

IDAHO HABITAT/NATURAL PRODUCTION MONITORING  
PART I

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## ABSTRACT

A total of 281 stream sections were sampled in 1995 to monitor trends in spring and summer chinook salmon *Oncorhynchus tshawytscha* and steelhead trout *O. mykiss* parr populations in Idaho. Percent carrying capacity and density estimates were summarized for 1985-1995 by different classes of fish: wild A-run steelhead trout, wild B-run steelhead trout, natural A-run steelhead trout, natural B-run steelhead trout, wild spring and summer chinook salmon, and natural spring and summer chinook salmon. The 1995 data were also summarized by subbasins as defined in Idaho Department of Fish and Game's 1992-1996 Anadromous Fish Management Plan.

Snake River steelhead trout are currently being considered for listing as "threatened" under the Endangered Species Act. Chinook salmon were listed as "threatened" in 1992, and reclassified as "endangered" in 1994 on an emergency basis. Parr density monitoring indicated that Idaho steelhead trout and chinook salmon populations remained at critically low levels in 1995, with chinook salmon parr populations taking a dramatic plunge. Estimates of densities patterned those of percent carrying capacity for all classes of steelhead trout and chinook salmon. Percent carrying capacity and densities of natural and wild spring and summer chinook salmon dropped to the lowest levels on record in 1995. Out of the last five years (the length of the chinook life cycle) only one year class showed even moderate strength (1993 brood year or 1994 parr). Densities and percent carrying capacity for all classes of steelhead trout were at similar levels in 1995 compared to 1994, and were less than the 1985-1995 average.

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## INTRODUCTION

The Idaho Department of Fish and Game (IDFG) has been monitoring trends in juvenile spring and summer chinook salmon *Oncorhynchus tshawytscha* and steelhead trout *O. mykiss* populations in the Salmon, Clearwater, and lower Snake River drainages (Figure 1) for the past 12 years. The IDFG monitoring approach, developed in 1984-85 (Petrosky and Holubetz 1985, 1986), consists of three basic integrated levels: 1) parr density monitoring; 2) parr standing stock evaluations; and 3) estimation of survival rates between major freshwater life stages (egg, parr, smolt) of chinook salmon and steelhead trout. The latter two are referred to as "intensive studies." Annual general monitoring of anadromous fish densities is being used to follow population trends and define seeding levels over a broad geographic area, but generally with a small number of sections per stream. Intensive studies (Kiefer and Lockhart 1994) estimate spawning escapements, standing stocks of parr, and outmigrant yields for a limited number of streams. These estimates are used to index survival rates from egg-to-parr and parr-to-smolt.

Project 91-73, Idaho Natural Production Monitoring, consists of two subprojects; General Monitoring and Intensive Monitoring. This report updates and summarizes data through 1995 for the General Parr Monitoring (GPM) database to document status and trends of classes of wild and natural chinook salmon and steelhead trout populations (Objective 1, General Monitoring Subproject). Estimates of densities and percent carrying capacities were compared between wild and natural populations of both juvenile chinook salmon and juvenile steelhead trout. A stream prioritization plan developed in 1994, which prioritizes streams in each management unit to ensure continued sampling of "core" streams, was followed in 1995.

Snake River steelhead trout are being considered in 1996 for listing as "threatened" under the Endangered Species Act (ESA). Snake River spring/summer chinook salmon were listed as "threatened" in 1992, and reclassified as "endangered" in August 1994 on an emergency basis. The ESA listing for spring/summer chinook pertains to native salmon populations in the Salmon River, Idaho, and Snake River tributaries in Oregon, Washington, and Idaho; the reintroduced populations in the Clearwater River, Idaho, are not listed.

## METHODS

This project has been monitoring parr densities of juvenile chinook salmon and steelhead trout as well as densities of resident species in stream sections within the Salmon, Clearwater, and lower Snake River drainages in Idaho since 1984. Only data from 1985 on are presented in this report because of the small number of stream sections sampled in 1984 (the initial year of the project). The IDFG Fisheries Research Section and regional anadromous fisheries programs in the Clearwater, Salmon, and Southwest regions were responsible for collecting the majority of the 1995 data. Other cooperating agencies involved in the collection of parr density data for this project are the Shoshone-Bannock Tribes (SBT), the Nez Perce Tribe (NPT), and

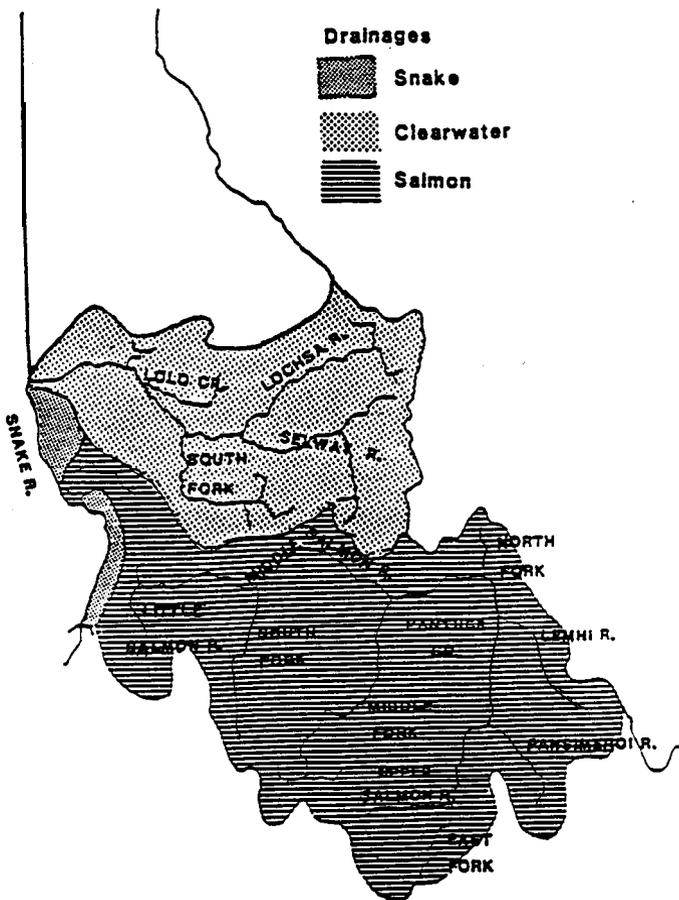


Figure 1. Idaho's present **anadromous** fish production waters showing major drainages of the Clearwater River, **Salmon** River, and Snake River **subbasins**.

the U.S. Fish and Wildlife Services' Fishery Resource Office (FRO) in Ahsahka, Idaho. The number of sections monitored annually since 1984 is shown in Table 1.

### Prioritization of Streams

To ensure the long-term integrity of monitoring trends in anadromous fish populations, a sampling scheme to prioritize streams for conducting snorkel surveys (Appendix B) was developed in 1994 (Leitzinger and Holubetz 1994). Priority one streams are top priority and must be surveyed every year. These represent the most important (core) streams that ensure all subbasins, as defined in the IDFG Anadromous Plan (IDFG 1992), will be sampled. Priority one streams do not require intensive sampling, but they do need to be stratified by channel type (B or C), and several representative sites (at least 3) per strata need to be identified and sampled every year. These sites should include several habitat types per site, with fish numbers and surface areas recorded separately for each habitat type.

Priority two streams are considered non-key streams which are sampled intensively. Sampling of priority two streams should occur annually (or as long as the project continues). These streams represent streams currently being sampled intensively by various research and management projects. Once the project ends, the streams will be evaluated to determine if they should be categorized as priority one, three, or four.

Priority three streams are non-key streams sampled with general parr monitoring sites only, and will be surveyed only as time allows (every other year or a minimum of every third year). These are important production streams but do not require annual sampling.

Nonessential streams are ranked a priority four. These are streams either not rated as chinook (and in some cases, steelhead) spawning and rearing streams or are not significant anadromous fish production streams. Priority four streams should be sampled as needed for regional or resident fish management or research needs.

A breakdown of key monitoring (or priority one) anadromous streams sampled annually by cooperating agencies, tribes, and regions are as follows:

IDFG Research	=	11
Clearwater Region	=	10
Southwest Region	=	5
Salmon Region	=	4
NPT	=	5
SBT	=	3
USFWS-FRO	=	1
Total Key Streams	=	39

Table 1. Number of sections where steelhead trout and chinook salmon parr were monitored in Idaho by BPA project 91-73, other research and management programs, as well as other agencies and tribes from 1984 through 1995.

Year	Number of steelhead trout sections	Number of chinook salmon sections*
1984	60	37
1985	184	139
1986	190	156
1987	225	178
1988	225	175
1989	268	216
1990	349	243
1991	315	241
1992	334	241
1993	401	377
1994	333	329
1995	281	272

\*Chinook salmon sections are a subset of the steelhead trout sections.

## Physical Habitat

General parr monitoring sections provide an annual index of anadromous fish abundance in various habitat types and drainages. Monitoring sections are approximately 100 m in length with boundaries occurring at defined breaks between habitat types. Sections generally include at least one pool-riffle sequence. Stream strata and sections were cross-referenced to the Environmental Protection Agency's (EPA) stream reach numbering system (NPPC and BPA 1989). Data from individual sections monitored in 1995 are listed in Appendix A-1.

Physical habitat variables were standardized and measured at least once since 1984 in each established density monitoring section. The physical habitat variables other than width and length were not measured every year in each section due to time constraints (parr densities in all anadromous streams in Idaho need to be sampled within a 2-month period from late June to late August) and because the physical habitat was relatively stable from year to year. The same physical variables were measured in the IDFG supplementation and intensive smolt monitoring projects. Parr density evaluation sites which were surveyed in 1995 are listed in Appendix A-2. IDFG has encouraged other agencies and tribes to incorporate this standardized variable list into their monitoring programs. GPM sites not surveyed in 1995 are listed in Appendix A-3. Several factors such as low flows, lack of personnel, and stream prioritization contributed to a higher number than usual of unsurveyed stream sections in 1994 and 1995.

The following physical habitat variables were measured in each monitoring section: habitat type (percent pool, riffle, run, pocketwater, and glide); substrate composition (percent surface sand, gravel, rubble, boulder, and bedrock); section length, average width, average depth, gradient, conductivity, and channel type (Rosgen 1985). The techniques to collect the physical habitat data are described in Petrosky and Holubetz (1988) and Scully et al. (1990).

Data collected during 1985-1995 were summarized by channel type. This variable simultaneously categorizes several morphological characteristics and was used as a primary classifier to investigate juvenile chinook salmon and steelhead trout rearing potential and for density trend comparisons. Scully and Petrosky (1991) demonstrated the effect of channel type on both steelhead trout and chinook salmon parr densities. A comparison of parr densities in B and C channels showed that chinook salmon densities were 3.5 times higher in C channels, while steelhead trout densities were 2 to 3 times higher in B channels. B channels are confined in valleys or canyons and have high enough gradient that most of the fine sediment is flushed out. A significant part of the substrate may be comprised of boulders larger than 30 cm in diameter. C channels, in contrast, meander through flat alluvial valleys and are characterized by deposition of fine materials and low water velocities. Substrate composition in C channels has a high percentage of small materials, sand, and gravel. In unstable, heavily managed watersheds, sand may be the predominant substrate type in C channels. In general, surveyed C channel sections had gradients less than 1.5%, while B channel sections had gradients greater than 1.5%.

## Parr Density Monitoring

General parr monitoring and intensive monitoring subprojects sampled a total of 281 sections in 1995 to index the annual abundance of chinook salmon and steelhead trout parr (Table 1). Chinook salmon parr are defined here as age 0<sup>+</sup>, with lengths less than 10 cm (4 in). Steelhead trout parr are age 1<sup>+</sup> and 2<sup>+</sup>, with respective lengths of 8-15 cm (3.0-5.9 in) and 15-23 cm (6.0-8.9 in). Steelhead trout length-at-age intervals are similar to those defined by Thurow (1985, 1987). These data were used to index trends in annual abundance and estimate rearing potential in different habitats.

Most anadromous fish production streams in Idaho are clear and have low conductivity. Snorkel counts by trained observers are preferred for efficiency in these streams over estimates obtained from electrofishing. Snorkel counts potentially underestimate parr abundance, especially at lower temperatures in late summer and fall (Hillman et al. 1993). Other comparisons of snorkeling and electrofishing methods did not indicate a negative bias (Petrosky and Holubetz 1987; Hankin and Reeves 1988). Density estimates in 1995 were obtained by snorkeling in all anadromous stream sections except those in the Lemhi River. The Lemhi River was electrofished due to its relative turbidity and high conductivity. This report summarizes 1995 parr density and percent carrying capacity (PCC) information. Data for years prior to 1995 were obtained from Rich et al. (1992 and 1993), Rich and Petrosky (1994), Leitzinger and Petrosky (in print), and Hall-Griswold et al. (in print). Snorkel methods for surveying fish are described in Petrosky and Holubetz (1986). Data sheets used for recording snorkel data appear in Appendices C-1 and C-2. Data for physical habitat are recorded on the form shown in Appendix C-3.

All monitoring sections were snorkeled with a team of divers working upstream. Crew size ranged from one for small streams to five or more for larger streams. The combined programs monitored sections in 72 streams (39 of which were priority streams), representing a variety of stocks, production types (i.e., wild or natural), and habitats. We compared parr densities among all major anadromous fish drainages in Idaho during 1985-1995, and summarized chinook salmon and steelhead trout parr densities by year and production type. Due to the preference by steelhead trout for B channels and chinook salmon for C channels, parr density comparisons among drainages incorporated only the preferred channel type for each species. We summarized A-run and B-run steelhead trout separately because of large differences in Columbia River harvest rates and escapements between the two runs (TAC 1991).

We also estimated parr density as a PCC derived from standardized smolt capacity ratings developed for subbasin planning by the System Planning Group for the Northwest Power Planning Council (NPPC 1986). The parr density database was merged with the NPPC's species presence/absence database using the common variable EPA reach number. The NPPC file rates each reach as being poor, fair, good, or excellent habitat for rearing chinook salmon or steelhead trout smolts. Respective NPPC smolt densities in number/100 m<sup>2</sup> are 10, 37, 64, and 90 for chinook salmon, and 3, 5, 7, and 10 for steelhead trout. The NPPC smolt density ratings

provide a consistent, though subjective assessment of habitat quality and smolt carrying capacity within Idaho subbasins. Based on parr densities from this project and a planning value of 50% parr-to-smolt survival or less (Kiefer and Lockhart 1994), the NPPC smolt densities appear to be good approximations for steelhead trout, but over estimate carrying capacity for chinook salmon in Idaho streams. NPPC steelhead trout smolt capacity in excellent habitat (10/100 m<sup>2</sup>) and 50% parr-to-smolt survival imply a parr density of 20/100 m<sup>2</sup>, the same as defined by Petrosky and Holubetz (1988) based on empirical data. NPPC chinook salmon smolt carrying capacity in excellent habitat (90/100 m<sup>2</sup>) and 50% parr-to-smolt survival imply a parr density of 180/100 m<sup>2</sup>, which is 67% higher than defined by Petrosky and Holubetz (1988) based on empirical data and fry stocking experiments.

We adjusted the NPPC smolt density ratings to parr carrying capacity assuming that excellent steelhead trout habitat would support 20 parr/100 m<sup>2</sup> and excellent chinook salmon habitat would support 108 parr/100 m<sup>2</sup> (Petrosky and Holubetz 1988). We also assumed the same relative density proportions between the NPPC habitat classes of poor, fair, good, and excellent. Thus, respective parr carrying capacity ratings for four habitat classes were 6, 10, 14, and 20/100 m<sup>2</sup> for steelhead trout and 12, 44, 77, and 108/100 m<sup>2</sup> for chinook salmon.

Excellent habitat for chinook salmon would be undisturbed C channel streams and good habitat would be undisturbed B channel streams with moderate gradients. High gradient undisturbed B channels would rate as fair or poor for chinook salmon (Petrosky and Holubetz 1988). For steelhead trout, excellent habitat would be in undisturbed B channels, and good habitat would be in undisturbed C channels. C channels in productive spring-fed streams could also be classified as excellent steelhead trout rearing habitat. Degraded streams received ratings of good, fair, or poor for both species depending on the degree of disturbance and channel type. Because the different habitat types and quality ratings are considered in the carrying capacity rating system, PCC data from both B and C channel sections are analyzed for both species, unlike the analysis for the parr density statistic.

### Parr Density Comparisons

Steelhead trout and chinook salmon cells were defined to be consistent with stocks or subbasins identified in IDFG's Anadromous Fish Management Plan (IDFG 1992) and the subbasin plans (IDFG et al. 1990; Nez Perce Tribe and IDFG 1990; Washington Department of Fisheries et al. 1990; Leitzinger and Petrosky, in print; and Hall-Griswold et al., in print). Densities and PCC for 1995 were summarized according to these cells.

We compared steelhead trout and chinook salmon parr densities and PCC among classes and years for 1985-1995. Steelhead trout classes were wild A-run, wild B-run, natural A-run, and natural B-run. Chinook salmon classes were wild and natural. In order to increase sample size, spring chinook and summer chinook were combined.

Wild (indigenous) steelhead trout populations in Idaho presently occur in the lower tributaries of the Clearwater (below the North Fork Clearwater River) and Selway rivers; in the majority of small Snake River tributaries; the entire Middle Fork and South Fork Salmon rivers; most small mainstem Salmon River tributaries downstream from the mouth of the Middle Fork Salmon; and in Rapid River, a tributary to the Little Salmon River (Figure 2). Areas not listed above were considered for this analysis to have natural (hatchery-influenced) populations. The classifications in this report will be revised as needed for consistency with the proposed ESA steelhead listing. In particular, Lochsa River steelhead may be classified as wild, rather than natural populations.

Wild spring chinook salmon in Idaho presently occur throughout the Middle Fork Salmon River drainage and several Salmon River tributaries below the Middle Fork Salmon River. Wild summer chinook salmon occur in the Secesh River, the Middle Fork Salmon River drainage, Rapid River, the upper mainstem Salmon River and tributaries including lower Valley Creek and the lower East Fork Salmon River (Figure 3). The remainder of Idaho's chinook salmon waters were classified here as natural populations. Due to the small sample size of summer chinook, we combined spring and summer chinook salmon and compared only wild and natural classes.

