

Annual Report 2004

Project No. 1982-013-03  
Annual Stock Assessment - CWT (USFWS)

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## INTRODUCTION

In 1989 the Bonneville Power Administration (BPA) began funding the evaluation of production groups of juvenile anadromous fish not being coded-wire tagged for other programs. These groups were the "Missing Production Groups". Production fish released by the U.S. Fish and Wildlife Service (USFWS) without representative coded-wire tags during the 1980s are indicated as blank spaces on the survival graphs in this report. This program is now referred to as "Annual Stock Assessment - CWT"

The objectives of the "Annual Stock Assessment" program are to:

- estimate the total survival of each production group,
- estimate the contribution of each production group to fisheries, and
- prepare an annual report for USFWS hatcheries in the Columbia River basin.

Coded-wire tag recovery information will be used to evaluate the relative success of individual brood stocks. This information can also be used by salmon harvest managers to develop plans to allow the harvest of excess hatchery fish while protecting threatened, endangered, or other stocks of concern.

All fish release information, including marked/unmarked ratios, is reported to the Pacific States Marine Fisheries Commission (PSMFC). Fish recovered in the various fisheries or at the hatcheries are sampled to recover coded-wire tags. This recovery information is also reported to PSMFC.

This report has been prepared annually starting with the report labeled "Annual Report 1994". Although the current report has the title "Annual Report 2004", it was written in 2005 using data available from RMIS that same year. The main objective of the report is to evaluate survival of groups which have been tagged under this ongoing project over a long period of time.

## METHODS

The Annual Stock Assessment Report reports coded-wire tagging for the most recently completed contract period, and evaluates the survival and contribution of fish tagged, raised and released at National Fish Hatcheries in the Columbia River Basin.

Release information used in this report is collected with the U.S. Fish and Wildlife Service Columbia River (information) System (CRiS). Information prior to the Columbia River Basin wide implementation of CRiS, and from USFWS hatcheries in Idaho, is obtained from the interagency Regional Mark Information System.

Lists of coded-wire tags are obtained from the CRiS sr80s file by use of the CWTetc program. Recovery information is obtained from the PSMFC Regional Mark Information System (RMIS) coded-wire tag database web site. This database is continuously being updated by the contributing agencies, and the updates are reflected annually in this report. Coded-wire tag recovery information is retrieved in the TS1 format. The TS1 report contains both the observed number of recoveries, and the estimated number of recoveries based on the sampling rate.

TS1 reports were downloaded from RMIS in October 2005. These TS1 reports are downloaded in ASCII format. A dBASE V program transforms these ASCII files into a single dbf file.

A Stock Assessment Reference Document is prepared for each hatchery, brood year, and species. Because many fish were released without representative coded-wire tags before the Annual Stock Assessment program began, a single Production Expansion Factor (PEF - the total number of fish released divided by the total number of tagged fish released) is calculated for each hatchery, brood year, species, and stage of fish released. This PEF is used to expand estimated recovery information for non coded-wire tagged fish released along with tagged fish, and to determine the overall contribution and survival rate for each facility.

Until the late 1990s, the adipose fin was removed from all fish receiving a coded-wire tag. The missing adipose fin facilitated the recovery of tags from returning or harvested jacks and adults.

In the late 1990s the goal of protecting weak, threatened, or endangered populations of fish, while maintaining fisheries on healthy populations, led to the removal of the adipose fin from most hatchery fish. The "mass marking" of hatchery steelhead, coho, and spring Chinook makes it possible to harvest only hatchery fish. Wild fish with adipose fins are not harvested in "selective fisheries". In order to assess the success of selective fisheries, some hatchery fish are given a coded-wire tag and the adipose fin is not removed. Fish without adipose fins may be harvested at different rates than fish with adipose fins. A new program that expands the recoveries for each coded-wire tag, rather than as an aggregate, was written. This program is used for most of the most recent brood years, and has now been used for many older brood years beginning with brood year 1990.

Stock Assessment Reference Summary printouts list the following information for each brood year, species, hatchery, and stage released at the hatchery: release information, the total number of observed recoveries, where recoveries occurred, the number of expanded recoveries from the PSMFC TS1 report, the number of recoveries expanded to include unmarked fish released, and a summary of where fish were recovered. For the first time since BPA stopped printing bond copies of this report, these documents are included in this report. This is a direct result of improved scanner technology. All brood years for all hatcheries and species have been reprocessed and included in this year's report.

Text describing the major attributes of the contribution for each hatchery,

species, and brood year is prepared and included in the report. Graphs of survival and relative proportion of recoveries in major areas are prepared and included in the report.

"Residualized" fish, or "mini-jacks" from yearling releases, are not included in estimates of survival.

A summarized form of the processed data will be available through the StreamNet independent data set page.

## **RESULTS**

In calendar year 2004 the USFWS Columbia River Fisheries Program Office marked 279,197 fish under the "Annual Stock Assessment" program. Over 400 returning fish with "Annual Stock Assessment" coded-wire tags were recovered at USFWS hatcheries in 2004, and processed at USFWS fisheries offices.

In calendar year 2005 201,178 fish were coded-wire tagged. Over 371 returning fish with "Annual Stock Assessment" coded-wire tags were recovered at USFWS hatcheries.

A brief description of the estimated survival and contribution for each species raised and released at national fish hatcheries follows. These descriptions are followed by graphs for each hatchery and species.

## **Abernathy Fish Technology Center**

Abernathy Fish Technology Center (FTC) is located 14 miles west of Longview, Washington, on Abernathy Creek, approximately three miles upstream from its confluence with the Columbia River at an altitude of 175 feet above sea level. Abernathy FTC began operations in 1959. From 1980 through the 1990s, lower river tule fall Chinook were the only species reared on a production basis at Abernathy as part of Mitchell Act (NOAA Fisheries) funding.

Coded-wire tags were released in fish from brood years 1980 and 1981. Current estimated survival rates are 1.1511% and 0.2084%. Changes in reporting by the Canadian Department of Fisheries and Oceans (CDFO) were noted in the 1997 report. Nevertheless, the CDFO ocean troll fishery took most of these fish.

There were no releases of marked fish for brood years 1982 to 1988.

Marking fish with coded-wire tags was resumed for brood year 1989 under the Missing Production Group program. Brood year 1989 contributed mainly to troll and sport fisheries in Washington (1,628) and British Columbia (977). Overall survival was 0.1836% or 3,296 fish.

Fish from brood year 1990 had a low survival rate of 0.0746%. Approximately sixty thousand fish were released a month earlier and at one tenth the weight of fish represented by coded-wire tags. Therefore, the rd2 program was used to expand the contribution of each group of coded-wire tagged fish. An estimated 99 fish were taken in the ocean off Washington, and 130 in the Columbia River estuary sport fishery. An additional 645 fish were estimated to have been in Washington Department of Fish and Wildlife (WDFW) spawning ground surveys, based on 25 expanded recoveries.

Total survival is now estimated to be 0.2195% for brood year 1991. An estimated 1,156 fish were recovered in spawning ground surveys, nearly twice the number returning to Abernathy. Ocean harvest was 913 fish and 1,470 fish were harvested in the Columbia River.

Total survival for brood year 1992 is now 0.2455%. Hatcheries other than Abernathy recovered an additional 444 fish from the Columbia River contribution of 1,316. Of the 437 fish harvested in the ocean, 348 were in British Columbia.

Total survival for brood year 1993 is 0.2169%. There were 165 recoveries in the ocean, 528 in the Columbia River and 285 at the hatchery.

Brood year 1994 survival fell to an estimated 548 fish, or 0.0381%. WDFW hatcheries reported more recoveries than FWS.

There were only 8 observed recoveries of CWTs released with brood year 1995 fish, but four more than for the previous brood year. These recoveries are expanded to a total estimated contribution of only 298 fish from a release of 1,037,507 for an estimated survival of 0.0224%. The low survival rates for these two brood years are consistent with the low survival for fish released from Spring Creek NFH.

Release of tule fall Chinook occurred through brood year 1998 without coded-wire tags. Brood year 1998 was the last year production tules were released.

## **Carson National Fish Hatchery**

Carson National Fish Hatchery (NFH) is located 13 miles northwest of Carson, Washington, at the confluence of the Wind River and Tyee Springs (River Mile 18), at 1,180 feet above sea level. Carson NFH began operation in 1938 by rearing and releasing fall Chinook salmon and trout.

In 1956, the hatchery was remodeled under the Mitchell Act. Construction of a fish ladder at Shipperd Falls (River Mile 2.1) in 1955 made it possible for spring Chinook to pass upstream to the hatchery. Trapping of spring Chinook at Bonneville Dam began in 1955, after Washington shore trapping facilities were completed, and continued through 1961. Those trapped fish were used to establish the Carson run of spring Chinook in the Wind River. Other species such as steelhead, brook trout, rainbow trout, kokanee, and coho have also been raised at Carson. Coho were raised as late as 1981. Current production involves adult collection, egg incubation and rearing of spring Chinook salmon.

Brood year 1982 to 1985 spring Chinook from Carson were marked with coded-wire tags for a density study. The average total survival of these brood years is 0.22%. The majority of off station recoveries were in the freshwater sport fishery. There were an estimated 20 recoveries of brood year 1982 and 1983 fish in Canadian waters. An estimated 43 recoveries of brood year 1985 fish occurred in ocean fisheries in Alaska, Canada, and Washington.

Because of a WDFW fish marking study at Carson, WDFW sampled returning adults and originally reported recoveries for return years 1993 through 1996. During the change over from format 3.2 to 4.0, USFWS reported these recoveries.

The survival rate for Carson brood year 1988 is 0.4044% using the rd2 program which expands each coded-wire tag, rather than using a PEF, and including one additional expanded freshwater sport recovery reported by WDFW. The majority of contribution to fisheries was in the Columbia River freshwater sport, expanded to 5,339. Recoveries in the treaty ceremonial fisheries were expanded to a catch of 1,023.

Brood year 1989 was also part of the fish marking study conducted by WDFW. The estimated survival for this brood year is 0.1368%, less than a third of the previous brood year. The majority of fish taken off station (2,095) were taken in the freshwater sport fishery reported by WDFW. Two observed recoveries in the Washington ocean troll fishery were expanded to a total of 12 fish caught.

The survival rate for brood year 1990 is 0.0778%, a total of 1,801 fish from a release of over 2 million. A third of the fish entering the Columbia River were harvested before reaching Carson. Most of these recoveries, estimated at 125, were freshwater sport reported by WDFW. Treaty ceremonial fishery recoveries reported by ODFW show 32 fish taken, followed by 27 in the Columbia River sport fishery.

Brood year 1991 survival is now estimated to be 0.0239%. This is less than brood year 1990 and the lowest to date. The largest off station take of fish was the ODFW reported treaty ceremonial harvest of 69 fish. Four fish were recovered in WDFW spawning ground surveys, expanded to 12. This was the last brood year for the WDFW mark study.

Survival for brood year 1992 is 0.6145%, the highest since brood year 1988. An estimated 82 fish were harvested in the California ocean troll fishery, an unusual event. Since all of the coded-wire tags released with brood year 1992 were used for a density study, none of the tag codes represents the majority of fish released. Recoveries for this brood year at Carson NFH were originally reported by WDFW.

The 1993 brood year now has the fifth highest survival for this hatchery at 0.4371%. An estimated 42 fish were harvested in the California ocean troll fishery as jacks. The harvest of these fish off of California occurred the

same year as the harvest of 82 fish from brood year 1992. WDFW freshwater sport fishery recoveries are expanded to a harvest of 4,494 fish, nearly as many as returned to the hatchery. Since all of the coded-wire tags released with brood year 1993 were used for a new density study, none of the tag codes represents the majority of the fish released.

Brood year 1994 survival is now estimated at 0.1243%. There are an expanded 882 fresh water sport recoveries, 1,082 expanded returns to hatcheries, and 165 expanded spawning ground recoveries. This equals a total of 2,141 expanded recoveries for the 1994 brood year.

There are an additional 4 PSC expanded WDFW freshwater sport recoveries this year, increasing the estimated survival for brood year 1995 to 0.3770%, in the upper third of successful brood years for Carson NFH. There have been an estimated 997 expanded off station recoveries from these fish, all in the Columbia Basin.

The estimated survival for brood year 1996 is 1.1039% with an estimated 9,097 off station recoveries, and 10,047 returns to the hatchery. This brood year is one of the most successful yet for Carson NFH. Over seventy-five hundred fish were harvested in the WDFW reported freshwater sport fishery. The second greatest harvest was for treaty ceremonial (859).

Brood year 1997 has one of the highest survival rates yet for Carson NFH spring Chinook at 1.2775%. Over ten thousand fish were harvested in the Columbia River, including eighty two hundred in sport fisheries, and 1,353 in the Columbia River gillnet fishery, and 259 for treaty ceremonial. Fourteen fish were also harvested in British Columbia.

Brood year 1998 total survival is estimated to be 0.6181%, about half of that for the previous brood year. Six thousand fish were harvested in the Columbia River Basin. The overwhelming majority of this harvest was sport - over five thousand - followed by gill net (765) and treaty ceremonial (74).

## **Dworshak National Fish Hatchery**

Dworshak NFH is located at the confluence of the North Fork Clearwater River and the main stem Clearwater River about three miles west of Orofino, Idaho, at 1,000 feet above sea level. Dworshak NFH first began operations in 1969 rearing summer steelhead and resident trout. The facility was expanded in 1982 under the Lower Snake River Compensation Program (LSRCP) to rear spring Chinook salmon. The hatchery is now used to produce spring Chinook and summer steelhead.

### **Spring Chinook**

Total recoveries for brood year 1985 were 0.0201%, the first release of 100% Rapid River stock. The brood year 1986 yearling release resulted in an estimated 2,595 fish, or 0.2306%.

Twelve different coded-wire tag groups were released with brood year 1987. Only three were in yearling fish released at the hatchery. Coded-wire tag release information was obtained from the StreamNet Distributed System. Total survival is estimated at 0.0041. The ODFW reported freshwater sport harvest took an estimated 13 fish.

Overall survival for brood year 1988 is now 0.0605%. This brood year contributed mainly to the treaty ceremonial fishery in the Columbia River.

Yearlings from brood year 1989 survived only half as well as brood year 1988.

A total of 70 fish were harvested in the Columbia basin, and 3 were recovered at WDFW hatcheries. Fifty-two fish were taken in the treaty ceremonial fishery. Overall survival is 0.0353%.

Coded-wire tag information for brood year 1990 was obtained from the StreamNet Distributed System. Total estimated survival for this brood year was 0.0027%, or 26 fish from a release of almost 960,000. The treaty ceremonial fishery reported by ODFW took two fish from this brood year.

Brood year 1991 has an estimated overall survival rate of 0.0021%, the lowest of tagged brood years in this report. There was only one off station recovery from this brood year.

All brood year 1992 spring Chinook released at Dworshak were represented by coded-wire tags, so the rd2 program was used to estimate the total survival of 0.0584%. An estimated 78 fish, or 10% of the total, were recovered at a variety of Columbia River Basin sites other than Dworshak.

Two additional recoveries increase brood year 1993 survival to an estimated 0.0721%, or 945 fish. The rd program was used since fish unrecovered by coded-wire tags were released. There were an estimated 725 recoveries off station, with 4 in Alaska and 4 in British Columbia ocean fisheries. This brood year also provided an estimated 177 fish for treaty fisheries.



Estimated survival for brood year 1994 is 0.0369% using the rd2 program. This is only an estimated 38 total recoveries from a low egg take, and the subsequent release of 100,775 fish. Nevertheless, to date this survival is in the middle of survivals for Dworshak spring Chinook. The largest number of recoveries was in the IDFG reported freshwater sport category. There were also 3 expanded recoveries in the Alaska ocean troll fishery. There was only 1 FWS reported recovery from this brood year, and it occurred at Warm Springs NFH. Four age-2 recoveries at Dworshak are not included in the report.

The record high 0.9985% estimated survival for brood year 1995 is somewhat mitigated by the low number of fish released from this brood year - 53,078. This is a reflection of the fact that only 125 spring Chinook returned to Dworshak in 1995. Only an estimated 530 fish were recovered from this brood year.

The estimation of survival for brood year 1996 is 0.0979%. Columbia River sport (429), treaty ceremonial (228) and gill net (147) fisheries took more fish than are currently in the RMIS database for recoveries at FWS hatcheries.

Brood year 1997 has an estimated survival of 0.5363% even with only 5 estimated recoveries of coded-wire tagged fish at National Fish Hatcheries, a record. The contribution to freshwater fisheries was over fifty-five hundred fish. Fish from this brood year (29) were even caught by ocean trollers as reported by ODFW.

### **Summer Steelhead**

Total survivals for brood years 1980, 1981, and 1982 were 2.9305%, 1.2033%, and 0.3813% respectively. Although the Stock Assessment printout shows 0 Escapement to NFH, this results from the fact that Idaho Department of Fish and Game (IDFG) reported hatchery recoveries at Dworshak NFH in the early 1980s.

Tagged fish from brood year 1983 (release year 1984 with CWTs 051335, 102516, and 102517) are listed as "Off-site direct hatchery release" in the StreamNet database.

No coded-wire tagged fish were released on site in brood year 1983 or 1984.

Survival for brood year 1985 has stabilized at 1.1867%. Over 5,400 fish were taken in the Columbia River gill net fishery, and over 4,100 were taken in the freshwater sport fishery reported by Idaho.

Brood year 1986 has an overall recovery rate of 1.9046%. This brood year contributed mainly to the freshwater sport fishery in Idaho. Many of these steelhead were also recovered in the Columbia River gillnet fishery.

Total survival rate for brood year 1987 is 1.0603%. Six fish were taken in British Columbia ocean trolling, but the great majority of fish (8,324) were recovered in the Columbia River basin. The majority of "Columbia River" harvest was in the ODFW reported gill net fishery (4,124), and the IDFG reported freshwater sport fishery (3,816).

Brood year 1988 summer steelhead yielded 492 observed recoveries with an overall estimated survival rate of 0.5579%. The vast majority of fish recovered off station were taken in the Columbia River gill net fishery (2,696), followed by the Columbia River sport fishery (576). IDFG reported freshwater sport recoveries expanded to 184 fish. There was 1 observed recovery of an age-2 fish in the squid gill net by-catch and foreign research vessel records reported by National Marine Fisheries Service (NMFS)

Overall survival for brood year 1989 is 0.8264%. Most fish were taken in the Columbia River gill net fishery (3,714) out of a total of 4,907 fish taken in the various Columbia freshwater and estuary fisheries. Sixty-three fish were taken off the coast of British Columbia. IDFG recoveries are expanded to 244.

Brood year 1990 release data were obtained from the StreamNet database. Except for one different date, 90 additional fish, and a significant difference in the total weight of fish released, StreamNet records are similar to those originally reported for releases at the hatchery. The total survival rate is 0.4821% or 5,750 fish. Most of the harvested fish were taken in the Columbia River gill net fishery (2,575). Twenty-five fish were also taken in the Oregon ocean sport fishery.

Total survival for brood 1991 is 0.2388%, near the bottom of survival rates for Dworshak steelhead. A total of 2,923 fish survived from this brood year. Seventy-five fish were harvested in the Quinault reported coastal gill net fishery. ODFW reports Columbia River gill net and sport harvest of 984 and 149 fish, and another 328 fish as freshwater sport.

Survival for brood year 1992 is now estimated to be 0.2259%, using the rd2 program. Twenty-nine percent of the fish were recovered before returning to the hatchery. Off station recoveries occurred in the Columbia River gill net and freshwater sport fisheries of all three Northwestern states, with Washington reporting the largest share.

The current estimated survival for brood year 1993 is 0.218%, the third lowest to date. All reported off station recoveries were within the Columbia River basin, and 643 fish were harvested there, mostly in sport fisheries.

Observed recoveries for brood year 1994 are expanded to a total of 1,065 estimated recoveries, or 0.0878% by the rd2 program. More fish were recovered off station (769) than returned to the hatchery, according to coded-wire tag recoveries.

Survival for brood year 1995 is about half that of the previous brood year, or 0.0441%.

With no reported FWS hatchery recoveries, brood year 1996 has a total estimated survival of 0.0808%.

Although no age 5 recoveries have been reported to RMIS, and there are also no reported recoveries at any hatchery, we estimate total survival of 0.1166% for brood year 1997.

## **Eagle Creek National Fish Hatchery**

Eagle Creek National Fish Hatchery is located about seven miles from Estacada, Oregon, on Eagle Creek, approximately ten miles above its confluence with the Clackamas River at an elevation of 950 feet. The hatchery was authorized by the Mitchell Act of 1938 (52 Stat. 345), as amended in 1946.<sup>1</sup> The hatchery was constructed in 1956, and is currently operated as part of the Columbia River Fishery Development Program administered by NOAA - Fisheries. Although Eagle Creek NFH has raised fall and spring Chinook in past years, production is now limited to coho and winter steelhead. Steelhead are no longer being coded-wire tagged because of the low rate of recovery sampling in Eagle Creek and the Clackamas and Willamette Rivers.

### **Coho**

Coded-wire tags were used in a multiple year density study including brood years 1979, 1980 and 1981. Brood year 1980 survival rate was 1.3546%, and brood year 1981 survival was 1.0413%. Oregon ocean fisheries took nearly four times more fish than Washington ocean fisheries in brood year 1980. Brood year 1981 had an almost even split between the two fisheries.

No coded-wire tags were released in brood years 1982 through 1987.

The estimated total recovery from brood year 1988 was 42,345 fish, or 4.181% when using a PEF. Nearly three hundred thousand of the coho released were from the Sandy Hatchery, and these fish did not have a unique coded-wire tag. This is highest rate survival rate on record for Eagle Creek coho. This brood year contributed 11,340 fish to the Oregon ocean fisheries, and 8,930 were harvested in the Columbia River fisheries.

The 1989 brood year coho survival rate was 0.9446%, about one quarter of the very high 4.181% survival rate of brood year 1988 coho. Over 3,800 of the coho from this brood year were caught off the Oregon coast in the sport and commercial fisheries. Eighteen hundred were harvested in the ocean off Washington, and 200 off California. Over 200 fish were taken in British Columbia. Eight hundred twenty were also harvested in the Columbia River.

Brood year 1990 coho has only 31 observed recoveries and an overall survival rate of 0.1228% making this the lowest survival rate since coded-wire tagging has been done consistently. Fish from Big Creek and Sandy were released along with Eagle Creek fish this year. Fewer than 600 fish were taken in the ocean, and 310 in the Columbia River. Five hundred of the ocean recoveries were reported by WDFW. The remaining 96 were split evenly between Oregon and California. Coded-wire tagged returns to the hatchery were estimated to be less than the ocean harvest of this brood year.

Total survival rate for brood year 1991 coho is estimated to be 0.3402%. Fish from the ODFW Sandy hatchery were released this year, so even though all fish were assigned to a coded-wire tag, they are not truly representative. Only 137 fish were harvested in the ocean (91 by British Columbia and 46 by Washington), and 205 in the Columbia River. Escapement to the hatchery was about 3,300 fish. Although this brood year did better than the 1990 fish, it was much less successful than 1980, 1981, 1988 or 1989.

Brood year 1992 survival rate is estimated at 0.4758%, an improvement over the previous two broods, but still below average for broods in the 1980s. Escapement to the hatchery made up the largest segment of fish recovered, as was also the case for brood year 1991. Washington ocean fisheries took 750 fish and Oregon ocean fisheries harvested 277 fish. An additional 197 fish were taken in the Columbia River.

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<sup>1</sup>Eagle Creek National Fish Hatchery Station Development Plan 1983

Brood year 1993 releases included both forced and volitional releases of Eagle Creek stock and Toutle stock coho. Expansion of individual coded-wire tags rather than using a PEF yields a total survival of 0.2375%, placing this brood year in the lower third of survival rates. There were an estimated 121 recoveries in the Columbia River, and 358 in the ocean off of British Columbia and Washington.

Total survival for brood year 1994 was even lower at 0.1758%. WDFW reported ocean recoveries result in an ocean harvest of 263 fish, with 66 fish harvested in the Columbia River estuary sport fishery.

Brood year 1995 was the first brood year at Eagle Creek in which coho production was "mass marked" with an adipose fin clip. A small number of fish were not adipose fin clipped, but received a coded-wire tag. Since externally marked fish may be harvested at a different rate than the unmarked fish, recoveries have been expanded for each coded-wire tag, rather than with a PEF. WDFW Columbia River estuary sport now has an additional 4 expanded recoveries. Survival is now estimated to be 2.1002%, in the upper third of brood years.

A doubling of ODFW reported Columbia River gill net fishery recoveries increases total survival for Eagle Creek brood year 1996 coho to 1.7191%, putting this brood year in the upper half when ranked by survival. Two thousand five hundred forty-nine fish were harvested in the ocean, and 1,586 in the Columbia River.

A recalculated expansion for recoveries at the hatchery, plus other changes in reporting results in an estimated survival of 3.9776% for Eagle Creek brood year 1997 coho. Only brood years 1998 and 1988 are higher. Over fifty-two hundred fish were harvested in the ocean, almost equally divided between Oregon and Washington with an additional 95 recoveries estimated for California ocean sport fisheries.

The estimate of survival for brood year 1998 is a near record 4.0163%. Only brood year 1988 is higher. However, ODFW recoveries for this brood year are not in the most recently down loaded data set. Over eighty-five hundred fish were taken in WDFW ocean fisheries, and over fourteen hundred in ODFW reported ocean fisheries. Additionally, ODFW had reported that an additional eighty-five hundred fish were taken in the Columbia River.

The survival rate for brood year 1999 is a very respectable 2.0992%. Ocean recoveries (883) were almost evenly split between Oregon and Washington, but most of the harvest occurred in the Columbia River (1,380). Expansion of CWT recoveries shows a return to the hatchery of 12,682 fish.

There were 511 observed recoveries of coded-wire tags from brood year 2000, which when expanded give a total survival rate of 1.6137%. This is about average for Eagle Creek NFH coho. Most off hatchery recoveries were in the Columbia River gill net and estuary (472). Ocean fishery reports account for 524 expanded recoveries: 301 in Oregon, and 223 in Washington. Over seven thousand fish returned to the hatchery.

## **Entiat National Fish Hatchery**

Entiat NFH is located on the Entiat River, west of Entiat, Washington. Elevation is 980 feet above sea level. Construction began in 1940 under the Grand Coulee Fish Maintenance Project and operations began a year later. Present production at the hatchery consists of adult collection, egg incubation, and rearing of spring Chinook salmon. As of 2005 Entiat NFH is in the fourth year of spawning and incubating Coho eggs for the Yakama Nation.

Yearling spring Chinook at Entiat were coded-wire tagged beginning with brood year 1988. Expanded off station recoveries include 57 in the treaty ceremonial fishery and 6 in the Columbia River sport fishery. Expanding CWT recoveries for brood year 1988 gave an estimated survival of 0.1023%, about average for this hatchery and species. Eggs from Winthrop NFH were raised and released at Entiat as part of this brood year.

There were 56 observed recoveries of the 111,207 tagged fish released with brood year 1989. Expansion of these recoveries yields an overall survival rate of 0.0519%. Seven fish were taken in the Columbia River sport fishery. Production for this brood year included fish raised from eggs transferred from Leavenworth NFH.

There were only four observed recoveries from the 95,682 tagged fish released with brood year 1990. Using the rd2 program yields an estimated total survival of 0.0047% for this brood year, the worst survival on record for Entiat spring Chinook. All recoveries were at the hatchery.

Brood year 1991 was a bit more successful than the previous brood year with a total survival rate of 0.0279%, using the rd2 program. Nine fish were taken in the Columbia River treaty ceremonial fishery. All observed (28) recoveries were of age-4 fish.

A total recovery rate of 0.0346% puts brood year 1992 third from last when ranked by survival rate for yearling releases at Entiat. The freshwater fish trap category accounts for most of the off station recoveries, although there were also a few treaty ceremonial and WDFW hatchery recoveries.

Total survival for brood year 1993 was 0.0383%, better than the previous two brood years, but still ranking as fourth worst. Five coded-wire tagged fish were recovered in fish traps. While most returned to the Entiat, an estimated 19 total fish were recovered at WDFW hatcheries.

The yearling release for brood year 1994 included fish received as eggs from Leavenworth NFH. Total survival was estimated to be 0.0667% with an estimated 10 non-hatchery recoveries. This survival rate is in the middle of Entiat yearling spring Chinook survivals.

The estimated total survival for brood year 1995 is 0.3282%. There were 3 ODFW reported ocean troll recoveries and 8 recoveries in the Columbia Basin. WDFW hatchery recoveries were at Wells. Brood year 1995 is in the top fourth of survivals

Brood year 1996 has provided a high estimated survival for Entiat NFH spring Chinook, now at 0.5855%. This was in spite of the use of a blank coded-wire tag for 16,053 of 124,536 yearling fish released. This blank wire could yield no off station recoveries. There were three expanded ocean recoveries, this time reported by British Columbia. Treaty ceremonial and sport recoveries were the next two highest off station recovery categories with an estimated 54 and 36 recoveries respectively. As usual the lion's share of recoveries (91%) was at Entiat NFH.

Brood year 1997 currently has yielded an estimated total survival of 0.7678%, the highest to date for Entiat. Off station recoveries were mostly in the ODFW reported Columbia River sport (211) and gill net (211) fisheries. There were also an estimated 11 treaty ceremonial recoveries.

The third highest number of recoveries now comes from brood year 1998: an estimated 2,067 recoveries and a survival rate of 0.5747%. Most non station recoveries were in the ODFW reported Columbia River gillnet fishery (357), followed by the Columbia River sport fishery (94).

There were coded-wire tagged releases of fingerling fish in brood years 1991, 1992, 1993, and 1994. There were no recoveries from the brood year 1991 release. Survival for brood year 1992 was 0.0054% with one tagged fish recovered in the treaty ceremonial fishery. Brood year 1993 had 3 treaty ceremonial recoveries and an overall survival rate of 0.0315%. The release of 186,817 coded-wire tagged fingerlings in brood year 1994 yielded 6 recoveries. This is equivalent to a survival rate of 0.0032%.

## **Kooskia National Fish Hatchery**

Kooskia NFH is situated along Clear Creek, just upstream of the confluence with the Middle Fork Clearwater River, approximately 75 miles southeast of Lewiston, Idaho, at an altitude of 1,295 feet. The hatchery was authorized in 1961, first operated in 1969, and is currently used for adult collection and rearing of spring Chinook salmon.

Only two broods during the 1980s received tag codes at Kooskia. An age-0 release of brood year 1980 fish contained an IDFG tag code. Fish raised at Kooskia were released at Dworshak NFH with an IDFG tag code. Fish from Hagerman NFH were released at Kooskia in 1983.

Brood year 1988 fish at Kooskia were the first fish to be marked under the Missing Production Group program. Total survival for brood year 1988 was 1,083 fish, or 0.2683%. Treaty ceremonial fishing took most of the fish harvested off station (156). Nineteen fish were also taken in the ODFW test fishery net.

No tagged fish were released with brood year 1989.

An estimated 77 fish were recovered from brood year 1990, resulting in a survival rate of 0.0106%. Eleven of those fish were taken in the Columbia River sport fishery in 1994.

Total fish released for Kooskia NFH brood year 1991 was 343,437, including coded-wire tag 052925 with 60,585 fish. Current RMIS records show 50,585 fish released with this tag code, making a total release of 333,437. Total recoveries for this brood year consist of a jack and an adult recovered at a national fish hatchery for a survival of 0.0006%.

Fish traps and non-USFWS hatcheries reported the majority of off station recoveries for brood year 1992. An estimated 4 fish were taken in the treaty ceremonial fishery. With 86 recoveries reported by USFWS, total estimated survival rate is 0.0317% using the rd2 program, better than the previous two brood years.

Survival for brood year 1993 is estimated to be 0.327%, right in the middle of survivals. Nine fish were taken in the California ocean sport fishery, an unusual occurrence. Thirty-two fish were harvested in the treaty ceremonial fishery. Fish without coded-wire tags, but with right ventral fin clips, were also released eight miles above the hatchery. There were an unusual number of recoveries of spring Chinook in California ocean sport and troll fisheries in 1996. Spring Chinook from Carson, Little White, and Warm Springs were also taken, as were tule fall Chinook from Spring Creek.

There were 8 observed recoveries from the release of 271,681 tagged fish in brood year 1994. The estimated number of recoveries in the ODFW fish trap is 521 from one observed recovery, a very high ratio. No recoveries have been reported from FWS hatcheries. A group of fish was released without a representative coded-wire tag. The PEF for this brood year is 1.23, and leads to a total survival of 0.0027%.

Fewer than 16,500 tagged fish were released in brood year 1995 in a total of 16,598 fish. There is now 1 reported recovery by an IDFG hatchery for a survival of 0.0060%.

With 15 observed recoveries, brood year 1996 total survival is estimated to be 0.0649%, or 28 fish. Ten fish were harvested in the gillnet fishery, 8 for treaty ceremonial purposes, and 7 in Columbia River sport fisheries.

Brood year 1997 coded-wire tag release information was obtained from the RMIS database. It is substantially different than numbers reported through CRiS. The survival rates for coded-wire tags in this release are expanded to a

record 0.8767% survival for Kooskia NFH, without any FWS reported recoveries. Contributions were made in the following fisheries: Columbia River gillnet and sport (1,000 and 865), freshwater sport (109), treaty ceremonial (66). There were 4 PSC expanded recoveries in the Oregon reported non-treaty ocean troll in 2001.

Release numbers in are RMIS differ from those reported to CRiS for brood year 1998. Although the total release is on +90, the distribution between the two coded-wire tags differs by several thousand. Numbers in CRiS have been edited to conform to numbers reported to RMIS.

Brood year 1998 has the second highest survival rate for Kooskia NFH spring Chinook at 0.5652%. This is in spite of the fact that there are no FWS recoveries in RMIS. Over eighteen hundred of the 2,064 estimated recoveries were in Columbia River gill net (1,085) and sport fisheries (751).



## **Leavenworth National Fish Hatchery**

Leavenworth NFH is located about four miles south of Leavenworth, Washington, along Icicle Creek, a tributary to the Wenatchee River. Elevation is 1,155 feet. The hatchery was originally authorized in 1937 by the Grand Coulee Fish Maintenance Project and was re-authorized in 1938 by the Mitchell Act. The facility began operations in 1942 and is currently used for producing spring Chinook salmon.

Fish from brood year 1985 were released at Leavenworth with two different tag codes. Fish with those same tag codes were also inadvertently released in the Yakima River, and are therefore not included in this report.

Fish from brood year 1986 were harvested mainly in the freshwater sport (757) and treaty ceremonial fisheries (402). One recovery from the ODFW treaty ceremonial fishery is no longer in the PSMFC database. Total estimated survival is estimated at 0.1174%.

Brood year 1987 spring Chinook salmon released as yearlings have an estimated total survival of 0.2785%. Off station recoveries were mainly in the freshwater sport fishery and treaty ceremonial fishery. Nearly 3,000 fish were taken in the Columbia River. One tag, which was expanded to 28 fish, was recovered in the British Columbia ocean troll fishery. The 1987 brood year spring Chinook released as fingerlings survived at a rate of only 0.0030%. This release of 939,426 fish yielded a freshwater sport catch of 12 fish, and a hatchery escapement of 16 fish.

Brood year 1988 spring Chinook fared quite a bit better than brood year 1987 with an estimated survival rate of 0.4751%. Most fish were taken in the freshwater sport fishery (3,469). In addition, ODFW reported a treaty ceremonial harvest of 1,315. Twenty-five fish were harvested in the WDFW reported treaty troll fishery. Fingerling releases from this brood year survived at an overall rate of only 0.0034%. There were only seven observed recoveries from a release of nearly 300,000 tagged fish.

An agency 63 tag code was released with brood year 1989 age-0 Leavenworth fish raised at Wells State Fish Hatchery (SFH) and returned to Leavenworth for further rearing. These fish survived at a rate of 0.0889%. Using the calculated PEF of 4.41, 13 fish were harvested in the British Columbia ocean troll fishery, 163 in the freshwater sport fishery, and 66 in the treaty ceremonial fishery. However, this PEF includes 400,000 fish released at one-third the size of the fish with the coded-wire tags.

Yearling fish from brood year 1989 survived at a rate of 0.1946%, more than twice the rate for fish released at age-0. The great majority of off station recoveries occurred in the Columbia River sport fishery (1,585). An additional 360 fish were taken in the treaty ceremonial fishery.

Using the rd2 program, rather than the PEF method, the estimated number of fish surviving from brood year 1990 yearlings was only 78 fish from a total release of over 2 million fish, a very low survival rate of 0.0034%. Treaty ceremonial harvest of this brood year is estimated to have been only 23 fish. Age-0 fish released from this brood year had no representative coded-wire tag.

Survival of brood year 1991 is now estimated at 0.0213%, a total of 374 fish, using the rd2 program. This survival is over six times greater than brood year 1990. Fourteen age-4 fish were taken in the ODFW reported treaty ceremonial fishery. Age-0 fish released from this brood year had no representative coded-wire tag. Observed recoveries include age-2 fish recovered at the hatchery, 89. There are fewer PSC expanded recoveries, 82, which does not include these fish.

Survival was up again with a 0.0754% rate for brood year 1992 using the rd2 program. Other than 987 hatchery recoveries, there were 124 fresh water sport recoveries, in addition to treaty ceremonial (32) and Columbia River gill net

harvest (5).

Brood year 1993 survival is now at 0.2748% using the rd2 program, still increasing from the low point of brood year 1990. Only the last three brood years in the 80s had higher survivals. There was a freshwater sport harvest of 1,067, followed by treaty ceremonial (61), and freshwater net (60).

The estimated survival for brood year 1994 is 0.0580%. An estimated 34 fish were recovered in treaty ceremonial fisheries, and 50 in freshwater sport fisheries.

Survival for brood year 1995 is estimated to be 0.1232% with over three hundred fish being harvested off station. Fish were taken in gill net, freshwater sport, and treaty ceremonial fisheries.

Estimated survival for brood year 1996 is 0.3747% in the upper third of survivals. There were 2 recoveries in Alaska, expanded to a total estimated 26. There were also a total of 388 estimated recoveries in the WDFW reported freshwater sport recoveries, and over two hundred each in gill net, spawning ground, and treaty ceremonial fisheries.

Brood year 1997 shows an estimated total survival of 0.7647%, a record setting brood year. The greatest number of fish recovered off station was in the Columbia River sport fishery (2,140). The gill net fishery took an estimated 2,100 fish, followed by recoveries in spawning ground surveys (750), and treaty ceremonial (127).

Slightly lower than the previous brood year at 0.7190%, but still the second highest on file, brood year 1998 contributed about thirty-seven hundred fish to Columbia River fisheries.

Summer steelhead at Leavenworth have never been marked with coded-wire tags.

## **Little White Salmon National Fish Hatchery**

Little White Salmon NFH is located on the Little White Salmon River, 12 miles east of Stevenson, Washington, at an elevation of 90 feet. The hatchery began operations in 1898 and was remodeled and expanded in 1958. Current production consists of rearing upriver bright fall and spring Chinook salmon. Coho are raised, but no longer released at Willard NFH, which is administered by Little White Salmon. Willard is listed separately in this document.

### **Spring Chinook**

Both age-0 and yearling spring Chinook have been released from the hatchery. Brood years 1982 through 1984 were coded-wire tagged to evaluate age-0 and yearling releases. Average survival for age-0 fish was 0.11%, compared with an average survival of 0.39% for yearling releases. Columbia River gill nets took a greater proportion of age-0 fish than yearlings (9.7% vs. 3.2%) for these three broods. Release of coded-wire tagged age-0 fish was resumed with brood year 1991.

Marking of spring Chinook resumed for brood year 1988 under the Missing Production Group program. Brood year 1988 fish released at age-0 were not marked. The overall survival rate for yearling fish from this brood year was 1.0457%. Nearly 2,400 yearling release fish were harvested in the Columbia River, with over 1,500 in the WDFW reported freshwater sport fishery alone. Another 730 fish were taken in the treaty ceremonial fishery.

Brood year 1989 shows a total survival of 2,270 fish, or 0.2230%, down from last year with the elimination of an age-2 recovery. Nearly 1,200 fish were taken in the freshwater sport fishery, and 85 in the treaty ceremonial fishery. Age-0 fish were released, but without a coded-wire tagged.

The survival rate for brood year 1990 is 0.0155% with no reported off station recoveries. Coded-wire tagged fish from this brood year were released from the Willard NFH facility, (a sub-station located upstream from Little White Salmon NFH) along with a total of 869,952 fish. Another 807,742 untagged, unmarked fish were released at Little White Salmon NFH. There was no age-0 release from this brood year.

Only 232 fish survived out of 809,079 yearling fish released from brood year 1991 (0.0287%), using the rd2 program. There were only 7 recoveries, identical to brood year 1990. There were no recoveries from 94,295 tagged fish released at age-0.

Brood year 1992 yearlings now have a survival rate of 0.5456% and an estimated total survival of 5,426 fish. Over one thousand fish were caught in the WDFW freshwater sport fishery, and another 790 in the freshwater net fishery.

Fingerlings from brood year 1992 now have an estimated survival rate of 0.0121%, or only 61 fish from a release of 503,458.

The rd2 program estimates total survival as 0.2175% for brood year 1993. Recoveries from 1997 are expanded to 330 freshwater net, and 709 freshwater sport recoveries. There were an additional estimated 16 fish harvested in the treaty ceremonial fishery. This brood year has a below average survival rate. Estimated survival for brood year 1994 is 0.0385%, the third lowest percentage on record. Only 18 fish were estimated to have been taken in the treaty ceremonial fishery with just 352 returning to the hatchery.

Survival for brood year 1995 is estimated to be 0.4042%, which places it in the mid-range of survivals. Recoveries occurred in freshwater sport (257), treaty ceremonial (34), gill net (26), and on spawning grounds (12) in addition to 2,381 returns to the hatchery.

The estimated total survival for brood year 1996 is 0.4352%, in the top half

of survivals. Freshwater sport (723) and treaty ceremonial (285) fisheries were responsible for the majority of off station recoveries with an estimated 131 fish also being taken in the Columbia River gill net fishery.

Brood year 1997 is in the middle of survivals with 0.3685%. More than twenty-three hundred fish were harvested in Columbia River sport fisheries. Seven hundred twenty fish were taken in the Columbia River gill net fishery, and 96 as treaty ceremonial.

A survival rate of 0.6306 puts brood year 1998 third best of all Little White spring Chinook releases. This brood year contributed over twenty-five hundred fish to sport fisheries, eleven hundred to the gill net fishery, and 174 to treaty ceremonial harvest.

The estimated 0.1446% survival rate for brood year 1999 is in the middle of completed brood years. Nearly one thousand fish were harvested in the Columbia River in sport (705) and gill net (225) fisheries.

### **Upriver Bright Fall Chinook**

Brood year 1983 through 1985 upriver brights were marked for both a normal age-0 release and an extended rearing release. Average percent survival for the fingerling release from these three brood years was 1.1%, compared to the survival of 0.3882% for the extended rearing fish. The extended rearing program strategy is no longer being used. The survival rates for two of the three brood years with extended rearing are ranked fourth and fifth of eighteen releases for this program.

Brood year 1989 was the first upriver bright brood year to be marked under the Missing Production Group program. Fifty-eight observed recoveries were expanded to a total of 3,530 for an overall survival rate of 0.2454%. Most of the harvested fish were taken in the ocean (1,733), with 931 in Alaska, 577 in British Columbia and 225 in California. An additional 160 fish were harvested in the Columbia River gill net fishery, and 642 were recovered in spawning ground surveys.

Current recovery information and use of the new rd2 program shows a 0.3285% recovery rate for brood year 1990, higher than that for brood year 1989. Little White Salmon upriver bright fall Chinook appear to be the only group of fish in this report which had a higher rate of survival for brood year 1990 than brood year 1989. Unlike Spring Creek tule fall Chinook, where fish were released in March, April, and May, these fish were released in June. These upriver bright fish are also recovered farther north than Spring Creek tules. Alaska ocean troll and ocean sport took most of these brood year 1990 fish (2,161), followed by Canadian troll and ocean sport fishers (1,844), and the Columbia River gill net fishery (1,041). Spawning ground surveys account for an additional 1,047 fish.

Survival for brood year 1991 is 0.2039%, approximately 60% of brood year 1990. Alaskan troll (856) and British Columbian fishers (570) harvested fish in the ocean, and the Columbia River gill net fishery took 920 fish. Although brood years 1990 and 1991 had very low survival rates basin wide, these releases are in the middle, and fifth from the lowest.

The estimate of survival for brood year 1992 is now 0.3623% with a total survival of 6,763 fish. WDFW added 6 observed spawning ground recoveries in 1998. Alaska and British Columbia ocean fisheries took 787 and 118 fish respectively. Columbia River gill nets took 1,140 fish, and the river sport fishery accounted for 275. Survival for this brood year is average.

Survival from brood year 1993 is now 13,540 fish or 0.7531%, more than double the survival for brood year 1992. This is the second best survival for this hatchery and species. Alaska and Canada took nearly equal shares in the ocean catch (1,545 and 1,222), and over thirty-five hundred fish were harvested in various Columbia River fisheries.

Brood year 1994 is now estimated to have survived at a rate of 0.0826%, only about one ninth the rate of the previous brood year, and the next to lowest for this hatchery and species. Alaskan fishers took 229 fish from a total of 309 estimated recoveries in the ocean. An estimated 299 fish were recovered in Columbia Basin spawning ground surveys.

The estimated survival for brood year 1995 is 0.2422%, with over nine hundred recoveries in Alaskan waters, from a total 5,079 estimated recoveries. This survival is in the lower half of survivals for this hatchery and species.

Brood year 1996 is in the lower third for Little White Salmon upriver bright fall Chinook at 0.1388%. Even so, fish were recovered in Alaska (764) and California (44) ocean fisheries.

Brood year 1997 is in the upper third of the survivals at 0.4114%. Nearly eleven hundred fish were harvested in Alaskan waters. The five thousand plus fish recovered in the Columbia River are particularly noteworthy. Over three thousand of those resulted from WDFW conducted spawning ground surveys. This high number of estimated spawning ground recoveries is undoubtedly due to the hatchery restricting the number of fish entering the adult holding pond during spawning season. This practice was begun in 2000. This brood year contributed fifteen hundred fish to the Columbia River gill net fishery.

Another twenty-five hundred fish from brood year 1998 are estimated to have been recovered on spawning grounds. The survival for this brood year is 0.3909%, a bit lower than for the previous brood year. Close to two thousand fish were harvested in the Columbia River gill nets.

Spawning ground recoveries expand to over four thousand fish for brood year 1999. The estimated total survival is 13,881 fish or 0.7044%. This brood year has the third highest survival to date. Over thirty-five hundred fish were taken in Alaska non-treaty troll fisheries, and about twenty-five hundred in Columbia River gill nets.

## **Spring Creek National Fish Hatchery**

Spring Creek NFH is located on the Columbia River at Underwood, Washington, about 30 miles upstream of Bonneville Dam. Elevation at the hatchery is 93 feet above sea level. The hatchery was constructed in 1900 and began operations a year later. Fish were trapped in the Big White Salmon River from 1901 through the 1950s. Spring Creek NFH was remodeled in 1955 under the Mitchell Act, and redone again in 1970 under the John Day Mitigation Act. Spring Creek NFH currently produces tule fall Chinook.

The survival rate for brood year 1984 was 0.0462%, and was 0.1294% for brood year 1985. Even with the low survival rate of these two brood years, thousands of fish were harvested in both the ocean and the Columbia River.

Survival for brood year 1986 is estimated at 0.4328%, 46,050 fish from a release of 10,640,406. Over 22,000 fish were harvested in the ocean and 14,288 were taken in the Columbia River gill net fishery.

Brood year 1987 fish were recovered primarily in commercial fisheries off the coasts of Canada and Washington, as well as in the Columbia River gill net fishery. Total survival for the 1987 brood year is 0.3087%, or 27,326 fish from a release of 8,850,757.

