Force to advise the ODFW in fish passage matters. (<http://www.dfw.state.or.us/ODFWhtml/InfoCntrFish/Management/FishPassage.html>).
3. **Department of Wildlife Land (OAR Chapter 635, Division 008):** Administrative rules for ODFW owned or controlled lands have been developed and adopted to protect wildlife, fish, and lands and to assist with meeting the management objectives for the land. The details of this policy can be found in OAR Chapter 635, Division 8. Rules and regulations for the Bridge Creek, Philip W. Schneider and Moon Creek Wildlife Areas, all located in the John Day Subbasin, can be found in this administrative rule. (OAR 635-008)

4. **Wildlife Diversity Program (OAR Chapter 635, Division 100):** The Wildlife Diversity Plan provides the program goals, objectives and strategies to identify and coordinate non-game wildlife management, research and status survey needs, and education and recreation needs related to Oregon's wildlife. The document provides direction to the Oregon Department of Fish and Wildlife in carrying out its mandated responsibilities. The plan is also intended as an informational document to be used in wildlife programs by public agencies and others concerned with the conservation of non-game and other fish and wildlife species. (OAR 635-100-0005).
5. **Fish and Wildlife Habitat Mitigation Policy (OAR Chapter 635, Division 415):** This Chapter states, "The purpose of these rules is to further the Wildlife Policy (ORS 496.012) and the Food Fish Management Policy (ORS 506.109) of the State of Oregon through the application of consistent goals and standards to mitigate impacts to fish and wildlife habitat caused by land and water development actions. The policy provides goals and standards for general application to individual development actions, and for the development of more detailed policies for specific classes of development actions or habitat types."(OAR 635-415-0000) "It is the fish and wildlife habitat mitigation policy of the Oregon Department of Fish and Wildlife to require or recommend, depending upon the habitat protection and mitigation opportunities provided by specific statutes, mitigation for losses of fish and wildlife habitat resulting from development actions. Priority for mitigation actions shall be given to habitat for native fish and wildlife species. Mitigation actions for nonnative fish and wildlife species may not adversely affect habitat for native fish and wildlife." (OAR 635-415-0010)
6. **Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources, June 2000:** The ODFW under its authority to manage Oregon's fish and wildlife resources updated the guidelines in June 2000 for timing of in-water work. The guidelines are to assist the public in minimizing potential impacts to important fish, wildlife and habitat resources.
7. **Restoration and Enhancement Program:** On June 29, 1989, the Oregon Fisheries Restoration and Enhancement Act of 1989 was signed into law. The Act allows the Department of Fish and Wildlife to undertake a comprehensive program to restore state-owned fish hatcheries, enhance natural fish production, expand hatchery production, and provide additional public access to fishing waters. The Department's program provides increased recreational fishing opportunities and supports and improves the commercial salmon fishery. A surcharge was imposed on all sport fishing licenses and commercial salmon fishing licenses and poundage fees. Any public or private non-profit organization may request funds to implement fish restoration or enhancement. Program expenditures will be made in the same proportion as the revenues derived from the surcharges. (<http://www.dfw.state.or.us/ODFWhtml/InfoCntrFish/RnEProgram/R%26EHistory.html>)
8. **Oregon State Police Coordinated Enforcement Program (CEP):** Oregon State Police and ODFW develop annual action plans to focus enforcement effort in specific areas and to resource priorities identified by ODFW.

9. **Statewide Angling Regulations (OAR Chapter 635, Division 011-0050):** These regulations require the ODFW to continually monitor the status of fish, shellfish, and marine invertebrates and report promptly any serious or abnormal changes in health or abundance of resource. The Oregon Fish and Wildlife Commission shall adopt annually those rules prescribing seasons, bag limits, method of harvest, and specific restrictions considered necessary to provide optimum recreational and aesthetic benefits to anglers and other citizens. If more restrictive rules are needed to protect or preserve a species or stock experiencing depletion or drastic decline in health or abundance, the Commission shall consider adopting rules at its earliest opportunity to prevent further depletion or decline.

10. **Hunting Regulations (OAR Chapter 635, Divisions 051 through 080):** The State of Oregon has developed hunting regulations for some wildlife species. Hunting is a popular form of recreation in the John Day Subbasin. Big game hunting regulations can be found in the ODFW publication, 2004 Oregon Big Game Regulations. The purpose of these rules is to establish license and tag requirements, limits, areas, methods and other restrictions for hunting game mammals. Regulations for Oregon Game birds can be found in the ODFW publication, 2003-2004 Oregon Game Bird Regulations. This publication identifies the seasons, bag limits, public access programs and other hunting information.

Oregon Water Resources Department/Oregon Water Law, 1909: In 1909, the State of Oregon passed its water codes to determine how water would be shared among users within the state. These laws determined that, with some exceptions, all surface and ground water was considered to be a public resource and its use required permission, or a “water right,” from the state. Oregon water law is based on the “prior appropriation doctrine” which gives seniority according to the day the application for the water right was made. In times of shortage, water is allocated based on this “priority date,” with the more recent water rights getting shut off in order to satisfy the demands of the senior water rights. The Oregon Water Resources Department program for the John Day subbasin can be found in OAR Chapter 690, Division 506.

Water Quality Standards: Beneficial Uses, Policies, and Criteria for Oregon (OAR Chapter 340, Division 41): This division sets forth Oregon’s plans for management of the quality of public waters within the State of Oregon. The Department of Environmental Quality will continue to manage water quality by evaluating discharges and activities on a case-by-case basis, whether an existing use or a new proposal, based on the best information currently available and within the limiting framework of minimum standards, treatment criteria and policies which are set forth in the plan.

Oregon Instream Water Rights 1955 (OAR 635, Division 400): The 1955 Oregon Legislature passed the Minimum Perennial Streamflow Act, which allowed the Water Policy Review Board to adopt rules setting minimum streamflows for fish, wildlife and pollution abatement. On May 24, 1962, four minimum streamflows were set in the John Day Subbasin. In 1987, the Legislature passed the Instream Water Right Act which allowed the ODEQ, ODFW and the Oregon Parks and Recreation Department to apply for in-stream water rights for recreation, pollution abatement, navigation, and maintenance and enhancement of fish and wildlife and their

habitats. The act also directed the department to convert most of the minimum perennial streamflows to in-stream water rights. The Oregon Water Resources Department converted all four of the minimum streamflows in the John Day Subbasin to in-stream water rights in 1990. Currently, 41 in-stream water right certificates have been issued on the main river, major forks and tributaries within the subbasin. Another 17 in-stream water right applications are under review by the department and awaiting certificates. A summary of the 41 current in-stream water rights is presented in Table 61.

Table 61. In-stream water rights in the John Day Subbasin as of April, 2004.

CERTIFICATE NUMBER	PRIORITY DATE	STREAM (Tributary of)	UPPER RIVER MILE	LOWER RIVER MILE
72645	03/27/1990	BEAR CR (BRIDGE CR)	11.0	0.0
59779	11/03/1983	BEECH CR (JDR)	11.2	0.0
63259	06/12/1989	BIG WALL CR (NFJDR)	15.0	4.5
63257	06/12/1989	BIG WALL CR (NFJDR)	4.5	0.0
59780	11/03/1983	BRIDGE CR (JDR)	5.7	0.0
72644	03/21/1990	BRIDGE CR (JDR)	19.0	13.0
62318	12/22/1988	CAMAS CR (NFJDR)	23.0	17.9
62319	12/22/1988	CAMAS CR (NFJDR)	17.9	10.8
62320	12/22/1988	CAMAS CR (NFJDR)	10.8	0.0
63256	06/12/1989	CAMP CR (MFJDR)	3.0	0.0
59781	11/03/1983	CANYON CR (JDR)	15.1	0.0
59782	11/03/1983	CLEAR CR (MFJDR)	0.0	0.0
59783	11/03/1983	COTTONWOOD CR (JDR)	0.0	0.0
63251	06/12/1989	COTTONWOOD CR (NFJDR)	17.6	0.0
73272	09/11/1990	CRANE CR (NFJDR)	6.7	0.0
62317	12/22/1988	DESOLATION CR (NFJDR)	21.5	0.0
63253	06/12/1989	EF BEECH CR (BEECH CR)	4.0	0.0
63252	06/12/1989	EF BEECH CR (BEECH CR)	8.0	4.0
73270	09/11/1990	EF CANYON CR (CANYON CR)	8.0	0.0
59784	11/03/1983	GRANITE CR (NFJDR)	5.0	0.0
64193	06/12/1989	INDIAN CR (JDR)	7.0	2.0
59786	11/03/1983	JOHN DAY RIVER	211.8	184.7
59787	11/03/1983	JOHN DAY RIVER	250.9	217
59788	11/03/1983	JOHN DAY RIVER	275.8	250.9
59798	05/24/1962	JOHN DAY RIVER	156.7	156.7
66609	05/24/1962	JOHN DAY RIVER	20.8	0.0
63255	06/12/1989	LONG CR (MFJDR)	25.6	0.0
63254	06/12/1989	LONG CR (MFJDR)	31.2	25.6
73269	09/11/1990	MF CANYON CR (CANYON CR)	8.0	0.0
59789	11/03/1983	MF JOHN DAY RIVER (JDR)	14.9	0.0
66610	05/24/1962	MF JOHN DAY RIVER (JDR)	14.9	0.0
63258	06/12/1989	MURDERERS CR (SFJDR)	7.0	0.0
66611	05/24/1962	NF JOHN DAY RIVER (JDR)	15.2	0.0
72643	06/12/1989	NF JOHN DAY RIVER (JDR)	15.0	0.0
59792	05/24/1962	NF JOHN DAY RIVER (JDR)	60.0	60.0

