# IDAHO DEPARTMENT OF FISH AND GAME

### FEDERAL AID IN FISH RESTORATION 1996 Job Performance Report Program F-71-R-21



# REGIONAL FISHERIES MANAGEMENT INVESTIGATIONS SOUTHWEST REGION (Subprojects I-D, II-D, III-D, IV-D)

PROJECT I.	SURVEYS AND INVENTORIES
Job a.	Southwest Region Mountain Lakes Investigations
Job b.	Southwest Region Lowland Lakes Investigations
Job c.	Southwest Region Rivers and Streams Investigations
Job d.	Southwest Region Salmon and Steelhead Investigations
PROJECT II.	TECHNICAL GUIDANCE
PROJECT III.	HABITAT MANAGEMENT
PROJECT IV.	POPULATION MANAGEMENT

Ву

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> December 1999 IDFG 99-39

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#### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u>	Program: Fisheries Management F-71-R-21						
Project I: Surveys and Inventories	Subproject I-D: Southwest Region						
Job: <u>a</u>	Title: Mountain Lakes Investigations						
Contract Period: July 1, 1996 to June 30, 1997							
ABSTRACT							
Forty-eight mountain lakes or ponds were visited in 1996. Lakes visited were located in the Middle Fork Boise River, Queens River, North Fork Boise River, and South Fork Payette River. Gill nets were set overnight and angling occurred in six waters, overnight gill net sets without angling occurred in four waters, angling without gill net sets in two waters, and visual observation only occurred in 36 waters. Twelve waters contained fish populations.							

Twenty-eight of 48 waters were surveyed for the presence of amphibians. Adult spotted frogs Rana luteiventris were found in three waters, juvenile spotted frogs were found in ten waters, and long toed salamanders Ambystoma macrodactylum were found in one water. No amphibians were found in waters containing fish.

Data on amount of human use and presence and condition of trails to lakes was collected and recorded.

All data collected was entered into an ACCESS database.

Authors:

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#### **OBJECTIVES**

To survey all mountain lakes within the region and document the presence or absence of fish and amphibian populations, and the level of human use at mountain lakes and ponds. Information will be used to develop a management plan for high elevation waters within the region.

#### METHODS

Mountain lakes were surveyed by regional fisheries staff during two separate trips in 1996. Mountain lakes were visited to determine the distribution of fish and amphibians in high elevation waters within the region.

Waters were sampled to document the presence of fish and to identify fish species present using gill nets and angling. Angling was often used to sample fish in lakes. If 10 fish could be easily caught, gill nets were not used to sample fish. If the presence of fish in a lake was not obvious, or if fish were difficult to catch, one gill net was set overnight to document the presence of fish and identify species. Gill nets were 30.5 m long with 7.6 m panels of 19, 25, 32 and 38 mm square mesh monofilament. All fish captured in gill nets or by angling were measured for total length (nearest mm) and weight (nearest g).

Shallow waters where the bottom could easily be seen and no fish were observed were considered fishless and no further sampling was done. Several of the waters in this years survey were small "frog ponds." These waters were often viewed from ridge tops and judged to be too shallow to support fish. No further sampling was done in these waters.

On waters that were visited, the presence and identity of amphibians was determined by walking slowly around the edge of each lake and attempting to identify all amphibians. When possible amphibians were collected and observed to determine species.

Lakes were visually surveyed to document the presence and condition of campsites and campfire rings, and for other signs documenting the level of human use. The trail condition (if any) and difficulty of getting to each lake was observed and recorded.

Water chemistry was measured at lakes containing fish.

All data was entered into an ACCESS database.

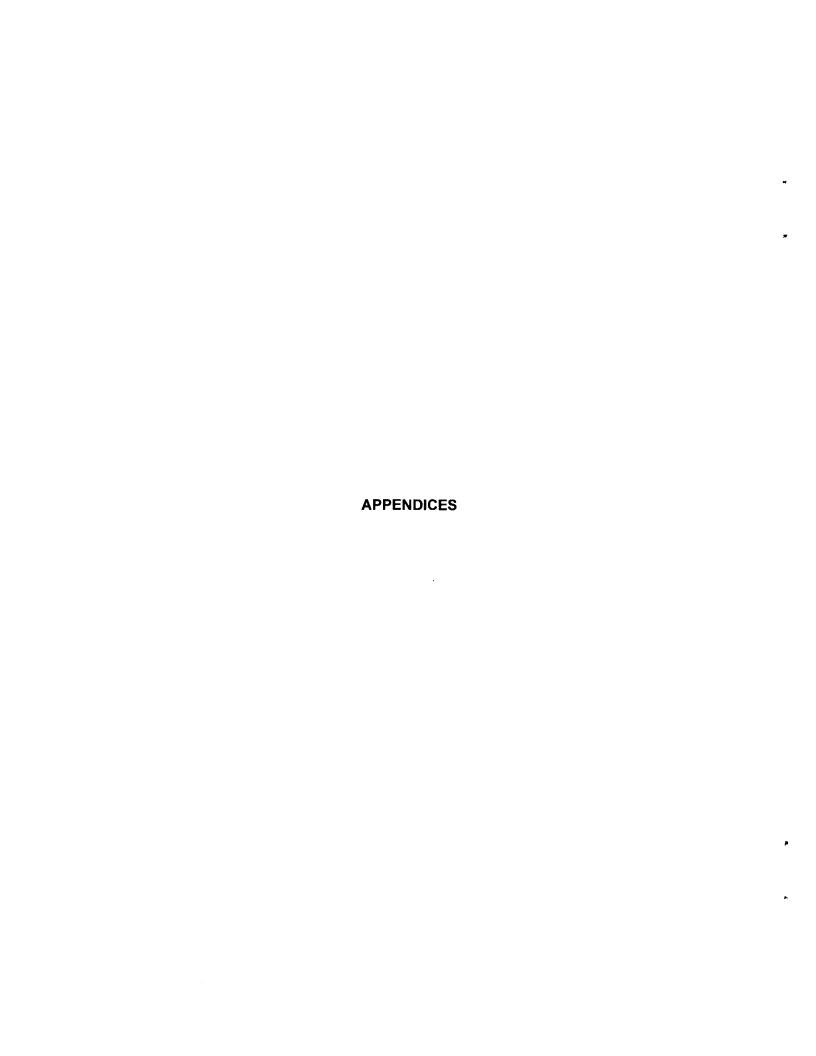
#### RESULTS

Forty-eight mountain lakes and ponds were visited or observed from ridge tops in 1996. Of waters observed or visited, 16 were within the Johnson Creek drainage (tributary to North Fork Boise River), 17 were within the North Fork Boise River (not in Johnson Creek), 8 were within the Middle Fork Boise River, 4 were within the Queens River drainage, and 3 were within the Benedict Creek drainage (South Fork Payette River).

Trout populations were documented in Alidade, Azure, Cliff, Cow (Tyee), Glacier, Island, Johnson, Rock Island, Slide, Snowbank, The Hole and Warrior #2 lakes. All of these lakes contained only westslope cutthroat trout *Oncorhynchus clarki lewisi*. Azure lake contained golden trout *Oncorhynchus aguabonita*, and golden x westslope cutthroat hybrids in addition to westslope cutthroat. Slide lake contained only rainbow *Oncorhynchus mykiss*. Warrior #2 lake contained westslope cutthroat trout x rainbow trout hybrids, in addition to westslope cutthroat trout.

Amphibians were found in 11 of 28 waters surveyed. Adult spotted frogs *Rana luteiventris* were found in Johnson Creek Pond #4, Queens River Pond #1, and in Warrior #4. Juvenile spotted frogs were found in Upper Alidade, Johnson Creek Ponds #1, #2, #3, and #4, Queens River Pond #1, Taylor Creek Ponds #2, #3, and #5, and in Warrior #4. No waters contained both fish and amphibians. Long-toed salamanders *Ambystoma macrodactylum* were found in Johnson Creek Pond #5.

Fish and amphibian survey information, human use level, trail condition and water chemistry information for individual lakes is contained in Appendix A. Species abbreviations used in Appendix A are as follows: BKT brook trout *salvelinus fontinalis*; GND golden trout; HYB westslope x rainbow; RBT rainbow trout; and WCT westslope cutthroat trout.



Lake	Name:	AL	IDADE	Quadi	map:	1	Nahne	ke M	ltn			
Plant	ing Number:	10	0312	Outlet	t:							
Coun	-		MORE	Draina	age:	r	nfbr					
Natio	nal Forest:	ВС	DISE	Tribut	ary To:		Johns	on C	k			
Town	ship:	71	J	Lake <sup>1</sup>	Туре:	5	Slump					
Rang	e:	11	E	Eleva	tion:	2	2420	m				
Secti		10		Size:		2	2.59	ha				
Latitu	ıde:			Maxin	num Depth	1:		m				
Long	itude:			Asped	ct:	ı	N					
Spaw	vning Potenti	ial:		Comn	nents:							
Exce	lient. May n	ot need to s	tock this lake. Check	Fry we	ere observ	ed in the	outlet	t. <b>6"</b>	ct were	observ	ed in a	
lengt	h frequency	of fish. God	d inlet with 200 m of	swam	-pool 50m	below th	e lake	. No	<6" ct	were ob	served	
grave	el/sand spaw	n substrate		in the	lake.							
Che	mical Repo	rt:				Hun	nan U	se R	eport:			
									0100100			
		Date:	9/23/96				D	ate:	9/23/96	)		
Alkalir	nity (mg/l Ca		85			Hur	man U	lse:				
	ess (mg/l Cal		17		Ca	ampsite (	Condit	ion:	Well D	evelope	<b>d</b>	
	` •	pĤ:	8.6		(	Campsite	Numl	ber:	2			
	nductivity (uS		2			Campf		_				
Surface Temp(C): 10					Trail Condition: Fair							
	Secch	ni (m):	0			Trail			Modera	ate		
Angler Information:				Litter: Rare  Mean Length and Weight Report:								
Date:		9/23/96	<b>S</b>	Species Geartype Date								
	of Anglers:	1			wsc	-	ngling		9/23/9	6		
Hours Fis	-	1				7	·э····э		0,20,0	•		
Total Cau		11										
Catch pe	_	11				Mean		M	lean			
- · · ·					Species	Length	S.E.	W	eight	S.E. C	-Factor	
		Minimum	Maximum		•	(mm)			(g)			
	Number	Length	Length		WSC	330	)	6	285	21	8.0	
Species	Caught	(mm)	(mm)									
WSC	11	305	370									
	0	0	0									
	0	0	0		Α	mphibia	n Rep	ort:				
							D	ate:	9/23	3/96		
					Sr	otted Fr			0			
					-,	Spotted	-		ō			
					-	Tailed Fr			Ō			
						Tailed	-		0			
						Tree Fr			0			
							Frog		Ö			
L	ength Fre	allency					mand		·			
	ongan ric	quonoy				Oale			0			
Species									_			
Captured												
		<151mm	151-200mm	201-250mm	251-300	Omm	30		Omm		0mm	
WSC								10	)	1		

Lake Name: ALIDADE, UPPER Quadmap: Nahneke Mtn Planting Number: 10U120 Outlet: Unnamed County: **ELMORE** Drainage: **NFBR** National Forest: **BOISE** Tributary To: **NFBR** Township: 7N Lake Type: Cirque Range: 11E Elevation: 2470 m Section: 10 Size: 0.45 ha Latitude: Maximum Depth: 2 m Longitude: Aspect: NW Spawning Potential: Comments: None. No fish potential. **Chemical Report: Human Use Report:** 9/23/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/I CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Poor Secchi (m): Trail Difficulty: Difficult Litter: None **Angler Information:** Mean Length and Weight Report: Date: 9/23/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. Weight Species Length S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: 9/23/96 Spotted Frog Adults: 0 Spotted Frog Juv: 200 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 0 Species

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: **ARROWHEAD Mount Everly** Quadmap: Planting Number: 100316 Outlet: **ELMORE** NFBR County: Drainage: BOISE National Forest: Tributary To: **NFBR** Township: 7N Lake Type: Range: 11E Elevation: 2674 m Section: Size: ha Latitude: 43 58.45 Maximum Depth: m Longitude: 115 5.41 Aspect: Spawning Potential: Comments: **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use:

Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Trail Condition: Surface Temp(C): Secchi (m): Trail Difficulty: Litter: **Angler Information:** 

Mean Length and Weight Report:

Date: 7/23/96 Species Geartype Date

**Number of Anglers:** 2 Hours Fished: 1 **Total Caught** 10 Catch per Hour: 10

Mean Mean **Species** Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g)

Number Length Length **Species** Caught (mm) (mm) WCT 10 100 405 0 0 0

0 0 0 **Amphibian Report:** Date: Spotted Frog Adults:

Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv:

**Length Frequency** Salamanders:

Species

Captured <151mm 201-250mm 251-300mm 151-200mm 301-350mm >350mm

l ake	e Name:	Δ	.ZURE	Ouar	dmap:	,	Nahnel	ke Mtn			
							100				
	ting Number		00313	Outle			_				
Coul	•		LMORE	Drair	•		nfbr				
	onal Forest:		OISE		itary To:		NFBR				
	nship:		'N		Type:		Cirque				
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Sect		1		Size:			5.36	ha			
Latit					mum Dept			n			
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			t catch shows variou		e WSC loo		•	•	GDN troi	at. Some	
	ciasses of fi irring.	sn. Limited	spawning may be	GDN	trout looke	ed relative	ely pure	€.			
0000	iiriig.										
Che	emical Repo	ort:				Hun	nan Us	se Report			
		Date:	9/27/96				Da	9/27/9 te:	Ö		
Alkali	nity (mg/l Ca	CO3):	17			Hur	man Us	se:			
	ess (mg/l Ca		0		С	ampsite (	Conditio	on: Poorly	Develor	oed	
		рH:				Campsite					
Co	nductivity (u		1			Campf					
	Surface Ter		9					on: None			
	Secc	hi (m):	0			Trail		Ity: Difficu	ılt		
A	ngler Inforn	nation:			Litter: Rare  Mean Length and Weight Report:						
Date:		9/27/9	6		Species	Gearty	pe	Date			
Number	of Anglers:	1			GDN	Gi	li net	9/27/	96		
Hours Fi	shed:	0	.5		WSC	Gi	ll net	9/27/	96		
Total Ca	ught	0									
Catch pe	er Hour:	0				Mean		Mean			
					Species	-	S.E.	Weight	S.E. C	-Factor	
		Minimum			0544	(mm)		(g)			
Ci	Number	Length	Length		GDN	221				0.9	
Species	Caught 0	(mm) 0	(mm) 0		wsc	320	36	5 250	0 89	0.8	
	0	0	0				_	_			
	0	0	0		P	mphibia	п кер	ort:			
									27/96		
					S	potted Fro			)		
						Spotted	-		)		
						Tailed Fro					
						Tailed					
						Tree Fro					
					Tree	Frog J	uv: 0				
L	ength Fre	equency				Sala	mande				
								0			
Species											
Captured	l	~1E1	151 200	204 250	254.20	Omm	204	250	. 0.5	.0	
GDN		<151mm	151-200mm 1	201-250mm 3	251-30	omm	301	-350mm	>35	i0mm	
WSC			1	3 1				1	3		
*****			,	'				•	3		

Lake Name: AZURE, UPPER Quadmap: Mount Everly Planting Number: 10U123 Outlet: Unnamed County: **ELMORE NFBR** Drainage: National Forest: BOISE Tributary To: Johnson Ck Township: 7N Lake Type: Cirque Range: 11E Elevation: 2726 m Section: 12 Size: 0.68 ha Latitude: Maximum Depth: 0 m Longitude: Aspect: W Spawning Potential: Comments: None. Marginal fish lake. Might be deep enough to support fish. Fish passage from Azure to Upper Azure would not occur. Fish could move from Upper Azure to Azure. Too small for fish. **Chemical Report: Human Use Report:** 9/27/96 Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Trail Condition: None Surface Temp(C): Secchi (m): Trail Difficulty: Difficult Litter: None Angler Information: Mean Length and Weight Report: Date: 9/27/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. C-Factor Length S.E. Weight **Species** Minimum Maximum (mm) (g) Number Length Length Species Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: Length Frequency Salamanders: **Species** 

9

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: BENEDICT Quadmap: Mount Everly

Planting Number: 090193 Outlet:
County: BOISE Drainage:

County:BOISEDrainage:SFPRNational Forest:BOISETributary To:SFPR

7N Lake Type: Township: Moraine-meadow Range: 12E Elevation: 2604 m Section: 9 Size: 6.81 ha Latitude: 43 57.81 N Maximum Depth: 6.1 m s

Longitude: 115 01.03 Aspect: Spawning Potential: Comments:

Moderate to heavy human use, used by "Sawtooth

Outfitters."

Chemical Report: Human Use Report:

Date: Date: Alkalinity (mg/l CaCO3): Human Use:

Hardness (mg/l CaCO3):

Campsite Condition:
pH:

Campsite Number:

Conductivity (uS/cm):
Surface Temp(C):
Secchi (m):
Campfire Rings:
Trail Condition:
Trail Difficulty:
Litter:

Angler Information: Mean Length and Weight Report:

Date: 7/22/96 Species Geartype Date

Number of Anglers: 1
Hours Fished: 0.5
Total Caught 0
Catch per Hour: 0

Catch per Hour: 0 Mean Mean Species Length S.E. Weight S.E. C-Factor

Minimum Maximum (mm) (g)

Number Length Length **Species** Caught (mm) (mm) 0 0 0 0 0 0 0 0 0

0 0 0 Amphibian Report:

Date:
Spotted Frog Adults:
Spotted Frog Juv:
Tailed Frog Adults:
Tailed Frog Juv:

Tree Frog Adults: Tree Frog Juv:

Length Frequency Salamanders:

Species

Captured <151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

Lake Name: **BLUE JAY** Swanholm Peak Quadmap: Planting Number: 100308 Outlet: Blue Jay Ck BOISE **NFBR** County: Drainage: BOISE National Forest: Tributary To: **NFBR** Township: 7N Lake Type: Slump Range: 10E Elevation: 2340 m Section: 31 0.45 Size: ha Latitude: Maximum Depth: 2 m Longitude: Aspect: SE Spawning Potential: Comments: None. We viewed this small lake from across and above the drainage. It looked too small and shallow to provide any fish potential. **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: Angler Information: Mean Length and Weight Report: Date: 9/7/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Length Number Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: Salamanders:

Length Frequency

**Species** 

Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

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			LIFF	Quad	imap:		viount	Everly			
	nting Number		00250	Outle							
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	onal Forest:		OISE		tary To:		NFBR				
Ran	<b>-</b>		N IE		Type: ation:		Cirque 2592	m			
Sect	-	13		Size:			2.3 <del>9</del> 2 0.45	ha			
	ude:	1.	•		mum Depth			n n			
	gitude:			Aspe	•		E	•			
	wning Potent	tial:		•	ments:		_				
			ing potential.								
Ch	emical Repo	ort:				Hun	nan U	se Repor	t:		
		<b>D</b>	0.00 4.000					9/24/	96		
Δlkali	nity (mg/l Ca	Date:	9/24/96 17			<b></b>	ט ש nan U	ite:			
	ess (mg/l Ca		0		C			se. on: None			
		pH:	•			Campsite					
Co	nductivity (us		0			Campf					
	Surface Ten		10					on: None			
	Seco	hi (m):	0			Trail		Ity: Diffic			
A	ngler Inform	nation:			Mean Le	ngth and		ter: None I <b>ht Repor</b>			
Date:		9/24/9	6		Species	Gearty	pe	Date			
Number	of Anglers:	1			wsc	Ar	ngling	9/24	/96		
Hours Fi Total Ca		0	.5		wsc	Gi	ll net	9/24	/96		
Catch pe	er Hour:	0				Mean		Mean			
		Minimum	Maximum		Species	Length (mm)	S.E.	Weight (g)	S.E.	C-F	actor
	Number	Length	Length		WSC	264		9 13	_	10	0.7
Species	Caught 0	(mm) 0	(mm) 0		WSC	274	i	B 17	9 1	14	0.9
	0	0	0								
	Ö	Ö	ő		A	mphibia	n Rep	ort:			
							Da	ate: 9/	24/96		
					Sp	otted Fre	og Adu	ılts: (	)		
						Spotted	•		כ		
					٦	Tailed Fro	og Adu	ılts: (	)		
						Tailed	-		)		
						Tree Fro			)		
	ength Fre	auone.					Frog J		)		
L	engui Fre	quency				Sala	mande		)		
Species Captured	l							,	,		
		<151mm	151-200mm	201-250mm	251-300	Omm	301	-350mm	>	-350n	nm
wsc				2	7						

ı	Lake Name:	COV	V LAKE	Quad	dmap:		Tyee Mtr	)		
F	Planting Number:	1003	155	Outle	<b>2</b> †·					
	County:	BOIS		Drain			NFBR			
	National Forest:	BOIS			itary To:		NFBR			
	Township:	8N	<b>,</b>		Type:		Slump			
	Range:	10E			ation:		2396 m			
	Section:									
		20	1 22	Size:		. <b>L</b> .	2.59 h	а		
	_atitude:	44 0			mum Dept		7 m			
	ongitude:		15.03	Aspe			N			
	Spawning Potenti				ments:					
ı	None. No inlet or	outlet.			mum deptl				-	ow.
	Chemical Repo	rt:		Trout	are in goo		on, i.e., h <b>nan Us</b> e	-	•	
	kalinity (mg/l Ca( irdness (mg/l Ca(	CO3):	0/3/96 17 17			ampsite		: : Well E	) Developed	I
		pH:	7.4			Campsite				
	Conductivity (uS		3				fire Rings			
	Surface Tem		16	Trail Condition: Fair						
	Secch	i ( <b>m</b> ):	0			Trail	Difficulty		rate	
	Angler Inform	ation:			Mean Le	ength and		: Rare :Report	:	
Date	:	9/3/96			Species	Gearty	ре	Date		
Numl	ber of Anglers:	2			WCT	- A	ngling	9/3/9	96	
	s Fished: Caught	1.5			WCT	- G	ill net	9/3/9	96	
Catcl	h per Hour:					Mean		Mean		
Ci-	Number	Length L	Maximum ength		Species	Length (mm) 332	39	Veight (g)		0.0
Specie WCT		(mm) 270	(mm) 405		WCT	287	' 21	289	65	1.1
					A	mphibia	n Report	t:		
							Date	e: 9/	3/96	
					S	potted Fr	og Adults	s: 0		
						Spotted	Frog Juv	<i>r</i> : 0		
						Tailed Fr	og Adults	s: 0		
				Tailed Frog Juv: 0						
							og Adults			
							Frog Juv			
	Length Free	quency					manders			
Cr	ioo	-						0		
Speci										
Captu	riea	-1E1	454 000	204 252	054.00		004.5	FO · ·		
WCT		<151mm	151-200mm	201-250mm 2	251-30 2		301-3	50mm 3	>350 1	mm
				2	2			5	,	

CUB CK #1 Quadmap: Swanholm Peak Lake Name: 10U022 Outlet: Cub Ck Planting Number: BOISE Drainage: **NFBR** County: **BOISE NFBR** National Forest: Tributary To: Lake Type: Township: 8N Bog Range: 9E Elevation: 2470 m Section: 35 Size: 0.45 ha Maximum Depth: Latitude: 0.5 m NW Longitude: Aspect: Spawning Potential: Comments: We viewed these ponds from ridge top. They appeared to None. be more marshes than lakes. Open standing water could not be seen. They appear to have good potential for amphibians. **Human Use Report: Chemical Report:** Date: Alkalinity (mg/I CaCO3): Human Use: Campsite Condition: Hardness (mg/l CaCO3): Campsite Number: Conductivity (uS/cm): Campfire Rings: Trail Condition: Surface Temp(C): Trail Difficulty: Secchi (m): Litter: **Angler Information:** Mean Length and Weight Report: Date: 9/5/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: Length Frequency Salamanders: **Species** Captured

201-250mm

251-300mm

<151mm

151-200mm

301-350mm

>350mm

Lake Name:			CUB CK #2		Quad	lmap:		Swanholm Peak				
Plan	iting Number	r:	10U023		Outlet:			Cub Ck				
Cou	nty:		BOISE		Drainage:			NFBR				
National Forest:			BOISE		Tribu	tary To:		<b>NFBR</b>				
Township:		8N		Lake Type:			Bog					
Rang	ge:		9E		Eleva	• •		2470	m			
Sect	tion:		35		Size:			0.22	ha			
Latit	ude:				Maxi	mum Depi	th:	0.5	m			
Long	gitude:				Aspe	ct:		NW				
Spav	wning Poten	tial:			Comments:							
None	e.				We vi	iewed the	se ponds	from ri	dge top	Γhey a	ppeared to	
					be mo	ore marsh e seen.  T	es than la	akes. (		ding w	ater could	
Che	emical Repo	ort.			ampn	iibians.	ш.,	man II	se Report			
One	eillicai itept	J1 L.					nu	IIIaII U	se Report	•		
		Date:						Da	ate:			
	nity (mg/l Ca							ıman U				
Hardn	ess (mg/l Ca					C	Campsite					
0-		pH:					Campsit					
Co	nductivity (u Surface Ter				Campfire Rings:							
		:hi (m):			Trail Condition: Trail Difficulty:							
	0000	anı (111 <i>)</i> .					IIai		ter:			
A	ngler Inform	nation:			Mean Length and Weight Report:							
Date:		9/5/9	96		Species Geartype Date							
Number	of Anglers:											
Hours Fi	shed <sup>.</sup>											
Total Ca												
Catch pe							Mean		Mean			
Out.0 pc						Species	Length	S.E.	Weight	S E	C-Factor	
		Minimu	m Maximum			орсоюз	(mm)	O.L.	(g)	O.L.	O-I actor	
	Number	Length	Length		,		(,		(3/			
Species	Caught	(mm)	(mm)									
						,	Amphibia	an Rep	ort:			
								D	ate:			
						9	potted F		-			
							•	-				
					Spotted Frog Adults:							
					Tailed Frog Adults:							
					Tailed Frog Juv: Tree Frog Adults:							
								Frog J				
	ength Fre	יממוופממי	,					amande				
Species	engai rit	-qu <del>c</del> ncy	•				Sali	amande	#IS.			
•												
Captured		-454		_	004.0-0							
		<151mi	n 151-20	umm	201-250mm	251-30	JUMM	301	-350mm	>	>350mm	

Lake Name:		С	UB CK #3	Quadmap:	Swanholm Peak					
Planting Number: 1			U024	Outlet:	Cub Ck					
County:		В	DISE	Drainage:	NFBR					
National Forest:			DISE	Tributary To:	NFBR					
Township: 8N			Lake Type:	Bog						
Rang		9E		Elevation:	2433 m					
Secti	•	35								
Latitu		30		Size: 0.22 ha Maximum Depth: 0.5 m						
				Maximum Depth:						
-	jitude:	A: I.		Aspect: NW						
	vning Poten	uai.		Comments:						
None	€.				ponds from ridge top. They appeared t					
					s than lakes. Open standing water could	1				
					ey appear to have good potential for					
-				amphibians.						
Che	emical Repo	ort:			Human Use Report:					
		Date:			Date:					
Alkalir	nity (mg/l Ca	CO3):			Human Use:					
	ess (mg/l Ca			Car	mpsite Condition:					
		pH:		C	ampsite Number:					
Cor	nductivity (u	S/cm):			Campfire Rings:					
	Surface Ter	mp(C):		Trail Condition:						
	Secc	hi (m):			Trail Difficulty:					
					Litter:					
Aı	ngler Inforn	nation:		Mean Length and Weight Report:						
Date:		9/5/96		Species	Geartype Date					
Number	of Anglers:									
Hours Fis	shed:									
Total Cau	uaht									
Catch pe	•				Mean Mean					
					Length S.E. Weight S.E. C-Facto	r				
		Minimum	Maximum	•	(mm) (g)	•				
	Number	Length	Length		(11111)					
Species	Caught	(mm)	(mm)							
<b>Op00.00</b>	g	()	<b>(·····</b> )	Ап	nphibian Report:					
					Date:					
				Spc	otted Frog Adults:					
				Spotted Frog Juv:						
				Tailed Frog Adults:						
				Tailed Frog Juv:						
					Tree Frog Adults:					
1					Tree Frog Juv:					
	ength Fre	quency			Salamanders:					
Species										
Captured										
		<151mm	151-200mm	201_250mm 251_300r	mm 301-350mm >350mm					

201-250mm

251-300mm

301-350mm

>350mm

<151mm

Lake Name: CUB CK #4 Quadmap: Swanholm Peak **Planting Number:** 10U025 Outlet: Cub Ck County: BOISE NFBR Drainage: National Forest: **BOISE** Tributary To: **NFBR** Township: 7N Lake Type: Bog Range: 9E Elevation: 2503 m Section: 2 Size: 0.45 ha Latitude: Maximum Depth: 0.5 m Longitude: Aspect: NW Spawning Potential: Comments: None. We viewed these ponds from ridge top. They appeared to be more marshes than lakes. Open standing water could not be seen. They appear to have good potential for amphibians. **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): **Human Use:** Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: Angler Information: Mean Length and Weight Report: Date: 9/5/96 Geartype Species Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: Length Frequency Salamanders: **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: CUB CK, SF Quadmap: Swanholm Peak Planting Number: 10U026 S.F. Cub Ck Outlet: County: BOISE Drainage: NFBR National Forest: **BOISE** Tributary To: NFBR Township: 7N Lake Type: Bog Range: 9E Elevation: 2482 m Section: 2 Size: 0.45 ha Latitude: Maximum Depth: 1.5 m Longitude: Aspect: W Spawning Potential: Comments: None. We viewed this pond from the ridge top. It was deemed too small and shallow for fish. **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: **Angler Information:** Mean Length and Weight Report: Date: 9/5/96 Species Geartype Date **Number of Anglers:** Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species S.E. Weight S.E. C-Factor Length Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders: Species

201-250mm

251-300mm

>350mm

301-350mm

Captured

<151mm

**EVERLY** Lake Name: Quadmap: **Mount Everly** Planting Number: 090200 Outlet: BOISE SFPR County: Drainage: National Forest: **BOISE** Tributary To: SFPR Township: 7N Lake Type: Range: 12E Elevation: 2631 m Section: 8 Size: ha Latitude: Maximum Depth: m Longitude: Aspect: Spawning Potential: Comments:

**Chemical Report: Human Use Report:** 

Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter:

Angler Information: Mean Length and Weight Report:

Date: 7/22/96 Species Geartype Date

Number of Anglers: 2 Hours Fished: 1 **Total Caught** 5 Catch per Hour: 5

Mean Mean **Species** Length S.E. Weight S.E. C-Factor

Minimum Maximum (mm) (g) Number Length Length

**Species** Caught (mm) (mm) WCT 5 280 330 0 0 0 0 0 0

Amphibian Report: Date: Spotted Frog Adults:

Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv:

**Length Frequency** Salamanders:

**Species** Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

Lake	e Name:	G	GLACIER	Quad	lmap:	ı	Nahnel	ke Mtn					
Plan	nting Number	·· 1	00321	Outle	of:								
County:			LMORE		Drainage: nfbr								
National Forest: BOISE					tary To:		NFBR						
	nship:		'N		Type:		Cirque						
Ran	•		1E	Eleva				m					
Sect	_	1	_	Size:			3.90	ha					
	ude:	•	•		mum Depth		17.5 r						
	gitude:				Aspect: N								
	wning Potent	tial:		•	Comments:								
•	•		outlet. Some shore										
	wning may o												
	emical Repo				Human Use Report:								
								9/24/9	96				
A 11 12		Date:	9/24/96				Da						
	nity (mg/l Ca		17		0-		man U						
пагол	ess (mg/l Ca	pH:	0					on: Poorly	Develo	pea			
Co	nductivity (u	•	0			ampsite Campfi							
00	Surface Ter		10					on: Poor					
		hi (m):	0	Trail Difficulty: Moderate									
								er: None					
A	ngler Inforn	nation:		Mean Length and Weight Report:									
Date:		9/24/9	16	Species Geartype Date									
Number	of Anglers:	1			WSC Angling 9/24/96								
Hours Fi Total Ca	-	3			WSC Gill net 9/24/96								
Catch pe	er Hour:	6				Mean		Mean					
		Minimum	Maximum	1	Species	Length (mm)	S.E.	Weight (g)	S.E. C	-Factor			
	Number	Length	Length		WSC	<b>290</b>	12		5 19	0.8			
Species	Caught	(mm)	(mm)		WSC	288	2	1 23 <sup>-</sup>	1 54	0.9			
wsc	3	270	310										
	0	0	0										
	0	0	0		An	nphibiai	n Repo	ort:					
							Da	ate: 9/2	24/96				
					Sp	otted Fro							
						Spotted							
				Tailed Frog Adults: 0 Tailed Frog Juv: 0									
					Tree Frog Adults: 0								
							Frog J						
L	ength Fre	quency					mande						
	_							0					
Species	_												
Captured	l	.4.5.	484	004									
WCC		<151mm	151-200mm	201-250mm	251-300	mm	301	-350mm		50mm			
wsc				2	4			2	1				

Lake Name: **GOAT MOUNTAIN #1** Quadmap: Swanholm Peak Planting Number: 100347 Outlet: County: **BOISE** Drainage: **NFBR** National Forest: **BOISE** Tributary To: **NFBR** Township: **7N** Lake Type: Slump Range: 9E Elevation: 2628 m Section: 11 Size: 0.45 ha Maximum Depth: Latitude: 2 m S Longitude: Aspect: Spawning Potential: Comments: None. Lake was viewed from ridgetop. It appeared small, shallow with a mud bottom with little or no fish potential. **Chemical Report: Human Use Report:** 9/5/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: None Secchi (m): Trail Difficulty: Difficult Litter: None **Angler Information:** Mean Length and Weight Report: Date: 9/5/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. C-Factor Species Length S.E. Weight Minimum Maximum (mm) (g) Length Length Number **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders: **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: **GOAT MOUNTAIN #2** Quadmap: Swanholm Peak Planting Number: 10U048 Outlet: Taylor Ck BOISE County: Drainage: **NFBR** BOISE National Forest: Tributary To: **NFBR** Township: 7N Lake Type: Slump 9Ę Elevation: 2508 m Range: 12 0.45 Section: Size: ha Maximum Depth: Latitude: m Longitude: Aspect: S Spawning Potential: Comments: None. Lake was viewed from ridgetop. It appeared small with a mud bottom with little potential for fish. **Chemical Report:** Human Use Report: Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: **Angler Information:** Mean Length and Weight Report: Date: 9/5/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) Amphibian Report: Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders: **Species** Captured

201-250mm

251-300mm

301-350mm

>350mm

<151mm

ا ماده	Name	18.	ICEDODO				14	Frank.			
	Name:		IGEBORG	Quadr	nap:		Mount	Eveny			
Planting Number:			00306	Outlet:			MFBR				
County:			LMORE	Draina	-		MFBR				
National Forest:			DISE		ary To:		MFBR				
	nship:		N	Lake 1	• •		Morain				
Rang			?E	Elevat	tion:			m			
Secti		15		Size:			12.7	ha			
Latitu			3 57.03 N		Maximum Depth: 11 m Aspect: SE						
_	itude:		15 02.51 W		Aspect: Comments:						
	vning Potent limited	uai.		Comm	ients:						
•	emical Repo	· • • •				ш	man I k	na Banari	•		
Cite	emicai Rept	nt.				nu	illali U	se Report	•		
		Date:						nte:			
	nity (mg/l Ca				_		ıman U				
Hardne	ess (mg/l Ca					ampsite					
Cor	nductivity (u	pH: S/cm\:		Campsite Number:							
	Surface Ter			Campfire Rings: Trail Condition:							
		hi (m):		Trail Difficulty:							
							Litt	ter:			
Aı	ngler Inforn	nation:		Mean Length and Weight Report:							
Date:		7/22/9		Species Geartype Date							
Number	of Anglers:	2									
Hours Fig	shed:	2									
Total Car	ught	8									
Catch pe	r Hour:	4				Mean		Mean			
				:	Species	Length	S.E.	_	S.E. C-Factor		
			Maximum			(mm)		(g)			
0	Number	Length	Length								
Species WCT	Caught 8	(mm) 254	(mm) 330								
VVC1	_										
	0	0	0		_		_	_			
	0	0	0		A	Amphibia	an Rep	ort:			
							D	ate:			
				Spotted Frog Adults:							
				Spotted Frog Juv:							
			Tailed Frog Adults: Tailed Frog Juv:								
				Tree Frog Adults:							
							Frog J				
	ength Fre	equency				Sal	amand	ers:			
Species											
Captured											
•		<151mm	151-200mm	201-250mm	251-30	00mm	301	-350mm	>350mm		

Lake	e Name:	15	SLAND	Quadn	nap:	Mount	Everly						
Plan	Planting Number:		)U069	Outlet:	:	Unnam	Unnamed						
Cou	nty:	E	LMORE	Draina	ige:	NFBR							
Natio	onal Forest:	В	OISE		ary To:	NFBR							
Tow	nship:	71	N	Lake T		Cirque							
Rang	•		E	Elevat		2689							
Sect	-	13	<del>-</del>	Size:		0.90	ha						
Latit	. =			=	um Depth:		n						
	jitude:			Aspec	•	SW							
-	wning Poten	tial·		Comm		011							
			size classes of fish i		ents.								
	et probably			[]									
	en probably emical Repo		ut.			Human I k	se Report:						
One	annear Nept	)it.				Human O	se кероп.						
		Date:	9/26/96			D-	9/26/96						
Alkali	nity (mg/l Ca		17				ite:						
	ess (mg/l Ca		0		Came	Human U osite Conditi							
Haidin	ess (mg/i Ca	pH:	U										
Col	nductivity (u		0		Campsite Number: 0 Campfire Rings: 0								
00.	Surface Ter		9	Trail Condition: None									
		hi (m):	Õ	Trail Difficulty: Moderate									
	-	().	•				er: None						
A	ngler Inforn	nation:			Mean Length and Weight Report:								
Date:		9/26/9	6		Species G	eartype	Date						
Number	of Anglers:				wsc	Gill net	9/26/96	i					
Hours Fi	shed:												
Total Ca	ught												
Catch pe	r Hour:				M	ean	Mean						
·				5		ngth S.E.	Weight	S.E. C-I	actor				
		Minimum	Maximum		•	nm)	(g)						
	Number	Length	Length		wsc `	293 30		38	0.8				
Species	Caught	(mm)	(mm)										
					Amp	hibian Rep	ort:						
						_							
					_		ate: 9/26/	96					
				Spotted Frog Adults: 0									
				Spotted Frog Juv: 0									
				Tailed Frog Adults: 0									
				Tailed Frog Juv: 0									
					Tree Frog Adults: 0								
					Tree Frog Juv: 0								
L	ength Fre	quency			Salamanders:								
	-					=	0						
Species Captured	l						_						
		<151mm	151-200mm	201-250mm	251-300mr	n 301	-350mm	>350	mm				

wsc

**JOHNSON** Quadmap: Nahneke Mtn Lake Name: Planting Number: 100334 Outlet: **ELMORE** Drainage: nfbr County: **NFBR** National Forest: **BOISE** Tributary To: Lake Type: Township: 7N Bog 11E Elevation: 2439 Range: Size: 2.36 Section: 14 ha Maximum Depth: Latitude: 4.5 m Longitude: Aspect: SW Spawning Potential: Comments: Limited. Four trout were seen in inlet above lake. Both Fish passage likely occurs from The Hole and Glacier into inlet and outlet have mud bottoms. Some spawning Johnson lake. likely occurs. **Chemical Report: Human Use Report:** 9/24/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Well Developed Campsite Number: 5 Conductivity (uS/cm): Campfire Rings: 5 Surface Temp(C): Trail Condition: Good Secchi (m): Trail Difficulty: Easy Litter: Abundant Angler Information: Mean Length and Weight Report: Date: 9/24/96 Species Geartype Date WSC Number of Anglers: Gill net 9/24/96 Hours Fished: **Total Caught** Catch per Hour: Mean Mean Lenath S.E. Weight S.E. C-Factor **Species** Minimum Maximum (mm) (g) wsc 260 23 Number Length Length 182 59 1.0 Species Caught (mm) (mm) **Amphibian Report:** 9/24/96 Date: Spotted Frog Adults: 0 Spotted Frog Juv: 0 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 0 **Species** Captured 251-300mm

201-250mm

1

2

301-350mm

>350mm

<151mm

WSC

Lake Name: JOHNSON CREEK POND 01 Quadmap: Nahneke Mtn Planting Number: 10U116 Outlet: Unnamed County: **ELMORE** Drainage: NFBR National Forest: BOISE Tributary To: Johnson Ck Township: 7N Lake Type: Cirque Range: 11E 2482 m Elevation: Section: 14 Size: 0.22 ha Latitude: Maximum Depth: 2 m Longitude: Aspect: NE Spawning Potential: Comments: None. No fish potential. **Chemical Report: Human Use Report:** 9/23/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None pH: Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Good Secchi (m): Trail Difficulty: Difficult Litter: Rare Angler Information: Mean Length and Weight Report: Date: 9/23/96 Species Geartype Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: 9/23/96 Spotted Frog Adults: 0 Spotted Frog Juv: 100 Tailed Frog Adults: 0

Spotted Frog Adults: 0
Spotted Frog Juv: 100
Tailed Frog Adults: 0
Tailed Frog Juv: 0
Tree Frog Adults: 0
Tree Frog Juv: 0
Salamanders:

(

0

Species

**Length Frequency** 

Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

Lake Name: **JOHNSON CREEK POND 02** Quadmap: Nahneke Mtn Planting Number: 10U124 Outlet: None County: **BOISE** Drainage: **NFBR** National Forest: **BOISE** Tributary To: Johnson Ck Township: 7N Lake Type: Cirque Range: 11E Elevation: 2665 m Section: 13 Size: 0.22 ha Latitude: Maximum Depth: m Longitude: W Aspect: Spawning Potential: Comments: None. No fish potential. **Chemical Report: Human Use Report:** 9/26/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/I CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: None Secchi (m): Trail Difficulty: Difficult Litter: None Angler Information: Mean Length and Weight Report: Date: 9/26/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Weight S.E. C-Factor Species Length S.E. Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) Amphibian Report: Date: 9/26/96 Spotted Frog Adults: 0 Spotted Frog Juv: 15 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 0 **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: **JOHNSON CREEK POND 03** Quadmap: Nahneke Mtn Planting Number: 10U119 Outlet: Unnamed County: **ELMORE** Drainage: **NFBR** National Forest: BOISE Tributary To: Johnson Ck Township: 7N Lake Type: Bog Range: 11E Elevation: 2451 m Section: 14 Size: 0.45 ha Latitude: Maximum Depth: 2 m Longitude: W Aspect: Spawning Potential: Comments: None. Frog Pond. No fish potential. Too shallow. **Chemical Report: Human Use Report:** 9/24/96 Date: Date: Alkalinity (mg/l CaCO3): **Human Use:** Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Poor Secchi (m): Trail Difficulty: Moderate Litter: None Angler Information: Mean Length and Weight Report: Date: 9/24/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. Weight Species Length S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length Species Caught (mm) (mm) Amphibian Report: Date: 9/24/96 Spotted Frog Adults: 0 Spotted Frog Juv: 30 Tailed Frog Adults: 0 Tailed Frog Juv: 0

**Length Frequency** 

Species Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

Tree Frog Adults:

Tree Frog Juv:

Salamanders:

0

0

0

Lake Name: JOHNSON CREEK POND 04 Quadmap: Nahneke Mtn Planting Number: 10U118 Outlet: None **ELMORE** County: Drainage: **NFBR** National Forest: **BOISE** Tributary To: Johnson Ck Township: 7N Lake Type: Bog Range: 11E Elevation: 2470 m Section: 13 Size: 0.45 ha Latitude: Maximum Depth: 1 m Longitude: Aspect: W Spawning Potential: Comments: None. Frog Pond. No fish potential. Too shallow. **Chemical Report: Human Use Report:** 9/24/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Poor Secchi (m): Trail Difficulty: Moderate Litter: None Angler Information: Mean Length and Weight Report: Date: 9/24/96 Species Geartype Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. C-Factor Species Length S.E. Weight Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) Amphibian Report: 9/24/96 Date: Spotted Frog Adults: 10 Spotted Frog Juv: 6 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 Length Frequency Salamanders: 0 **Species** Captured

201-250mm

251-300mm

301-350mm

>350mm

<151mm

Lake Name: **JOHNSON CREEK POND 05** Quadmap: Nahneke Mtn Planting Number: 10U121 Outlet: Unnamed County: **ELMORE** Drainage: **NFBR** National Forest: BOISE Tributary To: Johnson Ck Township: 7N Lake Type: Bog Range: 11E Elevation: 2439 m 0.22 Section: 14 Size: ha Maximum Depth: Latitude: 1 m Longitude: Aspect: Ν Spawning Potential: Comments: No fish potential. None. **Chemical Report: Human Use Report:** 9/26/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Campsite Condition: Well Developed Hardness (mg/l CaCO3): Campsite Number: 1 Conductivity (uS/cm): Campfire Rings: 1 Surface Temp(C): Trail Condition: Good Secchi (m): Trail Difficulty: Moderate Litter: Rare **Angler Information:** Mean Length and Weight Report: 9/26/96 Geartype Date: Species Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** 9/26/96 Date: Spotted Frog Adults: 0 Spotted Frog Juv: 0 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 3

