



# 2012 JOINT STAFF REPORT: STOCK STATUS AND FISHERIES FOR FALL CHINOOK SALMON, COHO SALMON, CHUM SALMON, SUMMER STEELHEAD, AND WHITE STURGEON

# Joint Columbia River Management Staff

Washington Department of Fish and Wildlife

Oregon Department of Fish and Wildlife

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#### INTRODUCTION

This report describes fall fisheries in the mainstem Columbia River and includes a summary of 2011 management guidelines and fisheries, and expectations for 2012 fall fish runs and fisheries. This report is part of an annual series of reports produced by the Joint Columbia River Management Staff of the Washington Department of Fish and Wildlife (WDFW) and Oregon Department of Fish and Wildlife (ODFW) prior to each major Columbia River Compact hearing. The first Columbia River Compact hearing of the 2012 fall management period will begin at 10 AM on Thursday July 26 at the River Street Room (25 River Street) in Cathlamet, Washington. Members of the *U.S. v Oregon* Technical Advisory Committee (TAC) have reviewed this report.

#### THE COMPACT

The Columbia River Compact is charged by congressional and statutory authority to adopt seasons and rules for Columbia River commercial fisheries. 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). The Columbia River treaty tribes have authority to regulate treaty Indian fisheries.

When addressing commercial seasons for Columbia River fisheries, the Compact must consider the effect of the commercial fishery on escapement, treaty rights, and the impact on species listed under the Endangered Species Act (ESA; Table 1). Working together under the Compact, the states have the responsibility to address the allocation of limited resources between recreational, commercial, and treaty Indian fishers. This responsibility has become increasingly demanding in recent years. The states maintain a conservative management approach when considering Columbia River fisheries that will affect species listed under the ESA.

#### SEASONS CONSIDERED

At the July 26 hearing, the Compact will consider non-Indian early fall mainstem commercial fisheries, fall Select Area fisheries, and fall treaty Indian fisheries. Future hearings will be scheduled throughout the fall management period as additional information on fish runs and ongoing fisheries become available.

#### STOCKS CONSIDERED

#### **Fall Chinook**

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 six major management components: Lower River Hatchery (LRH), Lower River Wild (LRW), Select Area Brights (SAB), Bonneville Pool Hatchery (BPH), Upriver Bright (URB), and Mid-Columbia Bright (MCB). The LRH and BPH stocks are considered tule stock and the LRW, URB, and MCB stocks are considered bright stock. The MCB management component is comprised of Pool Upriver Brights (PUB) and Bonneville Upriver Brights (BUB) and Lower River Brights (LRB). General destinations of these various stocks are illustrated in Figure 1.

The upriver run is comprised of stocks produced upstream of Bonneville Dam, and includes URB, BPH, and a portion of MCB stocks. Most of the URB Chinook are destined for the Hanford Reach area of the Columbia River, Priest Rapids Hatchery, and the Snake River. Smaller URB components are destined for the Deschutes and Yakima rivers. Snake River wild (SRW) fall Chinook are a sub-component of the URB stock. PUBs represent the upriver component within the MCB management stock. PUBs are a bright stock reared at Little White Salmon, Umatilla, and Klickitat hatcheries and released in areas between Bonneville and McNary dams. Natural production of fish 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 the Spring Creek Hatchery in the Bonneville Pool, although natural production of tules also occurs in the Wind, White Salmon, and Klickitat rivers. Tule (BPH) passage at Bonneville Dam occurs over a shorter timeframe than the bright (URB and PUB) Chinook (Figure 2).

The lower river run is comprised of stocks produced downstream of Bonneville Dam, and include LRH, LRW, SAB and a portion of MCB (BUB and LRB) stocks. The LRH stock is currently produced from hatchery facilities (four in Washington and two 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. Natural production of LRH stock occurs in most tributaries below Bonneville Dam. BUB production occurs just downstream of Bonneville Dam at the 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 LRBs were originally classified as BUBs, but beginning in 1998 this stock was considered a unique subcomponent of the MCB stock. SABs are a hatchery stock that originated from Rogue River fall Chinook stock egg transfers during 1982-1986. In 2006, production of this stock was transferred from ODFW's Klaskanine Hatchery to the South Fork Klaskanine Hatchery operated by the Clatsop County Fisheries (CCF) Project (formerly Clatsop County Economic Development Council's (CEDC) Fisheries Project), with additional releases from net pens located in Youngs Bay.

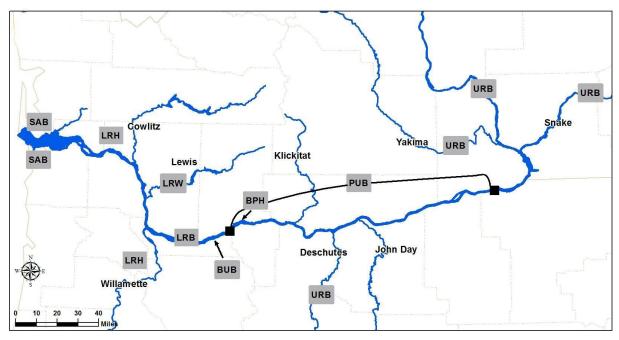


Figure 1. Major Columbia River Fall Chinook Stock Components and General Destination.

#### 2011 Returns

The total 2011 Columbia River fall Chinook adult return of 620,600 adults was 109% of the 2001-2010 average of 571,300 adults. The overall return was 81% of the forecasted return. Individual stock components were within 61% to 116% of forecast, with the exception of SABs which were 198% of forecast. Forecast and actual returns for 2011 are presented in Table 2. Historical returns by stock are presented in Tables 3 and 5. Forecast accuracy is presented in Table 4. Chinook passage at Bonneville Dam is illustrated in Figures 2 and 4.

The 2011 LRH return of 109,000 adults was 85% of forecast and 118% of the 2001-2010 average of 92,500 fish. Just over 47,700 adult fish returned to Oregon and Washington hatcheries below Bonneville Dam, which greatly surpassed the overall escapement goal of 12,600. LRH hatchery escapement included 36,800 adult fish to Washington hatcheries (9,600 goal) and 7,400 adult fish to Oregon hatcheries (3,000 goal). An LRH production program was initiated at Bonneville Hatchery which is located just downstream of Bonneville Dam on the Oregon shore. Eggs were transferred from Spring Creek Hatchery and sub-yearling smolts were released beginning in 2009 (2008 brood year). Naturally-spawning LRH fall Chinook accounted for an estimated 21,600 additional fish in Washington tributaries and 6,700 adult fish in Oregon tributaries.

The 2011 LRW return of 15,200 adults was 116% of forecast and 99% of the 2001-2010 average return of 15,400 fish. The natural spawning escapement to the North Fork Lewis River of 8,000 adults was greater than the escapement goal of 5,700 LRW adults.

The 2011 BPH return of 70,600 adults was 61% of forecast and 67% of the 2001-2010 average. Adult returns of BPH included 16,500 fish to Spring Creek Hatchery, which exceeded the escapement goal of 7,000 adults. An additional 3,200 adult BPH strayed into Bonneville Hatchery. Natural spawning escapement of BPH stock adults totaled 6,800 fish including 700 fish in the Wind River, 2,900 fish in the Little White Salmon River, 2,800 fish in the White

Salmon River, and 400 fish in the Klickitat River. The 2011 total of 6,800 natural spawning BPH fish compares to the 2,600 BPH adult fish observed in 2010.

The 2011 URB return of 322,200 adults was 81% of the forecast, 124% of the 2001-2010 average (259,400) and accounted for 52% of the total river mouth return. The McNary Dam count of 162,200 adult Chinook was nearly three times the management goal of 60,000 fish. Natural spawn escapement to the Hanford Reach area is estimated at 65,300 adult URBs. The Deschutes River return of 17,100 adults was 161% of the recent 10-year average of 10,600 adults. Returns of SRW fall Chinook to the Columbia River totaled 14,800 adults, which was 185% of 2001-2010 average (8,000) and slightly less than the record high return (15,400) observed in 2010.

The 2011 MCB return of 87,300 adults was 87% of forecast and 96% the 2001-2010 average of 91,000 adults. The MCB return included 26,900 BUB stock, 1,700 LRB stock and 58,700 PUB stock. The BUB return included an escapement of 11,600 adults to Bonneville Hatchery, which was two times the 5,750 fish escapement goal. Significant natural escapement of BUBs does not occur. The adult PUB fall Chinook return included an escapement of 10,500 fish to Little White Salmon Hatchery. Natural escapement of adult PUB stock included 5,900 in the Klickitat River, as compared to the goal of 1,000 fish. The breeching of Condit Dam in September 2011 precluded natural spawning surveys on the White Salmon River for PUBs.

The 2011 record SAB return of 16,400 adults was nearly twice the forecast of 8,300 fish and 210% of the 2001-2010 average of 7,800 fish

#### 2012 Forecast

The forecast for the 2012 adult return of fall Chinook to the Columbia River mouth totals 654,900 fish, which is 106% of the 2011 actual return (620,600) and 113% of the 2002-2011 average return of 578,400 fish. Bright stocks represent 71% of the total forecast. The LRH forecast of 128,400 adults continues the upward trend observed since 2007 and is 137% of the 2002-2011 average of 94,000 fish. The LRW forecast of 16,200 adults also continues the upward trend observed since 2007 and is 106% of the 2002-2011 average of 15,300 fish. The BPH forecast of 60,000 adults is 60% of the 2002-2011 average and reflects hatchery production reductions. The forecasted return of 353,000 URB adults represents 54% of the projected total return and is 132% of the 2002-2011 average. Included in the URB forecast is the SRW forecast of 15,100 fish which is similar to the strong returns of 2010 and 2011, and almost twice the 2002-2011 average. The MCB forecast of 90,700 adults is 98% the 2002-2011 average, and includes 23,900 BUBs, 700 LRBs and 66,100 PUBs. The SAB forecast of 6,600 fish is 74% of the 2002-2011 average return. 2012 forecasts are presented in Table 2.

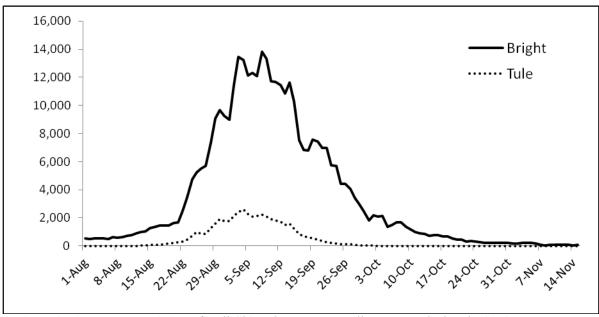


Figure 2. Average Run Timing of Fall Chinook over Bonneville Dam, applied to the 2012 Forecast.

#### **Summer Steelhead**

The Columbia River summer steelhead run is made up of populations originating from both lower river and upper river tributaries. Summer steelhead enter the Columbia River primarily from April through October each year, with most of the run entering from late June to mid-September. The lower Columbia River (LCR) component is primarily hatchery produced, derived from Skamania stock steelhead and tends to be earlier timed than the upriver stocks. The Skamania stock was successfully introduced into numerous streams below Bonneville Dam, and a few streams above, including the Wind and Hood rivers. Peak return timing of the lower river component is in May and June. Summer steelhead caught in mainstem Columbia River fisheries during May and June of each year are classified and counted as lower river stock (destined for areas below Bonneville Dam).

Upriver summer steelhead include hatchery and wild fish that pass Bonneville Dam during April through October of each year. Fish passing from April through June are considered Skamania stock steelhead destined mainly for tributaries within Bonneville Pool. Production programs for Skamania stock fish in hatcheries upstream of Bonneville Dam have decreased from historical levels.

Fish passing during July through October are categorized as Group A index or Group B index fish, based on fork length (Group A < 78 cm, Group B  $\geq$ 78 cm). Group B steelhead primarily return to tributaries in the Salmon and Clearwater rivers in Idaho, while Group A steelhead return to tributaries throughout the Columbia and Snake basins. The run-timing distributions at Bonneville Dam of Group A and Group B summer steelhead are shown in Figure 3. Summer steelhead passage at Bonneville Dam is illustrated in Figure 4. Summer steelhead passage over Bonneville Dam on the Columbia River is shown in Table 6 and passage over Lower Granite Dam on the Snake River is shown in Table 6a. Stock distribution and hatchery/wild determination are based on (and dependant on) biological sampling at each of the hydro facilities mentioned.

Steelhead harvest from recreational fisheries occurs throughout the Columbia River basin and in Zone 6 from treaty Indian fisheries. Recreational steelhead fisheries are mark-selective; allowing retention of fin-clipped hatchery fish only. Treaty Indian steelhead harvest is not mark-selective. A majority of the treaty Indian catch occurs during the fall gillnet fishery; catch also occurs from treaty platform and hook and line fisheries. 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. Time, area, and gear restrictions are implemented to minimize encounters of steelhead in non-Indian commercial fisheries.

#### 2011 Returns

The 2011 return of upriver summer steelhead to Bonneville Dam was 364,900 fish, including 9,800 Skamania stock, 318,100 Group A stock, and 37,000 Group B stock. The 2011 return was 89% of the 2001-2010 average of 410,100 fish. Included in the 2011 return were 111,800 wild fish which was 102% of 2001-2010 average. Typical for the Group A component, the return consisted mainly of 1-ocean fish and represented the majority of the summer passage (87%). The 2011 upriver Skamania return to Bonneville Dam was very low, especially in comparison to the 2010 record return and the 2001-2010 average of 17,800 fish. The Group A return was similar (98%) to the 2001-2010 average of 324,800 fish. The wild Group A fish have been representing a greater proportion of the overall Group A return over the past two decades; averaging 21% in the 1990s and 27% in the 2000s. In 2011 the wild Group A fish represented 32% of the Group A return. The Group B return was the lowest since 1999 and 54% of the 2001-2010 average of 68,000 fish. The wild Group B return followed the same low trend, with 7,800 fish passing Bonneville, compared to the 2001-2010 average of 14,200 fish. Steelhead passage at Lower Granite Dam for the 2011-2012 run-year totaled 180,300 fish, including 156,100 Group A fish (36,400 wild) and 24,200 Group B fish (5,500 wild). See Tables 2, 6, and 6a.

## 2012 Forecast

The 2012 forecast for the summer steelhead return to Bonneville Dam is 380,300 upriver fish, including 15,700 Skamania stock (4,600 wild), 311,800 Group A stock (91,800 wild), and 52,800 Group B stock (13,400 wild). Overall, the forecast is similar to the 2002-2011 average of 383,600 fish. The Skamania forecast is projected to be 110% of the 2002-2011 average. Group A passage is expected to be similar to both the 2002-2011 average and the 2011 return. The Group B component is expected to be less than (84%) the 2002-2011 average (Tables 2 and 6).

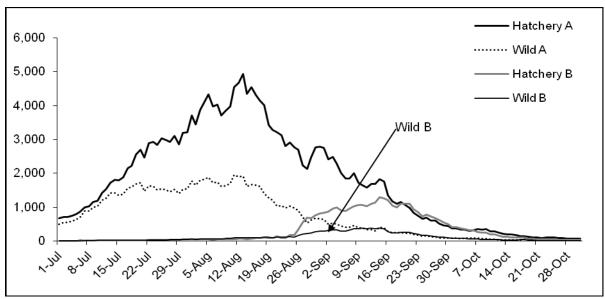


Figure 3. Average Run Timing of Summer Steelhead over Bonneville Dam, applied to the 2012 Forecast.

#### Coho

Lower Columbia River coho return primarily to Oregon and Washington hatcheries downstream from Bonneville Dam, although substantial hatchery production now occurs above Bonneville Dam. Annual coho hatchery releases averaged twenty-three million smolts during 2000-2009, with 38% of the releases occurring upstream of Bonneville Dam. Coho adults are typically age-3 fish, and return to freshwater after only one year in the ocean. Since 1970, adult coho returns to the Columbia River have ranged from a low of 74,800 in 1995 to a high of 1,549,100 in 1986 (Table 7). Coho passage at Bonneville Dam is illustrated in Figure 4.

The Columbia River hatchery coho return includes both early and late returning stocks. Early stock coho enter the Columbia River from mid-August to early October with peak entry occurring in early September. In the ocean, early stock coho tend to remain near the Oregon and southern Washington coasts and most migrate southward from the Columbia River and are therefore referred to as Type S. Hatchery releases of Columbia River early stock coho averaged 14.7 million in the 1980s, 16.1 million in the 1990s and 13.9 million in the 2000s. Since 2010, releases have been less than 2000s average. Adult returns of Columbia River early stock coho have averaged 256,400 in the 1980s, 146,300 in the 1990s and 358,400 in the 2000s (Table 8).

Late stock coho enter the Columbia River from mid-September through December with peak entry occurring in mid-October. In the ocean, late stock coho tend to migrate northward from the Columbia River along the Washington coast and Vancouver Island, and are therefore referred to as Type N. Hatchery releases of Columbia River late stock coho averaged 14.8 million in the 1980s, 12.7 million in the 1990s and 9.1 million in the 2000s. Since 2010, releases have been less than 2000s average. Adult returns of Columbia River late stock coho have averaged 250,900 in the 1980s, 96,800 in the 1990s and 198,000 in the 2000s (Table 9).

Differences in migration timing are known to exist between early and late stocks. Within each stock, timing differences may also exist between hatchery and natural-origin coho, and between fish of the same stock from different tributaries. The states use available information to develop

fishing scenarios that attempt to maximize opportunities to harvest hatchery fish while limiting impacts to naturally-produced fish. Much more information is needed regarding the timing differences between hatchery and naturally-produced fish, and between individual stocks of naturally-produced fish in order to further improve the management of these fisheries.

Historical natural coho production areas in Washington included the Grays, Elochoman, 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. Smolt traps are currently being used in several Washington tributaries to estimate natural production. During 2001-2011, smolt production from these areas ranged from 231,600 to 890,600 fish.

In Oregon, Columbia River tributaries with historical natural coho production included 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 beginning as early as 1949 indicated that wild coho may have been extirpated from Oregon's lower Columbia tributaries, excluding the Clackamas and Sandy rivers. Intensive surveys conducted during 1990-1999 resulting in counts of 0.0-0.4 fish per mile supported this conclusion. Increased numbers of unmarked coho have been observed in lower Columbia River tributaries since 2000 which suggests that some remnant Oregon populations may persist in the lower Columbia River Basin, but the origin of these fish is unknown. The 2000-2009 average is seven fish per mile (range one to 16 fish/mile). Table 10 illustrates coho presence in some Oregon tributaries since the 1950s.

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 from the *U.S. v. Oregon* Management Plan mandated hatchery releases of lower river coho stocks in the Yakima, Umatilla, Klickitat, Wenatchee, Methow, and Clearwater rivers. The releases outside the Klickitat are primarily intended to restore naturally producing coho to appropriate habitats above Bonneville Dam, most recently in the Snake, Yakima, Methow, and Entiat rivers. Coho destined for areas above Bonneville Dam have represented an increasing percentage of the total return in response to increased releases above Bonneville Dam.

#### 2011 Returns

The 2011 Columbia River coho return of nearly 352,100 adults was comprised of 246,700 early stock fish and 105,400 late stock fish. The adult return was 65% of the 2001-2010 average of 545,600 coho. The Bonneville Dam count of 145,300 coho adults was 108% of the 2001-2010 average of 134,800 fish. Hatchery escapement below Bonneville Dam totaled 108,300 fish to Washington and Oregon facilities, far exceeding the combined goal of 18,100 adults, but only 50% of the 2001-2010 average. Coho passage at Willamette Falls reached 3,400 adult fish, which is more similar to the 1999-2008 average of 3,100 coho, but far less than the unusually large returns in 2009 and 2010 which each exceeded 20,000 adult fish. Because no hatchery coho are released upstream of Willamette Falls, the majority of these fish are naturally-produced. A small proportion of adipose fin-clipped hatchery coho are observed in the Willamette Falls fish ladder each year; these fish are likely strays from the nearby Clackamas River (Tables 2, 7, 8, and 9).