72646	09/11/1990	NF JOHN DAY RIVER (JDR)	101.0	65.4
73271	09/11/1990	NF JOHN DAY RIVER (JDR)	112.0	101.0
59793	11/03/1983	ROCK CR (JDR-ANTOINE)	4.6	0.0
59794	11/03/1983	SF JOHN DAY RIVER (JDR)	14.8	0.0
73273	09/11/1990	TRAIL CR (NFJDR)	2.0	0.0
64192	06/12/1989	VINEGAR CR (MFJDR)	4.0	0.0

Allocation of Conserved Water (OAR Chapter 537, Division 455 to 500): The Oregon Water Resources Department Allocation of Conserved Water Program allows a water user who conserves water to use a portion of the conserved water on additional lands, lease or sell the water, or dedicate the water to in-stream use. Use of this program is voluntary and provides benefits to both water right holders and in-stream values. (OAR Chapter 537, Division 455 to 500)

Oregon Division of State Lands Fill and Removal Laws (OAR Chapter 141, Division 85): Oregon Division of State Lands, under Removal-Fill Law (ORS 196.795-990) and the U.S. Army Corps of Engineers, under Section 404 of the Clean Water Act, regulate the removal and filling of materials in wetlands and waterways. More details can be found in the discussion of the Clean Water Act in Section 4.1.1 above. Joint application forms for Division of State Lands – Army Corps of Engineers removal-fill permits can be obtained from the Oregon Division of State Lands.

Oregon Forest Practices Act (ORS 527 and OAR Chapter 629, Divisions 600 to 680), 1971: The Oregon Forest Practices Act regulates forest management activities on state and private lands. These regulations recognize that the leading use of private forestlands is the growing and harvesting of trees, consistent with sound management of soil, air, water, fish and wildlife resources. The forest practices rules are designed to maintain forest productivity and protect wildlife and water resources. Water protection rules are incorporated into the Oregon Forest Practices Act to protect, maintain and, where appropriate, improve the functions and values of streams, lakes, wetlands, and riparian management areas.

Miscellaneous Land Use and Zoning Laws: There are a number of state, county and local land use and zoning laws that have been developed to protect fish, wildlife and water quality while maintaining the productivity of the land. To illustrate, portions of the Grant County and Wheeler County Comprehensive Plans are discussed below.

An example of land use policies is the natural resource element of the Grant County Comprehensive Plan. This element states, “Natural Resources are considered vital to Grant County’s historical and future development and are recognized as a primary base for the County’s economy. The County recognizes the following resources: land, vegetation, land quality, minerals, water, air, and fish and wildlife. General natural resource policies are to:

1. Manage natural resources to preserve original character where no conflicts are found;
2. Weigh economic, energy, environmental and social consequences when uses conflict;
3. Emphasize multiple use of resources;
4. Support coordinated resource management; ...”

The natural resource element also points out that, “The County’s overall land use policies are to:

1. Support the County’s economic base;
2. Maximize preservation of agricultural and forest uses; ...”(Grant County Comprehensive Plan)

Wheeler County also has a number of goals stated in their Comprehensive Land Use Plan that are of importance to the subbasin plan. Examples of these are:

1. To preserve and maintain agricultural lands.
2. To conserve forestlands for forest uses.
3. To conserve open space and protect natural, scenic, historic and cultural resources.
4. To maintain and improve the quality of air, water and land resources of Wheeler County.

Wheeler County’s policies also emphasize the importance of maintaining the economic viability and productivity of their natural resources. The county policy is: “to preserve agricultural lands and protect agriculture as an economic enterprise” and “to allow the application of management practices that maximize the continued productivity of timberlands, such as addressed by the Oregon Forest Practices Act.” (Wheeler County’s Comprehensive Plan.)

4.1.2 Treaties between Tribes and the Federal Government

Much of the John Day Subbasin is within the ceded lands of the CTUIR and the CTWSRO. The tribes have reserved treaty rights to the use of this land and its resources. These areas are still used for ceremonial and subsistence purposes, including hunting, fishing, livestock grazing and gathering plants. The treaties that give these rights are as follows:

1. Treaty with the Tribes of Middle Oregon, 1855

The Confederated Tribes of the Warm Springs Reservation of Oregon ceded nearly all of the lands within the John Day Subbasin to the U.S. Government through the Treaty with the Tribes of Middle Oregon on June 25, 1855. The treaty reserves to the Indians the rights to take fish at all usual and accustomed stations, and the privilege of hunting, gathering roots and berries, and pasturing their stock on unclaimed lands. The fish and wildlife resources of the John Day are of great significance to the Tribes, who co-manage these resources with the U.S. and Oregon governments.

2. Treaty with the Cayuse, Umatilla and Walla Walla Tribes, 1855

The Treaty of June 9, 1855, generally referred to as "The Treaty of 1855", between the United States Government and Cayuse, Walla Walla and Umatilla Indian Tribes, collectively known as the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), is the basis for CTUIR involvement in natural resource management issues within the John Day Subbasin. The three tribes once had a homeland of 6.4 million acres in northeastern Oregon and southeastern Washington. In The Treaty of 1855, the tribes "ceded," or surrendered possession of, much of the 6.4 million acres in exchange for a reservation homeland of 250,000 acres. Through the treaty, the CTUIR gave up ownership of a vast area of land extending from the lower Yakima River and along the mid-Columbia River to beyond the Blue Mountains into the Grande Ronde River drainage, south to the Powder River Subbasin, west into the John Day Subbasin, and north

into the Willow Creek drainage. Included within this territory are parts of the Snake, Imnaha, Tucannon, Burnt, and Malheur river drainages. The three tribes reserved rights in the treaty, which include the right to fish at "usual and accustomed" sites, and to hunt and gather traditional foods and medicines on public lands within ceded areas, including portions of the John Day Subbasin. These rights are generally referred to as "treaty reserved rights."

4.1.3 Lands with Legal Mandates for Conservation

Areas with Statutory Mandates

Wilderness Areas: In the John Day Subbasin there are four designated wilderness areas, all managed by the U.S. Forest Service:

1. North Fork John Day Wilderness, 85,000 acres on Malheur and Wallowa-Whitman National Forests
2. Strawberry Wilderness, 68,700 acres on Malheur National Forest
3. Black Canyon Wilderness, 13,400 acres on Ochoco National Forest
4. Bridge Creek Wilderness, 5400 acres on Ochoco National Forest

Riparian Conservation Areas: Riparian Habitat Conservation Areas (RHCAs) were created by the Environmental Assessment for the Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (PACFISH) to protect the riparian areas along streams. In addition, the Inland Native Fish Strategy Environmental Assessment (INFISH) created RHCAs and developed interim strategies for management of non-anadromous fish-producing watersheds on federal lands in eastern Oregon. These assessments amended pertinent USFS Land Management Plans and BLM Resource Management plans. Protection of these areas directly affects the hydrologic, geomorphic and ecologic processes of the riparian ecosystem.

Public Law 106-257, the Oregon Land Exchange Act of 2000: This act resulted in a major land exchange in eastern Oregon. The Act directs BLM to manage the lands acquired along the North Fork John Day River for the benefit of fish, wildlife, and recreation. Interim management actions are being taken while a management plan is completed through a public planning process. Some roads crossing sensitive fish streams are closed to motorized travel year-round and some areas that provide critical deer and elk winter range are closed to motorized travel during winter months.

