IDAHO HABITAT/NATURAL PRODUCTION MONITORING
PART I

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ABSTRACT

A total of 333 stream sections were sampled in 1994 to monitor trends in chinook salmon *Oncorhynchus tshawytscha* and steelhead trout *O. mykiss* parr populations in Idaho. Percent carrying capacity and density estimates were summarized 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. These data were also summarized by cells or subbasins as defined in Idaho Department of Fish and Game's 1992-1996 Anadromous Fish Management Plan.

Estimates of densities mirrored those of percent carrying capacity for all classes of steelhead trout and chinook salmon in 1994. While steelhead trout and chinook salmon populations remain at critically low levels, all classes showed an increase in 1994 from 1993. Steelhead trout densities and percent carrying capacity increased slightly in 1994. Percent carrying capacity of natural spring and summer chinook salmon was the highest on record since 1985, with wild spring and summer chinook salmon exceeding the ten year average. Of the last five years, however, 1994 represents the only moderately strong year class (brood year 1993) of chinook salmon.

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INTRODUCTION

The Idaho Department of Fish and Game (IDFG) has been monitoring trends in juvenile salmon *Oncorhynchus tshawytscha* and steelhead trout *O. mykiss* populations in the Salmon, Clearwater, and lower Snake River drainages (Figure 1) for the past 11 years. The IDFG monitoring approach, developed in 1984-85 by 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 Forster 1990) estimate spawning escapements, standing stocks of parr, and outmigrant yields for a limited number of streams. These estimates are used to predict 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 1994 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. Also in 1994, streams in each management unit were prioritized to ensure sampling of "core" streams during drought years.

METHODS

This project has been monitoring parr densities of juvenile chinook salmon and steelhead trout as well as resident species in stream sections within the Salmon, Clearwater, and lower Snake River drainages since 1984. Only data from 1985 on are reported 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 Regions 2, 3, and 7 were responsible for collecting the majority of the 1994 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 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.

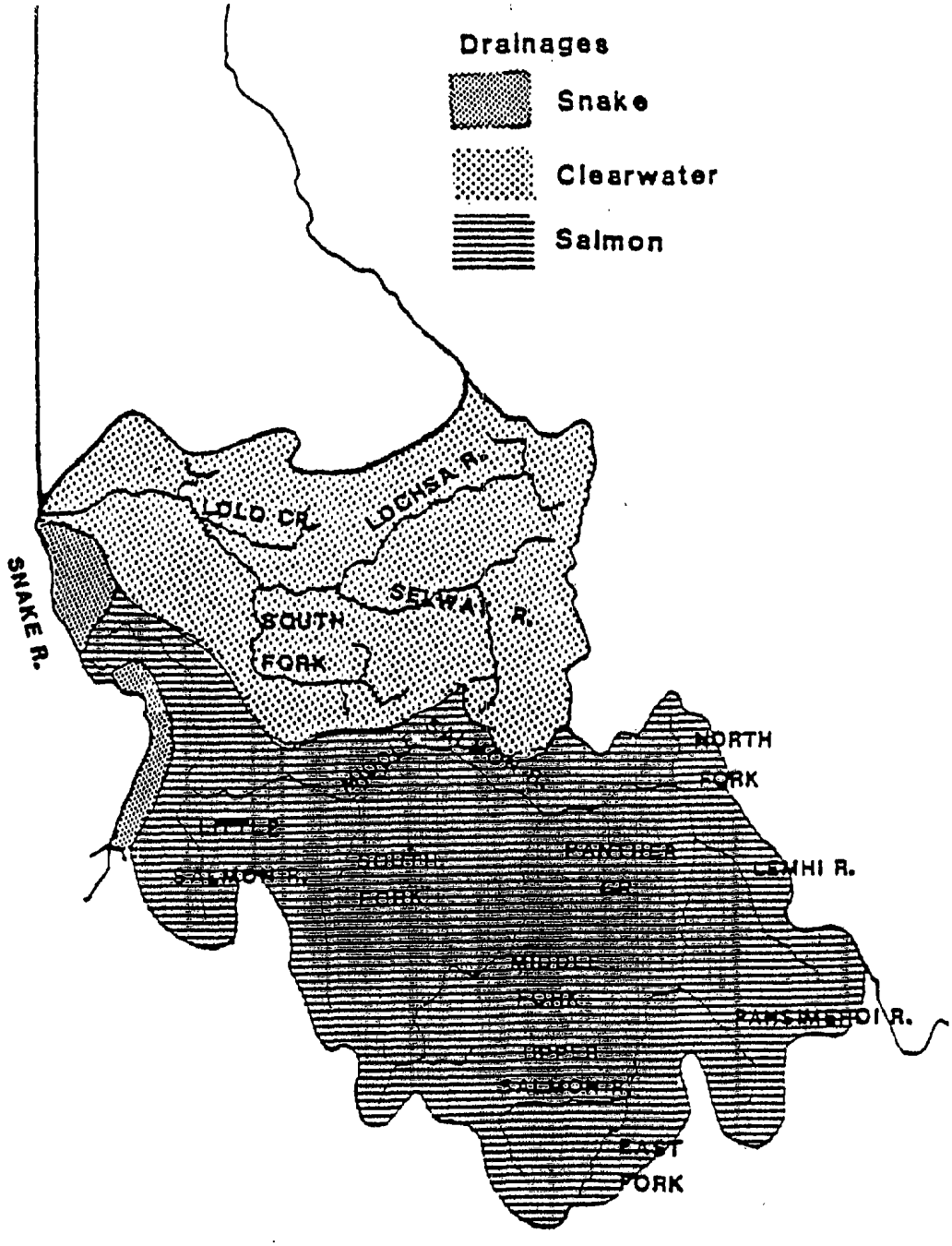

Figure 1. Idaho's present anadromous fish production waters showing major drainages of the Clearwater River, Salmon River, and Snake River subbasins.

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 1994.

Year	Number of steelhead trout sections	Number of chinook salmon sections[a]
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

[a]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 varying 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 (Northwest Power Planning Council and Bonneville Power Administration 1989). Sections monitored in 1994 are listed in Appendix A-1. Only data from these sections are summarized in this report.

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 parallel IDFG supplementation and intensive parr and smolt monitoring programs. Parr density evaluation sites which were surveyed in 1994 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 1994 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 streams in 1994.

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 1985-1994 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 two to three 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%.

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 by 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), gradient, substrate, etc., 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 programs. Once the program ends, they 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 (or priority one) anadromous streams sampled annually by cooperating agencies, tribes, and regions are as follows:

IDFG Research	=	11
Region 2	=	10
Region 3	=	5
Region 7	=	4
NPT	=	5
SBT	=	3
USFWS-FRO	=	1
Total Key Streams	=	39

Parr Density Monitoring

General parr monitoring and intensive monitoring subprojects sampled a total of 333 sections in 1994 to index the annual abundance of chinook salmon and steelhead trout parr (Table 1). Chinook salmon parr are defined here as age 0+, with lengths less than 10 cm (4 in). Steelhead trout parr are age 1+ and 2+, 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 (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 1994 were obtained by snorkeling in all anadromous stream sections except those in the Lemhi River. The Lemhi River was electrofished due to it's relative turbidity and high conductivity. This report summarizes 1994 parr density and percent carrying capacity (PCC) information. Data for years prior to 1994 were obtained from Rich et al. (1992 and 1993), Rich and Petrosky (1994), and Leitzinger and Petrosky (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.

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 94 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 1985-1994, 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^2 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 Forster 1991), 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^2) and 50% parr-to-smolt survival imply a parr density of 20/100 m^2, 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^2) and 50% parr-to-smolt survival imply a parr density of 180/100 m^2, 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^2 and excellent chinook salmon habitat would support 108 parr/100 m^2 (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^2 for steelhead trout; and 12, 44, 77, and 108/100 m^2 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

We compared steelhead trout and chinook salmon parr densities and PCC among classes and years for 1985-1994. 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 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.

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 + and age 2 + 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 populations because it incorporates an estimate of the carrying capacity. The rating also accounts for, in part, differences in channel type, gradient, stream size, and sediment level. Because the PCC for steelhead trout include both age 1 + and age 2 + parr, it may mask annual differences resulting from variations in adult escapement between two brood years.

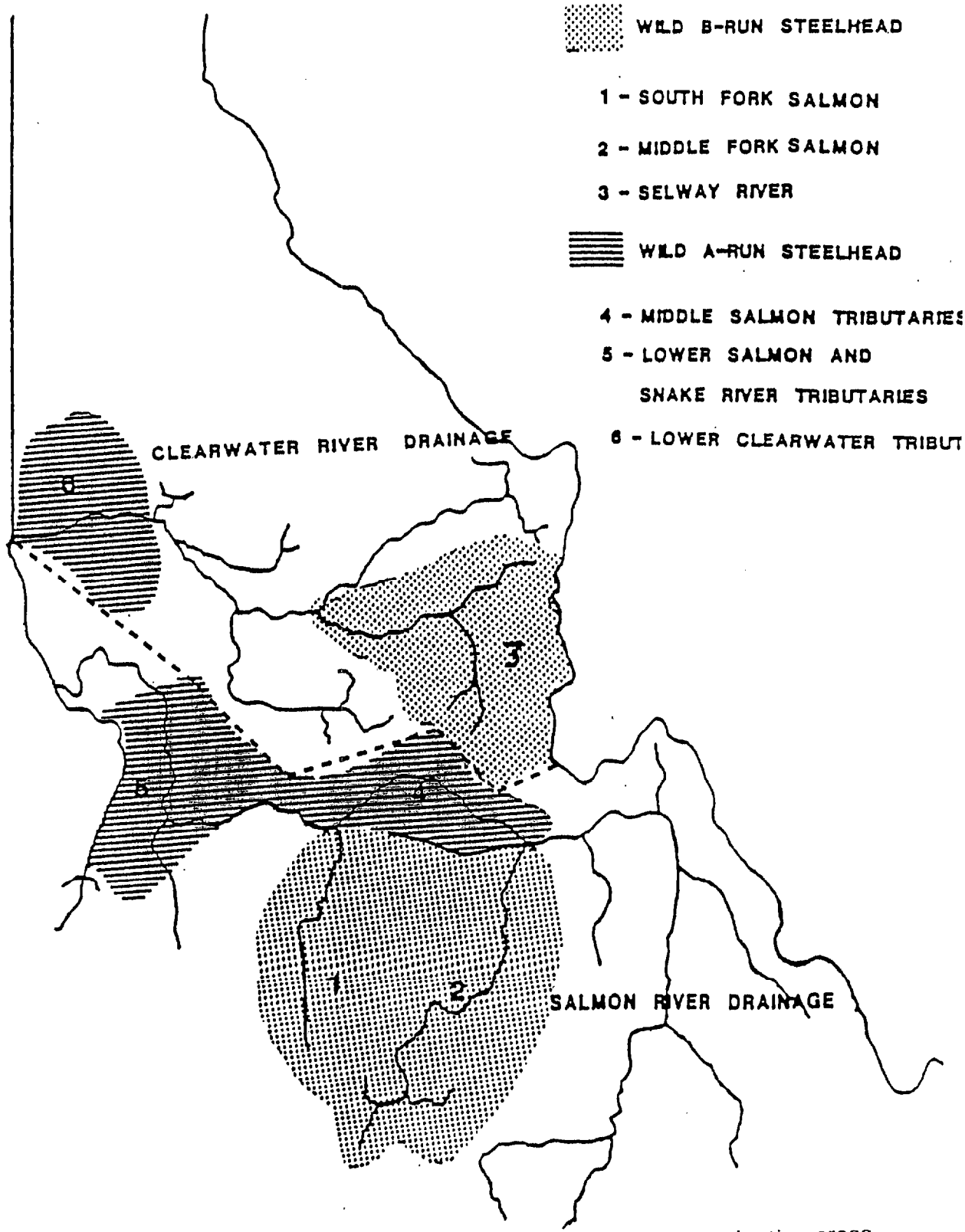

Figure 2. Present distribution of wild A-run and B-run steelhead trout production areas in Idaho.

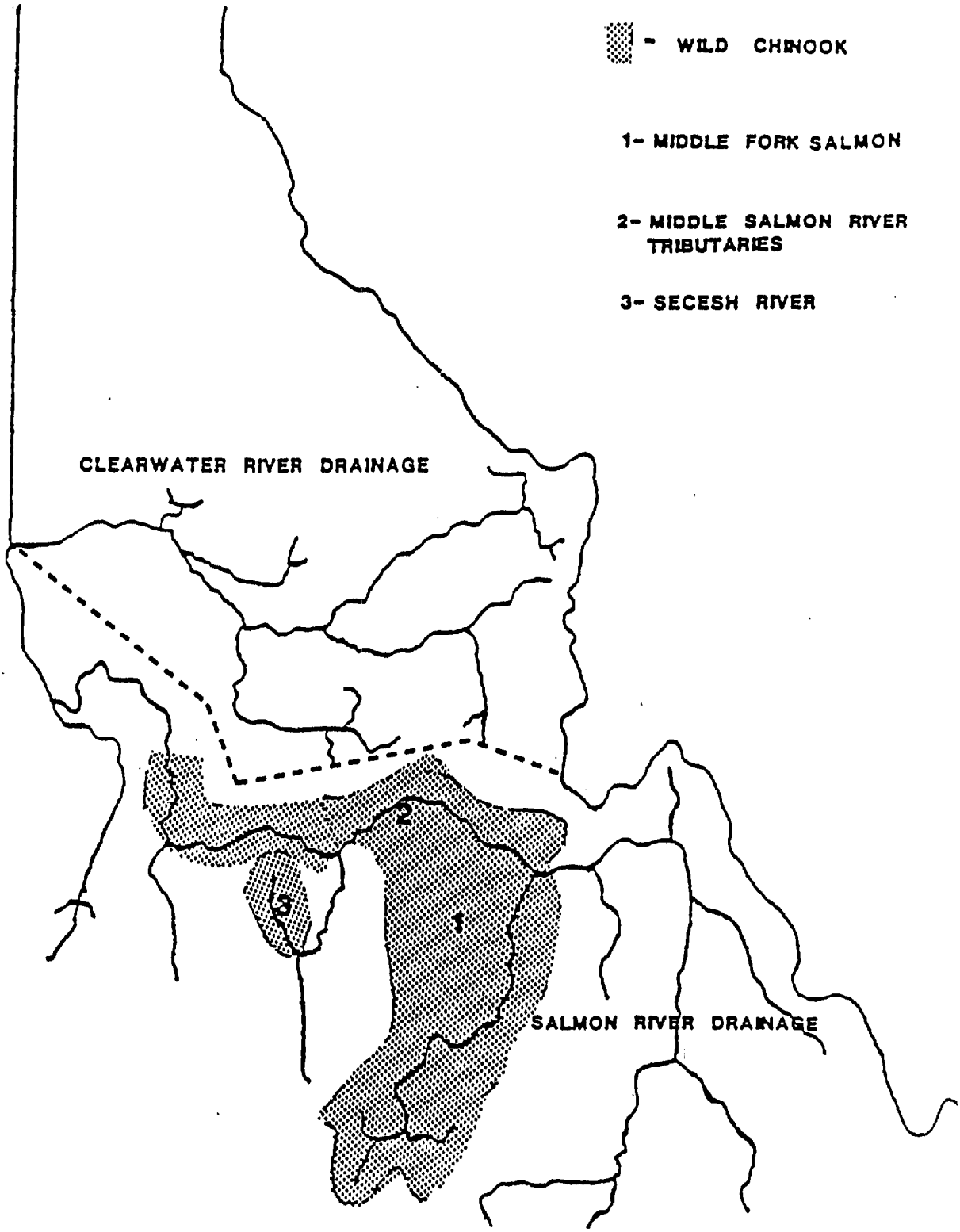

Figure 3. Present distribution of wild chinook salmon production areas in Idaho.