Brood year 1988 fish were recovered primarily in the Columbia River gill net fishery (24,168). They also contributed to the ocean fisheries in Washington (17,417), Canada (11,671), and Oregon (6,319). Overall survival is estimated at 0.5168%.

Fish from brood year 1989 fared slightly worse than brood year 1988 with an overall survival rate of 0.4855% or 49,683 fish. The greatest number of recoveries was in the ocean off Washington (14,894), and in the Columbia River (12,548). The Columbia River gill net fishery took the great majority of fish harvested in the Columbia River. British Columbia took 9,984 fish, and ocean harvest off Oregon totaled 3,551 fish.

The estimated total survival for brood year 1990 drops to 0.1295%. This is one of the lower survival rates since brood year 1980. Most of the harvest of these fish occurred in the Columbia River, 5,017 fish, followed by the Washington ocean harvest of 4,811, and the Canadian harvest of 3,345.

Brood year 1991 survival rate, expanding for each coded-wire tag, is 0.1374%, only slightly better than brood year 1990. British Columbia ocean troll and ocean sport fisheries took the largest number of fish from this brood year at 7,787 fish. The Columbia River gill net fishery harvested 7,001 fish.

Survival for brood year 1992 is 0.1620%, or 23,488 fish. The Columbia River gill net fishery harvested 10,508 fish, and 3,119 were taken in the ocean. The great majority of fish harvested in the ocean were taken by Canadian fishers. Brood year 1992 was the first year of a three year fin clip study at Spring Creek, and the PEF method was used for this calculation.

Brood year 1993 survival was greater than 1992 at 0.2197%. This survival rate was calculated by the rd program. Oregon reported slightly more ocean recoveries than Canada, but the Columbia River gill net fishery harvested greater than three times more fish than the combined ocean harvest. This brood year contributed more than twenty-four thousand fish to fisheries. The 1993 brood year was the second of three years of a three year fin clip study at Spring Creek.

In the third year of the fin clip study (brood year 1994) fish were released which were not represented by any recoverable coded-wire tags. Therefore, the PEF method was used (rd.prg). Survival is now estimated to be 0.1038%. Nevertheless, 4,430 fish were harvested in the ocean, mostly in British Columbia. An additional 6,259 fish were harvested in the Columbia River.

The current total survival estimate for brood year 1995 is 0.0492%, the lowest since brood year 1984. Nevertheless, 3,586 fish were harvested in the Columbia River, and over eighteen hundred in the ocean fisheries, the majority of which were taken off the coast of Oregon.

The estimated survival for brood year 1996 is a greatly improved 0.4249, nearly ten times better than the previous brood year, and the best survival since brood year 1990. Over twenty-six thousand fish were harvested in the Columbia River and Estuary, and an estimated 16,111 were caught in West Coast ocean fisheries. Seventy-two hundred fish were harvested in WDFW reported ocean fisheries, fifty-five hundred in Oregon, and three thousand in British Columbia.

Survival drops to 0.0870% for brood year 1997, third from last in survival rates for Spring Creek. Columbia River gill netters took the majority of fish off station (4,875). Canadian ocean sport and troll fishers harvested an additional 2,625. Washington and Oregon ocean fisheries took 656 and 720 fish respectively.

Survival jumps ten fold to 0.8696% for brood year 1998, yielding 92,113 returning or harvested fish. ODFW report the greatest number of ocean recoveries (15,755). 34,585 fish were taken in the Columbia River. WDFW reported ocean tag code recoveries that are equivalent to 9,984 fish, and CDFO catch was 6,454.

Brood year 1999 is now the most successful in the series represented in this report with a survival rate of 3.1195% and total of 501,180 fish. Columbia River contribution was 178,386, and ocean recoveries totaled 166,682.

## Warm Springs National Fish Hatchery

Warm Springs NFH is located on the Warm Springs River, approximately 14 miles north of Warm Springs, Oregon at 1,525 feet above sea level. The hatchery was authorized in 1966 and began operations in 1978. The Confederated Tribes of the Warm Springs Indian Reservation of Oregon entered into an agreement with the USFWS to increase tribal fishing opportunities. Operations at the hatchery presently consist of adult collection, egg incubation and rearing of spring Chinook salmon.

Warm Springs has a unique fall release strategy that involves releasing the same coded-wire tags in the fall and in the spring. Therefore fall release and spring release fish are combined in this report.

The 1987 brood year is the first group of fish coded-wire tagged since the late 1970s. Since then, every fish released from the hatchery has been marked. The 1987 brood year had a 0.1272% survival and contributed mainly to the freshwater sport fishery on the Deschutes River. The number of fish released has previously been reported as 609,409 but the total released for this brood year is 661,019. The number of fish with unshed coded-wire tags is 514,633. Groups of Left Ventral (LV) and Right Ventral (RV) fin clipped fish without CWTs were also released. Ventral clipped fish are represented by CWTd fish that were raised in the same raceway. The use of either the PEF or "by tag code" method of estimating survival is problematic. The "by tag code" method was used.

As with the previous brood year, there were LV and RV fish released along with the coded-wire tagged fish and expansions were done for each CWT. Brood year 1988 survived at a rate of 0.1699%, better than brood year 1987. These fish contributed primarily to the freshwater sport fishery in Oregon and the treaty fisheries in both the Columbia River and Deschutes River.

LV and RV clipped fish were released again with brood year 1989, and the "by tag code" method was used to estimate survival. Total survival for brood year 1989 now stands at 209 fish, or 0.0195%. Sixty-three fish were taken in the freshwater sport fishery, 10 in treaty subsistence, and 4 in treaty ceremonial.

Only an estimated 30 fish survived from a release of 659,507 from the 1990 brood year, a survival rate of 0.0045%, using the rd2 program. There were 24 recoveries at the hatchery and 6 in the Oregon freshwater sport fishery.

The rd2 program for brood year 1991 yields a survival of 0.0169%, or only 94 fish. Treaty ceremonial and subsistence took a total of nine fish.

There was a big jump in survival for brood year 1992. Over eight hundred fish were recovered to give a survival rate of 0.1569%, when calculated by rd2 program, near the median of survivals. Treaty fisheries harvested 20 fish, while the freshwater sport harvest was 111.

The estimated total survival rate of 0.2564% for brood year 1993 is in the middle third of survivals. While treaty fisheries took only 3 fish, freshwater sport and fish traps recovered 57. An unusual harvest of 5 fish in California ocean fisheries was noted for this brood year. In all likelihood ODFW hatchery recoveries include the tags from 99 adults that were transferred to the ODFW Round Butte hatchery.

The brood year 1994 release at Warm Springs included fish raised from eggs received from the ODFW Round Butte Hatchery. Fish were also received from Round Butte as yearlings. Round Butte fish were coded-wire tagged and fin clipped by removing the adipose and left ventral fins. A total of 321,363 Round Butte fish were released. The total survival for this brood year is 0.1366%, near the median for this hatchery and species. Treaty fisheries reported taking 13 fish before they returned to the hatchery.



Brood year 1995 achieved a new record high survival rate in this series with an estimated survival of 0.4163%. Over nineteen hundred fish were recovered from this release. More than 95% of the fish returned to the hatchery, with 55 additional fish reported as ODFW hatchery recoveries, which are most likely from 50 adults transferred to the ODFW Round Butte hatchery. There were again recoveries reported in the California troll fishery. The treaty ceremonial fishery reported and estimated 15 recoveries.

Total estimated survival for brood year 1996 set a new record for Warm Springs spring Chinook at 0.6122%. Fish were available for both treaty fisheries (316) and freshwater sport fisheries (905) and, to a lesser extent the Columbia River gill net fishery (31).

Brood year 1997 survival continues an upward trend at 0.7021%. There were 11 expanded recoveries in the ODFW reported non-treaty ocean troll fishery from this brood year, the first time this has been observed. Most of the Columbia River Basin recoveries, which totaled 1,687, were in sport fisheries. There were and estimated 53 recoveries in tribal fisheries.

Brood year 1998 sets a record for Warm Springs spring Chinook with a survival of 1.6442%. There were recoveries again in the Oregon ocean troll fisheries (16). For the first time there were 3 recoveries in Alaska. Over two thousand fish were taken in freshwater sport fisheries, and nearly fifteen hundred were harvested by Columbia River gill netters. Treaty harvest was 77.

Although survival is only 63% of the previous brood year at 1.000%, brood year 1999's survival rate is higher than any of the other previous brood years. Alaska, BC, and Oregon all reported ocean recoveries, which nevertheless account for only 3 fish when expanded to total contribution. Freshwater sport harvest was 867 against 328 taken in gillnets. Treaty harvest was 41 fish.

## **Willard National Fish Hatchery**

Willard NFH is situated four miles upstream of Little White Salmon NFH on the Little White Salmon River at an altitude of 900 feet. Willard is part of the Little White Salmon NFH complex. Willard NFH was constructed in 1952 under authorization of the Mitchell Act and was originally planned as a fall Chinook hatchery. The hatchery was switched to a coho facility because of cold water temperatures. Since the mid-1960s, the hatchery has been used primarily for coho production. Adult coho are trapped and spawned at Little White Salmon NFH.

Fish from brood year 1988 contributed mostly to ocean fisheries (27,996 fish) from British Columbia (1,473) to California (5,189). An additional 8,776 fish were harvested in the Columbia River. Fifty-five hundred of those were taken in the gill net fishery, and 3,200 in the estuary sport fishery. Total survival rate was estimated to be 1.6976%.

Brood year 1989 coho survived at a rate of 0.3247%. Total survival was estimated to be 8,355 fish from a release of 2,573,323. They contributed mainly in ocean sport and non-treaty troll fisheries of Oregon (3,126) and Washington (1,779).

Using the rd2 program, total survival for brood year 1990 was only 1,722 fish or 0.1097%. Fish were harvested primarily in sport fisheries off the coasts of Washington (795), Oregon (221) and California (63). One hundred twenty-six fish were taken in the Washington non-treaty troll fishery. One hundred twenty-nine fish were taken in the Columbia River sport fishery.

Survival of brood year 1991 was even lower than 1990 with an overall survival of 0.0720%, or 2,207 fish from a release of over 3 million, using the rd2 program. The only fish harvested from this brood year were 550 fish taken in the Columbia River, 489 in the gill net fishery and 61 in the freshwater sport fishery.

There was some improvement in brood year 1992 with a survival rate of 0.1007%. Washington ocean sport fisheries took 240 fish, and Oregon ocean sport 120. The Columbia River gill net fishery took an additional 161 fish for a total off station harvest of 521 fish from a release of nearly 2 million.

Brood year 1993 survival is in the same range as the previous three broods at 0.1219% when calculated by the rd2 program. Reporting by ODFW shows 85 fish taken in the Columbia River sport harvest, and 14 at an ODFW hatchery. All other recoveries were at Little White Salmon NFH.

The estimate of survival for brood year 1994 is 0.2379%, a total of 5,602 fish, most of which were adults returning to the hatchery. Coho from the WDFW Kalama River hatchery were released as part of this brood year, and did not have a unique coded-wire tag. Since there was no representative coded-wire tag for these fish, the rd program was used to estimate survival.

The survival for brood year 1995 is 0.5383%, now the third best during the 1990s. This higher survival rate is to a large extent due to the release at Little White (rather than Willard) of coho from the ODFW Klaskanine hatchery. CWT recoveries show that these fish survived at a rate over 3 times higher than the Willard fish. There were an estimated 928 recoveries in the ocean and 1,918 in the Columbia River. The Klaskanine fish were 100% adipose fin clipped, and, although there was a coded-wire tag only (no adipose fin clip) group released this brood year, Willard coho were not "mass marked" with an adipose fin clip.

Brood Year 1996 Bonneville coho, some raised at the ODFW Cascade hatchery, and eggs incubated at the Eagle Creek NFH, were released along with Willard fish to make up this brood year. Bonneville stock fish did not receive a unique coded-wire tag. A PEF was calculated for this brood year. The calculated total survival of 0.156% was higher than only three other brood years. Only 72 fish

from this brood year were caught in the ocean, and just 324 in the Columbia River.

The estimation of total survival for brood year 1997 is 0.8639%. This appears to be the first brood year that was mass marked by removing the adipose, except for one group with a coded-wire tag and no adipose fin clip. The brood year has the second highest rate of survival to date. Ocean fisheries reported by ODFW account for 1,286 adults harvested, compared to 724 reported by WDFW, and 1,450 in the Columbia River.

ODFW recoveries for brood year 1998 are once again in the RMIS database, and total survival is now estimated at 1.0344%. Nearly five thousand fish were harvested in Washington ocean fisheries, 1,853 in ODFW reported ocean fisheries, and 3,931 fish were taken in the Columbia River.

Both Little White and Eagle Creek stock were released for brood year 1999, and the two stocks did not receive separate coded-wire tags. Releases for brood year 1999 included two coded-wire tags, one of them a "double index" tag where fish were not adipose clipped; and with an adipose clip. This is now standard operating procedure. However, it appears that the DIT tag was put into fish from Eagle Creek which were raised and released at Willard. Estimated survival for brood year 1999 is 0.2807% with 385 ocean recoveries and a contribution of 818 in the Columbia River.

## **Winthrop National Fish Hatchery**

Winthrop NFH is situated along the Methow River, near the town of Winthrop, Washington. Elevation is 1,760 feet above sea level. Nine dams separate Winthrop from the Pacific Ocean. The hatchery is authorized by both the Grand Coulee Fish Maintenance Project (1937), and the 1938 Mitchell Act.

The facility began operations in 1942 by trapping adult sockeye and steelhead at Rock Island Dam and transporting them to the hatchery. By 1951 the hatchery was rearing sockeye, spring Chinook, steelhead, kokanee, coho, and resident trout. Until 1996 the program had been simplified to spring Chinook only. Coho and steelhead now being raised at Winthrop have not been coded-wire tagged. Tagged summer Chinook were released in 1996.

Spring Chinook were coded-wire tagged beginning with brood year 1989. There were 16 observed recoveries from the 107,670 tagged fish released. Using the newer rd2 method of expanding for each tag code, these recoveries are expanded to a total of only 81 fish for an overall survival rate of 0.0077%. An estimated 27 fish were recovered in the freshwater sport fishery, and an estimated 10 fish were recovered by WDFW hatcheries.

All spring Chinook yearling fish released from Winthrop beginning with brood year 1990 have had representative coded-wire tags. Therefore, the rd2 program has been used for all subsequent brood years.

There is only one recovery from coded-wire tagged brood year 1990 Winthrop spring Chinook. That recovery was at a WDFW hatchery. This recovery is expanded to a total of 8 to include unmarked fish that were probably also killed at that hatchery. The overall survival rate is therefore estimated to be 0.0013%.

There are no brood year 1991 recoveries from the 189,187 tagged fish released. Brood year 1992 contributed an estimated 74 fish to a WDFW freshwater fish trap from the total estimated recovery of 94 fish, a survival rate of 0.0169%.

Survival for brood year 1993 has been reported as the highest on record to date for Winthrop at 0.0429%, up from last year. WDFW reported more hatchery recoveries than USFWS, and there were no other off station recoveries. It appears that 8 USFWS recoveries are missing from RMIS.

Brood year 1994 sets the new record for Winthrop Spring Chinook at 0.0543%. Fifty-eight of the hatchery recoveries were reported by WDFW. These adults were trapped at Wells Dam and taken to the WDFW Methow hatchery. There was also one spawning ground survey recovery at river mile 48 in the Methow River.

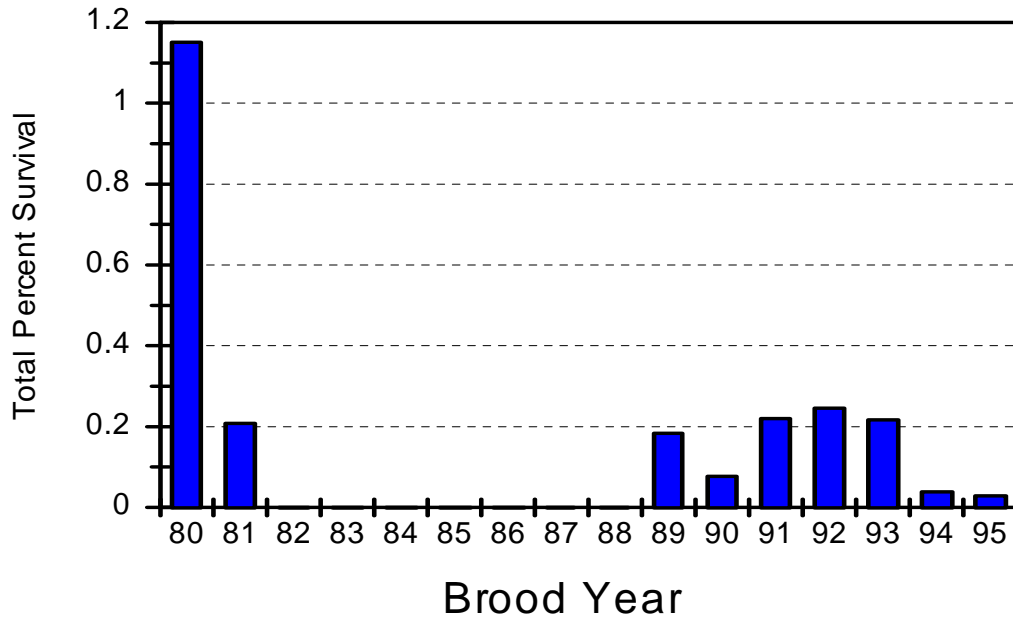
Brood year 1995 fish were raised and released at both Winthrop NFH and Methow SFH. Release records in the RMIS database (reported by WDFW) are somewhat different than records provided by Winthrop. Returning fish from this brood year were captured at Wells Dam and transported to Winthrop NFH. Thus, there were 117 WDFW reported hatchery recoveries vs. 3 FWS reported hatchery recoveries. Two fish were recovered in Canadian ocean fisheries, and the only other recoveries were in the WDFW spawning ground group. Total survival for this brood year is estimated at 0.8609%. Although this is by far the highest survival to date, the unusual circumstances must be noted.

The addition of four WDFW gill net fishery recoveries increases the estimated rate of survival to 0.3559% for brood year 1996 Winthrop spring Chinook. WDFW recoveries yield an estimated 139 fish recovered on spawning grounds, all age-4 fish in the year 2000. Three fish were reported caught by Alaska.

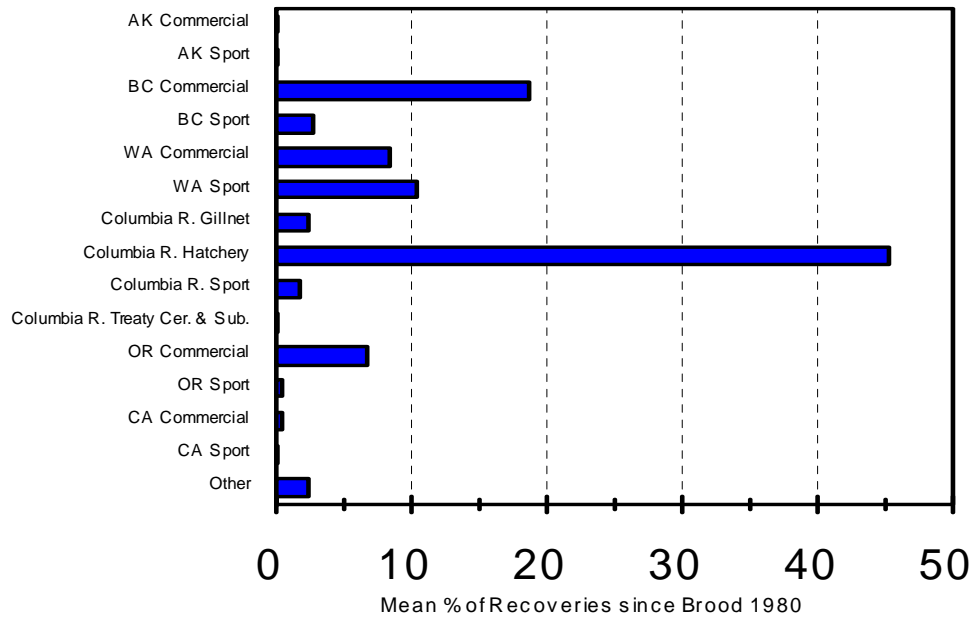
Survival for brood year 1997 is lower than for 1996 at 0.2836%. The half million release produced an estimated contribution of 1,546 jacks and adults. Gill net and sport fisheries intercepted the greatest number of fish: 507 and 378 respectively.

The brood year 1998 release of 364,632 fish yielded a contribution of 1,440 for a survival rate of 0.3813%. Columbia River harvest was split almost equally between gill net and sport fisheries. Returns to the hatchery were also split nearly equally between FWS and WDFW.

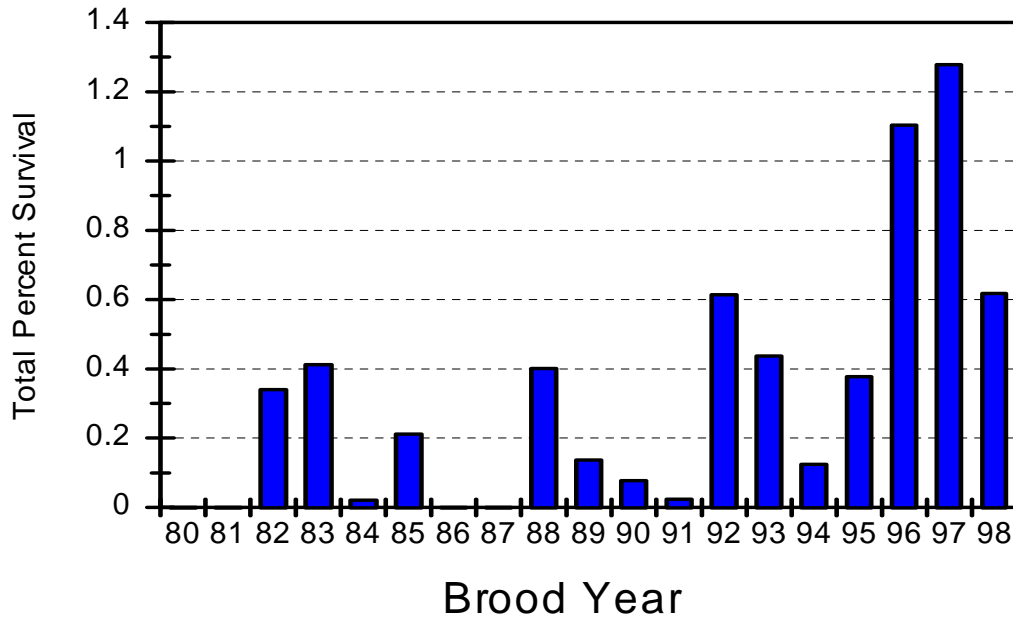
## Abernathy FTC Tule Fall Chinook fingerlings



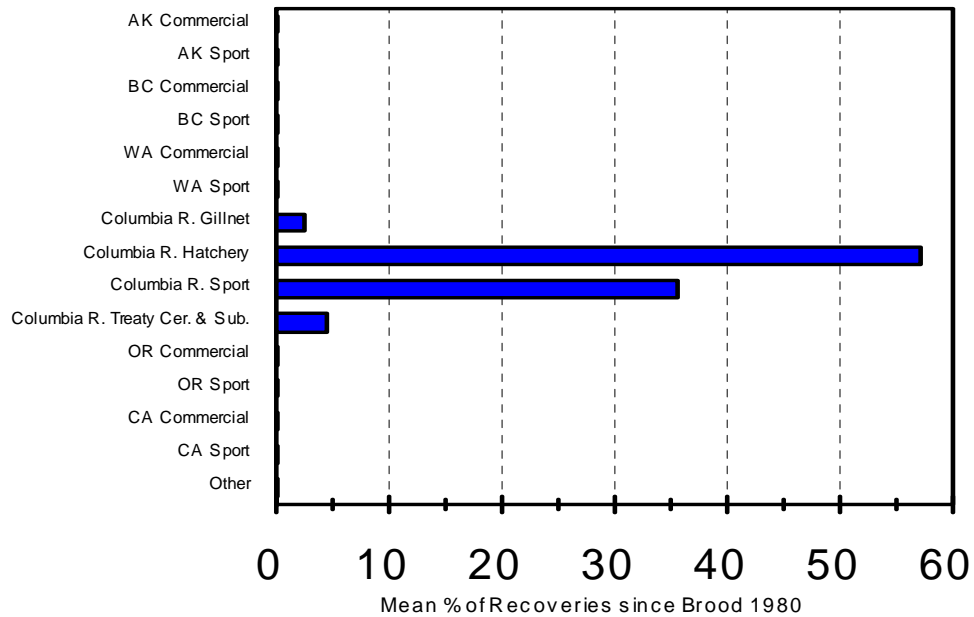
## Abernathy FTC Tule Fall Chinook fingerlings



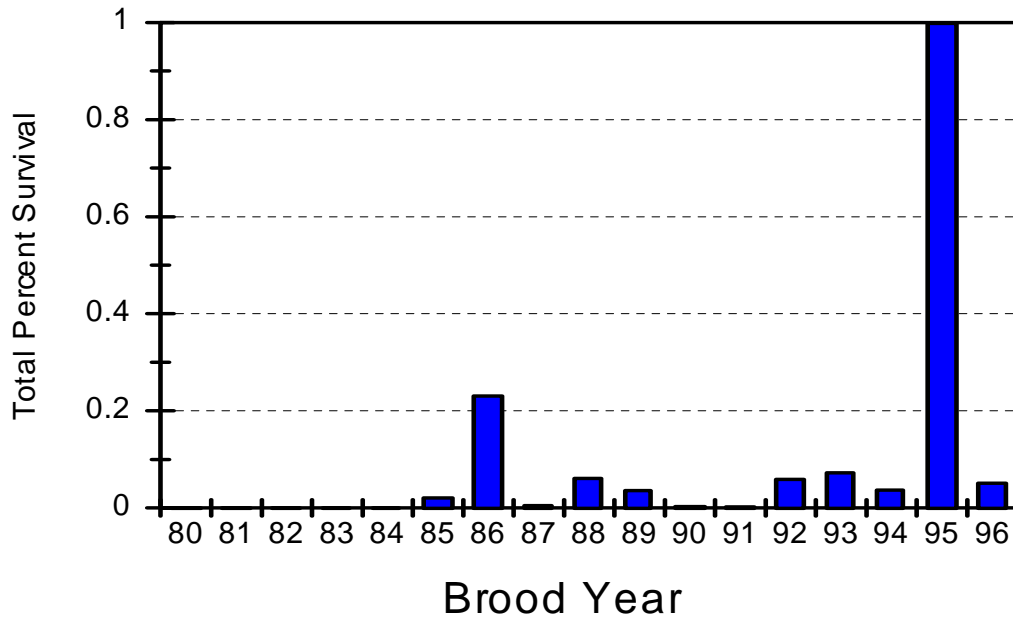
## Carson NFH Spring Chinook yearlings



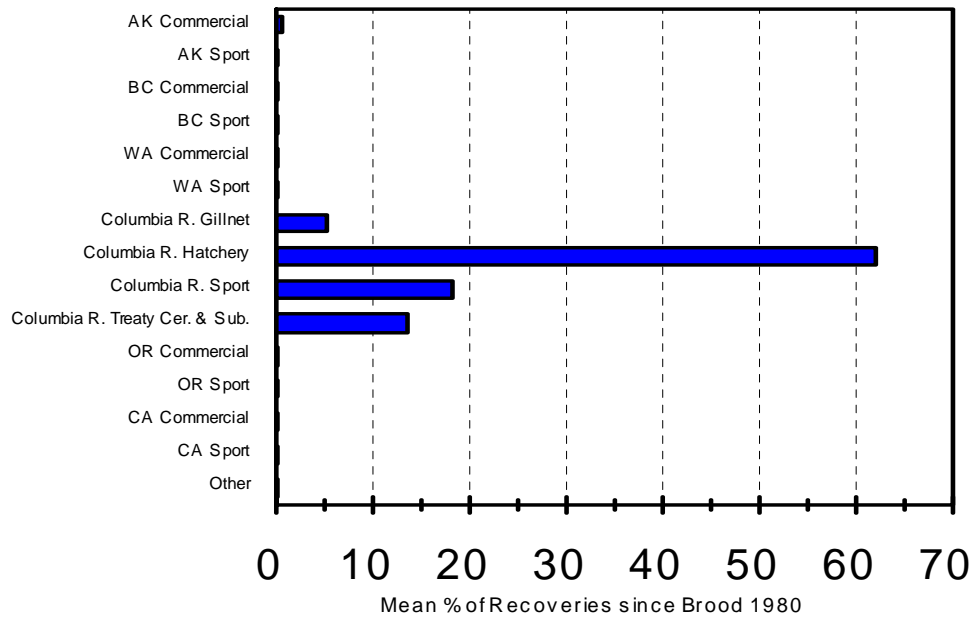
## Carson NFH Spring Chinook yearlings



## Dworshak NFH Spring Chinook yearlings

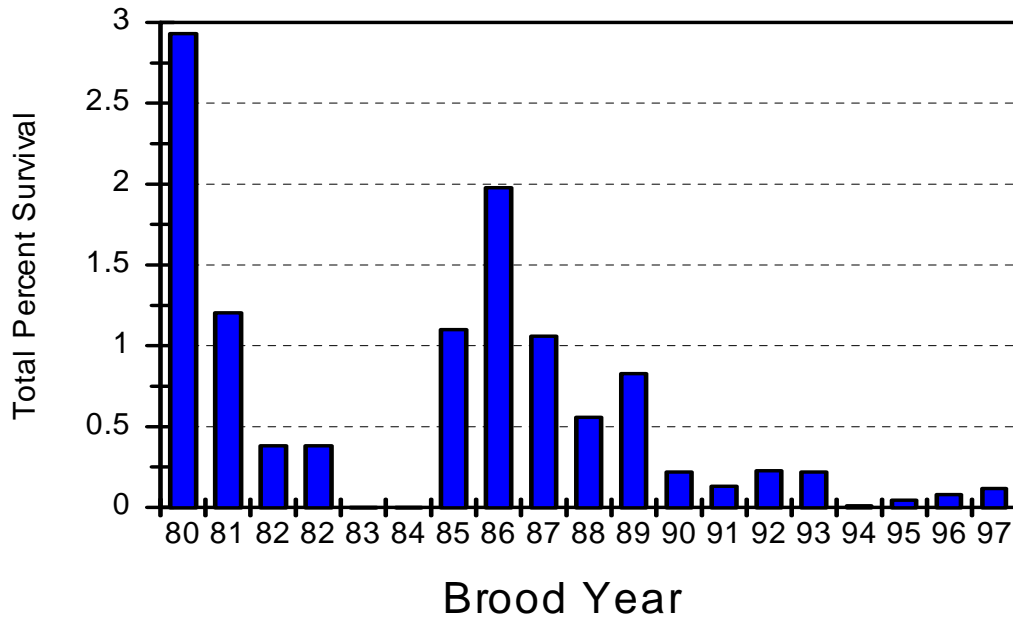


## Dworshak NFH Spring Chinook yearlings

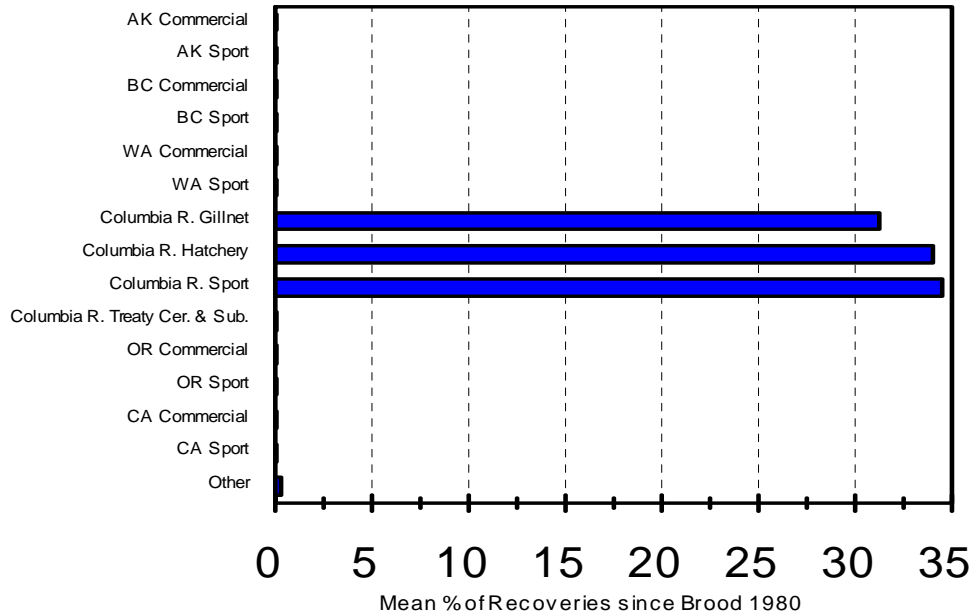




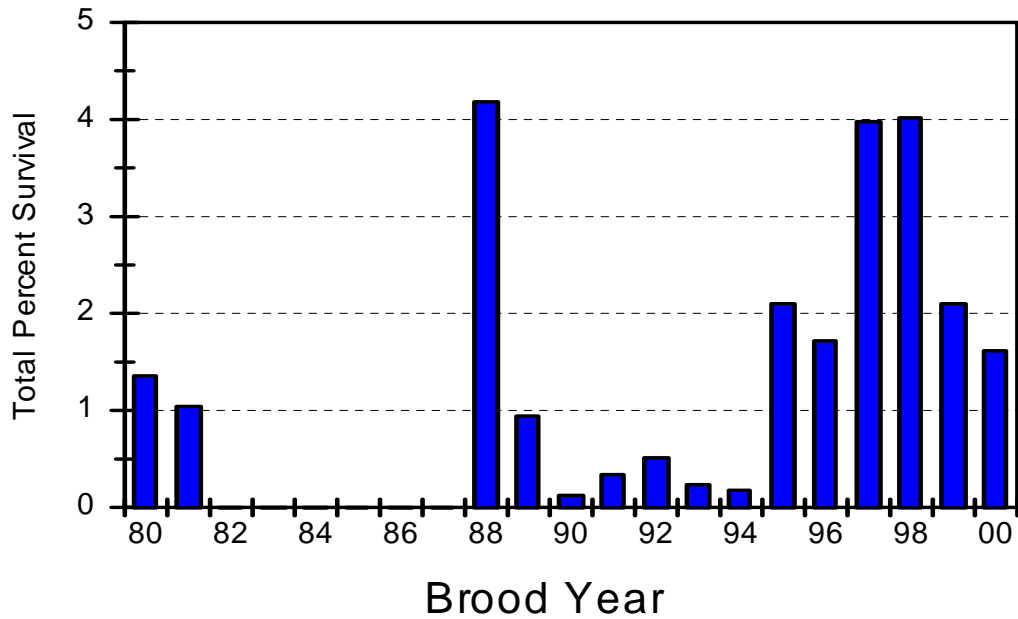
## Dworshak NFH Summer Steelhead yearlings



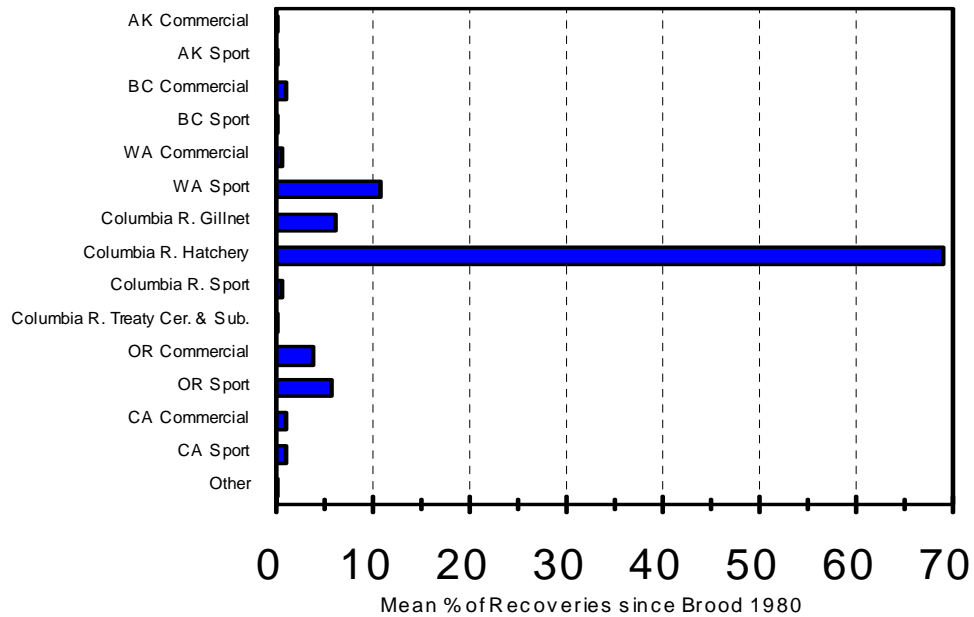
## Dworshak NFH Summer Steelhead yearlings



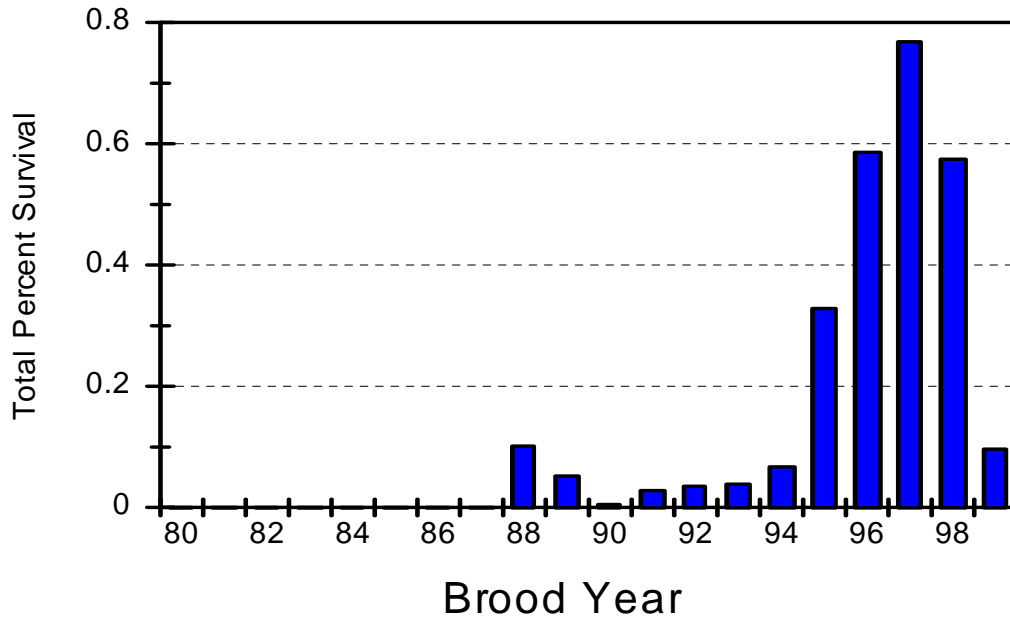
## Eagle Creek NFH Coho yearlings



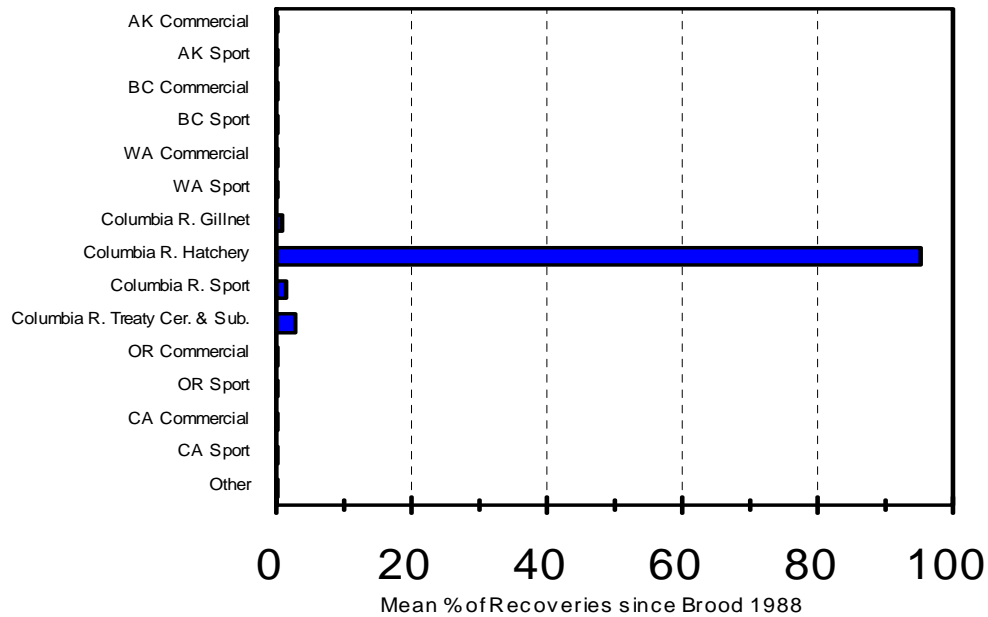
## Eagle Creek NFH Coho yearlings



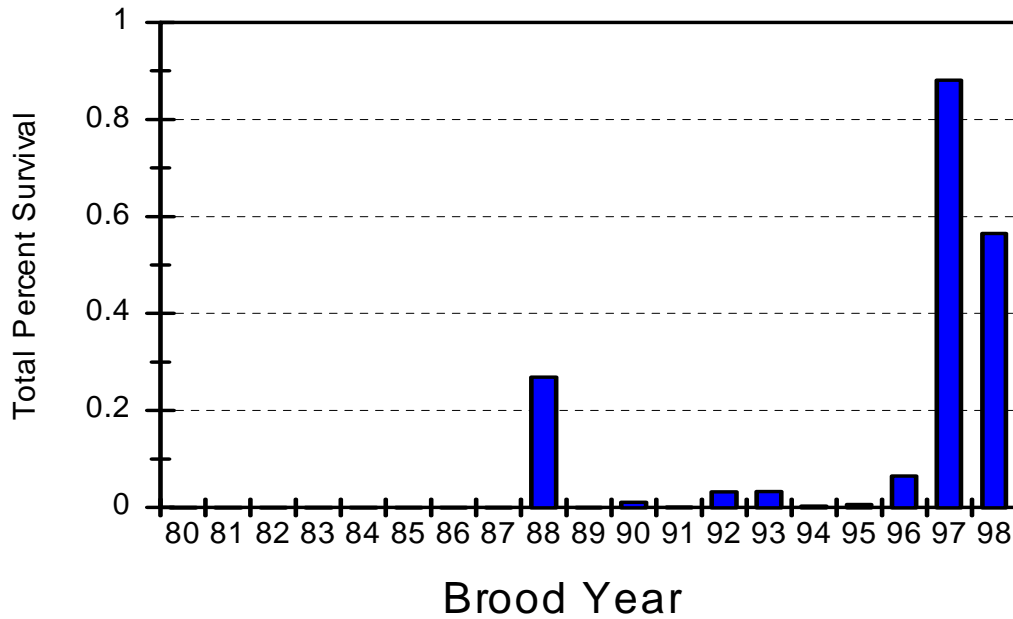
## Entiat NFH Spring Chinook yearlings



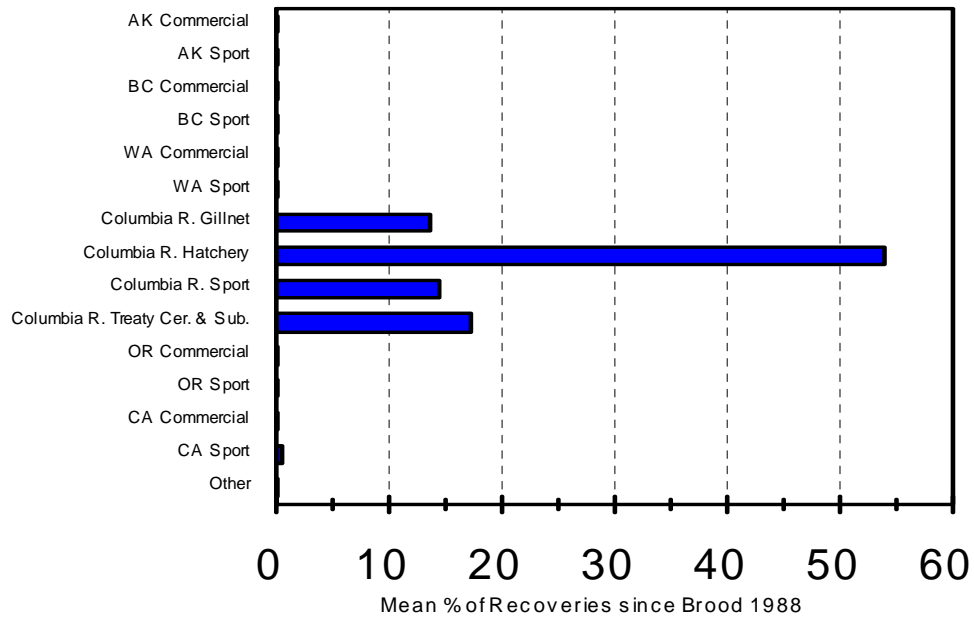
## Entiat NFH Spring Chinook yearlings



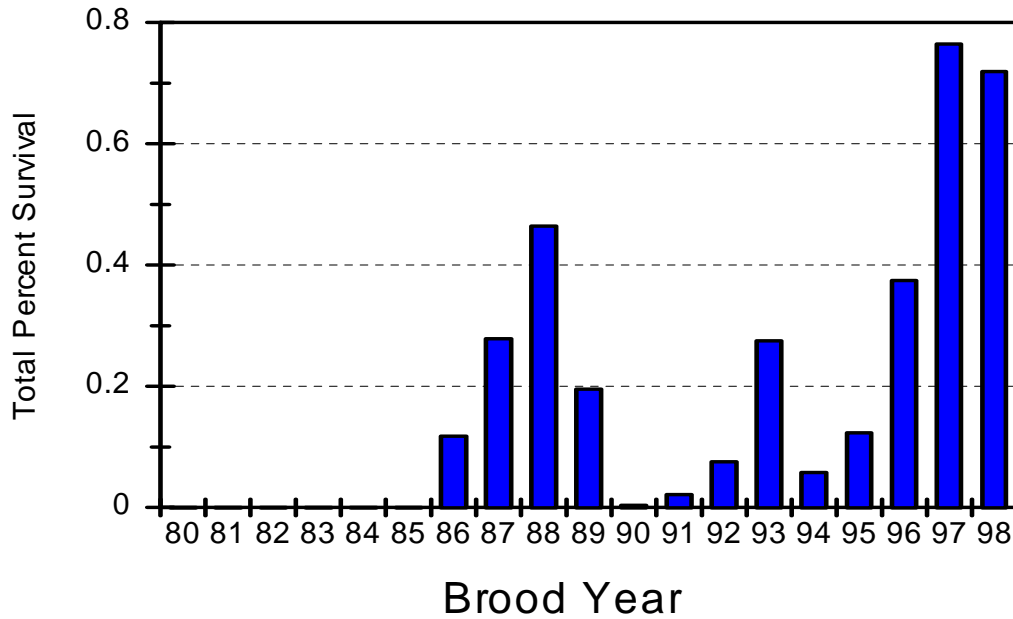
## Kooskia NFH Spring Chinook yearlings



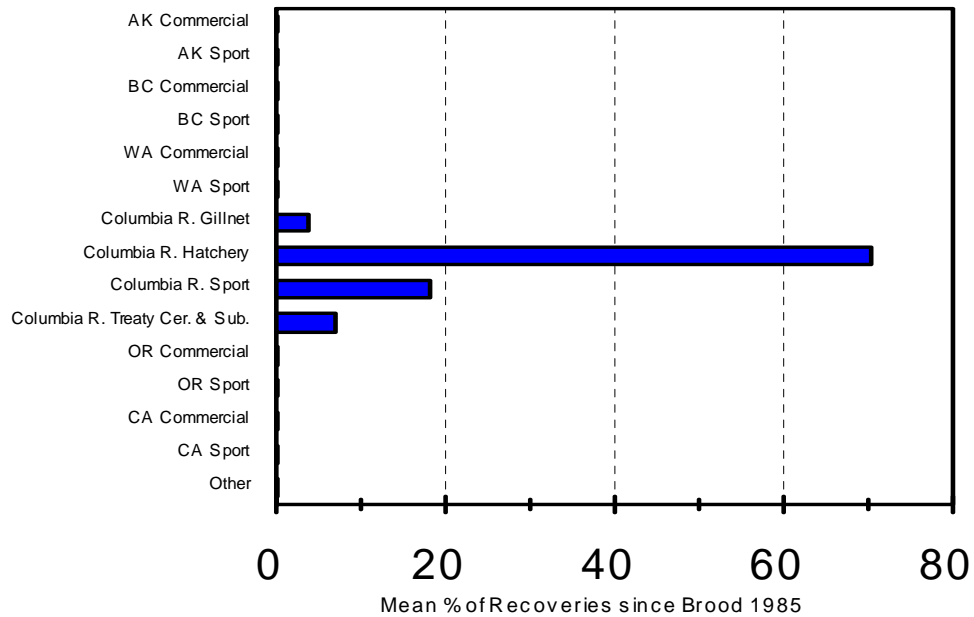
## Kooskia NFH Spring Chinook yearlings



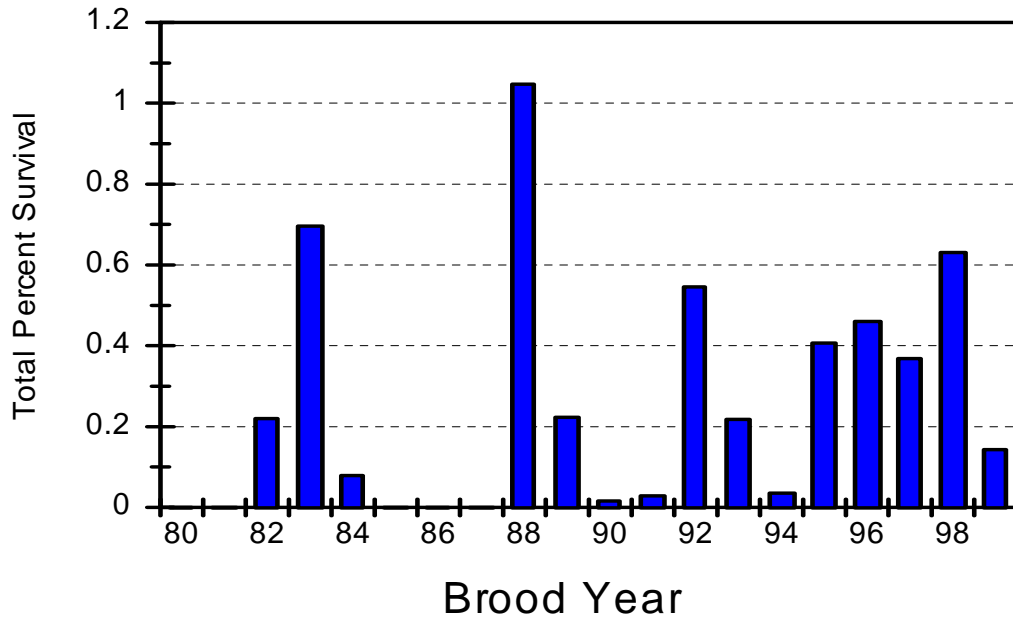
## Leavenworth NFH Spring Chinook yearlings