For steelhead trout, the statistic PCC used the density of age 1<sup>+</sup> and age 2<sup>+</sup> steelhead trout parr relative to maximum density that could occur in that section. The PCC may be the most appropriate statistic for comparing the relative status of steelhead trout populations because it incorporates an estimate of the carrying capacity, and is insensitive to assumptions about length at age. The PCC statistic also accounts for, in part, differences in channel type, gradient, stream size, and sediment level. Because the PCC for steelhead trout includes both age 1<sup>+</sup> and age 2<sup>+</sup> parr, it may mask annual differences resulting from variations in adult escapement between two brood years.

The best index of steelhead trout escapement is probably the age 1<sup>+</sup> parr density in B channels. In underseeded conditions, as occur in most of Idaho's anadromous fish waters, sufficient B channel habitat exists to support the age 1<sup>+</sup> steelhead trout parr. Fewer fish are forced into the less preferred C channel habitat as a result. Also, unlike the age 2<sup>+</sup> parr, none of the age 1<sup>+</sup> cohort would have smolted. However, refinement of the GPM length-at-age classification appears to be necessary to better represent yearling abundance across the range of production streams (see Future Direction and Recommendations)

For chinook salmon, both parr density and PCC are for a single age class (age 0<sup>+</sup>) and brood year. Thus, the best overall index may be PCC rather than density in C channels because PCC has a larger sample size, incorporating both B and C channel sections. At extremely low escapements, relatively fewer chinook salmon parr and a smaller PCC would be expected in the less preferred B channel habitat.

### Management

All biological data from 1985 through 1995 have been entered into dBASE III (version 1.5) files for easy access and arrangement for various analyses. The 1986 through 1995 data

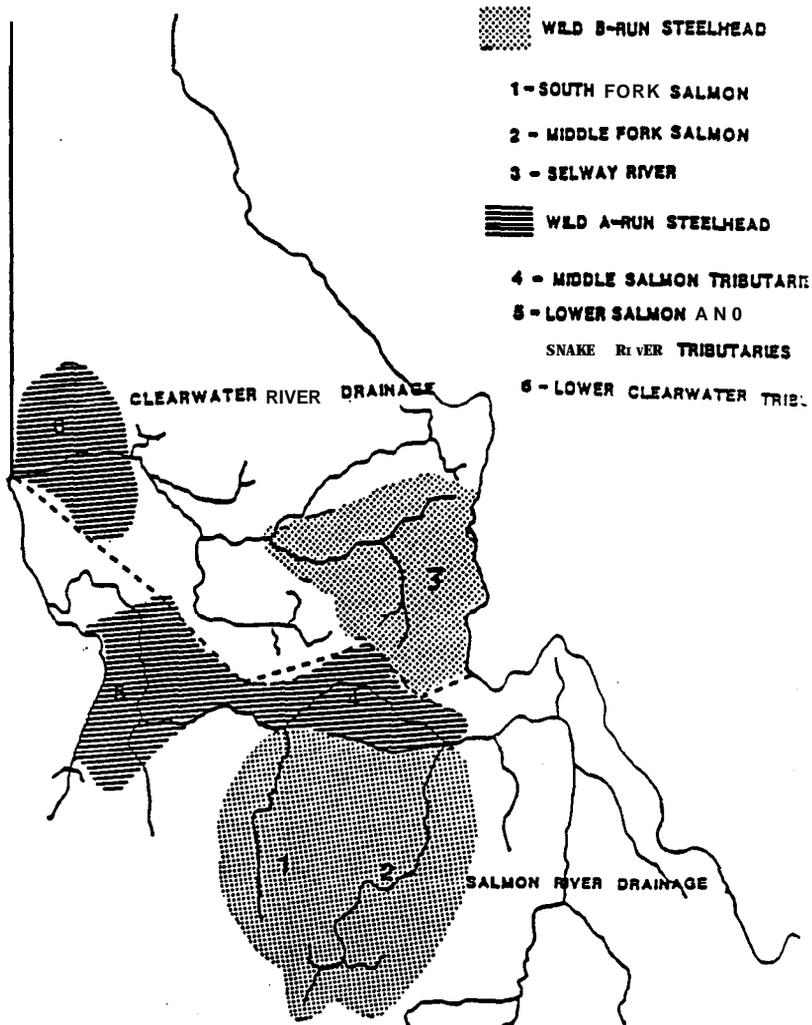


Figure 2. Present distribution of wild A-run and B-run steelhead trout production areas in Idaho.

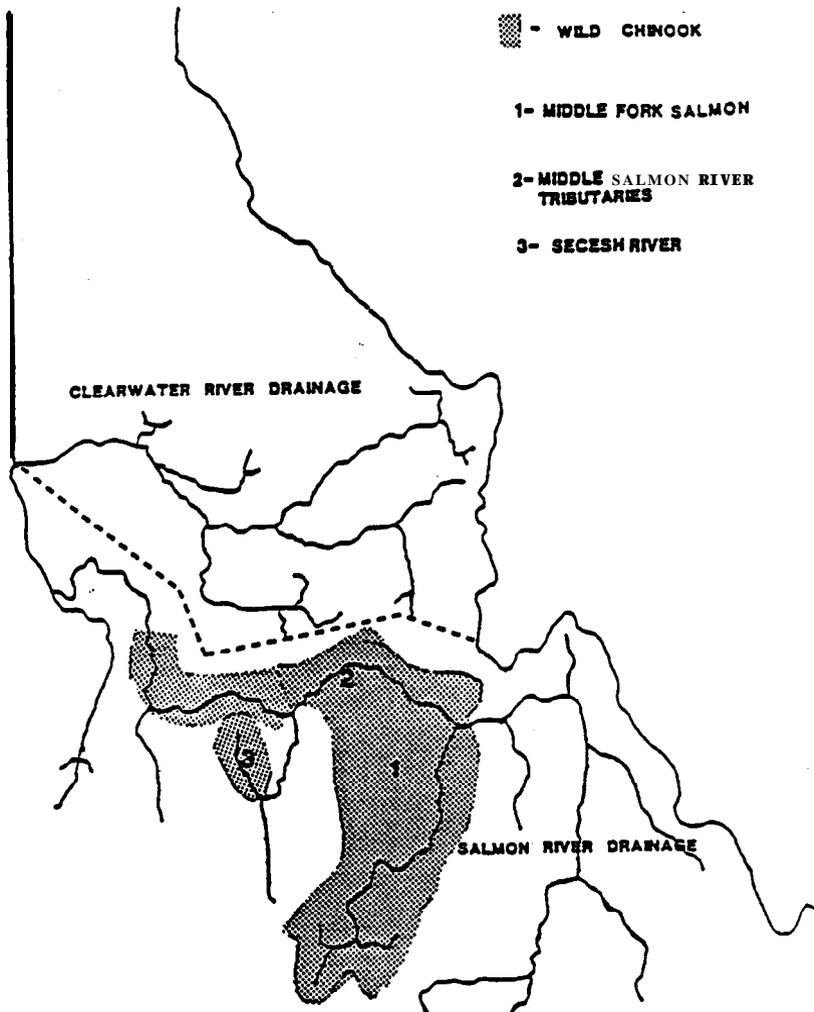


Figure 3. Present distribution of wild chinook salmon production areas in Idaho.

have been verified for accuracy. The 1985 data are the last to be verified. Once verified, these files are available for use by project implementors, tribes, and natural resource agencies upon request. The GPM database structure (version 1.1) is listed in Appendix D.

## RESULTS AND DISCUSSION

### Parr Density Monitoring

Numbers of streams and sections sampled in 1995 within each class and cell, and average PCC and densities are summarized in Tables 2 and 3. All general parr monitoring stream sections surveyed in 1995 are listed in Appendix A-1 along with channel type, chinook salmon and steelhead trout class, chinook salmon and steelhead trout density, and percent carrying capacity.

#### **Steelhead** Trout Parr

Steelhead trout populations have generally not met replacement since the mid-1980s, as evidenced by the aggregate declines in parr densities from the mid-1980s to 1995 (Figure 4, Table 4). Yearling parr counted in 1995 were from the 1994 brood year, which were primarily progeny of brood years 1988-1990 (assuming predominate smolt ages of 2<sup>+</sup> and 3<sup>+</sup>, and ocean ages of 1 and 2). Depending on run type, population, and geographic area, lags of four to six years may be most appropriate to determine whether replacement is being met from yearling parr density indices for specific drainages.

**Densities**-Table 4 and Figure 4 summarize the density of age 1<sup>+</sup> steelhead trout parr in B channels, by class and year (1985-95). Densities of age 1<sup>+</sup> steelhead trout parr in B channels are listed in Table 2 by class and cell (or subbasin). The lowest mean densities for age 1<sup>+</sup> steelhead trout parr in B channels in 1995 were for natural A-run steelhead in the Lemhi River (cell 12) and upper Salmon River (cell 10) at 0.06/100 m<sup>2</sup> and 0.09/100 m<sup>2</sup>, respectively (Table 2). The highest mean densities were for wild A-run steelhead trout in the lower Salmon River tributaries (cell 18) at 11.65/100 m<sup>2</sup>. The next to highest densities were also for wild A-run steelhead trout in Snake River tributaries (cell 16) at 6.43/100 m<sup>2</sup>. Overall, densities for all classes of age 1<sup>+</sup> wild A-run and natural B-run steelhead trout parr may have increased slightly over 1994 densities, while natural A-run and wild B-run may have decreased from 1994 levels (Table 4, Figure 4).

Table 2. Average percent carrying capacity (PCC) for ages 1+ and 2+ steelhead trout in all monitoring sections (B and C channels) and densities (number/100m<sup>2</sup>) of age 1+ steelhead trout parr in B channels, 1995.

Class Cell	Average PCC	# Sites	# Streams	Average age 1+ density in B channels	# Sites	# Streams
<b>Wild B-run</b>						
1. Selway R.	21.10	27	13	2.37	26	13
2. Middle Fk Salmon R.	3.02	28	8	0.87	10	7
3. South Fk Salmon R.	5.48	26	9	0.98	12	5
<b>Natural m</b>						
4. Lochsa R.	32.95	18	8	4.10	16	7
5. South Fk Clearwater R.	24.57	52	7	3.38	25	5
6. Mainstem Clearwater & Tribs (Lolo Cr.)	5.48	10	2	0.54	6	2
7. East Fork Salmon R. (Above weir)	2.54	4	1	0.40	3	1
<b>Natural m</b>						
8. Little Salmon R.	32.07	3	1	4.61	3	1
9. Lower Salmon R.	20.75	4	1	2.63	4	1
10. Upper Salmon R.	9.07	11	3	0.09	5	3
11. Pahsimeroi R.	No sites sampled	0	0	No sites sampled	0	0
12. Lemhi R.	39.60	4	2	0.06	2	1
13. Headwaters Salmon R.	1.73	72	11	0.37	32	9
14. Snake R. Tribs (Granite Cr.)	57.50	2	1	6.40	2	1
<b>Wild A-run</b>						
15. Salmon Canyon Tribs	25.09	6	3	2.08	4	3
16. Snake R. Tribs (Sheep Cr)	49.67	2	1	6.43	2	1
17. Mainstem Clearwater R. Tribs	34.60	3	2	3.28	3	2
18. Lower Salmon R. Tribs	61.80	2	2	11.65	2	2
19. Rapid R. (above weir)	37.93	7	2	5.03	7	2

Table 3. Average percent carrying capacity (PCC) for chinook parr in all monitoring sections (B and C channels) and densities (number/100m<sup>2</sup>) of chinook salmon parr in C channels, 1995.

Class Cdl	Average PCC	# Sites	# Streams	Average age 0+ density in C channels	# Sites	# Streams
<u>Wild Spring</u>						
1. Middle Fk Salmon R. (w/o Bear Valley/Elk Cr)	0.46	17	6	0.31	9	4
2. Salmon R Canyon & Tribes (Chamberlain Cr)	1.62	6	3	0.00	2	2
3. Bear Valley/Elk Cr.	0.07	7	1	0.06	6	1
4. Snake R. Tribes (Granite/Sheep Cr)	0.00	4	2	No C-channel		
19. Lower Salmon R.	0.32	6	3	No sites sampled		
<u>Wild m e r</u>						
5. Secesh R.	0.21	7	3	0.23	5	2
6. Middle Fk Salmon R	0.00	4	1	0.00	3	1
7. Upper Salmon R. (Middle Fk to Redfish Lk Cr and East Fk mouth to weir)	0.12	2	1	No sites sampled		
<u>Natural Spring</u>						
8. Little Salmon R.	0.08	3	1	No C-channel		
9. Lemhi R.	0.90	4	2	0.00	1	1
10. Upper Salmon R.	0.40	13	3	0.00	7	3
11. Headwaters Salmon R.	4.47	72	11	4.05	40	7
12. South Fk Clearwater R.	2.60*	52	8	0.41	27	6
13. Lochsa R.	0.08	18	8	0.00	2	1
14. Selway R.	0.44	27	13	4.05	1	1
15. Mainstem Clearwater R. & Tribes (Lolo Cr.)	0.08	13	4	0.00	4	2
<u>Natural Summer</u>						
16. Rapid R.	0.42	7	2	No C-channel		
17. South Fk Salmon R.	2.97	19	6	0.67	9	4
18. Pahsimeroi R.	No sites sampled –			No sites sampled		

\*Includes the ponds on Crooked River

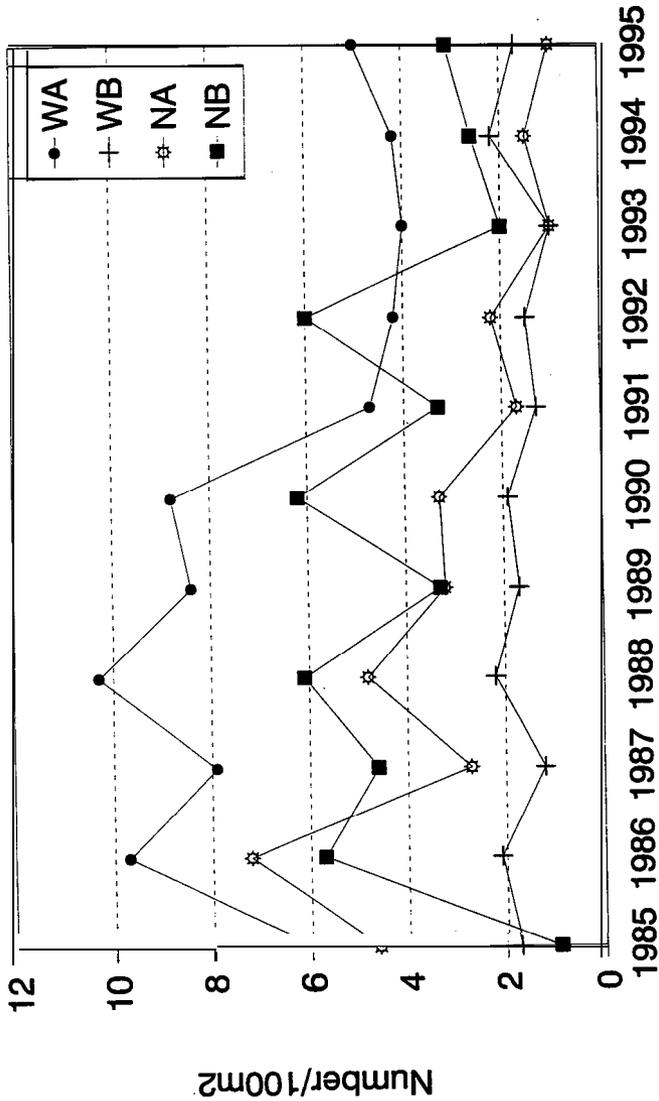


Figure 4. Mean annual density (number of age 1+ steelhead trout/100 m<sup>2</sup> in B channels) of four classes of steelhead trout parr in Idaho, 1985-1995.

Table 4. Mean percent of rated carrying capacity (PCC) of age 1+ and age 2+ steelhead trout parr in B and C channels, and density of age 1+ steelhead trout parr in B channels, by class and year, 1985-1995.

Year	PCC (by Class <sup>a</sup> )				B channel density (by Class)			
	WA	WB	NA	NB	WA	WB	NA	NB
1985	71	9	30	13	5.9	1.7	4.6	0.9
1986	85	14	38	51	9.7	2.1	7.2	5.7
1987	76	10	24	46	7.9	1.2	2.7	4.6
1988	81	15	26	43	10.3	2.2	4.8	6.1
1989	64	11	22	27	8.4	1.7	3.2	3.3
1990	67	16	20	36	8.8	1.9	3.3	6.2
1991	45	9	11	33	4.7	1.3	1.7	3.3
1992	37	9	14	43	4.2	1.5	2.2	6.0
1993	33	8	9	16	4.0	1.0	1.0	2.0
1994	37	13	13	21	4.2	2.2	1.5	2.6
1995	37	10	7	23	5.0	1.7	1.0	3.1
Mean	57.5	11.3	19.5	32.0	6.6	1.7	3.0	4.0
SD of Annual Means	20.0	2.8	9.7	12.9	2.4	0.4	1.9	1.8

<sup>a</sup>WA=wild A, WB=wild B, NA=natural A, NB=natural B

**Percent Carrying Capacity**-While PCC for age 1+ and 2+ wild A-run and natural B-run steelhead trout parr in B and C channels remained similar to 1994 estimates, the overall trend continues to show a decline in steelhead populations in Idaho since 1986 (Table 4, Figure 5). Mean PCC for all classes of steelhead in 1995 were lower than the 11-year average (Table 4). Wild A-run steelhead and natural B-run populations averaged 37% and 23% of carrying capacity, respectively, similar to 1994 estimates. Wild B-run and natural A-run steelhead declined from 1994 estimates, averaging 10% of carrying capacity for wild B-run and 7% for natural A-run steelhead trout parr.