#### 2012 Forecast

The 2012 forecast for the coho return to the Columbia River mouth is 240,800 adults, which includes 184,600 early stock and 56,200 late stock. The projected return is only 51% of the 2002-2011 average of 470,000 fish and 68% of the 2011 return. The individual forecasts for early and late stock coho are 61% and 34% of the 2002-2011 averages, respectively (Tables 2, 7, 8, and 9). Bonneville Dam passage is expected to be 78,300 adult coho, which represents 76% of the forecasted total ocean abundance of 102,700 Columbia River coho destined for areas above Bonneville Dam. Despite the relatively low forecasted return, escapement goals of 11,900 early stock and 6,200 late stock adults to hatcheries below Bonneville Dam are expected to be achieved. A total of 577,000 natural-origin coho smolts are estimated to have emigrated from Washington tributaries of the lower Columbia region in 2011. Marine survival of these smolts is estimated at 5.3%, which corresponds to a smolt to adult return rate of 4.2%. An estimated 26,500 adult wild coho are estimated to return to tributaries of the Columbia River within the lower Columbia Evolutionary Significant Unit (ESU).

#### **Chum Salmon**

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 specific locations from the I-205 Bridge upstream to Bonneville Three hatchery supplementation programs which release fed-fry contribute to the population. The Washougal and Grays River hatcheries in Washington have been rearing chum since the early 2000s. Big Creek Hatchery began releasing chum salmon in 2011. Washington index areas have been surveyed annually since 1950 and specific areas of the mainstem Columbia River have been surveyed annually since 1998. During 2000-2003, survey areas were expanded to include non-index Columbia River tributaries (Washington and Oregon) downstream of Bonneville Dam. These non-index stream surveys have continued sporadically since. In some years significant numbers of chum salmon have been observed in non-index areas. Few chum salmon have been observed in Oregon tributaries; however, survey effort has been light compared to Washington tributaries. The 2011 estimate of 626 fish per mile is 92% of the 2001-2010 average, with nearly 6,300 fish observed (Table 10).

#### **Pink Salmon**

Pink salmon are rarely encountered in Columbia River fisheries, and as a result are generally not discussed in detail in annual Columbia River Joint Status Reports. However, 2011 saw an unusually high abundance of pink salmon migrating up the Columbia River. A total of 3,828 pink salmon were counted in the fish ladder at Bonneville Dam in the fall of 2011 – far more than had ever been seen before. As the fish continued to migrate upstream, counts of 1,158, 698, and 505 seen in fish ladders at The Dalles, John Day, and McNary dams, respectively, were observed. Even Ice Harbor, Lower Monumental, and Little Goose dams reported presence of pink salmon in fall ladder counts.

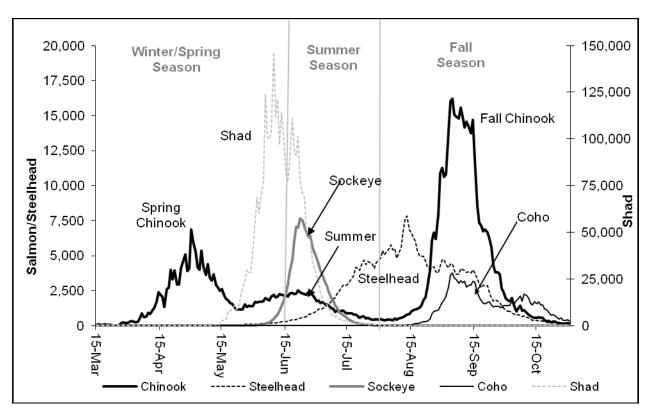


Figure 4. 10-year Average Daily Fish Counts at Bonneville Dam.

#### 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 as shown in Table 1. The *U.S. v Oregon* TAC has prepared Biological Assessments (BAs) for combined fisheries based on relevant *U.S. v Oregon* management plans and agreements. The TAC has completed BAs for ESA-listed stocks for all mainstem Columbia River fisheries since January 1992. In addition, ODFW has a state management plan in place for naturally-produced coho from Oregon tributaries that were listed by the State of Oregon in 1999.

The current BA addresses Columbia River treaty Indian and non-Indian fisheries, as described in the "2008-2017 U.S. v Oregon Management Agreement for upriver Chinook, sockeye, steelhead, coho, and white sturgeon" (2008-2017 MA). The BA was submitted during the spring of 2008, and a Biological Opinion (BO) was subsequently issued by the National Marine Fisheries Service (NMFS) later that year. The current BO expires December 31, 2017, concurrent with the 2008-2017 MA.

## **Columbia River Salmon Management Guidelines**

The parties to *U.S. v Oregon* are currently operating under the 2008-2017 MA. This agreement provides specific fishery management constraints for upriver spring, summer, and fall Chinook, coho, sockeye and steelhead. Excerpts from the 2008-2017 MA and other agreements applicable to fisheries considered in this report are included in this section.

## **Upriver Fall Chinook**

Fall season fisheries in the Columbia River Basin below the confluence of the Snake River will be managed according to the abundance based harvest rate schedule shown in Table A3. Upriver Bright (URB) stock Chinook harvest rates are used as a surrogate for Snake River wild (SRW) Chinook harvest rates.

Upriver fall Chinook escapement goals include 7,000 adult BPH fall Chinook (4,000 females) to Spring Creek Hatchery and a 60,000 adult URB fall Chinook (natural and hatchery) management goal above McNary Dam.

Table A3. Fall Manager	ment Period Chinook	Harvest Ra	te Schedule		
					Expected
	Expected River	Treaty	Non-		Escapement of
Expected URB	Mouth Snake	Total	Treaty	Total	Snake R. Natural
River Mouth	River Natural	Harvest	Harvest	Harvest	Origin Past
Run Size	Origin Run Size 1	Rate	Rate	Rate	Fisheries
<60,000	<1,000	20%	1.50%	21.50%	784
60,000	1,000	23%	4%	27.00%	730
120,000	2,000	23%	8.25%	31.25%	1,375
>200,000	5,000	25%	8.25%	33.25%	3,338
	6,000	27%	11%	38.00%	3,720
	8,000	30%	15%	45.00%	4,400

- 1. If the Snake River natural fall Chinook forecast is less than level corresponding to an aggregate URB run size, the allowable mortality rate will be based on the Snake River natural fall Chinook run size.
- 2. Treaty Fisheries include: Zone 6 Ceremonial, subsistence, and commercial fisheries from August 1-December 31.
- 3. Non-Treaty Fisheries include: Commercial and recreational fisheries in Zones 1-5 and mainstem recreational fisheries from Bonneville Dam upstream to the confluence of the Snake River and commercial and recreational SAFE (Selective Areas Fisheries Enhancement) fisheries from August 1-December 31.
- 4. The Treaty Tribes and the States of Oregon and Washington may agree to a fishery for the Treaty Tribes below Bonneville Dam not to exceed the harvest rates provided for in this Agreement.
- 5. Fishery impacts in Hanford fisheries count in calculations of the percent of harvestable surplus achieved.
- 6. When expected river-mouth run sizes of naturally produced Snake River Fall Chinook equal or exceed 6,000, the states reserve the option to allocate some proportion of the non-treaty harvest rate to supplement fall Chinook directed fisheries in the Snake River.

## **Upriver Summer Steelhead**

During the fall season, treaty Indian and non-Indian fisheries encountering upriver summer steelhead will be managed according to the harvest rate schedule shown in Table A4. Table A4 addresses only those impacts to Group B steelhead, however the BO does address ESA impact limits to Group A steelhead. All mainstem non-Indian fall fisheries (below the Highway 395 Bridge in Pasco, Washington) will be managed for individual upriver steelhead impact rates not to exceed 2% on wild Group A and wild Group B index steelhead.

Tabl	able A4. Fall Management Period Steelhead Harvest Rate Schedule								
	Forecast Bonneville Total B Steelhead Run	River Mouth URB Run	Treaty Total B Harvest	Non-Treaty Natural Origin	Total Harvest				
_	Size	Size	Rate	B Harvest Rate	Rate				
	<20,000	Any	13%	2.0%	15.0%				
	20,000	Any	15%	2.0%	17.0%				
_	35,000	>200,000	20%	2.0%	22.0%				

B Run Steelhead are defined as steelhead measuring ≥78 cm & passing Bonneville Dam during July 1 and October 31.

This harvest rate schedule applies to fall season fisheries only. These fisheries include all mainstem fisheries below the mouth of Snake River from August 1 through October 31 and for mainstem fisheries from The Dalles Dam to the mouth of the Snake River from November 1 through December 31. Also included are fall season treaty fisheries in Drano Lake and tributary mouth fisheries in Zone 6 that impact Snake River steelhead

#### Columbia River Coho Salmon

As part of the 2008-2017 MA, ocean and Columbia River fisheries are managed to provide treaty Indian and non-Indian fisheries the opportunity to each harvest 50% of the upriver adult coho available for harvest south of the U.S. – Canada border. Non-Indian fisheries include commercial and recreational fisheries in the ocean and mainstem Columbia River. For lower river coho stocks the exploitation rate (ER) limits are based on impacts to lower Columbia naturally-produced (LCN) coho stocks. These ER limits are set annually by NMFS using a harvest matrix that considers parental escapement and ocean survival. The allocation of non-Indian catch and ESA impacts between ocean and in-river fisheries is determined annually by the states and occurs during the Pacific Fishery Management Council (PFMC) and North of Falcon (NOF) meetings in March and April.

#### Annual Non-Indian Impact Allocation of Upriver Fall Chinook

Based on preseason run size forecasts, a fishing schedule is developed annually for non-Indian recreational and commercial fisheries through the NOF management process. The fisheries described in the following section were structured, or guided by, preseason planning efforts. *Preseason* plans for fall fisheries that occurred in 2011 can be found in the "Fall Season Expectations" section of the 2011 Fall Joint Staff Report.

#### REVIEW OF MAINSTEM AND SELECT AREA FISHERIES

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

Traditional commercial fisheries below Bonneville Dam occurred during "early fall" (August to mid-September) targeting Chinook and during the "late fall" (mid-September to mid-November) targeting coho (Figure 5). Although coho typically outnumbered Chinook in the late fall season catch, Chinook landings have occasionally been 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. Time, area, and gear restrictions have been imposed to reduce the incidental catch of non-target species.

Since 1992, fall season commercial fisheries below Bonneville Dam have been reduced in response to ESA listings. During 1995-1998, extremely low coho abundance curtailed nearly all commercial fishing opportunities during the late fall period. During 1997-2001, early fall fisheries consisted primarily of short fishing periods targeting sturgeon. Since 2002, August fisheries have expanded in time and area with increased emphasis placed on targeting Chinook. Currently, early fall seasons include the first half of August in Zones 1-5 and the last half of August in Zones 4-5. Late fall seasons typically occur from mid to late September through the end of October. Prior to 2006, the majority of the late fall season targeted coho in Zones 1-3 (below the mouth of the Lewis River). Since 2006, the ESA listing of lower river natural (LCN) coho has reduced coho fishing opportunity considerably. Late fall target Chinook seasons typically occur during late September and October within Zones 4-5.

Reduced non-Indian commercial salmon fishing opportunities in the late 1990s and adoption of Joint State Sturgeon Management Agreements beginning in 1997 resulted in target sturgeon fisheries becoming an important part of fall fishing strategies to allow access to the commercial allocation of white sturgeon. Beginning in 2003, sturgeon fishery management changed considerably when the annual commercial white sturgeon allocation was reduced to 20% of the total non-Indian harvest allowed below Bonneville Dam. Since 2002, daily and/or weekly possession and sales limits concurrent with salmon fisheries have largely replaced directed sturgeon seasons during the fall timeframe.

#### 2011 Early Fall Commercial Mainstem Fisheries

The 2011 early fall (August) mainstem season was managed to harvest Chinook and a limited number of sturgeon. The early fall season consisted of eight target Chinook fishing periods, including one 9-hour period during August 4-5 in Zones 1-5, and eight 9-hour periods in Zones 4-5 during August 16-31. A 9-inch minimum mesh size restriction was adopted for all periods to minimize handle of steelhead and under-sized sturgeon. Landing limits for white sturgeon were in effect during all periods, with a 10 fish weekly limit for the first period and a three fish weekly limit for the final seven periods (Tables 12, 15, and 23). Landings for the early fall season included 25,043 Chinook, 1,635 coho, 8 pink salmon, and 1,320 white sturgeon (Tables 14, 24, and 27). Chinook landings were less than expected for the 2011 early fall season, but were still the fourth highest August catch since 1985. Coho landings in the early fall season were greater than expected and much higher than the average harvest observed over the past ten years (400 fish). The eight-day early fall season was 125% of the recent five-year average season length of 6.4 days (Table 24).

#### 2011 Late Fall Commercial Mainstem Fisheries

The 2011 late fall mainstem season consisted of 10 fishing periods (9-14 hours each) occurring between September 18 and October 20, which was 56% of the recent five-year average of 18 days (Tables 12, 15, 25 and 26). Two "small mesh" coho-directed fishing periods occurred in Zones 1-3 during October. Landings during the late fall fishery included 26,376 Chinook, 11,847 coho, 22 pinks, 11 chum, and 1,187 white sturgeon. Chinook landings were within expectations for the 2011 late fall season, and much greater than the recent five-year average. Combined fall season coho landings (13,482 fish) exceeded preseason expectations (8,700 fish) but were only 51% of the recent five-year average of 26,600 fish. White sturgeon catch was regulated with weekly possession and sales limits of two to seven fish per-vessel (Tables 14, 26, and 27).

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

The fall recreational salmon fishery occurs throughout the Columbia River with the primary catch areas being the estuary (Buoy 10), the lower river between Tongue Point and Bonneville Dam (LCR), and the Vernita-Hanford Reach area below Priest Rapids Dam. The Buoy 10 recreational fishery targets fall Chinook and hatchery coho in the estuary area from Buoy 10 upstream to the Tongue Point/Rocky Point line and accounts for the majority of the recreational coho harvest in the mainstem Columbia River. The LCR recreational fishery catches fall Chinook, hatchery summer steelhead, and hatchery coho in the mainstem Columbia River from the Tongue Point/Rocky Point line upstream to Bonneville Dam. The Hanford Reach fishery targets fall Chinook in the area downstream of Priest Rapids Dam. Smaller fisheries also occur on the mainstem Columbia River between Bonneville and McNary dams targeting Chinook, coho and steelhead near tributary mouths. In all of these fisheries, only adipose fin-clipped hatchery steelhead may be retained, and all unclipped steelhead must be released immediately unharmed. In addition, anglers must release all unclipped coho caught from Buoy 10 upstream to the Hood River Bridge.

The popularity of the fall salmon fishery on the mainstem has grown considerably over the years, and anglers continue to fish successfully in new areas of the lower Columbia for fall Chinook. Historically, high water temperatures on the mainstem during August and September hindered anglers' ability to catch fall Chinook in the shallows, and the majority of the catch occurred at or below tributary mouths where water temperatures were cooler. Beginning in the late 1990s; however, anglers began targeting fall Chinook in deeper areas of the river with excellent results, especially in and around shipping lanes. Since 2000, the catch of adult fall Chinook on the mainstem has averaged 16,100 fish annually compared to 5,000 during the 1990s and 2,300 during the 1980s. Angler trips have also increased from an average of about 41,000 trips in the 1980s, 54,000 trips in the 1990s, to over 100,000 since 2000. As a result of the increased effort and catch, the recreational opportunity for fall Chinook on the mainstem Columbia River downstream of Bonneville Dam has been constrained in terms of the daily bag limit and/or fewer fishing days since 2004 in order to meet ESA and harvest-sharing guidelines (Table 30).

## 2011 Buoy 10 Recreational Fishery

The 2011 Buoy 10 fishery opened August 1 for Chinook, adipose fin-clipped coho and adipose fin-clipped steelhead. The daily bag limit was two adult salmon or steelhead with not more than one Chinook until August 29, when Chinook retention was prohibited. Chinook retention was scheduled to reopen effective October 1 with a daily limit of two adult salmon. The expected catch for the fishery was 10,950 Chinook and 7,000 coho. Chinook catches were about 10,600 fish through August 28, and Chinook retention closed effective August 29 as planned. Coho catches approached the guideline of 7,000 fish in early September; however, the states anticipated a substantial rollover of unused coho impacts from the ocean fishery, and coho retention remained open through December 31. At a Joint State hearing on September 12, the states reopened the Buoy 10 fishery to Chinook retention effective September 16 because non-Indian impacts to URB and LRH fall Chinook were lower than expected. During September 16-December 31, the daily bag limit in the Buoy 10 fishery was two adult salmon or steelhead in combination. The 2011 Buoy 10 fishery produced 49,409 angler trips and catches of 10,919 Chinook, 7,614 adipose fin-clipped coho, and 98 adipose fin-clipped summer steelhead (Tables 14 and 29). The Chinook catch was the highest since 2004.

## 2011 Lower Columbia Mainstem Recreational Fishery

The 2011 lower Columbia River fishery opened August 1 for Chinook and adipose fin-clipped coho. Chinook retention was scheduled to be open during August 1-September 9 and October 1-December 31 between Tongue Point and Warrior Rock (near river mile 87) and August 1-December 31 between Warrior Rock and Bonneville Dam. In both areas, the season started with a daily bag limit of two adult salmon or hatchery steelhead in combination with not more than one adult Chinook. The bag limit changed to two adult salmon or steelhead above Warrior Rock September 10, and on October 1 below Warrior Rock when that area re-opened for Chinook. The expected catch for the mainstem recreational fishery was 20,700 adult Chinook and 1,000 coho. By September 4, the catch was tracking less than expected (about 12,300 Chinook), and impacts to LRH and URB fall Chinook were lower than expected. At a Joint State hearing on September 12, the states reopened Chinook retention in the area between Tongue Point and Warrior Rock effective September 16-18 (3-days) with a daily limit of two adult salmon or steelhead, only one of which could be a Chinook. Chinook catches exceeded expectations in the lower Columbia, particularly during the second half of September between Warrior Rock and Bonneville Dam. The mainstem fishery produced 143,343 angler trips with catches of 28,169 adult fall Chinook, 1,667 adipose fin-clipped adult coho, and 12,053 adipose fin-clipped summer steelhead. The angler trip total, Chinook catch, and summer steelhead catch were all the highest on record (Tables 14 and 30).

#### 2011 Columbia Mainstem Recreational Fisheries above Bonneville Dam

The Columbia River is typically open for Chinook retention during the fall season in the area from Bonneville Dam upstream to the Highway 395 Bridge near Pasco, Washington (37 miles upstream of McNary Dam). Additional areas of the Columbia River upstream of the Hwy. 395 Bridge, such as Hanford Reach, are also open during the fall season. See Tables 14 and 31 for seasons and catch. Catch estimates (Chinook and steelhead) for the fishery from Bonneville Dam upstream to the Highway 395 Bridge are based on average harvest until Catch Record Card

data is available, which usually has a one or two year delay. The catch from the Hanford Reach fishery is based on a robust creel program.

## Bonneville to Hwy 395 Fishery

Average Chinook catch during 2002-2009 in the area from Bonneville upstream to the Highway 395 Bridge has been fairly static, ranging from 2,200 to 4,000 adult fish annually. Catch in 2010 was higher than average, estimated at 7,000 adult Chinook. The majority of the catch occurs within the Zone 6 area (Bonneville Dam upstream to McNary Dam). Minor catch (average of 200 Chinook) is reported in the area from McNary Dam upstream to the Highway 395 Bridge. As has been the case for numerous years, the 2011 fishery was open for Chinook retention (2 fish bag limit) from August 1 through December 31. Chinook harvest in the area from Bonneville Dam to Highway 395 is estimated (based on average harvest rates) at 4,200 adult fish.