30

201-250mm

251-300mm

301-350mm

>350mm

151-200mm

<151mm

Species Captured

LITTLE SILVER POND Swanholm Peak Lake Name: Quadmap: Planting Number: Little Silver Ck 10U126 Outlet: BOISE NFBR County: Drainage: **BOISE** National Forest: Tributary To: NFBR Township: 8N Lake Type: Slump Range: 10E Elevation: 2414 m Section: 30 0.90 Size: ha Latitude: Maximum Depth: 1 m Longitude: Aspect: Ν Spawning Potential: Comments: None. Bog lake. No fish potential, too shallow. **Chemical Report: Human Use Report:** 9/4/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: None Secchi (m): Trail Difficulty: Difficult Litter: None Angler Information: Mean Length and Weight Report: 9/4/96 Date: Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. S.E. C-Factor Weight Minimum Maximum (mm) (g) Number Length Length Caught (mm) (mm) Species **Amphibian Report:** 9/4/96 Spotted Frog Adults: 0 Spotted Frog Juv: 0 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 Length Frequency Salamanders: 0 **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

l ake	e Name:	LITTLE SILVER, LOWE	R Quadma	n·	Swanholm Peak				
	·		·	ν.	Little Silver Ck				
	ting Number:	100353	Outlet:	<b>.</b> -	NFBR				
Cour	nty: onal Forest:	BOISE	Drainage		NEBR				
		BOISE	Tributary						
	nship:	8N 10E	Lake Typ Elevation		Slump				
Rang		=	•	1;	2341 m				
Sect		30	Size:	n Donth:	0.90 ha 5 m				
Latiti	itude:		Maximun Aspect:	n Deptii.	5 m NNE				
_			Commen	sto:	MINE				
Spav	vning Potential:				od I ako annoore oo	anhla of			
					ed.  Lake appears ca <sub>l</sub> imend 1) grayling, 2) <sup>i</sup>				
Che	emical Report:		supportin		ıman Use Report:	WSCI.			
Cite	emicai Report.			110	man ose Report.				
					9/4/96				
	Date:				Date:				
	nity (mg/l CaCO3):				uman Use:				
Hardne	ess (mg/l CaCO3):				Condition: None				
_	pH:			•	te Number: 0				
	nductivity (uS/cm):			•	ofire Rings: 0				
	Surface Temp(C):				Condition: None il Difficulty: Difficult				
	Secchi (m):			IIa	Litter: None				
Δ	ngler Information:		M	ean Length an	nd Weight Report:				
Date:	_	4/96		ecies Geart	•				
Number	of Anglers:				<b>,</b> ,				
	•								
Hours Fi									
Total Car	•				<b>1</b> 4				
Catch pe	er Hour:		C	Mean		F 6 F			
	Minim	num Maximum	Sp	ecies Length		.E. C-Factor			
	Number Lengt			(mm)	(g)				
Species	Caught (mm	•	•						
Ороблов	- Caagin (	, (,		Amphibi	an Report:				
					Date: 9/4/9	16			
				Spotted F	rog Adults: 0				
					d Frog Juv: 0				
					rog Adults: 0				
			Tailed Frog Juv: 0						
					rog Adults: 0				
					e Frog Juv: 0				
L	ength Frequen	cv			lamanders:				
_	9	• •		50	0				
Species					,				
Captured	}								
•	<151	mm 151-200mm	201-250mm	251-300mm	301-350mm	>350mm			

Lake	e Name:	LITTLE SILVER, UPPE	ER Quad	lmap:	Swa	nholm Peak			
Plan	ting Number:	10U125	Outle	et:	Little	Silver Ck			
Cou	•	BOISE	Drain	•	NFB				
	onal Forest:	BOISE		tary To:	NFB	IR .			
Tow	nship:	8N	Lake	Type:	Slun	np			
Rang	ge:	10E	Eleva	ation:	2409	9 <sup>°</sup> m			
Sect	ion:	30	Size:		0.90	ha ha			
Latit	ude:			mum Depth	ı: <b>5</b>	m			
	gitude:		Aspe		NE				
	wning Potential:			ments:			_		
None	₽.			•		•	e appears to be		
							sh. Recommend irs barren of fish.		
Che	emical Report:		ı) gra	iyiiig, z) w		Use Report:	irs barreri or iisii.		
	·					9/4/96			
	Date:					Date: 9/4/96			
	nity (mg/l CaCO3):				Human				
Hardn	ess (mg/l CaCO3):				•	dition: None			
0-	pH: nductivity (uS/cm):			C	Campsite Nu Campfire F				
CO	Surface Temp(C):					dition: None			
	Secchi (m):					iculty: Difficul	t		
					i	Litter: None			
A	ngler Information:				_	eight Report:			
Date:	9/4	4/96		Species	Geartype	Date			
Number	of Anglers:								
Hours Fi	shed:								
Total Ca	ught								
Catch pe	er Hour:				Mean	Mean			
				Species	Length S.I	•	S.E. C-Factor		
		num Maximum			(mm)	(g)			
Species	Number Lengt Caught (mm	•							
Opecies	Caught (IIIII)	(11111)		Aı	mphibian Re	eport:			
						- <b>,-</b>			
						Date: 9/4	1/96		
				Sp	otted Frog A	dults: 0			
					Spotted Fro	g Juv: 0			
			Tailed Frog Adults: 0 Tailed Frog Juv: 0						
					Tree Frog A				
					Tree Fro	-	•		
L	ength Frequenc	су			Salamar				
O ! -						0			
Species Captured	1								
Capitalea	' <151ı	mm 151-200mm	201-250mm	251-300	)mm 3	01-350mm	>350mm		

Planting Number:	Lake	e Name:	Le	ODGEPOLE	Quad	dmap:	Swanholm	Peak				
National Forest: BOISE   SOUTH   SOU	Plan	tina Number	· 10	00310		·	Lodgenole	Ck				
National Forest:   BOISE   Tributary To:   NFBR   Name		-				-		OK				
Township: 6N   Range: 10E   Elevation: 2409 m   Section: 5   Size: 227 ha   Amphibian Report:		•		_		•						
Range			_									
Section:		•										
Latitude:		-		,_								
Longitude:   Spawning Potential:   All species of fish were represented in the catch.   Spawning may be occurring in the inlet and outlet.   Chemical Report:			•									
Spawming Potential:	=					•						
All species of fish were represented in the catch. Spawning may be occurring in the inlet and outlet. Chemical Report:    Date: 977/96	-		ial <sup>.</sup>		•		J					
Spawning may be occurring in the inlet and outlet.   Chemical Report:				sented in the catch			of fish with all siz	e classes	represented			
Date:   Private   Priva						liake. Lots	or non, with all siz	C Classes	represented.			
Date   Syr/196   Sute   Syr/196   Sute   Syr/196   Syr				m the liner and oditer	•		Human Use F	Report:				
Number   Number   Caught   C	Hardne Cor Ar Date: Number of Hours Fits Total Car	ess (mg/l Ca nductivity (us Surface Ten Secci ngler Inform of Anglers: shed: ught	CO3): CO3): pH: S/cm): np(C): ni (m): 9/7/96	17 17 7.6 10		Mean Leng Species WCT	Human Use: npsite Condition: ampsite Number: Campfire Rings: Trail Condition: Trail Difficulty: Litter: gth and Weight I Geartype  Angling	Well Deve 1 1 Poor Moderate Rare Report: Date 9/7/96				
Number   Caught   C	Catch pe	r Hour:										
Number   Length   Length   (mm)   (			Minimum	Maximum		•	<del>-</del>	_	E. C-Factor			
Species   Caught   (mm)   (mm)   (mm)   (mm)		Number				,	•		14 0.8			
MCT   18	Species		_	-		****	232 11	142	14 0.0			
Date: 9/7/96	•	•	• ,	'								
Date: 9/7/96     Spotted Frog Adults: 0     Spotted Frog Juv: 0     Tailed Frog Adults: 0     Tailed Frog Juv: 0     Tailed Frog Juv: 0     Tree Frog Adults: 0     Tree Frog Adults: 0     Tree Frog Juv: 0     Tree Frog Juv: 0     Species     Captured   Salamanders:     Captured   Species     Captured   S151mm   151-200mm   201-250mm   251-300mm   301-350mm   >350mm     Species   Salamanders:     Species   Salamanders:						Am	phibian Report:					
Spotted Frog Adults: 0   Spotted Frog Juv: 0   Tailed Frog Adults: 0   Tailed Frog Adults: 0   Tailed Frog Juv: 0   Tree Frog Adults: 0   Tree Frog Adults: 0   Tree Frog Juv: 0   Tree Frog Juv: 0   Salamanders: 0   Species   Captured   <151mm   151-200mm   201-250mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   151-200mm   201-250mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   151-200mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   350mm   301-350mm   >350mm   301-350mm   301-350mm   >350mm   <151mm   350mm   301-350mm   301-350							•					
Spotted Frog Juv: 0   Tailed Frog Adults: 0   Tailed Frog Adults: 0   Tailed Frog Juv: 0   Tree Frog Adults: 0   Tree Frog Adults: 0   Tree Frog Juv: 0   Tree Frog Juv: 0   Tree Frog Juv: 0   Salamanders: 0   O   Species   Captured   <151mm   151-200mm   201-250mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   151-200mm   201-250mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   151-200mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   151-200mm   251-300mm   301-350mm   >350mm   >350mm   <151mm   350mm   301-350mm   301-350mm   >350mm   301-350mm   >350mm   301-350mm								9/7/96	3			
Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 Tree Frog Juv: 0 Species Captured <151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm						•	•					
Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 Tree Frog Juv: 0  Length Frequency Salamanders:  0 Species Captured <151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm												
Tree Frog Adults: 0 Tree Frog Juv: 0  Length Frequency Salamanders:  0  Species Captured <151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm						Ta	•	=				
Tree Frog Juv: 0   Salamanders: 0   Species   Captured   <151mm   151-200mm   201-250mm   251-300mm   301-350mm   >350mm												
Length Frequency         Salamanders:           0         0           Species         Captured           <151mm												
0 Species Captured <151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm	_						-	0				
Species           Captured           <151mm	L	ength Fre	quency				Salamanders:	_				
Captured <151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm	Species							0				
<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm												
	Captureu		<151mm	151-200mm	201-250mm	251_300~	nm 301_35	)mm	>350mm			
WCT 2 6 6 1	WCT		- 10 1111111	2	6	251-300ff 6			~500mm			

**PATS** Quadmap: Mount Everly Lake Name: 100315 Outlet: Planting Number: **ELMORE** Drainage: **NFBR** County: National Forest: **NFBR BOISE** Tributary To: Lake Type: 7N Township: Range: 11E Elevation: 2546 m Size: ha Section: Maximum Depth: Latitude: m Longitude: Aspect: Spawning Potential: Comments: **Human Use Report: Chemical Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use: Campsite Condition: Hardness (mg/l CaCO3): Campsite Number: Conductivity (uS/cm): Campfire Rings: Trail Condition: Surface Temp(C): Secchi (m): Trail Difficulty: Litter: Mean Length and Weight Report: **Angler Information:** Date: 7/23/96 Species Geartype Date Number of Anglers: 2 Hours Fished: **Total Caught** 10 Catch per Hour: 10 Mean Mean S.E. C-Factor Length S.E. Weight **Species** Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) WCT 10 254 450 0 0 0 0 0 0 **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv:

# **Length Frequency**

**Species** 

Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

Salamanders:

QUEEN R POND 01 Lake Name: Quadmap: Mount Everly Planting Number: 10U122 Outlet: Unnamed County: **ELMORE** Drainage: **MFBR** National Forest: BOISE Tributary To: Queens R Township: 7N Lake Type: Bog Range: 12E Elevation: 2622 m Section: 7 Size: 1.81 ha Latitude: Maximum Depth: 3 m Longitude: s Aspect: Spawning Potential: Comments: None. No fish potential. Too shallow. Several ponds at this location. **Chemical Report: Human Use Report:** 9/26/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: None Secchi (m): Trail Difficulty: Very Difficult Litter: None Angler Information: Mean Length and Weight Report: Date: 9/26/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length Species Caught (mm) (mm) **Amphibian Report:** 9/26/96 Date: Spotted Frog Adults: 3 Spotted Frog Juv: 30

Spotted Frog Adults: 3
Spotted Frog Juv: 30
Tailed Frog Adults: 0
Tailed Frog Juv: 0
Tree Frog Adults: 0
Tree Frog Juv: 0

Salamanders:

0

Species Captured

**Length Frequency** 

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

QUEENS R #16 Lake Name: Quadmap: Nahneke Mtn Planting Number: 100246 Outlet: Queens R County: **ELMORE MFBR** Drainage: National Forest: **BOISE** Tributary To: **MFBR** Township: 7N Lake Type: Cirque Range: 11E Elevation: 2714 m Section: 23 Size: 1.36 ha Latitude: Maximum Depth: 4 m ENE Longitude: Aspect: Spawning Potential: Comments: None. Marginal fish lake. Probably too shallow. **Chemical Report: Human Use Report:** 9/27/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Poor Secchi (m): Trail Difficulty: Moderate Litter: None Angler Information: Mean Length and Weight Report: Date: 9/27/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Length S.E. Weight S.E. C-Factor Species Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) Amphibian Report: 9/27/96 Date: Spotted Frog Adults: 0 Spotted Frog Juv: 0 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 Length Frequency Salamanders:

201-250mm

251-300mm

Species Captured

<151mm

151-200mm

0

>350mm

301-350mm

Lake	e Name:	F	ROCK ISLAND	Quad	dmap:	Nahneke Mtn					
Plan	nting Number	r: 1	00318	Outle	et:						
Cou			LMORE		nage:	nfbr					
	onal Forest:	E	OISE		itary To:	NFBR					
Tow	nship:	7	N		Туре:	Cirque					
Ran	ge:	1	1E		ation:	2605 m					
Sect	tion:	1	2	Size:	:	5.90 ha					
Latit	ude:			Maxi	mum Depth:	7 m					
Long	gitude:			Aspe	ect:	W					
Spa	wning Poten	tial:		Com	ments:						
Non											
Che	emical Repo	ort:		Human Use Report:							
						9/25/96					
		Date:	9/25/96			Date:					
	nity (mg/l Ca		17		_	Human Use:					
naron	ess (mg/l Ca	pH:	0			npsite Condition: None					
Co	nductivity (u		10			mpsite Number: 0 Campfire Rings: 0					
			10.5		Trail Condition: None						
Secchi (m): 0			0			Trail Difficulty: Very Difficult					
						Litter: None					
А	Angler Information:				Mean Leng	th and Weight Report:					
Date:		9/25/9			Species (	Geartype Date					
	of Anglers:	1			WSC	Angling 9/25/96					
Hours Fi Total Ca		1	3								
Catch pe	er Hour:	1	3		N	Mean Mean					
					Species Le	ength S.E. Weight S.E. C-Factor					
	Moralesa		Maximum		•	mm) (g)					
Species	Number Caught	Length	Length		WSC	320 5 255 31 0.8					
WSC	13	(mm) 290	(mm) 340								
	0	0									
	0	0	0 0		A	shihing Danast.					
	Ū	U	U		Amp	phibian Report:					
					•	Date: 9/25/96					
						ted Frog Adults: 0					
						potted Frog Juv: 0					
					_	iled Frog Adults: 0					
						Tailed Frog Juv: 0 ree Frog Adults: 0					
					11	ree Frog Adults: 0 Tree Frog Juv: 0					
1.	ength Fre	quency				Salamanders:					
	g 10	72003				O 0					
Species						·					
Captured			. = .								
WCC		<151mm	151-200mm	201-250mm	251-300mi						
WSC					1	9					

Lake	Name:		ROCK SLIDE/ROB	SERT Quad	dmap:		Mount	Everly		
Plan	ting Numbe	r: (	090195	Outle	at·		unnam	ed		
Cour			BOISE		nage:		SFPR			
	onal Forest:		BOISE		itary To:		Bened	ict Ck		
	nship:		7N		Type:		Morain			
Rang			12E		ation:		2643	-		
Sect	-		10	Size:			4.09	ha		
Latit			43 57.20 N		mum Dept			m		
	itude:		115 03.18 W	Aspe			NW	""		
	vning Poten		113 03.10 44	•	ments:		1400			
Poor		uai.							. 46:114-	
	emical Repo	net.		MOUE	rate numa			caugnt in se Report	the gill nets.	
One	amear Nep	ore.				Hui	man O	se Report		
		Date:			ı			ite:		
	nity (mg/l Ca				_		man U			
marone	ess (mg/l Ca					ampsite				
Cor	nductivity (u	pH: S/cm):				Campsite				
001	Surface Te						fire Rin Conditi	~		
		hi (m):					Difficu			
		(,.				· · · ·		ter:		
A	ngler Infor	nation:			Mean Le	ength and		ht Report	::	
Date:		7/22/	96		Species Geartype Date					
Number	of Anglers:		2							
Hours Fig	shed:		1							
Total Car	uaht		0							
Catch pe	•		0			Mean		Mean		
			•		Species	Length	S.E.		S.E. C-Factor	
Species	Number Caught 0	Minimur Length (mm) 0	n Maximum Length (mm) 0		5,000	(mm)	<b>0.</b> L.	(g)	5.2. 0 1 40.01	
	=	=	-							
	0	0	0				_			
	0	0	0		Д	mphibia	n Rep	ort:		
								ate:		
					S	potted Fr	-			
						Spotted	Frog J	luv:		
						Tailed Fr	og Adu	ılts:		
						Tailed	Frog J	uv:		
						Tree Fr	og Adu	ilts:		
						Tree	Frog J	uv:		
Lo Species	ength Fre	equency				Sala	amande	ers:		
·										
Captured		<151mn	n 151-200mi	m 201-250mm	251-30	0	204	.350mm	>350mm	

201-250mm 251-300mm

301-350mm

>350mm

<151mm

Lake Name: SLIDE Quadmap: Nahneke Mtn Planting Number: 100251 Outlet: Queens R County: **ELMORE MFBR** Drainage: National Forest: BOISE Tributary To: **MFBR** Township: 7N Lake Type: Cirque Range: 11E Elevation: 2592 m Section: 13 Size: 0.45 ha Latitude: Maximum Depth: 4 m Longitude: Aspect: NE Spawning Potential: Comments: None. Small glacial cirque w/mostly mud bottom. **Chemical Report: Human Use Report:** 9/24/96 9/24/96 Date: Date: Alkalinity (mg/l CaCO3): 17 Human Use: Hardness (mg/l CaCO3): 0 Campsite Condition: None pH: Campsite Number: 0 Conductivity (uS/cm): 0 Campfire Rings: 0 Surface Temp(C): 8 Trail Condition: None Secchi (m): 0 Trail Difficulty: Moderate Litter: Rare Angler Information: Mean Length and Weight Report: Date: 9/24/96 **Species** Geartype Date Number of Anglers: **RBT** Gill net 9/24/96 Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. C-Factor Species Length S.E. Weight Minimum Maximum (mm) Number Length Length **RBT** 280 280 1.3 **Species** Caught (mm) (mm) Amphibian Report: 9/24/96 Date: Spotted Frog Adults: 0 Spotted Frog Juv: 0 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 0

201-250mm

251-300mm

301-350mm

>350mm

Species Captured

**RBT** 

<151mm

Lake	e Name:	S	SNOWBANK		Quad	dmap:	١	<b>N</b> ount	Eve	rly		
Plan	ting Number	r: 1	00252		Outle	et.	i	Jnnan	ned			
Coul	-		LMORE		Drain			NFBR				
	onal Forest:		OISE			tary To:		NFBR				
	nship:		7N			Type:		Cirque				
Rang	•		1E			ation:		2701				
Sect	•		3		Size:			.27	ha			
Latit		·	_			mum Dept		2.5				
Long	itude:				Aspe	•		N				
	vning Poten	tial:			•	ments:						
•	_		ay have been i	naturally								
		•	. Spawning p	-								
	limited or no											
Che	emical Repo	ort:					Hurr	ıan U	se F	Report:		
										-		
		Date:	9/26/96					D	ate:	9/26/96	;	
Alkali	nity (mg/l Ca		17				Hur	nan U				
	ess (mg/l Ca		Ö			С	ampsite C			None		
	( <b></b>	р <b>Н</b> :	J				Campsite					
Co	nductivity (u	S/cm):	0				Campfi					
Surface Temp(C): 9							Trail C	ondit	ion:	None		
	Secc	hi (m):	0				Trail		•	Modera	ite	
_										None		
	ngler inforn						ngth and	_	ght F	Report:		
Date:		9/26/9	96			Species	Geartyp	e		Date		
	of Anglers:	1				WSC		gling		9/26/9		
Hours Fi		_	).5			WSC	Gil	l net		9/26/9	6	
Total Ca	•	4							_	_		
Catch pe	er Hour:	3	5 ·				Mean			lean		
		Minimum	Maximum			Species	Length (mm)	S.E.		eight (g)	S.E. C	-Factor
	Number	Length	Length			WSC	268		6	143	11	0.7
Species	Caught	(mm)	(mm)			WSC	232	1	2	103	11	0.8
WSC	4	250	280									
	0	0	0									
	0	0	0			A	mphibiar	ı Rep	ort:			
								D	ate:	9/26	/96	
						S	potted Fro	a Adı	ults:	0		
						,	Spotted I	_		0		
					Tailed Frog Adults: 0							
					Tailed Frog Juv: 0							
						Tree Fro			Õ			
							Tree I	-		ō		
L	ength Fre	equency						mand		-		
_										0		
Species Captured										•		
Captureu		<151mm	151-20	00mm	201-250mm	251-30	0mm	301	-350	)mm	>35	50mm
						00					- 00	

wsc

Mount Everly Lake Name: **SPANGLE** Quadmap: Planting Number: 100302 Outlet: Unnamed County: **ELMORE** Drainage: **MFBR** BOISE National Forest: Tributary To: **MFBR** 7N Township: Lake Type: Moraine Range: 12E Elevation: 2618 m Section: 14 Size: 25 ha Latitude: 43 56.79 N Maximum Depth: 21.3 m Longitude: 115 02.10 W Aspect: SE Spawning Potential: Comments: Poor for WCT, good for BKT. Moderate human use. **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: **Angler Information:** Mean Length and Weight Report: 7/21/96 Date: Species Geartype Date 2 Number of Anglers: Hours Fished: 1 Total Caught 3 Catch per Hour: 3 Mean Mean Length S.E. S.E. C-Factor Species Weight Minimum Maximum (mm) (g) Number Length Length Species Caught (mm) (mm) **BKT** 3 280 305 0 0 0 0 0 0 Amphibian Report: Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders: **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake	e Name:	S	SPANGLE, LITTLE	Quadmap:	Mount 8	Everly				
Plan Cou	nting Number		00300 LMORE	Outlet: Drainage:	MFBR MFBR					
	onal Forest:	=	OISE	Tributary To:	MFBR					
	nship:		'N	Lake Type:	, 2.,					
Ran	-		2E	Elevation:	2616	m				
Sect	- ·	14	4	Size:		ha				
	ude: gitude:			Maximum Depth: Aspect:	n	n				
	wning Poten	tial:		Comments:						
Che	Chemical Report:			Human Use Report:						
Alkali	nity (mg/l Ca	Date:			Dat Human Us					
	ess (mg/l Ca	•		Cami	psite Conditio					
		pH:		Can	npsite Numb	er:				
Со	nductivity (u Surface Ter			Campfire Rings: Trail Condition:						
		hi (m):			Trail Difficul					
Δ	ngler Inform	nation:		Mean Lengt	Litte th and Weigl					
	ingler illion						•			
Date:		7/21/9	16	Species G	Seartype	Date				
	of Anglers:	2								
Hours Fi	ished:	2								
Hours Fi Total Ca	shed: ught	2	· !	M	lean	Mean				
Hours Fi	shed: ught	2 1 4 4			lean ngth S.E.	Mean Weight	S.E. C-Factor			
Hours Fi Total Ca	ished: lught er Hour:	2 1 4 4 Minimum	Maximum (	Species Ler			S.E. C-Factor			
Hours Fi Total Ca	ished: ught er Hour: Number	2 1 4 4	Maximum Length	Species Ler	ngth S.E.	Weight	S.E. C-Factor			
Hours Fi Total Ca Catch pe	ished: lught er Hour:	2 1 4 4 Minimum Length	Maximum (	Species Ler	ngth S.E.	Weight	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405	Maximum Length (mm) 305	Species Ler (m	ngth S.E. nm)	Weight (g)	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT	ished: lught er Hour:  Number Caught 3	Minimum Length (mm) 280	Maximum Length (mm) 305	Species Ler (m	ngth S.E.	Weight (g)	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405	Maximum Length (mm) 305	Species Ler (m	ngth S.E. nm) ohibian Repo	Weight (g)  ort:	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405	Maximum Length (mm) 305	Species Ler (m - Ampi	ngth S.E. nm) shibian Repo Da sed Frog Adul	Weight (g)  ort: te:	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405	Maximum Length (mm) 305	Species Ler (m - Ampi Spotte Sp	ngth S.E. nm) ohibian Repo	Weight (g)  ort: te: lts:	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405	Maximum Length (mm) 305	Species Ler (m - Ampi Spotte Sp Taile T	ohibian Reported Frog Adulted Frog Adulted Frog Adulted Frog Adulted Frog Juled Frog Jul	Weight (g)  ort: te: lts: uv: lts:	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405	Maximum Length (mm) 305	Species Ler (m Ampi Spotte Sp Taile T	ohibian Reported Frog Adultation Frog Adultati	Weight (g)  ort: te: lts: uv: lts: uv:	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT WCT	shed: lught er Hour:  Number Caught 3 1 0	Minimum Length (mm) 280 405 0	Maximum Length (mm) 305	Species Ler (m Ampi Spotte Sp Taile T	ngth S.E. nm)  phibian Report and Frog Adult for Frog Adult failed Frog Adult Tree Frog Adult Tree Frog Ju	Weight (g)  ort: te: lts: uv: lts: uv:	S.E. C-Factor			
Hours Fi Total Ca Catch pe Species BKT WCT	shed: lught er Hour:  Number Caught 3	Minimum Length (mm) 280 405 0	Maximum Length (mm) 305	Species Ler (m Ampi Spotte Sp Taile T	ohibian Reported Frog Adultation Frog Adultati	Weight (g)  ort: te: lts: uv: lts: uv:	S.E. C-Factor			

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: TAYLOR CK #1 Swanholm Peak Quadmap: Planting Number: 10U092 Outlet: County: **BOISE** Drainage: **NFBR** National Forest: BOISE Tributary To: **NFBR** Township: 8N Lake Type: Slump Range: 9E Elevation: 2515 m Section: 36 Size: 0.68 ha Latitude: Maximum Depth: 3 m Longitude: Aspect: W Spawning Potential: Comments: None. Fairly shallow. No fish potential **Chemical Report: Human Use Report:** 9/6/96 9/6/96 Date: Date: Alkalinity (mg/l CaCO3): 0 Human Use: Hardness (mg/I CaCO3): 0 Campsite Condition: None 0 Campsite Number: 0 Conductivity (uS/cm): 0 Campfire Rings: 0 Surface Temp(C): 10 Trail Condition: None Secchi (m): 0 Trail Difficulty: Difficult Litter: Rare Angler Information: Mean Length and Weight Report: 9/6/96 Date: Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Length S.E. Species Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length Species Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders: **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Swanholm Peak Lake Name: TAYLOR CK #2 Quadmap: Planting Number: 100348 Outlet: County: BOISE Drainage: **NFBR** NFBR BOISE Tributary To: National Forest: Lake Type: Township: 7N Elevation: 2494 m 9E Range: Size: ha Section: Maximum Depth: m Latitude: Aspect: Longitude: Comments: Spawning Potential: **Chemical Report: Human Use Report:** 9/6/96 Date: Date: Human Use: Alkalinity (mg/l CaCO3): Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Trail Condition: None Surface Temp(C): Trail Difficulty: Difficult Secchi (m): Litter: Rare Mean Length and Weight Report: Angler Information: 9/6/96 Species Geartype Date Date: Number of Anglers: Hours Fished: **Total Caught** Mean Mean Catch per Hour: S.E. C-Factor **Species** Length S.E. Weight Minimum Maximum (mm) (g) Length Length Number Caught (mm) (mm) **Species** Amphibian Report: 9/6/96 Date: Spotted Frog Adults: 0 Spotted Frog Juv: 5 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 0 **Species** Captured

201-250mm

<151mm

151-200mm

251-300mm

>350mm

301-350mm

TAYLOR CK #3 Lake Name: Quadmap: Swanholm Peak Planting Number: 10U093 Outlet: BOISE County: Drainage: **NFBR** National Forest: **BOISE** Tributary To: **NFBR** Township: 7N Lake Type: Bog 9E Range: Elevation: 2317 m Section: 1 Size: 0.11 ha Latitude: Maximum Depth: 1 m Longitude: Aspect: W Spawning Potential: Comments: None. No fish potential. **Chemical Report: Human Use Report:** 9/6/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: None Secchi (m): Trail Difficulty: Difficult Litter: None Angler Information: Mean Length and Weight Report: Date: 9/6/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Number Length Length Species (mm) Caught (mm) **Amphibian Report:** 9/6/96 Date: Spotted Frog Adults: 0 Spotted Frog Juv: 200 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders:

Species Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

0

**TAYLOR CK #6** Quadmap: Swanholm Peak Lake Name: Planting Number: 10U096 Outlet: **BOISE** Drainage: **NFBR** County: National Forest: BOISE **NFBR** Tributary To: Township: **7N** Lake Type: Slump Range: 9E Elevation: 2506 m Section: 1 0.22 Size: ha Latitude: Maximum Depth: m ΝE Longitude: Aspect: Spawning Potential: Comments: None. Lake was dry 9/96. No fish potential. **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: Mean Length and Weight Report: Angler Information: Date: 9/6/96 **Species** Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean S.E. C-Factor Species Length S.E. Weight Minimum Maximum (mm) (g) Length Number Length **Species** Caught (mm) (mm) Amphibian Report: Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders: **Species** 

201-250mm

251-300mm

301-350mm

>350mm

Captured

<151mm

Lake Name: TAYLOR CK #7 Quadmap: Swanholm Peak Planting Number: 10U097 Outlet: Unnamed **BOISE** County: Drainage: **NFBR** BOISE National Forest: Tributary To: **NFBR** Township: 7N Lake Type: Slump 9E Elevation: Range: 2531 m Section: 1 0.22 Size: ha Maximum Depth: Latitude: 1 m sw Longitude: Aspect: Spawning Potential: Comments: None. Too small for fish. Lake was viewed from ridge top. **Chemical Report: Human Use Report:** Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: Campsite Number: Conductivity (uS/cm): Campfire Rings: Surface Temp(C): Trail Condition: Secchi (m): Trail Difficulty: Litter: **Angler Information:** Mean Length and Weight Report: Date: 9/5/96 Species Geartype Date **Number of Anglers:** Hours Fished: **Total Caught** Catch per Hour: Mean Mean **Species** Length S.E. Weight S.E. C-Factor Minimum Maximum (mm) (g) Length Number Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** Salamanders:

Species

Captured

<151mm 151-200mm 201-250mm 251-300mm 301-350mm >350mm

Lak	e Name:	٦	THE HOLE	Qua	dmap:		Nahnel	ke Mtn			
Plan	nting Numbe	er: 1	00320	Outle	et:						
Cou	nty:	E	LMORE	Drair	nage:		nfbr				
Nati	onal Forest:	: E	BOISE	Tribu	utary To:		NFBR				
Tow	nship:	-	7N		Type:		Cirque				
Ran	•		1E		ation:		2560	m			
Sect	-		3	Size			1.36	ha			
	ude:	•	•		imum Dept			na n			
	gitude:			Aspe	•		0.5 II	"			
-	wning Poter	ntial:		•	ments:		**				
Goo		itiai.		=		ما طمانمین	:			£	
	emical Rep	ort:		obse	of stream arved in out e lake spar	tlet. Large wning ma	er fry (5 y have	50-60mm)	obser		n lake
								0/24/0			
		Date:	9/24/96				Da	9/24/9 te:	О		
Alkali	nity (mg/l Ca	aCO3):	0			Hui	man Us	se:			
Hardn	ess (mg/l Ca	aCO3):	0		С	ampsite (	Conditio	on: Well [	Develo	ped	
	-	pH:	8.5			Campsite				<b>.</b>	
Co	nductivity (u	iS/cm):	0			Campf					
	Surface Temp(C): 10					Trail (	Condition	on: Fair			
	Seco	chi (m):	0			Trail	Difficul	lty: Mode	rate		
							Litte	er: Rare			
	ngler infor				Mean Le	ength and	l Weig	ht Report	:		
Date:		9/24/9	96		Species	Gearty	pe	Date			
	of Anglers:	1			WSC Angling 9/24/96						
Hours Fi Total Ca	-	2	).5 !		WSC	Gi	ll net	9/24/	96		
Catch pe	-	ε				Mean		Mean			
o atom po		Minimum			Species	Length	S.E.	Weight	S.E.	C-F	actor
	Number	Length	Length		MICC	(mm)	4.5	(g)			^ ^
Species	Caught	(mm)	(mm)		WSC WSC	301				26	8.0
WSC	4	270	330		Wac	234	8	3 109	,	10	8.0
*****	-	•									
	0	0	0								
	0	0	0		Α	mphibia	n Repo	ort:			
							Da	te: 9/2	4/96		
					S	potted Fro			.,		
					Spotted Frog Juv: 0 Tailed Frog Adults: 0						
					Tailed Frog Addits. 0						
						Tree Fro					
1.	ength Fre	eanency					Frog Ju mande				
<b></b> -	~g	-quoncy				Sala	manue				
Species								0			
Captured		24F4	454 000	004 050	054.0-						
		<151mm	151-200mi	m 201-250mm	251-30	umm	301-	350mm	>	350n	nm

WSC

Lake	e Name:	,	WARRIOR #2	Qua	dmap:		Swanh	olm Peak			
Cour Nation Town Rang Sect Latit Long	onal Forest: nship: ge: ion: ude: gitude: wning Potent	E 6 1 5	00311 ELMORE BOISE IN 0E	Tribi Lake Elev Size Max Asp Com Fairl	nage: utary To: Type: ration: imum Dept ect: nments:	To: MFBR e: Slump : 2439 m 2.27 ha n Depth: 4.5 m SE ts: Illow lake but fish were surviving. May win			nterkill		
Hur	man Use Re	port:									
Hardn	nity (mg/l Ca ess (mg/l Ca nductivity (us Surface Ten Seccl	CO3): pH: S/cm):	9/8/96 17 17 0 10 12 4.5			ampsite Campsite Camp Trail	e Numb fire Rin Condition Difficu	se: on: Well [ er: 2 gs: 2		Ė	
Α	ngler Inforπ		Mean Le	ngth and		ht Report	:				
Date:			Species	Gearty	ре	Date					
Number	of Anglers:		1		НҮВ	G	ill net	9/8/	96		
Hours Fi Total Ca Catch pe	ught				WCT Species	Mean Length	ill net S.E.	9/8/9 Mean Weight	96 S.E. C	-Factor	
	Number	Minimum Length	Maximum Length		НҮВ	(mm) 420	)	(g) 750	)	1.0	
Species	Caught	(mm)	(mm)		WCT	373				1.2	
					A	mphibia	n Repo	ort:			
					_			-	8/96		
					S	potted Fr	_				
						Spotted Tailed Fr	-				
							<u> </u>				
		Tailed Frog Juv: 0 Tree Frog Adults: 0									
				Tree Frog Juv: 0							
L	ength Fre	quency				Sala	mande	-			
Species Captured								0			
HYB WCT		<151mm	151-200mm	201-250mm	251-30	0mm	301-	-350mm 1	>35 1 2	0mm	

Lake Name: WARRIOR #3 Quadmap: Swanholm Peak Planting Number: 10U110 Outlet: W. Warrior Ck County: **ELMORE** Drainage: **MFBR** National Forest: **BOISE** Tributary To: **MFBR** Township: 6N Lake Type: Slump Range: 10E Elevation: 2365 m Section: 4 Size: 0.90 ha Latitude: Maximum Depth: m Longitude: Aspect: Spawning Potential: Comments: None. Marginal for fish. **Chemical Report: Human Use Report:** 9/8/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/l CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Good Secchi (m): Trail Difficulty: Easy Litter: Rare Angler Information: Mean Length and Weight Report: Date: 9/8/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Species Length S.E. S.E. C-Factor Weight Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) **Amphibian Report:** Date: Spotted Frog Adults: Spotted Frog Juv: Tailed Frog Adults: Tailed Frog Juv: Tree Frog Adults: Tree Frog Juv: **Length Frequency** 

201-250mm

**Species** Captured

<151mm

151-200mm

Salamanders:

301-350mm

>350mm

251-300mm

WARRIOR #4 Lake Name: Quadmap: Swanholm Peak Planting Number: 10U111 Outlet: W. Warrior Ck County: **ELMORE** Drainage: MFBR National Forest: **BOISE** Tributary To: MFBR Township: 6N Lake Type: Bog Range: 10E Elevation: 2463 m Section: 5 Size: 0.45 ha Latitude: Maximum Depth: 2 m Longitude: Aspect: W Spawning Potential: Comments: None. Too shallow for fish. **Chemical Report: Human Use Report:** 9/8/96 Date: Date: Alkalinity (mg/l CaCO3): Human Use: Hardness (mg/I CaCO3): Campsite Condition: None Campsite Number: 0 Conductivity (uS/cm): Campfire Rings: 0 Surface Temp(C): Trail Condition: Good Secchi (m): Trail Difficulty: Easy Litter: Rare Angler Information: Mean Length and Weight Report: Date: 9/8/96 Species Geartype Date Number of Anglers: Hours Fished: **Total Caught** Catch per Hour: Mean Mean Length S.E. Weight S.E. C-Factor Species Minimum Maximum (mm) (g) Number Length Length **Species** Caught (mm) (mm) Amphibian Report: Date: 9/8/96 Spotted Frog Adults: Spotted Frog Juv: 15 Tailed Frog Adults: 0 Tailed Frog Juv: 0 Tree Frog Adults: 0 Tree Frog Juv: 0 **Length Frequency** Salamanders: 0 Species Captured

201-250mm

251-300mm

301-350mm

>350mm

<151mm

#### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u> Program: <u>Fisheries Management F-71-R-21</u>

Project I: <u>Surveys and Inventories</u> Subproject I-D: <u>Southwest Region</u>

Job: <u>b</u> Title: <u>Lowland Lakes Investigations</u>

Contract Period: July 1, 1996 to June 30, 1997

#### **ABSTRACT**

A lowland lake survey was done on Lake Lowell on May 20, 1996 with gill nets, trap nets, and electrofishing efforts, three additional nights of electrofishing were also conducted. Lake Lowell is responding to higher overwinter water levels as evidenced by the presence age-1+ and age-2+ largemouth bass *Micropterus salmoides* and smallmouth bass *Micropterus dolomieu*. The absence of panfishes; bluegill *Lepomis macrochirus*; white and black crappie *Pomoxis annularis* and *P. nigromaculatus*; and yellow perch *Perca flavescens, was* quite dramatic.

A lowland lake survey of C.J. Strike Reservoir was done on May 14, 1996. Catch-per-effort by species and by a combined unit of effort were calculated. Catch of white crappie was higher than previous years and for the second year in a row rainbow trout *Oncorhynchus mykiss* numbers were much reduced.

Electrofishing was done on May 28 and 29,1996 on lower Brownlee Reservoir. Catch-pereffort by species and by gear was calculated. The hourly electrofishing catch for 1996 was high for smallmouth bass at 774 per hour but the fish were smaller than in 1995. The percentage of bluegill sampled per unit effort increased to 36% from 4.7% in the 1995 samples. White crappie numbers and mean size continue to decrease.

A total of 1,560 reward tags were placed on catfish in Brownlee Reservoir and the border waters of the Snake River in 1996. The cooperative catfish study with Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, and Idaho Power Company entered its second year. Reported number of recaptures of tagged catfish was 117. The reward amount was increased on some tags to either \$5.00, \$10.00, or \$20.00 in 1996. The \$20.00 tags return at approximately twice the rate of the \$5.00 tags. Catfish movements varied from 0 to over 120 river miles. Since 1995 five tagged catfish have been harvested below the Brownlee Dam in the Oxbow pool.

A lowland lake survey was done on Swan Falls Reservoir on June 6, 1996. Catch-pereffort by species and by a combined unit of effort were calculated. Age analysis was completed on 62 smallmouth bass scale samples.

A lowland lake survey was completed on Horseshoe Bend Mill Pond on June 26, 1996. Catch-per-effort by species and by a combined unit of effort were calculated. Biomass per unit of effort was 79.4 kg and 920 individual fish. A good population of largemouth bass was documented.

A lowland lake survey was done on September 4, 1996 on Black Canyon Reservoir. Catch-per-effort by species and by a combined unit of effort were calculated. A total of 878 fish weighing 135.9 kg were captured per standard unit of effort. Non-game species comprised 61% by number and 81.3% by weight of the standard unit of effort catch.

A lowland lake survey was done on Indian Creek Reservoir on June 14, 1996. Catch-pereffort by species and by a combined unit of effort were calculated. A total of 322 fish were captured. Largemouth bass comprised 91.6% of the standard unit catch and the majority of the largemouth bass were age-1+ and age-2+ fish. Bluegill numbers were low at 25 fish per unit of effort.

Boat electrofishing was conducted on Paddock Reservoir during daylight hours on May 23, 1996. An estimated 277 largemouth bass per hour were captured. Mean length of largemouth bass was 264 mm and mean weight was 299 g.

Two trap nets and two pair of gill nets were fished overnight in Succor Creek Reservoir on June 14, 1996. Catch-per-effort by species and gear were calculated. Redband trout *O. mykiss gairdneri*, bridgelip sucker *Catostomus columbianus*, and redside shiner *Richardsonius balteatus* were captured. This was the first time this irrigation reservoir had been sampled. The redband trout scale samples were aged.

Four sinking experimental gill nets and five vertical gill nets were fished overnight on July 15, 1996 in Lucky Peak Reservoir. Catch-per-effort by species and by gear unit of effort were calculated. The vertical gill nets captured only four chiselmouth *Acrocheilus alutaceus*.

Mountain Home Reservoir was boat electrofished on May 22, July 30 and September 24, 1996. Catch-per-effort by species and by gear unit of effort were calculated. Average length for captured hatchery rainbow trout was 254, 316, and 310 mm, respectively, for the three samplings.

Two pair of gill nets were set overnight in Deadwood Reservoir on September 26, 1996. Catch-per-effort by species and by gear unit of effort were calculated. The standard unit catch per pair of gill nets was lower in 1996 than the previous year. Kokanee salmon *Oncorhynchus nerka kennerlyi* numbers increased over 1995 numbers. Average size of kokanee spawners was higher at 332 mm for females and 344 mm for males. The 1996 kokanee spawning run was very low, 70,000 eggs were taken at the Deadwood River weir.

Arrowrock Reservoir was gill netted extensively for bull trout *Salvelinus confluentus* in the spring of 1996. The U.S. Bureau of Reclamation contracted with the Southwest Region Idaho Department of Fish and Game to study bull trout in the reservoir. Twelve radio tags were surgically implanted in larger bull trout. Staff and volunteers radio tracked the bull trout by vehicle and airplane during 1996. Further gillnetting was done in the late fall and winter of 1996 and 1997 to capture and mark bull trout to estimate population numbers.

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#### **METHODS**

# **General Fish Sampling**

Electrofishing was conducted from a boom-mounted electrofishing boat. Netting of immobilized fish was conducted with one or two netters. Electrofishing was conducted along shoreline. Attempts were made to collect all fish immobilized. One unit of electrofishing effort was defined as one hour of activated electrode time. Unless noted below, electrofishing occurred during darkness. Electrofishing catch-per-unit of effort was calculated as catch, by both number and weight, per hour of activated electrode time.

Gillnetting was done using floating and sinking experimental gill nets. Experimental gill nets were 45.7 m long x 1.8 m deep, and were composed of 6-7.6 m panels of 1.9, 2.5, 3.2, 3.8, 5.2, and 6.4 cm bar mesh. Nets were set in late afternoon and pulled the following morning. Nets were set by tying or anchoring one end of the net near or on shore in water less than 0.5 m deep and extending the net toward the center of the water, perpendicular to shore. When more than one floating or one sinking net was used per water, nets were set such that both large and small mesh ends of the nets were set next to shore. One unit of gill net effort was defined as one floating and one sinking experimental gill net fished overnight. Gill net catch-per-unit of effort was calculated as combined catch of one floating and one sinking experimental net, by both number and weight, per night. (Hereafter, 'gill net' catch refers to combined catch from one floating and one sinking experimental gill net).