### **Chinook Salmon Parr**

In 1995, wild and natural spring and summer chinook parr densities were down from those of the parent generations four and five years previous. The 1990 and 1991 wild spring and summer chinook densities averaged 4.9/100 m<sup>2</sup> and 3.4/100 m<sup>2</sup>, respectively, compared to 0.2/100 m<sup>2</sup> in 1995 (Table 5, Figure 6). The parent generation of 1995 natural spring and summer chinook parr (which averaged 1.2/100 m<sup>2</sup>) had parr densities of 6.3/100 m<sup>2</sup> in 1990 and 2.7/100 m<sup>2</sup> in 1991. This lagged comparison indicates that, in aggregate, wild and natural chinook parr populations did not meet replacement levels.

**Densities**-In 1995, densities of wild and natural classes of spring and summer chinook were 2% and 5%, respectively, of those in 1994 (Table 5, Figure 6). Wild spring and summer chinook salmon parr densities averaged 0.2/100 m<sup>2</sup>, the lowest on record. Natural spring and summer chinook salmon parr averaged 1.2/100 m<sup>2</sup> in 1995, also the lowest on record. Out of the last five years (the length of the chinook life cycle) only one year class of wild and natural spring and summer chinook showed even moderate strength (1993 brood year or 1994 parr). The parr density patterns generally mirror the spring and summer chinook salmon spawning escapements which are indexed by redd counts (Elms-Cockrum 1996).

Chinook salmon parr densities in C channels are summarized by cell and class in Table 4. No age 0+ chinook salmon parr were counted in C channels in 1995 in the following cells and classes: wild spring chinook salmon in the Salmon River Canyon tributaries (cell 2); wild summer chinook salmon parr in the Middle Fork Salmon River (cell 6); natural spring chinook salmon parr in the Lemhi River (cell 9), the upper Salmon River (cell 10), the Lochsa River (cell 13), and the mainstem Clearwater River and tributaries (cell 15); the number of sections surveyed in each of these cells was small however. The highest mean densities for age 0+ chinook salmon parr were for natural spring chinook salmon in the headwaters Salmon River (cell 11) and the Selway River (cell 14), both at 4.05/100 m<sup>2</sup>.

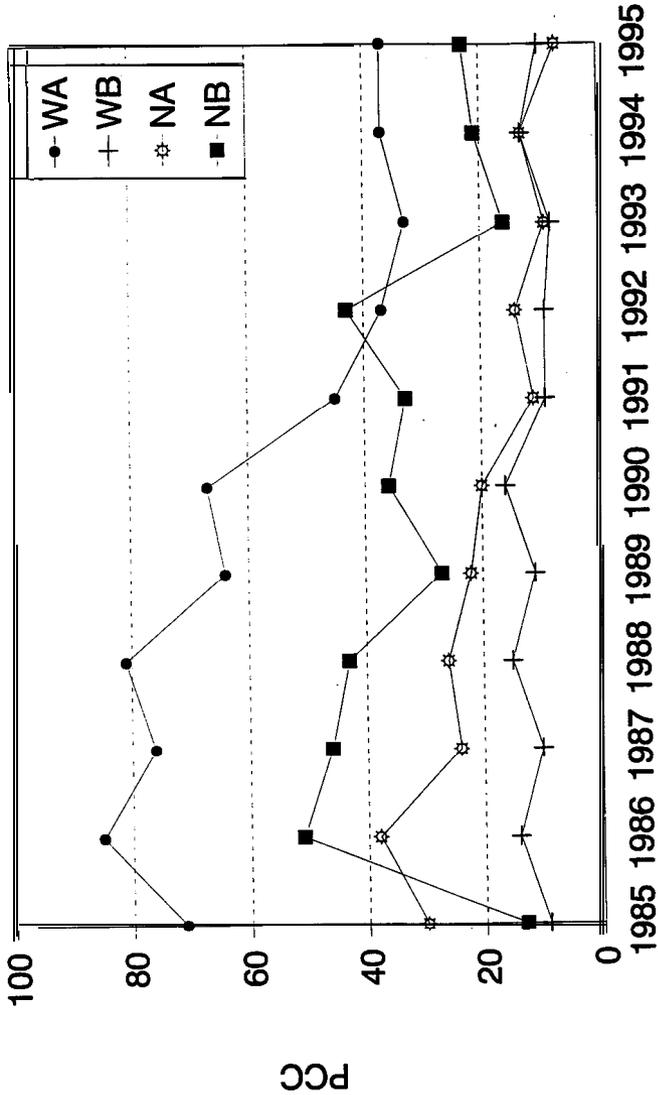


Figure 5. Mean annual percent of carrying capacity of four classes of steelhead trout parr (age 1+ and 2+ in B and C channels) in Idaho, 1985-1995.

Table 5. Mean percent of rated carrying capacity (PCC) of age 0<sup>+</sup> chinook salmon parr in B and C channels, and density of age 0<sup>+</sup> chinook salmon parr in C channels, by class and year, 1985-1995.

Year	PCC (by Class <sup>a</sup> )		C Channel Density (by Class)	
	WSp/WSu	NSp/NSu	WSp/WSu	NSp/NSu
1985	9	19	13.0	16.2
1986	12	18	15.4	18.7
1987	15	22	23.9	21.8
1988	11	17	16.7	18.5
1989	12	23	13.9	32.5
1990	5	6	4.9	6.3
1991	2	3	3.4	2.7
1992	6	4	6.6	5.0
1993	2	5	2.7	5.6
1994	11	28	11.0	24.1
1995	0.4	2	0.2	1.2
Mean	8.0	13.4	10.2	13.9
SD of Annual Means	4.9	9.5	7.2	10.3

<sup>a</sup>WSp=wild spring, Wsu=wild summer, Nsp=natural spring, Nsu=natural summer.

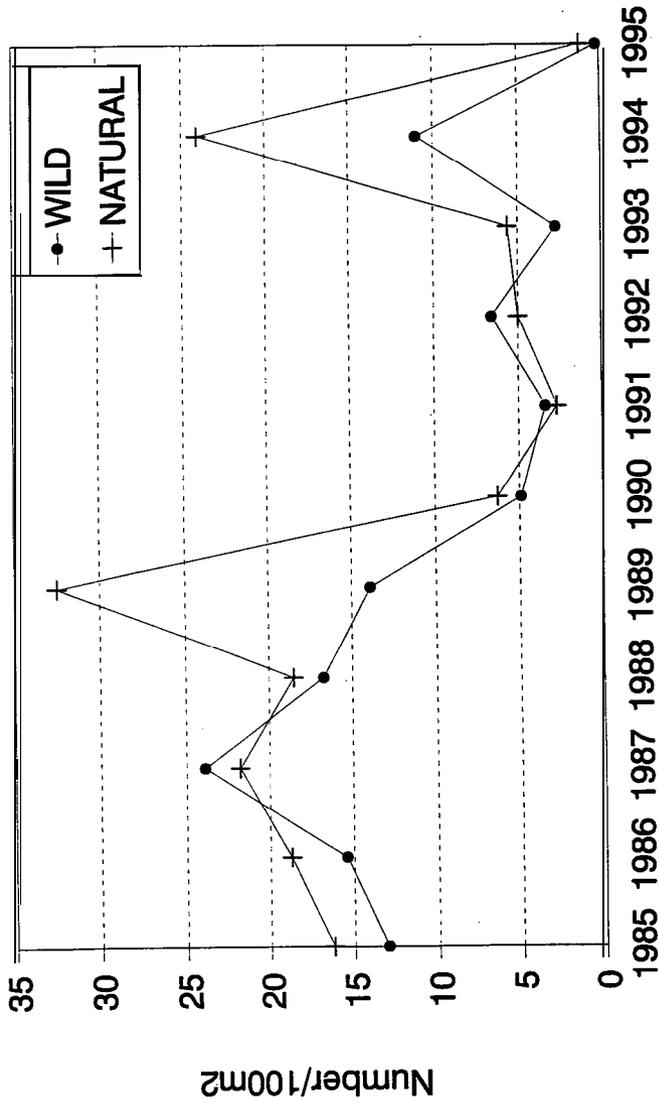


Figure 6. Mean annual density (number/100 m<sup>2</sup> in C channels) of two classes of chinook salmon parr (age 0+) in Idaho, 1985-1995.

**Percent Carrying Capacity**-PCC estimates in 1995 have paralleled the density estimates. The overall trends have been declining from 1985 to 1995 (Table 5, Figure 7), and PCC for both classes of chinook salmon parr in 1995 were the lowest on record (0.4% and 2.0% for wild and natural classes, respectively).

### Future Direction and Recommendations

The GPM database was initially developed based on project-specific data needs (i.e., evaluating habitat improvements), with overall monitoring being a secondary priority. Since these project-specific evaluations have been completed, for the most part, overall monitoring has become the top priority. An overall GPM sampling design was developed (Leitzinger and Holubetz 1994) for implementation in 1995 and future years (Appendix B). The plan was designed to provide coverage for stocks and geographic areas defined in the IDFG Anadromous Fish Management Plan (IDFG 1992). The sampling scheme prioritizes GPM streams based on stock, geographic area, habitat type, and channel type so that all subbasins are adequately sampled.

Steelhead trout have a complex life cycle which varies among geographic location, type, and habitat (Scott and Crossman, 1973). Length-at-age is difficult to generalize over broad geographic areas, such as streams throughout Idaho, because of this variation. When the GPM project began in 1984, a length-at-age classification was developed which defined ranges for age 0<sup>+</sup> steelhead at less than 74.0 mm, age 1<sup>+</sup> from 74.0 to 151.9 mm, and age 2<sup>+</sup> from 152.0 to 227.9 mm. This classification was based on steelhead length-at-age data from the Middle Fork and South Fork Salmon rivers (Petrosky and Holubetz, 1985). This length-at-age classification currently encompasses all classes of steelhead trout in the Snake, Salmon, and Clearwater River drainages in the existing GPM database.

There has been some concern among the GPM cooperators that the length-at-age breakdown for steelhead trout overestimates age 1<sup>+</sup> parr density and underestimates age 2<sup>+</sup> parr density. Therefore, length classes should be reviewed and revised as needed in the GPM database for different populations, geographic areas, and elevations to account for different growth rate patterns. Age misclassification could bias age 1<sup>+</sup> and age 2<sup>+</sup> steelhead density estimates, analyses of brood year strength, and life stage survival rate estimates. However, the steelhead trout PCC statistic would be relatively insensitive to age misclassification.

With 11 years of data from the GPM project, and other projects such as Idaho Supplementation Studies (ISS), Steelhead Supplementation Studies (SSS), and Intensive Smolt Monitoring (ISM), data have been collected which may help refine the length at age of steelhead trout for specific populations and geographic areas (Table 6). The elevation and thermal regime of a stream reach, for instance, may largely control the growth rate, with lower elevation streams producing larger parr and younger aged smolts (Chuck Huntington, personal communication). Also, because parr may continue to grow an estimated 9 mm per month

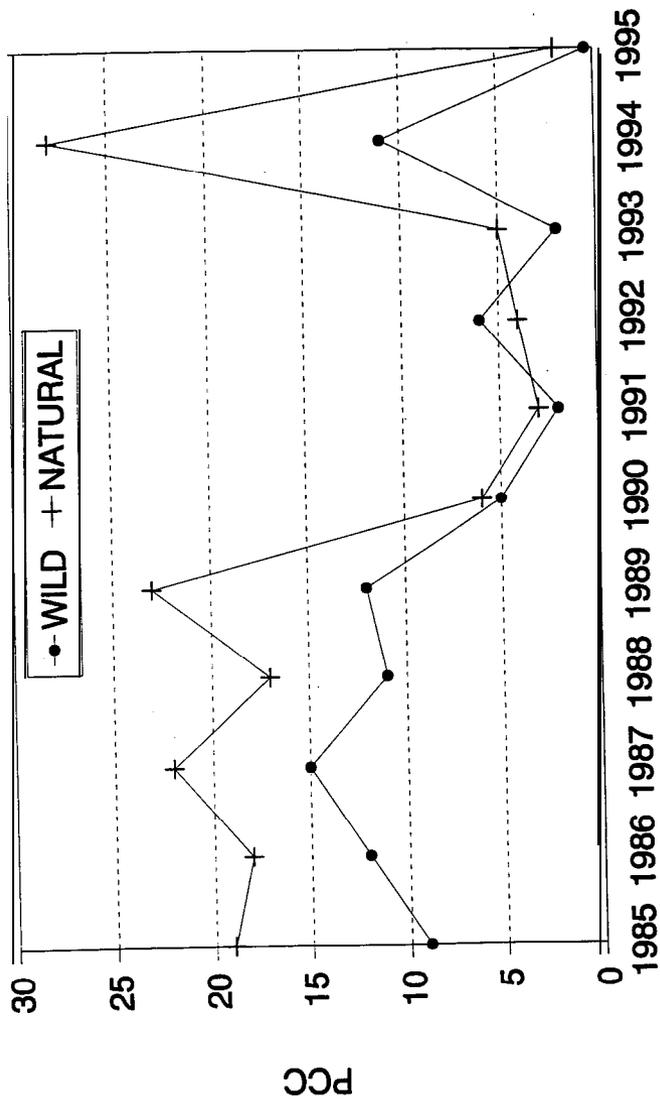


Figure 7. Mean annual percent of carrying capacity of two classes of chinook salmon parr (age 0+ in B and C channels) in Idaho, 1985-1995.

Table 6. Summary of length at age information for steelhead trout by drainage.

Drainage	Length at Age (mm)				Source
	0+	1+	2+	3+	
<b><u>GENERAL PARR MONITORING GUIDELINES</u></b>					
All Drainages	< 74	74-152	152-228	> 228	Petrosky & Holubetz (1985) IDFG
<b><u>CLEARWATER RIVER DRAINAGE</u></b>					
Lower Lochsa River	< 75	75-127	127-203	> 203	Chuck Huntington (pers.com.) Clearwater Biostudies
Lower Lochsa River		135-140	160-170		Alan Byrne (pers.com.) IDFG
<b><u>SALMON RIVER DRAINAGE</u></b>					
upper Salmon River		< 90	90-200	> 200	Russ Kiefer (pers.com.) IDFG
Middle Fork Salmon River	< 70	70-130	130-200	> 200	Thurrow (1985) IDFG
Middle Fork Salmon River	< 70	70-130	130-200	> 200	Everest (1969)
South Fork Salmon River	< 70	70-130	130-200	> 200	Thurrow (1987) IDFG
<b><u>SNAKE RIVER DRAINAGE</u></b>					
Lower Granite Dam			120-250	> 250	Unpublished, 1977 Idaho coop. Fishery Unit

(Everest 1969), the timing of a survey, combined with the existing classification, may bias estimates of the number of smolts (i.e., a steelhead trout parr observed in the upper Salmon River in July and falling in the age 1+ category may outmigrate that fall classified as age 2; Russ Kiefer, personal communication). Historical parr density data were entered by three-inch increments into the GPM database, but archived field data sheets contain records by one-inch increments (Appendices C1 and C2). The historical data could be re-entered into GPM database by one-inch increments to provide the flexibility needed to better represent steelhead trout age structure for specific drainages.

The future plans for the Idaho Natural Production Monitoring Program are to incorporate into the GPM database the data from the intensive studies now being conducted, namely Idaho Supplementation Studies (ISS), Steelhead Supplementation Studies (SSS), and Wild Steelhead Studies (WSS). Additional data from the U.S. Forest Service or other entities may be included if appropriate. This will greatly increase our sample size in most stream classes and cells, as well as our ability to more accurately assess population status of chinook salmon and steelhead trout parr in Idaho.

Table 7 summarizes the number of cells sampled in each anadromous fish class in Idaho, the number of streams sampled, and the number of GPM sites by channel type sampled in 1995. It also lists the number of streams being sampled intensively, and the number of those that do and do not already contain GPM sites.

By incorporating the intensive data from 1995 into the GPM database, we would add data from a total of 77 streams. There would be 57 new streams added that are not presently in the database, and additional sites in 20 streams. The number of sites sampled in each of these intensive streams is not summarized at this point, but it ranges from roughly 12 to 50 per stream.

Databases and programs to summarize the data are currently being developed for these intensive data independently from the existing GPM database. Work has begun to link the various databases so that the intensive data can be incorporated into the GPM data. In addition, these databases will be linked to StreamNet (formerly, Coordinated Information System) to facilitate information exchange.

The GPM data are also relevant to an identified need in PATH (Plan for Analyzing and Testing Hypotheses, Project 96-8) to compare densities of juvenile salmon, steelhead, and resident fish among streams from different land use classes to index population responses in good and poor habitat (Marmorek and Peters 1996). The PATH project was established under the NMFS 1995-1998 Biological Opinion on Federal Columbia River Power System Operations in 1995 to resolve controversy about competing hypotheses related to the relative effects of the "four H's" (hydropower, habitat, hatcheries, and harvest) and climate patterns to the decline of Snake River salmon, and to assist upcoming recovery decisions.

Table 7. Breakdown of 1995 GPM sampling by classes of anadromous fish and channel type.

Class	Steelhead					Chinook				
	WA	WB	NA	NB	Total	Wsd	Wsu	Nsp	Nsu	Total
Number cells	5	3	7	3	18	6	2	8	2	18
Number streams	10	31	19	18	78	16	4	50	8	78
Number Sites										
B-Channel	18	48	51	47	164	24	4	119	17	164
C-Channel	2	33	49	33	117	20	5	83	9	117
Total <sup>a</sup>	20	81	100	80	281	44	9	202	26	281
Number of streams currently being sampled intensively										
w/GPM sites	5	10	5	0	20	7	2	8	5	22
w/o GPM sites	5	20	13	19	57	9	2	40	3	54
Total <sup>b</sup>	10	30	18	19	77	16	4	48	8	76

<sup>a</sup> There were 2 streams with 3 sites sampled that were not rated as steelhead spawning and rearing streams.