Steelhead fisheries occur from Bonneville Dam upstream to Highway 395 Bridge, near Pasco Washington. Fisheries also occur within Zone 6 tributaries where steelhead migrating upstream may "dip-in" to seek refuge in the cooler water of the tributary. This dip-in tributary catch is included with the mainstem catch reported here. Estimated catch (based on average catch data) for the 2011 fall season (August –October) is 12,000 steelhead kept.

## Hanford Reach Fall Chinook Fishery

The Hanford Reach fall Chinook recreational fishery is open annually from August 1 through October 22. An estimated 14,262 fall Chinook (including 2,648 jacks) and 48 coho were harvested in 2011. An additional 102 Chinook (including 25 jacks) were caught and released. The 2011 harvest was the largest harvest on record, 14% higher than 2010 and 81% higher than the 10-year average. Angler effort totaled 28,284 boat angler trips. The 2011 fall Chinook return of 75,541 Chinook to the Hanford Reach was 20% above the 10-year average of 63,200 Chinook but 13% below 2010.

#### Snake River Fall Chinook Fishery

In 2008 a small test, or pilot, recreational fishery opened in late September around Little Goose Dam resulting in a harvest of five adult Chinook. Since then, the lower Snake River in the fall season has been open annually for the retention of hatchery fall Chinook during specific times and areas along with various bag limits. Fall Chinook salmon harvest during these fisheries is incidental to the popular steelhead fisheries in the lower Snake River. The 2011 season was September 1 through October 31, including the Snake River from the mouth upstream to the Washington state line at Clarkston (downstream of the boundary water with Idaho, and along the boundary waters with Idaho up to the Oregon state line above the Grande Ronde River. The total 2011 fishery estimates for the boundary waters are available from Idaho Fish and Game, but not reported here. Fall Chinook harvest downstream of the Washington border will be derived from WDFW catch card estimates.

#### **Select Area Fisheries**

Select Area commercial fisheries occur in off-channel areas and target coho and Chinook returning from net-pen and hatchery releases at these sites. These fisheries were initiated in 1962 with the adoption of coho salmon seasons in Youngs Bay. Fall Select Area fisheries have occurred in Tongue Point/South Channel, Blind Slough/Knappa Slough, and Deep River since 1996; and Steamboat Slough during 2000-2005. All fall non-Indian fisheries are managed in accordance with predetermined harvest impact rates or catch guidelines; however, Select Area fall fishery impacts on ESA-listed fish are negligible and in-season modifications are seldom necessary.

Declines in mainstem fishing opportunities and success of the Youngs Bay fishery prompted the Bonneville Power Administration (BPA) to fund a project in 1993 to expand net-pen programs and terminal fisheries in Youngs Bay and establish other off-channel areas. Currently, the Select Area Fisheries program is supported by funding from BPA, the state of Oregon, NOAA Fisheries (via Mitchell Act), and a voluntary assessment paid by the commercial fishing industry. Currently, production sites and fisheries operate in Youngs Bay, Tongue Point/South Channel, and Blind Slough/Knappa Slough in Oregon and Deep River in Washington. Fall fisheries in the Select Areas primarily target hatchery coho returning to these release sites; however, SAB and LRH fall Chinook are also produced and harvested in Youngs Bay. Coho and Chinook produced for Select Areas also contribute to the Columbia River recreational and commercial fisheries, as well as ocean recreational, commercial and tribal fisheries. Fisheries targeting coho are typically initiated in late August or early September and continue through the end of October. In Youngs Bay, Chinook target fishing periods occur weekly from mid-June through July (summer season) to target hold-over Select Area-produced spring Chinook and early returning SAB fall Chinook. Weekly periods also occur throughout August to target Chinook and the first coho returns. In Knappa Slough, a target tule Chinook fishery has occurred intermittently during late August when surplus fish were expected to return to Big Creek Hatchery. Recently, late-August experimental fisheries have also been adopted to target tule Chinook returning to the Deep River Select Area program.

Recreational fisheries also occur in the Select Areas. Under permanent regulations, Youngs Bay, Blind Slough/Knappa Slough, and Deep River Select Area sites are open the entire year for retention of Chinook and adipose fin-clipped coho with a daily bag limit of two adult salmonids. Chinook retained during January 1 – July 31 must be fin-clipped (either adipose or ventral clips) in Youngs Bay and associated tributaries, and adipose fin-clipped in other Select Areas and tributaries. These fall fisheries tend to have relatively low effort and catch, with an average annual catch of approximately 340 Chinook and 275 coho from 2002 – 2006.

#### 2011 Select Area Fisheries

Chinook landings were excellent in 2011; the total catch of 22,929 adult fish was the highest since 1993 and can primarily be attributed to an excellent SAB return that far exceeded the expected return. Total coho harvest of 49,513 exceeded the recent five year average. Since the annual commercial sub-allocation of 200 white sturgeon to Select Areas had already been met earlier in the year, sales of sturgeon were not allowed during the fall season. Landings are summarized in Tables 14 and 28 and seasons are summarized in Tables 13 and 15.

The fall season in Youngs Bay began in early August with four 36-hour periods weekly through late August. Typical for the fall season, the upper fishing boundary was moved downstream from the confluence of Youngs and Klaskanine rivers to Battle Creek Slough to ensure adequate SAB escapement. After the August target Chinook fisheries were complete, the fall season continued with one 3½-day period from August 29 through September 2 and continuous fishing from September 5 through October 31 (57 days). The complete Youngs Bay fall season consisted of 69 fishing days and resulted in landings of 12,339 Chinook, 26,538 coho, 13 pinks, one chum, and one sockeye. The Chinook catch was the highest on record and more than twice the preseason expectation (4,800 fish); coho harvest was similar to the recent 5-year average and also higher than the preseason expectation (20,800 fish).

The Tongue Point/South Channel fishery began with four nightly 12-hour fishing periods per week during August 29 – September 16. The fishery increased to four nightly 18-hour periods each week from September 19 – October 28. The 36-night season resulted in landings of 2,527 Chinook, 6,504 coho, 19 pinks, and one chum. The coho catch was well below the long-term average but higher than the preseason expectation of 5,700 fish.

The season structure of the fall Blind Slough/Knappa Slough fishery was similar to the Tongue Point/South Channel fishery. The fishery began with four nightly 12-hour fishing periods per week during August 29 – September 16. The fishery increased to four nightly 14-hour periods each week from September 19 – October 28. To access surplus returns of tule fall Chinook destined for Big Creek Hatchery, the maximum mesh size allowed was 9¾-inch for the entire season. The 36-night season resulted in landings of 5,768 Chinook, 1,388 coho, four pinks, and two chum. The coho catch was less than average and less than the preseason expectation (3,300 fish). In contrast, Chinook harvest was the third highest on record, mainly due to a significant harvestable surplus of fish returning to Big Creek Hatchery.

The structure of the Deep River fishery was similar to that used in other Select Area fishing areas with four 14-hour nightly fishing periods occurring each week through September 16, except the season started August 16 with two fishing periods per week for the two weeks prior to the start for the other sites. This modification was made to maximize catches of LRH Chinook from net pen releases initiated in 2009. Beginning September 19, the fishery expanded to four 17-hour nightly periods per week through October 28. Landings during the August 15–26 period yielded catches of 189 Chinook, four coho, and one pink. Combined season landings for the 40-night season included 2,295 Chinook, 15,083 coho, 129 chum, and six pinks. Chinook catch was the highest on record and 153% of the preseason expectation (1,500 fish). The Chinook catch was comprised of roughly 40% tule stock and 60% SABs. Coho catch was the second highest on record and 151% of the preseason expectation (10,000 fish).

The 2011 recreational fisheries in Select Areas occurred as per permanent regulations. No formal catch estimate was made due to the lack of resources available to adequately sample the fishery although catch record card data will be available once processed. Catches in Youngs Bay tributaries may have been higher than average because of the increased abundance of SAB fall Chinook.

## **Treaty Indian Fisheries**

During the fall, fisheries in the mainstem Columbia River between Bonneville and McNary dams (Zone 6, Fgure 5) include treaty Indian commercial and ceremonial and subsistence (C&S) fisheries, as well as non-Indian recreational fisheries. Like fisheries occurring in Zones 1-5 (Columbia River mouth upstream to Bonneville Dam), Zone 6 fisheries are managed in accordance with predetermined harvest impact rates or catch guidelines. Non-Indian fisheries occurring upstream of Bonneville Dam are described the previous sections of this report. Treaty Indian landings and fishery structures are summarized in Tables 12, 14, 16, 17, and 19-22. ESA impacts are shown in Tables 18 and 21. Annual white sturgeon catch guidelines are summarized by pool in Table 11.

## 2011 Treaty Indian Commercial Fisheries

The treaty Indian commercial fishery in the fall of 2011 was managed to target harvestable salmon and steelhead, while limiting impacts on ESA listed SRW fall Chinook and Group B index summer steelhead. The commercial gillnet salmon fishery consisted of seven weekly fishing periods which included three 3½-day fishing periods and four 4½-day fishing periods (28.5-days total) between August 22 and October 6. The 2011 season was 3 days longer than the 2010 season. As in most years, standard sanctuaries were in effect and the entire Zone 6 area was open. Tribal regulations did not impose a minimum mesh size restriction for gillnet openings. Aerial net counts were conducted weekly and averaged 572 nets per survey. The high end of range continued the higher effort observed since 2005.

Fall season treaty fisheries landed 132,209 adult Chinook, 27,498 steelhead and 25,998 coho. Sturgeon landings during target salmon seasons totaled 96 fish, and an additional 853 sturgeon were landed during target sturgeon setline seasons conducted in August and during October through December. Chinook catches were highest in the second and third weeks of the fishery. Sales of platform and hook and line caught fish occurred from August 1 through October 22. Of the total catch, 15% of the Chinook, 30% of the steelhead and 22% of the coho were taken home or sold directly to the public. The adult Chinook catch was greater than the recent 5-year and 10-year averages of 90,200 and 104,900 respectively, and was the fourth highest since 1985. Steelhead catch was similar to the average harvest observed since 2008 (29,900 fish), but Group B impacts continued to be the constraining factor for fall season fisheries.

Treaty	y Indian Zone	6 Gillnet
	Fisheries	
Net Co	ounts during Fa	all Season
	Average	Range
2002	364	306-436
2003	255	103-331
2004	211	104-297
2005	339	187-449
2006	388	205-500
2007	422	251-528
2008	430	63-691
2009	619	403-707
2010	458	137-758
2011	572	435-672

## **2011 Fishery Impacts**

Fall season fisheries target healthy hatchery stocks of steelhead and salmon and also provide for white sturgeon harvest. Fall fisheries are structured to minimize handle of ESA-listed fish through the use of time, area, and gear restrictions while maximizing harvest of healthy fish stocks. Some non-Indian recreational fall fisheries may also require the release of non-adipose fin clipped salmonids. Tables 18 and 21 provide impact summaries for treaty Indian and non-Indian fisheries.

URB and SRW fall Chinook impacts were managed based on an URB run size greater than 200,000 adults and an SRW run size of at least 8,000 adults. According to Table A3 of the MA returns of this size allow for a harvest rate of 45% (15% non-Indian and 30% treaty Indian).

The ER for LRH wild Chinook (LCR tules) totaled 41% compared to the limit of 37% in combined ocean and mainstem fisheries. The ER from mainstem fisheries was 10.1% (900 fish), representing about 25% of the total impact. The remaining impacts were accrued in ocean fisheries. In 2011 the LRH return was 85% of forecast. Because the LRH forecast cannot be updated inseason, the run size short fall was not identifiable until after the run reconstruction was completed in December.

The ER for LCN coho totaled 13.5% compared to the maximum ER limit of 15.0% in combined ocean and mainstem fisheries. The ER from mainstem fisheries was 7.7%, accounting for 57% of the season total, compared to the 30% allocation planned preseason. In-river fisheries accounted for a higher than expected proportion of impacts because ocean fisheries accrued fewer impacts than planned despite a full season.

Impacts to total Group B summer steelhead from treaty Indian fisheries totaled 21.1% compared to the 20.0% limit. Incidental mortalities from non-Indian fall fisheries resulted in impacts of 1.9% to wild Group B steelhead, compared to the 2.0% limit. This overage was due to the post season B steelhead run size being less than estimated in season.

Excerpt from the 2011 Fall	Model - post-se	eason
Management Guidelines	Total	Goal/Guideline
Snake River Wild HR	38.8%	45%
Non-Indian	13.9%	15%
Treaty Indian	24.9%	30%
% of Harvestable Surplus		
Non-Indian	27%	50%
Treaty Indian	32%	50%
McNary Escapement	162,200	60,000
LRH Ocean/In river Exp. Rate	40.8%	37%
Non-Indian Wild B Index Steelhead	1.9%	2%
Treaty Indian Total B Index Steelhead	21.1%	20%
Upriver Coho to Bonneville Dam	84%	50%
Lower Columbia Chum	1.0%	5%

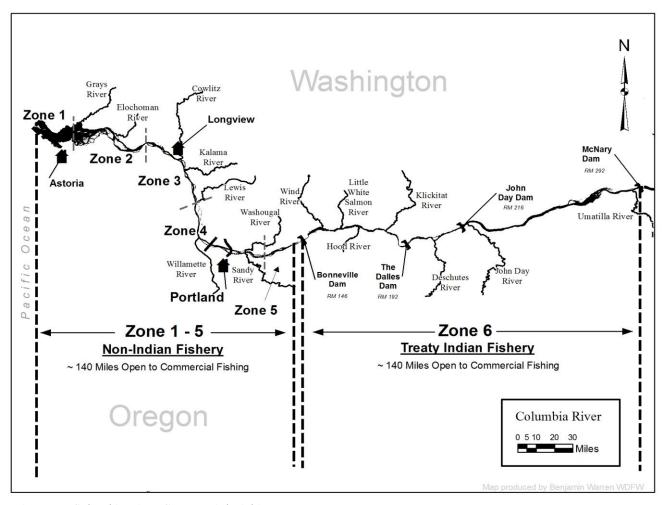


Figure 5. Columbia River Commercial Fishing Zones.

#### 2012 FALL SEASON FISHERY EXPECTATIONS

## **Non-Indian Fisheries**

Specific recommendations for fall commercial seasons will be presented at Compact hearings occurring throughout the fall management period. Based on preseason run size forecasts, a preliminary fishing schedule was developed for Columbia River non-Indian fisheries through the NOF management process. As the fall management period continues, run size updates will occur which may alter planned fisheries. Chinook run sizes cannot typically be updated until mid-September; therefore, fisheries occurring prior to that time will be managed conservatively to ensure conservation requirements are met, and to allow for flexibility in shaping fishing opportunities during the latter part of the season. Stock composition and estimated impacts for all fisheries will be updated in-season as catch estimates and stock composition (determined from coded-wire-tag (CWT) data) become available. These data may differ from preseason expectations, which could result in modifications to fall fishery plans/seasons.

## 2012 Non-Indian Columbia River Fall Fishery Chinook Allocation Agreement

Guidance from the Washington and Oregon Fish and Wildlife commissions state, in part, that "Commercial and recreational fishing opportunity will be scheduled to optimize the non-treaty harvest of Chinook and coho and to provide a balanced opportunity to each fleet. When developing recreational and commercial fishing options, the Department shall consider fair and reasonable catch opportunity, stability and duration of fisheries, as well as sharing of the conservation responsibility."

Fisheries are structured to optimize the harvest of fall Chinook and coho within ESA limits and to provide a balanced opportunity for each fleet (recreational and commercial). This agreement was developed during the PFMC and NOF meetings during March and April of 2012.

For 2012, the most constraining stocks for Columbia River fisheries are LCR tule Chinook and LCN coho. ESA limits (based on preseason forecasts) for 2012 non-Indian fall fisheries include a 41% ER for LCR tule Chinook (LRH stock is the surrogate) and a 15% ER for LCN coho (unmarked coho are the surrogate). These two guidelines include impacts from both the ocean and Columbia River fisheries. The preseason expectation for Columbia River fisheries is an ER of 7.8% on LCR tule Chinook and an ER of 3.7% on LCN coho. Beginning in 2012, the allowable ER for LCR tules will be based on an abundance matrix, which was developed and supported by state, federal and tribal agencies. Similar to those used for SRW Chinook and LCN coho, this matrix was designed to allow an increased ER during years of high abundance and a decreased ER during years of low abundance. Compared to the prior fixed-rate strategy, this approach provides additional conservation benefits at low run sizes, while reducing constraints on non-Indian fisheries during years of higher abundance and providing improved access to healthy stocks of harvestable Chinook. The ESA limit on SRW Chinook is 15.0% for Columbia River non-Indian fisheries (URB stock is the surrogate).

The non-Indian conservation burden for ESA-listed Chinook is shared between recreational and commercial fisheries. Based on the preseason allocation agreement, sharing of LCR tule impacts are expected to be 56% recreational and 44% commercial. The sharing for SRW impacts is expected to be 45% recreational and 55% commercial.

## Goals/expectations for the recreational fishery include:

The Buoy 10 fishery will begin on August 1 with a two fish/one Chinook daily limit through September 3 (Labor Day). From September 4-30, only hatchery coho and hatchery steelhead may be retained. From October 1 through December 31 the daily limit will be two fish/two Chinook, with retention including Chinook, hatchery coho and hatchery steelhead. Catch (and release mortality) expectations total 13,900 adult Chinook (4,100 LRH) and 8,000 coho.

The mainstem sport fishery below Bonneville Dam will begin August 1 with a two fish/one Chinook daily limit. From the Rocky Point/Tongue Point line upstream to the Lewis River, the fishery will be open for Chinook retention through September 9. From September 10 through September 30, Chinook retention will only be allowed upstream of the Lewis River, but the daily limit can include two Chinook. Beginning October 1, Chinook retention will reopen below the Lewis River, and the daily bag limit in the entire lower river downstream from Bonneville Dam can include two Chinook. Catch (including release mortality) expectations total 21,200 Chinook (4,000 LRH) and 1,500 coho. A mark-selective fishery (MSF) for fall Chinook may occur from September 10 through 16 downstream of the Lewis River. WDFW and ODFW are determining

if a fall Chinook MSF can be adequately monitored for implementation in 2012. If a MSF fishery does occur, catch estimates may include up to 3,900 additional Chinook (1,100 LRH).

The mainstem sport fishery from Bonneville Dam to the Highway 395 Bridge in Pasco, Washington will begin on August 1 with a two fish/two Chinook daily limit through December 31. The total kept adult catch expectation is 6,700 Chinook.

## Goals/expectations for the commercial fishery include:

The early August fishery is expected to consist of one opener on August 5 in Zones 1-5. Total catch expectation is 2,300 Chinook (1,200 LRH). The late August fishery is expected to occur in Zones 4-5 beginning the week of August 12 and continue through the month on a Sunday, Tuesday, Thursday rotation. Total catch expectation is 23,000 Chinook (3,500 LRH). Fishing hours are expected to be 9 PM-6 AM, and mesh size will be 9-inch minimum.

The late fall fishery is expected to begin the week of September 16 in Zones 4-5 with 8-inch or 9-inch minimum mesh. Total catch expectation is 17,200 Chinook (1,700 LRH). An increased sanctuary near the Washougal River or other reduced fishing area may be considered in-season.

Due to a relatively poor coho forecast, commercial mainstem coho harvest is expected to be limited. The preseason allocation is 5,500 coho for all mainstem commercial fisheries with the majority expected to be landed in Chinook-directed fisheries. A target coho fishery may occur in early October if coho harvest in the ocean/Buoy 10 fisheries is less than expected, if fewer coho are harvested during Chinook-directed fisheries, or the Columbia River coho return is significantly upgraded. As in past years, target coho fisheries would occur during daylight hours with unslackened 6-inch maximum mesh nets.

The 2012 annual commercial allocation of white sturgeon is 2,080 fish. Fish remaining on the commercial allocation from earlier 2012 seasons will be rolled forward to guidelines for fall commercial fisheries. Minimum catch expectations are 800 white sturgeon for August fisheries and 400 for September/October fisheries. Sturgeon landing limits are expected to be in place throughout the fall season. The minimum landing limit would likely be 2-3 fish per week.