The best index of steelhead trout escapement is probably the age 1+ 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+ steelhead trout parr. Fewer fish are forced into the less desirable C channel habitat as a result. Also, unlike the age 2+ parr, none of the age 1+ cohort would have smolted.

For chinook salmon, both parr density and PCC are for a single age class (age 0+) 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.

Database Management

All biological data from 1985 through 1994 have been entered into Dbase IV (version 1.5) files for easy access and arrangement for various analyses. The 1986 through 1994 data have been verified for accuracy. The 1985 data is 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

Steelhead trout and chinook salmon cells were modified in 1993 to identify the stocks or subbasins defined 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). By increasing the number of cells (Tables 2 and 3), we have reduced the sample size for some cells (i.e., Lemhi and Pahsimeroi were combined previously, and now are in separate cells) which will be more representative of the subbasins.

All general parr monitoring stream sections surveyed in 1994 are listed in Appendix A-1 along with channel type, chinook salmon and steelhead trout class, chinook salmon and steelhead trout density, and PCC.

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/100 m^2) of age 1+ steelhead trout parr in B channels, 1994.

Class Cell		Average PCC	# Sites	# Streams	Average age 1+ density in B channels	# Sites	# Streams
Wild B-run							
1.	Selway R	29.56	24	13	3.64	23	13
2.	Middle Fk Salmon R	4.74	49	13	0.92	14	9
3.	South Fk Salmon R	12.51	32	8	1.35	17	4
Natural B-run							
4.	Lochsa R	41.15	21	10	4.30	21	10
5.	South Fk Clearwater R	16.25	57	10	1.87	28	7
6.	Mainstem Clearwater & Tribs (Lolo Cr)	9.81	10	2	1.49	6	2
7.	East Fork Salmon R (above weir)	2.73	4	1	0.17	4	1
Natural A-run							
8.	Little Salmon R[a]	---	---	---	---	---	---
9.	Lower Salmon R	26.99	12	4	3.00	8	4
10.	Upper Salmon R	19.19	13	6	1.45	9	6
11.	Pahsimeroi R	4.93	2	1	---	0	0
12.	Lemhi R	30.87	5	3	0.09	3	2
13.	Headwaters Salmon R	8.13	86	14	1.02	42	11
14.	Snake R Tribs (Granite Cr)	48.43	3	1	4.76	3	1
Wild A-run							
15.	Salmon Canyon Tribs	33.42	9	4	2.95	6	4
16.	Snake R Tribs (Sheep Cr)	39.84	4	2	4.19	4	2
17.	Mainstem Clearwater R Tribs	17.08	2	1	0.56	2	1
18.	Lower Salmon R Tribs	58.00	3	2	9.55	3	2
19.	Rapid R (above weir)	32.52	2	2	3.43	2	2

[a] Sections in the Little Salmon River not snorkeled in 1994.

Table 3. Average percent carrying capacity (PCC) for chinook parr in all monitoring sections (B and C channels) and densities (number/100 m^2) of chinook salmon parr in C channels, 1994.

Class Cell		Average PCC	# Sites	# Streams	Average age 0 density in C channels	# Sites	# Streams
Wild Spring							
1.	Middle Fk Salmon R (w/o Bear Valley/Elk Cr)	24.22	28	9	18.08	18	8
2.	Salmon R Canyon & Tribs	9.00	9	4	18.80	3	2
3.	Bear Valley/Elk Cr	5.27	18	3	3.29	16	3
4.	Snake R Tribs (Granite/Sheep Cr)	9.58	5	2	---	0	0
19.	Lower Salmon R	7.83	7	3	---	0	0
Wild Summer							
5.	Secesh R	6.41	7	3	6.48	5	2
6.	Middle Fork Salmon R	5.58	5	2	5.21	1	1
7.	Upper Salmon R (Middle Fk - Redfish Lake Cr, East Fk - Mouth to weir)	2.47	1	1	---	0	0
Natural Spring							
8.	Little Salmon R	---	---	---	no sites sampled	---	---
9.	Lemhi R	0.00	5	3	0.00	3	3
10.	Upper Salmon R	15.44	24	9	14.43	8	4
11.	Headwaters Salmon R	30.34	86	14	18.08	44	9
12.	South Fk Clearwater R	46.05[a]	57	10	37.89[a]	29	8
13.	Lochsa R	2.15	21	10	---	0	0
14.	Selway R	8.20	26	14	0.70	1	1
15.	Mainstem Clearwater R & Tribs (Lolo Cr)	6.86	12	3	0.81	4	2
Natural Summer							
16.	Rapid R	9.52	2	2	---	0	0
17.	South Fk Salmon R	52.89	25	5	36.90	10	4
18.	Pahsimeroi R	20.53	2	1	15.81	2	1

[a] Includes the ponds on Crooked River.

Steelhead Trout Parr

Densities - Table 4 and Figure 4 summarize the density of age 1^+ steelhead trout parr in B channels, by class and year (1985-94). Densities of age 1^+ steelhead trout parr in B channels are listed in Table 2 by class and cell (or subbasin). The lowest mean densities for age 1^+ steelhead trout parr in B channels in 1994 were for natural A-run steelhead in the Lemhi River (cell 12) at 0.1/100 m^2 and natural B-run steelhead in the East Fork Salmon River (cell 7) at 0.2/100 m^2 (Table 2). The highest mean densities were for wild A-run steelhead trout in the lower Salmon River tributaries (cell 18) at 9.6/100 m^2. The next to highest densities were for natural A-run steelhead trout in Snake River tributaries (cell 14) at 4.8/100 m^2. Overall, densities for all classes of 1^+ steelhead trout parr increased slightly over 1993 densities (Table 4, Figure 4). Wild A-run steelhead trout continue to have the highest densities, and wild B-run steelhead trout in the Lochsa River (cell 4) had the overall greatest increase in densities from 1993 survey estimates.

Percent Carrying Capacity - While PCC for all classes of age 1^+ and 2^+ steelhead trout parr in B and C channels was higher in 1994 than in 1993, the overall trend continues to show a decline in steelhead populations in Idaho (Table 4, Figure 5) since 1986. Mean PCC for all classes of steelhead (except wild B-run steelhead trout in the Lochsa River) in 1994 were lower than the ten-year average (Table 4). Wild A-run steelhead populations averaged 37% of carrying capacity, natural A-run steelhead averaged 13%, and natural B-run steelhead averaged 21% compared to ten-year averages of 60%, 21%, and 33%, respectively. Wild B-run steelhead in the Lochsa River averaged 13% of carrying capacity in 1994, similar to the ten-year average of 11%.

Chinook Salmon Parr

Densities - Densities of all classes of chinook salmon parr in 1994 were four times higher than 1993 levels (Table 5, Figure 6). Wild spring and summer chinook salmon parr densities averaged 11/100 m^2, similar to the ten-year average of 11.2/100 m^2. Natural spring and summer chinook salmon parr exceeded the ten-year average of 15.1/100 m^2 with the second highest average on record of 24.1/100 m^2 in 1994.

Chinook salmon parr densities in C channels are summarized by cell and class in Table 3. The lowest mean densities for age 0 chinook salmon parr in C channels in 1994 were for natural spring chinook salmon in the Lemhi River (0.0/100 m^2) (cell 9), and the Selway River (cell 14) at 0.7/100 m^2 (Table 3). The highest mean densities for age 0 chinook salmon parr were for natural spring chinook salmon in the

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, 1985-94.

	PCC (by Class[a])				B channel density (by Class)			
Year	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
Mean	59.6	11.4	20.7	32.9	6.8	1.7	3.2	4.1
SD of Annual Means	19.8	2.9	9.2	13.2	2.5	0.4	1.9	1.9

[a] WA = wild A, WB = wild B, NA = natural A, NB = natural B

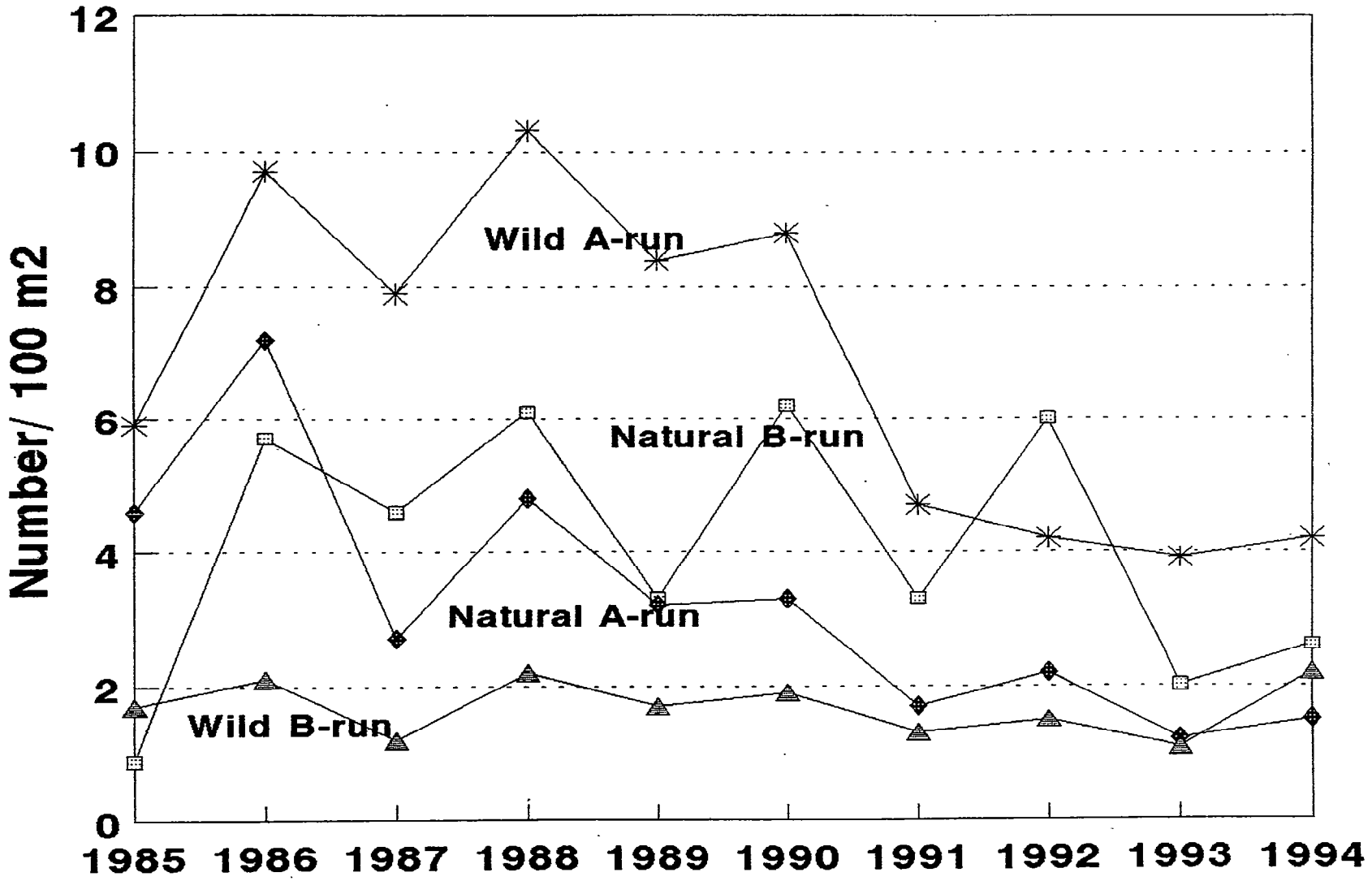

Figure 4. Mean annual density (number of age 1+ steelhead trout/100m2 in B channels)) of four classes of steelhead trout parr in Idaho, 1985-94

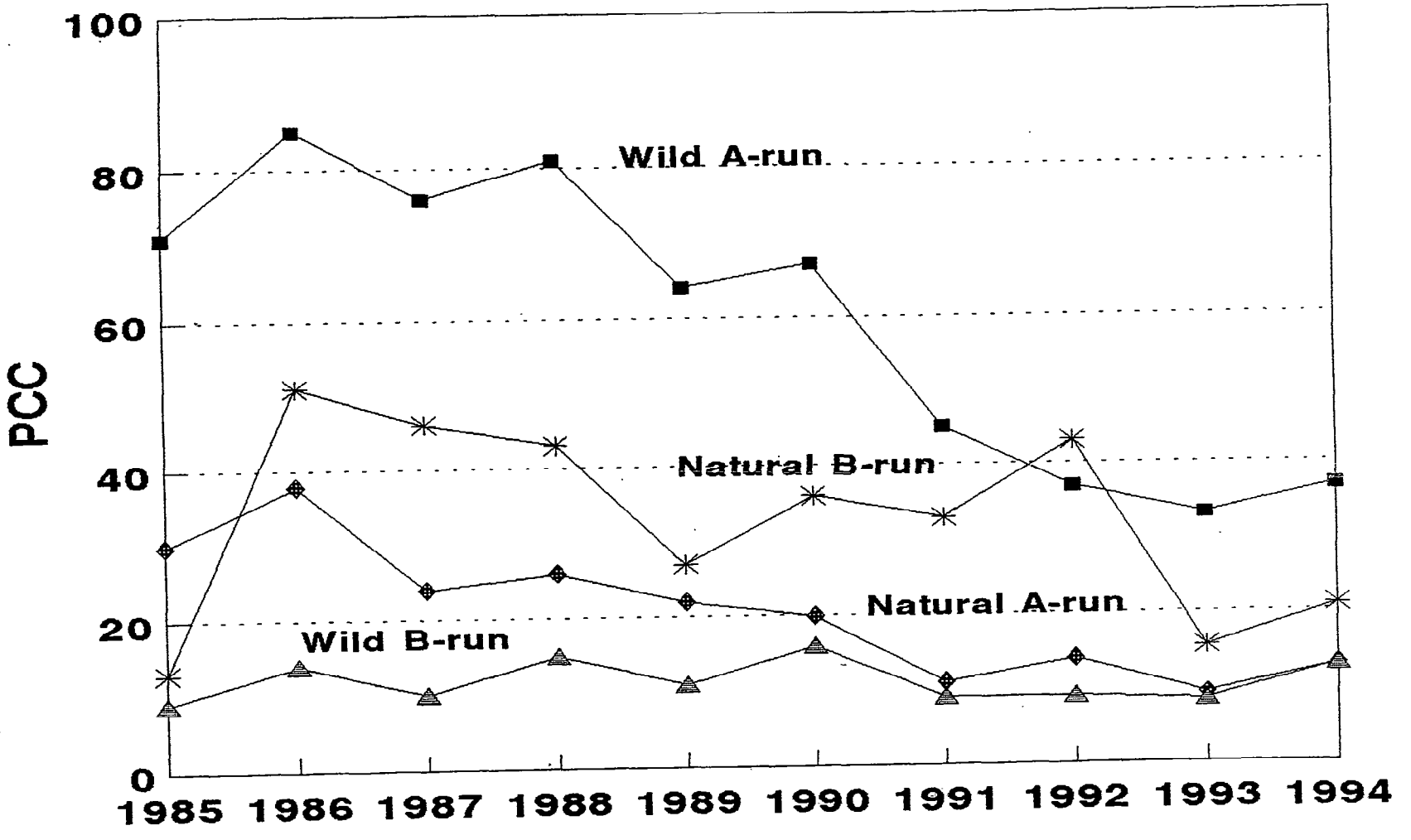

Figure 5. Mean annual percent of carrying capacity of four classes of steelhead trout parr (age 1+ and 2+ in B and C channels) in Idaho, 1985-94.

