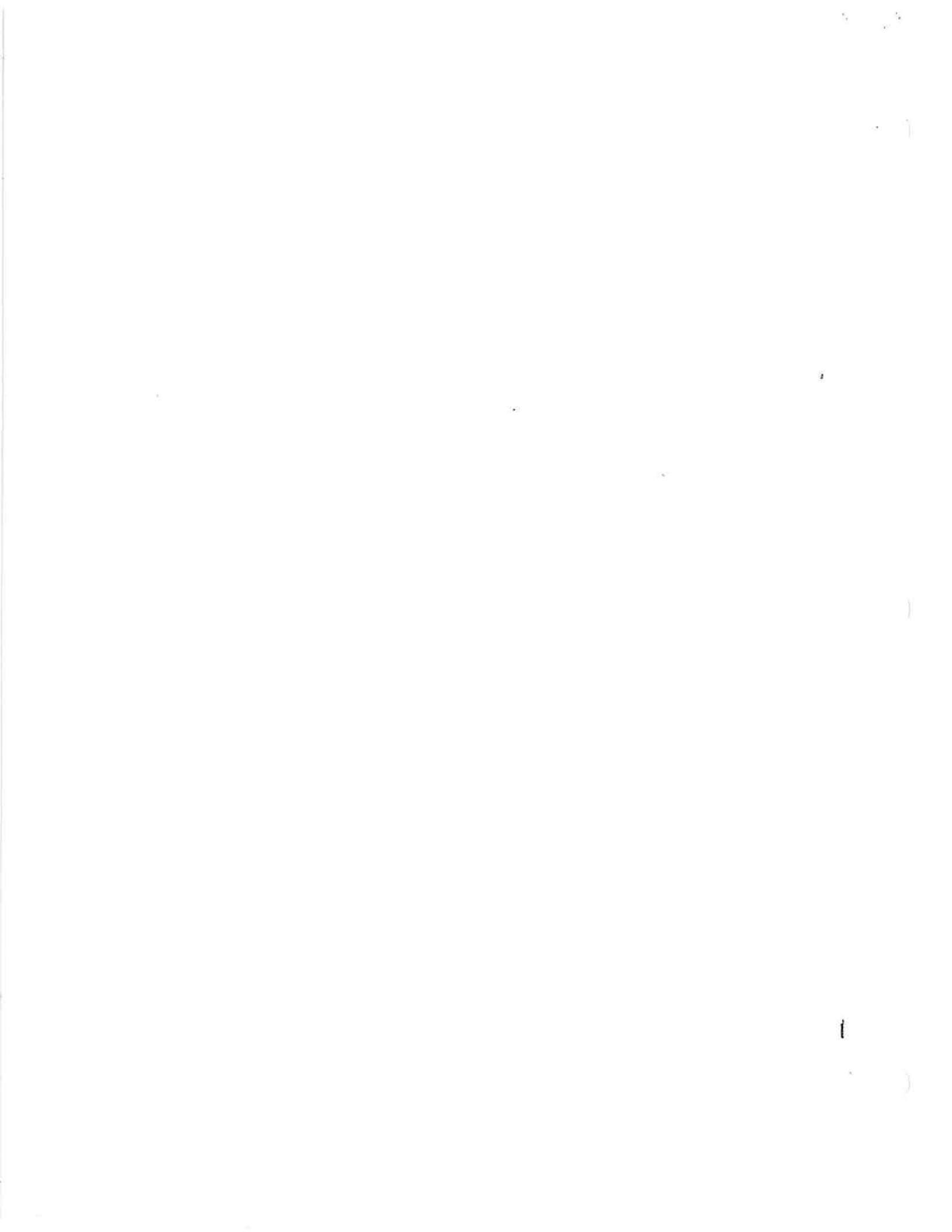


# **McKenzie Fish Management Plan**

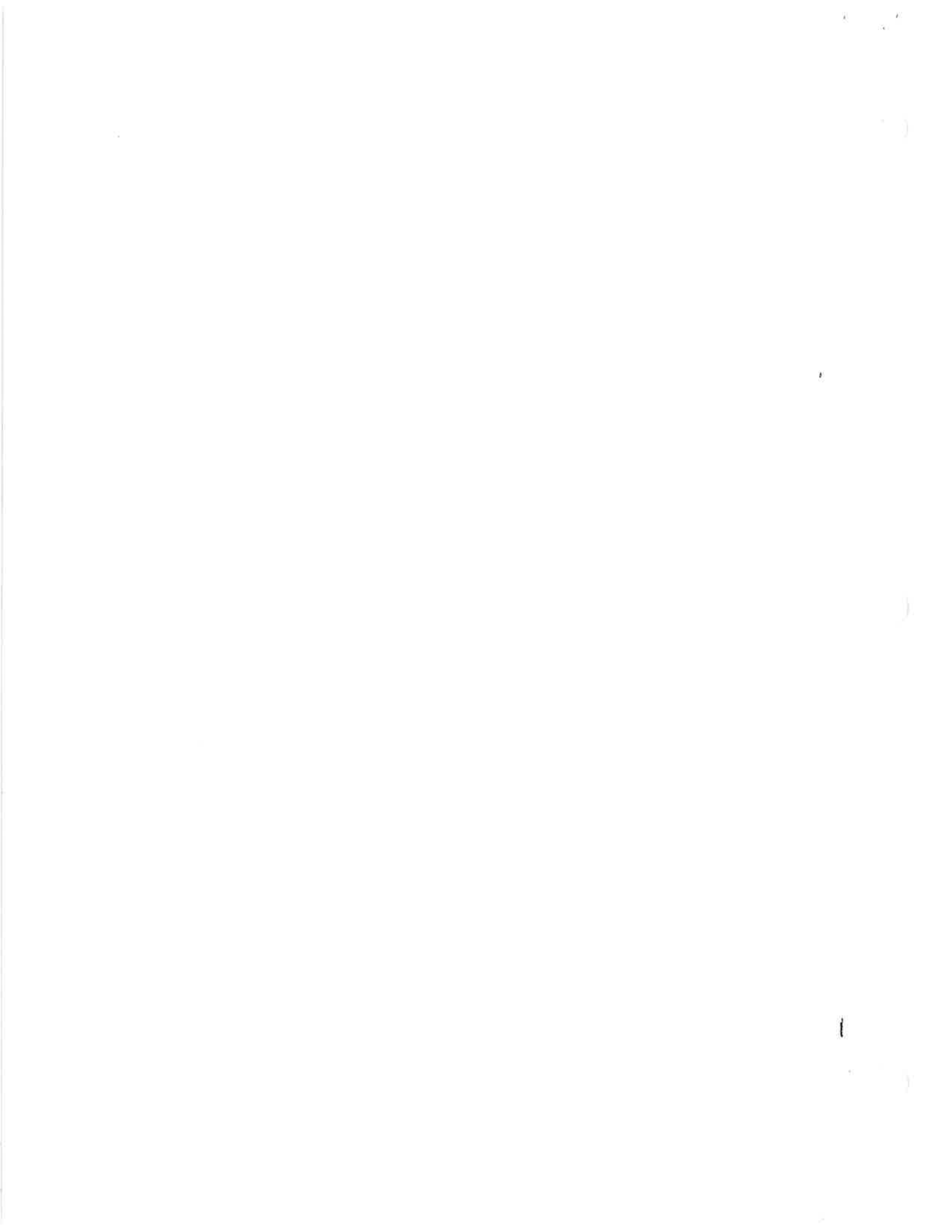
**Oregon Department of Fish and Wildlife**

**Adopted April 1997**



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## INTRODUCTION

The McKenzie Fish Management Plan is part of a larger Oregon Department of Fish and Wildlife (ODFW) planning program to develop a long-term approach to conserving and utilizing Oregon's fish resources. Basin plans, such as the McKenzie Plan, provide management direction for populations of fish in a basin. The McKenzie Plan contains policies, objectives, and actions that guide the management of fish populations in flowing waters in the McKenzie Basin. The planning process allows the public and other agencies to participate in developing ODFW management programs.

This document is a revision of the trout and whitefish sections of The McKenzie Subbasin Fish Management Plan which was adopted by the Fish and Wildlife Commission in 1988. Like the original McKenzie Plan, this revision covers only flowing waters in the McKenzie Basin. A revision of the entire plan, which will include standing waters, is scheduled for 1998, concurrent with revision of all fish management plans for the Willamette Basin. This interim revision of the McKenzie Plan is necessary because of changes in management of bull trout and increased opportunities to provide angling below Leaburg Dam. Since the original McKenzie Plan was adopted, minimum flows in the river below Leaburg Dam and the in the Walterville area have increased. Increased flow provides opportunity for the Department to increase the period of stocking and number of trout released in this area. Concern for the status of bull trout prompted a desire to at least temporarily eliminate stocking legal-size trout in the South Fork McKenzie and in the mainstem McKenzie between Blue River and Trail Bridge Dam to reduce angling mortality.