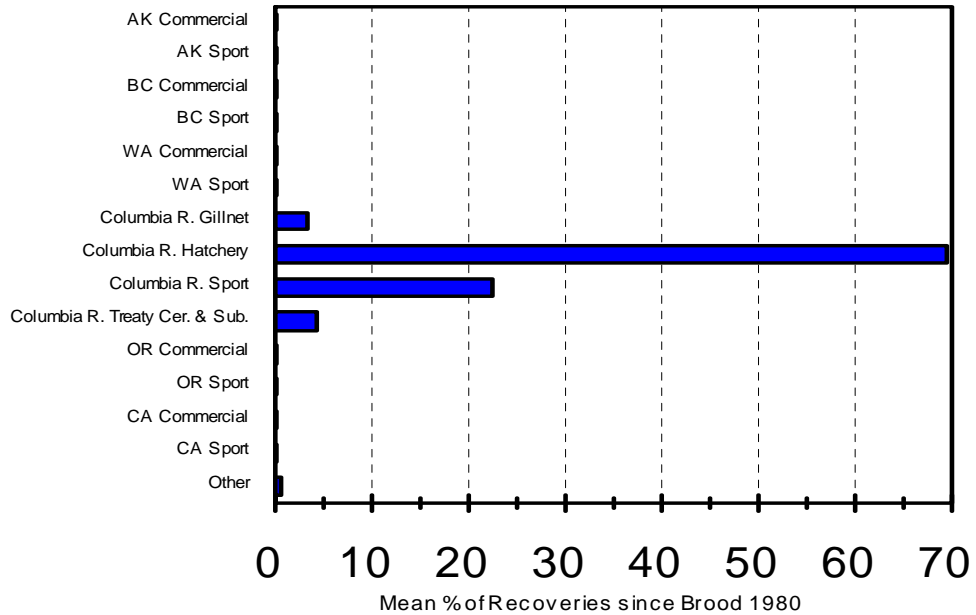
## Leavenworth NFH Spring Chinook yearlings



## Little White Salmon NFH Spring Chinook yearlings

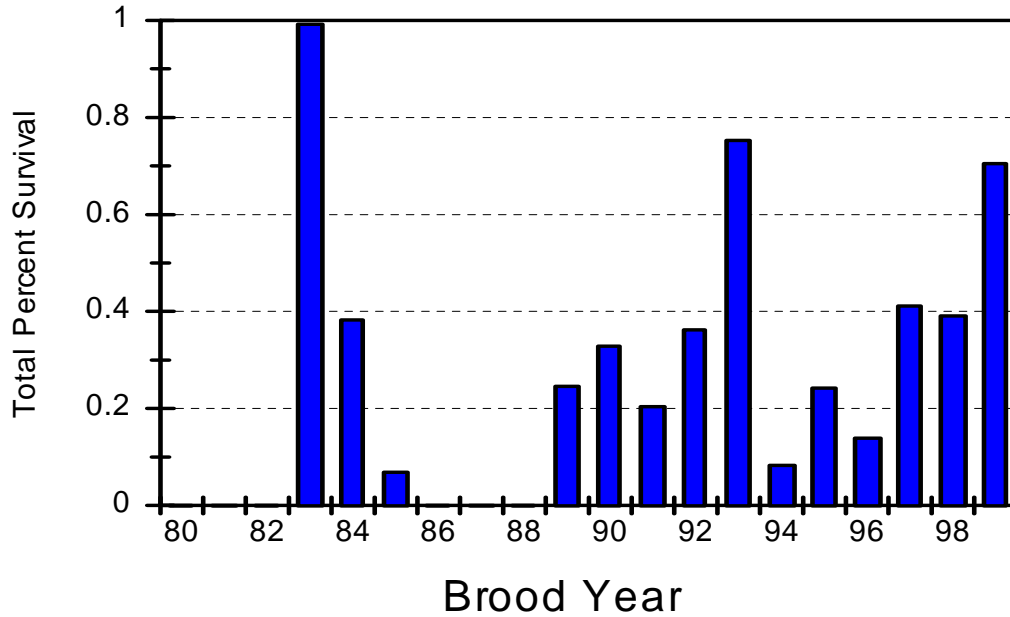


## Little White Salmon NFH Spring Chinook yearlings



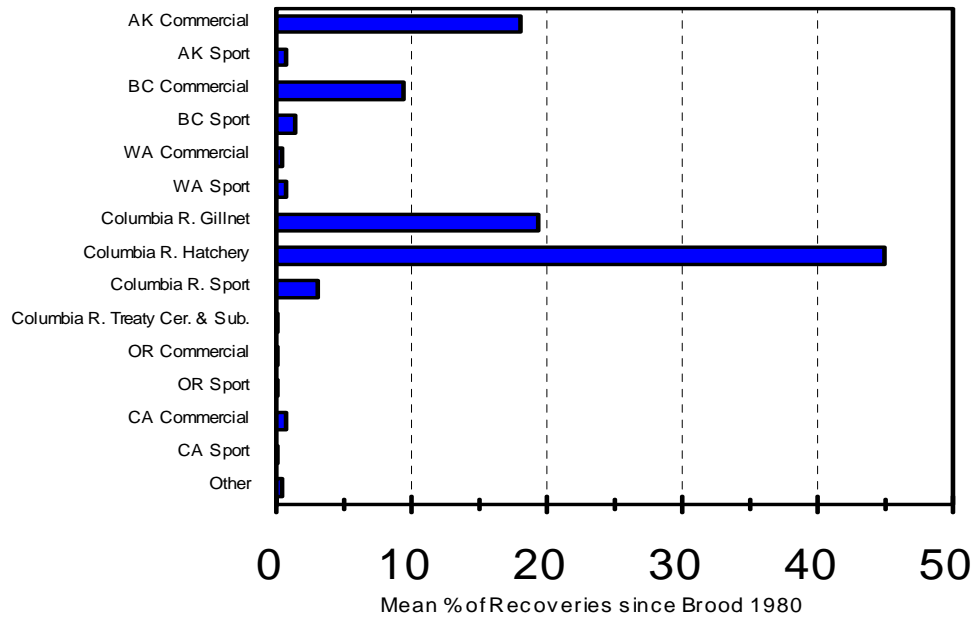
## Little White Salmon NFH

### Upriver Bright Fall Chinook fingerling

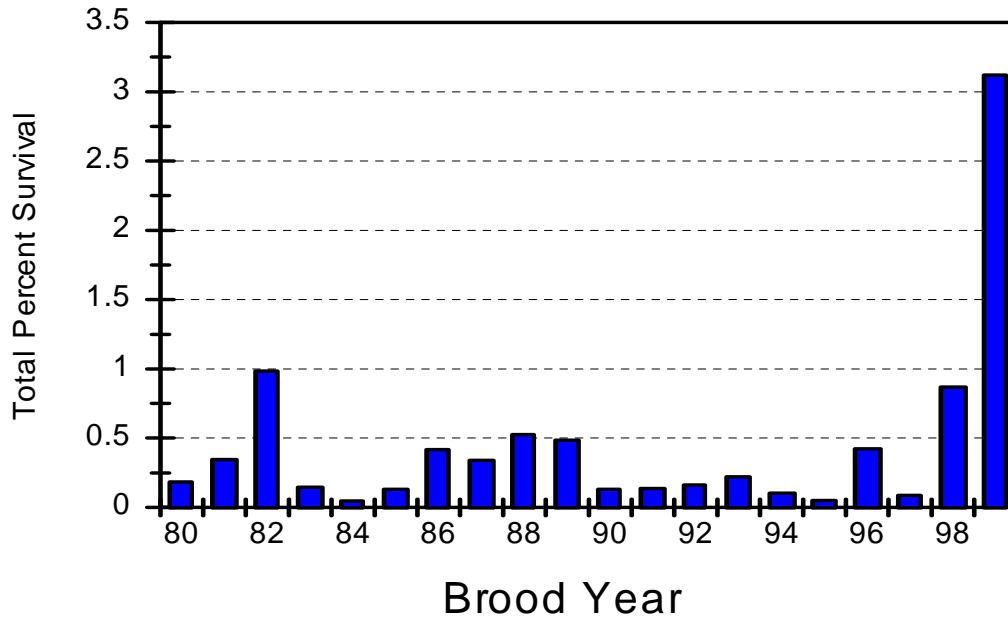


## Little White Salmon NFH

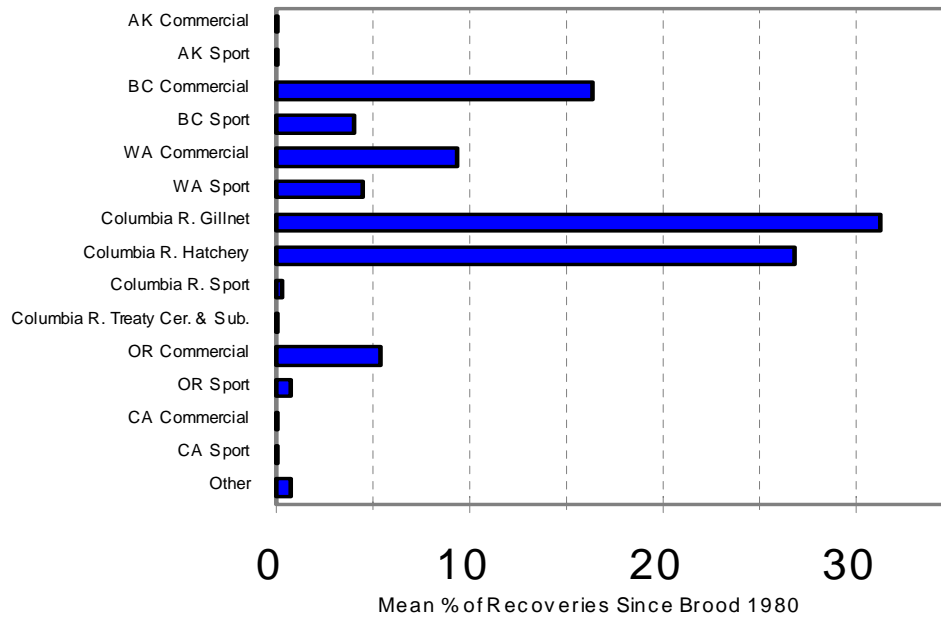
### Upriver Bright Fall Chinook fingerling



## Spring Creek NFH Tule Fall Chinook fingerlings

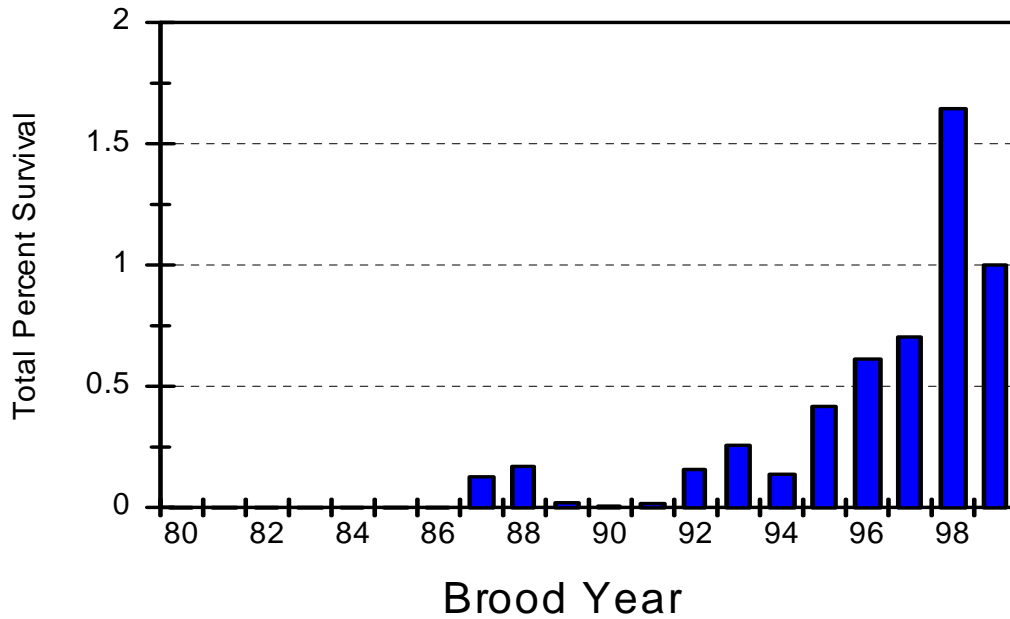


## Spring Creek NFH Tule Fall Chinook fingerlings

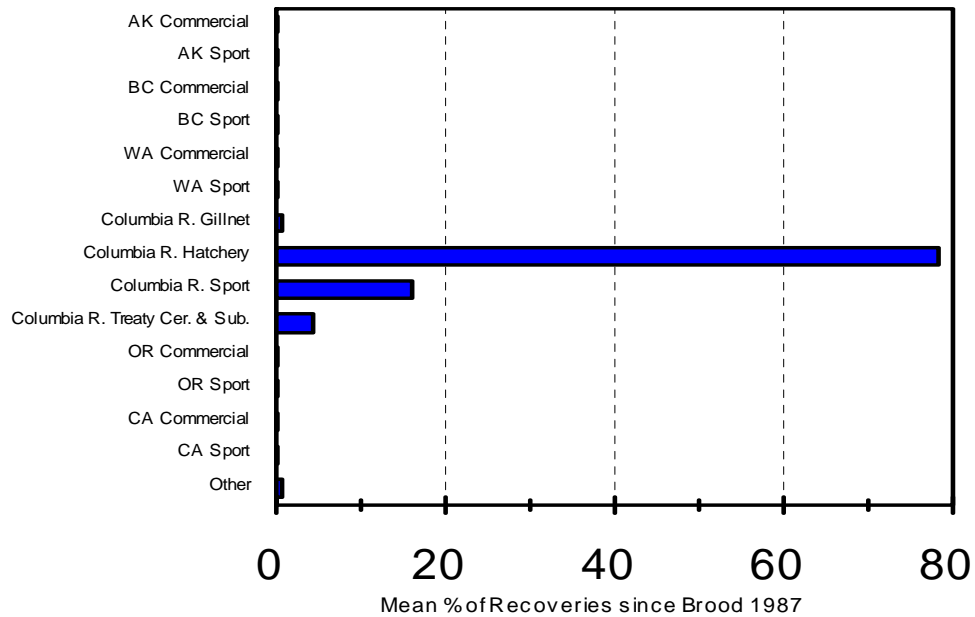




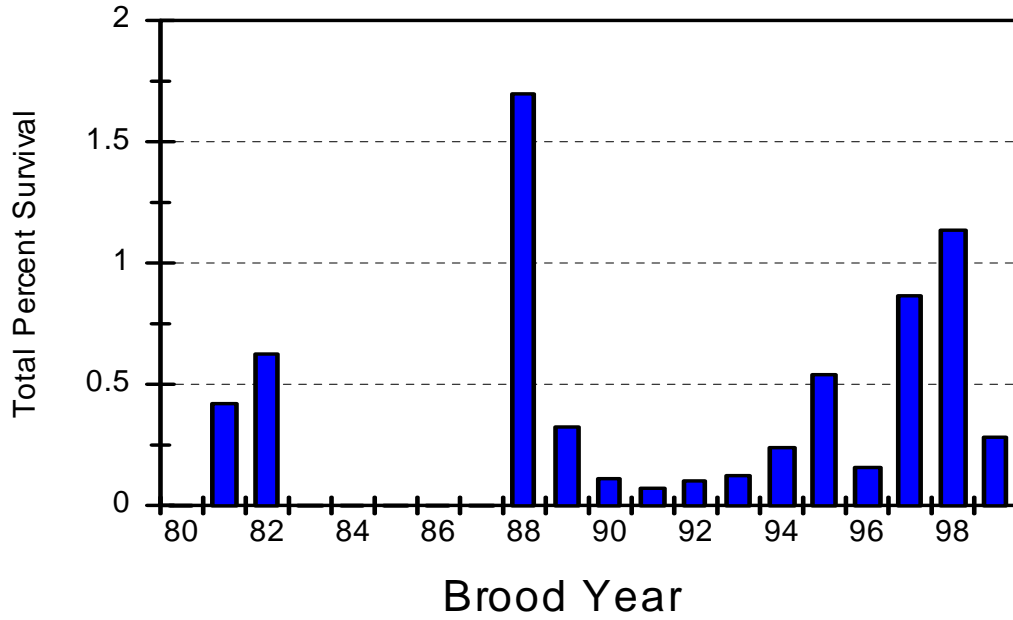
## Warm Springs NFH Spring Chinook



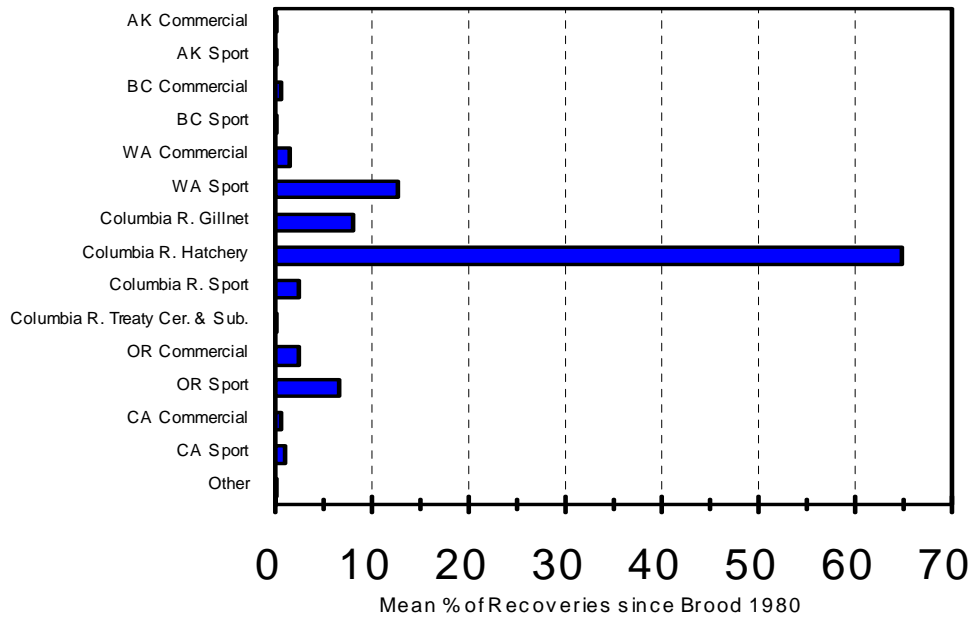
## Warm Springs NFH Spring Chinook yearlings



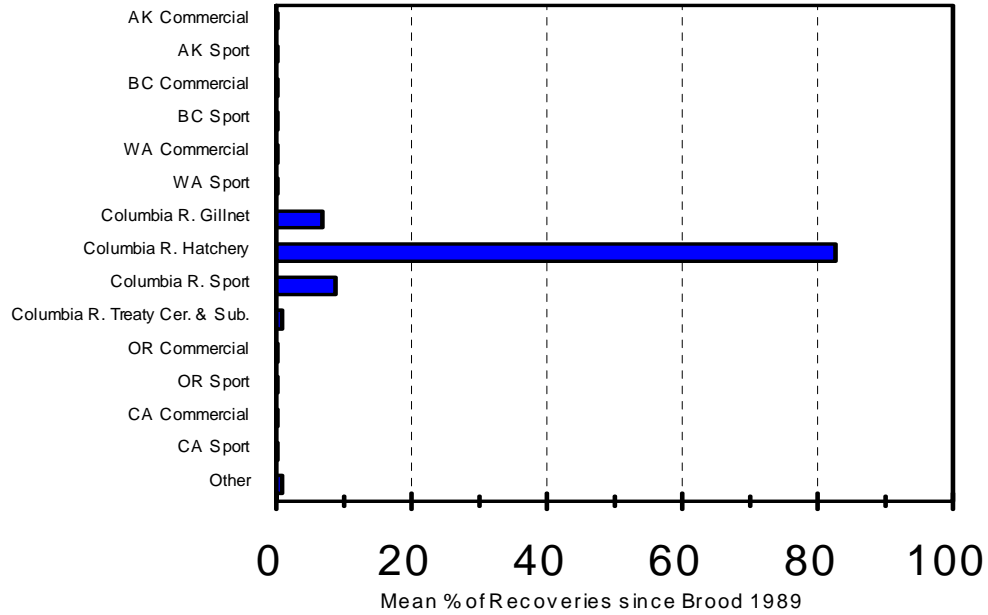
## Willard NFH Coho yearlings



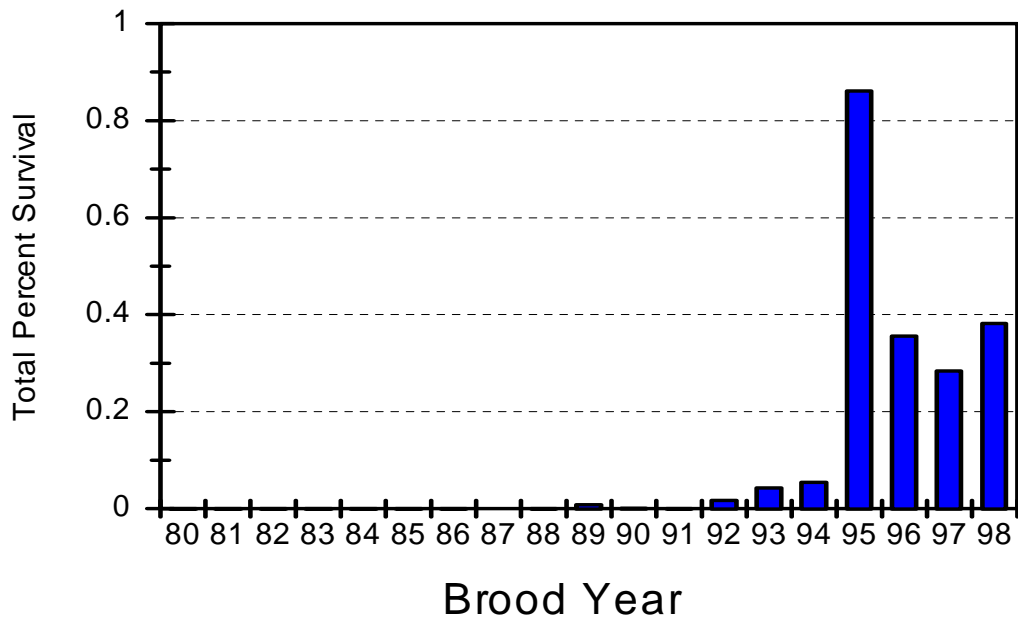
## Willard NFH Coho yearlings



## Winthrop NFH Spring Chinook yearlings



## Winthrop NFH Spring Chinook yearlings



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 80 Tule Fall Chinook raised at Abernathy FTC  
 released in Abernathy Creek

12/27/2005  
 rd  
 80AbFCS

Date	Number	#/lb	Tagged	CWT	AT
05/27/1981	471,139	39.1	0	-	Abernathy FTC
05/27/1981	258,577	20.7	0	-	Abernathy FTC
04/16/1981	216,554	40.6	19,091	050744	Abernathy FTC
04/16/1981	<u>255,162</u>	68.9	<u>63,536</u>	050745	Abernathy FTC
Totals	1,201,432		82,627	PEF= 14.54	

371 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	742	15	26	10			51
Commercial Seine	ADFG	15	1					1
Estuary Sport	WDFW	858	19	40				59
Hatchery	FWS	1,861	47	79	2			128
Hatchery	ODFW	15		1				1
Hatchery	WDFW	334	5	17	1			23
Mixed Net and Seine	CDFO	204	14					14
Mixed Net and Seine	WDFW	451	28	3				31
Ocean Sport	CDFO	334	6	14	3			23
Ocean Sport	ODFW	73		5				5
Ocean Troll (non-treaty)	ADFG	58			4			4
Ocean Troll (non-treaty)	CDFO	4,115	25	250	8			283
Ocean Troll (non-treaty)	ODFW	174	5	7				12
Ocean Troll - Day Boat	WDFW	378		26				26
Ocean Troll - Trip Boat	WDFW	843		58				58
Spawning Ground	ODFW	15		1				1
Spawning Ground	WDFW	1,876	27	99	3			129
Sport (charter)	WDFW	800	38	17				55
Sport (private)	WDFW	262	8	10				18
Treaty Troll	WDFW	422	9	20				29
Totals		13,830	247	673	31			951

	Total	% of total	% of release
Ocean contribution	8,129	59	0.6766
Escapement to Columbia River	5,701	41	0.4745
Total Survival	13,830		1.1511
Escapement to NFH	1,861	13	0.1549
Columbia River contribution	3,840	28	0.3196

Ocean

Contribution by Area

73 AK  
 4,653 BC  
 3,156 WA  
 247 OR  
 0 CA  
 8,129 Total

Columbia River  
 3,840

Escapement to NFH  
 1,861

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/27/2005  
 Broodyear 81 Tule Fall Chinook raised at Abernathy FTC rd  
 released in Abernathy Creek 81AbFCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1982	129,918	43.6	0	-	Abernathy FTC
04/22/1982	64,614	39.8	0	-	Abernathy FTC
06/01/1982	1,074,999	55.2	90,643	051058	Abernathy FTC
04/30/1982	<u>186,998</u>	43.6	<u>29,796</u>	051059	Abernathy FTC
Totals	1,456,529		120,439	PEF= 12.09	

Where Recovered	Total	110 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	375	3	24	4			31
Columbia River Sport ODFW	121		10				10
Estuary Sport WDFW	97	8					8
Hatchery FWS	496	4	23	14			41
Hatchery ODFW	12		1				1
Hatchery WDFW	73		5	1			6
Ocean Sport CDFO	73	2	4				6
Ocean Troll (non-treaty) CDFO	1,040		70	16			86
Ocean Troll (non-treaty) ODFW	12		1				1
Ocean Troll (non-treaty) WDFW	109		9				9
Spawning Ground WDFW	532	16	21	7			44
Sport (charter) WDFW	60	2	3				5
Treaty Troll WDFW	36	3					3
Totals	<u>3,036</u>	<u>38</u>	<u>171</u>	<u>42</u>			<u>251</u>

	Total	% of total	% of release
Ocean contribution	1,330	44	0.0913
Escapement to Columbia River	1,706	56	0.1171
Total Survival	3,036		0.2084
Escapement to NFH	496	16	0.0341
Columbia River contribution	1,210	40	0.0831

Ocean	Contribution by Area	
0 AK		
1,113 BC		
205 WA	Columbia River	Escapement to NFH
12 OR	1,210	496
0 CA		
1,330 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Tule Fall Chinook raised at Abernathy FTC  
 released in Abernathy Creek

12/27/2005  
 rd  
 89AbFCS

Date	Number	#/lb	Tagged	CWT	AT
02/20/1990	307,887	113.1	7,104	052221	Abernathy FTC
04/16/1990	153,742	30.6	3,756	052221	Abernathy FTC
05/10/1990	299,273	42.8	7,224	052221	Abernathy FTC
05/18/1990	147,992	17.4	3,758	052221	Abernathy FTC
03/29/1990	433,765	106.9	11,278	052222	Abernathy FTC
05/18/1990	<u>452,137</u>	44.2	<u>10,963</u>	052222	Abernathy FTC
Totals	1,794,796		44,083	PEF= 40.71	

35 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Estuary Sport	ODFW	163		4				4
Hatchery	FWS	366	1	8				9
Hatchery	ODFW	81		1	1			2
Ocean Troll (non-treaty)	CDFO	977		24				24
Ocean Troll (non-treaty)	WDFW	814		20				20
Spawning Ground	WDFW	81		2				2
Sport (charter)	WDFW	285		7				7
Sport (private)	WDFW	448	4	7				11
Treaty Troll	WDFW	<u>81</u>	<u>1</u>	<u>1</u>				<u>2</u>
Totals		3,296	6	74	1			81

% of total      % of release

Ocean contribution	2,605	79	0.1451
Escapement to Columbia River	691	21	0.0385
Total Survival	3,296		0.1836
Escapement to NFH	366	11	0.0204
Columbia River contribution	325	10	0.0181

Ocean Contribution by Area

0 AK		
977 BC		
1,628 WA	Columbia River	Escapement to NFH
0 OR	325	366
0 CA		
2,605 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 90 Tule Fall Chinook raised at Abernathy FTC  
 released in Abernathy Creek

12/27/2005  
 rd2  
 90AbFCS

Date	Number	#/lb	Tagged	CWT	AT
03/04/1991	59,079	307.7	0	-	Abernathy FTC
04/16/1991	247,877	34.3	7,521	052542	Abernathy FTC
05/13/1991	491,389	32.3	15,287	052542	Abernathy FTC
04/16/1991	247,747	34.3	7,415	052543	Abernathy FTC
05/13/1991	492,864	32.3	15,076	052543	Abernathy FTC
Totals	1,538,956		45,299		

Where Recovered	Total	14 Observed Recoveries === PSC Expanded Recoveries ===					Total
		2s	3s	4s	5s	6s	
Estuary Sport	WDFW	130	4				4
Hatchery	FWS	66		2			2
Hatchery	WDFW	33		1			1
Spawning Ground	WDFW	820		19	6		25
Sport (charter)	WDFW	66		2			2
Treaty Troll	WDFW	33		1			1
Totals		1,148	4	25	6		35

	Total	% of total	% of release
Ocean contribution	99	9	0.0064
Escapement to Columbia River	1,049	91	0.0682
Total Survival	1,148		0.0746

Escapement to NFH	66	6	0.0043
Columbia River contribution	983	86	0.0639

Ocean	Contribution by Area	
0 AK		
0 BC		
99 WA	Columbia River	Escapement to NFH
0 OR	983	66
0 CA		
99 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/27/2005  
 Broodyear 91 Tule Fall Chinook raised at Abernathy FTC rd  
 released in Abernathy Creek 91AbFCS

1,407,493 released with 259,425 tagged fish and 13 CWTs

Where Recovered	Total	320 Observed Recoveries						Total
		=== PSC Expanded Recoveries ===						
		2s	3s	4s	5s	6s		
Estuary Sport ODFW	16	3					3	
Estuary Sport WDFW	43	8					8	
Groundfish Observer (CA/ NMFS	22		4				4	
Hatchery FWS	684	17	100	9			126	
Hatchery ODFW	16	1	2				3	
Hatchery WDFW	239	7	27	10			44	
Mixed Net and Seine CDFO	33	6					6	
Mixed Net and Seine WDFW	33		6				6	
Ocean Sport CDFO	87		12	4			16	
Ocean Sport ODFW	22		4				4	
Ocean Troll (non-treaty) CDFG	16				3		3	
Ocean Troll (non-treaty) CDFO	624		109	6			115	
Spawning Ground WDFW	1,156	16	177	20			213	
Sport (charter) WDFW	22	4					4	
Sport (private) WDFW	5	1					1	
Treaty Troll WDFW	71	7	6				13	
<b>Totals</b>	<b>3,089</b>	<b>70</b>	<b>447</b>	<b>49</b>	<b>3</b>		<b>569</b>	

		% of total	% of release
Ocean contribution	935	30	0.0664
Escapement to Columbia River	2,154	70	0.1530
Total Survival	3,089		0.2195
Escapement to NFH	684	22	0.0486
Columbia River contribution	1,470	48	0.1044

Ocean	Contribution by Area	
0 AK		
744 BC		
131 WA	Columbia River	Escapement to NFH
22 OR	1,470	684
16 CA		
913 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/27/2005  
 Broodyear 92 Tule Fall Chinook raised at Abernathy FTC rd  
 released in Abernathy Creek 92AbFCS

979,184 released with 293,359 tagged fish and 13 CWTs

Where Recovered	Total	472 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	7			2			2
Columbia River Sport ODFW	47		14				14
Groundfish Observer (CA/ NMFS	13	4					4
Hatchery FWS	638	44	135	12			191
Hatchery ODFW	17	3	2				5
Hatchery WDFW	427	16	108	4			128
Mixed Net and Seine CDFO	37	11					11
Mixed Net and Seine WDFW	7	2					2
Ocean Sport CDFO	47		14				14
Ocean Troll (non-treaty) ADFG	13		4				4
Ocean Troll (non-treaty) CDFO	264		79				79
Ocean Troll (non-treaty) ODFW	33		8	2			10
Spawning Ground WDFW	818	76	151	18			245
Sport (private) WDFW	13			4			4
Treaty Troll WDFW	23	7					7
Totals	2,404	163	515	42			720

		% of total	% of release
Ocean contribution	450	19	0.0460
Escapement to Columbia River	1,954	81	0.1996
Total Survival	2,404		0.2455
Escapement to NFH	638	27	0.0652
Columbia River contribution	1,316	55	0.1344

Ocean	Contribution by Area	
13 AK		
348 BC		
43 WA	Columbia River	Escapement to NFH
33 OR	1,316	638
0 CA		
437 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 93 Tule Fall Chinook raised at Abernathy FTC  
 released in Abernathy Creek

10/13/2005  
 CRiS\rd2  
 93AbFCS

Date	Number	#/lb	Tagged	CWT	AT
04/13/1994	50,394	34.3	12,046	053344	Abernathy FTC
05/18/1994	49,855	18.5	11,923	053344	Abernathy FTC
04/13/1994	25,194	31.5	12,139	053345	Abernathy FTC
05/18/1994	24,975	18.3	12,003	053345	Abernathy FTC
04/13/1994	37,768	34.4	11,935	053346	Abernathy FTC
05/18/1994	37,355	19.4	11,812	053346	Abernathy FTC
04/13/1994	50,364	33.4	11,976	053347	Abernathy FTC
05/18/1994	49,837	19.6	11,859	053347	Abernathy FTC
04/13/1994	37,762	31.7	11,722	053348	Abernathy FTC
05/18/1994	37,382	18.4	11,606	053348	Abernathy FTC
04/14/1994	25,139	34.8	11,418	053349	Abernathy FTC
05/18/1994	<u>24,887</u>	19.3	<u>11,306</u>	053349	Abernathy FTC
Totals	450,912		141,745		

Where Recovered	Total	177 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	6		3				3
Columbia River Sport	28		9				9
Estuary Sport	23		3	3			6
Estuary Sport	13		6				6
Freshwater Sport	29	7					7
Hatchery	285	35	51	3			89
Hatchery	2		1				1
Hatchery	70	4	16	2			22
Ocean Sport	65		15	5			20
Ocean Sport	6		2				2
Ocean Troll (non-treaty)	13		3				3
Ocean Troll (non-treaty)	18			5			5
Ocean Troll (non-treaty)	27		6	4			10
Spawning Ground	357	19	90	12			121
Sport (charter)	3		1				1
Sport (private)	7	3					3
Treaty Troll	<u>26</u>		<u>6</u>	<u>2</u>			<u>8</u>
Totals	978	68	212	36			316

		% of total	% of release
Ocean contribution	165	17	0.0366
Escapement to Columbia River	813	83	0.1803
Total Survival	978		0.2169

Escapement to NFH	285	29	0.0632
Columbia River contribution	528	54	0.1171

Ocean	Contribution by Area	
0 AK		
83 BC		
36 WA		
33 OR	Columbia River	Escapement to NFH
13 CA	528	285
165 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 94 Tule Fall Chinook raised at Abernathy FTC  
 released in Abernathy Creek

10/13/2005  
 CRiS\rd2  
 94AbFCS

Date	Number	#/lb	Tagged	CWT	AT
03/02/1995	150,397	106.8	4,490	053306	Abernathy FTC
04/20/1995	158,351	59.4	4,715	053306	Abernathy FTC
05/18/1995	450,051	38.0	13,409	053306	Abernathy FTC
03/02/1995	335,368	84.6	11,381	053307	Abernathy FTC
04/20/1995	<u>345,285</u>	33.2	<u>11,807</u>	053307	Abernathy FTC
Totals	1,439,452		45,802		

Where Recovered	Total	12 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery FWS	161	1	3	1			5
Hatchery WDFW	164	2		3			5
Ocean Troll (non-treaty) CDFO	34			1			1
Spawning Ground WDFW	67		2				2
Sport (charter) WDFW	34			1			1
Sport (private) WDFW	88		3				3
Totals	548	3	8	6			17

	Total	% of total	% of release
Ocean contribution	156	28	0.0108
Escapement to Columbia River	392	72	0.0272
Total Survival	548		0.0381
Escapement to NFH	161	29	0.0112
Columbia River contribution	231	42	0.0160

Ocean	Contribution by Area	
0 AK		
34 BC		
122 WA	Columbia River	Escapement to NFH
0 OR	231	161
0 CA		
156 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 95 Tule Fall Chinook raised at Abernathy FTC  
 released in Abernathy Creek

10/13/2005  
 CRiS\rd2  
 95AbFCS

Date	Number	#/lb	Tagged	CWT	AT
03/14/1996	183,628	83.0	7,756	053109	Abernathy FTC
04/18/1996	133,944	40.0	5,633	053109	Abernathy FTC
05/16/1996	236,009	26.0	9,896	053109	Abernathy FTC
03/14/1996	51,524	113.0	2,553	053110	Abernathy FTC
03/15/1996	110,799	113.0	5,114	053110	Abernathy FTC
04/18/1996	107,927	71.5	5,130	053110	Abernathy FTC
05/16/1996	<u>213,676</u>	50.8	<u>10,189</u>	053110	Abernathy FTC
Totals	1,037,507		46,271		

Where Recovered	Total	8 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery FWS	24		1				1
Hatchery ODFW	24		1				1
Ocean Troll (non-treaty) ODFW	42			2			2
Spawning Ground WDFW	<u>208</u>	<u>2</u>	<u>7</u>				<u>9</u>
Totals	298	2	9	2			13

	Total	% of total	% of release
Ocean contribution	42	14	0.0040
Escapement to Columbia River	256	86	0.0247
Total Survival	298		0.0287
Escapement to NFH	24	8	0.0023
Columbia River contribution	232	78	0.0224

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA		
42 OR	Columbia River 232	Escapement to NFH 24
0 CA		
42 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 82 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd  
 82CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/12/1984	2,017,670	15.6	0	-	Carson NFH
04/13/1984	163,301	17.8	0	-	Carson NFH
04/13/1984	19,752	17.6	18,172	050858	Carson NFH
04/13/1984	19,797	18.0	19,401	050859	Carson NFH
04/13/1984	20,125	17.7	19,001	050860	Carson NFH
04/13/1984	19,442	18.5	18,859	050861	Carson NFH
04/13/1984	19,843	17.9	19,148	050862	Carson NFH
04/13/1984	19,668	16.7	19,471	050863	Carson NFH
04/13/1984	39,111	17.5	28,462	050916	Carson NFH
04/13/1984	38,718	18.1	28,555	050917	Carson NFH
04/13/1984	58,842	18.2	29,160	050918	Carson NFH
04/13/1984	59,225	18.4	28,637	050919	Carson NFH
04/13/1984	57,555	18.0	28,601	050920	Carson NFH
04/13/1984	57,451	18.0	28,275	050921	Carson NFH
04/13/1984	39,292	19.1	29,132	050922	Carson NFH
04/13/1984	39,422	18.9	29,519	050923	Carson NFH
04/13/1984	39,506	18.1	29,583	050924	Carson NFH
04/13/1984	39,714	17.6	29,584	050925	Carson NFH
04/13/1984	58,948	18.0	29,498	050926	Carson NFH
04/13/1984	<u>59,178</u>	17.5	<u>29,301</u>	050927	Carson NFH
Totals	2,886,560		462,359	PEF= 6.24	

total OBSD 1,328

Where Recovered	expanded	==== PSC expanded numbers ===					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	112		4	14		18
Columbia River Sport	ODFW	175		19	9		28
Freshwater Sport	ODFW	19		3			3
Freshwater Sport	WDFW	2,116		293	46		339
Hatchery	FWS	6,661	12	738	317		1,067
Ocean Troll (non-treaty)	CDFO	25		4			4
Spawning Ground	WDFW	56	1	8			9
Test Fishery Net	ODFW	119		18	1		19
Treaty Ceremonial	ODFW	<u>537</u>		<u>66</u>	<u>20</u>		<u>86</u>
Totals		9,820		13	1,153	407	1,573

		% of total	% of release
Ocean contribution	25	0	0.0009
Escapement to Columbia River	9,795	100	0.3393
Total Survival	9,820		0.3402
Escapement to NFH	6,661	68	0.2308
Columbia River contribution	3,134	32	0.1086

Ocean	Contribution by Area	
0 AK		
25 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	3,134	6,661
0 CA		
25 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 83 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRIS\rd  
 83CaSCS

Date	Number	#/lb	Tagged	CWT	AT
02/13/1985	664,740	27.2	0	-	Carson NFH
02/15/1985	182,300	26.5	0	-	Carson NFH
04/15/1985	1,037,335	18.9	0	-	Carson NFH
04/11/1985	18,494	17.2	17,384	051153	Carson NFH
04/15/1985	15,790	16.9	14,053	051154	Carson NFH
04/15/1985	15,492	18.5	14,175	051155	Carson NFH
04/15/1985	17,705	19.1	16,377	051156	Carson NFH
04/15/1985	12,294	16.9	11,618	051157	Carson NFH
04/15/1985	12,729	17.1	12,411	051158	Carson NFH
04/15/1985	35,043	17.3	25,701	051159	Carson NFH
04/15/1985	26,733	16.4	19,737	051160	Carson NFH
04/15/1985	33,310	17.4	23,967	051161	Carson NFH
04/15/1985	33,801	17.9	25,254	051162	Carson NFH
04/15/1985	29,520	16.2	13,013	051163	Carson NFH
04/15/1985	34,068	17.4	15,011	051216	Carson NFH
04/15/1985	43,316	17.2	20,988	051217	Carson NFH
04/15/1985	44,861	17.0	21,416	051218	Carson NFH
04/15/1985	42,390	17.4	20,732	051219	Carson NFH
04/15/1985	41,013	16.4	19,437	051220	Carson NFH
04/15/1985	25,985	17.9	18,706	051221	Carson NFH
04/15/1985	<u>24,052</u>	16.1	<u>16,302</u>	051222	Carson NFH
Totals	2,390,971		326,282	PEF= 7.33	

total OBSD 1,103

Where Recovered	expanded	PSC expanded numbers					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	652			87	2	89
Columbia River Sport	ODFW	95			13		13
Freshwater Sport	WDFW	1,510	4	124	78		206
Hatchery	FWS	6,654	10	535	361	2	908
Ocean Troll (non-treaty)	CDFO	22		3			3
Spawning Ground	WDFW	176		16	8		24
Test Fishery Net	ODFW	59		5	3		8
Treaty Ceremonial	ODFW	<u>696</u>		<u>40</u>	<u>55</u>		<u>95</u>
Totals		9,864	14	723	605	4	1,346

		% of total	% of release
Ocean contribution	22	0	0.0009
Escapement to Columbia River	9,842	100	0.4116
Total Survival	9,864		0.4126

Escapement to NFH	6,654	67	0.2783
Columbia River contribution	3,188	32	0.1333

Ocean

Contribution by Area

0 AK

22 BC

0 WA

0 OR

0 CA

22 Total

Columbia River  
 3,188

Escapement to NFH  
 6,654

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 84 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd  
 84CaSCS

Date	Number	#/lb	Tagged	CWT	AT
03/06/1986	443,000	25.3	0	-	Carson NFH
04/15/1986	1,334,124	18.7	0	-	Carson NFH
04/15/1986	18,837	19.2	17,009	051608	Carson NFH
04/15/1986	18,873	19.5	18,438	051609	Carson NFH
04/15/1986	18,585	19.6	18,259	051610	Carson NFH
04/15/1986	18,364	20.2	16,270	051611	Carson NFH
04/15/1986	17,123	19.1	15,804	051612	Carson NFH
04/15/1986	17,902	19.6	16,398	051613	Carson NFH
04/15/1986	35,431	20.0	26,403	051614	Carson NFH
04/15/1986	35,770	20.0	25,233	051615	Carson NFH
04/15/1986	48,360	19.5	22,900	051616	Carson NFH
04/15/1986	47,181	19.2	22,602	051617	Carson NFH
04/15/1986	49,200	19.5	20,288	051618	Carson NFH
04/15/1986	49,457	19.6	21,631	051619	Carson NFH
04/15/1986	33,190	19.6	23,190	051620	Carson NFH
04/15/1986	32,988	19.7	24,804	051621	Carson NFH
04/15/1986	51,772	20.0	24,627	051622	Carson NFH
04/15/1986	50,371	18.7	23,715	051623	Carson NFH
04/15/1986	35,662	19.4	26,417	051624	Carson NFH
04/15/1986	<u>36,278</u>	19.2	<u>25,866</u>	051625	Carson NFH
Totals	2,392,468		389,854	PEF= 6.14	

total OBSD 62

Where Recovered	expanded	PSC expanded numbers					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	25			4		4
Freshwater Sport	WDFW	123		10	10		20
Hatchery	FWS	295	1	30	17		48
Spawning Ground	WDFW	49		8			8
Test Fishery Net	ODFW	<u>6</u>		<u>1</u>			<u>1</u>
Totals		498	1	49	31		81

	expanded	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	498	100	0.0208
Total Survival	498		0.0208
Escapement to NFH	295	59	0.0123
Columbia River contribution	203	41	0.0085

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	203	295
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 85 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRIS\rd  
 85CaSCS

2,664,164 released with 442,289 tagged fish and 19 CWTs  
 total OBSD 745

Where Recovered	expanded	PSC expanded numbers					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	90			15		15
Columbia River Gillnet	WDFW	18		3			3
Columbia River Sport	ODFW	90		1	14		15
Freshwater Sport	WDFW	1,620	2	200	67		269
Hatchery	FWS	3,349	12	376	168		556
Ocean Troll (non-treaty)	ADFG	18		3			3
Ocean Troll (non-treaty)	CDFO	18			3		3
Spawning Ground	WDFW	66		11			11
Test Fishery Net	ODFW	48		5	3		8
Treaty Ceremonial	ODFW	307		32	19		51
Treaty Troll	WDFW	12		2			2
Totals		5,636	14	633	289		936

		% of total	% of release
Ocean contribution	48	1	0.0018
Escapement to Columbia River	5,588	99	0.2097
Total Survival	5,636		0.2115
Escapement to NFH	3,349	59	0.1257
Columbia River contribution	2,239	40	0.0840

NUMBER is different than last year and wont be replaced!  
 Please investigate!