<sup>b</sup> There were 6 streams with 9 sites sampled that were not rated as chinook salmon spawning and rearing streams.

The GPM database, containing eleven years of chinook salmon, steelhead trout, and resident salmonid densities, will be summarized and analyzed by three land use classes used in PATH: 1) little or no impact (i.e., wilderness, roadless); 2) moderate impact; and 3) heavy impact. For the PATH analysis, the GPM database will be related to the spatial scales used in the Eastside Assessment and Upper Columbia Basin Environmental Impact Statement of the U.S. Forest Service and Bureau of Land Management, with densities analyzed within the three classes. Huntington (1995) previously used a similar approach to compare resident and anadromous fish densities in the Clearwater National Forest streams between "managed" and "unmanaged" land use classes. The PATH analysis may also incorporate specific habitat variables from GPM (e.g. channel type, percent sand, gradient, stream size, etc.) and the Eastside Assessment and upper Columbia Basin projects (Overton et al. 1995).

The PATH project to date has relied extensively on historic spawner-recruit information in the spring/summer chinook analyses and hypothesis testing (Beamesderfer et al. 1996; Deriso et al. 1996; Schaller et al. 1996). There is a paucity of this type of historic information for Snake River steelhead trout populations due to the species' complex life cycle, spawn timing and difficulty of monitoring redds, the logistics and cost of weir operations, and funding processes which have prioritized chinook salmon research. Therefore the GPM database, combined with more intensive studies, may be particularly important for future analysis of status and evaluation of recovery strategies for Snake River steelhead trout.

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**Appendix A-1.**

**General Parr Monitoring Snorkel Survey Sections  
for project 91-73.**

Appendix A-I. Monitoring section names, channel types (B or C), steelhead trout classification (wild or natural, A or B run), chinook salmon classification (wild or natural, spring or summer), densities and percent carrying capacities for all sites sampled in 1995.

Stream Name	strata	Section	Drainage	SALMON RIVER DRAINAGE				Steelhead Carrying Capacity	Chinook Class W vs N	Chinook Age 0+ Density Spr vs Sum	Chinook no/100msq	Chinook Percent Carrying Capacity Class	Priority
				Channel Type	Steelhead Class W vs N A vs B	Steelhead Age 1+ Density no/100msq	Steelhead Age 2+ Density no/100msq						
<b>Snake River, above mouth Salmon River</b>													
GRANITE CR	LOWER	1	101	B	NA	4.64	3.02	43.30	WSPR	0.00	0.00	3	
GRANITE CR	UPPER	3	101	B	NA	7.97	6.37	71.70	WSPR	0.00	0.00	3	
SHEEP CR		1	101	B	WA	7.69	4.23	59.50	WSPR	0.00	0.00	1	
SHEEP CR		2	101	B	WA	5.17	2.78	39.75	WSPR	0.00	0.00	1	
<b>Lower Salmon River</b>													
SLATE CR		2	209	B	NAB	2.47	1.35	IS.10	WSPR	0.11	0.25	2	
SLATE CR		3	209	B	NAB	3.60	1.40	25.00	WSPR	0.00	0.00	2	
SLATE CR		4	209	B	NAB	2.15	1.79	19.70	WSPR	0.72	1.64	2	
SLATE CR		6	209	B	NAB	2.30	1.54	19.20	WSPR	0.00	0.00	2	
WHITEBIRD CR	MAINSTEM	1	209	B	WA	9.54	1.05	52.95	WSPR	0.00	0.00	1	
WHITEBIRD CR, S FK	SF. #2	3	209	B	WA	13.76	0.37	70.55	WSPR	0.00	0.00	1	
<b>Little Salmon River</b>													
LITTLE SALMON R		1	210	B	NAB	6.92	1.25	46.65	NSPR	0.00	0.00	3	
LITTLE SALMON R		1.5	210	B	NAB	4.62	2.07	33.45	NSPR	0.00	0.00	3	
LITTLE SALMON R		2	210	B	NAB	2.46	1.92	21.60	NSPR	0.11	0.25	3	
RAPID R	ABVWFK	CASTLE CR	210	B	WA	3.04	2.39	27.15	NSUM	0.00	0.00	1	
RAPID R	ABV W FK	COPPER CR	210	B	WA	4.15	1.80	29.75	NSUM	0.63	1.69	1	
RAPID R	ABVWFK	WYANT	210	B	WA	3.76	3.48	36.20	NSUM	0.00	0.00	1	
RAPID R	BLW W FK	6	210	B	WA	5.56	1.76	38.20	NSUM	0.00	0.00	1	
RAPID R	BLW W FK	7 LWR BRDG	210	B	WA	7.75	2.71	52.x	NSUM	0.00	0.00	1	
RAPID R	BLW W FK	RAP2	210	B	WA	4.91	2.76	38.35	NSUM	0.46	1.05	1	
RAPID R, W FK	BLW FALLS	RAP1	210	B	WA	5.69	3.02	43.55	NSUM	0.00	0.00	1	
<b>Salmon River Canyon</b>													
BARGAMIN CR	LOWER	207		B	WA	1.53	1.41	14.70	WSPR	0.00	0.00	3	
BARGAMIN CR	UPPER	207		B	WA	3.15	1.66	25.05	WSPR	0.00	0.00	3	
CHAMBERWN CR	CHA1	207		B	WA	1.36	0.62	10.W	WSPR	4.28	9.73	1	
CHAMBERLAIN CR	CHA4	207		C	WA	1.17	0.66	13.21	WSPR	0.00	0.00	1	
CHAMBERWN CR, W FK	CHA2	207		C	WA							1	
CHAMBERWN CR, W FK	CHA3	207		B	WA	8.86	0.01	82.79	WBPR	0.00	0.00	1	

Lemhi River

BIG SPRINGS CR	LEM1	A	204	C	NA	22.76	4.25	135.15	NSPR	0.00	0.00	1
LEMHI R	1	2B	204	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
LEMHI R	1	LEM3A	204	B	NA	0.12	1.76	9.40	NSPR	0.24	0.22	1
LEMHI R	1	PWRHSL58A	204	C	NA	0.29	2.46	13.65	NSPR	3.64	3.37	1

**Headwaters Salmon River**

ALTURAS LK CR	1	1A	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALTURAB LKCR	1	1B	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALTURAB LK CR	1	1C	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALTURAS LK CR	2	2A	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALNRAS LKCR	2	2B	201	C	NA	0.00	0.00	0.00	NSPR	0.14	0.13	1
ALNRAS LK CR	2	2c	201	c	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALNRAS LKCR	3	3A	201	C	NA	0.00	0.00	0.00	NSPR	0.34	0.31	1
ALTURAB LK CR	3	3B	201	C	NA	0.03	0.16	2.70	NSPR	0.62	0.57	1
ALNRAS LK CR	3	3C	201	C	NA	0.00	0.00	0.00	NSPR	0.70	0.65	1
ALNRAS LK CR	4	4A(2A)	201	B	NA	0.11		1.10	NSPR	0.00	0.00	1
ALNRAS LK CR	4	4B(2B)	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALNRAS LK CR	4	5A(3A)	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
ALNRAS LKCR	5	5B(3B)	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
FOURTH OF JULY CR	1	A	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
FOURTH OF JULY CR	1	B	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
FRENCHMAN CR	1	1A	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	2
FRENCHMAN CR	1	1B	201	B	NA	3.12	0.52	26.W	NSPR	0.52	0.88	2
FRENCHMAN CR	2	2A	201	B	NA	1.71	0.00	12.21	NSPR	64.46	63.74	2
FRENCHMAN CR	2	2B	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	2
GOLDCR	1	1A	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
GOLD CR	1	1B	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
HUCKLEBERRY CR	1	1A	201	B	NA	0.00	0.00	0.00	NSPR	0.95	1.23	3
HUCKLEBERRY CR	1	1B	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
HUCKLEBERRY CR	2	2A	201	c	NA	0.00	0.00	0.00	NSPR	0.23	0.30	3
HUCKLEBERRY CR	2	2B	201	C	NA	0.00	0.26	4.33	NSPR	0.00	0.00	3
PETTIT LKCR	1	1A	201	C	NA	0.00	0.00	0.00	NSPR	3.47	4.51	3
PETTIT LK CR	1	1B	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
POLE CR	1	1A	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
POLE CR	1	1AB	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
POLE CR	1	1B	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
POLE CR	2	2A	201	C	NA	0.60	0.60	12.00	NSPR	0.00	0.00	3
POLE CR	2	2AB	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
SALMON R	10	A	201	B	NA	0.00	0.21	0.00	NSPR	0.00	0.00	1
SALMON R	10	AB	201	B	NA	0.00	0.18	0.00	NSPR	5.17	0.00	1
SALMON R	10	B	201	C	NA	0.00	0.00	0.00	NSPR	9.09	11.61	1
SALMON R	3	3BRB	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	3	3SCA	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	3	3SCB	201	C	NA	0.00	0.26	2.00	NSPR	21.46	46.62	1
SALMON R	3	A	201	B	NA	0.04	0.00	0.29	NSPR	0.00	0.00	1
SALMON R	3	B	201	B	NA	0.00	0.03	0.21	NSPR	0.00	0.00	1
SALMON R	3	BRA	201	C	NA	0.05	0.08	0.93	NSPR	2.63	5.95	1
SALMON R	4	4BRA	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	4	4BRB	201	B	NA	0.00	0.08	0.43	NSPR	1.05	1.36	1
SALMON R	4	4SCA	201	C	NA	0.00	0.00	0.00	NSPR	0.70	0.91	1
SALMON R	4	4SCB	201	C	NA	0.00	0.00	0.00	NSPR	1.54	2.00	1
SALMON R	4	A	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	4	B	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1

SALMON R	5	A	201	B	NA	0.00	0.00	0.00	NSPR	0.07	0.09	1
SALMON R	5	B	201	B	NA	0.00	0.00	0.00	NSPR	0.14	0.16	1
SALMON R	6	6-SA	201	B	NA	0.00	0.00	0.00	NSPR	0.00		1
SALMON R	6	6-SB	201	B	NA	0.00	0.00	0.00	NSPR	0.35	0.45	1
SALMON R	6	A	201	C	NA	0.00	0.00	0.00	NBPR	0.00	0.00	1
SALMON R	6	B	201	B	NA	0.00	0.00	0.00	NBPR	0.00	0.00	1
SALMON R	7	7-SA	201	C	NA	0.00	0.00	0.00	NSPR	7.12	9.25	1
SALMON R	7	7-SB	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	7	A	201	C	NA	0.00	0.00	0.00	NBPR	0.00	0.00	1
SALMON R	7	B	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	8	8-SA	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	8	8-SB	201	C	NA	0.00	0.00	0.00	NSPR	0.41	0.53	1
SALMON R	8	A	201	C	NA	0.00	0.00	0.00	NSPR	0.00		1
SALMON R	8	B	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	1
SALMON R	9	A	201	C	NA	0.37	0.37	5.29	NSPR	0.74	0.96	1
SALMON R	9	B	201	B	NA	2.23	0.00	15.93	NSPR	0.00	0.00	
SALMON R, E FK	ABOVE-WEIR	2	201	C	NAB	0.07	0.00	0.35	NSPR	0.00	0.00	
SALMON R, E FK	ABOVE-WEIR	3	201	B	NAB	0.29	0.16	2.35	NSPR	0.00	0.00	
SALMON R, E FK	BLW WEIR	FOX CR	201	B	NAB	0.36	0.05	2.15	NSPR	4.26	3.64	1
SALMON R, E FK	BLW WEIR	ZIEGLER HL	201	B	NAB	0.53	0.21	5.29	NSPR	0.95	1.23	1
SMILEY CR	1A	1A	201	B	NA	4.00	0.00	40.4W	NBPR	0.22	0.29	3
SMILEY CR	1A	1AA	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
SMILEY CR	1B	1B/S1	201	B	NA	0.12	0.00	1.20	NSPR	0.00	0.00	3
SMILEY CR	1B	1B/S2	201	B	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
SMILEY CR	2	2464	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
SMILEY CR	2	2B	201	C	NA	0.00	0.00	0.00	NSPR	0.00	0.00	3
WILLIAMS CR	1	1A	201	C	NA	0.00	0.00	0.00	NBPR	18.00	23.36	3
WILLIAMS CR	1	1B	201	C	NA	0.00	0.00	0.00	NSPR	94.60	123.12	3
YELLOWBELLY CR	1	1A	201	B	NA	0.00	0.00	0.00	NBPR	0.44	0.57	3

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## South Fork Salmon River

BUCKHORN CR	LOWER	NR MOUTH	208	B	WB	1.32	0.00	9.43	NSUM	0.00	0.00	
JOHNSON CR	UPPER t	M1	208	C	WB	0.96	0.37	13.M	NBUM	0.00	0.00	
JOHNSON CR	UPPER I	M2	208	c	WB	0.16	0.00	1.80	NSUM	0.00	0.00	
JOHNSON CR	UPPER t	M3	208	C	WB	0.00	0.06	3.50	NSUM	0.00	0.00	
JOHNSON CR	UPPER I	M3 SIDE	208	C	WB	0.00	0.00	0.00	NSUM	0.00	0.00	
JOHNSON CR	UPPER I	PW1A	208	B	WB	0.00	0.00	0.00	NSUM	0.00	0.00	
LAKECR		BURGDORF	208	C	WB	0.00	0.00	0.00	WSUM	0.00	0.00	1
LAKE CR		WILLOW CR	208	C	WB	0.00	0.35	2.50	WSUM	0.00	0.00	
LICK CR	LOWER	L1	208	B	WB	4.30	0.75	35.07	WSUM	0.00	0.00	
LICK CR	LOWER	L3	208	B	WB	0.70	0.11	5.79	WSUM	0.00	0.00	
RDCKCR	UPPER I	M I	208	C	WB	0.26	0.00	2.60	NBUM	0.00	0.00	
SALMON R, S FK	2	STOLLE 1	206	C	WB	0.00	0.00	0.00	NSUM	0.06	0.14	
SALMON R, S FK	2	STDLLE 2	208	C	WB	0.00	0.00	0.00	NSUM	0.00	0.00	
SALMON R, S FK	3	5	208	B	WB	0.00	0.00	0.00	NSUM	9.11	20.70	
SALMON R, B FK	ABV 4 MILE	11	208	B	WB	0.51	0.25	5.43	NSUM	6.62	15.05	
SALMON R, S FK	AT GAUGE	POVERTY	208	c	WB	0.00	0.02	0.14	NSUM	5.95	13.52	
SALMON R, S FK	BLW DIME	7	208	B	WB	1.17	1.02	15.64	NSUM	0.59	0.77	
SALMON R, S FK	BLW FITSUM	16	208	B	WB	0.66	0.54	10.14	NSUM	1.33	3.02	1
SALMON R, S FK	TEEPREE	14	206	B	WB	0.21	0.11	2.29	NBUM	1.25	2.64	1
SALMON R, S FK, E FK	ABV JHNSN	3	208	B	WB	0.23	0.00	22.W	NSUM	0.16	0.36	1
SALMON R, S FK, E FK	ABV JHNSN	SUGAR CR	208	B	WB	0.29	0.15	4.40	NSUM	0.00	0.00	1
SALMON R, S FK, E FK	BLW JHNSN	6 PARKCR	208	B	WB	0.03	0.00	0.21	NSUM	0.00	0.00	1
SAND CR	UPPER I	M2	208	C	WB	0.00	0.00	0.00	NSUM	0.00	0.00	1
SECESH R		GROUSE	208	C	WB	0.13	0.63	5.43	WSUM	0.13	0.17	1



Stream Name	strata	Section	Drainage	Type	A vs B	no/100msq	no/100msq	Capacity Spr vs Sum	no/100msq	Capacity	Class
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**Mainstem Clearwater River (includes Middle Fork Clearwater R.)**

BIG CANYON CR		BRIDGE	306	B	WA	4.68	0.00	78.00 NSPR	0.00	0.00	1
ELDORADO CR	ABOVE	1HG	306	C	NB	0.21	0.00	2.10 NSPR	0.00	0.00	2
ELDDRAW CR	ABOVE	2LG	306	C	NB	0.00	0.13	1.30 NSPR	0.00	0.00	2
ELDDRAW CR	ABOVE	2M	306	c	NB	0.00	0.00	0.00 NSPR	0.00	0.00	2
ELDORADO CR	BELOW	1B	309	B	NB	1.30	0.00	13.0 NSPR	0.00	0.00	2
LOLO CR	DOWNSTREAM	DS6	306	B	NB	0.08	0.26	2.29 NSPR	0.08	0.14	1
LOLO CR	DOWNSTREAM	RUN6	306	B	NB	0.32	0.40	5.14 NSPR	0.00	0.00	1
LOLO CR	UPSTREAM	8303	306	C	NB	1.09	0.16	6.93 NSPR	0.00	0.00	1
LOLO CR	U P S T R E A M	8360	306	B	NB	1.37	1.54	20.79 NSPR	0.34	0.44	1
LOLO CR	UPSTREAM	RUN	306	B	NB	0.00	0.00	0.00 NSPR	0.20	0.26	1
LOLO CR	UPSTREAM	RUN7	306	B	NB	0.00	0.00	1.21 NSPR	0.17	0.22	1
MISSION CR	QUARRY	1	306	B	WA	2.77	0.00	13.85 NSPR	0.00	0.00	1
MISSION CR	QUARRY	2	306	B	WA	2.39	0.00	11.95 NSPR	0.00	0.00	1