Trapnetting was conducted using standard trap nets composed of two light steel frames measuring 1.8 m  $\times$  0.9 m, covered with 19 mm square black mesh, and with 5-76 cm steel round hoops with crow foot throats on the first and third hoops, and with 23 m long lead lines 0.9 to 1.3 m in height. Trap nets were set on shallow sloping areas with the top of the steel frame within 0.3 m of the water surface. The lead line was tied to shore. Trap nets were set late in the afternoon and pulled the following morning. One unit of trap net effort was defined as one trap net fished overnight. Trap net catch-per-unit of effort was calculated as catch of one trap net, by both number and weight, per night.

Attempts were made to measure a sample of each size group of each species collected to the nearest mm and to weigh a sample of each size group collected to the nearest g. In some cases, scale samples were collected to estimate age and growth. Scales from trout were collected from above the lateral line posterior to an imaginary line between the posterior end of the dorsal fin and the anterior end of the anal fin. Scales from bass were collected at the end of the pectoral fin as it laid against the body of the fish from above the lateral line. Entire pectoral fin spines were removed from catfish to estimate age and growth. Fins and scales were placed in coin envelopes and processed later in the lab.

#### LAKE LOWELL

### <u>Methods</u>

Sampling was conducted with four pairs of standard gill nets and four trap nets set overnight and one hour of electrofishing energized time from May 20-23, 1996. One hour of electrofishing was done on the nights of July 10, August 8 and September 18,1996. Table 1 provides the amount of effort of each event.

### Results

### Largemouth Bass

Age-1+ largemouth bass *Micropterus salmoides* were captured in the May 20, 1996 sample, documenting overwinter survival. Several older year classes were also captured (Appendices A & B). Later electrofishing samples collected more older bass and also documented a good 1996 year-class of largemouth bass (Appendix B). Largemouth adults were difficult to sample because they tended to be in the flooded brush beyond the effective reach of the electrofishing boat. Age analysis was done on a small group of largemouth bass collected on May 20,1996 (Table 2).

#### Smallmouth Bass

Overwinter survival of age-1+ smallmouth bass *Micropterus dolomieu* was documented. Length frequency of this species was similar to largemouth in all samples (Appendix B). Smallmouth bass percentage of total fish numbers may be increasing. Age analysis was done on a group of smallmouth bass collected on May 20,1996 (Table 2).

#### **Panfish**

The numbers of panfish, bluegill *Lepomis macrochirus*, white crappie *Pomoxis annularis* and black crappie *P. nigromaculatus*, and yellow perch *Perca flavescens*, remain low. Their combined percent by number generally was under 15% of the catch (Appendix A).

#### Non-game Species

Numbers and biomass of nongame species were high. Biomass of non-game species was greatest in the catch in spring and fall, over 90% (Appendix A). The percentage of non-game species biomass dropped in the sample during the summer months to approximately 48 to 67% of the catch.

### Recommendations

- 1. Electrofish in late July to best sample the bass population in Lake Lowell.
- 2. Reconsider the no harvest on bass in the up coming regulation cycle.

#### C.J. STRIKE RESERVOIR

#### Introduction

C.J. Strike Reservoir is a 3,036 ha impoundment on the Snake River in Elmore and Owyhee Counties in southwest Idaho. The reservoir is managed for a multi species warm/cool water fisheries. Hatchery fingerling rainbow trout are stocked in the spring of each year and return to the anglers that fall and the next two years. The reservoir is popular with anglers from the Treasure and Magic Valleys.

#### Methods

The reservoir was sampled on May 15, 1996 with 3 trap nets, 3 pair of floating and sinking gill nets, and 1.3 hours of energized electrofishing effort (Table 1). Sampling was confined to the main pool and the Bruneau River arm.

### Results

Weather again affected sampling, with high winds, rain squalls, and falling temperatures while electrofishing the reservoir. The rapidly changing weather likely reduced the catch of all gears. Water temperature at sampling was 17 C.

#### Smallmouth bass

Sample catch of smallmouth bass per hour and by standard unit of effort was higher in 1996 than 1995 (Appendices A and C) (Allen et al. 1998). The percentage by number of total standard unit catch rose to 18.5%. Smallmouth bass Proportional Stock Density (PSD) was 20, which is low.

#### Yellow perch

Yellow perch were not captured effectively in 1996. The numbers of yellow perch were small in the 1996 sample (Appendix A) compared to the approximately 54.0 % of all fish captured

in April 1995. The 1995 sample was taken when the yellow perch were spawning, perch actually spawned on the trap nets that year.

#### Rainbow trout

The number of rainbow trout *Oncorhynchus mykiss* sampled declined from samples taken in 1993 and 1995 (Appendix A) (Allen et al. 1996 and Allen et al. 1998). The standard unit catch by number was 2.5% in 1996 versus 11.6% in the 1995 sample. This was mainly due to the drop in electrofishing catch in 1996. The gill net catches from 1995 and 1996 were approximately the same. The angling catch for rainbow trout from the reservoir has declined during the last two seasons. High water flows in the Snake River in the past two springs (1995 and 1996) were likely to blame for the drop in trout angling success.

#### White Crappie

The sample catch of white crappie has increased dramatically. White crappie comprised 19.9% of the sample by number up from 0.2% by number in 1995 (Appendix A) (Allen et al. 1998). Average length of white crappie was 199 mm and 155 g. Several year classes of crappie were present at sampling.

#### Recommendations

- 1. Sample fishery in May of each year and provide the angling public information on the fishery.
- 2. Conduct creel checks monthly to better follow the fishery and provide information for 1-800 -ASK FISH information line.

#### **BROWNLEE RESERVOIR**

#### Methods

Boat electrofishing was conducted with a three person crew on the nights of May 28 and 29, 1996 on Brownlee Reservoir. A total of 3,621 seconds of energized electroshocking was done on four sites in the lower reservoir. The sites that were sampled included: The Island, Robinette Creek, Brownlee Creek, and the first Idaho cove across from Powder River arm.

### Results

Sampling conditions were good. Reservoir pool level was approximately 7 m below full pool. Night-time water temperature was 14° C.

A total of 541 bluegill and 270 black crappie of various sizes were transported to Paddock Reservoir. Fifty-seven large adult white crappie were also transported and stocked in rearing ponds at C.J. Strike Reservoir.

The electrofishing catch per hour was 1842 total fish with a biomass of 190.09 kg (Appendix A). This was considerably higher than the electrofishing catch of 372 fish and 83.8 kg per hour from sampling in 1995 at the same sites (Allen et al. 1998).

#### Smallmouth Bass

The hourly electrofishing catch was 774 smallmouth bass. Smallmouth PSD was 9, considerably different than a PSD of 63 calculated for the 1995 sample. Much higher numbers of age-3+ and age-4+ bass were captured in 1995 than this year.

### Bluegill

Thirty-six percent of the 1996 unit effort catch was comprised of bluegills versus only 4.7% of the catch being bluegills in 1995. The PSD was 14 in 1996 and 39 in 1995. The mean length was 128 mm (s.e. 1.4) and mean weight was 69 g (s.e. 2.5) (Appendix A).

#### **Black Crappie**

Black crappie catch per unit effort was higher in 1996 versus 1995 but average size was smaller, 163 mm in 1996 versus 177 mm in 1995 (Appendix A) (Allen et al. 1998). The 1996 PSD was 2 versus PSD of 65 in 1995.

# White Crappie

The 1996 sample percentage by number decreased from 14% in the 1995 sample to 3.5% in 1996. Average length was reduced in 1996, at 212 mm (s.e. 13.3) versus 262 (s.e. 7.3) for 1995. This shift mirrors the angling catch reduction of the larger white crappie observed during the last several years.

#### Recommendations

- 1. Conduct a lowland reservoir survey on Brownlee Reservoir during 1997, duplicating the 1993 survey.
- 2. Conduct monthly boat creel checks to follow the fishery in 1997.

#### **BROWNLEE RESERVOIR CATFISH STUDY**

#### Introduction

A cooperative study on the channel catfish *Ictalurus punctatus* and flathead catfish *Pylodictis olivaris* population in Brownlee Reservoir began in 1995 with Idaho Department of Fish and Game (IDFG), Oregon Department of Fish and Wildlife (ODFW), and Idaho Power Company (IPC) participating. The goal of the study was to define the fisherman exploitation of the catfish population. Biologists will tag fish in Brownlee Reservoir and the Snake River along the Idaho and Oregon border for three years.

# Methods

Catfish were captured primarily by monofilament experimental type gill nets. Only one 300 mm and larger catfish were targeted for tagging. The 300 mm size was considered to be the smallest size harvested by fishermen. Gill nets were modified to fish with monofilament panels of one inch bar mesh and larger. This reduced a considerable amount of non-target by catch. Using a larger mesh also reduced catch of smaller catfish.

Catfish were also captured by hook-and-line and by longlines set by ODFW in the free flowing section of the Snake River. Angler-caught catfish were measured, weighed, tagged and released at the Memorial Day Catfish Tournament near Huntington, Oregon by ODFW personnel. The majority of tags in Brownlee Reservoir were placed by IDFG personnel utilizing gill nets.

The tags were a Carlin Dangler type produced by Floy Tag Manufacturing Company with the word "Reward" on one side and the address which to return tags on the back. The tag reward amount was changed to include \$5.00, \$10.00, and \$20.00 tags. The tags were oval in shape approximately 0.5 cm by 2 cm long, and yellow in color. The tags were attached to the catfish just ventral of the posterior of the dorsal fin, ventral of the skeletal plate of the dorsal spine. The actual attachment was accomplished by inserting two hypodermic needles, which were held in pliers, through the muscle tissue; inserting the two ends of stainless steel wire of the tag from the opposite side; removing the needles; thus pulling the ends of wire through the musculature of the fish. The wire was pulled tight and twisted against itself and the excess clipped off and the fish released. The tagged fish were not held for observation after tagging.

The ODFW staff developed posters and handouts about the tagging and return reward program and distributed materials to license vendors in both state line areas. Press releases were also produced for the local media by both IDFG and ODFW.

Tag reward payment and record keeping were administered by ODFW. A database tracked the capture length, weight, tag number, release site by river mile, recapture date, and location. For incomplete tag return information, ODFW staff attempted to contact the individuals that sent in tags to gather missing information.

### <u>Results</u>

A total of 1,560 reward tags were attached to channel catfish and flathead catfish in Brownlee Reservoir and the Snake River in 1996. Table 3 presents the relative location of the tagged fish, number of tagged fish in the strata, and a description of the strata boundaries. More fish were tagged in the Snake River (489) than in any strata of the reservoir.

Reported recaptures numbered 117 in 1996. Thirty-five of these recaptures were from fish tagged in 1995, the rest were from 1996. Overall return percentage of tags released in 1996 was 5.3%. Exploitation rates will be calculated after three years of tag returns. Rewards were paid to all anglers who returned tags.

Movements of returned tagged fish for 1995 and 1996 are tabulated in Tables 4 and 5. Two catfish tagged in 1996 were recaptured by anglers below Brownlee Dam in Oxbow Reservoir. So far five tags have been recaptured from the Oxbow pool. The furthest movement of tagged catfish was 120 miles; the fish moved from below the Powder River Oregon to above Marsing, Idaho.

The return rates of higher reward tags was significantly greater for the \$20.00 versus the \$5.00 tags, at twice the return rate (Table 6). Numbers of returns were relatively low and another return year will be needed before a final estimate can be made.

Average length of 1,551 channel catfish tagged was 457.1 mm with an average weight of 909.7 g, and an average relative weight of 89. Only nine flathead catfish were tagged in 1996. Average length of flatheads was 606.1 mm and 4,483.1 g with a relative weight of 136.

#### **SWAN FALLS RESERVOIR**

# <u>Methods</u>

Swan Falls Reservoir was sampled on June 9 and 10, 1996. Two pair of floating and sinking gill nets and two trap nets were set overnight and 0.9 hour of electrofishing was conducted. River flows were fairly high at 18,000 cfs during the sample time.

#### Results

A total of 278 fish per standard unit of effort were captured with a total biomass of 125.3 kg (Appendices A, B, and C). Eleven species of fish were captured. Smallmouth bass were most numerous in the catch, followed by largescale suckers *Catostomus macrocheilus*. Smallmouth bass PSD was 29, some larger bass were captured.

Sixty-two smallmouth bass scales were used to estimate the average back-calculated length at annuli (Table 7).

Gillnetting was not effective at the 18,000 cfs river flow experienced, most nets were forced parallel to shore by the flow. Trap nets also did not sample well. The fish sample was comprised almost entirely of the electrofishing catch. Future sampling needs to be conducted during low flows in the late summer.

#### HORSESHOE BEND MILL POND

### <u>Introduction</u>

Horseshoe Bend mill pond lies on the south shore of the Payette River on the north edge of the town of Horseshoe Bend. The pond was an old sawmill log containment pond of approximately I.7 ha, and the pond and lands were purchased by IDFG in the 1970s. A rock diversion in the Payette River supplies water to keep the pond full. The pond is generally shallow and becomes approximately half covered with vegetation by late summer. Management direction is for a multi-species warmwater fishery with hatchery catchable trout stocked in the spring and fall while the waters remain cool.

### Methods

A lowland lake survey was conducted on the pond on June 26, 1996. Sampling gear used consisted of one pair of 45.7m floating and sinking gill nets, one trap net, and 1.001 hour of energized electrofishing time (Table 1).

#### Results

Sampling efforts captured 920 fish weighing 79.4 kg per standard unit of catch (Appendix C). Nine species of fish were captured (Appendix B). The most numerous species captured was pumpkinseed sunfish *Lepomis gibbosus* at 67.0% by number followed by largemouth bass at 12.0%. The highest biomass by standard unit of catch was largemouth bass at 32.0%, followed by pumpkinseed sunfish at 28.4%. Average length and weight of largemouth bass was 218 mm and 228 g, respectively. The average length and weight of pumpkinseed sunfish was 114 mm and 39 g, respectively. The Proportional Stock Density (PSD) of largemouth bass was 44.4 and the PSD of pumpkinseed sunfish was 1.2. Hatchery trout catch was low at 33 trout and only 3.4% of the total number.

#### Recommendations

- 1. Hold a public meeting in Horseshoe Bend to gather input from local fishermen to see if they want any regulation changes.
- 2. Conduct a tagging study on hatchery catchable trout returns in the spring of 1997.

#### **BLACK CANYON RESERVOIR**

#### Methods

A lowland lake fishery survey was done on September 4 and completed on September 19, 1996. Two pairs of gill nets and one trap net were set overnight and one hour of night-time electrofishing was completed.

### Results

A total of 878 fish were captured per standard unit of effort and weighed 135.9 kg (Appendix C). Thirteen different species were captured among all sampling gears. Non-game species comprised 61% of the catch by number and 81.3% by weight. Gamefish populations were heavily comprised of small pumpkinseed sunfish and small smallmouth bass. Good numbers of brown bullheads were present.

Generally the reservoir does not provide a good species specific fishery. Stocking of rainbow trout was discontinued because of high flow through and outward movement of trout. Warmwater species are present but do not have good population structure largely due to cooler waters and poor growth. The reservoir has uniform habitat types in that it is shallow and sandy with little diversity.

#### INDIAN CREEK RESERVOIR

#### Introduction

Indian Creek Reservoir is approximately 20 km east of Boise, Idaho just south of Interstate 84. The watershed lies to the north and is rather low in elevation. In some years very little runoff reaches the reservoir. The 79 ha reservoir is very shallow and water seeps or leaks fairly rapidly from the reservoir; in many years the reservoir is quite low by fall. A rotenone treatment was done in the fall of 1992 to remove a stunted crappie population. The treatment was considered

successful in that no crappie have been found. The reservoir was restocked with largemouth bass, bluegill, bullhead, and cultured channel catfish.

#### Methods

Two trap nets and two pair of standard experimental gill nets were fished overnight and 0.75 hour of boat electrofishing was conducted on June 14, 1996.

# <u>Results</u>

A total of 322 fish per standard unit of effort were captured (Appendix C). Three species of fish were captured; bluegill, largemouth bass, and channel catfish. Largemouth bass comprised 91.6% of the catch. The majority of largemouth were age-1+ and age-2+ fish, only one adult largemouth was captured (Appendix B). The number of bluegills were low at 25, per standard unit of effort.

#### PADDOCK VALLEY RESERVOIR

#### <u>Methods</u>

Boat electrofishing was conducted on Paddock Reservoir on May 23, 1996 during daylight. A total of 0.35 hrs of energized time was used. Captured largemouth bass were transported to Lake Lowell and the rearing ponds at C. J. Strike Reservoir.

#### Results

An estimated 277 fish per hour were captured. Largemouth bass comprised 99% of the numbers (Appendix A). Mean length was 264 mm and mean weight was 299 g. Relative weights were very good (Appendix A). The largemouth bass population has been dominated by two year-classes since the reservoir was restocked in 1993. Few young bass are now surviving predation from the 1993 and 1994 year classes.

# Recommendations

- 1. Develop several alternatives for bass regulation changes.
- 2. Survey reservoir for forage fish availability in May 1997.

## SUCCOR CREEK RESERVOIR

### Introduction

Succor Creek Reservoir is an approximately 360 ha irrigation reservoir located in western Owyhee County, Idaho. The reservoir lies on Succor Creek which drains into Oregon and eventually into Owyhee Reservoir. No record of any formal sampling by IDFG was found in the files, hence the sampling in 1996.

### Methods

Two trap nets and two pair of standard experimental gill nets were fished overnight on June 14,1996. No electrofishing was conducted because of poor access to the reservoir and no boat ramp.

### **Results**

A total of 85 fish were captured for each pair of gill nets and one trap net set (Appendices A and B). Three native fish species were captured; redband trout *O. mykiss gairdneri*, bridgelip sucker *Catostomus columbianus*, and redside shiner *Richardsonius balteatus*.

### Redband trout

Only 8.8% by number of the combined catch-per-unit-effort and 40.3% of weight was redband trout. The trout were larger than most stream-dwelling redbands in Owyhee County with a mean length of 377 mm and mean weight of 665 g. The reservoir was drained in 1991 and it was assumed all trout were destroyed at that time. The drainage above the reservoir was checked in 1996 and redbands were only found in Cottonwood Creek, a tributary to Succor Creek.

Average age at annuli for the captured redband trout is reported in Table 8. Growth was much higher than stream redband trout.

### Recommendations

- 1. Investigate ownership and landowner concerns about promoting a fishery in Succor Creek, Reservoir.
- 2. Attempt to establish a redband trout reservoir fishery by transplanting stream redband trout from local drainages.

### LUCKY PEAK RESERVOIR

### Methods

Four sinking experimental gill nets were set overnight in Lucky Peak Reservoir on July 15, 1996. Two 25 mm bar mesh vertical gill nets and three 19 mm bar mesh vertical gill nets were also set. The vertical gill nets were 1.8 m in width and were fished from surface to bottom, thus overall length varied.

### Results

The five vertical gill nets captured only four chiselmouth with a mean length of 250 mm and an average weight of 187 g. The target species, kokanee salmon *Oncorhyncus nerka kennerlyi* was not captured.

The standard unit catch per sinking gill net was 90.3 fish with a biomass of 26.7 kg (Appendices A and B). Nongame species were 92% of the fish by number and 93.2% by biomass. Fall chinook salmon *O. tshawytscha* were captured at 281 mm mean length.

Two of the sinking gill nets were set in deep water (> 25 m) and collapsed. The gill nets collapse was likely due to water pressure against the foam floatation used on the float line. One of the deep nets did not capture any fish and the other deep sinking net captured a few fish.

#### MOUNTAIN HOME RESERVOIR

### Methods

Three electrofishing surveys of Mountain Home Reservoir were conducted on May 22, July 30, and September 24, 1996. Data was gathered for a research project and provided to Southwest Region fisheries management personnel.

### <u>Results</u>

Catch rate for hatchery rainbow trout was relatively high at 59, 57, and 37 trout per hour (Appendix A). Average length for captured hatchery rainbow trout was 254, 316, and 310 mm respectively, for each event. Largemouth bass was the other most numerous fish species captured.

#### DEADWOOD RESERVOIR

### Methods

Two pair of standard experimental gill nets were fished overnight on September 26, 1996 in Deadwood Reservoir. The gill nets were set on the west side of the reservoir at historical sampling sites.

### Results

The standard unit catch per pair of gill nets was 89.5 fish with a biomass of 24.4 kg which was lower than the catch data in 1995 (Appendix A) (Allen et al. 1998). Mountain whitefish percent by number and percent by biomass decreased in the catch in 1996 from 1995. No Atlantic salmon Salmo salar were captured. One bull trout Salvelinus confluentus and one fall chinook were captured. One marked Gerrard rainbow trout was captured at 570 mm and 2300 g. Westslope cutthroat trout O. clarki lewisi numbers seem to be dropping in the catch, and younger fish were absent from the catch.

Kokanee salmon increased in percent number to 31.3% and 12.0% biomass in 1996 compared to 5.3% and 3.2% by percent number and biomass, respectively (Appendix A) (Allen et al. 1998). Average size of spawners was higher at 332 mm for females and 344 mm for males. The spawning run was very low, 70,000 eggs were taken. High reservoir levels also hindered spawn take operations.

### Recommendations

- 1. Consider stocking westslope cutthroat trout fingerlings.
- Advertise the good kokanee fishery to anglers.

## ARROWROCK RESERVOIR

## <u>Introduction</u>

Arrowrock Reservoir is a 3100 acre impoundment of the Boise River near Boise, Idaho that has a full pool volume of 286,000 acre-feet. The dam which created Arrowrock Reservoir was completed by the U.S. Bureau of Reclamation in 1915. The reservoir provides storage for flood control, irrigation, recreation and is frequently drawn down in the spring and summer months.

Routine sampling of Arrowrock Reservoir in the spring of 1995 documented bull trout as large as 465 mm. Relative to other reservoirs in Idaho, an abundant population of bull trout is believed to inhabit Arrowrock Reservoir, but little information detailing movements from Arrowrock Reservoir to the Middle Fork of the Boise River (MFBR) exists. In April of 1996, Arrowrock Reservoir was sampled in an attempt to catch mature bull trout and fit them with radio tags. These fish were to be studied to document the timing and magnitude of spawning migrations, and to identify spawning areas in the MFBR and associated tributaries.

### Methods

Standard experimental gill nets were fished for one hour sets, both sinking and floating nets were used. Trap nets were fished overnight. Captured bull trout were fitted with implanted radio tags with trailing antennae. Radios were matched with fish so that their dry weight did not exceed 2% of the weight of the fish (Table 9).

Volunteers utilized telemetry tracking equipment to monitor implanted radios in the roaded areas and IDFG employees conducted all tracking which required aircraft in roadless areas. Radio telemetry surveys were conducted bi-weekly from mid-April through September.

## Results

The most productive areas for catching bull trout in April were found to be gradual sloping beaches. Forty hours of sampling produced twenty-two total bull trout twelve of which were fitted with radios, four bull trout were killed, and six were measured and released. Of the radio implanted fish, five were tracked to the MFBR and/or associated tributaries, four were tracked to the North Fork Boise River (NFBR) and/or associated tributaries, two fish died or shed their radio's in the MFBR, and one fish was never located after release (Table 10). The majority of the tagged fish left Arrowrock in early May, and by July had reached areas with suitable habitat for spawning.

### Recommendations

- 1. Continue life-history studies on bull trout in the Boise basin in cooperation with the Bureau of Reclamation.
- 2. Quantify possible losses of bull trout due to entrainment in Arrowrock Dam.

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**TABLES** 

Table 1. Units of sampling effort by geartype<sup>1</sup> and body of water, 1996.

Water Name	Date	EF	GN	HSGN	SGN	TN
Arrowrock Reservoir	10/18/96			18		4
Arrowrock Reservoir	10/23/96		ļ	16	ļ <u></u>	
Arrowrock Reservoir	10/25/96	1	1	12		4
Arrowrock Reservoir	10/26/96		ļ <u>-</u>	4		5
Arrowrock Reservoir	10/30/96	1		28		
Arrowrock Reservoir	11/01/96	1	<b>i</b>	20		
Arrowrock Reservoir	11/02/96		<b>1</b>	22		
Arrowrock Reservoir	11/06/96			20	1	
Arrowrock Reservoir	11/08/96			14		<del> </del>
Arrowrock Reservoir	11/22/96			20	1	
Arrowrock Reservoir	11/24/96	Ī		18	l	
Arrowrock Reservoir	11/27/96	1		20		
Arrowrock Reservoir	11/30/96			20		
Arrowrock Reservoir	12/06/96			9.5		
Arrowrock Reservoir	12/17/96			15		
Arrowrock Reservoir	12/19/96			17		
Black Canyon Reservoir	09/04/96	1	2			1
Brownlee Reservoir	05/28/96	1.0058				
C.J. Strike Reservoir	05/14/96	1.3167	3		Ì	3
Deadwood Reservoir	09/26/96		2			
Horseshoe Bend Mill Pond	6/26/96	1.0011	1	1		1
Indian Creek Res	4/29/96	0.7547	2			2
Lake Lowell	5/20/96	1	4		-	4
Lake Lowell	7/10/96	1.0044				
Lake Lowell	8/8/96	1				
Lake Lowell	9/18/96	1.25				
Lucky Peak Reservoir	7/15/96				4	
Mountain Home Reservoir	5/22/96	1.05				
Mountain Home Reservoir	7/30/96	0.97				
Mountain Home Reservoir	9/24/96	1.2				
Paddock Reservoir	5/23/96	0.35				
Succor Creek Reservoir	6/14/96		2			2
Swan Falls Reservoir	6/9/96	0.88	2			2

<sup>&</sup>lt;sup>1</sup> Units of effort: EF=h of activated electrode time while electrofishing; GN=one sinking and one floating gill net set overnight; HSGN=h of sinking gill net sampling; SGN=overnight set of one sinking gill net; TN=Total number of trap nets set overnight.

Table 2. Average back-calculated length for each age class of largemouth bass and smallmouth bass collected on May 20, 1996 on Lake Lowell.

## Largemouth Bass

Age	1+	2+
Average length (mm)	96.0	132.3
Number = 13	13	4

## Smallmouth Bass

Age	1+	2+	3+	4+	5+
Average length (mm)	81.2	110.4	143.2	178.5	190.9
Number = 22	22	13	9	6	1

Table 3. Location and number of tagged catfish in Brownlee Reservoir and the Snake River in 1996.

Strata	River Miles	Number of Channel Catfish Tagged	Number of Flathead Catfish Tagged	Description of Strata
1	284.6 to 298.6	210	1	Dam to 2 miles upstream Powder River.
2	298.6 to 312.2	229	0	Up to Dennett Creek
3	312.2 to 325.8	363	7	Up to 1 mile below Spring ramp
4	325.8 to 339.4	260	1	Up to bend above Farewell Bend
5	339.4 to 365.5	489	0	To confluence of Payette River

Table 4. Summary of recaptured tagged catfish, location of tagging and location of recapture for catfish tagged in 1995 in Brownlee Reservoir and the Snake River.

TAGNUM	TAGMIL	DATTAG	RECAPMIL	DATRECAP	DISTANCE	RECAPLOC	
645	335	05/28/95	338.7	06/19/95	3.7	Just below rapids,1/2 mile below Oasis	
661	335	05/28/95	314.5	06/07/95	-20.5	Conner Ck	
690	335	05/28/95	334	07/04/95	-1.0	Farewell Bend	
731	331.5	05/27/95	384	05/11/96	52.5	Two miles US Nyssa	
758	331.5	05/27/95	335	05/29/95	3.5	Off Highway 84, Weiser turnoff	
767	335	05/28/95	322.5	08/08/95	-12.5	RM 322.5	
821	328.5	05/29/95	326	07/13/96	-2.5	2 miles down from Steck, Idaho side	
826	328.5	05/29/95	317	06/03/96	-11.5	Mouth of Hibbard Creek	
864	328.5	05/29/95	320	06/09/96	-8.5	Mouth of Rock Creek	
874	328.5	05/29/95	314	07/16/95	-14.5	RM 3 mile south of Mountain Man Idaho	
920	328.5	05/29/95	334.1	06/21/96	5.6	Old Highway near FB State Park	
Y004	328	04/24/95	295.8	07/22/96	-32.2	Powder River Arm Mud Flats	
Y018	328	04/24/95	340	06/15/95	12.0	Near the Oasis	
Y040	328	04/25/95	326	09/11/95	-2.0	2 miles down from Steck Park	
Y045	318.5	04/25/95	323	07/02/95	4.5	Cabin Idaho side	
Y048	318.5	04/25/95	287	09/02/95	-31.5	RM 287 westside across from Woodhead	
Y049	318.5	04/25/95	425	07/27/95	106.5	Snake River - near Marsing	
Y053	318.5	04/25/95	335	07/12/95	16.5	Weiser Exit 356	
Y070	318.5	04/25/95	316.5	05/15/95	-2.0	@ Small Cemetery	
Y091	323	04/25/95	328	08/08/96	5,0	RR bridge near Huntington	
Y111	323.1	04/26/95	328.5	08/11/95	5.4	Idaho side	
Y118	323.1	04/26/95	340	04/25/95	16.9	RM 340.0 2 mile above I-84 toward Weiser	
Y125	326.3	04/25/95	425	09/08/95	98.7	Near Marsing Bridge-guess RM 425	
Y135	326.3	04/25/95	317	05/16/95	-9.3	RM 317 mouth of Hibbard Creek	
Y138	323.1	04/25/95	425	09/10/95	101.9	Near Marsing Bridge-guess RM 425	
Y150	323.1	04/25/95	339.6	07/04/96	16.5	Camp area DS Oasis	
Y183	323.1	04/25/95	328.3	07/25/96	5.2	1/4 mile above River Bridge	
Y191	329.6	04/25/95	325.8	07/01/96	-3.8	2 miles down from Springs	
Y196	329.6	04/25/95	327.8	07/30/96	-1.8	300 yards up Burnt River	
Y220	323.1	04/26/95	384	06/20/96	60.9	One mile north Adrian Bridge	
Y229	323.1	04/26/95	324.8	07/12/96	1.7	About 3 miles down from Spring Rec Site	
Y237	323.1	04/26/95	317.5	06/03/95		RM 317.5	
Y259	327	04/27/95	330.5	09/02/95	3.5	Big rock N of Bend S of Steck Park	
Y263	326.1	04/27/95	344	07/04/96	17.9	Between rec site and Oasis	
Y264	326.1	04/27/95	331	06/30/95	4.9	3 mile up from Huntington	
Y274	326.1	04/27/95	327	07/20/95		Spring recreation site	
Y277	326.1	04/27/95	329.5	04/29/95		1 or 2 mile above Steck Park	
Y283	326.1	04/27/95	296.8	12/08/95	-29.3	Mouth of Powder River	
Y298	326	04/27/95	310.5	06/20/95		Dennett Creek mouth	
Y303	323	04/25/95	323	09/15/95	0.0	5 miles down from Steck Park, Idaho side	
Y319	321.5	04/25/95	325	09/25/95	- 1	2 miles below Spring Recreation Site	
Y320	321.5	04/25/95	327	08/21/95	5.5	1 mile down from Steck Park	

Table 4 (continued)

TAGNUM	TAGMIL	DATTAG	RECAPMIL	DATRECAP	DISTANCE	RECAPLOC	
Y335	321.5	04/26/95	364	09/17/95	42.5	2 miles N of Payette, Davis Rd OR	
Y338	318.5	04/26/95	284	06/20/95	-34.5	Spillway in Oxbow Reservoir	
Y345	318.5	04/26/95	325.5	07/02/95	7.0	RM 325.5	
Y365	318.5	04/26/95	328.5	09/10/95	10.0	RM 328.5 Steck Park	
Y372	318.5	04/26/95	308.5	08/26/96	-10.0	10 miles down river from Morgan Creek	
Y381	318.5	04/26/95	317	06/29/95	-1.5	Just below Jack Gordon	
Y388	318.5	04/26/95	309	05/26/96	-9.5	Between Big Deacon and Raft Creek	
Y411	323	04/26/95	327.5	10/05/95	4.5	Between Spring Camp groun & RR trestle	
Y416	323	04/26/95	304	05/30/96	-19.0	Between FB State Pk and Richland	
Y451	326	04/26/95	425	07/09/95	99.0	Near Marsing Bridge-guess RM 425	
Y478	326	04/27/95	339	07/25/95	13.0	Idaho side,1 mi past pavement to Steck Pk	
Y484	326	04/27/95	318.5	06/15/95	-7.5	Left side of Jack Gordon	
Y521	326	04/27/95	329.5	06/20/96	3.5	1.5 miles south of Steck Park	
Y523	326	04/27/95	327.5	07/30/96	1.5	0.5 miles north of Steck Park	
Y546	326	04/27/95	327.7	07/07/95	1.7	Burnt River Falls (just below bridge)	
Y557	326	04/27/95	327.5	07/11/95	1.5	RM Huntington-Steck Park	
Y600	311.5	04/28/95	312	07/18/96	0.5	Black Canyon Creek	
Y616	311.5	04/28/95	333.7	07/09/96	22.2	FB State Park	
Y636	311.5	04/28/95	304	05/27/95	-7.5	Hunts cabin about 1mile from Swedes	
Y684	311	04/28/95	295.5	05/09/95	-15.5	Mouth of Powder River	
Y685	311	04/28/95	327.9	06/06/96	16.9	DS Steck Park	
Y704	288.4	05/03/95	337	05/02/96	48.6	Between Weiser and Huntington	
Y708	288.4	05/03/95	<u>3</u> 25	07/13/96	36.6	3 miles down from Steck, Covewear Ferry	
Y720	294.6	05/03/95	294.5	07/02/95	-0.1	1 mile below river	
Y740	295.8	05/03/95	284.5	07/15/96	-11.3	Oxbow Reservoir, Brownlee Spillway	
Y742	300	05/03/95	327.5	05/23/95	27.5	1/4 mi below Steck Park	
Y778	300	05/03/95	335	07/04/95	35.0	RM 335 off Highway 84, Weiser turnoff	
Y787	327.8	05/11/95	333.7	08/17/96		Farewell Bend State Park	
Y802	337.8	07/07/95	328	05/11/96	-9.8	Steck Park boat ramp	
Y833	337.8	07/21/95	336	06/18/96	-1.8	Upstream 2 mile from FB State Park	
Y853	347	07/23/95	347	08/08/95	0.0	Near Weiser, slide area	
Y854	347	07/23/95	339.2	06/25/96	-7.8	Cobb Rapids	
Y855	347	07/23/95	346.5	07/12/96	-0.5	DS Recreational site	
Y859	362.6	07/24/95	331	01/15/96	-31.6	3 miles above Steck Park	
Y860	362.6	07/24/95	328	09/04/95	-34.6	RM 328 Steck Park	
Y862	362.6	07/24/95	301	06/24/96		Hatcomb Memorial Park, Richland, OR	
Y879	339	08/03/95	340.2	06/20/96	1	Oasis	
Y916	350.4	08/06/95	326	09/23/95	-24.4	RM 326	
Y921	365.8	08/07/95	324.8	10/28/95	-41.0	3 miles north of Burnt River	
Y924	365.8	08/07/95	325.3	03/24/96	- ::: <del>-</del> :	2.5 miles north of Huntington	
Y927	363.9	08/17/95	362	07/02/96	-1.9	10 miles north of Ontario	

Table 5. Summary of 1996 tagged catfish recaptured in 1996 in Brownlee Reservoir and the Snake River.

TAGNUM	TAGMIL	DATTAG	RECAPMIL	DATRECAP	DISTANCE	RECAPLOC	
942	319.00	04/19/96	287.00	07/06/96	-32.0	Woodhead Park off Old Dock	
958	318.00	04/24/96	323.00	05/28/96	5.0	Cemetery	
981	314.00	04/24/96	327.80	06/18/96	13.8	Burnt River mouth	
985	314.00	04/24/96	316.60	06/23/96	2.6	By cemetery	
993	314.00	04/24/96	326.00	06/12/96	12.0	North of Steck Recreational Area	
1113	319.00	04/18/96	319.00	05/27/96	0.0	North Rock Creek	
1119	320.00	04/18/96	340.00	06/18/96	20.0	"East" of Oasis2/.5 mile north	
1125	320.00	04/18/96	320.00	04/18/96	0.0	Idaho side M Creek Ramp	
1129	320.00	04/18/96	320.00	06/23/96	0.0	6 to 8 miles north of Burnt River	
1152	321.00	04/17/96	333.70	08/21/96	12.7	Farewell Bend State Park (bank)	
1198	321.00	04/17/96	340.20	06/15/96	19.2	Oasis	
1208	296.00	05/08/96	295.70	08/10/96	-0.3	Powder River 1 mile from mouth	
1214	296.00	05/07/96	295.80	09/02/96	-0.2	Hewitt Park	
1223	296.00	05/07/96	296.00	06/20/96	0.0	Powder River arm	
1229	296.00	05/07/96	321.00	06/23/96	25.0	Near Rock Creek	
1259	296.00	05/08/96	295.70	07/29/96	-0.3	Mud Flats Powder River	
1262	301.00	05/08/96	295.80	07/15/96	-5.2	Richland, Powder River arm	
1274	301.00	05/08/96	304.00	06/10/96	3.0	Swede's Landing	
1318	301.00	05/09/96	284.30	07/27/96	-16.7	Oxbow Reservoir, between dam & bridge	
1352	301.00	05/09/96	333.00	07/01/96	32.0	1 mile below Farewell Bend	
1629	320.00	04/18/96	327.80	05/26/96	7.8	Huntington, OR	
1658	319.00	04/18/96	352.00	05/27/96	33.0	Trailer Park South of Weiser	
1664	319.00	04/19/96	334.00	06/01/96	15.0	Downstream .5 mile FB State Park	
1694	314.00	04/24/96	331.20	11/24/96	17.2	2.5 mile north of Farewell Bend	
1726	296.00	05/08/96	296.00	06/15/96	0.0	Powder River,1/4 mile Below Sage Road	
1731	296.00	05/08/96	296.00	06/11/96	0.0	Upper Powder River arm	
1753	301.00	05/08/96	421.00	07/28/96	120.0	2 miles North of Marsing	
1931	301.00	05/09/96	346.50	06/28/96	45.5	5 miles west of Weiser	
2002	321.00	04/17/96	295.80	08/23/96	-25.2	Upper end of Powder River arm	
2008	321.00	04/17/96	334.50	08/15/96	13.5	Bank across from Farewell Bend Truck	
2011	321.00	04/17/96	333.70	06/18/96	12.7	Farewell Bend State Park	
2024	321.00	04/17/96	284.00	06/21/96	-37.0	Oxbow Res 100 yds Below Brownlee Dam	
2029	320.00	04/18/96	320.00	06/08/96	0.0	Mouth Rock Creek	
2053	320.00	04/18/96	291.00	07/01/96	-29.0	Near Halfway OR	
2055	320.00	04/18/96	295.80	06/12/96	-24.2	Hewitt Park, Upper Powder River arm	
2057	319.00	04/18/96	316.00	06/26/96	-3.0	North 12 miles of Huntington	
2059	319.00	04/18/96	319.00	04/24/96	0.0	Morgan Creek	
2076	315.00	04/24/96	326.00	06/03/96	11.0	North of Spring Creek	
2084	314.00	04/24/96	361.50	08/16/96	47.5	5 miles North of Payette	
2086	314.00	04/24/96	324.00	_06/19/96	10.0	Four miles DS Burnt River	
2096	314.00	04/24/96	296.00	06/16/96	-18.0	West end flats Powder River arm	

Table 5 (continued)

TAGNUM	TAGMIL	DATTAG	RECAPMIL	DATRECAP	DISTANCE	RECAPLOC	
2100	291.00	05/08/96	304.00	06/16/96	13.0	Swedes Landing	
2108	296.00	05/08/96	296.00	07/07/96	0.0	Powder River arm, Richland, OR	
2113	296.00	05/07/96	324.80	07/06/96	28.8	3 miles DS river bridge	
2119	296.00	05/07/96	295.80	08/15/96	-0.2	Directly in front of Hewitt Park	
2126	296.00	05/07/96	295.80	07/15/96	-0.2	Richland, Powder River arm	
2127	296.00	05/07/96	295.80	05/31/96	-0.2	Upper end of Powder River arm	
2142	296.00	05/08/96	296.00	06/26/96	0.0	Around 1st bend from Hewitt boat dock	
2148	296.00	05/08/96	295.80	06/02/96	-0.2	North Powder River @ Richland	
2176	300.00	05/08/96	329.00	06/05/96	29.0	Snake 1 mile from Burnt River	
2186	300.00	05/08/96	311.00	06/02/96	11.0	Mountain Man Lodge	
2196	297.00	05/09/96	328.00	06/06/96	31.0	Steck Park	
2304	301.00	05/09/96	304.00	10/11/96	3.0	Swede's Landing	
2307	301.00	05/09/96	283.50	07/02/96	-17.5	Below Brownlee Dam	
1405	370.00	06/04/96	368.00	06/18/96	-2.0	North of Fruitland Bridge 5 miles	
1518	343.00	05/08/96	342.00	06/04/96	-1.0	2 Miles up stream from Oasis	
1555	343.00	05/28/96	328.00	06/13/96	<i>-</i> 15.0	Burnt River	
1808	364.00	05/02/96	366.50	07/20/96	2.5	Mouth of Payette	
1816	370.00	05/07/96	370.50	06/21/96	0.5	Ontario State Park	
1897	368.00	06/04/96	326.50	06/22/96	-41.5	DS Spring Creek	
2202	366.00	05/02/96	327.80	06/01/96	-38.2	Snake River near Huntington	
2204	366.00	05/02/96	363.00	05/27/96	-3.0	Half mile DS Car Body Hole	
2253	343.00	05/28/96	327.00	07/03/96	-16.0	Spring Recreational Area	
2261	344.00	05/30/96	334.00	07/27/96	-10.0	Farewell Bend	
2280	364.00	06/03/96	366.50	07/03/96	2.5	5-6 miles up the Payette	
2408	335.00	07/02/96	330,70	07/18/96	-4.3	3 miles west of Farewell Bend State Park	
2603	339.00	07/03/96	335.70	09/08/96	-3.3	2 miles above Farewell Bend	
2706	335.00	07/02/96	341.50	09/19/96	6.5	10 miles west of Weiser	
1380	328.00	05/25/96	290.80	09/30/96	-37.2	5 miles downstream from Powder River	
1397	328.00	05/26/96	328.00	06/25/96	0.0	US Steck Park	
1840	328.00	05/27/96	326.00	06/03/96	-2.0	One mile N Spring Recreational site	
1943	328.00	05/25/96	295.80	08/08/96	-32.2	Hewitt Park	
1970	328.00	05/26/96	328.00	08/06/96	0.0	Near Steck Park	
1997	328.00	05/27/96	420.00	08/03/96	92.0	½ between Marsing & Homedale	
2347	328.00	05/25/96	327.70	07/28/96	-0.3	DS Steck Park	
2359	328.00	05/26/96	325.00	05/30/96	-3.0	Huntington	
2361	328.00	05/26/96	318.00	09/24/96	-10.0	9 miles below Spring Recreational site	
1443	358.00	06/12/96	353.50	09/15/96	-4.5	2 mile S of Roberts Access, Weiser	
1492	358.00	06/14/96	366.50	07/27/96	8.5	10 miles up Payette River	
1493	358.00	06/14/96	366.50	06/25/96	8.5	Payette River, 220 S. 6th St.	
2260	343.00	05/30/96	334.00	06/25/96	<b>-</b> 9.0	FB State Park	
2266	343.00	06/01/96	341.20	07/01/96	-1.8	1 mile up from Oasis	

Table 6. Comparison of returns for three values of reward tags placed on catfish in Brownlee Reservoir and the Snake River during 1996.

# Reservoir tagged catfish, below river mile 340

Tag Value	Number Tagged	Number Returned
\$5.00	269	16
\$10.00	247	8
\$20.00	250	28

## Snake River tagged catfish

Tag Value	Number Tagged	Number Returned
\$5.00	192	5
\$10.00	89	5
\$20.00	92	8

## Catfish tagged at Huntington Memorial Day Tournament

Tag Value	Number Tagged	Number Returned
\$5.00	57	2
\$10.00	81	4
\$20.00	78	4

Table 7. Average back-calculated length for each age class of smallmouth bass collected on June 9, 1996 on Swan Falls Reservoir.

## Smallmouth Bass

Age	1+	2+	3+	4+	5+	6+
Average length (mm)	90.0	152.4	208.0	251.5	294.2	315.4
Number = 62	62	56	42	30	18	3

Table 8. Average back-calculated length for each age class for redband trout captured on June 14,1996 in Succor Creek Reservoir.

## **Redband Trout**

Age	1+	2+	3+	4+	5+
Average length (mm)	134.1	228.0	312.2	373.3	388.8
Number = 15	15	15	14	14	6

Table 9. Radio tag frequency, length, weight, and tag weight of radio tags surgically implanted in bull trout in Arrowrock Reservoir in 1996.