Ocean	Contribution by Area	
18 AK		
18 BC		
12 WA	Columbia River	Escapement to NFH
0 OR	2,239	3,349
0 CA		
48 Total		



Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 88 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRIS\rd2  
 88CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/12/1990	1,052,641	18.8	22,877	052219	Carson NFH
04/13/1990	1,052,640	18.8	22,381	052220	Carson NFH
Totals	2,105,281		45,258		

Where Recovered	Total	75 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport	WDFW	5,339		46	69		115
Hatchery	FWS	1,629	1	24	10		35
Spawning Ground	WDFW	460			10		10
Treaty Ceremonial	ODFW	1,023		9	13		22
Totals		8,451	1	79	102		182

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	8,451	100	0.4014
Total Survival	8,451		0.4014
Escapement to NFH	1,629	19	0.0774
Columbia River contribution	6,822	81	0.3240

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	6,822	1,629
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd2  
 89CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1991	45,861	19.4	14,266	630442	Carson NFH
04/15/1991	46,164	19.4	8,598	630850	Carson NFH
04/15/1991	349,148	17.7	85,756	635661	Carson NFH
04/15/1991	1,131,350	18.2	281,143	635662	Carson NFH
04/15/1991	372,146	19.4	92,972	635901	Carson NFH
04/15/1991	<u>392,119</u>	17.3	<u>97,328</u>	635902	Carson NFH
Totals	2,336,788		580,063		

246 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	24				6		6
Columbia River Sport	ODFW	40				10		10
Freshwater Sport	WDFW	2,095			489	31		520
Hatchery	FWS	792		1	16	182		199
Ocean Troll (non-treaty)	WDFW	8			2			2
Spawning Ground	WDFW	20			5			5
Test Fishery Net	ODFW	36			9			9
Treaty Ceremonial	ODFW	178			45			45
Treaty Troll	WDFW	<u>4</u>			<u>1</u>			<u>1</u>
Totals		3,197		<u>1</u>	567	229		797

		% of total	% of release
Ocean contribution	12	0	0.0005
Escapement to Columbia River	3,185	100	0.1363
Total Survival	3,197		0.1368
Escapement to NFH	792	25	0.0339
Columbia River contribution	2,393	75	0.1024

Ocean Contribution by Area

0 AK		
0 BC		
12 WA	Columbia River	Escapement to NFH
0 OR	2,393	792
0 CA		
12 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 90 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRIS\rd2  
 90CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1992	41,130	17.8	39,937	633939	Carson NFH
04/15/1992	40,533	17.8	39,276	634034	Carson NFH
04/15/1992	40,150	17.9	38,183	634035	Carson NFH
04/15/1992	39,876	19.4	37,563	634036	Carson NFH
04/15/1992	38,841	17.8	38,531	634037	Carson NFH
04/15/1992	35,982	17.8	35,838	634038	Carson NFH
04/15/1992	38,559	19.5	38,173	634039	Carson NFH
04/15/1992	39,284	19.6	38,852	634040	Carson NFH
04/15/1992	1,129,004	18.8	375,416	634041	Carson NFH
04/15/1992	477,423	18.4	156,987	634042	Carson NFH
04/15/1992	<u>394,600</u>	17.6	<u>131,054</u>	634043	Carson NFH
Totals	2,315,382		969,810		

276 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Sport	ODFW	27			9			9
Freshwater Sport	WDFW	125		4	47			51
Hatchery	FWS	1,610			571	50		621
Spawning Ground	WDFW	1			1			1
Test Fishery Net	ODFW	6			2			2
Treaty Ceremonial	ODFW	<u>32</u>			<u>2</u>	<u>10</u>		<u>12</u>
Totals		1,801		4	632	60		696

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,801	100	0.0778
Total Survival	1,801		0.0778
Escapement to NFH	1,610	89	0.0695
Columbia River contribution	191	11	0.0082

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 191

Escapement to NFH  
 1,610

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 91 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd2  
 91CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1993	1,126,268	20.0	371,390	634602	Carson NFH
04/14/1993	393,819	18.6	131,017	634608	Carson NFH
04/14/1993	39,436	19.8	38,990	634632	Carson NFH
04/14/1993	39,824	19.8	39,005	634633	Carson NFH
04/14/1993	28,076	19.1	27,311	634634	Carson NFH
04/14/1993	40,600	19.2	39,610	634635	Carson NFH
04/14/1993	38,129	19.2	37,603	634636	Carson NFH
04/14/1993	39,828	19.2	39,124	634637	Carson NFH
04/14/1993	29,472	19.1	28,149	634638	Carson NFH
04/14/1993	39,958	19.8	38,870	634639	Carson NFH
04/14/1993	<u>505,875</u>	19.3	<u>165,369</u>	635219	Carson NFH
Totals	2,321,285		956,438		

164 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet ODFW	2				2		2
Freshwater Sport WDFW	21				9		9
Hatchery FWS	450		12	139	26		177
Spawning Ground WDFW	12			1	3		4
Treaty Ceremonial ODFW	<u>69</u>			<u>29</u>			<u>29</u>
Totals	554		12	169	40		221

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	554	100	0.0239
Total Survival	554		0.0239
Escapement to NFH	450	81	0.0194
Columbia River contribution	104	19	0.0045

Ocean

Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	104	450
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 92 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd  
 92CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1994	1,886,299	19.1	0	-	Carson NFH
04/14/1994	19,276	16.5	19,147	053327	Carson NFH
04/14/1994	19,493	16.9	19,103	053328	Carson NFH
04/14/1994	19,097	16.6	18,397	053329	Carson NFH
04/14/1994	19,417	16.9	18,899	053330	Carson NFH
04/14/1994	12,802	15.7	12,418	053331	Carson NFH
04/14/1994	12,863	16.6	12,177	053332	Carson NFH
04/14/1994	12,904	16.3	12,775	053333	Carson NFH
04/14/1994	12,888	17.3	12,458	053334	Carson NFH
04/14/1994	6,304	18.1	6,136	053335	Carson NFH
04/14/1994	6,143	16.5	5,959	053336	Carson NFH
04/14/1994	189	16.5	183	053337	Carson NFH
04/14/1994	6,425	16.5	6,232	053337	Carson NFH
04/14/1994	6,468	16.4	6,339	053338	Carson NFH
Totals	2,040,568		150,223	PEF= 13.58	

total OBSD 662

Where Recovered	expanded	PSC expanded numbers					Total
		2s	3s	4s	5s	6s	
Freshwater Net	WDFW 177			10	3		13
Freshwater Sport	WDFW 3,532			234	26		260
Hatchery	FWS 8,137		6	536	57		599
Ocean Troll (non-treaty)	CDFG 82			6			6
Spawning Ground	WDFW 421			23	8		31
Treaty Ceremonial	ODFW 190			12	2		14
Totals	12,539		6	821	96		923

	expanded	% of total	% of release
Ocean contribution	82	1	0.0040
Escapement to Columbia River	12,457	99	0.6105
Total Survival	12,539		0.6145
Escapement to NFH	8,137	65	0.3988
Columbia River contribution	4,320	34	0.2117

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	4,320	8,137
82 CA		
82 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRIS\rd  
 93CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/10/1995	127,113	18.7	0	-	Carson NFH
04/13/1995	448,895	18.4	0	-	Carson NFH
04/13/1995	217,178	18.4	0	-	Carson NFH
04/14/1995	1,244,132	18.1	0	-	Carson NFH
04/14/1995	19,833	17.9	19,578	053457	Carson NFH
04/14/1995	19,883	17.8	19,699	053458	Carson NFH
04/14/1995	19,813	17.8	19,377	053459	Carson NFH
04/14/1995	19,460	17.9	19,203	053460	Carson NFH
04/14/1995	13,142	17.0	13,100	053461	Carson NFH
04/14/1995	13,164	17.6	12,921	053462	Carson NFH
04/14/1995	13,197	17.5	12,854	053463	Carson NFH
04/14/1995	13,196	17.4	12,824	053505	Carson NFH
04/14/1995	6,535	17.5	6,472	053506	Carson NFH
04/14/1995	6,542	17.7	6,481	053507	Carson NFH
04/14/1995	6,550	17.3	6,448	053508	Carson NFH
04/14/1995	6,559	17.7	6,391	053509	Carson NFH
Totals	2,195,192		155,348	PEF= 14.13	

total OBSD 470

Where Recovered	expanded	PSC expanded numbers					Total
		2s	3s	4s	5s	6s	
Freshwater Net	WDFW	99		7			7
Freshwater Sport	WDFW	4,494	3	266	49		318
Hatchery	FWS	4,720	4	271	59		334
Ocean Troll (non-treaty)	CDFG	42	3				3
Spawning Ground	WDFW	113		8			8
Treaty Ceremonial	ODFW	85		3	3		6
Treaty Subsistence	WDFW	42			3		3
Totals		9,595	10	555	114		679

		% of total	% of release
Ocean contribution	42	0	0.0019
Escapement to Columbia River	9,553	100	0.4352
Total Survival	9,595		0.4371
Escapement to NFH	4,720	49	0.2150
Columbia River contribution	4,833	50	0.2202

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	4,833	4,720
42 CA		
42 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 94 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd  
 94CaSCS

Date	Number	#/lb	Tagged	CWT	AT
02/08/1996	600,000	24.0	0	-	Carson NFH
04/08/1996	44,034	18.5	0	-	Carson NFH
04/18/1996	897,438	17.9	0	-	Carson NFH
04/19/1996	32,224	18.4	0	-	Carson NFH
04/18/1996	18,624	17.5	18,252	053815	Carson NFH
04/18/1996	18,636	17.5	18,201	053816	Carson NFH
04/18/1996	18,704	17.5	18,205	053817	Carson NFH
04/18/1996	18,563	17.5	18,439	053818	Carson NFH
04/18/1996	12,395	15.9	12,271	053819	Carson NFH
04/18/1996	12,426	15.9	12,136	053820	Carson NFH
04/18/1996	12,371	15.9	12,206	053821	Carson NFH
04/18/1996	12,397	15.9	12,273	053822	Carson NFH
04/18/1996	6,214	16.6	6,193	053823	Carson NFH
04/18/1996	6,146	16.6	6,064	053824	Carson NFH
04/18/1996	6,164	16.6	6,000	053825	Carson NFH
04/18/1996	<u>6,285</u>	16.6	<u>6,201</u>	053826	Carson NFH
Totals	1,722,621		146,441	PEF= 11.76	

total OBSD 123

Where Recovered	expanded	PSC expanded numbers				Total
		2s	3s	4s	5s	
Freshwater Sport	WDFW	882		66	9	75
Hatchery	FWS	1,082		74	18	92
Spawning Ground	WDFW	165		4	10	14
Treaty Ceremonial	ODFW	<u>12</u>		<u>1</u>		<u>1</u>
Totals		2,141		145	37	182

	expanded	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,141	100	0.1243
Total Survival	2,141		0.1243

Escapement to NFH	1,082	51	0.0628
Columbia River contribution	1,059	49	0.0615

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,059	1,082
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 95 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd2  
 95CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/17/1997	<u>907,708</u>	15.5	<u>48,293</u>	053930	Carson NFH
Totals	907,708		48,293		

Where Recovered	Total	149 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	19		1			1
Freshwater Sport	WDFW	809		31	12		43
Hatchery	FWS	2,425		115	14		129
Treaty Ceremonial	ODFW	<u>169</u>		<u>3</u>	<u>6</u>		<u>9</u>
Totals		3,422		150	32		182

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	3,422	100	0.3770
Total Survival	3,422		0.3770
Escapement to NFH	2,425	71	0.2672
Columbia River contribution	997	29	0.1098

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	997	2,425
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 96 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd2  
 96CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1998	1,734,188	16.6	94,938	053855	Carson NFH
Totals	1,734,188		94,938		

Where Recovered	Total	711 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	201			11		11
Columbia River Sport	ODFW	292			16		16
Freshwater Net	WDFW	55		2	1		3
Freshwater Sport	WDFW	7,544	4	352	57		413
Hatchery	FWS	10,047	6	510	34		550
Spawning Ground	WDFW	146		8			8
Treaty Ceremonial	ODFW	859		45	2		47
Totals		19,144	10	917	121		1,048

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	19,144	100	1.1039
Total Survival	19,144		1.1039
Escapement to NFH	10,047	52	0.5793
Columbia River contribution	9,097	48	0.5246

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	9,097	10,047
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 97 Spring Chinook raised at Carson NFH  
 released in Wind River

10/19/2005  
 CRiS\rd2  
 97CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1999	1,415,744	12.6	98,400	054460	Carson NFH
Totals	1,415,744		98,400		

Where Recovered	Total	730 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	1,353			43	51		94
Columbia River Sport ODFW	2,143			143	6		149
Freshwater Net WDFW	29			2			2
Freshwater Sport WDFW	6,101		17	407			424
Hatchery FWS	8,014		13	521	20	3	557
Ocean Troll (non-treaty) CDFO	14			1			1
Spawning Ground WDFW	173			12			12
Treaty Ceremonial ODFW	259			15	3		18
Totals	18,086		30	1,144	80	3	1,257

	Total	% of total	% of release
Ocean contribution	14	0	0.0010
Escapement to Columbia River	18,072	100	1.2765
Total Survival	18,086		1.2775
Escapement to NFH	8,014	44	0.5661
Columbia River contribution	10,058	56	0.7104

Ocean	Contribution by Area	
0 AK		
14 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	10,058	8,014
0 CA		
14 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 98 Spring Chinook raised at Carson NFH  
 released in Wind River

10/18/2005  
 CRiS\rd2  
 98CaSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/2000	605,860	15.2	24,538	051560	Carson NFH
04/20/2000	602,952	15.4	24,345	053854	Carson NFH
04/20/2000	<u>221,210</u>	17.2	<u>24,572</u>	054243	Carson NFH
Totals	1,430,022		73,455		

179 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet ODFW	765			16	15		31
Columbia River Sport ODFW	1,160			29	18		47
Freshwater Sport WDFW	3,852			113	43		156
Hatchery FWS	2,840			72	43		115
Spawning Ground WDFW	148			3	3		6
Treaty Ceremonial ODFW	<u>74</u>			<u>2</u>	<u>1</u>		<u>3</u>
Totals	8,839			235	123		358

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	8,839	100	0.6181
Total Survival	8,839		0.6181
Escapement to NFH	2,840	32	0.1986
Columbia River contribution	5,999	68	0.4195

Ocean Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	5,999	2,840
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 87 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 87DwSCS

Date	Number	#/lb	Tagged	CWT	AT
03/30/1989	415,413	18.3	63,555	054013	Dworshak NFH
03/30/1989	418,706	18.3	66,380	054014	Dworshak NFH
03/30/1989	<u>418,804</u>	24.8	<u>66,947</u>	054015	Dworshak NFH
Totals	1,252,923		196,882		

Where Recovered	Total	10 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater)	7			1			1
Freshwater Sport	20			3			3
Hatchery	<u>32</u>			<u>2</u>	<u>3</u>		<u>5</u>
Totals	59			6	3		9

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	59	100	0.0047
Total Survival	59		0.0047
Escapement to NFH	32	54	0.0026
Columbia River contribution	27	46	0.0022

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	27	32
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 88 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 88DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/05/1990	142,529	18.5	67,624	052162	Dworshak NFH
04/05/1990	138,449	17.7	67,262	052163	Dworshak NFH
04/05/1990	636,847	18.8	65,686	052205	Dworshak NFH
04/04/1990	36,433	17.2	25,369	052260	Dworshak NFH
04/04/1990	36,175	18.8	25,483	052261	Dworshak NFH
04/04/1990	36,381	15.6	25,685	052262	Dworshak NFH
04/04/1990	32,441	16.8	22,645	052263	Dworshak NFH
04/04/1990	33,925	15.7	24,801	052305	Dworshak NFH
04/04/1990	33,433	18.2	24,582	052306	Dworshak NFH
04/05/1990	65,844	18.5	64,522	232930	Dworshak NFH
04/05/1990	<u>59,557</u>	25.2	<u>58,323</u>	232931	Dworshak NFH
Totals	1,252,014		471,982		

Where Recovered	Total	299 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport IDFG	25			7			7
Freshwater Sport ODFW	12			9			9
Freshwater Sport WDFW	5			4			4
Hatchery FWS	436		4	77	121		202
Hatchery WDFW	1				1		1
Test Fishery Net ODFW	4			1	2		3
Treaty Ceremonial ODFW	153			23	40		63
Treaty Subsistence FWS	<u>12</u>			<u>3</u>			<u>3</u>
Totals	648		4	124	164		292

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	648	100	0.0518
Total Survival	648		0.0518
Escapement to NFH	436	67	0.0348
Columbia River contribution	212	33	0.0169

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	212	436
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 89 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRIS\rd2  
 89DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/04/1991	17,371	18.5	15,683	052431	Dworshak NFH
04/04/1991	16,851	18.5	15,710	052432	Dworshak NFH
04/04/1991	17,576	21.3	15,587	052433	Dworshak NFH
04/04/1991	16,564	18.6	15,881	052434	Dworshak NFH
04/04/1991	18,071	20.9	16,720	052435	Dworshak NFH
04/04/1991	18,600	21.3	16,669	052436	Dworshak NFH
04/04/1991	18,823	21.4	16,715	052437	Dworshak NFH
04/04/1991	17,104	20.3	16,611	052438	Dworshak NFH
04/04/1991	17,681	19.8	15,842	052439	Dworshak NFH
04/04/1991	34,219	20.7	33,553	052440	Dworshak NFH
04/04/1991	33,928	21.5	33,145	052441	Dworshak NFH
04/04/1991	35,346	22.5	32,742	052442	Dworshak NFH
04/04/1991	35,042	21.0	31,527	052443	Dworshak NFH
04/04/1991	35,655	22.5	33,010	052444	Dworshak NFH
04/04/1991	33,400	19.7	32,903	052445	Dworshak NFH
04/04/1991	173,153	22.7	46,402	052446	Dworshak NFH
04/04/1991	173,600	22.4	47,668	052447	Dworshak NFH
04/04/1991	39,933	21.7	38,836	052508	Dworshak NFH
04/04/1991	42,517	22.7	37,471	052509	Dworshak NFH
04/04/1991	38,916	22.5	38,244	052510	Dworshak NFH
04/04/1991	30,798	18.5	28,455	052511	Dworshak NFH
04/04/1991	27,707	18.6	23,832	052512	Dworshak NFH
04/04/1991	23,837	17.5	23,193	052513	Dworshak NFH
04/04/1991	<u>178,192</u>	23.5	<u>52,664</u>	103025	Dworshak NFH
Totals	1,094,884		679,063		

13 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Hatchery	FWS 40		1	10	1		12
Treaty Ceremonial	ODFW 7			2			2
Totals	47		1	12	1		14

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	47	100	0.0043
Total Survival	47		0.0043
Escapement to NFH	40	85	0.0037
Columbia River contribution	7	15	0.0006

Ocean Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	7	40
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 90 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd  
 90DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1992	355,759	15.5	0	-	Dworshak NFH
04/16/1992	63,167	15.6	0	-	Dworshak NFH
04/16/1992	63,019	16.1	35,309	052637	Dworshak NFH
04/16/1992	72,527	17.3	41,668	052638	Dworshak NFH
04/16/1992	77,916	16.5	42,384	052639	Dworshak NFH
04/16/1992	32,264	15.1	29,144	052640	Dworshak NFH
04/16/1992	30,454	14.4	28,118	052641	Dworshak NFH
04/16/1992	27,290	14.7	24,924	052642	Dworshak NFH
04/16/1992	32,219	16.2	31,252	052643	Dworshak NFH
04/16/1992	30,039	15.4	27,936	052644	Dworshak NFH
04/16/1992	29,423	14.5	27,658	052645	Dworshak NFH
04/16/1992	16,029	14.7	14,960	052647	Dworshak NFH
04/16/1992	15,743	15.0	15,534	052648	Dworshak NFH
04/16/1992	16,073	15.3	15,752	052649	Dworshak NFH
04/16/1992	16,207	14.7	14,478	052650	Dworshak NFH
04/16/1992	16,613	14.3	16,502	052651	Dworshak NFH
04/16/1992	15,898	14.8	15,580	052652	Dworshak NFH
04/16/1992	16,217	15.1	16,108	052653	Dworshak NFH
04/16/1992	15,981	14.3	15,661	052654	Dworshak NFH
04/16/1992	<u>16,531</u>	14.6	<u>16,311</u>	052655	Dworshak NFH
Totals	959,369		429,279	PEF= 2.23	

total OBSD 0

Where Recovered	expanded	PSC expanded numbers					===
Totals	0	2s	3s	4s	5s	6s	Total
							0

		% of total	% of release
Ocean contribution	0	***	0.0000
Escapement to Columbia River	0	***	0.0000
Total Survival	0		0.0000
Escapement to NFH	0	***	0.0000
Columbia River contribution	0	***	0.0000

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 91 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd  
 91DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1993	9,274	37.8	7,723	052229	Dworshak NFH
04/15/1993	27,209	16.2	24,400	052718	Dworshak NFH
04/15/1993	45,432	15.8	39,734	052740	Dworshak NFH
05/06/1993	63,432	17.8	50,877	052931	Dworshak NFH
05/06/1993	63,179	18.3	50,877	052932	Dworshak NFH
04/22/1993	63,321	18.3	57,833	052933	Dworshak NFH
04/08/1993	65,678	16.9	60,517	052934	Dworshak NFH
04/08/1993	63,688	17.5	61,421	052935	Dworshak NFH
04/22/1993	<u>66,009</u>	16.9	<u>61,464</u>	052936	Dworshak NFH
Totals	467,222		414,846	PEF= 1.13	

Where Recovered	expanded	2s	3s	4s	5s	6s	Total
Totals	0						0

		% of total	% of release
Ocean contribution	0	***	0.0000
Escapement to Columbia River	0	***	0.0000
Total Survival	0		0.0000
Escapement to NFH	0	***	0.0000
Columbia River contribution	0	***	0.0000

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	0
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 92 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 92DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1994	73,933	17.2	54,868	053152	Dworshak NFH
04/15/1994	74,556	18.0	56,216	053153	Dworshak NFH
04/15/1994	74,318	17.4	55,455	053154	Dworshak NFH
04/15/1994	74,573	16.6	57,407	053155	Dworshak NFH
04/08/1994	69,642	15.7	66,014	053156	Dworshak NFH
04/22/1994	84,654	16.3	61,840	053157	Dworshak NFH
05/06/1994	74,500	14.2	68,211	053158	Dworshak NFH
04/14/1994	187,928	17.9	57,452	053159	Dworshak NFH
04/14/1994	189,061	18.2	59,281	053205	Dworshak NFH
04/14/1994	187,352	19.1	60,008	053218	Dworshak NFH
04/14/1994	<u>187,756</u>	19.1	<u>58,974</u>	053219	Dworshak NFH
Totals	1,278,273		655,726		

735 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	3				2		2
Fish Trap (freshwater)	ODFW	10			5	2		7
Fish Trap (freshwater)	WDFW	11			7			7
Freshwater Sport	IDFG	3				1		1
Freshwater Sport	ODFW	10			4			4
Hatchery	FWS	669		1	312	1		314
Hatchery	ODFW	6			1	1		2
Hatchery	WDFW	13			5	2		7
Other	FWS	0						0
Spawning Ground	ODFW	3			1			1
Test Fishery Net	ODFW	3			1			1
Treaty Ceremonial	ODFW	<u>16</u>			<u>7</u>	<u>1</u>		<u>8</u>
Totals		747		1	343	10		354

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	747	100	0.0584
Total Survival	747		0.0584

Escapement to NFH	669	90	0.0523
Columbia River contribution	78	10	0.0061

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Ocean

Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	78	669
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd  
 93DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/13/1995	451,407	35.0	0	-	Dworshak NFH
04/14/1995	71,301	0.0	66,674	053206	Dworshak NFH
04/14/1995	73,018	0.0	69,115	053207	Dworshak NFH
04/14/1995	66,644	0.0	60,879	053208	Dworshak NFH
04/14/1995	68,558	0.0	62,950	053209	Dworshak NFH
04/14/1995	68,853	0.0	67,497	053210	Dworshak NFH
04/14/1995	74,963	0.0	66,338	053531	Dworshak NFH
04/14/1995	75,074	0.0	67,729	053532	Dworshak NFH
04/14/1995	68,944	0.0	67,951	053533	Dworshak NFH
04/13/1995	147,445	0.0	60,409	053534	Dworshak NFH
04/13/1995	<u>145,238</u>	0.0	<u>59,352</u>	053535	Dworshak NFH
Totals	1,311,445		648,894	PEF= 2.02	

total OBSD 456

Where Recovered	expanded	PSC expanded numbers					Total	
		2s	3s	4s	5s	6s		
Columbia River Gillnet	ODFW	14		6	1		7	
Fish Trap (freshwater)	ODFW	164	1	76	4		81	
Fish Trap (freshwater)	WDFW	4	2				2	
Freshwater Net	WDFW	14		6	1		7	
Freshwater Sport	IDFG	148		45	28		73	
Freshwater Sport	ODFW	10	2	3			5	
Freshwater Sport	WDFW	14		7			7	
Hatchery	FWS	220	92	12	4	1	109	
Hatchery	IDFG	51	3	19	3		25	
Hatchery	ODFW	44		16	6		22	
Hatchery	WDFW	81	1	33	6		40	
Ocean Troll (non-treaty)	ADFG	4		2			2	
Ocean Troll (non-treaty)	CDFO	4			2		2	
Spawning Ground	IDFG	22		9	2		11	
Spawning Ground	WDFW	14		7			7	
Test Fishery Net	ODFW	4		2			2	
Treaty Ceremonial	ODFW	97		32	16		48	
Treaty Subsistence	ODFW	12		6			6	
Treaty Subsistence	WDFW	<u>28</u>		<u>14</u>			<u>14</u>	
Totals		949		101	295	73	1	470

		% of total	% of release
Ocean contribution	8	1	0.0006
Escapement to Columbia River	941	99	0.0718
Total Survival	949		0.0724

Escapement to NFH	220	23	0.0168
Columbia River contribution	721	76	0.0550

Ocean	Contribution by Area	
4 AK		
4 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	721	220
0 CA		
8 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 94 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 94DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1996	15,928	8.4	15,557	052958	Dworshak NFH
04/11/1996	4,234	10.2	4,127	052959	Dworshak NFH
04/11/1996	15,891	11.8	15,361	052960	Dworshak NFH
04/11/1996	15,895	11.3	15,630	052963	Dworshak NFH
04/11/1996	13,692	10.3	13,557	053006	Dworshak NFH
04/11/1996	16,079	11.4	15,829	053007	Dworshak NFH
04/11/1996	<u>21,184</u>	14.3	<u>20,714</u>	053721	Dworshak NFH
Totals	102,903		100,775		

34 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Fish Trap (freshwater) ODFW	1			1			1
Freshwater Sport IDFG	10			10			10
Hatchery FWS	1				1		1
Hatchery IDFG	4			4			4
Hatchery ODFW	5			5			5
Hatchery WDFW	4			4			4
Ocean Troll (non-treaty) ADFG	3			3			3
Spawning Ground IDFG	1			1			1
Treaty Ceremonial ODFW	<u>5</u>			<u>4</u>	<u>1</u>		<u>5</u>
Totals	34			32	2		34

	Total	% of total	% of release
Ocean contribution	3	9	0.0029
Escapement to Columbia River	31	91	0.0301
Total Survival	34		0.0330
Escapement to NFH	1	3	0.0010
Columbia River contribution	30	88	0.0292

Ocean	Contribution by Area	
3 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	30	1
0 CA		
3 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 95 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 95DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1997	15,867	8.1	15,656	052962	Dworshak NFH
04/07/1997	34,104	16.6	33,763	053008	Dworshak NFH
04/07/1997	<u>3,107</u>	16.6	<u>3,076</u>	054213	Dworshak NFH
Totals	53,078		52,495		

Where Recovered	Total	9 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater) ODFW	1			1			1
Freshwater Sport IDFG	1		1				1
Hatchery FWS	1		1				1
Hatchery IDFG	4			4			4
Treaty Ceremonial ODFW	<u>2</u>			<u>1</u>	<u>1</u>		<u>2</u>
Totals	9		2	6	1		9

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	9	100	0.0170
Total Survival	9		0.0170
Escapement to NFH	1	11	0.0019
Columbia River contribution	8	89	0.0151

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	8	1
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 96 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 96DwSCS

Date	Number	#/lb	Tagged	CWT	AT
03/26/1998	127,267	21.7	69,208	053213	Dworshak NFH
03/25/1998	413,335	22.8	69,246	053214	Dworshak NFH
03/26/1998	53,254	21.7	28,960	053517	Dworshak NFH
03/25/1998	<u>379,544</u>	19.5	<u>71,202</u>	053716	Dworshak NFH
Totals	973,400		238,616		

Where Recovered	Total	209 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	147	2		38		40
Columbia River Sport	ODFW	84			14		14
Fish Trap (freshwater)	ODFW	7		2			2
Freshwater Sport	IDFG	429		114	1		115
Freshwater Sport	ODFW	4		2			2
Hatchery	FWS	5			1		1
Hatchery	IDFG	13	3				3
Hatchery	ODFW	23		6			6
Hatchery	WDFW	11		2			2
Spawning Ground	ODFW	2		1			1
Treaty Ceremonial	ODFW	<u>228</u>		<u>59</u>	<u>1</u>		<u>60</u>
Totals		953	5	186	55		246

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	953	100	0.0979
Total Survival	953		0.0979
Escapement to NFH	5	1	0.0005
Columbia River contribution	948	99	0.0974

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	948	5
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 97 Spring Chinook raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 97DwSCS

Date	Number	#/lb	Tagged	CWT	AT
04/07/1999	502,483	20.8	69,660	054211	Dworshak NFH
04/08/1999	<u>542,028</u>	20.8	<u>70,716</u>	054212	Dworshak NFH
Totals	1,044,511		140,376		

Where Recovered	Total	230 Observed Recoveries					Total	
		=== PSC Expanded Recoveries ===						
		2s	3s	4s	5s	6s		
Columbia River Gillnet	ODFW	2,430		196	134		330	
Columbia River Sport	ODFW	2,190		283	12		295	
Fish Trap (freshwater)	ODFW	22		3			3	
Freshwater Sport	IDFG	495	4	61	2		67	
Freshwater Sport	WDFW	251		34			34	
Hatchery	FWS	36	2	2		1	5	
Hatchery	IDFG	8		1			1	
Hatchery	ODFW	14		2			2	
Ocean Troll (non-treaty)	ODFW	29		4			4	
Treaty Ceremonial	ODFW	<u>127</u>		<u>1</u>	<u>12</u>	<u>4</u>	<u>17</u>	
Totals		5,602		7	598	152	1	758

	Total	% of total	% of release
Ocean contribution	29	1	0.0028
Escapement to Columbia River	5,573	99	0.5336
Total Survival	5,602		0.5363
Escapement to NFH	36	1	0.0034
Columbia River contribution	5,537	99	0.5301

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
29 OR	5,537	36
0 CA		
29 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 85 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

01/12/2006  
 rd2  
 85DwSST

Date	Number	#/lb	Tagged	CWT	AT
04/25/1986	352,832	7.7	24,275	051753	Dworshak NFH
04/30/1986	492,618	5.5	24,000	051754	Dworshak NFH
04/28/1986	176,666	5.4	23,350	102856	Dworshak NFH
Totals	1,022,116		71,625		

Where Recovered	Total	346 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	4,630		314	42			356
Estuary Sport	21		1				1
Foreign Research Vessels	0						0
Freshwater Sport	3,747		173	113	5		291
Hatchery	2,749		2	185	10		197
Ocean Sport	103		5				5
Totals	11,250		495	340	15		850

	Total	% of total	% of release
Ocean contribution	103	1	0.0101
Escapement to Columbia River	11,147	99	1.0906
Total Survival	11,250		1.1007
Escapement to NFH	2,749	24	0.2690
Columbia River contribution	8,398	75	0.8216

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA		
103 OR	Columbia River	Escapement to NFH
0 CA	8,398	2,749
103 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/12/2006  
 Broodyear 86 Summer Steelhead raised at Dworshak NFH rd2  
 released in Clearwater River 86DwSST

Date	Number	#/lb	Tagged	CWT	AT
04/20/1987	59,768	7.5	19,675	051836	Dworshak NFH
04/20/1987	271,194	60.5	18,825	102931	Dworshak NFH
04/22/1987	376,864	78.3	20,625	102932	Dworshak NFH
04/23/1987	498,755	81.1	19,050	102933	Dworshak NFH
Totals	1,206,581		78,175		

Where Recovered	Total	615 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	6,794		348	74			422
Columbia River Sport ODFW	176		8	10			18
Fish Trap (freshwater) ODFW	18			1			1
Foreign Research Vessels NMFS	26		1				1
Freshwater Sport IDFG	11,250		392	279			671
Freshwater Sport ODFW	18		1				1
Hatchery FWS	5,579		12	340	23		375
Totals	23,861		762	704	23		1,489

	Total	% of total	% of release
Ocean contribution	26	0	0.0022
Escapement to Columbia River	23,835	100	1.9754
Total Survival	23,861		1.9776
Escapement to NFH	5,579	23	0.4624
Columbia River contribution	18,256	77	1.5130

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	18,256	5,579
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 87 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 87DwSST

Date	Number	#/lb	Tagged	CWT	AT
05/03/1988	16,188	8.0	15,414	051711	Dworshak NFH
05/03/1988	16,319	8.0	15,539	051712	Dworshak NFH
05/03/1988	16,199	8.0	15,424	051713	Dworshak NFH
05/03/1988	13,167	6.7	12,948	051714	Dworshak NFH
05/03/1988	13,104	6.7	12,886	051739	Dworshak NFH
03/30/1988	139,605	7.0	14,333	051846	Dworshak NFH
05/03/1988	82,468	5.7	16,604	051849	Dworshak NFH
05/03/1988	97,337	6.2	19,796	051850	Dworshak NFH
05/02/1988	177,805	6.2	19,873	051851	Dworshak NFH
05/02/1988	176,291	5.9	19,843	051852	Dworshak NFH
05/03/1988	250,042	5.5	18,835	051853	Dworshak NFH
05/04/1988	268,585	5.6	21,056	051854	Dworshak NFH
05/03/1988	11,284	5.9	8,153	102928	Dworshak NFH
05/03/1988	<u>11,100</u>	5.9	<u>8,020</u>	102929	Dworshak NFH
Totals	1,289,494		218,724		

1,042 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	4,124	477	117	1		595
Columbia River Sport	ODFW	223	44	1			45
Fish Trap (freshwater)	ODFW	1		1			1
Foreign Research Vessels	NMFS	13	1				1
Freshwater Sport	IDFG	3,816	555		2		557
Freshwater Sport	ODFW	137	27				27
Freshwater Sport	WDFW	9	1				1
Hatchery	FWS	5,311	52	678	30		760
Ocean Troll (non-treaty)	CDFO	6	6				6
Squid Gillnet By-Catch	NMFS	18	2				2
Test Fishery Net	ODFW	<u>14</u>		<u>2</u>			<u>2</u>
Totals		13,672	1,165	799	33		1,997

	Total	% of total	% of release
Ocean contribution	37	0	0.0029
Escapement to Columbia River	13,635	100	1.0574
Total Survival	13,672		1.0603
Escapement to NFH	5,311	39	0.4119
Columbia River contribution	8,324	61	0.6455

Ocean	Contribution by Area	
0 AK		
6 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	8,324	5,311
0 CA		
6 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 88 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRIS\rd2  
 88DwsST

Date	Number	#/lb	Tagged	CWT	AT
05/03/1989	72,196	5.5	16,912	051837	Dworshak NFH
05/03/1989	73,078	5.5	17,789	051838	Dworshak NFH
05/01/1989	216,691	5.1	20,339	051945	Dworshak NFH
05/01/1989	216,176	5.2	19,894	051946	Dworshak NFH
05/03/1989	215,086	5.7	18,869	051947	Dworshak NFH
05/04/1989	93,522	5.0	20,603	052041	Dworshak NFH
05/04/1989	93,801	5.6	20,782	052042	Dworshak NFH
05/04/1989	<u>93,350</u>	4.9	<u>20,497</u>	052043	Dworshak NFH
Totals	1,073,900		155,685		

Where Recovered	Total	492 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	2,696	274	56			330
Columbia River Sport	ODFW	576	66	7			73
Estuary Sport	ODFW	5	1				1
Foreign Research Vessels	NMFS	0					0
Freshwater Sport	IDFG	184		27			27
Freshwater Sport	ODFW	239	30				30
Hatchery	FWS	2,251	28	257	19		304
Hatchery	ODFW	11	1				1
Ocean Sport	WDFW	5	1				1
Squid Gillnet By-Catch	NMFS	0					0
Test Fishery Net	ODFW	<u>24</u>	<u>4</u>				<u>4</u>
Totals		5,991	405	347	19		771

	Total	% of total	% of release
Ocean contribution	5	0	0.0005
Escapement to Columbia River	5,986	100	0.5574
Total Survival	5,991		0.5579
Escapement to NFH	2,251	38	0.2096
Columbia River contribution	3,735	62	0.3478

Ocean	Contribution by Area	
0 AK		
0 BC		
5 WA	Columbia River	Escapement to NFH
0 OR	3,735	2,251
0 CA		
5 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 89DwSST

Date	Number	#/lb	Tagged	CWT	AT
05/03/1990	293,367	5.7	20,016	052044	Dworshak NFH
05/03/1990	248,052	7.2	19,797	052045	Dworshak NFH
05/03/1990	360,005	7.7	20,279	052046	Dworshak NFH
05/04/1990	88,494	5.7	21,290	052047	Dworshak NFH
05/04/1990	88,090	6.1	20,888	052048	Dworshak NFH
05/04/1990	<u>88,656</u>	5.8	<u>21,387</u>	052049	Dworshak NFH
Totals	1,166,664		123,657		

800 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet ODFW	3,714		403	63	4		470
Columbia River Sport ODFW	476		66	15			81
Estuary Sport ODFW	46		11				11
Fish Trap (freshwater) ODFW	44			3			3
Foreign Research Vessels NMFS	0						0
Freshwater Sport IDFG	244		18	20	1		39
Freshwater Sport ODFW	361		47	8			55
Hatchery FWS	4,671		20	463	43		526
Mixed Net and Seine CDFO	4		1				1
Ocean Sport CDFO	59			4			4
Test Fishery Net ODFW	<u>22</u>		<u>2</u>				<u>2</u>
Totals	9,641		568	576	48		1,192

	Total	% of total	% of release
Ocean contribution	63	1	0.0054
Escapement to Columbia River	9,578	99	0.8210
Total Survival	9,641		0.8264
Escapement to NFH	4,671	48	0.4004
Columbia River contribution	4,907	51	0.4206

Ocean Contribution by Area

0 AK

63 BC

0 WA

0 OR

0 CA

63 Total

Columbia River  
 4,907

Escapement to NFH  
 4,671

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 90 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRIS\rd2  
 90DwSST

Date	Number	#/lb	Tagged	CWT	AT
05/01/1991	181,542	7.3	19,773	052424	Dworshak NFH
05/01/1991	186,174	6.1	20,320	052425	Dworshak NFH
05/01/1991	184,062	6.6	19,858	052426	Dworshak NFH
05/01/1991	180,854	5.3	19,515	052427	Dworshak NFH
05/01/1991	92,550	5.2	20,547	052428	Dworshak NFH
05/01/1991	92,330	5.6	20,499	052429	Dworshak NFH
05/01/1991	<u>275,081</u>	5.5	<u>20,293</u>	052430	Dworshak NFH
Totals	1,192,593		140,805		

188 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet ODFW	978		83	20	3		106
Columbia River Sport ODFW	249		27				27
Fish Trap (freshwater) ODFW	28			3			3
Foreign Research Vessels NMFS	0						0
Freshwater Sport FWS	9		1				1
Freshwater Sport IDFG	73		4	4			8
Freshwater Sport ODFW	221		19	4		1	24
Hatchery FWS	1,014		14	93	3		110
Ocean Sport ODFW	28		3				3
Test Fishery Net ODFW	9		1				1
Totals	2,609		152	124	6	1	283

% of total      % of release

Ocean contribution	28	1	0.0023
Escapement to Columbia River	2,581	99	0.2164
Total Survival	2,609		0.2188
Escapement to NFH	1,014	39	0.0850
Columbia River contribution	1,567	60	0.1314

Ocean Contribution by Area

0 AK		
0 BC		
0 WA		
28 OR	Columbia River	Escapement to NFH
0 CA	1,567	1,014
28 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 91 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRIS\rd2  
 91DwSST

Date	Number	#/lb	Tagged	CWT	AT
04/30/1992	59,473	5.5	20,645	052419	Dworshak NFH
05/01/1992	223,731	5.6	20,705	052420	Dworshak NFH
04/30/1992	510,430	4.9	20,709	052423	Dworshak NFH
05/01/1992	<u>430,467</u>	5.5	<u>20,039</u>	052646	Dworshak NFH
Totals	1,224,101		82,098		

71 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Coastal Gillnet QDNR	25		1				1
Columbia River Gillnet ODFW	692		33	13			46
Columbia River Sport ODFW	123		5				5
Freshwater Sport IDFG	74			5			5
Freshwater Sport ODFW	207		13				13
Hatchery FWS	<u>486</u>		<u>2</u>	<u>40</u>	<u>4</u>		<u>46</u>
Totals	1,607		54	58	4		116

	Total	% of total	% of release
Ocean contribution	25	2	0.0020
Escapement to Columbia River	1,582	98	0.1292
Total Survival	1,607		0.1313

Escapement to NFH	486	30	0.0397
Columbia River contribution	1,096	68	0.0895

Ocean Contribution by Area

0 AK		
0 BC		
25 WA	Columbia River	Escapement to NFH
0 OR	1,096	486
0 CA		
25 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 92 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 92DwSST

Date	Number	#/lb	Tagged	CWT	AT
05/03/1993	131,203	10.0	16,214	052050	Dworshak NFH
05/03/1993	21,722	8.2	20,579	052051	Dworshak NFH
05/03/1993	23,434	7.1	20,779	052052	Dworshak NFH
05/03/1993	163,721	8.8	20,258	052157	Dworshak NFH
05/04/1993	269,443	6.3	20,886	052158	Dworshak NFH
05/04/1993	256,402	6.6	19,800	052159	Dworshak NFH
05/03/1993	276,211	5.7	21,144	052160	Dworshak NFH
05/03/1993	<u>75,854</u>	6.6	<u>20,780</u>	052161	Dworshak NFH
Totals	1,217,990		160,440		

285 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	307		22	7			29
Freshwater Sport	IDFG	76			8			8
Freshwater Sport	ODFW	104		8				8
Freshwater Sport	WDFW	306		33				33
Hatchery	FWS	1,946		3	239	10		252
Test Fishery Net	ODFW	<u>13</u>		<u>1</u>				<u>1</u>
Totals		2,752		67	254	10		331

% of total      % of release

Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,752	100	0.2259
Total Survival	2,752		0.2259
Escapement to NFH	1,946	71	0.1598
Columbia River contribution	806	29	0.0662

Ocean

Contribution by Area

0 AK  
 0 BC  
 0 WA  
 0 OR  
 0 CA  
 0 Total

Columbia River      Escapement to NFH  
 806      1,946

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 93 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRIS\rd  
 93DwSST

Date	Number	#/lb	Tagged	CWT	AT
04/20/1994	136,447	7.2	0	-	Dworshak NFH
05/04/1994	153,821	0.0	19,422	052153	Dworshak NFH
05/04/1994	223,142	0.0	20,451	052154	Dworshak NFH
05/02/1994	259,408	0.0	18,551	052155	Dworshak NFH
05/05/1994	90,140	0.0	19,318	052156	Dworshak NFH
05/06/1994	69,100	0.0	18,033	053012	Dworshak NFH
05/06/1994	18,667	0.0	4,870	053141	Dworshak NFH
05/06/1994	36,456	0.0	9,509	053142	Dworshak NFH
05/06/1994	26,726	0.0	6,939	053143	Dworshak NFH
05/02/1994	275,957	0.0	19,769	053405	Dworshak NFH
04/21/1994	<u>120,419</u>	0.0	<u>1,149</u>	053406	Dworshak NFH
Totals	1,410,283		138,011	PEF= 10.22	

total OBSD 277

Where Recovered	expanded	PSC expanded numbers					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	235	21	2			23
Freshwater Sport	IDFG	112	7	4			11
Freshwater Sport	ODFW	20	2				2
Freshwater Sport	WDFW	276	27				27
Hatchery	FWS	<u>2,432</u>	<u>17</u>	<u>221</u>			<u>238</u>
Totals		3,075	74	227			301

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	3,075	100	0.2180
Total Survival	3,075		0.2180
Escapement to NFH	2,432	79	0.1724
Columbia River contribution	643	21	0.0456

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	643	2,432
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 94 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 94DwSST

Date	Number	#/lb	Tagged	CWT	AT
04/27/1995	203,167	7.0	19,385	052455	Dworshak NFH
04/28/1995	194,006	7.1	18,437	052456	Dworshak NFH
04/26/1995	97,038	6.6	18,573	052457	Dworshak NFH
04/24/1995	107,044	6.4	20,488	052458	Dworshak NFH
04/27/1995	14,869	5.5	14,763	052459	Dworshak NFH
04/24/1995	19,833	5.9	19,635	052460	Dworshak NFH
04/24/1995	106,437	6.2	20,372	052461	Dworshak NFH
04/25/1995	308,434	7.5	22,297	052462	Dworshak NFH
04/26/1995	<u>162,749</u>	6.0	<u>21,747</u>	053148	Dworshak NFH
Totals	1,213,577		175,697		

60 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	22			3			3
Freshwater Sport	IDFG	52		6	1			7
Freshwater Sport	ODFW	7		1				1
Hatchery	FWS	<u>37</u>		<u>5</u>				<u>5</u>
Totals		118		12	4			16

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	118	100	0.0097
Total Survival	118		0.0097
Escapement to NFH	37	31	0.0030
Columbia River contribution	81	69	0.0067

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	81	37
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 95 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 95DwSST