Basin plans, along with species plans, are a primary means of implementing ODFW fish management policies. Fish management in the McKenzie Basin is guided by many existing policies previously adopted by the Fish and Wildlife Commission. Major direction is set forth in Oregon Administrative Rule (OAR) 635 Division 07- Fish Management and Hatchery Operation which includes General Fish Management Goals, the Natural Production Policy, the Wild Fish Management Policy, Wild Fish Gene Resource Conservation Policy, Hatchery Fish Gene Resource Management Policy, Oregon's Trout Plan and The Steelhead Plan. ODFW's management of all fish species is guided by OAR 635-07-510 -- Fish Management Goals, section (1):

*"The overriding goal of fish management is to prevent the serious depletion of any indigenous fish species through the protection of native ecological communities, the conservation of genetic resources, and control of consumptive uses such that fish production is sustainable over the long term."*

In addition OAR 635-07-522 -- General Policies for Natural Production Management states:

*"It is the policy of the Commission to protect and promote natural production of indigenous and, where desirable, foreign fishes. Pursuant to Oregon Revised Statute (ORS) 496.012, ORS 496.435, ORS 506.036, and ORS 506.109, the Commission's overriding responsibility, through the management of individual populations, is to prevent the serious depletion of any indigenous species. To the extent consistent with that mandate, it is also the Commission's responsibility to manage fish for optimum economic, commercial, recreational, and aesthetic benefits for present and future generations."*

## RAINBOW TROUT AND CUTTHROAT TROUT

The McKenzie is one of Oregon's most popular rivers for cutthroat trout *Oncorhynchus clarki* and rainbow trout *Oncorhynchus mykiss* angling. Both species are native to the basin. A creel survey documented 50,800 days spent angling for trout in the area between Armitage Park (RM 7) and Blue River (RM 57) in 1983 (Hutchison and Hooton, 1983). Anglers harvested 38,000 hatchery rainbow trout, 3,000 wild rainbow trout, 1,900 wild cutthroat trout, 7,600 hatchery summer steelhead smolts, 100 wild steelhead smolts, 1,900 hatchery chinook smolts, 40 wild chinook smolts and 250 whitefish. Many others were released and not counted during this survey.

Native rainbow, often called "McKenzie reddsides," occur in the mainstem McKenzie upstream to Trail Bridge Reservoir and in the lower portions of medium and large tributaries above Leaburg Dam (Indian, Gate, Marten, Deer, Quartz, and Horse creeks and Blue River, South Fork McKenzie, and Smith River). The Department's List of Wild Populations includes 5 populations of resident rainbow trout in the McKenzie Basin (Table 1). Most of these populations are in relatively good habitat and probably have enough spawners to comply with the Wild Fish Management Policy. The largest threat may be introgression with stocked non-native rainbow trout and non-native summer steelhead. The wild McKenzie rainbow spawn in the spring and although rainbow are spawned at the hatchery in the early winter, there are examples of hatchery rainbow spawning later in the wild. Hatchery summer steelhead and rainbow have been observed spawning at the same and place in the McKenzie, although not together.

Table 1. Populations of rainbow trout in the McKenzie Basin.

Population	Compliance		Comments
	Hatchery: Wild ratio	Population >300	
McKenzie River below Trail Bridge and Cougar dams	yes	yes	Data from Leaburg counts, snorkeling, observations. Fall spawning rainbow and steelhead stocked.
Blue River above Blue River Dam	unknown	unknown	Fall spawning rainbow stocked in Blue River up to Quentin Creek.
McKenzie River above Trail Bridge Dam	unknown	unknown	Fall spawning rainbow stocked in Trail Bridge Reservoir.
SF McKenzie River, Cougar Dam to RM 28.5	yes	yes	Data from Stan Gregory. Fall spawning rainbow stocked in Cougar Reservoir.
SF McKenzie River above RM 28.5	yes	unknown	This population may be introduced as a result of stocking high lakes above this area.

Through 1996, legal-size hatchery rainbow trout were stocked in the mainstem from Bellingier Landing (RM 19) to Paradise Campground (RM 72); in Blue River above Blue River Reservoir and in the South Fork McKenzie above Cougar Reservoir. Releases of legal-size hatchery rainbow in the mainstem between Hayden Bridge and Armitage Park and above Paradise Campground were discontinued in the early 1980s. Rainbow trout were also previously stocked into Gate and Horse creeks and the Mohawk River,

Cutthroat trout are ubiquitous throughout the basin, living in most perennial streams, including areas above Tamolitch Falls and small, higher gradient tributaries not inhabited by rainbow trout. The Department's List of Wild Populations includes 40 populations of resident cutthroat trout in the McKenzie Basin (Table 2). Most of these

Table 2. Populations of cutthroat trout in the McKenzie Basin.