**South Fork Clearwater River**

AMERICAN R	2	1	305	C	NB	1.41	0.56	14.07 NSPR	0.00	0.00	2
AMERICAN R	3	2	305	C	NB	0.00	0.26	2.00 NSPR	0.00	0.00	2
CROOKED R	c	CAN1	305	B	NB	0.46	0.46	69.29 NSPR	0.00	0.00	1
CROOKED R	c	CAN2	305	B	NB	1.14	1.39	62.93 NSPR	0.00	0.00	1
CROOKED R	c	CAN3	305	B	NB	2.44	0.23	19.07 NSPR	0.31	0.40	1
CROOKED R	H	OROGRADE1	305	B	NB	0.00	0.00	2.86 NSPR	0.40	0.91	1
CROOKED R	I	BOULDER-A	305	B	NB	0.40	0.61	16.29 NSPR	4.26	9.63	1
CROOKED R	I	BOULDER-B	305	B	NB	4.20	1.62	41.67 NSPR	12.17	27.68	1
CROOKED R	I	CONTROLA	305	B	NB	2.10	1.58	26.26 NSPR	0.66	2.00	1
CROOKED R	I	C O N T R O L S	305	B	NB	2.57	0.32	20.64 NSPR	19.45	44.20	1
CRWKED R	t	S I L L - L C G - A	305	B	NB	1.50	1.12	16.71 NSPR	3.93	8.93	1
CROOKED R	I	SILL-LOS-8	305	B	NB	5.64	1.46	52.14 NSPR	9.50	21.59	1
CROOKED R	II	CONTROL1	305	B	NB	0.00	2.36	32.14 NSPR	2.61	3.65	1
CROOKED R	II	CONTROL2	305	B	NB	0.60	0.60	21.43 NSPR	0.17	0.22	1
CROOKED R	II	TREAT1	305	B	NB	4.00	2.30	45.00 NSPR	0.00	0.00	1
CROOKED R	II	TREAT2	305	B	NB	6.58	1.71	73.36 NSPR	0.34	0.44	1
CROOKED R	III	NATURAL1	305	C	NB	0.36	0.16	2.70 NSPR	0.05	0.11	1
CROOKED R	III	NATURAL2	305	C	NB	3.15	0.12	23.36 NSPR	0.00	0.00	1
CROOKED R	III	NATURAL3	305	C	NB	4.27	0.63	36.43 NSPR	0.00	0.00	1
CROOKED R	IV	MEANDER1	305	C	NB	0.42	0.00	2.10 NSPR	0.21	0.46	1
CROOKED R	N	MEANDER2	305	C	NB	0.60	0.52	10.14 NSPR	0.00	0.00	1
CROOKED R	N	M E A N D E R 3	305	C	NB	0.66	0.17	5.93 NSPR	0.00	0.00	1
CROOKED R	PONDS A	POND N93	305	C	NB	11.63	0.00	63.07 NSPR	0.00	0.00	1
CROOKED R	PONDS A	POND U	305	C	NB	8.93	3.50	66.79 NSPR	2.60	3.36	1
CROOKED R	PONDS A	POND11	305	C	NB	3.76	1.20	35.43 NSPR	0.00	0.00	1
CROOKED R	FOND.S B	FOND S1	305	C	NB	7.23	1.61	64.57 NSPR	0.00	0.00	1
CROOKED R	PONDS B	POND S2	305	C	NB	0.00	1.15	26.29 NSPR	0.00	0.00	1
CROOKED R	PONDS B	POND S3	305	C	NB	0.00	2.35	23.5 NSPR	0.00	0.00	1
JOHNS CR	1	2	305	B	NB	1.36	0.00	6.75 NSPR	0.00	0.00	3
JOHNS CR	2	3@OPEN CR	305	B	NB	0.26	0.26	3.60 NSPR	0.00	0.00	3
JOHNS CR	2	4 UPPER	305	B	NB	0.27	0.27	13.70 NSPR	0.00	0.00	3
JOHNS CR	1	305	305	B	NB	0.36	0.36	14.25 NSPR	0.00	0.00	3
MOOSE BUTTE CR		M O U T H	305	C	NB	0.00	0.00	0.00 NSPR	0.93	1.23	3
NEWSOME CR	1	305	305	C	NB	1.46	2.47	26.21 NSPR	0.00	0.00	2

NEWSOME CR		4MI	305	C	NB	1.98	1.99	26.29 NSPR	0.36	0.62	2
NEWSOME CR		NEW SIDE	305	C	NB	2.10	1.90	27.86 NSPR	0.00	0.00	2
NEWSOME CR		OLD SIDE	305	C	NB	0.86	0.86	12.29 NSPR	0.00	0.00	2
REDR	I	CONTROL 1	305	C	NB	0.00	0.00	0.86 NSPR	0.00	0.00	1
RED R		CONTROL 2	305	C	NB	0.00	0.00	0.00 NSPR	0.00	0.00	1
REDR	II	CONTROL 2	305	B	NB	0.11	0.11	1.57 NSPR	0.00	0.00	1
RED R		TREAT 2	305	B	NB	0.23	0.12	2.50 NSPR	0.35	0.80	1
RED R	IV	CONTROL 2	305	C	NB	0.00	0.00	0.00 NSPR	1.70	2.21	1
REDR	IV	TREAT 2	305	C	NB	0.17	0.51	6.80 NSPR	4.96	6.44	1
RED R	V	CONTROL 2	305	C	NB	0.00	0.05	0.80 NSPR	0.23	0.30	1
RED R	V	TREAT2	305	C	NB	0.00	0.00	0.00 NSPR	0.00	0.00	1
RELIEF CR	I	I-A	305	B	NB	6.98	3.76	53.70 NSPR	0.00	0.00	2
RELIEF CR	.	1-B	305	B	NB	3.75	4.66	43.15 NSPR	0.00	0.00	2
RELIEF CR	.	1AB	305	B	NB	7.53	0.64	42.35 NSPR	0.00	0.00	2
RELIEF CR	II	2-A	305	C	NB	2.94	2.52	27.30 NSPR	0.00	0.00	2
RELIEF CR	II	2-B	305	C	NB	3.13	3.46	33.05 NSPR	0.00	0.00	2
TENMILE CR	LOWER	1	305	B	NB	3.17	0.74	19.55 NSPR	0.00	0.00	1
TENMILE CR	UPPER	2	305	B	NB	1.56	1.03	12.90 NSPR	0.00	0.00	1

#### Setway River

BEAR CR	LOWER	1	301	B	WB	0.24	1.22	7.30 NSPR	0.57	0.74	3
BEAR CR	UPPER	2	301	B	WB	1.34	0.76	10.60 NSPR	1.12	1.45	3
DEEP CR		CACTUS	301	B	WB	3.24	0.50	16.70 NSPR	0.00	0.00	3
DEEP CR		SCIMITAR	301	B	WB	3.9.	0.71	23.10 NSPR	0.00	0.00	3
GEDNEY CR	LOWER	1	302	B	WB	2.27	5.06	36.75 NSPR	0.27	0.35	1
GEDNEY CR	LOWER	2	302	B	WB	6.90	5.45	61.75 NSPR	0.00	0.00	1
LITTLE CLEARWATER R	UPPER		301	B	WB	1.91	0.93	0.00 NSPR	0.00	0.00	2
MEADOW CR	LOWER		302	B	WB	4.14	1.05	66.50 NSPR	0.66	1.27	1
MEADOW CR	UPPER		302	B	WB	2.24	0.26	42.20 NSPR	0.46	1.09	1
MOOSE CR, E FK		2	302	B	WB	0.32	0.32	3.20 NSPR	0.51	1.16	1
MOOSE CR, E FK		3	302	B	WB	1.90	1.90	19.00 NSPR	0.17	0.39	1
MOOSE CR, N FK		4	302	B	WB	0.31	0.93	6.20 NSPR	0.04	0.09	1
OHARA CR	CANYON	UPPER	302	B	WB	5.97	0.43	32.00 NSPR	0.00	0.00	3
OHARA CR	MEADOW	LOWER	302	B	WB	6.56	2.61	46.65 NSPR	0.00	0.00	3
OTTER CR	#2 TRADI		302	B	WB	0.00	0.00	0.00 NSPR	0.00	0.00	4
RUNNING CR		EAGLEMOUTH	301	B	WB	1.63	1.63	16.30 NSPR	0.16	0.23	1
RUNNING CR		LOWERMOUTH	301	B	WB	0.74	1.04	8.90 NSPR	0.00	0.00	1
RUNNING CR		PACK BR	301	B	WB	0.96	1.54	12.70 NSPR	0.21	0.27	1
RUNNING CR		UPPEREAGLE	301	B	WB	0.57	0.73	6.50 NSPR	0.00	0.00	1
SELWAY R		BEAVER PT	301	C	WB	0.60	0.44	6.20 NSPR	4.05	3.75	3
SELWAY R		HELLS HALF	MI	B	WB	2.33	0.72	15.25 NSPR	0.00	0.00	3
SELWAY R		LITTLE-CW	301	B	WB	0.63	0.42	5.25 NSPR	0.84	0.87	3
SELWAY R		MAG-XING	301	B	WB	0.26	0.04	1.50 NSPR	0.04	0.04	3
THREE LINKS CR	TRAD SITE	#1	302	B	WB	8.21	5.47	66.40 NSPR	0.00	0.00	4
WHITE CAP CR	3	LOWER	301	B	WB	3.27	1.19	22.30 NSPR	0.00	0.00	1
WHITE CAP CR	3	MIDDLE	301	B	WB	0.94	0.51	7.25 NSPR	0.07	0.16	1
WHITE CAP CR	3	UPPER	301	B	WB	0.72	0.34	5.30 NSPR	0.00	0.00	1

#### Locha River

BRUSHY FKCR	3	A B P A C K C R	303	B	NB	0.00	0.00	0.00 NSPR	0.00	0.00	1
BRUSHY FKCR	3	PACK CR	303	B	NB	1.54	1.02	12.60 NSPR	0.00	0.00	1
BRUSHY FK CR	MOUTH	BRUSHYFKCR	303	B	NB	1.05		13.65 NSPR	0.00	0.00	1

CROOKED FK CR	3	BELOW 2B	303	B	NB	1.83	0.42	11.25 NSPR	0.00	0.00	
CROOKED FK CR	3	LO ROCK CR	303	B	NB	1.01	0.00	5.05 NSPR	0.00	0.00	
CROOKED FKCR	4	BELOW 1B	303	B	NB	0.14	0.00	0.70 NSPR	1.09	1.42	
FIRE CR	LOWER	1	303	B	NB	1.93	0.55	12.40 NSPR	0.00	0.00	1
FIRE CR	UPPER	2	303	B	NB	3.75	2.05	29.00 NSPR	0.00	0.00	1
FISH CR	LOWER	1	303	B	NB	7.56	5.04	63.00 NSPR	0.00	0.00	1
FISH CR	LOWER	1	303	B	NB	3.29	3.20	32.45 NSPR	0.00	0.00	1
FISH CR	UPPER	2	303	B	NB	9.46	3.58	66.20 NSPR	0.00	0.00	1
FISH CR	UPPER	2	303	B	NB	12.92	a.70	108.50 NSPR	0.00	0.00	1
OLD MAN CR	1	303	B	NB	1.82	2.43	21.25 NSPR	0.00	0.00	4	
POST OFFICE CR	LOWER	1	303	C	NB	9.24	0.00	46.20 NSPR	0.00	0.00	3
POST OFFICE CR	UPPER	2	303	C	NB	7.81	0.52	41.65 NSPR	0.00	0.00	3
SPLIT CR	LOWER	1	303	B	NS	10.93	3.02	70.00 NSPR	0.00	0.00	
SPLIT CR	UPPER	2	303	B	NB	7.88	3.31	55.95 NSPR	0.00	0.00	1
WARM SPRINGS CR	LOWER	1	303	B	NB	0.46	0.35	4.05 NSPR	0.00	0.00	3

**Appendix A-2.**

**Evaluation Snorkel Sections - 1995**

Appendix A-2, Evaluation section names, channel types (B or C), steelhead trout classification (wild or natural, A or B run), chinook salmon classification (wild or natural, spring or summer), densities and percent carrying capacities for all sites sampled in 1995.

Stream	Strata	Section	Drainage	SALMON RIVER		DRAINAGE		Chinook Class W vs N Spr vs Sum	Chinook Age 0+ Density no/100msq	Chinmk Percent Carrying Capacity	Priority Class	
				Channel Type	Class W vs N A vs B	Steelhead Age 1+ Density no/100msq	Steelhead Age 2+ Density no/100msq					Steelhead Percent Carrying Capacity
Lower Salmon Riir												
JOHN DAY CR		LOWER	209	B	WA		14.91	407	135.57 WSPR	0.00	0.00	3
JOHN DAY CR		UPPER	209	B	WA		2.08	2.08	29.71 WSPR	0.00	0.00	3
RACE CR		LOWER	209	B	WA		5.10	2.13	0.00 WSPR	0.00	0.00	3
SKOOKUMCHUCK CR		1 (LOWER)	209	B	WA		7.83	1.07	63.57 WSPR	0.00	0.00	3
SLATE CR		1	209	C	NAB		5.54	2.22	38.80 WSPR	2.22	5.05	2
SLATE CR		5	209	B	NAB		2.06	1.44	17.50 WSPR	0.41	0.93	2
Salmon River canyon												
CROOKED CR		LOWER	207	C	WA		1.97	0.61	0.00 WSPR	0.45	0.00	1
CROOKED CR		UPPER	207	B	WA		2.77	0.62	0.00 WSPR	1.23	0.00	1
INDIAN CR		100M<MOUTH	207	B	WA		0.00	0.00	0.00 WSPR	0.00	0.00	3
JERSEYCR		300M<MOUTH	207	B	WA		1.59	0.00	0.00 WSPR	0.00	0.00	1
SHEEP CR		300M<MOUTH	207	B	WA		3.57	0.92	0.00 WSPR	0.00	0.00	1
Lemhi River												
BIG SPRINGS CR	1	BSC BRIDGE	204	B	NA		0.38	0.00	1.90 NSPR	0.00	0.00	1
BIG SPRINGS CR	1	BSC5 UPTL	204	B	NA		1.46	0.21	8.35 NSPR	0.00	0.00	1
SIG SPRINGS CR	1	COW SIGN	7.04	B	NA							1
LEMHI R	1	L-59	204	NA			1.38	0.60	9.95 NSPR	0.09	1.28	1
LEMHI R	2	#4 MCKIN A	204	NA			0.00	0.00	0.00 NSPR	0.00	0.00	1
LEMHI R	2	#6	204	NA			0.00	0.90	4.50 NSPR	7.49	6.94	1
LEMHI R	2	#7	204	NA			0.00	0.29	0.00 NSPR	0.29	0.00	1
LEMHI R	2	#9	204	NA			0.00	0.92	4.60 NSPR	0.92	0.85	1
Headwaters Salmon River												
FRENCHMAN CR	2				NA		0.71	0.00	5.07 NSPR	0.00	0.00	2
FRENCHMAN CR	2	S3	201	B	NA		0.49	0.00	3.59 NSPR	26.53	37.05	2
FRENCHMAN CR	2	S5	201	B	NA		0.00	0.00	0.00 NSPR	0.99	1.29	2
Middle Fork Salmon Rii												

LOON CR	LNM-1	3	205	6	WS	3.54	2.44	29.99	WSUM	0.00	0.00	3	
LOON CR	PACKSR	1	205	C	WB	2.31	0.31	13.10	WSUM	0.00	0.00	3	
LOON CR			<b>L2-RUN</b>		B	0.11	0.23	1.70	<b>WSUM</b>	<b>0.00</b>	<b>0.00</b>	3	
SIG CR	MOUTH		CABIN CR	205	C	WS	0.02	<b>0.02</b>	0.20	WSPR	3.17	<b>7.20</b>	1

upper **Salmon River**

SALMON <b>R</b> , N FK	1	DEEPCRPLNG	203	6	NA	<b>5.86</b>	1.67	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON R, N FK	1	HAIRPIN	203	6	NA	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON <b>R</b> , N FK	1	<b>MI MKR 340</b>	203	B	NA	7.41	0.76	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON <b>R</b> , N FK	1	<b>TWIN CR CG</b>	203	6	NA	<b>4.99</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON R, N FK	2	DAHLONEGA	203	<b>B</b>	NA	<b>3.62</b>	0.51	<b>20.65</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON <b>R</b> , N FK	2	LWLMBRCO	203	C	NA	0.26	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON R, N FK	2	MERAL WARD	203	C	NA	<b>0.30</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON <b>R</b> , N FK	2	PINE MEDWS	203	6	NA	6.42	1.17	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON R, N FK	3	<b>BELW HGHES</b>	203	C	NA	2.94	0.19	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
SALMON <b>R</b> , N FK	3	HULL CR RD	203	B	NA	<b>0.00</b>	<b>0.35</b>	<b>0.00</b>	NSPR	0.71	<b>0.00</b>	1
SALMON <b>R</b> , N FK	3	<b>LATHAM HSE</b>	203	6	NA	0.66	0.16	<b>0.00</b>	NSPR	0.16	<b>0.00</b>	1
SALMON <b>R</b> , N FK	3	<b>MI PST 328</b>	203	B	NA	<b>0.00</b>	0.36	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1

CLEARWATER RIVER DRAINAGE

Stream	Strata	Section	Drainage	Channel Type	Steelhead		Chinook		Chinook	Chinook	Priority
					Class	Age 1+	Age 2+	Percent			
					W vs N	Density	Capacity	W vs N	Density	Capacity	Class
					A vs B	no/100msq	no/100msq	Spr vs Sum	no/100msq	no/100msq	

