



# JOINT STAFF REPORT CONCERNING THE 2005 FALL IN-RIVER COMMERCIAL HARVEST OF COLUMBIA RIVER FALL CHINOOK SALMON, SUMMER STEELHEAD, COHO SALMON, CHUM SALMON, AND STURGEON

Joint Columbia River Management Staff

Oregon Department of Fish and Wildlife Washington Department of Fish and Wildlife

#### TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF FIGURES	6
INTRODUCTION	7
THE COMPACT	7
STOCK STATUS	8
Fall Chinook	8
Stock Description	8
2004 Returns	9
2005 Forecast	
Upriver Summer Steelhead	
Stock Description	
2004 Returns	
2005 Forecast	
Coho	
Stock Description	
2004 Returns	
2005 Forecast	
Chum	
Sturgeon	
MANAGEMENT GUIDELINES	17
Endangered Species Act	
2005 Columbia River Salmon Management Guidelines	
Lower Columbia River Sturgeon Allocation	
Zone 6 Sturgeon Allocation	
REVIEW OF MAINSTEM FISHERIES	20
Past Seasons.	20
2004 Fall Season Summary	
Zone 6 Fisheries	24
Treaty Indian Commercial Fishery	24
Sturgeon Fisheries	24
Lower River Commercial Fisheries	
Early Fall Mainstem Fisheries	
Late Fall Mainstem Fisheries	

Select Area Fisheries	26
Lower River Recreational Fisheries	28
Buoy 10 Sport Fishery	28
Lower Columbia Mainstem Sport Fishery	28
2004 Fishery Impacts	29
2005 FALL SEASON FISHERY EXPECTATIONS	
Non-Indian Fisheries	29
2005 Non-Indian Columbia River Fall Fishery Chinook Allocation Agreement	29
Coho Protection Measures	31
Youngs Bay Select Area Fisheries	31
Other Select Area Fisheries	31
Treaty Indian Commercial Fisheries	32

#### LIST OF TABLES

Table 1.	Summary of 2004 Actual and Current 2005 Forecasts of Adult Salmon and Steelhead Returns to the Columbia River	3
Table 2.	Stock Accountability of Adult Fall Chinook Returning to the Columbia River, 1980-2004	3
Table 3.	Predicted and Actual Returns of Columbia River Adult Fall Chinook, 1996-2004 (Thousands)	4
Table 4. 1	Estimated Columbia River Returns and Lower Granite Dam Escapement of Snake River Wild Fall Chinook Adults, 1986-2004, and 2005 Projected3:	
Table 5.	Skamania Index, Group A Index, and Group B Index Returns of Summer Steelhead to Bonneville Dam During 1984-2004.	5
Table 6.	Minimum Numbers (Thousands) of Coho Adults Entering the Columbia River, 1970- 2004	5
Table 7. 1	Minimum Numbers (Thousands) of Early Stock Coho Adults Entering the Columbia River, 1970-20043	7
Table 8. 1	Minimum Numbers (Thousands) of Late Stock Coho Adults Entering the Columbia River, 1970-2004	8
Table 9. l	Escapement Index Values for Chum in Washington Lower Columbia River Tributaries and for Late Run Coho in Oregon Columbia River Tributaries Downstream of the Sandy River, 1950-2004	9
Table 10.	Salmon, Steelhead, and Smelt of the Columbia River Basin Considered for Listing Under the Federal ESA. <sup>1</sup>	О
Table 11.	Sturgeon Catch Guidelines in the Zone 6 Management Area, 1998-200540	)
Table 12.	Fall Lower Columbia River and Zone 6 Mainstem Commercial Fishing Seasons, 2004. 1	1
Table 13.	Fall Select Area Commercial Fishing Seasons, 2004	
Table 14.	Salmon, Steelhead, and Sturgeon Catch in 2004 Fall Fisheries. <sup>1</sup> (Includes adults and jacks)	3
Table 15.	Non-Indian Fall Commercial Fishing Seasons, 20044	4
Table 16.	Catch Composition of Fall Zone 6 Treaty Indian Fisheries, 2004. <sup>1</sup> (Includes adults and jacks)	4
Table 17.	Stock Composition of Adult Fall Chinook Landed in Mainstem Columbia River Fisheries, 2004 <sup>1</sup>	5
Table 18.	Summary of 2004 Fall Fishery Impacts. 155	
Table 19.	Fishing Area and Spring Creek Sanctuary Restrictions in Effect During Treaty Indian Fall Commercial Set Gillnet Seasons, 1988-2004	
Table 20.	Number of Adult Chinook, Coho, Steelhead, and Sturgeon Landed During Treaty Indian Fall Seasons (Aug-Nov) Above Bonneville Dam, 1970-200457	7

Table 21.	Wild Steelhead Catch in Treaty Indian Fall Season Fisheries, 1985-200459
Table 22.	Sturgeon Catches in Zone 6 Reservoirs above Bonneville Dam, 1991-200459
Table 23.	Time, Area, and Gear Restrictions in Effect for Non-Indian Mainstem Fisheries Occurring During the Early Fall Fishing Seasons, 1980-2004 <sup>1</sup> 60
Table 24.	Number of Adult Chinook, Chum, Coho, Steelhead, and Sturgeon Landed During Early Fall Mainstem Columbia River Commercial Seasons Below Bonneville Dam, 1970-2004
Table 25.	Closed Fishing Areas During Late Fall Mainstem Non-Indian Fishing Seasons, 1999-2004
Table 26.	Number of Adult Chinook, Coho, Steelhead, and Sturgeon Landed during Late Fall Mainstem Columbia River and Select Area Commercial Seasons (mid-Sep to mid-Nov) below Bonneville Dam, 1970-2004
Table 27.	Lower Columbia River White and Green Sturgeon Catches, 1991-200464

#### LIST OF FIGURES

Figure 1.	Columbia River Commercial Fishing Zones.	8
Figure 2.	Average Run Timing of Adult Fall Chinook over Bonneville Dam (1994-2004) Applied to the 2005 Forecasts	9
Figure 3.	Stock Components of Columbia River Fall Chinook and 2005 Adult Preseason Forecasts.	11
Figure 4.	Average Run Timing of Summer Steelhead over Bonneville Dam (1997-2004) Applied to the 2005 Forecast	13
Figure 5.	Average Daily Counts of Salmon and Shad at Bonneville Dam, 1986-2004	21

## JOINT STAFF REPORT CONCERNING THE 2005 IN-RIVER COMMERCIAL HARVEST OF COLUMBIA RIVER FALL CHINOOK SALMON, SUMMER STEELHEAD, COHO SALMON, CHUM SALMON, AND STURGEON

#### INTRODUCTION

This report describes fall fisheries in the mainstem Columbia River and includes summaries of 2004 fall fisheries, 2005 management guidelines, and expectations for 2005 fall fish runs and fisheries. It is part of an annual series of reports produced by the Joint Columbia River Management Staff of the Oregon Department of Fish and Wildlife (ODFW) and Washington Department of Fish and Wildlife (WDFW) prior to each major Columbia River Compact hearing. Information concerning early and late fall mainstem management periods and fall Select Area fisheries are included in this report.

The first Compact hearing of the 2005 fall management period will begin at 10:00 am, Thursday July 28<sup>th</sup> at the Clark County Board of Commissioners Public Service Center located at 1300 Franklin Street, Vancouver, Washington. The purpose of this hearing is to review salmon, steelhead, and sturgeon stock status and consider non-Indian commercial fishing options for the mainstem Columbia River. At this hearing, the states will also consider Select Area fall salmon seasons in Youngs Bay, Tongue Point/South Channel, Blind Slough/Knappa Slough, Deep River, and Steamboat Slough. Additionally, a Compact hearing will likely be scheduled in midto late August to consider non-Indian commercial fisheries and/or treaty Indian commercial fisheries in the mainstem Columbia River. Further Compact hearings will be scheduled throughout the fall management period as needed to evaluate salmon and steelhead stock status and adopt or modify treaty Indian and non-Indian commercial seasons as appropriate.

Salmon and summer steelhead returns are predicted prior to the fall season and are updated inseason based on the most current ocean and in-river fishery information plus Columbia River dam counts (Table 1). White sturgeon abundance in the lower Columbia River is updated annually. The data in this report have been reviewed by the Technical Advisory Committee (TAC) prior to distribution. The TAC is comprised of biologists from state and federal fish management agencies and the Columbia River treaty Indian tribes, and functions by agreement of the parties under *U. S. v Oregon*.

#### THE COMPACT

The Columbia River Compact is charged by congressional and statutory authority to adopt seasons and rules for Columbia River commercial fisheries (Figure 1). In recent years, the Compact has consisted of the Oregon and Washington agency directors, or their delegates, acting on behalf of the Oregon Fish and Wildlife Commission (OFWC) and the Washington Fish and Wildlife Commission (WFWC). In addition, the Columbia River treaty tribes have authority to regulate treaty Indian fisheries.

When addressing commercial seasons for salmon, steelhead, and sturgeon, the Compact must consider the effect of the commercial fishery on escapement, treaty rights, and sport fisheries, as well as the impact on species listed under the Endangered Species Act (ESA). The Compact must also consider the relationship between sport and commercial fisheries when addressing the allocation of limited resources among users which has become increasingly demanding in recent years. The Compact will continue to apply a conservative management strategy when considering fisheries that will impact listed salmon and steelhead.

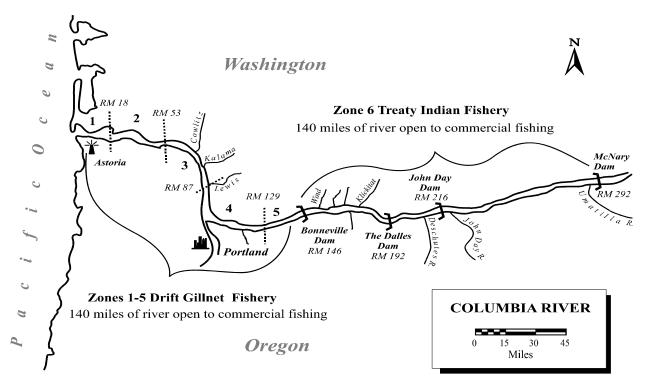


Figure 1. Columbia River Commercial Fishing Zones.

#### STOCK STATUS

#### **Fall Chinook**

#### Stock Description

Fall Chinook generally enter the Columbia River from late July through October with abundance peaking in the lower river from mid-August to mid-September and passage at Bonneville Dam peaking in early September. Columbia River fall Chinook are comprised of five major components: Lower River Hatchery (LRH), Lower River Wild (LRW), Bonneville Pool Hatchery (BPH), Upriver Bright (URB), and Mid-Columbia Bright (MCB). The LRH and BPH stocks are referred to as tules and the LRW, URB, and MCB stocks are referred to as brights. Minor run components include Lower River Brights (LRB) and Select Area Brights (SAB).

The URB, BPH, and a portion of MCB Chinook are produced above Bonneville Dam, and in aggregate, comprise the upriver run, which is subject to treaty Indian/non-Indian allocation requirements. Most of the URB stocks are wild fish destined for the Hanford Reach section of the Columbia River and Priest Rapids Hatchery. Smaller URB components are destined for the Deschutes, Snake, and Yakima rivers. Snake River Wild (SRW) fall Chinook are a subcomponent of the URB stock. The MCBs originated from, and are considered a component of the URB stock. The upriver MCB component (Pool Upriver Brights or PUB stock) is comprised of brights that are reared at Bonneville, Little White Salmon, Irrigon, and Klickitat hatcheries and released in areas between Bonneville and McNary dams. Natural production of brights derived from PUB stock is also believed to occur in the mainstem Columbia River below John Day Dam, and in the Wind, White Salmon, Klickitat, and Umatilla rivers. The BPH stock is produced primarily at Spring Creek Hatchery in the Bonneville Pool. BPH passage at Bonneville Dam occurs over a shorter timeframe than the URB and MCB Chinook (Figure 2). Natural production of tules occurs in the Wind, White Salmon, and Klickitat rivers.

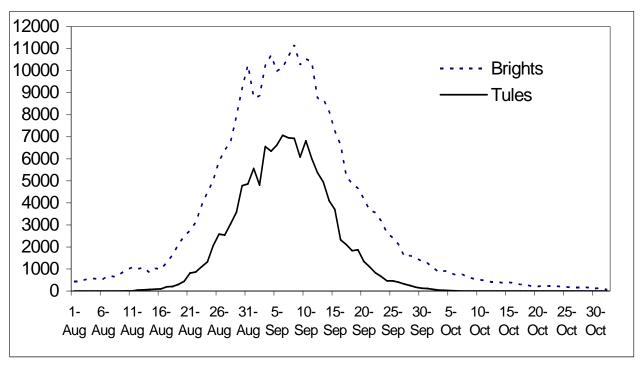


Figure 2. Average Run Timing of Adult Fall Chinook over Bonneville Dam (1994-2004) Applied to the 2005 Forecasts

The lower river run is comprised of LRH, LRW, MCB, LRB, and SAB stocks, which are produced below Bonneville Dam. The LRH stock is currently produced from hatchery facilities (five in Washington and one in Oregon) while the LRW stock is naturally produced primarily in the Lewis River system, with smaller components also present in the Cowlitz and Sandy rivers. Some natural production of LRH stock occurs in several tributaries below Bonneville Dam. The MCB production below Bonneville Dam (Bonneville Upriver Brights or BUB stock) occurs at Bonneville Hatchery in Oregon. The LRBs are a self-sustaining natural stock that spawns in the mainstem Columbia approximately three miles downstream from Bonneville Dam. The LRB stock is closely related to URBs and is thought to have originated from MCB or URB stock. Prior to 1998, LRBs were classified as BUBs, but beginning in 1998, LRBs were identified as a separate stock and are considered to be a component of the MCB stock. SABs are a local hatchery stock that originated from Rogue River fall Chinook stock egg transfers in 1982 and are currently released from Klaskanine Hatchery on the North Fork Klaskanine River and net pens located in Youngs Bay.

#### 2004 Returns

The total Columbia River fall Chinook adult return of 799,000 adults in 2004 was the fourth largest return since 1948 and 46% higher than the recent 5-year average (2000-2004) of 548,700 (Table 2 and 3). In 2004 URB's comprised 45% of the total river mouth return and the URB return of 363,500 adults was the third largest return on record since 1980 (Table 2). The 2004 McNary Dam count of 170,600 adults surpassed the management goal of 43,500 and was the largest count excluding 2003 on record (since 1960). The Deschutes River Basin return continued a positive trend with 13,100 adults returning. Estimated 2004 returns of SRW fall Chinook to the Columbia River were not available at the time this report was published (Table 4).

The BPH return of 175,300 adults was one of the largest returns since 1976 and the fourth largest return on record. Adult returns of BPH included 68,900 fish to Spring Creek Hatchery, which was nearly 10 times the escapement goal of 7,000 adults. Natural spawning escapement of BPH stock adults totaled 2,300, 8,700, and 300 in the Wind, White Salmon, and Klickitat rivers, respectively.

The 2004 MCB return to the river mouth of 121,900 adults was the second largest MCB return on record (since 1980), and included 67,200 PUB stock, 52,500 BUB stock, and 2,200 LRB stock. The adult PUB fall Chinook return included an escapement of 2,600 to Little White Salmon Hatchery. Natural escapement of adult PUB stock included 5,600 in the White Salmon River and 5,900 in the Klickitat River, as compared to the interim escapement goals of 1,300 and 1,000 fish, respectively. The adult BUB fall Chinook return included an escapement of 23,900 BUB's to Bonneville Hatchery that was over four times the 5,750 fish escapement goal. Significant natural escapement of BUBs does not occur. LRB's typically spawn in the mainstem Columbia River just below Bonneville Dam.

LRH returns in 2004 totaled 108,900 adults, which was above the recent five-year average of 94,600 fish. LRH returns for 2004 were a third less than each of the two previous years, due in part to Mitchell Act funding reductions. A total of 30,100 fish returned to Oregon and Washington hatcheries below Bonneville Dam, which greatly exceeded the escapement goal of 14,000. A total of 21,800 fish returned to Washington hatcheries (goal 10,400) and 8,300 returned to Big Creek Hatchery in Oregon (goal 3,600). An additional 41,100 LRH fall Chinook spawned in Washington tributaries below Bonneville Dam and interim natural escapement goals in most Washington tributaries were achieved in 2004.

LRW Chinook returns were good in 2004 with a river mouth return of 22,300 adults, which is a third higher than the recent five-year average of 16,100. The natural spawning escapement goal of 5,700 fish to the North Fork Lewis River was achieved in 2004 with 14,200 LRW adults returning.

Returns of SAB Chinook in 2004 totaled 7,100 fish, which is one of the largest returns on record (since 1985).

#### 2005 Forecast

The total adult return of fall Chinook in 2005 is forecast to be 671,400 adults which is lower than last year's near record return of 799,000 adults but would still be one of the ten largest returns since 1948 (Table 1 and Figure 3). The forecasted return of 354,600 URB adults exceeds the recent 5-year average of 281,400 URB adults. The MCB forecast of 89,700 adults would fall below the recent 5-year average of 97,900. The BPH forecast of 115,800 adults is less than the recent 5-year average, but greater than the 10-year average of 82,700. The LRW forecast of 21,400 adults is similar to last year's actual return of 22,300 and the fourth largest return since 1989. The LRH forecast of 78,400 adults would be slightly below the recent 10-year average of 84,600. The 2005 SAB forecast of 11,500 is far greater than anything on record since 1985.

### Washington

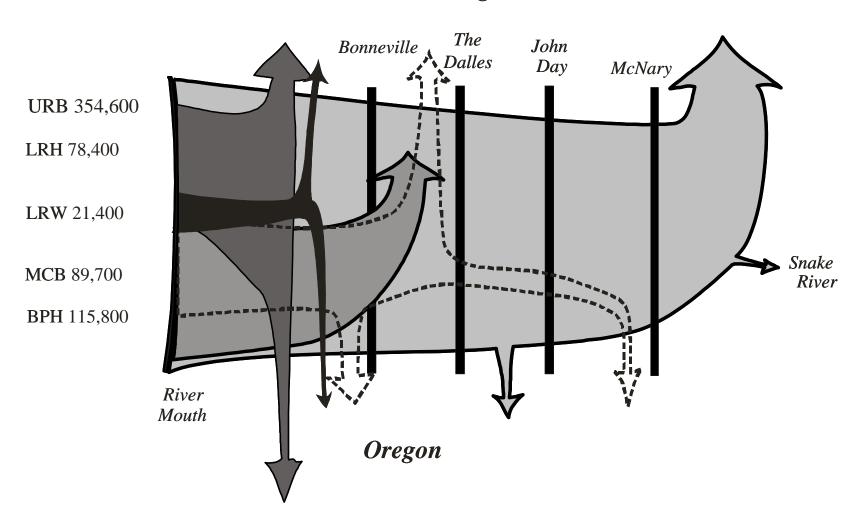


Figure 3. Stock Components of Columbia River Fall Chinook and 2005 Adult Preseason Forecasts.

#### **Upriver Summer Steelhead**

#### Stock Description

Summer steelhead enter the Columbia River year-round, with most of the run entering from June through October. The upriver steelhead run has historically been separated into "A" and "B" groups based on phenotypic characteristics. The "A" group is made up of fish with an earlier run-time at Bonneville Dam and that are smaller than 78 cm. The "B" group is made up of fish with a later run-time at Bonneville Dam and that are equal to or larger than 78 cm. It is believed that the "B" group represents steelhead that return only to particular tributaries in the Salmon and Clearwater rivers in Idaho while the "A" steelhead return to subbasins throughout the Columbia.

In 1999, the TAC completed a review of steelhead passage data from the 1990s and determined that smaller steelhead tend to be earlier-timed at Bonneville Dam while larger steelhead tend to be later-timed. Previous methodology for separating group "A" and "B" steelhead can be found in historical Joint Staff reports.

The current method adopted by TAC for estimating fishery impacts uses length data from Bonneville Dam collected from July 1-October 31 to assign impacts to Group "A" (<78 cm) index and Group "B" (≥78cm) index steelhead. The run-time distributions of hatchery and wild "A" and "B" steelhead are shown in Figure 4. Steelhead that pass Bonneville Dam prior to July 1 are classified as Skamania index steelhead. TAC continues to review this issue and is currently analyzing PIT tag data that may lead to a better index for "A" and "B" steelhead.

Group "A" and "B" steelhead cannot be distinguished based on run timing above Bonneville Dam, where groups mix as fish seek temporary refuge in cooler tributaries. Steelhead counts at dams above Bonneville surge as mainstem water temperature declines in the fall. Counts peak at John Day, McNary, and the Snake River dams in September and October. During years of above average September-October flows and lower temperatures, steelhead move readily past lower Snake River dams during the fall counting period (June-December) and fewer fish are delayed until the spring count period (March-May). Snake River steelhead experience higher Bonneville to Lower Granite Dam survival rates in run years with lower spring count percentages.

Steelhead are subject to sport fisheries throughout the basin and treaty Indian fisheries in Zone 6. In the Columbia River Basin above Bonneville Dam summer steelhead are caught in sport fisheries during the year of entry, and in the winter and spring of the following calendar year with catch regulations allowing only fin-clipped hatchery fish to be retained. Treaty Indian harvest occurs throughout the year in platform and gillnet fisheries but most of the catch occurs during the fall gillnet fishery concurrent with landings of fall Chinook. In recent years the tribes have reduced catch of wild steelhead during fall treaty Indian gillnet seasons. Commercial harvest of steelhead by non-Indians has been prohibited since 1975 and time, area, and gear restrictions minimize handling and mortality of steelhead.