Table 5. Mean percent of rated carrying capacity (PCC) of age 0+ chinook salmon parr in B and C channels, and density of age0+ chinook salmon parr in C channels, by class and year, 1985-94.

	PCC (by Class[a])		C Channel Density (by Class)	
Year	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
Mean	8.5	14.5	11.2	15.1
SD of Annual Means	4.5	9.2	6.8	9.9

[a] WSp = wild spring, WSu = wild summer, NSp = natural spring, NSu = natural summer

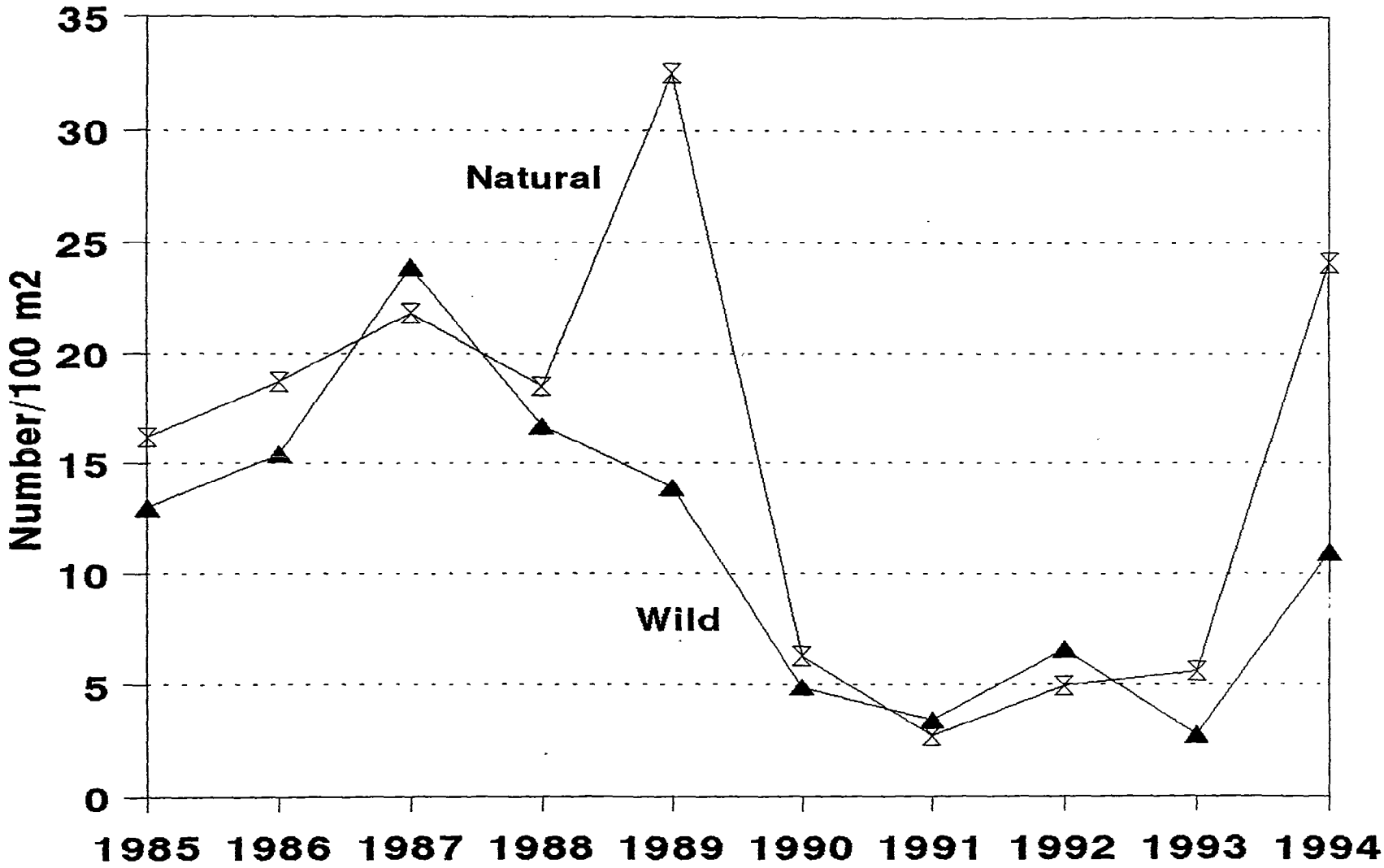

Figure 6. Mean annual density (number/100 m2 in C channels) of two classes of chinook salmon parr (age 0+) in Idaho, 1985-94.

South Fork Clearwater River (includes ponds on Crooked River) at 37.9/100 m^2 (cell 12). The next highest densities were for natural summer chinook salmon in the South Fork Salmon River (cell 17) at 36.9/100 m^2. Overall, densities for all classes of age 0 chinook salmon parr increased in 1994 (Table 3, Figure 6), exceeding annual densities observed during the past four years. Natural spring and summer chinook densities were the second highest on record since 1985, and wild spring and summer chinook densities had a four-fold increase from 1993 survey estimates (Table 5, Figure 6). Of the last five years, however, 1994 represents the only moderately strong year class (brood year 1993) of chinook salmon.

Percent Carrying Capacity - PCC estimates in 1994 have paralleled the density estimates. While the overall trend has been declining chinook salmon populations in Idaho (1985-1993) (Table 5, Figure 7), PCC in 1994 for natural spring and summer chinook was the highest on record since 1985 (28%), and wild spring and summer chinook carrying capacity was closer to pre-1990 levels with an average of 11%.

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 by Leitzinger and Holubetz (1994) for implementation in 1995 (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 sites based on stock, geographic area, habitat type, and channel type so that all subbasins are adequately sampled.

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 USFS 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 trends of chinook salmon and steelhead trout parr in Idaho.

Table 6 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 1994. It also lists the number of streams being sampled intensively, and the number of those that do and do not already contain GPM sites.

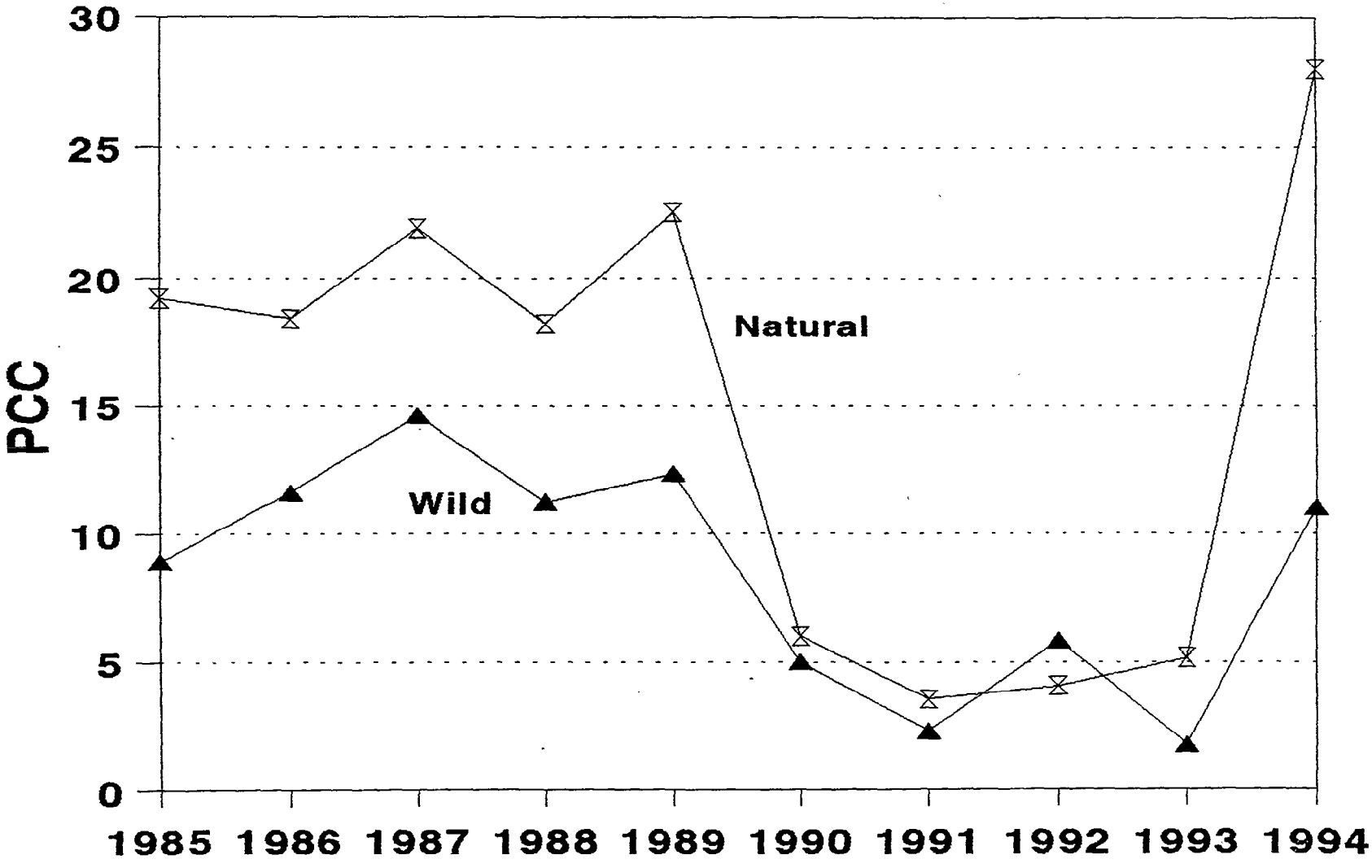

Figure 7. Mean annual percent of carrying capacity of two classes of chinook salmon parr (age 0+ in B and C channels) in Idaho, 1985-94.

Table 6. Breakdown of 1994 GPM sampling by classes of anadromous fish and channel type.

	Steelhead					Chinook				
Class	WA	WB	NA	NB	Total	WSp	WSu	NSp	NSu	Total
Number cells	5	3	7	4	19	5	3	8	3	19
Number streams	11	34	29	23	97	22	4	63	8	97
Number Sites										
B-channel	17	54	65	59	195	32	3	142	17	194
C-channel	3	51	56	33	143	38	5	89	12	144
Total[a]	20	105	121	92	338	70	8	231	29	338
Number of streams currently being sampled intensively										
w/GPM sites	4	12	9	12	37	7	3	22	5	37
w/o GPM sites	0	2	1	9	12	0	0	11	1	12
Total[b]	4	14	10	21	49	7	3	33	6	49

[a]There was 1 stream with 1 site sampled that was not rated as a steelhead spawning and rearing stream.
[b]There were 16 streams with 27 sites sampled that were not rated as chinook spawning and rearing streams.

By incorporating the intensive data from 1993 into the GPM database, we would add data from a total of 49 streams. There would be 12 new streams added that are not presently in the database, and additional sites in 37 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 the Coordinated Information System to facilitate information exchange.

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Appendix A-1.

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

Appendix A-1. 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 1994.

SALMON RIVER DRAINAGE

Stream Name	Strata	Section	Drainage	Channel Type	Steelhead Class W vs N A vs B	Steelhead Age 1+ Density no/100msq	Steelhead Age 2+ Density no/100msq	Steelhead Percent Carrying Capacity	Chinook Class W vs N Spr vs Sum	Chinook Age 0+ Density no/100msq	Chinook Percent Carrying Capacity
Snake River, above mouth Salmon River											
GRANITE CR	UPPER	3	101	B	NA	5.4	4.05	47.25	WSPR	0	0
GRANITE CR	MIDDLE	2	101	B	NA	2.92	4.09	35.05	WSPR	0	0
GRANITE CR	LOWER	1	101	B	NA	5.95	6.65	63	WSPR	2.45	20.42
SHEEP CR		1	101	B	WA	6.84	10.92	98.8	WSPR	6.84	20.09
SHEEP CR		2	101	B	WA	4.18	4.18	41.8	WSPR	3.25	7.39
Lower Salmon River											
SLATE CR		2	209	B	NAB	2.53	1.32	19.25	WSPR	3.08	7
SLATE CR		3	209	B	NAB	2.79	1.67	22.3	WSPR	1.3	2.95
SLATE CR		4	209	B	NAB	3.23	5.53	43.8	WSPR	2.77	6.3
SLATE CR		6	209	B	NAB	2.58	2.92	27.5	WSPR	15.99	36.3
WHITEBIRD CR	MAINSTEM	1	209	B	WA	5.76	1.3	35.3	WSPR	0	0
WHITEBIRD CR, S FK	SF, #2	3	209	B	WA	12.86	2.86	78.6	WSPR	0.48	1.09
WHITEBIRD CR, S FK	SF, #1	2	209	B	WA	10.02	2	60.1	WSPR	0.5	1.14
Little Salmon River											
RAPID R		RAP2	210	B	WA	4.36	3.47	39.15	NSUM	7.67	17.43
RAPID R, W FK		RAP1	210	B	WA	2.5	2.68	25.9	NSUM	0.71	1.61
Salmon River Canyon											
BARGAMIN CR	UPPER	2	207	B	WA	1.85	3.15	25	WSPR	0	0
BARGAMIN CR	LOWER	1	207	B	WA	1.09	1.09	10.9	WSPR	0	0
CHAMBERLAIN CR		CHA4	207	C	WA	4.06	1.88	42.43	WSPR	42.71	55.47
CHAMBERLAIN CR		CHA1	207	B	WA	1.32	0.88	11	WSPR	2.43	5.52
CHAMBERLAIN CR, W FK	STONEBRAKE	AIRSTRIP	207	C	WA	7.89	4.48	88.36	WSPR	6.61	6.12
CHAMBERLAIN CR, W FK		CHA2	207	C	WA	2.57	1.96	32.36	WSPR	7.09	6.56
CHAMBERLAIN CR, W FK		CHA3	207	B	WA	2.98	0.5	24.86	WSPR	7.93	7.34
HORSE CR		TALUSSLOPE	207	B	WA	2.64	1.76	22	WSPR	0	0
HORSE CR		50M ABOVE	207	B	WA	7.82	0.96	43.9	WSPR	0	0
Lemhi River											