Date	Number	#/lb	Tagged	CWT	AT
05/01/1996	236,671	5.2	21,751	053144	Dworshak NFH
04/30/1996	250,200	5.4	21,310	053145	Dworshak NFH
05/02/1996	179,866	7.1	20,360	053149	Dworshak NFH
05/03/1996	22,900	7.0	20,276	053150	Dworshak NFH
05/03/1996	20,308	7.1	18,612	053151	Dworshak NFH
05/03/1996	159,765	6.3	20,670	053722	Dworshak NFH
05/03/1996	134,333	6.3	20,804	053723	Dworshak NFH
05/02/1996	88,742	7.2	19,034	054005	Dworshak NFH
05/02/1996	106,197	5.8	21,197	054006	Dworshak NFH
05/01/1996	<u>178,453</u>	9.1	<u>18,803</u>	054007	Dworshak NFH
Totals	1,377,435		202,817		

56 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	82		10	2			12
Columbia River Sport	ODFW	62		8				8
Freshwater Sport	IDFG	104		6	9			15
Freshwater Sport	ODFW	34		4				4
Freshwater Sport	WDFW	325		37				37
Hatchery	FWS	<u>0</u>						<u>0</u>
Totals		607		65	11			76

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	607	100	0.0441
Total Survival	607		0.0441
Escapement to NFH	0	0	0.0000
Columbia River contribution	607	100	0.0441

Ocean Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	607	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 96 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRIS\rd2  
 96DwSST

Date	Number	#/lb	Tagged	CWT	AT
05/02/1997	321,305	8.3	21,836	054147	Dworshak NFH
04/30/1997	357,218	8.2	21,758	054148	Dworshak NFH
04/29/1997	79,626	5.4	21,075	054149	Dworshak NFH
04/29/1997	177,690	5.8	20,904	054151	Dworshak NFH
04/29/1997	21,507	5.9	20,503	054153	Dworshak NFH
04/29/1997	21,481	5.7	20,766	054154	Dworshak NFH
04/29/1997	21,680	5.1	20,741	054155	Dworshak NFH
04/29/1997	21,669	5.0	21,267	054156	Dworshak NFH
05/01/1997	169,980	5.4	21,063	054206	Dworshak NFH
05/01/1997	<u>168,878</u>	5.3	<u>20,966</u>	054207	Dworshak NFH
Totals	1,361,034		210,879		

54 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet ODFW	168		20	3			23
Columbia River Sport ODFW	81		20				20
Foreign Research Vessels NMFS	0						0
Freshwater Sport IDFG	92		14	3			17
Freshwater Sport ODFW	24		2				2
Freshwater Sport WDFW	735		115				115
Hatchery FWS	<u>0</u>						<u>0</u>
Totals	1,100		171	6			177

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,100	100	0.0808
Total Survival	1,100		0.0808
Escapement to NFH	0	0	0.0000
Columbia River contribution	1,100	100	0.0808

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,100	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 97 Summer Steelhead raised at Dworshak NFH  
 released in Clearwater River

10/20/2005  
 CRiS\rd2  
 97DwSST

Date	Number	#/lb	Tagged	CWT	AT
04/30/1998	149,707	5.3	18,173	053957	Dworshak NFH
04/29/1998	49,918	5.2	21,015	053958	Dworshak NFH
04/27/1998	83,991	7.8	20,296	053959	Dworshak NFH
04/27/1998	336,506	7.5	20,939	053960	Dworshak NFH
04/29/1998	191,123	6.3	17,804	053961	Dworshak NFH
04/29/1998	148,163	5.6	16,966	053962	Dworshak NFH
04/30/1998	<u>269,536</u>	5.4	<u>17,965</u>	053963	Dworshak NFH
Totals	1,228,944		133,158		

52 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	438		53	1			54
Columbia River Sport	74		8				8
Estuary Sport	16		2				2
Freshwater Sport	80		6	4			10
Freshwater Sport	51		3	2			5
Freshwater Sport	772		77	14			91
Treaty Subsistence	<u>2</u>		<u>1</u>				<u>1</u>
Totals	1,433		150	21			171

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,433	100	0.1166
Total Survival	1,433		0.1166
Escapement to NFH	0	0	0.0000
Columbia River contribution	1,433	100	0.1166

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,433	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 79 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/24/  
 CRIS\r  
 79ECCO

Date	Number	#/lb	Tagged	CWT	AT
04/21/1981	174,072	14.1	0	-	Eagle Creek NFH
04/22/1981	74,015	14.2	0	-	Eagle Creek NFH
04/23/1981	115,982	14.3	0	-	Eagle Creek NFH
04/24/1981	81,323	13.5	0	-	Eagle Creek NFH
05/26/1981	240,326	12.7	0	-	Eagle Creek NFH
04/22/1981	126,785	14.2	126,785	050826	Eagle Creek NFH
04/22/1981	43,568	14.1	43,568	050827	Eagle Creek NFH
04/22/1981	83,740	14.1	83,740	050828	Eagle Creek NFH
Totals	939,811		254,093	PEF= 3.70	

total OBSD 2,254

Where Recovered	expanded	PSC expanded numbers					Tot
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW 503		136				1
Columbia River Sport	ODFW 111	30					
Estuary Sport	ODFW 440		119				1
Estuary Sport	WDFW 22		6				
Fish Trap (freshwater)	ODFW 7		2				
Hatchery	FWS 2,219		600				6
Mixed Net and Seine	WDFW 11		3				
Ocean Sport	ODFW 3,495	14	931				9
Ocean Troll (non-treaty)	CDFG 3,739		1,011				1,0
Ocean Troll (non-treaty)	CDFO 340		92				
Ocean Troll (non-treaty)	ODFW 14,051	23	3,776				3,7
Ocean Troll - Day Boat	WDFW 277	10	65				
Ocean Troll - Trip Boat	WDFW 599	2	160				1
Sport (charter)	CDFG 192		52				
Sport (charter)	WDFW 607	2	162				1
Sport (private)	CDFG 980		265				2
Sport (private)	WDFW 466		126				1
Test Fishery Net	ODFW 41		11				
Treaty Troll	WDFW 22		5		1		
Totals	28,122	81	7,522		1		7,6

		% of total	% of release
Ocean contribution	24,779	88	2.6366
Escapement to Columbia River	3,343	12	0.3557
Total Survival	28,122		2.9923
Escapement to NFH	2,219	8	0.2361
Columbia River contribution	1,124	4	0.1196

Ocean	Contribution by Area	
0 AK		
340 BC		
1,982 WA	Columbia River	Escapement to NFH
17,546 OR	1,124	2,219
4,911 CA		
24,779 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 80 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/24/2005  
 rd  
 80ECCOS

Date	Number	#/lb	Tagged	CWT	AT
05/04/1982	41,994	17.2	0	-	Eagle Creek NFH
05/05/1982	257,515	17.5	0	-	Eagle Creek NFH
05/06/1982	125,980	17.3	0	-	Eagle Creek NFH
06/02/1982	244,690	13.7	0	-	Eagle Creek NFH
05/06/1982	20,041	14.1	19,039	051035	Eagle Creek NFH
05/06/1982	19,105	13.1	18,035	051036	Eagle Creek NFH
05/06/1982	42,640	14.4	40,210	051037	Eagle Creek NFH
05/06/1982	42,412	15.8	38,765	051038	Eagle Creek NFH
05/06/1982	68,269	16.2	64,309	051039	Eagle Creek NFH
05/06/1982	<u>66,628</u>	16.6	<u>62,164</u>	051040	Eagle Creek NFH
Totals	929,274		242,522	PEF= 3.83	

1,572 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Tot
Columbia River Gillnet	ODFW	23	6				
Columbia River Sport	ODFW	88	23				
Estuary Sport	ODFW	54		14			
Freshwater Sport	ODFW	11		3			
Hatchery	FWS	1,728	33	418			4
Ocean Sport	ODFW	2,226		581			5
Ocean Troll (non-treaty)	CDFG	506		132			1
Ocean Troll (non-treaty)	CDFO	594		155			1
Ocean Troll (non-treaty)	ODFW	5,173		1,350			1,3
Ocean Troll - Day Boat	WDFW	161		42			
Ocean Troll - Trip Boat	WDFW	31		8			
Sport (charter)	WDFW	1,261		329			3
Sport (private)	CDFG	188		49			
Sport (private)	WDFW	479		125			1
Test Fishery Net	ODFW	11		3			
Treaty Troll	WDFW	54		14			
Totals		<u>12,588</u>		<u>58,229</u>			<u>3,285</u>

		% of total	% of release
Ocean contribution	10,673	85	1.1485
Escapement to Columbia River	1,915	15	0.2061
Total Survival	12,588		1.3546
Escapement to NFH	1,728	14	0.1860
Columbia River contribution	187	1	0.0201

Ocean	Contribution by Area	
0 AK		
594 BC		
1,986 WA	Columbia River	Escapement to NFH
7,399 OR	187	1,728
694 CA		
10,673 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 81 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/24/2005  
 rd  
 81ECCOS

Date	Number	#/lb	Tagged	CWT	AT
05/03/1983	117,501	11.9	0	-	Eagle Creek NFH
05/04/1983	67,498	13.8	0	-	Eagle Creek NFH
06/02/1983	135,227	10.9	0	-	Eagle Creek NFH
05/04/1983	62,343	14.5	60,473	051133	Eagle Creek NFH
05/04/1983	65,045	14.5	62,833	051134	Eagle Creek NFH
05/04/1983	42,082	13.9	40,946	051135	Eagle Creek NFH
05/04/1983	40,910	14.4	39,274	051136	Eagle Creek NFH
05/04/1983	21,663	13.3	20,948	051137	Eagle Creek NFH
05/04/1983	21,243	13.3	20,266	051138	Eagle Creek NFH
Totals	573,512		244,740	PEF= 2.34	

1,312 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Tot
Columbia River Gillnet	ODFW	1,228		524			5
Estuary Sport	ODFW	352		150			1
Fish Trap (freshwater)	ODFW	2		1			
Freshwater Sport	ODFW	2	1				
Hatchery	FWS	1,601	61	622			6
Ocean Sport	CDFO	14		6			
Ocean Sport	ODFW	996	6	419			4
Ocean Troll (non-treaty)	CDFG	352		150			1
Ocean Troll (non-treaty)	CDFO	131		56			
Ocean Troll (non-treaty)	ODFW	73		31			
Ocean Troll (non-treaty)	WDFW	35		15			
Sport (charter)	WDFW	328		140			1
Sport (private)	CDFG	155		66			
Sport (private)	WDFW	682		291			2
Test Fishery Net	ODFW	5		2			
Treaty Troll	WDFW	16		7			
Totals		5,972		62,480			2,548

	Total	% of total	% of release
Ocean contribution	2,782	47	0.4851
Escapement to Columbia River	3,190	53	0.5562
Total Survival	5,972		1.0413
Escapement to NFH	1,601	27	0.2792
Columbia River contribution	1,589	27	0.2771

Ocean	Contribution by Area	
0 AK		
145 BC		
1,061 WA	Columbia River	Escapement to NFH
1,069 OR	1,589	1,601
507 CA		
2,782 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 88 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/24/2005  
 rd  
 88ECCOS

Date	Number	#/lb	Tagged	CWT	AT
04/27/1990	283,890	14.6	0	074305	Eagle Creek NFH
05/01/1990	403,832	14.2	24,144	074305	Eagle Creek NFH
04/27/1990	<u>325,071</u>	12.2	<u>24,170</u>	074306	Eagle Creek NFH
Totals	1,012,793		48,314	PEF= 20.96	

Where Recovered	Total	858 Observed Recoveries					Tot
		2s	3s	4s	5s	6s	
Columbia River Gillnet	5,094	5	238				2
Estuary Sport	3,270		156				1
Freshwater Sport	252		12				
Hatchery	7,589	96	266				3
Hatchery	21		1				
Mixed Net and Seine	84		4				
Ocean Sport	2,306		110				1
Ocean Sport	5,932	3	280				2
Ocean Sport	147		7				
Ocean Troll (non-treaty)	2,264		108				1
Ocean Troll (non-treaty)	797		38				
Ocean Troll (non-treaty)	5,408		258				2
Ocean Troll (non-treaty)	650		31				
Sport (charter)	1,195	2	55				
Sport (jetty)	482		23				
Sport (private)	6,498		310				3
Test Fishery Net	293		14				
Treaty Troll	63		3				
Totals	42,345		106,914				2,020

	Total	% of total	% of release
Ocean contribution	25,826	61	2.5500
Escapement to Columbia River	16,519	39	1.6310
Total Survival	42,345		4.1810
Escapement to NFH	7,589	18	0.7493
Columbia River contribution	8,930	21	0.8817

Ocean	Contribution by Area	
0 AK		
881 BC		
9,035 WA	Columbia River	Escapement to NFH
11,340 OR	8,930	7,589
4,570 CA		
25,826 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21/  
 CRiS\r  
 89ECCO

Date	Number	#/lb	Tagged	CWT	AT
03/29/1991	1,088	20.8	0	075552	Eagle Creek NFH
04/23/1991	590,900	14.5	27,225	075552	Eagle Creek NFH
05/16/1991	3,711	9.8	0	075552	Eagle Creek NFH
03/29/1991	1,089	20.8	0	075553	Eagle Creek NFH
04/25/1991	598,500	14.9	28,368	075553	Eagle Creek NFH
05/16/1991	3,712	9.8	0	075553	Eagle Creek NFH
Totals	1,199,000		55,593		

Where Recovered	Total	304 Observed Recoveries					Tot
		2s	3s	4s	5s	6s	
Columbia River Gillnet	437		20				
Estuary Sport	364		17				
Hatchery	4,332	19	182				2
Hatchery	21		1				
Ocean Sport	64		3				
Ocean Sport	2,848		132				1
Ocean Troll (non-treaty)	219		10				
Ocean Troll (non-treaty)	170		8				
Ocean Troll (non-treaty)	1,010		47				
Sport (charter)	216		10				
Sport (private)	1,629		75				
Test Fishery Net	22		1				
Totals	11,332	19	506				5

	Total	% of total	% of release
Ocean contribution	6,156	54	0.5134
Escapement to Columbia River	5,176	46	0.4317
Total Survival	11,332		0.9451
Escapement to NFH	4,332	38	0.3613
Columbia River contribution	844	7	0.0704

Ocean	Contribution by Area	
0 AK		
234 BC		
1,845 WA	Columbia River	Escapement to NFH
3,858 OR	844	4,332
219 CA		
6,156 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 90 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21/  
 CRiS\r  
 90ECCO

Date	Number	#/lb	Tagged	CWT	AT
04/10/1992	292,041	21.8	22,350	052619	Eagle Creek NFH
04/10/1992	<u>795,305</u>	14.9	<u>23,306</u>	052620	Eagle Creek NFH
Totals	1,087,346		45,656	PEF= 23.82	
				total OBSD	31

Where Recovered	expanded	PSC expanded numbers				Tot
		2s	3s	4s	5s	
Columbia River Gillnet	ODFW 238		10			
Dead Fish Survey	ODFW 24		1			
Hatchery	FWS 429	4	14			
Ocean Sport	CDFG 48		2			
Ocean Sport	ODFW 48		2			
Sport (charter)	WDFW 95		4			
Sport (private)	WDFW 405		17			
Test Fishery Net	ODFW 48		2			
Totals	<u>1,335</u>	<u>4</u>	<u>52</u>			

		% of total	% of release
Ocean contribution	596	45	0.0548
Escapement to Columbia River	739	55	0.0680
Total Survival	1,335		0.1228

Escapement to NFH	429	32	0.0395
Columbia River contribution	310	23	0.0285

Ocean	Contribution by Area	
0 AK		
0 BC		
500 WA	Columbia River	Escapement to NFH
48 OR	310	429
48 CA		
596 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 91 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21/  
 CRiS\r  
 91ECCO

Date	Number	#/lb	Tagged	CWT	AT
04/30/1993	66,913	14.1	0	052745	Eagle Creek NFH
04/30/1993	201,332	14.1	11,701	052745	Eagle Creek NFH
04/30/1993	256,670	13.8	11,910	052745	Eagle Creek NFH
04/22/1993	134,860	16.5	11,358	052746	Eagle Creek NFH
04/22/1993	272,185	14.4	11,464	052746	Eagle Creek NFH
04/22/1993	<u>128,928</u>	15.8	<u>0</u>	052746	Eagle Creek NFH
Totals	1,060,888		46,433	PEF= 22.85	

total OBSD 148  
 ===== PSC expanded numbers ==

Where Recovered		expanded	2s	3s	4s	5s	6s	Tot
Columbia River Gillnet	ODFW	91		4				
Columbia River Sport	ODFW	114		5				
Hatchery	FWS	3,267	3	140				1
Mixed Net and Seine	CDFO	91		4				
Ocean Sport	WDFW	46		2				
Totals		<u>3,609</u>	<u>3</u>	<u>155</u>				<u>1</u>

		% of total	% of release
Ocean contribution	137	4	0.0129
Escapement to Columbia River	3,472	96	0.3273
Total Survival	3,609		0.3402
Escapement to NFH	3,267	91	0.3079
Columbia River contribution	205	6	0.0193

Ocean	Contribution by Area	
0 AK		
91 BC		
46 WA	Columbia River	Escapement to NFH
0 OR	205	3,267
0 CA		
137 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 92 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21/  
 CRIS\r  
 92ECCO

Date	Number	#/lb	Tagged	CWT	AT
04/29/1994	256,306	13.6	12,273	053260	Eagle Creek NFH
04/29/1994	256,182	13.6	12,329	053261	Eagle Creek NFH
04/01/1994	39,036	16.5	0	053262	Eagle Creek NFH
04/08/1994	78,189	15.3	12,682	053262	Eagle Creek NFH
04/15/1994	78,479	14.3	0	053262	Eagle Creek NFH
04/22/1994	39,463	14.2	0	053262	Eagle Creek NFH
04/22/1994	38,868	14.2	0	053263	Eagle Creek NFH
04/29/1994	77,242	13.3	12,304	053263	Eagle Creek NFH
05/06/1994	39,175	12.9	0	053263	Eagle Creek NFH
05/09/1994	<u>77,387</u>	13.3	<u>0</u>	053263	Eagle Creek NFH
Totals	980,327		49,588		

Where Recovered	Total	201 Observed Recoveries					Tot
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	65	3				
Estuary Sport	ODFW	150	7				
Hatchery	FWS	3,696	10	164			1
Ocean Sport	ODFW	277		13			
Ocean Sport	WDFW	65		3			
Ocean Troll (non-treaty)	ODFW	21		1			
Sport (charter)	WDFW	234		11			
Sport (private)	WDFW	<u>512</u>		<u>24</u>			
Totals		5,020	10	226			2

	Total	% of total	% of release
Ocean contribution	1,109	22	0.1131
Escapement to Columbia River	3,911	78	0.3989
Total Survival	5,020		0.5121
Escapement to NFH	3,696	74	0.3770
Columbia River contribution	215	4	0.0219

Ocean	Contribution by Area	
0 AK		
0 BC		
811 WA	Columbia River	Escapement to NFH
298 OR	215	3,696
0 CA		
1,109 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 93 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21  
 CRIS\  
 93ECC

Date	Number	#/lb	Tagged	CWT	AT
05/30/1995	345,726	10.0	14,357	053623	Eagle Creek NFH
05/30/1995	204,466	10.0	14,716	053624	Eagle Creek NFH
04/20/1995	204,321	11.3	14,903	053625	Eagle Creek NFH
05/10/1995	<u>233,364</u>	10.9	<u>14,407</u>	053626	Eagle Creek NFH
Totals	987,877		58,383		

Where Recovered	Total	113 Observed Recoveries					To
		2s	3s	4s	5s	6s	
Columbia River Sport ODFW	121		6				
Hatchery FWS	1,867	13	91				
Ocean Troll (non-treaty) CDFO	81		5				
Sport (charter) WDFW	100		5				
Sport (private) WDFW	<u>177</u>		<u>10</u>				
Totals	2,346	13	117				

	Total	% of total	% of release
Ocean contribution	358	15	0.0362
Escapement to Columbia River	1,988	85	0.2012
Total Survival	2,346		0.2375
Escapement to NFH	1,867	80	0.1890
Columbia River contribution	121	5	0.0122

Ocean	Contribution by Area	
0 AK		
81 BC		
277 WA	Columbia River	Escapement to NFH
0 OR	121	1,867
0 CA		
358 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 94 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21  
 CRIS\  
 94ECC

Date	Number	#/lb	Tagged	CWT	AT
04/26/1996	<u>996,618</u>	13.8	<u>45,517</u>	053827	Eagle Creek NFH
Totals	996,618		45,517		

					69	Observed Recoveries				
					===	PSC	Expanded Recoveries			===
Where Recovered			Total		2s	3s	4s	5s	6s	To
Estuary Sport		ODFW	66			3				
Hatchery		FWS	1,423		5	60				
Sport (charter)		WDFW	44			2				
Sport (private)		WDFW	<u>219</u>			<u>10</u>				
Totals			<u>1,752</u>		<u>5</u>	<u>75</u>				

				% of	% of
				total	release
Ocean contribution			263	15	0.0264
Escapement to Columbia River			1,489	85	0.1494
Total Survival			1,752		0.1758
Escapement to NFH			1,423	81	0.1428
Columbia River contribution			66	4	0.0066

Ocean	Contribution by Area	
0 AK		
0 BC		
263 WA	Columbia River	Escapement to NFH
0 OR	66	1,423
0 CA		
263 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 95 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21  
 CRIS\  
 95ECC

Date	Number	#/lb	Tagged	CWT	AT
05/30/1997	24,987	13.4	24,601	053806	Eagle Creek NFH
05/30/1997	744,522	13.4	48,101	053931	Eagle Creek NFH
Totals	769,509		72,702		

Where Recovered	Total	Observed Recoveries					To
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW 232		15				
Columbia River Sport	ODFW 557		36				
Estuary Sport	ODFW 139		9				
Estuary Sport	WDFW 124		8				
Hatchery	FWS 14,031	49	1,334				1,
Ocean Sport	ODFW 248		16				
Sport (charter)	WDFW 128		12				
Sport (private)	WDFW 702		50				
Totals	16,161	49	1,480				1,

	Total	% of total	% of release
Ocean contribution	1,078	7	0.1401
Escapement to Columbia River	15,083	93	1.9601
Total Survival	16,161		2.1002

Escapement to NFH	14,031	87	1.8234
Columbia River contribution	1,052	7	0.1367

Ocean	Contribution by Area	
0 AK		
0 BC		
830 WA	Columbia River	Escapement to NFH
248 OR	1,052	14,031
0 CA		
1,078 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 96 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

Date	Number	#/lb	Tagged	CWT	AT
05/08/1998	50,648	10.5	49,838	053526	Eagle Creek NFH
05/08/1998	959,396	10.5	48,421	053807	Eagle Creek NFH
Totals	1,010,044		98,259		

Where Recovered	Total	Observed Recoveries				
		2s	3s	4s	5s	6s
Coastal Gillnet	WDFW 2		2			
Columbia River Gillnet	ODFW 1,289		122			
Estuary Sport	ODFW 277		14			
Hatchery	FWS 13,229	99	1,210			
Hatchery	WDFW 20		1			
Ocean Sport	ODFW 1,030		52			
Ocean Troll (non-treaty)	WDFW 200		12			
Sport (charter)	WDFW 379		22			
Sport (private)	WDFW 876		48			
Treaty Troll	WDFW 62		6			
Totals	17,364	99	1,489			

	Total	% of total	% of release
Ocean contribution	2,549	15	0.2524
Escapement to Columbia River	14,815	85	1.4668
Total Survival	17,364		1.7191
Escapement to NFH	13,229	76	1.3097
Columbia River contribution	1,586	9	0.1570

Ocean	Contribution by Area	
0 AK		
0 BC		
1,519 WA	Columbia River	Escapement to NFH
1,030 OR	1,586	13,229
0 CA		
2,549 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 97 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

01/13/2006  
 rd2  
 97ECCOS

Date	Number	#/lb	Tagged	CWT	AT
05/19/1999	51,726	12.4	49,967	053633	Eagle Creek NFH
04/26/1999	50,758	14.0	0	053731	Eagle Creek NFH
04/28/1999	51,044	12.8	0	053731	Eagle Creek NFH
04/30/1999	51,325	13.5	0	053731	Eagle Creek NFH
05/03/1999	309,031	12.2	0	053731	Eagle Creek NFH
05/19/1999	<u>633,827</u>	12.4	<u>48,180</u>	053731	Eagle Creek NFH
Totals	1,147,711		98,147		

3,560 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	522		42				42
Estuary Sport	ODFW	666		28				28
Estuary Sport	WDFW	24	1					1
Hatchery	FWS	39,181	97	3,313				3,410
Hatchery	WDFW	1		1				1
Mixed Net and Seine	WDFW	26		3				3
Ocean Sport	CDFG	95		4				4
Ocean Sport	ODFW	1,833		77				77
Ocean Troll (non-treaty)	ODFW	597		27				27
Ocean Troll (non-treaty)	WDFW	191		9				9
Sport (charter)	WDFW	741		34				34
Sport (private)	WDFW	1,765		78				78
Test Fishery Net	ODFW	2		2				2
Treaty Troll	WDFW	7		7				7
Totals		<u>45,651</u>	<u>98</u>	<u>3,625</u>				<u>3,723</u>

		% of total	% of release
Ocean contribution	5,255	12	0.4579
Escapement to Columbia River	40,396	88	3.5197
Total Survival	45,651		3.9776
Escapement to NFH	39,181	86	3.4138
Columbia River contribution	1,215	3	0.1059

Ocean	Contribution by Area	
0 AK		
0 BC		
2,730 WA	Columbia River	Escapement to NFH
2,430 OR	1,215	39,181
95 CA		
5,255 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 98 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

Date	Number	#/lb	Tagged	CWT	AT
05/17/2000	24,924	12.0	23,080	054247	Eagle Creek NFH
05/17/2000	<u>981,764</u>	12.0	<u>23,095</u>	054248	Eagle Creek NFH
Totals	1,006,688		<u>46,175</u>		

Where Recovered		Total	571 Observed Recoveries				
			2s	3s	4s	5s	6s
Columbia River Gillnet	ODFW	5,419	4	257			
Columbia River Sport	ODFW	298		7			
Estuary Sport	ODFW	2,593		61			
Fish Trap (freshwater)	ODFW	43		1			
Hatchery	FWS	21,898	229	866			
Hatchery	ODFW	1		1			
Hatchery	WDFW	43		1			
Ocean Sport	ODFW	1,233		29			
Ocean Troll (non-treaty)	ODFW	213		5			
Ocean Troll (non-treaty)	WDFW	85		2			
Spawning Ground	ODFW	172		6			
Sport (charter)	WDFW	893		21			
Sport (jetty)	WDFW	808		19			
Sport (private)	WDFW	6,731		171			
Treaty Troll	WDFW	2		2			
Totals		<u>40,432</u>	<u>233</u>	<u>1,449</u>			

		% of total	% of release
Ocean contribution	9,965	25	0.9899
Escapement to Columbia River	30,467	75	3.0265
Total Survival	40,432		4.0163
Escapement to NFH	21,898	54	2.1753
Columbia River contribution	8,569	21	0.8512

Ocean	Contribution by Area	
0 AK		
0 BC		
8,519 WA	Columbia River	Escapement to NFH
1,446 OR	8,569	21,898
0 CA		
9,965 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 99 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21/2005  
 CRiS\rd2  
 99ECCOS

Date	Number	#/lb	Tagged	CWT	AT
05/16/2001	686,174	13.7	24,947	050189	Eagle Creek NFH
05/16/2001	<u>25,753</u>	13.7	<u>24,096</u>	050190	Eagle Creek NFH
Totals	711,927		49,043		

Where Recovered	Total	467 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	992		87				87
Columbia River Sport	193		7				7
Estuary Sport	138		5				5
Hatchery	12,682	22	861				883
Hatchery	28		1				1
Ocean Sport	413		15				15
Spawning Ground	29		2				2
Sport (charter)	112		6				6
Sport (private)	<u>358</u>		<u>13</u>				<u>13</u>
Totals	14,945	22	997				1,019

	Total	% of total	% of release
Ocean contribution	883	6	0.1240
Escapement to Columbia River	14,062	94	1.9752
Total Survival	14,945		2.0992
Escapement to NFH	12,682	85	1.7814
Columbia River contribution	1,380	9	0.1938

Ocean	Contribution by Area	
0 AK		
0 BC		
470 WA	Columbia River	Escapement to NFH
413 OR	1,380	12,682
0 CA		
883 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 00 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

10/21/2005  
 CRiS\rd2  
 00ECCOS

Date	Number	#/lb	Tagged	CWT	AT
05/17/2002	483,614	12.5	24,128	054249	Eagle Creek NFH
05/17/2002	<u>24,707</u>	12.5	<u>23,820</u>	054253	Eagle Creek NFH
Totals	508,321		47,948		

Where Recovered	Total	511 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	252		42				42
Estuary Sport	200		10				10
Hatchery	7,207	320	490				810
Ocean Sport	301		15				15
Spawning Ground	20	1					1
Sport (charter)	20		1				1
Sport (private)	200		10				10
Treaty Troll	3		3				3
Totals	8,203	321	571				892

	Total	% of total	% of release
Ocean contribution	524	6	0.1031
Escapement to Columbia River	7,679	94	1.5107
Total Survival	8,203		1.6137
Escapement to NFH	7,207	88	1.4178
Columbia River contribution	472	6	0.0929

Ocean	Contribution by Area	
0 AK		
0 BC		
223 WA	Columbia River	Escapement to NFH
301 OR	472	7,207
0 CA		
524 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 01 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

Date	Number	#/lb	Tagged	CWT	AT
05/06/2003	25,076	14.5	24,392	054035	Eagle Creek NFH
05/06/2003	480,324	14.5	24,366	054036	Eagle Creek NFH
Totals	505,400		48,758		

Where Recovered	Total	492 Observed Recoveries				
		2s	3s	4s	5s	6s
Estuary Sport	355	5	13			
Hatchery	5,110	46	544			
Ocean Sport	256		13			
Ocean Troll (non-treaty)	39		2			
Sport (charter)	79		4			
Sport (private)	256		13			
Totals	6,095	51	589			

	Total	% of total	% of release
Ocean contribution	630	10	0.1247
Escapement to Columbia River	5,465	90	1.0813
Total Survival	6,095		1.2060
Escapement to NFH	5,110	84	1.0111
Columbia River contribution	355	6	0.0702

Ocean	Contribution by Area	
0 AK		
0 BC		
374 WA	Columbia River	Escapement to NFH
256 OR	355	5,110
0 CA		
630 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 02 Coho raised at Eagle Creek NFH  
 released in Eagle Creek

Date	Number	#/lb	Tagged	CWT	AT
04/19/2004	24,947	17.6	22,955	053354	Eagle Creek NFH
04/19/2004	<u>532,069</u>	17.6	<u>23,674</u>	053355	Eagle Creek NFH
Totals	557,016		46,629		

Where Recovered	FWS	Total	19 Observed Recoveries				
			2s	3s	4s	5s	6s
Hatchery		<u>240</u>	<u>24</u>				
Totals		240	24				

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	240	100	0.0431
Total Survival	240		0.0431
Escapement to NFH	240	100	0.0431
Columbia River contribution	0	0	0.0000

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	240
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 88 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 88EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/19/1990	262,463	19.4	39,600	051960	Entiat NFH
04/19/1990	270,031	19.4	43,954	051963	Entiat NFH
04/19/1990	<u>53,306</u>	19.4	<u>8,268</u>	052144	Entiat NFH
Totals	585,800		91,822		

Where Recovered	Total	90 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Sport	6				1		1
Hatchery	530			40	44		84
Treaty Ceremonial	<u>58</u>			<u>2</u>	<u>7</u>		<u>9</u>
Totals	594			42	52		94

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	594	100	0.1014
Total Survival	594		0.1014
Escapement to NFH	530	89	0.0905
Columbia River contribution	64	11	0.0109

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	64	530
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 89EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/04/1991	157,042	20.4	28,289	052332	Entiat NFH
04/04/1991	47,634	20.0	0	052332	Entiat NFH
04/04/1991	157,042	20.4	27,859	052333	Entiat NFH
04/04/1991	47,635	20.0	0	052333	Entiat NFH
04/04/1991	47,635	20.0	0	052334	Entiat NFH
04/04/1991	157,043	20.4	28,084	052334	Entiat NFH
04/04/1991	15,878	20.0	0	052347	Entiat NFH
04/04/1991	52,347	20.4	9,942	052347	Entiat NFH
04/04/1991	15,878	20.0	0	052348	Entiat NFH
04/04/1991	52,347	20.4	8,854	052348	Entiat NFH
04/04/1991	15,878	20.0	0	052349	Entiat NFH
04/04/1991	52,348	20.4	8,179	052349	Entiat NFH
Totals	818,707		111,207		

56 Observed Recoveries

PSC Expanded Recoveries		Observed Recoveries				
2s	3s	4s	5s	6s	Tot	
			1			
		52	3			
		52	4		56	

Where Recovered	Agency	Total
Columbia River Sport Hatchery	ODFW	10
	FWS	415
Totals		425

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	425	100	0.0519
Total Survival	425		0.0519
Escapement to NFH	415	98	0.0507
Columbia River contribution	10	2	0.0012

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 10

Escapement to NFH  
 415

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 90 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 90EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1992	84,342	14.0	22,203	052609	Entiat NFH
04/15/1992	92,164	14.0	24,844	052610	Entiat NFH
04/15/1992	83,662	16.0	20,829	052611	Entiat NFH
04/15/1992	<u>82,982</u>	16.0	<u>27,806</u>	052612	Entiat NFH
Totals	343,150		95,682		

Where Recovered	FWS	Total	4 Observed Recoveries				Tot
			2s	3s	4s	5s	
Hatchery		<u>16</u>			3	1	
Totals		16			3	1	4

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	16	100	0.0047
Total Survival	16		0.0047
Escapement to NFH	16	100	0.0047
Columbia River contribution	0	0	0.0000

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	16
0 CA		
0 Total		



Stock Assessment Reference Summary from CRIS and PSMFC TSI  
 Broodyear 91 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 91EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1993	89,110	14.7	28,808	052847	Entiat NFH
04/01/1993	12,344	15.3	0	052847	Entiat NFH
04/01/1993	13,540	13.5	0	052848	Entiat NFH
04/01/1993	86,298	14.4	28,808	052848	Entiat NFH
04/01/1993	86,179	14.4	28,693	052849	Entiat NFH
04/01/1993	<u>88,991</u>	14.7	<u>28,808</u>	052850	Entiat NFH
Totals	376,462		115,117		

Where Recovered	Total	28 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery	FWS 96			27			
Treaty Ceremonial	ODFW 9			3			
Totals	<u>105</u>			<u>30</u>			<u>30</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	105	100	0.0279
Total Survival	105		0.0279
Escapement to NFH	96	91	0.0255
Columbia River contribution	9	9	0.0024

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	9	96
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 92 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 92EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1994	151,346	13.1	57,258	053224	Entiat NFH
04/01/1994	155,975	14.3	58,580	053225	Entiat NFH
04/01/1994	<u>71,408</u>	13.4	<u>0</u>	053225	Entiat NFH
Totals	378,729		115,838		

Where Recovered	Total	47 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater) WDFW	18			6			
Hatchery FWS	107		1	36	2		
Hatchery WDFW	3					1	
Treaty Ceremonial ODFW	<u>3</u>			<u>1</u>			
Totals	131	<u>1</u>	<u>1</u>	<u>43</u>	<u>3</u>		<u>47</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	131	100	0.0346
Total Survival	131		0.0346
Escapement to NFH	107	82	0.0283
Columbia River contribution	24	18	0.0063

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	24	107
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 93EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1995	113,398	13.0	49,598	053451	Entiat NFH
04/01/1995	277,813	14.7	53,454	053452	Entiat NFH
Totals	391,211		103,052		

Where Recovered	Total	42 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	Tot
Fish Trap (freshwater) WDFW	5		1				
Hatchery FWS	126			29	6		
Hatchery WDFW	19			4	2		
Totals	150		1	33	8		42

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	150	100	0.0383
Total Survival	150		0.0383
Escapement to NFH	126	84	0.0322
Columbia River contribution	24	16	0.0061

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	24	126
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 94 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 94EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1996	89,882	13.2	37,322	053812	Entiat NFH
04/01/1996	84,651	13.2	37,903	053813	Entiat NFH
04/01/1996	41,085	13.5	0	053814	Entiat NFH
04/01/1996	<u>119,975</u>	13.5	<u>25,223</u>	053814	Entiat NFH
Totals	<u>335,593</u>		<u>100,448</u>		

Where Recovered	Total	67 Observed Recoveries					
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	Tot
Hatchery FWS	203			47	13		
Hatchery WDFW	11			5			
Treaty Ceremonial ODFW	<u>10</u>			<u>1</u>	<u>1</u>		
Totals	<u>224</u>			<u>53</u>	<u>14</u>		<u>67</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	224	100	0.0667
Total Survival	<u>224</u>		<u>0.0667</u>
Escapement to NFH	203	91	0.0605
Columbia River contribution	21	9	0.0063

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	21	203
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 95 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 95EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1997	17,586	9.8	17,207	053646	Entiat NFH
04/01/1997	7,585	9.1	7,393	053805	Entiat NFH
04/01/1997	17,587	9.8	17,072	621649	Entiat NFH
04/01/1997	36,247	9.8	35,186	621649	Entiat NFH
04/01/1997	59,971	9.6	59,059	621952	Entiat NFH
04/01/1997	61,510	9.6	60,546	621955	Entiat NFH
Totals	200,486		196,463		

Where Recovered	Total	645 Observed Recoveries					Tot
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Sport	ODFW	1			1		
Estuary Sport	WDFW	1		1			
Hatchery	FWS	609	11	574	13		5
Hatchery	WDFW	38	2	36			
Ocean Troll (non-treaty)	ODFW	3				3	
Treaty Ceremonial	ODFW	6		6			
Totals		658	13	617	14	3	647

	Total	% of total	% of release
Ocean contribution	3	0	0.0015
Escapement to Columbia River	655	100	0.3267
Total Survival	658		0.3282
Escapement to NFH	609	93	0.3038
Columbia River contribution	46	7	0.0229

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
3 OR	46	609
0 CA		
3 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 96 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/03/2005  
 rd2  
 96EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1998	16,364	10.1	16,053	000000	Entiat NFH
04/01/1998	39,984	10.2	17,793	053706	Entiat NFH
04/01/1998	39,972	10.2	18,006	053707	Entiat NFH
04/01/1998	76,901	10.3	19,155	053708	Entiat NFH
04/01/1998	<u>177,563</u>	11.4	<u>53,529</u>	053763	Entiat NFH
Totals	350,784		124,536		

Where Recovered	Total	668 Observed Recoveries					Tot
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	7				2		
Columbia River Gillnet WDFW	7			2			
Columbia River Sport ODFW	36				9		
Hatchery FWS	1,872		13	582	27		6
Hatchery WDFW	56		3	17			
Ocean Troll (non-treaty) CDFO	3			1			
Spawning Ground WDFW	19			7			
Treaty Ceremonial ODFW	54			17			
Totals	<u>2,054</u>		<u>16</u>	<u>626</u>	<u>38</u>		<u>680</u>

	Total	% of total	% of release
Ocean contribution	3	0	0.0009
Escapement to Columbia River	2,051	100	0.5847
Total Survival	2,054		0.5855
Escapement to NFH	1,872	91	0.5337
Columbia River contribution	179	9	0.0510

Ocean	Contribution by Area	
0 AK		
3 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	179	1,872
0 CA		
3 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 97 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/04/2005  
 rd2  
 97EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/07/1999	224,097	11.4	59,391	050531	Entiat NFH
04/07/1999	84,957	11.2	28,722	053912	Entiat NFH
04/07/1999	<u>45,184</u>	11.2	<u>29,654</u>	053913	Entiat NFH
Totals	354,238		117,767		

Where Recovered	Total	760 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	221			34	31		65
Columbia River Sport ODFW	211			69	6		75
Commercial Seine ADFG	0						0
Freshwater Sport WDFW	8		5				5
Hatchery FWS	2,269		27	666	33	1	727
Hatchery WDFW	0						0
Treaty Ceremonial ODFW	<u>11</u>			<u>3</u>			<u>3</u>
Totals	2,720		<u>32</u>	<u>772</u>	<u>70</u>	<u>1</u>	875

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,720	100	0.7678
Total Survival	2,720		0.7678

Escapement to NFH	2,269	83	0.6405
Columbia River contribution	451	17	0.1273

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	451	2,269
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 98 Spring Chinook raised at Entiat NFH  
 released in Entiat River

11/04/2005  
 rd2  
 98EtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/04/2000	69,240	11.9	28,675	053923	Entiat NFH
04/04/2000	43,192	12.0	26,791	053926	Entiat NFH
04/04/2000	123,273	12.0	26,749	053927	Entiat NFH
04/04/2000	<u>123,962</u>	12.0	<u>27,179</u>	054839	Entiat NFH
Totals	<u>359,667</u>		<u>109,394</u>		

Where Recovered	Total	521 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	357		2	112	2		116
Columbia River Sport	94			23	5		28
Freshwater Net	2			1			1
Hatchery	1,574		30	406	62		498
Spawning Ground	31			10			10
Treaty Ceremonial	9			3			3
Totals	<u>2,067</u>		<u>32</u>	<u>555</u>	<u>69</u>		<u>656</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,067	100	0.5747
Total Survival	2,067		0.5747

Escapement to NFH	1,574	76	0.4376
Columbia River contribution	493	24	0.1371

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 493

Escapement to NFH  
 1,574



Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 88 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

12/27/2005  
 rd2  
 88KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/12/1990	170,141	20.7	48,392	051927	Kooskia NFH
04/12/1990	166,115	20.7	47,247	051928	Kooskia NFH
04/12/1990	34,937	20.7	9,937	052142	Kooskia NFH
04/12/1990	<u>32,508</u>	20.7	<u>9,246</u>	052143	Kooskia NFH
Totals	403,701		114,822		

Where Recovered	Total	286 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery	FWS 908			102	156		258
Test Fishery Net	ODFW 19			2	3		5
Treaty Ceremonial	ODFW 156			19	25		44
Totals	<u>1,083</u>			<u>123</u>	<u>184</u>		<u>307</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,083	100	0.2683
Total Survival	1,083		0.2683
Escapement to NFH	908	84	0.2249
Columbia River contribution	175	16	0.0433

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	175	908
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 90 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd  
 90KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1992	138,418	20.5	0	-	Kooskia NFH
04/21/1992	53,549	18.6	27,073	052538	Kooskia NFH
04/21/1992	52,120	18.6	26,548	052539	Kooskia NFH
04/21/1992	42,371	17.6	21,974	052540	Kooskia NFH
04/21/1992	42,443	17.6	22,042	052541	Kooskia NFH
05/05/1992	97,420	16.2	58,197	052628	Kooskia NFH
04/07/1992	103,148	22.8	55,585	052629	Kooskia NFH
04/07/1992	102,066	20.4	56,294	052630	Kooskia NFH
05/05/1992	95,716	14.9	55,226	052631	Kooskia NFH
Totals	727,251		322,939	PEF= 2.25	

31 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Sport Hatchery	ODFW	11			5			5
Hatchery	FWS	59		4	22			26
Hatchery	WDFW	2			1			1
Test Fishery Net	ODFW	5			2			2
Totals		77		4	30			34

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	77	100	0.0106
Total Survival	77		0.0106
Escapement to NFH	59	77	0.0081
Columbia River contribution	18	23	0.0025

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	18	59
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 91 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd2  
 91KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/19/1993	50,585	19.5	44,833	052925	Kooskia NFH
04/19/1993	56,768	19.5	43,711	052926	Kooskia NFH
04/19/1993	57,007	19.5	48,266	052927	Kooskia NFH
04/19/1993	56,999	19.5	48,639	052928	Kooskia NFH
04/19/1993	56,644	19.5	52,112	052929	Kooskia NFH
04/19/1993	55,434	19.5	51,554	052930	Kooskia NFH
Totals	333,437		289,115		

2 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered	FWS	Total	2s	3s	4s	5s	6s	Total
Hatchery		2		1		1		2
Totals		2		1		1		2

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2	100	0.0006
Total Survival	2		0.0006
Escapement to NFH	2	100	0.0006
Columbia River contribution	0	0	0.0000

Ocean

Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	2
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 92 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd2  
 92KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/18/1994	60,272	20.2	56,102	052636	Kooskia NFH
04/18/1994	59,525	20.2	57,384	053160	Kooskia NFH
04/18/1994	66,694	20.2	65,603	053161	Kooskia NFH
04/18/1994	59,690	20.2	53,979	053162	Kooskia NFH
04/18/1994	<u>59,632</u>	20.2	<u>50,975</u>	053163	Kooskia NFH
Totals	305,813		284,043		

91 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Fish Trap (freshwater)	ODFW	1		1				1
Fish Trap (freshwater)	WDFW	1			1			1
Freshwater Sport	WDFW	3			3			3
Hatchery	FWS	86		1	79			80
Hatchery	ODFW	1				1		1
Hatchery	WDFW	3			3			3
Treaty Ceremonial	ODFW	4			3	1		4
Totals		<u>99</u>		<u>2</u>	<u>89</u>	<u>2</u>		<u>93</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	99	100	0.0324
Total Survival	99		0.0324
Escapement to NFH	86	87	0.0281
Columbia River contribution	13	13	0.0043

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 13

Escapement to NFH  
 86

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd2  
 93KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/12/1995	59,855	18.9	57,311	053527	Kooskia NFH
04/12/1995	280,405	19.5	57,563	053528	Kooskia NFH
04/12/1995	273,689	19.5	55,835	053529	Kooskia NFH
04/12/1995	59,638	18.6	57,867	053530	Kooskia NFH
Totals	673,587		228,576		

Where Recovered	Total	77 Observed Recoveries === PSC Expanded Recoveries ===					Total
		2s	3s	4s	5s	6s	
Fish Trap (freshwater) ODFW	31			11			11
Fish Trap (freshwater) WDFW	6		2				2
Freshwater Net WDFW	11			3			3
Freshwater Sport IDFG	7			3			3
Hatchery FWS	82		22	9			31
Hatchery ODFW	31			11			11
Hatchery WDFW	8			3	1		4
Ocean Sport CDFG	15		3				3
Spawning Ground WDFW	3			3			3
Treaty Ceremonial ODFW	26			9	1		10
Totals	220		27	52	2		81

	Total	% of total	% of release
Ocean contribution	15	7	0.0022
Escapement to Columbia River	205	93	0.0304
Total Survival	220		0.0327
Escapement to NFH	82	37	0.0122
Columbia River contribution	123	56	0.0183

NUMBER is different than last year and wont be replaced!  
 Please investigate!