#### 2004 Returns

The 2004 return of summer steelhead to Bonneville Dam was 309,000 upriver fish, including 21,000 Skamania index fish, 250,600 Group "A" index fish, and 37,400 Group "B" index fish (Tables 1 and 5). The Skamania index group is expected to include 4,100 wild fish (20%), while the "A" index group is expected to include 57,500 wild fish (24%) and the "B" index group is expected to include 9,200 wild fish (25%).

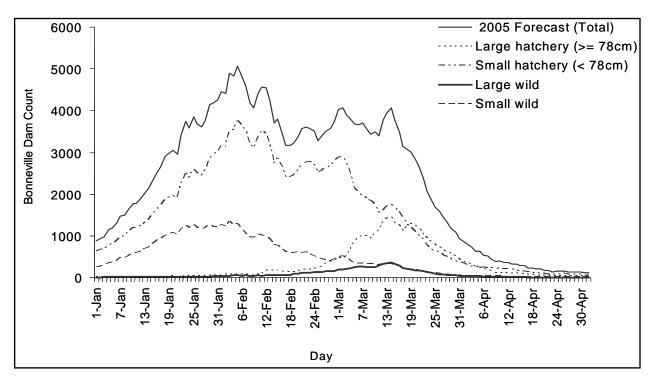


Figure 4. Average Run Timing of Summer Steelhead over Bonneville Dam (1997-2004) Applied to the 2005 Forecast.

#### 2005 Forecast

The 2005 forecast for the summer steelhead return to Bonneville Dam is 308,600 upriver fish, including 15,300 Skamania index fish, 245,500 Group "A" index fish, and 47,800 Group "B" index fish (Table 1). The Skamania index group is expected to include 3,600 wild fish (24%), while the "A" index group is expected to include 57,500 wild fish (23%) and the "B" index group is expected to include 9,400 wild fish (20%).

#### Coho

#### Stock Description

Columbia River coho return primarily to Oregon and Washington hatcheries downstream from Bonneville Dam with some hatchery production destined for above Bonneville Dam. In recent years approximately one-third of the releases have occurred above Bonneville Dam. Since 1970 adult coho returns to the Columbia River have ranged from a low of 74,000 in 1995 to a high of 1,527,800 in 1986 (Table 6). The Columbia River hatchery coho return includes both early and late segments with commercial fisheries prior to mid-September landing primarily early stock, fisheries during mid-September through early October landing a mixture of early and late stock, and fisheries occurring after early October landing primarily late stock.

Early stock coho enter the Columbia River from mid-August to early October with peak entry occurring in early September. Almost all early stock coho remain along the Oregon and southern Washington coasts and most migrate southward from the Columbia River. Since 1970, adult returns of Columbia River early stock coho have ranged from a low of 43,400 in 1983 (*El Niño* year) to a high of 730,800 in 1986 (Table 7). In 2004, releases of early coho above Bonneville Dam comprised 37% of the total early stock releases.

Late stock coho enter the Columbia River from mid-September through December with peak entry occurring in mid-October. The majority of late stock coho migrate northward from the Columbia River and reside along the Washington coast and Vancouver Island. Hatchery production has expanded since 1975 and is primarily from Washington hatcheries below Bonneville Dam. In 2004, releases of late stock coho above Bonneville Dam comprised 39% of the total late stock releases. Since 1970, Columbia River returns of late stock coho have ranged from a low of 16,800 in 1995 to a high of 796,900 in 1986 (Table 8).

Historic natural coho production areas in Washington included the Grays, Elokomin, Cowlitz, Toutle, Kalama, Lewis, and Washougal watersheds. Stream surveys conducted in Washington from 1945-1979 in the Toutle and lower Cowlitz River tributaries showed a steady decline of naturally spawning coho. Significant natural spawning still occurs in the lower Cowlitz River system but is almost entirely composed of Cowlitz hatchery fish. Surveys of 37 Washington streams below Bonneville Dam in 1991 suggested that natural spawning continues but production is low. Surveys of the majority of Washington tributaries below Bonneville Dam were performed again in 1998. Results of the 1998 surveys indicated that natural spawning occurs at low levels over a wide variety of areas; however, the bulk of the spawners (>90%) appear to be hatchery fish.

In Oregon, Columbia River tributaries that were historic natural coho production areas include the Lewis and Clark, Youngs, Klaskanine, Clatskanie, Clackamas, and Sandy rivers plus Big, Gnat, Beaver, Milton, and Scappoose creeks. Annual spawning fish survey counts conducted in Oregon lower Columbia River tributaries from December through February since 1949 suggested that wild coho may have been extirpated from Oregon's lower Columbia tributaries, excluding the Clackamas and Sandy rivers. Intensive surveys conducted during 1990-1992 and counts of 0.0-0.4 fish per mile during 1993-1999 supported this conclusion; however, increased numbers of coho have been observed in lower Columbia River tributaries since 1999 which suggests that some remnant populations may persist in the lower Columbia River Basin (Table 9). Post-November peak fish counts of 8.8 fish per mile in 2000, 1.4 fish per mile in 2001, 9.0 fish per mile in 2002, and 10.0 in 2003 were all well above the 1990's average of 0.2 fish per mile but well below the 1949-1970 average of 25.1 fish per mile.

The Clackamas and Sandy rivers still contain significant natural populations of coho. The naturally-produced Clackamas coho run is destined for areas above North Fork Dam. The Sandy River wild coho population passes above Marmot Dam. Since 1978, natural coho returns to the Sandy and Clackamas rivers have varied widely with very low returns observed during 1996-1999. Natural coho returns to the Clackamas and Sandy rivers increased during 2000-2001 and 2003, but declined in 2004. However, passage of 1,000 adults over Marmot Dam in 2004 remained above the historic (1960-1969) average of 800 adults annually. The 2004 preliminary coho adult return past North Fork Dam on the Clackamas River totaled 1,800 which is below the recent 5-year average of 2,200.

Historical natural coho production areas above Bonneville Dam include the Spokane, Yakima, Wenatchee, Entiat, Methow, and Snake rivers. The majority of coho presently passing Bonneville Dam are returns from hatchery releases of lower river coho stocks in the Yakima, Umatilla, Little White Salmon, Klickitat, and Clearwater rivers. The only remaining wild fish occur in a few natural spawning areas in tributaries of Bonneville Pool. In the past, hatchery releases above Bonneville Dam have primarily been for the purpose of harvest augmentation but the parties are also increasing efforts to restore naturally producing coho to appropriate habitats above Bonneville Dam, most recently the Snake and Methow rivers. Counts of coho destined for

areas above Bonneville Dam have represented an increasing percentage of the total return in response to increased releases above Bonneville Dam. Since 1998 passage over Bonneville Dam has exceeded 40,000 adults with counts ranging between 40,700 in 1999 and 259,600 in 2001, which more than doubled the previous record of 108,600 in 1986 (Table 6). The 2004 Bonneville Dam count of 115,000 coho adults is the third highest count since 1938.

#### 2004 Returns

The 2004 Columbia River coho return of 446,200 adults was comprised of 293,200 early stock fish and 153,000 late stock fish. The 2004 adult return was over a third smaller than the 2003 return of 683,700 but was significantly larger than the 1995-1999 average of 154,200 (Table 6). The early stock component had the largest decrease with the late stock fish declining slightly in 2004 (Tables 7 and 8). Overall, early and late coho aggregate and individual hatchery escapement goals were achieved in 2004.

#### 2005 Forecast

The projected 2005 Columbia River mouth return, following expected ocean fisheries, is 206,400 adults, which includes 178,200 early stock and 28,200 late stock (Table 1). A total return of 206,400 would be the smallest return since 1998 but significantly higher than the average of 130,300 observed during the poor return years of 1993-1998. The early stock forecast is more than double the 1993-1998 average of 94,200; however, the late stock forecast is even lower than the average of 36,000 during the same time period. Approximately 60,300 coho are expected to pass above Bonneville Dam after ocean and lower river fisheries. The early stock hatchery escapement goal of 15,800 is expected to be achieved after all mainstem and tributary fisheries have occurred. The late stock hatchery goal of 9,700 most likely will be met in 2005; however, individual hatchery goals may not be achieved.

#### Chum

Chum salmon return to the Columbia River from mid-October through mid-December with spawning occurring from late October through early January. Chum salmon returns are primarily from natural production. Primary production areas for chum salmon include the Grays River in Washington, smaller tributaries just downstream from Bonneville Dam, and the mainstem Columbia River in select locations from the I-205 Bridge upstream to Bonneville Dam. Currently there are three hatchery supplementation programs releasing fed-fry. Adults originating from these hatchery releases began contributing to the Grays and Chinook rivers and Duncan Creek spawning populations in 2001, 2002 and 2004 respectively. Washington index areas have been surveyed annually since 1950 and select areas of the mainstem Columbia River have been surveyed annually since 1998. Beginning in 2000, survey areas were expanded to include non-index streams in Washington and Oregon entering the Columbia River downstream of Bonneville Dam. Significant numbers of chum salmon have been observed in some nonindex Washington areas. Few chum have been observed in Oregon tributaries, however survey effort has been light compared to Washington streams. Chum salmon returns, as indexed by counts of fish per mile, to Washington index areas have been increasing since 2000 (Table 9). A percentage of this increase is likely due to large releases (204K and 303K in 2001 and 2002 respectively) of hatchery reared fed-fry into the Grays River system (63% of the index stream total is in this system). The exact percent contribution of these hatchery origin adults has not been determined at this time but is suspected to be significant. Chum salmon are caught incidentally in the late fall non-Indian commercial fishery with landings typically occurring after

mid-October. Chum landings totaled 90 in 2004, 89 were landed in late fall mainstem fisheries and one was reported from the Youngs Bay fishery (Table 14).

#### Sturgeon

Both white and green sturgeon are present in the lower Columbia River. Green sturgeon originate primarily from the Klamath, Sacramento, and Rogue rivers and use the Columbia River estuary extensively during summer and early fall. Columbia River white sturgeon originate from spawning areas near Bonneville Dam and range seasonally up and down the lower Columbia River. Columbia River white sturgeon are also known to use near shore ocean waters along the Oregon and Washington coasts and contribute to populations in other coastal bays and estuaries. Columbia River sturgeon fisheries are designed primarily for white sturgeon. Sport anglers seldom catch green sturgeon but green sturgeon contributed significantly to commercial catches prior to 2001.

The current white sturgeon population is considered to be healthy and probably consists of at least one million fish exceeding 2 feet in length. In general, indicators of sublegal (<42 inches) abundance appear stable at this time. Population estimates produced during 1995-2001 indicate that the number of 42"-60" sturgeon in the population decreased about 4% annually instead of increasing at the rate the abundance models predicted. These results suggest the combined sport and commercial annual harvest rates exceeded levels considered to be adequate for broodstock recruitment needs. There is evidence that the harvestable population was overestimated in 1996 due to extensive emigration of white sturgeon from the lower Columbia River. Tags recovered from outside the Columbia River Basin indicated that this emigration began in 1995-1996 with the fish continually returning to the Columbia River since 1997. Managers used population abundance and fish growth rates to calculate appropriate harvest guidelines. Analysis of recapture data from 1985-2000 indicates that growth rates for white sturgeon slowed substantially in 1995, then gradually returned to normal levels. Managers now believe the harvest guidelines established for 1997-1999 and renewed for 2000-2002 did not fully allow for adequate recruitment of white sturgeon through fisheries into the broodstock population. In conjunction with the extension of the Joint State Sturgeon Management Agreement for 2003-2005, the white sturgeon annual catch guideline was reduced from 50,000 fish to 40,000 fish in response to this new information.

Isolated white sturgeon populations also exist in reservoirs upstream of Bonneville Dam. Abundance varies among populations and is limited primarily by lack of quality spawning habitat in each reservoir. The sturgeon populations in the three Zone 6 reservoirs are currently being evaluated every three years to monitor the success of hydro-system mitigation activities, which include quota management based on an optimum sustainable yield (OSY) harvest management strategy. Pool specific abundances of 36"-72" white sturgeon are estimated using mark-recapture methodology, which results in abundance estimates of 13,450 in John Day Pool (2004), 20,600 in The Dalles Pool (2002), and 31,880 in Bonneville Pool (2003). Managers normally project population growth based on abundance estimates and average fish growth rates; however, new data on fish growth rates indicate that white sturgeon in all three pools are growing slower than previously thought. The new growth rate data invalidated the abundance projection model managers previously used; therefore, abundance for each pool (except John Day) was not projected for 2004 and 2005 as has been the case in previous years.

#### MANAGEMENT GUIDELINES

#### **Endangered Species Act**

Status reviews occurring since 1991 have resulted in the majority of Columbia Basin salmon and steelhead stocks being listed under the ESA (Table 10). In order to facilitate consultations with the National Oceanographic and Atmospheric Administration (NOAA) Fisheries for past mainstem treaty Indian and non-Indian fisheries, the *U.S. v Oregon* TAC has prepared biological assessments for combined fisheries based on relevant *U.S. v Oregon* management plans and agreements. The TAC has completed Biological Assessments (BAs) of impacts to all ESA-listed salmonid stocks (including steelhead) for all mainstem Columbia River fisheries since January 1992 and for Snake River Basin fisheries since January 1993.

Lower Columbia coho were listed as a threatened species by NOAA Fisheries on June 28th, 2005 and a final determination is expected in August. The State of Oregon listed wild coho destined for Oregon tributaries of the lower Columbia River as an endangered species under Oregon state law in July 1999. The ODFW has completed a management plan for state-listed wild coho. The management plan includes separate abundance-based harvest matrices for ocean and freshwater fisheries and was adopted at the July 20, 2001 OFWC meeting. The harvest matrices provide separate maximum allowable fishery mortality rates for ocean and freshwater fisheries based on parental escapement relative to full seeding and marine survival as indexed by the return rate of jacks per hatchery smolts released. For 2005, the combined ocean and freshwater fishery mortality rate should not exceed 21.4% of the pre-fishery ocean abundance and the freshwater fishing mortality rate should not exceed 6.5% of the run entering the Columbia River. Fisheries will be managed to limit impacts to state-listed coho through the use of area closures or mesh size restrictions as described in the "Coho Protection Measures" section of this document.

A Biological Assessment concerning Columbia River treaty Indian and non-Indian fisheries as described in the recently adopted "2005-2007 Interim Management Agreement for upriver Chinook, sockeye, steelhead, coho, and white sturgeon" was submitted to the NOAA Fisheries during the spring of 2005, and a Biological Opinion was issued on May 9<sup>th</sup>, 2005.

#### **2005** Columbia River Salmon Management Guidelines

The CRFMP expired on July 31, 1999. The parties to *U.S. v Oregon* have re-negotiated a new plan covering fisheries from January 2005 through December 2007. This interim agreement titled "2005-2007 Interim Management Agreement for Upriver Chinook, Sockeye, Steelhead, Coho and White Sturgeon" provides specific fishery management constraints for fall Chinook, steelhead and coho. Guidelines from the Interim Management Agreement, and other agreements, are highlighted below.

- ✓ Allowable SRW fall Chinook impacts in combined non-Indian and treaty Indian mainstem fisheries below the confluence of the Snake River is a 30% reduction from base period harvest rates. The corresponding impact rate is 31.29% of the aggregate URB run.
- ✓ The freshwater URB impact rate of 31.29% will be allocated 23.04% for treaty Indian fisheries and 8.25% for non-Indian fisheries.
- ✓ Upriver fall Chinook escapement goals include 7,000 adult fall Chinook (4,000 females) to Spring Creek Hatchery and 43,500 adult fall Chinook (natural and hatchery included) for spawning escapement above McNary Dam.

- ✓ Treaty Indian fall fisheries will be managed to limit impacts on wild Group B index steelhead to no greater than 15%. All non-Indian fisheries outside the Snake River Basin will be managed for an upriver wild steelhead impact rate not to exceed 2% on wild Group B index steelhead.
- ✓ Ocean and lower river fisheries will be managed to provide for Bonneville Dam escapement of at least 50% of the upriver coho salmon return.
- ✓ Non-Indian fisheries will be managed for an impact rate of less than 5% for Columbia River chum salmon.
- ✓ Columbia River fisheries will be managed to limit impacts to 6.5% on wild coho destined for Oregon tributaries.
- ✓ Management and allocation guidelines for non-Indian fisheries are included in the "2005 Non-Indian Columbia River Fall Fishery Chinook Allocation Agreement", which was developed during the North of Falcon process. URB fall Chinook impacts in fisheries downstream of the Snake River are allocated preseason 50% to the sport fishery and 50% to the commercial fishery. The Columbia River Compact/Joint States will use this URB impact allocation as guidance for making in-season management decisions concerning the Columbia River sport and commercial fisheries.

#### **Lower Columbia River Sturgeon Allocation**

Sturgeon fisheries between the Columbia River mouth and Bonneville Dam during 2003-2005 are guided by a management plan adopted by the Oregon and Washington Fish and Wildlife Commissions and the Columbia River Compact. Major tenets of the "Joint State Agreement on Sturgeon Fishery Management" include:

- ✓ Management for optimum sustained yield of white sturgeon.
- ✓ Absent significant updates, the annual harvestable number is 40,000.
- ✓ Harvestable number may be adjusted if there is a significant population update resulting from new biological information, new analytical/theoretical approach, or a substantial change in harvest impacts outside of the Columbia River system.
- ✓ Allocate white sturgeon harvestable number 20% commercial (8,000) and 80% sport (32,000).
- ✓ Sport and commercial seasons will be modified as necessary to ensure that average catch during the three-year period (2003-2005) does not exceed fishery-specific harvestable number.
- ✓ Commercial target seasons allowed as necessary to access allocation and maximize economic benefit consistent with conservation objectives for other species.
- ✓ Green sturgeon may be taken during white sturgeon commercial seasons but green sturgeononly commercial seasons are not allowed (green sturgeon catch rate not to exceed historical rates).
- ✓ Commercial size limits are 48-60 inches for white sturgeon and 48-66 inches for green sturgeon.
- ✓ Recreational size limit for white and green sturgeon is 42-60 inches (with the exception of 45-60 inches in the area below the Wauna Power lines from May 15- July 23, 2004, and May 14-present, 2005) with one fish daily limit, five fish annual (per calendar year) limit, and

barbless hooks required. A reduction in the annual limit from ten to five in Washington State became effective April 1, 2004.

Catch of white sturgeon in Select Areas is included in the annual commercial allocation of the harvestable number. Past management practices regarding white sturgeon catch in Select Areas have varied and were developed in consultation with participants of Select Area commercial fisheries. In 2000, commercial fishing industry leaders met to discuss the harvest of white sturgeon in Select Areas as it related to the commercial allocation and arrived at the following consensus points:

- 1) Select Area fisheries should be managed as salmon-directed fisheries.
- 2) Use of gear (mesh size) restrictions should be adopted to target salmon, not sturgeon. New regulations should be phased in to limit economic impact on participating fishers. Based on a June 8, 2000 public meeting with interested participants in Select Area fisheries a 6-inch maximum mesh size was considered appropriate for coho-directed fisheries and a 7 to 8-inch maximum mesh size was considered appropriate for Chinook-directed fisheries.
- 3) Enforcement presence is encouraged to ensure compliance with gear restrictions.

Sturgeon retention regulations enacted during the fall of 2001 and 2002, a reduced commercial sturgeon allocation for 2003-2005, and increased salmon fishing opportunities resulted in an evaluation of recent commercial sturgeon fishery management practices. The Joint Staff met with the commercial fishing industry to discuss issues regarding white sturgeon retention in commercial fisheries during 2003-2005. Sturgeon management will be consistent with sturgeon protocol adopted at the December 16, 2004 Compact hearing (below):

#### Protocol for Management of White Sturgeon in 2005 Commercial Fisheries

- ✓ Fisheries should be managed for white sturgeon catch expectations of 2,000 for the winter-summer timeframe (January-July), 2,600 for the early fall timeframe (August), and 3,000 for the late fall timeframe (September-October).
- ✓ Landings during SAFE fisheries are not to exceed 400 white sturgeon for the entire year with winter/spring/summer fisheries not to exceed 300.
- ✓ Allow some level of incidental sturgeon harvest to occur during all target salmon seasons.
- ✓ Conduct limited target sturgeon fisheries during winter and early fall timeframes if feasible.
- ✓ Conduct target sturgeon fisheries during October if necessary to access commercial allocation.
- ✓ Adopt white sturgeon possession and landing limits if necessary to remain within season specific catch expectation or to provide white sturgeon for harvest during subsequent salmon seasons.
- ✓ Until further discussion occurs with the OFWC and the WFWC regarding sturgeon allocation among individual commercial fisher's landings and possession limits will be in the form of per vessel limits and these limits will include both mainstem and Select Area fisheries.
- ✓ Joint Staff will conduct an annual post season evaluation of white sturgeon retention with industry.

#### **Zone 6 Sturgeon Allocation**

Sturgeon catch guidelines and sport/treaty commercial allocations have been reviewed annually since 1987 by the Sturgeon Management Task Force (SMTF), which is comprised of representatives from state fish management agencies and the Columbia River treaty Indian tribes. Guidelines are based on desired harvest rates and current stock assessments. In March of 1997, the SMTF agreed to pool-specific management with catch guidelines, based on OSY, which are designed to allow for survival of adequate numbers of juvenile sturgeon through existing

fisheries to increase harvestable and broodstock numbers. Sturgeon size limits are 48-60 inches in treaty Indian commercial fisheries in The Dalles and John Day pools. The size limit for the treaty Indian commercial fishery in the Bonneville Pool was changed from 48-60 inches to 45-60 inches in 2004 and the 45-inch minimum was retained for 2005. Sturgeon size limits are 48-60 inches for sport fisheries in The Dalles and John Day pools, and 42-60 inches in the Bonneville Pool.