Tag Number (MHZ)	Fish Length (mm)	Fish Weight (g)	Tag Weight (g)	Tag as % of body weight		
150.113	397	515	10	1.9		
150.240	575	2150	10	0.5		
150.261	534	1375	10	0.7		
150.281	547	1850	10	0.5		
150.593	526	1850	20	1.1		
150.644	470	630	10	1.6		
150.663	582	2350	10	0.4		
150.700	400	490	4	0.8		
150.733	497	1200	10	1.0		
150.133	595	2480	10	0.4		
151.692	583	2350	12	0.5		
150.142	573	2500	10	0.4		

Additional bull trout measured and released but not tagged:

<u>Length</u>	<u>Weight</u>
320	255
260	145
322	250
314	220
326	155
300	no weight

## Mortalities\*:

<u>Weight</u>
3150
585
400
1420

<sup>\*</sup>Nets should be checked every 0.5 hour in future sampling to minimize mortalities

Table 10. Tag frequency and dates and locations of individual bull trout located in the Boise River system above Arrowrock Reservoir by radio tracking in 1996.

## **Bull Trout Radio Tracking**

<u>Tag Freg.</u> 150.113	Date Located	<u>Location</u>	River Mile
	4/19/96	Arrowrock Reservoir	approx. 84
	5/8/96	MFBR at Cherry Gulch	85.7
	5/16/96	MFBR near Badger Ck.	89.7
	5/24/96	MFBR near Badger Ck.	89.7
	6/13/96	MFBR near Badger Ck.	89.7
	6/20/96	MFBR near Badger Ck.	89.7
	6/22/96	MFBR near Badger Ck.	89.7
	7/2/96	MFBR near Badger Ck.	89.7
	7/20/96	MFBR near Badger Ck.	89.7
	7/31/96	MFBR near Badger Ck.	89.7
	9/11/96	MFBR near Badger Ck.	89.7
150.133			
	4/27/96	Arrowrock Reservoir	approx. 84
	5/8/96	MFBR near Willow Ck.	85.2
	5/16/96	MFBR near Willow Ck.	86.6
	6/2/96	MFBR	94.3
	6/13/96	MFBR near Haga Ck.	96.3
	6/20/96	MFBR near Loftus Ck.	99.8
	6/22/96	MFBR near Loftus Ck.	100.3
	7/2/96	MFBR near Roaring Riv.	113.4
	7/20/96 7/31/96	MFBR near Black Warrior Ck.	123.2
	9/11/96	MFBR near Black Warrior Ck.	123.2
	9/11/90	MFBR near Queens River	127
150.142			
	4/27/96	Arrowrock Reservoir	approx. 84
	5/8/96	MFBR near Slide Gulch	88
	5/16/96 5/24/06	MFBR near Badger Ck.	88.6
	5/24/96 6/2/06	MFBR near Badger Ck.	87.8
	6/2/96 6/8/96	MFBR at Badger Ck. Camp	90.6
		MFBR at Badger Ck. Camp	90.8
	6/13/96 6/20/96	MFBR at Badger Ck. Camp	90.6
	6/22/96	MFBR at Badger Ck. Camp MFBR	90.6
	7/31/96		92.9
	9/11/96	NFBR above Ballentyne Ck. NFBR near Mcleod Ck.	36.9
	3/11/30	NI BIT HEAL WICHEOU CK.	38.7
150.240			
	4/19/96	Arrowrock Reservoir	approx. 84
	4/27/96	MFBR near Willow Ck. Campground.	87.2

Table 10 (continued)

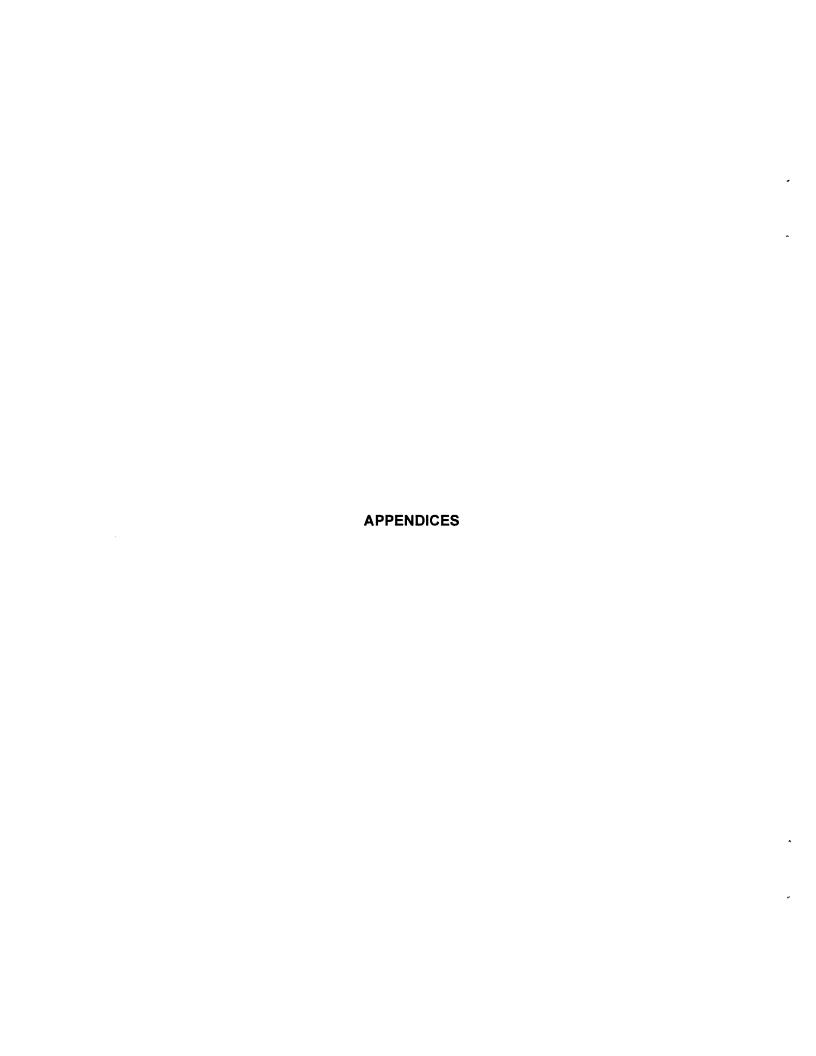
Tag Freq.	<u>Date Located</u> 5/8/96 5/16/96 6/2/96 9/11/96	Location MFBR near Willow Ck. MFBR MFBR MFBR Near mouth of E. Fk. Sheep Ck.	River Mile 87.4 91.1 95.4 7.2
150.261			
	4/19/96 4/27/96 5/8/96 5/16/96 5/24/96 7/31/96 9/11/96	Arrowrock Reservoir MFBR at Willow Ck. Campground. MFBR near Twin Springs MFBR near Sheep Ck. MFBR near Sheep Ck. East Fk. Sheep Ck., Near mouth Sheep Ck.	approx. 84 87.2 92.4 95.6 94.6 approx. 7.2 approx. 7.2
150.281			
	4/19/96 4/27/96 5/8/96 5/16/96 5/24/96 6/2/96 6/8/96 6/13/96 6/20/96 6/22/96 9/11/96	Arrowrock Reservoir Arrowrock Reservoir MFBR near Troutdale Campground. MFBR near Alexander Flats MFBR at Mink Ck. MFBR near Hot Ck. MFBR near Hot Ck. MFBR near Gueens Riv. mouth Queens River Queens River near King Ck.	approx. 84 approx. 84 98.7 107 110 119 121.2 121.3 128.5 1
150.593			
	4/19/96 5/24/96 7/31/96 9/11/96	Arrowrock Reservoir MFBR at Pool Ck. NFBR near Johnson Ck. mouth NFBR near Arrastra Ck. mouth	approx. 84 104.4 28.7 39.9
150.644			
	4/19/96 4/27/96 5/8/96 5/16/96 5/24/96 6/2/96 7/31/96	Arrowrock Reservoir Arrowrock Reservoir MFBR near Twin Springs MFBR near Troutdale Campground. MFBR near Loftus Ck. MFBR at Hot Spring Bridge NFBR near Blue Jay Ck. mouth	approx. 84 approx. 84 93.2 98.5 100.1 95.4 25.1

4/19/96	Arrowrock Reservoir	approx. 84
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# Table 10 (continued)

# Table 10 (continued)

Tag Freq.	<b>Date Located</b>	<u>Location</u>	River Mile
	5/8/96	MFBR near Slide Gulch	88
	5/16/96	MFBR at Badger Ck. Campground.	90.6
	6/8/96	FBR at Loftus Ck.	99.6
	6/13/96	MFBR at Pete Ck.	100.9
	6/20/96	MFBR near Alexander Flat	107
	7/2/96	MFBR near Black Warrior Ck.	121.8
	7/20/96	MFBR below Bald Mountain Ck.	124.2
	7/31/96	MFBR above Bald Mountain Ck.	125.2
150.700.			
	4/19/96	Arrowrock Reservoir	approx. 84
	9/11/96	NFBR above Black Rock Camp	.9
150.733			
	4/19/96	Arrowrock Reservoir	approx. 84
151.692			
	4/27/96	Arrowrock Reservoir	approx. 84
	5/16/96	MFBR at Slide Gulch bridge	87.5
	6/20/96	MFBR	93.7
	6/22/96	MFBR above Willow Ck.	89.4



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Appendix A. Number of fish collected, minimum length, maximum length, mean length, weight, condition factor, standard errors, catchper-unit-effort (CPUE) and percent of total by number and weight for fish collected during sampling in 1996.

Water	Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
ARROW	ROCK RES	<del></del>	-,,,,					<del></del>				•		
	10/18/96													
	Sinking Gi	ll Net												
Bridgeli	ip sucker	12	250	395	340	11	433	40	1.07	0.03	1.44	0.62	44.40	40.04
Bull tros	ut	2	365	400	383	18	445	55	0.79	0.03	0.11	0.62	14.46 2.41	
Largeso	cale sucker	56	250	475	372	7	540	28	1.01	0.01	6.28	3.39		1.10
Mounta	in whitefish	5	235	340	272	18	188	40	0.89	0.01	0.26	3.39 0.10	67.47 6.02	,
Norther	n pikeminnow	2	310	500	405	95	705	415	0.03	0.08	0.30			
	nbow/redband	1	320	320	320	00	340	413	1.04	0.04	0.22	0.16 0.04	2.41	3.47
Yellow j	perch	5	240	350	272	20	272	58	1.30	0.04	0.11	0.04	1.20 6.02	
Total	I	83		-			-,-	50	1.50	0.04	9.28	4.52	6.02	3.35
	10/23/96										9.20	4.52		
	Sinking Gil	ll Net												
Bridgeli	p sucker	1	320	320	320		310		0.95		0.13	0.04	2.63	2.10
Bull trou	•••	6	275	427	387	23	461	63	0.75	0.02	0.13	0.17	15.79	9.37
Hatcher	ry rainbow	4	285	370	330	19	333	47	0.91	0.02	0.50	0.17	10.53	9.02
Largeso	cale sucker	14	250	480	399	18	623	66	0.92	0.03	1.75	1.09	36.84	59.02 59.07
Mountai	in whitefish	9	210	350	288	18	221	42	0.83	0.02	1.73	0.25	23.68	13.46
Norther	n pikeminnow	2	180	300	240	60	140	100	0.79	0.10	0.25	0.23	5.26	1.90
Westslo	pe cutthroat	1	410	410	410		620		0.90	, 0.10	0.23	0.04	2.63	4.20
Wild rain	nbow/redband	1	240	240	240		130		0.94		0.13	0.00	2.63	0.88
Total	1	38							0.5 .		4.38	1.84	2.00	0.00
	10/25/96										4.50	1.04		
	Sinking Gil	l Net												
Bridgeli	p sucker	5	345	395	370	10	489	26	0.97	0.05	0.83	0.41	7.14	5.41
Bull trou	-•	6	290	480	359	31	405	116	0.77	0.02	0.50	0.20	8.57	2.69
	y rainbow	3	315	345	335	10	377	48	0.99	0.07	0.50	0.19	4.29	2.50
-	ale sucker	37	330	560	441	9	889	59	0.99	0.02	6.17	5.48	52.86	72.74
	in whitefish	12	240	400	307	14	311	47	1.04	0.02	1.92	0.62	17.14	8.20
	n pikeminnow	6	345	520	401	25	656	142	0.96	0.03	0.92	0.60	8.57	7.98
	nbow/redband	1	295	295	295		220	· ·-	0.86	3.00	0.17	0.00	1.43	0.49
Total		70							3.00		11.00	7.54	1.45	0.43
•	10/26/96 Sinking Gil	l Net										7.54		
Buil trou		3	334	350	342	5	331	24	0.82	0.04	0.75	0.25	100.00	400.00
Total	1	3			U-12	3	551	24	0.02	0.04	0.75 0.75	0.25 0.25	100.00	100.00

Vater Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
10/30/96										<u> </u>	****		
Sinking Gill N	let												
Bull trout	8	395	562	441	19	686	105	0.77	0.01	0.29	0.20	80.00	38.69
Hatchery rainbow	1	670	670	670		3725	100	1.24	0.01	0.23	0.20	10.00	
Wild rainbow/redband	1	406		406		620		0.93		0.07	0.27	10.00	
Total	10					-		0.00		0.43	0.51	10.00	0.75
11/1/96										0.40	0.51		
Sinking Gill N	let												
Bull trout	11	270	599	438	34	867	200	0.83	0.03	0.55	0.48	100.00	100.00
Total	11									0.55	0.48		
11/2/96													
Sinking Gill N													
Bull trout	16		645	482	25	1140	191	0.87	0.03	0.73	0.83	100.00	100.00
Total	16									0.73	0.83		
11/6/96	1-4												
Sinking Gill N Bull trout		425	400										
Total	2		462	444	19	735	10	0.85	0.12	0.10	0.07	100.00	100.00
11/8/96	2									0.10	0.07		
Sinking Gill N	let .												
Bull trout	2	456	619	538	82	1608	842	0.92	0.11	0.14	0.00	100.00	100.00
Total	2		013	550	02	1000	042	0.92	0.11	0.14	0.23 0.23	100.00	100.00
11/22/96	_									0.14	0.23		
Sinking Gill N	let												
Bull trout	16	326	642	443	21	890	184	0.86	0.03	0.80	0.71	80.00	93.22
Hatchery rainbow	4	292		329	17	345	35	1.09	0.04	0.20	0.05	20.00	
Total	20								0.0 .	1,00	0.76	20.00	5
11/24/96													
Sinking Gill N													
Bull trout	10			439	26	809	180	0.84	0.04	0.56	0.45	76.92	100.00
Hatchery rainbow	3		350	334	8					0.17		23.08	
Total	13									0.72	0.45		
11/27/96													
Sinking Gill N													
Bull trout	8		480	407	16	546	83	0.77	0.02	0.40	0.22	100.00	100.00
Total	8									0.40	0.22		

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Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
11/30/96													
Sinking Gill N	et												
Bull trout	13	325	590	410	20	666	145	0.84	0.03	0.05	0.40		
Hatchery rainbow	3		380	282	65	000	140	0.04	0.03	0.65	0.43	81.25	
Total	16	•								0.15	0.40	18.75	
12/6/96										0.80	0.43		
Sinking Gill N	et												
Bull trout	4	338	435	382	25	444	93	0.76	0.01	0.42	0.19	80.00	75.07
Wild rainbow/redband	1	395	395	395		580		0.70	0.01	0.42	0.19	20.00	
Total	5					-		0.54		0.11	0.06	20.00	24.03
12/17/96										0.55	0.25		
Sinking Gill N	et												
Bull trout	2	420	595	508	88	1575	875	1.05	0.11	0.13	0.21	100.00	100.00
Total	2								0.11	0.13	0.21	100.00	100.00
12/19/96										0.10	0.21		
Sinking Gill No													
Bull trout	6	321	531	389	31	590	213	0.84	0.06	0.35	0.21	100.00	100.00
Total	6									0.35	0.21	100.00	100.00
BLACK CANYON RES										5.55	0.2.		
9/4/96													
Electrofishing													
Black crappie	22	40	180	112	9	47	11	1.48	0.19	22.00	0.68	6.55	1.12
Bluegill	3	30	130	70	31	20	• •	0.91	0.19	3.00	0.02	0.89	0.03
Bridgelip sucker	38	35	275	104	6	33	13	1.54	0.16	61.00	1.29	11.31	2.12
Brown bullhead	5	175	275	237	18	200	42	1.39	0.10	5.00	1.29	1.49	1.74
Chiselmouth	4	50	235	119	41	140	'-	1.08	0.04	13.00	0.39	1.49	0.64
Common carp	7	80	400	192	45	325	170	2.47	0.45	7.00	2.27	2.08	3.74
Hatchery rainbow	1	160	160	160		30	., 0	0.73	0.40	1.00	0.03	0.30	3.74 0.05
Largemouth bass	69	45	280	96	4	36	12	2.08	0.14	69.00	1.77	20.54	2.91
Largescale sucker	43	75	410	214	11	154	25	1.10	0.02	285.00	39.38	12.80	64.83
Northern pikeminnow	21	70	350	169	23	115	34	1.10	0.02	35.00	39.36	6.25	6.24
Pumpkinseed	56	25	135	69	2	17	2	3.84	0.12	86.00	1.15	16.67	1.89
Smallmouth bass	50	55	450	191	12	186	40	1.33	0.25	51.00	8.29	14.88	1.89
Yellow perch	17	20	200	114	15	76	15	1.51	0.03	17.00	0.63	5.06	13.64
Total	336	_			. •	. 0	, ,	1.51	0.19	17.00	0.03	0.00	1.04

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
Gill Net													
Black crappie	8	95	285	147	25	103	53	1.98	0.07	4.00	0.39	2.40	0.53
Bridgelip sucker	1	270	270	270		250		1.27	0.01	1.50	0.36	0.30	
Brown bullhead	79	125	330	209	4	162	11	1.64	0.04	40.50	6.52	23.72	
Chiselmouth	24	190	290	219	5	101	8	0.92	0.02	12.00	1.22	7.21	1.64
Common carp	17	315	590	460	17	1424	145	1.42	0.05	8.50	12.10	5.11	16.30
Largemouth bass	2	150	240	195	45	145	85	1.72	0.06	1.00	0.14	0.60	
Largescale sucker	66	165	565	386	9	621	37	0.98	0.01	53.50	33.23	19.82	
Northern pikeminnow	107	100	540	260	7	222	28	1.02	0.07	80.50	17.74	32.13	
Pumpkinseed	3	80	120	95	13	28	13	2.38	0.06	1.50	0.04	0.90	
Smallmouth bass	8	270	330	304	7	447	34	1.57	0.04	4.00	1.73	2.40	
Yellow perch	18	130	220	179	5	87	6	1.45	0.03	9.00	0.77	5.41	1.04
Total	333				·	0.	·	1.40	0.00	216.00	74.23	3.41	1.04
Trap Net										210.00	74.23		
Black crappie	3	105	205	140	33	65	43	1.78	0.05	3.00	0.19	42.86	20.76
Largescale sucker	1	405	405	405		620		0.93	0.00	1.00	0.60	14.29	66.57
Pumpkinseed	3	80	140	100	20	37	22	2.92	0.00	3.00	0.11	42.86	
Total	7					•			0.00	7.00	0.90	42.00	12.01
BROWNLEE RES										7.00	0.30		
5/28/96													
Electrofishing													
Black crappie	62	78	202	163	4	96	5	2.10	0.03	251.54	24.28	8.62	12.77
Bluegill	238	68	210	128	1	69	2	3.02	0.03	664.15	45.84	33.10	
Bridgelip sucker	33	139	530	255	14	255	50	1.21	0.04	32.81	45.84 8.37	33.10 4.59	
Channel catfish	1	505	505	505	17	1380	50	1.21	0.03	0.99	6.37 1.37	4.59 0.14	4.40 0.72
Chiselmouth	1	129	129	129		15		0.70		0.99	0.01	0.14	0.72
Common carp	8	183	800	377	67	1790	1103	1,88	0.05	7.95	14.24	1.11	7.49
Largemouth bass	2		291	288	3	385	1103	1.62	0.03	1.99	0.77	0.28	
Largescale sucker	14	95	536	295	40	559	165	1.62	0.02	13.92			0.40 3.80
Northern pikeminnow	1	152	152	152	40	40	103	1.47	0.26		7.23	1.95	
Pumpkinseed	2		120	112	8	36	6	2.55	0.12	0.99 1.99	0.04	0.14	0.02
Smallmouth bass	315	70	380	181	2	102	6	2.55 1.37			0.07	0.28	0.04
White crappie	15	120	310	212	13	182	32		0.01	773.51	73.32	43.81	38.57
Yellow perch	27	76	250	186	7	102	32 10	1.58 1.45	0.08 0.06	64.63 26.84	11.74 2.82	2.09 3.76	6.18 1.49

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Vater Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
J STRIKE RES			<del></del>	<del></del>							<u> </u>		
5/14/96													
Electrofisl	hing												
Black crappie	20	154	200	177	2	109	8	1.92	0.08	15.19	4.04	2.24	
Bluegill	66	85	225	146	5	110	10	3.05	0.08		1.61	3.91	1.40
Bridgelip sucker	16	205	280	240	5	172	11	1.22	0.09	50.13	5.49	12.92	4.78
Channel catfish	1	700	700	700	•	4600	- ''	1.22	0.02	12.15	2.05	3.13	1.78
Chiselmouth	3		360	242	69	293	174	2.70	4.55	0.76	3.49	0.20	3.04
Common carp	6	430	690	623	41	3770	608	1.47	1.55	2.28	0.69	0.59	0.60
Hatchery rainbow	2	210	330	270	60	280	160	1.47 1.26	0.07 0.04	4.56	17.16	1.17	14.94
Largemouth bass	19	196	555	390	23	1304	233			1.52	0.41	0.39	0.36
Largescale sucker	154	70	555	280	23 7	336	233 27	1.75 1.26	0.05	14.43	18.82	3.72	16.38
Smallmouth bass	143	65	495	205	5	153	13		0.03	116.96	39.54	30.14	34.41
Warmouth sunfish	1	164	164	164	3	120	13	1.60	0.13	108.60	16.46	27.98	14.33
White crappie	73	140	272	205	3	164	^	2.72		0.76	0.09	0.20	0.08
Yellow perch	7	122	175	147	3 7	41	6	1.86	0.02	55.44	8.85	14.29	7.70
Total	511	122	175	147	′	41	6	1.29	0.08	5.32	0.23	1.37	0.20
Gill Net	311									388.09	114.90		
Black crappie	4	178	193	184	-3	113		4.00	0.00	4.00			
Bridgelip sucker	31	190	365	273	7	229	6 22	1.82	0.02	1.33	0.16	0.60	0.18
Brown builhead	2	200	297	2/3	49	229	150	1.06	0.04	10.33	2.13	4.67	2.52
Channel catfish	16	346	658	546	21	290		1.71	0.04	0.67	0.19	0.30	0.23
Chiselmouth	121	144	375	245	4	194	236	1.14	0.03	5.33	10.73	2.41	12.68
Common carp	10	290	655	540	40	2720	10	1.16	0.01	40.33	7.58	18.22	8.96
Hatchery rainbow	42	236	426	319	40 7	389	451	1.56	0.07	3.33	9.07	1.51	10.72
Largemouth bass	2	175	340	258	83		23	1.16	0.02	14.00	5.45	6.33	6.44
Largescale sucker	145	218	620	360	ია 8	362	298	1.44	0.24	0.67	0.24	0.30	0.29
Northern pikeminnow	52	120	586	310	5 16	643	47	1.12	0.03	48.33	29.22	21.84	34.52
Peamouth	6	251	362	294	21	574	112	1.17	0.04	17.33	8.08	7.83	9.55
Smallmouth bass	19	206	302 318	294 261	21 8	247	34	0.98	0.08	2.00	0.49	0.90	0.58
Warmouth sunfish	19	173	173	261 173	8	228	21	1.24	0.03	6.33	1.48	2.86	1.75
White crappie	178	109	173 285			85	_	1.64		0.33	0.03	0.15	0.03
Yellow perch	35	143		197	1	152	4	1.91	0.09	59.33	8.25	26.81	9.75
Total	35 664	143	304	210	7	131	13	1.30	0.03	11.67	1.52	5.27	1.80
rolar	064									221.33	84.63		

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
Trap Net										<del></del> -	· · · · · · · · · · · · · · · · · · ·		
Black crappie	9	160	197	177	4	100	11	1.76	0.08	3.00	0.31	19.57	11.75
Chiselmouth	3	170	300	253	42	183	73	1.00	0.00	1.00	0.31	6.52	
Hatchery rainbow	1	422	422	422		600	. •	0.80	0.14	0.33	0.21	2.17	7.96 7.42
Northern pikeminnow	1	456	456	456		1000		1.05		0.33	0.20	2.17	12.50
Smallmouth bass	1	310	310	310		320		1.07		0.33	0.13	2.17	4.96
White crappie	28	170	225	201	3	143	7	1.72	0.05	9.33	1.42	60.87	53.33
Yellow perch	3	155	173	165	5	50	0	1.15	0.19	1.00	0.06	6.52	2.09
Total	46				_	-	•	0	5.15	15.33	2.67	0.32	2.09
DEADWOOD RES										10.00	2.07		
9/26/96													
Gill Net													
Bull trout	1	305	305	305		270		0.95		0.50	0.14	0.70	0.55
Fall chinook salmon	1	220	220	220		115		1.08		0.50	0.14	0.73 0.73	0.55
Gerrard rainbow	1	570	570	570		2300		1.00		0.50	1.15	0.73	0.24 4.71
Kokanee salmon	56	85	380	212	6	105	8	1.18	0.17	28.00	2.94	40.88	12.05
Mountain whitefish	56	170	410	313	8	356	23	1.04	0.17	49.00	17.45	40.88	71.52
Rainbow X cutthroat	1	320	320	320	•	320	20	0.98	0.01	0.50	0.16	40.66 0.73	0.66
Westslope cutthroat	3	225	365	277	44	220	91	0.96	0.08	1,50	0.16	2.19	1.35
Wild rainbow/redband	18	160	340	272	16	242	34	1.04	0.04	9.00	2.17	13.14	8.92
Total	137		2.0			L-72	J-1	1.04	0.04	9.00 89.50	24.39	13.14	0.92
HORSESHOE BEND MILL PO	ND									09.50	24.39		
6/26/96													
Electrofishing													
Bluegill	73	38	155	119	3	41	3	2.69	0.45	72.92	3.00	29.32	4.57
Brown bullhead	19	268	380	316	5	486	16	1.60	0.43	18.98	8.74	7.63	13.33
Common carp	1	705	705	705	•	6000		1.71	0.00	1.00	5.99	0.40	9.14
Hatchery rainbow	4	221	272	251	11	160	20	0.99	0.07	4.00	0.68	1.61	1.03
Largemouth bass	77	78	484	218	10	234	38	1.48	0.03	107.88	25.01	30.92	38.17
Largescale sucker	2	400	486	443	43	915	285	1.01	0.03	2.00	1.83	0.80	2.79
Pumpkinseed	73	83	160	110	2	31	2	2.24	0.04	574.37	20.29	29.32	30.96
Total	249				_		_	2.24	3.04	781.14	65.54	25.52	55.30

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
Gill Net													
Bluegill	2	115	125	120	5	58	8	3.42	0.86	2.00	0.08	2.44	0.73
Hatchery rainbow	29	193	291	247	4	167	9	1.07	0.02	29.00	4.79	35.37	42.80
Largemouth bass	7		260	234	7	189	17	1.47	0.04	7.00	1.33	8.54	
Largescale sucker	2	495	510	503	8	1530	90	1.21	0.13	2.00	3.06	2.44	
Northern pikeminnow	1	258	258	258		166		0.97		1.00	0.17	1.22	
Pumpkinseed	37	87	136	112	2	40	2	2.78	0.08	37.00	1.34	45.12	
Yellow perch	4	194	205	197	3	107	10	1.39	0.09	4.00	0.43	4.88	
Total	82						-	.,	2.00	82.00	11.20	00	0.00
Trap Net										32.00	0		
Bluegill	18	90	150	126	. 3	47	3	2.31	0.06	18.00	0.84	31.58	31.73
Largemouth bass	1	114	114	114		20		1.35		1.00	0.02	1.75	0.74
Pumpkinseed	38	89	145	125	2	51	2	2.60	0.06	38.00	1.78	66.67	67.53
Total	57									57.00	2.64		
NDIAN CREEK RES													
4/29/96													
Electrofishing													
Bluegill	17	84	160	116	5	37	6	2.08	0.08	22.53	0.79	28.81	4.38
Channel catfish	2	380	480	430	50	978	347	1.17	0.02	2.65	2.59	3.39	
Largemouth bass	40	84	380	124	7	50	27	1.36	0.02	294.16	14.66	67.80	
Total	59	• ,			•		_,	1.50	0.04	319.33	18.04	07.00	01.20
Trap Net										010.00	10.04		
Bluegill	4	130	263	185	28	204	127	2.11	0.41	2.00	0.43	80.00	97.39
Largemouth bass	1	125	125	125		8		0.41	5.11	0.50	0.01	20.00	
Total	5					•		2		2.50	0.44	20.00	2.0
AKE LOWELL										2.00	J. 14		
5/20/96													
Electrofishing													
Bluegill	2	125	140	133	8	55	15	2.30	0.25	2.00	0.11	1.77	0.32
Brown bullhead	2	140	285	213	73	178	142	1.35	0.25	2.00	0.11	1.77	1.05
Chiselmouth	1	185	185	185	, ,	54	172	0.85	0.04	1.00	0.05	0.88	
Common carp	13	120	590	377	50	1026	231	1.32	0.07	13.00	13.12	11.50	
Largemouth bass	17	70	205	118	8	27	231 6	1.32	0.07	17.00	0.46	15.04	36.29
Largescale sucker	23	110	520	412	26	800	79	0.96	0.08	23.00	18.14	20.35	52.95
Laidescale sucker													

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)		Percent (Weight)
White crappie	2	115	294	205	90	195	185	1.08	0.42	2.00	0.39	1.77	1.14
Yellow perch	20	95	127	112	2	16	1	1.14	0.06				
Total	113				_	10	'	1.14	0.06	20.00	0.33	17.70	0.95
Gill Net										113.00	34.26		
Black crappie	2	100	130	115	15	35		1.59		0.50	0.01	2.11	0.01
Channel catfish	28	175	650	438	26	1047	165	0.88	0.03	8.00	8.38	2.11 29.47	
Common carp	25	160	535	388	29	928	126	1.17	0.06	18.50	0.30 17.31		
Hatchery rainbow	1	270	270	270		200	120	1.02	0.00	0.25	0.05	26.32 1.05	
Kokanee salmon	1	325	325	325		425		1.24		0.25	0.05	1.05	
Largemouth bass	2	285	285	285	0	313	13	1.35	0.05	0.25	0.11	2.11	
Largescale sucker	22	350	520	466	10	905	46	0.88	0.03	35.00	32.73	23.16	
Northern pikeminnow	11	185	355	257	15	163	41	0.76	0.02	4.00	0.62	11.58	
Smallmouth bass	1	235	235	235		220	71	1.70	0.07	0.50	0.02	1.05	
Yellow perch	2	215	220	218	3	110	0	1.07	0.04	0.50	0.09	2.11	0.16
Total	95				·	1.0	·	1.07	0.04	68.00	59.50	2.11	0.09
Trap Net										90.00	39.30		
Bluegill	1	150	150	150		100		2.96		0.25	0.03	0.97	0.09
Brown bullhead	12	125	360	287	22	359	53	1.28	0.06	3.00	1.08	11.65	
Common carp	36	420	675	502	9	1598	113	1.21	0.02	9.00	14.39	34.95	51.59
Largescale sucker	51	425	580	478	4	977	22	0.90	0.02	12.75	12.35	49.51	44.28
Northern pikeminnow	3	172	190	182	5	70	15	1.21	0.38	0.75	0.05	2.91	0.18
Total	103					. •			0.00	25.75	27.90	2.51	0.10
7/10/96										20.70	21.00		
Electrofishing	I												
Bluegill	9	65	145	90	10	70	10	2.61	0.64	8.96	0.14	3.70	0.48
Channel catfish	5	150	660	525	95	1798	527	0.97	0.08	4.98	8.95	2.06	30.80
Common carp	6	180	495	319	58	570	221	1.40	0.14	5.97	3.41	2.47	11.72
Largemouth bass	23	35	280	120	12	62	20	1.38	0.04	22.90	0.98	9.47	3.37
Largescale sucker	47	135	525	238	18	279	57	1.10	0.04	46.79	10.75	19.34	36.99
Smallmouth bass	135	75	350	121	4	79	15	1.43	0.04	134.41	4.40	55.56	15.15
White crappie	1	125	125	125					,	1.00		0.41	
Yellow perch	17	45	145	118	7	29	2	1.38	0.11	16.93	0.43	7.00	1.48
Total	243						_		2	241.94	29.06	7.00	1.40

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
8/8/96													
Electrofish	ing												
Black crappie	1	166	166	166		60		1.31		1.00	0.06	0.13	0.10
Bluegill	75	63	161	93	2	26	3	1.97	0.11	75.00	1.20	9.75	1.93
Brown bullhead	5	120	286	212	30	156	54	1.38	0.11	5.00	0.78	0.65	1.25
Channel catfish	1	119	119	119	30	12	J4	0.71	0.09	1.00	0.76	0.03	
Chiselmouth	1	190	190	190		58		0.85		1.00	0.06	0.13	
Common carp	19	195	580	388	29	884	152	1.26	0.05	19.00	16.70	2.47	26.76
Largemouth bass	264	40	326	121	3	69	9	1.20	0.03	264.00	9.83	34.33	
Largescale sucker	122		530	233	10	441	69	1.02	0.03	122.00	24.27	15.86	
Pumpkinseed	4	85	96	91	2	25	•	3.21	0.02	4.00	0.07	0.52	
Smallmouth bass	257	40	446	118	3	110	34	1.34	0.03	257.00	9.18	33.42	
White crappie	3	50	80	68	9		•		0.00	3.00	0.10	0.39	
Yellow perch	17	62	170	106	11	40	0	1.12	0.09	17.00	0.24	2.21	0.38
Total	769						•			769.00	62.40		****
9/18/96										,	020		
Electrofish	ing												
Błuegill	22	65	120	99	4	50	0	2.89	0.00	17.60	0.16	4.48	0.10
Channel catfish	2	575	575	575	0	1750	0	0.92	0.00	1.60	2.80	0.41	1.78
Common carp	58	240	535	411	13	1024	71	1.30	0.02	46.40	47.54	11.81	30.28
Fall chinook salmon	1	375	375	375		600		1.14		0.80	0.48	0.20	0.31
Largemouth bass	96	60	215	116	5	83	6	1.46	0.09	76.80	1.89	19.55	1.20
Largescale sucker	192	75	535	364	11	862	33	0.96	0.01	153.60	101.07	39.10	64.39
Northern pikeminnow	8	205	260	223	9	105	2	1.00	0.08	6.40	0.67	1.63	0.43
Smallmouth bass	102	60	180	122	3	46	3	1.73	0.10	81.60	2.36	20.77	1.50
Yellow perch	10	70	85	78	2					8.00		2.04	
Total	491									392.80	156.97		
LUCKY PEAK RES													
7/15/96													
Set Sinking	g Gill Net												
Bridgelip sucker		350	350	350	0	495	0	1.15	0.00	1.00	0.50	0.84	1.85
Chiselmouth	17	192	306	250	10	187	19	1.15	0.04		2.06	7.11	
Fall chinook salmon	2	281	281	281	0	238	0	1.07	0.00	0.50	0.12	0.84	0.45
Largescale sucker	78		460	322	. 8	394	25	1.05	0.01	29.75	11.72	32.64	
Mountain whitefish	9		348	324	5	334	15	0.99	0.04	3.25	1.08	3.77	
Northern pikeminnow	116	173	400	284	6	260		1.05	0.03	40.50	10.51	48.54	

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
Redside shiner	1	140	140	140		102		3.72		0.75	0.08	0.42	2 0,29
Smallmouth bass	6	233	264	244	6	217	17	1.48	0.02				
Yellow perch	8	198	236	214	6	159	15	1.40	0.02	1.50 2.00	0.33	2.51	
Total	239				·	100	10	1.01	0.04	90.25	0.32 26.71	3.35	1.19
MOUNTAIN HOME RES										90.25	26.71		
5/22/96													
Electrofishin	a												
Bluegill	2	45	71	58	13					4.60			
Hatchery rainbow	62		418	254	13	341	31	1.17	0.00	1.90	45.00	1.44	
Largemouth bass	70	_	160	115	2	50	31	1.17	0.02	59.05	15.80	44.60	
Redside shiner	2		90	88	3	30		1.22		66.67 1.90	0.05	50.36	
Speckled dace	1	48	48	48						0.95		1.44	
Sucker spp.	2		225	224	1					1.90		0.72	
Total	139				•					132.38	15.84	1.44	
7/30/96										132,36	15.64		
Electrofishin	g												
Bluegilt	1	120	120	120		40		2.31		1.03	0.04	1.49	0.18
Hatchery rainbow	55	198	436	316	10	388	34	1.09	0.02	56.70	22.02	82.09	
Largemouth bass	11	71	220	157	13	76	12	1.36	0.03	11.34	0.70	16.42	
Total	67								0.00	69.07	22.76	10.42	3.00
9/24/96										00.01	22.10		
Electrofishing	g												
Bluegill	11	85	140	115	6					9.17		7.80	
Hatchery rainbow	44	220	450	310	10	363	38	1.07	0.03	36.67	13.29	31.21	
Largemouth bass	71	70	345	122	6	180	64	1.13	0.07	59.17	1.43	50.35	9.73
Redside shiner	13	70	110	90	3					10.83		9.22	
Sucker spp.	2	145	175	160	15					1.67		1.42	
Total	141									117.50	14.73		
PADDOCK RES													
5/23/96													
Electrofishin	g												
Black crappie	1	256	256	256		344		2.05		2.86	0.98	1.03	1.18
Largemouth bass	96	205	317	264	2	299	6	1.62	0.03	274.29	82.13	98.97	–
Total	97						<del>-</del>		5.50	277.14	83.11	55.57	30.02

Water Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
SUCCOR CREEK RES													·
6/14/96													
Gill Net													
Bridgelip sucker	66	154	305	232	4	154	11	1.14	0.02	34.00	4.93	62.86	51.90
Redside shiner	27	122	162	139	2	40	1	1.47	0.03	14.00	0.58	25.71	
Wild rainbow/redband	12		425	376	20	662	68	1.14	0.03	6.00	3.99	11.43	
Total	105					552		1.14	0.03	54.00	9.51	11.43	41.50
Trap Net										34.00	3.31		
Bridgelip sucker	32	135	241	188	5	92	11	1.22	0.05	16.00	1.31	50.79	45.76
Redside shiner	28	115	155	135	2	42	2	1.74	0.06	14.00	0.55	44.44	
Wild rainbow/redband	3	325	425	380	29	676	183	1.15	0.10	1.50	1.00	4.76	
Total	63							,,,,	0.10	31.50	2.86	4.10	04.00
SWAN FALLS RESERVOIR										31.00	2.00		
6/9/96													
Electrofishin	n												
Brown builhead	3	125	245	203	39	180	81	1.55	0.27	3.40	0.61	1.31	0.57
Common carp	7	555	670	606	16	3150	321	1.40	0.06	7.92	24.62	3.06	
Hatchery rainbow	3	150	330	215	58	143	88	1.40	0.00	3.40	0.49	1.31	
Largescale sucker	56	165	575	402	13	831	66	1.13	0.27	63.40	51.58	24.45	
Northern pikeminnow	4	215	511	365	75	670	313	1.13	0.02	4.53	3.03	24.45 1.75	
Peamouth	2			265	25	205	45	1.04	0.06	4.53 2.26	0.46	0.87	
Smallmouth bass	154	64	372	196	6	170	11	1.55	0.07	2.26 174.35	26.33	67.25	
Total	229	04	312	130	U	170	11	1.55	0.03	259.26	107.12	67.25	24.30
Gill Net	223									259.26	107.12		
Brown bullhead	1	253	253	253		330		2.04		0.50	0.17	5.00	1.63
Channel catfish	2		575	562	14	1975	225	1.11	0.05	1.00	1.98	10.00	
Common carp	3	570	617	591	14	2633	285	1.27	0.06	1.50	4.10	15.00	
Largescale sucker	5	481	575	507	18	1335	199	1.00	0.07	2.50	3.09	25.00	
Northern pikeminnow	6	190	350	259	24	179	46	0.93	0.03	3.00	0.54	30.00	
Peamouth	2	279	325	302	23	210	70	0.53	0.03	1.00	0.34	10.00	
Smallmouth bass	1	196	196	196		100	, 0	1.33	0.00	0.50	0.06	5.00	
Total	20					,50		1.55		10.00	10.13	3.00	0.55
Trap Net										10.00	10.13		
Black crappie	4	168	202	181	7	100	12	1.71	0.27	2.00	0.20	22.22	2.50
Bridgelip sucker	1	360	360	360	•	430		0.92	0.21	0.50	0.20	5.56	

Vater Species	Total Collected	Min Length (mm)	Max Length (mm)	Mean Length (mm)	SE Length	Mean Weight (g)	SE Weight	Mean CondFact	SE CondFact	CPUE (Number)	CPUE (Weight kg)	Percent (Number)	Percent (Weight)
Largescale sucker	10	488	650	540	17	1308	156	0.81	0.04	5.00	7.27	55.56	90,96
Smallmouth bass White crappie <i>Total</i>	2 1 18	200 215	309 215	255 215	54	100 140		1.25 1.41		1.00 0.50 9.00	0.24 0.07 8.00	11.11 5.56	2.98

Appendix B. Length frequency for all species captured in 1996, all gear types combined.