BEAR VALLEY CR	HC1	B	204	C	NA	0.38	0.38	3.8	NSPR	0	0
BEAR VALLEY CR	HC1	CAMP	204	B	NA	0	0	0	NSPR	0	0
BIG SPRINGS CR	LEM1	A	204	C	NA	26.81	2.15	144.8	NSPR	0	0
HAYDEN CR	HC2	B	204	B	NA	0	0.88	4.4	NSPR	0	0
HAYDEN CR	HC3	B	204	B	NA	0.27	0	1.35	NSPR	0	0
Pahsimeroi River											
PAHSIMEROI R	1	PONDS	202	C	NA	1.6	0.16	8.8	NSUM	31.62	41.06
PAHSIMEROI R	1	US-P9 DIV	202	C	NA	0	0.21	1.05	NSUM	0	0
Headwaters Salmon River											
ALTURAS LK CR	4	4B(2B)	201	C	NA	0	0	0	NSPR	0	0
ALTURAS LK CR	1	1B(1B)	201	B	NA	0	0	0	NSPR	3.91	3.62
ALTURAS LK CR	5	5A(3A)	201	B	NA	0	0	0	NSPR	7.51	6.95
ALTURAS LK CR	5	5B(3B)	201	B	NA	0	0	0	NSPR	0	0
ALTURAS LK CR	4	4A(2A)	201	B	NA	0.13	0.13	2.6	NSPR	1.17	1.08
ALTURAS LK CR	3	3B	201	C	NA	0	0.16	1.6	NSPR	13.33	12.34
ALTURAS LK CR	2	2A	201	C	NA	0.33	0	2.36	NSPR	12.37	11.45
ALTURAS LK CR	3	3A	201	C	NA	0.56	0.28	8.4	NSPR	7.53	6.97
ALTURAS LK CR	1	1C	201	C	NA	0	0	0	NSPR	6.44	5.96
ALTURAS LK CR	1	1A(1A)	201	B	NA	0.06	0	0.43	NSPR	1.11	1.03
ALTURAS LK CR	2	2B(1C)	201	C	NA	0	0	0	NSPR	11.48	10.63
ALTURAS LK CR	3	3C	201	C	NA	0	0	0	NSPR	6.93	6.42
ALTURAS LK CR	2	2C	201	C	NA	0	0	0	NSPR	4.92	4.56
BEAVER CR	1	1C	201	B	NA	20.42	0.43	208.5	NSPR	21.27	27.67
BEAVER CR	1	1B	201	C	NA	10.87	0.3	111.7	NSPR	1.81	2.35
BEAVER CR	2	2B	201	B	NA	0	0	0	NSPR	3.3	4.29
BEAVER CR	2	2A	201	C	NA	0.21	0	2.1	NSPR	126.89	164.79
CHAMPION CR	2	2B	201	B	NA	0	0	0	NSPR	0	0
CHAMPION CR	2	2A	201	B	NA	0	0	0	NSPR	1.17	2.66
FOURTH OF JULY CR	1	A	201	B	NA	0.69	0.35	7.43	NSPR	12.49	16.22
FOURTH OF JULY CR	1	B	201	B	NA	1.25	0.75	14.29	NSPR	8.22	10.68
FRENCHMAN CR	2	2B	201	B	NA	0	0	0	NSPR	2.35	3.05
FRENCHMAN CR	1	1A	201	B	NA	3.79	1.26	36.07	NSPR	10.12	13.14
FRENCHMAN CR	1	1B	201	B	NA	2.65	0	18.93	NSPR	6.36	8.26
FRENCHMAN CR	2	2A	201	B	NA	0	0	0	NSPR	442.04	574.08
GOLD CR	1	1B	201	B	NA	0	0	0	NSPR	0	0
GOLD CR	1	1A	201	B	NA	0.88	0	6.29	NSPR	20.13	26.14
HUCKLEBERRY CR	1	1B	201	B	NA	0.26	0.26	8.67	NSPR	2.84	3.69
HUCKLEBERRY CR	1	1A	201	B	NA	0	0	0	NSPR	0	0
HUCKLEBERRY CR	2	2B	201	C	NA	0	0	0	NSPR	5.77	7.49
HUCKLEBERRY CR	2	2A	201	C	NA	0	0	0	NSPR	2.54	3.3
PETTIT LK CR	1	1A	201	C	NA	0.32	0	2.29	NSPR	18.87	24.51
PETTIT LK CR	1	1B	201	C	NA	0.4	0.8	8.57	NSPR	17.44	22.65
POLE CR	2	2AB	201	B	NA	1.93	0.28	22.1	NSPR	11.01	14.3
POLE CR	3	3B	201	B	NA	0	0	0	NSPR	0	0
POLE CR	3	3A	201	B	NA	0	0	0	NSPR	2.04	2.65
POLE CR	2	2B	201	B	NA	0	0	0	NSPR	0.74	0.96
POLE CR	1	1A	201	C	NA	0	0	0	NSPR	0	0
POLE CR	2	2A	201	C	NA	0.2	0.2	4	NSPR	0.8	1.04

POLE CR	1	1B	201	C	NA	0	0	0	NSPR	0	0
POLE CR	1	1AB	201	C	NA	0	0	0	NSPR	0	0
REDFISH LK CR		LOWER	201	B	NA	1.46	0.77	15.93	NSPR	3.43	4.45
REDFISH LK CR	WEIR	DS	201	B	NA	0.05	0.1	1.07	NSPR	4.18	5.43
SALMON R	3	3SCA	201	C	NA	0.25	0	1.79	NSPR	115	261.36
SALMON R	3	3B	201	B	NA	0.07	0	0.5	NSPR	2.76	6.27
SALMON R	3	3BRB	201	C	NA	0	0.42	3	NSPR	9.22	20.95
SALMON R	3	3BRA	201	C	NA	0.21	0.44	4.64	NSPR	88.87	201.98
SALMON R	4	4A	201	C	NA	0	0	0	NSPR	0	0
SALMON R	3	3A	201	B	NA	0	0	0	NSPR	4.83	10.98
SALMON R	4	4B	201	C	NA	0	0	0	NSPR	0	0
SALMON R	3	3SCB	201	C	NA	0	0	0	NSPR	5.33	12.11
SALMON R	6	6SB	201	B	NA	0	0	0	NSPR	0	0
SALMON R	10	A	201	B	NA	1.16	4.05	37.21	NSPR	46.83	60.82
SALMON R	8	B	201	C	NA	0	0	0	NSPR	0	0
SALMON R	8	8SB	201	C	NA	0	0	0	NSPR	32.14	41.74
SALMON R	8	A	201	C	NA	0	0	0	NSPR	0.14	0.18
SALMON R	10	B	201	C	NA	0	0	0	NSPR	0.63	0.82
SALMON R	10	AB	201	B	NA	2.44	0.97	24.36	NSPR	79.95	181.7
SALMON R	7	A	201	C	NA	0	0	0	NSPR	0.09	0.12
SALMON R	9	A	201	C	NA	1.37	2.29	26.14	NSPR	16.94	22
SALMON R	9	B	201	B	NA	2.81	2.03	34.57	NSPR	27.97	36.32
SALMON R	7	B	201	C	NA	0	0	0	NSPR	0	0
SALMON R	7	7SA	201	C	NA	0.38	0	3.8	NSPR	49.65	64.48
SALMON R	6	6SA	201	B	NA	0	0	0	NSPR	0.25	0.32
SALMON R	5	5A	201	B	NA	0	0	0	NSPR	0	0
SALMON R	4	4SCA	201	C	NA	0	0	0	NSPR	0	0
SALMON R	6	6B	201	B	NA	0	0	0	NSPR	0.03	0.04
SALMON R	6	6A	201	C	NA	0.04	0	0.29	WSPR	0	0
SALMON R	5	5B	201	B	NA	0	0	0	NSPR	2.35	3.05
SALMON R	4	4BRA	201	C	NA	0.02	0	0.14	NSPR	1.72	2.23
SALMON R	4	4SCB	201	B	NA	0.11	0.23	2.43	NSPR	101.05	131.23
SALMON R	4	4BRB	201	B	NA	0.13	0.36	3.5	NSPR	38.6	50.13
SALMON R, E FK	BLW WEIR	ZIEGLER HL	201	B	NAB	0.61	0.48	7.79	NSPR	5.21	6.77
SALMON R, E FK	1 ABV WEIR	3	201	B	NAB	0.06	0.51	2.85	NSPR	2.09	1.94
SALMON R, E FK	BLW WEIR	FOX CR	201	B	NAB	0	0.06	0.3	NSPR	4.95	4.58
SALMON R, E FK	2 ABV WEIR	2	201	B	NAB	0	0	0	NSPR	0.21	0.19
SMILEY CR	2	2A	201	C	NA	0	0	0	NSPR	0.71	0.92
SMILEY CR	1A	1A	201	B	NA	1.21	1.21	24.2	NSPR	14.82	19.25
SMILEY CR	2	2B	201	C	NA	0	0	0	NSPR	0	0
SMILEY CR	1B	1BB	201	B	NA	0	2.12	21.2	NSPR	68.8	89.35
SMILEY CR	1B	1B	201	B	NA	0.15	0.15	3	NSPR	15.8	20.52
SMILEY CR	1A	1AA	201	B	NA	0	0	0	NSPR	5.72	7.43
WILLIAMS CR	1	1B	201	C	NA	0	0	0	NSPR	90.76	117.87
WILLIAMS CR	1	1A	201	C	NA	0	0	0	NSPR	0	0
YELLOWBELLY CR	1	1A	201	B	NA	0.32	0	2.29	NSPR	13.61	17.68
South Fork Salmon River											
JOHNSON CR	ABOVE I	M3	208	C	WB	0.38	0	3.8	NSUM	1.15	2.61
JOHNSON CR	LOWER IV	L2	208	B	WB	2.42	2.06	44.8	NSUM	8.33	18.93
JOHNSON CR	LOWER IV	L3	208	B	WB	0	0	0	NSUM	0.16	0.36
JOHNSON CR	UPPER I	M2 SIDE	208	C	WB	0	0	0	NSUM	152.39	346.34

JOHNSON CR	ABOVE I	PW1A	208	B	WB	0	0	0	NSUM	0.08	0.18
JOHNSON CR	ABOVE I	M1	208	C	WB	0	0.21	2.1	NSUM	79.4	180.45
JOHNSON CR	MID UPR II	PW3A	208	B	WB	8.12	5.3	134.2	NSUM	0.17	0.39
JOHNSON CR	BELOW II	PW3B	208	B	WB	1.27	1.23	25	NSUM	0.19	0.43
JOHNSON CR	ABOVE I	M2	208	C	WB	0.53	0	5.3	NSUM	20.19	45.89
JOHNSON CR	UPPER I	M3 SIDE	208	C	WB	0	0	0	NSUM	32.42	73.68
LAKE CR		BURGDORF	208	C	WB	0.09	0.09	1.29	WSUM	10.56	9.78
LAKE CR		WILLOW CR	208	C	WB	0.54	0	3.86	WSUM	5.09	4.71
LICK CR	LOWER	L1	208	B	WB	2.15	1.48	25.93	WSUM	0.27	0.35
LICK CR	LOWER	L3	208	B	WB	1.91	0.64	18.21	WSUM	6.37	8.27
ROCK CR	ABOVE	M1	208	C	WB	0.54	0	5.4	NSUM	0.82	1.06
SALMON R, S FK	2	STOLLE 2	208	C	WB	0.17	0	1.7	NSUM	18.23	41.43
SALMON R, S FK	2	STOLLE 1	208	C	WB	0.07	0	0.7	NSUM	36.98	84.05
SALMON R, S FK	3	5	208	B	WB	0.19	0	1.9	NSUM	13.18	29.95
SALMON R, S FK		7	208	B	WB	1.14	0.16	9.29	NSUM	32.97	42.82
SALMON R, S FK		POVERTY	208	C	WB	0.09	0	0.64	NSUM	27.38	62.23
SALMON R, S FK		11	208	B	WB	0.48	0.04	3.71	NSUM	15.59	35.43
SALMON R, S FK		14	208	B	WB	0	0	0	NSUM	4.01	9.11
SALMON R, S FK		16	208	B	WB	0.51	0.27	5.57	NSUM	2.35	5.34
SALMON R, S FK, E FK	ABV JHNSN	SUGAR CR	208	B	WB	0.42	0	4.2	NSUM	69.23	157.34
SALMON R, S FK, E FK	BLW JHNSN	6	208	B	WB	0.1	0.33	3.07	NSUM	5.91	13.43
SALMON R, S FK, E FK	BLW JHNSN	7	208	B	WB	1.54	3.93	39.07	NSUM	3.93	8.93
SALMON R, S FK, E FK	BLW JHNSN	MILE 35.8	208	B	WB	0.38	0.7	7.71	NSUM	6.08	13.82
SALMON R, S FK, E FK	BLW JHNSN	3	208	B	WB	2.28	0.38	26.6	NSUM	65.09	147.93
SAND CR	ABOVE	M2	208	C	WB	0.15	0	1.07	NSUM	0	0
SECESH R		LONG-GULCH	208	C	WB	0.28	0.35	4.5	WSUM	6.45	8.38
SECESH R		U-SCSH-MDW	208	C	WB	0.11	0.05	1.14	WSUM	3.79	4.92
SECESH R		GROUSE	208	C	WB	1.54	1.2	19.57	WSUM	6.52	8.47

Middle Fork Salmon River

BEAR VALLEY CR	3	5A	205	C	WB	0	0	0	WSPR	8.73	11.34
BEAR VALLEY CR	4	BIG-MDW-L	205	C	WB	0.53	0	5.3	WSPR	0.43	0.56
BEAR VALLEY CR	7	9B	205	B	WB	0.62	0.21	8.3	WSPR	0	0
BEAR VALLEY CR	1	A	205	B	WB	0	0.28	1.4	WSPR	13.57	17.62
BEAR VALLEY CR	2	2A	205	C	WB	0	0	0	WSPR	0.86	1.12
BEAR VALLEY CR	2	2B	205	C	WB	0	0	0	WSPR	0.54	0.7
BEAR VALLEY CR	3	3A	205	C	WB	0	0.06	0.43	WSPR	32.79	42.56
BEARSKIN CR		2A	205	C	WB	0	0	0	WSPR	0	0
BEARSKIN CR		1A	205	C	WB	0	0	0	WSPR	1.4	3.18
BEARSKIN CR		OXBOW	205	C	WB	0	0	0	WSPR	0	0
BEARSKIN CR		OXBOW	205	C	WB	0	0	0	WSPR	0	0
BEARSKIN CR		3B	205	C	WB	0	0	0	WSPR	1.59	3.61
BEARSKIN CR		3A	205	C	WB	0	0	0	WSPR	0	0
BEAVER CR		1B	205	B	WB	2.01	1.18	22.79	WSPR	63.78	82.83
BEAVER CR		3B	205	C	WB	2.25	2.09	31	WSPR	45.62	42.24
BEAVER CR		1A	205	B	WB	0.3	0.07	2.64	WSPR	32.93	42.77
BIG CR	UPPER	NEAR FORD	206	C	WB	0.37	0	1.85	WSPR	20.73	47.11
BIG CR	UPPER	LOGAN	206	C	WB	0	0	0	WSPR	2.97	6.75
BIG CR	MIDDLE	ABV BEAVER	206	B	WB	0.22	0	1.1	WSUM	3.3	7.5
BIG CR	MIDDLE	MTH BEAVER	206	B	WB	1.8	0.65	12.25	WSUM	1.72	3.91
CAMAS CR		CAM1	206	B	WB	4.52	1.77	31.45	WSPR	10.11	13.13
CAMAS CR		2	206	C	WB	0	0	0	WSPR	5.14	6.68