#### **Select Area Fisheries**

Based on 2012 preseason run size predictions, an estimated 32,800 Select Area coho are expected to be available for harvest in all Select Area fishing sites combined, including 16,900 coho destined for Youngs Bay. SAB Chinook catch is expected to total 4,300 fish in Select Areas. White sturgeon possession will not be allowed, since the annual limit for Select Area sites has been met prior to the onset of the 2012 fall season. Site-specific season structure was discussed at a public meeting on Select Area fall fisheries held June 5 in Astoria, Oregon.

Fall fisheries in Youngs Bay are expected to follow a pattern similar to last year. Fishing opportunity in August will likely consist of weekly 36-hour periods for the first four weeks to target returning SAB fall Chinook. The coho target fishery will likely start during the last week of August with a multiple-day fishing period. Continuous (seven-day-per-week) fishing is expected to occur from Labor Day through the end of October to maximize harvest. Gear restrictions will likely include a 9¾-inch-inch maximum mesh size restriction initially in place to target Chinook, and then a 6-inch maximum mesh size restriction during late August through October to target coho.

Based on preseason run size forecasts, an estimated 5,100 Select Area coho will return to Tongue Point, 2,500 coho to Blind Slough, and 8,300 coho to Deep River. Coho-directed fishing will occur in Tongue Point/South Channel, Blind Slough/Knappa Slough, and Deep River although LRH Chinook are available for harvest in the latter two sites. The season structure in these areas will likely resemble recent years including 1) fishing periods beginning late August/early September, 2) three to four nightly fishing periods per week continuing through the end of October, and 3) nightly fishing periods expanding from 12 hours during the first part of September to 14-18 hours by late September.

Similar to last year, some late August fishing periods will be proposed for Deep River to harvest returns of Mitchell Act production tule fall Chinook. Mesh size will likely be increased to 9¾-inch for the mid-August to mid-September fishing periods to maximize harvest of fall Chinook, as was done last year. Catch from those periods will inform decisions regarding future August fisheries in Deep River.

## **Treaty Indian Commercial Fisheries**

Allowable ESA impact rates (based on preseason forecasts) for treaty fisheries include a limit of 30% on SRW fall Chinook and an ESA limit of 20% on Group B steelhead. Based on preseason forecasts and impact limits, treaty Indian fisheries expect to harvest up to 150,000 adult Chinook and 26,000 steelhead. Treaty Indian commercial gillnet fisheries have typically occurred from late August through late September or early October, although sales of platform caught fish typically begin August 1 and may extend into mid-October. Fishery restrictions may include mesh size restrictions to target Chinook and/or area restrictions to reduce impacts on specific Chinook stocks. Sturgeon sales are generally not allowed during fall salmon gillnet fisheries because annual commercial catch guidelines (Table 11) are often achieved prior to fall fisheries. Sturgeon retention (within a specific size limit) is typically allowed for C&S purposes. Fall gillnet fisheries typically consist of 2½ to 4½-day weekly fishery periods. Sales of platform and hook and line caught fish, as well as fish caught in Klickitat River and Drano Lake tributary fisheries, are typically allowed throughout the fall period.

## 2012 Columbia River Fall Fishery Model Summary

The following table summarizes Chinook catch, ESA-impact and passage expectations, based on preseason planning.

	Colum	nbia River Fall Cl	ninook Fish	ery Model	Summary	y _2012 Pre	season M	odel Run					-
Management Guidelines	Total	Goal/Guideline	]	Non-Ind	ian Catch	Sharing		Non-Indi	an Impact	Sharing	Ī		
Snake River Wild HR	41.77%	45.00%			ook - Mai				SRW				
Non-Indian	11.77%	15.00%			Catch	Percent			Impact	Percent			
Treaty Indian	30.00%	30.00%		Sport	45,700	51%		Sport	5.35%	45%			
% of Harvestable Surplus				Comm	44,500	49%		Comm	6.42%	55%			
Non-Indian	25%	50%					_				•		
									LRH -(LO	CR			
Treaty Indian	34%	50%		Brig	ghts - Main				Tules)				
McNary Escapement	162,200	60,000		_	Catch	Percent			Impact	Percent			
LRH Ocean/In river Exp. Rate	40.85%	41%		Sport	33,600	53%		Sport	4.40%	56%			
				Comm	29,800	47%		Comm	3.41%	44%			
Non-Indian Wild B Steelhead	1.9%	2%											
Treaty Indian Total B Steelhead	20%	20%											
Upriver Coho to Bonneville Dam	75%	50%											
Lower Columbia Chum	1.6%	5%	]										
		Total	LRH	LRW	ВРН	URB	BUB	LRB	PUB	SAB	SRW	LRH	SRW
Ocean Harvest		97,340	49,570	700	33,680	10,650	720	20	2,000	0	0	ER	HR
Columbia River Run		654,920	128,390	16,180	60,020	353,040	23,900	670	66,110	6,610	15,100		
Harvest Below Bonneville	Fishery Description												
Buoy 10	Thru Sept 3/LD	13,940	4,140	0	2,130	3,500	290	10	1,160	610	150	2.2%	1.0%
Mainstem Sport	Thru Sept 9+MSF	25,100	5,150	1,050	650	13,450	1,500	40	3,180	70	580	2.7%	3.8%
Early August Z1-5	Aug 5	2,290	1,210	0	340	570	0	0	20	150	20	0.6%	0.2%
Late August Z4-5	Week of Aug 12	22,970	3,520	0	6,530	11,040	610	20	1,250	0	250	1.8%	3.1%
Sept/Oct Z4-5	Week of Sept 16	17,240	1,710	0	1,370	9,610	2,900	80	1,580	0	410	0.9%	2.7%
October Coho/Chinook	Coho target	2,050	100	230	10	990	520	10	180	0	40	0.1%	0.3%
Select Areas	Average season	12,090	6,610	0	330	460	130	0	270	4,280	20		0.1%
Tributary Sport	Full season	9,890	7,490	2,390	0	0	0	0	0	0	0		0.0%
Lower River Total		105,560	29,940	3,680	11,350	39,620	5,950	170	7,650	5,130	1,690	8.3%	11.2%
Bonneville Dam Passage		419,550			46,320	313,430	6,610		53,180		13,410		
Harvest Above Bonneville													_
Zone 6 - Bonn to Hwy 395	Average season	6,680				1,930	10		4,740		80		0.5%
Treaty Comm. and C&S	Average season	150,200			22,690	105,910	4,180		17,430		4,530		30.0%
Hanford Reach Sport	Average season	8,840				8,840					0		

162,160

McNary Dam Passage

162,160

Species – $ESU/DPS^{I}$	Current Designation	Listing Date	Effective Date
<u>Chinook</u>			
Snake River Fall	Threatened	22-Apr-92	22-May-92
Snake River Spring/Summer	Threatened	22-Apr-92	22-May-92
Upper Columbia Spring	Endangered	24-Mar-99	24-May-99
Upper Columbia Summer/Fall	Not warranted		
Middle Columbia Spring	Not warranted		
Lower Columbia River Spring/Fall	Threatened	24-Mar-99	24-May-99
Upper Willamette Spring	Threatened	24-Mar-99	24-May-99
Deschutes River Summer/Fall	Not warranted		
Steelhead			
Snake River Basin	Threatened	18-Aug-97	17-Oct-97
Upper Columbia River <sup>2</sup>	Threatened	18-Aug-97	17-Oct-97
Lower Columbia River	Threatened	19-Mar-98	18-May-98
Middle Columbia River	Threatened	25-Mar-99	24-May-99
Southwest Washington	Not warranted		
Upper Willamette	Threatened	25-Mar-99	24-May-99
Sockeye			
Snake River	Endangered	20-Nov-91	20-Dec-91
Okanogan River	Not warranted		
Lake Wenatchee	Not warranted		
<u>Chum</u> – Columbia River	Threatened	25-Mar-99	24-May-99
<u>Coho</u> – Columbia River	Threatened	28-Jun-05	26-Aug-05
Green Sturgeon- Southern DPS	Threatened	07-Apr-06	07-Jul-06
Eulachon - Southern DPS	Threatened	17-Mar-10	17 May 10

The ESU/DPSs 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.

Status downgraded to threatened per U.S. District Court order in June 2009.

Table 2. Summary of 2011 Forecast and returns, and 2012 Pre- season Forecasts of Adult Salmon and Steelhead Returns to the Columbia River. <sup>1</sup>

	2011	2011	2012	
Species, stock	Forecast	Return	Forecast	Comments
Fall Chinook	766,300	620,600	654,900	Greater than 10-year average
Lower river hatchery (LRH)	128,600	109,000	128,400	Greater than 10-year average
Lower river wild (LRW)	13,100	15,200	16,200	Similar to 10-year average
Bonneville pool hatchery (BPH)	116,400	70,600	60,000	Less than 10-year average
Upriver bright (URB)	399,600	322,200	353,000	Greater than 10-year average
Snake River Wild (SRW)	17,500	14,800	15,100	
Mid-Columbia bright (MCB)	100,300	87,300	90,700	Similar to 10-year average
Bonneville upriver bright (BUB)	36,600	26,900	23,900	
Lower river bright (LRB)	1,100	1,700	700	
Pool upriver bright (PUB)	62,600	58,700	66,100	
Select area bright (SAB)	8,300	16,400	6,600	Less than 10-year average
Upriver summer steelhead	390,900	364,900	380,300	Similar to 10-year average
Skamania index (May 1 - June 30)	24,100	9,700	15,700	4,600 wild.
A-run index (length <78 cm)	312,700	318,200	311,800	91,800 wild
B-run index (length ≥78 cm)	54,100	37,000	52,800	13,400 wild
Coho	270,800	352,100	240,800	Poor return, 51% of 10-year ave.
Early stock	168,500	246,700	184,600	61% of 10-year average
Late stock	102,300	105,400	56,200	34% of 10- year average

<sup>&</sup>lt;sup>1.</sup> Columbia River mouth return, except summer steelhead is Bonneville Dam return. Numbers may not sum due to rounding.

Table 3.	Stock Accountable	ility of Adult Fo	all Chinook R	eturning to th	e Columbia Ri	ver, 1985-2011	.1
Return	Total						
Year	Return	LRH	LRW	BPH	URB	MCB	SAB
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	548,800	94,300	15,700	125,000	232,400	76,500	4,900
2002	733,600	156,400	25,200	158,300	277,300	108,200	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
2005	561,400	78,200	16,800	93,100	268,700	98,000	6,600
2006	422,400	58,300	18,100	27,900	230,400	80,400	7,200
2007	219,600	32,700	4,300	14,600	114,500	47,000	6,500
2008	449,000	61,600	7,100	93,900	197,300	76,300	12,900
2009	429,000	76,700	7,500	49,000	212,000	73,100	10,600
2010	657,100	102,960	10,900	130,770	324,910	78,940	8,620
2011	620,700	109,000	15,200	70,600	322,200	87,300	16,400

Numbers may not sum due to rounding.

Stock	Year	Preseason Forecast	Actual Return	Percent of Forecast
Lower River Hatchery	2006	57.5	58.3	101
(LRH)	2007	54.4	32.7	60
	2008	55.9	61.6	110
	2009	88.2	76.7	87
	2010	85.6	103.0	120
	2011	128.6	109.0	85
Lower River Wild	2006	16.6	18.1	109
(LRW)	2007	10.0	4.2	42
`	2008	3.8	7.1	187
	2009	8.6	7.5	88
	2010	10.0	10.9	109
	2011	13.1	15.2	116
Bonneville Pool Hatchery	2006	51.8	27.9	54
(BPH)	2007	21.3	14.6	69
,	2008	86.2	93.9	109
	2009	56.5	49.0	87
	2010	162.9	130.8	80
	2011	116.4	70.6	61
Upriver Bright	2006	249.1	230.4	92
(URB)	2007	185.2	114.5	62
	2008	164.4	197.3	120
	2009	269.7	212.1	79
	2010	319.2	324.9	102
	2011	399.6	322.2	81
Mid-Columbia Bright	2006	86.6	80.4	93
(MCB)	2007	69.1	47.0	68
	2008	56.6	76.3	135
	2009	97.9	73.1	75
	2010	74.6	78.9	106
	2011	100.3	87.3	87
Select Area Brights	2006	12.4	7.2	58
(SAB)	2007	7.5	6.5	87
	2008	9.8	12.9	132
	2009	12.0	10.6	88
	2010	12.7	8.6	68
	2011	8.3	16.4	198
Columbia River Total	2006	473.9	422.4	89
	2007	347.5	219.6	63
	2008	376.7	449.0	119
	2009	532.9	429.0	80
	2010	664.8	657.1	99
	2011	766.3	620.6	81

<sup>1.</sup> Numbers may not sum due to rounding.

Table 5. Estimated Columbia River Returns and Lower Granite Dam Escapement of Snake River Wild Fall Chinook Adults, 1986-2011.									
	Columbia			BON-LGR	BON-LGR	Lower			
	River	Mainstem	Harvest	Passage	Conversion	Granite			
Year	Return	Harvest	Rate %	Loss	Rate %	Escapement			
1986	3,278	1,861	57%	881	33%	449			
1987	2,086	1,190	57%	464	36%	253			
1988	4,393	2,799	64%	813	32%	368			
1989	2,283	1,304	57%	464	40%	295			
1990	561	298	53%	114	44%	78			
1991	1,911	767	40%	826	27%	318			
1992	1,308	344	26%	415	57%	549			
1993	1,501	417	28%	342	68%	742			
1994	951	173	18%	372	52%	406			
1995	1,273	241	19%	682	33%	350			
1996	1,725	455	26%	631	50%	639			
1997	1,865	600	32%	461	63%	797			
1998	731	194	27%	230	57%	306			
1999	2,431	738	30%	788	53%	905			
2000	2,675	770	29%	757	60%	1,148			
2001	14,104	2,968	21%	5,972	46%	5,163			
2002	3,745	1,059	28%	569	79%	2,116			
2003	8,427	1,816	22%	2,355	66%	4,257			
2004	8,521	1,751	21%	3,441	51%	3,329			
2005	5,635	1,443	26%	1,280	71%	2,908			
2006	7,804	2,077	27%	2,929	51%	2,798			
2007	5,763	1,275	22%	2,365	48%	2,119			
2008	5,035	1,397	28%	1,195	69%	2,444			
2009	5,102	1,914	38%	1,587	52%	1,600			
2010	15,423	4,033	26%	1,536	86%	9,853			
2011	14,831	4,893	33%	2,043	79%	7,895			

Table 6. Returns of Upriver Summer Steelhead to Bonneville Dam (April- October) 1984-2011.									
	Skamania Index		Group A Index		Group B	Index	Total Passage		
Year	Wild	Total	Wild	Total	Wild	Total	Wild	Total	
1984	2,490	20,780	52,447	195,751	13,768	98,011	68,705	314,542	
1985	3,690	19,990	51,922	281,504	12,986	40,870	68,598	342,364	
1986	5,520	24,830	56,570	287,508	9,984	64,016	72,074	376,353	
1987	7,380	17,790	106,690	238,283	13,990	44,959	128,060	301,032	
1988	4,180	22,360	64,331	173,151	17,742	81,643	86,253	277,154	
1989	3,770	15,730	57,513	193,079	12,367	77,604	73,650	286,413	
1990	3,690	18,710	27,102	115,628	8,811	47,174	39,603	181,512	
1991	1,220	10,880	60,264	234,048	6,207	28,265	67,692	273,193	
1992	2,940	14,910	44,294	241,524	12,715	57,438	59,948	313,872	
1993	1,250	14,360	28,650	136,701	4,378	36,169	34,278	187,230	
1994	1,380	12,330	21,212	120,971	5,152	27,463	27,744	160,764	
1995	1,150	8,220	25,997	180,037	1,847	13,221	28,994	201,478	
1996	1,310	10,830	25,721	174,464	3,912	18,693	30,943	203,987	
1997	930	11,890	30,852	208,209	3,913	36,663	35,695	256,762	
1998	1,610	9,440	34,836	134,687	3,415	40,241	39,861	184,368	
1999	1,310	7,160	56,626	176,466	3,740	22,137	61,676	205,763	
2000	5,728	16,619	63,628	216,723	8,368	40,909	77,724	274,251	
2001	7,952	28,725	137,230	515,079	12,047	86,426	157,229	630,230	
2002	9,671	24,991	87,276	323,124	32,333	129,882	129,280	477,997	
2003	1,801	14,154	67,049	305,795	6,417	37,228	75,268	357,177	
2004	3,289	20,148	60,421	250,615	9,202	37,398	72,912	308,161	
2005	2,123	11,221	58,917	251,631	9,619	48,968	70,659	311,820	
2006	2,181	9,882	63,735	245,168	8,466	74,128	74,382	329,178	
2007	1,727	9,475	77,268	258,848	9,015	51,073	88,010	319,396	
2008	4,489	15,832	81,648	245,823	18,529	93,429	104,666	355,084	
2009	3,528	13,884	154,045	543,195	13,727	44,540	171,300	601,619	
2010	10,357	29,270	120,531	304,002	22,364	77,146	153,252	410,418	
2011	2,814	9,750	101,263	318,125	7,771	36,996	111,848	364,871	

Table 6a. Returns of Upriver Summer Steelhead to Lower Granite Dam, 1986-2011. 1, 2									
	Group A			Group B			<u>Total</u>		
Run Year <sup>3</sup>	Hatchery	Wild	Total	Hatchery	Wild	Total	Hatchery	Wild	Total
1986-87	70,900	16,613	86,233	36,969	5,463	43,743	108,056	22,076	129,976
1987-88	32,418	20,164	52,178	13,473	5,347	18,323	45,326	25,511	70,501
1988-89	44,743	15,700	60,561	22,006	4,614	26,595	66,871	20,314	87,156
1989-90	66,503	16,937	82,388	39,866	8,042	49,100	106,560	24,979	131,488
1990-91	25,577	4,806	30,087	22,015	4,483	26,814	47,684	9,289	56,901
1991-92	69,885	14,135	83,535	11,883	3,182	15,554	81,995	17,317	99,089
1992-93	83,420	13,617	97,053	25,566	5,777	31,351	109,006	19,394	128,404
1993-94	34,657	7,332	41,989	15,895	1,790	17,685	50,552	9,122	59,674
1994-95	31,956	5,873	37,829	7,178	2,231	9,409	39,134	8,104	47,238
1995-96	62,773	6,721	69,588	8,317	1,334	9,688	71,205	8,055	79,276
1996-97	67,075	5,980	73,055	12,211	1,645	13,856	79,286	7,625	86,911
1997-98	67,019	7,424	74,244	10,878	1,325	12,126	77,628	8,749	86,370
1998-99	43,832	7,074	50,917	17,455	2,301	19,760	61,297	9,375	70,677
1999-00	54,119	10,184	63,212	8,834	914	9,643	61,973	11,098	72,855
2000-01	79,599	17,689	97,171	17,128	2,886	19,959	96,579	20,575	117,130
2001-02	197,070	37,545	234,615	30,677	3,174	33,851	227,747	40,719	268,466
2002-03	122,269	28,308	150,577	57,976	13,623	71,599	180,245	41,931	222,176
2003-04	118,174	21,892	140,136	25,190	7,254	32,572	143,539	29,146	172,708
2004-05	103,391	18,297	121,688	25,184	4,774	29,958	128,576	23,071	151,646
2005-06	110,547	14,586	123,223	29,488	3,544	31,961	137,348	18,130	155,184
2006-07	100,444	7,877	108,319	39,212	1,633	40,847	139,656	9,510	149,166
2007-08	117,017	11,242	127,497	23,959	2,924	26,611	140,054	14,166	154,108
2008-09	106,286	20,035	126,229	46,820	5,729	52,641	153,199	25,764	178,870
2009-10	260,095	39,759	300,052	19,048	4,480	23,338	280,682	44,239	323,390
2010 - 11	128,132	34,362	162,494	35,324	10,478	45,802	163,457	44,839	208,296
2011 - 12	119,758	36,380	156,138	18,772	5,410	24,182	138,530	41,790	180,320

Counts adjusted based on biological sampling at Lower Granite Dam.
 Hatchery origin includes fish with clipped and unclipped adipose fin.
 Run Year is July 1 to June 30.