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
ARROV	VROCK	RES									
	10/18/										
		Bridgelip s			_	_			_		
			25 31	0	0	0	0	1	0	1	
			33	0 0	0 0	0 0	0 0	3 1	0 0	3 1	
			34	0	0	0	0	2	0	2	
			36	0	0	0	0	2	0	2	
			37	0	0	0	0	1	0	1	
			38	0	0	0	0	1	0	1	
			39	Ö	Ö	0	0	1	0	1	
		Bull trout	••	Ū	•	Ū	J	'	Ū	•	
			36	0	0	0	0	1	0	1	
			40	0	0	0	Ō	1	Ō	1	
		Largescale	sucker								
			25	0	0	0	0	1	0	1	
			26	0	0	0	0	1	0	1	
			28	0	0	0	0	2	0	2	
			29	0	0	0	0	2	0	2	
			31	0	0	0	0	2	0	2	
			33	0	0	0	0	2	0	2	
			34	0	0	0	0	2	0	2	
			35	0	0	0	0	5	0	5	
			36	0	0	0	0	7	0	7	
			37	0	0	0	0	9	0	9	
			38	0	0	0	0	7	0	7	
			39	0	0	0	0	2	0	2	
			40	0	0	0	0	2	0	2	
			41	0	0	0	0	3	0	3	
			42	0	0	0	0	2	0	2	
			43 44	0	0	0	0	1	0	1	
			44 46	0	0	0	0	3	0	3	
			46 47	0	0 0	0 0	0 0	1	0	1	
		Mountain v	-	U	U	U	U	2	0	2	
		Widdinani V	23	0	0	0	0	1	0	1	77.17
			25	Ö	ő	Ö	Ö	1	Ö	1	76.74
			26	Ö	Ö	Ö	Ö	1	Ö	1	90.84
			27	Ö	Ö	0	0	1	0	1	119.71
			34	0	0	Ö	Ö	1	0	1	77.95
		Northern p			_	Ū	•	•	Ū	•	77.00
			31	0	0	0	0	1	0	1	
			50	0	0	0	0	1	0	1	
		Wild rainbo	w/redban	d							
			32	0	0	0	0	1	0	1	92.16
		Yellow per									
			24	0	0	0	0	1	0	1	94.77
			25	0	0	0	0	2	0	2	86.78
			26	0	0	0	0	1	0	1	94.16
			35	0	0	0	0	1	0	1	73.73

Vater	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
		Bridgelip s		_		_			_		
			32	0	0	0	0	1	0	1	
		Bull trout	27	0	^	0	^	4	^	4	
			39	0 0	0 0	0 0	0 0	1 1	0 0	1	
			40	0	0	0	0	2	0	1 2	
			41	0	0	0	0	1	0	1	
			42	0	0	0	0	1	0	1	
		Hatchery r		v	· ·	U	v	'	U	'	
		riatoriery i	28	0	0	0	0	1	0	1	85.37
			31	Ō	Ö	ŏ	Ö	1	Ö	1	82.53
			35	Ö	Ö	ő	Ö	1	Ö	1	84.19
			37	Ö	Ö	Ö	Ö	1	Ö	1	70.88
		Largescale		•	<del>-</del>	•	•	•	ŭ	•	, 0.00
			25	0	0	0	0	1	0	1	
			27	0	0	Ō	Ö	1	Ö	1	
			38	0	0	0	0	2	0	2	
			39	0	0	0	0	1	0	1	
			40	0	0	0	0	1	0	1	
			41	0	0	0	0	2	0	2	
			42	0	0	0	0	1	0	1	
			44	0	0	0	0	2	0	2	
			45	0	0	0	0	2	0	2	
			48	0	0	0	0	1	0	1	
		Mountain v	vhitefish								
			21	0	0	0	0	1	0	1	81.43
			22	0	0	0	0	1	0	1	88.06
			23	0	0	0	0	1	0	1	78.26
			27	0	0	0	0	1	0	1	76.61
			29	0	0	0	0	1	0	1	77.43
			33	0	0	0	0	1	0	1	99.10
			34	0	0	0	0	2	0	2	77.32
			35	0	0	0	0	1	0	1	89.80
		Northern pi			_						
			18	0	0	0	0	1	0	1	
			30	0	0	0	0	1	0	1	
		Westslope	cutthroat	_	_	_	_		_		
		1461-1 !- b	41	. 0	0	0	0	1	0	1	
		Wild rainbo	w/redban 24	a 0	0	0	0	1	0	4	05.04
	10/25/9	6	24	U	U	U	U	•	0	1	85.91
	10/20/9	o Bridgelip su	icker								
		Diagonp 30	34	0	0	0	0	1	0	1	
			35	Ö	0	0	0	1	0	1	
			37	Ŏ	Ö	Ö	Ö	1	0	1	
			39	0	0	0	0	2	0	2	
		Bull trout		-	•	-	-	~	•	~	
			29	0	0	0	0	1	0	1	
			30	Ŏ	Ö	Ö	Ö	1	Ö	1	
			31	Ö	Ö	ŏ	Ö	1	0	1	
			34	ŏ	Ŏ	Ŏ	Ö	1	0	•	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			42	0	0	0	0	1	0	1	
			48	Ö	Ö	Ö	Ö	1	Ö	1	
		Hatchery		_	_	•	_	•	•	·	
		,	31	0	0	0	0	1	0	1	85.38
			34	0	0	0	0	2	0	2	89.10
		Largescal	e sucker								
			33	0	0	0	0	1	0	1	
			36	0	0	0	0	2	0	2	
			37	0	0	0	0	1	0	1	
			38	0	0	0	0	2	0	2	
			39	0	0	0	0	3	0	3	
			40	0	0	0	0	3	0	3	
			41	0	0	0	0	2	0	2	
			42	0	0	0	0	2	0	2	
			43	0	0	0	0	1	0	1	
			44	0	0	0	0	4	0	4	
			45	0	0	0	0	1	0	1	
			46	0	0	0	0	2	0	2	
			47	0	0	0	0	2	0	2	
			48	0	0	0	0	3	0	3	
			49	0	0	0	0	3	0	3	
			50	0	0	0	0	1	0	1	
			51	0	0	0	0	1	0	1	
			52	0	0	0	0	1	0	1	
			54	0	0	0	0	1	0	1	
		Marintain	56	0	0	0 .	0	1	0	1	
		Mountain	wniterisn 24	0	0	0	0	2	0	2	108.59
			26	0	0	0	0	2	0	2	105.03
			29	0	0	0	0	1	0	1	103.03
			31	0	0	0	0	1	0	1	96.52
			33	0	Ö	0	0	3	0	3	97.87
			34	0	Ô	0	0	2	0	2	113.15
			40	0	0	Ö	0	1	0	1	101.32
		Northern p			•	ŭ	•	•	J	•	101.02
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	34	0	0	0	0	1	0	1	
			37	0	0	0	0	2	0	2	
			39	0	0	0	0	1	0	1	
			40	0	0	0	0	1	0	1	
			52	0	0	0	0	1	0	1	
		Wild rainbo	ow/redbar	nd							
			29	0	0	0	0	1	0	1	76.72
	10/26/9										
		Bull trout		_	_						
			33	0	0	0	0	1	0	1	
			34	0	0	0	0	1	0	1	
			35	0	0	0	0	1	0	1	
	10/30/9										
		Bull trout	20	^	^	^	•		^	4	
			39	0	0	0	0	1	0	1	
			40	0	0	0	0	1	0	1	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caugh Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			41	0	0	0	0	1	0	1	
			42	0	Ö	0	Ö	2	0	2	
			44	Ö	0	Ö	Ö	1	0	1	
			47	0	Ö	Ŏ	Ö	1	0	1	
			56	Ö	Ö	0	Ö	1	0	1	
		Hatchery		Ū		J	U	•	U	'	
		· idionicity	67	0	0	0	0	1	0	1	102.32
		Wild rainb			·	•	Ū		J	,	102.52
			40	0	0	0	0	1	0	1	80.39
	11/1/96	3		_	•	J	·	·	Ū	•	00.55
		Bull trout									
			27	0	0	0	0	1	0	1	
			30	0	0	0	0	1	Ö	1	
			37	0	Ō	Ō	Ō	1	0	1	
			38	0	0	Ö	Ō	2	0	2	
			42	0	Ö	Ö	Ō	1	Ö	1	
			45	Ō	Ö	Ŏ	Ö	1	0	i	
			47	Ö	ő	0	0	1	0	1	
			58	Ö	Ö	Ö	Ö	2	0	2	
			59	0	0	0	0	1	0	1	
	11/2/96		00	J	U	U	U	•	U	•	
	11,2,00	Bull trout									
		Dan arout	33	0	0	0	0	1	0	1	
			35	Ö	ŏ	Ö	Ö	1	0	1	
			38	Ö	0	Ö	0	1	0	1	
			39	Ö	0	0	0	1	0	1	
			40	0	0	0	0	2	0		
			43	0	0	0	0	1	0	2	
			44							1	
			51	0	0	0	0	1	0	1	
				0	0	0	0	1	0	1	
			52	0	0	0	0	1	0	1	
			55 50	0	0	0	0	2	0	2	
			56	0	0	0	0	1	0	1	
			57	0	0	0	0	1	0	1	
			63	0	0	0	0	1	0	1	
•	4.4.10.10.0		64	0	0	0	0	1	0	1	
	11/6/96										
		Bull trout	42	٥	0	0	^	4	^	4	
			42 46	0 0	0	0	0	1	0	1	
	11/0/06		40	U	U	0	0	1	0	1	
	11/8/96	Bull trout									
		Duii (rout	45	0	^	^	0	4	0		
			45 61	0	0	0	0	1	0	1	
	11/22/96		υı	U	0	0	0	1	0	1	
		Bull trout									
		DUII (rout	32	0	0	0	0	4	^	4	
			35	0	0		0	1	0 0	1	
			35 37			0		1		1	
				0	0	0	0	1	0	1	
			39	0	0	0	0	2	0	2	
			40	0	0	0	0	2	0	2	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caugh Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			42	0	0	0	0	3	0	3	
			45	0	0	0	o	1	0	1	
			46	0	0	Ö	Ö	1	0	1	
			48	Ö	Ö	Ö	Ö	1	0	1	
			56	Ö	0	Ö	Ö	1	Ö	1	
			57	Ō	Ö	Ö	Ö	1	Ö	1	
			64	0	Ö	Ö	Ö	1	Ö	1	
		Hatchery		_	·	·	·	•	Ū	•	
			29	0	0	0	0	1	0	1	100.79
			31	0	0	0	0	1	0	1	101.03
			34	0	0	0	0	1	0	1	89.85
			37	0	0	0	0	1	0	1	
	11/24/	96									
		Bull trout									
			32	0	0	0	0	1	0	1	
			38	0	0	0	0	2	0	2	
			42	0	0	0	0	3	0	3	
			44	0	0	0	0	2	0	2	
			53	0	0	0	0	1	0	1	
			60	0	0	0	0	1	0	1	
		Hatchery r									
			32	0	0	0	0	2	0	2	
			35	0	0	0	0	1	0	1	
	11/27/9	96									
		Bull trout	25	^	•	^	^	2	•	•	
			35 37	0	0	0	0	2	0	2	
			37 39	0	0	0	0	1	0	1	
			39 41	0 0	0	0	0	1	0	1	
					0	0	0	1	0	1	
			42 45	0	0	0	0	1	0	1	
			45 48	0	0	0	0	1	0	1	
	11/30/9	ne .	40	0	0	0	0	1	0	1	
	11/30/8	Bull trout									
		Dun trout	32	0	0	0	0	1	0	1	
			33	0	0	0	0	1	0	i	
			36	Ŏ	Ö	Ö	Ö	3	0	3	
			37	Ŏ	Ö	Ö	Ö	1	0	1	
			40	Ö	Ö	Ö	Ö	1	0	1	
			41	Ö	0	0	0	2	0	2	
			45	Ö	Ö	0	Ö	1	0	1	
			46	Ö	Ö	0	Ö	1	0	1	
			48	Ö	Ö	0	ő	1	0	1	
			59	0	0	0	Ö	1	0	1	
		Hatchery ra		-	v	•	•	,	Ū	•	
			16	0	0	0	0	1	0	1	
			30	Ö	ő	Ö	ő	1	0	1	
			38	Ö	0	0	Ö	1	0	1	
	12/6/96	}		•	•	J	J	•	v	•	
	, 5, 50	Bull trout									
			33	0	0	0	0	1	0	1	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			24	^					_	_	
			34 41	0	0	0	0	1	0	1	
			43	0	0 0	0 0	0 0	1	0 0	1	
		Wild rainb		-	U	U	U	1	U	1	
		viid lallib	39	0	0	0	0	1	0	1	81.88
	12/17/	96	•	•	J	ŭ	Ū	•	J	'	01.00
		Bull trout									
			42	0 -	0	0	0	1	0	1	
			59	0	0	0	0	1	0	1	
	12/19/										
		Bull trout									
			32	0	0	0	0	1	0	1	
			33	0	0	0	0	1	0	1	
			36	0	0	0	0	1	0	1	
			38	0	0	0	0	1	0	1	
			40	0	0	0	0	1	0	1	
BLACK	CANYC 9/4/96	N RES	53	0	0	0	0	1	0	1	
	9/4/90	Black crap	nia								
		Diack Crap	ρι <del>ο</del> 4	0	3	0	0	0	0	3	
			8	Ŏ	1	Ö	Ö	0	0	1	233.46
			9	0	3	1	0	0	0	4	201.16
			10	Ö	4	4	0	0	1	9	148.95
			11	Ō	5	0	Ö	0	1	6	117.03
			12	Ö	1	Ö	Ö	0	0	1	161.14
			16	0	1	Ö	Ö	Ö	0	1	71.41
			17	0	1	Ō	Ö	Ö	Ö	1	129.24
			18	0	3	1	Ō	ō	Ö	4	105.26
			20	0	0	0	Ō	ō	1	1	115.15
			21	0	0	1	0	0	0	1	104.74
			28	0	0	1	0	0	0	1	113.48
		Bluegill									
			3	0	1	0	0	0	0	1	
			5	0	1	0	0	0	0	1	
			13	0	1	0	0	0	0	1	46.26
		Bridgelip su		_		_					
			3	0	1	0	0	0	0	1	
			5	0	4	0	0	0	0	4	
			6	0	2	0	0	0	0	2	
			7	0	3	0	0	0	0	3	
			8	0	1	0	0	0	0	1	
			9	0	2	0	0	0	0	2	
			10 11	0	4	0	0	0	0	4	
			12	0	10	0	0	0	0	10	
			13	0 0	6 3	0 0	0 0	0	0	6	
			15	0	3 1	0	0	0 0	0	3	
			27	0	1	1	0	0	0 0	1	
		Brown bullh		U	'	'	U	U	U	2	
		DIOTHII DUMII	12	0	0	1	0	0	0	1	
				J	v	,	•	J	U	,	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			13	0	0	1	0	0	0	1	
			15	0	0	2	0	0	0	2	
			16	0	0	3	0	0	0	3	
			17	0	1	7	0	0	0	8	
			18	0	0	6	0	0	0	6	
			19	0	0	13	0	0	0	13	
			20	0	0	9	0	0	0	9	
			21	0	0	10	0	0	0	10	
			22	0	1	12	0	0	0	13	
			23	0	0	1	0	0	0	1	
			23 24	0	1	2	0	0	0	3	
			2 <del>4</del> 25			2					
			25 26	0 0	0 0	2	0 0	0 0	0 0	2 2	
			26 27	0	2	1	0	0	0		
			28	0	0	1	0	0	0	3 1	
			28 29	0	0	4	0	0	0	4	
			31	0	0	1	0	0	0	1	
			33	0	0	1	0	0	0	1	
		Chiselmou		U	U	'	U	U	U	,	
		Chisemiou	5	0	1	0	0	0	0	1	
			7	Ö	1	Ö	Ö	Ö	Ö	1	
			12	Ō	1	Ö	Ö	Ō	Ö	1	
			19	0	Ö	5	Ö	Ö	Ö	5	
			20	Ö	Ö	4	Ö	Ö	Ö	4	
			21	Ö	Ö	3	Ö	0	Ö	3	
			22	Ö	Ö	5	Ö	Ö	Ö	5	
			23	Ö	1	3	Ö	0	Ö	4	
			24	Ö	0	1	Ö	0	0	1	
			25	Ö	Ö	1	Ö	0	Ö	1	
			26	Ö	0	1	Ö	Ö	Ō	1	
			29	Ö	Ö	1	Ö	Ō	Ō	1	
		Common o		•	•	-	•	-	_	•	
			8	0	1	0	0	0	0	1	
			9	0	1	0	0	0	0	1	
			10	0	1	0	0	0	0	1	
			18	0	1	0	0	0	0	1	
			20	0	1	0	0	0	0	1	
			29	0	1	0	0	0	0	1	
			31	0	0	1	0	0	0	1	
			33	0	0	1	0	0	0	1	
			40	0	1	0	0	0	0	1	
			42	0	0	1	0	0	0	1	
			44	Ō	Ö	4	Ō	0	0	4	
			45	Ö	Ö	1	Ō	Ö	Ö	1	
			46	Ö	Ö	4	Ö	Ō	Ō	4	
			48	Ö	Ö	1	Ō	Ō	0	1	
			52	Ō	Ö	1	Ö	0	Ö	1	
			54	0	Ö	1	Ö	Ö	0	1	
			56	Ö	Ö	1	Ö	Ö	Ö	1	
				-		•	-	-	•	•	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caughi Hourly	Gill Nets	Number Caught in Trap Nets	Total Caught	Relativ Weigh
				_			,				
		11-4-6	59	0	0	1	0	0	0	1	
		Hatchery i	rainbow 16	0	1	0	0	^	^	4	co co
		Largemou		U		U	U	0	0	1	69.62
		Largomou	4	0	1	0	0	0	0	1	
			5	0	2	Ō	Ö	Ö	Ŏ	2	522.98
			6	0	4	Ō	0	Ō	Ö	4	440.25
			7	0	7	0	Ó	0	Ö	7	129.63
			8	0	13	0	0	Ō	0	13	207.57
			9	0	20	0	0	0	0	20	152.06
			10	0	12	0	0	0	Ō	12	163.01
			11	0	6	0	0	0	Ō	6	178.16
			14	0	1	0	0	0	Ö	1	108.15
			15	0	1	1	0	0	0	2	130.21
			24	0	0	1	0	0	0	1	121.58
			27	0	1	0	0	0	0	1	123.43
			28	0	1	0	0	0	0	1	116.38
		Largescale	sucker								
			7	0	1	0	0	0	0	1	
			10	0	1	0	0	0	0	1	
			12	0	2	0	0	0	0	2	
			15	0	1	0	0	0	0	1	
			16	0	1	1	0	0	0	2	
			17	0	3	3	0	0	0	6	
			18	0	6	0	0	0	0	6	
			19	0	4	0	0	0	0	4	
			20	0	3	0	0	0	0	3	
			21	0	8	0	0	0	0	8	
			22	0	4	0	0	0	0	4	
			23	0	1	0	0	0	0	1	
			24	0	1	0	0	0	0	1	
			27	0	1	0	0	0	0	1	
			28 29	0	0	2	0	0	0	2	
			32	0 0	1 1	1 1	0	0	0	2	
			32 33				0	0	0	2	
			33 34	0 0	0	1 1	0	0	0	1	
			3 <del>4</del> 35	0	0 0		0	0	0	1	
			35 37	0	2	<b>4</b> 5	0	0	0	4	
			38	0	0	5	0 0	0 0	0	7	
			39	0	1	10	0	0	0	5 11	
			40	0	0	6	0	0	0	11	
			41	0	1	7	0	0	1	7 8	
			42	0	Ó	3	0	0	0	8	
			42	0	0	3 4			0	3	
			43	0	0		0	0 0	0	4	
			45	0		5 2	0		0	5	
			45 46	0	0 0	3	0	0	0	2	
						Ş	0	0	0	3	
			47	0	0	1	0	0	0	1	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relativ Weigh
		Northern p	nikeminno	141							
		Northern	7	0	1	0	0	0	0	1	
			8	0	2	Ō	Ō	Ō	Ō	2	
			9	0	2	Ö	Ō	0	0	2	
			10	0	4	1	0	0	0	5	
			11	0	2	0	0	0	0	2	
			12	0	2	1	0	0	0	3	
			14	0	2	0	0	0	0	2	
			16	0	0	5	0	0	0	5	
			17	0	0	6	0	0	0	6	
			18	0	0	8	0	0	0	8	
			19	0	0	3	0	0	0	3	
			20	0	0	3	0	0	0	3	
			21	0	0	3	0	0	0	3	
			22	0	0	4	0	0	0	4	
			23	0	0	4	0	0	0	4	
			24	0	0	2	0	0	0	2	
			25	0	0	6	0	0	0	6	
			26	0	0	11	0	0	0	11	
			27	0	0	15	0	0	0	15	
			28	0	0	8	0	0	0	8	
			29	0	0	7	0	0	0	7	
			30	0	1	3	0	0	0	4	
			31	0	1	5	0	0	0	6	
			32	0	1	3	0	0	0	4	
			33	0	1	0	0	0	0	1	
			34	0	1	2	0	0	0	3	
			35	0	1	1	0	0	0	2	
			45	0	0	2	0	0	0	2	
			46	0	0	1	0	0	0	1	
			51	0	0	1	0	0	0	1	
		Dummkinn	54	0	0	2	0	0	0	2	
		Pumpkinse	ea 2	0	1	0	0	0	0	1	
			4	0	3	0	0	0	0	3	
			5	0	9	0	0	0	0	9	
			6	0	16	0	0	0	0	16	
			7	0	15	0	0	0	0	15	
			8	0	6	2	0	0	2	10	
			9	0	3	0	0	0	0	3	
			10	Ö	1	Ö	Ö	Ö	0	1	
			11	0	1	Ö	o	0	0	1	
			12	0	Ö	1	0	0	0	1	
			13	Ö	1	Ó	Ö	0	0	1	
			14	Ō	Ö	0	Ö	0	1	1	
		Smallmout		-	Ū	-	J	·	•	•	
			5	0	1	0	0	0	0	1	
			9	0	1	Ö	Ö	Ō	Ō	1	
			10	0	2	Ō	Ö	Ö	0	2	70.74
			11	0	4	Ö	Ō	0	Ö	4	131.10

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caugh Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			12	0	5	0	0	0	0	5	126.16
			13	Ō	3	0	Ö	Ö	Ö	3	107.16
			14	0	6	0	0	0	0	6	106.82
			15	0	2	0	0	0	0	2	54.07
			16	0	1	0	0	0	0	1	88.91
			17	0	4	0	0	0	0	4	75.72
			18	0	1	0	0	0	0	1	49.57
			19	0	1	0	0	0	0	1	38.82
			20	0	2	0	0	0	0	2	108.35
			22	0	2	0	0	0	0	2	81.48
			23	0	1	0	0	0	0	1	93.77
			24	0	1	0	0	0	0	1	82.33
			25	0	1	0	0	0	0	1	99.93
			26	0	4	0	0	0	0	4	106.50
			27	0	1	1	0	0	0	2	102.34
			28	0	1	0	0	0	0	1	94.36
			29	0	0	2	0	0	0	2	104.11
			30	0	1	2	0	0	0	3	105.40
			32	0	1	2	0	0	0	3	111.83
			33	0	1	1	0	0	0	2	106.98
			37	0	1	0	0	0	0	1	104.22
			40	0	1	0	0	0	0	1	97.26
		Valley	45	0	1	0	0	0	0	1	94.26
		Yellow per	сп 2	0	1	0	•	^	•	4	
			5	0	1	0 0	0 0	0	0	1	
			6	0	5	0	0	0 0	0 0	1	
			7	0	2	0	0	0	0	5 2	240.20
			11	0	1	0	0	0	0	1	240.20
			13	Ö	Ö	1	0	0	0	1	90.34
			14	0	1	o O	Ö	0	0	1.	101.59
			16	0	0	2	Ö	Ö	0	2	120.12
			17	0	1	4	Ö	Ö	Ö	5	110.15
			18	0	1	5	Ö	Ō	0	6	104.66
			19	0	3	4	0	0	Ö	7	100.63
			20	0 -	1	1	0	0	0	2	105.61
BROWN			22	0	0	1	0	0	0	1	95.80
	5/28/96	Black crapp	nie								
		Diack clapt	7	0	1	0	0	0	0	1	194.51
			8	0	1	0	0	0	0	1	194.51 250.22
			10	0	3	Ö	0	0	0	3	156.62
			11	Ö	1	Ö	Ö	0	0	1	236.74
			12	Ö	2	0	Ö	0	0	2	172.89
			13	0	2	0	0	0	0	2	147.48
			14	0	3	0	Ö	0	0	3	153.96
			15	Ō	9	0	Ö	0	0	9	158.61
			16	Ō	12	Ö	Ö	0	0	12	152.53
			17	Ō	8	Ō	ō	0	Ö	8	147.46
					-		-	_	-	-	

Appendix B. (continued)

18	Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
19				18	0	12	0	n	0	0	12	130 22
Bluegill   Bluegill												
Bluegill  6												
6 0 1 0 0 0 0 0 1 396.67 7 0 4 0 0 0 0 0 0 4 162.64 8 0 5 0 0 0 0 0 0 5 171.83 9 0 6 0 0 0 0 0 0 5 171.83 10 0 15 0 0 0 0 0 5 171.83 11 0 333 0 0 0 0 0 0 33 154.19 12 0 66 0 0 0 0 0 0 6 157.73 13 0 49 0 0 0 0 0 0 49 154.23 14 0 26 0 0 0 0 0 0 26 152.08 15 0 16 0 0 0 0 0 0 26 152.08 16 0 5 0 0 0 0 0 0 6 152.79 17 0 6 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 0 2 141.51 19 0 2 0 0 0 0 0 0 2 141.51 19 0 2 0 0 0 0 0 0 1 1224.17 21 0 1 0 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 0 1 18 0 0 0 0 0 0 0 0 1 18 0 0 0 0 0 0 0 0 0 0 0 0 1 131.09  Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 0 1 2 Channel catfish 50 0 1 0 0 0 0 0 0 1 2 Common cap			Bluegill		J	•	Ū	·	Ū	Ū	•	123.01
7 0 4 0 0 0 0 0 0 4 162.64 8 0 5 0 0 0 0 0 0 5 171.83 9 0 6 0 0 0 0 0 0 5 171.83 10 0 15 0 0 0 0 0 0 15 173.81 11 0 33 0 0 0 0 0 0 33 154.19 12 0 66 0 0 0 0 0 0 66 157.73 13 0 49 0 0 0 0 0 0 49 154.23 14 0 26 0 0 0 0 0 0 26 152.08 15 0 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 16 142.88 16 0 0 5 0 0 0 0 0 0 16 142.88 17 0 6 0 0 0 0 0 0 16 142.88 18 0 2 0 0 0 0 0 0 2 141.51 19 0 2 0 0 0 0 0 0 2 141.51 20 0 1 0 0 0 0 0 0 1 1224.17 21 0 1 0 0 0 0 0 0 1 1331.09  Bridgelip sucker  Bridgelip sucker  Bridgelip 3 3 0 1 0 0 0 0 0 1 1 17 0 1 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 0 1 18 0 0 0 0 0 0 0 1 18 0 0 0 0 0 0 0 0 1 18 0 0 0 0 0 0 0 0 0 0 1 124.17 21 0 0 1 0 0 0 0 0 0 0 1 22 22 0 0 0 0 0 0 0 0 0 0 1 24 15.11 25 0 1 0 0 0 0 0 0 0 0 1 26 152.08 26 0 1 0 0 0 0 0 0 0 0 1 27 0 0 2 0 0 0 0 0 0 0 0 0 1 28 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				6	0	1	0	0	0	0	1	396.67
8 0 5 0 0 0 0 0 0 5 171,83 9 0 6 0 0 0 0 0 0 5 171,83 10 0 15 0 0 0 0 0 0 33 154,19 11 0 33 0 0 0 0 0 0 33 154,19 12 0 66 0 0 0 0 0 0 33 154,19 12 0 66 0 0 0 0 0 0 49 154,23 13 0 49 0 0 0 0 0 0 49 154,23 14 0 26 0 0 0 0 0 0 16 142,88 16 0 5 0 0 0 0 0 0 16 142,88 16 0 5 0 0 0 0 0 0 5 129,79 17 0 6 0 0 0 0 0 0 5 129,79 18 0 2 0 0 0 0 0 0 2 141,51 19 0 2 0 0 0 0 0 0 0 1 124,17 21 0 1 0 0 0 0 0 0 1 124,17 21 0 1 0 0 0 0 0 0 1 124,17 21 0 1 0 0 0 0 0 0 1 124,17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 0 2 2 21 10 2 0 0 0 0 0 0 0 1 22 2 0 0 0 0 0 0 0 1 23 2 0 0 0 0 0 0 0 0 1 24 2 0 0 0 0 0 0 0 1 25 2 0 0 0 0 0 0 0 0 0 0 0 1 26 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
9 0 6 6 0 0 0 0 0 15 173.81 10 0 15 0 0 0 0 0 0 15 173.81 11 0 33 0 0 0 0 0 0 33 154.19 12 0 66 0 0 0 0 0 0 49 154.23 13 0 49 0 0 0 0 0 0 49 154.23 14 0 26 0 0 0 0 0 0 26 152.08 15 0 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 5 122.79 17 0 6 0 0 0 0 0 0 5 122.79 17 0 6 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 0 2 141.51 19 0 2 0 0 0 0 0 0 1 124.17 20 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 1 17 0 1 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 19 0 2 0 0 0 0 0 0 1 10 0 0 0 0 1 11 0 0 0 0 0												
10 0 15 0 0 0 0 0 0 15 173.81 173.81 111 0 0 33 0 0 0 0 0 0 33 154.19 112 0 0 66 0 0 0 0 0 0 0 66 157.73 13 0 49 0 0 0 0 0 0 49 154.23 144 0 26 0 0 0 0 0 0 0 26 152.08 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 0 5 129.79 17 0 6 6 0 0 0 0 0 0 5 129.79 18 18 0 2 0 0 0 0 0 0 0 2 141.51 19 0 0 2 0 0 0 0 0 0 1 124.17 19 0 0 1 0 0 0 0 0 0 1 124.17 19 0 1 0 0 0 0 0 0 1 124.17 1131.09 18 18 0 1 0 0 0 0 0 0 0 1 124.17 1131.09 18 18 0 0 2 0 0 0 0 0 0 1 124.17 1131.09 18 18 0 0 2 0 0 0 0 0 0 0 1 124.17 1131.09 18 18 0 0 2 0 0 0 0 0 0 0 1 124.17 1131.09 18 18 0 0 2 0 0 0 0 0 0 0 1 124.17 1131.09 19 0 0 0 0 0 0 0 0 0 1 124.17 1131.09 19 0 0 0 0 0 0 0 0 0 0 0 1 124.17 1131.09 19 0 0 0 0 0 0 0 0 0 0 0 0 0 1 124.17 1131.09 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
11 0 33 0 0 0 0 0 33 154.19 12 0 66 0 0 0 0 0 0 66 157.73 13 0 49 0 0 0 0 0 0 49 154.23 14 0 26 0 0 0 0 0 0 26 152.08 15 0 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 5 129.79 17 0 6 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 0 2 141.51 19 0 2 0 0 1 0 0 0 0 1 124.17 20 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 15 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 16 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 22 0 0 0 0 0 0 0 0 1 131.09  Bridgelip sucker 23 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 24 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 25 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 13 0 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 26 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 13 0 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 14 0 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 15 0 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 16 0 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 17 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 18 0 2 0 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 18 0 2 0 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 18 0 0 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				10								
12 0 66 0 0 0 0 0 66 157.73 13 0 49 0 0 0 0 0 0 49 154.23 14 0 26 0 0 0 0 0 0 26 152.08 15 0 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 5 129.79 17 0 6 0 0 0 0 0 0 5 129.79 18 0 2 0 0 0 0 0 0 2 141.51 20 0 1 0 0 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 1 16 0 0 0 0 0 1 1 17 0 1 0 0 0 0 0 1 18 0 2 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 21 0 0 0 0 0 0 1 22 1 0 0 0 0 0 0 0 1 24 0 0 0 0 0 0 0 1 25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
13 0 49 0 0 0 0 0 49 154.23 144 0 26 0 0 0 0 0 0 26 152.08 15 0 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 5 129.79 17 0 6 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 0 2 141.51 19 0 2 0 0 1 0 0 0 0 0 1 124.17 20 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 1 1 131.09  15 0 1 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 1 131.09  Bridgelip sucker  14 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
14 0 26 0 0 0 0 0 26 152.08 155 0 16 0 0 0 0 0 0 16 142.88 16 0 5 0 0 0 0 0 0 5 129.79 17 0 6 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 0 2 141.51 20 0 1 0 0 0 0 0 0 0 1 124.17 20 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 1 1 16 0 0 0 0 0 1 1 17 0 1 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 2 126.17 2 0 1 0 0 0 0 0 0 0 1 2 126.17 2 0 1 0 0 0 0 0 0 1 2 126.17 2 0 1 0 0 0 0 0 0 1 2 126.17 2 0 0 1 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 0 1 2 126.17 2 0 0 0 0 0 0 0 0 0 0 0 2 126.17 2 0 0 0 0 0 0 0 0 0 0 0 0 3 126.17 3 0 0 1 0 0 0 0 0 0 0 1 3 0 0 0 0 0 0 0 1 3 0 0 0 0 0 0 0 0 1 3 0 0 0 0 0 0 0 0 1 3 0 0 0 0 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0												
15												
166 0 5 0 0 0 0 0 5 129.79 177 0 6 0 0 0 0 0 6 139.56 188 0 2 0 0 0 0 0 0 2 141.51 199 0 2 0 0 0 0 0 0 0 2 126.17 20 0 1 0 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 15 0 0 1 1 0 0 0 0 0 1 177 0 1 0 0 0 0 0 0 1 188 0 2 0 0 0 0 0 1 188 0 2 0 0 0 0 0 1 188 0 2 0 0 0 0 0 1 188 0 2 0 0 0 0 0 1 188 0 2 0 0 0 0 0 2 199 0 3 0 0 0 0 0 2 21 0 0 0 0 0 0 0 2 21 0 0 0 0 0 0 0 0 1 22 0 0 0 0 0 0 0 0 1 24 0 0 0 0 0 0 0 0 0 2 22 0 0 0 0 0 0 0 0				15								
17 0 6 6 0 0 0 0 0 0 6 139.56 18 0 2 0 0 0 0 0 2 141.51 19 0 2 0 0 0 0 0 0 2 142.17 20 0 1 0 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 15 0 1 0 0 0 0 0 1 17 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 1 18 0 0 2 0 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 0 2 22 1 0 2 0 0 0 0 0 0 2 23 0 0 0 0 0 0 0 0 2 24 0 0 0 0 0 0 0 0 0 0 0 25 0 0 0 0 0 0 0 0 0 0 0 0 0 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						5						
18 0 2 0 0 0 0 0 2 141.51 19 0 2 0 0 0 0 0 0 2 126.17 20 0 1 0 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker 13 0 1 0 0 0 0 0 0 1 1 15 0 1 0 0 0 0 0 1 1 17 0 1 0 0 0 0 0 1 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 19 0 3 0 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 0 2 21 0 0 2 0 0 0 0 0 0 1 22 2 0 0 0 0 0 0 0 2 23 0 0 0 0 0 0 0 0 1 24 0 3 0 0 0 0 0 0 1 25 0 0 1 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 0 0 1 28 0 0 1 0 0 0 0 0 1 29 0 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 0 1 Chiselmouth 18 0 1 0 0 0 0 0 0 1 20 0 0 1 20 0 0 1 1 20 0 0 0 0 1 20 0 0 1 20 0 0 1 20 0 0 0 0 1 20 0 0 1 20 0 0 0 0 1 20 0 0 1 20 0 0 1 20 0 0 0 0 1 20 0 0 1 20 0 0 0 0 1 20 0 0 0 1 20 0 0 0 0 1 20 0 0 0 0 1 20 0 0 0 0 1 20 0 0 0 0 0 1 20 0 0 0 0 0 0 0 1 20 0 0 0 0 0 0 0 1 20 0 0 0 0 0 0 0 0 0 0 20 0 0 0 0 0 0 0												
19 0 2 0 0 1 0 0 0 0 1 124.17 20 0 1 0 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 0 1 15 0 1 0 0 0 0 0 1 17 0 0 1 0 0 0 0 0 1 18 0 2 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 1 18 0 2 0 0 0 0 0 0 2 19 0 3 0 0 0 0 0 2 21 0 2 0 0 0 0 0 2 21 0 2 0 0 0 0 0 2 21 0 2 0 0 0 0 0 2 21 0 2 0 0 0 0 0 2 22 0 0 0 0 0 0 1 22 2 0 0 0 0 0 0 1 24 0 0 0 0 0 1 25 0 0 1 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 0 0 1 28 0 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 34 0 0 0 0 0 0 1 35 0 0 1 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 37 0 0 0 0 0 0 1 38 0 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 37 0 0 0 0 0 1 38 0 0 1 0 0 0 0 0 0 1 39 0 2 0 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 31 0 0 0 0 0 0 1 32 0 0 0 0 0 0 1 34 0 1 0 0 0 0 0 0 1 35 3 0 1 0 0 0 0 0 0 1 36 0 1 0 0 0 0 0 0 1 37 0 0 1 0 0 0 0 0 1 38 0 0 1 0 0 0 0 0 0 1 39 0 2 0 0 0 0 0 0 1 30 0 1 0 0 0 0 0 0 1 31 105.22  Channel catfish 50 0 1 0 0 0 0 0 0 1 50 0 0 1 1 50 0 0 0 0 0 1 50 0 0 1 1 0 0 0 0 0 0 1 50 0 0 1 1 50 0 0 0 0 0 1 50 0 0 1 1 0 0 0 0 0 0 1 50 0 0 1 1 50 0 0 0 0 0 1 50 0 0 1 1 0 0 0 0 0 0 1 50 0 0 1 1 50 0 0 0 0 0 1 50 0 0 1 1 50 0 0 0 0 0 1				18								
20 0 1 0 0 0 0 0 1 124.17 21 0 1 0 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 1 131.09  15 0 1 0 0 0 0 0 1 1 131.09  18 0 1 0 0 0 0 0 0 1 1 131.09  18 0 2 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1												
Bridgelip sucker  13 0 1 0 0 0 0 0 1 131.09  Bridgelip sucker  13 0 1 0 0 0 0 0 1 1 131.09  15 0 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1				20	0							
Bridgelip sucker  13					0	1						
13 0 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1			Bridgelip s	sucker								
15 0 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1			٠.		0	1	0	0	0	0	1	
17 0 1 0 0 0 0 0 1 18 0 2 0 0 0 0 2 19 0 3 0 0 0 0 0 2 21 0 0 0 0 0 0 2 21 0 0 0 0 0 0 2 21 0 0 0 0 0 0 0 2 21 0 0 0 0 0 0 0 2 21 0 0 0 0 0 0 0 2 22 0 0 0 0 0 0 0 2 22 0 0 0 0				15		1						
18				17	0	1						
19 0 3 0 0 0 0 0 0 3 20 0 2 0 0 0 0 0 2 21 0 2 0 0 0 0 0 2 22 0 0 0 0 0 0 2 222 0 4 0 0 0 0 0 4 23 0 1 0 0 0 0 0 0 1 24 0 3 0 0 0 0 0 0 1 25 0 1 0 0 0 0 0 0 1 26 0 1 0 0 0 0 0 0 1 27 0 2 0 0 0 0 0 1 27 0 2 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 34 0 1 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 37 0 2 0 0 0 0 0 1 38 0 2 0 0 0 0 0 1 Channel catfish 50 0 1 0 0 0 0 0 0 1 Chiselmouth 12 0 1 0 0 0 0 0 1 Common carp 18 0 1 0 0 0 0 0 0 1 20 0 0 1 0 0 0 1 20 0 0 1 0 0 0 0 1 20 0 0 1 0 0 0 0 1 20 0 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 0 1				18	0	2	0	0		0		
20 0 2 0 0 0 0 0 0 0 2 21 0 2 0 0 0 0 0 2 22 0 0 4 0 0 0 0 0 2 22 0 0 4 0 0 0 0 0 4 23 0 1 0 0 0 0 0 0 1 24 0 3 0 0 0 0 0 0 3 25 0 1 0 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 0 1 27 0 2 0 0 0 0 0 1 30 0 1 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 33 0 2 0 0 0 0 0 1 33 0 2 0 0 0 0 0 0 1 34 0 1 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 37 0 2 0 0 0 0 0 1 38 0 2 0 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 0 1  Channel catfish 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 0 1 20 0 0 1 30 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1				19	0		0			0		
21 0 2 0 0 0 0 0 2 22 0 4 0 0 0 0 0 4 23 0 1 0 0 0 0 0 0 1 24 0 3 0 0 0 0 0 0 3 25 0 1 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 0 1 29 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 33 0 0 2 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 0 1 39 0 2 0 0 0 0 0 0 1 Channel catfish 50 0 1 0 0 0 0 0 0 1  Channel catfish 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 20 0 1 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				20	0	2	o ·	0	0	0		
22 0 4 0 0 0 0 0 4 23 0 1 0 0 0 0 1 24 0 0 0 0 0 0 1 24 0 0 3 0 0 0 0 0 0 3 3 25 0 1 0 0 0 0 0 0 1 26 0 0 1 0 0 0 0 0 1 27 0 0 2 0 0 0 0 0 0 1 33 0 0 0 0 0 0 0 1 33 0 0 0 1 0 0 0 0				21	0	2	0	0	0	0		
24 0 3 0 0 0 0 0 3 25 0 1 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 0 2 29 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 0 1 0 0 0 0 0 1 33 0 2 0 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 2 53 0 1 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 0 1  Channel catfish 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				22	0	4	0	0		0		
24 0 3 0 0 0 0 0 3 25 0 1 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 0 2 29 0 1 0 0 0 0 1 30 0 1 0 0 0 0 1 33 0 0 1 0 0 0 0 1 33 0 2 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 Channel catfish 50 0 1 0 0 0 0 0 1 Chiselmouth 12 0 1 0 0 0 0 0 1 Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 20 0 1 0 0 0 0 1 20 0 1 0 0 0 0 1 20 0 1 0 0 0 0 1 20 0 1 0 0 0 0 1				23	0	1	0	0	0			
25 0 1 0 0 0 0 0 1 26 0 1 0 0 0 0 0 1 27 0 2 0 0 0 0 2 29 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 2 0 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 2 53 0 1 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 0 1  Channel catfish 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				24	0	3	0	0	0	0	3	
27 0 2 0 0 0 0 0 2 29 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 2 0 0 0 0 0 0 2 34 0 1 0 0 0 0 0 0 2 34 0 1 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 2 53 0 1 0 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 0 1  Chiselmouth 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				25	0	1	0		0			
27 0 2 0 0 0 0 0 2 29 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 2 0 0 0 0 0 0 1 33 0 2 0 0 0 0 0 0 2 34 0 1 0 0 0 0 0 0 1 36 0 1 0 0 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 2 53 0 1 0 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 0 1  Chiselmouth 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				26	0	1		0	0	0	1	
29 0 1 0 0 0 0 0 1 30 0 1 0 0 0 0 0 1 33 0 2 0 0 0 0 0 2 34 0 1 0 0 0 0 0 0 36 0 1 0 0 0 0 1 39 0 2 0 0 0 0 0 1 39 0 2 0 0 0 0 0 53 0 1 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 1  Chiselmouth 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				27	0	2			0			
33 0 2 0 0 0 0 0 2 34 0 1 0 0 0 0 0 1 36 0 1 0 0 0 0 0 1 39 0 2 0 0 0 0 0 2 53 0 1 0 0 0 0 0 1  Channel catfish 50 0 1 0 0 0 0 0 1  Chiselmouth 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				29	0	1	0	0				
34 0 1 0 0 0 0 1 36 0 1 36 0 1 0 0 0 0 0 1 37 39 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				30	0	1	0	0	0	0	1	
34 0 1 0 0 0 0 1 36 0 1 36 0 1 0 0 0 0 0 1 37 38 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				33	0	2	0	0	0	0	2	
36 0 1 0 0 0 0 1 39 0 2 0 0 0 0 2 53 0 1 0 0 0 0 0  Channel catfish 50 0 1 0 0 0 0 0 1  Chiselmouth 12 0 1 0 0 0 0 0 1  Common carp 18 0 1 0 0 0 0 0 1 20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 0 1				34	0	1	0	0	0	0		
53 0 1 0 0 0 0 1  Channel catfish  50 0 1 0 0 0 0 0 1 105.22  Chiselmouth  12 0 1 0 0 0 0 1  Common carp  18 0 1 0 0 0 0 0 1  20 0 1 0 0 0 0 1  33 0 1 0 0 0 0 0 1				36	0	1	0	0	0	0	1	
53 0 1 0 0 0 0 1  Channel catfish  50 0 1 0 0 0 0 0 1 105.22  Chiselmouth  12 0 1 0 0 0 0 0 1  Common carp  18 0 1 0 0 0 0 0 1  20 0 1 0 0 0 0 1  33 0 1 0 0 0 0 0 1				39	0	2	0	0	0	0	2	
50 0 1 0 0 0 0 1 105.22  Chiselmouth  12 0 1 0 0 0 0 1  Common carp  18 0 1 0 0 0 0 1  20 0 1 0 0 0 1  33 0 1 0 0 0 0 1				53	0	1	0	0	0	0		
Chiselmouth  12 0 1 0 0 0 0 1  Common carp  18 0 1 0 0 0 0 1  20 0 1 0 0 0 1  33 0 1 0 0 0 0 1			Channel ca	atfish								
Chiselmouth  12 0 1 0 0 0 0 1  Common carp  18 0 1 0 0 0 0 1  20 0 1 0 0 0 1  33 0 1 0 0 0 0 1				50	0	1	0	0	0	0	1	105.22
Common carp  18			Chiselmout									
18     0     1     0     0     0     0     1       20     0     1     0     0     0     0     1       33     0     1     0     0     0     0     1					0	1	0	0	0	0	1	
20 0 1 0 0 0 0 1 33 0 1 0 0 0 0 1			Common c									
33 0 1 0 0 0 1					0	1	0	0	0	0	1	
					0	1	0	0	0	0	1	
34 0 1 0 0 0 0 1						1	0	0	0	0	1	
				34	0	1	0	0	0	0	1	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			36	0	4	0	^	•	^		
			37	0	1 1	0 0	0 0	0	0 0	1	
			41	0	1	0	0	0 0	0	1	
			80	Ö	1	0	0	0	0	1 1	
		Largemou		v	•	U	U	U	U	'	
		Laigoinea	28	0	1	0	0	0	0	1	115.86
			29	0	1	Ö	Ö	Ö	ő	1	112.92
		Largescale					•	•	ŭ	•	112.02
		-	9	0	1	0	0	0	0	1	
			10	0	1	0	0	0	0	1	
			13	0	1	0	0	0	0	1	
			19	0	1	0	0	0	0	1	
			20	0	1	0	0	0	0	1	
			23	0	1	0	0	0	0	1	
			27	0	1	0	0	0	0	1	
			28	0	1	0	0	0	0	1	
			32	0	1	0	0	0	0	1	
			36	0	2	0	0	0	0	2	
			51	0	2	0	0	0	0	2	
			53	0	1	0	0	0	0	1	
		Northern p				_	_				
		B 1.7	15	0	1	0	0	0	0	1	
		Pumpkinse	eed 10	^		•	•	•	_		
			12	0 0	1	0	0	0	0	1	
		Smallmout		U	1	0	0	0	0	1	
		Smannout	7	0	1	0	0	0	0	4	221.93
			9	0	2	0	0	0	0 0	1 2	100.53
			10	Ö	1	0	Ö	0	0	1	100.55
			12	Ö	8	Ö	Ö	0	0	8	105.73
			13	Ō	13	Ö	Ö	Ö	Ö	13	110.29
			14	Ō	21	Ö	Ö	Ö	Ö	21	104.06
			15	0	41	Ö	Ö	Ö	Ŏ	41	104.26
			16	0	54	Ö	Ö	Ö	Ö	54	101.47
			17	0	39	Ö	Ö	Ö	Ö	39	99.72
			18	0	37	0	Ō	Ö	Ō	37	95.62
			19	0	28	0	Ö	Ō	Ö	28	94.25
			20	0	16	0	0	0	0	16	92.43
			21	0	13	0	0	0	0	13	92.66
			22	0	12	0	0	0	0	12	85.66
			23	0	4	0	0	0	0	4	98.59
			24	0	3	0	0	0	0	3	94.36
			25	0	5	0	0	0	0	5	91.08
			26	0	2	0	0	0	0	2	91.47
			27	0	3	0	0	0	0	3	98.75
			28	0	1	0	0	0	0	1	90.35
			29	0	1	0	0	0	0	1	92.37
			30	0	3	0	0	0	0	3	109.67
			31	0	1	0	0	0	0	1	91.93
			32	0	1	0	0	0	0	1	96.16