John Day Fossil Beds National Monument: The John Day Fossil Beds National Monument is a 14,000 acre park which was established in 1975. It is divided into three widely separated units: the Sheep Rock Unit, Painted Hills Unit and Clarno Unit. Within the heavily-eroded volcanic deposits of the John Day Subbasin is a well-preserved fossil record of plants and animals. This remarkably complete record, spanning more than 40 of the 65 million years of the Cenozoic Era (the "Age of Mammals and Flowering Plants") is world renowned. The visitor center is located at the Sheep Rock Unit.

State Wildlife Areas:

1. Bridge Creek Wildlife Area near Ukiah, OR: This wildlife area is managed as a winter range for elk by the Oregon Department of Fish and Wildlife. More than 1000 elk may congregate here during the winter to escape snows at higher elevations and feed on the rangelands. The Ron Bridges Memorial Trail (1/8-mile long) provides an overlook of Bridge Creek Flats year-round.
2. Philip W. Schneider Wildlife Area (formerly known as Murderers Creek Wildlife Area) near Dayville, OR: This 24,000+ acre wildlife area is located in the lower South Fork John Day River/Aldrich Mountain area. The area contains 37 miles of flowing streams. It offers excellent wildlife viewing year-round and hunting opportunities for many species including deer, elk, pronghorn, bighorn sheep, wild turkey and upland game birds.
3. Moon Creek Wildlife Area near Mt. Vernon, OR: This 13-acre wildlife area is located along the John Day River approximately 5.5 miles west of Mt. Vernon. The area is used for bird/wildlife viewing and nature interpretation. Hunting is not allowed. Wildlife species that can be viewed at Moon Creek Wildlife Area include waterfowl, song birds, osprey and beaver.

Federal Wild and Scenic Rivers: Portions of the John Day River are designated as Federal Wild and Scenic Rivers. These areas are listed below:

1. The lower mainstem of the John Day River from Service Creek downstream to Tumwater Falls (147.5 miles): This segment of the John Day is designated for recreation due to its exceptional anadromous steelhead and warm-water bass fishing; whitewater boating; and archeological, historical and paleontological values. This segment of the river flows through a number of colorful canyons, broad valleys, and breathtaking terrain.
2. North Fork of the John Day from its headwaters located in the North Fork of the John Day Wilderness Area downstream to its confluence with Camas Creek (54.1 miles). This section of river has three different designations with 27.8 miles designated as wild, 10.5 miles designated as scenic and 15.8 miles designated as recreational. This segment of river receives wild and scenic river designation because it is one of the most important rivers in northeast Oregon for the production of anadromous fish and has a wide variety of wildlife which can be found along the river's corridor. Its diverse landscape and geologic formations create high quality natural scenery. Recreation opportunities include hunting, fishing, sightseeing, horseback riding, hiking, snowmobiling, skiing, camping and whitewater rafting. There is also a great deal of mining remains and history from the gold mining era which began in the 1860s.
3. South Fork of the John Day River from the Malheur National Forest boundary downstream to Smoky Creek (47 miles). This section of river is designated for recreation as it offers outstanding scenery, wild steelhead fishing, hunting, hiking, swimming and camping.

Oregon Scenic Waterways (ORS 390.805 to 390.25): The State of Oregon has identified certain lakes and free-flowing rivers as having outstanding scenic, fish, wildlife, geological, botanical, historic, archaeological, and outdoor recreation values of present and future benefit to the public. The free-flowing character of these waters are to be maintained in quantities necessary for recreation, fish and wildlife uses. No dam, or reservoir, or other water impoundment facility is allowed to be constructed on waters within scenic waterways. No water diversion facility shall be constructed or used except by previously established rights or as permitted by the Water Resources Commission. All fills and removals in State Scenic Waterways require a permit from the Division of State Lands. The portions of the John Day River system designated as scenic waterways include:

1. The John Day River from its confluence with Parrish Creek downstream to Tumwater falls.
2. The North Fork John Day River from the boundary of the North Fork John Day Wilderness (near river mile 76), as constituted on December 8, 1988, downstream to river mile 20.2 (northern boundary of the south one-half of Section 20, Township 8 South, Range 28 East, Willamette Meridian).
3. The Middle Fork John Day River from its confluence with Crawford Creek (near river mile 71) downstream to the confluence of the Middle Fork John Day River with the North Fork John Day River.
4. The South Fork John Day River from the Post-Paulina road crossing (near river mile 35) downstream to the northern boundary of the Philip W. Schneider Wildlife Area, as constituted on December 8, 1988 (near river mile 6).

Areas with Contractual Mandates

Tribal Mitigation Properties

The Confederated Tribes of the Warm Springs Reservation of Oregon manage three fish and wildlife mitigation properties in the John Day Subbasin. The 33,557-acre Pine Creek Conservation Area is in and near the Pine Creek watershed on the lower mainstem John Day River. The 1022-acre Oxbow Conservation Area and the 4232-acre Forrest Conservation Area are located on the Middle Fork John Day and mainstem John Day rivers, respectively.

Legally binding agreements are in place between BPA and the Tribes to achieve “the protection, mitigation, and enhancement of wildlife habitat permanently to help fulfill BPA's duties under the Northwest Power Act.” These agreements call for the Tribes to prepare site-specific management plans for each property, and for BPA to “provide a reasonable amount of additional funds for operation and maintenance to help the Tribe ensure the habitat's natural characteristics and mitigation qualities are developed and self-sustaining.” The Tribes will manage these properties for fish and wildlife habitat in perpetuity.

Private Conservation Easements/Conservation Areas

There is an active easement acquisition program in the subbasin. Listed below are examples of some of these efforts (Shaun Robertson, Rocky Mountain Elk Foundation, personal communication, April 29, 2004):

1. Aldrich Front Project: This project currently includes 2300 acres in a conservation easement.
2. China Peak: This project is a three-phase conservation easement in the North Fork John Day watershed that will total approximately 10,000 acres when complete. Two phases of the project have been completed and the remaining phase is projected to be completed in the next few years.
3. Bogg Canyon Conservation Easement: This is a 4000-acre conservation easement located in the North Fork John Day watershed.
4. The Nature Conservancy Dunstan Homestead, Middle Fork John Day River: The Nature Conservancy purchased the 1199-acre Dunstan homestead because the John Day River has never had hatcheries and as a result is a key resource for recovery of wild salmon in the Columbia Basin. The conservation challenge is to restore 4.5 miles of the river to former river meanders and streamside vegetation in order to increase and improve habitat for fish, elk, beaver, songbirds and other native wildlife. A 1996 wildfire burned two-thirds of the preserve, causing no damage to structures but returning fire to the site, and providing ecologists with an opportunity to study the effects of the fire over time. Conservancy works in partnership with ODFW, Malheur National Forest, the Umatilla and Warm Springs Confederated Tribes and others to restore natural flows and vegetation to the river floodplain.
(<http://nature.org/wherewework/northamerica/states/oregon/preserves/art6799.html>)

4.2 Existing Plans

4.2.1 General Management Plans

Previous Subbasin Plan - John Day Subbasin Summary (NWPPC 2001): The John Day Subbasin Summary was drafted to meet the interim need for a facilitated, subbasin project review by the Independent Scientific Review Panel. Termed the “rolling provincial review,” this review and renewal process was designed to establish the budgets and approve activities for existing and newly funded BPA projects. In addition, the summary was a substantial beginning towards developing this document, the John Day Subbasin Plan.

Federal Plans

1. **Federal Caucus All-H Paper, Basin Wide Salmon Recovery Strategy 2000:** On December 21, 2000 a team of nine federal agencies released a long-term strategy to recover threatened and endangered fish in the Columbia Basin. It calls for significant

habitat improvements in the Columbia estuary and its tributaries and changes in the hatchery system, while leaving the four lower Snake River dams in place.

