

Spring and Summer Chinook Salmon Allocations

COLUMBIA RIVER spring and summer Chinook salmon are a highly valued catch by both sport and commercial fisheries. Spring Chinook are the first to arrive in the river, drawing tens of thousands of angler trips each year. The commercial fishery also has found ready markets – both national and local – for these highly prized fish, renowned for their flavor. Summer Chinook, fewer in number but larger in size, are also in high demand by both sport and commercial fisheries.

In recent years, the allocation of harvest opportunities between non-tribal fisheries on the Columbia River has become increasingly contentious, particularly with regard to spring Chinook salmon fisheries below Bonneville Dam. A new 10-year catch-sharing agreement was recently approved for tribal and non-tribal fisheries under the *U.S. v. Oregon* settlement, but current allocation formulas for non-tribal fisheries on the lower Columbia River will expire on Dec. 31, 2008. The Washington and Oregon Fish and Wildlife Commissions formed the Columbia River Fish Working Group to develop recommendations for a new catch-sharing arrangement for recreational and commercial fisheries in the lower river consistent with state and federal conservation needs and Treaty Indian allocations articulated in the *U.S. v. Oregon* settlement.

Fisheries rebound

Until the start of this decade, there were no directed fisheries on either upriver spring or summer Chinook, due to the low abundance of both stocks and minimal harvest opportunities allowed under the under *U.S. v. Oregon* conservation guidelines. In the case of summer Chinook, directed commercial fisheries had been suspended since 1964 (and since 1973 for recreational fisheries) as returns declined year after year. Meanwhile, spring Chinook fisheries were severely limited for decades by low returns of upriver stocks, which were listed under the federal Endangered Species Act (ESA) in 1999 as “threatened” or “endangered.”

Both fisheries rebounded at the start of the current decade amid changing circumstances. First, both stocks significantly increased in strength. From 2000 to 2001, the spring Chinook run jumped from 260,100 fish to 540,900 fish, while the summer Chinook run increased from 23,200 fish to 54,900 fish. [CL1]

Another key development was the advent of mark-selective fisheries, made possible by mass-marking of hatchery-reared fish. For spring Chinook fisheries, the new, targeted fisheries allowed fishery managers to greatly increase the harvest of hatchery-reared spring Chinook, while tightly controlling impacts on wild upriver fish listed for protection under the ESA.

While most hatchery-reared summer Chinook are also mass-marked, fishery managers have determined there is no biological reason for mark-selective fisheries on those runs at this time. Unlike spring Chinook runs, all stocks contributing to the summer Chinook fishery – both naturally spawning and hatchery-reared – are identified as “healthy” in the Salmonid Stock Inventory (SaSI 2002) maintained by the Washington Department of Fish and Wildlife and treaty tribes. Summer Chinook stocks returning to the upper Columbia River are not listed under the ESA, but are managed to meet an escapement goal of 29,000 fish at Bonneville Dam under the *U.S. v. Oregon* management agreement.

Another clear difference between spring and summer Chinook fisheries is that fishing opportunities are focused on different parts of the river. Most harvest opportunities for spring Chinook take place below Bonneville Dam, where sport and commercial fisheries can target hatchery fish returning to tributaries of the lower Columbia River. [CL2] For summer Chinook, most harvest opportunities are focused above Priest Rapids Dam, where those runs originate.

Despite these differences, a common denominator for both spring and summer Chinook fisheries is that catch-sharing arrangements between tribal and non-tribal fisheries are established under the recent 10-year agreement, rooted in the *U.S. v. Oregon* court order of 1969.