33 0 1 0 0 0 0 1 99. 34 0 2 0 0 0 0 2 105 35 0 1 0 0 0 0 1 80. 38 0 1 0 0 0 0 1 107	.28 75 .44 78 .00 .50 .16 .06
34     0     2     0     0     0     0     2     105       35     0     1     0     0     0     0     1     80       38     0     1     0     0     0     0     1     107	.28 75 .44 78 .00 .50 .16 .06
35 0 1 0 0 0 0 1 80. 38 0 1 0 0 0 0 1 107	75 .44 78 .00 .50 .16 .06
38 0 1 0 0 0 1 107	.44 78 .00 .50 .16 .06
	78 .00 .50 .16 .06
White crappie	.00 .50 .16 .06
12 0 1 0 0 0 0 1 51.	.50 .16 .06 .37
15 0 1 0 0 0 0 1 106	.16 .06 .37
16 0 1 0 0 0 0 1 140	.06 .37
18 0 2 0 0 0 2 124	.06 .37
19 0 1 0 0 0 0 1 132	.37
20 0 2 0 0 0 0 2 131	
21 0 2 0 0 0 2 136	
23 0 1 0 0 0 1 119	
26 0 1 0 0 0 0 1 113	
27 0 1 0 0 0 0 1 107	
28 0 1 0 0 0 1 109	
31 0 1 0 0 0 0 1 100	
Yellow perch	
7 0 1 0 0 0 1 102	.32
12 0 1 0 0 0 0 1 90.	
13 0 1 0 0 0 0 1 72.	
14 0 1 0 0 0 0 1 99.	
15 0 1 0 0 0 0 1 84.	
17 0 1 0 0 0 0 1 110	
18 0 5 0 0 0 5 102	
19 0 4 0 0 0 0 4 106	
20 0 6 0 0 0 6 124	
21 0 4 0 0 0 0 4 108	
22 0 1 0 0 0 0 1 92.	
25 0 1 0 0 0 0 1 91.	
C J STRIKE RES	
5/14/96	
Black crappie	
15 0 2 0 0 0 0 2 107.	
16 0 1 0 0 0 3 4 124.	
17 0 8 1 0 0 2 11 135.	
18 0 7 2 0 0 2 11 126. 19 0 1 1 0 0 2 4 130.	
20 0 1 0 0 0 0 1 158.	42
Bluegill	
8 0 3 0 0 0 0 3 224.	
9 0 2 0 0 0 2 117.	
10 0 3 0 0 0 0 3 209.	
11 0 7 0 0 0 7 170.	
12 0 12 0 0 0 12 157.	
13 0 5 0 0 0 5 164.	
14 0 7 0 0 0 0 7 155.	
15 0 6 0 0 0 6 129.	
16 0 4 0 0 0 0 4 138.	
17 0 2 0 0 0 0 2 134.	32

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			18	0	3	0	0	0	0	3	146.58
			19	Ö	2	Ö	Ö	Ö	0	2	139.52
			20	0	6	0	Ö	Ö	Ö	6	119.59
			21	Ö	2	Ö	Ö	0	Ö	2	92.62
			22	Ŏ	2	Ö	0	0	0	2	136.84
		Bridgelip s		Ū	_	v	Ū	U	J	2	130.04
		Driagenp (	19	0	0	2	0	0	0	2	
			20	Ö	1	1	Ö	0	0	2	
			22	Ö	4	o O	0	0	0	4	
			23	0	2	2	Ö	0	0	4	
			24	0	4	2	Ö	0	0	6	
			25	0	3	3	0	0	0	6	
			26	0	0	6	0	0			
			20 27	0					0	6	
			28	0	1 1	1	0	0	0	2	
			29			3	0	0	0	4	
			30	0	0	5	0	0	0	5	
				0	0	1	0	0	0	1	
			31	0	0	1	0	0	0	1	
			32	0	0	1	0	0	0	1	
			33	0	0	1	0	0	0	1	
			35	0	0	1	0	0	0	1	
			36	0	0	1	0	0	0	1	
		Brown bull		•	•	4	•	•	_		
			20	0	0	1	0	0	0	1	
		05	29	0	0	1	0	0	0	1	
		Channel ca	atrisn 34	^	^	4	•		•		444 ===
				0	0	1	0	0	0	1	111.75
			47 50	0	0	3	0	0	0	3	107.13
			50	0	0	1	0	0	0	1	99.12
			52	0	0	1	0	0	0	1	121.35
			53	0	0	2	0	0	0	2	104.30
			54	0	0	1	0	0	0	1	105.53
			57	0	0	1	0	0	0	1	115.11
			59	0	0	1	0	0	0	1	112.31
			61	0	0	1	0	0	0	1	113.49
			62	0	0	1	0	0	0	1	101.21
			63	0	0	1	0	0	0	1	143.28
			65	0	0	2	0	0	0	2	102.51
			70	0	1	0	0	0	0	1	121.65
		Chiselmout		_							
			12	0	1	0	0	0	0	1	
			14	0	0	2	0	0	0	2	
			15	0	0	1	0	0	0	1	
			16	0	0	5	0	0	0	5	
			17	0	0	4	0	0	1	5	
			18	0	0	6	0	0	0	6	
			19	0	0	5	0	0	0	5	
			20	0	0	5	0	0	0	5	
			21	0	0	7	0	0	0	7	
			22	0	0	12	0	Ō	0	12	
				-	-		-	-	•	-	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			23	0	0	4	0	0	0	4	
			24	Ö	1	12	Ö	Ö	Ö	13	
			25	0	0	9	Ō	0	0	9	
			26	0	0	6	Ö	0	0	6	
			27	0	Ö	11	Ö	0	Ō	11	
			28	Ō	Ö	14	Ö	Ō	0	14	
			29	Ö	Ŏ	5	Ö	Ō	1	6	
			30	Ö	Ö	5	Ö	Ö	1	6	
			31	Ö	0	1	Ö	0	Ö	1	
			32	Ö	Ö	1	Ö	0	Ō	1	
			33	Ö	Ö	3	Ö	Ŏ	Ō	3	
			35	Ö	Ō	2	Ö	0	Ō	2	
			36	0	1	0	Ō	0	0	1	
			37	0	0	1	0	0	0	1	
		Common	carp								
			29	0	0	1	0	0	0	1	
			36	0	0	1	0	0	0	1	•
			43	0	1	0	0	0	0	1	
			50	0	0	1	0	0	0	1	
			51	0	0	1	0	0	0	1	
			57	0	0	1	0	0	0	1	
			60	0	1	1	0	0	0	2	
			61	0	0	1	0	0	0	1	
			64	0	0	2	0	0	0	2	
			65	0	0	1	0	0	0	1	
			67	0	2	0	0	0	0	2	
			68	0	1	0	0	0	0	1	
			69	0	1	0	0	0	0	1	
		Hatchery r		^		^	•	•	•		440.00
			21	0	1	0	0	0	0	1	119.93
			23	0	0	2	0	0	0	2	103.08
			24 26	0	0	1	0	0	0	1	103.05
			26 27	0 0	0 0	1 1	0 0	0	0 0	1 1	123.49
			28	0	0	3	0	0 0	0	3	105.53 115.78
			29	0	0	2	0	0	0	2	109.76
			30	0	0	7	0	0	0	7	102.51
			31	Ö	Ö	7	Ö	Ö	0	7	101.62
			32	Ö	Ö	4	Ö	0	0	4	105.30
			33	Ö	1	7	ő	Ö	0	8	102.17
			36	Ö	Ö	1	Ŏ	Ö	0	1	101.96
			37	Ö	Ö	2	0	Ö	0	2	103.01
			39	0	0	1	0	0	0	1	110.11
			40	0	0	1	0	Ö	0	1	99.83
			42	Ö	0	2	Ö	Ö	1	3	67.80
		Largemout		-	•	_	-	-	•	-	
		. 5	17	0	0	1	0	0	0	1	92.66
			19	0	1	0	0	0	0	1	121.03
			23	0	1	0	0	0	0	1	121.09
			29	0	2	0	0	0	0	2	104.55

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			32	0	2	0	0	0	0	2	115.59
			33	0	1	0	0	0	0	1	98.51
			34	0	Ö	1	Ö	0	Ö	1	114.85
			36	0	1	Ö	Ö	Ö	0	1	113.79
			39	0	2	0	0	Ö	0	2	117.04
			40	0	1	0	0	Ö	Ö	1	109.55
			42	0	1	0	0	0	0	1	128.09
			44	0	3	0	0	Ö	0	3	119.77
			50	0	1	0	0	0	0	1	107.69
			51	0	1	0	0	0	0	1	131.73
			54	0	1	0	0	0	0	1	130.50
			55	0	1	0	0	0	0	1	124.66
		Largescale		V	•	J	U	J	J	'	127.00
		Largescale	7	0	1	0	0	0	0	1	
			8	Ö	1	Ö	Ö	Ö	Ö	1	
			9	Ŏ	1	Ö	Ö	Ö	Ö	1	
			10	ő	1	Ö	Ö	Ö	Ŏ	1	
			11	ŏ	1	0	Ö	Ö	Ŏ	1	
			12	Ö	1	0	Ö	ŏ	Ö	1	
			14	ő	1	0	0	Ö	Ö	1	
			15	Ö	1	0	Ö	ő	Ö	1	
			17	Ö	1	0	Ö	ő	Ö	1	
			18	Ö	1	0	Ö	å	0	1	
			19	ő	4	0	Ö	Õ	Ö	4	
			20	ő	9	Ö	0	Ö	Ö	9	
			21	Ö	4	1	Ö	Ö	Ö	5	
			22	ő	10	2	Ö	Ö	Ö	12	
			23	Ŏ	15	2	Ö	Ŏ	Ö	17	
			24	Ŏ	19	8	0	Ö	Ö	27	
			25	Ö	8	8	Ö	ő	Ö	16	
			26	Ö	10	5	Ö	ő	Ö	15	
			27	0	3	3	Ö	ő	Ŏ	6	
			28	Ö	3	8	Ŏ	Ö	Ō	11	
			29	0	6	6	ő	Ö	0	12	
			30	Ö	5	7	Ö	Ö	Ö	12	
			31	0	6	5	0	Ö	0	11	
			32	0	7	3	0	0	0	10	
			33	Ö	8	9	Ö	Ö	Ö	17	
			34	0	3	13	0	0	0	16	
			35	0	3	11	0	0	0	14	
			36	0	0	10	Ö	0	0	10	
			37	0	0	4	0	0	0	4	
			38	0	2	2	0	0	0	4	
			40	0	2	2	0	0	0	4	
			41	0	2	1	0	0	0		
			42		1	1	0	0	0	3 2 4	
			42 43	0 0		0		0	0	1	
			43 44		4		0		0	1	
				0	0	1	0	0			
			45	0	1	2	0	0	0	3	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			46	0	1	1	0	0	0	2	
			47	0	Ó	4	0	0	0	4	
			48	Ö	ő	1	0	Ö	0	1	
			49	Ö	1	5	Ö	Ö	0	6	
			50	Ö	1	2	0	Ö	Ö	3	
			51	Ö	2	3	0	Ö	0	5	
			52	Ö	2	2	Ö	Ö	0	4	
			53	0	1	5	0	Ö	0	6	
			54	0	Ö	1	0	Ö	0	1	
			55	0	1	2	0	Ö	0	3	
			56	0	Ó	2	0	0	0	2	
			57	0	0	1	0	0	0	1	
			59	0	Ö	1	0	0	0	1	
			62	0	0	1	0	0	0	1	
		Northern p			U	'	U	U	U	ı	
		Northern p	12	0	0	1	0	0	0	1	
			16	Ö	Ö	2	Ö	Ö	Ö	2	
			17	Ö	Ö	3	Ö	Ö	Ö	3	
			19	ő	Ö	2	Ö	Ö	Ö	2	
			20	ŏ	Ö	1	Ö	Ö	Ö	1	
			22	0	0	3	0	Ö	0	3	
			23	0	0	3	0	0	0	3	
			24	0	0	2	0	0	0	2	
			25	Ö	0	7	0	0	0	7	
			26	0	0	3	0	0	0	3	
			20 27	0	0	2	0	0	0	2	
			28	0	0	1	0	0	0	1	
			30	0	0		0	0	0	1	
			31			1 1				1	
			32	0	0		0 0	0	0		
			32 34	0	0	1		0	0	1	
			3 <del>4</del> 35	0	0	2	0	0	0	2	
				0	0	1	0	0	0	1	
			36 38	0	0	1	0	0	0	1	
			38 40	0	0	3	0	0	0	3	
				0	0	2	0	0	0	2	
			41	0	0	1	0	0	0	1 1	
			42	0	0	1	0	0	0		
			44	0	0	1	0	0	0	1	
			45	0	0	0	0	0	1	1	
			48	0	0	1	0	0	0	1	
			51	0	0	1	0	0	0	1	
			52	0	0	1	0	0	0	1	
			53	0	0	2	0	0	0	2	
			56	0	0	1	0	0	0	1	
			58	0	0	1	0	0	0	1	
		Peamouth									
			25	0	0	3	0	0	0	3	
			28	0	0	1	0	0	0	1	
			35	0	0	1	0	0	0	1	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			36	0	0	1	0	0	0	1	
		Smallmou									
			6	0	2	0	0	0	0	2	797.04
			8	0	1	0	0	0	0	1	110.31
			10	0	1	0	0	0	0	1	136.40
			11	0	1	0	0	0	0	1	111.58
			12	0	4	0	0	0	0	4	126.84
			13	0	5	0	0	0	0	5	111.35
			14	0	6	0	0	0	0	6	169.52
			15	0	18	0	0	0	0	18	111.45
			16	0	7	0	0	0	0	7	107.27
			17	0	6	0	0	0	0	6	106.80
			18	0	8	0	0	0	0	8	107.87
			19	0	10	0	0	0	0	10	105.35
			20	0	8	1	0	0	0	9	102.77
			21	0	12	2	0	0	0	14	103.85
			22	0	12	1	0	0	0	13	92.80
			23	0	9	1	0	0	0	10	93.63
			24	0	5	1	0	0	0	6	96.05
			25	0	4	2	0	0	0	6	94.94
			26	0	2	5	0	0	0	7	84.06
			27	0	4	2	0	0	0	6	92.37
			28	0	4	0	0	0	0	4	96.33
			29	0	3	1	0	0	0	4	86.92
			30	0	5	1	0	0	0	6	89.88
			31	0	3	2 .	0	0	1	6	91.51
			33	0	1	0	0	0	0	1	106.98
			34	0	1	0	0	0	0	1	106.53
		144	49	0	1	0	0	0	0	1	84.54
		Warmouth	16	0	1	0	0	٥	0	1	
			17	0	0	1	0 0	0 0	0	1	
		White crap		U	U	ı	U	U	U		
		vville cia	10	0	0	1	0	0	0	1	214.00
			11	0	0	1	0	Ö	Ö	i	830.35
			14	Ö	2	1	Ö	Ö	Ŏ	3	139.20
			15	0	3	2	Ö	Ö	0	5	144.57
			16	Ö	2	1	Ö	Ö	Ö	3	162.93
			17	Ö	4	17	Ö	Ö	2	23	138.86
			18	Ö	2	34	Ö	Ö	4	40	140.08
			19	Ö	3	37	Ö	Ö	3	43	139.38
			20	Ö	18	44	Ŏ	Ö	9	71	139.10
			21	0	23	31	0	Ö	8	62	134.19
			22	0	13	6	Ö	Ö	2	21	129.75
			23	0	2	Ö	Ö	Ö	0	2	118.51
			24	0	0	1	Ö	0	Ö	1	
			27	0	1	1	ő	Ö	Ö	2	115.21
			28	0	Ö	1	Ö	Ö	Ö	1	
		Yellow per		•	v	•	-	-	-	•	
			12	0	1	0	0	0	0	1	133.10

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			13	0	2	0	0	0	0	2	95.97
			14	Ö	1	2	Ö	Ö	Ö	3	108.98
			15	0	1	2	Ō	Ö	1	4	90.69
			16	0	0	3	Ö	Ö	1	4	104.59
			17	0	2	3	Ō	0	1	6	93.22
			18	0	0	3	Ö	Ö	0	3	94.28
			19	0	0	3	0	0	0	3	91.75
			20	0	0	3	0	0	0	3	95.87
			21	0	0	2	0	0	0	2	109.47
			23	0	0	2	0	0	0	2	84.70
			24	0	0	4	0	0	0	4	88.74
			25	0	0	3	0	0	0	3	83.19
			26	0	0	1	0	0	0	1	88.59
			27	0	0	3	0	0	0	3	77.65
			30	0	0	1	0	0	0	1	74.38
DEADV	VOOD F 9/26/9										
		Bull trout									
			30	0	0	1	0	0	0	1	
		Fall chinoc					_	_	_	_	
			22	0	0	1	0	0	0	1	
		Gerrard ra		•	^	4	^	•	0	4	
		Kokanee s	57	0	0	1	0	0	0	1	
		Nokanee S	aimon 8	0	0	1	0	0	0	1	
			17	0	0	2	0	0	0	2	
			18	0	0	7	0	0	0	7	
			19	0	0	, 10	Ö	0	Ö	10	
			20	Ö	Ö	14	Ö	Ö	Ŏ	14	
			21	Ö	0	3	Ö	Ö	0	3	
			22	Ö	0	9	Ö	Ö	0	9	
			23	0	0	4	Ö	Ō	0	4	
			24	Ö	Ö	1	Ö	Ō	0	1	
			27	Ō	Ö	1	Ö	Ō	0	1	
			31	Ö	Ö	1	Ö	0	Ō	1	
			32	0	0	2	Ō	0	Ō	2	
			38	Ō	Ö	1	Ö	0	0	1	
		Mountain v		-	_		-	-			
			17	0	0	1	0	0	0	1	103.12
			19	0	0	1	0	0	0	1	88.28
			21	0	0	3	0	0	0	3	94.10
			24	0	0	1	0	0	0	1	87.04
			25	0	0	3	0	0	0	3	98.36
			26	0	0	3	0	0	0	3	103.72
			27		0		0	0	0	5	103.51
				0		5 2	0 0	0 0	0 0		103.51 90.45
			27	0	0	5				5	
			27 28	0 0	0 0	5 2	0	0	0	5 2 1	90.45
			27 28 29	0 0 0	0 0 0	5 2 1	0 0	0 0	0 0	5 2	90.45 91.69

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			33	0	0	5	0	0	0	5	110.12
•			34	0	0	4	0	0	0	4	115.70
			35	0	0	3	0	0	Ö	3	105.82
			36	0	0	1	0	0	0	1	109.46
			37	0	0	3	0	0	0	3	106.13
			38	0	0	5	0	0	0	5	104.04
			39	0	0	1	0	0	0	1	101.28
			40	0	0		0		0	2	97.86
				_		2		0			
		5.2.6.	41	0	0	1	0	0	0	1	88.30
		Rainbow >	Cuπnroa 32		0	4	0	0	0	1	
		Westslope		0 t	U	1	U	U	U	ı	
			22	0	0	1	0	0	0	1	
			24	0	0	1	0	0	0	1	
			36	0	0	1	0	0	0	1	
		Wild rainb	ow/redba	nd							
			16	0	0	2	0	0	0	2	98.63
			17	0	0	1	0	0	0	1	86.55
			18	0	0	1	0	0	0	1	112.79
			22	0	0	1	0	0	0	1	95.18
			24	0	0	1	0	0	0	1	86.79
			26	0	0	1	0	0	0	1	90.25
			29	Ō	0	1	0	0	0	1	99.28
			30	0	0	3	0	0	0	3	84.41
			31	Ö	Ö	1	Ö	Ö	0	1	97.20
			32	Ö	Ö	1	Ö	Ō	0	1	138.23
			33	Ö	Ö	2	Ö	Ö	0	2	88.70
			34	Ö	Ö	3	Ö	Ö	Ö	3	84.99
HORSE		BEND MILL	0.	J	Ū	Ū	Ū	Ū	Ū		01.00
	6/26/9	6 Bluegill									
			3	0	1	0	0	0	0	1	2458.73
			5	0	1	0	0	0	0	1	188.79
			8	0	4	0	0	0	0	4	166.02
			9	0	8	0	0	0	1	9	174.26
			10	0	12	0	0	0	0	12	103.70
			11	0	3	1	0	0	2	6	133.72
			12	0	14	1	0	0	7	22	118.28
			13	0	16	0	0	0	6	22	105.65
			14	0	8	0	0	0	1	9	106.00
			15	0	6	0	0	0	1	7	106.37
		Brown bull									
			26	0	1	0	0	0	0	1	
			28	0	1	0	0	0	0	1	
			30	0	4	0	0	0	0	4	
			31	0	4	0	0	0	0	4	
			32	0	6	Ō	Ō	0	Ō	6	
			33	0	1	Ö	Ō	0	Ō	1	
			34	Ō	1	Ö	Ö	Ō	Ō	1	
			38	Ō	1	Ö	Ö	Ō	Ō	1	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
		Common	carp								
		· · · · · · ·	70	0	1	0	0	0	0	1	
		Hatchery	rainbow								
		•	19	0	0	1	0	0	0	1	105.15
			21	0	0	2	0	0	0	2	97.72
			22	0	1	1	0	0	0	2	89.48
			23	0	0	6	0	0	0	6	94.45
			24	0	1	5	0	0	0	6	98.43
			25	0	0	7	0	0	0	7	100.27
			26	0	1	3	0	0	0	4	92.99
			27	0	1	2	0	0	0	3	97.20
			28	0	0	1	0	0	0	1	98.38
			29	0	0	1	0	0	0	1	100.41
		Largemou									
			7	0	1	0	0	0	0	1	152.51
			10	0	1	0	0	0	0	1	173.86
			11	0	3	0	0	0	1	4	111.56
			12	0	3	0	0	0	0	3	132.30
			13	0	4	0	0	0	0	4	139.17
			14	0	11	0	0	0	0	11	110.70
			15	0	1	0	0	0	0	1	116.34
			16	0	5	0	0	0	0	5	107.68
			17	0	4	0	0	0	0	4	112.80
			18	0	3	0	0	0	0	3	147.22
			19	0	5	0	0	0	0	5	108.33
			20	0	2	0	0	0	0	2	104.88
			21	0	4	1	0	0	0	5	112.71
			22	0	1	3	0	0	0	4	110.45
			23	0	4	1	0	0	0	5	103.07
			24	0	1	0	0	0	0	1	108.89
			25	0	1	1	0	0	0	2	98.02
			26	0	0	1	0	0	0	1	110.56
			27 28	0 0	2 3	0	0	0	0 0	2 3	114.30
			28 29	0	2	0 0	0 0	0 0	0	3 2	105.01
											100.04
			30 31	0 0	1 2	0 0	0 0	0 0	0	1 2	105.55 92.88
			32	0	3	0	0	0	0	3	92.66 104.63
			33	0	2		0		0		104.63
			33 34	0	2	0 0	0	0	0 0	2	98.00
			35	0	3	0	0	0		2	98.51
			35 41	0	3 1	0	0	0 0	0 0	3 1	30.61
			45	0	1	0	0	0	0	1	107.79
			48	0			0				
		Largescale		U	1	0	U	0	0	1	110.56
		Largescale	40	0	1	0	0	0	0	1	
			48	0	1	0	0	0	0	1	
			49	0	Ö	1	0	0	0	1	
			51	0	0	1	0	0	0	1	
		Northern p		-	Ū	•	Ū	ū	J	•	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			25	0	0	1	0	0	0	1	
		Pumpkins	eed								
			8	0	3	2	0	0	1	6	
			9	0	13	8	0	0	0	21	
			10	0	16	1	0	0	1	18	
			11	0	21	12	0	0	8	41	
			12	0	9	10	0	0	14	33	
			13	0	8	4	0	0	10	22	
			14	0	2	0	0	0	4	6	
			. 16	0	1	0	0	0	0	1	
		Yellow pe		^	•	•	•	•	•	_	07.00
			19 20	0	0 0	3 1	0 0	0 0	0 0	3 1	97.99 107.06
INDIAN	CREEK 4/29/96		20	U	U	1	U	U	U	ı	107.06
		Bluegill									
			8	0	1	0	0	0	0	1	98.42
			9	0	2	0	0	0	0	2	117.44
			10	0	2	0	0	0	0	2	112.02
			11	0	6	0	0	0	0	6	96.82
			12	0	2	0	0	0	0	2	114.17
			13	0	2	0	0	0	1	3	106.80
			15	0	1	0	0	0	0	1	115.13
			16	0	1	0	0	0	1	2	100.62
			18	0	0	0	0	0	1	1	106.13
		<b>0</b> 1 1	26	0	0	0	0	0	1	1	129.67
		Channel c	atrisn 38	0	4	•	•	^	•	4	420.04
			36 48	0 0	1 1	0 0	0 0	0 0	0 0	1 1	120.81 119.11
		Largemou		U	'	U	U	U	U	'	119.11
		Largemou	8	0	3	0	0	0	0	3	113.34
			9	Ö	2	Ö	Ö	0	0	2	112.69
			10	Ö	6	Ō	Ö	0	Ō	6	117.91
			11	Ō	7	Ö	Ö	Ö	Ō	7	112.48
			12	0	9	Ō	Ö	0	1	10	107.35
			13	0	7	0	0	0	0	7	116.16
			14	0	2	0	0	0	0	2	98.60
			15	0	3	0	0	0	0	3	100.56
			38	0	1	0	0	0	0	1	134.24
LAKE L	OWELL										
	5/20/96	6									
		Black crap		_	_		_	_	_	_	
			10	0	0	1	0	0	0	1	400.00
		DI '''	13	0	0	1	0	0	0	1	123.29
		Bluegill	12	^	4		^	•	^	4	105.27
			12	0	1	0	0	0	0	1	105.37
			14 15	0	1	0	0	0	0	1	126.63
		Decum bull	15 bood	0	0	0	0	0	1	1	143.91
		Brown bull		0	0	•	0	0			
			12	- 11	/1	0	(1	11	1	1	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			16	0	0	0	0	0	1	1	
			26	Ö	ő	0	0	Ö	1	1	
			28	Ö	1	Ö	Ö	Ö	i 1	2	
			29	Ŏ	Ö	Ö	Ö	Ö	3	3	
			34	Ö	Ö	Ö	Ö	Ö	3	3	
			35	Ö	Ö	Ö	Ö	Ŏ	1	1	
			36	Ö	Ö	Ö	0	0	1	1	
		Channel ca		J	•	•	J	•	•	•	
		Ç	17	0	0	1	0	0	0	1	82.97
			18	0	0	1	0	0	0	1	89.08
			19	0	0	2	0	0	0	2	82.20
			31	0	0	1	0	0	0	1	96.90
			32	0	0	1	0	0	0	1	83.70
			33	0	0	1	0	0	0	1	101.01
			35	0	0	2	0	0	0	2	80.32
			36	0	0	1	0	0	0	1	62.84
			46	0	0	3	0	0	0	3	82.38
			47	0	0	1	0	0	0	1	84.22
			48	0	0	2	0	0	0	2	79.33
			49	0	0	1	0	0	0	1	89.49
			50	0	0	1	0	0	0	1	94.50
			51	0	0	1	0	0	0	1	96.00
			52	0	0	3	0	0	0	3	98.53
			55	0	0	2	0	0	0	2	100.45
			58	0	0	1	0	0	0	1	113.59
			61	0	0	1	0	0	0	1	103.62
			63	0	0	1	0	0	0	1	95.22
			65	0	0	1	0	0	0	1	109.30
		Chiselmout							_		
			18	0	1	0	0	0	0	1	
		Common ca		•	•	•	•	•	•	•	
			12	0	3	0	0	0	0	3	
			13	0	1	0	0	0	0	1	
			16 17	0 0	0 0	4 1	0	0 0	0 0	4 1	
				_		1	_	_	_	1	
			18 22	0	0	1	0	0	0	1	
			23	0	0	1	0	0	0	1	
			42	0	0	Ó	0	0	1	1	
			43	0	0	1	0	0	Ó	1	
			44	0	2	Ó	0	0	3	5	
			45	0	0	2	0	0	2	4	
			46	0	3	0	0	0	2 6	9	
			46 47	0	0	4	0	0	3	7	
			48	0	0	3	0	0	4	7 7	
			49	0	1	1	0	0	1	3	
			50	0	0	1	0	0	3	4	
			51	0	0	4	0	0	2	6	
			52	0	1	0	0	0	0	1	
			53	0	1	1	0	0	3	5	
			55	U	,		J	J	5	5	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			E 4	0	•	•	^	•	4	4	
			54 50	0	0	0	0	0	1	1	
			56 57	0	0	0	0	0	2	2	
			57 50	0	0	0	0	0	1 1	1	
			58 50	0	0	0	0	0		1	
			59	0	1	0	0	0	0	1	
			60 67	0	0	0	0	0	2	2	
		11-4-6	67	0	0	0	0	0	1	1	
		Hatchery	rainbow 27	0	0	1	0	0	0	1	91.76
		Kokanee									
			32	0	0	1	0	0	0	1	
		Largemou									
		_	7	0	2	0	0	0	0	2	140.27
			9	0	3	0	0	0	0	3	111.59
			10	0	2	0	0	0	0	2	118.18
			11	0	3	0	0	0	0	3	85.53
			12	0	3	0	0	0	0	3	136.68
			13	0	1	0	0	0	0	1	126.45
			15	0	1	0	0	0	0	1	106.61
			16	0	1	0	0	0	0	1	97.82
			20	0	1	0	0	0	0	1	90.89
			28	0	0	2	0	0	0	2	95.48
		Largescal	e sucker								
			11	0	2	0	0	0	0	2	
			15	0	1	0	0	0	0	1	
			27	0 .	1	0	0	0	0	1	
			35	0	0	1	0	0	0	1	
			37	0	0	1	0	0	0	1	
			40	0	1	0	0	0	0	1	
			42	0	2	1	0	0	1	4	
			43	0	2	1	0	0	1	4	
			44	0	2	3	0	0	4	9	
			45	0	1	1	0	0	9	11	
			46	0	3	1	0	0	8	12	
			47	0	1	0	0	0	7	8	
			48	0	2	3	0	0	3	8	
			49	0	1	6	0	0	5	12	
			50	0	1	1	0	0	5	7	
			51	0	1	2	0	0	4	7	
			52	0	2	1	0	0	0	3	
			53	0	0	0	0	0	1	1	
			54	0	0	0	0	0	2	2	
			58	0	0	0	0	0	1	1	
		Northern p									
			17	0	0	0	0	0	1	1	
			18	0	0	1	0	0	1	2	
			19	0	0	1	0	0	1	2	
			22	0	0	1	0	0	0	1	
			23	0	0	1	0	0	0	1	
			26	0	0	2	0	0	0	2	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			27	0	0	2	0	0	0	2	
			28	0	0	1	0	Ö	Ö	1	
			29	Ö	0	1	Ö	0	Ö	1	
			35	Ō	Ö	1	Ŏ	Ö	Ō	1	
		Smallmou		_	•	,	_	-	-		
			7	0	2	0	0	0	0	2	80.34
			8	0	1	0	0	0	0	1	79.13
			9	0	3	0	0	0	0	3	109.74
			10	0	6	0	0	0	0	6	70.99
			11	0	5	0	0	0	0	5	71.34
			12	0	4	0	0	0	0	4	83.79
			16	0	4	0	0	0	0	4	74.14
			18	0	2	0	0	0	0	2	78.10
			19	0	2	0	0	0	0	2	89.89
			20	0	1	0	0	0	0	1	93.28
			21	0	2	0	0	0	0	2	91.43
			23	0	1	1	0	0	0	2	104.32
		White crap		•		^	•	•	•		50.07
			11	0	1	0	0	0	0	1	59.67
		Vallau aa	29	0	1	0	0	0	0	1	99.37
		Yellow per	rcn 9	0	4	0	0	0	0	4	94.55
			10	0	3	0	0	0	Ö	3	100.85
			11	Ö	6	0	Ö	0	Ŏ	6	87.80
			12	0	7	Ö	Ö	0	Ö	7	94.66
			21	Ö	0	1	Ö	Ö	Ö	1	78.27
			22	0	Ö	1	Ö	0	0	1	72.67
	7/10/96	6			•	•	•	-			
		Bluegill									
			6	0	1	0	0	0	0	1	
			7	0	4	0	0	0	0	4	
			8	0	1	0	0	0	0	1	
			9	0	1	0	0	0	0	1	
			13	0	1	0	0	0	0	1	163.27
			14	0	1	0	0	0	0	1	96.62
		Channel c				_	_	_	_		
			15	0	1	0	0	0	0	1	156.31
			58	0	2	0	0	0	0	2	78.18
			65	0	1	0	0	0	0	1	90.80
		C	66	0	1	0	0	0	0	1	96.02
		Common	arp 18	0	2	0	0	0	0	2	
			21	0	1	0	0	0	0	1	
			40	0	1	0	0	0	0	1	
			44	0	1	0	0	0	0	1	
			49	0	1	0	0	0	0	1	
		Largemout		3	'	U	J	J	J	•	
		Largemout	3	0	3	0	0	0	0	3	
			4	Ŏ	2	0	ő	0	Ö	2	
			5	Ō	1	Ō	Ö	Ō	ō	1	
			-	-	•	•			-	-	

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			10	0	1	0	0	0	0	1	
			12	0	3	Ö	0	0	0	3	112.56
			13	0	3	0	0	0	0	3	118.91
			14	0	3	0	0	0	0	3	108.93
			15	0	3	0	0	0	0	3	102.64
			16	0	1	0	0	0	0	1	122.27
			17	0	2	0	0	0	0	2	97.61
			28	0	1	0	0	0	0	1	116.38
		Largescale	sucker								
		_	13	0	2	0	0	0	0	2	
			14	0	3	0	0	0	0	3	
			15	0	11	0	0	0	0	11	
			16	0	5	0	0	0	0	5	
			17	0	2	0	0	0	0	2	
			18	0	4	0	0	0	0	4	
			19	0	4	0	0	0	0	4	
			20	0	2	0	0	0	0	2	
			28	0	1	0	0	0	0	1	
			31	0	1	0	0	0	0	1	
			32	0	1	0	0	0	0	1	
			33	0	1	0	0	0	0	1	
			36	0	1	0	0	0	0	1	
			40	0	1	0	0	0	0	1	
			43	0	2	0	0	0	0	2	
			44	0	1	0	0	0	0	1	
			48	0	2	0	0	0	0	2	
			49	0	2	0	0	0	0	2	
		Consilionation	52	0	1	0	0	0	0	1	
		Smallmout		0	2	0	0	0	0	2	
			7 8	0	3 8	0		0	0	3 8	
			9	0	22	0	0 0	0 0	0 0	22	
			10	0	20	0	0	0	0	20	
			11	0	33	0	0	0	0	33	118.44
			12	0	14	0	0	0	0	14	101.90
			13	0	14	0	ő	0	0	14	110.48
			14	Ŏ	7	0	ő	0	Ö	7	95.37
			16	0	1	0	Ö	Ö	0	1	106.55
			20	Õ	2	Ö	ő	Ö	0	2	98.80
			21	ő	1	Ö	ő	Ö	0	1	92.85
			22	Ö	4	0	ő	0	Ö	4	106.74
			23	Ö	3	Ō	Ö	Ō	Ö	3	100.77
			24	0	2	Ō	Ö	Ö	Ö	2	97.77
			35	0	1	0	Ö	Ö	Ö	1	100.75
		White crap		-	•	-	-	-	-	•	
			12	0	1	0	0	0	0	1	
		Yellow per	cn								
		Yellow per	cn 4	0	2	0	0	0	0	2	
		Yellow per		0 0 0	2 9	0 0	0 0	0 0	0 0	2 9	115.01

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			14	0	1	0	0	0	0	1	101.59
	8/8/96	Diagle acon	!-								
		Black crap	ріе 16	0	1	0	0	0	0	4	03.20
		Bluegill	10		•	U	U	U	U	1	93.30
		Didegiii	6	0	2	0	0	0	0	2	
			7	Ō	11	Ö	Ö	Ö	Ö	11	
			8	0	21	Ö	Ö	Ō	Ö	21	81.48
			9	Ō	17	Õ	Õ	Ō	0	17	109.54
			10	Ō	14	Õ	Ö	Ō	Ō	14	107.22
			11	0	4	0	0	0	0	4	122.97
			12	0	5	0	0	0	0	5	117.55
			16	0	1	0	0	0	0	1	103.56
		Brown bull									
			12	0	1	0	0	0	0	1	
			18	0	1	0	0	0	0	1	
			20	0	1	0	0	0	0	1	
			27	0	1	0	0	0	0	1	
		<u>.</u>	28	0	1	0	0	0	0	1	
		Channel ca		•		•	_	_	_		
		Objector	11	0	1	0	0	0	0	1	99.35
		Chiselmou	ເກ 19	0	1	0	0	0	0	1	
		Common c		U	ı	U	U	U	U	ļ	
		COMMON C	19	0	1	0	0	0	0	1	
			22	0	1	Ö	Ō	Ö	Ö	1	
			23	0	2	0	0	0	0	2	
			24	0	2	0	0	0	Ō	2	
			25	0	1	0	0	0	0	1	
			42	0	1	0	0	0	0	1	
			45	0	3	0	0	0	0	3	
			46	0	3	0	0	0	0	3	
			48	0	2	0	0	0	0	2	
			51	0	1	0	0	0	0	1	
			52	0	1	0	0	0	0	1	
			58	0	1	0	0	0	0	1	
		Largemout		^		•	•	•	•		
			4	0	4	0	0	0	0	4	
			5 6	0	21 27	0	0	0	0	21	
			7	0	27 22	0	0	0	0	27	
			8	0 0	22 19	0	0 0	0	0	22 19	
			9	0	20	0 0	0	0 0	0 0	20	126.17
			10	0	17	0	0	0	0	20 17	126.17
			11	0	3	0	0	0	0	3	154.71
			12	0	5	0	0	0	0	5 5	114.08
			13	0	15	0	0	0	0	15	100.68
			14	0	15	0	0	0	0	15	100.88
			15	0	24	Ö	0	0	0	24	104.33
			16	Ö	29	Ö	Ö	0	0	29	101.09
				v	25	J	U	U	J	23	101.09

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			17	0	13	0	0	0	0	13	90.24
			18	0	10	0	0	0	0	10	102.48
			19	0	9	0	0	0	0	9	97.84
			20	0	3	0	0	0	0	3	97.37
			21	0	1	0	0	0	0	1	31.31
			22	0	1	0	0	0	0	1	103.15
			25	0	1	0	0	0	0	1	83.94
			28	0	1	0	0	0	0	1	97.77
			30	0	2	0	0	0	0	2	99.16
			31	0	1	0	0	0	0	1	121.32
			32	0	1	0	0	0	0	1	95.52
		Largescale		U	'	U	U	U	U	•	95.52
		Laryestak	6	0	4	0	0	0	0	4	
			7	0	2	0	0	0	0	2	
			14	Ö	2	0	0	0	0	2	
			15	0	4	0	0	0	0	4	
			16	0	6	0	0	0	0	6	
			17	0	12	0	0	0	0	12	
			18	0	25	0	0	0	0	25	
			19	0	22	0	0	0	0	22	
			20	0	12	0	0			12	
			21	0	6		0	0	0		
			23	0	1	0		0	0	6	
			30	0	2	0 0	0	0	0	1	
			31	0			0	0	0	2	
			32	0	1 1	0 0	0 0	0	0	1	
			34	0	1		0	0	0	1	
			3 <del>4</del> 36	0		0		0	0	1	
			30 41	0	1	0	0	0	0	1	
			43	0	1	0	0	0	0	1	
			43 44	0	1	0	0	0	0	1	
			44 45	0	4	0	0	0	0	4	
					3	0	0	0	0	3	
			46 47	0	2	0	0	0	0	2	
			47 49	0 0	3 1	0	0 0	0	0	3	
						0		0	0	1	
			50 52	0 0	3 1	0	0	0	0	3	
			52 53	0		0 0	0	0	0	1	
		Dumalinaa		U	1	U	0	0	0	1	
		Pumpkinse	8 8	0	1	0	0	0	0	4	
			9	0	3	0		0		1 3	
		Smallmout		U	3	U	0	U	0	3	
		Smallmout	n bass 4	0	4	0	0	0	0	4	
			5	0	20	0	0	0	0	20	
			6	0	20 26	0			0		
			7	0	26 12		0	0		26	
						0		0	0	12	
			8 9	0 0	4	0	0	0	0	4	404.07
					3	0	0	0	0	3	134.97
			10	0	14	0	0	0	0	14	00.51
			11	0	39	0	0	0	0	39	99.04

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			12	0	38	0	0	0	0	38	93.41
			13	Ō	38	Ö	Ö	Ö	0	38	92.50
			14	Ō	19	0	0	0	0	19	92.30
			15	0	16	Ö	0	0	0	16	94.56
			16	0	11	Ö	0	0	0	11	86.72
			17	0	4	0	0	0	0	4	91.35
			18	0	1	0	0	0	0	1	
			23	0	1	0	0	0	0	1	101.59
			24	0	1	0	0	0	0	1	102.42
			26	0	1	0	0	0	0	1	114.15
			27	0	2	0	0	0	0	2	109.99
			28	0	1	0	0	0	0	1	120.47
			35	0	1	0	0	0	0	1	118.27
			44	0	1	0	0	0	0	1	117.79
		White crap	ppie								
			5	0	1	0	0	0	0	1	
			7	0	1	0	0	0	0	1	
			8	0	1	0	0	0	0	1	
		Yellow pe									
			6	0	5	0	0	O	0	5	
			7	0	4	0	0	0	0	4	
			13	0	1	0	0	0	0	1	
			14	0	3	0	0	0	0	3	93.04
			15	0	3	0	0	0	0	3	78.58
		_	17	0	1	0	0	0	0	1	
	9/18/9										
		Bluegill	6	0	2	0	0	0	0	2	
			7	Ö	2	0	0	0	0	2	
			8	Ö	2	0	Ö	Ö	Ö	2	
			9	Ō	2	0	Ö	Ö	Ö	2	
			10	0	4	Ö	Ö	Ö	Ö	4	
			11	Ö	6	Ö	Ö	Ö	Ö	6	
			12	0	4	Ŏ	Ö	Ō	Ö	4	150.80
		Channel c			•	•	•	•	•		
		0.10.11.01	57	0	2	0	0	0	0	2	87.59
		Common	carp								
			24	0	4	0	0	0	0	4	
			25	0	10	0	0	0	0	10	
			27	0	2	0	0	0	0	2	
			43	0	2	0	0	0	0	2	
			44	0	4	0	0	0	0	4	
			45	0	6	0	0	0	0	6	
			46	0	12	0	0	0	0	12	
			47	0	6	0	0	0	0	6	
			48	0	4	0	0	0	0	4	
			50	0	4	0	0	0	0	4	
			53	0	4	0	0	0	0	4	
		Fall chinod									
			37	0	1	0	0	0	0	1	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
		Largemou	ith hass								
		Largemou	6	0	8	0	0	0	0	8	
			7	0	8	Ŏ	Ō	Ō	Ö	8	
			8	0	18	0	Ö	Ō	Ö	18	
			9	0	12	0	Ö	0	Ō	12	
			10	0	14	0	0	0	0	14	
			11	0	4	0	0	0	0	4	
			12	0	2	0	0	0	0	2	
			15	0	6	0	0	0	0	6	146.07
			16	0	10	0	0	0	0	10	87.52
			17	0	2	0	0	0	0	2	144.78
			18	0	4	0	0	0	0	4	132.34
			19	0	2	0	0	0	0	2	102.52
			21	0	6	0	0	0	0	6	88.68
		Largescale									
			7	0	2	0	0	0	0	2	
			8	0	2	0	0	0	0	2	
			9	0	6	0	0	0	0	6	
			10	0	8	0	0	0	0	8	
			11	0	2	0	0	0	0	2	
			17	0	4	0	0	0	0	4	
			18	0	4	0	0	0	0	4	
			19	0	4	0	0	0	0	4	
			20	0	2	0	0	0	0	2	
			21 22	0	18	0	0	0	0	18	
			23	0 0	14	0.	0	0	0	14	
			25 36	0	8	0	0	0	0	8	
			43	0	2 4	0 0	0	0 0	0	2 4	
			44	0	2	0	0	0	0 0	2	
			45	0	14	0	0	0	0	14	
			46	0	22	0	0	0	0	22	
			47	0	8	0	0	0	0	8	
			48	0	24	0	0	0	0	24	
			49	Ö	14	0	Ö	0	0	14	
			50	Ō	8	Ö	Ö	Ö	0	8	
			51	Ö	12	Ö	Ö	0	0	12	
			52	Ō	2	Ō	Ö	Ö	Ö	2	
			53	Ō	6	Ō	Ö	Ō	Ö	6	
		Northern pi			-	<del>-</del>	-	•	•	ŭ	
		•	20	0	4	0	0	0	0	4	
			22	0	2	0	0	0	0	2	
			26	0	2	0	0	0	0	2	
		Smallmouth									
			6	0	4	0	0	0	0	4	
			7	0	6	0	0	0	0	6	
			8	0	14	0	0	0	0	14	
			9	0	4	0	0	0	0	4	
			11	0	4	0	0	0	0	4	
			12	0	10	0	0	0	0	10	188.76