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 15 CA
- 15 Total

Columbia River  
 123

Escapement to NFH  
 82

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 94 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd  
 94KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/12/1996	49,674	19.9	0	!071996000	Kooskia NFH
04/12/1996	70,295	19.9	67,266	053717	Kooskia NFH
04/12/1996	71,089	19.9	66,178	053718	Kooskia NFH
04/12/1996	71,575	19.9	68,975	053719	Kooskia NFH
04/12/1996	<u>71,161</u>	19.9	<u>69,262</u>	053720	Kooskia NFH
Totals	333,794		271,681	PEF= 1.23	

8 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Fish Trap (freshwater)	ODFW	2			1	1		2
Treaty Ceremonial	ODFW	<u>7</u>			<u>3</u>	<u>3</u>		<u>6</u>
Totals		9			4	4		8

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	9	100	0.0027
Total Survival	9		0.0027
Escapement to NFH	0	0	0.0000
Columbia River contribution	9	100	0.0027

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 9

Escapement to NFH  
 0

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 95 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd2  
 95KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/08/1997	<u>16,598</u>	19.7	<u>16,487</u>	053005	Kooskia NFH
Totals	16,598		16,487		

Where Recovered	IDFG	Total	1 Observed Recoveries					Total
			=== PSC Expanded Recoveries ===					
			2s	3s	4s	5s	6s	
Hatchery		<u>1</u>			<u>1</u>			<u>1</u>
Totals		1			1			1

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1	100	0.0060
Total Survival	1		0.0060
Escapement to NFH	0	0	0.0000
Columbia River contribution	1	100	0.0060

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 96 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/08/2005  
 rd2  
 96KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/01/1998	33,608	17.2	32,304	053518	Kooskia NFH
04/23/1998	9,557	19.3	0	053518	Kooskia NFH
Totals	43,165		32,304		

Where Recovered	Total	15 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	10				8		8
Columbia River Sport	7			6			6
Freshwater Sport	1			1			1
Hatchery	1			1			1
Spawning Ground	1			1			1
Treaty Ceremonial	8			6	1		7
Totals	28			15	9		24

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	28	100	0.0649
Total Survival	28		0.0649
Escapement to NFH	1	4	0.0023
Columbia River contribution	27	96	0.0626

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	27	1
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 97 Spring Chinook raised at Kooskia NFH  
 released in Clear Creek

11/14/2005  
 rd  
 97KoSCS

Date	Number	#/lb	Tagged	CWT	AT
04/09/1999	5,676	17.8	0	-	Kooskia NFH
04/09/1999	105,554	17.8	33,540	053914	Kooskia NFH
04/09/1999	<u>122,935</u>	17.8	<u>69,010</u>	054210	Kooskia NFH
Totals	234,165		102,550	PEF= 2.28	

218 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	1,000			218	220		438
Columbia River Sport	ODFW	865			344	35		379
Freshwater Sport	IDFG	100		1	39	4		44
Freshwater Sport	ODFW	2			1			1
Freshwater Sport	WDFW	7		3				3
Hatchery	IDFG	2			1			1
Hatchery	ODFW	2			1			1
Hatchery	WDFW	2			1			1
Ocean Troll (non-treaty)	ODFW	9			4			4
Spawning Ground	WDFW	7			3			3
Treaty Ceremonial	ODFW	<u>66</u>			<u>28</u>	<u>1</u>		<u>29</u>
Totals		2,062		4	640	260		904

		% of total	% of release
Ocean contribution	9	0	0.0038
Escapement to Columbia River	2,053	100	0.8767
Total Survival	2,062		0.8806
Escapement to NFH	0	0	0.0000
Columbia River contribution	2,053	100	0.8767

NUMBER is different than last year and wont be replaced!  
 Please investigate!  
 TAGGED is different than last year and wont be replaced!  
 Please investigate!

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 9 OR
- 0 CA
- 9 Total

Columbia River	Escapement to NFH
2,053	0

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 86 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

12/27/2005  
 rd2  
 86LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1988	283,408	16.0	46,458	051706	Leavenworth NFH
04/20/1988	283,491	16.0	46,719	051707	Leavenworth NFH
04/20/1988	283,704	16.0	44,688	051708	Leavenworth NFH
04/20/1988	283,667	16.0	48,630	051709	Leavenworth NFH
04/20/1988	1,073,024	16.0	33,919	232318	Leavenworth NFH
04/20/1988	0	16.0	34,462	232319	Leavenworth NFH
04/20/1988	0	16.0	34,652	232320	Leavenworth NFH
04/20/1988	0	16.0	34,212	232321	Leavenworth NFH
Totals	2,207,294		323,740		

Where Recovered	Total	283 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	13			2		2
Columbia River Sport	ODFW	380		13			13
Freshwater Net	WDFW	59			14		14
Freshwater Sport	WDFW	680	2	85	24		111
Hatchery	FWS	1,125	1	110	66		177
Test Fishery Net	ODFW	6		4			4
Treaty Ceremonial	ODFW	303		33	27		60
Totals		2,566	3	245	133		381

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,566	100	0.1163
Total Survival	2,566		0.1163
Escapement to NFH	1,125	44	0.0510
Columbia River contribution	1,441	56	0.0653

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,441	1,125
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 89LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1991	564,508	17.5	46,423	052249	Leavenworth NFH
04/15/1991	564,508	17.5	47,276	052250	Leavenworth NFH
04/15/1991	564,509	17.5	46,076	052251	Leavenworth NFH
04/15/1991	564,509	17.5	48,287	052252	Leavenworth NFH
Totals	2,258,034		188,062		

Where Recovered	Total	249 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	72				6		6
Columbia River Sport	108			4	5		9
Freshwater Net	97			8			8
Freshwater Sport	1,480		3	116	4		123
Hatchery	2,246		1	113	72	1	187
Test Fishery Net	24			2			2
Treaty Ceremonial	361			30			30
Treaty Troll	12			1			1
Totals	4,400		4	274	87	1	366

	Total	% of total	% of release
Ocean contribution	12	0	0.0005
Escapement to Columbia River	4,388	100	0.1943
Total Survival	4,400		0.1949
Escapement to NFH	2,246	51	0.0995
Columbia River contribution	2,142	49	0.0949

Ocean	Contribution by Area	
0 AK		
0 BC		
12 WA	Columbia River	Escapement to NFH
0 OR	2,142	2,246
0 CA		
12 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 90 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 90LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1992	1,151,473	15.9	100,099	051752	Leavenworth NFH
04/20/1992	909,970	18.6	92,293	051757	Leavenworth NFH
04/20/1992	112,602	17.9	49,541	054022	Leavenworth NFH
04/20/1992	112,783	18.5	50,304	054023	Leavenworth NFH
Totals	2,286,828		292,237		

12 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Hatchery FWS	55			6	3		9
Hatchery WDFW	0						0
Treaty Ceremonial ODFW	23			2			2
Totals	78			8	3		11

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	78	100	0.0034
Total Survival	78		0.0034
Escapement to NFH	55	71	0.0024
Columbia River contribution	23	29	0.0010

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 23

Escapement to NFH  
 55

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 91 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 91LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/22/1993	187,811	17.7	22,696	052555	Leavenworth NFH
04/22/1993	184,111	17.7	21,411	052556	Leavenworth NFH
04/22/1993	71,921	17.8	22,663	052724	Leavenworth NFH
04/22/1993	73,810	17.6	24,439	052725	Leavenworth NFH
04/22/1993	333,718	16.1	22,390	052726	Leavenworth NFH
04/22/1993	320,638	16.1	22,143	052727	Leavenworth NFH
04/22/1993	198,051	17.7	22,488	052857	Leavenworth NFH
04/22/1993	201,888	17.8	23,922	052858	Leavenworth NFH
04/22/1993	24,309	17.8	11,964	052915	Leavenworth NFH
04/22/1993	20,878	17.9	10,870	052916	Leavenworth NFH
04/22/1993	24,797	20.6	12,723	052917	Leavenworth NFH
04/22/1993	25,765	17.6	13,367	052918	Leavenworth NFH
04/22/1993	22,470	20.0	10,996	052919	Leavenworth NFH
04/22/1993	22,863	17.7	11,884	052920	Leavenworth NFH
04/22/1993	22,445	19.3	11,321	052921	Leavenworth NFH
04/22/1993	22,456	19.2	11,244	052922	Leavenworth NFH
Totals	1,757,931		276,521		

89 Observed Recoveries

=== PSC Expanded Recoveries ===						
2s	3s	4s	5s	6s	Total	
	4	59	11	1	75	
	4	66	11	1	82	

Where Recovered  
 Hatchery  
 Treaty Ceremonial  
 Totals

	FWS	ODFW	Total
Hatchery			360
Treaty Ceremonial			14
Totals			374

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	374	100	0.0213
Total Survival	374		0.0213
Escapement to NFH	360	96	0.0205
Columbia River contribution	14	4	0.0008

Ocean Contribution by Area

0 AK		
0 BC		
0 WA		
0 OR		
0 CA		
0 Total		
	Columbia River	Escapement to NFH
	14	360

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 92 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 92LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1994	25,379	18.5	17,905	053031	Leavenworth NFH
04/20/1994	24,341	18.5	16,347	053032	Leavenworth NFH
04/20/1994	24,693	18.5	13,841	053033	Leavenworth NFH
04/20/1994	24,764	18.5	16,911	053034	Leavenworth NFH
04/20/1994	73,582	15.6	15,916	053035	Leavenworth NFH
04/20/1994	49,581	18.7	16,444	053036	Leavenworth NFH
04/20/1994	74,109	15.6	15,641	053037	Leavenworth NFH
04/20/1994	48,751	18.5	16,051	053038	Leavenworth NFH
04/20/1994	134,070	16.3	16,517	053039	Leavenworth NFH
04/20/1994	120,970	17.2	18,483	053040	Leavenworth NFH
04/20/1994	126,613	18.7	17,593	053041	Leavenworth NFH
04/20/1994	157,494	18.8	17,911	053042	Leavenworth NFH
04/20/1994	319,687	20.0	18,477	053043	Leavenworth NFH
04/20/1994	<u>318,812</u>	20.0	<u>17,375</u>	053044	Leavenworth NFH
Totals	1,522,846		235,412		

		148 Observed Recoveries					=== PSC Expanded Recoveries ===	
Where Recovered	Total	2s	3s	4s	5s	6s	Total	
Columbia River Gillnet	5				1		1	
Freshwater Sport	124			4	16		20	
Hatchery	987		6	96	28		130	
Treaty Ceremonial	<u>32</u>			<u>3</u>			<u>3</u>	
Totals	1,148		<u>6</u>	103	<u>45</u>		154	

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,148	100	0.0754
Total Survival	1,148		0.0754
Escapement to NFH	987	86	0.0648
Columbia River contribution	161	14	0.0106

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	161	987
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 93LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1995	108,632	17.6	19,372	053054	Leavenworth NFH
04/20/1995	56,448	17.7	19,345	053055	Leavenworth NFH
04/20/1995	83,042	17.3	18,959	053056	Leavenworth NFH
04/20/1995	51,458	17.8	18,326	053057	Leavenworth NFH
04/20/1995	314,136	16.8	19,882	053058	Leavenworth NFH
04/20/1995	313,466	16.2	19,847	053059	Leavenworth NFH
04/20/1995	24,193	16.5	17,611	053358	Leavenworth NFH
04/20/1995	25,097	16.5	18,077	053359	Leavenworth NFH
04/20/1995	26,295	16.5	18,993	053360	Leavenworth NFH
04/20/1995	25,143	16.5	18,342	053361	Leavenworth NFH
04/20/1995	306,459	18.8	25,579	053523	Leavenworth NFH
04/20/1995	378,279	19.1	38,805	053524	Leavenworth NFH
Totals	1,712,648		253,138		

Where Recovered	Total	542 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater)	ODFW 12			1			1
Freshwater Net	WDFW 60			6			6
Freshwater Sport	WDFW 1,067			108	9		117
Hatchery	FWS 3,437		7	330	124		461
Hatchery	WDFW 40			2	1		3
Spawning Ground	WDFW 30			9			9
Treaty Ceremonial	ODFW 61			6	2		8
Totals	4,707		7	462	136		605

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	4,707	100	0.2748
Total Survival	4,707		0.2748
Escapement to NFH	3,437	73	0.2007
Columbia River contribution	1,270	27	0.0742

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,270	3,437
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 94 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 94LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1996	210,678	16.4	20,238	053510	Leavenworth NFH
04/15/1996	212,054	16.4	20,135	053511	Leavenworth NFH
04/15/1996	176,436	17.5	20,100	053512	Leavenworth NFH
04/15/1996	19,462	15.9	19,228	053639	Leavenworth NFH
04/15/1996	20,067	17.1	19,906	053640	Leavenworth NFH
04/15/1996	20,208	16.5	20,006	053641	Leavenworth NFH
04/15/1996	9,881	15.2	9,861	053648	Leavenworth NFH
04/15/1996	9,590	15.7	9,494	053649	Leavenworth NFH
04/15/1996	10,087	14.8	10,006	053650	Leavenworth NFH
04/15/1996	224,354	15.0	29,412	053838	Leavenworth NFH
04/15/1996	213,348	15.1	29,881	053839	Leavenworth NFH
04/15/1996	219,245	15.3	28,696	053840	Leavenworth NFH
04/15/1996	180,444	17.5	25,255	053843	Leavenworth NFH
04/15/1996	180,206	17.5	25,070	053844	Leavenworth NFH
Totals	1,706,060		287,288		

Where Recovered	Total	154 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport	WDFW 50			9			9
Hatchery	FWS 905		2	88	53	1	144
Treaty Ceremonial	ODFW 34			2	1	1	4
Totals	989		2	99	54	2	157

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	989	100	0.0580
Total Survival	989		0.0580
Escapement to NFH	905	92	0.0530
Columbia River contribution	84	8	0.0049

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	84	905
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 95 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 95LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/17/1997	107,417	16.4	29,855	052852	Leavenworth NFH
04/17/1997	19,424	20.3	19,196	053642	Leavenworth NFH
04/17/1997	19,398	18.9	19,286	053643	Leavenworth NFH
04/17/1997	19,450	20.5	19,147	053644	Leavenworth NFH
04/17/1997	9,798	17.9	9,760	053651	Leavenworth NFH
04/17/1997	9,590	18.0	9,533	053652	Leavenworth NFH
04/17/1997	9,841	18.4	9,765	053653	Leavenworth NFH
04/17/1997	161,147	14.9	24,815	053809	Leavenworth NFH
04/17/1997	163,458	14.9	24,890	053810	Leavenworth NFH
04/17/1997	117,885	16.7	21,573	053841	Leavenworth NFH
04/17/1997	80,462	16.9	22,939	053842	Leavenworth NFH
04/17/1997	67,334	18.9	29,669	053920	Leavenworth NFH
04/17/1997	104,341	19.9	29,799	053921	Leavenworth NFH
04/17/1997	29,480	23.3	28,963	053922	Leavenworth NFH
Totals	919,025		299,190		

Where Recovered	Total	292 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	24			8		8
Freshwater Sport	WDFW	204		50	3		53
Hatchery	FWS	809	2	250	16		268
Hatchery	WDFW	2		1			1
Spawning Ground	WDFW	66		13	3		16
Treaty Ceremonial	ODFW	27		8			8
Totals		1,132	2	322	30		354

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,132	100	0.1232
Total Survival	1,132		0.1232
Escapement to NFH	809	71	0.0880
Columbia River contribution	323	29	0.0351

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	323	809
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 96 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 96LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1998	10,010	15.1	9,753	052623	Leavenworth NFH
04/20/1998	10,008	15.1	9,712	052831	Leavenworth NFH
04/20/1998	9,998	15.1	9,879	053712	Leavenworth NFH
04/20/1998	210,297	17.2	24,192	053847	Leavenworth NFH
04/20/1998	209,480	15.3	23,561	053848	Leavenworth NFH
04/20/1998	20,025	16.6	19,635	053850	Leavenworth NFH
04/20/1998	29,969	16.1	28,681	053916	Leavenworth NFH
04/20/1998	29,364	16.1	28,845	053917	Leavenworth NFH
04/20/1998	29,733	16.1	28,837	053918	Leavenworth NFH
04/20/1998	553,169	16.8	28,523	053919	Leavenworth NFH
04/20/1998	170,239	15.2	29,706	053924	Leavenworth NFH
04/20/1998	379,506	17.6	28,805	053925	Leavenworth NFH
04/20/1998	20,004	16.6	11,523	055014	Leavenworth NFH
04/20/1998	19,951	16.6	19,392	055015	Leavenworth NFH
Totals	1,701,753		301,044		

Where Recovered	Total	964 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	249			38		38
Columbia River Gillnet	WDFW	2		1			1
Columbia River Sport	ODFW	136			7		7
Freshwater Sport	ODFW	9		1			1
Freshwater Sport	WDFW	388		83			83
Hatchery	FWS	5,035	40	714	74		828
Hatchery	WDFW	30		5			5
Ocean Troll (non-treaty)	ADFG	26		2			2
Spawning Ground	WDFW	288		35	13		48
Treaty Ceremonial	ODFW	213		35	3		38
Totals		6,376	40	876	135		1,051

	Total	% of total	% of release
Ocean contribution	26	0	0.0015
Escapement to Columbia River	6,350	100	0.3731
Total Survival	6,376		0.3747
Escapement to NFH	5,035	79	0.2959
Columbia River contribution	1,315	21	0.0773

Ocean	Contribution by Area	
26 AK		
0 BC		
0 WA		
0 OR	Columbia River	Escapement to NFH
0 CA	1,315	5,035
26 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 97 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 97LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/19/1999	382,958	18.3	49,176	053734	Leavenworth NFH
04/19/1999	199,247	17.2	23,844	053852	Leavenworth NFH
04/19/1999	191,956	17.9	22,236	053853	Leavenworth NFH
04/19/1999	431,147	16.2	44,059	053928	Leavenworth NFH
04/19/1999	431,094	17.0	47,698	054255	Leavenworth NFH
Totals	1,636,402		187,013		

Where Recovered	Total	810 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	2,100		92	141		233
Columbia River Sport	ODFW	2,140		233	6		239
Freshwater Sport	ODFW	68		7			7
Freshwater Sport	WDFW	1,697	2	183			185
Hatchery	FWS	5,632	20	549	71		640
Spawning Ground	WDFW	750		75	11		86
Treaty Ceremonial	ODFW	127	1	11	3		15
Totals		12,514	23	1,150	232		1,405

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	12,514	100	0.7647
Total Survival	12,514		0.7647
Escapement to NFH	5,632	45	0.3442
Columbia River contribution	6,882	55	0.4206

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	6,882	5,632
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 98 Spring Chinook raised at Leavenworth NFH  
 released in Icicle Creek

11/16/2005  
 rd2  
 98LeSCS

Date	Number	#/lb	Tagged	CWT	AT
04/18/2000	191,695	17.0	23,729	054245	Leavenworth NFH
04/18/2000	192,299	17.0	22,861	054246	Leavenworth NFH
04/18/2000	375,324	19.5	49,648	054257	Leavenworth NFH
04/18/2000	435,036	18.7	49,058	054258	Leavenworth NFH
04/18/2000	486,550	17.8	48,115	054259	Leavenworth NFH
Totals	1,680,904		193,411		

Where Recovered	Total	974 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	2,320		186	81		267
Columbia River Sport	ODFW	1,191	9	64	54		127
Freshwater Sport	ODFW	27		1	2		3
Freshwater Sport	WDFW	24		3			3
Hatchery	FWS	7,127	5	475	329		809
Hatchery	WDFW	8			1		1
Ocean Trawl By-Catch	ODFW	9	1				1
Ocean Troll (non-treaty)	CDFO	101		10			10
Ocean Troll (non-treaty)	WDFW	20		2			2
Spawning Ground	WDFW	1,150	2	69	63		134
Treaty Ceremonial	ODFW	108		10	2		12
Totals		12,085	17	820	532		1,369

	Total	% of total	% of release
Ocean contribution	130	1	0.0077
Escapement to Columbia River	11,955	99	0.7112
Total Survival	12,085		0.7190
Escapement to NFH	7,127	59	0.4240
Columbia River contribution	4,828	40	0.2872

Ocean	Contribution by Area	
0 AK		
101 BC		
20 WA	Columbia River	Escapement to NFH
9 OR	4,828	7,127
0 CA		
130 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/09/2005  
 Broodyear 82 Spring Chinook raised at L White Salmon NFH rd  
 released in L White Salmon River 82LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/19/1984	89,737	11.3	0	-	L White Salmon NFH
04/19/1984	<u>123,257</u>	12.4	<u>44,575</u>	051140	L White Salmon NFH
Totals	<u>212,994</u>		<u>44,575</u>	PEF= 4.78	

Where Recovered	Total	93 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	29				6		6
Freshwater Sport	10			2			2
Hatchery	401		1	57	26		84
Test Fishery Net	19			3	1		4
Treaty Ceremonial	<u>10</u>				<u>2</u>		<u>2</u>
Totals	<u>469</u>		<u>1</u>	<u>62</u>	<u>35</u>		<u>98</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	469	100	0.2202
Total Survival	469		0.2202
Escapement to NFH	401	86	0.1883
Columbia River contribution	68	14	0.0319

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	68	401
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/09/2005  
 Broodyear 83 Spring Chinook raised at L White Salmon NFH rd  
 released in L White Salmon River 83LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/17/1985	946,959	17.3	0	-	L White Salmon NFH
04/17/1985	408,000	10.4	47,849	051460	L White Salmon NFH
Totals	1,354,959		47,849	PEF= 28.32	

Where Recovered	Total	258 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW 340				12		12
Freshwater Sport	WDFW 2,180			48	29		77
Hatchery	FWS 5,748		13	142	48		203
Test Fishery Net	ODFW 85			3			3
Treaty Ceremonial	ODFW 1,076			29	9		38
Totals	9,429		13	222	98		333

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	9,429	100	0.6959
Total Survival	9,429		0.6959
Escapement to NFH	5,748	61	0.4242
Columbia River contribution	3,681	39	0.2717

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	3,681	5,748
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/09/2005  
 Broodyear 84 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 84LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1986	207,649	11.3	24,368	051439	L White Salmon NFH
04/14/1986	<u>204,563</u>	11.3	<u>24,005</u>	051440	L White Salmon NFH
Totals	412,212		48,373		

Where Recovered	Total	31 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport	WDFW 69			6	2		8
Hatchery	FWS 231		2	21	4		27
Treaty Ceremonial	ODFW 26			3			3
Totals	<u>326</u>		<u>2</u>	<u>30</u>	<u>6</u>		<u>38</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	326	100	0.0791
Total Survival	326		0.0791
Escapement to NFH	231	71	0.0560
Columbia River contribution	95	29	0.0230

Ocean

Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	95	231
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/02/2005  
 Broodyear 88 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 88LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/18/1990	230,723	15.0	25,006	052234	L White Salmon NFH
04/18/1990	<u>230,723</u>	15.0	<u>24,897</u>	052235	L White Salmon NFH
Totals	461,446		49,903		

343 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Sport	ODFW	83				9		9
Freshwater Sport	WDFW	1,526			73	92		165
Hatchery	FWS	2,441		5	138	121		264
Test Fishery Net	ODFW	55			4	2		6
Treaty Ceremonial	ODFW	730			26	53		79
Totals		<u>4,835</u>		<u>5</u>	<u>241</u>	<u>277</u>		<u>523</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	4,835	100	1.0478
Total Survival	4,835		1.0478
Escapement to NFH	2,441	50	0.5290
Columbia River contribution	2,394	50	0.5188

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	2,394	2,441
0 CA		
0 Total		



Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/02/2005  
 Broodyear 89 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 89LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1991	508,353	17.0	24,248	052351	L White Salmon NFH
04/15/1991	508,353	17.0	23,630	052534	L White Salmon NFH
Totals	1,016,706		47,878		

Where Recovered	Total	59 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport	WDFW	1,185		49	7		56
Hatchery	FWS	1,000		35	12		47
Treaty Ceremonial	ODFW	85		4			4
Totals		2,270		88	19		107

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,270	100	0.2233
Total Survival	2,270		0.2233
Escapement to NFH	1,000	44	0.0984
Columbia River contribution	1,270	56	0.1249

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,270	1,000
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/05/2005  
 Broodyear 90 Spring Chinook raised at L White Salmon NFH rd  
 released in L White Salmon River 90LWSCS

Date	Number	#/lb	Tagged	CWT	AT
03/05/1992	138,960	19.3	0	-	L White Salmon NFH
04/14/1992	668,782	16.8	0	-	L White Salmon NFH
03/04/1992	434,976	15.5	22,570	052656	Willard NFH
03/04/1992	434,976	15.5	22,667	052657	Willard NFH
Totals	1,677,694		45,237	PEF= 37.09	

7 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered	FWS	Total	2s	3s	4s	5s	6s	Total
Hatchery		260			6	1		7
Totals		260			6	1		7

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	260	100	0.0155
Total Survival	260		0.0155
Escapement to NFH	260	100	0.0155
Columbia River contribution	0	0	0.0000

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River	Escapement to NFH
0	260

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/05/2005  
 Broodyear 91 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River .91LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1993	404,540	18.1	17,268	052720	L White Salmon NFH
04/15/1993	404,539	18.1	10,007	052721	L White Salmon NFH
Totals	809,079		27,275		

Where Recovered	FWS	Total	7 Observed Recoveries					Total
			2s	3s	4s	5s	6s	
Hatchery		232			5	2		7
Totals		232			5	2		7

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	232	100	0.0287
Total Survival	232		0.0287
Escapement to NFH	232	100	0.0287
Columbia River contribution	0	0	0.0000

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	232
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/02/2005  
 Broodyear 92 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 92LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1994	994,588	15.9	49,117	053115	L White Salmon NFH
Totals	994,588		49,117		

218 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Freshwater Net	WDFW	790			23	16		39
Freshwater Sport	WDFW	1,033			44	7		51
Hatchery	FWS	2,895		6	108	29		143
Spawning Ground	WDFW	607			30			30
Test Fishery Net	ODFW	20			1			1
Treaty Ceremonial	ODFW	81			4			4
Totals		5,426		6	210	52		268

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	5,426	100	0.5456
Total Survival	5,426		0.5456
Escapement to NFH	2,895	53	0.2911
Columbia River contribution	2,531	47	0.2545

Ocean Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	2,531	2,895
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/06/2005  
 Broodyear 93 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 93LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/13/1995	49,068	19.1	20,583	053046	L White Salmon NFH
04/13/1995	48,255	13.4	23,826	053047	L White Salmon NFH
04/13/1995	48,826	14.7	24,286	053049	L White Salmon NFH
04/13/1995	48,938	17.5	24,501	053052	L White Salmon NFH
04/13/1995	48,579	15.9	23,872	053053	L White Salmon NFH
04/13/1995	49,657	20.2	23,407	053060	L White Salmon NFH
04/13/1995	48,153	15.7	23,965	053061	L White Salmon NFH
04/13/1995	39,537	17.7	19,723	053062	L White Salmon NFH
04/13/1995	338,425	14.4	24,876	053515	L White Salmon NFH
04/13/1995	338,426	14.4	24,959	053516	L White Salmon NFH
Totals	1,057,864		233,998		

Where Recovered	Total	274 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Net	WDFW 330			43			43
Freshwater Sport	WDFW 709		3	79			82
Hatchery	FWS 1,246		1	124	39		164
Treaty Ceremonial	ODFW 16			2			2
Totals	2,301		4	248	39		291

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,301	100	0.2175
Total Survival	2,301		0.2175
Escapement to NFH	1,246	54	0.1178
Columbia River contribution	1,055	46	0.0997

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,055	1,246
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/02/2005  
 Broodyear 94 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 94LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/18/1996	39,466	17.0	21,703	053105	L White Salmon NFH
04/18/1996	39,803	13.1	22,563	053108	L White Salmon NFH
04/18/1996	39,789	19.0	21,469	053240	L White Salmon NFH
04/18/1996	363,023	15.0	22,918	053241	L White Salmon NFH
04/18/1996	38,971	16.9	22,176	053250	L White Salmon NFH
04/18/1996	363,022	15.0	20,824	053251	L White Salmon NFH
04/18/1996	38,262	14.4	20,760	053308	L White Salmon NFH
04/18/1996	39,179	16.9	21,245	053309	L White Salmon NFH
Totals	961,515		173,658		

41 Observed Recoveries

=== PSC Expanded Recoveries ===					
2s	3s	4s	5s	6s	Total
		31	6		37
		2			2
		33	6		39

Where Recovered	FWS	ODFW	Total
Hatchery			322
Treaty Ceremonial			18
Totals			340

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	340	100	0.0354
Total Survival	340		0.0354
Escapement to NFH	322	95	0.0335
Columbia River contribution	18	5	0.0019

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
18

Escapement to NFH  
322

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/05/2005  
 Broodyear 95 Spring Chinook raised at L White Salmon NFH rd2  
released in L White Salmon River 95LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1997	135,052	15.7	22,976	053936	L White Salmon NFH
04/15/1997	135,052	15.7	23,470	053937	L White Salmon NFH
04/15/1997	135,053	15.7	23,847	053938	L White Salmon NFH
04/22/1997	35,514	16.9	23,892	053939	L White Salmon NFH
04/22/1997	35,615	15.7	24,201	053940	L White Salmon NFH
04/22/1997	35,608	14.8	24,294	053941	L White Salmon NFH
04/22/1997	35,676	15.4	24,292	053942	L White Salmon NFH
04/15/1997	<u>135,053</u>	15.7	<u>24,607</u>	053943	L White Salmon NFH
Totals	682,623		191,579		

Where Recovered	Total	896 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	26			7		7
Freshwater Net	WDFW	1			1		1
Freshwater Sport	WDFW	273		42	35		77
Hatchery	FWS	2,381	5	738	84		827
Spawning Ground	WDFW	61		10	2		12
Treaty Ceremonial	ODFW	34		9	7		16
Totals		<u>2,776</u>	<u>5</u>	<u>799</u>	<u>136</u>		<u>940</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,776	100	0.4067
Total Survival	2,776		0.4067
Escapement to NFH	2,381	86	0.3488
Columbia River contribution	395	14	0.0579

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	395	2,381
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/05/2005  
 Broodyear 96 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 96LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1998	1,066,702	15.6	48,724	053630	L White Salmon NFH
Totals	1,066,702		48,724		

Where Recovered	Total	198 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW 131				6		6
Freshwater Net	WDFW 44			2			2
Freshwater Sport	WDFW 942			31	12		43
Hatchery	FWS 3,459		3	154	1		158
Spawning Ground	WDFW 44			2			2
Treaty Ceremonial	ODFW 285			13			13
Totals	4,905		3	202	19		224

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	4,905	100	0.4598
Total Survival	4,905		0.4598
Escapement to NFH	3,459	71	0.3243
Columbia River contribution	1,446	29	0.1356

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,446	3,459
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/05/2005  
 Broodyear 97 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 97LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/1999	1,074,173	14.3	44,809	053932	L White Salmon NFH
Totals	1,074,173		44,809		

Where Recovered	Total	76 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	720			16	14		30
Columbia River Sport	1,223			50	1		51
Freshwater Net	120			5			5
Freshwater Sport	1,199			50			50
Hatchery	576		2	18		4	24
Spawning Ground	24			1			1
Treaty Ceremonial	96			3			4
Totals	3,958		3	143	15	4	165

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	3,958	100	0.3685
Total Survival	3,958		0.3685
Escapement to NFH	576	15	0.0536
Columbia River contribution	3,382	85	0.3148

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	3,382	576
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/12/2005  
 Broodyear 98 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 98LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/20/2000	270,435	15.0	24,760	051557	L White Salmon NFH
04/20/2000	593,847	14.4	24,256	051558	L White Salmon NFH
04/20/2000	251,102	15.4	24,388	051559	L White Salmon NFH
Totals	1,115,384		73,404		

Where Recovered	Total	332 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	1,104			60	10		70
Columbia River Sport ODFW	821			41	5		46
Freshwater Sport WDFW	1,714		13	69	14		96
Hatchery FWS	3,221		1		213		214
Treaty Ceremonial ODFW	174			9	1		10
Totals	7,034		14	179	243		436

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	7,034	100	0.6306
Total Survival	7,034		0.6306
Escapement to NFH	3,221	46	0.2888
Columbia River contribution	3,813	54	0.3419

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	3,813	3,221
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 01/18/2006  
 Broodyear 99 Spring Chinook raised at L White Salmon NFH rd2  
 released in L White Salmon River 99LWSCS

Date	Number	#/lb	Tagged	CWT	AT
04/19/2001	1,016,574	15.9	67,781	054407	L White Salmon NFH
Totals	1,016,574		67,781		

				49 Observed Recoveries					
				=== PSC Expanded Recoveries ===					
Where Recovered			Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW		225			11	4		15
Columbia River Sport	ODFW		270			18			18
Fish Trap (freshwater)	ODFW		15			1			1
Freshwater Sport	WDFW		480			32			32
Hatchery	FWS		480			28	4		32
Totals			1,470			90	8		98

				% of	% of
				total	release
Ocean contribution			0	0	0.0000
Escapement to Columbia River			1,470	100	0.1446
Total Survival			1,470		0.1446
Escapement to NFH			480	33	0.0472
Columbia River contribution			990	67	0.0974

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	990	480
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 11/28/2005  
 Broodyear 83 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 83LWURB

Date	Number	#/lb	Tagged	CWT	AT
07/09/1984	<u>929,771</u>	101.5	<u>94,896</u>	051337	L White Salmon NFH
Totals	<u>929,771</u>		<u>94,896</u>		

Where Recovered	Total	337 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	4,183	13	53	256	100	5	427
Commercial Seine	10	1					1
Estuary Sport	39		4				4
Fish Trap (freshwater)	10			1			1
Hatchery	1,069	26	11	51	21		109
Hatchery	10		1				1
Mixed Net and Seine	421	25	9	9			43
Mixed Net and Seine	39		4				4
Ocean Sport	128		1		12		13
Ocean Sport	196		8	12			20
Ocean Troll (non-treaty)	872		7	63	19		89
Ocean Troll (non-treaty)	1,813		59	89	37		185
Ocean Troll (non-treaty)	205		5	13	3		21
Ocean Troll (non-treaty)	20			2			2
Ocean Troll - Day Boat	10				1		1
Sport (private)	187		2	17			19
Test Fishery Net	10				1		1
Totals	<u>9,222</u>	<u>65</u>	<u>164</u>	<u>513</u>	<u>194</u>	<u>5</u>	<u>941</u>

		% of total	% of release
Ocean contribution	3,901	42	0.4196
Escapement to Columbia River	5,321	58	0.5723
Total Survival	9,222		0.9919
Escapement to NFH	1,069	12	0.1150
Columbia River contribution	4,252	46	0.4573

TAGGED is different than last year and wont be replaced!  
 Please investigate!

Ocean

Contribution by Area

1,020 AK  
 2,430 BC  
 246 WA  
 205 OR  
 0 CA

Columbia River  
 4,252

Escapement to NFH  
 1,069

3,901 Total

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 84 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 84LWURB

1,045,722 released with 186,061 tagged fish and 8 CWTs  
 1,367 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	1,544	10	225	815	345	28	1,423
Columbia River Sport	ODFW	12		10				10
Commercial Seine	ADFG	11			8	1		9
Estuary Sport	ODFW	18		12	3	3		18
Estuary Sport	WDFW	21	7	6		8		21
Freshwater Sport	ODFW	3				3		3
Freshwater Sport	WDFW	3				3		3
Groundfish Observer (CA/	NMFS	7	7					7
Hatchery	FWS	416	5	60	183	119	20	387
Hatchery	ODFW	6	1		2	3		6
Hatchery	WDFW	2		1		1		2
Mixed Net and Seine	CDFO	66	20	17	10	15		62
Mixed Net and Seine	WDFW	2		2				2
Multiple Gear	ADFG	1		1				1
Ocean Sport	ADFG	3			3			3
Ocean Sport	CDFO	42		19	5	13		37
Ocean Sport	ODFW	12		9		3		12
Ocean Sport	WDFW	1				1		1
Ocean Troll (non-treaty)	ADFG	334	1	60	134	109	3	307
Ocean Troll (non-treaty)	CDFG	3		3				3
Ocean Troll (non-treaty)	CDFO	962	1	341	399	124	14	879
Ocean Troll (non-treaty)	ODFW	65		23	11	25		59
Ocean Troll (non-treaty)	WDFW	48		12	34			46
Ocean Troll - Day Boat	ADFG	4			4			4
Spawning Ground	WDFW	358		48	190	81	6	325
Sport (charter)	WDFW	16		14	2			16
Sport (private)	WDFW	26	2	14		8		24
Treaty Troll	WDFW	15		10	4			14
Totals		4,001	54	887	1,807	865	71	3,684

		% of total	% of release
Ocean contribution	1,618	40	0.1547
Escapement to Columbia River	2,383	60	0.2279
Total Survival	4,001		0.3826
Escapement to NFH	416	10	0.0398
Columbia River contribution	1,967	49	0.1881

Ocean Contribution by Area

Area	Columbia River	Escapement to NFH
353 AK		
1,070 BC		
108 WA		
77 OR		
3 CA		
1,611 Total	1,967	416

Stock Assessment Reference Summary from CRIS and PSMFC TS1 11/23/2005  
 Broodyear 85 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 85LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/18/1986	777,805	106.8	0	-	L White Salmon NFH
06/18/1986	190,363	165.0	0	-	L White Salmon NFH
06/18/1986	50,452	106.8	49,443	051807	L White Salmon NFH
06/18/1986	50,585	106.8	49,573	051808	L White Salmon NFH
06/18/1986	50,310	106.8	48,147	051809	L White Salmon NFH
06/18/1986	50,310	106.8	48,197	051810	L White Salmon NFH
Totals	1,169,825		195,360		

347 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	288		46	108	118	7	279
Estuary Sport	WDFW	3			3			3
Freshwater Sport	WDFW	15		4		11		15
Groundfish Observer (CA/	NMFS	2		2				2
Hatchery	FWS	133		13	35	79	4	131
Hatchery	ODFW	3	1			2		3
Mixed Net and Seine	CDFO	7	5		2			7
Multiple Gear	ADFG	1				1		1
Ocean Sport	ADFG	1				1		1
Ocean Sport	ODFW	5				5		5
Ocean Troll (non-treaty)	ADFG	109		5	29	61	12	107
Ocean Troll (non-treaty)	CDFO	136		26	48	52	6	132
Ocean Troll (non-treaty)	WDFW	11			2	9		11
Spawning Ground	WDFW	81	8		23	49		80
Sport (private)	WDFW	4			4			4
Test Fishery Unknown Mul	ADFG	1			1			1
Treaty Troll	WDFW	2			2			2
Totals		802	14	98	255	388	29	784

		% of total	% of release
Ocean contribution	279	35	0.0238
Escapement to Columbia River	523	65	0.0447
Total Survival	802		0.0686
Escapement to NFH	133	17	0.0114
Columbia River contribution	390	49	0.0333

TAGGED is different than last year and wont be replaced!  
 Please investigate!

Ocean

Contribution by Area

- 112 AK
- 143 BC
- 17 WA
- 5 OR
- 0 CA

Columbia River  
390

Escapement to NFH  
133

277 Total

Stock Assessment Reference Summary from CRIS and PSMFC TS1 11/23/2005  
 Broodyear 89 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 89LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/25/1990	719,186	110.6	22,444	052337	L White Salmon NFH
06/25/1990	719,186	110.6	22,360	052338	L White Salmon NFH
Totals	1,438,372		44,804		

Where Recovered	Total	58 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	160			5			5
Hatchery	995			10	21		31
Mixed Net and Seine	161			5			5
Ocean Sport	64				2		2
Ocean Troll (non-treaty)	931		5	18	6		29
Ocean Troll (non-treaty)	225				7		7
Ocean Troll (non-treaty)	352		2	6	3		11
Spawning Ground	642			7	13		20
Totals	3,530		7	51	52		110

	Total	% of total	% of release
Ocean contribution	1,733	49	0.1205
Escapement to Columbia River	1,797	51	0.1249
Total Survival	3,530		0.2454
Escapement to NFH	995	28	0.0692
Columbia River contribution	802	23	0.0558

Ocean	Contribution by Area	
931 AK		
577 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	802	995
225 CA		
1,733 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 90 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 90LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/24/1991	2,014,579	101.8	24,909	052626	L White Salmon NFH
06/24/1991	2,014,579	101.8	25,368	052627	L White Salmon NFH
Totals	4,029,158		50,277		

Where Recovered	Total	117 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	1,041		2	4	7		13
Hatchery FWS	7,061	3	7	31	47		88
Hatchery ODFW	81				1		1
Ocean Sport ADFG	81				1		1
Ocean Sport CDFO	397			5			5
Ocean Troll (non-treaty) ADFG	1,918		5	9	10		24
Ocean Troll (non-treaty) CDFO	1,447		5	4	9		18
Ocean Troll - Day Boat ADFG	162			2			2
Spawning Ground WDFW	1,047			6	7		13
Totals	13,235	3	19	61	82		165

	Total	% of total	% of release
Ocean contribution	4,005	30	0.0994
Escapement to Columbia River	9,230	70	0.2291
Total Survival	13,235		0.3285

Escapement to NFH	7,061	53	0.1752
Columbia River contribution	2,169	16	0.0538

Ocean	Contribution by Area	
2,161 AK		
1,844 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	2,169	7,061
0 CA		
4,005 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 91 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 91LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/19/1992	1,431,391	95.3	25,107	052722	L White Salmon NFH
06/19/1992	1,431,392	95.3	24,855	052723	L White Salmon NFH
Totals	2,862,783		49,962		

Where Recovered	Total	62 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	920			4	12		16
Freshwater Sport WDFW	228				4		4
Hatchery FWS	2,461	2	7	21	13		43
Ocean Sport CDFO	342		6				6
Ocean Troll (non-treaty) ADFG	856			12	3		15
Ocean Troll (non-treaty) CDFO	228		4				4
Spawning Ground WDFW	802		6		8		14
Totals	5,837	2	23	37	40		102

	Total	% of total	% of release
Ocean contribution	1,426	24	0.0498
Escapement to Columbia River	4,411	76	0.1541
Total Survival	5,837		0.2039
Escapement to NFH	2,461	42	0.0860
Columbia River contribution	1,950	33	0.0681

Ocean	Contribution by Area	
856 AK		
570 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,950	2,461
0 CA		
1,426 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 11/23/2005  
 Broodyear 92 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 92LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/23/1993	1,866,901	101.3	47,473	053252	L White Salmon NFH
Totals	1,866,901		47,473		

				127 Observed Recoveries					
				=== PSC Expanded Recoveries ===					
Where Recovered			Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW		1,141		2	25	2		29
Columbia River Sport	ODFW		275		7				7
Fish Trap (freshwater)	WDFW		39			1			1
Hatchery	FWS		3,892	4	23	50	22		99
Ocean Sport	ADFG		39				1		1
Ocean Troll (non-treaty)	ADFG		748			8	11		19
Ocean Troll (non-treaty)	CDFO		118				3		3
Spawning Ground	WDFW		511			7	6		13
Totals			6,763	4	32	91	45		172

				% of	% of
				total	release
Ocean contribution		905		13	0.0485
Escapement to Columbia River		5,858		87	0.3138
Total Survival		6,763			0.3623
Escapement to NFH		3,892		58	0.2085
Columbia River contribution		1,966		29	0.1053

Ocean	Contribution by Area	
787 AK		
118 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,966	3,892
0 CA		
905 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 93 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 93LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/23/1994	1,797,922	87.7	50,072	053522	L White Salmon NFH
Totals	1,797,922		50,072		

Where Recovered	Total	263 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	1,257		9	15	11	35
Columbia River Sport	ODFW	180			5		5
Estuary Sport	ODFW	144			4		4
Hatchery	FWS	6,678	17	41	78	50	186
Mixed Net and Seine	CDFO	108	3				3
Ocean Sport	ADFG	36			1		1
Ocean Sport	CDFO	108				3	3
Ocean Troll (non-treaty)	ADFG	1,437			24	16	40
Ocean Troll (non-treaty)	CDFO	1,006			15	13	28
Ocean Troll - Day Boat	ADFG	72			2		2
Spawning Ground	WDFW	1,975		7	18	26	4
Sport (charter)	WDFW	108			3		3
Sport (private)	WDFW	323		1	6	2	9
Treaty Troll	WDFW	108		3			3
Totals		13,540	20	61	171	121	4

	Total	% of total	% of release
Ocean contribution	3,306	24	0.1839
Escapement to Columbia River	10,234	76	0.5692
Total Survival	13,540		0.7531
Escapement to NFH	6,678	49	0.3714
Columbia River contribution	3,556	26	0.1978

Ocean	Contribution by Area	
1,545 AK		
1,222 BC		
539 WA	Columbia River	Escapement to NFH
0 OR	3,556	6,678
0 CA		
3,306 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 94 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 94LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/29/1995	491,973	90.8	49,203	053244	L White Salmon NFH
06/29/1995	491,973	90.8	49,127	053245	L White Salmon NFH
06/29/1995	491,974	90.8	49,548	053246	L White Salmon NFH
06/29/1995	491,974	90.8	49,672	053247	L White Salmon NFH
Totals	1,967,894		197,550		

Where Recovered	Total	99 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	99			3	7		10
Columbia River Sport ODFW	190		4	10		5	19
Estuary Sport ODFW	20				2		2
Hatchery FWS	708	1	14	32	23	1	71
Ocean Troll (non-treaty) ADFG	219			10	12		22
Ocean Troll (non-treaty) CDFO	60			6			6
Ocean Troll - Day Boat ADFG	10				1		1
Spawning Ground WDFW	299		6	4	20		30
Sport (charter) WDFW	20		2				2
Totals	1,625	1	26	65	65	6	163

	Total	% of total	% of release
Ocean contribution	309	19	0.0157
Escapement to Columbia River	1,316	81	0.0669
Total Survival	1,625		0.0826
Escapement to NFH	708	44	0.0360
Columbia River contribution	608	37	0.0309

Ocean	Contribution by Area	
229 AK		
60 BC		
20 WA	Columbia River	Escapement to NFH
0 OR	608	708
0 CA		
309 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 95 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 95LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/27/1996	1,788,446	95.8	196,920	0501011211	L White Salmon NFH
07/03/1996	308,760	115.2	0	0501011211	L White Salmon NFH
Totals	2,097,206		196,920		

Where Recovered	Total	344 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	444		1	9	35		45
Commercial Seine ADFG	10		1				1
Fish Trap (freshwater) WDFW	10				1		1
Freshwater Sport WDFW	39				4		4
Groundfish Observer (Gul NMFS	88		4	5			9
Hatchery FWS	2,634	5	40	147	74	1	267
Ocean Sport ADFG	188			1	18		19
Ocean Sport CDFO	49			5			5
Ocean Troll (non-treaty) ADFG	701			53	18		71
Ocean Troll (non-treaty) CDFO	79			8			8
Ocean Troll - Day Boat ADFG	59			2	4		6
Spawning Ground WDFW	739		12	19	44		75
Sport (private) WDFW	39			4			4
Totals	5,079	5	58	253	198	1	515

	Total	% of total	% of release
Ocean contribution	1,213	24	0.0578
Escapement to Columbia River	3,866	76	0.1843
Total Survival	5,079		0.2422
Escapement to NFH	2,634	52	0.1256
Columbia River contribution	1,232	24	0.0587

Ocean	Contribution by Area	
958 AK		
128 BC		
39 WA	Columbia River	Escapement to NFH
0 OR	1,232	2,634
0 CA		
1,125 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/29/2005  
 Broodyear 96 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 96LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/19/1997	2,153,118	89.3	197,499	0501020407	L White Salmon NFH
Totals	2,153,118		197,499		

Where Recovered	Total	180 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	535		14	23	12	49
Estuary Sport	ODFW	33			3		3
Hatchery	FWS	1,329	6	26	79	11	122
Ocean Sport	ADFG	44			4		4
Ocean Sport	CDFG	44			4		4
Ocean Troll (non-treaty)	ADFG	687		14	49		63
Ocean Troll - Day Boat	ADFG	33			3		3
Spawning Ground	WDFW	283			7	17	2
Totals		2,988	6	61	182	25	274

	Total	% of total	% of release
Ocean contribution	808	27	0.0375
Escapement to Columbia River	2,180	73	0.1012
Total Survival	2,988		0.1388

Escapement to NFH	1,329	44	0.0617
Columbia River contribution	851	28	0.0395

Ocean

Contribution by Area

764 AK  
 0 BC  
 0 WA  
 0 OR  
 44 CA  
 808 Total

Columbia River  
 851

Escapement to NFH  
 1,329

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/17/2005  
 Broodyear 97 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 97LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/25/1998	394,713	69.8	0	054454	L White Salmon NFH
06/25/1998	478,866	78.9	98,678	054454	L White Salmon NFH
06/25/1998	176,136	72.0	0	054454	L White Salmon NFH
06/25/1998	747,313	73.2	0	054454	L White Salmon NFH
06/25/1998	202,407	52.9	0	054454	L White Salmon NFH
Totals	1,999,435		98,678		