Spring Chinook Run Sizes

Year	Upriver ¹	Willamette	Other Lower River	Total
2000	186,100	57,500	16,500	260,100
2001	437,900	80,300	22,700	540,900 ²
2002	331,300	121,700	30,100	483,100
2003	242,600	126,600	40,200	409,400
2004	221,600	143,700	56,200	421,500
2005	106,900	61,000	27,800	195,700
2006	132,100	59,700	33,400	225,200
2007	86,000	39,500	30,300	155,800

Washington Department of Fish and Wildlife

1. Run sizes calculated including the timeframe of June 1-15.
2. Largest return since at least 1938.

Spring Chinook

Spring Chinook enter the lower Columbia River during mid-February to mid-March. They include upriver fish bound for waters above Bonneville Dam, as well as lower river fish headed for tributaries such as the Willamette and Sandy rivers in Oregon and the Cowlitz, Kalama and Lewis River stocks in Washington. Both upriver and lower river runs include hatchery and wild fish.

Two components of the wild upriver spring Chinook run are listed under the federal ESA: Snake River spring/summer Chinook and Upper Columbia spring Chinook. These ESA-listed stocks are protected by the *U.S. v. Oregon* management agreement

and the ESA limits. The management agreement includes a sliding-scale harvest schedule that provides additional protection when the runs are at low levels. Until this year, the ESA impact limit restricted non-Indian fisheries to an incidental impact rate range of 0.5 to 2% on the wild fish run. A new 10-year management agreement approved this year increased the upper range of the incidental impact rate to 2.7% when runs are extremely large. However, the total combined Indian and non-Indian impact rate does not increase.

Since 2001, both sport and commercial fisheries have used mark-selective fishing techniques that require the release of all spring Chinook with an adipose fin intact. This has allowed the states of Washington and Oregon to provide opportunity to harvest hatchery fish while minimizing the incidental mortality associated with catch and release fisheries. During 2002-2007, the total non-Indian incidental mortality rate has averaged 1.6% compared to the 2% ESA limit then in effect.

Until 2002, non-Indian sport and commercial catch of upriver spring Chinook had never been formally allocated, although the limited seasons allowed under *U.S. v Oregon* agreements resulted in relatively balanced impacts to upriver spring Chinook. Instead, the commercial/recreational allocation was specified by the Willamette allocation formula determined by the Oregon Commission. Because both commercial and recreational fisheries are usually limited by the incidental mortality rate on ESA-listed upriver spring Chinook, the Fish and Wildlife Commissions of Washington and Oregon have approved joint policies for sharing the conservation burden and allocating impact rates to recreational and commercial fisheries on the lower Columbia River.

Spring Chinook Salmon Allocation Agreements
Lower Columbia River Fisheries

2002-2003

- Equitable sharing of catch between sport/commercial
- Impact rates adjusted in-season for abundance

2004-2005

- Fixed impact rates
- 60% sport / 40% commercial
- 5% buffer

2006-2007

- Fixed impact rates
- 57% sport / 43% commercial

2008 (one-year agreement)

- Policies equate to impact rates of 61% sport / 39% commercial

Recent Lower Columbia River Mainstem Spring Chinook Catches

Year	Sport		Commercial	
	Pre-season Expectation	Actual	Pre-season Expectation	Actual
2000	200-400	300	300-600	500
2001	13-15,000	25,800	6,000	5,400
2002	21,000	20,700	19,500	14,200
2003	10-15,000	17,400	10-15,000	3,200
2004	33,600	23,900	17,700	13,200
2005	24,000	11,400	14,000	5,400
2006		7,000		4,400
2007		6,800		2,900

Washington Department of Fish and Wildlife

- I. Kept catches only (adults and jacks). Since 2001 (except for the 2001 commercial fishery) only adipose fin-clipped hatchery spring Chinook could be retained.

Since 2002, the two commissions have approved three two-year agreements, followed by a one-year agreement for 2008, to guide allocation of ESA impact limits for listed spring Chinook salmon on the lower Columbia River. The sport fishery allocation includes mainstem Columbia River, mainstem Snake River and the Ringold area. . The commercial fishery allocation includes the mainstem Columbia River below Bonneville Dam, Select Areas and miscellaneous fisheries such as the shad fishery. Select Area fisheries are conducted in terminal areas of the Columbia River targeting lower river hatchery spring Chinook released from net pens.

