



The abundance of salmon and steelhead in the Columbia River has declined in recent decades. Subbasin planning involves efforts to increase fish runs throughout the entire Columbia River basin.

## Special projects outlined for Deschutes River

Subbasin planning for the Deschutes River basin focuses on hatchery and tributary enhancement projects for increased production of spring and fall chinook and steelhead.

### Spring chinook

Spring chinook salmon are produced at Round Butte Hatchery and the Warm Springs National Fish Hatchery. The average run size of hatchery spring chinook for the Deschutes basin is 2,500 from 1982-1987.

Wild spring chinook salmon are produced in the Warm Springs River and Shitike Creek. The Warm Springs River above the hatchery and Shitike Creek are managed for wild fish only. The average run size for the subbasin is 2,265 between 1977-1987.

A tribal and recreational fishery occurs in a one-mile section of the Deschutes River from Sherar's Falls downstream to the mouth of Buck Hollow Creek from April to June. Approximately 30 percent of the harvested fish are taken by tribal fishermen while 70 percent is taken by recreational fishermen. Twenty-nine percent of the take is wild.

Two objectives have been listed for Deschutes River subbasin planning: Return 8,500 to 12,000 spring chinook salmon to the Deschutes River to provide 5,500 to 8,000 fish available for harvest and an escapement of 1,400 to 2,500 wild fish and 1,600 to 2,000 hatchery fish; 2. Increase harvest opportunities for spring chinook salmon in the Deschutes River.

Strategies to achieve Objective 1 include enhancement measures, expansion of natural production areas, and hatchery production increases. Objective 2 strategies focus on extending the bait fishing area.

Proposals to achieve the above objectives include the following activities. Shitike Creek habitat enhancement would include riparian projects and projects to improve holding areas and upstream passage.

Another activity involves Warm Springs River habitat enhancement which would call for riparian and instream projects in 20 miles of the stream.

White River Falls Passage improvement would provide access to 100 miles of spawning and rearing habitat that is currently unavailable. The preferred method for passage is a trap and haul facility located below the lower falls.

Round Butte Hatchery production increases are included in action steps. Biologists are looking at increasing spring chinook salmon smolt releases from 200,000-500,000 to 470,000-770,000. Pelton ladder would serve as the rearing facility.

Warm Springs National Fish Hatchery production could be increased. Released smolts of 1,200,000 would be consistent with the operational plan developed by the Tribes and the U.S. Fish and Wildlife Service.

An additional proposal involves a study to determine the feasibility of providing passage for spring chinook salmon adults and juveniles

past the Pelton-Round Butte hydroelectric project. Passage would provide access to historic spawning and rearing habitat.

Action for Objective 2 involves allowing bait from Sherar's Falls to Pine Tree.

### Fall chinook salmon

Deschutes subbasin fall chinook salmon are managed for wild fish only. No hatchery fall chinook are released. No harvest or escapement objectives are in effect for the Deschutes River.

This run may be composed of both summer and fall runs. The stock enters the subbasin from late June to October. It is managed currently as one run of fall chinook. Different management actions may be appropriate for each run.

The run size of fall chinook in the lower Deschutes River subbasin for 1977-87 averaged 9,557 fish annually. Escapement figures averaged 3,002-3,630 jacks and adults.

Harvest of fall chinook averaged 2,925 fish between 1977-87. Approximately 60 percent is taken by tribal fishermen and 40 percent by recreational fishermen.

Production of fall chinook occurs in the main stem of the Deschutes River, limited by quality and quantity of spawning gravel.

Objectives for fall chinook are aimed at increasing the run. Objective 1 calls for returning 10,000-12,000 fall chinook salmon in the Deschutes River to provide 4,000-5,000 fish for harvest and a 6,000-7,000 escapement.

Objective 2 is determination of whether or not the run is comprised of summer chinook and fall chinook.

Actions to achieve Objective 1 include different degrees of riparian enhancement and spawning gravel enhancement.

Achievement of Objective 2 includes determining time and location of spawning. Activities include tagging, redd counts and surveys, determination of life history characteristics and study of genetic characteristics of each run.

### Summer steelhead

All summer steelhead currently released in the subbasin are produced at Round Butte Fish Hatchery. The hatchery releases 162,000 smolts annually to meet the mitigation request of 1,800 summer steelhead.

Steelhead from other subbasins enter the Deschutes River and either stay or continue up the Columbia River to another subbasin.

The current escapement goal of 10,000 wild steelhead above Sherar's Falls has not been met between 1977-87. Recreational harvest was restricted in 1979 and has been prohibited since 1979 because the escapement goal has not been met and to protect visiting wild steelhead from other Columbia River subbasins.

Warm Springs tribal harvest averaged 933 wild steelhead and 1,818 hatchery steelhead during 1977-87. Recreational harvest averaged 3,879 hatchery steelhead from Sherar's Falls to the mouth of the river during that period.

Objectives for steelhead management include: 1. Return 16,000-22,000 summer steelhead to the Deschutes River to provide 5,000-11,000 fish available for harvest and an escapement of 10,000 wild fish and 600-1,000 hatchery fish. 2. Maximize harvest of hatchery steelhead in the lower Deschutes River subbasin. 3. Minimize the potential impact of hatchery summer steelhead on wild steelhead.

Strategies to achieve the objectives relies on enhancement of natural production in Trout Creek, Shitike Creek and the Warm Springs River. Hatchery production levels at Round Butte Hatchery and natural production levels would be maintained or increased.