Minimum Numbers (Thousands) of Coho Adults Entering the Columbia River, 1980-2011. Lower Columbia River Commercial Catch <sup>1</sup> Hatchery Trib. Dam Bonneville Recreational Catch Min. Zones  $1-5^2$  SAFE<sup>3</sup> Counts 6 Estuary 4 Run<sup>7</sup> Year Mainstem <sup>5</sup> Trib. Returns Dam Count 1980 137.6 12.5 0.0 122.2 0.1 11.1 5.1 13.0 301.6 1981 51.8 8.1 0.0 0.1 7.6 77.8 2.8 21.9 170.2 1982 189.5 12.3 18.9 0.1 17.6 154.1 5.0 55.8 453.1 1983 3.6 3.6 3.6 0.2 5.1 75.0 3.3 110.0 15.7 1984 160.9 0.7 40.6 74.4 14.9 102.8 4.2 27.3 425.9 1985 138.8 51.2 25.4 1.1 9.4 95.3 7.5 38.6 367.2 1986 925.4 120.4 4.0 20.7 285.1 8.9 55.6 129.0 1,549.1 1987 151.7 13.5 47.2 0.9 6.1 66.3 4.2 316.5 26.6 1988 311.7 49.8 143.4 0.5 32.9 670.9 11.8 113.8 6.9 1989 84.0 0.2 184.3 709.0 361.1 26.2 15.1 6.9 31.2 1990 47.6 0.4 9.7 88.8 11.6 197.2 18.6 18.5 2.0 1991 327.1 80.4 209.5 1.1 29.4 243.3 5.5 58.9 955.1 1992 38.2 43.1 15.8 0.6 8.4 86.9 5.2 17.8 216.1 1993 20.7 20.9 15.0 0.6 6.3 39.4 0.8 10.6 114.2 1994 6.0 54.6 1.8 0.9 3.4 78.0 4.1 20.3 169.2 1995 0.2 21.2 5.0 0.2 2.7 32.2 2.9 10.4 74.8 1996 5.8 20.4 4.5 0.3 3.6 62.2 0.6 15.7 113.0 1997 3.8 16.7 20.4 0.8 69.7 149.1 10.8 2.8 24.2 1998 0.3 22.8 3.2 3.7 3.0 87.9 1.3 46.3 168.4 1999 57.6 21.5 9.0 1.3 124.5 40.7 274.2 18.6 1.0 2000 110.2 58.2 21.5 6.2 548.2 1.6 36.1 228.6 85.8 2001 218.7 34.4 132.0 3.1 74.9 377.3 8.2 259.8 1,108.3 2002 499.9 94.9 68.1 6.2 3.0 24.4 211.1 3.7 88.6 2003 54.4 143.8 113.5 1.1 22.1 205.4 11.2 125.7 677.3 2004 66.6 53.0 15.2 1.3 12.2 173.5 5.6 115.0 442.5 2005 30.3 64.5 6.9 0.6 9.9 142.3 3.3 83.3 341.0 2006 27.2 3.7 1.2 36.2 15.5 191.1 9.5 102.1 386.4 2007 30.2 0.9 23.2 161.0 4.9 331.1 10.1 8.4 92.5 2008 13.1 2.2 40.1 240.9 493.8 47.3 8.6 6.2 135.5 2009 43.8 80.4 48.1 4.0 35.9 260.4 32.3 224.9 729.8 2010 18.9 57.4 8.0 1.6 22.6 188.9 22.3 120.7 440.4 2011 13.6 45.5 7.6 1.7 21.9 108.3 8.3 145.3 352.0

 $<sup>\</sup>frac{1}{2003}$  – 2008 landings are preliminary.

<sup>&</sup>lt;sup>2.</sup> Includes jacks.

<sup>3.</sup> Jacks landed in SAFE fisheries are not included (except for 1985 and 1986).

<sup>&</sup>lt;sup>4.</sup> Buoy 10 fishery. Catch from this 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>&</sup>lt;sup>5.</sup> Catch from above Astoria-Megler Bridge through 1999 and catch from above Tongue Point/Rocky Point thereafter.

<sup>&</sup>lt;sup>6.</sup> Includes Willamette Falls (Willamette River), North Fork Dam (Clackamas River), and Marmot Dam (Sandy River). No Marmot Dam counts after dam removal in 2007.

May not match totals found in other sections of this report due to rounding.

Table 8.	Minimum N	umbers (T	housands)	of Early Sto	ock Coho	Adults Ente	ering the Co	olumbia River.	
		Lower	Columbia l	River					
	Commerci	al Catch <sup>1</sup>	Rec	reational Ca	atch	Hatchery	Trib. Dam	Bonneville	Min.
Year	Zones 1-5 <sup>2</sup>	SAFE 3	Estuary 4	Mainstem <sup>5</sup>	Trib.	Returns	Counts 6	Dam Count	Run
1980	56.3	12.5	0.0	0.1	6.2	76.4	2.0	6.8	160.3
1981	13.9	8.1	0.0	0.1	4.3	50.4	2.4	21.0	100.2
1982	30.3	12.3	11.9	0.1	11.6	108.4	3.9	51.0	229.4
1983	1.2	3.6	2.3	0.1	2.4	28.3	1.7	10.4	49.9
1984	74.5	40.6	46.3	0.5	6.9	54.8	3.8	20.4	247.9
1985	54.6	51.2	16.5	0.8	6.3	57.6	6.5	35.1	228.6
1986	301.0	55.6	97.7	3.0	9.5	158.6	5.9	118.8	749.9
1987	86.9	13.5	28.4	0.7	4.2	32.6	3.4	23.6	193.4
1988	136.9	49.8	61.7	0.3	7.0	47.1	6.3	28.5	337.7
1989	52.0	26.2	55.7	0.2	7.0	98.0	5.5	22.2	266.8
1990	19.7	18.6	12.6	0.3	6.3	41.1	1.7	8.7	109.0
1991	122.8	80.4	143.3	0.8	15.1	107.2	4.3	43.2	517.1
1992	3.6	15.8	29.1	0.5	4.1	44.4	3.4	11.0	112.0
1993	5.9	15.0	16.5	0.5	2.9	22.9	0.7	8.0	72.4
1994	3.6	54.6	1.4	0.8	2.2	59.6	3.3	12.5	138.1
1995	0.0	21.2	4.9	0.2	1.6	20.4	2.3	6.9	57.5
1996	1.7	20.4	3.9	0.2	2.1	44.3	0.6	8.9	82.2
1997	1.5	16.7	19.3	0.8	6.4	39.1	2.8	18.4	105.0
1998	0.0	22.8	3.0	3.6	0.7	55.3	1.0	34.2	120.6
1999	14.0	21.5	7.8	0.9	11.1	60.0	1.0	32.9	149.2
2000	20.2	58.2	18.7	1.0	26.4	137.2	5.5	58.9	326.1
2001	67.8	34.4	114.9	2.6	40.1	200.9	6.3	225.4	692.2
2002	48.1	68.1	5.4	1.1	18.2	101.1	3.3	50.4	295.6
2003	71.2	113.5	47.4	0.8	17.7	141.3	10.8	93.8	496.5
2004	16.6	53.0	13.2	0.8	9.9	109.7	5.0	85.6	293.9
2005	14.3	63.5	6.0	0.3	7.5	88.0	2.9	63.6	246.2
2006	9.3	36.2	3.2	0.6	11.0	99.7	8.3	65.4	233.5
2007	7.9	10.1	7.3	0.5	14.2	99.6	4.2	62.2	205.9
2008	4.4	47.3	7.5	1.3	24.9	131.3	6.1	85.0	307.7
2009	20.7	80.4	41.9	2.1	20.7	144.7	31.0	135.6	477.1
2010	3.0	57.4	6.9	0.7	12.0	75.1	21.8	56.2	233.0
2011	6.3	45.5	6.6	0.9	13.6	48.1	7.9	117.7	246.7

 $<sup>^{1.}</sup>$  2003 – 2008 landings are preliminary.

<sup>&</sup>lt;sup>2.</sup> Includes jacks.

<sup>&</sup>lt;sup>3</sup>. Jacks landed in SAFE fisheries are not included (except for 1985 and 1986).

<sup>&</sup>lt;sup>4.</sup> Buoy 10 fishery. Catch from this 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>5.</sup> Catch from above Astoria-Megler Bridge through 1999 and catch from above Tongue Point/Rocky Point thereafter.

<sup>&</sup>lt;sup>6.</sup> Includes Willamette Falls (Willamette River), North Fork Dam (Clackamas River), and Marmot Dam (Sandy River). No Marmot counts after Dam removal in 2007.

	9. Minimum 1			er Columbia Ri			<b>G</b>		
	Commercia		Rec	reational Catcl	h	Hatchery	Trib. Dam	Bonneville	Min.
Year	Zones 1-5 <sup>2</sup>	SAFE <sup>3</sup>	Estuary <sup>4</sup>	mainstem <sup>5</sup>	Trib.	Returns	Count 6	Dam Count	Run
1980	81.3	0.0		0.0	5.0	45.8	3.1	6.2	141.3
1981	37.9	0.0		0.0	3.3	27.5	0.4	0.9	70.0
1982	159.1	0.0	7.0	0.0	6.0	45.7	1.1	4.8	223.7
1983	2.4	0.0	1.3	0.0	2.7	46.7	1.5	5.4	60.0
1984	86.4	0.0	28.0	0.2	8.0	48.0	0.4	6.9	178.0
1985	84.2	0.0	8.9	0.3	3.1	37.7	1.0	3.4	138.6
1986	624.4	0.0	22.8	1.1	11.3	126.5	3.0	10.3	799.2
1987	64.7	0.0	18.8	0.2	1.8	33.6	0.9	3.0	123.1
1988	174.8	0.0	81.7	0.2	4.8	66.7	0.6	4.4	333.2
1989	309.1	0.0	28.3	0.0	8.1	86.3	1.4	9.0	442.2
1990	27.9	0.0	5.9	0.0	3.5	47.7	0.3	2.9	88.2
1991	204.3	0.0	66.2	0.3	14.3	136.1	1.3	15.6	438.1
1992	34.7	0.0	14.0	0.0	4.3	42.5	1.8	6.8	104.1
1993	14.8	0.0	4.4	0.1	3.4	16.5	0.1	2.7	41.9
1994	2.4	0.0	0.4	0.1	1.2	18.4	0.9	7.7	31.1
1995	0.2	0.0	0.2	0.0	1.1	11.8	0.6	3.5	17.3
1996	4.0	0.0	0.6	0.0	1.4	17.9	0.0	6.8	30.8
1997	2.3	0.0	1.0	0.0	4.4	30.7	0.0	5.7	44.2
1998	0.2	0.0	0.2	0.2	2.3	32.6	0.2	12.1	47.8
1999	43.6	0.0	1.2	0.4	7.5	64.5	0.1	7.8	125.0
2000	89.9	0.0	2.8	0.6	9.8	91.5	0.6	26.9	222.1
2001	150.9	0.0	17.2	0.5	34.8	176.4	1.9	34.4	416.1
2002	46.8	0.0	0.8	2.0	6.2	110.0	0.4	38.2	204.3
2003	72.5	0.0	7.1	0.4	4.4	64.1	0.4	31.9	180.8
2004	50.0	0.0	2.0	0.5	2.3	63.8	0.6	29.5	148.6
2005	15.9	1.0	0.9	0.3	2.4	54.2	0.3	19.7	94.8
2006	18.0	0.0	0.5	0.6	4.6	91.4	1.2	36.7	152.9
2007	22.3	0.0	1.1	0.3	9.0	61.4	0.8	30.4	125.2
2008	8.7	0.0	1.1	1.0	15.1	109.6	0.1	50.5	186.1
2009	23.1	0.0	6.3	1.8	15.2	115.8	1.2	89.3	252.7
2010	15.9	0.0	1.0	0.9	10.6	113.8	0.6	64.5	207.3
2011	7.3	0.0	1.0	0.8	8.2	60.1	0.4	27.6	105.4

<sup>1. 2003 – 2008</sup> landings are preliminary.

<sup>&</sup>lt;sup>2.</sup> Includes jacks.

<sup>&</sup>lt;sup>3</sup> Jacks landed in SAFE fisheries are not included (except for 1985 and 1986).

<sup>&</sup>lt;sup>4.</sup> Catch from estuary recreational (Buoy 10) fishery. Some non-Columbia River fish are caught in the estuary fishery and are included here.

<sup>5.</sup> Lower Columbia River catch from above Astoria-Megler Bridge through 1999 and catch from above Tongue Point/Rocky Point thereafter.

<sup>6.</sup> Includes Willamette Falls (Willamette River), North Fork Dam (Clackamas River), and Marmot Dam (Sandy River). No Marmot counts after Dam removal in 2007.

Table 10. Escapement Index Values for Chum in Washington Lower Columbia River Tributaries and for Coho in Oregon Columbia River Tributaries Downstream of the Sandy River, 1950-2011.

	Chum	(Washington Tr	ibutaries)	Coho	o (Oregon Tributa	ries)
	Miles	Fish		Miles	Fish	
Year	Surveyed	Observed	Fish/Mile	Surveyed 1	Observed	Fish/Mile
50's Ave	2.2	903	450	9.4	263	28
60's Ave	4.9	767	179	6.8	161	24
70's Ave	6.0	450	77	9.3	61	7
80's Ave	6.6	721	105	9.2	21	2
1990	7.1	832	117	9.4	4	<1
1991	7.1	673	95	9.4	3	<1
1992	7.1	3,273	461	9.4	4	<1
1993	7.1	1,411	199	9.3	2	<1
1994	7.1	509	72	9.3	3	<1
1995	7.2	922	128	9.3	2	<1
1996	7.2	1,545	215	9.3	0	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
90's Ave	7.2	1,398	196	9.3	2	<1
2000	6.1	2,425	398	9.3	82 2	9
2001	5.8	4,551	785	9.3	13 <sup>2</sup>	1
2002	6.7	8,662	1,293	9.3	146	16
2003	7.0	8,934	1,276	9.3	98	10
2004	7.0	11,439	1,634	9.3	37	4
2005	9.1	3,378	371	7.9	40	5
2006	9.5	4,729	498	7.3	32	4
2007	9.3	2,374	255	7.0	45	6
2008	11.1	1,822	164	7.0	29	4
2009	10.3	1,779	173	7.7	111	14
00's Ave	8.2	5,009	685	8.3	67	7
2010	10.2	3,492	342	8.2	269	33
2011	10.0	6,258	626	7.7	102	13

<sup>&</sup>lt;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. During 2005-2011 survey miles varied due to landowner denials to access some stream reaches.

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

Table .	11. Stur	geon Ca	tch Guid	elines in t	the Zone	6 Mana	gement A	rea, 2002	2-2012.			
	Bon	neville P	ool	The	Dalles P	ool	Joh	n Day Po	ool	Zo	ne 6 Tota	al
	Treaty	Sport	Total	Treaty	Sport	Total	Treaty	Sport	Total	Treaty	Sport	Total
2002	1,300	1,520	2,820	1,100	700	1,800	335	165	500	2,735	2,385	5,120
2003	1,200	1,700	2,900	900	400	1,300	335	165	500	2,435	2,265	4,700
2004	400	700	1,100	900	400	1,300	335	165	500	1,635	1,265	2,900
2005	400	700	1,100	900	400	1,300	335	165	500	1,635	1,265	2,900
2006	400	700	1,100	550	100	650	335	165	500	1,285	965	2,250
2007	400	700	1,100	550	100	650	335	165	500	1,285	965	2,250
2008	400	700	1,100	550	100	650	335	165	500	1,285	965	2,250
2009	400	700	1,100	1,000	300	1,300	335	165	500	1,735	1,165	2,900
2010	1,400	1,400	2,800	1,000	300	1,300	335	165	500	2,735	1,865	4,600
2011	2,000	2,000	4,000	1,000	300	1,300	1,000	500	1,500	4,000	2,800	6,800
2012	2,000	2,000	4,000	1,000	300	1,300	1,000	500	1,500	4,000	2,800	6,800

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Ì					9 pm	6 am	
				2		5	
F		1	2	3	4	5	6
	7	8	9	10	11	12	13
			9 pm	6 am	9 pm	6 am	
	14	15	16	17	18	19	20
	9 pm	6 am	9 pm	6 am	9 pm	6 am	20
	ì	6 am	6 am	••••	6 pm		
	21	22	23	24	25	26	27
	9 pm	6 am 6 am	9 pm	6 am		6 pm	
	28	29	30	31	1	2	3
t							
			6 am				6 pm
L	4	5	6	7	8	9	10
		6 am				6 pm	
	11	12	13	14	15	16	17
ſ	9 pm	6 am 8 pm	6 am 8 pm	6 am			
		6 am			22	6 pm	
F	18	19	20	21 8 pm	22 6 am	23	24
		6 am		0 pm	6 pm		
	25	26	27	28	29	30	1
		6 am		9 pm	7 am 6 pm		
	2	3	4	5	6	7	8
f					6 am 6 pm		
					7pm	7 am	
ŀ	9	10	11 7 mm	12	13	14	15
			7 pm	7 am 7 pm	7 am		
	16	17	18	6 am 8pm 19	20	21	22
	23	24	25	26	27	28	29
ŀ		- ·	20	20	21	20	27

T. For specific area and gear regulations please see Table 15.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			7 pm	7 am		
	1	2	3	4	5	6
			7 pm	7 am		
7	8	9	10	11	12	13
/	7 pm		7 pm	7am 7 pm	9 am	13
		<b></b>		•••••	•••	
14	15 7 pm	16 9 am	17 7 pm	18 7 am 7 pm	19 9 am	20
	/ piii	• • • •	7 piii	7 am 7 pm	9 4111	
21	22	23	24	25	26	27
	7 pm ••	• • • • • • • • •	• • • • • • • • •	• • • • • • • • •	7 am	
28	29	30	31	1	9 am 2	3
	7 pm •••	• • • • • • • • • • • •	• • • • • • • • •		• 7 am	
1	5	6	7	Ω	•••• 9 am	10
4	7 pm • • •	1	,	0	• • 7 am	10
	1 1	12	1.4	15	•••• 9 am	17
11	12 4/6 pm••••	13	14	15	16 ••• 8/10 am	17
	4 pm •••••				• • • • 8/10 am	
18	19	20	21	22	23	245
	4/6 pm • • • • 4 pm • • • • •		• • • • • • • • •	• • • • • • • • • •	• • • 8/10 am • • • 9 am	
25	26	27	28	29	30	1
	4/6 pm • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • • • • •	8/10 am	
2	4 pm •••••	4	5	6	7 9 am	8
	4/6 pm•••		• • • • • • • •		• • 8/10 am	
9	4 pm •••••	<i>11</i>	12	<i>13</i>	••••• 9 am 14	15
	4/6 pm • • •				. • • 8/10 am	10
16	4 pm ••••		10	20	••••• 9 am	22
16	17	18	19	20	21	22
23	4/6 pm • • 4 pm			• • • • • • • • • •	• • • • 8/10 am • • • • 9 am	
30	24 711	25	26	27	28	29

Tongue Point/South Channel open nightly 7 pm-7 am Monday – Friday during Aug 29 – Sep 16.

Tongue Point/South Channel open nightly 4 pm-10 am Monday – Friday during Sep 19 – Oct 28.

Blind Slough/Knappa Slough open nightly 7 pm-7 am Monday – Friday during Aug 29 – Sep 16.

Blind Slough/Knappa Slough open nightly 6 pm-8 am Monday – Friday during Sep 19 – October 28.