Sturgeon harvest guidelines remained stable for all three pools during 1998-2001 (Table 11) as updated population assessments indicated that these sturgeon populations were rebuilding under the catch restrictions implemented by the SMTF; however, population assessments conducted in 2001, 2002, and 2003 documented population declines in all three pools. Managers relied on population abundance estimates and fish growth rates to calculate appropriate harvest guidelines. Analysis of length at recapture of marked sturgeon during 2001-2003 indicated individual growth rates within all three pools was substantially slower than initially thought. Managers now believe the previous harvest guidelines provided inadequate recruitment through fisheries into the broodstock populations.

Non-Indian sport and treaty Indian commercial harvest guidelines for John Day Pool were reduced from 1,720 fish (560 sport and 1,160 commercial) to 500 fish (165 sport and 335 commercial) in 2002 based on the 2001 population assessment. The 500 fish guideline was retained for 2005 following the 2004 population assessment that documented little change in abundance (Table 11). New harvest guidelines were adopted for both The Dalles and Bonneville pools in 2003 and readjusted for 2004 following population assessments conducted in The Dalles Pool in 2002 and in Bonneville Pool in 2003. The sharing formulas between treaty Indian commercial and non-Indian sport fisheries for The Dalles and Bonneville pools were modified to accommodate guideline reductions. The treaty Indian commercial guideline was reduced to 900 fish in 2003 for The Dalles Pool and to 400 fish for Bonneville Pool in 2004 while non-Indian sport harvest guidelines were decreased to 400 fish in 2003 for The Dalles Pool and to 700 fish in 2004 for Bonneville Pool. Guidelines were set to maintain an approximate 50:50 allocation between non-Indian sport and tribal fisheries for all three pools combined. Harvest guidelines established in 2004 will be retained in 2005.

Treaty Indian fishers continue to take sturgeon for subsistence purposes after commercial seasons have been completed. Subsistence catch is estimated through a monitoring program conducted by the Yakama Nation (YN) and annually averages less than 300 sturgeon. Subsistence catch is not included in the aforementioned catch guidelines. Sport anglers may continue to fish for sturgeon and release them unharmed when catch guidelines are reached and retention is prohibited.

#### **REVIEW OF MAINSTEM FISHERIES**

#### **Past Seasons**

Traditional commercial fisheries below Bonneville Dam occur during "early fall" (August to mid-September) targeting on Chinook and "late fall" (mid-September to mid-November) targeting on coho (Figure 5). Coho typically outnumber Chinook in the late fall season catch and in some years by a wide margin; however, Chinook landings can be significant during the mid-September timeframe. Incidental landings of steelhead occurred in both early and late fall seasons until commercial sale of this species was banned in 1975.

Since 1992, commercial fisheries below Bonneville Dam during the fall fishing period were reduced in response to ESA listing decisions. Mesh size restrictions were frequently imposed on both the early fall and late fall segments of the non-Indian commercial fishery to reduce the incidental catch of non-target species. Commercial fisheries were also frequently restricted to zones or daylight-only time periods to concentrate on target stocks or avoid non-target stocks. Early fall fisheries typically occurred during the last half of August, primarily in Zones 4-5 (upstream of the Sandy River mouth or the I-205 Bridge) near Bonneville Dam. These fisheries target on Chinook with some sturgeon and a few coho also landed. Recently, seasons have also occurred during the first half of August in Zones 1-3 (mouth to Longview Bridge). During 1997-2001, these fisheries consisted primarily of short fishing periods targeting sturgeon. Since 2002, August fisheries in the lower river have expanded in time and area and shifted to targeting fall Chinook with some coho and sturgeon also being landed. Late fall seasons typically occur from mid- to late September through the end of October. The majority of the seasons target coho in the lower river below the mouth of the Lewis River. Some target Chinook seasons have also occurred during mid- to late September in Zones 4-5 (upstream of the I-205 Bridge). During several years in the 1990's, extremely low coho abundance curtailed nearly all commercial fishing opportunities during the late fall period.

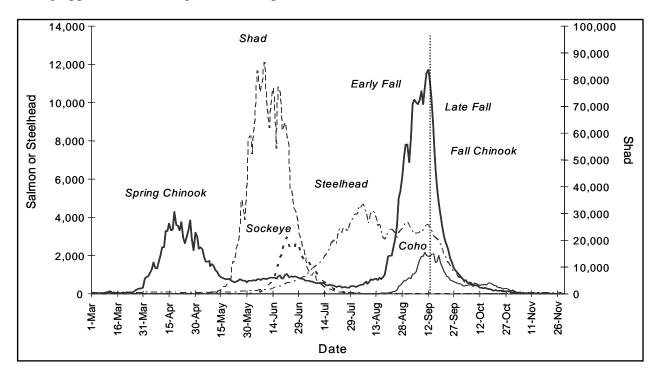


Figure 5. Average Daily Counts of Salmon and Shad at Bonneville Dam, 1986-2004.

Reduced non-Indian commercial salmon fishing opportunities in the late 1990's and adoption of the Joint State Sturgeon Management Agreements beginning in 1997 resulted in target sturgeon fisheries becoming an important part of fall fishing strategies. Sturgeon sales were typically allowed during salmon seasons unless the catch guideline was reached. Target sturgeon seasons were adopted to allow the commercial fishery access to the commercial allocation. During 1997-2001 target sturgeon seasons occurred during the first week of August and the last three weeks of October, except for 2001 when sturgeon retention was prohibited in all commercial fisheries after the catch guideline was reached in late August. Beginning in the fall of 2002, sturgeon fishery management changed considerably due to the limited number of sturgeon on the

commercial white sturgeon allocation. Since 2002, daily and/or weekly possession and sales limits concurrent with salmon fisheries have replaced directed sturgeon seasons during the fall and late fall timeframe.

Commercial fishing in off-channel areas (Select Areas) was initiated in 1962 with the adoption of salmon seasons for Youngs Bay. Initially, Youngs Bay seasons were concurrent with the late fall mainstem gillnet season; however, since 1977 the Youngs Bay season has been separated from mainstem seasons and has increased in importance with the involvement of the Clatsop County Economic Development Council's (CEDC) Fisheries Program. The CEDC fisheries program pioneered the successful net-pen acclimation program that is now a cornerstone of Select Area fisheries projects.

Declines in mainstem fishing opportunities and success of the Youngs Bay fishery prompted the Bonneville Power Administration (BPA) to fund a research project in 1993 to expand net-pen programs in Youngs Bay and other off-channel fishing areas. This BPA funding now supports the Select Area Fishery Enhancement (SAFE) Project which operates production sites and fisheries in Youngs Bay, Tongue Point/South Channel, and Blind Slough/Knappa Slough on the Oregon shore plus Deep River and Steamboat Slough on the Washington shore. Fall SAFE fisheries primarily target hatchery coho returning to these release sites; however, SAB fall Chinook are also released and subsequently caught upon their return to Youngs Bay. Select Area fisheries targeting coho are typically initiated in early September and continue through the end of October. In Youngs Bay, limited Chinook target fishing seasons occurs one day per week during July and August to target hold-over spring Chinook and early returning SAB fall Chinook. A target Chinook fishery has occurred intermittently in Knappa Slough when surplus coho or tule fall Chinook were expected to return to Big Creek Hatchery.

Treaty Indian commercial seasons above Bonneville Dam traditionally opened during early to mid-August and ended in mid-October. Fall Chinook and steelhead dominated the catch, but substantial numbers of white sturgeon and coho were also landed. In recent years, commercial fishing opportunities have declined in the Zone 6 management area. Recent fisheries have typically occurred during a four or five week period between mid-August and late September. These recent fisheries continue to target on Chinook salmon but mesh size restrictions have been used to reduce impacts on listed wild steelhead. Zoning has also been used at times to increase escapement of some segments of fall Chinook runs. Fall fisheries are now generally closed for white sturgeon sales because catch guidelines are achieved prior to August 1 or the tribes elect to retain some sturgeon for late fall setline or gillnet fisheries.

A mainstem recreational fall Chinook fishery exists in much of the Columbia River. Primary catch areas for fall Chinook include the lower estuary (Buoy 10), the lower river between Longview and Bonneville Dam, and the Vernita-Hanford Reach area below Priest Rapids Dam. Increased fall Chinook returns and favorable river conditions since 2001 fueled significant increases in lower Columbia River Chinook sport fishery where annual catches have increased from less than 10,000 adults prior to 2002 to 17,700-26,200 fish during 2002-2004. Small recreational fisheries for Chinook also occur at tributary mouths in the Zone 6 management area. The Buoy 10 fishery accounts for the vast majority of the mainstem recreational coho harvest which fluctuates widely depending on annual coho returns. Hatchery steelhead fisheries in the mainstem Columbia River occur primarily between Tongue Point and Bonneville Dam. Significant steelhead landings can also occur during sport fisheries above Bonneville Dam, especially near tributary mouths.

#### **2004 Fall Season Summary**

- ✓ Fall seasons and catches are summarized in Tables 12 18.
- ✓ The fall Chinook run was the second largest since 1948 while the coho return was the fifth largest since 1991. Both the wild Group A and the wild Group B index steelhead returns were greater than the 10-year average.
- ✓ All fisheries were constrained to remain within Management Agreement and ESA limitations. Post-season impacts totaled 20.8% for URB fall Chinook (31.29% guideline) and 12.9-13.0% for wild Group B index steelhead (17.0% guideline).
- ✓ Actual Oregon wild coho fishery impacts of 22.8% were within the 29.2% limit identified in the 2004 state ESA Incidental Take Permit issued by the OFWC. Columbia River fisheries accounted for an impact rate of 9.3% as compared to the 11.5% impact limit.
- ✓ Treaty Indian fisheries landed 127,600 Chinook, 10,300 coho, 14,600 steelhead, 64 white sturgeon and 43 walleye.
- ✓ A total of 170,700 Chinook adults passed McNary Dam, greatly exceeding the escapement goal of 43,500.
- ✓ Lower river mainstem commercial fisheries focused on coho and harvestable Chinook stocks while minimizing impacts on ESA-listed species. No target sturgeon fisheries were adopted and all sturgeon landed during fall seasons were incidental during target salmon fisheries.
- ✓ Lower Columbia River mainstem fall commercial fisheries landed an estimated, 41,100 adult Chinook, 66,500 coho, 5,700 white sturgeon, 57 green sturgeon, and 89 chum.
- ✓ Select Area fall landings totaled 12,600 Chinook, 51,900 coho, 117 white sturgeon, 0 green sturgeon and 1 chum.
- ✓ The Buoy 10 sport fishery was open to the retention of Chinook from August 1-Sept 7 with a one Chinook bag limit in effect. Chinook catch was 16,000 adults.
- ✓ The lower Columbia River sport fishery remained open during August 1-December 31 with a two fish salmon/steelhead daily bag limit, only one of which could be a Chinook. Chinook catch was 17,700 adults.
- ✓ White sturgeon harvest in the non-Indian commercial fishery and the lower Columbia River sport fishery fell within their respective catch guidelines of 8,000 and 32,000 for 2004.
- ✓ Commercial harvest of white sturgeon was regulated by landing limits throughout the fall season. The lower Columbia River sturgeon sport fishery was conducted within the planned season structure for the area above Wauna powerlines, but the season structure in the area below Wauna was modified in order to stay within allocation guidelines.
- ✓ A total of 12 Compact hearings were held between the dates of July 28 and October 29 to make commercial fishery management decisions. Five Joint State hearings were held to discuss the ongoing sport fisheries in the lower Columbia River and Buoy 10.

#### **Zone 6 Fisheries**

During the fall, fisheries in the mainstem Columbia River between Bonneville and McNary dams included treaty Indian commercial and ceremonial and subsistence (C&S) fisheries, recreational sturgeon fisheries, and limited fall Chinook and steelhead sport fisheries focusing around tributary mouths. All fisheries that occurred in this section of the Columbia River were managed in accordance with predetermined harvest impact rates or catch guidelines. Landings during 2004 fall seasons are summarized in Table 14.

#### Treaty Indian Commercial Fishery

The treaty Indian commercial fishery in the fall of 2004 was managed to target harvestable URB and BPH fall Chinook stocks while allowing some harvest of hatchery summer steelhead and limiting impacts on listed SRW fall Chinook and wild Group B index summer steelhead. The 30-day commercial gillnet salmon fishery consisted of eight fishing periods; one 2½-day fishing period, four 3½-day fishing periods, and three 4½-day fishing periods (Table 12). The commercial gillnet fishery began with good Chinook catches, especially during the third and fourth weeks (Table 14). Based on an expected large return of BPH fall Chinook, the large sanctuary around Spring Creek Hatchery was reduced to 150 feet. All other standard dam and river mouth sanctuaries were in effect and all of Zone 6 was open throughout the duration of the fall salmon season, as occurs in most years (Table 19). The tribes did not require a minimum mesh size restriction to limit handle of listed steelhead. Aerial net counts indicated that effort was less than 2003 with total daily net counts ranging between 104 and 297 per week. The average count for statistical weeks 35-39 was 364 in 2002, 293 in 2003, and 223 in 2004.

The 2004 fall commercial salmon season consisted of 30 fishing days occurring between August 25 and October 16 and resulted in catches of 127,600 adult Chinook, 14,600 steelhead, and 10,300 coho, of which 12% of the Chinook, 48% of the steelhead, and 41% of the steelhead were taken home or sold directly to the public (Table 16). The 30-day season was similar to 2004 which was much longer than the previous five years and much closer to the seasons in the late 1980's when seasons ranged from 35-46 days. The Chinook catch of 127,600 represents a continued improvement over the recent 5- and 10-year averages of 97,300 and 73,500, respectively and was similar to the strong return years of 1986-1989 when catches averaged 128,700 annually (Table 20). The URB fall Chinook impact rate of 11.7% was considerably less than the 23.04% impact rate set forth in the 2004 Fall Management Agreement (Table 18).

The total catch of 14,600 summer steelhead in all treaty Indian fall season fisheries included 1,930 Group A wild index steelhead and 1,020 Group B wild index steelhead. The 2004 total catch was less than the recent 5-year average of 19,900 and far less than the strong return years of 1984-1989 when catches averaged 63,900 steelhead annually (Table 20). Stock specific impact rates were 3.2% on wild Group A index steelhead and 11.1% on wild Group B index steelhead (Tables 18 and 21). The 11.1% impact rate on wild Group B steelhead was less than the ESA impact limit of 15%.

#### Sturgeon Fisheries

Sturgeon harvest guidelines for Treaty Indian fisheries in Bonneville and The Dalles pools were exceeded during the winter gillnet fishery. With only 12 sturgeon remaining on the John Day Pool catch guideline, the tribes chose not to allow sales of sturgeon during fall commercial salmon fisheries. Instead, retention of sturgeon was allowed for subsistence purposes only. Annual white sturgeon catches by pool are summarized in Table 22.

#### **Lower River Commercial Fisheries**

Commercial fisheries in the mainstem Columbia River below Bonneville Dam are generally divided into early fall (August through mid-September) fisheries directed at fall Chinook and white sturgeon and late fall (late September through early November) fisheries directed primarily at hatchery coho and white sturgeon. Select Area commercial fisheries occur in off-channel areas targeting coho and Chinook returning from net-pen releases at these sites. All non-Indian fisheries are managed in accordance with predetermined harvest impact rates or catch guidelines; however, Select Area fall fishery impacts on listed fish are negligible and the adopted seasons are seldom modified in-season. Landings during 2004 fall seasons are summarized in Table 14.

#### Early Fall Mainstem Fisheries

The lower river commercial fishery during the early fall of 2004 was managed to harvest Chinook and a limited number of sturgeon. The early fall season consisted of four, 12-hour target Chinook fishing periods the nights of August 3, 5, 8, and 10 in all of Zones 1-5 and four, 12-hour periods of target Chinook fishing between August 16 and August 25 with the first period in Zones 2-5, the second period in Zones 3-5, and the last two fishing periods in all of Zones 4-5 (Tables 12 and 15). A five white or green sturgeon per vessel per calendar week possession and sales limit was in effect during all but one fishing period (no sturgeon sales allowed August 19) during the early fall timeframe (Table 15). Landings in early August totaled 5,350 Chinook, 20 coho, 1,550 white sturgeon, and six green sturgeon in the Zones 1-5 target Chinook fishery. During late August, landings totaled 5,910 Chinook, 20 coho, 920 white sturgeon, and 0 green sturgeon in the Zones 2-5 target Chinook fishery (Table 14). The total catch of 11,260 Chinook during early fall fisheries was 51% of the preseason expectation of 22,050 (Table 24); however, catch of URBs was similar to preseason expectations. Sturgeon possession and sales limits were used to limit white sturgeon catch and provide an opportunity for sales of sturgeon to continue throughout most of the early fall salmon fishery with a total catch of 2,470 white sturgeon landed compared to the preseason catch guideline of 2,000 (Table 27). The early fall season length of eight fishing days is comparable to recent years (Table 23). Season lengths averaged six days annually during the stronger run years of 1986-1990 and 11 days annually during the more heavily fished time period of 1970-1975. The 11,260 Chinook landed during early fall seasons was the third largest total since 1989 but was well below 1970-1975 when total Chinook landings ranged between 51,700-142,100 and averaged 95,600.

#### Late Fall Mainstem Fisheries

The lower Columbia River commercial fishery during the late fall of 2004 was managed to harvest primarily coho and fall Chinook while minimizing impacts on listed species (Tables 12 and 15). The late fall fishery began on September 19 with a 10-hour nighttime fishing period in all of Zones 1-5. Fishing regulations included no minimum mesh size restriction below the Longview Bridge and an 8-inch minimum mesh size restriction upstream. Sturgeon catches were regulated with a five white or green sturgeon per vessel per calendar week possession and sales limit during September and most of October. An additional 12-hour daylight fishing period occurred below the Longview Bridge and a 5-hour nighttime fishing period occurred above the Longview Bridge on September 21. A 6-inch maximum mesh size restriction was in place below the Longview Bridge to target coho while an 8-inch minimum mesh size restriction was in effect upstream to target fall Chinook and limit impacts to state-listed coho salmon. Chinook catches from the September 19-22 fishing periods were higher than expected with 15,040 Chinook, 9,540 coho, 580 white sturgeon, and 6 green sturgeon landed. The late fall season continued with two additional 12-hour daylight fishing periods in Zones 1-3 and two 5-hour nighttime fishing

periods in Zones 4-5 on September 27 and 29. A 6-inch maximum or 9 to 9 ¾-inch mesh size restriction was in place in Zones 1-3 to target coho or sturgeon while an 8-inch minimum mesh size restriction was in effect in Zones 4-5 to target fall Chinook and limit impacts to state-listed coho salmon. The week's fishing ended with a 24-hour period in Zones 1-3 with no minimum mesh restriction and a 30-hour fishing period in Zones 4-5 with an 8-inch minimum mesh size restriction. Landings totaled 7,440 Chinook, 18,970 coho, 3 chum, 430 white sturgeon, and 25 green sturgeon during September 27-October 1. Eight additional fishing periods were set to occur early and late in each week with six, 24-hour and two, 48-hour periods during October 4-29 in Zones 1-5 with no minimum mesh size restriction. The five white or green sturgeon weekly possession and sales limit also remained in effect through October 19 and was increased to ten sturgeon during the last three fishing periods. During the final two periods of the season the downstream fishing boundary was moved upstream to the Harrington Point/Settler Point line. Landings totaled 7,320 Chinook, 37,980 coho, 2,210 white sturgeon, 20 green sturgeon, and 90 chum during these October periods (Table 14).

Fall fisheries were managed to minimize impacts on federally-listed Chinook, chum, and steelhead plus state-listed wild coho destined for Oregon tributaries. Management actions taken during late fall fisheries to minimize the interception of wild coho and chum salmon destined for lower Columbia River tributaries included an 8-inch minimum mesh size restriction for Zones 4-5 during all September fishing periods to protect state-listed coho and an area closure downstream from Harrington Point at the upper end of Grays Bay across to Settler Point near the lower end of Svensen Island during October 25-29 to protect chum and state-listed coho (Table 25).

In 2004, late fall mainstem fisheries consisted of a total of 16 days occurring between September 19 and October 29 and resulted in catches of 29,800 Chinook, 66,500 coho, 3,220 white sturgeon, 51 green sturgeon, and 90 chum (Table 26). The season length of 16 days for late fall fisheries was slightly less than recent years and significantly less than the strong return years of 1985-1989 when season length averaged 39 days annually. The late fall season coho catch of 66,500 fish was the lowest since 1999 and only a fraction of the record high catch of nearly one million fish in 1986. With another strong return of fall Chinook, total Chinook landings during the 2004 late fall season were the second largest since 1991 (Table 26). In 2004, a total of 90 chum were landed during late fall seasons which was almost double the recent 5-year average of 52, but well below the 1970-1989 average of 1,060. Sturgeon possession and sales limits were used to limit white sturgeon catch and provide an opportunity for sales of sturgeon to continue throughout the late fall salmon fishery with a total catch of 3,220 white sturgeon compared to the preseason catch guideline of 3,600 (Table 27).