CAMAS CR	1	1	206	C	WB	3.55	0.34	19.45	WSPR	34.72	45.09
CAPEHORN CR		1A	205	C	WB	0.74	0.18	6.57	WSPR	32.91	30.47
CAPEHORN CR		2B	205	C	WB	0.31	0	2.21	WSPR	63.65	58.94
ELK CR		1A	205	C	WB	0	0	0	WSPR	4.84	11
ELK CR		1B	205	C	WB	0	0	0	WSPR	0.08	0.18
ELK CR		2C	205	C	WB	0	0	0	WSPR	0	0
ELK CR		2B	205	C	WB	0.18	0	1.8	WSPR	1.28	2.91
ELK CR		2A	205	C	WB	0.05	0	0.5	WSPR	0.05	0.11
KNAPP CR	1	DS DIV	205	B	WB	1.95	0	13.93	WSPR	6.62	6.13
KNAPP CR	1	BIGBEVRDAM	205	C	WB	0	0	0	WSPR	0	0
KNAPP CR	1	CAMPSITE	205	C	WB	0.32	0	2.29	WSPR	0	0
KNAPP CR	1	1A	205	C	WB	0.49	0	3.5	WSPR	5.66	5.24
KNAPP CR	1	LCKD FENCE	205	C	WB	2.36	0.15	17.93	WSPR	36.9	34.17
KNAPP CR	1	2B	205	C	WB	0	0	0	WSPR	0	0
LOON CR		L2-RUN	205	B	WB	0.23	0	1.15	WSUM	0.8	1.82
LOON CR	PACK BR	1	205	C	WB	0	0	0	WSUM	5.21	11.84
LOON CR	LNM-1	3	205	B	WB	0.31	0	1.55	WSUM	1.25	2.84
MARBLE CR	UPPER	MAR2	205	B	WB	0.63	0.48	5.55	WSPR	0	0
MARBLE CR	UPPER	MAR1	205	C	WB	1.66	1.66	16.6	WSPR	0	0
MARBLE CR	UPPER	MAR1B	205	C	WB	0	0	0	WSPR	0	0
MARSH CR	1	B	205	B	WB	1.16	0.66	9.1	WSPR	36.73	83.48
MARSH CR	1	A	205	B	WB	0	0	0	WSPR	32.19	73.16
MARSH CR	2	4B	205	C	WB	0.09	0	0.9	WSPR	25.15	32.66
MARSH CR	2	5A	205	C	WB	0.4	0	4	WSPR	15.86	20.6
MARSH CR	1	6A	205	C	WB	0.66	0	11	WSPR	30.91	40.14
MONUMENTAL CR, W FK		MON4	206	B	WB	0	0	0	WSPR	0	0
SULPHUR CR	2	4B	205	B	WB	0	0	0	WSPR	0.57	0.53
SULPHUR CR	2	3A	205	B	WB	0.34	0.17	3.64	WSPR	1.18	1.09
SULPHUR CR	2	4A	205	C	WB	0.19	0	1.36	WSPR	5.3	4.91

Upper Salmon River

MORGAN CR	LOWER	FENCE	201	B	NA	2.54	1.13	26.21	NSPR	0	0
MORGAN CR	UPPER	BLM CAMP	201	C	NA	9.31	1.37	76.29	NSPR	0	0
MOYER CR	ABOVE	MO1	203	C	NA	3.36	1.34	23.5	NSPR	0	0
MOYER CR	ABOVE	NEW SEC	203	B	NA	4.71	1.57	31.4	NSPR	0	0
PANTHER CR	DS-BLACK B	PC6	203	C	NA	1.63	1.78	17.05	NSPR	0	0
PANTHER CR	DS-CLEAR	PC1	203	B	NA	0.08	0	0.4	NSPR	0	0
PANTHER CR	DS-BIG D	PC4	203	B	NA	0.06	0.18	1.2	NSPR	0	0
PANTHER CR	ABOVE	PC9	203	C	NA	1.44	0.96	24	NSPR	0	0
PANTHER CR	ABOVE	PC10	203	C	NA	2.15	1.91	67.67	NSPR	0	0
SALMON R		RBNSN-BAR	201	B	NA	0.05	0.05	0.71	WSUM	1.9	2.47
SALMON R	2	B	201	B	NA	0.37	0.08	3.21	WSUM	13.6	30.91
SALMON R, N FK		DAHLONEGA	203	B	NA	8.01	1.16	45.85	NSPR	33.08	42.96
THOMPSON CR	ABOVE	TWO-POLE	201	B	NA	4.01	1.34	38.21	NSPR	6.34	14.41
THOMPSON CR	BELOW	1	201	B	NA	2.47	0.49	21.14	NSPR	4.93	11.2
VALLEY CR	2	3A	201	C	NA	1.51	0.31	18.2	NSPR	47.02	106.86
VALLEY CR	2	3B	201	C	NA	2.62	0.1	19.43	NSPR	36.97	84.02
VALLEY CR	3	1B	201	C	NA	0.21	0.21	4.2	NSPR	31.46	40.86
VALLEY CR	1	6B	201	B	NA	0	0	0	NSPR	2.63	5.98
WARM SPRINGS CR	LOWER	CABINS	201	B	NA	1.23	0.68	13.64	NSPR	3.13	26.08
WARM SPRINGS CR	UPPER	ABVCAB	201	B	NA	1.27	0.76	14.5	NSPR	1.77	14.75

CLEARWATER RIVER DRAINAGE

Stream Name	Strata	Section	Drainage	Channel Type	Steelhead Class W vs N A vs B	Steelhead Age 1+ Density no/100msq	Steelhead Age 2+ Density no/100msq	Steelhead Percent Carrying Capacity	Chinook Class W vs N Spr vs Sum	Chinook Age 0+ Density no/100msq	Chinook Percent Carrying Capacity
Mainstem Clearwater River (includes Middle Fork Clearwater R.)											
BIG CANYON CR		BRIDGE	306	B	WA	0.64	0.43	17.83	NSPR	0	0
BIG CANYON CR		DIRT PILE	306	B	WA	0.49	0.49	16.33	NSPR	0	0
ELDORADO CR	BELOW	1B	306	B	NB	2.47	0.45	29.2	NSPR	13.47	17.49
ELDORADO CR	ABOVE	2M	306	C	NB	0.51	0	5.1	NSPR	0	0
ELDORADO CR	ABOVE	2LG	306	C	NB	0.16	0.16	3.2	NSPR	0	0
ELDORADO CR	ABOVE	1HG	306	C	NB	0.29	0.14	4.3	NSPR	0	0
LOLO CR	DOWNSTREAM	RUN6	306	B	NB	0.63	0.28	6.5	NSPR	1.11	2.52
LOLO CR	DOWNSTREAM	DS6	306	B	NB	1.7	0.14	13.14	NSPR	8.15	18.52
LOLO CR	UPSTREAM	8360	306	B	NB	3.02	0	21.57	NSPR	6.41	8.32
LOLO CR	UPSTREAM	8303	306	C	NB	0.81	0	5.79	NSPR	3.24	4.21
LOLO CR	UPSTREAM	RUN1	306	B	NB	0.35	0	2.5	NSPR	14.87	19.31
LOLO CR	UPSTREAM	RUN7	306	B	NB	0.76	0.19	6.79	NSPR	9.17	11.91
MISSION CR	QUARRY	2	306	B	WA	2.18	0	10.9	NSPR	0	0
MISSION CR	QUARRY	1	306	B	WA	1.57	0	7.85	NSPR	0	0
South Fork Clearwater River											
AMERICAN R	3	2	305	C	NB	2.81	0.4	22.93	NSPR	44.5	57.79
AMERICAN R	2	1	305	C	NB	2.73	0	19.5	NSPR	70	90.91
CLEARWATER R, S FK		NEWSOME	305	C	NB	3.48	0.13	0	NSPR	5.99	0
CLEARWATER R, S FK		WING CREEK	305	B	NB	5.86	1.92	0	NSPR	1.69	0
CROOKED R	III	NATURAL2	305	C	NB	1.35	0.51	13.29	NSPR	1.09	1.42
CROOKED R	III	NATURAL1	305	C	NB	1.53	1.31	14.2	NSPR	45.49	103.39
CROOKED R	II	CONTROL2	305	B	NB	0.09	0	0.64	NSPR	9.48	12.31
CROOKED R	II	TREAT2	305	B	NB	1.27	0.13	10	NSPR	2.8	3.64
CROOKED R	II	TREAT1	305	B	NB	2	0.25	16.07	NSPR	13.6	17.66
CROOKED R	IV	MEANDER1	305	C	NB	4.08	1.69	28.85	NSPR	68.53	155.75
CROOKED R	III	NATURAL3	305	C	NB	0.31	0.31	4.43	NSPR	0.78	1.01
CROOKED R	I	BOULDER-B	305	B	NB	4.08	0.55	33.07	NSPR	4.86	11.05
CROOKED R	I	BOULDER-A	305	B	NB	1.03	0	7.36	NSPR	16.27	36.98
CROOKED R	IV	MEANDER3	305	C	NB	3.03	1.32	31.07	NSPR	26.84	34.86
CROOKED R	PONDS A	POND N	305	C	NB	1.4	0	10	NSPR	55.3	71.82
CROOKED R	PONDS B	POND S2	305	C	NB	0.66	0.44	7.86	NSPR	28.35	36.82
CROOKED R	PONDS A	POND U	305	C	NB	1.1	0	7.86	NSPR	32.74	42.52
CROOKED R	PONDS A	POND11	305	C	NB	1.42	0.22	11.71	NSPR	18.74	24.34
CROOKED R	PONDS B	POND S1	305	C	NB	1.37	0.82	15.64	NSPR	14.27	18.53
CROOKED R	PONDS B	POND S3	305	C	NB	2.64	0	13.2	NSPR	45.24	102.82
CROOKED R	IV	MEANDER2	305	C	NB	0	0	0	NSPR	0.25	0.32
CROOKED R	C	CAN1	305	B	NB	1.46	1.17	18.79	NSPR	1.9	2.47
CROOKED R	C	CAN3	305	B	NB	0.9	1.72	18.71	NSPR	17.64	22.91
CROOKED R	I	CONTROLB	305	B	NB	0.59	0.15	5.29	NSPR	5.79	13.16

CROOKED R	I	OROGRANDE1	305	B	NB	1.17	0.19	9.71	NSPR	72.33	164.39
CROOKED R	I	SILL-LOG-A	305	B	NB	1.39	0	9.93	NSPR	14.86	33.77
CROOKED R	I	SILL-LOG-B	305	B	NB	3.73	0	26.64	NSPR	13.15	29.89
CROOKED R	I	CONTROLA	305	B	NB	1.3	0	9.29	NSPR	21.95	49.89
CROOKED R	II	CONTROL1	305	B	NB	1.28	0.23	10.79	NSPR	15.5	20.13
CROOKED R	C	CAN2	305	B	NB	1.63	0.89	18	NSPR	8.44	10.96
JOHNS CR	2	3@OPEN CR	305	B	NB	0.99	0.99	9.9	NSPR	0	0
JOHNS CR	2	4 UPPER	305	B	NB	0.31	1.24	7.75	NSPR	0	0
JOHNS CR		1	305	B	NB	0.23	2.1	11.65	NSPR	0	0
JOHNS CR	1	2	305	B	NB	2.66	5.03	38.45	NSPR	2.66	6.05
MEADOW CR	MEADOW	GRAZED	305	C	NB	2.61	1.57	29.86	NSPR	46.75	106.25
MEADOW CR	CANYON	MP2	305	B	NB	5.47	2.9	59.79	NSPR	6.44	14.64
MOOSE BUTTE CR		MOUTH	305	C	NB	0.48	0	4.8	NSPR	36.84	47.84
NEWSOME CR		OLD SIDE	305	C	NB	3.06	0	21.86	NSPR	78.29	177.93
NEWSOME CR		NEW SIDE	305	C	NB	6.51	6.51	93	NSPR	133.86	304.23
NEWSOME CR		4MI	305	C	NB	4.7	1.71	45.79	NSPR	90.6	205.91
NEWSOME CR		1	305	C	NB	3.86	0.21	29.07	NSPR	45.07	102.43
RED R	4	CONTROL 2	305	C	NB	0	0	0	NSPR	33.09	42.97
RED R	4	TREAT 2	305	C	NB	0	0	0	NSPR	76.39	99.21
RED R	1	CONTROL 1	305	C	NB	0	0	0	NSPR	78.45	178.3
RED R	2	CONTROL 2	305	B	NB	0	0	0	NSPR	6.48	14.73
RED R	5	CONTROL 2	305	C	NB	0.27	0.13	4	NSPR	11.54	14.99
RED R	1	CONTROL 2	305	C	NB	0.64	0.32	6.86	NSPR	5.09	11.57
RED R	2	TREAT 2	305	B	NB	0.62	0	4.43	NSPR	16.06	36.5
RED R	5	TREAT 2	305	C	NB	0	0	0	NSPR	4.77	6.19
RELIEF CR	II	2-A	305	C	NB	5.23	0.87	30.5	NSPR	0	0
RELIEF CR	I	1AB	305	B	NB	1.64	0	8.2	NSPR	2.06	2.68
RELIEF CR	I	1-B	305	B	NB	3.66	0.85	22.55	NSPR	23.4	30.39
RELIEF CR	I	1-A	305	B	NB	3.42	1.24	23.3	NSPR	0	0
RELIEF CR	II	2-B	305	C	NB	5.32	2.13	37.25	NSPR	0	0
TENMILE CR	LOWER	1	305	B	NB	1.29	1.29	12.9	NSPR	0	0
TENMILE CR	UPPER	2	305	B	NB	3.05	0.44	17.45	NSPR	0	0
Selway River											
BEAR CR	LOWER	1	301	B	WB	1.36	1.95	16.55	NSPR	0.19	0.25
BEAR CR	UPPER	2	301	B	WB	0.31	0	1.55	NSPR	0.31	0.4
DEEP CR		CACTUS	301	B	WB	11.65	0	58.25	NSPR	0	0
DEEP CR		SCIMITAR	301	B	WB	3.63	0.45	20.4	NSPR	0	0
GEDNEY CR	LOWER	1	302	B	WB	3.19	3.62	34.05	NSPR	107.59	139.73
GEDNEY CR	LOWER	2	302	B	WB	5.91	4.13	50.2	NSPR	19.19	24.92
MEADOW CR	LOWER	SLIMSCAMP	302	B	WB	2.87	1.08	65.83	NSPR	0.66	1.5
MEADOW CR	UPPER	ABOVE2	302	B	WB	0.52	0.08	10	NSPR	1.05	2.39
MOOSE CR		2	302	B	WB	0.72	0	3.6	NSPR	0	0
MOOSE CR	LOWER	1	302	B	WB	4.4	4.65	45.25	NSPR	0	0
MOOSE CR, E FK		3	302	B	WB	0.99	0.17	5.8	NSPR	0.66	1.5
MOOSE CR, N FK		4	302	B	WB	2.94	3.33	31.35	NSPR	0.98	2.23
OHARE CR	CANYON	UPPER	302	B	WB	10.3	0.88	55.9	NSPR	0.29	0.66
OHARE CR	MEADOW	LOWER	302	C	WB	8.01	0	40.05	NSPR	0.7	1.59
OTTER CR	#2 TRADI		302	B	WB	11.81	4.83	83.2	NSPR	3.22	4.18
RUNNING CR		EAGLEMOUTH	301	B	WB	1.28	4.01	26.45	NSPR	0	0
RUNNING CR		PACK BR	301	B	WB	0.44	0.59	5.15	NSPR	0	0
SELWAY R		LITTLE-CW	301	B	WB	1.42	0.16	7.9	NSPR	6.97	6.45