Deep River open nightly 7 pm-9 am Aug 15-16, Aug 18-19, Aug 22-23, Aug 25-26.

Deep River open nightly 7 pm-9 am Monday – Friday during Aug 29 – Sep 16.

Deep River open nightly 4 pm-9 am Monday – Friday during Sep 19 – Oct 28.

						Summer	White
Fishery	Date	Chinook	Coho	Chum	Pink	Steelhead	Sturgeon
	Zone	6 Treaty Ind	lian Fisherie	es <sup>2,3</sup>			
Commercial Gillnet	Aug 22 – 25	5,880	1,490	0	0	2,679	1
Commercial Gillnet	Aug 29 – Sept 2	12,216	982	0	0	2,873	1
Commercial Gillnet	Sept 6 – 10	39,907	4,024	0	0	2,885	
Commercial Gillnet	Sept 12 – 16	33,342	5,055	0	0	3,657	1
Commercial Gillnet	Sept 19 – 23	26,669	5,395	0	0	7,538	1
Commercial Gillnet	Sept 26 – 29	11,426	3,781	0	0	2,883	2
Commercial Gillnet	Oct 3 - 6	5,932	3,553	0	0	2,217	
Sturgeon Setline	Aug, Oct-Dec.					_,,	85
Platform Hook &Line	Aug and late fall	560	1718	0	0	2,766	0.0
		135,932	25,998	0	0	27,498	94
	Treaty Indian Total	-		U	U	27,490	94
		Non-Indian	Fisheries			Summer	White
Fishery	Date	Chinook	Coho	Chum	Pink	Summer Steelhead	Sturgeo
Zones 1-5 Early August	Aug 4 – 5	997	0	0	0		96
Zones 4-5 Late August	Aug 16 – 17	1,279	39	0	0		2
Zones 4-5 Late August  Zones 4-5 Late August	Aug 18 – 17 Aug 18 – 19	1,712	59	0	1		1
Zones 4-5 Late August  Zones 4-5 Late August	Aug 13 – 19 Aug 21 – 22	3,241	168	0	4		8
Zones 4-5 Late August  Zones 4-5 Late August	Aug 21 – 22 Aug 23 – 24	2,439	78	0	1		6
Zones 4-5 Late August Zones 4-5 Late August	Aug $25 - 26$	3,018	39	0	0		4
Zones 4-5 Late August Zones 4-5 Late August	Aug 28 – 29	7,653	661	0	2		7
•	•		591		0		4
Zones 4-5 Late August	Aug 30 – 31	4,704		0			
Zones 1-5 Late Fall	Sept 18 – 19	10,177	3,685	1	7		33
Zones 4-5 Late Fall	Sept 19 – 20	5,525	1,691	0	4		9
Zones 4-5 Late Fall	Sept 20 – 21	5,152	2,101	0	3		7
Zones 1-5 Late Fall	Sept 28 – 29	2,303	807	0	4		41
Zones 1-5 Late Fall	Oct 5 – 6	1,542	824	0	3		18
Zones 1-3 Late Fall	13-Oct	407	2,121	3	1		2
Zones 4-5 Late Fall	Oct 13 – 14	370	67	0	0		1
Zones 4-5 Late Fall	Oct 18 – 19	362	14	0	0		1
Zones 1-3 Late Fall	19-Oct	245	528	7	0		2
Zones 4-5 Late Fall	Oct 19 – 20	293	9	0	0		1
	Subtotal	51,419	13,482	11	30		2,50
Youngs Bay	Aug 3 – Oct 31	12,339	26,538	1	13		No Retenti
Tongue Pt./South Ch.	Aug 29 – Oct 28	2,527	6,504	1	19		No Retenti
Blind Sl./Knappa Sl.	Aug 29 – Oct 28	5,768	1,388	2	4		No Retenti
Deep River	Aug 15 – Oct 28	2,295	15,083	129	6		No Retenti
	Subtotal	22,929	49,513	133	42		
Buoy 10 Sport 4	Aug 1 – Dec 31	10,919	7,614			98	
Lower River Sport <sup>4</sup>	Aug 1 – Dec 31	30,720	1,684			12,053	2,12
Bonneville Dam to Priest Rapids Dam Sport <sup>4</sup>	Aug 1 – Dec 31	15,814	3,700			25,200	_,11
- •	Subtotal	57,453	12,998	0	0	37,351	2,12
	Non-Indian Total	131,801	75,993	144	72	37,351	4,63
Grand T		267,733	101,991	144	72	64,849	5,58

Commercial landings are preliminary. See Table 15 for details on specific time, area, and gear restrictions.

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

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

See text for detailed season description.

			Main-Stem Salmon and Sturgeon Seasons	
Days	Season	Dates		Special Regulations
Dayo	Codoon	Duios	Gear	Area/Other
9 hrs	Early Fall	Aug 4, 9 PM - Aug 5, 6 AM	9" min. and 9 3/4" max. mesh size restriction. Multiple net rule in effect. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Zones 1-5. Grays River, Elokomin-A, Cowlitz River, Kalama-A, Washougal, and Sandy River sanctuaries in effect. Salmon and white sturgeon may be sold. A maximum of ten white sturgeon may be possessed or sold by each participating vessel during each calendar week. The ten sturgeon possession/sales limit includes mainstem fisheries only.
9 hrs		Aug 16, 9 PM - Aug 17, 6 AM	Same, except the multiple net rule is not in effect.	Zones 4-5. Washougal and Sandy River sanctuaries in effect as Salmon and white sturgeon may be sold. A maximum of three white sturgeon may be possessed or sold by each participating vessel during each calendar week. The three sturgeon possession/sales limit includes mainstem fisheries only.
9 hrs		Aug 18, 9 PM - Aug 19, 6 AM	Same.	Same.
9 hrs		Aug 21, 9 PM - Aug 22, 6 AM	Same.	Same.
9 hrs		Aug 23, 9 PM - Aug 24, 6 AM	Same.	Same.
9 hrs		Aug 25, 9 PM - Aug 26, 6 AM	Same.	Same.
9 hrs		Aug 28, 9 PM - Aug 29, 6 AM	Same.	Same.
9 hrs		Aug 30, 9 PM - Aug 31, 6 AM	Same.	Same.
9 hrs	Late Fall	Sep 18, 9 PM - Sep 19, 6 AM	8" min. and 9 3/4" max. mesh size restriction. Multiple net rule in effect. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Zones 1-5. Elokomin-A, Cowlitz, Kalama-A, Lewis-A, Sandy and Washougal River sanctuaries are in effect. Salmon and white sturgeon may be sold. A maximum of seven white sturgeon may be sold by each participating vessel during each calendar week. The seven white sturgeon possessionsales limit includes mainstem fisheries only.
10 hrs		Sep 19, 8 PM - Sep 20, 6 AM	Same.	Zones 4-5. Sandy and Washougal River sanctuaries are in effect. Same.
10 hrs		Sep 20, 8 PM - Sep 21, 6 AM	Same.	Same.
10 hrs		Sep 28, 8 PM - Sep 29, 6 AM	8" min. and 9 3/4" max. mesh size restriction. Multiple net rule not in effect. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Zones 1-5. Grays River, Elokomin-B, Cowlitz, Kalama-B, Lewis-B, Sandy and Washougal River sanctuaries are in effect. Salmon and white sturgeon may be sold. A maximum of seven white sturgeon may be sold by each participating vessel during each calendar week. The seven white sturgeon possession-sales limit includes mainstem fisheries only.
10 hrs		Oct 5, 9 PM - Oct 6, 7 AM	Same.	Same, except a maximum of four white sturgeon may be sold by each participating vessel during each calendar week.
12 hrs		Oct 13, 6 AM - 6 PM	6" max. mesh size restriction, un-slackened floater gillnet. Multiple net rule in effect.	Zones 1-3. Grays River, Elokomin-B, Cowlitz, Kalama-B, and Lewis-B sanctuaries are in effect. Same, except a maximum of two white sturgeon may be sold by each participating vessel during each calendar week.

Table 15. continued

			Main-Stem Salmon and Sturgeon Seasons (continued	u)				
Dave	Cassan	Dates	Sp	pecial Regulations				
Days	Season	Dates	Gear	Area/Other				
12 hrs	Late Fall (cont.)	Oct 13, 7 PM - Oct 14, 7 AM	8" min. and 9 3/4" max. mesh size restriction. Multiple net rule not in effect. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Zones 4-5. Lewis-B, Sandy and Washougal River sanctuaries are in effect. Same.				
12 hrs		Oct 18, 7 PM - Oct 19, 7 AM	Same.	Same.				
14 hrs		Oct 19, 6 AM - 8 PM	6" max. mesh size restriction, un-slackened floater gillnet. Same.	Zones 1-3. Grays River, Elokomin-B, Cowlitz, Kalama-B, and Lewis-B sanctuaries are in effect. Same.				
12 hrs		Oct 19, 7 PM - Oct 20, 7 AM	8" min. and 9 3/4" max. mesh size restriction. Same.	Zones 4-5. Lewis-B, Sandy and Washougal River sanctuaries are in effect. Same.				
			Select Area Salmon and Sturgeon Seasons (continue	d)				
Days	Season	Dates	Sp	Special Regulations				
Days	Season	Dates	Gear	Area/Other				
				7 11047 0 11101				
1 1/2	Youngs Bay - Fall	Aug 3, 7 AM - Aug 4, 7 PM	9 3/4" max. mesh size restriction. Nets may not exceed 250 fathoms in length. Leadline not to exceed 2 lbs per fathom. Use of additional weights or anchors attached directly to the leadline is allowed upstream of markers located approximately 200 yards upstream of the mouth of the Walluski River and the upper deadline at Battle Creek Slough. Red corks are required at 25-fathom intervals and red corks must be in contrast to corks in the remainder of the net. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the new 101 Bridge to the upper boundary located at the markers at Battle Creek Slough; except for those waters that are closed southerly of the alternate Highway 101 Bridge (Lewis and Clark River). Salmon only. Sturgeon may not be sold. The multiple net rule is in effect.				
1 1/2		Aug 3, 7 AM - Aug 4, 7 PM  Aug 10, 7 AM - Aug 11, 7 PM	fathoms in length. Leadline not to exceed 2 lbs per fathom. Use of additional weights or anchors attached directly to the leadline is allowed upstream of markers located approximately 200 yards upstream of the mouth of the Walluski River and the upper deadline at Battle Creek Slough. Red corks are required at 25-fathom intervals and red corks must be in contrast to corks in the remainder of the net. Nets that are fished between the official sunset and official sunrise must have a	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the new 101 Bridge to the upper boundary located at the markers at Battle Creek Slough; except for those waters that are closed southerly of the alternate Highway 101 Bridge (Lewis and Clark River).				
			fathoms in length. Leadline not to exceed 2 lbs per fathom. Use of additional weights or anchors attached directly to the leadline is allowed upstream of markers located approximately 200 yards upstream of the mouth of the Walluski River and the upper deadline at Battle Creek Slough. Red corks are required at 25-fathom intervals and red corks must be in contrast to corks in the remainder of the net. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the new 101 Bridge to the upper boundary located at the markers at Battle Creek Slough; except for those waters that are closed southerly of the alternate Highway 101 Bridge (Lewis and Clark River). Salmon only. Sturgeon may not be sold. The multiple net rule is in effect.				
1 1/2		Aug 10, 7 AM - Aug 11, 7 PM	fathoms in length. Leadline not to exceed 2 lbs per fathom. Use of additional weights or anchors attached directly to the leadline is allowed upstream of markers located approximately 200 yards upstream of the mouth of the Walluski River and the upper deadline at Battle Creek Slough. Red corks are required at 25-fathom intervals and red corks must be in contrast to corks in the remainder of the net. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat. Same.	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the new 101 Bridge to the upper boundary located at the markers at Battle Creek Slough; except for those waters that are closed southerly of the alternate Highway 101 Bridge (Lewis and Clark River). Salmon only. Sturgeon may not be sold. The multiple net rule is in effect.  Same.				
1 1/2		Aug 10, 7 AM - Aug 11, 7 PM Aug 17, 7 AM - Aug 18, 7 PM	fathoms in length. Leadline not to exceed 2 lbs per fathom. Use of additional weights or anchors attached directly to the leadline is allowed upstream of markers located approximately 200 yards upstream of the mouth of the Walluski River and the upper deadline at Battle Creek Slough. Red corks are required at 25-fathom intervals and red corks must be in contrast to corks in the remainder of the net. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.  Same.	Youngs Bay select fishing area (Oregon only). Extends from the lower boundary at the new 101 Bridge to the upper boundary located at the markers at Battle Creek Slough; except for those waters that are closed southerly of the alternate Highway 101 Bridge (Lewis and Clark River). Salmon only. Sturgeon may not be sold. The multiple net rule is in effect.  Same.				

Table 15. continued

Tubic	15. continuea			0
	1		Select Area Salmon and Sturgeon Seasons (continued	,
Days	Season	Dates	Sp	ecial Regulations
, -		- 5.00	Gear	Area/Other
12 hrs Nightly	Tongue Point / South Channel - Fall	Aug 29 - Sep 2, 7 PM - 7 AM nightly	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. Use of additional weights or anchors attached directly to the leadline is allowed. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Tongue Point Basin/South Channel select fishing areas (concurrent waters). Fishers in Tongue Point area may have stored onboard, gill nets legal for the South Channel fishing area. Permanent transportation rules are in effect. Salmon only. Sturgeon may not be sold. Multiple net rule is in effect.
12 hrs Nightly		Sep 5 - Sep 9, 7 PM - 7 AM nightly	Same.	Same.
12 hrs Nightly		Sep 12 - Sep 16, 7 PM - 7 AM nightly	Same.	Same.
18 hrs Nightly		Sep 19 - Sep 23, 4 PM - 10 AM nightly	Same.	Same.
18 hrs Nightly		Sep 26 - Sep 30, 4 PM - 10 AM nightly	Same.	Same.
18 hrs Nightly		Oct 3 - Oct 7, 4 PM - 10 AM nightly	Same.	Same.
18 hrs Nightly		Oct 10 - Oct 14, 4 PM - 10 AM nightly	Same.	Same.
18 hrs Nightly		Oct 17 - Oct 21, 4 PM - 10 AM nightly	Same.	Same.
18 hrs Nightly		Oct 24 - Oct 28, 4 PM - 10 AM nightly	Same.	Same.
	Blind Slough / Knappa Slough - Fall	Aug 29 - Sep 2, 7 PM - 7 AM nightly	9 3/4" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline. Use of additional weights and anchors attached to the leadline is allowed. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Blind Slough (concurrent waters up to railroad bridge, Oregon only above) and Knappa Slough (all waters are under concurrent jurisdiction) select fishing areas. Permanent transportation rules are in effect. Multiple net rule is in effect. Salmon only. Sturgeon may not be sold.
12 hrs Nightly		Sep 5 - Sep 9, 7 PM - 7 AM nightly	Same.	Same.
12 hrs Nightly		Sep 12 - Sep 16, 7 PM - 7 AM nightly	Same.	Same.

Table 15. continued

Tuble	13. commuea		Select Area Salmon and Sturgeon Seasons (continued	d)
_	_		· · · · · · · · · · · · · · · · · · ·	ecial Regulations
Days	Season	Dates	Gear	Area/Other
	Blind Slough / Knappa Slough - Fall (cont.)	Sep 19 - Sep 23, 6 PM - 8 AM nightly	Same.	Same.
14 hrs Nightly		Sep 26 - Sep 30, 6 PM - 8 AM nightly	Same.	Same.
14 hrs Nightly		Oct 3 - Oct 7, 6 PM - 8 AM nightly	Same.	Same.
14 hrs Nightly		Oct 10 - Oct 14, 6 PM - 8 AM nightly	Same.	Same.
14 hrs Nightly		Oct 17 - Oct 21, 6 PM - 8 AM nightly	Same.	Same.
14 hrs Nightly		Oct 24 - Oct 28, 6 PM - 8 AM nightly	Same.	Same.
14 hrs	Deep River - Fall	Aug 15, 7 PM - Aug 16, 9 AM	9 3/4" max. mesh size restriction. Nets may not exceed 100 fathoms in length. No weight restriction on leadline. Use of additional weights and anchors attached to the leadline is allowed. Nets that are fished between the official sunset and official sunrise must have a lighted buoy at the end of the net that is not attached to the boat.	Deep River select fishing area extending from the USCG channel marker #16 upstream to the town of Deep River (concurrent waters up to Highway 4 Bridge, Washington only above). Permanent transportation rules are in effect. Nets are not allowed to be tied off to any stationary structures and nets may not fully cross the navigation channel. Salmon only. Sturgeon may not be sold. Multiple net rule in effect.
14 hrs		Aug 18, 7 PM - Aug 19, 9 AM	Same.	Same.
14 hrs		Aug 22, 7 PM - Aug 23, 9 AM	Same.	Same.
14 hrs		Aug 25, 7 PM - Aug 26, 9 AM	Same.	Same.
14 hrs Nightly		Aug 29 - Sep 2, 7 PM - 9 AM nightly	Same.	Same.
14 hrs Nightly		Sep 5 - Sep 9, 7 PM - 9 AM nightly	Same.	Same.
14 hrs Nightly		Sep 12 - Sep 16, 7 PM - 9 AM nightly	Same.	Same.
17 hrs Nightly		Sep 19 - Sep 23, 4 PM - 9 AM nightly	Same, except a 6" max. mesh size restriction.	Same.
17 hrs Nightly		Sep 26 - Sep 30, 4 PM - 9 AM nightly	Same.	Same.
			ļ	ļ

Table 15. continued

			Select Area Salmon and Sturgeon Seasons (continued	d)			
Dove	Season Dates		Special Regulations				
Days	Season	Dates	Gear	Area/Other			
	Deep River - Fall (cont.)	Oct 3 - Oct 7, 4 PM - 9 AM nightly	Same.	Same.			
17 hrs Nightly		Oct 10 - Oct 14, 4 PM - 9 AM nightly	Same.	Same.			
17 hrs Nightly		Oct 17 - Oct 21, 4 PM - 9 AM nightly	Same.	Same.			
17 hrs Nightly		Oct 24 - Oct 28, 4 PM - 9 AM nightly	Same.	Same.			

Fishery			Chinook <sup>2</sup>	Steelhead	Sturgeon	Coho <sup>2</sup>	Walleye
Platform, Hook & Line	Wks 32-34	Ticket	240	1,181		0	5
•	(Aug 1 - 22)	Non-Ticket	0	1,059	0	30	0
	· · · · · ·	Total	240	2,240	0	30	5
Commercial Gillnet	Week 35	Ticket	4,981	1,859		1,275	0
	(Aug 22 - 25)	Non-Ticket	899	820	17	0	0
		Total	5,880	2,679	17	1,490	0
Commercial Gillnet	Week 36	Ticket	10,442	1,400		805	1
	(Aug 29 - Sep 2)	Non-Ticket	1,774	1,473	11	0	0
		Total	12,216	2,873	11	982	1
Commercial Gillnet	Week 37	Ticket	33,818	2,077		3,345	1
	(Sep 6 - 10)	Non-Ticket	6,089	808	8	0	0
		Total	39,907	2,885	8	4,024	1
Commercial Gillnet	Week 38	Ticket	27,788	2,736		3,212	1
	(Sep 12 - 16)	Non-Ticket	5,554	921	16	0	0
		Total	33,342	3,657	16	5,055	1
Commercial Gillnet	Week 39	Ticket	22,129	2,570		3,789	1
	(Sep 19 - 23)	Non-Ticket	4,540	4,968	17	0	0
		Total	26,669	7,538	17	5,395	1
Commercial Gillnet	Week 40	Ticket	9,847	2,015		1,957	0
	(Sep 26-29)	Non-Ticket	1,733	868	27	0	0
		Total	11,580	2,883	27	3,781	0
Commercial Gillnet	Week 41	Ticket	5,042	1,196		1,711	0
	(Oct 3 - 6)	Non-Ticket	736	1,021	0	0	0
		Total	5,778	2,217	0	3,553	0
Gillnet Subtotal			135,372	24,732	96	24,280	4
Platform, Hook & Line	Late Fall		320	526	0	1,688	0
<b>Grand Total</b>			135,932	27,498	96	25,998	9

<sup>1.</sup> Ticketed catch estimates based on preliminary landings. Non-ticketed catch includes C&S (take home) and sales directly to the public (over the bank sales).
2. Includes adults and jacks.