Mainstem Clearwater River

ELDORADO CR					<b>NB</b>						<b>2</b>	
ELDORADO CR		TRANSECT12	306	<b>C</b>	<b>NB</b>	<b>0.00</b>	<b>0.00</b>	<b>29.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	<b>2</b>
ELDORADO CR		TRANSECT13	306	<b>C</b>	<b>NB</b>	<b>0.28</b>	<b>0.00</b>	<b>2.80</b>	NSPR	<b>0.00</b>	<b>0.00</b>	<b>2</b>
ELDORADO CR				<b>B</b>	<b>NB</b>						<b>2</b>	
ELDORADO CR		TRANSECT25	306	<b>B</b>	<b>NB</b>	<b>0.00</b>	<b>1.06</b>	<b>26.00</b>	NSPR	<b>0.85</b>	<b>0.00</b>	<b>2</b>
ELDORADO CR		TRANSECT3	306		<b>NB</b>	1.11	0.16	<b>12.90</b>	NSPR	<b>0.00</b>	0.00	2
ELDORADO CR		TRANSECT4	306	<b>C</b>	NS	0.24	<b>0.48</b>	7.29	NSPR	<b>0.00</b>	<b>0.00</b>	2
ELDORADD CR		TRANSECT5	306	<b>C</b>	<b>NB</b>	0.76	<b>0.28</b>	10.40	NSPR	<b>0.00</b>	<b>0.00</b>	2
ELDORADO CR		TRANSECT7	306		<b>NB</b>	0.45	<b>0.00</b>	4.50	NSPR	<b>0.00</b>	<b>0.00</b>	2
ELDORADO CR					<b>NB</b>						<b>2</b>	
ELDORADO CR		TRANSECT8	306	<b>C</b>	<b>NB</b>	<b>0.00</b>	<b>0.00</b>	<b>2.80</b>	NSPR	<b>0.00</b>	<b>0.00</b>	<b>2</b>
LOLO CR		TRANSECT3	306	<b>C</b>	<b>NB</b>	0.19	0.12	2.21	NSPR	0.19	<b>0.00</b>	1
LOLO CR		TRANSECT4	306	<b>B</b>	<b>NB</b>	0.14	<b>0.28</b>	3.1W	NSPR	0.14	<b>0.00</b>	1
LOLO CR		TRANSECT6	306	<b>C</b>	NS	0.79	0.20	7.07	NSPR	<b>1.28</b>	0.00	1
LOLO CR		TRANSECT8	306	<b>C</b>	<b>NB</b>	0.32	0.08	<b>2.86</b>	NSPR	0.76	<b>0.00</b>	1
LOLO CR		TRANSECT9	306	<b>C</b>	<b>NB</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1

POTLATCH R	L. BOULDER	306	6	WA	0.17	0.00	2.83 NSPR	0.00	0.00	1
POTLATCH R, E FK	MIDDLE	306	C	WA	0.00	0.00	0.00 NSPR	0.00	0.00	1
POTLATCH R, E FK	MOUTH	306	B	WA	1.58	0.00	15.80 NSPR	0.00	0.00	1

South Fork Clearwater River

CROOKED R, E FK	H	EF1	305	B	NB	0.14	0.14	0.00 NSPR	0.00	0.00	3
CROOKED R, E FK	H	EF2	305	B	NS	0.62	0.62	6.20 NSPR	0.00	0.00	3
CROOKED R, W FK	H	WF1	305	6	NS	1.55	0.31	9.30 NSPR	0.00	0.00	3
CROOKED R, W FK	H	WF2	305	6	NB	0.00	0.27	1.35 NSPR	0.00	0.00	3
MDORES CR		1 (LOWER)	305	B	NB	0.89	0.00	4.45 NSPR	0.00	0.00	4
MOORES CR		1 (UPPER)	305	C	NB	0.00	3.08	15.40 NSPR	0.00	0.00	4
NEWSOME CR	1	BEAR CR	305	C	NS	2.29	5.49	55.57 NSPR	0.00	0.00	2
NEWSOME CR	1	BEAVER CR	305	C	NB	1.70	2.72	31.57 NSPR	0.00	0.00	2
NEWSOME CR	1	SNGLSCMPG	305	C	NS	1.71	0.65	18.29 NSPR	0.00	0.00	2
NEWSOME CR	1	SETL POND	305	C	NS	2.3s	1.88	28.93 NSPR	4.04	9.18	2
NEWSOME CR		NEW TRANSECT0	305	C	NS	1.28	0.96	1B.W NSPR	0.00	0.00	2
NEWSOME CR		NEW USFW TRANS 2.5	305	C	NS	0.00	0.81	5.79 NSPR	0.00	0.00	2

Selway River

LITTLE CLEARWATER R		LOWER	301	6	w s	3.81	0.32	0.00 NSPR	0.00	0.00	2
SELWAY R		BADLUCK CR	301	B	WB	0.03	0.07	0.00 NSPR	0.00	0.00	3
MARTENCR		1	302	6	w s	2.26	0.33	13.05 NSPR	0.00	0.00	4

Lochsa River

LOCHSA R	@FISH CR	L1	303	B	NS	0.35	0.02	2.64 NSPR	0.00	0.00	3
LOCHSA R	@PAPOOSE	L4	303	6	NS	0.05	0.00	0.38 NSPR	0.00	0.00	3
LOCHSA R	@PETE KING		303	6	NB	0.00	0.00	0.00 NSPR	0.00	0.00	3
LOCHSA R	SADDLECA	3 (MP 140)	303	B	NS	0.02	0.00	0.14 NSPR	0.00	0.00	3
PETE KING CR	NEW	SLIDE	303	6	NS	9.67	3.76	134.30 NSPR	1.07	2.43	2
PETE KING CR		.5MIUMOUTH	303	B	NB	4.5s	1.83	84.10 NSPR	0.00	0.00	2
PETE KING CR		ASOVEZHOLE	303	B	NS	9.78	2.45	12230 NSPR	0.00	0.00	2
PETE KING CR		BIGBOULDER	3036	NS	NS	6.97	4.4s	134.50 NSPR	0.00	0.00	2
PETE KING CR		CULVERT	303	B	NS	5.43	0.45	58.80 NSPR			2
PETE KING CR		END OF RD	303	NS	NS	7.11	1.76	88.90 NSPR	0.00	0.00	2
PETE KING CR		FALL	303	6	NS	16.64	9.71	263.50 NSPR	0.00	0.00	2
PETE KING CR		JUNGLE	303	B	NS	7.83	4.45	120.90 NSPR	0.00	0.00	2
PETE KING CR		LAST SLIDE	303	6	NB	6.51	1.70	102.10 NSPR	1.13	2.57	2
PETE KING CR		NUT CREEK	303	B	NB	13.47	0.46	139.50 NSPR	0.00	0.00	2

Clear Creek

CLEAR CR	MAINSTEM	1	304	B	NE	7.32	5.99	0.00 NSPR	3.33	0.00	1
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CLEAR CR	MAINSTEM	2	304	B	NS	16.49	<b>6.99</b>	<b>0.00</b>	NSPR	0.28	<b>0.00</b>	1
CLEAR CR	UPPER	RINGRANCH	304	C	NB	2.27	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	
CLEAR CR		.5WAGONWHE	<b>304</b>	6	NB	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	
CLEAR CR		1MILEABOVE	<b>304</b>		<b>NB</b>	<b>0.56</b>	<b>0.84</b>	<b>0.00</b>	NSPR	<b>0.28</b>	<b>0.00</b>	1
CLEAR CR		440	304		NS	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	
CLEAR CR		BARNES	304	C	NB	0.63	1.25	<b>0.00</b>	NSPR	0.42	<b>0.00</b>	1
CLEAR CR		<b>DELIVERANC</b>	<b>304</b>	<b>B</b>	NS	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	<b>1</b>
<b>CLEAR</b> CR		ENDOFRD	304		NB	<b>4.90</b>	0.77	<b>0.00</b>	NSPR	0.28	<b>0.00</b>	
CLEAR CR		F.LOUGHHRAN	304	C	NB	<b>2.48</b>	0.31	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	1
CLEAR CR		<b>HAZELGREY</b>	304	6	NE	0.30	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	
CLEAR CR		INTAKE	<b>304</b>	C	NB	<b>0.26</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	
CLEAR CR		MCCLEAN	304		NS	3. w	0.62	<b>0.00</b>	NSPR	1.64	<b>0.00</b>	<b>1</b>
CLEAR CR		<b>OLINCOULEY</b>		304	NS	1.52	0.19	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	
CLEAR CR		POWERLINE	<b>304</b>	C	NB	<b>5.56</b>	1.71	<b>0.00</b>	NSPR	0.43	<b>0.00</b>	1
CLEAR CR		THOMASRNCH	304	C	NS	4.75	<b>2.59</b>	<b>0.00</b>	NSPR	6.92	<b>0.00</b>	<b>1</b>
CLEAR CR		<b>UBRIDGE#1</b>	<b>304</b>		NB	<b>6.84</b>	3.22	<b>0.00</b>	NSPR	0.60	<b>0.00</b>	
CLEAR CR		WAGONWHEEL	<b>304</b>	6	NB	2.12	<b>1.06</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	<b>1</b>
CLEAR CR		WEIR	<b>304</b>		<b>NB</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	NSPR	<b>0.00</b>	<b>0.00</b>	<b>1</b>
CLEAR CR		Y-IN ROAD	304	C	<b>NB</b>	1.70	0.85	<b>0.00</b>	NSPR	2.34	<b>0.00</b>	<b>1</b>
CLEAR CR, S FK	LOWER	ABVMOUTH	304	B	<b>NB</b>	6.24	6.34	<b>0.00</b>	NSPR	6.34	<b>0.00</b>	<b>1</b>

*Appendix A-3.*

**General Parr Monitoring Sections Unsurveyed in 1995**

Appendix A-3. Lii of stream monitoring sections not completed in 1995 due to prioritization or poor snorkeling conditions.

SALMON RIVER DRAINAGE													
Stream	Strata	Section	Program	Drainage	Comments	Channel Type	Monitoring or Corridor	Steelhead Class W vs N A vs B	Chinook Class W vs N Spr vs Sum	Chinook Carrying Capacity Rating	Steelhead carrying Capacity Rating	Priority Class	
<b>Snake River, above mouth Salmon River</b>													
GRANITE CR	MIDDLE	2	R2	101	NOTDONE IN95	B	MON	NA	WSPR	12	20	3	
<b>Lower Salmon River</b>													
LITTLE SLATE CR		1	RANSECT7	ISS	209	NOTDONE IN '95	B	OTHR	NA	WSPR	44	20	2
RACE CR		2	R2ISS	209	NOTDONE IN '95	6	OTHR	WA	WSPR	-99	-9	3	
SKOOKUMCHUCK CR			(UPPER)	R2ISS	209	NOTDONE IN '95	B	OTHR	WA	WSPR	77	14	3
SLATE CR		7		ISS	209	NOTDONE IN '95	B	OTHR	NAB	WSPR	44	20	2
WHITEBIRD CR, S FK	SF, #1	2			209	NOTDONE IN 95		MON	WA	WSPR	44	20	1
<b>Little Salmon River</b>													
BOULDER CR	ABOVE	1		MCCALLISS	210	NOTDONE IN'95	B	MON	NA	NSPR	44	20	3
BOULDER CR	ABOVE	2		MCCALLISS	210	NOTDONE IN'S5	B	MON	NA	NSPR	44	20	3
BOULDER CR	BELOW	3		MCCALLISS	210	NOTDONE IN'95	B	MON	NA	NSPR	44	20	3
BOULDER CR	BELOW	5		MCCALLISS	210	NOTDONE IN'S5	B	MON	NA	NSPR	44	20	3
HAZARD CR			HAZ1	MCCALL	210	NOTDONE IN95	s	MON	NAB	NSPR	44	20	3
HAZARD CR			HAZ2	MCCALL	210	NOTDONE IN'95	B	MON	NAB	NSPR	44	20	3
RAPID R		4		MCCALL	210	NOTDONE IN95	B	OTHR	WA	NSUM	44	20	1
RAPID R			CLIFF HANG	MCCALL	210	NOTDONE IN'S5	B	OTHR	WA	NSUM	44	20	1
RAPID R		1		MCCALL	210	NOTDONE IN'95	6	OTHR	WA	NSUM	44	20	1
RAPID R	ABV W FK		CORA CLIFF	MCCALL	210	NOTDONE IN'95	B	OTHR	WA	NSUM	44	20	1
RAPID R	CABIN		PARADISE	MCCALL	210	NOTDONE IN'95	B	OTHR	WA	NSUM	44	20	1
RAPID R, W FK	ABV FALLS		US FALLS	MCCALL	210	NOTDONE IN'95	B	EVAL	WA	NSUM	44	20	1
<b>Salmon River Canyon</b>													
CHAMBERWNCR			ASPENGRIVE	PEL	207	NOTDONE IN 95	B	OTHR	WA	WSPR	77	14	1
CHAMSERWNCR			FORKS	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	77	14	1
CHAMBERWNCR			HOTZEL	PEL	207	NOTDONE IN 95	B	OTHR	WA	WSPR	77	14	1
CHAMBERWNCR			MOUTH(L1)	MCCALLISS	207	NOTDONE IN 95	B	MON	WA	WSPR	77	14	1
CHAMBERLAIN CR			RUN(L2)	MCCALLISS	207	NOTDONE IN '95	B	MON	WA	WSPR	77	14	1
CHAMBERLAIN CR			SMOKEHOUSE	PEL	207	NOTDONE IN '95	6	OTHR	WA	WSPR	77	14	1
CHAMBERLAIN CR			WFK MOUTH	GPM	207	NOTDONE IN '95	s	OTHR	WA	WSPR	77	14	1
CHAMBERLAIN CR	LOWER		HOTZEL	PEL	207	NOTDONE IN '95	s	OTHR	WA	WSPR	77	14	1

CHAMBERLAIN CR	MOUTH	NO NAME	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	77	14	1
CHAMBERLAIN CR	UPPER	HOTZEL	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	77	14	1
CHAMSERWN CR, S FK		MOUTH	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	-99	-9	1
CHAMBERLAIN CR, W FK		1ST XING	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	108	14	1
CHAMBERLAIN CR, W FK		BEALMEADOW	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	108	14	1
CHAMBERLAIN CR, W FK		SEAVERSTMP	PEL	207	NOTDONE IN 'S-3	C	OTHR	WA	WSPR	108	14	1
CHAMBERLAIN CR, W FK		MOUTH	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	108	14	1
CHAMBERLAIN CR, W FK		OLD PK BR	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	109	14	1
CHAMBERLAIN CR, W FK		SAGE FENCE	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	108	14	1
CHAMBERLAIN CR, W FK		SPRING	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	108	14	1
CHAMSERWN CR; W FK		TUMBLE DWN	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	108	14	1
CHAMBERLAIN CR, W FK	FKSTONESRAKE	AIRSTrip	GPM	207	NOTDONE IN '95	C	MON	WA	WSPR	109	14	1
FISH CR	I	TRAIL XING	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	108	10	
FLOSSIE CR		TRAIL XING	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	-99	20	
GAME CR	I	TRAIL XING	PEL	207	NOTDONE IN '95	6	OTHR	WA	WSPR	108	20	
HORSE CR	BRIDGE	L2	GPM	207	NOTDONE IN '95	B	MON	WA	WSPR	77	20	3
HORSE CR	UPPER	L1	GPM	207	NOTDONE IN '95	S	MON	WA	WSPR	77	20	3
MOOSE CR		MOUTH	PEL	207	NOTDONE IN '95	B	OTHR	WA	WSPR	44	20	
MOOSE CR		UPPER	PEL	207	NOTDONE IN '95	S	OTHR	WA	WSPR	44	20	
MOOSE CR	LOWER	MOOSE JAW	PEL	207	NOTDONE IN '95	C	OTHR	WA	WSPR	44	20	
RIM CR		MOUTH	PEL	207	NOTDONE IN '95	6	OTHR	WA	NSUM	77	14	4

#### Lemhi River

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SEAR VALLEY CR	HC1	6	GPM	204	NOTDONE IN '95	C	MON	NA	NSPR	77	20	3
BEAR VALLEY CR	HC1	CAMP	GPM	204	NOTDONE IN '95	B	MON	NA	NSPR	77	20	3
SIG SPRINGS CR	1	3 UPPER	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
BIG SPRINGS CR	1	3-BSC	R7ISS	204	NOTDONE IN '95	6	OTHR	NA	NSPR	108	20	1
SIG SPRINGS CR	1	4A UPPER	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
BIG SPRINGS CR	1	ssc 5	R7ISS	204	NOTDONE IN '95	S	OTHR	NA	NSPR	108	20	1
SIG SPRINGS CR	1	ssc 6 UP	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
SIG SPRINGS CR	1	BBC-1	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
SIG SPRINGS CR	1	MI MRK93	R7ISS	204	NOTDONE IN '95	6	OTHR	NA	NSPR	108	20	1
BIG SPRINGS CR	1	TW TELSS 5	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
HAYDEN CR	HC2	6	GPM	204	NOTDONE IN '95	S	MON	NA	NSPR	77	20	1
HAYDEN CR	HC3	B	GPM	204	NOTDONE IN '95	B	MON	NA	NSPR	77	20	1
LEMHI R	1	13 BEYELER	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
LEMHI R	1	2B	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
LEMHI R	1	3A	R7ISS	204	NOTDONE IN '95	B	OTHR	NA	NSPR	108	20	1
LEMHI R	1	BIG SPR CR	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	1	BS-6	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	1	DARWIN	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	1	LEADORE	R7ISS	204	NOTDONE IN '95	C	OTHR	NA	NSPR	108	20	1
LEMHI R	1	POWER LANE	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	2	#1WEIR	R7ISS	204	NOTDONE IN '95	S	OTHR	NA	NSPR	108	20	1
LEMHI R	2	#10 J L54	R7ISS	204	NOTDONE IN '95	C	OTHR	NA	NSPR	108	20	1
LEMHI R	2	#2 "MERC"	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	2	#5 MCKIN B	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	2	#8 L-50	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1
LEMHI R	2	3 SHINER	R7ISS	204	NOTDONE IN '95		OTHR	NA	NSPR	108	20	1

**Pahsimeroi River**

PAHSIMEROI R	1	LWRDWTNLN	IBS	202	NOTDONE IN '95	C	MON	NA	NSUM	77	20	1
PAHSIMEROI R	1	PONDS	ISS	202	NOTDDNE IN '95	C	MON	NA	NSUM	77	20	1
PAHSIMEROI R	1	UPRDWNTNLN	ISS	202	NOTDONE IN '95	C	MON	NA	NSUM	77	20	1
PAHSIMEROI R	1	US-P9 DJV	ISS	202	NOTDONE IN '95	C	MON	NA	NSUM	77	20	1