SELWAY R		MAG-XING	301	B	WB	1.5	0.3	9	NSPR	2.35	2.18
SELWAY R		HELLSHALF	301	B	WB	2.6	0.1	13.5	NSPR	2.4	5.45
THREE LINKS CR	TRAD SITE	#1	302	B	WB	9.63	6.62	81.25	NSPR	5.12	11.64
WHITE CAP CR	3	LOWER	301	B	WB	2.09	1.09	15.9	NSPR	0.18	0.41
WHITE CAP CR	3	MIDDLE	301	B	WB	1.9	0.85	13.75	NSPR	0.38	0.86
WHITE CAP CR	3	UPPER	301	B	WB	2.29	0.61	14.5	NSPR	3.03	6.89
Lochsa River											
BRUSHY FK CR	3	PACK CR	303	B	NB	1.77	2.07	19.2	NSPR	5.91	7.68
BRUSHY FK CR	3	AB PACK CR	303	B	NB	5.75	3.83	47.9	NSPR	5.11	6.64
CROOKED FK CR	3	BELOW 2B	303	B	NB	0.83	0.54	6.85	NSPR	2.39	3.1
CROOKED FK CR	3	LO ROCK CR	303	B	NB	1.12	0	5.6	NSPR	6.94	9.01
CROOKED FK CR	3	UP ROCK CR	303	B	NB	0	0	0	NSPR	11.9	15.45
CROOKED FK CR	2	ABOVE 3A	303	B	NB	0	0	0	NSPR	0	0
CROOKED FK CR	4	BELOW 1B	303	B	NB	0.11	0	0.55	NSPR	0.56	0.73
CROOKED FK CR	2	ABOVE 4A	303	B	NB	0	0	0	NSPR	0	0
FIRE CR	UPPER	2	303	B	NB	13.46	13.46	134.6	NSPR	0	0
FIRE CR	LOWER	1	303	B	NB	7.39	2.96	51.75	NSPR	0	0
FISH CR	LOWER	1	303	B	NB	11.75	5.56	173.1	NSPR	0	0
FISH CR	UPPER	2	303	B	NB	20.64	5.05	256.9	NSPR	0	0
HOPEFUL CR	1	1-BOOGIEDN	303	B	NB	0.31	0	1.55	NSPR	0	0
LOCHSA R	@PAPOOSECR	L4	303	B	NB	0.03	0	0.21	NSPR	0.18	0.41
LOCHSA R	@FISH CR	L1	303	B	NB	0.07	0	0.5	NSPR	0	0
OLD MAN CR		1	303	B	NB	7.13	0.84	39.85	NSPR	0.21	0
POST OFFICE CR	LOWER	1	303	B	NB	1.67	0	8.35	NSPR	0	0
POST OFFICE CR	UPPER	2	303	B	NB	11.02	0.88	59.5	NSPR	0	0
SPLIT CR	UPPER	2	303	B	NB	3.79	3.79	37.9	NSPR	0	0
SPLIT CR	LOWER	1	303	B	NB	2.78	0.21	14.95	NSPR	0.64	0
WARM SPRINGS CR	LOWER	1	303	B	NB	0.69	0.3	4.95	NSPR	1.59	2.06

Appendix A-2.

Evaluation Snorkel Sections - 1994

Appendix A-2. Evaluation section names, channel types (Bor 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 1994.

SALMON RIVER DRAINAGE

Stream	Strata	Section	Drainage	Channel Type	Steelhead Class W vs N A vs B	Steelhead Age 1+ Density no/100msq	Steelhead Age 2+ Density no/100msq	Steelhead Percent Carrying Capacity	Chinook Class W vs N Spr vs Sum	Chinook Age 0+ Density no/100msq	Chinook Percent Carrying Capacity
Lower Salmon River											
JOHN DAY CR		2 (UPPER)	209	B	WA	9.13	4.57	97.86	WSPR	0	0
JOHN DAY CR		1 (LOWER)	209	B	WA	7.24	2.41	68.93	WSPR	5.43	12.34
LITTLE SLATE CR		TRANSECT7	209	B	NA	5.49	1.37	34.3	WSPR	8.92	20.27
RACE CR	1	1	209	B	WA	19.34	2.42	0	WSPR	2.42	0
SKOOKUMCHUCK CR		2 (UPPER)	209	B	WA	8.48	4.44	92.29	WSPR	0	0
SKOOKUMCHUCK CR		1 (LOWER)	209	B	WA	5.99	3.59	68.43	WSPR	0	0
SLATE CR		7	209	B	NAB	5.49	1.37	34.3	WSPR	8.92	20.27
SLATE CR		1	209	C	NAB	2.55	1.59	20.7	WSPR	13.22	30.05
SLATE CR		5	209	B	NAB	2.47	1.76	21.15	WSPR	2.82	6.41
Little Salmon River											
RAPID R	1	5	210	B	WA	6.02	4.96	54.9	NSUM	0	0
RAPID R	1	6	210	B	WA	4.79	3.54	41.65	NSUM	0.63	1.43
RAPID R	PACK BR	COPPER CR	210	B	WA	2.91	1.75	23.3	NSUM	0	0
RAPID R	PACK BR	CASTLE CR	210	B	WA	2.29	2.07	21.8	NSUM	0.65	1.48
RAPID R	CABIN	PARADISE	210	B	WA	1.19	2.57	18.8	NSUM	0.2	0.45
RAPID R	ABV W FK	WYANT	210	B	WA	4.61	3.98	42.95	NSUM	1.43	3.25
RAPID R	ABV W FK	CORA CLIFF	210	B	WA	6.6	3.4	50	NSUM	5.53	12.57
RAPID R		4	210	B	WA	5.61	4.28	49.45	NSUM	1.6	3.64
RAPID R	1	7	210	B	WA	16.48	10.2	133.4	NSUM	0.39	0.89
RAPID R		CLIFF HANG	210	B	WA	4.1	3	35.5	NSUM	0.9	2.05
Salmon River Canyon											
CHAMBERLAIN CR		HOTZEL	207	B	WA	6.05	1.51	54	WSPR	21.65	28.12
CHAMBERLAIN CR		SMOKEHOUSE	207	B	WA	1.71	1.1	20.07	WSPR	0	0
CHAMBERLAIN CR		ASPENGROVE	207	B	WA	3.02	3.27	44.93	WSPR	0	0
CHAMBERLAIN CR	LOWER	HOTZEL	207	B	WA	4.74	2.06	48.57	WSPR	24.82	32.23
CHAMBERLAIN CR	UPPER	HOTZEL	207	C	WA	2.74	1.04	27	WSPR	35.59	46.22
CHAMBERLAIN CR	MOUTH	NO NAME	207	B	WA	2.55	1.21	26.86	WSPR	0.27	0.35
CHAMBERLAIN CR		FORKS	207	B	WA	0	0	0	WSPR	0	0
CHAMBERLAIN CR		WFK MOUTH	207	B	WA	1.12	0.74	13.29	WSPR	4.75	6.17
CHAMBERLAIN CR, S FK		MOUTH	207	B	WA	0	0	0	WSPR	0	0
CHAMBERLAIN CR, W FK		SAGE FENCE	207	C	WA	2.48	1.86	31	WSPR	19.53	18.08
CHAMBERLAIN CR, W FK		BEALMEADOW	207	C	WA	4.59	1.53	43.71	WSPR	15.96	14.78
CHAMBERLAIN CR, W FK		OLD PK BR	207	B	WA	3.97	0.72	33.5	WSPR	0	0
CHAMBERLAIN CR, W FK		MOUTH	207	B	WA	1.69	0.24	13.79	WSPR	10.35	9.58
CHAMBERLAIN CR, W FK		BEAVERSTMP	207	C	WA	2.89	2.41	37.86	WSPR	0	0

CHAMBERLAIN CR, W FK		1ST XING	207	C	WA	1.56	0.78	16.71	WSPR	0	0
CHAMBERLAIN CR, W FK		SPRING	207	B	WA	1.36	1.36	19.43	WSPR	0	0
CHAMBERLAIN CR, W FK		TUMBLE DWN	207	C	WA	2.03	0.68	19.36	WSPR	0	0
FISH CR	I	TRAIL XING	207	B	WA	2.75	0	27.5	WSPR	0	0
FLOSSIE CR		TRAIL XING	207	C	WA	9.22	0.84	50.3	WSPR	0	0
GAME CR	I	TRAIL XING	207	B	WA	1.39	1.04	12.15	WSPR	0	0
MOOSE CR		MOUTH	207	B	WA	0.29	1.76	10.25	WSPR	0	0
MOOSE CR		UPPER	207	B	WA	0.58	1.17	8.75	WSPR	0	0
MOOSE CR	LOWER	MOOSE JAW	207	C	WA	2.01	2.17	20.9	WSPR	0	0
Lemhi River											
BEAR VALLEY CR	HC1	B-LOWER	204	B	NA	0	0.19	0.95	NSPR	0	0
BIG SPRINGS CR	1	TW TELBS 5	204	C	NA	1.42	0.57	9.95	NSPR	0	0
BIG SPRINGS CR	1	BSC BRIDGE	204	B	NA	4.46	0.45	24.55	NSPR	0	0
BIG SPRINGS CR	1	MI MRK 93	204	C	NA	10.52	0.48	55	NSPR	0	0
BIG SPRINGS CR	1	3-BSC	204	B	NA	8.34	2.06	52.1	NSPR	0	0
BIG SPRINGS CR	1	BSC 6 UP	204	C	NA	2.44	0.7	15.7	NSPR	0	0
BIG SPRINGS CR	1	4A UPPER	204	C	NA	0	0	0	NSPR	0.19	0.18
BIG SPRINGS CR	1	BSC-1	204	B	NA	0.59	0	2.95	NSPR	0	0
BIG SPRINGS CR	1	BSC5 UPTEL	204	C	NA	0.39	0.79	5.9	NSPR	0	0
BIG SPRINGS CR	1	BSC-1 UP	204	B	NA	13.59	0	67.95	NSPR	0	0
BIG SPRINGS CR	1	BSC 5	204	C	NA	1.54	0	7.7	NSPR	0	0
BIG SPRINGS CR	1	3 UPPER	204	C	NA	0	0	0	NSPR	0	0
LEMHI R	1	LEM3A	204	B	NA	1.05	1.68	13.65	NSPR	0.42	0.39
LEMHI R	1	13 BEYELER	204	B	NA	2.34	0.26	13	NSPR	4.93	4.56
LEMHI R	1	BIG SPR CR	204	C	NA	4.8	0.28	25.4	NSPR	7.91	7.32
LEMHI R	1	BS-6	204	C	NA	0.16	0	0.8	NSPR	1.58	1.46
LEMHI R	1	DARWIN	204	C	NA	2.26	1.41	18.35	NSPR	5.65	5.23
LEMHI R	1	L-59	204	C	NA	3.16	2.22	26.9	NSPR	13.8	12.78
LEMHI R	1	LEADORE	204	C	NA	0	0	0	NSPR	0	0
LEMHI R	1	2B	204	B	NA	0.3	0.89	5.95	NSPR	0.6	0.56
LEMHI R	2	#2 "MERC"	204	C	NA	0.21	0	1.05	NSPR	0	0
LEMHI R	2	#1 WEIR	204	B	NA	0	0	0	NSPR	0	0
LEMHI R	2	#10 J L54	204	C	NA	0.89	1.12	10.05	NSPR	0	0
LEMHI R	2	3 SHINER	204	C	NA	0	0	0	NSPR	0	0
LEMHI R	2	#9	204	C	NA	0.54	0.14	3.4	NSPR	0	0
LEMHI R	2	#8 L-50	204	C	NA	0	0.24	1.2	NSPR	0	0
LEMHI R	2	#7	204	C	NA	0	0	0	NSPR	1.79	1.66
LEMHI R	2	#6	204	C	NA	0	0.69	3.45	NSPR	0	0
LEMHI R	2	#5 MCKIN B	204	C	NA	0	0	0	NSPR	0	0
LEMHI R	2	#4 MCKIN A	204	C	NA	0.31	0.31	3.1	NSPR	0	0
LEMHI R	1	POWER LANE	204	C	NA	0.8	1.06	9.3	NSPR	2.12	1.96
LEMHI R	1	PWRHS L58A	204	C	NA	3.25	1.53	23.9	NSPR	0	0
Headwaters Salmon River											
BEAVER CR	2	2S2	201	C	NA	0.51	0	5.1	NSPR	20.25	26.3
BEAVER CR	2	2S4	201	C	NA	0.39	0	3.9	NSPR	109.16	141.77
BEAVER CR	2	2S5	201	C	NA	0.36	0	3.6	NSPR	15.68	20.36
BEAVER CR	2	2S1	201	B	NA	1.82	0	18.2	NSPR	0	0
FRENCHMAN CR	2	S2	201	B	NA	0.8	0.8	11.43	NSPR	209.13	271.6