Where Recovered	Total	169 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	1,480			43	18		61
Columbia River Sport ODFW	340				14		14
Estuary Sport ODFW	146			6			6
Hatchery FWS	1,869	2	19	42	14		77
Ocean Sport ADFG	73			3			3
Ocean Troll (non-treaty) ADFG	1,019		3	19	20		42
Ocean Troll (non-treaty) CDFO	218		4	5			9
Spawning Ground WDFW	3,057		2	85	36	3	126
Treaty Troll WDFW	24			1			1
Totals	8,226	2	28	204	102	3	339

	Total	% of total	% of release
Ocean contribution	1,334	16	0.0667
Escapement to Columbia River	6,892	84	0.3447
Total Survival	8,226		0.4114

Escapement to NFH	1,869	23	0.0935
Columbia River contribution	5,023	61	0.2512

Ocean	Contribution by Area	
1,092 AK		
218 BC		
24 WA	Columbia River	Escapement to NFH
0 OR	5,023	1,869
0 CA		
1,334 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 11/17/2005  
 Broodyear 98 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 98LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/24/1999	2,149,397	55.9	198,452	0501021003	L White Salmon NFH
Totals	2,149,397		198,452		

Where Recovered	Total	368 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	1,992		10	63	111		184
Groundfish Observer (CA/ NMFS	43	4					4
Hatchery FWS	2,351	19	79	87	32		217
Hatchery ODFW	11	1					1
Ocean Sport ADFG	32			3			3
Ocean Sport CDFO	43				4		4
Ocean Troll (non-treaty) ADFG	1,147		4	59	39	4	106
Ocean Troll (non-treaty) CDFO	109		1	2	7		10
Ocean Troll (non-treaty) ODFW	32		3				3
Ocean Troll - Day Boat ADFG	54			4	1		5
Spawning Ground WDFW	2,534		4	85	145		234
Sport (private) WDFW	22		2				2
Treaty Troll WDFW	32		3				3
Totals	8,402	24	106	303	339	4	776

		% of total	% of release
Ocean contribution	1,514	18	0.0704
Escapement to Columbia River	6,888	82	0.3205
Total Survival	8,402		0.3909

Escapement to NFH	2,351	28	0.1094
Columbia River contribution	4,537	54	0.2111

Ocean	Contribution by Area	
1,233 AK		
152 BC		
54 WA	Columbia River	Escapement to NFH
32 OR	4,537	2,351
0 CA		
1,471 Total		



Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/01/2005  
 Broodyear 99 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 99LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/22/2000	1,970,592	65.9	199,907	0501021005	L White Salmon NFH
Totals	1,970,592		199,907		

Where Recovered	Total	520 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	2,474	3	32	162	54	251
Columbia River Sport	ODFW	316			22	10	32
Estuary Sport	ODFW	88		5	4		9
Freshwater Sport	WDFW	20			2		2
Hatchery	FWS	2,128	18	46	78	74	216
Hatchery	ODFW	20		1	1		2
Multiple Gear	ADFG	10				1	1
Ocean Sport	ADFG	178			15	3	18
Ocean Sport	CDFO	207				21	21
Ocean Trawl By-Catch	ODFW	10	1				1
Ocean Troll (non-treaty)	ADFG	3,568		25	169	168	362
Ocean Troll (non-treaty)	CDFO	523		9	21	23	53
Ocean Troll (non-treaty)	ODFW	30		3			3
Ocean Troll (non-treaty)	WDFW	59			6		6
Ocean Troll - Day Boat	ADFG	109		2	7	2	11
Other	ADFG	10				1	1
Spawning Ground	WDFW	4,061	2	68	342		412
Sport (charter)	WDFW	20				2	2
Sport (private)	WDFW	30	2	1			3
Treaty Troll	WDFW	20				2	2
Totals		13,881	26	192	829	361	1,408

	Total	% of total	% of release
Ocean contribution	4,774	34	0.2423
Escapement to Columbia River	9,107	66	0.4621
Total Survival	13,881		0.7044
Escapement to NFH	2,128	15	0.1080
Columbia River contribution	6,979	50	0.3542

Ocean	Contribution by Area	
3,875 AK		
730 BC		
129 WA	Columbia River	Escapement to NFH
40 OR	6,979	2,128
0 CA		
4,774 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 11/23/2005  
 Broodyear 00 Upriver Bright FCS raised at L White Salmon NFH rd2  
 released in L White Salmon River 00LWURB

Date	Number	#/lb	Tagged	CWT	AT
06/21/2001	1,937,764	109.2	193,877	0501010910	L White Salmon NFH
Totals	1,937,764		193,877		

Where Recovered	Total	128 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Coastal Gillnet	WDFW	60		6			6
Columbia River Gillnet	ODFW	1,589		123	36		159
Columbia River Sport	ODFW	210		16	5		21
Commercial Seine	ADFG	110	11				11
Estuary Sport	ODFW	30		3			3
Hatchery	FWS	540	1	4	49		54
Hatchery	ODFW	10			1		1
Ocean Sport	ADFG	80			8		8
Ocean Troll (non-treaty)	ADFG	590		7	52		59
Ocean Troll (non-treaty)	CDFO	350		7	28		35
Ocean Troll (non-treaty)	WDFW	20			2		2
Ocean Troll - Day Boat	ADFG	20			2		2
Spawning Ground	WDFW	380		38			38
Sport (private)	WDFW	30		3			3
Treaty Troll	WDFW	10			1		1
Totals		4,029	12	201	190		403

	Total	% of total	% of release
Ocean contribution	1,270	32	0.0655
Escapement to Columbia River	2,759	68	0.1424
Total Survival	4,029		0.2079

Escapement to NFH	540	13	0.0279
Columbia River contribution	2,219	55	0.1145

Ocean	Contribution by Area	
800 AK		
350 BC		
120 WA	Columbia River	Escapement to NFH
0 OR	2,219	540
0 CA		
1,270 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 80 Tule Fall Chinook raised at Spring Creek NFH  
 released in Columbia River

01/24/2005  
 rd2  
 80SCFCS

Date	Number	#/lb	Tagged	CWT	AT
05/08/1981	12,984	65.0	0	-	Spring Creek NFH
04/15/1981	3,194,579	71.0	76,731	050741	Spring Creek NFH
03/26/1981	722,783	102.0	15,378	050751	Spring Creek NFH
08/14/1981	290,766	15.2	7,182	050752	Spring Creek NFH
05/05/1981	3,204,979	65.0	63,119	050742	Spring Creek NFH
03/26/1981	4,914,598	90.0	104,666	050740	Spring Creek NFH
04/15/1981	1,286,949	71.0	30,911	050749	Spring Creek NFH
03/26/1981	642,858	114.0	13,746	050750	Spring Creek NFH
03/26/1981	1,354,838	118.0	28,825	050748	Spring Creek NFH
Totals	15,625,334		340,558		

Where Recovered	Total	250 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	5,064	5	70	29	5		109
Estuary Sport WDFW	2,205	9	41				50
Hatchery FWS	4,529	6	66	29			101
Hatchery ODFW	182		3	1			4
Mixed Net and Seine CDFO	338	8					8
Mixed Net and Seine WDFW	250	6					6
Ocean Sport CDFO	417		6	4			10
Ocean Troll (non-treaty) CDFO	11,846	6	209	43			258
Ocean Troll (non-treaty) ODFW	235		5				5
Ocean Troll - Day Boat WDFW	83		2				2
Ocean Troll - Trip Boat WDFW	1,518		34				34
Sport (charter) WDFW	666	2	12				14
Sport (private) WDFW	426	1	8				9
Treaty Troll WDFW	1,138	2	23				25
Totals	28,897	45	479	106	5		635

	Total	% of total	% of release
Ocean contribution	16,917	59	0.1083
Escapement to Columbia River	11,980	41	0.0767
Total Survival	28,897		0.1849
Escapement to NFH	4,529	16	0.0290
Columbia River contribution	7,451	26	0.0477

Ocean	Contribution by Area	
0 AK		
12,601 BC		
4,081 WA	Columbia River	Escapement to NFH
235 OR	7,451	4,529
0 CA		
16,917 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 01/24/2005  
 Broodyear 81 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 81SCFCS

Date	Number	#/lb	Tagged	CWT	AT
03/25/1982	7,200,329	110.0	151,366	051050	Spring Creek NFH
04/15/1982	2,170,007	78.2	38,854	051051	Spring Creek NFH
04/15/1982	42,354	75.0	41,295	051055	Spring Creek NFH
07/30/1982	24,108	17.2	466	050753	Spring Creek NFH
07/30/1982	22,680	17.2	440	050754	Spring Creek NFH
04/15/1982	44,278	74.0	43,171	051053	Spring Creek NFH
04/15/1982	49,786	70.0	48,541	051054	Spring Creek NFH
05/20/1982	2,937,115	48.6	58,312	051052	Spring Creek NFH
04/15/1982	49,519	76.0	48,281	051056	Spring Creek NFH
Totals	12,540,176		430,726		

Where Recovered	Total	739 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	12,425	30	363	59		452
Estuary Sport	ODFW	453		9			9
Estuary Sport	WDFW	650	21	7			28
Fish Trap (freshwater)	FWS	57				2	2
Groundfish Observer (CA/	NMFS	114	4				4
Hatchery	FWS	6,712	28	183	42		253
Hatchery	ODFW	1,168	9	31	11	1	52
Mixed Net and Seine	CDFO	12	6	3	3		12
Mixed Net and Seine	WDFW	304	13	3			16
Ocean Sport	CDFO	401	10	2			12
Ocean Sport	ODFW	881	15	15			30
Ocean Troll (non-treaty)	CDFG	618		13			13
Ocean Troll (non-treaty)	CDFO	15,482		517	45		562
Ocean Troll (non-treaty)	ODFW	1,104		52			52
Ocean Troll (non-treaty)	WDFW	1,194		37	2		39
Sport (charter)	WDFW	633	20	6			26
Sport (private)	WDFW	720	3	18			21
Test Fishery Net	ODFW	50	1				1
Treaty Troll	WDFW	378		16			16
Totals		43,356	160	1,275	162	3	1,600

	Total	% of total	% of release
Ocean contribution	21,841	50	0.1742
Escapement to Columbia River	21,515	50	0.1716
Total Survival	43,356		0.3457

Escapement to NFH	6,712	15	0.0535
Columbia River contribution	14,803	34	0.1180

Ocean	Contribution by Area	
0 AK		
15,895 BC		
3,229 WA	Columbia River	Escapement to NFH
1,985 OR	14,803	6,712
618 CA		
21,727 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/12/2005  
 Broodyear 83 Tule Fall Chinook raised at Spring Creek NFH rd  
 released in Columbia River 83SCFCS

Date	Number	#/lb	Tagged	CWT	AT
04/16/1984	5,028,387	75.2	0	-	Spring Creek NFH
05/16/1984	5,798,526	63.5	0	-	Spring Creek NFH
07/31/1984	16,607	35.4	0	-	Spring Creek NFH
04/16/1984	50,760	68.0	48,415	051146	Spring Creek NFH
04/16/1984	49,462	68.0	48,695	051150	Spring Creek NFH
04/16/1984	48,384	68.0	46,449	051151	Spring Creek NFH
04/16/1984	48,854	69.0	46,899	051152	Spring Creek NFH
Totals	11,040,980		190,458	PEF= 57.97	

Where Recovered	Total	102 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	7,188	9	111	4			124
Estuary Sport	406		7				7
Fish Trap (freshwater)	870		15				15
Hatchery	986	5	9	3			17
Hatchery	174		3				3
Mixed Net and Seine	174	3					3
Mixed Net and Seine	174		3				3
Ocean Sport	464	4	4				8
Ocean Troll (non-treaty)	3,478		60				60
Ocean Troll (non-treaty)	116		2				2
Ocean Troll (non-treaty)	928		16				16
Sport (charter)	174	2	1				3
Sport (private)	812		10	4			14
Treaty Troll	116		2				2
Totals	16,060	23	243	11			277

	Total	% of total	% of release
Ocean contribution	6,436	40	0.0583
Escapement to Columbia River	9,624	60	0.0872
Total Survival	16,060		0.1455
Escapement to NFH	986	6	0.0089
Columbia River contribution	8,638	54	0.0782

Ocean	Contribution by Area	
0 AK		
4,116 BC		
2,204 WA	Columbia River	Escapement to NFH
116 OR	8,638	986
0 CA		
6,436 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/12/2005  
 Broodyear 84 Tule Fall Chinook raised at Spring Creek NFH rd  
 released in Columbia River 84SCFCS

Date	Number	#/lb	Tagged	CWT	AT
02/28/1985	2,483,583	207.0	0	-	Spring Creek NFH
02/28/1985	5,187,684	148.0	0	-	Spring Creek NFH
02/25/1985	2,847,474	167.0	47,462	051534	Spring Creek NFH
02/25/1985	3,222,158	167.0	53,653	051535	Spring Creek NFH
02/28/1985	42,593	147.3	41,826	051536	Spring Creek NFH
02/28/1985	43,401	147.0	42,707	051537	Spring Creek NFH
02/28/1985	39,381	145.0	37,373	051538	Spring Creek NFH
02/28/1985	39,143	145.0	36,912	051539	Spring Creek NFH
Totals	13,905,417		259,933	PEF= 53.50	

51 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered	Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet ODFW	1,712	7	17	8			32
Fish Trap (freshwater) FWS	214		4				4
Hatchery FWS	481	1	4	4			9
Hatchery ODFW	481	1	8				9
Mixed Net and Seine CDFO	428	8					8
Mixed Net and Seine WDFW	267		5				5
Ocean Sport ODFW	160	3					3
Ocean Troll (non-treaty) CDFO	856		10	6			16
Ocean Troll (non-treaty) ODFW	214		4				4
Ocean Troll (non-treaty) WDFW	535		10				10
Sport (charter) WDFW	107		2				2
Sport (private) WDFW	749		14				14
Treaty Troll WDFW	214		1	3			4
Totals	6,418	20	79	21			120

% of total % of release

Ocean contribution	3,530	55	0.0254
Escapement to Columbia River	2,888	45	0.0208
Total Survival	6,418		0.0462

Escapement to NFH	481	7	0.0035
Columbia River contribution	2,407	38	0.0173

Ocean Contribution by Area

0 AK		
1,284 BC		
1,872 WA	Columbia River	Escapement to NFH
374 OR	2,407	481
0 CA		
3,530 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 85 Tule Fall Chinook raised at Spring Creek NFH  
 released in Columbia River

01/24/2005  
 rd  
 85SCFCS

Date	Number	#/lb	Tagged	CWT	AT
05/15/1986	1,713,442	38.5	96,854	B50111	Spring Creek NFH
04/08/1986	820,910	69.0	43,406	B50114	Spring Creek NFH
05/15/1986	688,395	38.5	41,980	B50208	Spring Creek NFH
04/08/1986	1,785,630	69.0	93,292	B50110	Spring Creek NFH
03/06/1986	1,873,070	123.8	91,229	B50109	Spring Creek NFH
05/15/1986	775,104	38.5	52,508	B50209	Spring Creek NFH
03/06/1986	1,009,580	123.8	51,218	B50113	Spring Creek NFH
04/08/1986	1,084,630	69.0	51,921	B50115	Spring Creek NFH
03/06/1986	<u>844,132</u>	123.8	<u>44,147</u>	B50112	Spring Creek NFH
Totals	10,594,893		566,555	PEF= 18.70	

240 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	4,563	4	131	96	13		244
Estuary Sport	ODFW	112	3	3				6
Estuary Sport	WDFW	430	5	9		9		23
Hatchery	FWS	785	4	29	8	1		42
Hatchery	ODFW	206		8	3			11
Mixed Net and Seine	CDFO	56				3		3
Mixed Net and Seine	WDFW	449	24					24
Ocean Sport	CDFG	168		9				9
Ocean Sport	CDFO	393		7	14			21
Ocean Sport	ODFW	37	2					2
Ocean Troll (non-treaty)	CDFO	3,703		167	23	4	4	198
Ocean Troll (non-treaty)	ODFW	767		37	4			41
Ocean Troll (non-treaty)	WDFW	954		36	15			51
Sport (charter)	WDFW	187		10				10
Sport (private)	WDFW	187		6	4			10
Test Fishery Net	ODFW	19			1			1
Treaty Troll	WDFW	711	4	30	4			38
Totals		13,727	46	482	172	30	4	734

% of total      % of release

Ocean contribution	7,612	55	0.0718
Escapement to Columbia River	6,115	45	0.0577
Total Survival	13,727		0.1296

Escapement to NFH	785	6	0.0074
Columbia River contribution	5,330	39	0.0503

Ocean Contribution by Area

0 AK		
4,152 BC		
2,488 WA		
804 OR	Columbia River	Escapement to NFH
168 CA	5,330	785
7,612 Total		

10,640,406 released with 574,908 tagged fish and 12 CWTs

Where Recovered	Total	918 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	13,469	50	552	170		772
Columbia River Sport	ODFW	122		10			10
Estuary Sport	ODFW	412	8	16			24
Estuary Sport	WDFW	693	14	31			45
Groundfish Observer (CA/	NMFS	156	11				11
Hatchery	FWS	6,091	28	145	140	1	314
Hatchery	ODFW	722	3	23	13		39
Mixed Net and Seine	CDFO	253	19				19
Mixed Net and Seine	WDFW	355	14	2			16
Ocean Sport	CDFO	1,176	22	56	21		99
Ocean Sport	ODFW	536	2	26	3		31
Ocean Sport	WDFW	12		1			1
Ocean Troll (non-treaty)	CDFO	6,894		298	81		379
Ocean Troll (non-treaty)	ODFW	3,672	12	178	7		197
Ocean Troll (non-treaty)	WDFW	4,779		226	19		245
Spawning Ground	WDFW	1,621		68			68
Sport (charter)	WDFW	578	3	18	16		37
Sport (private)	WDFW	997	13	50	4	4	71
Test Fishery Net	ODFW	103		3	1	1	5
Treaty Troll	WDFW	1,872	26	74	3	2	105
Totals		44,513	225	1,777	478	8	2,488

	Total	% of total	% of release
Ocean contribution	21,280	48	0.2000
Escapement to Columbia River	23,233	52	0.2183
Total Survival	44,513		0.4183
Escapement to NFH	6,091	14	0.0572
Columbia River contribution	17,142	39	0.1611

Ocean	Contribution by Area	
0 AK		
8,323 BC		
8,593 WA	Columbia River	Escapement to NFH
4,208 OR	17,142	6,091
0 CA		
21,124 Total		



8,850,757 released with 553,561 tagged fish and 16 CWTs

Where Recovered	Agency	Total	791 Observed Recoveries					Total
			2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	7,074	49	180	156			385
Estuary Sport	ODFW	202		6	3			9
Estuary Sport	WDFW	1,036	6	35				41
Hatchery	FWS	5,793	19	208	100	1		328
Hatchery	ODFW	492	3	15	8			26
Mixed Net and Seine	CDFO	220	15	4				19
Mixed Net and Seine	WDFW	77	2	2				4
Ocean Sport	CDFO	1,625	15	72	7			94
Ocean Sport	ODFW	57		3				3
Ocean Sport	WDFW	28		1	1			2
Ocean Troll (non-treaty)	CDFG	32		3				3
Ocean Troll (non-treaty)	CDFO	6,831		333	54			387
Ocean Troll (non-treaty)	ODFW	1,109		68				68
Ocean Troll (non-treaty)	WDFW	1,490		91	4			95
Sport (charter)	WDFW	504	3	17	3			23
Sport (private)	WDFW	851	17	44	4			65
Test Fishery Net	ODFW	29		1				1
Treaty Troll	WDFW	2,548	62	90	5			157
Totals		29,998	191	1,173	345	1		1,710

	Total	% of total	% of release
Ocean contribution	15,372	51	0.1737
Escapement to Columbia River	14,626	49	0.1653
Total Survival	29,998		0.3389
Escapement to NFH	5,793	19	0.0655
Columbia River contribution	8,833	29	0.0998

Ocean	Contribution by Area	
0 AK		
8,676 BC		
5,498 WA		
1,166 OR	Columbia River	Escapement to NFH
32 CA	8,833	5,793
15,372 Total		

15,307,573 released with 657,965 tagged fish and 16 CWTs

Where Recovered		Total	1,580 Observed Recoveries					Total
			=== PSC Expanded Recoveries ===					
			2s	3s	4s	5s	6s	Total
Coastal Gillnet	QDNR	0						0
Columbia River Gillnet	ODFW	24,168	128	759	111			998
Columbia River Sport	ODFW	395		7				7
Estuary Sport	ODFW	994	3	28				31
Estuary Sport	WDFW	3,005	81	57	4			142
Groundfish Observer (CA/	NMFS	227	6					6
Hatchery	FWS	13,112	152	373	91			616
Hatchery	ODFW	2,986	12	82	33			127
Mixed Net and Seine	CDFO	581	22	2				24
Mixed Net and Seine	WDFW	225	7					7
Ocean Sport	CDFG	114		4				4
Ocean Sport	CDFO	1,540	25	41	6			72
Ocean Sport	ODFW	1,424	5	52				57
Ocean Sport	WDFW	207	1	8				9
Ocean Troll (non-treaty)	CDFO	9,550		361	79			440
Ocean Troll (non-treaty)	ODFW	4,895	3	174	4			181
Ocean Troll (non-treaty)	WDFW	5,442	19	154	17			190
Spawning Ground	WDFW	62		3				3
Sport (charter)	WDFW	2,543	59	32	3			94
Sport (private)	WDFW	4,994	87	109				196
Test Fishery Net	ODFW	208		4	2			6
Treaty Troll	WDFW	4,006	50	140	2			192
Totals		80,678	660	2,390	352			3,402

		% of total	% of release
Ocean contribution	35,748	44	0.2335
Escapement to Columbia River	44,930	56	0.2935
Total Survival	80,678		0.5270
Escapement to NFH	13,112	16	0.0857
Columbia River contribution	31,818	39	0.2079

Ocean	Contribution by Area	
0 AK		
11,671 BC		
17,417 WA	Columbia River	Escapement to NFH
6,319 OR	31,818	13,112
114 CA		
35,521 Total		

10,233,487 released with 824,213 tagged fish and 22 CWTs

Where Recovered		Total	1,819 Observed Recoveries					Total
			=== PSC Expanded Recoveries ===					
			2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	7,717	51	382	164	2		599
Columbia River Sport	ODFW	184		8	8			16
Estuary Sport	ODFW	329	5	18	5			28
Estuary Sport	WDFW	2,217	24	98	21			143
Hatchery	FWS	8,677	58	413	200	3		674
Hatchery	ODFW	1,790	8	91	25	1		125
Hatchery	WDFW	10		1				1
Mixed Net and Seine	CDFO	438	16	15				31
Mixed Net and Seine	WDFW	310	22					22
Ocean Sport	CDFG	29			3			3
Ocean Sport	CDFO	1,773	11	92	35			138
Ocean Sport	ODFW	519	5	32	3			40
Ocean Sport	WDFW	11			1			1
Ocean Troll (non-treaty)	CDFO	7,773		425	152			577
Ocean Troll (non-treaty)	ODFW	3,032		210	6			216
Ocean Troll (non-treaty)	WDFW	6,360		473	23			496
Spawning Ground	WDFW	150		15				15
Sport (charter)	WDFW	1,896	4	131	2			137
Sport (private)	WDFW	1,422	8	97	16			121
Test Fishery Net	ODFW	151	1	9	1			11
Treaty Troll	WDFW	4,895	73	256	49			378
Totals		49,683	286	2,766	714	6		3,772

		% of total	% of release
Ocean contribution	28,458	57	0.2781
Escapement to Columbia River	21,225	43	0.2074
Total Survival	49,683		0.4855
Escapement to NFH	8,677	17	0.0848
Columbia River contribution	12,548	25	0.1226

Ocean	Contribution by Area	
0 AK		
9,984 BC		
14,894 WA	Columbia River	Escapement to NFH
3,551 OR	12,548	8,677
29 CA		
28,458 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 90 Tule Fall Chinook raised at Spring Creek NFH  
 released in Columbia River

12/13/2005  
 rd2  
 90SCFCS

14,348,604 released with 622,029 tagged fish and 17 CWTs

Where Recovered		Total	517 Observed Recoveries					Total
			2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	3,417	22	115	28	1	166	
Columbia River Sport	ODFW	86		4			4	
Estuary Sport	ODFW	129		3			3	
Estuary Sport	WDFW	747	9	17	4		30	
Freshwater Sport	ODFW	23		1			1	
Hatchery	FWS	5,000	31	154	86	1	272	
Hatchery	ODFW	608	10	12	7		29	
Mixed Net and Seine	CDFO	140	6	4			10	
Ocean Sport	CDFG	30		3			3	
Ocean Sport	CDFO	655	12	27	4		43	
Ocean Sport	ODFW	44	3				3	
Ocean Troll (non-treaty)	CDFO	2,550		106	18		124	
Ocean Troll (non-treaty)	ODFW	336		13			13	
Ocean Troll (non-treaty)	WDFW	2,192		84			84	
Sport (charter)	WDFW	66		4			4	
Sport (private)	WDFW	688	12	23			35	
Test Fishery Net	ODFW	7		1			1	
Treaty Troll	WDFW	1,865	9	85	5		99	
Totals		18,583	114	656	152	2	924	

		% of total	% of release
Ocean contribution	8,566	46	0.0597
Escapement to Columbia River	10,017	54	0.0698
Total Survival	18,583		0.1295
Escapement to NFH	5,000	27	0.0348
Columbia River contribution	5,017	27	0.0350

Ocean	Contribution by Area	
0 AK		
3,345 BC		
4,811 WA	Columbia River	Escapement to NFH
380 OR	5,017	5,000
30 CA		
8,566 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 91 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 91SCFCS

19,072,355 released with 816,582 tagged fish and 24 CWTs

Where Recovered	Total	767 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Coastal Gillnet WDFW	84			1			1
Columbia River Gillnet ODFW	7,001	29	226	85			340
Estuary Sport ODFW	65	4					4
Estuary Sport WDFW	788	39	3				42
Groundfish Observer (CA/ NMFS	35		9				9
Hatchery FWS	8,444	32	319	64			415
Hatchery ODFW	943	1	32	7			40
Mixed Net and Seine CDFO	223	6	12				18
Ocean Sport CDFO	1,901	39	40	19			98
Ocean Sport ODFW	33	5					5
Ocean Troll (non-treaty) CDFO	5,663	4	192	24			220
Ocean Troll (non-treaty) ODFW	264		16	1			17
Spawning Ground WDFW	9			1			1
Sport (charter) WDFW	186	5					5
Sport (private) WDFW	36	9					9
Treaty Ceremonial ODFW	20					1	1
Treaty Troll WDFW	513	3	24				27
Totals	26,208	176	873	202	1		1,252

		% of total	% of release
Ocean contribution	8,938	34	0.0469
Escapement to Columbia River	17,270	66	0.0905
Total Survival	26,208		0.1374

Escapement to NFH	8,444	32	0.0443
Columbia River contribution	8,826	34	0.0463

Contribution by Area			
Ocean			
0 AK			
7,787 BC			
819 WA	Columbia River		Escapement to NFH
297 OR	8,826		8,444
0 CA			
8,903 Total			

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 92 Tule Fall Chinook raised at Spring Creek NFH rd  
 released in Columbia River 92SCFCS

14,310,020 released with 904,209 tagged fish and 26 CWTs

Where Recovered	Total	1,012 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Coastal Gillnet QDNR	32					2	2
Columbia River Gillnet ODFW	10,508	86	453	125			664
Columbia River Sport ODFW	111		7				7
Fish Trap (freshwater) ODFW	16		1				1
Groundfish Observer (CA/ NMFS	190	4	8				12
Hatchery FWS	7,771	77	386	28			491
Hatchery ODFW	1,013	12	51	1			64
Mixed Net and Seine CDFO	285	16	2				18
Mixed Wild Broodstock an QDNR	16				1		1
Ocean Sport CDFO	427		27				27
Ocean Troll (non-treaty) CDFG	32		2				2
Ocean Troll (non-treaty) CDFO	1,535		97				97
Ocean Troll (non-treaty) ODFW	491		28	3			31
Spawning Ground WDFW	459		29				29
Treaty Troll WDFW	301	3	16				19
Totals	23,187	198	1,107	157	1	2	1,465

	Total	% of total	% of release
Ocean contribution	3,309	14	0.0231
Escapement to Columbia River	19,878	86	0.1389
Total Survival	23,187		0.1620
Escapement to NFH	7,771	34	0.0543
Columbia River contribution	12,107	52	0.0846

Ocean Contribution by Area

0 AK		
2,247 BC		
349 WA	Columbia River	Escapement to NFH
491 OR	12,107	7,771
32 CA		
3,119 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 93 Tule Fall Chinook raised at Spring Creek NFH rd  
 released in Columbia River 93SCFCS

15,607,856 released with 703,751 tagged fish and 19 CWTs

Where Recovered	Total	924 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	17,742	50	619	131			800
Columbia River Sport ODFW	310		9	5			14
Estuary Sport ODFW	200		3	6			9
Estuary Sport WDFW	67		3				3
Groundfish Observer (CA/ NMFS	89	4					4
Hatchery FWS	9,758	62	266	109	3		440
Hatchery ODFW	776	9	15	11			35
Mixed Net and Seine CDFO	67	3					3
Mixed Net and Seine WDFW	111	5					5
Ocean Sport CDFG	44		2				2
Ocean Sport CDFO	1,286		47	11			58
Ocean Sport ODFW	177		8				8
Ocean Troll (non-treaty) CDFO	599			27			27
Ocean Troll (non-treaty) ODFW	1,952		73	15			88
Ocean Troll (non-treaty) WDFW	44	1		1			2
Spawning Ground QDNR	22			1			1
Spawning Ground WDFW	133		6				6
Sport (private) WDFW	333		5	10			15
Treaty Troll WDFW	577	12	14				26
Totals	34,287	146	1,070	327	3		1,546

		% of total	% of release
Ocean contribution	5,279	15	0.0338
Escapement to Columbia River	29,008	85	0.1859
Total Survival	34,287		0.2197
Escapement to NFH	9,758	28	0.0625
Columbia River contribution	19,250	56	0.1233

Ocean	Contribution by Area	
0 AK		
1,952 BC		
1,065 WA	Columbia River	Escapement to NFH
2,129 OR	19,250	9,758
44 CA		
5,190 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 94 Tule Fall Chinook raised at Spring Creek NFH rd  
 released in Columbia River 94SCFCS

Date	Number	#/lb	Tagged	CWT	AT
04/13/1995	186,180	77.5	0	-	Spring Creek NFH
04/13/1995	181,981	77.5	0	-	Spring Creek NFH
05/18/1995	145,132	45.1	23,699	053063	Spring Creek NFH
04/13/1995	949,695	77.5	48,983	053243	Spring Creek NFH
04/13/1995	99,916	77.5	97,287	053253	Spring Creek NFH
04/13/1995	99,586	77.5	97,919	053311	Spring Creek NFH
03/16/1995	4,016,815	111.8	70,667	053757	Spring Creek NFH
03/16/1995	3,924,517	111.5	72,102	053758	Spring Creek NFH
05/18/1995	1,820,775	45.4	61,099	053759	Spring Creek NFH
05/18/1995	1,825,521	44.5	70,551	053760	Spring Creek NFH
04/13/1995	1,488,461	77.5	75,559	053761	Spring Creek NFH
04/13/1995	1,251,435	77.5	64,292	053762	Spring Creek NFH
Totals	15,990,014		682,158	PEF= 23.44	

468 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	3,493	19	97	33			149
Columbia River Sport	ODFW	188	1	4	3			8
Estuary Sport	ODFW	398		13	4			17
Estuary Sport	WDFW	680	7	22				29
Hatchery	FWS	5,907	26	197	29			252
Hatchery	ODFW	1,430	4	42	15			61
Ocean Sport	CDFO	727		26	5			31
Ocean Sport	ODFW	94		2	2			4
Ocean Troll (non-treaty)	CDFO	1,805		76	1			77
Ocean Troll (non-treaty)	ODFW	867		31	6			37
Ocean Troll (non-treaty)	WDFW	234		6	4			10
Spawning Ground	WDFW	70		3				3
Sport (charter)	WDFW	164		7				7
Sport (private)	WDFW	539		23				23
Totals		16,596	57	549	102			708

	Total	% of total	% of release
Ocean contribution	4,430	27	0.0277
Escapement to Columbia River	12,166	73	0.0761
Total Survival	16,596		0.1038
Escapement to NFH	5,907	36	0.0369
Columbia River contribution	6,259	38	0.0391

Ocean Contribution by Area

0 AK		
2,532 BC		
937 WA	Columbia River	Escapement to NFH
961 OR	6,259	5,907
0 CA		
4,430 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 95 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 95SCFCS

Date	Number	#/lb	Tagged	CWT	AT
03/14/1996	4,006,550	124.1	72,232	053831	Spring Creek NFH
03/14/1996	4,012,149	124.1	72,370	053832	Spring Creek NFH
04/18/1996	2,237,679	75.6	70,196	053833	Spring Creek NFH
04/18/1996	2,240,433	75.6	70,579	053834	Spring Creek NFH
05/16/1996	1,808,418	44.7	68,198	053835	Spring Creek NFH
05/17/1996	237,510	50.6	0	053835	Spring Creek NFH
05/16/1996	1,660,439	44.6	67,828	053836	Spring Creek NFH
05/17/1996	237,313	50.7	0	053836	Spring Creek NFH
Totals	16,440,491		421,403		

Where Recovered	Total	125 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	1,935	2	27	15			44
Columbia River Sport ODFW	55		1				1
Estuary Sport ODFW	374		9				9
Hatchery FWS	2,675	1	49	15			65
Hatchery ODFW	746	2	10	2			14
Ocean Sport CDFO	245		3	3			6
Ocean Sport ODFW	64		2				2
Ocean Troll (non-treaty) CDFO	63		2				2
Ocean Troll (non-treaty) ODFW	936		13	8			21
Ocean Troll (non-treaty) WDFW	347			10			10
Spawning Ground WDFW	444			8			8
Sport (charter) WDFW	166		3				3
Treaty Ceremonial ODFW	32					1	1
Totals	8,082	5	119	61	1		186

	Total	% of total	% of release
Ocean contribution	1,821	23	0.0111
Escapement to Columbia River	6,261	77	0.0381
Total Survival	8,082		0.0492

Escapement to NFH	2,675	33	0.0163
Columbia River contribution	3,586	44	0.0218

Ocean	Contribution by Area	
0 AK		
308 BC		
513 WA		
1,000 OR	Columbia River	Escapement to NFH
0 CA	3,586	2,675
1,821 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 96 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 96SCFCS

Date	Number	#/lb	Tagged	CWT	AT
03/13/1997	3,586,757	120.0	71,838	054341	Spring Creek NFH
03/13/1997	3,585,881	120.0	73,779	054342	Spring Creek NFH
04/18/1997	1,761,803	67.0	72,443	054343	Spring Creek NFH
04/18/1997	200,441	69.1	0	054343	Spring Creek NFH
04/18/1997	1,955,777	67.2	72,334	054344	Spring Creek NFH
05/15/1997	1,612,303	40.8	70,566	054345	Spring Creek NFH
05/15/1997	1,844,363	41.1	71,227	054346	Spring Creek NFH
Totals	14,547,325		432,187		

1,088 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	20,669	66	533	56			655
Columbia River Sport	ODFW	966	10	18				28
Estuary Sport	ODFW	1,271	17	30				47
Estuary Sport	WDFW	227	3	3				6
Groundfish Observer (CA/	NMFS	277	3	8				11
Hatchery	FWS	19,165	187	388	37	1		613
Hatchery	ODFW	1,972	45	17	2			64
Ocean Sport	CDFG	129		5				5
Ocean Sport	CDFO	2,203		60	12			72
Ocean Sport	ODFW	448		12				12
Ocean Trawl By-Catch	ODFW	26		1				1
Ocean Troll (non-treaty)	CDFG	150		3				3
Ocean Troll (non-treaty)	CDFO	890	5	25				30
Ocean Troll (non-treaty)	ODFW	5,018		141	12			153
Ocean Troll (non-treaty)	WDFW	1,490		54	7			61
Spawning Ground	ODFW	27		1				1
Spawning Ground	WDFW	1,121	2	37	2			41
Sport (charter)	WDFW	472	7	7				14
Sport (private)	WDFW	3,555	45	62	3			110
Treaty Troll	WDFW	1,730		47	1			48
Totals		61,806	390	1,452	132	1		1,975

		% of total	% of release
Ocean contribution	16,388	27	0.1127
Escapement to Columbia River	45,418	73	0.3122
Total Survival	61,806		0.4249
Escapement to NFH	19,165	31	0.1317
Columbia River contribution	26,253	42	0.1805

Ocean	Contribution by Area	
0 AK		
3,093 BC		
7,247 WA	Columbia River	Escapement to NFH
5,492 OR	26,253	19,165
279 CA		
16,111 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 97 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 97SCFCS

Date	Number	#/lb	Tagged	CWT	AT
03/13/1998	3,161,927	111.2	74,432	054347	Spring Creek NFH
03/13/1998	4,565,200	111.2	75,032	054348	Spring Creek NFH
04/20/1998	2,101,836	61.7	72,500	054349	Spring Creek NFH
04/20/1998	2,115,864	61.5	72,456	054350	Spring Creek NFH
05/15/1998	1,927,283	39.1	73,728	054351	Spring Creek NFH
05/15/1998	1,747,319	39.1	73,225	054352	Spring Creek NFH
Totals	15,619,429		441,373		

Where Recovered	Total	190 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	4,875	6	64	57	3		130
Estuary Sport WDFW	352		7				7
Groundfish Observer (CA/ NMFS	348		8				8
Hatchery FWS	3,978	8	67	24			99
Hatchery ODFW	42		1				1
Ocean Sport CDFO	1,784		28	23			51
Ocean Sport ODFW	87			3			3
Ocean Troll (non-treaty) CDFO	841		16	10			26
Ocean Troll (non-treaty) ODFW	633		10	11			21
Ocean Troll (non-treaty) WDFW	82			3			3
Sport (charter) WDFW	143		4				4
Sport (private) WDFW	243		4				4
Treaty Troll WDFW	188			4			4
Totals	13,596	14	209	135	3		361

	Total	% of total	% of release
Ocean contribution	4,349	32	0.0278
Escapement to Columbia River	9,247	68	0.0592
Total Survival	13,596		0.0870
Escapement to NFH	3,978	29	0.0255
Columbia River contribution	5,269	39	0.0337

Ocean	Contribution by Area	
0 AK		
2,625 BC		
656 WA	Columbia River	Escapement to NFH
720 OR	5,269	3,978
0 CA		
4,001 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 98 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 98SCFCS

Date	Number	#/lb	Tagged	CWT	AT
03/18/1999	2,032,170	116.5	71,535	054360	Spring Creek NFH
03/18/1999	2,033,062	116.5	72,639	054361	Spring Creek NFH
04/22/1999	1,880,699	74.6	72,996	054362	Spring Creek NFH
04/22/1999	1,646,485	74.6	70,351	054363	Spring Creek NFH
05/13/1999	1,591,072	60.1	71,809	054404	Spring Creek NFH
05/13/1999	1,408,587	60.1	70,538	054405	Spring Creek NFH
Totals	10,592,075		429,868		

Where Recovered	Total	2,013 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	30,901	18	1,001	256	2		1,277
Columbia River Sport	70	3					3
Estuary Sport	1,192	4	42	3			49
Estuary Sport	114		4				4
Groundfish Observer (CA/	1,761	69	6				75
Hatchery	23,397	188	596	203			987
Hatchery	1,093	4	36	5			45
Ocean Sport	177		8				8
Ocean Sport	1,392	7	43	6			56
Ocean Sport	1,221		48	2			50
Ocean Trawl By-Catch	245	9	2				11
Ocean Trawl By-Catch	67	3					3
Ocean Troll (non-treaty)	5,062	13	118	85			216
Ocean Troll (non-treaty)	14,289	3	540	51			594
Ocean Troll (non-treaty)	4,519		150	41			191
Spawning Ground	28		1				1
Spawning Ground	1,187		41	9			50
Sport (charter)	1,153	3	35	10			48
Sport (private)	3,192	35	88	8			131
Treaty Troll	1,053		35	7			42
Totals	92,113	359	2,794	686	2		3,841

		% of total	% of release
Ocean contribution	34,131	37	0.3222
Escapement to Columbia River	57,982	63	0.5474
Total Survival	92,113		0.8696
Escapement to NFH	23,397	25	0.2209
Columbia River contribution	34,585	38	0.3265

Ocean	Contribution by Area	
0 AK		
6,454 BC		
9,984 WA		
15,755 OR	Columbia River	Escapement to NFH
177 CA	34,585	23,397
32,370 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/13/2005  
 Broodyear 99 Tule Fall Chinook raised at Spring Creek NFH rd2  
 released in Columbia River 99SCFCS

Date	Number	#/lb	Tagged	CWT	AT
05/18/2000	1,792,347	38.3	63,943	054418	Spring Creek NFH
05/18/2000	1,786,197	39.0	64,643	054419	Spring Creek NFH
03/09/2000	3,873,155	121.9	67,718	054420	Spring Creek NFH
03/09/2000	4,304,570	121.9	73,080	054421	Spring Creek NFH
04/20/2000	2,150,498	67.7	66,303	054422	Spring Creek NFH
04/20/2000	2,159,178	67.7	63,721	054423	Spring Creek NFH
Totals	16,065,945		399,408		

Where Recovered	Total	4,678 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW 151,008	238	2,324	1,436	10		4,008
Columbia River Sport	ODFW 518			16			16
Estuary Sport	ODFW 4,390	16	106	8			130
Estuary Sport	WDFW 2,916	42	20	6			68
Groundfish Observer (CA/	NMFS 166	6					6
Hatchery	FWS 156,112	300	2,622	1,202	50		4,174
Hatchery	ODFW 3,746	12	46	34	2		94
Mixed Net and Seine	WDFW 236		4				4
Ocean Sport	CDFO 19,568		72	430			502
Ocean Sport	ODFW 4,700	4	124	8			136
Ocean Trawl By-Catch	ODFW 666	16					16
Ocean Trawl By-Catch	WDFW 174	2	2				4
Ocean Troll (non-treaty)	CDFG 194			6			6
Ocean Troll (non-treaty)	CDFO 51,794	12	838	528			1,378
Ocean Troll (non-treaty)	ODFW 25,548	24	566	100			690
Ocean Troll (non-treaty)	WDFW 28,962		610	162	16		788
Spawning Ground	WDFW 15,808	20	24	390			434
Sport (charter)	WDFW 12,078	18	282	26			326
Sport (private)	WDFW 16,156	22	362	42			426
Treaty Troll	WDFW 6,440		132	68			200
Totals	501,180	732	8,134	4,462	78		13406

		% of total	% of release
Ocean contribution	166,682	33	1.0375
Escapement to Columbia River	334,498	67	2.0820
Total Survival	501,180		3.1195
Escapement to NFH	156,112	31	0.9717
Columbia River contribution	178,386	36	1.1103

Ocean	Contribution by Area	
0 AK		
71,362 BC		
64,046 WA	Columbia River	Escapement to NFH
30,914 OR	** , ***	** , ***
194 CA		
** , *** Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 81 Coho raised at Willard NFH rd  
 released in L White Salmon River 81WiCOS

2,849,568 released with 406,576 tagged fish and 19 CWTs

1,264 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	1,703		243				243
Columbia River Sport	ODFW	140		20				20
Estuary Sport	ODFW	449		64				64
Hatchery	FWS	7,359		1,050				1,050
Hatchery	ODFW	42		6				6
Ocean Sport	CDFO	42		6				6
Ocean Sport	ODFW	582		83				83
Ocean Troll (non-treaty)	CDFG	14		2				2
Ocean Troll (non-treaty)	CDFO	231		32	1			33
Ocean Troll (non-treaty)	ODFW	42		6				6
Ocean Troll (non-treaty)	WDFW	42		6				6
Sport (charter)	WDFW	378		54				54
Sport (private)	CDFG	112		16				16
Sport (private)	WDFW	820		117				117
Treaty Troll	WDFW	14		2				2
Totals		11,970		1,707	1			1,708

		% of total	% of release
Ocean contribution	2,277	19	0.0799
Escapement to Columbia River	9,693	81	0.3402
Total Survival	11,970		0.4201
Escapement to NFH	7,359	61	0.2582
Columbia River contribution	2,334	19	0.0819

Ocean	Contribution by Area	
0 AK		
273 BC		
1,254 WA	Columbia River	Escapement to NFH
624 OR	2,334	7,359
126 CA		
2,277 Total		

2,567,016 released with 339,180 tagged fish and 19 CWTs

Where Recovered		Total	1,511 Observed Recoveries					
			=== PSC Expanded Recoveries ===					
			2s	3s	4s	5s	6s Total	
Columbia River Gillnet	ODFW	1,362		180			180	
Estuary Sport	ODFW	204		27			27	
Groundfish Observer (CA/	NMFS	8				1	1	
Hatchery	FWS	8,613	1	1,137			1,138	
Hatchery	ODFW	53		7			7	
Mixed Net and Seine	WDFW	15		2			2	
Ocean Sport	CDFG	83		11			11	
Ocean Sport	ODFW	2,165		286			286	
Ocean Troll (non-treaty)	CDFG	151		20			20	
Ocean Troll (non-treaty)	ODFW	810		107			107	
Ocean Troll (non-treaty)	WDFW	318		42			42	
Spawning Ground	ODFW	8		1			1	
Sport (charter)	WDFW	946		125			125	
Sport (private)	WDFW	1,287		170			170	
Totals		16,023	1	2,115		1	2,117	

		% of total	% of release
Ocean contribution	5,783	36	0.2253
Escapement to Columbia River	10,240	64	0.3989
Total Survival	16,023		0.6242
Escapement to NFH	8,613	54	0.3355
Columbia River contribution	1,627	10	0.0634

Ocean	Contribution by Area	
0 AK		
0 BC		
2,566 WA	Columbia River	Escapement to NFH
2,975 OR	1,627	8,613
234 CA		
5,775 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 88 Coho raised at Willard NFH rd2  
 released in L White Salmon River 88WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/18/1990	1,449,095	14.5	22,526	052225	Willard NFH
04/18/1990	1,449,045	14.5	22,714	052226	Willard NFH
Totals	2,898,140		45,240		

Where Recovered	Total	373 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	5,512		86			86
Estuary Sport	ODFW	3,204		50			50
Freshwater Net	WDFW	64		1			1
Hatchery	FWS	11,795	51	132	1		184
Hatchery	ODFW	641		10			10
Ocean Sport	CDFG	2,818		44			44
Ocean Sport	ODFW	5,957		93			93
Ocean Sport	WDFW	129		2			2
Ocean Troll (non-treaty)	CDFG	2,370		37			37
Ocean Troll (non-treaty)	CDFO	1,469		23			23
Ocean Troll (non-treaty)	ODFW	6,848		107			107
Ocean Troll (non-treaty)	WDFW	641		10			10
Sport (charter)	WDFW	1,729		27			27
Sport (private)	WDFW	6,016		94			94
Totals		49,193	51	716	1		768

	Total	% of total	% of release
Ocean contribution	27,977	57	0.9653
Escapement to Columbia River	21,216	43	0.7321
Total Survival	49,193		1.6974

Escapement to NFH	11,795	24	0.4070
Columbia River contribution	9,421	19	0.3251

Ocean	Contribution by Area	
0 AK		
1,469 BC		
8,515 WA	Columbia River	Escapement to NFH
12,805 OR	9,421	11,795
5,188 CA		
27,977 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 89 Coho raised at Willard NFH rd2  
 released in L White Salmon River 89WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1991	1,286,661	14.6	23,930	052532	Willard NFH
04/15/1991	1,286,662	14.6	23,813	052533	Willard NFH
Totals	2,573,323		47,743		