2. **Clean Water Action Plan, EPA:** The Clean Water Action Plan builds on the solid foundation of existing clean water programs and proposes new actions to strengthen efforts to restore and protect water resources. In implementing this action plan, the federal government will:
 - a. support locally-led partnerships that include a broad array of federal agencies, states, tribes, communities, businesses, and citizens to meet clean water and public health goals;
 - b. increase financial and technical assistance to states, tribes, local governments, farmers, and others; and
 - c. help states and tribes restore and sustain the health of aquatic systems on a watershed basis. (<http://www.cleanwater.gov/action/overview.html>)
3. **Columbia River Fish Management Plan:** The Columbia River Fish Management Plan is the agreement resulting from the U.S. District Court case of U.S. v. Oregon (Case No. 68-513). This agreement between the federal agencies, Indian Tribes and state agencies (except Idaho) involved set guidelines for the management, harvest, hatchery production and rebuilding of Columbia River Basin salmonid stocks. (<http://www.efw.bpa.gov/Environment/DOCS/LITIGATION/wp0138zz.html>)
4. **Stream Restoration Program for the Upper Mainstem of the John Day River, 1993:** The major goals of the program are to increase wild anadromous fish populations, increase soil stability, and enhance the local economy. Specific objectives include moderating stream temperatures, increasing summer flows, improving fish passage, reducing soil erosion, improving streambank stability, and maintaining agricultural production.
5. **ESA 2002 Implementation Plan for the FCRPS, 2002:** Implementation plans were developed as a result of the Biological Opinions issued by the National Marine Fisheries Service and the US Fish and Wildlife Service for the Federal Columbia River Power System. This plan address the measures to be undertaken by the action agencies, with the primary focus on endangered fish.
6. **BPA Fish & Wildlife Implementation Plan Draft EIS, DOE, June 2001:** This planning effort is based upon the premise that all fish and wildlife resources are interrelated parts of a singular ecosystem, and humans are integral components of the ecosystem through their many and diverse activities. The needs of humans, fish and wildlife are addressed together and simultaneously in this plan.
7. **Draft Bull Trout Recovery Plan, USFWS:** A Bull Trout *Salvelinus confluentus* Draft Recovery Plan, Chapter 9, John Day Unit (U.S. Fish and Wildlife Service, 2003) was prepared. The overall goal for bull trout in the John Day Recovery Unit is to increase their stability and potential for long term persistence of self-sustaining, complex, interacting groups of bull trout distributed throughout the species native range, so that the

species can be delisted. To achieve this goal the following objectives have been identified for bull trout in the John Day River Recovery Unit:

- A. Maintain current distribution of bull trout and restore distribution in previously occupied areas within the John Day River Recovery Unit.
- B. Maintain stable or increasing trends in abundance of bull trout.
- C. Restore and maintain suitable habitat conditions for all bull trout life history stages and strategies.
- D. Conserve genetic diversity and provide opportunity for genetic exchange, while maintaining the genetic integrity of all life history types.

8. **Interior Columbia Basin Ecosystem Management Project (ICBEMP) USDA-FS, USDI-BLM, 2000:** In 1993, President Clinton directed the Forest Service to develop a scientifically sound ecosystem-based strategy for management of eastside forests. The project received more than 83,000 public comments on two draft EIS documents in June 1997. A supplemental draft EIS was released in March 2000 and a final EIS and proposed decision in December 2000. In January 2003 the regional executives for the US Forest Service, Forest Service Research, Bureau of Land Management, US Fish and Wildlife Service, the National Marine Fisheries Service and the Environmental Protection Agency signed a Memorandum of Understanding (MOU) completing the project. The agencies signing the MOU agreed to cooperatively implement The Interior Columbia Basin Strategy.
9. **USDA Forest Service Resource Management Plans:** Management of USDA Forest Service lands in the John Day Subbasin are governed by a set of forest plans which are based on the Forest and Rangeland Renewable Resources Planning Act (RPA) as amended by the National Forest Management Act of 1976 (NFMA).

Four national forests – the Umatilla, Wallowa-Whitman, Malheur, and Ochoco – are responsible for managing these lands in the John Day Subbasin. The Umatilla NF manages lands draining into the North Fork, Middle Fork, and mainstem of the John Day River. The Malheur NF manages lands draining into the Middle Fork, South Fork, and Upper John Day River. The Wallowa-Whitman NF manages lands that drain into the North Fork John Day River. The Ochoco NF manages lands that drain into the South Fork and the mainstem of the John Day River.

The Forest Plans for these National Forests were signed in 1990. The Umatilla, Wallowa-Whitman, and Malheur National Forests are in the process of revising their forest plans.

10. **John Day River Management Plan, Two Rivers, John Day, and Baker Resource Management Plan Amendments, February 2001:** The John Day River Management Plan was prepared with the cooperation of the BLM, Bureau of Indian Affairs, John Day River Coalition of Counties, Confederated Tribes of Warm Springs, and the State of Oregon. The record of decision was made in February of 2001. The John Day River Management Plan provides decisions for BLM resources in Grant County. The Two Rivers Resource Management Plan provides decisions for Hood River, Wasco, Sherman,

Gilliam, Wheeler, as well as portions of Crook and Jefferson counties. The Baker Resource Management Plan provides decisions for all or portions of Baker, Malheur, Wallowa, Morrow, Umatilla, and Union counties in Oregon. The only portion of the Baker Resource Management planning area that overlaps the John Day River corridor is in extreme southern Umatilla County.

11. **Amendments to USFS Forest Plans and/or BLM Resource Management Plans:**
 - A. **Inland Native Fish Strategy Environmental Assessment (INFISH), USDA-FS, 1995:** The U.S. Forest Service and the BLM implemented an interim management strategy (INFISH) for management of non-anadromous fish-producing watersheds on federal lands in eastern Oregon in 1995. These management strategies supersede the forest plans where applicable.
 - B. **Environmental Assessment for the Implementation of Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and portions of California (PACFISH), USDA-FS, USDI-BLM, 1994:** The U.S. Forest Service and the BLM implemented an interim management strategy (PACFISH) for management of anadromous fish-producing watersheds on federal lands in eastern Oregon in 1995. These management strategies supersede the forest plans were applicable.

ODFW Plans

ODFW has developed a number of management plans which facilitate the management of wildlife in the John Day Subbasin. Examples of these plans are listed below:

1. **Vision 2006, a Six Year Strategic Plan, May 2000:** Vision 2006 was published in May 2000 and builds upon the strategies outlined in the ODFW strategic operational plan, lays a strong foundation for new initiatives, and provides vision for the ODFW into 2006. Vision 2006 includes ODFW's, vision and principles, trends, strategic themes, statutory authority and a financial outlook. Interested constituents and department staff participated in the development of the plan. (ODFW, Vision 2006 a Six Year Strategic Plan, May 2000).
2. **Mule Deer Management Plan, February 2003:** The goal of the Mule deer Management Plan is to manage mule deer populations to attain the optimum balance among recreational uses, habitat availability, primary land uses and other wildlife species. (ODFW Mule Deer Management Plan, February 2003)
3. **Elk Management Plan, February 2003:** The purpose of Oregon's Elk Management Plan is to guide elk management in Oregon for the next 10 years, with an interim review at 5 years. This plan will be used by the Oregon Department of Fish and Wildlife (ODFW) to guide management decisions related to elk and to identify ODFW elk management policies and strategies to the public, other agencies, and private landowners. (ODFW Elk Management Plan, February 2003).
4. **Oregon's Bighorn Sheep and Rocky Mountain Goat Management Plan, December 2003:** This plan provides overall management direction for Oregon's bighorn sheep and

Rocky Mountain goat programs for the next 10 years. It is ODFW's goal to have healthy populations of bighorn sheep and Rocky Mountain goats in all available, suitable habitat within Oregon. This plan summarizes the history and current status of Oregon's bighorn sheep and Rocky Mountain goats. It presents management guidelines for populations in Oregon and will guide future transplant activities, as well as assisting other concerned resource management agencies with planning efforts. (ODFW 2003, Oregon's Bighorn Sheep and Rocky Mountain Goat Management Plan, December 2003).

5. **Cougar Management Plan, 1993 to 1998:** The ODFW manages cougar in the John Day Subbasin based on the 1993 to 1998 Cougar Management Plan. ODFW's goals as established in this plan are to:
 - A. Recognize the cougar as an important part of Oregon's wildlife fauna, valued by many Oregonians.
 - B. Maintain healthy cougar populations within the state into the future.
 - C. Conduct a management program that maintains healthy populations of cougar and recognizes the desire of the public and the statutory obligations of the department. (ODFW 1993, Oregon's Cougar Management Plan 1993-1998).

6. **Black Bear Management Plan, 1993 to 1998:** The ODFW manages black bear in the John Day Subbasin utilizing the Black Bear Management Plan 1993 to 1998. In this plan ODFW identifies its goals for management of the black bear as:
 - A. Recognize the black bear as an important part of Oregon's wildlife fauna, valued by many Oregonians.
 - B. Maintain healthy black bear populations within the state into the future.
 - C. Conduct a management program that maintains healthy populations of black bear, and recognizes the desires of the public and the statutory obligations of the ODFW. (ODFW 1993, Oregon's Black Bear Management Plan (1993-1998).

7. **Oregon Migratory Game Bird Program Strategic Management Plan, October 1993:** The ODFW has developed a strategic management plan for the Oregon Migratory Game Bird Program. ODFW's mission is to protect and enhance populations and habitats of native migratory game birds and associated species at prescribed levels throughout natural geographic ranges in Oregon and the Pacific Flyway to contribute to Oregon's wildlife diversity and the uses of those resources. (ODFW October 1993, Oregon Migratory Game Bird Program Strategic Management Plan).