#### **Select Area Fisheries**

Select Area fisheries occurring during the fall of 2004 were managed to harvest hatchery and net-pen reared coho and SAB fall Chinook salmon with minimal impacts to listed species. Fall Select Area fisheries have occurred in Youngs Bay since 1962; Tongue Point/South Channel, Blind Slough/Knappa Slough, and Deep River since 1996; and Steamboat Slough since 2000. Catch totals for the five Select Area fisheries during the fall of 2004 were excellent with landings of 12,600 Chinook (highest since 1988), 51,900 coho, (above average), one chum, and 117 white sturgeon (Table 14).

As has been the pattern in recent years, the fall Youngs Bay Select Area fishery began in early August with weekly fishing periods through Labor Day followed by continuous fishing through

the end of October (Table 13). A total of five fishing periods; four, 30-hour and one, 72-hour, during August and early September were intended to harvest net-pen produced SAB fall Chinook and early returning coho without jeopardizing SAB fall Chinook broodstock needs at Klaskanine Hatchery. To ensure adequate escapement, the upper fishing boundary was moved downstream from the confluence of Youngs and Klaskanine rivers to Battle Creek Slough beginning in August. The season included 55 consecutive days of fishing from September 7 through October 31 with the intent of harvesting late returning SAB fall Chinook and 100% of the surplus hatchery-origin coho whose abundance peaks in mid-September (Table 15). The combined August-October season consisted of 66 fishing days and resulted in a catch of 3,900 Chinook, 34,600 coho, 23 white sturgeon and 1 chum (Table 14). The SAB Chinook catch was slightly less than the preseason expectation of 4,200 fish, and the coho catch was approximately 69% the preseason expectation of 50,000 fish.

The Tongue Point/South Channel fishery opened prior to Labor Day on August 31 and included the South Channel fishing area from the outset of the season. The fishery was initiated with three nightly fishing periods weekly during August 31-September 10 and increased to four nightly periods per week during September 13-October 29 (Table 13). The inclusion of the South Channel fishing area was adopted in an effort to maximize harvest of coho produced from the Tongue Point net pens. As days grew shorter and recreational fishing activity decreased, nightly fishing hours were expanded from 12 to 16 hours effective September 13 in an effort to maximize harvest of the net-pen reared coho (Table 15). The 34-night season resulted in landings of approximately 2,100 Chinook, 10,200 coho, and 33 white sturgeon (Table 14). The coho catch was about 70% the preseason expectation of 14,500 fish. Landings from the Tongue Point/South Channel area are included in mainstem landings when the mainstem is open.

The season structure of the Blind Slough/Knappa Slough fishery was similar to that used in the Tongue Point/South Channel fishery in that the entire fishing area was open throughout the season to maximize harvest of Big Creek tule fall Chinook as well as Blind Slough net-pen reared coho. Similar to 2003, a three day fishing period was adopted during late August (24-27) to target fall Chinook returning to Big Creek Hatchery. The fishery continued with three, 12-hour nightly fishing periods during August 31-September 10 followed by four nightly periods per week during the remainder of September and October (Table 13). Beginning September 13, nightly fishing hours were expanded to 16 hours in an effort to maximize harvest of the net-pen reared coho (Table 15). The 37-night season resulted in landings of 6,200 Chinook, 1,400 coho, and 59 white sturgeon (Table 14). The coho catch was only 20% of the preseason expectation of 6,800 fish. Landings of Chinook in Knappa Slough were the highest since 1988.

The structure of the Deep River fishery was similar to that used in the Tongue Point/South Channel and Blind Slough/Knappa Slough fishing areas with multiple nightly fishing periods occurring each week from Monday August 23 through Friday October 29. The fishery consisted of four, 12-hour nightly periods during August 23-October 29 (Table 13). Fishing periods were lengthened to 16-hours beginning September 13 in response to shorter days (Table 15). The 40-night season resulted in landings of 400 Chinook 5,800 coho, and 2 sturgeon (Table 14). The coho catch was about 74% of the preseason expectation of 7,800 fish.

The season structure for the Steamboat Slough fishery was similar to the other fishing areas with fishing periods occurring from August 31 through October 29. Participation in the Steamboat Slough fishery was very limited and resulted in no landings (Tables 13, 14, and 15).

#### **Lower River Recreational Fisheries**

Fall recreational salmon fisheries below Bonneville Dam are separated into two distinct fisheries. The Buoy 10 sport fishery catches fall Chinook and coho in the estuary area of the Columbia River from Buoy 10 upstream to the Tongue Point/Rocky Point line. The lower Columbia River sport fishery catches fall Chinook, summer steelhead, and coho in the mainstem of the Columbia River from the Tongue Point/Rocky Point line upstream to Bonneville Dam. During 1982-1998 the Astoria-Megler Bridge marked the boundary between the Buoy 10 and mainstem fishing areas; however, catch rates and catch composition in the area between the Astoria-Megler Bridge and Tongue Point were more similar to those in the Buoy 10 fishery. After the 1998 Buoy 10 fishery closed early, a large proportion of the fishery moved upstream of the Astoria-Megler Bridge with great success, so in 1999 the upstream boundary of the Buoy 10 fishery was moved to the Tongue Point/Rocky Point line for management purposes. Both fisheries are intensively managed to ensure that catch guidelines and impacts to listed species are not exceeded. In both fisheries, only adipose fin-clipped hatchery coho and steelhead may be retained and all non-adipose fin-clipped coho and steelhead must be released immediately unharmed.

#### **Buoy 10 Sport Fishery**

The 2004 Buoy 10 fishery opened on August 1 for fall Chinook and coho. The daily bag limit was two salmon with not more than one Chinook. Chinook catches began slowly, but similar to previous years, catch rates improved steadily as August progressed. Bright fall Chinook (URB and MCB) comprised a higher proportion of the catch than was expected. The 2004 Buoy 10 fishery produced 68,800 angler trips with catches of 16,000 Chinook and 15,200 adipose finclipped coho (Table 14). The coho catch was similar to the preseason expectation of 16,400 while the Chinook catch was higher than the preseason expectation of 11,600. As a result, the Buoy 10 fishery closed for Chinook on September 7. The coho fishery remained open until December 31.

Like 2003, Buoy 10 Chinook catches were large in 2004 despite one Chinook daily bag limit regulation. The catch of 16,000 fall Chinook in 2004 at Buoy 10 was the fifth highest on record. In contrast, the total coho catch of 15,200 in 2004 was less than half the average coho catch for the previous five years.

#### Lower Columbia Mainstem Sport Fishery

The lower Columbia River sport fishery for fall Chinook opened August 1 with a daily bag limit of two salmon, only one of which could be a Chinook. Preseason expectations were for a catch of 15,200 Chinook. As with Buoy 10, the lower Columbia River sport fishery was heavily monitored with frequent in-season catch updates. By mid-September, it was apparent that the mainstem fishery would exceed the preseason Chinook catch estimate and a Chinook closure was planned for October 1. However, subsequent upgrades to the fall Chinook run size allowed Chinook retention to continue through December 31. The 2004 mainstem sport fishery below Bonneville Dam produced 87,400 angler trips with a catch of 17,700 adult fall Chinook, 1,300 adipose fin-clipped adult coho, and 2,500 adipose fin-clipped summer steelhead (Table 14). The lower Columbia fall Chinook catch was the third highest on record.

#### **2004 Fishery Impacts**

As has been the case in recent years, fishery management under ESA restrictions required increased in-season monitoring and fishery modifications. Impacts to URB fall Chinook were limited through the use of time restrictions in the treaty Indian fishery; time, area, and gear restrictions in the non-Indian commercial fishery; and time, area, and retention restrictions in the non-Indian sport fishery. Impacts to listed steelhead were limited through time and gear restrictions in the treaty Indian fishery; time, area, gear, and sales (no sales allowed) restrictions in the non-Indian commercial fishery; and time, area, and retention restrictions in the non-Indian sport fishery. Impacts to state-listed coho were limited through time, area, and gear restrictions in the non-Indian commercial fishery and retention restrictions in the non-Indian sport fishery.

Harvest impacts on URB fall Chinook were 20.80% as compared with the ESA guideline of 31.29%. Total URB fall Chinook impacts were 9.08% (8.25% guideline) in non-Indian fisheries and 11.72% (23.04% guideline) in treaty Indian fisheries. Fishery-specific catch estimates for SRW fall Chinook are unavailable because the SRW run reconstruction analyses had not been completed at the time this report was written.

#### 2005 FALL SEASON FISHERY EXPECTATIONS

#### **Non-Indian Fisheries**

Specific recommendations for fall commercial seasons to harvest sturgeon, Chinook, and coho will be presented at Compact hearings occurring throughout the fall management period. Based on preseason run size forecasts, a fishing schedule was developed for sport and commercial fisheries through the North of Falcon management process. As the fall management period continues, run size updates will occur which could alter preseason planned fisheries. Run sizes are typically not updated prior to mid-September; therefore, fisheries occurring prior to that time will be managed conservatively to allow for flexibility in shaping fishing opportunities during the mid-September through October timeframe. Stock composition and estimated URB impacts for all fisheries will be modified in-season as catch estimates and CWT data become available. These data may alter URB impacts from preseason expectations, which could subsequently result in modifications to other planned fisheries. The following section of this report generally describes fishery expectations for the 2005 fall management period.

#### 2005 Non-Indian Columbia River Fall Fishery Chinook Allocation Agreement

This agreement was reached during a series of meetings occurring in March of 2005.

- ✓ This agreement is limited by the non-Indian allocation of URB fall Chinook impacts of 8.25% as per the 2005-2007 *U.S. v Oregon* Interim Management Agreement. Non-Indian catch estimates are based on preseason abundance forecasts.
- ✓ URB fall Chinook impacts in fisheries downstream of the Snake River are allocated preseason 50% (4.125%) to the sport fishery and 50% (4.125%) to the commercial fishery. The Columbia River Compact/Joint States will use this URB impact allocation as guidance for making in-season management decisions concerning the Columbia River sport and commercial fisheries. Actual URB impacts in the fisheries may differ from preseason estimates based on actual fishery catches, stock composition, and run size updates. The U.S. v Oregon TAC will update the URB run size beginning in mid-September.

✓ Expected total catch of fall Chinook in the mainstem Columbia River downstream of the Snake River (excluding tributary sport and commercial Select Areas) is 64,700. Sport fisheries are expected to harvest 30,600 Chinook (47%) and the commercial fisheries are expected to harvest 34,100 (53%). These catch estimates are based on preseason abundance forecasts and fishery stock composition. Actual harvest sharing will be influenced by stock specific fall Chinook abundances and relative harvest rates by each respective fishery.

#### Expectations for the sport fishery include:

- The Buoy 10 sport fishery will begin on August 1 with a two fish daily limit; only one may be a Chinook. Chinook retention is expected to continue at least through Labor Day (September 5). URB impacts for this fishery are projected to be 0.90%, or 22% of the total sport impact of 4.125%.
- The mainstem sport fishery below Bonneville Dam will begin on August 1 with a two fish daily limit; only one may be a Chinook. Chinook retention is expected to continue through at least October 10<sup>th</sup> with a goal of increasing the daily bag limit to include two Chinook as soon as possible. URB impacts associated with this fishery are 2.83%, or 69% of the total sport impact of 4.125%.
- The mainstem sport fishery from Bonneville Dam to Highway 395 in Pasco, Washington will begin on August 1 with a two fish daily limit. URB impacts for this fishery are projected to be 0.40%, or 10% of the total sport impacts.

#### Expectations for the commercial fishery include:

- An early to mid-August salmon fishery of up to 4 nights during the first two weeks of August (modeled dates were August 4, 7, 9, and 11). Mesh size is 8-inch minimum and area is Zones 1-5. URB allocation for this fishery is 0.23% (6% of the total commercial impacts of 4.125%). The mid-August salmon fishery is expected to occur up to two nights during the week of August 15<sup>th</sup>. Mesh size is 8-inch minimum and the area is Zone 2 or Zone 3 through Zone 5. The URB allocation for this fishery is 0.10% (2% of the total commercial impacts of 4.125%).
- The late August fishery is expected to occur one night beginning the week of August 22. Mesh size is 9-inch minimum and area is Zones 4-5. The URB allocation for this fishery is 0.65% (0.16% of the total commercial impact of 4.125%)
- A late fall fishery to begin the week of September 19. The coho fishery will generally occur in Zones 1-3. Fishery will target coho during daylight hours with a 6-inch maximum mesh size. The fishery will likely occur 2-3 days a week. The URB allocation is 1.16% (28% of the total commercial impact of 4.125%). A Chinook target fishery in all five Zones is desired and expected to occur for one period during this first week.
- Chinook target fisheries will then occur in the areas that are not open to coho. Minimum mesh size will be 8-inch or 9-inch. The fishery will likely occur 1-2 days a week. The URB allocation for all September Chinook target fisheries is 1.75% (42% of the total commercial impact of 4.125%).
- The late September Chinook harvest will be determined by the mid-September URB run size update and the actual URB impacts remaining for the commercial fishery.
- Fishing areas and days in August and September fisheries may change based on in-season updates.

• Expectations for October fishing are limited by expected poor returns of late coho. The fishery is expected to occur two days within the first two weeks of October.

#### **Coho Protection Measures**

In order to protect wild coho destined for Oregon tributaries of the lower Columbia River, primarily the Clackamas and Sandy rivers, area closures or mesh size restrictions will be required for coho fisheries. During the week of September 19<sup>th</sup>, the upper fishing boundary will be the Longview Bridge. During the week of September 26<sup>th</sup>, the upper boundary will be the Kalama River. Coho fisheries with a 6-inch maximum mesh size restriction will expand to include the entire lower river fishing area (Zones 1-5) in the first full week of October when most state-listed coho have moved into tributaries.

#### **Youngs Bay Select Area Fisheries**

Fisheries this fall in Youngs Bay are expected to follow a pattern similar to previous years with fishing periods of approximately 30-hours per week during most of August. Due to Labor Day occurring late in 2005 (September 5), a transitional fishing period of approximately three days (Tuesday-Friday) is anticipated during the last week of August and first week of September to harvest SAB fall Chinook and early returning coho. Beginning the day after Labor Day through the end of October, 7-day-per-week fishing periods will be adopted to maximize harvest of the net-pen reared coho. An 8-inch maximum mesh size restriction will likely be required prior to Labor Day to target Chinook with a 6-inch maximum mesh size restriction after Labor Day to target coho. The upper fishing boundary will likely be moved downstream from the confluence of the Klaskanine and Youngs rivers to Battle Creek Slough beginning in August to increase SAB escapement to Klaskanine Hatchery and allow for offsite collection of additional SAB broodstock. Daily or weekly sturgeon limits may be imposed in all Select Areas consistent with mainstem regulations and sturgeon retention will be eliminated completely if the Select Area annual sturgeon catch reaches 400 white sturgeon prior to the end of October. Based on preseason run size predictions, an estimated 50,000 SAFE coho are expected to be available for harvest in all Select Area fishing sites combined, with approximately 32,000 destined for Youngs Bay. Select area SAB Chinook catches are expected to total 4,300 fish in Youngs Bay.

#### **Other Select Area Fisheries**

Other Select Area sites include Tongue Point, Blind Slough, Deep River, and Steamboat Slough fishing sites. Fisheries in these areas target coho primarily, except for fisheries in Knappa Slough targeting fall Chinook returning to Big Creek. Due to the Labor Day being late this year, fisheries in these sites are expected to open the week prior to, rather than the week following Labor Day. Recent fall fisheries in these areas have included 1) three to four nightly fishing periods per week extending through the end of October, 2) nightly fishing periods expanding from 12 hours during September and early October to 16 hours for the remainder of October (2004), and 3) a 6-inch maximum mesh size restriction (in effect since 2001). A similar overall season structure is anticipated in 2005 except an additional night of fishing each week and historic fishing hours may be considered in Blind/Knappa Slough to maximize coho harvest opportunity and limit conflicts with recreational anglers. Early-season fishing opportunity may be expanded at the Deep River fishing site to encourage participation. Site-specific fishing periods and season structure will be discussed at a Select Area fall fisheries meeting planned for July 21st in Astoria

In the past, specific fishing periods in Knappa Slough have targeted surplus fall Chinook destined for Big Creek Hatchery. Reduced fall Chinook returns to Big Creek Hatchery anticipated in 2005 may not be sufficient to warrant target Chinook fisheries in Knappa Slough this year. Based on preseason run size forecasts, an estimated 9,000 SAFE coho will return to Tongue Point, 2,000 to Blind Slough, 6,000 to Deep River, and 1,000 to Steamboat Slough.

#### **Treaty Indian Commercial Fisheries**

In recent years treaty Indian commercial fisheries have typically occurred from late August through late September. In 2004, commercial fisheries extended into October. Fishery restrictions may include mesh size restrictions to better target fall Chinook or area restrictions if necessary to reduce impacts on specific stocks. Sturgeon sales are generally not allowed during fall salmon gillnet fisheries because annual commercial catch guidelines are often achieved prior to fall fisheries. Fall gillnet fisheries typically consist of three to five day weekly fishery periods. Sales of platform and hook and line caught fish as well as fish caught in the Klickitat and Drano Lake fisheries are typically allowed to be sold throughout the fall gillnet period.

Oregon Dept of Fish and Wildlife Washington Department of Fish and Wildlife July 20, 2005

Species, stock	2004 Return <sup>1</sup>	2005 Forecast <sup>1</sup>	Comments
Fall Chinook	799,000	671,400	Over-all good return, although most components are down from recent years.
Lower river hatchery (LRH)	108,900	78,400	Good return, similar to 10-year average
Lower river wild (LRW)	22,300	21,400	Good return, stronger that 10-year average.
Bonneville pool hatchery (BPH)	175,300	115,800	Strong return, similar to 10-year average
Upriver bright (URB)	363,500	354,600	Strong return. Fourth largest since 1964.
Snake River wild (SRW)	NA	NA	Data not available at time of print
Mid-Columbia bright (MCB)	121,900	89,700	Good return, stronger that 10-year average.
Bonneville upriver bright (BUB)	52,500	44,700	Good return, stronger that 10-year average.
Lower river bright (LRB)	2,200	2,400	Formally a component of BUB stock
Pool upriver bright (PUB)	67,200	42,600	Good return, stronger that 10-year average.
Select area bright (SAB)	7,100	11,500	Strong return. Largest on record (1985).
Upriver summer steelhead	309,000	308,600	Good return, similar to 10-year average
Skamania index (May 1 - June 30)	21,000	15,300	3,600 wild
A-run index (length <78cm)	250,600	245,500	57,500 wild
B-run index (length >78cm)	37,400	47,800	9,400 wild
Coho	446,200	206,400	Less than 10-year average.
Early stock	293,200	178,200	,
Late stock	153,000	28,200	Poor return

<sup>1.</sup> Columbia River mouth return, except summer steelhead is Bonneville Dam return.