**Headwaters Salmon River**

BEAVER CR	1	1A	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	10	2
BEAVER CR	1	IS	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	10	2
BEAVER CR	1	1C	ISM	M I	NEW IN 94	B	MON	NA	NSPR	77	10	2
BEAVER CR	2	2A	ISM	M I	NOTDONE IN '95	C	MON	NA	NSPR	77	10	2
BEAVER CR	2	26	ISM	201	NOTOONE IN '95	6	MON	NA	NSPR	77	10	2
BEAVER CR	2	2S1	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	10	2
BEAVER CR	2	2S2	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	10	2
BEAVER CR	2	2S4	ISM	M I	NOTDONE IN '95	C	MON	NA	NSPR	77	10	2
BEAVER CR	2	2S5	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	10	2
CHAMPION CR	1	1A	IBM	M I	NEW IN 93	C	MON	NA	NSPR	44	10	3
CHAMPION CR	1	16	ISM	201	NEW IN 93	C	MON	NA	NSPR	44	10	3
CHAMPION CR	1	1C	ISM	201	NEW IN 93	B	MON	NA	NSPR	44	10	3
CHAMPION CR	1	1D	ISM	201	NEW IN 93	B	MON	NA	NSPR	44	10	3
CHAMPION CR	2	2A	IBM	M I	NOTOONE IN '95	B	MON	NA	NSPR	44	10	3
CHAMPION CR	2	2s	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	44	10	3
MORGAN CR	LOWER	FENCE	GPM	201	NOTDONE IN '95	B	MON	NA	NSPR	12	14	3
MORGAN CR	UPPER	SLM CAMP	GPM	201	NOTDONE IN '95	C	MON	NA	NSPR	12	14	3
POLE CR	2	2B/2S4	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	10	3
POLE CR	3	3A/3S4	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	10	3
POLE CR	3	3B/3S4	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	10	3
REDFISH LK CR		LOWER	GPM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	14	3
REDFISH LKCR	WEIR	DS	GPM	201	NOTDONE IN '95	S	MON	NA	NSPR	77	14	3
SALMON R	3	3-SCA	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	44	14	1
SALMON R	3	3-SCB	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	44	14	1
SALMON R	3	3A	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	44	14	1
SALMON R	3	3s	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	44	14	1
SALMON R	3	BRS	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	44	14	1
SALMON R	4	4-BRB	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	14	1
SALMON R	4	4-SCA	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	14	1
SALMON R	4	4-SCB	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	14	1
SALMON R	4	4A	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	14	1
SALMON R	4	4B	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	14	1
SALMON R	4	BRA	ISM	201	NOTDONE IN '95	C	MON	NA	NSPR	77	14	1
SALMON R	5	5A	ISM	M I	NOTDONE IN '95	6	MON	NA	NSPR	77	14	1
SALMON R	5	5B	ISM	201	NOTDONE IN '95	B	MON	NA	NSPR	77	14	1
SALMON R	6	6A	ISM	201	NOTDONE IN '95	C	MON	NA	WSPFR	77	14	1
SALMON R	6	6B	ISM	m I	NOTOONE IN '95	B	MON	NA	NSPR	77	14	1
SALMON R, E FK	1 ASV WEIR	3	ISS	m I	NOTDONE IN '95	B	MON	NAB	NSPR	108	20	1
SALMON R, E FK	2 ABV WEIR	2	ISS	201	NOTDONE IN '95	6	MON	NAB	NSPR	IDS	20	1

BEAVER CR		<b>1B</b>	<b>R7ISS</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>14</b>	<b>1</b>
BIG CR	LOWER	<b>1</b>		<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
BIG CR	MIDDLE	ABV BEAVER	<b>MCCALL</b>	<b>206</b>	<b>ESTABLISHED 94</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
BIG CR	MIDDLE	CARPENTER	<b>MCCALLISS</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
BIG CR	MIDDLE	DOE CR	<b>MCCALLISS</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
BIG CR	MIDDLE	HARD BOIL	<b>MCCALLISS</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
BIG CR	MIDDLE	MTH BEAVER	<b>MCCALL</b>	<b>206</b>	<b>ESTABLISHED 94</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
BIG CR	MIDDLE	TAYLOR 1		<b>206</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>1</b>
<b>CAMAS CR</b>		<b>1</b>	<b>R7ISS</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
<b>CAMAS CR</b>		<b>2</b>	<b>GPM</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
<b>CAMAS CR</b>		<b>CAM1</b>	<b>GPM</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
<b>CAMAS CR</b>		<b>LI-MOUTH</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
<b>CAMAS CR</b>		<b>UPPER</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
ELK CR		<b>IA</b>	<b>R3</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
ELK CR		<b>1B</b>	<b>R3</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
ELK CR		<b>2A</b>	<b>R3</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
ELK CR		<b>2B</b>	<b>R3</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
ELK CR		<b>2C</b>	<b>R3</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
INDIAN CR		<b>LOWER</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>14</b>	<b>3</b>
INDIAN CR		<b>UPPER</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>20</b>	<b>3</b>
KNAPP CR	<b>I</b>	<b>BIGBEVRDAM</b>	<b>ISS</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>108</b>	<b>14</b>	<b>1</b>
KNAPP CR	<b>1</b>	<b>CAMPSITE</b>	<b>ISS</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>108</b>	<b>14</b>	<b>1</b>
LOON CR		<b>U-BRIDGE</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSUM</b>	<b>44</b>	<b>20</b>	<b>3</b>
MARBLE CR		<b>LOWER</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>14</b>	<b>3</b>
MARBLE CR		<b>MAR1B</b>	<b>MCCALL</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
MARBLE CR	ABOVE	<b>PACKBRIDGE</b>	<b>MCCALL</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
MARBLE CR	ABOVE	<b>UPPER-PKBR</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>14</b>	<b>3</b>
MARBLECR	UPPER	<b>MAR1</b>	<b>MCCALL</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>C</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
MARBLE CR	UPPER	<b>MAR2</b>	<b>MCCALL</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
MARBLE CR	UPSTREAM	<b>SUNNYSIDE</b>	<b>MCCALL</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
MONUMENTAL CR	<b>DS LOON CR</b>	<b>MON1</b>	<b>MCCALLISS</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>14</b>	<b>2</b>
PISTOL CR		<b>LOWER</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>20</b>	<b>3</b>
PISTOL CR		<b>UPPER</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>MON</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>20</b>	<b>3</b>
SALMON R, M FK		<b>ROCK IS</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
SALMON R, M FK	<b>I</b>	<b>BOUNDARY</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
SALMON R, M FK	<b>I</b>	<b>GARDEL HOL</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
SALMON R, M FK		<b>INDIAN</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
SALMON R, M FK	<b>I</b>	<b>RAPID R</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>14</b>	<b>3</b>
SALMON R, M FK	<b>I</b>	<b>SHEEPEATER</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>14</b>	<b>3</b>
SALMON R, M FK	<b>II</b>	<b>COUGAR</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
SALMON R, M FK	<b>II</b>	<b>HOSPPL</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>10</b>	<b>3</b>
SALMON R, M FK	<b>II</b>	<b>HOSPRUN</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
SALMON R, M FK	<b>II</b>	<b>LWR TAP RN</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMONR, M FK</b>	<b>II</b>	<b>LJACKASS</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMONR, M FK</b>	<b>II</b>	<b>MARBLPL</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>II</b>	<b>PUNGO</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>II</b>	<b>SKJUMP</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>II</b>	<b>TAPPANPOOL</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>II</b>	<b>WHITEYCX</b>	<b>R7</b>	<b>205</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>III</b>	<b>AIRSTRIP</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>III</b>	<b>FLYING-B</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>44</b>	<b>10</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>III</b>	<b>SURVEY</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>
<b>SALMON R, M FK</b>	<b>IV</b>	<b>BIG-CR-BR</b>	<b>R7</b>	<b>206</b>	<b>NOTDONE IN '95</b>	<b>B</b>	<b>CORR</b>	<b>WB</b>	<b>WSPR</b>	<b>77</b>	<b>20</b>	<b>3</b>

SALMON R, M FK	IV	GOAT CR PL	R7	206	NOTDONE IN '95	B	CORR	WB	WSPR	77	20	3
SALMON R, M FK	IV	GOAT CR RN	R7	206	NOTDONE IN '95	B	CORR	WB	WSPR	77	20	3
SALMON R, M FK	N	LOVEBAR	R7	206	NOTDONE IN '95	B	CORR	WB	WSPR	77	20	3
SALMON R, M FK	IV	OTTER BAR	R7	206	NOTDONE IN '95	B	CORR	WB	WSPR	77	20	3
SULPHUR CR	2	3A	R3	205	NOTDONE IN '95	B	MON	WB	WSPR	108	14	1
SULPHUR CR	2	4A	R3	205	NOTDONE IN '95	C	MON	WB	WSPR	108	14	1
SULPHUR CR	2	4B	R3	205	NOTDONE IN '95	B	MON	WB	WSPR	108	14	1

Upper salmon River

MOYER CR	ABOVE	M 0 1	GPM	203	NOTDONE IN '95	C	M O N	NA	NSPR	77	20	3
MOYER CR	ABOVE	NEW SEC	R7ISS	203	NOTDONE IN '95	B	MON	NA	NBPR	77	20	3
MOYER CR	LOWER	NEW SEC	GPM	203	NOTDONE IN '95	B	MON	NA	NSPR	77	20	3
PINE CR	ABOVE	BRIDGE	R7ISS	203	NOTDONE IN '95	B	MON	NA	NSPR	-99	20	4
PINE CR	ABOVE	SAWMILL CR	RTISS	203	NOTDONE IN '95	B	MON	NA	NSPR	-99	20	4
SALMON R, N FK		HUGHES	R7ISS	203	NOTDONE IN '95	C	OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	CRONE GLCH	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	DEEP CR	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	DEEPCRLWR	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	MI MKR 343	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	MI PST 342	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	MI PST 345	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	MI PST 346	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	MI PST 346	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	RYLELK RCH	R7ISS	203	NOTDONE IN '95		OTHR	NA	NBPR	0	0	1
SALMON R, N FK	1	SIGN 95	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	1	UPR L & C	RTISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	2	BOYNEB NF6	R7ISS	203	NOTDONE IN '95		OTHR	NA	NBPR	0	0	1
SALMON R, N FK	2	HUGHES	R7ISS	203	NOTDONE IN '95	C	MON	NA	NSPR	77	14	1
SALMON R, N FK	2	HUGHES RS	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	2	MI PST 335	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	2	MI PST 339	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	2	NF 410	R7ISS	203	NOTDONE IN '95		OTHR	NA	NBPR	0	0	1
SALMON R, N FK	2	NF-11	RTISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	2	NF-7	R7ISS	203	NOTDONE IN '95		OTHR	NA	NBPR	0	0	1
SALMON R, N FK	2	UP GBBONS	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	2	WOLFRAM	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	3	ABNDND TLR	RTISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	3	CUMMINGS	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	3	FLTBED BRG	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
SALMON R, N FK	3	NF BRG LWR	R7ISS	203	NOTDONE IN '95		OTHR	NA	NSPR	0	0	1
THOMPSON CR	ABOVE	TWO-POLE	GPM	M 1	NOTDONE IN '95	B	MON	NA	NSPR	44	14	3
THOMPSON CR	BELOW	1	GPM	201	NOTDONE IN '95	B	MON	NA	NSPR	44	14	3

CLEARWATER RNER DRAINAGE

Stream	Strata	Section	Program	Drainage	Comments	Channel Type	Monitoring or Corridor	Steelhead Class W vs N A vs B	Chinook Class W vs N Spr vs Sum	Chiiik Capacity Rating	Steelhead Capacity Rating	Priority Class
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**Mainstem Clearwater Rii (Includes Middle Fork Clearwater R.)**

BEDROCK CR		MOUTH		<b>306</b>	<b>NOTDONE IN '95</b>		EVAL	WA	NSPR	0	0	4
BIG CANYON CR		DIRT PILE	RZISS	<b>306</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	WA	NSPR	<b>-99</b>	14	1
POTLATCH R	KENDRICK	KENDRICK	RZISS	<b>306</b>	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	<b>-99</b>	6	1
POTLATCHR, E FK		UP CORRALS		<b>306</b>	<b>NOTDONE IN '95</b>		EVAL	WA	NSPR	<b>-99</b>	10	1

**South Fork Clearwater Rii**

CLEARWATER R, S FK		JOHNS CR	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	-99	-9	3
CLEARWATER R, S FK		MP13	<b>RSISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	-99	<b>-9</b>	3
CLEARWATER R, S FK		MP 14, UP	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	<b>-99</b>	-9	3
CLEARWATER R, S FK		MP IS	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	-99	-9	3
CLEARWATER R, S FK		<b>NEWSOME</b>	RZISS	305	<b>NOTDONE IN '95</b>	<b>C</b>	MON	NB	NSPR	<b>-99</b>	-9	3
CLEARWATER R, S FK		TENMILE CR	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	<b>-99</b>	-9	3
CLEARWATER R, S FK		WING CREEK	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	MON	<b>NB</b>	NSPR	<b>-99</b>	-9	3
CLEARWATER R, S FK	MEADOW CR	MP 17	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	<b>-99</b>	-9	3
CROOKED R		CONTROLX	ISM	305	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR	<b>44</b>	14	1
FIVE MILE CR		IA	IBM	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	NB	NSPR	<b>-99</b>	14	4
FIVE MILE CR		IS	ISM	305	<b>NOTDONE IN '95</b>	<b>B</b>	OTHR	<b>NB</b>	NSPR	<b>-99</b>	14	4
MEADOW CR	CANYON	MP2	RZISS	305	<b>NOTDONE IN '95</b>	<b>B</b>	MON	<b>NB</b>	NSPR	44	14	2
MEADOW CR	MEADOW	GRAZED	<b>R2ISS</b>	305	<b>NOTDONE IN '95</b>	<b>C</b>	MON	<b>NB</b>	NSPR	44	14	2

55

**Selway River**

<b>MOOSE CR</b>	LOWER	1	R2	<b>302</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	WB	NSPR	44	<b>20</b>	3
MOOSE CR, E FK		1	R2	<b>302</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	WB	NSPR		<b>20</b>	3
MOOSE CR; N FK		5	R2	<b>302</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	WB	NSPR	44	<b>20</b>	3

**Lochsa River**

COLT CR		BRIDGE	<b>ISS</b>	<b>303</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR	<b>44</b>		
CROOKED FKCR	<b>1</b>	ABOVE <b>2A</b>	<b>ISS</b>	<b>303</b>	COULD NOT FIND	<b>B</b>	MON	NB	NSPR	<b>77</b>	<b>20</b>	3
CROOKED FK CR	<b>2</b>	ABOVE 3A	<b>ISS</b>	<b>303</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR	<b>77</b>	<b>20</b>	1
CROOKED FK CR	<b>2</b>	ABOVE 4A	<b>ISS</b>	<b>303</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR	<b>77</b>	<b>200</b>	1
CROOKED FK CR	<b>3</b>	GPM13		<b>303</b>	<b>NOTDONE IN '95</b>					<b>77</b>	0	1
CROOKED FK CR	<b>3</b>	UP ROCK CR	<b>ISS</b>	<b>303</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR	<b>77</b>	<b>200</b>	1
HOPEFUL CR	<b>1</b>	I-BOOGIEDN	<b>ISS</b>	<b>303</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR			3
WHITE SAND CR	LOWER	<b>WS1</b>	<b>ISS</b>	<b>303</b>	<b>NOTDONE IN '95</b>	<b>B</b>	MON	NB	NSPR	44	<b>20</b>	1

Appendix B.  
Prioritization of Snorkel Streams

Appendix B. Prioritization of General Parr Monitoring snorkel streams.

**SNAKE RIVER AND TRIBUTARIES**

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>          </u>	<u>1</u>	<u>2</u>	<u>(1-4)</u>
Sheep Cr.	101	Y	Y	NPT/R2	R2	1
Capt. John Cr.	101	N	Y	R2	--	1
Granite Cr.	101	N	Y	R2	--	3

**LOWER CLEARWATER**

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	<u>1</u>	<u>2</u>	<u>(1-4)</u>
Lolo Cr.	306	Y	Y	NPT	R2	1
Lapwai Cr. or	306	N	Y	NPT	R2	1
Big Canyon Cr.	306	N	Y	R2	--	1
Potlatch R. & Efk	306	N	Y	R2	--	1/2
Mission Cr.	306	N	Y	R2	--	1
Eldorado Cr.	306	Y	Y	NPT	--	2
Bedrock Cr.	306	Y	R2	RES	4	

**SOUTH FORK CLEARWATER**

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Steelhead</u>	<u>          </u>	<u>1</u>	<u>2</u>	<u>(1-4)</u>
Red R., and SF Red R.	305	Y	Y	R2	--	1
Crooked R., & EF & WF	305	Y	Y	RES	--	1
Tenmile Cr.	305	Y	Y	RES	--	3
American R.	305	Y	Y	R2	--	1
Newsome Cr.	305	Y	Y	R2	--	2
Meadow Cr.	305	Y	Y	NPT	R2	2
Mill Cr.	305	Y	Y	NPT	R2	2/3
SFClearwater	305	Y	Y	R2	--	2
Johns Cr.	305	N	Y	R2	--	3
Moores Cr.	305	N	Y	R2	--	3
Gospel Cr.	305	N	Y	R2	--	4
Twin Lakes Cr.	305	None	None	R2	--	4
Moose Butte Cr.	305		Y	R2	--	4
Relief Cr.	305		Y	RES	--	2
Five Mile Cr.	305		Y	RES	--	2

Appendix B. Continued

MIDDLE FORK CLEARWATER

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	<u>1</u>	<u>2</u>	<u>(1-4)</u>
Clear Cr. & SF Clear Cr.	304	Y	Y	FRO	R2	1

LOCHSA

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	<u>1</u>	<u>2</u>	<u>(1-4)</u>
Crooked Fork Cr. & Brushy Fork Cr.	303	Y	Y	RES	--	1
White Sand Cr. & Big Flat Cr.	303	Y	Y	RES	--	1
Fish Cr.	303	N	Y	RES	--	1
Fire Cr.	303	N	Y	R2	--	1
Split Cr.	303	N	Y	R2	--	1
Pete King Cr.	303	Y	Y	FRO	--	2
Squaw Cr.	303	Y	Y	NPT	--	2
Papoose Cr.	303	Y	Y	NPT	--	2
Post Office Cr.	303	Y	Y	R2	--	3
Warm Springs Cr.	303	Y	Y	R2	--	3
Mainstem	303	Y	Y	R2	--	3
Old Man Cr.	303	N	Y	R2	--	4
Colt Cr.	303		Y	R2	--	3
Hopeful Cr.	303		Y	R2	--	3

SELWAY

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	<u>1</u>	<u>2</u>	<u>(1-4)</u>
White Cap Cr.	301	Y	Y	R2	--	1
Running Cr.	301	Y	Y	RES	--	1
Meadow Cr.	302	Y	Y	NPT	R2	1
Gedney Cr.	302	N	Y	RES	--	1
Bear Cr.	301	Y	Y	R2	--	3
Deep Cr.	301	Y	Y	R2	--	3
Moose Cr.	302	Y	Y	R2	--	3
& EF & NF O'Hare Cr.	302	Y	Y	R2	--	3

Appendix B. Continued.