8. **Oregon Wildlife Diversity Plan, January 1999:** The ODFW's "Oregon Wildlife Diversity Plan" is designed to conserve the diversity of fish and wildlife species in the state. The plan is a blueprint for addressing the needs of Oregon's native fish, amphibians, reptiles, birds and mammals, and contains information on all species and habitats in the state. The Plan was first adopted in 1986, and was updated in November 1993 and again in January 1999.
(<http://www.dfw.state.or.us/ODFWhtml/InfoCntrWild/Diversity/Diversity.html>)

9. **Fish Management Plans (OAR Chapter 635, Division 500):** The administrative rules contained in this division are the legally-enforceable elements of fish management plans.

Fish management plans are comprehensive documents which the ODFW regards both as a means to implement policy and as an explanation of the intent and rationale of management direction. Plans contain factual background material, statements of the rationale for selection of objectives, strategies to be applied to attain objectives, and statements of general priorities for various actions. Copies of all plans are available from the ODFW.

- A. **Steelhead Management Policy (OAR Chapter 635, Division 500-0010):** These rules are established to guide management and conservation of steelhead (*Oncorhynchus mykiss*) in Oregon. It is the policy of the State of Oregon that steelhead be managed as a game fish. This management plan fulfills OAR 635-007-0515, which states that resources of the state shall be managed according to management plans.
- B. **Trout Management Objectives (OAR Chapter 635, Division 500-0012):** The Department shall proceed with programs and other efforts to achieve the following statewide objectives, consistent with applicable law, agency policy and rule, and recognized funding priorities for the agency. The Statewide Trout Plan will provide specific guidance for the production, harvest and management of trout statewide, consistent with the following objectives:
 - a. Maintain the genetic diversity and integrity of wild trout stocks throughout Oregon.
 - b. Protect, restore and enhance trout habitat.
 - c. Provide a diversity of trout angling opportunities.
 - d. Determine the statewide management needs for hatchery trout.
 - e. Enhance the public awareness of Oregon's trout resources.

10. Murderer's Creek Wildlife Area Long Range Management Plan, December 1993:

This plan documents the history and physical and biological description of the Phillip W. Schneider Wildlife Area (formerly the Murderer's Creek Wildlife Area). The plan also establishes goals and objectives for long range management and conservation of the natural resources of the wildlife area. The primary purpose of the Phillip W. Schneider Wildlife Area is protection and enhancement of mule deer winter range.

OWRD Plans

There are a number of OWRD plans which have been prepared in the John Day subbasin. These plans were developed to “provide the public with important, economic, social, and environmental benefits.” (OAR 690-506)

1. Stream Restoration Program for the Middle Fork Subbasin of the John Day River, 1991
2. Stream Restoration Program for the Upper Mainstem of the John Day River, 1992
3. Stream Restoration Program for the South Fork of the John Day River, 1992
4. Stream Restoration Program for Upper South Fork of the John Day River, 1992
5. Stream Restoration Program for the Rock Creek Tributary of the John Day River, 1993

Tribal Plans

1. **Wy-Kan-Ush-Mi Wa-Kish-Wit:** Spirit of the Salmon Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes, CRITFC, 1995: The objectives of this plan are:
 - a. to halt the decline of salmon, lamprey and sturgeon populations above Bonneville Dam within seven years.
 - b. to rebuild salmon populations to annual run sizes of four million above Bonneville Dam within 25 years in a manner that supports tribal ceremonial, subsistence and commercial harvests.
 - c. to increase lamprey and sturgeon to natural sustaining levels within 25 years in a manner that supports tribal harvests.

To achieve these objectives, the plan emphasizes strategies and principles that rely on natural production and healthy river systems.

2. **Tribal Wildlife Habitat and Watershed Management Plans:** The Confederated Tribes of the Warm Springs Reservation of Oregon mitigation properties were previously described above in Section 4.1.2. The Pine Creek Conservation Area Wildlife Habitat and Watershed Management Plan was submitted to BPA for final review and approval in October 2003. The Forrest and Oxbow Conservation Areas Fish and Wildlife Habitat Management Plan is currently being developed.

U.S. Forest Service Ecosystem/Watershed Analyses:

The U.S. Forest Service has conducted a number of watershed analyses in various national forests in the John Day Subbasin. These include:

1. Malheur National Forest
 - A. Deer Creek Ecosystem Analysis (2000)
 - B. Galena Watershed Analysis (1999)
 - C. Upper Middle Fork John Day Ecosystem Analysis (1998)
 - D. Murderers Creek Ecosystem Analysis (1997)
 - E. Strawberry Mountain Ecosystem Analysis (1997)
 - F. Upper South Fork John Day River Watershed Analysis (1995)
2. Umatilla National Forest
 - A. Desolation Ecosystem Analysis (July 1999)
 - B. Tower Fire Ecosystem Analysis (Jan. 1997)
 - C. Granite Creek Watershed Analysis (July 1997)
 - D. Upper North Fork John Day Watershed Analysis (July 1997)
 - E. Camas Ecosystem Analysis (May 1995)
 - F. Wall Ecosystem Analysis (Sept. 1995)
3. Ochoco National Forest
 - A. Keeton-Fry Watershed Analysis (1997)

Other Miscellaneous Assessments:

1. Hay Creek/Scott Canyon Watershed Assessment (May 2003): Completed by the Gilliam-East John Day Watershed Council
2. Camas Creek Watershed Assessment: This watershed assessment is being completed by the Corp of Engineers in conjunction with the CTUIR.
3. Pine Hollow Watershed Enhancement Action Plan: Pine Hollow Watershed Council, 1997
4. Upper South Fork of the John Day River Watershed Assessment, Draft Report, March 2003. The report was prepared for the Grant Soil and Water Conservation District by ABR, Inc--Environmental Research & Services.

Oregon Department of Agricultural Plans:

1. **Water Quality Management Area Plans (1010 Plans):** There have been four AgWQMAPs completed in the John Day Subbasin. These plans are:
 - A. North and Middle Forks John Day Agricultural Water Quality Management Area Plans (AgWQMAP), Local SWCD, Advisory Committees, 2002
 - B. Upper and South Fork John Day AgWQMAP, Local SWCD, Advisory Committees, 2003
 - C. Middle John Day AgWQMAP, Local SWCD, Advisory Committees, 2003
 - D. Proposed Lower John Day AgWQMAP, Local SWCD, Advisory Committees, 2004
2. **Coordinated Resource Management Planning:** Coordinated Resource Management Planning (CRMP) is a process by which natural resource owners, managers and users work together as a team to formulate plans for the management of major resources within a specific area, and/or seek to identify and resolve specific conflicts concerning management activities. The CRMP process has been in existence in Oregon for over 40 years and has helped many landowners to more effectively manage their resources. The concept follows the principle that adjoining landowners who work together to solve resource issues can be more effective than they can be by working individually. The process is voluntary and non-regulatory. Its power comes from the commitment of all parties to work for the maximum resolution and coordination possible, given the particular constraints and necessities of the individuals and entities involved. There are two CRMPs in the John Day Subbasin: one on Bridge Creek (original Bridge Creek CRMP process was completed in 1997 and updated in February 2004) and another on the South Fork John Day River.

4.3 Existing Management Programs

4.3.1 Voluntary Conservation Programs

Farm Bill Programs Administered by NRCS and FSA

A variety of Farm Bill programs have been used extensively for conservation and restoration projects in the subbasin.

1. **Environmental Quality Incentives Program:** The Environmental Quality Incentives Program (EQIP) was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill) to provide a voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as comparative national goals. EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land. EQIP may cost share up to 75 percent of certain conservation practices. Incentive payments may be provided for up to three years to encourage producers to carry out management practices they may not otherwise use without incentive. This program is administered by the Farm Service Agency.
2. **Conservation Reserve Program:** The Conservation Reserve Program (CRP) provides technical 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 in complying with federal, state and tribal environmental laws, and encourages environmental enhancement. The program encourages farmers to convert highly-erodible cropland or other environmentally-sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filterstrips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. The program is administered by the Farm Service Agency, with NRCS providing technical land eligibility determinations, environmental benefit index scoring and conservation planning. This program has been used extensively in the subbasin, particularly in the lower portions of the subbasin. The following are examples of CRP usage in the subbasin: Sherman County – over 37,000 acres, Wheeler County – 6857 acres, Morrow County – 2600 acres, and Gilliam County – 66,159 acres.
3. **Conservation Reserve Enhancement Program:** The Conservation Reserve Enhancement Program (CREP) is an offshoot of the CRP program. CREP is a voluntary program for agricultural landowners. Unique state and federal partnerships allow landowners to receive incentive payments for installing specific conservation practices. Through CREP, farmers can receive annual rental payments and cost-share assistance to establish long-term, resource conserving covers on eligible land. The CREP program is administered by the Farm Service Agency. The CREP program has limited use in the subbasin: Sherman County – 429 acres, Wheeler County – 155 acres, and Gilliam County – 915 acres (includes CCRP acres for Gilliam County).