Table 2. Stoc	k Accountabilit	y of Adult Fall	Chinook Ret	urning to the (	Columbia River	r, 1980-2004.	
Return	Total						
Year	Return	LRH	LRW	BPH	URB	MCB	SAB
1980	319,300	105,600	38,800	97,800	76,800	300	
1981	278,900	94,900	25,000	86,300	66,600	4,400	
1982	363,100	139,500	13,000	120,700	79,000	8,800	
1983	237,600	88,100	16,800	28,900	86,100	14,400	
1984	309,400	102,400	13,300	47,500	131,400	11,800	
1985	361,600	111,000	13,300	33,200	196,400	6,100	1,600
1986	494,800	154,800	24,500	16,600	281,600	17,400	2,000
1987	871,000	344,100	37,900	9,100	420,700	57,000	2,300
1988	784,700	309,900	41,700	12,000	339,900	78,000	3,200
1989	552,100	130,900	38,600	26,800	261,300	93,300	1,200
1990	313,000	60,000	20,300	18,900	153,600	59,100	1,100
1991	276,100	62,700	19,800	52,400	103,300	35,900	2,000
1992	219,000	62,600	12,500	29,500	81,000	31,100	2,300
1993	214,900	52,300	13,300	16,800	102,900	27,400	2,100
1994	254,000	53,600	12,200	18,500	132,800	33,700	3,200
1995	242,800	46,400	16,000	33,800	106,500	34,100	6,000
1996	330,800	75,500	14,600	33,100	143,200	59,700	4,700
1997	321,500	57,400	12,300	27,400	161,700	58,900	3,800
1998	255,400	45,300	7,300	20,200	141,600	37,300	3,300
1999	313,200	40,000	3,300	50,200	165,900	50,900	2,900
2000	255,000	27,000	10,200	20,500	156,600	37,200	3,500
2001	548,900	94,300	15,700	125,000	232,500	76,500	4,900
2002	733,300	156,500	25,200	160,800	277,300	107,800	5,700
2003	893,100	155,000	26,000	180,600	373,200	150,200	8,100
2004	799,000	108,900	22,300	175,300	363,500	121,900	7,100

Stock	Year	Preseason Forecast	Actual Return	Percent of Forecast
Lower River Hatchery	1999	38.2	40.0	105
-	2000	26.4	27.0	102
	2001	30.5	94.3	309
	2002	133.0	156.5	118
	2003	116.9	155.0	133
	2004	79.0	108.9	138
Lower River Wild	1999	2.5	3.3	132
	2000	2.7	10.2	378
	2001	18.4	15.7	85
	2002	18.3	25.2	138
	2003	23.4	26.0	111
	2004	24.1	22.3	93
Bonneville Pool Hatchery	1999	61.0	50.2	82
Joinieville Foot Hatchery	2000	26.9	20.5	82 76
	2001	61.9	125.0	202
	2001	136.0	160.8	118
	2002	101.9	180.6	177
	2003	150.0	175.3	117
Jpriver Bright	1999	102.1	165.9	163
	2000	208.2	156.6	75
	2001	132.7	232.5	175
	2002	273.8	277.3	101
	2003	258.4	373.2	144
	2004	287.0	363.5	127
Mid-Columbia Bright	1999	27.7	50.9	184
	2000	61.6	37.2	60
	2001	45.3	76.5	169
	2002	93.7	107.8	115
	2003	86.6	150.2	173
	2004	88.8	121.9	137
	1000	2.200	2 000	122
Select Area Brights	1999	2,200	2,900	132
	2000	3,100	3,500	113
	2001	3,400	4,900	144
	2002	5,000	5,700	114
	2003	6,200	8,100	131
	2004	6,000	7,100	118
Columbia River Total	1999	233.7	313.2	134
	2000	328.9	255.0	78
	2001	292.2	548.9	189
	2002	659.8	733.3	111
	2003	593.4	893.1	151
	2004	634.9	799.0	126

	Table 4. Estimated Columbia River Returns and Lower Granite Dam Escapement of Snake River Wild Fall Chinook Adults, 1986-2004, and 2005 Projected.										
Year	Columbia River Return	Mainstem Harvest	Harvest Rate %	Passage Loss	BON-LGR Conversion Rate %	Lower Granite Escapement					
1986	3,435	1,953	56.86	946	32.5	449					
1987	2,179	1,245	57.17	501	35.6	253					
1988	4,660	2,975	63.84	904	30.8	368					
1989	2,362	1,353	57.26	495	39.5	295					
1990	576	306	53.19	120	43.2	78					
1991	2,049	824	40.22	907	26.0	318					
1992	1,338	352	26.32	437	55.7	549					
1993	1,518	422	27.77	355	67.7	742					
1994	1,000	182	18.19	412	49.6	406					
1995	1,328	252	18.95	726	32.5	348					
1996	1,795	473	26.37	683	48.3	639					
1997	1,863	599	32.17	460	63.4	795					
1998	779	208	26.73	265	53.6	304					
1999	2,495	757	30.35	833	52.1	905					
2000	2,756	796	28.87	813	58.6	1,148					
2001	14,469	3,045	21.05	6,261	45.2	5,083					
2002	3,551	1,008	28.39	448	83.2	2,095					
2003	6,892	1,491	21.63	1,506	72.1	3,895					
2004	NA	NA	NA	NA	NA	NA					

Table 5	Table 5. Skamania Index, Group A Index, and Group B Index Returns of Summer Steelhead to Bonneville Dam During 1984-2004.										
	Sk	amania Inde	K	Group	A Index (<7	8 cm)	Group	B Index (>7	'8cm)		
	Number	Number		Number	Number		Number	Number			
Year	Wild	Hatchery	Total	Wild	Hatchery	Total	Wild	Hatchery	Total		
1984	2,500	18,300	20,800	52,400	143,300	195,700	13,800	84,200	98,000		
1985	3,700	16,300	20,000	51,900	229,600	281,500	13,000	27,900	40,900		
1986	5,500	19,300	24,800	56,600	230,900	287,500	10,000	54,000	64,000		
1987	7,400	10,400	17,800	106,700	131,600	238,300	14,000	31,000	45,000		
1988	4,200	18,200	22,400	64,300	108,800	173,100	17,700	63,900	81,600		
1989	3,800	11,900	15,700	57,500	135,600	193,100	12,400	65,200	77,600		
1990	3,700	15,000	18,700	27,100	88,500	115,600	8,800	38,400	47,200		
1991	1,200	9,700	10,900	60,300	173,800	234,100	6,200	22,100	28,300		
1992	2,900	12,000	14,900	44,300	197,200	241,500	12,700	44,700	57,400		
1993	1,300	13,100	14,400	28,600	108,100	136,700	4,400	31,800	36,200		
1994	1,400	10,900	12,300	21,200	99,800	121,000	5,200	22,300	27,500		
1995	1,100	7,100	8,200	26,000	154,000	180,000	1,800	11,400	13,200		
1996	1,300	9,500	10,800	25,700	148,600	174,300	3,900	14,900	18,800		
1997	900	11,000	11,900	30,900	177,400	208,300	3,900	32,700	36,600		
1998	1,600	7,800	9,400	34,800	99,900	134,700	3,400	36,800	40,200		
1999	1,300	5,900	7,200	56,600	119,800	119,800	3,700	18,400	22,100		
2000	5,700	10,900	16,600	63,600	153,100	216,700	8,400	32,500	40,900		
2001	7,900	20,800	28,700	137,200	377,900	515,100	12,100	74,300	86,400		
2002	9,700	15,300	25,000	87,300	235,800	323,100	32,300	97,600	129,900		
20031	4,700	9,500	14,200	66,400	238,100	304,500	6,500	32,000	38,500		
20041	4,100	16,900	21,000	60,400	190,200	250,600	9,200	28,200	37,400		

<sup>1 2003</sup> and 2004 "Skamania" counts based on total marked and unmarked fish in Bonneville dam count, April 1–June 30. Not corrected for miss-marked hatchery fish or for winter steelhead that are present during the counting period.

			Lower Colum	nbia River				
	Comm. Catch		Sport Catch		Hatchery	Trib. Dam	Bonneville	Minimum
Year	Zones 1-5 <sup>1</sup>	Estuary <sup>2</sup>	L.Col.R. <sup>3</sup>	Tributary	Returns	Counts <sup>4</sup>	Dam Count	Run
1970	520.9		2.2	21.8	275.4	20.1	54.9	895.3
1971	264.3		1.4	16.0	187.7	21.3	53.8	544.5
1972	131.3		0.8	9.2	91.3	11.0	34.2	277.8
1973	183.7		0.3	7.4	68.2	5.8	25.8	291.2
1974	261.0		0.5	12.6	152.8	2.4	31.6	460.9
1975	156.6		0.6	10.0	85.4	7.1	32.8	292.5
1976	168.4		0.3	10.8	117.3	3.5	36.7	337.0
1977	39.0		0.5	5.7	37.1	2.2	9.3	93.8
1978	132.7		1.1	8.7	131.8	2.9	30.3	307.5
1979	127.6		0.2	12.1	102.6	4.4	29.6	276.5
1980	150.1		0.1	11.1	122.2	5.1	13.0	301.6
1981	60.0		0.1	7.6	77.9	2.8	21.9	170.3
1982	201.7	18.8	0.1	17.6	154.1	5.0	55.8	453.1
1983	7.1	3.6	0.2	5.1	73.6	2.5	8.4	100.5
1984	201.5	74.3	0.7	14.9	101.7	4.2	16.8	414.2
1985	190.0	25.4	1.1	9.4	94.2	7.5	38.6	366.2
1986	981.0	120.5	4.0	20.7	284.1	8.9	108.6	1,527.8
1987	165.3	47.2	0.9	6.1	66.1	4.2	17.9	307.6
1988	361.5	143.4	0.5	11.8	113.6	6.9	27.1	664.8
1989	387.3	81.9	0.2	15.1	183.3	6.4	27.4	701.6
1990	66.2	18.5	0.3	9.7	87.8	2.0	11.6	196.1
1991	407.5	208.7	1.1	29.3	223.3	5.5	58.9	934.3
1992	54.1	43.1	0.6	8.4	85.1	5.2	14.4	210.9
1993	35.6	20.9	0.6	6.3	39.1	0.8	10.6	113.9
1994	60.7	1.8	0.9	3.4	77.7	4.1	20.3	168.9
1995	21.4	5.0	0.2	2.6	31.5	2.9	10.4	74.0
1996	26.2	4.5	0.8	3.8	62.2	0.6	15.7	113.7
1997	20.5	20.4	0.8	8.5	69.7	2.8	24.1	146.8
1998	23.0	3.2	3.7	3.0	84.6	1.0	46.3	164.8
1999	79.0	9.0	1.3	16.8	123.9	1.0	40.7	271.7
2000	171.0	21.5	1.6	34.9	232.4	6.5	85.6	553.5
2001	253.4	132.0	3.1	73.6	382.6	8.7	259.6	1,112.9
2002	163.0	6.2	3.0	32.5	218.4	3.6	88.1	514.8
2003	257.3	54.4	1.1	28.7	205.2	11.2	125.7	683.7
2004	109.8	15.2	1.3	21.0	178.7	5.2	115.0	446.2

Includes Youngs Bay, Big Creek (1970-present), other Select Area fisheries, and 1980-82 Washington terminal landings. Includes jacks, except beginning in 1987 jacks landed in Youngs Bay and other terminal fisheries are not included in this total.

<sup>&</sup>lt;sup>2.</sup> Catch from estuary recreational (Buoy 10) fishery. Catch from the estuary fishery prior to 1982 is included in ocean catch totals. Some non-Columbia River fish are caught in the estuary fishery and are included here.

<sup>3.</sup> Catch from above Astoria-Megler Bridge through 1999 and catch from above Tongue Point/Rocky Point thereafter.

<sup>&</sup>lt;sup>4.</sup> Includes Willamette Falls (Willamette River), North Fork Dam (Clackamas River), and Marmot Dam (Sandy River).

Table 7	. Minimum Num	bers (Thou	sands) of E	arly Stock Co	oho Adults E	Intering the (	Columbia River,	, 1970-2004.
		I	Lower Colui	nbia River				
	Comm. Catch		Sport Cate	h	Hatchery	Trib. Dam	Bonneville	Minimum
Year	Zones 1-5 <sup>1</sup>	Estuary <sup>2</sup>	L.Col.R. <sup>3</sup>	Tributary	Returns	Counts <sup>4</sup>	Dam Count	Run
1970	396.5		1.7	16.6	226.2	18.6	53.1	712.7
1971	166.2		1.1	12.4	158.6	18.7	46.4	403.4
1972	70.3		0.7	7.4	81.3	10.4	32.2	202.3
1973	144.3		0.2	4.8	49.8	5.4	24.8	229.3
1974	120.1		0.4	10.6	123.8	1.6	26.1	282.6
1975	89.1		0.4	7.0	69.0	6.4	30.2	202.1
1976	71.2		0.2	6.8	71.5	2.5	33.1	185.3
1977	17.2		0.4	4.0	23.5	1.4	7.7	54.2
1978	62.4		0.8	6.2	98.7	2.4	27.9	198.4
1979	69.2		0.2	8.8	78.6	3.1	26.3	186.2
1980	68.8		0.1	6.2	76.4	2.0	6.8	160.3
1981	22.0		0.2	4.3	50.4	2.4	21.0	100.3
1982	42.6	11.9	0.1	11.6	108.4	3.8	51.0	229.4
1983	4.7	2.3	0.1	2.4	28.3	1.0	4.6	43.4
1984	115.1	46.3	0.5	6.9	54.9	3.8	13.1	240.6
1985	105.8	16.5	0.8	6.3	57.3	6.5	35.2	228.4
1986	356.6	97.6	2.9	9.5	158.6	5.9	99.7	730.8
1987	100.5	28.4	0.7	4.2	32.6	3.4	16.4	186.2
1988	186.7	61.7	0.3	7.0	47.3	6.3	23.0	332.3
1989	78.2	54.7	0.2	7.0	98.0	5.0	19.6	262.7
1990	38.3	12.6	0.3	6.3	40.9	1.7	8.7	108.8
1991	203.2	142.9	0.8	15.1	108.9	4.3	43.2	518.4
1992	19.4	29.1	0.5	4.1	44.5	3.4	8.4	109.4
1993	20.9	16.5	0.5	2.9	22.9	0.7	8.0	72.4
1994	58.3	1.4	0.8	2.2	59.6	3.3	12.6	138.2
1995	21.2	4.9	0.2	1.2	20.4	2.3	7.0	57.2
1996	22.3	3.9	0.8	2.4	44.3	0.6	8.9	82.6
1997	18.1	19.3	0.8	4.8	39.1	2.8	18.1	103.0
1998	22.8	3.0	3.6	0.7	46.8	0.9	34.2	112.0
1999	46.2	6.9	0.9	11.0	59.5	1.0	32.9	158.4
2000	78.9	18.7	1.0	24.5	138.9	5.6	58.9	326.6
2001	101.9	114.9	2.6	38.8	199.4	6.2	225.4	689.1
2002	116.2	5.4	1.1	15.4	99.2	3.3	50.4	290.9
2003	184.8	47.4	0.8	22.6	141.1	10.8	93.8	501.2
2004	63.6	13.2	0.8	15.9	109.1	5.0	85.6	293.2

<sup>&</sup>lt;sup>1.</sup> Includes Youngs Bay, Big Creek (1970-present), other Select Area fisheries, and 1980-82 Washington terminal landings. Includes jacks, except beginning in 1987 jacks landed in Youngs Bay and other terminal fisheries are not included in this total.

<sup>&</sup>lt;sup>2.</sup> Catch from estuary recreational (Buoy 10) fishery. Catch from the estuary fishery prior to 1982 is included in ocean catch totals. Some non-Columbia River fish are caught in the estuary fishery and are included here.

<sup>3.</sup> Catch from above Astoria-Megler Bridge through 1999 and catch from above Tongue Point/Rocky Point thereafter.

<sup>&</sup>lt;sup>4.</sup> Includes Willamette Falls (Willamette River), North Fork Dam (Clackamas River), and Marmot Dam (Sandy River).

Table &	8. Minimum Nu	mbers (Th	ousands) of	Late Stock	Coho Adults	s Entering the	Columbia River	, 1970-2004.
		,	Lower Colu	mbia River				
	Comm. Catch		Sport Catch		Hatchery	Trib. Dam	Bonneville	Minimum
Year	Zones 1-5 <sup>1</sup>	Estuary <sup>2</sup>	L.Col.R. <sup>3</sup>	Tributary	Returns	Count 4	Dam Count	Run
1070	124.2		0.7	<b>5</b> 1	40.2	1.6	1.0	102 (
1970	124.3		0.5	5.1	49.3	1.6	1.8	182.6
1971	98.1		0.3	3.7	29.0	2.6	7.4	141.1
1972	61.0		0.2	1.8	9.9	0.6	2.0	75.5
1973	39.4		0.1	2.6	18.4	0.4	1.1	62.0
1974	140.9		0.1	2.0	29.0	0.8	5.5	178.3
1975	67.6		0.2	2.9	16.4	0.7	2.6	90.4
1976	97.2		0.1	4.0	45.8	1.0	3.6	151.7
1977	21.8		0.1	1.7	13.6	0.9	1.6	39.7
1978	70.3		0.2	2.6	33.1	0.5	2.4	109.1
1979	58.4		0.0	3.4	23.9	1.3	3.3	90.3
1980	81.2		0.0	5.0	45.8	3.1	6.2	141.3
1981	37.9		0.0	3.3	27.5	0.4	1.0	70.1
1982	159.1	7.0	0.0	6.0	45.7	1.1	4.8	223.7
1983	2.4	1.3	< 0.1	2.7	45.3	1.5	3.8	57.0
1984	86.4	28.1	0.2	8.0	46.8	0.4	3.6	173.5
						•••		
1985	84.2	8.9	0.3	3.1	36.9	1.0	3.4	137.8
1986	624.4	22.8	1.1	11.3	125.5	2.9	8.9	796.9
1987	64.8	18.8	0.2	1.8	33.4	0.9	1.5	121.4
1988	174.9	81.7	0.2	4.8	66.3	0.6	4.1	332.6
1989	309.1	27.2	< 0.1	8.1	85.3	1.4	7.8	438.9
1990	27.9	5.8	< 0.1	3.5	46.9	0.3	2.9	87.4
1991	204.3	65.7	0.3	14.3	114.4	1.3	15.6	415.9
1992	34.7	14.0	< 0.1	4.3	40.7	1.8	6.0	101.5
1993	14.8	4.4	0.1	3.4	16.1	0.1	2.6	41.5
1994	2.4	0.4	0.1	1.2	18.1	0.8	7.7	30.7
1995	0.2	0.2	< 0.1	1.3	11.1	0.6	3.4	16.8
1996	3.8	0.2	<0.1	1.3	17.9	<0.1	6.8	30.5
1997	2.4	1.0	<0.1	3.7	30.7	<0.1	6.0	43.8
1998	0.2	0.2	0.1	2.3	37.8	0.1	12.1	52.9
1999	32.8	2.1	0.2	7.5	64.4	0.1	7.8	125.9
	32.0	2.1	0.4	7.5	07.7	0.1	7.0	123.7
2000	92.1	2.8	0.6	10.4	93.4	0.9	26.7	226.9
2001	151.5	17.2	0.5	34.8	183.2	2.5	34.4	423.9
2002	46.8	0.8	2.0	17.1	119.3	0.4	37.7	223.9
2003	72.5	7.1	0.4	6.1	64.0	0.4	31.9	182.5
2004	46.2	2.0	0.5	5.1	69.6	0.2	29.4	153.0

Includes Youngs Bay, Big Creek (1970-present), other Select Area fisheries, and 1980-82 Washington terminal landings. Includes jacks, except beginning in 1987 jacks landed in Youngs Bay and other terminal fisheries are not included in this total.

<sup>&</sup>lt;sup>2.</sup> Catch from estuary recreational (Buoy 10) fishery. Catch from the estuary fishery prior to 1982 is included in ocean catch totals. Some non-Columbia River fish are caught in the estuary fishery and are included here.

<sup>3.</sup> Catch from above Astoria-Megler Bridge.

<sup>4.</sup> North Fork Dam (Clackamas River).

Table 9. Escapement Index Values for Chum in Washington Lower Columbia River Tributaries and for Late Run Coho in Oregon Columbia River Tributaries Downstream of the Sandy River, 1950-2004. Chum (Washington Tributaries) Coho (Oregon Tributaries) Miles Fish Miles Fish Surveyed<sup>1</sup> Year Surveyed Observed Fish/Mile Observed Fish/Mile 903 450 9.4 2.2 263 28 50's Average 60's Average 4.9 767 179 6.8 161 24 7 70's Average 6.0 450 77 9.3 61 9.3 9 1980 6.7 276 41 81 2 1981 4.0 56 14 9.3 16 2 1982 6.1 1,127 185 9.3 17 55 9.3 1 1983 5.8 317 11 1984 7.1 499 70 9.3 17 2 1985 7.1 500 70 7.8 3 <1 51 1986 7.4 1,138 154 9.3 5 1987 7.1 1,016 143 9.3 7 1 5 7.1 1,917 270 9.3 1988 1 1989 7.1 367 52 9.3 3 <1 721 105 9.2 21 2 80's Average 6.6 1990 7.1 832 117 9.4 4 <1 1991 7.1 673 95 9.4 3 <1 3,273 1992 7.1 461 9.4 4 <1 1993 7.1 1,411 199 9.3 2 <1 509 72 3 1994 7.1 9.3 <1 2 7.2 922 128 9.3 1995 <1 0 1996 7.2 1,545 215 9.3 0 1997 7.2 1,054 146 9.3 0 0 1998 7.2 1,666 231 9.3 4 <1 1999 7.2 2,096 291 9.3 4 <1 2 <1 90's Average 7.2 1,398 196 9.3  $82^{2}$ 9 398 9.3 2000 6.1 2,425  $13^2$ 2001 5.8 4,551 785 9.3 1 2002 6.3 8,662 1,375 9.3 84 9 9.3 93 10 2003 7.0 8,934 1,276 2004 11,439 9.3 **37** 7.0 1,634 4

<sup>1.</sup> In 1975 the database was reorganized into 9.3 miles of ten standard index streams that best indicate trends in escapement since 1967. Prior to 1967 the same ten streams were used; however, survey miles and frequency varied. In 1968, two index streams were not surveyed and in 1985 observations in an index survey heavily influenced by hatchery adult introduction were not included.

<sup>&</sup>lt;sup>2</sup>. May include some adipose fin-clipped coho

Table 10. Salmon, Steelhead, and Smelt of t	he Columbia River Basin	Considered for Listing Und	ler the Federal ESA. <sup>1</sup>
Species - ESU	Designation	Listing Date	Effective Date
Chinook			
Snake River Fall	Threatened	April 22, 1992	May 22, 1992
Snake River Spring/Summer	Threatened	April 22, 1992	May 22, 1992
Upper Columbia Spring	Endangered	March 24, 1999	May 24, 1999
Upper Columbia Summer/Fall	Not warranted		
Middle Columbia Spring	Not warranted		
Lower Columbia River Spring/Fall	Threatened	March 24, 1999	May 24, 1999
Upper Willamette Spring	Threatened	March 24, 1999	May 24, 1999
Deschutes River Fall	Not warranted		
Steelhead			
Snake River	Threatened	August 18, 1997	October 17, 1997
Upper Columbia River <sup>2</sup>	Endangered	August 18, 1997	October 17, 1997
Lower Columbia River	Threatened	March 19, 1998	May 18, 1998
Middle Columbia River	Threatened	March 25, 1999	May 24, 1999
Southwest Washington	Not warranted		
Upper Willamette	Threatened	March 25, 1999	May 24, 1999
Sockeye – Snake River	Endangered	November 20, 1991	December 20, 1991
<u>Chum</u> – Columbia River	Threatened	March 25, 1999	May 24, 1999
<b><u>Coho</u></b> – Lower Columbia River <sup>3</sup>	Threatened	<b>June 28, 2005</b>	August 26, 2005

The ESU's in bold are present in the Columbia River Basin during the time when fisheries described in this report occur and therefore may be impacted by these fisheries.