Table 17. Stock Composition of Adult Fall	Chinook (	Catch in	Mainsten	n Columbi	a River F	isheries, 2	2011.
	LRH	LRW	BPH	URB	$MCB^2$	Other <sup>3</sup>	$\mathbf{Total}^{I}$
Non-Indian Fisheries							
Buoy 10 Recreational <sup>4</sup>	1,760	0	768	5,358	1,284	1,009	10,179
Lower Columbia Recreational <sup>4</sup>	5,942	2,103	34	14,283	5,948	282	28,592
Above Bonneville Dam Recreational <sup>5</sup>	0	0	0	13,687	955	15	14,657
August Commercial	4,117	0	7,807	9,916	1,640	927	24,407
September/October Commercial	4,021	674	4,389	11,266	5,556	23	25,929
Select Area Commercial	7,279	0	482	1,033	400	11,076	20,270
Subtotal	23,119	2,777	13,480	55,543	15,783	13,332	124,034
Treaty Indian Fisheries							
Sales to Licensed Buyers			28,783	62,953	18,026	576	110,338
C&S and Other non-ticketed catch			18	17,216	4,624	12	21,871
Subtotal		•	28,801	80,169	22,650	588	132,209
Grand Total	23,119	2,777	42,281	135,712	38,433	13,920	256,243

<sup>1.</sup> Stock specifics and total catch (and catch specifics) may not match data presented elsewhere in this report.

<sup>5.</sup> Includes all of Zone 6, McNary Dam to Hwy 395 Bridge and Hanford Reach.

	Treaty	Non-		ESA Impact
	Indian	Indian	Total	Limit
Total Fall Chinook mainstem Adult Catch	132,209	103,764	235,973	
Snake River Wild mortalities	3,690	2,067	5,757	
Snake River Wild Impacts	24.9%	13.9%	38.8%	45.0%
LCR Tule (Ocean and Columbia R.) ER		40.80%		37.0%
Total Steelhead Catch <sup>2</sup>	27,498	25,200	52,698	
Total Group B Mortalities	7,804			
Wild Group B Mortalities		148		
Total Group B Impact	21.1%		21.1%	20.00%
Wild Group B Impact		1.91%	1.91%	2.00%
Wild Group A Impact		1.46%	1.46%	2.00%
Total Adult Coho Catch <sup>3</sup>		59,656	59,656	
Un-Marked Mortalities		10,034	10,034	
LCN Coho (Ocean and Columbia R.) ER		13.50%	13.50%	15.00%
Columbia River Chum Mortalities	0	11		
Columbia River Chum ESA Impact	0	0.1%		5.00%

Adults only-Based on updated catch estimates. Mainstem catch only. Total catches by fishery may not match data presented elsewhere in this report. All data preliminary. Non-Indian harvest includes fisheries from Buoy 10 upstream to Hwy. 395, near Pasco, WA.

<sup>2.</sup> Includes PUB,BUB and LRB stocks.

<sup>5.</sup> Includes SABs and out-of-basin stock/strays.

Adjusted for hook and release mortality.

<sup>2.</sup> Non-Indian summer steelhead catch includes kept (hatchery) catch and (wild) release mortalities. Includes "dip-ins".

<sup>3.</sup> Includes mainstem Columbia River and Select Areas catch.

Table 19.	Fishing Area and Spring Creek Sanctuary Re Commercial Set Gillnet Seasons, 1988-2011.	estrictions in Effect during Treaty Indian Fall
Year	Open Area	Spring Creek Sanctuary
1988	Zone 6	Small sanctuary Aug 10-27 and Sep 12-24. Large
		sanctuary Aug 29-Sep 21
1989	Zone 6	Small sanctuary Aug 7-26 and Sep 27-29. Large sanctuary Aug 28-Sep 27
1990	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	Zone 6, except closed below Hood River Bridge Sep 10-12	Small sanctuary Aug 12-Sep 10. Reduced to 50' radius Sep 10-Oct 28
1992	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	Zone 6	Large sanctuary Aug 29-Sep 10. Reduced to 50' radius Oct 12-15
1995	Zone 6	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	Zone 6	Small sanctuary all season
2000	Zone 6	Large sanctuary all season
2001	Zone 6	Large sanctuary Aug 28-Sep 8. Small sanctuary Sep 11-29
2002	Zone 6	Large sanctuary Aug 28-Aug 31. Small sanctuary Sep 11-28
2003	Zone 6	Small sanctuary all season
2004	Zone 6	Small sanctuary all season
2005	Zone 6	Small sanctuary all season
2006	Zone 6	Large sanctuary all season
2007	Zone 6	Large sanctuary all season
2008	Zone 6	Large sanctuary Aug 19 – Sept 26. Sept 30-Oct 10 reduced to 50' radius. No sanctuary Oct 20-23
2009	Zone 6	Large sanctuary 5 of 6 weekly fishing periods. No min. mesh restrictions all season
2010	Zone 6	Small sanctuary all season, except no sanctuary final week (Oct 19-22). 8" min. mesh restrictions on final 3weekly periods
2011	Zone 6	Small sanctuary final two weeks. 8" min. mesh restrictions all season

Table 20. Number of Adult Chinook, Coho, Steelhead, and Sturgeon Landed During Treaty Indian Fall Seasons (Aug-Nov) Above Bonneville Dam, 1980-2011.

				Νι	ımbers Landed <sup>1</sup>	
		Fishing	Chinook			White
Year	Season <sup>2</sup>	Days <sup>3</sup>	Adults	Coho	Steelhead 4	Sturgeon <sup>5</sup>
80-84 ave <sup>6</sup>	Aug 6- Nov 5	15	41,760	1,640	19,720	260
1985 <sup>7</sup>	Aug.23-Sept. 28	29	68,300	5,300	72,600	1,800
1986 <sup>8</sup>	Aug. 18-Oct. 4	37	102,300	40,300	62,500	4,300
1987 <sup>9</sup>	Aug. 10-Oct. 15	46	138,600	2,400	66,300	4,400
1988 <sup>10</sup>	Aug. 10-Oct. 1	35	145,700	2,700	59,500	<sup>13</sup> 2,000
1989 <sup>11</sup>	Aug. 7-Sept. 29	36	128,200	8,700	55,400	
1990 <sup>12</sup>	Aug. 8-Sept. 29	34	79,300	2,900	30,700	1,700
1991 <sup>13</sup>	Aug. 12-Oct. 28	20	51,100	12,800	41,100	
1992	Aug. 10-Oct. 17	32	28,100	1,000	52,400	100
1993	Aug. 9-Oct. 2	26	30,400	1,000	28,800	100
1994 <sup>14</sup>	Aug. 29-Oct. 15	10	33,700	1,300	15,500	500
1995	Aug.29-Sept. 15	9	41,400	400	20,400	400
1996	Sept. 2-Sept. 28	17	63,200	700	19,000	300
1997	Aug.27-Sept. 20	16	65,000	600	22,700	<100
1998	Aug.25-Sept. 25	22	44,700	1,500	12,600	<100
1999	Aug. 31-Oct. 2	22	77,200	2,300	17,300	0
2000	Aug. 30-Sept. 3	17	52,100	6,300	15,500	0
2001 15	Aug. 28-Sept. 29	18	103,900	5,400	29,200	806
2002	Aug 28-Sep 28	18.5	129,700	1,600	13,800	300
2003 16	Aug 26-Oct 11	27.5	123,600	5,800	14,900	200
2004	Aug 25-Oct 16	30	127,600	10,300	14,600	64
2005	Aug 22-Sept. 30	25	113,500	5,400	13,700	138
2006	Aug 21-Oct 6	29.5	76,290	7,577	21,130	78
2007 17	Aug 22-Oct 6	25.5	36,782	8,030	19,457	90
2008 17	Aug 19 – Oct 23	37	106,626	21,625	26,339	94
2009 17	Aug 24 – Oct 1	23	98,622	15,675	36,755	34
2010 17	Aug 24- Oct 22	25.5	132,642	11,485	26,733	150
2011 17,18	Aug 22- Oct 6	28.5	114,247	22,941	15,034	853

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.

For Commercial Gillnet openings - 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.

<sup>4.</sup> Sales to licensed buyers during sockeye and fall seasons only through 1984. Sales to licensed buyers, general public and C&S catch from 1985-present.

<sup>5.</sup> No sturgeon sales allowed in set net fisheries since 1991. Includes landings in fall set-line fisheries.

- 6. Includes Nov 1-5 coho fishery below Klickitat River in 1982.
- 7. Spring Creek Sanctuary 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.
- 9. An additional catch of 2,200 Chinook occurred above Priest Rapids Dam.
- 10. 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.
- 11. 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.
- 12. 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.
- 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.
- 15. 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.
- 16. Target sturgeon gillnet season adopted for Zone 61 (Bonneville Pool) during December 1-14. No sturgeon were landed.
- 17. Includes all fall season harvest August 1-December 31.
- Includes 213 white sturgeon landed during the early-fall (August) setline season, and 640 white sturgeon landed during late-fall (Oct.-Dec.) setline seasons.

Table 21. W	Vild Upriver	Summer Ste	elhead Catch	in Fall Seas	son Fisheries, 1	1985-2011. <sup>1</sup>		
		Treaty Indi	an Harvest		Non-	Indian Incid	ental Mortali	ties <sup>3</sup>
	Wild Grou	ıp A Index	Wild Group	B Index	Wild Grou	p A Index	Wild Grou	p B Index
Year	Number	Impact	Number <sup>2</sup>	Impact	Number	Impact	Number	Impact
85-89 ave.	11,109	16.60%	4,080	30.7%				
90-94 ave.	5,374	14.48%	1,780	23.1%				
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%	391	0.7%	41	1.1%
2000	2,740	4.3%	1,200	14.3%	616	1.0%	85	1.0%
2001	5,553	4.0%	1,388	11.5%	821	0.6%	116	1.0%
2002	2,370	2.7%	1,098	3.4%	572	0.7%	332	1.0%
2003	1,691	2.5%	959	14.9%	506	0.8%	111	1.7%
2004	1,929	3.2%	1,021	11.1%	461	0.8%	121	1.3%
2005	2,239	3.8%	1,181	12.3%	428	0.7%	123	1.3%
2006	3,301	5.2%	1,354	16.0%	462	0.7%	84	1.0%
2007	2,747	3.6%	1,050	11.6%	978	1.2%	171	1.8%
2008	3,645	4.5%	2,673	14.4%	784	1.0%	200	1.1%
2009	7,948	5.2%	2,112	15.4%	1,264	0.8%	181	1.3%
2010	4,817	4.0%	2,993	13.4%	1,011	0.8%	413	1.8%
2011	7,304	7.2%	2,410	31.0%	1,481	1.5%	148	1.9%

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

Non-Indian data includes recreational fisheries from Buoy 10 upstream to the Hwy 395 Bridge and LCR commercial fisheries August through October. Data since 2005 is preliminary.

Table 22.	Annual St	urgeon Cate	ches in Zon	e 6 Reservoi	rs above Bon	neville Dan	ı, 1995-20	11.	
_	N	on-Indian R	Recreational		Tr	eaty Indian	Commercia	al	•
	Bonne- ville	The Dalles	John Day	Total	Bonne- ville	The Dalles	John Day	Total	Sub- sistence
1995	1,370	50	90	1,510	1,420	310	310	2,040	1,150
1996	1,353	60	50	1,463	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	1,236	694	422	2,352	1,280	1,051	760	3,091	234
2000	1,262	809	434	2,505	1,165	1,342	788	3,295	343
2001	1,426	677	299	2,402	1,287	1,215	755	3,257	476
2002	1,560	878	187	2,625	472	1,152	326	1,950	370
2003	1,542	447	186	2,175	379	811	251	1,441	325
2004	852	530	229	1,611	464	975	309	1,748	269
2005	596	382	128	1,106	550	831	360	1,741	311
2006	727	93	142	962	153	397	312	862	201
2007	682	108	249	1039	285	607	232	1,124	161
2008	841	128	165	1,134	744	571	277	1,592	226
2009	638	216	146	1,000	431	862	325	1,618	219
$2010^{1}$	1,451	336	159	1,946	1,540	1,184	302	3,026	616
20111	2,341	224	532	3,097	2,089	604	1,208	3,901	652

<sup>1.</sup> Preliminary

<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.

Year	Date(s)	Hours	Area	Mesh Size
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	7pm-7am nightly	Zones 1-3 below Longview Bridge Zones 2-3	8" min
	Aug 11-12	7pm-7am	Extended Area 2S above I-205 Bridge	"
	Aug 18-19, Aug 20-21, Aug 22-23, Aug 25-26, Aug 27-28	8pm-6am nightly		9" min
2003	Aug 4-5, Aug 6-7, Aug 11-12, Aug 13-14	7pm-7am nightly	Zones 1-3	8" min
	Aug 18-19, Aug 21-22	8pm-6am nightly	Zones 4-5 above I-5 Bridge Zones 4-5	9" min
	Aug 25-26, Aug 27-28	8pm-6am nightly		9" min
2004	Aug 3-4, Aug 5-6, Aug 8-9, Aug 10-11	7pm-7am nightly	Zones 1-5	8" min
	Aug 16-17	"	Zones 2-5	"
	Aug 19-20	"	Zones 3-5	"
	Aug 23-24, Aug 25-26	II .	Zones 4-5	9" min
2005	Aug 4-5, Aug 7-8, Aug 9-10, Aug 11-12	7pm-7am nightly	Zones 1-5	8" min
	Aug 14-15, Aug 17-18	"	Zones 2-5	"
	Aug 22-23, Aug 25-26	8pm-7am nightly	Zones 4-5	9" min
2006	Aug 2-3, Aug 7-8, Aug 9-10	7pm-7am nightly	Zones 1-5	8" min
	Aug13-14	"	Zones 1-5, upstream of Astoria-Megler Bridge	"
	Aug 15-16, Aug 17-18	II .	Zones 2-5	"
	Aug 21-22	8pm – 7am nightly	Zones 3-5	9" min
	Aug 25	12:01 am – 6 am	Zone 4 upstream to the I-205 Bridge & Zone 5	"
2007	Aug 2-3, Aug 6-7, Aug 9-10	7pm – 7am nightly	Zones 1-5	9" min
2008	Aug 23-24 Aug 3-4, Aug 5-6,	8pm – 7am	Zones 4-5	
	Aug 7-8, Aug 10-11	7pm – 7am nightly	Zones 1-5	9" min
	Aug 14-15	7pm – 7am nightly	Zones 2-5	"
	Aug19-20	8pm – 6am	Zones 4-5	"
	Aug 24-25	11pm – 5am	Zones 4-5	"
2009	Aug 4-5, Aug 6-7	7pm – 7am nightly	Zones 1-5	9" min
	Aug 9-10	"	Zones 2-5	"
	Aug 18-19, Aug 20-21 Aug 25-26	8pm – 6am nightly "	Zones 3-5 upstream of Kalama River Zone 5	"
2010	Aug 3-4, Aug 5-6 Aug 8-9	7pm – 7am nightly	Zones 1-5	9" min
	Aug 10-11	"	Zones 2-5	"
	Aug 19-20 Aug 22-23, Aug 24-25	8pm – 6am nightly 9pm – 6am nightly	Zones 4-5	"
2011	Aug 4-5	9pm – 6am nightly	Zones 1-5	9" min
	Aug 16-17, Aug 18-19	"	Zones 4-5	"
	Aug 21-22, Aug 23-24	"	"	"
	Aug 25-26, Aug 28-29	"	"	"
	Aug 30-31	"	"	"

Table 24. Landed Catch from Early Fall Mainstem Columbia River Commercial Seasons Below Bonneville Dam, 1970-2011.

,		Fishing	Chinook			Sturge	eon <sup>3</sup>
Year	Season <sup>1</sup>	Days	Adults	Coho	Steelhead <sup>2</sup>	White	Green
1970-74 Ave.	Aug 9-26	12	96,260	29,660	5,800	2,660	1,320
1975-79 Ave.	Aug 8-21	6	51,560	3,320		4,500	1,060
1980-84 Ave.	Aug 30-Sep 3 (2 yrs no season)	< 0.5	30,600	2,480		680	300
1985	None	0					
1986	Jul 30-Aug. 6	4	800	0		5,400	5,100
1987	Aug. 9-12	3	11,500	100		3,900	3,200
1988	Aug. 14-15	0.5	51,100	300		1,700	2,300
1989	Aug. 7-29	13	29,800	100		1,800	0
1990	Aug. 12-24	10	6,700	20		1,500	0
1991	Aug. 25-29	4	5,400	10		500	0
1992	Sept. 8-9	0.5	2,200	400		800	1,800
1993	None	0					
1994	None	0					
1995	None	0					
1996	Aug. 26-29	3	4,400	0		300	0
1997	Aug. 4 - 25	2	1,300	1		1,900	1,500
1998	Aug. 4 - 26	2	1,800	0		2,600	700
1999	Aug. 4 - 24	2	1.400	0		2,900	500
2000	Aug. 3-23	3	7,400	200		2,800	600
2001	Aug. 5-25	7	6,600	660		5,700	340
2002	Aug. 4-28	10	19,500	60		1,700	0
2003	Aug. 4-28	8	15,700	300		2,600	11
2004	Aug. 3-26	8	11,300	40		2,500	6
2005	Aug. 4-26	8	11,400	90		2,100	30
2006	Aug. 2-25	8	10,700	800		1,900	
2007	Aug. 2-24	4	4,000	60		2,700	
2008	Aug. 3-25	7	14,400	80		2,800	
2009 4	Aug. 4-26	6	28,200	1,300		3,000	
2010	Aug. 3-25	7	21,800	440		1,900	
2011 5	Aug. 4-31	8	25,000	1,600		1,300	

<sup>&</sup>lt;sup>1</sup>. Minimum mesh size: 1970-1974 7-1/4"; 1975-1979 8"; 1980-2004 see Table 23, 2005 see Table 15.

<sup>2.</sup> Sale of steelhead by non-Indians prohibited since 1975.

<sup>3.</sup> Sale of green sturgeon prohibited effective July 7, 2006.

<sup>4.</sup> One chum salmon was landed during the 2009 August 18-19 fishing period.