FRENCHMAN CR	2	S3	201	B	NA	0	0	0 NSPR	118.69	154.14
FRENCHMAN CR	2	S5	201	B	NA	0	0	0 NSPR	10.04	13.04
SMILEY CR	2	2S5	201	C	NA	0.55	0	5.5 NSPR	2.21	2.87
SMILEY CR	2	2S6	201	C	NA	0	0	0 NSPR	0	0
Middle Fork Salmon River										
MARSH CR		18	205	C	WB	0.37	0	1.85 WSPR	48.48	110 18
MARSH CR		17	205		WB	0.61	0	3.05 WSPR	42.52	96.64
MARSH CR	1	4	205	B	WB	0	0	0 WSPR	20.38	46.32
MARSH CR		20	205	C	WB	0	0	0 WSPR	27.56	62.64
MARSH CR		3	205	C	WB	1.02	0	5.1 WSPR	22.08	50.18
MARSH CR	1	11	205	C	WB	0	0	0 WSPR	1.92	4.36
MARSH CR	1	2	205	C	WB	0	0	0 WSPR	11.58	26.32
MARSH CR	2	15	205	C	WB	0.78	0	3.9 WSPR	46.95	106.7
MARSH CR		6	205	C	WB	0.25	0	1.25 WSPR	3.21	7.3
MARSH CR	1	19	205	C	WB	0	0	0 WSPR	39.45	89.66
MARSH CR		7	205	C	WB	0	0	0 WSPR	2.11	4.8
MARSH CR	2	14	205	C	WB	1.24	0	6.2 WSPR	79.52	180.73
MARSH CR	2	5	205	C	WB	0	0	0 WSPR	23.09	52.48
MARSH CR		10	205	C	WB	1.33	0	6.65 WSPR	92.56	210.36
MARSH CR	1	1	205	C	WB	0	0.68	3.4 WSPR	17.63	40.07
MARSH CR		11	205	C	WB	3.71	0	18.55 WSPR	48.65	110.57
MARSH CR		9	205	C	WB	0.33	0	1.65 WSPR	38.96	88.55
MARSH CR	2	4	205	C	WB	0.83	0	4.15 WSPR	49.7	112.95
MARSH CR	1	5	205	C	WB	0	0	0 WSPR	4.84	11
MARSH CR	1	8	205	C	WB	2.9	0	14.5 WSPR	3.48	7.91
MARSH CR	1	9	205	C	WB	0	0	0 WSPR	0	0
MARSH CR		12	205	C	WB	0.77	0	3.85 WSPR	36.63	83.25
MARSH CR	1	3	205	C	WB	0	0	0 WSPR	50.39	114.52
MARSH CR		16	205	C	WB	0.35	0	1.75 WSPR	28.64	65.09
MARSH CR		8	205	C	WB	0	0	0 WSPR	26.18	59.5
MARSH CR		ABVMON1	205	C	WB	0.7	0	3.5 WSPR	22.49	51.11
MARSH CR		13	205	C	WB	2.24	0	11.2 WSPR	80.26	182.41
MARSH CR	1	6	205	C	WB	9.92	0	49.6 WSPR	2.29	5.2
MARSH CR	I		205	C	WB	0.66	0	3.3 WSPR	30.91	70.25
RIM CR		MOUTH	207	B	WA	0	0	0 NSPR	0	0
SULPHUR CR	2	SILVERMOON	205	B	WB	0	0	0 WSPR	6.91	6.4
SULPHUR CR	2	UPBLUEMOON	205	B	WB	0	0	0 WSPR	0	0
SULPHUR CR	II	BLWBRAIDED	205	B	WB	0	0	0 WSPR	4.12	3.81
SULPHUR CR	I	ROCKYKNOLL	205	B	WB	0	0	0 WSPR	0	0
SULPHUR CR	I	MEADOWS	205	B	WB	0	0	0 WSPR	0	0
SULPHUR CR	2	USDIVERSN	205		WB	0.74	0.6	9.57 WSPR	10.27	9.51
SULPHUR CR	2	LOBLUEMOON	205	B	WB	0	0	0 WSPR	5.58	5.17
SULPHUR CR	2	TRAILX	205		WB	0.96	0.48	10.29 WSPR	0	0
SULPHUR CR	II	HALFMOON	205	B	WB	0	0	0 WSPR	23.06	21.35
SULPHUR CR	2	ROCKSLIDE	205	B	WB	0.33	0	2.36 WSPR	16.11	14.92
SULPHUR CR	2	R3	205	B	WB	2.19	0	15.64 WSPR	5.48	5.07
SULPHUR CR	2	MORGANDIV	205		WB	0.37	0.09	3.29 WSPR	8.49	7.86
SULPHUR CR	2	MOREHEADCR	205	B	WB	0.28	0	2 WSPR	6.51	6.03
SULPHUR CR	II	DSHALFMOON	205	B	WB	0	0	0 WSPR	0	0
SULPHUR CR	2	FULLMOON	205	B	WB	0	0	0 WSPR	8.26	7.65
SULPHUR CR	II	LOWISLAND	205	B	WB	0	0	0 WSPR	11.15	10.32

SULPHUR CR	2	LONGRUN	205		WB	1.23	1.05	16.29	WSPR	3.34	3.09
SULPHUR CR	II	ROCKCLIFF	205	B	WB	0	0	0	WSPR	15.57	14.42
SULPHUR CR		BIGLOG	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR		BIGLOGJAM	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR		CAWPTEUDER	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR	II	USFULLMOON	205	B	WB	0	0	0	WSPR	14.69	13.6
SULPHUR CR		UPPER2	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR		UPPER1	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR	2	FOOTBRIDGE	205		WB	0	0	0	WSPR	0.57	0.53
SULPHUR CR		UPPERSPLIT	205	B	WB	0	0	0	WSPR	0.83	0.77
SULPHUR CR	1	NFKMOUTH	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR	2	BRAIDEDCHN	205		WB	0.76	0.76	10.86	WSPR	12.66	11.72
SULPHUR CR	2	BRIDGESITE	205	B	WB	0.22	0	1.57	WSPR	2.79	2.58
SULPHUR CR	2	MOONSHINE	205	B	WB	0	0	0	WSPR	3.55	3.29
SULPHUR CR, N FK		LOWERC2	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR, N FK		LOWERC1	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR, N FK		LOWERB2	205	B	WB	0	0	0	WSPR	0	0
SULPHUR CR, N FK		LOWERB1	205	B	WB	0	0	0	WSPR	0	0

Upper Salmon River

SALMON R, N FK	2	UP GBBONS	203	B	NA	3.01	1.51	22.6	NSPR	42.7	55.45
SALMON R, N FK	3	FLTBED BRG	203	B	NA	0	0	0	NSPR	0	0
SALMON R, N FK	3	ABNDND TLR	203	B	NA	0.49	0	2.45	NSPR	0.65	0.84
SALMON R, N FK	3	CUMMINGS	203	B	NA	0.21	0.21	2.1	NSPR	1.05	1.36
SALMON R, N FK	3	MI PST 328	203	B	NA	2.02	1.51	17.65	NSPR	4.29	5.57
SALMON R, N FK	3	LATHAM HSE	203	B	NA	0.2	0.2	2	NSPR	0	0
SALMON R, N FK	3	NF BRG LWR	203	B	NA	0	0	0	NSPR	0.77	1
SALMON R, N FK	3	NF BRG UPR	203	B	NA	0	0	0	NSPR	0	0
SALMON R, N FK	1	HAIRPIN	203	B	NA	3.37	0	16.85	NSPR	0	0
SALMON R, N FK	2	LUMBER CO.	203	C	NA	2.73	0.3	15.15	NSPR	23.66	30.73
SALMON R, N FK	2	POND	203		NA	5.84	0	29.2	NSPR	0.53	0.69
SALMON R, N FK	2	PINE MEDWS	203	B	NA	2.12	0.71	14.15	NSPR	9.18	11.92
SALMON R, N FK	2	NF 9-10	203	B	NA	12.84	1.4	71.2	NSPR	5.86	7.61
SALMON R, N FK	2	MERAL WARD	203	C	NA	3.85	2.57	32.1	NSPR	40.45	52.53
SALMON R, N FK	3	HULL CR RD	203	B	NA	2.5	0.5	15	NSPR	5	6.49
SALMON R, N FK	2	HUGHES RS	203	B	NA	2.07	0.26	11.65	NSPR	9.32	12.1
SALMON R, N FK	2	BOYNES NF6	203		NA	2.48	0.38	14.3	NSPR	0.57	0.74
SALMON R, N FK	1	UPR L & C	203	B	NA	0	0	0	NSPR	0	0
SALMON R, N FK	3	BELW HGHES	203	B	NA	3.82	0.38	21	NSPR	3.82	4.96
SALMON R, N FK	2	MI PST 339	203	B	NA	1.64	0	8.2	NSPR	0.82	1.06
SALMON R, N FK		HUGHES	203	C	NA	2.52	0.93	17.25	NSPR	4.67	6.06
SALMON R, N FK	2	LW LMBR CO	203	C	NA	3.44	2.06	27.5	NSPR	41.4	53.77
SALMON R, N FK	1	SIGN 93	203	B	NA	1.46	0	7.3	NSPR	0	0
SALMON R, N FK	1	CRONE GLCH	203	B	NA	1.56	0.93	12.45	NSPR	2.8	3.64
SALMON R, N FK	1	DEEP CR	203	B	NA	0.65	0.33	4.9	NSPR	0	0
SALMON R, N FK	1	DEEPCRLWR	203	B	NA	4.24	0.22	22.3	NSPR	62.22	80.81
SALMON R, N FK	1	DEEPCRPLNG	203	B	NA	8.73	3.17	59.5	NSPR	2.38	3.09
SALMON R, N FK	1	MI MKR 340	203	B	NA	2.98	2.23	26.05	NSPR	5.96	7.74
SALMON R, N FK	1	MI PST 342	203	B	NA	2.67	0.44	15.55	NSPR	0	0
SALMON R, N FK	1	MI PST 345	203	B	NA	0	0	0	NSPR	0	0
SALMON R, N FK	1	MI PST 346	203	B	NA	0	0	0	NSPR	0	0
SALMON R, N FK	2	NF-7	203	B	NA	5.69	1.26	34.75	NSPR	14.96	19.43

SALMON R, N FK	1	TWIN CR CG	203	B	NA	7.32	0.92	41.2	NSPR	0	0
SALMON R, N FK	1	MI MKR 343	203	B	NA	7.21	0.55	38.8	NSPR	0	0
SALMON R, N FK	2	WOLFRAM	203	B	NA	4.86	0.69	27.75	NSPR	19.77	25.68
SALMON R, N FK	2	NF-11	203	B	NA	2.28	0.41	13.45	NSPR	11.2	14.55
SALMON R, N FK	1	MI PST 346	203	B	NA	0	0	0	NSPR	0	0
SALMON R, N FK	2	MI PST 335	203	B	NA	7.92	0	39.6	NSPR	4.62	6
SALMON R, N FK	2	LOWER 335	203		NA	5.39	0.49	29.4	NSPR	2.2	2.86
SALMON R, N FK	1	RYLELK RCH	203	B	NA	2.09	0	10.45	NSPR	0	0

CLEARWATER RIVER DRAINAGE

Stream	Strata	Section	Drainage	Channel Type	Steelhead Class W vs N A vs B	Steelhead Age 1+ Density no/100msq	Steelhead Age 2+ Density no/100msq	Steelhead Percent Carrying Capacity	Chinook Class W vs N Spr vs Sum	Chinook Age 0+ Density no/100msq	Chinook Percent Carrying Capacity
Mainstem Clearwater River											
BEDROCK CR		MOUTH	306	B	WA	1.35	1.35	0	NSPR	0	0
ELDORADO CR		TRANSECT3	306	B	NB	0.73	0.37	11	NSPR	0	0
ELDORADO CR		TRANSECT4	306	B	NB	0.5	0	5	NSPR	0	0
ELDORADO CR		TRANSECT13	306	C	NB	0.19	0	1.9	NSPR	0	0
ELDORADO CR		TRANSECT5	306	C	NB	1.86	0.27	21.3	NSPR	0	0
ELDORADO CR		TRANSECT7	306	C	NB	0	0	0	NSPR	0	0
ELDORADO CR		TRANSECT8	306	C	NB	0.23	0	2.3	NSPR	0	0
ELDORADO CR		TRANSECT2	306	B	NB	4.46	1.31	57.7	NSPR	10.49	13.62
ELDORADO CR		TRANSECT9	306	C	NB	0.39	0	3.9	NSPR	0	0
ELDORADO CR		TRANSECT15	306	C	NB	0	0	0	NSPR	0	0
ELDORADO CR		TRANSECT12	306	B	NB	0.88	0.88	17.6	NSPR	0	0
ELDORADO CR		TRANSECT10	306	C	NB	0.27	0	2.7	NSPR	0	0
LOLO CR		TRANSECT3	306	C	NB	2.2	0.27	17.64	NSPR	9.77	0
LOLO CR		TRANSECT8	306	C	NB	1.56	0	11.14	NSPR	24.72	0
LOLO CR		TRANSECT6	306	C	NB	2.87	0.16	21.64	NSPR	10.06	0
LOLO CR		TRANSECT4	306	B	NB	3.88	0.9	34.14	NSPR	5.3	0
LOLO CR		TRANSECT9	306	C	NB	0.52	0.13	4.64	NSPR	8.38	0
POTLATCH R	KENDRICK	KENDRICK	306	B	NB	0	0	0	NSPR	0	0
POTLATCH R	LBOULDERCG	1	306	B	NB	0.71	0.26	16.17	NSPR	0	0
POTLATCH R, E FK		MIDDLE	306	C	NB	0.43	0	4.3	NSPR	0	0
POTLATCH R, E FK		UP CORRALS	306	C	NB	8.34	0.93	92.7	NSPR	0	0
POTLATCH R, E FK		MOUTH	306	B	NB	1.04	0.52	15.6	NSPR	0	0
South Fork Clearwater River											
CLEARWATER R, S FK	MEADOW CR	MP 17	305	B	NB	0.31	0	0	NSPR	0.31	0
CLEARWATER R, S FK		JOHNS CR	305	B	NB	0.13	1.27	0	NSPR	0.13	0
CLEARWATER R, S FK		TENMILE CR	305	B	NB	2.69	0.15	0	NSPR	0.15	0
CLEARWATER R, S FK		MP 13	305	B	NB	1.61	0.37	0	NSPR	0.12	0
CLEARWATER R, S FK		MP 14, UP	305	B	NB	0.68	0.14	0	NSPR	0.82	0
CLEARWATER R, S FK		MP 18	305	B	NB	1.34	0.27	0	NSPR	0.54	0
CROOKED R	I	CONTROLX	305	B	NB	1.28	0.43	12.21	NSPR	22.11	50.25

CROOKED R, E FK	H	EF2	305	B	NB	0.48	0.24	3.6	NSPR	0	0
CROOKED R, E FK	H	EF1	305	B	NB	0	0	0	NSPR	0	0
CROOKED R, W FK	H	WF2	305	B	NB	0.59	0	2.95	NSPR	0	0
CROOKED R, W FK	H	WF1	305	B	NB	0.33	0.33	3.3	NSPR	0	0
MOORES CR		2 (UPPER)	305	C	NB	0	0	0	NSPR	0	0
MOORES CR		1 (LOWER)	305	B	NB	0	0	0	NSPR	0	0
NEWSOME CR	1	BEAR CR RD	305	C	NB	3.77	1.08	34.64	NSPR	117.37	266.75
NEWSOME CR	1	BEAR CR	305	C	NB	4.2	0.84	36	NSPR	64.96	147.64
NEWSOME CR	NEW USFWS	TRANS 2.5	305	C	NB	1.16	0.32	10.57	NSPR	33.9	77.05
NEWSOME CR	1	SNGLSCMPG	305	C	NB	3.52	0.59	29.36	NSPR	50.16	114
NEWSOME CR	1UPPER	SETL POND	305	C	NB	5.75	0.36	43.64	NSPR	150.12	341.18
NEWSOME CR	NEW	TRANSECT0	305	C	NB	3.47	0.63	29.29	NSPR	19.54	44.41
NEWSOME CR	1	BEAVER CR	305	C	NB	5.33	0.76	43.5	NSPR	80.65	183.3
Selway River											
LITTLE CLEARWATER R		LOWER	301	B	NB	2.08	0.42	0	NSPR	0.83	0
LITTLE CLEARWATER R		UPPER	301	B	NB	2.71	1.52	0	NSPR	1.02	0
MARTEN CR		1	302	B	WB	8.95	5.51	72.3	NSPR	0	0
Lochsa River											
LOCHSA R	SADDLECAMP	3 (MP 140)	303	B	NB	0.07	0.15	1.57	NSPR	0	0
LOCHSA R		@PETEKING	303	B	NB	0	0.01	0.07	NSPR	0	0
PETE KING CR		ABOVEZHOLE	303	B	NB	0.52	1.03	15.5	NSPR	5.68	12.91
PETE KING CR		FALL	303	B	NB	10.75	3.16	139.1	NSPR	1.9	4.32
PETE KING CR	NEW	SLIDE	303	B	NB	4.56	0.91	54.7	NSPR	0.91	2.07
PETE KING CR		NUT CREEK	303		NB	7.54	3.77	113.1	NSPR	22.08	50.18
PETE KING CR		LAST SLIDE	303	B	NB	3.91	0.78	46.9	NSPR	3.91	8.89
PETE KING CR		JUNGLE	303	B	NB	6.19	0.77	69.6	NSPR	8.51	19.34
PETE KING CR		END OF RD	303		NB	0.73	1.46	21.9	NSPR	0	0
PETE KING CR		CULVERT	303	B	NB	4.32	3.84	81.6	NSPR	0	0
PETE KING CR		BIGBOULDER	303		NB	1.57	1.26	28.3	NSPR	24.53	55.75
PETE KING CR		.5MIUMOUTH	303		NB	4.42	1.26	56.8	NSPR	15.17	34.48
Clear Creek											
CLEAR CR		.5WAGONWHE	304	B	NB	3.02	5.22	0	NSPR	10.44	0
CLEAR CR		Y-IN ROAD	304	C	NB	0.85	11.9	0	NSPR	13.61	0
CLEAR CR	MAINSTEM	2	304	B	NB	16.49	6.99	0	NSPR	0.28	0
CLEAR CR	MAINSTEM	1	304	B	NB	7.32	5.99	0	NSPR	3.33	0
CLEAR CR	UPPER	RING RANCH	304	C	NB	6.6	0.41	0	NSPR	12.16	0
CLEAR CR		1MILEABOVE	304		NB	1.36	4.29	0	NSPR	4.52	0
CLEAR CR		440	304		NB	1.67	3.34	0	NSPR	4.6	0
CLEAR CR		UBRIDGE#1	304		NB	3.64	6.55	0	NSPR	11.29	0
CLEAR CR		MCCLEAN	304		NB	1.25	4.98	0	NSPR	9.34	0
CLEAR CR		INTAKE	304	C	NB	3.34	2.23	0	NSPR	7.05	0
CLEAR CR		HAZELGREY	304	B	NB	3.44	6.31	0	NSPR	11.47	0
CLEAR CR		F.LOUGHRAN	304	C	NB	1.57	1.26	0	NSPR	0	0
CLEAR CR		END OF RD	304		NB	4.29	1.77	0	NSPR	3.28	0
CLEAR CR		THOMASRNCH	304	C	NB	4.2	2.8	0	NSPR	8.4	0