<sup>3.</sup> Lower Columbia River coho destined for Oregon tributaries were listed as an endangered species under Oregon state law in July 1999.

Table 11. Sturgeon Cat	ch Guidelines in ti	he Zone 6 Man	agement Area,	, 1998-2005.		
Reservoir / Fishery	1998-2000	2001	2002	2003	2004	2005
Bonneville	2,820	2,820	2,820	2,850	1,100	1,100
Sport	1,520	1,520	1,520	1,700	700	700
Treaty Commercial	1,300	1,300	1,300	1,150	400	400
The Dalles	1,800	1,800	1,800	1,300	1,300	1,300
Sport	600-800	700	700	400	400	400
Treaty Commercial	1,000-1,200	1,100	1,100	900	900	900
John Day	1,720	1,720	500	500	500	500
Sport	560	560	165	165	165	165
Treaty Commercial	1,160	1,160	335	335	335	335

Includes hatchery fish.

Tak	ole 12. Fall Low	er Columbia Ri	ver and Zone 6	Mainstem Comn	nercial Fishing	Seasons, 2004. <sup>1</sup>	
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			7 pm	7 am	7 pm	7 am	
A			••••	•••••			
$oldsymbol{U}$	1	2	3	4	5	6	7
C	7 pm	7 am	7 pm	7 am			
G	8	9	10	11	12	13	14
77		7 pm	7 am		7 pm	7 am	
U		••••					
S	15	16	17	18	19	20	21
		7 pm	7 am	7 pm 6 am	7 am	6 pm	
T		••••	•	O alli		Орш	
	22	23	24	25	26	27	28
			6 am			6 pm	
S							
	29	30	31	1	2	3	4
E			6 am			6 pm	
L	5	6	7	0	0	10	11
<b>D</b>	3	6 6 am	,	8	9	10 6 pm	11
P						o pin	
	12	13	1.4	15	16	17	18
T	12 8 pm	6 am	14 6 am 6 pm	13	16	17 6 pm	10
	••••		8 pm	1 am		o pin	
	19	20	21	22	23	24	25
0		7 am - 7 pm		7 am - 7 pm	7 am	7 am	
<i>a</i>	26	6 a <u>m 8 pm</u> 27	1 am 28	8 pm 29	1 am 6 pm 30	7 am	2
C	20	7 am	7 am	2)	7 am	7 am	
T		6 <u>am</u>	•••			6 pm	
•	3	4	5	6	7	8	9
0		7 am	7 am	6 am	7 am	7 am	
			•••				6 pm
В	10	11	12	13	14	15	16
	· · <del>·</del>	7 am	7 am	7 am		7 am	· -
E			•••				
<b>P</b>	17	18	19	20	21	22	23
R		7 am	7 am	7 am		7 am	
		•••••				••••	
	24	25	26	27	28	29	30
	Lower Riv			Zone 6:		•	
	Lower Ki	, 51.		2010 0.			

<sup>&</sup>lt;sup>1.</sup> For specific area and gear regulations please see Table 15.

Tab	le 13. Fall Selec	ct Area Comme	rcial Fishing Sea	sons, 2004.			
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				6 am	noon		
A	1	2	3	4	5	6	7
$oldsymbol{U}$	1			6 am	noon	U	,
C	0	0	10	7.1	12	12	1.4
$\boldsymbol{G}$	8	9	10	11 6 am	noon	13	14
$oldsymbol{U}$				o am	поон		
U	15	16	17	18	19	20	21
S		7 pm	7 am 7 pm	7 am 7 pm	7 am 7 pm	7 am	
T.			7 pm	6 am	noon	7 am	
T	22	23	24	25	26	27	28
S	22	7 pm	7 am 7 pm	7 am 7 pm	7 am 7 pm	7 am	20
		••••	6 am	•••••	•••••	6 am	
E	29	30	31	1	2	3	4
P		7 pm	7 am 7 pm	7 am 7 pm	7 am 7 pm	7 am	
<b></b>		••••	noon	••••	• • • • • • • • • • • • • • • • • • • •	• • • • •	
T	5	6	7	8	9	10	11
E		4 pm	8 am 4 pm	8 am 4 pm	8 am 4 pm	8 am	
M	12	12	1.4		16	1000	10
IVI	12	13	14	15	16	17	18
В		4 pm	8 am 4 pm	8 am 4 pm	8 am 4 pm	8 am	
E		••••					
L	19	20	21	22	23	24	25
R		4 pm	8 am 4 pm	8 am 4 pm	8 am 4 pm	8 am	
	26	27	28	29	30	1	2
	20	4 pm	8 am 4 pm	8 am 4 pm	8 am 4 pm	8 am	2
0		•••••	•••••	•••••	•••••	• • • • • •	
	3	4	5	6	7	8	9
C		4 pm	8 am 4 pm	8 am 4 pm	8 am 4 pm	8 am	
		,,,,,	••••	•••••		-••••	
T	10	11	12	13	1.4	15	16
		11 4 pm	12 8 am 4 pm	8 am 4 pm	14 8 am 4 pm	15 8 am	16
0		• • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • •	·····	····· · · · · · · · · · · · · · · · ·	••••••	
D	17	18	19	20	21	22	23
В		4 pm	8 am 4 pm	8 am 4 pm	8 am 4 pm	8 am	
E		••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	
E	24	25	26	27	28	29	30
R							
	31						
Y	Youngs Bay C	ther Select Are	as: Deep River o	pen 7 pm-7 am	Aug. 23-Sep. 10,		

Youngs Bay Other Select Areas: Deep River open 7 pm-7 am Aug. 23-Sep. 10,

• Others open 7 pm–7 am Aug. 31.–Sep. 3 and Sep. 7-10

Steamboat Slough, Deep River, Tongue Point/South Channel open 4 pm-8 am during Sep. 13-Oct. 29

Blind Slough/Knappa Slough open 7 pm Aug. 24-7 AM Aug. 27, 4 pm–8 am Sept. 13-17, 7 pm-7 am Sep. 20-Sep. 24 and 6 pm–8 am Sep. 27-Oct 29.

					Summer	White	Green
Fishery <sup>23</sup>	Date	Chinook	Coho	Chum	Steelhead	Sturgeon	Sturgeon
	Tr	reaty Indian	Fisheries				
Zone 6	Aug. 25-27	2,413	0		320		
Zone 6	Aug. 31- Sept. 3	19,107	147		1,319		
Zone 6	Sept. 7-10	26,701	964		1,819		
Zone 6	Sept. 13-17	37,066	1,656		2,063		
Zone 6	Sept. 20-24	22,921	2,208		2,177		
Zone 6	Sept. 27-30	9,634	1256		1,325		
Zone 6	Oct. 4-8	4,534	978		1,112		
Zone 6	Oct. 13-16	4,836	2,578		1,498		
Zone 6 C & S	AugDec.	416	500	0	2,960	64	0
	Treaty Indian Total	127,628	10,287	0	14,593	64	0
	Λ	lon-Indian F	isheries				
Zone 1-5 Early August	Aug. 3-6	3,175	7	0		802	2
Zone 1-5 Early August	Aug. 8-11	2,171	17	0		748	4
Zone 2-5 & 3-5 Late Aug	Aug. 16-20	1,304	4	0		630	0
Zone 4-5 Late August	Aug. 23-26	4,605	15	0		287	0
Zones 1-5 Late Fall	Sept. 19-22	15,041	9,535	0		579	6
Zones 1-5 Late Fall	Sept. 27-Oct. 1	7,438	18,967	3		427	25
Zones 1-5 Late Fall	Oct. 4-8	3,109	5,087	6	0	442	7
Zones 1-5 Late Fall	Oct. 11-15	2,100	18,476	36		397	6
Zones 1-5 Late Fall	Oct. 18-22	1,539	10,788	11		643	7
Zones 2-5 Late Fall	Oct. 25-29	575	3,626	33	_	731	0
,	Subtotal	41,057	66,522	89		5,686	57
Youngs Bay	Aug. 4 – Oct. 31	3,890	34,613	1		23	0
Tongue Pt./South Ch.	Aug. 31 – Oct. 29	2,124	10,196	0		33	0
Blind Sl/Knappa Sl.	Aug. 24 – Oct. 29	6,235	1,355	0		59	0
Deep River	Aug. 23 – Oct. 29	393	5,780	0		2	0
Steamboat Slough	Aug. 31 – Oct. 29	0	0	0		0	0
·	Subtotal	12,642	51,944	1		117	0
Buoy 10 Sport <sup>4</sup>	Aug. 1-Dec. 31	16,000	15,200				
Lower River Sport <sup>5</sup>	Aug. 1-Dec. 31	17,700	1,300		2,500	5,800	0
Bonneville Dam to Priest Rapids Dam Sport <sup>5</sup>	Aug. 1-Dec. 31	9,600					
1	Subtotal	43,300	31,700		2,500	5,800	0
•	Non-Indian Total	96,999	150,166	90	2,500	11,603	57
Grand To	. 1	224,627	160,453	90	17,093	11,667	57

<sup>1.</sup> Commercial landings are preliminary. Please see Table 15 for details concerning specific commercial season, area, and gear restriction.

<sup>2.</sup> Includes take home and over-the-bank sales.

<sup>3.</sup> Subsistence harvest not occurring during commercial fishing periods.

<sup>&</sup>lt;sup>4.</sup> Buoy 10 was open August 1-December 31, with a two salmon (only one Chinook) daily catch limit. Chinook retention was prohibited September 7 through December 31.

<sup>5.</sup> Does not include jacks.

Table	Table 15. Non-Indian Fall Commercial Fishing Seasons, 2004						
			Main-Stem Salmon and Sturgeon Seasons				
Days	Season	Dates	Sp	pecial Regulations			
		24.00	Gear	Area/Other			
12 hrs	Early Fall	Aug 3, 7 PM - Aug 4, 7 AM	8" min. and 9 3/4" max. mesh size restriction.	Zones 1-5. Grays River, Elokomin-A, Cowlitz River, Kalama-A, Lewis-A, Washougal, and Sandy rivers sanctuaries in effect. Salmon and sturgeon may be sold. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon possession and sales limit includes both mainstem and Select Area fisheries.			
12 hrs		Aug 5, 7 PM - Aug 6, 7 AM	Same.	Same.			
12 hrs		Aug 8, 7 PM - Aug 9, 7 AM	Same.	Same.			
12 hrs		Aug 10, 7 PM - Aug 11, 7 AM	Same.	Same.			
12 hrs		Aug 16, 7 PM - Aug 17, 7 AM	Same.	Zones 2-5. Same.			
12 hrs		Aug 19, 7 PM - Aug 20, 7 AM	Same.	Zones 3-5. Cowlitz River, Kalama-A, Lewis-A, Washougal, and Sandy rivers sanctuaries in effect. Salmon only. No sturgeon sales allowed.			
12 hrs		Aug 23, 7 PM - Aug 24, 7 AM	9" min. and 9 3/4" max. mesh size restriction.	Zones 4-5. Lewis-A, Washougal, and Sandy rivers sanctuaries are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon possession and sales limit includes both mainstem and Select Area fisheries.			
12 hrs		Aug 25, 7 PM - Aug 26, 7 AM	Same.	Same.			
10 hrs	Late Fall	Sep 19, 8 PM - Sep 20, 6 AM	9 3/4" max. mesh size restriction. No min. mesh size restriction downstream of Longview Bridge. 8" min. mesh size restriction upstream of Longview Bridge.	Zones 1-5. Elokomin-A, Abernathy, Cowlitz, Kalama-A, Lewis-A, Sandy, and Washougal rivers sanctuaries in effect. Salmon and Sturgeon. Same restrictions on sturgeon possession and sales.			
12 hrs		Sep 21, 6 AM - 6 PM	6" max. mesh size restriction, unslackened floater gill net.	Zones 1-3 (mouth upstream to the Longview Bridge). Elokomin-A and Abernathy sanctuaries in effect. Salmon and sturgeon. Same.			
5 hrs		Sep 21, 8 PM - Sep 22, 1 AM	8" min. and 9 3/4" max. mesh size restriction.	Zones 3-5 (Longview Bridge upstream to Beacon Rock). Cowlitz, Kalama-A, Lewis-A, Sandy, and Washougal rivers sanctuaries in effect. Salmon and sturgeon. Same.			
12 hrs		Sep 27, 7 AM - 7 PM	6" max. mesh size unslackened floater gill net, <b>OR</b> 9" min. and 9 3/4" max. mesh size restriction.	Zones 1-3. Elokomin-A, Abernathy, Cowlitz, Kalama-A, and Lewis-A sanctuaries in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.			
5 hrs		Sep 27, 8 PM - Sep 28, 1 AM	8" min. and 9 3/4" max. mesh size restriction.	Zones 4-5. Lewis-A, Sandy, and Washougal rivers sanctuaries in effect. Same. Same.			
12 hrs		Sep 29, 7 AM - 7 PM	6" max. mesh size unslackened floater gill net, <b>OR</b> 9" min. and 9 3/4" max. mesh size restriction.	Zones 1-3. Elokomin-A, Abernathy, Cowlitz, Kalama-A, and Lewis-A sanctuaries in effect. Same.			

Table 15. continued

			Main-Stem Salmon and Sturgeon Seasons (continued	d)
Days	Season	Dates	Sp	pecial Regulations
Days	Ocason	Balco	Gear	Area/Other
5 hrs	Late Fall (cont.)	Sep 29, 8 PM - Sep 30, 1 AM	8" min. and 9 3/4" max. mesh size restriction.	Zones 4-5. Lewis-A, Sandy, and Washougal rivers sanctuaries in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
1 1/4		Sep 30, 1 AM - Oct 1, 7 AM	Same.	Same.
1		Sep 30, 7 AM - Oct 1, 7 AM	9 3/4" max. mesh size restriction.	Zones 1-3. Elokomin-A, Abernathy, Cowlitz, Kalama-A, and Lewis-A sanctuaries in effect. Same.
1		Oct 4, 7 AM - Oct 5, 7 AM	Same.	Zones 1-5. Elokomin-A, Abernathy, Cowlitz, Kalama-A, Lewis-A, Sandy, and Washougal rivers sanctuaries in effect. Same.
1		Oct 7, 7 AM - Oct 8, 7 AM	Same.	Same.
1		Oct 11, 7 AM - Oct 12, 7 AM	Same.	Same.
1		Oct 14, 7 AM - Oct 15, 7 AM	Same.	Same.
1		Oct 18, 7 AM - Oct 19, 7 AM	Same.	Same, except no Elokomin-A or Abernathy sanctuary in effect.
2		Oct 20, 7 AM - Oct 22, 7 AM	Same.	Same. A maximum of ten white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The ten sturgeon limit includes both mainstem and Select Area fisheries.
1		Oct 25, 7 AM - Oct 26, 7 AM	Same.	Zones 2-5 (Harrington Point/Settler Point line upstream to Beacon Rock). Cowlitz, Kalama-A, Lewis-A, Sandy, and Washougal rivers sanctuaries in effect. Same.
2		Oct 27, 7 AM - Oct 29, 7 AM	Same.	Same.
1 1/4	Youngs Bay - Fall	Aug 4, 6 AM - Aug 5, noon	Same.	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the 101 Bridge to the upper boundary located at the markers at Battle Creek Slough. Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
1 1/4		Aug 11, 6 AM - Aug 12, noon	Same.	Same.
1 1/4		Aug 18, 6 AM - Aug 19, noon	Same.	Same.
1 1/4		Aug 25, 6 AM - Aug 26, noon	Same.	Same.
3		Aug 31, 6 AM - Sep 3, 6 AM	6" max. mesh size restriction. Same. Same.	Same.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates	Sp	pecial Regulations
Days	Ocason	Dutes	Gear	Area/Other
55	Youngs Bay - Fall (cont.)	Sep 7, noon - Oct 31, noon	Same.	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the 101 Bridge to the upper boundary located at the markers at Battle Creek Slough. Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12hrs	Tongue Point / South Channel - Fall	Aug 31, 7 PM - Sep 1, 7 AM	Tongue Point: 6" max. mesh size restriction. Nets may not exceed 250 fathoms in length and leadline may not exceed 2 lbs per fathom. South Channel: 6" max. mesh size restriction. Nets may not exceed 100 fathoms in length and there is no weight restriction on the leadline.	Tongue Point Basin/South Channel select fishing areas (concurrent waters). Fishers in Tongue Point area may have stored onboard, gill nets with a leadline in excess of 2 lbs per fathom. Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12 hrs		Sep 1, 7 PM - Sep 2, 7 AM	Same.	Same.
12 hrs		Sep 2, 7 PM - Sep 3, 7 AM	Same.	Same.
12 hrs		Sep 7, 7 PM - Sep 8, 7 AM	Same.	Same.
12 hrs		Sep 8, 7 PM - Sep 9, 7 AM	Same.	Same.
12hrs		Sep 9, 7 PM - Sep 10, 7 AM	Same.	Same.
16 hrs		Sep 13, 4 PM - Sep 14, 8 AM	Same.	Same.
16 hrs		Sep 14, 4 PM - Sep 15, 8 AM	Same.	Same.
16 hrs		Sep 15, 4 PM - Sep 16, 8 AM	Same.	Same.
16 hrs		Sep 16, 4 PM - Sep 17, 8 AM	Same.	Same.
16 hrs		Sep 20, 4 PM - Sep 21, 8 AM	Same.	Same.
16 hrs		Sep 21, 4 PM - Sep 22, 8 AM	Same.	Same.
16 hrs		Sep 22, 4 PM - Sep 23, 8 AM	Same.	Same.
16 hrs		Sep 23, 4 PM - Sep 24, 8 AM	Same.	Same.
16 hrs		Sep 27, 4 PM - Sep 28, 8 AM	Same.	Same.
16 hrs		Sep 28, 4 PM - Sep 29, 8 AM	Same.	Same.
16 hrs		Sep 29, 4 PM - Sep 30, 8 AM	Same.	Same.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates	Sp	pecial Regulations
Dayo	Coacon	Datos	Gear	Area/Other
16 hrs	Tongue Point / South Channel - Fall (cont.)	Sep 30, 4 PM - Oct 1, 8 AM	Tongue Point: 6" max. mesh size restriction. Nets may not exceed 250 fathoms in length and leadline may not exceed 2 lbs per fathom. South Channel: 6" max. mesh size restriction. Nets may not exceed 100 fathoms in length and there is no weight restriction on the leadline.	Tongue Point Basin/South Channel select fishing areas (concurrent waters). Fishers in Tongue Point area may have stored onboard, gillnets with a leadline in excess of 2 lbs per fathom. Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
16 hrs		Oct 4, 4 PM - Oct 5, 8 AM	Same.	Same.
16 hrs		Oct 5, 4 PM - Oct 6, 8 AM	Same.	Same.
16 hrs		Oct 6, 4 PM - Oct 7, 8 AM	Same.	Same.
16 hrs		Oct 7, 4 PM - Oct 8, 8 AM	Same.	Same.
16 hrs		Oct 11, 4 PM - Oct 12, 8 AM	Same.	Same.
16 hrs		Oct 12, 4 PM - Oct 13, 8 AM	Same.	Same.
16 hrs		Oct 13, 4 PM - Oct 14, 8 AM	Same.	Same.
16 hrs		Oct 14, 4 PM - Oct 15, 8 AM	Same.	Same.
16 hrs		Oct 18, 4 PM - Oct 19, 8 AM	Same.	Same.
16 hrs		Oct 19, 4 PM - Oct 20, 8 AM	Same.	Same.
16 hrs		Oct 20, 4 PM - Oct 21, 8 AM	Same.	Same.
16 hrs		Oct 21, 4 PM - Oct 22, 8 AM	Same.	Same.
16 hrs		Oct 25, 4 PM - Oct 26, 8 AM	Same.	Same.
16 hrs		Oct 26, 4 PM - Oct 27, 8 AM	Same.	Same.
16 hrs		Oct 27, 4 PM - Oct 28, 8 AM	Same.	Same.
16 hrs		Oct 28, 4 PM - Oct 29, 8 AM	Same.	Same.
2 1/2	Blind Slough / Knappa Slough - Fall	Aug 24, 7 PM - Aug 27, 7 AM	9 3/4" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Blind Slough/Knappa Slough select fishing area (concurrent waters up to railroad bridge, Oregon only above). 100' closure exists at the mouth of Big Creek. Permanent transportation rules are in effect.  Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates		pecial Regulations
			Gear	Area/Other
12 hrs	Blind Slough / Knappa Slough - Fall (cont.)	Aug 31, 7 PM - Sep 1, 7 AM	9 3/4" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Blind Slough/Knappa Slough select fishing area (concurrent waters up to railroad bridge, Oregon only above). 100' closure exists at the mouth of Big Creek. Permanent transportation rules are in effect.  Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12 hrs		Sep 1, 7 PM - Sep 2, 7 AM	Same.	Same.
12 hrs		Sep 2, 7 PM - Sep 3, 7 AM	Same.	Same.
12 hrs		Sep 7, 7 PM - Sep 8, 7 AM	Same.	Same.
12 hrs		Sep 8, 7 PM - Sep 9, 7 AM	Same.	Same.
12 hrs		Sep 9, 7 PM - Sep 10, 7 AM	Same.	Same.
16 hrs		Sep 13, 4 PM - Sep 14, 8 AM	6" max. mesh size restriction. Same. Same.	Same.
16 hrs		Sep 14, 4 PM - Sep 15, 8 AM	Same.	Same.
16 hrs		Sep 15, 4 PM - Sep 16, 8 AM	Same.	Same.
16 hrs		Sep 16, 4 PM - Sep 17, 8 AM	Same.	Same.
12 hrs		Sep 20, 7 PM - Sep 21, 7 AM	Same.	Same.
12 hrs		Sep 21, 7 PM - Sep 22, 7 AM	Same.	Same.
12 hrs		Sep 22, 7 PM - Sep 23, 7 AM	Same.	Same.
12 hrs		Sep 23, 7 PM - Sep 24, 7 AM	Same.	Same.
14 hrs		Sep 27, 6 PM - Sep 28, 8 AM	Same.	Same.
14 hrs		Sep 28, 6 PM - Sep 29, 8 AM	Same.	Same.
14 hrs		Sep 29, 6 PM - Sep 30, 8 AM	Same.	Same.
14 hrs		Sep 30, 6 PM - Oct 1, 8 AM	Same.	Same.
14 hrs		Oct 4, 6 PM - Oct 5, 8 AM	Same.	Same.
14 hrs		Oct 5, 6 PM - Oct 6, 8 AM	Same.	Same.
14 hrs		Oct 6, 6 PM - Oct 7, 8 AM	Same.	Same.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates	Sp	pecial Regulations
Days	Ocason	Dates	Gear	Area/Other
14 hrs	Blind Slough / Knappa Slough - Fall (cont.)	Oct 7, 6 PM - Oct 8, 8 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Blind Slough/Knappa Slough select fishing area (concurrent waters up to railroad bridge, Oregon only above). 100' closure exists at the mouth of Big Creek. Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
14 hrs		Oct 11, 6 PM - Oct 12, 8 AM	Same.	Same.
14 hrs		Oct 12, 6 PM - Oct 13, 8 AM	Same.	Same.
14 hrs		Oct 13, 6 PM - Oct 14, 8 AM	Same.	Same.
14 hrs		Oct 14, 6 PM - Oct 15, 8 AM	Same.	Same.
14 hrs		Oct 18, 6 PM - Oct 19, 8 AM	Same.	Same.
14 hrs		Oct 19, 6 PM - Oct 20, 8 AM	Same.	Same.
14 hrs		Oct 20, 6 PM - Oct 21, 8 AM	Same.	Same.
14 hrs		Oct 21, 6 PM - Oct 22, 8 AM	Same.	Same.
14 hrs		Oct 25, 6 PM - Oct 26, 8 AM	Same.	Same.
14 hrs		Oct 26, 6 PM - Oct 27, 8 AM	Same.	Same.
14 hrs		Oct 27, 6 PM - Oct 28, 8 AM	Same.	Same.
14 hrs		Oct 28, 6 PM - Oct 29, 8 AM	Same.	Same.
12 hrs	Deep River - Fall	Aug 23, 7 PM - Aug 24, 7 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Deep River select fishing area extending from the mouth upstream to the town of Deep River (concurrent waters up to Highway 4 Bridge, Washington only above). Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12 hrs		Aug 24, 7 PM - Aug 25, 7 AM	Same.	Same.
12 hrs		Aug 25, 7 PM - Aug 26, 7 AM	Same.	Same.
12 hrs		Aug 26, 7 PM - Aug 27, 7 AM	Same.	Same.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates	Sp	pecial Regulations
Days	Ocason	Dates	Gear	Area/Other
12 hrs	Deep River - Fall (cont.)	Aug 30, 7 PM - Aug 31, 7 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Deep River select fishing area extending from the mouth upstream to the town of Deep River (concurrent waters up to Highway 4 Bridge, Washington only above). Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12 hrs		Aug 31, 7 PM - Sep 1, 7 AM	Same.	Same.
12 hrs		Sep 1, 7 PM - Sep 2, 7 AM	Same.	Same.
12 hrs		Sep 2, 7 PM - Sep 3, 7 AM	Same.	Same.
12 hrs		Sep 6, 7 PM - Sep 7, 7 AM	Same.	Same.
12 hrs		Sep 7, 7 PM - Sep 8, 7 AM	Same.	Same.
12 hrs		Sep 8, 7 PM - Sep 9, 7 AM	Same.	Same.
12 hrs		Sep 9, 7 PM - Sep 10, 7 AM	Same.	Same.
16 hrs		Sep 13, 4 PM - Sep 14, 8 AM	Same.	Same.
16 hrs		Sep 14, 4 PM - Sep 15, 8 AM	Same.	Same.
16 hrs		Sep 15, 4 PM - Sep 16, 8 AM	Same.	Same.
16 hrs		Sep 16, 4 PM - Sep 17, 8 AM	Same.	Same.
16 hrs		Sep 20, 4 PM - Sep 21, 8 AM	Same.	Same.
16 hrs		Sep 21, 4 PM - Sep 22, 8 AM	Same.	Same.
16 hrs		Sep 22, 4 PM - Sep 23, 8 AM	Same.	Same.
16 hrs		Sep 23, 4 PM - Sep 24, 8 AM	Same.	Same.
16 hrs		Sep 27, 4 PM - Sep 28, 8 AM	Same.	Same.
16 hrs		Sep 28, 4 PM - Sep 29, 8 AM	Same.	Same.
16 hrs		Sep 29, 4 PM - Sep 30, 8 AM	Same.	Same.
16 hrs		Sep 30, 4 PM - Sep Oct 1, 8 AM	Same.	Same.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates	Sı	pecial Regulations
Dayo	0000011	Dates	Gear	Area/Other
16 hrs	Deep River - Fall (cont.)	Oct 4, 4 PM - Oct 5, 8 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Deep River select fishing area extending from the mouth upstream to the town of Deep River (concurrent waters up to Highway 4 Bridge, Washington only above). Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
16 hrs		Oct 5, 4 PM - Oct 6, 8 AM	Same.	Same.
16 hrs		Oct 6, 4 PM - Oct 7, 8 AM	Same.	Same.
16 hrs		Oct 7, 4 PM - Oct 8, 8 AM	Same.	Same.
16 hrs		Oct 11, 4 PM - Oct 12, 8 AM	Same.	Same.
16 hrs		Oct 12, 4 PM - Oct 13, 8 AM	Same.	Same.
16 hrs		Oct 13, 4 PM - Oct 14, 8 AM	Same.	Same.
16 hrs		Oct 14, 4 PM - Oct 15, 8 AM	Same.	Same.
16 hrs		Oct 18, 4 PM - Oct 19, 8 AM	Same.	Same.
16 hrs		Oct 19, 4 PM - Oct 20, 8 AM	Same.	Same.
16 hrs		Oct 20, 4 PM - Oct 21, 8 AM	Same.	Same.
16 hrs		Oct 21, 4 PM - Oct 22, 8 AM	Same.	Same.
16 hrs		Oct 25, 4 PM - Oct 26, 8 AM	Same.	Same.
16 hrs		Oct 26, 4 PM - Oct 27, 8 AM	Same.	Same.
16 hrs		Oct 27, 4 PM - Oct 28, 8 AM	Same.	Same.
16 hrs		Oct 28, 4 PM - Oct 29, 8 AM	Same.	Same.
12 hrs	Steamboat Slough - Fall	Aug 31, 7 PM - Sep 1, 7 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Steamboat Slough select fishing area (concurrent waters). Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12 hrs		Sep 1, 7 PM - Sep 2, 7 AM	Same.	Same.