4. **Wildlife Habitat Incentives Program (WHIP):** The Wildlife Habitat Incentives Program is a voluntary program for people who want to develop and improve wildlife habitat primarily on private land. Through WHIP the NRCS provides both technical assistance and up to 75 percent cost-share assistance to establish and improve fish and wildlife habitat. WHIP agreements between NRCS and the participant generally last from five to 10 years from the date the agreement is signed.

Bureau of Reclamation Habitat Program: NOAA Fisheries issued a Biological Opinion in December 2000 on the continued operation of the Federal Columbia River Power System (FCRPS). As part of this opinion, Reasonable and Prudent Alternatives (RPA) were identified to prevent a jeopardy opinion to be issued for the continued operation of the FCRPS. RPA Action 149 requires that Reclamation “shall initiate programs in three priority subbasins per year over five years, in coordination with NOAA Fisheries, U.S. Fish and Wildlife Service (USFWS), states, and others, to address all flow, passage, and screening problems in each subbasin over 10 years”. In Oregon, three John Day River subbasins have been designated as priority subbasins: the Upper (above Kimberly), the Middle Fork, and the North Fork. Reclamation has established a subbasin liaison position in John Day, Oregon to coordinate Reclamation activities in these three basins. Currently, Reclamation has authority to provide technical assistance to private landowners who volunteer to correct passage barriers and screen diversions. Reclamation is actively working with soil and water conservation districts, watershed councils, tribes, ODFW, and others to provide funding or direct engineering and planning support for passage barrier and fish screen projects on private lands. At this time, Reclamation does not have authority to provide funding for construction activities, but is seeking this authority from the U.S. Congress. Reclamation does have authority under the Endangered Species Act to purchase or lease water from willing sellers for conversion to in-stream flows to meet the flow restoration obligations of RPA Action 149.

CTWSRO Program: The majority of the John Day Subbasin was ceded to the federal government in 1855 by the Confederated Tribes of the Warm Springs Reservation of Oregon (Tribes). In 1997, the Tribes established an office in the subbasin to coordinate restoration projects, monitoring, planning and other watershed activities on private and public lands. Once established, the John Day Basin Office (JDBO) formed a partnership with the Grant Soil and Water Conservation District (GSWCD), also located in the town of John Day, which contracts the majority of the construction implementation activities for these projects from the JDBO. The GSWCD completes the landowner contact, preliminary planning, engineering design, permitting, construction contracting, and construction implementation phases of most projects. The JDBO completes the planning, grant solicitation/defense, environmental compliance, administrative contracting, monitoring, and reporting portion of the program. Most phases of project planning, implementation, and monitoring are coordinated with the private landowners and subbasin agencies, such as the Oregon Department of Fish and Wildlife and Oregon Water Resources Department.

ODFW Programs:

1. **Screen Shop:** The ODFW has a facility located in John Day that designs and constructs fish screens. There are numerous fish screens in the John Day Subbasin to keep fish in streams and out of irrigation ditches.

2. **Green Forage Program:** This program offers cost-share to private landowners experiencing crop damage from game animals. Projects are designed to improve forage or provide alternate food sources for big game. Cost-share projects include developing wildlife water sources, seeding and/or fertilizing forage plants for big game, and enhancing or controlling vegetation to benefit wildlife by utilizing prescribed fire, chemical or mechanical methods.
3. **D.E.A.R. Program:** The D.E.A.R. (Deer Enhancement And Restoration) program offers cost-share and technical assistance to private and public landowners to improve mule deer habitat. Cost-share practices in this program include herbaceous seeding, tree and shrub planting, water-source development, fencing, and vegetation enhancement or control utilizing prescribed fire, chemical or mechanical methods.
4. **Access and Habitat Program:** This program is designed to improve wildlife habitat and public hunting access to private and public land. A seven member board reviews and recommends projects to the Oregon Fish and Wildlife Commission for funding. Funds for this program are generated by the sale of hunting licenses.

OWEB Programs

1. **Oregon Plan, Oregon Watershed Enhancement Board (ORS Chapter 541.351 to 541.420), 1997:** Approved by the Oregon legislature in 1997, the Oregon Plan for Salmon and Watersheds and the 1998 Steelhead Supplement outline a statewide approach to ESA concerns based on watershed restoration, ecosystem management, coordination among state agencies, community involvement and local solutions to protect and improve salmon and steelhead habitat. The Oregon Watershed Enhancement Board provides grant funds and technical and financial support to the various watershed councils in the John Day Subbasin to help implement the Oregon Plan.
2. **Watershed Council Programs:** There are numerous active watershed councils in the John Day Subbasin including the Pine Hollow/Jackknife Watershed Council, Grass Valley Canyon Watershed Council, North Sherman Watershed Council, North Fork Watershed Council, Bridge Creek Watershed Council, Gilliam-East John Day Watershed Council, Mid John Day Watershed Council and the Upper South Fork Watershed Council. These watershed councils are comprised of local citizens working together to identify and implement restoration projects.

USFS/BLM Programs for Work on Private Lands: Title III, Section 323 and Title I, Section 136 of Public Law 105-277 (Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999). This act, commonly and locally referred to as the "Wyden Amendment," provides the Forest Service and Bureau of Land Management the authority to enter into collaborative arrangements with other state, federal and local partners to accomplish high priority restoration, protection and enhancement work on public or private lands.

SWCD Programs: Besides having their own programs supported through the U.S. Department of Agriculture, the SWCDs are frequently the conduit between other funding sources and the

private landowners undertaking restoration projects. The SWCDs also establish conservation priorities within their local districts. These priorities guide funding for programs such as EQIP and OWEB small grants.

Blue Mountains Elk Initiative: A federal, private, state, and tribal partnership to manage elk in the Blue Mountains of Oregon and Washington. The mission of this initiative includes: working with private land owners to alleviate damage to crops, trees, and forage; obtaining consensus on elk management priorities from all partners and interest groups; spending 90 percent of program funds for on-the-ground projects and remaining funds allocated to research and education.

Voluntary conservation and management projects funded by the Blue Mountains Elk Initiative include fencing, vegetation management, water development, noxious plant control, prescribed burning, and fertilization.

Private Landowner Initiatives: There are numerous examples of landowners volunteering to complete restoration projects on their land as they realize the benefit of these projects. These volunteer efforts clearly illustrate the good land stewardship that is practiced by the vast majority of private land owners in the John Day Subbasin.

4.3.2 Monitoring and Evaluation Programs

Monitoring Programs in the John Day Subbasin

There are several monitoring programs active within the John Day Subbasin, geared variously toward base-line measurement, time-trend estimation, and evaluation of the effectiveness of management strategies designed to improve aquatic habitat or water quality. Despite the large amount of stream monitoring occurring in the subbasin, it is clear from a breakdown of monitoring by type, location and frequency that understanding the myriad of processes in this large and diverse landscape can be a major challenge and that even more data is needed. Table 62 below summarizes some of the main stream monitoring efforts in the subbasin. In addition, aerial photography, airborne thermal infrared remote sensing, and other geospatial datasets continue to be produced; and stream gaging, fish counting and assessments of land use and management practices are underway.

Table 62. Monitoring programs in the John Day Subbasin.