Proposals to achieve the objectives include Trout Creek, Bakeoven Creek, Warm Springs River, Buck Hollow Creek and Shitike Creek enhancement. Work would also need to occur at Round Butte Hatchery to increase production

and at White River Falls and Pelton-Round Butte hydroelectric facility to allow passage.

Proposals for achieving Objective 2 includes incorporating angler-caught steelhead into the broodstock at Round Butte hatchery, allowing use of bait from Sherar's Falls to Pine Tree, year-round angling for summer steelhead in the Deschutes River, incorporating wild fish into the steelhead broodstock at Round Butte Hatchery and examining existing data regarding time of steelhead passage past Sherar's Falls and time of entry into the Peltonb Trap along with modifying hatchery broodstock selection.

To achieve Objective 3 action calls for limiting the release of hatchery steelhead smolts to immediately below Pelton Reregulating Dam, limiting the recycling of hatchery steelhead from Pelton Trap and incorporating wild fish into the steelhead broodstock at Round Butte Hatchery.

## Subbasin planning involves tribal members

In 1980, Congress passed the Northwest Power Planning Act that requires program development to protect and restore fish resources in the Columbia Basin. This is to replace fish losses caused by hydropower development. The Northwest Power Planning Council estimates that six million to 11 million fish are lost per year. The Power Council consulted

with Columbia Basin Fish and Wildlife agencies and Indian tribes. A goal is set to double fish runs to the Columbia from 2.5 million fish to 5 million adult fish. The production increases will be spread throughout tributaries of the Columbia including rivers and streams of the Warm Springs reservation and ceded areas such as the Deschutes, Hood River, John Day and Fifteen Mile Creek.

## Tribes, state to submit final subbasin plan

Salmon at one time were abundant in the Columbia River. Many were caught and used to carry on spiritual, cultural, economic and social activities as well as to sustain life.

Today salmon are still valuable to the Indian people. The spring chinook salmon continues to be used in religious ceremonies and social gatherings. The stories of salmon fishing on the Columbia River are still told. The spiritual values are passed on to each generation. And for some, salmon remains a way to make a living.

Salmon were almost destroyed over the past few decades. Development and exploitation of the resource has decreased numbers by an estimated 5-11 million adult fish annually. The current Columbia River run is approximately 2.5 million adult salmon and steelhead a year.

Since 1980 when the Northwest Power Act was passed which included developing a program working with fisheries agencies, tribes and hydroelectric developers to protect and restore fish and wildlife damaged by hydropower development, many projects have been aimed at increasing the salmon and steelhead runs. Fish restoration projects by the Yakima, Nez Perce, Umatilla and Warm Springs Tribes have been important.

However, a more large-scale plan, involving the subbasin which provides water to the Columbia River, is being analyzed for increased fish production. The Northwest Power Planning Council has set a goal of doubling fish runs in the Columbia River Basin.

The system planning to rebuild fish runs involves the integration of 31 subbasin plans. The system planning group is guided by representatives from the Idaho Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, Washington Department of Fisheries, Washington Department of Wildlife, U.S. Fish and Wildlife Service, Columbia River Intertribal Fish Commission and the Colville and Shoshone-Bannock Tribes.

Three committees are gathering input from the interested public and involved agencies. The Public

Advisory Committee, representing non-treaty user groups and interested members of the community at large, are helping ODFW in identifying a range of options and objectives for each subbasin.

The Technical Committee is composed of state and federal fishery agencies, land and water management and utility representatives. This committee will develop specific information and describe and assess potential options.

The Fish Management Committee, composed of state fisheries agencies and tribes, will work to select the range of objectives and options.

The primary goal of the committees is to provide the opportunity for input during preparation of the subbasin plan. Local meetings will allow public input during the data collection stage of the process.

The planning process for the 21 subbasins above Bonneville Dam was started in the fall of 1987 with the collection of existing data on fish stocks, harvest levels and hydro-power-caused fish losses. Biologists are writing reports regarding on-reservation and ceded area river basins which will include information on spawning grounds, fish hatcheries, water quality and other habitat conditions.

The 10 subbasins below Bonneville Dam will be reviewed towards the end of the process.

All subbasins will be analyzed to determine how the plans for one river basin will affect other subbasins. Alternate draft plans for restoring fish runs in each subbasin will be developed.

Tribes will be asking members what kinds of salmon they want and where and when they would like to fish. Biologists will develop goals to achieve these options.

Ultimately, a systemwide plan will be developed. Activities such as ocean harvests and fish losses due to hydroelectric development will also be considered.

By July 1990, the Tribes and states will submit a final subbasin plan to the Northwest Power Planning Council for project funding. The cost for the projects will be paid by ratepayers utilizing electricity produced by power companies.

**Topics for Tribal members to consider:**

- How did you learn your fishing techniques and from whom?
- How different is today's fishing compared to Celilo days?
- How many different tribes and people fished at Celilo, on the reservation on ceded area rivers?
- Are you passing down what you know about fishing to your children and grandchildren?
- What are your concerns about current fishing issues?
- Where were your favorite old fishing sites? Can they be used today? If not, why?
- On what rivers and at what places would you like to see fishing take place?

Please answer the questions if you are interested in fisheries on your reservation and ceded areas. If additional space is needed please attach a piece of paper with your response, numbering each with the number of the question. Please submit questionnaire to the Natural Resources Department by October 14.

## Please return deer tags

The return of all reservation and State deer and elk tags is requested by the Warm Springs Natural Resources Department. The tags are used to update harvest information on the reservation and state lands. State tags must be returned to the Oregon Department of Fish and Wildlife. Please bring your unused tags to the Natural Resources Department.