Table 15. continued

			Select Area Seasons (continued)	
Days	Season	Dates	Sp	pecial Regulations
Days	Jeason	Dates	Gear	Area/Other
12 hrs	Steamboat Slough - Fall (cont.)	Sep 2, 7 PM - Sep 3, 7 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Steamboat Slough select fishing area (concurrent waters). Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.
12 hrs		Sep 7, 7 PM - Sep 8, 7 AM	Same.	Same.
12 hrs		Sep 8, 7 PM - Sep 9, 7 AM	Same.	Same.
12 hrs		Sep 9, 7 PM - Sep 10, 7 AM	Same.	Same.
16 hrs		Sep 13, 4 PM - Sep 14, 8 AM	Same.	Same.
16 hrs		Sep 14, 4 PM - Sep 15, 8 AM	Same.	Same.
16 hrs		Sep 15, 4 PM - Sep 16, 8 AM	Same.	Same.
16 hrs		Sep 16, 4 PM - Sep 17, 8 AM	Same.	Same.
16 hrs		Sep 20, 4 PM - Sep 21, 8 AM	Same.	Same.
16 hrs		Sep 21, 4 PM - Sep 22, 8 AM	Same.	Same.
16 hrs		Sep 22, 4 PM - Sep 23, 8 AM	Same.	Same.
16 hrs		Sep 23, 4 PM - Sep 24, 8 AM	Same.	Same.
16 hrs		Sep 27, 4 PM - Sep 28, 8 AM	Same.	Same.
16 hrs		Sep 28, 4 PM - Sep 29, 8 AM	Same.	Same.
16 hrs		Sep 29, 4 PM - Sep 30, 8 AM	Same.	Same.
16 hrs		Sep 30, 4 PM - Oct 1, 8 AM	Same.	Same.
16 hrs		Oct 4, 4 PM - Oct 5, 8 AM	Same.	Same.
16 hrs		Oct 5, 4 PM - Oct 6, 8 AM	Same.	Same.
16 hrs		Oct 6, 4 PM - Oct 7, 8 AM	Same.	Same.
16 hrs		Oct 7, 4 PM - Oct 8, 8 AM	Same.	Same.
16 hrs		Oct 11, 4 PM - Oct 12, 8 AM	Same.	Same.
16 hrs		Oct 12, 4 PM - Oct 13, 8 AM	Same.	Same.

Table 15. continued

			Select Area Seasons (continued)				
Days Season Dates			Special Regulations				
			Gear	Area/Other			
16 hrs	Steamboat Slough - Fall (cont.)	Oct 13, 4 PM - Oct 14, 8 AM	6" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline.	Steamboat Slough select fishing area (concurrent waters). Permanent transportation rules are in effect. Salmon and sturgeon. A maximum of five white or green sturgeon in the aggregate may be possessed or sold by each participating vessel during each calendar week. The five sturgeon limit includes both mainstem and Select Area fisheries.			
16 hrs		Oct 14, 4 PM - Oct 15, 8 AM	Same.	Same.			
16 hrs		Oct 18, 4 PM - Oct 19, 8 AM	Same.	Same.			
16 hrs		Oct 19, 4 PM - Oct 20, 8 AM	Same.	Same.			
16 hrs		Oct 20, 4 PM - Oct 21, 8 AM	Same.	Same.			
16 hrs		Oct 21, 4 PM - Oct 22, 8 AM	Same.	Same.			
16 hrs		Oct 25, 4 PM - Oct 26, 8 AM	Same.	Same.			
16 hrs		Oct 26, 4 PM - Oct 27, 8 AM	Same.	Same.			
16 hrs		Oct 27, 4 PM - Oct 28, 8 AM	Same.	Same.			
16 hrs		Oct 28, 4 PM - Oct 29, 8 AM	Same.	Same.			

Table 16. Catch Com	position of Fall Z		•		
Date		Chinook	Steelhead	Coho	Walleye
August	C & S	386	2,860	0	0
Aug. 25-Aug. 27	Ticket	2,000	260	0	0
	Other	413	60		
	Total	2,413	320	0	0
Aug. 31- Sept. 3	Ticket	17,144	1,076	128	0
	Other	1,963	243	19	6
	Total	19,107	1,319	147	6
Sept. 7-10	Ticket	25,642	1,272	370	0
	Other	1,059	547	594	7
	Total	26,701	1,819	964	7
Sept. 13-17	Ticket	33,359	1,857	1,490	0
_	Other	3,707	206	166	0
	Total	37,066	2,063	1,656	0
Sept. 20-24	Ticket	20,629	1,961	1,987	0
	Other	2,292	216	221	10
	Total	22,921	2,177	2,208	10
Sept. 27-30	Ticket	8,671	771	1,010	0
	Other	963	554	246	5
	Total	9,634	1,325	1,256	5
Oct. 4-8	Ticket	3,697	381	880	0
	Other	837	731	98	7
	Total	4,534	1,112	978	7
Oct. 13-16	Ticket	691	44	177	0
	Other	4,145	1,454	2,401	8
	Total	4,836	1,498	2,578	8
Oct-Dec	C & S	30	100	500	0
Totals	Ticket	111,833	7,622	6,042	0
	Other	15,379	4,011	3,745	43
	C&S	416	2,960	500	0
Grand Total	al	127,628	14,593	10,287	43

 $<sup>^{</sup>L}$  Ticket catch estimates based on preliminary landings.

Table 17. Stock Composition of Add	Table 17. Stock Composition of Adult Fall Chinook Landed in Mainstem Columbia River Fisheries, 2004 <sup>1</sup> .							
				Stock				
	LRH	LRW	BPH	URB	MCB <sup>2</sup>	Other <sup>3</sup>	Total	
Non-Indian Fisheries <sup>3</sup>								
Recreational 4	5,282	1,847	5,074	20,439	8,597	1,338	42,577	
Early August Commercial	1,902	0	499	1,045	168	1,708	5,322	
Late Aug/Sept Commercial	3,209	1,276	2,238	14,214	6,795	220	27,952	
October Commercial	354	1,067	137	3,541	2,201	9	7,309	
Select Area Commercial <sup>5</sup>	7,657	0	816	960	14	2,961	12,408	
Subtotal	18,404	4,190	8,764	40,199	17,775	6,236	95,568	
Treaty Indian Fisheries	475	0	59,972	45,739	19,674	732	126,592	
Total	18,879	4,190	68,736	85,938	37,449	6,968	222,160	

Based on preliminary catch estimates. Stock-specific and total catches by fishery may not match data presented elsewhere in this report.
 Includes lower river bright (LRB) stock.
 Includes Select Area bright (SAB) and out-of-basin stocks.
 Includes sport catch from mouth to Priest Rapids Dam and adjusted for hook and release mortality..
 Includes Knappa Slough August season landings.

Table 18. Summary of 2004 Fall Fishery Impacts. <sup>1</sup>													
	Fall	Snake	R. Wild		Wild Steelhead								
	Chinook	Fall C	Chinook	Steelhead	Group A		Group B						
Fishery	Catch	No.	%	Catch	No.	%	No	%					
Treaty Indian	127,600	NA	11.72	14,600	1,929	3.2	1,021	11.1					
Non-Indian	97,000	NA	9.08	NA	NA	1.3-1.4	NA	1.8-1.9					
Total	224,600	NA	20.80	NA	NA	4.5-4.6	NA	12.9-13.0					

<sup>&</sup>lt;sup>1.</sup> Based on preliminary inseason phone survey catch estimates.

Year	Open Area	Spring Creek Sanctuary
1988	All of Zone 6	Small sanctuary Aug 10-27 and Sep 12-24. Large sanctuary Aug 29-Sep 21
1989	"	Small sanctuary Aug 7-26 and Sep 27-29. Large sanctuary Aug 28-Sep 27
1990	All of Zone 6 except closed below Hood River Bridge Sep 10-12	Small sanctuary Aug 8-25 and Sep 24-29. Large sanctuary Aug 27-Sep 22
1991	"	Small sanctuary Aug 12-Sep 10. Reduced to 50' radius Sep 10-Oct 28
1992	All of Zone 6 except Spring Creek Sanctuary Area only open Sep 7-15 and Bonneville Pool closed Sep 17-19	Small sanctuary Aug 10-22. Reduced to 50' radius Sep 2-5. Large sanctuary Sep 23-Oct 12
1993	All of Zone 6 except Bonneville Pool closed Sep 13-18	Small sanctuary August 9-28. Large sanctuary Aug 30-Oct 2.
1994	All of Zone 6	Large sanctuary Aug 29-Sep 10. Reduced to 50 radius Oct 12-15
1995	H .	Large sanctuary all season
1996	All of Zone 6 except closed below Hood River Bridge Sep 23-28	Large sanctuary all season
1997	All of Zone 6 except closed below Hood River Bridge Sep 9-13	Large sanctuary Aug 7-Sep 6. Enlarged sanctuary from Light #27 to Light #35, Washington shore to mid-channel, Sep 17-20
1998	All of Zone 6 except closed below Hood River Bridge Sep 8-12	Large sanctuary Sep. 1-12. Enlarged sanctuary from Light #27 to Light #35, Washington shore to mid-channel, September 15-28
1999	All of Zone 6	Small sanctuary all season
2000	n .	Large sanctuary all season
2001	n	Large sanctuary Aug 28-Sep 8. Small sanctuary Sep 11-29
2002	n	Large sanctuary Aug 28-Aug 31. Small sanctuary Sep 11-28
2003	"	Small sanctuary all season.
2004	n	Small sanctuary all season.

Table 20. Number of Adult Chinook, Coho, Steelhead, and Sturgeon Landed During Treaty Indian Fall Seasons (Aug-Nov) Above Bonneville Dam, 1970-2004.

Numbers Landed <sup>1</sup>

			Numbers Landed <sup>1</sup>					
	2	Fishing	Chinook		4	White		
Year	Season <sup>2</sup>	Days <sup>3</sup>	Adults	Coho	Steelhead 4	Sturgeon 5		
1970	Aug. 9-Oct. 16	48	34,800	21,300	11,400 (13,200)	200		
1971	Aug. 9-Oct. 15	49	50,900	17,100	22,500 (25,700)	600		
1972	Aug. 9-Oct. 13	46	39,000	9,600	25,100 (28,800)	500		
1973	Aug.12-Oct. 12	56	57,000	11,400	26,200 (26,800)	400		
1974	Aug. 8-Oct. 18	63	51,100	6,900	12,900 (13,200)	400		
1975	Aug. 8-Oct 10	54	122,300	6,000	7,000 (7,800)	600		
1976	Aug. 8-Oct. 18	60	121,500	4,600	8,800 (11.800)	300		
1977	Aug. 25-Sept. 13	19	46,300	1,000	31,300 (36,000)	200		
1978	Aug. 25-Oct. 3	27	56,200	4,400	15,800 (19,100)	400		
1979	Aug. 25-Sept. 18	18	59,900	4,600	5,900 (8,500)	300		
1980	Sept. 2-Sept. 11	5	32,600	300	4,700 (9,600)	200		
1981	Sept. 1-Sept. 18	10	48,900	1,800	5,100 (9,400)	100		
1982 <sup>6</sup>	Sept. 1-Nov. 5	14	53,600	4,300	5,100 (8,300)	100		
1983	Aug. 31-Oct. 7	15	22,800	200	14,800 (18,300)	200		
1984	Aug. 6-Oct. 15	32	50,900	1,600	68,900 (78,200)	700		
1985 7	Aug. 23-Sept. 28	29	68,300	5,300	72,600 (86,100)	1,800		
1986 8	Aug. 18-Oct. 4	37	102,300	40,300	62,500 (72,700)	4,300		
1987 9	Aug. 10-Oct. 15	46	138,600	2,400	66,300 (81,100)	4,400		
1988 10	Aug. 10-Oct. 1	35	145,700	2,700	59,500 <sup>13</sup> (81,600)	2,000		
1989 11	Aug. 7-Sept. 29	36	128,200	8,700	55,400 (71,300)			
1990 12	Aug. 8-Sept. 29	34	79,300	2,900	30,700 (38,000)	1,700		
1991 <sup>13</sup>	Aug. 12-Oct. 28	20	51,100	12,800	41,100 (46,800)			
1992	Aug. 10-Oct. 17	32	28,100	1,000	52,400 (60,800)	100		
1993	Aug. 9-Oct. 2	26	30,400	1,000	28,800 (33,400)	100		
1994 <sup>14</sup>	Aug. 29-Oct. 15	10	33,700	1,300	15,500 (18,700)	500		
1995	Aug. 29-Sept. 15	9	41,400	400	20,400 (22,800)	400		
1996	Sept. 2-Sept. 28	17	63,200	700	19,000 (23,200)	300		
1997	Aug. 27-Sept. 20	16	65,000	600	22,700 (27,800)	<100		
1998	Aug. 25-Sept. 25	22	44,700	1,500	12,600 (16,900)	<100		
1999	Aug. 31-Oct. 2	22	77,200	2,300	17,300 (20,600)	0		
2000	Aug. 30-Sept. 23	17	52,100	6,300	15,500	0		
2001 15	Aug. 28-Sept. 29	18	103,900	5,400	29,200 (38,200)	806		
2002	Aug 28-Sep 28	18.5	129,700	1,600	13,800 (19,200)	300		
$2003^{16}$	Aug 26-Oct 11	27.5	123,600	5,800	14,900 (20,500)	200		
2004	Aug 25-Oct 16	30	127,600	10,300	14,600 NA	64		

Includes Spring Creek terminal area fishing since 1975 (1977-83 & 92), sales to the general public and C&S catches beginning in 1994, Klickitat R. dipnet catches during open mainstem seasons, and extended Klickitat River commercial seasons beginning in 1988.

Minimum mesh size: 1970-1974 none; 1975 7-1/2"; 1976-1982 8"; 1983 none; 1984 none, except 8" Oct 9-15; 1985 none, except 8" Sep 14-28; 1986 none, except 8" Sep 6-Oct 4; 1987 none; 1988 none, except 8" Aug 17-27 and Sep 18-24 and 8" and 9" test fishery Sep 28-Oct 1; 1989 8" except none Aug 7-12; 1990 8" except none Sep 3-5, Sep 12-15 below Hood River Br., Sep 17-22, and Sep 24-29; 1991-97 none; 1998 8"; 1999 none except 8" Sep 15-18 and Sep 29-Oct 2; 2000-2002 none.