Population	Compliance		Comments
	Hatchery: Wild ratio	Population >300	
McKenzie River below Leaburg Dam	yes	yes	electrofish data available
McGowan Creek	yes	unknown	20 ft falls at RM 4.6
Crooked Creek	yes	unknown	7 ft falls at RM 1.4
Upper Mohawk River	yes	unknown	7 ft falls at RM 2.4
Holden Creek	yes	unknown	11 ft falls at RM 1.1
Cogswell Creek	yes	unknown	10 ft falls at RM 2.2
McKenzie River, Leaburg Dam to Trail Bridge Dam	yes	yes	
Hatchery Creek	yes	unknown	8 ft falls
Indian Creek	yes	unknown	15 ft falls RM 0.3
Unnamed creek tributary to NF Gate Creek	yes	unknown	7 ft falls at RM 0.7
Tom's Creek	yes	unknown	20 ft falls at RM 0.3
Marten Creek	yes	unknown	8 ft falls at RM 2.2, may not be a barrier, juvenile rainbow found above
Bear Creek	yes	unknown	8 ft falls at RM 0.6
Quartz Creek	yes	yes	10 ft falls at RM 11, angling data - Randy Wildman, OSU
Doe Creek	yes	unknown	20 ft falls at RM 2.0, unknown if fish are present
Indian Creek 1	yes	yes	12 ft falls at RM 0.3, angling data - 1991 district data
Indian Creek 2	yes	yes	30 ft falls at RM 1.0, angling data - 1992 district data
Blue River above Blue River Reservoir	yes	unknown	.
Lookout Creek	yes	unknown	9 ft falls
McCrea Creek	yes	unknown	7 ft falls
Tidbits Creek	yes	unknown	7 ft falls at RM 2.7
Quentin Creek	yes	unknown	30 ft falls at RM 1.0
SF McKenzie River above Cougar Reservoir.	yes	yes	
French Pete Creek	yes	unknown	10 ft falls at RM 5.0
Olallie Creek	yes	unknown	falls?
Hardy Creek	yes	unknown	10 ft falls at RM 3.0
Augusta Creek	yes	unknown	8 ft falls at RM 2.4
Elk Creek	yes	unknown	9 ft falls at RM 2.4
Mill Creek	yes	unknown	20 ft falls at RM 2.0
Pasture Creek	yes	unknown	7 ft falls at RM 0.5
Pothole Creek	yes	unknown	5 ft falls at RM 0.5
Mosquito Creek	yes	unknown	20 ft falls at RM 0.6
Lost Creek	yes	unknown	10 ft falls at RM 2.5
Deer Creek	yes	unknown	60 ft falls at RM 5.0
County Creek	yes	yes	25 ft falls at RM 0.1
McKenzie River, Trail Bridge Dam to Tamolitch Falls	yes	unknown	
Smith River above Smith Dam	yes	unknown	
Bunchgrass Creek	yes	unknown	17 ft falls at RM 0.3
McKenzie River, Carmen Dam to Sahalie Falls	yes	unknown	
Hackleman Creek/Fish Lake	yes	yes	above Clear Lake
Parks Creek	yes	yes	above Lava Flow, brook trout concerns, Wetherbee et al.

are listed as out of compliance with the Wild Fish Management Policy because the population size is unknown. Most populations are isolated above barriers in small headwater streams, occupy limited habitat, and are therefore naturally small. Although timber harvest, road building and dams have altered habitat, most of populations are probably not threatened at this time. Hatchery produced cutthroat trout originating from Hackleman Creek in the upper McKenzie watershed are released into some small, high elevation lakes.

For cutthroat trout and rainbow trout management purposes, the McKenzie Basin is divided into four sections. In aggregate, these areas offer a wide variety of angling opportunities. The following are descriptions of the four sections:

*The mainstem McKenzie River and its tributaries up to Hayden Bridge:* This area will be managed for wild cutthroat trout and rainbow trout. No hatchery trout will be stocked. The mainstem from the mouth to Hayden Bridge is one of the most productive sections of the McKenzie River for wild rainbow trout and cutthroat trout in terms of abundance and size of fish. Tributaries, especially those in the Mohawk watershed are important spawning and rearing areas for wild cutthroat trout that move downstream into the mainstem McKenzie River. Production of wild trout in the tributaries should not significantly decrease as long as habitat is protected. Anglers have expressed a high level of interest in managing this section of the river for wild trout. A very popular early season fishery targets primarily wild cutthroat trout and wild rainbow trout although some hatchery steelhead smolts and whitefish are available.