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			13	0	22	0	0	0	0	22	105.11
			14	0	24	0	0	0	0	24	136.05
			15	0	8	0	0	0	0	8	108.15
			16	0	4	0	0	0	0	4	100.15
			18	0	2	0	0	0	0	2	
		Yellow pe		U	2	Ū	U	U	U	2	
		1 Cilow pc	7	0	4	0	0	0	0	4	
			8	Ŏ	6	Ö	Ö	0	Ö	6	
LUCKY	PEAK F		Ū	ŭ	ŭ	Ü	Ū	Ū	Ū	J	
		Bridgelip s	sucker								
		•	35	0	0	0	2	0	0	2	
		Chiselmou	uth								
			19	0	0	0	4	0	0	4	
			23	0	0	0	3	0	0	3	
			24	0	0	0	2	0	0	2	
			25	0	0	0	1	0	0	1	
			26	0	0	0	2	0	0	2	
			29	0	0	0	2	0	0	2	
			30	0	0	0	3	0	0	3	
		Fall chino	ok salmon								
			28	0	0	0	2	0	0	2	
		Largescale	e sucker								
			17	0	0	0	4	0	0	4	
			19	0	0	0	2	0	0	2	
			23	0	0	0	2	0	0	2	
			24	0	0	0	2	0	0	2	
			25	0	0	0	2	0	0	2	
			26	0	0	0	4	0	0	4	
			28	0	0	0	6	0	0	6	
			29	0	0	0	8	0	0	8	
			30	0	0	0	6	0	0	6	
			31	0	0	0	6	0	0	6	
			33	0	0	0	2	0	0	2	
			34	0	0	0	7	0	0	7	
			35	0	0	0	2	0	0	2	
			36	0	0	0	2	0	0	2 2	
			37	0	0	0	2	0	0	2	
			38	0	0	0	6	0	0	6	
			39	0	0	0	4	0	0	4	
			40	0	0	0	4	0	0	4	
			42	0	0	0	2	0	0	2	
			43	0	0	0	2	0	0	2	
			44	0	0	0	1	0	0	1	
			46	0	0	0	2	0	0	2	
		Mountain v	whitefish								
			30	0	0	0	2	0	0	2	99.17
			32	0	0	0	5	0	0	5	103.93
			34	0	0	0	2	0	0	2	80.83
		Northern p	ikeminnov								
			17	0	0	0	2	0	0	2	

18	Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
19				18	0	n	0	R	0	0	R	
20												
21												
22												
23 0 0 0 0 2 0 0 0 2 0 0 2 2 2 2 2 2 2 2												
24												
255 0 0 0 0 2 0 0 2 2 0 0 2 2 2 2 2 2 2												
26												
27 0 0 0 2 0 0 2 0 0 2 2 0 0 0 2 2 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0 0 0 8 8 0												
Redside shiner					0	0				0		
29 0 0 0 2 0 0 2 0 0 2 105.77  330 0 0 0 0 2 0 0 0 10 0 0 10 10 10 10 10 10 10 10 10				28	0	0			0	0		
31				29	0	0		4		0		
32 0 0 0 14 0 0 14 12 12 13 14 14 15 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15				30	0	0	0	2	0	0	2	
32 0 0 0 14 0 0 12 33 0 0 0 0 12 0 0 12 34 0 0 12 34 0 0 0 12 34 0 0 0 0 12 34 0 0 0 12 34 0 0 0 0 12 34 0 0 0 0 12 34 0 0 0 0 12 34 0 0 0 0 12 34 0 0 0 0 0 12 35 0 0 0 0 12 36 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				31	0	0	0		0	0		
34 0 0 0 0 8 0 0 8 0 0 5 0 0 5 6 0 0 5 6 6 0 0 5 6 6 0 0 0 5 6 0 0 0 5 6 0 0 0 5 6 0 0 0 5 6 0 0 0 5 6 0 0 0 5 6 0 0 0 5 6 0 0 0 0				32	0	0	0	14	0		14	
35 0 0 0 0 5 0 0 0 5 0 0 2 0 2 0 0 2 3 3 6 0 0 0 0 0 2 0 0 0 2 0 0 0 2 0 0 0 4 0 0 0 4 0 0 0 0				33	0	0	0	12	0	0	12	
36				34	0	0	0	8	0	0	8	
37 0 0 0 0 4 0 0 0 4 0 0 0 2 0 0 1 1 1 1 1 1 1 1 4 1 1 1 1 1 4 1 1 1 1				35	0	0	0	5	0	0	5	
39				36	0	0	0	2	0	0	2	
Redside shiner 14 0 0 0 0 1 0 0 0 1 Redside shiner 14 0 0 0 0 1 0 0 0 1 Smallmouth bass 23 0 0 0 0 4 0 0 0 2 103.84 Yellow perch 19 0 0 0 0 2 0 0 2 103.84 20 0 0 0 0 2 0 0 2 105.70 25 0 0 0 0 2 0 0 2 105.70 26 0 0 0 0 2 0 0 2 105.70 27 0 0 0 0 2 0 0 2 105.70 28 0 0 0 0 0 2 0 0 0 2 105.70 29 0 0 0 0 0 2 0 0 0 2 105.70 ROUNTAIN HOME RES 5/22/96 Bluegill 4 0 1 0 0 0 0 0 0 1 Fatchery rainbow 9 0 1 0 0 0 0 0 0 1 Hatchery rainbow 9 0 1 0 0 0 0 0 0 1 Hatchery rainbow 11 0 0 0 0 0 0 1 Hatchery rainbow 12 0 6 0 0 0 0 0 0 1 11 0 0 0 0 0 0 1 11 0 0 0 0				37	0	0	0	4	0	0	4	
Redside shiner					0	0	0	2	0	0	2	
14					0	0	0	1	0	0	1	
Smallmouth bass			Redside sl		_	_	_		_			
23 0 0 0 0 4 0 0 0 4 105.57 26 0 0 0 0 2 103.84 Yellow perch Yellow perch 19 0 0 0 0 2 0 0 0 2 107.86 22 0 0 0 2 105.70 23 0 0 0 2 0 0 0 2 105.70 23 0 0 0 0 2 0 0 0 2 116.91  MOUNTAIN HOME RES 5/22/96 Bluegill 4 0 1 0 0 0 0 0 0 1 7 0 1 10 0 0 0 1 1 112.24 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					0	0	0	1	0	0	1	
Yellow perch Yellow perch  19 0 0 0 2 0 0 0 2 105.84  Yellow perch  19 0 0 0 2 0 0 0 2 105.76  20 0 0 0 2 0 0 0 2 107.86  22 0 0 0 2 105.70  23 0 0 0 2 0 0 0 2 105.70  23 0 0 0 2 0 0 0 2 116.91  MOUNTAIN HOME RES 5/22/96  Bluegill  4 0 1 0 0 0 0 0 1 1  7 0 1 0 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 1  11 0 0 0 0 0 0 1  11 0 0 0 0			Smallmout		•	•			•	•		405.53
Yellow perch  19 0 0 0 2 0 0 0 2 125.34 20 0 0 0 2 0 0 2 107.86 22 0 0 0 2 0 0 2 105.70 23 0 0 0 2 0 0 2 116.91  MOUNTAIN HOME RES 5/22/96  Bluegill  4 0 1 0 0 0 0 0 0 1  7 0 1 0 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 1  11 0 0 0 0 0 1  Hatchery rainbow 11 0 0 0 0 0 0 1  11 0 0 0 0 0 1  11 0 0 0 0												
19 0 0 0 2 0 0 0 2 125.34 20 0 0 0 0 2 0 0 0 2 107.86 22 0 0 0 0 2 0 0 2 105.70 23 0 0 0 2 0 0 2 0 0 2 116.91  MOUNTAIN HOME RES 5/22/96  Bluegill  4 0 1 0 0 0 0 0 1 7 7 0 1 0 0 0 0 0 1 Hatchery rainbow 9 0 1 0 0 0 0 0 0 1 11 0 0 0 0 0 1 11 0 0 0 0			Vallow par		U	U	U	2	U	U	2	103.84
20			reliow per		Λ	^	0	2	^	0	2	125 34
22 0 0 0 2 0 0 0 2 105.70 23 0 0 0 2 0 0 2 116.91  MOUNTAIN HOME RES 5/22/96  Bluegill  4 0 1 0 0 0 0 0 0 1  7 0 1 0 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 0 1  11 0 0 0 0 0 1  11 0 0 0 0												
MOUNTAIN HOME RES 5/22/96  Bluegill  4 0 1 0 0 0 0 0 0 1  7 0 1 0 0 0 0 0 1  Hatchery rainbow 9 0 1 0 0 0 0 0 0 1  11 0 0 0 0 0 1  11 0 0 0 0												
MOUNTAIN HOME RES 5/22/96  Bluegill  4 0 1 0 0 0 0 0 1  7 0 1 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 1  11 0 0 0 0 0 1  11 0 0 0 0												
Bluegill  4 0 1 0 0 0 0 0 1  7 0 1 0 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 1  11 0 0 0 0 0 1  11 0 0 0 0	MOUNT			20	Ü	Ū	v	-	Ü	Ü	_	110.51
4 0 1 0 0 0 0 0 1  7 0 1 0 0 0 0 0 1  Hatchery rainbow  9 0 1 0 0 0 0 0 0 1  11 0 0 0 0 0 1  11 0 0 0 0												
Hatchery rainbow  9			_		0	1	0	0	0	0	1	
9       0       1       0       0       0       0       1         11       0       3       0       0       0       0       3       153.00         12       0       6       0       0       0       0       6       0         13       0       4       0       0       0       0       4       123.43         14       0       4       0       0       0       0       4       122.06         15       0       2       0       0       0       0       2       120.71         16       0       2       0       0       0       0       2       143.47         18       0       2       0       0       0       0       2       116.60         21       0       1       0       0       0       0       1       114.78         24       0       1       0       0       0       0       1       112.24				7	0	1	0	0	0	0	1	
11       0       3       0       0       0       0       3       153.00         12       0       6       0       0       0       0       6       0         13       0       4       0       0       0       0       4       123.43         14       0       4       0       0       0       0       4       122.06         15       0       2       0       0       0       0       2       120.71         16       0       2       0       0       0       0       2       143.47         18       0       2       0       0       0       0       2       116.60         21       0       1       0       0       0       0       1       114.78         24       0       1       0       0       0       0       1       112.24			Hatchery ra									
12       0       6       0       0       0       0       6         13       0       4       0       0       0       0       4       123.43         14       0       4       0       0       0       0       4       122.06         15       0       2       0       0       0       0       2       120.71         16       0       2       0       0       0       0       2       143.47         18       0       2       0       0       0       0       2       116.60         21       0       1       0       0       0       0       1       114.78         24       0       1       0       0       0       0       1       199.19         25       0       1       0       0       0       0       1       112.24												
13       0       4       0       0       0       0       4       123.43         14       0       4       0       0       0       0       4       122.06         15       0       2       0       0       0       0       2       120.71         16       0       2       0       0       0       0       2       143.47         18       0       2       0       0       0       0       2       116.60         21       0       1       0       0       0       0       1       114.78         24       0       1       0       0       0       0       1       199.19         25       0       1       0       0       0       0       1       112.24									0			153.00
14     0     4     0     0     0     0     4     122.06       15     0     2     0     0     0     0     2     120.71       16     0     2     0     0     0     0     2     143.47       18     0     2     0     0     0     0     2     116.60       21     0     1     0     0     0     0     1     114.78       24     0     1     0     0     0     0     1     112.24									0			
15     0     2     0     0     0     0     2     120.71       16     0     2     0     0     0     0     2     143.47       18     0     2     0     0     0     0     2     116.60       21     0     1     0     0     0     0     1     114.78       24     0     1     0     0     0     0     1     199.19       25     0     1     0     0     0     0     1     112.24											4	
16     0     2     0     0     0     0     2     143.47       18     0     2     0     0     0     0     2     116.60       21     0     1     0     0     0     0     1     114.78       24     0     1     0     0     0     0     1     99.19       25     0     1     0     0     0     0     1     112.24												
18     0     2     0     0     0     0     2     116.60       21     0     1     0     0     0     0     1     114.78       24     0     1     0     0     0     0     1     99.19       25     0     1     0     0     0     0     1     112.24						2						
21     0     1     0     0     0     0     1     114.78       24     0     1     0     0     0     0     1     99.19       25     0     1     0     0     0     0     1     112.24						2						
24 0 1 0 0 0 0 1 99.19 25 0 1 0 0 0 0 1 112.24												
25 0 1 0 0 0 0 1 112.24												
27 0 1 0 0 0 0 1 101.98												
				27	0	1	0	0	0	0	1	101.98

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			28	0	2	0	0	0	0	2	91.08
			29	Ō	4	Ō	0	Ö	0	4	100.98
			30	Ō	5	Ō	Ō	Ō	Ō	5	103.33
			31	Ö	2	Ö	Ō	Ŏ	Ö	2	103.39
			32	Ŏ	3	Ō	Ŏ	Ö	Ö	3	98.45
			33	0	4	Ō	0	Ō	Ō	4	98.46
			34	0	4	Ö	0	Ō	Ō	4	98.57
			37	0	3	0	0	Ō	0	3	95.65
			38	0	4	0	0	Ō	Ö	4	97.79
			39	0	2	0	0	0	Ō	2	105.18
			41	0	1	0	0	0	Ō	1	97.14
		Largemout	h bass								
		Ū	7	0	3	0	0	0	0	3	
			8	0	4	0	0	0	0	4	
			9	0	11	0	0	0	0	11	
			10	0	13	0	0	0	0	13	
			11	0	8	0	0	0	0	8	
			12	0	11	0	0	0	0	11	
			13	0	10	0	0	0	0	10	
			14	0	9	0	0	0	0	9	
			16	0	1	0	0	0	0	1	96.34
		Redside sh									
			8	0	1	0	0	0	0	1	
			9	0	1	0	0	0	0	1	
		Speckled d		0		•	•	•	•	4	
		Sucker spp	4	U	1	0	0	0	0	1	
		Sucker spp	). 22	0	2	0	0	0	0	2	
	7/30/96	•		·	_	Ū	Ū	Ü	Ū	_	
	,,,,,,,,	Bluegill									
			12	0	1	0	0	0	0	1	120.64
		Hatchery ra									
		•	19	0	1	0	0	0	0	1	119.93
			20	0	3	0	0	0	0	3	119.03
			21	0	1	0	0	0	0	1	99.95
			22	0	3	0	0	0	0	3	116.37
			23	0	4	0	0	0	0	4	105.85
			24	0	5	0	0	0	0	5	101.63
			25	0	2	0	0	0	0	2	109.54
			26	0	1	0	0	0	0	1	98.60
			27	0	1	0	0	0	0	1	93.11
			28	0	3	0	0	0	0	3	93.45
			29	0	2	0	0	0	0	2	82.47
			30	0	2	0	0	0	0	2	94.02
			31	0	2	0	0	0	0	2	99.15
			32	0	2	0	0	0	0	2	91.74
			33	0	1	0	0	0	0	1	87.06
			34	0	1	0	0	0	0	1	94.90
			36	0	2	0	0	0	0	2	81.14
			38	0	2	0	0	0	0	2	86.11

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			39	0	3	0	0	0	0	3	85.83
			40	0	7	0	0	0	0	7	90.56
			41	0	3	0	0	0	0	3	87.92
			42			0	0	0	0		94.79
			42	0	2 2	0	0	0	0	2	94.02
				0	2	U	U	U	U	2	94.02
		Largemou	ıın bass 7	0	1	0	0	0	0	1	
									0	1	
			8	0	1	0	0	0			444.44
			15	0	3	0	0	0	0	3	111.41
			16	0	3	0	0	0	0	3	104.21
			17	0	1	0	0	0	0	1	97.74
			20	0	1	0	0	0	0	1	101.68
		_	22	0	1	0	0	0	0	1	104.66
	9/24/96										
		Bluegill	•	•		•	•	•	•	4	
			8	0	1	0	0	0	0	1	
			9	0	2	0	0	0	0	2	
			10	0	2	0	0	0	0	2	
			12	0	2	0	0	0	0	2	
			13	0	2	0	0	0	0	2	
			14	0	2	0	0	0	0	2	
		Hatchery		_	_	_	_	_	_	_	
			22	0	2	0	0	0	0	2	135.25
			23	0	4	0	0	0	0	4	100.21
			24	0	3	0	0	0	0	3	99.31
			25	0	5	0	0	0	0	5	101.09
			26	0	2	0	0	0	0	2	102.77
			27	0	1	0	0	0	0	1	95.36
			28	0	3	0	0	0	0	3	86.98
			29	0	5	0	0	0	0	5	88.67
			31	0	1	0	0	0	0	1	91.07
			32	0	1	0	0	0	0	1	84.02
			33	0	3	0	0	0	0	3	80.75
			34	0	1	0	0	0	0	1	81.59
			35	0	3	0	0	0	0	3	87.00
			38	0	1	0	0	0	0	1	99.35
			39	0	1	0	0	0	0	1	102.80
			40	0	1	0	0	0	0	1	105.90
			41	0	2	. 0	0	0	0	2	89.93
			42	Ō	3	0	Ō	0	0	3	93.46
			43	Ö	1	Ö	Ö	Ö	Ō	1	109.61
			45	0	1	Ŏ	Ö	Ö	Ö	1	82.95
		Largemou		U	•	J	J	J	J	'	02.33
		Laryeniou	111 bass	0	4	0	0	0	0	4	
			8	0	6	0	0	0	0	6	
			9		14				0	14	
				0		0	0	0		13	
			10	0	13	0	0	0	0		
			11	0	12	0	0	0	0	12	
			12	0	7	0	0	0	0	7	
			13	0	3	0	0	0	0	3	

18	Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
19				18	0	1	0	0	0	0	1	
21 0 2 0 0 0 0 0 0 2 82.05 23 0 1 0 0 0 0 0 0 1 82.74.00 25 0 1 0 0 0 0 0 0 1 1 84.75 34 0 1 0 0 0 0 0 0 1 1 102.98  Redside shiner 7 0 3 0 0 0 0 0 0 0 2 88.17 8 0 2 0 0 0 0 0 0 0 2 88.17 8 0 2 0 0 0 0 0 0 0 2 88.17 10 0 4 0 0 0 0 0 0 2 3 102.98  Sucker spp.  14 0 1 0 0 0 0 0 0 0 1 1  Sucker spp.  17 0 1 0 0 0 0 0 0 1 1  PADDOCK RES 5/23/96  Black crappie 25 0 1 0 0 0 0 0 0 1 1  PADDOCK RES 5/23/96  Black crappie 25 0 1 0 0 0 0 0 0 1 1  PADDOCK RES 6/23/96  Black crappie 27 0 0 0 0 0 0 0 1 1  PADDOCK RES 6/23/96  Black crappie 28 0 7 0 0 0 0 0 0 1 1  PADDOCK RES 6/14/96  Bridgelip sucker 13 0 0 0 0 0 0 0 0 1 1  PADDOCK RES Bridgelip sucker 13 0 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 8/11/14 0 0 1 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 8/11/14 0 0 1 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 10 0 1 0 0 0 0 0 0 0 1 1  PADDOCK RES 11 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 11 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 12 0 0 1 0 0 0 0 0 0 0 1 1  PADDOCK RES 13 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 14 0 12 0 0 0 0 0 0 0 1 1  PADDOCK RES 15 0 16 0 0 0 0 0 0 1 1  PADDOCK RES 15 0 16 0 0 0 0 0 0 0 1 1  PADDOCK RES 16 0 0 0 0 0 0 0 0 0 0 1 1  PADDOCK RES 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												74.42
23 0 1 0 0 0 0 0 1 84.76 24 0 2 0 0 0 0 0 0 1 88.17 34 0 1 0 0 0 0 0 0 1 88.17 34 0 1 0 0 0 0 0 0 1 18.17 34 0 1 0 0 0 0 0 0 1 18.17 34 0 2 0 0 0 0 0 0 1 102.98  Redside shiner 7 0 3 3 0 0 0 0 0 0 3 9 0 0 3 0 0 0 0 0 3 11 0 0 0 0 0 0 3 9 0 0 3 0 0 0 0 0 3 11 0 0 0 0 0 0 3 11 0 0 0 0 0 0 0 3 11 0 0 0 0 0 0 0 3 11 0 0 0 0 0 0 0 1  Sucker spp. 14 0 1 0 0 0 0 0 0 0 1 17 0 0 1 0 0 0 0 0 1  PADDOCK RES 5/23/96  Black crappie 25 0 1 0 0 0 0 0 0 1 125.60  Largemouth bass 20 0 1 0 0 0 0 0 1 125.60  Largemouth bass 20 0 1 0 0 0 0 0 1 125.60  24 0 12 0 0 0 0 0 1 125.67  25 0 16 0 0 0 0 0 1 125.77  26 0 27 0 0 0 0 12 125.27  26 0 27 0 0 0 0 0 12 125.27  26 0 27 0 0 0 0 0 0 11.11  27 0 23 0 0 0 0 0 0 0 12 125.27  28 0 0 7 0 0 0 0 0 2 111.41  29 0 3 0 0 0 0 0 0 0 1 11.90  30 0 1 0 0 0 0 0 0 1 19.25  SUCCOR CREEK RES 6/14/96  Bridgelip sucker 13 0 0 0 0 0 0 0 0 1 1 98.23 11 0 0 0 0 0 0 0 0 1 98.23 11 0 0 0 0 0 0 0 0 0 1 19.25  SUCCOR CREEK RES 6/14/96  Bridgelip sucker 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
24 0 2 0 0 0 0 0 0 2 7400  25 0 1 0 0 0 0 0 0 1 88.17  34 0 1 0 0 0 0 0 0 1 102.98  Redside shiner  7 0 3 3 0 0 0 0 0 3 9  9 0 3 0 0 0 0 0 2 2  10 0 0 0 0 0 3  10 0 0 0 0 0 3  10 0 0 0 0 0 3  10 0 0 0 0 0 0 3  10 0 0 0 0 0 1  11 0 0 1 0 0 0 0 0 0 1  Sucker spp.  14 0 1 0 0 0 0 0 0 0 1  17 0 1 0 0 0 0 0 0 1  PADDOCK RES 5/23/96  Black crappie  25 0 1 0 0 0 0 0 0 1  Largemouth bass  20 0 1 0 0 0 0 0 1 230.73  24 0 12 0 0 0 0 0 0 1 230.73  24 0 12 0 0 0 0 0 0 1 230.73  25 0 16 0 0 0 0 0 1 230.73  24 0 12 0 0 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 16 114.43  26 0 27 0 0 0 0 0 12 125.27  27 0 23 0 0 0 0 0 0 0 27 117.14  27 0 23 0 0 0 0 0 0 0 27 117.14  27 0 23 0 0 0 0 0 0 0 27 117.14  27 0 23 0 0 0 0 0 0 0 27 117.14  27 0 23 0 0 0 0 0 0 0 27 117.14  27 0 23 0 0 0 0 0 0 0 27 117.14  28 0 7 0 0 0 0 0 0 2 1 120.99  29 0 3 0 0 0 0 0 0 0 2 1 112.09  29 0 0 3 0 0 0 0 0 0 0 2 1 112.09  SUCCOR CREEK RES  6/14/96  Bridgelip sucker  13 0 0 0 0 0 0 0 1 1 1 1  15 0 0 0 1 0 0 0 0 2 5  17 0 0 0 0 0 2 5  18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												
Redside shiner								0				
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7 0 3 0 0 0 0 0 3 8 0 2 0 0 0 0 0 3 10 0 0 0 0 0 3 11 0 0 4 0 0 0 0 0 0 1 11 0 1 0 1 0 0 0 0 0 0 0					0	1	0	0	0	0	1	
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10				8	0	2	0	0	0	0	2	
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Sucker spp.  14				10	0	4	0	0	0	0	4	
14				11	0	1	0	0	0	0	1	
PADDOCK RES 5/23/96  Black crappie  20 0 1 0 0 0 0 0 1 125.60  Largemouth bass 20 0 1 0 0 0 0 0 1 230.73  23 0 4 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 12 125.27  25 0 16 0 0 0 0 0 0 12 117.14  26 0 27 0 0 0 0 0 23 110.46  28 0 7 0 0 0 0 0 23 110.46  28 0 7 0 0 0 0 0 23 110.46  28 0 7 0 0 0 0 0 0 23 111.90  29 0 3 0 0 0 0 0 0 3 111.90  29 0 3 0 0 0 0 0 0 1 98.23  30 0 1 0 0 0 0 0 1 98.23  SUCCOR CREEK RES 6/14/96  Bridgelip sucker 13 0 0 0 0 0 0 1 1 1  15 0 0 0 1 0 0 4 5  Find 17 0 0 6 0 0 0 4 5  18 0 0 0 1 0 0 4 5  18 18 0 0 0 1 0 0 0 2 5  19 19 0 0 1 0 0 0 2 5  20 0 0 2 3  20 0 0 2 5  21 10 10 14 0 0 2 2 5  22 0 0 0 0 2 2 3  24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			Sucker sp									
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Largemouth bass			Diddit didp		0	1	0	0	0	0	1	125.60
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26 0 27 0 0 0 0 0 27 117.14 27 0 23 0 0 0 0 0 23 110.46 28 0 7 0 0 0 0 0 7 112.09 29 0 3 0 0 0 0 0 3 111.90 30 0 1 0 0 0 0 0 1 98.23 31 0 2 0 0 0 0 0 2 100.15  SUCCOR CREEK RES 6/14/96  Bridgelip sucker  13 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1				24	0	12	0	0	0	0	12	125.27
27 0 23 0 0 0 0 0 23 110.46 28 0 7 0 0 0 0 0 7 112.09 29 0 3 0 0 0 0 0 3 111.90 30 0 1 0 0 0 0 0 1 98.23 31 0 2 0 0 0 0 0 1 98.23 SUCCOR CREEK RES 6/14/96  Bridgelip sucker 13 0 0 0 0 0 0 1 1 1 15 0 0 0 1 0 0 1 1 1 15 0 0 0 1 0 0 4 5 16 0 0 0 2 0 0 5 7 17 0 0 0 6 0 0 8 114 18 0 0 0 3 0 0 0 2 5 19 0 0 0 2 0 0 2 3 20 0 0 2 0 0 2 3 20 0 0 2 0 0 2 3 20 0 0 0 2 0 0 0 2 6 21 0 0 4 0 0 2 6 22 0 0 0 2 6 23 0 0 14 0 0 2 6 24 0 0 9 0 0 1 10 25 0 0 0 4 0 0 2 6 26 0 0 0 1 0 0 0 6 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							0		0			
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15       0       0       1       0       0       4       5         16       0       0       2       0       0       5       7         17       0       0       6       0       0       8       14         18       0       0       3       0       0       2       5         19       0       0       1       0       0       2       3         20       0       0       2       0       0       0       2       3         20       0       0       2       0       0       0       2       6         21       0       0       4       0       0       2       6         22       0       0       4       0       0       2       6         23       0       0       14       0       0       5       19         24       0       0       9       0       0       1       10         25       0       0       6       0       0       0       6         26       0       0       0       0       0       1<			Bridgenp a		0	0	0	0	0	1	1	
17       0       0       6       0       0       8       14         18       0       0       3       0       0       2       5         19       0       0       1       0       0       2       3         20       0       0       0       2       3       0       0       2       6         21       0       0       4       0       0       2       6       6       2       1       1       10       1       10       1       10       1       10       1       10       1       10       1       1       10       1       1       10       1       1       1       1       1       1       1 <td></td>												
17       0       0       6       0       0       8       14         18       0       0       3       0       0       2       5         19       0       0       1       0       0       2       3         20       0       0       0       2       3       0       0       2       6         21       0       0       4       0       0       2       6       6       2       1       1       10       1       10       1       10       1       10       1       10       1       10       1       1       10       1       1       10       1       1       1       1       1       1       1 <td></td> <td></td> <td></td> <td>16</td> <td>0</td> <td>0</td> <td>2</td> <td>0</td> <td>0</td> <td>5</td> <td>7</td> <td></td>				16	0	0	2	0	0	5	7	
18       0       0       3       0       0       2       5         19       0       0       1       0       0       2       3         20       0       0       0       0       2       3         20       0       0       0       0       2       6         21       0       0       4       0       0       2       6         22       0       0       4       0       0       2       6         23       0       0       14       0       0       5       19         24       0       0       9       0       0       1       10         25       0       0       6       0       0       0       6         26       0       0       3       0       0       0       3         27       0       0       6       0       0       0       1         28       0       0       1       0       0       0       1         29       0       0       1       0       0       0       1							6					
19       0       0       1       0       0       2       3         20       0       0       0       2       0       0       0       2         21       0       0       0       4       0       0       2       6         22       0       0       4       0       0       2       6         23       0       0       14       0       0       5       19         24       0       0       9       0       0       1       10         25       0       0       6       0       0       0       6         26       0       0       3       0       0       0       3         27       0       0       6       0       0       0       6         28       0       0       1       0       0       0       1         29       0       0       1       0       0       0       1									0			
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21       0       0       4       0       0       2       6         22       0       0       4       0       0       2       6         23       0       0       14       0       0       5       19         24       0       0       9       0       0       1       10         25       0       0       6       0       0       0       6         26       0       0       3       0       0       0       3         27       0       0       6       0       0       0       6         28       0       0       1       0       0       0       1         29       0       0       1       0       0       0       1												
22       0       0       4       0       0       2       6         23       0       0       14       0       0       5       19         24       0       0       9       0       0       1       10         25       0       0       6       0       0       0       6         26       0       0       3       0       0       0       3         27       0       0       6       0       0       0       6         28       0       0       1       0       0       0       1         29       0       0       1       0       0       0       1							4	0		2		
23       0       0       14       0       0       5       19         24       0       0       9       0       0       1       10         25       0       0       6       0       0       0       6         26       0       0       3       0       0       0       3         27       0       0       6       0       0       0       6         28       0       0       1       0       0       0       1         29       0       0       1       0       0       0       1						0	4	0	0		6	
24     0     0     9     0     0     1     10       25     0     0     6     0     0     0     6       26     0     0     3     0     0     0     3       27     0     0     6     0     0     0     6       28     0     0     1     0     0     0     1       29     0     0     1     0     0     0     1				23			14	0	0	5	19	
25       0       0       6       0       0       0       6         26       0       0       3       0       0       0       0       3         27       0       0       6       0       0       0       6         28       0       0       1       0       0       0       1         29       0       0       1       0       0       0       1				24		0	9	0	0	1	10	
26     0     0     3     0     0     0     3       27     0     0     6     0     0     0     6       28     0     0     1     0     0     0     1       29     0     0     1     0     0     0     1						0			0		6	
27 0 0 6 0 0 0 6 28 0 0 1 0 0 0 1 29 0 0 1 0 0 0 1				26		0	3	0	0	0	3	
28 0 0 1 0 0 0 1 29 0 0 1 0 0 0 1				27							6	
							1				1	
30 0 0 3 0 0 0 3												
				30	0	0	3	0	0	0	3	

Water Date		CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Number Caught in Sinking Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
	Redside shine	er								
		11	0	0	0	0	0	2	2	
		12	Ö	Ö	4	Ō	0	6	10	
		13	0	Ō	9	Ö	Ō	10	19	
		14	0	0	11	0	0	7	18	
		15	0	0	2	0	0	3	5	
		16	0	0	1	0	0	0	1	
	Wild rainbow/	/redbar	nd							
		16	0	0	1	0	0	0	1	102.11
	;	32	0	0	0	0	0	1	1	85.25
	;	36	0	0	1	0	0	0	1	89.71
		38	0	0	3	0	0	0	3	98.47
		39	0	0	2	0	0	1	3	103.06
		40	0	0	3	0	0	0	3	99.33
		41	0	0	1	0	0	0	1	106.35
SWAN FALLS 6/9/96	•	42	0	0	1	0	0	1	2	106.90
	Black crappie	•								
		16	0	0	0	0	0	1	1	179.28
	•	17	0	0	0	0	0	1	1	104.26
		18	0	0	0	0	0	1	1	94.89
		20	0	0	0	0	0	1	1	96.78
	Bridgelip suck									
		36	0	0	0	0	0	1	1	
	Brown bullhea		_		_	_		_		
		12	0	1	0	0	0	0	1	
		24	0	2	0	0	0	0	2	
		25	0	0	1	0	0	0	1	
	Channel catfis		^	^	4	^	0	0	1	100.07
		54 57	0 0	0 0	1	0 0	0 0	0 0	1	102.37 110.11
	Common carp	-	U	U	'	U	U	U	!	110.11
	•	55	0	1	0	0	0	0	1	
		56	0	1	0	0	0	0	1	
		57	0	Ö	1	0	0	0	1	
		58	Ö	1	1	Ö	Ö	0	2	
		30 30	0	1	0	Ö	Ö	Ō	1	
		31	Ō	0	1	Ō	Ō	Ö	1	
		52	0	1	0	Ō	0	0	1	
		34	0	1	0	0	0	0	1	
		<b>5</b> 7	0	1	0	0	0	0	1	
	Hatchery raint									
	1	15	0	1	0	0	0	0	1	170.07
		16	0	1	0	0	0	0	1	105.49
		33	0	1	0	0	0	0	1	78.85
	Largescale su									
		16	0	1	0	0	0	0	1	
		26	0	1	0	0	0	0	1	
		27	0	4	0	0	0	0	4	
	2	28	0	2	0	0	0	0	2	

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	r Number t Caught in Sinking g Gill Nets s	Number Caught in Trap Nets	Total Caught	Relative Weight
			29	0	2	0	0	0	0	2	
			30	ő	4	0	Ö	0	0	4	
			31	Ö	4	0	Ö	0	0	4	
			32	Ö	1	0	Ö	0	0	1	
			35	Ŏ	1	Ŏ	Ö	0	Ö	1	
			36	Ö	1	0	Ö	Ö	Ö	1	
			37	Ō	1	Ö	Ö	Ö	Ö	1	
			38	0	5	Ö	Ö	0	Ö	5	
			40	0	2	0	Ō	0	Ö	2	
			41	0	2	0	0	0	0	2	
			43	0	1	0	0	0	0	1	
			44	0	1	0	0	0	0	1	
			45	0	2	0	0	0	0	2	
			46	0	4	0	0	0	0	4	
			48	0	1	3	0	0	1	5	
			49	0	2	0	0	0	2	4	
			50	0	5	0	0	0	0	5	
			51	0	3	1	0	0	2	6	
			52	0	2	0	0	0	0	2	
			54	0	2	0	0	0	2	4	
			55	0	0	0	0	0	1	1	
			56	0	1	0	0	0	0	1	
			57	0	1	1	0	0	0	2	
			60	0	0	0	0	0	1	1	
			65	0	0	0	0	0	1	1	
		Northern p			^		•	^	•		
			19 20	0	0	1	0	0	0	1	
			21	0 0	0 1	1	0	0	0	1	
			24	0	0	0 1	0 0	0 0	0 0	1	
			2 <del>4</del> 26	0	1	0	0	0		1	
			27	0	0	1	0	0	0 0	1	
			29	0	0	1	0	0	0	1 1	
			35	0	0	1	0	0	0	1	
			47	0	1	Ö	0	0	0	1	
			51	Ö	1	Ö	Ö	Ö	0	1	
		Peamouth	•	·	•	·	Ū	•	Ū	•	
			24	0	1	0	0	0	0	1	
			27	0	0	1	0	0	0	1	
			29	0	1	0	0	0	0	1	
			32	0	0	1	0	0	0	1	
		Smallmout									
			6	0	2	0	0	0	0	2	291.82
			7	0	8	0	0	0	0	8	159.46
			8	0	8	0	0	0	0	8	184.31
			9	0	7	0	0	0	0	7	136.80
			10	0	3	0	0	0	0	3	111.97
					,	Ū	•		-	•	111.37
			11	0	1	0	0	0	0	1	111.58

Appendix B. (continued)

Water	Date	Species	CM Group	Number Caught Angling	Number Caught Electro fishing	Number Caught in Gill Nets	Caught Hourly	Gill Nets	Number Caught in Trap Nets	Total Caught	Relative Weight
			16	0	13	0	0	0	0	13	120.56
			17	Ŏ	10	Ö	Ō	Ō	Ō	10	116.29
			18	0	14	Ö	0	Ō	Ö	14	122.23
			19	0	7	1	0	Ō	0	8	109.90
			20	0	6	0	0	0	1	7	97.74
			21	0	8	0	0	0	0	8	102.20
			22	0	5	0	0	0	0	5	105.85
			23	0	2	0	0	0	0	2	102.37
			24	0	3	0	0	0	0	3	100.34
			25	0	3	0	0	0	0	3	95.53
			26	0	3	0	0	0	0	3	99.21
			27	0	6	0	0	0	0	6	98.18
			28	0	6	0	0	0	0	6	86.57
			29	0	5	0	0	0	0	5	93.09
			30	0	7	0	0	0	1	8	90.26
			31	0	4	0	0	0	0	4	87.47
			32	0	3	0	0	0	0	3	92.17
			33	0	1	0	0	0	0	1	84.80
			34	0	1	0	0	0	0	1	65.70
			35	0	2	0	0	0	0	2	77.81
			37	0	1	0	0	0	0	1	86.33
		White crap									
			21	0	0	0	0	0	1	1	103.86

Appendix C. Electrofishing, gill net and trap net catch-per-unit-effort (CPUE) by number and weight for lowland lake sampling, 1996.

WATER	DATE	SPECIES	EF CPUE (Number)	GN CPUE (Number)	TN CPUE (Number)	TOTAL CPUE (Number)	EF CPUE (Weight kg)	GN CPUE (Weight kg)	TN CPUE (Weight kg)	Total CPUE (Weight kg
BLACK CANYON							_			
	9/4/96									
		Black crappie	22	4	3	29	0.68	0.39	0.19	1.26
		Bluegill	3	o O	ŏ	3	0.00	0.00	0.19	0.02
		Bridgelip sucker	61	2	Ŏ	63	1.29	0.36	0.00	1.65
		Brown bullhead	5	41	Ŏ	46	1.06	6.52	0.00	7.57
		Chiselmouth	13	12	Ö	25	0.39	1.22	0.00	1.61
		Common carp	7	9	Ö	16	2.27	12.10	0.00	14.37
		Hatchery rainbow	1	Ō	Ö	1	0.03	0.00	0.00	0.03
		Largemouth bass	69	1	Ō	70	1.77	0.14	0.00	1.91
		Largescale sucker	285	54	1	340	39.38	33.23	0.60	73.21
		Northern pikeminnow	35	81	Ô	116	3.79	17.74	0.00	21.53
		Pumpkinseed	86	2	3	91	1.15	0.04	0.11	1.30
		Smallmouth bass	51	4	0	55	8.29	1.73	0.00	10.01
		Yellow perch	17	9	0	26	0.63	0.77	0.00	1.40
		Total	655	216	7	878	60.74	74.23	0.90	135.88
J STRIKE RES								•		
	5/14/9	6								
		Black crappie	15	1	3	20	1.61	0.16	0.31	2.07
		Bluegill	50	0	0	50	5.49	0.00	0.00	5.49
		Bridgelip sucker	12	10	0	22	2.05	2.13	0.00	4.18
		Brown bullhead	0	1	0	1	0.00	0.19	0.00	0.19
		Channel catfish	1	5	0	6	3.49	10.73	0.00	14.23
		Chiselmouth	2	40	1	44	0.69	7.58	0.21	8.48
		Common carp	5	3	0	8	17.16	9.07	0.00	26.24
		Hatchery rainbow	2	14	0	16	0.41	5.45	0.20	6.06
		Largemouth bass	14	1	0	15	18.82	0.24	0.00	19.06
		Largescale sucker	117	48	0	165	39.54	29.22	0.00	68.76
		Northern pikeminnow	0	17	0	18	0.00	8.08	0.33	8.41
		Peamouth	0	2	0	2	0.00	0.49	0.00	0.49
		Smallmouth bass	109	6	0	115	16.46	1.48	0.13	18.08
		Warmouth sunfish	1	0	0	1	0.09	0.03	0.00	0.12
		White crappie	55	59	9	124	8.85	8.25	1.42	18.52
		Yellow perch	5	12	1	18	0.23	1.52	0.06	1.81
		Total	388	221	15	625	114.90	84.63	2.67	202.19

WATER	DATE	SPECIES	EF CPUE (Number)	GN CPUE (Number)	TN CPUE (Number)	TOTAL CPUE (Number)	EF CPUE (Weight kg)	GN CPUE (Weight kg)	TN CPUE (Weight kg)	Total CPUE (Weight kg
HORSESHOE BE	END									
	6/26/9	6								
		Bluegill	73	2	18	93	3.00	0.08	0.84	3.92
		Brown bullhead	19	0	0	19	8.74	0.00	0.00	8.74
		Common carp	1	0	0	1	5.99	0.00	0.00	5.99
		Hatchery rainbow	4	29	0	33	0.68	4.79	0.00	5.47
		Largemouth bass	108	7	1	116	25.01	1.33	0.02	26.36
		Largescale sucker	2	2	0	4	1.83	3.06	0.00	4.89
		Northern pikeminnow	0	1	0	1	0.00	0.17	0.00	0.17
		Pumpkinseed	574	37	38	649	20.29	1.34	1.78	23.42
		Yellow perch	0	4	0	4	0.00	0.43	0.00	0.43
		Total	781	82	57	920	65.54	11.20	2.64	79.37
INDIAN CREEK I	RES									
	4/29/9	6								
		Bluegill	23	0	2	25	0.79	0.00	0.43	1.22
		Channel catfish	3	Ö	Ō	3	2.59	0.00	0.00	2.59
		Largemouth bass	294	Ō	1	295	14.66	0.00	0.01	14.67
		Total	319	0	3	322	18.04	0.00	0.44	18.48
LAKE LOWELL				,				0.00	••••	
	5/20/9	6								
		Black crappie	0	1	0	1	0.00	0.01	0.00	0.01
		Bluegill	2	0	0	2	0.11	0.00	0.03	0.14
		Brown bullhead	2	0	3	5	0.36	0.00	1.08	1.43
		Channel catfish	0	8	0	8	0.00	8.38	0.00	8.38
		Chiselmouth	1	0	0	1	0.05	0.00	0.00	0.05
		Common carp	13	19	9	41	13.12	17.31	14.39	44.82
		Hatchery rainbow	0	0	0	0	0.00	0.05	0.00	0.05
		Kokanee salmon	0	0	0	0	0.00	0.11	0.00	0.11
		Largemouth bass	17	1	0	18	0.46	0.16	0.00	0.61
		Largescale sucker	23	35	13	71	18.14	32.73	12.35	63.23
		Northern pikeminnow	0	4	1	5	0.00	0.62	0.05	0.67
		Smallmouth bass	33	1	0	34	1.30	0.09	0.00	1.40
		White crappie	2	0	0	2	0.39	0.00	0.00	0.39
		Yellow perch	20	1	0	21	0.33	0.06	0.00	0.38
		Total	113	68	26	207	34.26	59.50	27.90	121.66
SWAN FALLS										
	6/9/96		_	_	_					
		Black crappie	0	0	2	2	0.00	0.00	0.20	0.20
		Bridgelip sucker	0	0	1	1	0.00	0.00	0.22	0.22

## Appendix C. (continued)

WATER	DATE	SPECIES	EF CPUE (Number)	GN CPUE (Number)	TN CPUE (Number)	TOTAL CPUE (Number)	EF CPUE (Weight kg)	GN CPUE (Weight kg)	TN CPUE (Weight kg)	Total CPUE (Weight kg)
		Brown bullhead	3	1	0	4	0.61	0.17	0.00	0.78
		Channel catfish	Ŏ	1	Õ	1	0.00	1.98	0.00	1.98
		Common carp	8	2	Ö	9	24.62	4.10	0.00	28.72
		Hatchery rainbow	3	0	0	3	0.49	0.00	0.00	0.49
		Largescale sucker	63	3	5	71	51.58	3.09	7.27	61.94
		Northern pikeminnow	5	3	0	8	3.03	0.54	0.00	3.57
		Peamouth	2	1	0	3	0.46	0.21	0.00	0.67
		Smallmouth bass	174	1	1	176	26.33	0.06	0.24	26.62
		White crappie	0	0	1	1	0.00	0.00	0.07	0.07
		Total	259	10	9	278	107.12	10.13	8.00	125.25

### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u> Program: <u>Fisheries Management F-71-R-21</u>

Project I: <u>Surveys and Inventories</u> Sub-Project I-D: <u>Southwest Region</u>

Job: c Title: Rivers and Streams Investigations

Contract Period: July 1, 1996 to June 30, 1997

#### **ABSTRACT**

Twelve transects were snorkeled on the North Fork Boise River in August 1996 to document fish species and lengths. Snorkel results were compared against a 1988 data set of the same sites. In areas below the September 1995 landslide events, the wild trout numbers were reduced. Fish numbers upstream of the impact were the same or greater than 1988 numbers of fish observed.