<sup>3.</sup> Mainstem commercial seasons only.

- Steelhead run year totals are in parentheses. Sales to licensed buyers during sockeye and fall seasons only through 1984. Sales to licensed buyers, general public and C&S catch, including winter season catches of holdover and fresh run summer steelhead, for calendar year from 1985-present.
- 5. No sturgeon sales allowed in set net fisheries since 1991. Includes landings in fall set-line fisheries.
- <sup>6.</sup> Includes Nov 1-5 coho fishery below Klickitat River.
- 7. Spring Creek sanctuary area open to fishing Aug 23-28 and Aug 29-Sep 3.
- 8. Includes Sep 29-Oct 4 dipnet and experimental gillnet fishery. An additional catch of 1,000 Chinook occurred above Priest Rapids Dam. Over half of the coho catch (24,100) occurred in the Klickitat River dipnet fishery.
- <sup>9.</sup> An additional catch of 2,200 Chinook occurred above Priest Rapids Dam.
- <sup>10.</sup> Includes Sep 28-Oct 1 test fishery in John Day Pool. No sturgeon sales allowed after Sep 3. An additional catch of 2,300 Chinook and an estimated 300 steelhead occurred above Priest Rapids Dam. Includes 5,500 coho captured in an extended Klickitat River dipnet season.
- No sturgeon sales allowed. An additional catch of 800 Chinook occurred above Priest Rapids Dam. Includes 6,100 coho captured in an extended Klickitat River dipnet season.
- <sup>12.</sup> An additional 200 Chinook catch occurred above Priest Rapids Dam. Includes 1,900 coho captured in an extended Klickitat River dipnet season.
- 13. Includes 5,500 coho captured in an extended Klickitat River dipnet season.
- <sup>14.</sup> An additional catch of 570 Chinook and 70 steelhead occurred above Priest Rapids Dam. An additional catch of 220 Chinook and 80 steelhead occurred above McNary Dam.
- <sup>15.</sup> Target sturgeon gillnet seasons adopted for Zone 61 (Bonneville Pool) during November 14-30 and Zone 63 (John Day Pool) during November 14-December 7.
- <sup>16.</sup> Target sturgeon gillnet season adopted for Zone 61 (Bonneville Pool) during December 1-14. No sturgeon were landed.

Table 21	Table 21. Wild Steelhead Catch in Treaty Indian Fall Season Fisheries, 1985-2004.									
	Wild G1	oup A Index	Wild Gro	d Group B Index						
Year	Number	% of wild run 1	Number <sup>2</sup>	% of wild run						
1985	10,765	20.7%	4,030	31.0%						
1986	7,833	13.8%	2,670	26.7%						
1987	16,795	15.7%	5,211	37.2%						
1988	11,008	17.1%	4,160	23.4%						
1989	9,146	15.9%	4,330	35.0%						
1990	4,339	16.0%	1,899	21.6%						
1991	8,829	14.7%	1,859	29.9%						
1992	7,157	16.2%	3,348	26.3%						
1993	4,362	15.2%	836	19.1%						
1994	2,182	10.3%	958	18.6%						
1995	2,706	10.4%	344	18.6%						
1996	2,278	8.9%	1,354	34.6%						
1997	3,198	10.4%	558	14.3%						
1998	3,064	8.8%	533	15.6%						
1999	3,034	5.4%	470	12.6%						
2000	2,740	4.3%	1,200	14.3%						
2001	5,553	4.0%	1,388	11.5%						
2002	2,370	2.7%	1,098	3.4%						
2003	1,691	2.5%	959	14.9%						
2004	1,929	3.2%	1,021	11.1%						

Percentage calculated before rounding. Steelhead impacts based on date method through 1998 and fork length index method thereafter.

<sup>&</sup>lt;sup>2.</sup> Includes sales to licensed buyers only prior to 1994. Includes sales to the general public and C&S catch beginning in 1994.

Table 22. Sturgeon Catches in Zone 6 Reservoirs above Bonneville Dam, 1991-2004.										
		Non-Indi	an Sport		T1	Treaty Indian Commercial				
	Bonne- ville	The Dalles	John Day	Total	Bonne- ville	The Dalles	John Day	Total	Sub- sistence	
1991	2,270	200	150	2,620	1,000	460	40	1,500	NA	
1992	1,720	140	150	2,010	1,150	430	20	1,600	210	
1993	2,310	160	140	2,610	1,420	580	10	2,010	260	
1994	2,220	155	235	2,610	1,175	310	115	1,600	650	
1995	1,370	50	90	1,510	1,420	310	310	2,040	1,150	
1996	1,353	80	62	1,495	1,005	230	360	1,595	490	
1997	1,463	178	464	2,105	1,852	498	1,260	3,610	233	
1998	1,626	857	593	3,076	1,462	1,108	1,100	3,670	240	
1999	1,235	695	422	2,352	1,280	1,051	760	3,091	234	
2000	1,262	809	434	2,505	1,177	1,342	786	3,305	343	
2001	1,426	677	299	2,402	1,287	1,215	759	3,261	476	
2002	1,560	878	187	2,625	472	1,152	326	1,950	370	
2003	1,542	447	163	2,152	398	866	265	1,529	325	
2004 1	852	530	229	1,611	464	975	309	1,748	269	

<sup>1. 2004</sup> numbers are all preliminary.

Year	the Early Fall Fishing Seas  Date(s)	Hours	Area	Mesh Size
1980	Sept 2-3	6рт-6рт	Zone 1	None
1982	Aug 30-31	6pm-6am	Zone 1	8" minimum
1983	Sept 1-2	11	Zone 1	None
1986	July 30 - Aug 1 Aug 4-6	6pm-6am nightly	Zone 1 Zone 1	9" minimum 9" minimum
1987	Aug 9-12	II .	Zones 1 and 2	8" minimum
1988	Aug 14-15	6pm-5am	Zone 1 below Astoria-Megler Bridge Zones 1-5 above Astoria-Megler Bridge	8" minimum 8" minimum below Longview Bridge and 9" minimum above
1989	Aug 7-11	6pm-6am	Zones 1-5	"
1707	Aug 13-14	"	Zones 3-5	"
	Aug 14-15	"	Zones 2-5 above Wauna powerlines	"
	Aug, 25, 27-29	6pm-6am nightly	Area 2S	9" minimum
1990	Aug 12-17, Aug 19-24	"	Extended Area 2S above I-205 Bridge	"
1991	Aug 25-29	"	"	11
1992	Sep 8-9	6pm-6am	Zone 1	None
1996	Aug 26-29	8pm-6am nightly	Area 2S	9" minimum
1997	Aug 4-5, Aug 24-25	9pm-3am, 8pm-6am	Zone 1, Area 2S	"
1998	Aug 4-5	5pm-5am	Zones 1-3	u u
	Aug 25-26	8am-6am	Area 2S	"
1999	Aug 4-5	7pm-7am	Zones 1-3 below Longview Bridge	"
	Aug 23-24	8рт-бат	Area 2S	"
2000	Aug 3-4	7pm-7am	Zones 1-3 below Longview Bridge	"
2001	Aug 4-5	7pm-7am	Zones 1-3 below Longview Bridge	"
	Aug 8-9	10am-6pm	Zone 1	"
	Aug 20-25	8pm-6am nightly	Extended Area 2S above I-205 Bridge	"
2002	Aug 4-5, Aug 6-7, Aug 8-9, Aug 9-10 Aug 11-12	7pm-7am nightly 7pm-7am	Zones 1-3 below Longview Bridge Zones 2-3	8" minimum
	Aug 18-19, Aug 20-21, Aug 22-23, Aug 25-26, Aug 27-28	8pm-6am nightly	Extended Area 2S above I-205 Bridge	9" minimum
2003	Aug 4-5, Aug 6-7, Aug 11-12, Aug 13-14	7pm-7am nightly	Zones 1-3	8" minimum
	Aug 18-19, Aug 21-22	8pm-6am nightly	Zones 4-5	9" minimum
	Aug 25-26, Aug 27-28	8pm-6am nightly	Above I-5 Bridge Zones 4-5	9" minimum

Year		Fishing	Chinook			Sturgeon	
	Season 1	Days	Adults	Coho	Steelhead <sup>2</sup>	White	Green
970	August 9-26	13	142,100	66,600	6,200	2,000	1,000
1971	August 8-25	13	91,900	31,900	9,600	2,900	1,000
1972	August 9-25	12	94,400	18,800	3,800	2,700	900
973	August 12-24	10	101,200	10,900	6,800	1,800	1,000
1974	August 11-23	10	51,700	20,100	2,600	3,900	2,700
975	August 10-22	10	92,100	6,600		4,900	1,000
976	August 8-18	7	31,700	2,500		8,300	1,400
977	August 14-23	7	67,000	4,400		4,300	600
978	August 15-21	4	38,900	1,300		2,700	1,600
1979	August 14-16	2	28,100	1,800		2,300	700
980	September 2-3	1	58,400	7,000		1,700	600
981	None	0					
.982	August 30-31	0.5	79,200	5,800		500	300
983	September 1-2	0.5	15,400	200		1,200	600
984	None	0					
985	None	0					
1986	July 30-August 6	4	800	0		5,400	5,100
1987	August 9-12	3	11,500	100		3,900	3,200
1988	August 14-15	0.5	51,100	300		1,700	2,300
1989	August 7-29	13	29,800	100		1,800	0
990	August 12-24	10	6,700	20		1,500	0
991	August 25-29	4	5,400	10		500	0
1992	September 8-9	0.5	2,200	400		800	1,800
993	None	0					
994	None	0					
995	None	0					
996	August 26-29	3	4,400	0		300	0
997	August 4 - 25	2	1,300	1		2,000	1,500
998	August 4 - 26	2	1,800	0		2,600	700
999	August 4 - 24	2	1.400	0		2,900	500
2000	August 3-23	3	7,400	200		2,800	600
2001	August 5-25	7	6,600	660		5,700	340
2002	August 4-28	10	19,500	60		1,700	0
2003	August 4-28	8	15,700	300		2,600	11
2004	August 3-26	8	11,300	40		2,500	6

Minimum mesh size: 1970-1974 7-1/4"; 1975-1979 8"; 1980-2003 see Table 23, 2004 see Table 15. Sale of steelhead by non-Indians prohibited since 1975. Annual handling and mortality limited by time, area, and gear regulations.

Table 25. Clo	osed Fishing Areas During Late Fall N	Aainstem Non-Indian Fishing Seasons, 1999-2004.				
Year	Date(s)	Closed Area				
1999	Sept 20-Oct 7	Longview Bridge-Beacon Rock				
	Oct 11-22	Longview Bridge-Upper Bachelor Island				
	Oct 27-28	Buoy 10 - Harrington Point/Settler Point Line				
2000	Sep 19-20	Longview Bridge-Lower Bachelor Island				
	Sep 18, Sep 25-Oct 5	Longview Bridge-Beacon Rock				
	Oct 9-20	Longview Bridge-Lower Bachelor Island				
	Oct 23-27	Upper Cottonwood Island-Lower Bachelor Island				
	Oct 30	Buoy 10-Settler Point/Harrington Point line and upper Cottonwood Island-lower Bachelor Island				
2001	Sep 17-21	Longview Bridge-I-205 Bridge				
	Sep 24-28	Kalama River-I-205 Bridge				
	Oct 1-5	Upper Bachelor Island-I-205 Bridge				
	Oct 29-31	Buoy 10-Settler Point/Harrington Point line				
2002	Sep 16, Sep 19	Longview Bridge-Beacon Rock				
	Sep 19-20	Buoy 10-Lewis River				
	Sep 24-26	Longview Bridge-Lewis River				
	Sep 26-27	Buoy 10-Lewis River				
	Oct 28-31	Buoy 10- Settler Point/Harrington Point line and Green Navigation Marker 85-Beacon Rock				
2003	Sep 15 (Day)	Longview Bridge-Beacon Rock				
	Sep 15 (night)	Buoy 10-I-5 Bridge				
	Oct 29-31	Buoy 10- Settler Point/Harrington Point line				
2004	Sep 21 (Day)	Longview Bridge-Beacon Rock				
	Sep 21-22 (night)	Buoy 10-Longview Bridge				
	Sep 27, Sep 29, Sep 30, (day)	Lewis River – Beacon Rock				
	Sep 27-28, Sep 29-30, Sep 30-Oct 1	Buoy 10 – Lewis River				
	Oct 25-26, Oct 27-29	Buoy 10- Settler Point/Harrington Point line				

Table 26. Number of Adult Chinook, Coho, Steelhead, and Sturgeon Landed during Late Fall Mainstem Columbia River (mid-Sep to mid-Nov) and Select Area Commercial Seasons below Bonneville Dam, 1970-2004. Mainstem Chinook Coho Sturgeon 5 Fishing Columbia Columbia Select Mainstem Select Season 1 Area <sup>2</sup> Chum<sup>3</sup> Steelhead<sup>4</sup> White Area 2 Mainstem Green Year Days Mainstem 1970 35 93.900 432,500 21,700 100 Sep 10-Nov 5 700 600 6,200 1,300 Sep 12-Nov 3 224,400 1971 34 119,600 100 8,000 500 6,300 1,800 200 1972 Sep 20-Nov 3 27 39,400 900 103,100 9,300 1,300 9,200 1,600 100 1973 Sep 12-Nov 2 32 158,400 300 166,000 6,800 1,400 13,000 2,400 200 1974 29 Sep 17-Nov 1 43,300 100 231,800 9,100 900 4,800 400 1,200 1975 Sep 10-Nov 7 39 72,700 < 100 148,000 2,100 500 5,300 300 1976 47 105,400 Sep 7-Nov 12 300 160,700 5,200 1.200 1.200 8,100 1977 Sep 8-Oct 27 23 90,400 1,700 33,100 1,600 200 2,300 200 1978 Sep 10-Nov 15 37 64,900 500 3,400 1,500 3,900 100 128,000 \_\_ 1979 Sep 11-Nov 7 30 65,300 103,200 100 13,500 500 1,600 22,500 --1980 Sep 28-Oct 16 12 14,600 40,000 114,200 28,900 200 3,100 50 --1981 Sep 27-Nov 12 25 24,900 47,400 12,400 1,400 100 5,200 6,700 1982 Oct 3-Nov 12 27 4,500 6,000 181,600 14,300 1,800 4,600 400  $1983^{6}$ Oct 4-Oct 13 4 4,800 4,700 200 4,500 100 3,600 3,600 --1984 Sep 10-Nov 16 35 160,900 60,300 3,600 40,600 1,800 9,800 2,700 1985 Sep 16-Nov 15 39 56,400 3,600 138,800 51,200 700 4,900 1,500 1986 Sep 12-Nov 14 43 153,000 4,600 925,400 55,600 1.800 800 4,100 1987 Sep 13-Nov 12 35 280,900 150,900 16,900 1.300 1,600 36,900 4,100 --1988 51,400 1,000 Sep 12-Nov 11 41 242,200 28,800 311,100 2,500 3,100 \_\_ 1989 Sep 17-Nov 15 360,700 36 95,700 6,600 28,100 1,300 2,700 1,700 27,600 1990 Sep 18-Oct 31 26 35,300 3,100 47,400 800 3,100 2,200  $1991^{7}$ Sep 10-Nov 5 32 33,500 2,100 324,400 82,100 400 2,400 3,200 1992 Sep 22-Oct 30 22 14,100 1,500 37,900 19,600 700 4,200 400 --1993 Sep 20-Oct 20 17 16,700 300 20,600 15,500 40 2,200 7,100 1994 20 Oct 9-Oct 19 4 1,500 100 6,000 57,800 3,400 200 1995 Oct 9 & Oct 12 2 50 500 200 22,300 0 400 6,000 --1996 <sup>8</sup> Sep 16-Oct 25 17 7,600 5,000 5,600 22,400 20 7,200 600 1997 <sup>9</sup> Sep 24-Nov 7 23 3,800 4,000 3,800 17,100 39 7,800 100 -- $1998^{\ 10}$ Oct 7-Nov 6 7 1,000 300 11 10,900 900 2,100 23,600 --1999 11 57,600 23,000 Sep 20-Nov 4 23 4,600 2,100 101 4,100 300  $2000^{12}$ Sep 18-Nov 1 21 3,440 2,300 110,400 58,300 26 4,600 600  $2001\ ^{13}$  $21^{14}$ 14 Sep 17-Oct 31 0 27 14,900 3,100 219,100 33,800 116 2002 Sep 16-Oct 31 19 16,100 8,700 99,500 70,400 12 4,700 200 2003 Sep 15-Oct 31 23 42,700 9,700 149,500 117,100 6 3,600 27 2004 <sup>15</sup> Sep 19-Oct 29 16 29,800 12,600 66,500 51,900 90 3,336 51

<sup>1.</sup> Mesh restriction of 7" or less and 9" or greater, 1980-1982.

Number of Oregon and Washington terminal areas and fishing days vary from year to year, and some early fall fisheries are included. Between 1983 and 1995 only Oregon terminal fisheries occurred. Prior to 1979, landings listed for Youngs Bay are minimal as Youngs Bay salmon could be sold outside of the bay during concurrent mainstem fishing periods.

Includes 1970-present Youngs Bay Select Area, 1980-1982 Washington terminal, and 1996-present Big Creek, Tongue Point, Blind Slough, and Deep River Select Area, and 2000-present Steamboat Slough Select Area landings.

Sale of steelhead by non-Indians prohibited since 1975. Handling and mortality limited by time, area, and gear regulations.

Includes landings from Select Area fall fisheries beginning in 1997.

Dates reflect coho season only. Six days of large-mesh sturgeon fishing occurred Oct 18-Nov 3 with sale of Chinook allowed.

<sup>7.</sup> Sep 10 and 17 daylight only coho target fishery. Late fall season opened on Sep 22.

8. Sep 16-20 extended 2S night time fishery. Sep 30-Oct 25 all of Zones 1-5.

<sup>10.</sup> Oct. 7 – Nov 4 Zones 1-5, 9" min. mesh.

- Sep 20 Oct 28, target coho fisheries with 6" max. mesh; Oct 11, 18, 25, and 27, salmon/sturgeon fisheries with 9 3/4" max.; Oct 5-7 salmon fishery with 8" min mesh; Nov. 4 daylight target sturgeon fishery with 9" min and 9 3/4" max mesh.
- Sept. 18-Oct. 30 target coho fisheries w/6" max mesh size; Sept. 19-20 target salmon/sturgeon fishery w/8" min. and 9 ¾" max. mesh restrictions; Oct. 9, 16, and 23 sturgeon/salmon fisheries with 6" max. or 9" min. to 9 ¾" max. mesh; Nov. 1 daylight sturgeon fishery with 9" min. and 9 ¾" max. mesh size.
- Sept. 17-19 target coho fishery w/ 6" max mesh size; Sept. 17-Oct. 4 salmon fishery w/ 8"min and 9 ¾" max mesh size; Sept. 20-Oct. 5 salmon fisheries w/9 ¾" max mesh size; Oct. 8-26 salmon fishery w/9 ¾" max mesh size; Oct. 29-31 target coho w/6" max. mesh.
- The sturgeon harvest guideline for 2001 had been reached by late August, which accounts for the low number (21 white sturgeon landed in August Youngs Bay SAFE fishery).

<sup>15.</sup> Season specific information (i.e., seasons, areas, and gear restrictions) is included in Table 15.

Table 2	Table 27. Lower Columbia River White and Green Sturgeon Catches, 1991-2004.									
	White Sturgeon					Green Sturgeon				
		Commercial <sup>1</sup>			Commercial <sup>1</sup>					
Year	Sport	Winter	Early Fall	Late Fall	Total	Sport	Winter	Early Fall	Late Fall	Total
1991	22,700	840	530	2,430	3,800	20	4	2	3,180	3,186
1992	40,100	1,210	790	4,240	6,240	75	10	1,750	400	2,160
1993	37,900	1,020		7,050	8,070	15	1		2,220	2,221
1994	33,500	3,030		3,380	6,410	130	1		240	241
1995	45,100	110		6,040	6,150	20			390	390
1996	42,800	1,380	330	6,670	8,380	65	1		610	610
1997	38,200	3,064	1,971	7,792	12,827	41	2	1,474	138	1,614
1998	41,600	2,675	2,634	8,585	13,894	73	0	743	151	894
1999	39,800	2,303	2,854	4,336	9,493	93	2	508	279	789
2000	40,500	2,795	2,790	4,560	10,145	32	0	568	636	1,204
2001	41,200	3,552	5,740	21 2	9,313	50	4	338	$0^{2}$	342
2002	38,500	3,368	1,725	4,522	9,615	51	7	$0^{3}$	156	163
2003	31,100	1,768	2,585	3,598	7,951	52	1	11	27	39
2004	25,600	2,0634	2,467	3,336	7,866	29	1	6	51	58

<sup>&</sup>lt;sup>1.</sup> Includes Youngs Bay and other Select Area fisheries landings.

Sep 24-Oct 3 Zone 1-Longview Bridge 6" max. mesh and I-5 Bridge to Zone 5 9" min. mesh; Oct 6-Nov 7 Zones 1-5, 8" min. mesh after Oct 26.

<sup>&</sup>lt;sup>2</sup> Sturgeon sales prohibited in mainstem and Select Area fisheries effective August 22.

<sup>3.</sup> Green sturgeon sales prohibited during all early fall seasons.

<sup>&</sup>lt;sup>4</sup> Includes nine white sturgeon caught during the mainstem sockeye gillnet fishery June 30 and July 2, 2004.