*The mainstem McKenzie River and its tributaries from Hayden Bridge up to Forest Glen boat ramp near Blue River:* This area will be managed for natural production of cutthroat trout and rainbow trout, supplemented with releases of hatchery rainbow trout in the mainstem McKenzie River and in Blue River above Blue River Reservoir. Wild trout are considered to be least abundant in this section compared to other sections of the mainstem. Population potential for wild trout has been reduced by hydroelectric power diversions in at least 13 miles of river downstream from Leaburg Dam. Competition between hatchery and wild trout and angling pressure generated by stocking hatchery trout will continue to suppress wild trout production. Migration of trout produced in numerous tributaries to the mainstem, mainly above Leaburg Dam, and spawning in the mainstem will help maintain wild trout in the mainstem.

The public is accustomed to fishing for hatchery trout in this section of the McKenzie River and there is considerable angling pressure, especially early in the season. Legal-size rainbow trout have been stocked since 1947 and 93% of the anglers surveyed in 1986 indicated that stocking should continue. Funding to produce these fish is provided by the US Army Corps of Engineers as mitigation for dams constructed in the Willamette valley. The high catch rates resulting from stocking hatchery trout attract many anglers that provide income to local businesses. This portion of the McKenzie River has good angling access and flows are suitable for angling throughout the summer. Stocking will continue in this area. Streamflow and temperature in Blue River above the Blue River Reservoir are suitable for stocking trout from April through July and stocking will continue there also.

*The mainstem McKenzie River and its tributaries from Forest Glen boat ramp up to Trail Bridge Dam:* This area will be managed as a refuge for the wild cutthroat trout and rainbow trout populations that are impacted by angling in downstream areas. This area is also very important to bull trout and wild spring chinook. No hatchery fish of any kind will be stocked. Regulations allowing angling only with flies or lures and require releasing all wild trout are in effect for the mainstem McKenzie River from Paradise



Campground to Trail Bridge Dam, the South Fork McKenzie, and Horse Creek. We are proposing to extend these regulations to include the McKenzie River from Forest Glen boat ramp to Paradise Campground. Such regulations decrease angling mortality and preserve areas of relatively greater trout abundance. Management of trout in the area above Cougar Reservoir will be driven largely by the status of bull trout. Beginning in 1997, angling only with flies and lures is allowed and legal-size rainbow trout will no longer be stocked to reduce incidental angling mortality on bull trout.

All streams above Trail Bridge Dam: This area will be managed for wild cutthroat trout and rainbow trout. Cutthroat trout and rainbow trout populations in this area have been impacted by the construction of dams and the introduction of non-native brook trout. We will manage all streams in this area under the general Willamette Zone angling regulations.

### **Policies**

**Policy 1. The population of cutthroat trout in the McKenzie River below Leaburg Dam shall be managed under the alternatives of the Trout Plan as:**

- **Featured Species and Waters in the mainstem below Hayden Bridge, and**
- **Wild in all other areas.**

**Policy 2. All other cutthroat trout populations shall be managed under the Wild Fish alternative of the Trout Plan.**

**Policy 3. The population of rainbow trout in the McKenzie River below Trail Bridge and Cougar Dams shall be managed under the alternatives of the Trout Plan as:**

- **Featured Species and Waters in the mainstem McKenzie from the mouth to McKenzie Bridge, and**
- **Basic Yield in Blue River below Blue River Dam, and**
- **Wild in all other areas**

**Policy 4. The population of rainbow trout in Blue River above Blue River Reservoir shall be managed under the alternatives of the Trout Plan as:**

- **Basic Yield from Blue River Reservoir up to Quentin Creek, and**
- **Wild in all other areas.**

**Policy 5. All other rainbow trout populations shall be managed under the Wild Fish alternative of the Trout Plan.**

**Policy 6. Hatchery produced cutthroat trout shall not be stocked in streams in the McKenzie River Basin.**

**Policy 7. Only legal-size, hatchery produced rainbow trout may be stocked in the Mainstem McKenzie River from Hayden Bridge to Forest Glen boat ramp near Blue River and in Blue River up to Quentin Creek. Hatchery produced rainbow trout shall not be stocked in any other streams in the McKenzie River Basin.**

## Objectives

**Objective 1. Maintain the genetic diversity and distribution, and maintain or increase the abundance of wild cutthroat trout and wild rainbow trout.**

### *Assumptions and Rationale*

1. Maintaining the distribution, and maintaining or increasing the abundance of wild cutthroat trout and wild rainbow trout will help to maintain the genetic diversity and adaptiveness of these populations.
2. Angling regulations in 1997 for cutthroat trout and rainbow trout in the mainstem McKenzie up to Trail Bridge Dam allow taking only adipose clipped fish.