SELWAY (Cont.)

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		Chinook	Steelhead	1	2	(1-4)
Mainstem	301	Y	Y	R2	--	3
Otter Cr.	302	Y	Y	R2	--	4
Three Links Cr.	302	Y	Y	R2	--	4
Marten Cr.	302	Y	Y	R2	--	4
L. Clearwater R.	301	Y	Y	R2	--	2

LOWER SALMON (mouth to French Cr.)

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		Chinook	Steelhead	1	2	(1-4)
Whitebird Cr. & SF	209	Y	Y	R2	--	1
Slate Cr. & Little Slate	209	Y	Y	NPT	--	2
John Day Cr.	209	Y	Y	R2	--	3
Skookumchuck Cr.	209	Y	Y	R2	--	3
Race Cr.	209	Y	Y	R2	--	3

LITTLE SALMON

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		Chinook	Steelhead	1	2	(1-4)
Rapid R. & WF	210	Y	Y	R3	--	1
Boulder Cr.	210	Y	Y	R3	--	3
Mainstem	210	Y	Y	R3	--	3
Hazard Cr.	210	Y	Y	R3	--	3

SALMON RIVER CANYON (French Cr. - Middle Fk)

Stream	Drain	(Y/N)	(Y/N)	Agency		Priority
		Chinook	Steelhead	1	2	(1-4)
Chamberlain Cr. & WF & SF	207	Y	Y	RES	--	1
Bargamin Cr.	207	Y	Y	R3	R2	3
Horse Cr.	207	Y	Y	R7	--	3
Sheep Cr.	207	Y	Y	R3	R2	1

Appendix B. Continued.

SALMON RIVER CANYON (French Cr. - Middle Flk) (Cont.)

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Steelhead</u>		1	2	(1-4)
Rim cr.	207	NONE	NONE	?	--	4
Crooked Cr.	207	Y	Y	R2	--	1
Jersey Cr.	207	Y	Y	R2	--	1
Fish Cr.	207			RES	--	
Flossie Cr.	207			R7	--	3
Indian Cr.	207			R7	--	
Game Cr.	207					
Moose Cr.	207					

SOUTH FORK SALMON

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	1	2	(1-4)
Johnson Cr.	208	Y	Y	R3	--	1
Secesh R.	208	Y	Y	NPT	R3	1
EFSF Salmon	208	Y	Y	R3	--	1
Mainstem	208	Y	?	R3	--	1
Mainstem upper	208	Y	Y	SBT	R3	2
Lick Cr.	208	Y	Y		R3	2
Buckhorn Cr.	208	Y	Y	R3	--	3
Lake Cr.	208	Y	Y	R3	NPT	1
Rock Cr.	208	Y	Y	R3	RES	1
Sand Cr.	208	Y	Y	R3	--	1
Dollar Cr.	208	Y	Y	R3	--	4

MIDDLE FORK SALMON

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	1	2	(1-4)
Marsh Cr. *	205	Y	Y	RES	--	1
Sulphur Cr.	205	Y	Y	RES	R3	1
Big Cr.	206	Y	Y	R3	--	1
Bear Valley Cr.	205	Y	Y	SBT	RES	2
Monumental Cr. & WF	206	Y	Y	?	R3?	2
Camas Cr.	206	Y	Y	R7	--	3

Appendix B. Continued.

MIDDLE FORK SALMON (Cont.)

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	1	2	(1-4)
Elk Cr.	205	Y	Y	RES?	R3?	3
Indian Cr.	205	Y	Y	R7	--	3
Loon Cr.	205	Y	Y	R7	--	3
Marble Cr.	205	Y	Y	R7/R3	--	3
Pistol Cr.	205	Y	Y	R7	--	3
Mainstem	205	Y	Y	R7	--	3
Bearskin Cr.	205			R3	--	

(\*includes snorkel transects on Beaver, Capehorn and Knapp Creeks)

LEMHI

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>		2	(1-4)
Mainstem above	204	Y	Y	?	--	1
Hayden Cr.	204	Y	Y	R7	--	1/3?
Bear Valley Cr.	204	Y	Y	R7	--	3
Big Springs Cr.	204	Y	Y	R7	--	1

PAHSIMEROI

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>		2	(1-4)
Mainstem	202	Y	Y	RES	--	1

UPPER SALMON (Middle Fork - Sawtooth Weir)

Stream	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	1	2	(1-4)
North Fork	203	Y	Y	R7	--	1
Valley Cr.	201	Y	Y	SBT	R7	1
Yankee Fork, WF	201	Y	Y	SBT	R7	2
Basin Cr.	201	N	Y	RES	--	2
Morgan Cr.	201	Y	Y	R7	--	3
Moyer Cr.	203	Y	Y	R7	--	3
Panther Cr.	203	Y	Y	R7	--	3

Appendix B. Continued.

UPPER SALMON (Middle Fork - Sawtooth Weir) (Cont.)

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	<u>1</u>	<u>2</u>	(1-4)
Mainstem	201	Y	Y	R7	--	3
Thompson Cr.	201	Y	Y	R7	--	3
Warm Springs Cr.	201	Y	Y	R7	--	3
Redfish Lake Cr.	201	Y	Y	R7	--	3
Pine Cr.	203	N	Y	R7?	--	4

EAST FORK SALMON

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	(1-4) <u>head</u>	<u>1</u>	<u>2</u>	
Herd Cr.	201	Y	Y	SBT	R7	1
Mainstem	201	Y	Y	SBT	R7	1
Germania Cr.	201	N	Y	RES	--	2
West Pass Cr.	201	N	Y	RES	--	2

HEADWATERS SALMON (above Sawtooth Weir)

<u>Stream</u>	<u>Drain</u>	(Y/N)	(Y/N)	Agency		Priority
		<u>Chinook</u>	<u>Steelhead</u>	<u>1</u>	<u>2</u>	
Alturas Lake Cr.	201	Y	Y	R7	--	1
Mainstem	201	Y	Y	RES	--	1
Beaver Cr.	201	Y	Y	RES	--	2
Frenchman Cr.	201	Y	Y	RES	--	2
Champion Cr.	201	Y	Y	RES	--	3
Fourth of July	201	Y	Y	RES	--	3
Gold Cr.	201	Y	Y	RES	--	3
Huckleberry Cr.	201	Y	Y	RES	--	3
Pettit Lake Cr.	201	Y	Y	RES	--	3
Pole Cr.	201	Y	Y	RES	--	3
Smiley Cr.	201	Y	Y	RES	--	3
Williams Cr.	201	Y	Y	RES	--	3
Yellowbelly Cr.	201	Y	Y	RES	--	3

Appendix B. Continued.

Abbreviations:

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R2 - IDFG Region 2 (Lewiston, ID)

R3 - IDFG Region 3 (McCall, ID)

R7 - IDFG Region 7 (Salmon, ID)

RES - IDFG Fisheries Research (Nampa, ID)

FRO - USFWS Fishery Resource Office (Ahsahka, ID)

NPT - Nez Perce Tribe (Ahsahka, ID)

SBT - Shoshone-Bannock Tribes (Fort Hall, ID)

Appendix C-1.

Biological Data Collection Sheet for  
General Parr Monitoring - 1995

### SNORKEL DATA SHEET

**S T R E A M** \_\_\_\_\_ **DATE** \_\_\_/\_\_\_/\_\_\_ **LEADER/RECORDER** \_\_\_\_\_

**AGENCY:** (circle one) NPT SBT IFG FRO ICU

**PROGRAM:** (circle one) R2 R3 R7 GPM PEL ISM CSUP SSUP

**STRATA** \_\_\_\_\_ **SECTION** \_\_\_\_\_

**CHANNEL TYPE:** B C OTHER \_\_\_\_\_ **SECTION TYPE** MONR CSUP SSUP EVAL

**QUAD MAP** \_\_\_\_\_ **UTM X/Y** \_\_\_\_\_

**IDAEP A REACH #** \_\_\_\_\_

**LENGTH** \_\_\_\_\_ **TRANSECT WIDTHS** \_\_\_\_\_

**H<sub>2</sub>O TEMP** \_\_\_\_\_ **TIME** \_\_\_\_\_ **MEAN WIDTH** \_\_\_\_\_ **SEC AREA** \_\_\_\_\_

**VISIBILITY** \_\_\_\_\_

**METHODS:**  
 ( ) Snorkel (circle corridor or entire stream width)  
 ( ) Electrofish  
 ( ) Other \_\_\_\_\_

**HABITAT TYPE:** (circle one) Pool Riffle Run Pocket Water

Length Class (in)	RAINBOW - STEELHEAD				RESIDENT SPECIES			
	Total	Wild & Natural	Adipose Clipped	Hatchery Catchable	Cutthroat	Brook	Bull	Whitefish
<2								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
> 12 specify length								
Age 0 Chinook					Adults			
Age 1 Chinook					Redds			

Appendix C-2.

**Biological Data Collection Sheet by Habitat  
Unit used by Intensive Smolt Sampling (ISS) Programs**

## ISS -- Snorkel Count Data

Date \_\_\_\_\_ Time \_\_\_\_\_ Recorder/Crew \_\_\_\_\_  
 Stream \_\_\_\_\_ strata \_\_\_\_\_ Site \_\_\_\_\_  
 Agency: (Circle one) NPT, SBT, IFG, FRO, ICU Program: \_\_\_\_\_  
 Section (Site) Type: MONR, CSUP, SSUP, EVAL IDAEP A Reach # \_\_\_\_\_  
 H<sub>2</sub>O Temp \_\_\_\_\_ Visibility \_\_\_\_\_ Channel Type: B, C, OTHER \_\_\_\_\_  
 Sample Methods: Snorkel, Electrofishing, Other \_\_\_\_\_ Conductivity \_\_\_\_\_

Unit # \_\_\_\_\_ Habitat Type: (circle one) Pool Riffle Run Pocket Glide  
 Transect Length \_\_\_\_\_ Widths \_\_\_\_\_ Avg Width \_\_\_\_\_ S. Area \_\_\_\_\_

LENGTH	STHD	RESIDENT	LENGTH	STHD	RESIDENT
< 2			8		
2			9		
3			10		
4			11		
5			12		
6			> 12		
7			SPECIFY		
CHINOOK 0			CHINOOK 1		

Unit # \_\_\_\_\_ Habitat Type: (circle one) Pool Riffle Run Pocket Glide  
 Transect Length \_\_\_\_\_ Widths \_\_\_\_\_ Avg Width \_\_\_\_\_ S. Area \_\_\_\_\_

LENGTH	STHD	RESIDENT	LENGTH	STHD	RESIDENT
< 2			8		
2			9		
3			10		
4			11		
5			12		
6			> 12		
7			SPECIFY		
CHINOOK 0			CHINOOK 1		

Unit # \_\_\_\_\_ Habitat Type: (circle one) Pool Riffle Run Pocket Glide  
 Transect Length \_\_\_\_\_ Widths \_\_\_\_\_ Avg Width \_\_\_\_\_ S. Area \_\_\_\_\_

LENGTH	STHD	RESIDENT	LENGTH	STHD	RESIDENT
< 2			8		
2			9		
3			10		
4			11		
5			12		
6			> 12		
7			SPECIFY		
CHINOOK 0			CHINOOK 1		

Chinook age J = 2; wearilyngs = Y Fry = F Steelhead = S; adipose clipped = AD; Hatchery catchables = H  
 Cutthroat = CT Bull Trout = OV Brook trout = BK Whitefish = WF; age 0 = WFF Squawfish = SQ

**Appendix C-3**

**Physical Habitat Data Collection Sheet for  
General Parr Monitoring**

STREAM \_\_\_\_\_ DATE \_\_\_\_\_ COLLECTORS \_\_\_\_\_

EPA REACH \_\_\_\_\_ LENGTH \_\_\_\_\_ COMMENTS \_\_\_\_\_

STRATA \_\_\_\_\_ VERTICAL DROP \_\_\_\_\_

SECTION \_\_\_\_\_ GRADIENT % \_\_\_\_\_

CHANNEL TYPES: B - confined, flushing  
 C - meandered, depositional

HABITAT TYPE: (Circle One) pool, riffle, run, pocket water

Transect Length from Bottom	Width	Location on transect (l to r)	Depth	Substrate Class by Area				
				Sand	Gravel	Rubble	Boulder	Bedrock
		1/4						
		1/2						
		3/4						
		1/4						
		1/2						
		3/4						
		1/4						
		1/2						
		3/4						
		1/4						
		1/2						
		3/4						

**Appendix D.**  
**General Parr Monitoring database structure**  
**(version 1.1)**

**Appendix D**  
**GENERAL PARR MONITORING**  
**DATABASE STRUCTURE**  
(version 1.1)

<b>FIELD</b>	<b>FIELD NAME</b>	<b>TYPE</b>	<b>WIDTH</b>	<b>DEC</b>
1	STREAM	Character	20	
2	STRATA	Character	10	
3	SECTION	Character	10	
4	HABITAT	Character	2	
5	TOTALTRAN	Logical	1	
6	DATE	Character	8	
7	YR	Character	2	
8	COLLECTOR	Character	12	
9	AGENCY	Character	7	
10	PROGRAM	Character	10	
11	CDT	Numeric	3	
12	WEATHER	Character	10	
13	IDAEPA	Character	10	
14	COMMENTS	Character	15	
15	TEMP	Numeric	4	1
16	TIME	Numeric	4	
17	LNTH	Numeric	6	
18	MNWDTH	Numeric	6	11
19	SEC_AREA	Numeric	8	2
20	VIS	Numeric	5	2
21	MTHD	Character	4	
22	CHTYP	Character	1	
23	MON	Character	4	
24	WNAB	Character	3	
25	CHCLS	Character	4	
26	STCELL	Numeric	2	
27	NEWSTCELL	Numeric		
28	CHCELL	Numeric	1	
29	NEWCHCELL	Numeric	2	
30	CHINDD	Numeric	6	2
31	CHIN1D	Numeric	6	2
32	STHD0D	Numeric	5	2
33	STHD1D	Numeric	5	2
34	STGD2D	Numeric	5	2
35	STHD12D	Numeric	5	2
36	CHCC	Numeric	3	
37	CHPERCC	Numeric	6	2
38	STCC	Numeric	2	
39	STPERCC	Numeric	6	2
40	STHD02	Numeric	4	
41	STHD35	Numeric	4	
42	STHD68	Numeric	4	
43	STHD911	Numeric	4	
44	STHD1214	Numeric	4	
45	sTHD1517	Numeric	4	
46	STHD18FL	Numeric	4	
47	STAc02	Numeric	4	
48	STAC35	Numeric	4	

Appendix D. Continued

49	STAC88	Numeric	4	
50	STAC911	Numeric	4	
51	STAC1214	Numeric	4	
52	sTAC1517	Numeric	4	
53	STAC18PL	Numeric	4	
54	RET02	Numeric	4	
55	RET35	Numeric	4	
56	RET68	Numeric	4	
57	RET911	Numeric	4	
58	RET1214	Numeric	4	
59	RET1517	Numeric	4	
60	RET18PL	Numeric	4	
61	CUTT02	Numeric	4	
62	CUTT35	Numeric	4	
63	CUTT68	Numeric	4	
64	CUTT911	Numeric	4	
65	CUTT1214	Numeric	4	
66	CUTT1517	Numeric	4	
67	CUTT18PL	Numeric	4	
68	BRKT02	Numeric	4	
69	BRKT35	Numeric	4	
70	BRKT68	Numeric	4	
71	BRKT911	Numeric	4	
72	BRKT1214	Numeric	4	
73	BRKT1517	Numeric	4	
74	BRKT18PL	Numeric	4	
75	BULT02	Numeric	4	
76	BULT35	Numeric	4	
77	BULT68	Numeric	4	
78	BULT911	Numeric	4	
79	BULT1214	Numeric	4	
80	BULT1517	Numeric	4	
81	BULT18PL	Numeric	4	
82	WHF02	Numeric	4	
83	WHF35	Numeric	4	
84	WHF68	Numeric	4	
85	WHF911	Numeric	4	
86	WHF1214	Numeric	4	
87	WHF1517	Numeric	4	
88	WHF18PL	Numeric	4	
89	CHINO	Numeric	4	
90	CHINI	Numeric	4	
91	SFCHPERUSE	Numeric	4	2
92	SUCHPERUSE	Numeric	4	2
93	STHDPERUSE	Numeric	4	2
94	SFCHNHA	Numeric	1	
95	SUCHNHA	Numeric	1	
96	STHDHA	Numeric	1	
97	SFCHUSETYP	Numeric	1	
98	SUCHUSETYP	Numeric	1	
99	STHDUSETYP	Numeric	1	
<b>Total</b>			<b>449</b>	

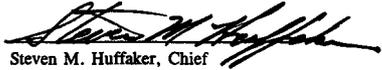
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