Where Recovered	Total	79 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	485		9				9
Estuary Sport	755		14				14
Hatchery	2,156	1	39				40
Hatchery	54		1				1
Ocean Sport	2,049		38				38
Ocean Troll (non-treaty)	1,079		20				20
Ocean Troll (non-treaty)	161		3				3
Sport (charter)	485		9				9
Sport (private)	970		18				18
Treaty Troll	162		3				3
Totals	8,356	1	154				155

	Total	% of total	% of release
Ocean contribution	4,906	59	0.1906
Escapement to Columbia River	3,450	41	0.1341
Total Survival	8,356		0.3247
Escapement to NFH	2,156	26	0.0838
Columbia River contribution	1,294	15	0.0503

Ocean	Contribution by Area	
0 AK		
0 BC		
1,778 WA	Columbia River	Escapement to NFH
3,128 OR	1,294	2,156
0 CA		
4,906 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 90 Coho raised at Willard NFH rd2  
 released in L White Salmon River 90WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1992	784,643	14.0	24,875	052749	Willard NFH
04/15/1992	784,644	14.0	24,267	052750	Willard NFH
Totals	1,569,287		49,142		

Where Recovered	Total	27 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Sport	ODFW	129		4			4
Dead Fish Survey	ODFW	97		3			3
Hatchery	FWS	385	2	10			12
Hatchery	ODFW	32		1			1
Ocean Sport	CDFG	63		2			2
Ocean Sport	ODFW	221		7			7
Ocean Troll (non-treaty)	WDFW	126		4			4
Sport (charter)	WDFW	128		4			4
Sport (private)	WDFW	541		17			17
Totals		1,722	2	52			54

	Total	% of total	% of release
Ocean contribution	1,079	63	0.0688
Escapement to Columbia River	643	37	0.0410
Total Survival	1,722		0.1097
Escapement to NFH	385	22	0.0245
Columbia River contribution	258	15	0.0164

Ocean	Contribution by Area	
0 AK		
0 BC		
795 WA	Columbia River	Escapement to NFH
221 OR	258	385
63 CA		
1,079 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 91 Coho raised at Willard NFH rd2  
 released in L White Salmon River 91WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1993	1,531,807	16.8	24,805	052719	Willard NFH
04/15/1993	1,531,808	16.8	25,120	052728	Willard NFH
Totals	3,063,615		49,925		

Where Recovered	Total	30 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	489		8				8
Freshwater Sport	61		1				1
Hatchery	1,657	1	26				27
Totals	2,207	1	35				36

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	2,207	100	0.0720
Total Survival	2,207		0.0720
Escapement to NFH	1,657	75	0.0541
Columbia River contribution	550	25	0.0180

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	550	1,657
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 92 Coho raised at Willard NFH rd2  
 released in L White Salmon River 92WICOS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1994	1,992,332	15.7	49,602	053305	Willard NFH
Totals	1,992,332		49,602		

				42	Observed Recoveries					
				===	PSC Expanded Recoveries					===
Where Recovered			Total	2s	3s	4s	5s	6s	Total	
Columbia River Gillnet	ODFW		161		4				4	
Hatchery	FWS		1,486	2	35				37	
Ocean Sport	ODFW		120		3				3	
Sport (charter)	WDFW		120		3				3	
Sport (private)	WDFW		120		3				3	
Totals			2,007	2	48				50	

				% of	% of
				total	release
Ocean contribution			360	18	0.0181
Escapement to Columbia River			1,647	82	0.0827
Total Survival			2,007		0.1007
Escapement to NFH			1,486	74	0.0746
Columbia River contribution			161	8	0.0081

Ocean	Contribution by Area	
0 AK		
0 BC		
240 WA	Columbia River	Escapement to NFH
120 OR	161	1,486
0 CA		
360 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 93 Coho raised at Willard NFH rd2  
 released in L White Salmon River 93WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/13/1995	706,032	15.3	50,053	053242	Willard NFH
Totals	706,032		50,053		

Where Recovered	Total	56 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Sport	85		6				6
Hatchery	734	9	43				52
Hatchery	14		1				1
Sport (charter)	28		2				2
Totals	861	9	52				61

	Total	% of total	% of release
Ocean contribution	28	3	0.0040
Escapement to Columbia River	833	97	0.1180
Total Survival	861		0.1219
Escapement to NFH	734	85	0.1040
Columbia River contribution	99	11	0.0140

Ocean	Contribution by Area	
0 AK		
0 BC		
28 WA	Columbia River	Escapement to NFH
0 OR	99	734
0 CA		
28 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 94 Coho raised at Willard NFH rd  
 released in L White Salmon River 94WicOS

Date	Number	#/lb	Tagged	CWT	AT
04/19/1996	492,004	17.9	0	-	Willard NFH
04/19/1996	1,862,409	15.9	49,591	053248	Willard NFH
Totals	2,354,413		49,591	PEF= 47.48	

Where Recovered	Total	Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Estuary Sport	285		6				6
Hatchery	4,558	9	87				96
Sport (charter)	47		1				1
Sport (private)	712		15				15
Totals	5,602	9	109				118

	Total	% of total	% of release
Ocean contribution	759	14	0.0322
Escapement to Columbia River	4,843	86	0.2057
Total Survival	5,602		0.2379
Escapement to NFH	4,558	81	0.1936
Columbia River contribution	285	5	0.0121

Ocean	Contribution by Area	
0 AK		
0 BC		
759 WA	Columbia River	Escapement to NFH
0 OR	285	4,558
0 CA		
759 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/22/2005  
 Broodyear 95 Coho raised at Willard NFH rd2  
 released in L White Salmon River 95WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1997	22,771	15.0	22,163	053113	Willard NFH
04/15/1997	124,807	16.5	19,002	053249	Willard NFH
04/15/1997	839,192	15.8	24,976	053849	Willard NFH
04/15/1997	141,666	15.7	40,726	053929	Willard NFH
04/15/1997	948,592	14.2	26,754	091834	L White Salmon NFH
Totals	2,077,028		133,621		

Where Recovered	Total	387 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Coastal Gillnet	WDFW	213		6			6
Columbia River Gillnet	ODFW	829		26			26
Columbia River Sport	ODFW	413		17			17
Estuary Sport	ODFW	13		2			2
Estuary Sport	WDFW	142		4			4
Hatchery	FWS	8,409	23	308			331
Hatchery	ODFW	364		15			15
Ocean Sport	ODFW	86		6			6
Spawning Ground	WDFW	113		5			5
Sport (charter)	WDFW	43		3			3
Sport (private)	WDFW	555		23			23
Totals		11,180	23	415			438

	Total	% of total	% of release
Ocean contribution	897	8	0.0432
Escapement to Columbia River	10,283	92	0.4951
Total Survival	11,180		0.5383
Escapement to NFH	8,409	75	0.4049
Columbia River contribution	1,874	17	0.0902

Contribution by Area			
Ocean			
0 AK			
0 BC			
811 WA	Columbia River		Escapement to NFH
86 OR	1,874		8,409
0 CA			
897 Total			

Stock Assessment Reference Summary from CRIS and PSMFC TS1 12/22/2005  
 Broodyear 96 Coho raised at Willard NFH rd  
 released in L White Salmon River 96WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/17/1998	48,770	16.0	48,575	053525	Willard NFH
04/17/1998	454,230	16.0	51,040	053934	Willard NFH
04/20/1998	222,701	20.4	0	053934	Willard NFH
04/20/1998	815,965	22.0	0	053934	Willard NFH
04/20/1998	<u>256,083</u>	22.2	<u>0</u>	053934	Willard NFH
Totals	1,797,749		99,615	PEF= 18.05	

141 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	199		11				11
Columbia River Sport	ODFW	72		4				4
Estuary Sport	ODFW	126		7				7
Hatchery	FWS	2,328	11	118				129
Spawning Ground	WDFW	18		1				1
Sport (private)	WDFW	72		4				4
Totals		<u>2,815</u>	<u>11</u>	<u>145</u>				<u>156</u>

		% of total	% of release
Ocean contribution	72	3	0.0040
Escapement to Columbia River	2,743	97	0.1526
Total Survival	2,815		0.1566
Escapement to NFH	2,328	83	0.1295
Columbia River contribution	415	15	0.0231

Ocean	Contribution by Area	
0 AK		
0 BC		
72 WA	Columbia River	Escapement to NFH
0 OR	415	2,328
0 CA		
72 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 97 Coho raised at Willard NFH rd2  
 released in L White Salmon River 97WICOS

Date	Number	#/lb	Tagged	CWT	AT
04/19/1999	2,042,649	15.7	50,810	053933	Willard NFH
04/19/1999	52,881	15.7	51,017	054256	Willard NFH
Totals	2,095,530		101,827		

Where Recovered	Total	796 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet	846		23				23
Estuary Sport	442		11				11
Hatchery	14,644	16	737				753
Hatchery	40		1				1
Ocean Sport	1,085		27				27
Ocean Troll (non-treaty)	201		5				5
Ocean Troll (non-treaty)	80		2				2
Spawning Ground	122		4				4
Sport (charter)	322		8				8
Sport (private)	322		8				8
Totals	18,104	16	826				842

	Total	% of total	% of release
Ocean contribution	2,010	11	0.0959
Escapement to Columbia River	16,094	89	0.7680
Total Survival	18,104		0.8639
Escapement to NFH	14,644	81	0.6988
Columbia River contribution	1,450	8	0.0692

Ocean	Contribution by Area	
0 AK		
0 BC		
724 WA	Columbia River	Escapement to NFH
1,286 OR	1,450	14,644
0 CA		
2,010 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 98 Coho raised at Willard NFH rd2  
 released in L White Salmon River 98WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/20/2000	945,202	15.2	51,433	054926	Willard NFH
04/20/2000	52,944	17.6	52,097	054927	Willard NFH
04/20/2000	<u>547,938</u>	17.2	<u>99,621</u>	630910	L White Salmon NFH
Totals	1,546,084		203,151		

Where Recovered	Total	1,468 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	1,010		179			179
Columbia River Sport	ODFW	168	7	7			14
Estuary Sport	ODFW	1,809		233			233
Estuary Sport	WDFW	22		4			4
Fish Trap (freshwater)	ODFW	6		1			1
Fish Trap (freshwater)	WDFW	6		1			1
Freshwater Sport	WDFW	11		2			2
Hatchery	FWS	6,809	150	822			972
Hatchery	ODFW	90		11			11
Hatchery	WDFW	22		4			4
Ocean Sport	ODFW	1,755		216			216
Ocean Troll (non-treaty)	ODFW	98		13			13
Ocean Troll (non-treaty)	WDFW	55		10			10
Spawning Ground	ODFW	52		8			8
Spawning Ground	WDFW	735		94			94
Sport (charter)	WDFW	834		101			101
Sport (jetty)	WDFW	105		19			19
Sport (private)	WDFW	3,891		499			499
Treaty Troll	WDFW	61		11			11
Totals		<u>17,539</u>	<u>157</u>	<u>2,235</u>			<u>2,392</u>

	Total	% of total	% of release
Ocean contribution	6,799	39	0.4398
Escapement to Columbia River	10,740	61	0.6947
Total Survival	17,539		1.1344
Escapement to NFH	6,809	39	0.4404
Columbia River contribution	3,931	22	0.2543

Ocean	Contribution by Area	
0 AK		
0 BC		
4,946 WA	Columbia River	Escapement to NFH
1,853 OR	3,931	6,809
0 CA		
6,799 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 12/22/2005  
 Broodyear 99 Coho raised at Willard NFH rd2  
 released in L White Salmon River 99WiCOS

Date	Number	#/lb	Tagged	CWT	AT
04/19/2001	49,493	20.5	47,991	054430	Willard NFH
04/19/2001	363,884	21.6	0	054430	Willard NFH
04/19/2001	<u>776,331</u>	18.0	<u>48,400</u>	054431	Willard NFH
Totals	1,189,708		<u>96,391</u>		

Where Recovered	Total	273 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	320		36				36
Columbia River Sport	112		7				7
Estuary Sport	32		2				2
Fish Trap (freshwater)	10		2				2
Hatchery	2,136	1	68	153			222
Hatchery	16		1				1
Ocean Sport	32		2				2
Spawning Ground	32		2				2
Spawning Ground	296		24				24
Sport (charter)	64		4				4
Sport (private)	289		18				18
Totals	<u>3,339</u>	<u>1</u>	<u>166</u>	<u>153</u>			<u>320</u>

		% of total	% of release
Ocean contribution	385	12	0.0324
Escapement to Columbia River	2,954	88	0.2483
Total Survival	3,339		0.2807
Escapement to NFH	2,136	64	0.1795
Columbia River contribution	818	24	0.0688

Ocean	Contribution by Area	
0 AK		
0 BC		
353 WA	Columbia River	Escapement to NFH
32 OR	818	2,136
0 CA		
385 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 89 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/22/2005  
 rd2  
 89WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1991	95,033	17.3	25,116	052328	Winthrop NFH
04/11/1991	92,949	17.3	27,581	052329	Winthrop NFH
04/11/1991	157,615	20.4	27,219	052330	Winthrop NFH
04/11/1991	224,709	19.1	0	052330	Winthrop NFH
04/11/1991	291,430	20.5	0	052331	Winthrop NFH
04/11/1991	<u>193,320</u>	19.0	<u>27,754</u>	052331	Winthrop NFH
Totals	1,055,056		107,670		

16 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Freshwater Sport	WDFW	27			8			8
Hatchery	FWS	40			10	1		11
Hatchery	WDFW	10			1	2		3
Test Fishery Net	ODFW	<u>4</u>			<u>1</u>			<u>1</u>
Totals		81			20	3		23

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	81	100	0.0077
Total Survival	81		0.0077

Escapement to NFH	40	49	0.0038
Columbia River contribution	41	51	0.0039

Ocean

Contribution by Area

- 0 AK
- 0 BC
- 0 WA
- 0 OR
- 0 CA
- 0 Total

Columbia River  
 41

Escapement to NFH  
 40

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 90 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/15/2005  
 rd2  
 90WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1992	158,397	15.8	22,120	052607	Winthrop NFH
04/15/1992	156,280	15.6	16,900	052608	Winthrop NFH
04/15/1992	187,193	16.3	24,161	052624	Winthrop NFH
04/15/1992	<u>122,901</u>	16.6	<u>27,439</u>	052625	Winthrop NFH
Totals	624,771		90,620		

Where Recovered	Total	1 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery	WDFW						
	<u>8</u>				<u>1</u>		<u>1</u>
Totals	8				1		1

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	8	100	0.0013
Total Survival	8		0.0013
Escapement to NFH	0	0	0.0000
Columbia River contribution	8	100	0.0013

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	8	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 91 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/15/2005  
 rd2  
 91WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1993	89,333	18.2	45,805	052236	Winthrop NFH
04/15/1993	204,884	17.8	28,070	052843	Winthrop NFH
04/15/1993	266,512	18.0	28,884	052844	Winthrop NFH
04/15/1993	113,740	16.4	28,931	052845	Winthrop NFH
04/15/1993	116,583	16.4	29,616	052846	Winthrop NFH
04/15/1993	<u>159,572</u>	17.5	<u>27,881</u>	052851	Winthrop NFH
Totals	950,624		189,187		

Where Recovered	Total	0 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Totals	0						0

	Total	% of total	% of release
Ocean contribution	0	***	0.0000
Escapement to Columbia River	0	***	0.0000
Total Survival	0		0.0000
Escapement to NFH	0	***	0.0000
Columbia River contribution	0	***	0.0000

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	0	0
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 92 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/15/2005  
 rd2  
 92WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1994	49,221	18.5	35,028	052820	Winthrop NFH
04/11/1994	77,372	20.2	36,324	052821	Winthrop NFH
04/11/1994	240,287	19.4	39,143	052828	Winthrop NFH
04/11/1994	<u>189,433</u>	17.5	<u>30,378</u>	052829	Winthrop NFH
Totals	556,313		140,873		

Where Recovered	Total	20 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater)	WDFW	74		16			16
Hatchery	FWS	12			2		2
Hatchery	WDFW	8			2		2
Totals		<u>94</u>		<u>16</u>	<u>4</u>		<u>20</u>

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	94	100	0.0169
Total Survival	94		0.0169
Escapement to NFH	12	13	0.0022
Columbia River contribution	82	87	0.0147

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	82	12
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/15/2005  
 rd2  
 93WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1995	191,770	14.7	30,950	053447	Winthrop NFH
04/11/1995	193,436	16.2	44,720	053448	Winthrop NFH
04/11/1995	193,241	15.9	42,111	053449	Winthrop NFH
04/11/1995	<u>192,400</u>	14.4	<u>46,675</u>	053450	Winthrop NFH
Totals	770,847		164,456		

Where Recovered	FWS	WDFW	Total	51 Observed Recoveries					Total
				2s	3s	4s	5s	6s	
Hatchery			86		1	19	8	16	20
Hatchery			133			15	16		31
Totals			219		1	34	16		51

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	219	100	0.0284
Total Survival	219		0.0284
Escapement to NFH	86	39	0.0112
Columbia River contribution	133	61	0.0173

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	133	86
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 93 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/16/2005  
 rd2  
 93WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1995	191,770	14.7	30,950	053447	Winthrop NFH
04/11/1995	193,436	16.2	44,720	053448	Winthrop NFH
04/11/1995	193,241	15.9	42,111	053449	Winthrop NFH
04/11/1995	<u>192,400</u>	14.4	<u>46,675</u>	053450	Winthrop NFH
Totals	770,847		164,456		

Where Recovered	Total	69 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery	FWS 136		1	27			28
Hatchery	WDFW <u>195</u>			<u>21</u>	<u>20</u>		<u>41</u>
Totals	<u>331</u>		<u>1</u>	48	20		69

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	331	100	0.0429
Total Survival	331		0.0429
Escapement to NFH	136	41	0.0176
Columbia River contribution	195	59	0.0253

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	195	136
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 94 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/19/2005  
 rd2  
 94WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/11/1996	2,039	11.5	2,039	051722	Winthrop NFH
04/11/1996	2,012	11.5	2,012	051723	Winthrop NFH
04/11/1996	2,018	11.5	2,018	051724	Winthrop NFH
04/11/1996	2,001	11.7	2,001	051725	Winthrop NFH
04/11/1996	100,263	13.1	98,758	053811	Winthrop NFH
04/11/1996	2,006	11.7	2,006	053845	Winthrop NFH
04/11/1996	<u>2,056</u>	11.7	<u>2,044</u>	053846	Winthrop NFH
Totals	112,395		110,878		

61 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Fish Trap (freshwater)	WDFW	0						0
Hatchery	FWS	1			1			1
Hatchery	WDFW	59			50	8		58
Spawning Ground	WDFW	<u>1</u>				<u>1</u>		<u>1</u>
Totals		61			51	9		60

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	61	100	0.0543
Total Survival	61		0.0543
Escapement to NFH	1	2	0.0009
Columbia River contribution	60	98	0.0534

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	60	1
0 CA		
0 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 95 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/20/2005  
 rd2  
 95WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/09/1997	2,618	13.1	2,598	636037	Winthrop NFH
04/09/1997	2,363	12.7	2,382	636038	Winthrop NFH
04/09/1997	2,037	13.0	1,997	636039	Winthrop NFH
04/09/1997	2,112	12.6	1,992	636040	Winthrop NFH
04/09/1997	1,894	12.9	1,890	636041	Winthrop NFH
04/09/1997	1,625	12.7	1,643	636042	Winthrop NFH
04/09/1997	1,871	12.6	1,677	636043	Winthrop NFH
Totals	14,520		14,179		

Where Recovered	Total	120 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Hatchery FWS	3				3		3
Hatchery WDFW	117		8	104	1		113
Ocean Troll (non-treaty) CDFO	2		2				2
Spawning Ground WDFW	3			3			3
Totals	125		10	107	4		121

	Total	% of total	% of release
Ocean contribution	2	2	0.0138
Escapement to Columbia River	123	98	0.8471
Total Survival	125		0.8609
Escapement to NFH	3	2	0.0207
Columbia River contribution	120	96	0.8264

Ocean	Contribution by Area	
0 AK		
2 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	120	3
0 CA		
2 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 96 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/20/2005  
 rd2  
 96WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1998	10,440	13.8	10,194	053048	Winthrop NFH
04/14/1998	53,656	13.3	51,231	053631	Winthrop NFH
04/14/1998	9,415	14.2	8,993	053709	Winthrop NFH
04/14/1998	7,893	11.7	7,472	053710	Winthrop NFH
04/14/1998	110,506	13.7	102,644	053856	Winthrop NFH
04/14/1998	110,290	13.9	106,197	054453	Winthrop NFH
04/14/1998	10,268	14.6	10,045	054611	Winthrop NFH
04/14/1998	<u>12,383</u>	15.8	<u>12,116</u>	054612	Winthrop NFH
Totals	324,851		308,892		

Where Recovered	Total	969 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	17				17		17
Columbia River Gillnet WDFW	4			4			4
Columbia River Sport ODFW	17				16		16
Freshwater Sport WDFW	6		2		4		6
Groundfish Observer (Gul NMFS)	0						0
Hatchery FWS	732		1	692	4		697
Hatchery NMFS	0						0
Hatchery WDFW	215		61	137	8		206
Ocean Troll (non-treaty) ADFG	3			3			3
Spawning Ground WDFW	139			131			131
Treaty Ceremonial ODFW	<u>23</u>			<u>22</u>	<u>1</u>		<u>23</u>
Totals	<u>1,156</u>		<u>64</u>	<u>989</u>	<u>50</u>		<u>1,103</u>

	Total	% of total	% of release
Ocean contribution	3	0	0.0009
Escapement to Columbia River	1,153	100	0.3549
Total Survival	1,156		0.3559
Escapement to NFH	732	63	0.2253
Columbia River contribution	421	36	0.1296

Ocean	Contribution by Area	
3 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	421	732
0 CA		
3 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1  
 Broodyear 97 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/20/2005  
 rd2  
 97WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/15/1999	59,975	13.8	57,352	054358	Winthrop NFH
04/15/1999	70,740	13.7	68,592	054359	Winthrop NFH
04/15/1999	236,020	13.1	231,176	054526	Winthrop NFH
04/15/1999	43,018	12.6	40,292	054906	Winthrop NFH
04/15/1999	38,059	13.0	36,088	054907	Winthrop NFH
04/15/1999	<u>97,250</u>	12.8	<u>94,073</u>	054948	Winthrop NFH
Totals	545,062		527,573		

Where Recovered	Total	657 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	507			235	257		492
Columbia River Gillnet WDFW	1		1				1
Columbia River Sport ODFW	378			343	24		367
Freshwater Net WDFW	1				1		1
Freshwater Sport ODFW	1				1		1
Freshwater Sport WDFW	2			2			2
Hatchery FWS	236		59	159	12		230
Hatchery WDFW	358		9	315	23		347
Ocean Troll (non-treaty) ODFW	3			3			3
Spawning Ground WDFW	40			36	4		40
Treaty Ceremonial ODFW	19			11	7		19
Totals	<u>1,546</u>		<u>70</u>	<u>1,104</u>	<u>329</u>		<u>1,503</u>

	Total	% of total	% of release
Ocean contribution	3	0	0.0006
Escapement to Columbia River	1,543	100	0.2831
Total Survival	1,546		0.2836
Escapement to NFH	236	15	0.0433
Columbia River contribution	1,307	85	0.2398

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
3 OR	1,307	236
0 CA		
3 Total		

Stock Assessment Reference Summary from CRIS and PSMFC TS1  
 Broodyear 98 Spring Chinook raised at Winthrop NFH  
 released in Methow River

12/20/2005  
 rd2  
 98WtSCS

Date	Number	#/lb	Tagged	CWT	AT
04/10/2000	44,571	14.0	43,034	053632	Winthrop NFH
04/10/2000	71,265	13.3	68,529	054406	Winthrop NFH
04/10/2000	14,904	13.5	14,472	054613	Winthrop NFH
04/10/2000	14,999	14.2	14,254	054614	Winthrop NFH
04/10/2000	14,813	14.2	14,462	054615	Winthrop NFH
04/10/2000	12,590	14.2	12,566	054616	Winthrop NFH
04/10/2000	15,176	12.0	14,364	054840	Winthrop NFH
04/10/2000	22,333	14.5	21,469	054841	Winthrop NFH
04/10/2000	47,444	13.8	45,554	054931	Winthrop NFH
04/10/2000	<u>119,601</u>	14.5	<u>115,928</u>	054949	Winthrop NFH
Totals	377,696		364,632		

Where Recovered	Total	928 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	297		4	239	46		289
Columbia River Sport	241		17	172	39	6	234
Freshwater Net	2			2			2
Freshwater Sport	2			1	1		2
Freshwater Sport	7			7			7
Hatchery	337		7	166	154		327
Hatchery	349		32	256	51		339
Ocean Troll (non-treaty)	5				5		5
Spawning Ground	182		1	26	150		177
Test Fishery Net	1			1			1
Treaty Ceremonial	17			17			17
Totals	<u>1,440</u>		<u>61</u>	<u>887</u>	<u>446</u>	<u>6</u>	<u>1,400</u>

	Total	% of total	% of release
Ocean contribution	5	0	0.0013
Escapement to Columbia River	1,435	100	0.3799
Total Survival	1,440		0.3813
Escapement to NFH	337	23	0.0892
Columbia River contribution	1,098	76	0.2907

Ocean	Contribution by Area	
0 AK		
5 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,098	337
0 CA		
5 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/18/2006  
 Broodyear 78 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 78WSSCS

Date	Number	#/lb	Tagged	CWT	AT
04/14/1980	168,000	19.0	163,792	050627	Warm Springs NFH
04/07/1980	10,890	19.0	10,256	050628	Warm Springs NFH
Totals	178,890		174,048		

Where Recovered	Total	555 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	6				6		6
Columbia River Sport	20			13	7		20
Fish Trap (freshwater)	1				1		1
Freshwater Net	1			1			1
Freshwater Sport	321		3	293	17		313
Hatchery	386		66	309			375
Ocean Troll (non-treaty)	8				8		8
Sport (charter)	3		3				3
Test Fishery Net	6			6			6
Treaty Ceremonial	4			1	3		4
Treaty Subsistence	36			33	2		35
Treaty Troll	2			2			2
Totals	794		72	658	44		774

	Total	% of total	% of release
Ocean contribution	13	2	0.0073
Escapement to Columbia River	781	98	0.4366
Total Survival	794		0.4438
Escapement to NFH	386	49	0.2158
Columbia River contribution	395	50	0.2208

Ocean	Contribution by Area	
0 AK		
8 BC		
5 WA	Columbia River	Escapement to NFH
0 OR	395	386
0 CA		
13 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 79 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 79WSSCS

Date	Number	#/lb	Tagged	CWT	AT
11/06/1980	26,852	9.0	26,852	050820	Warm Springs NFH
11/06/1980	27,816	9.0	27,816	050821	Warm Springs NFH
04/02/1981	66,700	8.0	66,033	050822	Warm Springs NFH
04/09/1981	170,167	16.7	165,402	050823	Warm Springs NFH
04/02/1981	32,300	8.0	30,426	050824	Warm Springs NFH
04/09/1981	88,970	25.0	80,554	050825	Warm Springs NFH
Totals	412,805		397,083		

70 Observed Recoveries

=== PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	8				8		8
Estuary Sport	WDFW	3			3			3
Freshwater Sport	ODFW	42		6	35			41
Hatchery	FWS	27		11		16		27
Mixed Net and Seine	WDFW	2				2		2
Ocean Troll (non-treaty)	CDFO	7			4	3		7
Ocean Troll - Trip Boat	WDFW	2			2			2
Spawning Ground	ODFW	0						0
Test Fishery Net	ODFW	3			1	2		3
Treaty Ceremonial	ODFW	6			6			6
Treaty Subsistence	ODFW	7			7			7
Totals		107		17	58	31		106

		% of total	% of release
Ocean contribution	11	10	0.0027
Escapement to Columbia River	96	90	0.0233
Total Survival	107		0.0259
Escapement to NFH	27	25	0.0065
Columbia River contribution	69	64	0.0167

Ocean Contribution by Area

0 AK		
7 BC		
4 WA	Columbia River	Escapement to NFH
0 OR	69	27
0 CA		
11 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/18/2006  
 Broodyear 87 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 87WSSCS

661,019 released with 514,633 tagged fish and 16 CWTs

Where Recovered	Total	550 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	4		4			4
Columbia River Sport	ODFW	34		25	5		30
Fish Trap (freshwater)	ODFW	1			1		1
Freshwater Sport	ODFW	225	20	164	12		196
Hatchery	FWS	511	21	374	34		429
Test Fishery Net	ODFW	2		2			2
Treaty Ceremonial	ODFW	26	2	11	12		25
Treaty Subsistence	ODFW	38	6	25	2		33
Totals		<u>841</u>	<u>49</u>	<u>605</u>	<u>66</u>		<u>720</u>

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	841	100	0.1272
Total Survival	841		0.1272
Escapement to NFH	511	61	0.0773
Columbia River contribution	330	39	0.0499

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	330	511
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/18/2006  
 Broodyear 88 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 88WSSCS

731,559 released with 558,042 tagged fish and 16 CWTs

Where Recovered	Total	814 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW	3			3		3
Columbia River Sport	ODFW	43		28	4		32
Fish Trap (freshwater)	ODFW	0					0
Freshwater Sport	ODFW	268	22	195	10		227
Freshwater Sport	WDFW	6		5			5
Hatchery	FWS	802	50	506	91		647
Test Fishery Net	ODFW	12		9			9
Treaty Ceremonial	ODFW	48		35	6		41
Treaty Subsistence	ODFW	61		36	3		47
Totals		<u>1,243</u>	<u>80</u>	<u>814</u>	<u>117</u>		<u>1,011</u>

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	1,243	100	0.1699
Total Survival	1,243		0.1699
Escapement to NFH	802	65	0.1096
Columbia River contribution	441	35	0.0603

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	441	802
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 89 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 89WSSCS

1,070,933 released with 948,684 tagged fish and 26 CWTs

Where Recovered	Total	158 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport	ODFW 63		6	49			55
Hatchery	FWS 130		3	105	12		120
Test Fishery Net	ODFW 2			2			2
Treaty Ceremonial	ODFW 4			4			4
Treaty Subsistence	ODFW 10			10			10
Totals	209		9	170	12		191

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	209	100	0.0195
Total Survival	209		0.0195
Escapement to NFH	130	62	0.0121
Columbia River contribution	79	38	0.0074

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	79	130
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1      01/19/2006  
 Broodyear 90 Spring Chinook      raised at Warm Springs NFH      rd2  
    released in Warm Springs River      90WSSCS

Date	Number	#/lb	Tagged	CWT	AT
11/04/1991	6,018	7.6	5,471	052514	Warm Springs NFH
04/22/1992	45,191	12.0	41,083	052514	Warm Springs NFH
11/04/1991	2,503	3.8	2,265	052515	Warm Springs NFH
04/22/1992	48,497	12.0	43,884	052515	Warm Springs NFH
04/22/1992	10,694	13.4	9,696	052516	Warm Springs NFH
04/22/1992	8,283	11.8	7,510	052516	Warm Springs NFH
04/22/1992	10,741	12.3	9,738	052516	Warm Springs NFH
04/22/1992	10,637	11.7	9,644	052516	Warm Springs NFH
04/22/1992	42,672	13.8	39,002	052517	Warm Springs NFH
04/22/1992	47,406	12.4	45,165	052518	Warm Springs NFH
04/22/1992	3,850	13.4	3,666	052519	Warm Springs NFH
04/22/1992	11,534	13.0	10,984	052519	Warm Springs NFH
04/22/1992	10,279	11.4	9,788	052519	Warm Springs NFH
04/22/1992	32,338	12.6	30,641	052520	Warm Springs NFH
04/22/1992	34,051	12.4	31,060	052521	Warm Springs NFH
04/22/1992	9,100	11.4	8,267	052522	Warm Springs NFH
04/22/1992	3,600	12.4	3,270	052522	Warm Springs NFH
04/22/1992	23,896	11.2	21,868	052523	Warm Springs NFH
04/22/1992	24,532	13.1	22,234	052524	Warm Springs NFH
04/22/1992	34,807	12.7	32,015	052525	Warm Springs NFH
04/22/1992	18,193	12.9	16,489	052526	Warm Springs NFH
04/22/1992	38,286	12.0	34,948	052527	Warm Springs NFH
04/22/1992	37,319	12.2	35,208	052528	Warm Springs NFH
04/22/1992	37,942	12.4	35,763	052529	Warm Springs NFH
04/22/1992	37,709	13.3	34,474	052530	Warm Springs NFH
04/22/1992	38,188	11.9	35,061	052531	Warm Springs NFH
04/22/1992	13,771	9.7	13,075	052712	Warm Springs NFH
04/22/1992	17,470	12.1	16,597	052713	Warm Springs NFH
Totals	659,507		608,866		

Where Recovered	Total	27 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Freshwater Sport	6		6				6
Hatchery	24		2	22			24
Totals	30		8	22			30

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	30	100	0.0045
Total Survival	30		0.0045
Escapement to NFH	24	80	0.0036
Columbia River contribution	6	20	0.0009

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	6	24
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 91 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 91WSSCS

557,014 released with 530,064 tagged fish and 19 CWTs

Where Recovered	FWS	Total	91 Observed Recoveries					Total
			=== PSC Expanded Recoveries ===					
			2s	3s	4s	5s	6s	
Hatchery	FWS	85		4	76	1		81
Treaty Ceremonial	ODFW	5			5			5
Treaty Subsistence	ODFW	4			4			4
Totals		94		4	85	1		90

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	94	100	0.0169
Total Survival	94		0.0169
Escapement to NFH	85	90	0.0153
Columbia River contribution	9	10	0.0016

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	9	85
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 92 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 92WSSCS

550,664 released with 493,565 tagged fish and 17 CWTs

Where Recovered	Total	777 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater) ODFW	1				1		1
Freshwater Sport ODFW	111			100			100
Hatchery FWS	729		121	519	19		659
Hatchery ODFW	2				2		2
Test Fishery Net ODFW	1		1				1
Treaty Ceremonial ODFW	5			5			5
Treaty Subsistence ODFW	15			13			13
Totals	864		122	637	22		781

		% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	864	100	0.1569
Total Survival	864		0.1569
Escapement to NFH	729	84	0.1324
Columbia River contribution	135	16	0.0245

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	135	729
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 raised at Warm Springs NFH released in Warm Springs River  
 Broodyear 93 Spring Chinook rd2 93WSSCS  
 01/19/2006

Date	Number	#/lb	Tagged	CWT	AT
11/16/1994	1,255	14.5	1,166	052942	Warm Springs NFH
03/31/1995	18,788	13.5	17,457	052942	Warm Springs NFH
11/16/1994	917	15.0	857	053230	Warm Springs NFH
03/31/1995	30,827	11.7	28,794	053230	Warm Springs NFH
11/16/1994	1,934	13.0	1,738	053436	Warm Springs NFH
03/31/1995	28,679	11.7	25,767	053436	Warm Springs NFH
11/16/1994	1,941	12.5	1,793	053437	Warm Springs NFH
03/31/1995	28,647	11.2	26,463	053437	Warm Springs NFH
03/31/1995	29,122	9.1	27,217	053438	Warm Springs NFH
03/31/1995	29,515	10.3	28,369	053439	Warm Springs NFH
03/31/1995	30,021	9.0	28,566	053440	Warm Springs NFH
03/31/1995	30,065	8.3	28,085	053441	Warm Springs NFH
11/16/1994	1,937	12.6	1,709	053442	Warm Springs NFH
03/31/1995	28,925	10.2	25,513	053442	Warm Springs NFH
11/16/1994	1,937	12.3	1,635	053443	Warm Springs NFH
03/31/1995	28,904	11.9	24,401	053443	Warm Springs NFH
11/16/1994	1,998	11.6	1,893	053444	Warm Springs NFH
03/31/1995	29,811	10.9	28,249	053444	Warm Springs NFH
11/16/1994	1,998	13.2	1,841	053445	Warm Springs NFH
03/31/1995	29,841	12.0	27,501	053445	Warm Springs NFH
11/16/1994	2,580	16.1	2,376	053446	Warm Springs NFH
03/31/1995	38,500	13.4	35,453	053446	Warm Springs NFH
Totals	398,142		366,843		

Where Recovered	Total	982 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Fish Trap (freshwater)	ODFW	31		29			29
Freshwater Sport	ODFW	26	25				25
Hatchery	FWS	891	71	727	19		817
Hatchery	ODFW	64		59			59
Hatchery	WDFW	0					0
Ocean Sport	CDFG	5	5				5
Test Fishery Net	ODFW	1		1			1
Treaty Ceremonial	ODFW	2		2			2
Treaty Subsistence	ODFW	1	1				1
Totals		1,021	102	818	19		939

	Total	% of total	% of release
Ocean contribution	5	0	0.0013
Escapement to Columbia River	1,016	100	0.2552
Total Survival	1,021		0.2564
Escapement to NFH	891	87	0.2238
Columbia River contribution	125	12	0.0314

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	125	891
5 CA		
5 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 94 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 94WSSCS

Date	Number	#/lb	Tagged	CWT	AT
11/22/1995	11,809	13.8	10,266	053862	Warm Springs NFH
04/10/1996	25,205	9.0	21,912	053862	Warm Springs NFH
11/22/1995	5,741	15.0	5,258	053863	Warm Springs NFH
04/10/1996	12,262	9.0	11,231	053863	Warm Springs NFH
11/22/1995	4,247	15.0	3,750	053901	Warm Springs NFH
04/10/1996	9,055	9.0	7,995	053901	Warm Springs NFH
04/10/1996	24,267	10.5	22,719	053905	Warm Springs NFH
04/10/1996	23,927	10.7	22,683	053906	Warm Springs NFH
04/10/1996	23,848	10.0	22,659	053907	Warm Springs NFH
04/10/1996	24,062	10.4	23,034	053908	Warm Springs NFH
04/10/1996	24,205	10.6	23,671	053909	Warm Springs NFH
04/10/1996	24,016	10.0	23,487	053910	Warm Springs NFH
11/22/1995	31,204	14.2	29,895	053911	Warm Springs NFH
04/10/1996	66,995	10.0	64,186	053911	Warm Springs NFH
04/10/1996	<u>110,043</u>	15.4	<u>98,599</u>	075456	Warm Springs NFH
Totals	420,886		391,345		

Where Recovered	Total	574 Observed Recoveries					Total
		2s	3s	4s	5s	6s	
Fish Trap (freshwater) ODFW	0						0
Hatchery FWS	560		44	441	40		525
Hatchery ODFW	2		1	1			2
Treaty Ceremonial ODFW	2			2			2
Treaty Subsistence ODFW	<u>11</u>		<u>1</u>	<u>10</u>			<u>11</u>
Totals	575		46	454	40		540

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	575	100	0.1366
Total Survival	575		0.1366
Escapement to NFH	560	97	0.1331
Columbia River contribution	15	3	0.0036

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	15	560
0 CA		
0 Total		



Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 95 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 95WSSCS

Date	Number	#/lb	Tagged	CWT	AT
11/13/1996	3,899	10.5	3,416	054141	Warm Springs NFH
04/16/1997	34,148	7.2	29,922	054141	Warm Springs NFH
04/16/1997	88,142	8.8	77,661	054142	Warm Springs NFH
04/16/1997	83,961	9.7	78,331	054143	Warm Springs NFH
11/13/1996	19,586	12.3	17,710	054144	Warm Springs NFH
04/16/1997	170,361	9.3	154,046	054144	Warm Springs NFH
11/13/1996	5,644	11.4	4,585	054145	Warm Springs NFH
04/16/1997	49,351	7.1	40,092	054145	Warm Springs NFH
11/13/1996	1,265	13.4	886	054146	Warm Springs NFH
04/16/1997	<u>11,070</u>	6.5	<u>7,749</u>	054146	Warm Springs NFH
Totals	467,427		414,398		

1,701 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	2			2			2
Estuary Sport	WDFW	1			1			1
Fish Trap (freshwater)	ODFW	0						0
Freshwater Sport	ODFW	6			3	3		6
Hatchery	FWS	1,864		98	1,515	10		1,623
Hatchery	ODFW	55			49	2		51
Ocean Troll (non-treaty)	CDFG	3			3			3
Treaty Ceremonial	ODFW	<u>15</u>			<u>12</u>	<u>2</u>		<u>14</u>
Totals		1,946		<u>98</u>	1,585	<u>17</u>		1,700

	Total	% of total	% of release
Ocean contribution	3	0	0.0006
Escapement to Columbia River	1,943	100	0.4157
Total Survival	1,946		0.4163
Escapement to NFH	1,864	96	0.3988
Columbia River contribution	79	4	0.0169

Ocean

Contribution by Area

0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	79	1,864
3 CA		
3 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 96 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 96WSSCS

790,422 released with 735,340 tagged fish and 15 CWTs

Where Recovered	Total	4,344 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet	ODFW 31			11	19		30
Columbia River Sport	ODFW 13			13			13
Fish Trap (freshwater)	ODFW 1			1			1
Freshwater Sport	ODFW 893			819	23		842
Freshwater Sport	WDFW 12			12			12
Hatchery	FWS 3,407		742	2,140	306		3,188
Hatchery	ODFW 166			155			155
Treaty Ceremonial	ODFW 120			110	5		115
Treaty Subsistence	ODFW 196			184			184
Totals	4,839		742	3,445	353		4,540

	Total	% of total	% of release
Ocean contribution	0	0	0.0000
Escapement to Columbia River	4,839	100	0.6122
Total Survival	4,839		0.6122
Escapement to NFH	3,407	70	0.4310
Columbia River contribution	1,432	30	0.1812

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
0 OR	1,432	3,407
0 CA		
0 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 97 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 97WSSCS

811,570 released with 746,570 tagged fish and 12 CWTs

Where Recovered	Total	2,342 Observed Recoveries					Total
		=== PSC Expanded Recoveries ===					
		2s	3s	4s	5s	6s	
Columbia River Gillnet ODFW	185			120	48		168
Columbia River Sport ODFW	568			504	18		522
Fish Trap (freshwater) ODFW	20			18	2		20
Freshwater Sport ODFW	837		44	712	11		767
Freshwater Sport WDFW	8			7			7
Hatchery FWS	4,000		49	3,496	117		3,662
Hatchery ODFW	16		3	13			16
Hatchery WDFW	0						0
Ocean Troll (non-treaty) ODFW	11			10			10
Treaty Ceremonial ODFW	16		1	14	1		16
Treaty Subsistence ODFW	37		3	30	2		35
<b>Totals</b>	<b>5,698</b>		<b>100</b>	<b>4,924</b>	<b>199</b>		<b>5,223</b>

		% of total	% of release
Ocean contribution	11	0	0.0014
Escapement to Columbia River	5,687	100	0.7007
Total Survival	5,698		0.7021
Escapement to NFH	4,000	70	0.4929
Columbia River contribution	1,687	30	0.2079

Ocean	Contribution by Area	
0 AK		
0 BC		
0 WA	Columbia River	Escapement to NFH
11 OR	1,687	4,000
0 CA		
11 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 98 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 98WSSCS

Date	Number	#/lb	Tagged	CWT	AT
11/17/1999	15,602	17.0	15,136	055115	Warm Springs NFH
04/19/2000	80,047	14.0	77,658	055115	Warm Springs NFH
11/17/1999	15,666	15.0	15,243	055116	Warm Springs NFH
04/19/2000	79,660	11.0	77,510	055116	Warm Springs NFH
04/19/2000	95,655	12.5	92,135	055117	Warm Springs NFH
04/19/2000	94,974	11.5	92,340	055118	Warm Springs NFH
11/17/1999	5,220	17.0	5,126	055119	Warm Springs NFH
04/19/2000	26,668	16.0	26,188	055119	Warm Springs NFH
11/17/1999	13,439	21.0	11,049	055121	Warm Springs NFH
04/19/2000	76,039	18.0	62,517	055121	Warm Springs NFH
11/17/1999	13,455	21.0	10,472	055122	Warm Springs NFH
04/19/2000	76,148	18.0	59,266	055122	Warm Springs NFH
11/17/1999	13,311	21.0	12,309	055123	Warm Springs NFH
04/19/2000	75,377	18.0	69,703	055123	Warm Springs NFH
11/17/1999	14,684	17.0	14,392	055124	Warm Springs NFH
04/19/2000	<u>74,474</u>	16.0	<u>72,994</u>	055124	Warm Springs NFH
Totals	770,419		714,038		

3,762 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	1,473		59	1,243	20		1,322
Columbia River Sport	ODFW	647		27	549	15		591
Fish Trap (freshwater)	ODFW	8			6			6
Freshwater Sport	ODFW	1,365		353	883	8		1,244
Hatchery	FWS	9,075		722	6,970	416		8,108
Hatchery	ODFW	2			2			2
Hatchery	WDFW	0						0
Ocean Troll (non-treaty)	ADFG	3			3			3
Ocean Troll (non-treaty)	ODFW	16		3	12			15
Test Fishery Net	ODFW	1			1			1
Treaty Ceremonial	ODFW	14			13	1		14
Treaty Subsistence	ODFW	63		3	51	2		56
Totals		<u>12,667</u>		<u>1,167</u>	<u>9,733</u>	<u>462</u>		<u>11362</u>

		% of total	% of release
Ocean contribution	19	0	0.0025
Escapement to Columbia River	12,648	100	1.6417
Total Survival	12,667		1.6442

Escapement to NFH	9,075	72	1.1779
Columbia River contribution	3,573	28	0.4638

Ocean	Contribution by Area	
3 AK		
0 BC		
0 WA		
16 OR	Columbia River	Escapement to NFH
0 CA	3,573	9,075
19 Total		

Stock Assessment Reference Summary from CRiS and PSMFC TS1 01/19/2006  
 Broodyear 99 Spring Chinook raised at Warm Springs NFH rd2  
 released in Warm Springs River 99WSSCS

Date	Number	#/lb	Tagged	CWT	AT
04/18/2001	98,090	19.0	95,910	054518	Warm Springs NFH
11/15/2000	6,000	22.0	5,851	054519	Warm Springs NFH
04/18/2001	92,128	19.0	89,833	054519	Warm Springs NFH
11/15/2000	22,495	22.0	21,392	054522	Warm Springs NFH
04/18/2001	206,514	19.0	196,387	054522	Warm Springs NFH
04/18/2001	196,330	19.0	193,214	054961	Warm Springs NFH
11/15/2000	2,000	22.0	1,935	055013	Warm Springs NFH
11/15/2000	12,426	22.0	12,020	055013	Warm Springs NFH
04/18/2001	<u>191,682</u>	19.0	<u>185,418</u>	055013	Warm Springs NFH
Totals	827,665		801,960		

2,681 Observed Recoveries  
 === PSC Expanded Recoveries ===

Where Recovered		Total	2s	3s	4s	5s	6s	Total
Columbia River Gillnet	ODFW	328		3	271	45		319
Columbia River Sport	ODFW	557		54	486			540
Commercial Seine	ADFG	0						0
Fish Trap (freshwater)	ODFW	2		1	1			2
Freshwater Sport	ODFW	310		69	231			300
Groundfish Observer (Ber	NMFS	4		4				4
Hatchery	FWS	7,025		499	6,231	82		6,812
Hatchery	ODFW	7			1	6		7
Hatchery	WDFW	0						0
Ocean Troll (non-treaty)	CDFO	1		1				1
Ocean Troll (non-treaty)	ODFW	2			2			2
Treaty Ceremonial	ODFW	4			4			4
Treaty Subsistence	ODFW	37			37			37
Totals		<u>8,277</u>		<u>631</u>	<u>7,264</u>	<u>133</u>		<u>8,028</u>

		% of total	% of release
Ocean contribution	7	0	0.0008
Escapement to Columbia River	8,270	100	0.9992
Total Survival	8,277		1.0000
Escapement to NFH	7,025	85	0.8488
Columbia River contribution	1,245	15	0.1504

Ocean	Contribution by Area	
0 AK		
1 BC		
0 WA	Columbia River	Escapement to NFH
2 OR	1,245	7,025
0 CA		
3 Total		