### *Current Actions*

Action 1.1 Protect cutthroat trout and rainbow trout habitat.

Action 1.2 Continue to allow taking only adipose clipped hatchery rainbow trout in the mainstem McKenzie up to Trail Bridge Dam.

Action 1.3 Document distribution and relative abundance of wild cutthroat trout and wild rainbow trout.

- Refine snorkel counts of wild cutthroat trout and wild rainbow trout.
- Continue estimates of wild cutthroat trout abundance between Hayden Bridge and Armitage Park.
- Collate information on trout distribution gathered by other agencies.
- Continue to gather information on distribution of wild populations as time participation by volunteers allows.

### *New Actions*

Action 1.4 Document distribution and relative abundance of wild cutthroat trout and wild rainbow trout.

- Improve the video imaging system at the Leaburg Dam ladder and begin differentiating rainbow trout, cutthroat and other fish.

**Objective 2. Provide diverse opportunities to angle for cutthroat and rainbow trout.**

### *Assumptions and Rationale*

1. Because of the intense angling pressure generated by stocking large numbers of hatchery produced trout, regulations allowing the take of only hatchery produced rainbow trout are necessary in the mainstem McKenzie River to maintain healthy wild trout populations.

### *Current Actions*

Action 2.1 Provide anglers with the opportunity for an early season trout fishery. Allow angling all year in the mainstem McKenzie River downstream from Leaburg Dam.

Action 2.2 Provide anglers with the opportunity to fish for relatively abundant populations of wild trout. Allow angling only with flies or lures and require release of all wild trout to reduce angling mortality: 1) in the mainstem McKenzie River downstream of Hayden Bridge and from Paradise Campground to Trail Bridge Dam, 2) in the South Fork McKenzie River, and 3) in Horse Creek.

Action 2.3 Provide anglers with the opportunity to catch and retain hatchery produced rainbow trout. Stock approximately 141,000 legal-size trout in the mainstem McKenzie River between Hayden Bridge and Forest Glen boat ramp and 5,000 in Blue River above the reservoir.

Action 2.4 Provide opportunities for general consumptive angling for wild rainbow and wild cutthroat trout. Manage the remainder of the streams in the McKenzie Basin under the general Willamette Zone angling regulations.

## BULL TROUT

Bull trout *Salvelinus confluentus* (sometimes called Dolly Varden) are native to the McKenzie Basin. Bull trout have been extirpated from all other basins west of the Cascades in Oregon, except possibly the Middle Fork Willamette. In the early 1980s, agencies responsible for managing aquatic habitat and the species occupying that habitat became concerned about the declining abundance of bull trout in western Oregon. Bull trout are currently classified under the federal Endangered Species Act as Category 1, warranted for listing but precluded. Factors likely limiting the number of bull trout in the McKenzie drainage, include habitat alteration from road construction and timber harvesting, loss of juvenile spring chinook as a food source, mortality from angling, loss of migration corridors because of man-made obstructions, and competition with non-native brook trout. During the last decade the agencies engaged in many activities to expand knowledge of bull trout ecology, document distribution, improve habitat, reduce mortality, and involve other organizations in projects benefiting the species. Much of what is known about the status of bull trout in the McKenzie Basin is documented in reports to the Bonneville Power Administration covering work they funded beginning in 1994. A working group comprised of representatives from ODFW, USFS, USACE, Eugene Water and Electric Board (EWEB), Weyerhaeuser, Federation of Fly Fishers and the public, has been formed to draft a conservation plan for bull trout in the Willamette Basin.

The Department's List of Wild Populations includes 3 populations of bull trout in the McKenzie Basin: 1) The mainstem McKenzie River and tributaries up to Trail Bridge Dam, 2) the McKenzie River and tributaries from Trail Bridge Dam up to Tamolitch Falls, and 3) the South Fork McKenzie River above Cougar Dam. These populations were artificially formed in the early 1960s when dam construction fragmented the original McKenzie population. The status of each population is summarized below.

Mainstem McKenzie River: This population of bull trout appears to be the largest and most secure in the Willamette Basin. Anderson and Olallie creeks are key spawning and juvenile rearing areas and are relatively protected by USFS land management direction. The number of adults in this population appears to be increasing. We believe this is due, in part, to angling regulations adopted in 1990s that required the release of bull trout in the Willamette Zone and subsequently all wild trout in the McKenzie River below Trail Bridge Dam. We estimate 100-150 bull trout spawned in Anderson Creek and perhaps a dozen in Olallie Creek in 1996. Anderson Creek may be at carrying capacity for rearing juvenile bull trout. The number of fry and juvenile bull trout migrating each year has been similar during the three years of monitoring. Opening upstream passage for adult bull trout under Highway 126 on Olallie Creek in 1995 may have doubled the area available for rearing juvenile bull trout. This area had been inaccessible to bull trout since the highway was constructed in the early 1960s. We expect the mainstem McKenzie population to continue to increase in the foreseeable future.