CLEAR CR		BARNES	304	C	NB	3.89	4.32	0 NSPR	6.49	0
CLEAR CR		WAGONWHEEL	304		NB	7.8	7.8	0 NSPR	5.74	0
CLEAR CR		POWERLINE	304	C	NB	0	1	0 NSPR	8.36	0
CLEAR CR		WEIR	304		NB	0.24	0.24	0 NSPR	0	0
CLEAR CR		DELIVERANC	304		NB	4.07	6.29	0 NSPR	4.44	0
CLEAR CR		OLINCOULEY	304		NB	1.52	2.09	0 NSPR	5.88	0
CLEAR CR, S FK	LOWER	ABVMOUTH	304	B	NB	8.24	6.34	0 NSPR	6.34	0

Appendix A-3.

General Parr Monitoring Sections Unsurveyed in 1994

Appendix A-3. List of stream monitoring sections not completed in 1994 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
Little Salmon River											
BOULDER CR	ABOVE	2	MCCALL	210	NOT DONE IN 94	B	MON	NA	NSPR	44	20
BOULDER CR	BELOW	3	MCCALL	210	NOT DONE IN 94	B	MON	NA	NSPR	44	20
BOULDER CR	BELOW	5	MCCALL	210	NOT DONE IN 94	B	MON	NA	NSPR	44	20
BOULDER CR	ABOVE	1	MCCALL	210	NOT DONE IN 94	B	MON	NA	NSPR	44	20
HAZARD CR		HAZ1	MCCALL	210	NOT DONE IN 94	B	MON	NAB	NSPR	44	20
HAZARD CR		HAZ2	MCCALL	210	NOT DONE IN 94	B	MON	NAB	NSPR	44	20
LITTLE SALMON R		2	MCCALL	210	NOT DONE IN 94	B	MON	NAB	NSPR	44	20
LITTLE SALMON R		1	MCCALL	210	NOT DONE IN 94	B	MON	NAB	NSPR	44	20
LITTLE SALMON R		1.5	MCCALL	210	NOT DONE IN 94	B	MON	NAB	NSPR	44	20
Salmon River Canyon											
CHAMBERLAIN CR		MOUTH(L1)	MCCALLISS	207	NOT DONE IN 94	B	MON	WA	WSPR	77	14
CHAMBERLAIN CR		RUN(L2)	MCCALLISS	207	NOT DONE IN 94	B	MON	WA	WSPR	77	14
Headwaters Salmon River											
BEAVER CR	1	1A	ISM	201	DRY IN 94	C	MON	NA	NSPR	77	10
CHAMPION CR	1	1A	ISM	201	NEW IN 93;NO 94	C	MON	NA	NSPR	44	10
CHAMPION CR	1	1D	ISM	201	NEW IN 93;NO 94	B	MON	NA	NSPR	44	10
CHAMPION CR	1	1C	ISM	201	NEW IN 93;NO 94	B	MON	NA	NSPR	44	10
CHAMPION CR	1	1B	ISM	201	NEW IN 93;NO 94	C	MON	NA	NSPR	44	10
SALMON R	8	8-SA	ISM	201	DRY CHANNEL	C	MON	NA	NSPR	77	10
SALMON R	7	7-SB	ISM	201	DRY CHANNEL	C	MON	NA	NSPR	77	10
South Fork Salmon River											
DOLLAR CR	UPPER	1	MCCALL	208	NOT DONE IN 94	B	MON	WB	NSUM	44	14
DOLLAR CR	LOWER	MOUTH	MCCALL	208	NOT DONE IN 94	B	MON	WB	NSUM	44	14
LICK CR		POOL	MCCALL	208	NOT DONE IN 94	B	MON	WB	WSUM	77	14
SALMON R, S FK		19	MCCALLISS	208	NOT DONE IN 94	B	MON	WB	NSUM	44	14
SALMON R, S FK		18	MCCALLISS	208	NOT DONE IN 94	B	MON	WB	NSUM	44	14
SALMON R, S FK		20	MCCALLISS	208	NOT DONE IN 94	B	MON	WB	NSUM	44	14
SALMON R, S FK		22	MCCALLISS	208	NOT DONE IN 94	B	MON	WB	NSUM	44	14
Middle Fork Salmon River											
BIG CR	MIDDLE	TAYLOR 1	ISS	206	NOT DONE IN 94	C	MON	WB	WSPR	44	20
BIG CR	MIDDLE	HARD BOIL	MCCALLISS	206	NOT DONE IN 94	B	MON	WB	WSPR	44	20
BIG CR	MIDDLE	CARPENTER	MCCALLISS	206	NOT DONE IN 94	B	MON	WB	WSPR	44	20
BIG CR	MIDDLE	DOE CR	MCCALLISS	206	NOT DONE IN 94	B	MON	WB	WSPR	44	20
BIG CR	LOWER	1	ISS	206	NOT DONE IN 94	B	MON	WB	WSPR	44	20
CAMAS CR		L1-MOUTH	R7	206	NOT DONE IN 94	B	MON	WB	WSPR	77	20
CAMAS CR		UPPER	R7	206	NOT DONE IN 94	B	MON	WB	WSPR	77	20
INDIAN CR		UPPER	R7	205	NOT DONE IN 94	B	MON	WB	WSPR	44	20
INDIAN CR		LOWER	R7	205	NOT DONE IN 94	B	MON	WB	WSPR	44	20
LOON CR		L1-BRIDGE	R7	205	NOT DONE IN 94	B	MON	WB	WSPR	44	20
MARBLE CR	UPSTREAM	SUNNYSIDE	MCCALL	205	NOT DONE IN 94	B	MON	WB	WSPR	77	20

MARBLE CR	ABOVE	PACKBRIDGE	MCCALL	205	NOT DONE IN 94	B	MON	WB	WSPR	77	20
MONUMENTAL CR		MON3	MCCALL	206	NOT DONE IN 94	C	MON	WB	WSPR	77	20
MONUMENTAL CR		MON2	MCCALL	206	NOT DONE IN 94	C	MON	WB	WSPR	77	20
MONUMENTAL CR	DS HOLYTEF	MON5	MCCALL	206	NOT DONE IN 94	B	MON	WB	WSPR	77	20
MONUMENTAL CR	DS LOON CR	MON1	MCCALL	206	NOT DONE IN 94	B	MON	WB	WSPR	44	14
PISTOL CR		LOWER	R7	205	NOT DONE IN 94	B	MON	WB	WSPR	44	20
PISTOL CR		UPPER	R7	205	NOT DONE IN 94	B	MON	WB	WSPR	44	20
SALMON R, M FK	II	COUGAR	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK		ROCK IS	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	LJACKASS	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	MARBLPL	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	I	GARDEL HOL	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	II	WHITEYCX	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	I	INDIAN	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	PUNGO	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	SKIJUMP	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	I	RAPID R	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	77	14
SALMON R, M FK	I	SHEEPEATER	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	77	14
SALMON R, M FK	I	BOUNDARY	R7	205	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	IV	GOAT CR RN	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	III	SURVEY	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	IV	OTTER BAR	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	IV	SHIPISLAND	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	IV	BIG-CR-BR	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	IV	LOVEBAR	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
SALMON R, M FK	III	FLYING-B	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	III	AIRSTRIP	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	HOSPPL	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	10
SALMON R, M FK	II	HOSPRUN	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	LWR TAP RN	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	II	TAPPANPOOL	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	44	10
SALMON R, M FK	IV	GOAT CR PL	R7	206	NOT DONE IN 94	B	CORR	WB	WSPR	77	20
Upper Salmon River											
PINE CR	ABOVE	SAWMILL CR	R7ISS	203	NOT DONE IN 94	B	MON	NA	NSPR	0	20
PINE CR	ABOVE	BRIDGE	R7ISS	203	NOT DONE IN 94	B	MON	NA	NSPR	0	20

CLEARWATER 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
Selway River											
SELWAY R	ABOVE	BEAVER PT	R2ISS	301	NOT DONE IN 94	C	MON	WB	NSPR	108	20
Lochsa River											
COLT CR		BRIDGE	ISS	303	NOT DONE IN 94	B	MON	NB	NSPR	0	20
CROOKED FK CR	1	ABOVE 2A	ISS	303	COULD NOT FIND		MON	NB	NSPR	77	20
WHITE SAND CR	LOWER	WS1	ISS	303	NOT DONE IN 94	B	MON	NB	NSPR	44	20

Appendix B.

Prioritization of Snorkel Streams

Appendix B. Prioritization of General Parr Monitoring snorkel streams.

SNAKE RIVER AND TRIBUTARIES

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
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

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Lolo Cr	306	Y	Y	NPT	R2	1
Lapwai Cr **or** Big Canyon Cr	306	N	Y	NPT	R2	1
	306	N	Y	R2	--	1
Potlatch R	306	N	Y	R2	--	1\2
Mission Cr	306	N	Y	R2	--	1

SOUTH FORK CLEARWATER

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Red R, and S.F. Red R	305	Y	Y	R2	--	1
Crooked R	305	Y	Y	RES	--	1
Tenmile Cr	305	Y	Y	R2	--	1
American R	305	Y	Y	R2	--	2
Newsome Cr	305	Y	Y	NPT	R2	2
Meadow Cr	305	Y	Y	NPT	R2	2/3
Mill Cr	305	Y	Y	NPT	--	2
S.F.Clearwater	305	Y	Y	R2	--	3
Johns Cr	305	N	Y	R2	--	3
Moores Cr	305	N	Y	R2	--	4
Gospel Cr	305	N	Y	R2	--	4
Twin Lakes Cr	305	None	None	R2	--	4

MIDDLE FORK CLEARWATER

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Clear Cr	305	Y	Y	FRO	R2	1

Appendix B. continued

LOCHSA

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Crooked Fk Cr & Brushy Fk 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

SELWAY

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
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
O'Hare Cr	302	Y	Y	R2	--	3
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

LOWER SALMON (mouth to French Cr)

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Whitebird Cr & SFk	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

Appendix B. continued

LITTLE SALMON

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

SALMON RIVER CANYON (French Cr - Middle Fk)

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Chamberlain Cr	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	3
Rim Cr	207	NONE	NONE	?	--	4

SOUTH FORK SALMON

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (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
EFSF Salmon	208	Y	Y	R3	--	3

MIDDLE FORK SALMON

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (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	206	Y	Y	?	R3?	2
Camas Cr	206	Y	Y	R7	--	3
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

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

Appendix B. continued

LEMHI

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

PAHSIMEROI

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

UPPER SALMON (Middle Fork - Sawtooth Weir)

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
North Fk	203	Y	Y	R7	--	1
Valley Cr	201	Y	Y	SBT	R7	1
Yankee Fk*	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
Mainstem	201	Y	Y	R7	--	3
Thompson Cr	201	Y	Y	R7	--	3
Warm Springs Cr	201	Y	Y	R7	--	3
Redfish Lk Cr	201	Y	Y	R7	--	3
Pine Cr	203	N	Y	R7?	--	4

EAST FORK SALMON

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
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

Appendix B. continued

HEADWATERS SALMON (above Sawtooth Weir)

Stream	Drain	(Y/N) Chinook	(Y/N) Steelhead	Agency 1	Agency 2	Priority (1-4)
Alturas Lk 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 Lk 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

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 - 1994

SNORKEL DATA SHEET

STREAM _____ 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 _____

IDAEPA REACH # _____

LENGTH _____ TRANSECT WIDTHS _____

H_2O 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 IDAEPA Reach # __________
H_2O 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 SPECIFY		
7					
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 SPECIFY		
7					
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 SPECIFY		
7					
CHINOOK 0			CHINOOK 1		

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

Appendix D.

General Parr Monitoring database structure (version 1.1)

Appendix D
GENERAL PARK MONITORING
DATABASE STRUCTURE
(version 1.1)

FIELD	FIELD NAME	TYPE	WIDTH	DEC
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	2
18	MNWDTH	Numeric	6	2
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	2	
28	CHCELL	Numeric	2	
29	NEWCHCELL	Numeric	2	
30	CHIN0D	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	STHD18PL	Numeric	4	
47	STAC02	Numeric	4	
48	STAC35	Numeric	4	

Appendix D. continued

49	STAC68	Numeric	4	
50	STAC911	Numeric	4	
51	STAC1214	Numeric	4	
52	STAC1517	Numeric	4	
53	STAC18PL	Numeric	4	
54	RBT02	Numeric	4	
55	RBT35	Numeric	4	
56	RBT68	Numeric	4	
57	RBT911	Numeric	4	
58	RBT1214	Numeric	4	
59	RBT1517	Numeric	4	
60	RBT18PL	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	CHIN0	Numeric	4	
90	CHIN1	Numeric	4	
91	SPCHPERUSE	Numeric	4	2
92	SUCHPERUSE	Numeric	4	2
93	STHDPERUSE	Numeric	4	2
94	SPCHNHA	Numeric	1	
95	SUCHNHA	Numeric	1	
96	STHDHA	Numeric	1	
97	SPCHUSETYP	Numeric	1	
98	SUCHUSETYP	Numeric	1	
99	STHDUSETYP	Numeric	1	
Total			**449**	

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