Organization	Program	Sample Type	Location	Time	Parameter
DEQ	Biomonitoring	Water column, channel, riparian	Statistical sample of upper and reference watersheds	2000-2002, some repeated sites	Habitat, invertebrates, fish, vegetation, temperature, chemistry
	TMDL	Water column, channel, riparian	Longitudinal distribution on subbasin mainstems	2002-2004, one-time sites	Channel, temperature, chemistry, vegetation, flow
	Ambient	Water column	3 mainstem sites 1 each at North Fork and South Fork mouths,	Decades, quarterly, ongoing	pH, temperature, dissolved oxygen, turbidity and lab analyses
Monument SWCD		Water column, riparian	North & Middle Fork subbasins	1999 Ongoing	Temperature, some grab samples of other properties, photos.
Umatilla National Forest		Water column, channel, riparian	North, Middle & Lower John Day	As early as 1993, ongoing	Temperature, morphology, vegetation, sediment, macrovertebrates
Malheur National Forest		Water column	Middle Fork subbasin	Ongoing	Temperature
Ochoco National Forest, Paulina Ranger District		Water column	Rock, Keeton, Fry, Cottonwood, Black Canyon, Wind, N.F. Wind, Sunflower, and Frazier creeks; S.F. John Day River	Ongoing	Stream temperatures
		Water column	Black Canyon Creek	Ongoing	Stream discharge and peak flows
		Stream substrate	Rock, Keeton, Fry, Cottonwood, Black Canyon, Wind and N.F. Wind creeks	Ongoing	Redd surveys
		Stream	Keeton and Fry creeks	Starting in 2004	Presence/absence surveys for bull trout
USBR/OSU/ODFW Fish Production Study		Water column, channel, riparian	North, Middle & South Forks drainage areas	2004 ongoing	Habitat, invertebrates, fish, vegetation, temperature, chemistry

Organization	Program	Sample Type	Location	Time	Parameter
Confederated Tribes of the Warm Springs Indian Reservation	Mitigation Properties	Water column, riparian	Middle Fork, Pine Creek, mainstem John Day	Ongoing	Temperature, streamflow, vegetation, photo monitoring, breeding birds
		Upland	Middle Fork, Pine Creek, mainstem John Day	Ongoing	HEP, upland vegetation, game surveys, photo monitoring, breeding birds
	Watershed Restoration Program	Riparian, water column, project sites, uplands	Mainstem, Middle Fork, South Fork, North Fork John Day rivers, associated tributaries	Ongoing	Temperature, streamflow, riparian vegetation recovery, photo monitoring, upland vegetation, thermal profiles, aquatic populations, macroinvertebrates, channel cross sections, irrigation project effectiveness.
	Salmon Recovery Monitoring Program	Riparian, stream column	John Day Subbasin	Ongoing	Water quality, streamflow, irrigation groundwater recharge, riparian recovery and changes, spawning distribution, scour effects on salmonid redds.
The Nature Conservancy		Water column, channel, riparian, upland	Middle Fork	1992 Ongoing	Temperature, water table elevation, flow, vegetation, channel cross, weeds, photopoints
BLM		Water column, channel, riparian	Mainstem, North Fork	Ongoing	Temperature, vegetation
U.S. Geological Survey - Streamflow Gaging Station Program		Water column	3 John Day River sites, 1 Middle Fork site and 1 North Fork site	Between 1904 and present at various sites, ongoing	Streamflows, Temperature

Organization	Program	Sample Type	Location	Time	Parameter
Oregon Water Resources Department - Streamflow Gaging Station Program		Water column	1 John Day River, Mountain Creek, Canyon Creek, Strawberry Creek, Butte Creek, Deer Creek, Murderer's Creek site and 2 South Fork sites	Between 1926 and present at various site, ongoing	Streamflows
ODFW Terrestrial Species Monitoring	Upland Game Bird and Waterfowl	Post-harvest monitoring, breeding bird surveys, aerial counts and surveys, direct counts	John Day Subbasin (species dependent)	Ongoing	Population status and trends, habitat suitability, species distribution, breeding/hatching chronology, sex/age determination.
	Big Game	Aerial counts and surveys, hunter telephone surveys	John Day Subbasin (species dependent)	Ongoing	Composition and population sizes, harvest statistics.
	Non game wildlife	Direct counts, nest counts.	John Day Subbasin (species dependent)	Ongoing	Population status and trends, reproductive success

4.4 Existing Restoration and Conservation Projects

4.4.1 Restoration and Conservation Projects

Numerous restoration projects have taken place in the John Day Subbasin. During the planning process a database was developed to record and track these projects. This database is designed to allow users to sort and query the project data in a number of ways for analysis purposes. For example, data can be sorted and queried by project type, steelhead population area, HUC5 watershed, or limiting factor. The inventory of restoration and conservation projects is extensive. Thus, it has been placed in the appendix as Appendix X.

4.4.2 Research, Monitoring and Evaluation Projects (includes studies)

A number of the existing monitoring efforts in the John Day subbasin are listed in Table 62 in Section 4.3.2. Listed below are additional details on a few of the organizations' monitoring efforts.

BLM monitoring efforts: The BLM's monitoring program focuses on compliance and effectiveness monitoring. Planned and permitted activities are monitored for compliance with specifications designed to maintain or improve fish and wildlife habitat. Effectiveness monitoring measures the adequacy of these specifications in maintaining or improving habitat conditions. Effectiveness monitoring includes riparian trend studies, greenline studies, riparian photopoints, and a variety of watershed cover studies. Validation monitoring has been restricted

to redd counts. Validation monitoring has generally been limited to species with fewer legal regulations than fish, such as beavers. BLM also conducts monitoring in areas with special management emphasis (such as Wild and Scenic Rivers and Wilderness Study Areas) to supplement district-wide monitoring. Imagery collected in 2004 will be used to map riparian vegetation along the lower mainstem and South Fork of the John Day River.

CTWSRO monitoring efforts: The overall purpose of the John Day Basin Office's Salmon Recovery Monitoring Program is to expand the ongoing research, monitoring, and evaluation program being conducted in the John Day Subbasin by the John Day Basin Office of the Confederated Tribes of Warm Springs. Objectives are being addressed, through a combination of tasks, to meet issues that have been identified with the existing monitoring effort and to address emerging issues associated with the program. The objectives are related to three primary areas of interest: 1. assessing resource recovery that has resulted from past restoration activities; 2. evaluating trends in resource recovery resulting from the ongoing watershed program, and 3. identifying the current condition and trends in resources as a background to other ongoing evaluations.

Since 1997, the John Day Basin Office has conducted a watershed restoration program in the John Day Subbasin in cooperation with multiple funding and implementing agencies. Integral to the watershed program is an annual monitoring and evaluation effort, implemented for the purpose of assessing the effectiveness of various agency funded watershed restoration projects. The monitoring program is conducted under an annual monitoring plan(s), which is prepared by the John Day Subbasin Office in cooperation with other subbasin agencies.

4.5 Gap Assessment of Existing Protections, Plans, Programs and Projects

There are a significant number of existing fish and wildlife protections, plans and programs already in place in the John Day Subbasin. In addition, many projects have been undertaken for the benefit of fish and wildlife throughout the subbasin (see Appendix X for an inventory of these projects). However, there is a great deal of habitat protection and restoration work left to accomplish. Adequate funding will be critical to accomplishing this needed work. Following are some specific gaps that have been identified.

4.5.1 Existing Legal Protection

No additional legal protection has been identified that would benefit this management plan in the John Day Subbasin. Individuals trying to implement projects on the ground often report that the administrative requirement to meet legal obligations can cause a substantial delay and increase project costs. In other cases, projects are not permitted because of their short-term negative effects. An example is in-stream projects that may cause short-term adverse effects, yet achieve significant long-term benefits, for ESA-listed fish species. A close review of the administration and interaction of the numerous rules and regulations should be made to identify areas where the

administrative process can be streamlined to allow positive restoration projects to move forward in a timely and cost-effective manner.

An example of successful streamlining is the Oregon Division of State Lands' General Authorizations for removal and fill activities that have minimal individual and cumulative environmental impacts and do not result in long-term harm to water resources of the state. Other examples are programmatic biological opinions and region wide permits. Permit requirement exemptions and general authorizations greatly facilitate projects that fall within their requirements.

4.5.2 Existing Plans and Studies

There are two fish species listed by the ESA that do not yet have final recovery plans. Recovery plans for the two listed species – steelhead and bull trout – are in various stages of progress. Once finalized, these plans will affect natural resource management in the John Day Subbasin.

Steelhead Recovery Plan

NOAA Fisheries is currently working on the development of a Steelhead Recovery Plan. Once this steelhead plan is completed, the John Day Subbasin Plan may need to be modified as appropriate to be consistent with this recovery plan.

Bull Trout Recovery Plan

The USFWS has completed a draft plan for the recovery of bull trout. If the final recovery plan is significantly different from the draft, it may be necessary to modify the John Day Subbasin Plan to be consistent with the final recovery plan.