<sup>5.</sup> Eight pink salmon were also landed during August 2011.

l'ear	Date(s)	Closed Area
003	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,	Buoy 10 - Lewis River
	Sep 30-Oct 1	Busy to Bemis tures
	Oct 25-26, Oct 27-29	Buoy 10 - Settler Point/Harrington Point line
2005	Sep 19, Sep 20, Sep 22 (day)	Longview Bridge - Beacon Rock
	Sep 19-20, Sep 20-21,	Buoy 10 - Longview Bridge
	Sep 22-23	Budy To Bong He II Bridge
	Sep 26, Sep 28 (day)	Kalama River-Beacon Rock
	Sep 26-27, Sep 28-29	Buoy 10 - Kalama River
2006	Sep 27	Zones 4-5
2000	Sep 27-28, Oct 12-13	Zones 1-3
–	•	
2007	Sep 20-21, Sep 27-28, Oct 3-4,	Zones 1-3
	Oct 4-5, Oct 28-29, Oct 30-31	
	Sep 24, Sep 26, Oct 1, Oct 3, Oct 11,	Zones 4-5
	Oct 17, Oct 23, Oct 25	
2008	Sep 23-24, Sep 24-25, Sep 25-26,	Zones 1-3
	Sep 28-29, Sep 29-30, Sep 30-Oct 1,	
	Oct 1-2, Oct 2-3, Oct 8-9, Oct 9-10,	
	Oct 15-16, Oct 16-17, Oct 21-22,	
	Oct 23-24, Oct 26-27, Oct 28-29,	Longview Bridge - Lewis River
	Oct 30-31	Longview Bridge - Beacon Rock
	Oct 16	
	Oct 22, Oct 29	
2009	Sep 24-25, Sep 28-29, Sep 30-Oct 1,	Zones 1-3
	Oct 1-2, Oct 4-5, Oct 7-8, Oct 13-14,	
	Oct 15-16, Oct 18-19, Oct 20-21,	
	Oct 22-23, Oct 25-26, Oct 27-28	
	Sep 28, Sep 30, Oct 21	Zones 4-5
	Oct 28	Zones 1 and 4-5
2010	Sep 22-23, Oct 14-15, Oct 17-18,	Zones 1-3
2010	Oct 19-20, Oct 21-22	Zones 1-3
	Oct 19-20, Oct 21-22 Oct 12, Oct 14, Oct 20	Zones 4-5
	56. 12, 56. 14, 56. 20	Lones 1 5
0011	San 10 20 San 20 21 O-4 12 14	Zanas 1 2
2011	Sep 19-20, Sep 20-21, Oct 13-14 Oct 18-19, Oct 19-20	Zones 1-3
	Oct 18-19, Oct 19-20 Oct 13, Oct 19	Zones 4-5
	OCI 13, OCI 17	ZOHES 4-3

Table 26. Landed Catch from Late Fall Mainstem Columbia River and Select Area Commercial Seasons below Bonneville Dam, 1970-2011.

		Mainstem	Adult C	hinook	Co	ho				
	Mainstem	Fishing	Columbia	Select	Columbia	Select	_		Stur	geon
Year	Season 1	Days	Mainstem	Area <sup>2</sup>	Mainstem	Area <sup>2</sup>	Chum <sup>3</sup>	Steelhead 4	White <sup>5</sup>	Green 6
1970-74	Sep 10- Nov 5	31	90,920	420	231,560	10,980	940	7,180	2,380	200
Ave. 1975-79	Sep 8- Nov 15	35	79,740	1,025	114,600	6,960	700		6,620	460
Ave. 1980-84 Ave.	! Sep 10-Nov 16	21	17,880	15,840	101,540	19,960	1,080		5,740	670
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		4,100	800
1987	Sep 13-Nov 12	35	280,900	36,900	150,900	16,900	1,300		4,100	1,600
1988	Sep 12-Nov 11	41	242,200	28,800	311,100	51,400	2,500		3,100	1,000
1989	Sep 17-Nov 15	36	95,700	6,600	360,700	28,100	1,300		2,700	1,700
1990	Sep 18-Oct 31	26	35,300	3,100	47,400	27,600	800		3,100	2,200
1991	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		7,100	2,200
1994	Oct 9-Oct 19	4	1,500	100	6,000	57,800	20		3,400	200
1995	Oct 9 & Oct 12	2	50	500	200	22,300	0		6,000	400
1996	Sep 16-Oct 25	17	7,600	5,000	5,600	22,400	20		6,700	600
1997	Sep 24-Nov 7	23	3,800	4,000	3,800	17,100	39		7,900	100
1998	Oct 7-Nov 6	7	1,000	2,100	300	23,600	11		8,200	200
1999	Sep 20-Nov 4	23	4,600	2,100	57,600	23,000	101		4,300	400
2000	Sep 18-Nov 1	21	3,440	2,300	110,400	58,300	26		5,300	700
2001	Sep 17-Oct 31	27	14,900	3,100	219,100	33,800	116		20	0
2002	Sep 16-Oct 31	19	16,100	8,700	99,500	70,400	12		4,500	200
2003	Sep 15-Oct 31	23	42,700	9,700	149,500	117,100	6		3,600	30
2004	Sep 19-Oct 29	16	29,800	12,600	66,500	51,900	90		3,300	50
2005	Sep 19-Oct 28	18	16,100	8,700	32,300	65,800	10		3,900	20
2006	Sep 19-Oct 25	10	15,300	4,600	27,500	37,700	3		3,600	
2007	Sep 19-Oct 31	26	8,200	4,500	30,100	10,500	38		2,900	
2008	Sep 18 – Oct 31	23	13,700	14,000	13,000	55,200	22		3,300	
2009	Sep 24 – Oct 28	21	6,800	12,000	43,900	81,000	29		2,100	
2010	Sep 22 – Oct 22	11	9,400	20,700	18,500	58,800	275		1,500	
2011	Sep 18 – Oct 20	10	26,400	22,900	11,800	49,500	144		1,200	

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 since salmon could be sold outside Youngs 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 2000-2005 Steamboat Slough Select Area landings.

Includes landings from Select Area fall fisheries beginning in 1997.

<sup>&</sup>lt;sup>4.</sup> Sale of steelhead by non-Indians prohibited since 1975.

<sup>5.</sup> Includes landings from Select Area fall fisheries from August 1 through October 31.

<sup>&</sup>lt;sup>6.</sup> Green sturgeon retention prohibited since July 7, 2006.

			White St	urgeon					Green	Sturgeo	n <sup>1</sup>	
-			Co	mmercia	$1^{2,3}$				Co	mmerci	al <sup>2,3</sup>	
Year	Sport Total	Winter	Summer	Early Fall	Late Fall	Comm. Total	Sport Total	Winter	Summer	Early Fall	Late Fall	Comm. Total
1991	22,700	840		530	2,430	3,800	22	4		2	3,180	3,186
1992	40,100	1,210		790	4,240	6,240	73	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	132	1			240	241
1995	45,100	110			6,040	6,150	21				390	390
1996	42,800	1,383		331	6,666	8,380	63	1		1	604	606
1997	38,200	3,064		1,875	7,889	12,828	41	2		1,474	138	1,614
1998	41,600	3,030		2,634	8,230	13,894	73	1		743	150	894
1999	39,800	2,303		2,854	4,340	9,497	93	2		508	351	861
2000	40,500	2,796	0	2,790	5,284	10,870	32	0	0	568	656	1,224
2001	41,200	3,548	4	5,740	21 4	9,313	50	4	0	338	04	342
2002	38,300	3,368		1,725	4,522	9,615	51	7			156	163
2003	31,900	1,768		2,585	3,599	7,952	52	1		11	27	39
2004	25,600	2,054	9	2,467	3,336	7,866	29	1	0	6	51	58
2005	29,800	822	1,369	2,094	3,867	8,152	119	0	38	32	21	91
2006	24,300	2,256	544	1,911	3,601	8,312	70	11	5			16
2007	29,800	1,728	414	2,737	2,882	7,761	7					
2008	21,600	1,233	523	2,809	3,304	7,869						
2009	17,700	2,029	624	2,969	2,115	7,737	6					
2010	11,300	757	289	1,875	1,464	4,385	4					
2011	9,000	376	504	1,320	1,187	3,387	6					

Green sturgeon commercial sales prohibited July 7, 2006, and sport retention prohibited January 1, 2007.
 Early Fall includes winter/spring mainstem and winter/spring/summer Select Area landings.
 Late Fall includes late-fall mainstem and fall Select Area landings.
 Mainstem harvest guideline was reached in early fall; no sales allowed in late-fall season.

Year	Site	Chinook	Coho	Chum	White Sturge
2003	Youngs Bay	4,271	91,435	0	45
	Tongue Point	2,451	15,598	0	97
	Blind Slough <sup>1</sup>	1,903	3,879	0	28
	Deep River	168	3,333	0	3
	Steamboat Sl.	44	107	0	0
		8,837	114,352	0	173
2004	Youngs Bay	3,890	34,613	1	23
200.	Tongue Point	2,124	10,196	0	33
	Blind Slough <sup>1</sup>	6,235	1,355	0	59
	Deep River	393	5,780	0	2
	Steamboat Sl.	0	0	0	0
		12,642	51,944	1	117
2005	Youngs Bay	4,289	42,361	1	37
2003	Tongue Point	1,919	19,083	0	29
	Blind Slough	2,124	1,777	0	0
	Deep River	364	2,586	0	8
	Steamboat Sl.	0	0	0	0
		8,696	65,807	1	74
2006	Youngs Bay	3,878	20,967	0	77
2000	Tongue Point	305	11,567	0	21
	Blind Slough	190	2,884	ő	3
	Deep River	184	2,235	ő	8
	Beep raver	4,557	37,653	0	109
2007	Youngs Bay	4,002	3,301	0	64
2007	Tongue Point	269	2,043	0	66
	Blind Slough	87	2,498	0	13
	Deep River	175	2,674	0	5
	Beep raver	4,533	10,516		148
2008	Youngs Bay	10,570	27,203	0	58
2000	Tongue Point	1,176	7,753	0	46
	Blind Slough	2,003	5,366	0	28
	Deep River	248	14,829	0	28
	Deep River	13,997	55,151	0	134
2009	Youngs Bay	6,565	49,329	0	72
2009	Tongue Point	872	16,918	1	11
	Blind Slough <sup>1</sup>	3,991	10,043	0	20
	Deep River	562	4,660	2	11
	Deep River	11,990	80,950	3	114
2010	Youngs Bay	8,048	27,564	0	37
2010	Tongue Point	1,402	6,734	0	31
	Blind Slough <sup>1</sup>	10,205	5,201	1	45
	Deep River	1,011	19,260	11	3
	Deep River	20,666	58,759	12	116
		20,000	30,139		
2011	Vounge Doy	12 220	26 520	Pink Chum 13 1	No retention
<b>4</b> 011	Youngs Bay Tongue Point	12,339	26,538 6.504		No retention
	Blind Slough <sup>1</sup>	2,527 5.768	6,504 1,388	19 1 4 2	No retention
		5,768 2,205			No retention
	Deep River	2,295	15,083		
		22,929	49,513	42 133	(

<sup>1.</sup> Includes August target Chinook fishing periods in Knappa Slough.

<u> </u>	Table 29. Angler Trips and Catch in the Buoy 10 Recreational Fishery, 1982-2011.   Chinook Coho Total						
	Angler		Catch/		Catch/		Catch/
Fishery	Trips	Catch	Trip	Catch	Trip	Catch	Trip
2011 Buoy 10 Total	49,409	10,919	0.22	7,614	0.15	18,533	0.38
2010 Buoy 10 Total	52,300	6,807	0.13	7,980	0.15	14,787	0.28
2009 Buoy 10 Total	72,803	5,941	0.08	48,127	0.66	54,068	0.74
2008 Buoy 10 Total	32,467	8,349	0.26	8,573	0.26	16,922	0.52
2007 Buoy 10 Total	36,064	3,776	0.10	8,356	0.23	12,132	0.34
2006 Buoy 10 Total	40,608	1,710	0.04	3,683	0.09	5,393	0.13
2005 Buoy 10 Total	55,183	9,287	0.17	6,878	0.12	16,165	0.29
2004 Buoy 10 Total	68,818	16,016	0.23	15,169	0.22	31,185	0.45
2003 Buoy 10 Total	88,827	16,316	0.18	54,440	0.61	70,756	0.80
2002 Buoy 10 Total	84,434	19,438	0.23	6,205	0.07	25,643	0.30
2001 Buoy 10 Total	125,829	12,709	0.10	132,035	1.05	144,744	1.15
2000 Buoy 10 Total	72,518	6,085	0.08	21,478	0.30	27,563	0.38
1999 Buoy 10 Total	49,568	9,850	0.20	8,960	0.18	18,810	0.38
1998 Buoy 10 Total	29,998	5,784	0.19	3,175	0.11	8,959	0.30
1998 Astoria Bridge Total	11,044	3,484	0.32	3,142	0.28	6,626	0.60
1998 Grand Total	41,042	9,268	0.23	6,317	0.15	15,585	0.38
997 Buoy 10 Total	55,725	13,153	0.24	20,357	0.37	33,510	0.60
1996 Buoy 10 Total	18,034	1,409	0.08	4,537	0.25	5,946	0.33
1995 Buoy 10 Total	25,186	607	0.02	5,026	0.20	5,633	0.22
1994 Buoy 10 Total	9,253	0	0.00	1,795	0.19	1,795	0.19
1993 Buoy 10 Total	75,774	5,288	0.07	20,932	0.28	26,220	0.35
1992 Buoy 10 Total	115,481	10,655	0.09	43,082	0.37	53,737	0.47
1991 C&H Total	2,759	39	0.01	1,151	0.42	1,190	0.43
1991 Buoy 10 Total	168,921	11,549	0.07	207,527	1.23	219,076	1.30
1991 Grand Total	171,680	11,588	0.07	208,678	1.22	220,266	1.28
1990 C&H Total	3,225	54	0.02	28	0.01	82	0.03
1990 Buoy 10 Total	76,411	5,149	0.07	18,435	0.24	23,584	0.31
1990 Grand Total	79,636	5,203	0.07	18,463	0.23	23,666	0.30
1989 C&H Total	7,922	492	0.06	3,195	0.40	3,687	0.47
1989 Buoy 10 Total	144,848	15,900	0.11	78,720	0.54	94,620	0.65
1989 Grand Total	152,770	16,392	0.11	81,915	0.54	98,307	0.64
988 Buoy 10 Total	186,051	30,770	0.17	143,417	0.77	174,187	0.94
1987 Buoy 10 Total	124,594	42,100	0.34	47,170	0.38	89,270	0.72
1986 Buoy 10 Total	102,190	15,600	0.15	120,422	1.18	136,022	1.33
1985 Buoy 10 Total	32,156	2,655	0.08	25,387	0.79	28,042	0.87
1984 Buoy 10 Total	67,365	12,177	0.18	74,370	1.10	86,547	1.28
1983 Buoy 10 Total	7,128	604	0.08	3,574	0.50	4,178	0.59
1982 Buoy 10 Total	17,336	723	0.04	18,857	1.09	19,580	1.13

<sup>1.</sup> Includes catch and effort from the 1989-1991 Chinook/Hammond fisheries and 1998 Astoria Bridge fishery.

Table 30.	Fall Salmon Angler Trips and Catch on the Lower Columbia River August-October, 1980-2011.						
	Angler	Chin	ook	Coho		Steelhead	
Year	Trips	Adults	Jacks	Adults	Jacks	Kept	Released
1980	25,262	1,155	390	85	81	213	0
1981 <sup>1</sup>	29,213	1,022	1,174	139	579	776	0
1982 <sup>1</sup>	20,909	117	696	96	803	0	0
1983 <sup>1</sup>	26,817	962	1,250	174	2,329	79	0
1984 <sup>1</sup>	38,837	1,472	1,316	715	538	1,747	684
1985 <sup>1</sup>	44,793	2,032	5,449	1,106	444	3,418	593
1986	47,855	2,146	3,136	4,027	503	3,390	1,188
1987	59,322	4,357	1,437	930	3,047	2,274	1,038
1988	51,831	4,443	1,492	475	1,491	3,905	603
1989	64,911	5,523	935	184	382	3,698	897
1990	57,180	3,568	1,257	351	2,919	2,503	588
1991	51,470	2,640	530	1,090	1,277	4,442	850
1992	48,993	1,871	1,401	586	1,511	6,443	879
1993	50,011	3,694	512	551	52	5,958	1,134
1994 <sup>1</sup>	27,678	229	37	941	83	2,854	710
1995 <sup>1</sup>	50,165	4,563	1,172	199	85	5,067	591
1996	55,437	9,324	448	774	61	3,270	386
1997	64,477	8,447	389	813	504	3,065	494
1998 <sup>1</sup>	65,884	6,993	629	595	574	2,747	564
1999 <sup>1</sup>	70,673	8,652	322	1,276	502	4,046	1,282
2000	80,759	7,620	1,332	1,620	2,429	5,050	1,957
2001	97,253	9,355	804	3,068	381	5,034	2,141
2002	110,796	21,182	757	3,011	367	3,521	1,931
2003	113,330	26,195	465	1,145	21	4,171	2,008
2004 2	87,404	17,719	497	1,273	62	2,479	1,006
2005 1, 2	86,594	18,256	184	586	21	2,641	1,182
2006 1, 2	89,287	13,398	318	1,173	38	4,248	1,723
2007 1, 2	79,793	8,089	634	881	28	4,746	1,693
2008 1, 2	80,772	10,675	770	2,248	327	2,591	1,213
2009 1, 2	117,975	14,711	1,843	3,989	45	7,325	4,380
$2010^{-1,2}$	114,285	17,326	949	1,584	19	6,034	3,394
2011 1, 2	147,343	28,169	2,551	1,667	17	12,053	7,729

Partial Chinook closure years.

<sup>2.</sup> One adult Chinook daily bag limit,(through October 15 in 2010 and September 9 above Warrior Rock and October 1 below Warrior Rock in 2011).

Table 31. Mainstem Fall Chinook Recreational Fisheries Above Bonneville Dam.							
Bonneville to McNary Dam (Zone 6) plus McNary Dam to Hwy 395 Bridge (Pasco, WA)							
	Adult	***************************************	S				
Year	Chinook	Season	General Area				
2002	2,961	Aug 1-Dec 31	Bonneville Dam to Hwy 395				
2003	4,005	Aug 1-Dec 31	Bonneville Dam to Hwy 395				
2004	3,465	Aug 1-Dec 31	Bonneville Dam to Hwy 395				
2005	3,515	Aug 1-Dec 31, closed Chinook Oct 1-19	Bonneville Dam to Hwy 395				
2006	2,224	Aug 1-Dec 31, closed Chinook Sep 16-2	Bonneville Dam to Hwy 395				
2007	2,739	Aug 1-Dec 31, closed for Chinook Sep-	20-28 Bonneville Dam to Hwy 395				
2008	3,198	Aug 1- Dec 31	Bonneville Dam to Hwy 395				
2009	3,670	Aug 1-Dec 31	Bonneville Dam to Hwy 395				
2010	7,000	Aug 1-Dec 31	Bonneville Dam to Hwy 395				
2011	4,200	Aug 1- Dec 31	Bonneville Dam to Hwy 395				
		Snake River Fall Chinook Recre	ational Fishery				
	Adult						
Year	Chinook	Season	General Area				
2002		No Fishery					
2003		No Fishery					
2004		No Fishery					
2005		No Fishery					
2006		No Fishery					
2007	E	No Fishery	DD beides to LCO & LCO to be at some				
2008	5	September 25 to October 15	RR bridge to LGO & LGO to boat ramp				
2009	7	September 1 to October 16	Mouth to IHR & Hwy 261 to LGO				
2010 2011	36 NA	September 1 to October 31	Lower Granite to Oregon border.  Mouth to WA border. Boundary waters OR-ID				
2011	INA	September 1 to October 31	Wouth to WA border. Boundary waters OR-1D				
Hanford Reach Chinook Recreational Fishery							
Year	Adult Chinook	Season	General Area				
2002	7,325	Aug. 16 - Oct. 22	Hanford to Vernita Bridge				
2002	6,457	Aug. 16 - Oct. 22 Aug. 16 - Oct. 22	Hanford to Vernita Bridge				
2003	8,082	Aug. 16 - Oct. 22	Hanford to Vernita Bridge				
2004	7,542	Aug. 16 - Oct. 22	Hanford to Vernita Bridge				
2005	4,055	Aug. 16 - Oct. 22	Hanford to Vernita Bridge				
2007	4,614	Aug. 16 - Oct. 22	Hanford to Vernita Bridge				
2008	5,638	Aug. 1 - Oct. 22	Hanford to Vernita Bridge				
2009	6,553	Aug. 1 - Oct. 22 Aug. 1 - Oct. 22, closed Chinook Oct 15	_				
2010	10,985	Aug. 1 - Oct. 22, closed Chinook Oct 15	Hanford to Vernita Bridge				
2010	11,614	Aug. 1 - Oct. 22 Aug. 1 - Oct. 22	Hanford to Vernita Bridge				
2011	11,014	11ug. 1 - Oct. 22	Hamord to verifita bridge				