Trail Bridge Reservoir: This population was cut off from the mainstem McKenzie in 1963 by the construction of Trail Bridge Dam. We believe that this population is severely limited by lack of juvenile rearing habitat and has been reduced by angling even though angling regulations requiring the release of bull trout in the Willamette Basin were adopted in 1990. The population probably has fewer than 20 adults spawning each year. The culvert on Sweetwater Creek under Highway 126 was modified in 1992 to allow upstream passage of bull trout. Fry transferred to Sweetwater Creek to re-establish bull trout appear to be doing well. Re-establishing bull trout

spawning in Sweetwater Creek would greatly increase juvenile rearing area for this population.

Brook trout are well established in Trail Bridge Reservoir and the watershed above the reservoir. Competition and hybridization between brook trout and bull trout are concerns. Brook trout and bull trout spawn at slightly different times in the McKenzie above the reservoir. It is unlikely that eliminating or even reducing brook trout is feasible.

South Fork McKenzie River. This population was cut off from the mainstem McKenzie in 1963 by the construction of Cougar Dam. Bull trout inhabit the South Fork McKenzie from Cougar Reservoir up to approximately the Three Sisters Wilderness boundary. Juvenile bull trout have been observed in the lower reaches of Roaring River, a large spring-fed tributary and in the South Fork McKenzie River below the confluence with Roaring River.

We believe that this population has 25-75 adults, although we have documented few redds. We presume that angling has limited the number of older fish in this population. Regulations requiring release of bull trout have been generally accepted, although there is still some harvest as a result of misidentification and illegal taking. The popularity of this river for angling is due in part to the release of legal-size rainbow trout, easy access, and numerous campsites. Beginning in 1997, legal-size rainbow trout will no longer be stocked in the South Fork McKenzie above Cougar Reservoir to reduce incidental angling mortality on bull trout.

## Policies

**Policy 1. All populations of bull trout in the McKenzie Basin shall be managed under the Wild Fish alternative of Oregon's Trout Plan.**

## Objectives

**Objective 1. Increase the abundance and distribution of bull trout.**

### *Assumptions and Rationale*

1. Increasing the abundance of bull trout will help to maintain the genetic diversity and adaptiveness of bull trout populations.
2. All waters in the Willamette Zone are "closed to angling for bull trout." in accordance with 1997 regulations.
3. Increasing the abundance of bull trout to a secure level will allow angling for these fish in the future.

### *Current Actions*

Action 1.1 Continue to regulate angling for bull trout in the McKenzie Basin under the general Willamette Zone regulations (no angling for bull trout allowed).

Action 1.2 Continue to educate anglers about the requirement to release bull trout unharmed.

Action 1.3 Document distribution and relative abundance of bull trout.

- Continue adult counts in the mainstem McKenzie and South Fork McKenzie as an index of the population abundance.
- Continue redd surveys on Anderson and Olallie creeks, the McKenzie above Trail Bridge Reservoir and wherever the South Fork McKenzie population spawns.
- Continue to document angler reports of bull trout.
- Continue to survey for distribution of bull trout, especially in the South Fork McKenzie and Horse Creek drainages.

Action 1.4 Protect and improve bull trout habitat.

Action 1.5 Improve quantity and quality of forage base by re-introducing spring chinook salmon or other endemic fish into habitats occupied by bull trout.

*New Actions*

Action 1.6 Document distribution and relative abundance of bull trout.

- Relate the number of redds to the number of bull trout spawning.
- Improve the video imaging system at the Leaburg Dam ladder and begin differentiating bull trout from other fish.

Action 1.7 Develop a conservation plan for bull trout in the Willamette Basin.

**Objective 2. Maintain genetic diversity of bull trout in the McKenzie Basin.**

*Assumptions and Rationale*

1. Re-establishing interbreeding between artificially isolated populations will help to maintain the genetic diversity and adaptiveness of bull trout populations, especially the Trail Bridge and South Fork McKenzie populations which have fewer adults reproducing.

*New Actions*

Action 2.1 Identify and implement the most appropriate approach to reconnect isolated population fragments. Possible approaches include:

- transferring juveniles between populations.
- providing upstream and downstream passage at Trail Bridge and Cougar dams.