Additional Gaps for Plans and Studies

- Study on metapopulation behavior. As habitat conditions improve and fish populations increase in abundance, it is anticipated that populations will extend their present distributions. The persistence, productivity and health of each species will depend on how its individual populations interact with each other. This can provide a buffering mechanism when local conditions may cause declines in individual populations. The nature and intensity of these metapopulation interactions should inform management decisions and restoration strategies. Similarities and differences between populations should be determined and the rate of movement between populations monitored at periodic intervals.
- Data for non-anadromous focal species. There is a need to determine the abundance, distribution, life-stage survival and age-composition of fish in the John Day Subbasin. Data for bull trout, cutthroat trout and redband trout are almost nonexistent. Bull trout distribution within non-core areas (see Section 3.2.4 – bull trout for core areas as defined by USFWS) needs to be researched for viability/inclusion in recovery efforts.
- Cutthroat trout assessment. ODFW and the U.S. Forest Service should undertake a fine-scaled assessment of westslope cutthroat populations in the John Day Subbasin. This assessment should examine population trends and identify specific actions to be undertaken to maintain and enhance cutthroat stocks.

- Research the interactions between redband trout and summer steelhead. Increased populations of these species could result in increased hybridization with cutthroat trout. The causes, prevalence, and impact of this hybridization should be investigated with further research.
- Research bull trout migration patterns and the role of habitat conditions. The distribution and habitat needs of resident populations of bull trout in the John Day Subbasin are relatively well understood and knowledge of population status and trends is improving via the research efforts by ODFW and U.S. Forest Service. However, the nature and role of migrant life histories is poorly understood, even though connectivity between individual populations within the subbasin and possibly with other subbasin populations via the Columbia River is presumed to be important for maintaining genetic interchange. Even less is known about whether and how habitat conditions along migration routes affect these movements. Research into these topics will provide us with information we need to effectively target bull trout restoration efforts.
- Analysis of Granite Creek spring chinook. Granite Creek spring chinook is the only chinook population that is showing a declining trend in abundance. This may be due to habitat or biological factors unique to this population or it may be due to a redistribution with its near neighbors in the North Fork and Middle Fork. In any case the reasons for the decline in the Granite Creek population need to be determined to inform an appropriate management response.
- Research lamprey status, trend and habitat requirements in the John Day Subbasin. We need to improve our understanding of lamprey population dynamics and habitat requirements in the John Day Subbasin.
- Develop statistically reliable abundance, productivity, spatial structure and diversity data for summer steelhead and spring chinook. The base data to determine the salmonid viable population parameters for summer steelhead and spring chinook are limited. There is a need to conduct statistically reliable studies to utilize these parameters in setting realistic biological objectives and priorities.
- Research the effects of hatchery strays. Marked steelhead and chinook from other areas have been found in increasing numbers in recent years (ODFW 2001, Ruzycski, et al. 2004). Their probable origins should be determined by genetic evaluation against the growing baseline information for Columbia Basin chinook and steelhead.
- Research restoration potential in the lower subbasin. Fisheries conservation work in the John Day Subbasin has traditionally focused on the upper half of the basin, where relatively good habitat supports several native salmonid species. Conservation of steelhead has become more of a focus making the restoration potential of the lower subbasin a topic of increasing interest. Both EDT analysis and expert opinion emphasize that historically the lower subbasin produced a much greater proportion of the subbasin's steelhead than it does today (25% vs 13% by EDT). More research is needed to understand how easily that productive potential can be recovered. Some have emphasized that the poor habitat conditions in the lower subbasin suggest that restoration efforts are best focused on the upper subbasin where habitat of higher quality and quantity has been retained. Others have countered that the inherently high productivity of specific areas in the lower subbasin (some of which are believed to rear a class of smolts in one year, compared to the two three years typical in the upper subbasin) suggest that target restoration efforts in the lower subbasin should be a high priority. Research into

production capacity and intensive monitoring of selected restoration activities should be conducted to improve our understanding of steelhead productivity and response to restoration efforts at key sites in the lower subbasin. This subbasin plan calls for fisheries habitat restoration and protection to occur in both lower and upper portions of the subbasin to maximize potential production and minimize loss of diversity.

- Updated OWRD Basin Report. There is a need for additional studies to aid decision-makers in the subbasin. One such gap is the need for a Basin Report such as that produced by OWRD in 1986. Hydrologists throughout the subbasin use the 1986 report as a basis for watershed analyses, project design and management plans. It describes water uses in the subbasin and summarizes water use by watershed (Lower John Day, North Fork, Middle Fork and Upper John Day). An updated version of this Basin Report would be extremely helpful for adaptive management of water throughout the subbasin, including locating those areas in need of flow restoration. Ideally, this report would discuss the effects of return flows on late season in-stream flows.
- Accounting of channel geometry. An accurate accounting of the channel geometry compared to "potential" or "historic" would be very useful. One paleo flood study has been completed, but a more comprehensive look at sedimentation and carbon dating of the layers within terraces would help analyze the relations between climate change/land use and channel geometry (such as cross-sectional area, slope, sinuosity and channel shape). Filling this data gap would help determine reasonable restoration objectives for in-stream habitat and channel restoration.
- Refine the EDT model. In this planning process, extensive effort was put into working with the EDT model. Efforts to refine this model (as it specifically applies to the John Day Subbasin) will enhance our ability to run what-if-scenarios and produce finer-grained (reach-by-reach) assessments of habitat conditions and fisheries response. These efforts need to be undertaken to ensure that the time, effort, and resources that went into the model produce data that justifies its cost. If work with EDT is continued, it needs to be made accessible to project planners in a form and at a cost in which it can be used to evaluate proposed activities. It would be appropriate to complete EDT ratings on all remaining reaches.
- Riparian conditions studies. Studies to determine how improvements in habitat conditions affect summer rearing habitat, over-winter survival and smolt production are needed to evaluate the value of various restoration projects.
- Water temperature studies. There is a need to determine how streamflow and various habitat conditions affect water temperature.
- Conduct an aquatic invertebrate study and use data for water quality indicator. Evaluation of aquatic invertebrates is a good indicator of water quality. Expanding existing efforts by DEQ, OSU Extension, and CTWSRO would help identify water quality issues within the basin.
- Large woody debris goals. A study that identifies large woody debris goals based on landform and elevation in the John Day Subbasin would be useful. Large wood needs in streams are frequently based on studies conducted west of the Cascades.
- Conifer density studies. There is a need for studies to determine the effects of conifer density on base streamflows, peak streamflows and timing of streamflows.
- Electronic vegetation characterization. An electronic vegetation characterization layer consistent across the entire subbasin would be extremely useful for linking agencies with

private landowners when describing existing conditions. Satellite imagery could be utilized with an extensive ground truthing effort to produce, ideally, a layer of one-meter pixel resolution. Very few watershed analysis or land management plans can address issues at the landscape scale due to a lack of a landscape-level vegetation layer that can later be used at the project scale.

- Refined terrestrial habitat typing. There is a need to identify terrestrial habitat types at a finer scale. The habitat type maps currently available are at a very coarse scale which often leads to questions of accuracy and limits their use.

4.5.3 Existing Management Programs

- Support for efforts to use improved grazing systems in riparian areas. Effective control of grazing in riparian areas is an important element in maintaining and enhancing riparian conditions. A wide range of programs currently offered through NRCS and ODFW, and the Warm Springs and Umatilla tribes offer support to landowners in the John Day Subbasin who wish to exclude livestock from riparian areas. However, while effective, livestock exclusion is not the only way to control grazing to the benefit of riparian vegetation. Far fewer options for assistance are available for landowners and managers who wish to continue to graze riparian areas in a manner that allows for riparian area recovery. Programs that offer technical assistance and cost-shares for grazing infrastructure (e.g. fencing and water developments) should be expanded.

4.5.4 Existing Restoration and Conservation Projects

- Improve location information for projects. In developing the project inventory it was apparent that project location information was either non-existent or too coarse to determine where the projects have been implemented. There is also a need to ensure the availability of the inventory for both localized gap analysis by project proponents and synthesis of subbasin-wide activities for regional discussions.
- Subbasin wide coordination. The John Day Coordination Team is interested in building the local capacity to support project proponents, participate in regional discussions and planning processes, and coordinate the implementation and evaluation of the extensive restoration efforts under way in our subbasin. This will require ongoing support for subbasin-wide coordination.
- Extensive passage barrier inventory. While there are some local inventories, there is no comprehensive inventory of fish passage barriers in the John Day Subbasin. A passage barrier inventory is a gap that should be filled soon.
- Funding for active restoration on public lands. Much of the key habitat for all of the focal species in this plan is located on federal lands. Federal land management agencies currently have limited access to funding for proactive restoration. They are often prevented from accessing funding sources from outside their own agencies by either specific exclusions or the extensive non-federal match required by most federal funding sources. This deficiency could be addressed internally through agency budgets directed to fisheries enhancement or externally by increasing agency access to other sources of funding for fisheries enhancement (e.g. NOAA Fisheries restoration programs and

BPA/NWPCC programs or private foundations). In addition, effective partnerships need to be built to ensure that such funding is used effectively and efficiently.