Summer Chinook

Summer Chinook enter the Columbia River in June and July on their migration to the upper Columbia River basin, above Priest Rapids Dam. Since completion of the Columbia River hydropower system, summer Chinook redds are found in the Columbia, Wenatchee, Okanogan, Methow, Similkameen, Chelan and Entiat rivers.

Upper Columbia summer Chinook are not listed under the ESA and are currently healthy. Population abundance has rebounded in recent years to levels that provide fish for harvest. Guidelines for managing fisheries and allocating harvest have not existed until very recently, since there has been virtually no directed harvest on summer chinook from the 1960s until numbers rebounded in 2000.

Fisheries for summer Chinook were re-initiated above Priest Rapids Dam in 2000, but significant harvest did not begin until 2001. Below Priest Rapids Dam, sport fisheries reopened in 2002 with the majority of the catch and effort occurring below Bonneville Dam. Commercial fisheries did not begin in earnest until 2005. Sport harvest above Priest Rapids Dam has averaged 3,300 from 2001-2006. Below Bonneville Dam sport harvest has averaged 3,000 from 2005-2007 and commercial harvest has averaged 2,900 during the same time frame.

An escapement goal and treaty/non-treaty harvest sharing plan were incorporated into the recent *U.S. v. Oregon* management, which will provide sufficient escapement to meet natural and hatchery goals above Priest Rapids Dam. WDFW also reached a separate agreement with the Confederated Tribes of the Colville Indian Reservation in

Recent Summer Chinook Run Sizes

<u>Year</u>	<u>Total Run</u>	<u>Priest Rapids Dam</u>	<u>Wells Dam</u>
2000	23,200	22,300	6,400
2001	54,900	53,200	33,200
2002	92,800	96,300	61,100
2003	83,100	83,000	46,600
2004	65,400	67,100	31,400
2005	60,100	61,200	31,100
2006	76,200	52,200	25,700
2007	37,000	30,600	13,200

Recent Harvest of Summer Chinook Below Priest Rapids Dam

Year	Commercial	Below Bonneville Sport	Bonneville to Priest Rapids	Total Sport	Below Bonneville Angler Trips
2002	No season	1,503	111	1,614	54,839
2003	No season	2,007	328	2,335	46,943
2004	233	1,240	157	1,397	41,850
2005	2,574	1,622	136	1,758	38,505
2006	5,008	4,924	166	5,090	43,802
2007	1,100	2,500	82	2,582	23,732

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2007 that ensures that Colville tribal needs will be met. In addition, the Washington Fish and Wildlife Commission adopted the underlying conservation and harvest sharing principles within the “Harvest Framework for Non-treaty Fisheries Directed at Salmonids originating above Priest Rapids Dam.” This management plan places the highest priority for harvest of upper Columbia River summer Chinook to the areas in which they originate.

These agreements provide guidelines for harvest sharing of salmon and steelhead stocks originating in areas above Wells Dam, and provides for harvest opportunities above Priest Rapids Dam as the highest priority, especially when the abundance is at low levels (near 50,000). This ensures that sport fisheries in the upper Columbia have a chance to harvest salmon in an area where very few opportunities exist. The current allocation policy, which expires December 31, 2008, apportions 50% of the harvest opportunities downstream from Priest Rapids Dam to the recreational fishery and 50% to the commercial fishery.

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[CL1]This is not the point – the main thing is that we have mass-marked spring Chinook, which allows us to release the wild fish with very little mortality – the hatchery fish are nearly always harvestable – it is the wild fish that we are protecting, so even if the run size goes down, there usually are enough hatchery fish to catch some of those.

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[CL2]This is essentially the commission policies that may change from year to year – I would not try to characterize that ODFW has endorsed the summer Chinook plan – which they would not likely do.