## BROOK TROUT

Brook trout *Salvelinus fontinalis* are not native to the McKenzie Basin. Populations of brook trout occur in stream in upper areas of the basin as a result of introductions into lakes. Brook trout have established naturalized populations in Hackleman Creek, the upper mainstem McKenzie from Clear Lake to Trail Bridge Reservoir, and in the upper reaches of Horse Creek, Blue River and the South Fork McKenzie. Because brook trout are not an endemic species, provisions of the Wild Fish Management Policy do not apply to them.

Naturalized brook trout populations in stream in the McKenzie Basin are often locally abundant and composed of small but mature fish. They can compete with and displace populations of native cutthroat trout and bull trout. Eliminating naturalized brook trout populations from streams in the McKenzie Basin is not practical at this time.

### Policies

**Policy 1. All populations of brook trout in the McKenzie Basin shall be managed under the Basic Yield alternative of Oregon's Trout Plan.**

**Policy 2. Hatchery produced brook trout shall not be stocked in the McKenzie River or its tributaries.**

### Objectives

**Objective 1. Confine brook trout in the McKenzie Basin to their current distribution.**

#### *Assumptions and Rationale*

1. Although brook trout will not be released into streams, the Department will continue to release brook trout fingerlings into selected high lakes.
2. Holding brook trout to their current distribution will help prevent future impacts on native species.

#### *Current Actions*

Action 1.1 Continue to monitor the distribution and abundance of brook trout.

#### *New Actions*

Action 1.2 Release hatchery produced brook trout only into high lakes where 1) there is a history of brook trout stocking and, 2) naturally reproducing brook trout are present downstream or the lakes have no outlet.

**Objective 2. Provided opportunities to angling for brook trout.**

#### *Assumptions and Rationale*

1. Brook trout in streams of the McKenzie Basin attract little interest from anglers.

2. Angling regulations in 1997 for the Willamette Zone include "No limit on the size or number of brook trout taken from streams".

*Current Actions*

- Action 1.1 Continue to allow liberal angling opportunity for brook trout in streams of the McKenzie Basin under the general Willamette Zone regulations.



## WHITEFISH

Whitefish *Prosopium williamsoni* are native to the McKenzie Basin. The Department's List of Wild Populations includes 2 in the McKenzie Basin (Table 3). One population is confined to the South Fork McKenzie above Cougar Dam and the other is found in the mainstem McKenzie up to Trail Bridge Dam, the South Fork McKenzie below Cougar Dam, and the lower portions of larger tributaries such as Gate, Quartz, and Horse creeks and Blue River. Whitefish are abundant in the mainstem McKenzie and the South Fork McKenzie.

Table 3. Populations of whitefish in the McKenzie Basin.

Population	Compliance		Comments
	Hatchery: Wild ratio	Population >300	
McKenzie River	yes	yes	have counted over 3,000 in passage over Leaburg Dam
SF McKenzie River above Cougar Dam	yes	yes	abundant during snorkeling and gill nets in reservoir not actually enumerated

Although whitefish can be caught on natural bait and flies, they are seldom sought and even less frequently harvested by anglers. They are usually caught by anglers seeking trout. In 1983 whitefish accounted for less than 1% of the total harvest in the McKenzie River. A four pound whitefish was caught in the McKenzie River in 1974.

### Policies

**Policy 1. All populations of whitefish in the McKenzie Basin shall be managed under the Wild Fish alternative of Oregon's Trout Plan.**

### Objectives

**Objective 1. Maintain the genetic diversity, distribution and abundance of whitefish in the McKenzie Basin.**

#### *Assumptions and Rationale*

1. Maintaining abundant populations and not stocking hatchery produced whitefish will maintain the genetic diversity and adaptiveness of whitefish.
2. Current angling and habitat regulations are sufficient to maintain adequate populations throughout the basin.

#### *Current Actions*

Action 1.1 Protect whitefish habitat.

Action 1.2 Continue counts of whitefish moving upstream at Leaburg Dam.

Action 1.3 Continue incidental observations of whitefish abundance while sampling for other fish species.

**Objective 2. Provided opportunities to angling for whitefish.**

*Assumptions and Rationale*

1. Angling for whitefish in the McKenzie Basin will be incidental to fisheries for rainbow trout and cutthroat trout.
2. Streams in the Willamette Zone are open for whitefish angling "During trout, salmon or steelhead seasons" with "No limit" in accordance with 1997 regulations.

*Current Actions*

Action 2.1 Continue to regulate angling for whitefish in the McKenzie Basin under the general Willamette Zone regulations.