Thirty sites on the South Fork Payette River and four sites on the Payette River were snorkeled during August 1996. Divers identified fish to species and length and data were entered into Southwest Region Streams Database.

Eight sections of the Boise River within the town of Boise were floated and sampled with an electrofishing raft during December 1996. The upper section began at Barber Park and the last section ended below the Broadway Bridge. Length frequencies and species composition for each of the eight sections were developed. This method will be used in the future because of less intensive manpower needs versus a walking electrofish gang probe used in the past.

Eleven sites were snorkeled on the Middle Fork Payette River during July 1996. All sites contained fish. Ten sites contained redband trout and two contained bull trout *Salvelinus confluentus*. Densities were within ranges observed in the drainage.

Three and one-half miles of fence were constructed along Long Tom Creek and the West Fork of Long Tom Creek. Fence construction was part of a cooperative project between Idaho Department of Fish and Game (IDFG), Boise Valley Fly Fishermen, Idaho Soil Conservation Service, Elmore County Soil Conservation District, Natural Resource Conservation Service, and private landowners Steve and Jim Percy of Mountain Home. Additionally, Boise Valley Fly Fishermen constructed a grazing exclosure on West Fork Long Tom Creek.

Electrofishing efforts in several sections of Long Tom Creek and West Fork Long Tom Creek produced two redband trout *Oncorhynchus mykiss gairdneri* from Long Tom Creek and one from West Fork Long Tom.

Forty redband trout (100-225 mm total length) from below Long Tom Reservoir and 90 redband trout (75-150 mm) from Syrup Creek were electrofished and transplanted into the West Fork Long Tom Creek.

Permanent transects were established inside and outside the grazing exclosure. Transect width, wetted channel width, depth, habitat type (pool, riffle, run, pocket water), and substrate composition were measured at each transect after the grazing season. Photo points were established, and photos were taken documenting the condition of the riparian area at each point.

On October 7, 1996, 64 bull trout were electrofished from Ballentyne Creek and transplanted into upper Bear River. Size range of bull trout collected was 75-150 mm total length. Fifty redband trout were collected from Big Silver Creek and transplanted into upper Bear River. Size range of redband trout was 100-150 mm.

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#### NORTH FORK BOISE RIVER

#### Methods

Twelve sections on the North Fork Boise River were snorkeled by two divers during late August 1996. Data from snorkeling sections were compared against 1988 data (Rohrer 1989). Information was collected to document the effects of major landslide events that occurred in early September 1995.

Divers moved from bottom to top of transects identifying and counting various fish species observed. The snorkeled areas were then measured for lengths and several widths; depths and substrate measurements were collected where possible. The transects in section 1, in the North Fork River canyon, were accessed via a two-man inflatable kayak.

#### Results

Summary of 1996 snorkel survey and data from 1988 (Rohrer 1989) compare the density of fish/100 m<sup>2</sup> (Table 1). The September 1995 landslides occurred mainly in section 3 (Table 11). Fish densities were reduced below this section in 1996 compared to 1988 data. Fish densities above the landslide impact area were generally higher in 1996 compared to 1988. Length frequency and measured habitat variables for all 12 sites from 1996 are presented in Appendix A.

Species abbreviations used in Appendix A include: BLS - bridgelip sucker *Catostomus columbianus*; HRB - hatchery rainbow trout *Oncorhynchus mykiss*; NSF - northern pikeminnow *Ptychocheilus oregonensis*; RSS - redside shiner *Richardsonius balteatus*; SCP - sculpin species *Cottus spp*; WRB - wild rainbow trout *Oncorhynchus mykiss gairdneri*; MWF - mountain whitefish *Prosopium williamsoni*; LSS - largescale sucker *C. macrocheilus*; SUK - unidentified sucker *Catostomus spp*.

#### **SOUTH FORK PAYETTE RIVER**

#### Methods

Thirty sites were snorkeled on the South Fork of the Payette River above the confluence of the Middle Fork of the Payette River during August 1996. Four snorkel sections were also done on the Payette River below Banks, Idaho.

Snorkeling was done with two divers either moving upstream or doing corridor downstream floats dependent on the width and flow of the river. Divers identified fish species and estimated fish

sizes as they moved through the section. A hand-held range finder was used to measure the average width and total length.

Site selection was related to geographic features, usually the roadway milepost. Legal descriptions to section, elevations, and an average stream gradient were obtained from topographical maps; sites were also marked on maps for a permanent record. Data were entered into the regional streams database and output to a single page report for each sample section.

#### Results

The summaries for the 34 sites are presented in Appendix B. Length frequencies were developed for all species observed. Fish density information was not calculated.

Species abbreviations used in Appendix B include: BLS - bridgelip sucker; HRB - hatchery rainbow trout; NSF - northern pikeminnow; RSS - redside shiner; SCP - sculpin species; WRB - wild rainbow trout; MWF - mountain whitefish; LSS - largescale sucker.

#### BEAR RIVER BULL TROUT AND REDBAND TROUT TRANSPLANT

### <u>Methods</u>

On October 7, 1996 Ballantyne Creek (T8N, R10E, S24) and Big Silver Creek (T8N, R10E, S28) were electrofished to collect approximately 50 bull and redband trout, respectively. Fish were collected using battery-powered backpack shockers in Ballantyne Creek (inside wilderness), and using gasoline powered backpack shockers in Big Silver Creek (outside wilderness). Fish were airlifted via helicopter down into Bear River (T8N, R9E, S25) and released.

### Results

Sixty-four bull trout (size range 75-150 mm total length) were collected from Ballantyne Creek. Bull trout were right pelvic fin-clipped prior to release. Fifty redband trout were collected from Big Silver Creek. All collected fish were airlifted via helicopter into Bear River and released. Bull trout and redband trout have been airlifted into Bear River for three consecutive years.

#### Recommendations

Sample Bear River using snorkel or electrofishing gear to determine if transplanted trout are surviving and/or reproducing.

#### **BOISE RIVER ELECTROFISHING**

#### Methods

Raft electrofishing occurred in a downstream direction on the Boise River within the town of Boise, Idaho. Attempts were made to collect a sample of all fish shocked. Eight sections of the river were shocked for 600 seconds each. Fish were measured for total length (mm), weighed (g) and released. Locations of the shocking sections were recorded and mapped for trend reference sites.

Equipment used included a 4.6 m raft and Coffelt model VVP-15 electrofishing box. Anodes were mounted on booms attached to both sides of the raft and extended 1.8 to 2.4 m in front of the raft. The anode on each boom consisted of a 76 cm ring from which eight dropper electrodes were suspended. Electrodes consisted of 20.3 cm pieces of 1.2 cm stainless steel conduit suspended 1.2 to 2.4 m below the water surface. The cathode consisted of three 2.4-m pieces of 0.95 cm diameter stainless steel cable suspended from each side of the raft.

#### Results

Length frequency of captured and measured fish species is presented in Appendix C. The use of this methodology for the Boise River will provide us with good trend information. The use of gang electrofishing probes did not work well at 240 + cfs flows that were present in late 1996. The use of the electrofishing raft did allow us to work and reduced the manpower needs. Two individuals could provide a trend count versus having to line up 12 people to do a 3-pass population estimate.

Species abbreviations used in Appendix C include: BLS - bridgelip sucker; HBN - hatchery brown trout *Salmo trutta*; HRB - hatchery rainbow; HSK - bridgelip x largescale sucker; MTS - mountain sucker *C. platyrhynchus*; NSF - northern pikeminnow; RSS - redside shiner; SCP - sculpin species; WBN - wild brown trout; WRB - wild rainbow trout; MWF - mountain whitefish.

### MIDDLE FORK PAYETTE RIVER SNORKEL SURVEY

#### Methods

Snorkel survey methods were used to identify and count fish species and numbers in 11 transects in the Middle Fork Payette River and Silver Creek, a tributary, during July 1996. Two divers worked upstream in the sample transects counting and identifying fish. A third person walked the shoreline recording data relayed to him by the divers. The length, width, and substrate types were recorded. The density of gamefish was calculated on a basis of fish per 100 m<sup>2</sup>. Data

was entered into the regional streams database and a summary report was calculated for each individual transect site.

#### Results

All 11 sampled sites had fish observed. Ten of the 11 sites contained redband trout and 2 sites had bull trout (Table 2). Two of the Silver Creek sites contained brook trout. Trout densities were comparable to other observed sites in the drainage. Appendix D provides length frequencies of all fish and habitat summaries.

Species abbreviation used in Appendix D include: HRB - hatchery rainbow trout; SCP - sculpin species; WRB - wild rainbow trout; MWF - mountain whitefish; SPD - speckled dace *Rhinichthys oculus*; BKT - brook trout *Salvelinus fontinalis*; BLT - bull trout; LND - longnose dace *R. cataractae*.

#### LONG TOM CREEK FENCING PROJECT

#### Introduction

Landowners Steve and Jim Percy expressed an interest in decreasing cattle grazing along Long Tom Creek and West Fork Long Tom Creek northeast of Mountain Home. They felt cattle grazing along the creeks could be reduced with little economic impact to their ranching operation if additional fence was constructed to keep cattle up on the hillside, away from the creek, during mid-summer to early fall.

A cooperative project was developed between the IDFG, Boise Valley Fly Fishermen, Idaho Soil Conservation Service, Elmore County Soil Conservation District, Natural Resource Conservation Service, and private landowners Steve and Jim Percy of Mountain Home. The objective of the project was to construct 3.5 miles of pasture fence, splitting one large pasture into four smaller pastures. Two off-stream water sites were also developed as part of the project.

The Idaho Soil Conservation Commission, through the Elmore Soil Conservation District contributed \$10,000 to purchase fence and water site development materials. The IDFG reservists and volunteers, Boise Valley Fly Fishermen, and the Percys constructed the fence and water site developments. The IDFG and the Natural Resource Conservation Service provided technical guidance to the project.

The objective of the project was to improve riparian area conditions to benefit fish, while maintaining an economically viable cattle ranching operation on private land.

#### Methods

Idaho Fish and Game reservists, volunteers and Boise Valley Fly Fishermen constructed 3.5 miles of barbed wire and electric fence during April and May 1996. Additionally, Boise Valley Fly Fishermen constructed a grazing exclosure on West Fork Long Tom Creek during late April.

Long Tom Creek and West Fork Long Tom Creek were electrofished during September to determine species composition and numbers of fish present in the streams.

Redband trout were collected using backpack electrofishing gear from below Long Tom Reservoir and from Syrup Creek and transplanted into West Fork Long Tom Creek in October 1996.

Eleven permanent transects were established both inside and outside the grazing exclosure. Each transect was marked with rebar rods on both sides of the stream. Width between rebar rods, wetted channel width, depth, habitat type, and substrate composition were measured at each transect in November 1996. Photo points were established and photos taken during November 1996.

#### Results

Electrofishing activities in West Fork Long Tom Creek produced one redband trout and numerous mountain suckers *Catostomus platyrhynchus* and dace *Rhinichthys spp*. Two redband trout and numerous mountain suckers and dace were collected from Long Tom Creek. Electrofishing activity was designed to document the status of redband trout populations in the West Fork Long Tom Creek. No attempt was made to record area or time electrofished. Based on the capture of three redband trout, the population of reband trout in the West Fork Long Tom Creek was considered virtually nonexistent, and the population in Long Tom was very low.

Forty redband trout were collected from immediately below Long Tom Reservoir and 90 redband trout were collected from Syrup Creek October 8, 1996. Length of redband trout collected from below Long Tom Reservoir was 100-225 mm total length. Length of redband trout collected from Syrup Creek was 75-150 mm total length. All redband trout were released in the West Fork Long Tom Creek in an attempt to reestablish a reproducing population there.

Eleven experimental transects were established outside the grazing exclosure (E1-11), and 11 control transects (C1-11) were established inside the grazing exclosure. Habitat measurements were made on November 20 in all 22 transects. Habitat measurements are included in Table 3.

Photos were taken at photo points. Photos are stored in Southwest Region fishery files.

### **Recommendations**

- 1. Make habitat measurements inside and outside the grazing exclosure annually to document change in channel morphology in the presence and absence of grazing. Take pictures at photo points as part of the monitoring.
- 2. Electrofish sections of West Fork Long Tom Creek to determine if transplanted redband trout successfully spawned during the spring of 1997. If spawning was unsuccessful, transplant additional redbands from Syrup Creek.

### LITERATURE CITED

Rohrer, R.L. 1989. Lake and Reservoir Investigations. Study 1: Boise River Reservoirs. Idaho Department of Fish and Game. Job Performance Report, Project No. F-73-R-11.

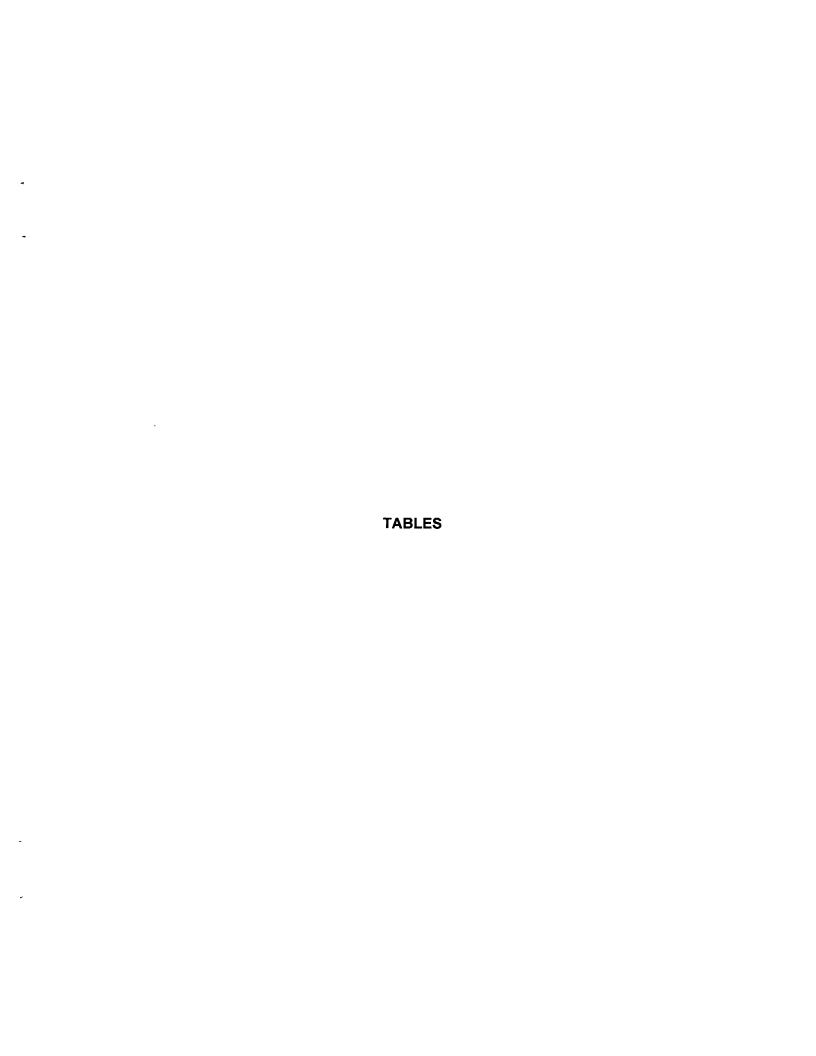


Table 1. Comparison of fish densities (number/100 m²) for the North Fork Boise River from its mouth to Graham, 1988 versus 1996. Sections described below.

	V	Wild rainbow tro	out length (mm)		Whitefish	Hatchery Trout
	0-100	100-200	200-300	>300		
Section 1						
1996	0	0.02	0.06	0.07	0.84	0.08
1988	0.07	0.40	0.38	0.12	1.37	0
Section 2						
1996	0	0.09	0	0.04	0.23	0.11
1988	0.05	0.13	0.02	0	0.22	0.36
Section 3						
1996	0	0.15	0.08	0	0.21	0.09
*1996	0.35	0.71	1.42	Ō	5.0	10.6
1988	0.17	0.64	0.21	0	0.82	0.29
Section 4						
1996	1.01	5.43	2.54	1.09	2.31	1.41
1988	0	0.51	0.59	0.08	4.73	0

Footnotes:

Section 1 - Confluence with Middle Fork Boise River to Rabbit Creek, unroaded

Section 2 - Rabbit Creek to Crooked River mouth, roaded section

Section 3 - Crooked River to Deer Park, roaded section

- This section was above the main blowouts on September 1995 but still in Section 3

Section 4 - Deer Park to Graham, unroaded section

Table 2. Densities of game fish (No./100 m²) observed while snorkeling the Middle Fork Payette river and Silver creek, July 1996.

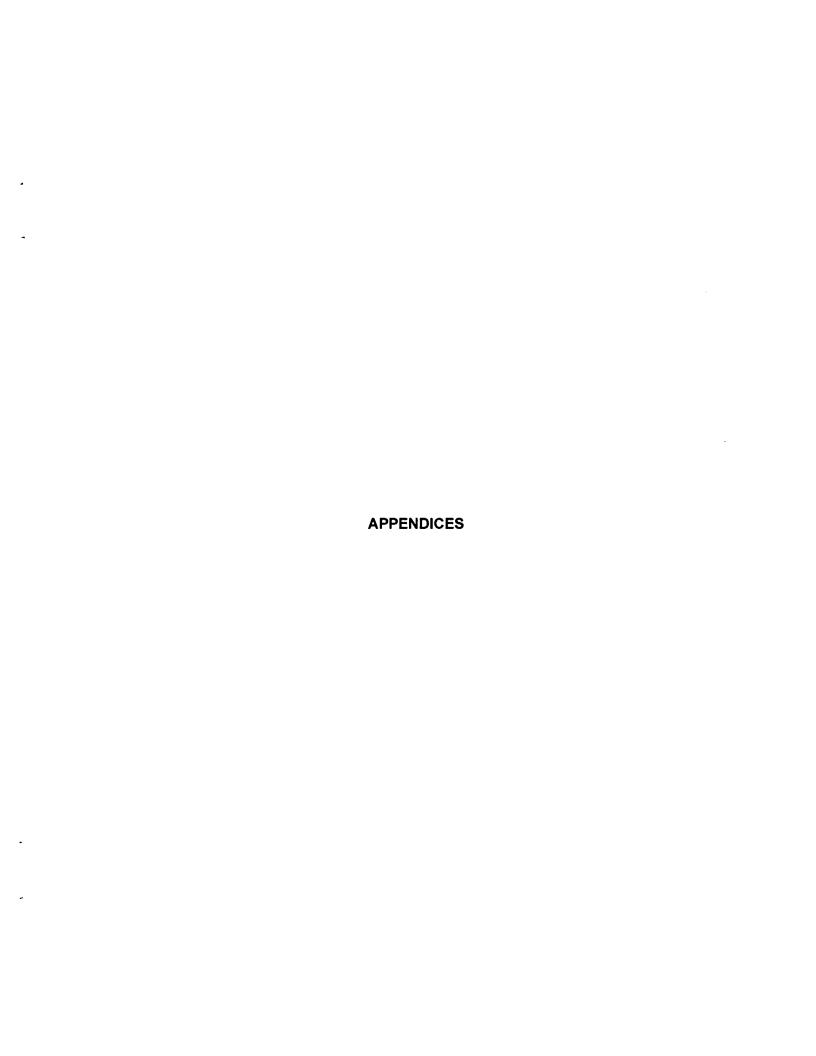
Site	Area	Wild Rainbow	Hatchery Rainbow	Brook Trout	Bull Trout	Mountain Whitefish
MF 1	1428	0.07				
MF 1A	875	0.90				1.30
MF 2	753	0.93	0.10		0.10	1.20
MF 3	865	1.9			0.10	1.20
MF 4	1234	1.22				
MF 5	1582	1.20	0.06			4.34
MF 6	853	0.35				2.93
MF 7	1579		0.06			1.84
Silver 1	372	4.50		1.88		
Silver 2	527	6.10		4.70		
Silver 3	245	0.40				

Site description in Appendix B

Table 3. Habitat measurements from West Fork Long Tom Creek, November 20, 1996.

Date	Transect	Stake width (m)	Wetted width (m)	Channel width (m)	Depth .25	Depth .50	Depth .75	Habitat <sup>a</sup>	%Sand	%Gravel
11/20/96	C1	4.1	3.3	3.3	0.07	0.16	0.11	3	50	50
11/20/96	C10	2.7	1	1	0.06	0.06	0.04	2	100	0
11/20/96	C11	4.2	2.8	1	0.19	0.26	0.18	3	100	0
11/20/96	C2	2.2	2	1.3	0.18	0.15	0.09	3	100	0
11/20/96	C3	2.7	2.1	0.03	0.07	0.08	0.03	3	50	50
11/20/96	C4	4.8	4.6	0	0.06	0.04	0.06	3	100	0
11/20/96	C5	3.2	2.4	1.1	0.09	0.25	0.26	3	100	0
11/20/96	C6	5.6	3.4	3.4	0.3	0.27	0.14	1	100	0
11/20/96	C7	2.9	1.8	1.7	0.13	0.13	0.1	3	100	0
11/20/96	C8	3.5	1.9	1.9	0.3	0.23	0.1		100	0
11/20/96	C9	4.1	2.3	1.6	0.09	0.08	0.03	3	100	0
11/20/96	E1	3.2	2.6	1.2	0.1	0.32	0.51	1	100	0
11/20/96	E10	6.4	4.9	1.9	0.04	0.25	0.1	3	100	0
11/20/96	E11	8.8	6.5	0	0.07	0.05	0.02	3	100	0
11/20/96	E2	4.7	3.2	1.3	0.07	0.1	0.07	3	100	0
11/20/96	E3	3.5	2.2	2.2	0.32	0.35	0.3	1	100	0
11/20/96	E4	4.8	3.6	3.6	0.47	0.52	0.4	1	100	0
11/20/96	E5	6.2	5.1	4.1	0.06	0.18	0.15	1	100	0
11/20/96	E6	4.6	3.5	2.3	0.24	0.2	0.13	3	100	0
11/20/96	E7	3.5	2.7	2.2	0.04	0.08	0.06	3	100	0
11/20/96	E8	3.7	7.7	0	0.1	0.16	0.11	3	100	0
11/20/96	E9	7.7	4.7	1.8	0.05	0.31	0.07	3	100	0

a1=Pool, 2=Riffle, 3=Run



# Appendix A

Summaries of snorkeled sample transects on the North Fork Boise River, August 1996.

STREAM: Boise R, N F SAMPLE DATE: 8/28/96 EPA REACH: 17050111024 QUAD MAP: Twin Springs
RTS: R7E, T5N, S28 LAT/LONG: 43 45.09; 115 37.72
SECTION DESCRIPTION: pool upstream from French Ck ~300m

Length	Frequen	су					nation:			
Species	СМ	Method	Number	Section Leng	gth (m)	:	2	5		
Group Me MWF 15 SN 1. MWF 35 SN 3.		SN	Measured 1.00 3.00 0.00	Elevation (m Gradient (%) Population E Shade (%): Mean Width Mean Depth Cover (%):	): :st: (m):		109 0.95% 0. 0. 13. 0.	6 0 0 5	S.E(popest):	0
				Habitat Pool: Riffle: Run: Pocket:	0.0 0.0 0.0 0.0 0.0	% % %				
				Sul	bstrate					
				Organic:			%			
				Sand: Gravel; Rubble: Boulder: Bedrock:		0 0 0	% % % %			
				Wa Time:	ater Ch	em	istry			
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg Hardness(uS Conductivity(	: i/I CaC i/cm3):					

STREAM: Boise R, N F SAMPLE DATE: 8/28/96

EPA REACH: 17050111024 QUAD MAP: Barber Flat RTS: R7E, T5N, S10 LAT/LONG: 43 47.44 ; 115 36.23

SECTION DESCRIPTION: @ mouth of Rabbit creek

Length Frequency				Transect Inform	ation:		
Species	СМ	Method	Number	Section Length (m):	64.5		
	Group		Measured	Elevation (m):	1201		
HRB	25	SN	2.00	Gradient (%):	0.54%		
LSS	35	SN	15.00	Population Est:	0.0	S.E(popest):	0
LSS	45	SN	2.00	Shade (%):	0.0		
NSF	33	SN	2.00	Mean Width (m):	19.3		
WRB	15	SN	1.00	Mean Depth (m):	0.9		
WRB	30	SN	1.00	Cover (%):	0		

Habitat Type: 13.3 % Pool: Riffle: 0.0 % Run: 86.7 % 0.0 % Pocket:

Substrate 0 % Organic: Sand: 21 % Gravel: 21 % Rubble: 36 % Boulder: 22 % Bedrock:

Water Chemistry

Time:

H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM:

Boise R, N F

SAMPLE DATE:

8/28/96

EPA REACH: 17050111024 RTS: R7E, T5N, S10

QUAD MAP:

Barber Flat LAT/LONG: 43 46.93; 115 36.83

SECTION DESCRIPTION: @ mouth of Short Ck

Length	Frequen	су		Transect Information:	
Species	CM	Method	Number	Section Length (m): 50	
	Group		Measured	Elevation (m): 1095	
LSS	33	SN	1.00	Gradient (%): 0.95%	
LSS	35	SN	1.00	Population Est: 0.0 S.E(popest):	0
LSS	40	SN	2.00	Shade (%): 0.0	
MWF		SN	0.00	Mean Width (m): 24.3	
MWF	30	SN	2.00	Mean Depth (m): 0.7	
MWF	33	SN	2.00	Cover (%): 0	
NSF	33	SN	1.00		
NSF	38	SN	1.00	Habitat Type:	
SUK	35	SN	1.00	Pool: 8.3 %	
WRB	15	SN	1.00	Riffle: 8.3 %	
WRB	22	SN	1.00	Run: 83.3 %	
				Pocket: 0.0 %	
				Substrate	
				Organic: 0 %	

16 % Sand: 10 % Gravel: Rubble: 35 % Boulder: 33 % Bedrock: 0 %

Water Chemistry

Time:

H2O Temp(C): Air Temp(C): pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

Boise R, N F STREAM: EPA REACH: 17050111024 SAMPLE DATE:

8/28/96

RTS: R7E, T5N, S21

QUAD MAP:

Barber Flat LAT/LONG: 43 45.63 ; 115 37.2

SECTION DESCRIPTION: see Quadmap

Length Frequency	
------------------	--

Species	CM Group	Method	Number Measured
HRB	30	SN	1.00
LSS	35	SN	3.00
MWF	30	SN	2.00
MWF	35	SN	5.00
MWF	40	SN	3.00
NSF	30	SN	2.00
NSF	38	SN	1.00
RSS	10	SN	404.0
WRB	22	SN	1.00
WRB	30	SN	1.00
WRB	33	SN	1.00

Information:

Section Length (m):	46	
Elevation (m): Gradient (%):	1146 1.89%	
Population Est:	0.0	S.E(popest):
Shade (%):	0.0	
Mean Width (m):	16.1	
Mean Depth (m):	1.1	
Cover (%):	0	

0

#### Habitat Type: Pool: 58.3 %

Riffle: 0.0 % Run: 16.7 % 0.0 % Pocket:

#### Substrate

Organic:	0	%
Sand:	37	%
Gravel:	21	%
Rubble:	5	%
Boulder:	13	%
Bedrock:	0	%

### Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: Boise R, N F SAMPLI EPA REACH: 17050111024 QUAD M RTS: R7E, T5N, S33 LAT/LOI SECTION DESCRIPTION: large pool below oxbow

SAMPLE DATE:

8/28/96

QUAD MAP: Sheep Creek LAT/LONG: 43 43.65; 115 36.98

Length	Frequenc	су		Transe	ct Information	n;		
Species	СМ	Method	Number	Section Length	n (m):	37		
	Group		Measured	Elevation (m):		1073		
BLS	33	SN	1.00	Gradient (%):		0.95%		
HRB	33	SN	1.00	Population Est	t:	0.0	S.E(popest):	0
LSS	30	SN	1.00	Shade (%):		0.0		
LSS	33	SN	2.00	Mean Width (r	n):			
LSS	35	SN	5.00	Mean Depth (r	n):			
LSS	38	SN	28.00	Cover (%):				
LSS	40	SN	30.00					
MWF	35	SN	1.00	Habitat T	уре:			
MWF	38	SN	1.00	Pool:	%			
MWF	40	SN	1.00	Riffle:	%			
NSF	25		3.00	Run:	%			
NSF	33	SN	5.00	Pocket:	%			
NSF	35		5.00					
NSF	38	SN	3.00	Subs	trate			
NSF	40	SN	2.00					
RSS		SN	0.00	Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				. Wate	er Chemistry			
				Time:				
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l Hardness(uS/c Conductivity(m	CaCO3): :m3):			

STREAM: Boise R, N F SAMPLE DATE: 8/26/96

EPA REACH: 17050111025 QUAD MAP: Barber Flat RTS: R7E, T5N, S2 LAT/LONG: 0 0; 0 0 SECTION DESCRIPTION: Below Black Rock @ Black Rock itself

Length	Frequen	су		Transect Infor	mation:		
Species	СМ	Method	Number	Section Length (m):	74		
0,000.00	Group		Measured	Elevation (m):	1214		
HRB		SN	1.00	Gradient (%):	0.47%		
LSS	30		1.00	Population Est:	0.0	S.E(popest):	0
LSS	33		2.00	Shade (%):	0.0		
LSS	35	_	2.00	Mean Width (m):	24.0		
LSS	38	SN	3.00	Mean Depth (m):	0.6		
LSS	40	SN	7.00	Cover (%):	0		
LSS	45	SN	8.00	, ,			
MWF	5	SN	2.00	Habitat Type:			
MWF	7	SN	2.00	Pool: 0.0 %	, D		
MWF	14	SN	3.00	Riffle: 41.7 %	, D		
MWF	15	SN	1.00	Run: 58.3 %	, o		
NSF	33	SN	1.00	Pocket: 0.0 %	, 0		
NSF	35	SN	1.00				
NSF	40	ŞN	2.00	Substrate			
RSS		SN	0.00				
WRB	15	SN	2.00	Organic: 0	%		
				Sand: 24	%		
				Gravel: 16	%		
					%		
				*	%		
				Bedrock: 0	%		
				Water Chem	nistry		
				Time:	··- ·· •		
				H2O Temp(C):			
				Air Temp(C):			
				. 1 1.			

pH:

Alkalinity(mg/I CaCO3): Hardness(uS/cm3): Conductivity(mg/I CaCO3):

STREAM: Boise R, N F SAMPLE DATE: 8/26/96

EPA REACH: 17050111026 QUAD MAP: Barber Flat RTS: R8E, T6N, S17 LAT/LONG: 43 51.24 ; 115 32.21

SECTION DESCRIPTION: Bottom of section is 300 yds downstream from Crooked r bridge on NFBR road

Species   CM	
Group	
HRB	
HRB	
LSS	0
LSS	U
LSS	
LSS	
LSS 61 SN 1.00  MWF 7 SN 1.00  MWF 10 SN 1.00  NSF 30 SN 2.00  NSF 33 SN 2.00  NSF 35 SN 4.00  WRB 20 SN 1.00  Substrate  Organic: 0 %  Sand: 30 %  Gravel: 11 %  Rubble: 13 %  Boulder: 45 %  Bedrock: 0 %  Water Chemistry  Time:  H2O Temp(C):	
MWF	
MWF 10 SN 1.00	
NSF 30 SN 2.00 Riffle: 6.7 % NSF 33 SN 2.00 Run: 60.0 % NSF 35 SN 4.00 Pocket: 0.0 % WRB 20 SN 1.00  Substrate Organic: 0 %  Sand: 30 % Gravel: 11 % Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
NSF 33 SN 2.00 Run: 60.0 % NSF 35 SN 4.00 Pocket: 0.0 % WRB 20 SN 1.00  Substrate Organic: 0 %  Sand: 30 % Gravel: 11 % Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
NSF 35 SN 4.00 Pocket: 0.0 %  WRB 20 SN 1.00  Substrate  Organic: 0 %  Sand: 30 %  Gravel: 11 %  Rubble: 13 %  Boulder: 45 %  Bedrock: 0 %  Water Chemistry  Time:  H2O Temp(C):	
WRB 20 SN 1.00  Substrate Organic: 0 %  Sand: 30 % Gravel: 11 % Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
Substrate Organic: 0 %  Sand: 30 % Gravel: 11 % Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
Organic: 0 %  Sand: 30 %  Gravel: 11 %  Rubble: 13 %  Boulder: 45 %  Bedrock: 0 %  Water Chemistry  Time:  H2O Temp(C):	
Sand: 30 % Gravel: 11 % Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
Gravel: 11 % Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
Rubble: 13 % Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
Boulder: 45 % Bedrock: 0 %  Water Chemistry Time:  H2O Temp(C):	
Bedrock: 0 %  Water Chemistry  Time:  H2O Temp(C):	
Water Chemistry Time:  H2O Temp(C):	
Time: H2O Temp(C):	
Time: H2O Temp(C):	
i i i	
Air Temp(C): pH: Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):	

SAMPLE DATE: 8/26/96

STREAM: Boise R, N F EPA REACH: 17050111028 RTS: R8E, T6N, S3 QUAD MAP: Bear River LAT/LONG: 43 53.51; 115 29.3

SECTION DESCRIPTION: Just above Bear R mouth

Length Frequency			Transect Information:				
Species	СМ	Method	Number	Section Length (m):	86		
	Group		Measured	Elevation (m):	1372		
LSS		SN	5.00	Gradient (%):	0.65%		
LSS		SN	5.00	Population Est:	0.0	S.E(popest):	0
LSS		SN	5.00	Shade (%):	0.0	o(popost).	·
LSS		SN	3.00	Mean Width (m):	16.2		
MWF	33	SN	1.00	Mean Depth (m):	0.6		
MWF	38		1.00	Cover (%):	0		
NSF	20	SN	2.00	` ,			
NSF	27	SN	2.00	Habitat Type:			
NSF	33	SN	5.00	Pool: 40.0 %			
NSF	35	SN	4.00	Riffle: 20.0 %			
NSF	40	SN	3.00	Run: 40.0 %			
WRB	15	SN	2.00	Pocket: 0.0 %			
WRB		SN	1.00				
WRB		SN	1.00	Substrate			
WRB	27	SN	1.00				
				Organic: 5 %			
				Sand: 26 %			
				Gravel: 27 %			
				Rubble: 41 %			
				Boulder: 5 %			
				Bedrock: 0 %			
				Water Chemis	trv		
				Time:	•		
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO	3):		

 STREAM:
 Boise R, N F
 SAMPLE DATE:
 8/21/96

 EPA REACH:
 17050111028
 QUAD MAP:
 Swanholm Peak

 RTS:
 R10E, T7N, S19
 LAT/LONG:
 43 55.53; 115 19.42

 SECTION DESCRIPTION:
 100 yds upstream from mouth of Bleu Jay Ck

Length	Frequenc	су		Transect Information:
Species	СМ	Method	Number	Section Length (m): 37
	Group		Measured	Elevation (m): 1653
BLT		SN	1.00	Gradient (%): 1.89%
BLT	27	SN	1.00	Population Est: 0.0 S.E(popest): 0
HRB	33	SN	4.00	Shade (%): 0.0
SCP		SN	0.00	Mean Width (m): 14.1
WRB	7	SN	1.00	Mean Depth (m): 0.5
WRB	10	SN	3.00	Cover (%): 0
WRB	15	SN	5.00	
WRB	17	SN	4.00	Habitat Type:
WRB	20		1.00	Pool: 6.7 %
WRB		SN	2.00	Riffle: 0.0 %
WRB	25	SN	4.00	Run: 93.3 %
WRB	27		2.00	Pocket: 0.0 %
WRB	30	SN	3.00	
				Substrate
				Organic: 0 %
				Sand: 11 %
				Gravel: 17 %
				Rubble: 31 %
				Boulder: 40 %
				Bedrock: 0 %
				Water Chemistry
				Time:
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: Boise R, N F EPA REACH: 17050111028 SAMPLE DATE:

8/26/96

RTS: R9E, T6N, S29

QUAD MAP: Bear River LAT/LONG: 43 54.73 ; 115 24.88

SECTION DESCRIPTION: Pool below corner, MP 33.8

Length	Frequen	су		Т					
Species	СМ	Method	Number	Section I	ength (m):		20		
0,000.00	Group		Measured	Elevation	(m):		1457		
HRB		SN	0.00	Gradient	• /		0.95%		
LSS	30		2.00	Population	. ,		0.0	S.E(popest):	0
LSS	33	SN	2.00	Shade (%			0.0		
LSS	35		12.00	Mean Wi	,		14.1		
MWF	22		1.00	Mean De	, ,		0.9		
MWF	25		1.00	Cover (%	. , ,		0		
MWF	27	SN	1.00	·	,				
MWF	30	SN	3.00	Hat	oitat Type:				
MWF	33	SN	2.00	Pool:		%			
MWF	38	SN	6.00	Riffle:	11.1	%			
NSF	30	SN	2.00	Run:	44.4	%			
NSF	33	SN	4.00	Pocket:	0.0	%			
NSF	35	SN	4.00						
WRB	7	SN	1.00		Substrate				
WRB	15	SN	2.00						
WRB	20	SN	2.00	Organic:	0	%			
WRB	22		1.00	Sand:	14	%			
WRB	27	SN	1.00	Gravel:	9	%			
				Rubble:	34	%			
				Boulder:	42	%			
				Bedrock:	0	%			

Time:

H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: Boise R, N F EPA REACH: 17050111028

SAMPLE DATE:

8/21/96

RTS: R9E, T7N, S24

QUAD MAP:

Swanholm Peak LAT/LONG: 43 55.4; 115 20.11

SECTION DESCRIPTION: @ mouth of Horsefly Ck

Length	Frequen	су		Transect Infor	mation:		
Species	СМ	Method	Number	Section Length (m):	30		
Ореско	Group	Mictiloa	Measured	Elevation (m):	1640		
BLT	35	SN	1.00	Gradient (%):	1.18%		
BLT	40	SN	1.00	Population Est:	0.0	S.E(popest):	0
HRB	27	SN	1.00	Shade (%):	0.0	O.E(poposi).	J
HRB	30	SN	1.00	Mean Width (m):	11.9		
HRB	33	SN	1.00	Mean Depth (m):	0.7		
MWF	5	SN	2.00	Cover (%):	0.7		
MWF	25	SN	1.00	<b>2010</b> 1 (70).	Ū		
MWF	30	SN	1.00	Habitat Type:			
MWF	33	SN	1.00	Pool: 53.3 %	,		
MWF	35	SN	6.00	Riffle: 0.0 %			
MWF	40	SN	1.00	Run: 46.7 %			
NSF	33	SN	3.00	Pocket: 0.0 %	,		
SCP		SN	0.00				
WCT	10	SN	1.00	Substrate			
WRB	7	SN	3.00				
WRB	10	SN	4.00	Organic: 0	%		
WRB	14	SN	3.00	Sand: 14	%		
WRB	15	SN	8.00	Gravel: 18	%		
WRB	17	SN	2.00	Rubble: 39	%		
WRB	20	SN	5.00	Boulder: 28	%		
WRB		SN	1.00	Bedrock: 0	%		
WRB	25	SN	5.00				
WRB	27	SN	3.00	Water Chem	nistry		
WRB			3.00				
WRB	33	SN	2.00	Time:			
				H2O Temp(C):			
				Air Temp(C):			

Alkalinity(mg/l CaCO3):
Hardness(uS/cm3):
Conductivity(mg/l CaCO3):

 STREAM:
 Boise R, N F
 SAMPLE DATE:
 8/21/96

 EPA REACH:
 17050111028
 QUAD MAP:
 Swanholm Peak

 RTS:
 R10E, T7N, S19
 LAT/LONG:
 43 55.7; 115 19.21

 SECTION DESCRIPTION:
 Unnamed trib 200 yds above Blue Jay Creek

Length	Frequenc	у		Transect Inform	mation:		
Species	СМ	Method	Number	Section Length (m):	23		
opeoies	Group	Mictiloa	Measured	Elevation (m):	1659		
HRB	27	SN	2.00	Gradient (%):	1.89%		
HRB	30	SN	2.00	Population Est:	0.0	S.E(popest):	0
MWF	25	SN	1.00	Shade (%):	0.0	w	
MWF		SN	1.00	Mean Width (m):	13.1		
MWF	30	SN	4.00	Mean Depth (m):	0.7		
MWF	33	SN	2.00	Cover (%):	0		
MWF	35	SN	3.00	, ,			
WRB	7	SN	6.00	Habitat Type:			
WRB	10	SN	9.00	Pool: 83.3 %	1		
WRB	14	SN	7.00	Riffle: 0.0 %	ı		
WRB		SN	9.00	Run: 16.7 %			
WRB		SN	3.00	Pocket: 0.0 %	)		
WRB		SN	1.00				
WRB		SN	2.00	Substrate			
WRB		SN	3.00				
WRB		SN	2.00	5	%		
WRB	33	SN	2.00		%		
					%		
				· · · · · · · · · · · · · · · · · · ·	%		
					%		
				Bedrock: 0	%		
				. Water Chem	nistry		
				Time:	,		
				H2O Temp(C):			
				Air Temp(C):			
				pH:			
				Alkalinity(mg/l CaCO3	):		
				Hardness(uS/cm3):			
				0.00			

Conductivity(mg/l CaCO3):

## Appendix B

Summaries of snorkeled sample transects on the South Fork Payette and Payette Rivers, August 1996.

STREAM: SF PAYETTE R

SAMPLE DATE:

8/30/96

EPA REACH: 17050120001 RTS: R4E, T9N, S27 RTS: R4E, T9N, S27

QUAD MAP: Garden Valley LAT/LONG: 44 5.14; 115 58.42

SECTION DESCRIPTION: No Description - Garden Valley #2.

Length	Frequen	су		Transect Informat		tion:		
Species	СМ	Method	Number	Section L	ength (m):	192		
·	Group		Measured	Elevation	(m):	922		
LSS	30	SN	2.00	Gradient	• /	0.00%		
LSS	35	SN	3.00	Populatio	n Ést:	0.0	S.E(popest):	0
LSS	40	SN	4.00	Shade (%		0.0		
LSS	45	SN	2.00	Mean Wid	íth (m):			
MWF	10	SN	2.00	Mean De	oth (m):			
MWF	25	SN	7.00	Cover (%	):			
MWF	28	SN	6.00					
MWF	30	SN	16.00	Hab	itat Type:			
MWF	33	SN	2.00	Pool:	%			
MWF	35	SN	6.00	Riffle:	%			
MWF	40	SN	6.00	Run:	%			
MWF	50		2.00	Pocket:	%			
NSF	35	SN	1.00					
RSS	0	SN	15.00		Substrate			
WRB	25	SN	1.00					
WRB	30	SN	2.00	Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
					Water Chemist	<b>v</b>		
				Time:		,		
				H2O Tem				
				Air Temp(	C):			

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R EPA REACH: 17050120001

SAMPLE DATE:

8/30/96

RTS: R4E, T9N, S21

QUAD MAP: Garden Valley LAT/LONG: 44 5.41 ; 115 59.36

SECTION DESCRIPTION: No Description - Garden Valley #3.

Length	Frequen	су		Transect In				
Species	СМ	Method	Number	Section Length (m)	:	203		
- <b>,</b>	Group		Measured	Elevation (m):		921		
LSS		SN	2.00	Gradient (%):		0.00%		
LSS	40		2.00	Population Est:		0.0	S.E(popest):	0
LSS	45		3.00	Shade (%):		0.0	(p-p-0-1).	_
LSS	50	SN	2.00	Mean Width (m):		0.0		
MWF	7	SN	1.00	Mean Depth (m):				
MWF	10	SN	2.00	Cover (%):				
MWF	20	SN	5.00					
MWF	25	SN	6.00	Habitat Type:				
MWF	30	SN	5.00	Pool:	%			
MWF	40	SN	7.00	Riffle:	%			
MWF	50	SN	3.00	Run:	%			
				Pocket:	%			
				Substrate				
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	emistry			
				Time:	oo y			
				H2O Temp(C):				
				Air Temp(C):				
				pH:				
				Alkalinity(mg/l CaCo	O3):			
				Hardness(uS/cm3):				
				Conductivity/ma/LC				

Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R SAMPLE DATE: 8/30/96
EPA REACH: 17050120003 QUAD MAP: Grimes Pass
RTS: R5E, T9N, S36 LAT/LONG: 44 2.69; 115 51.69
SECTION DESCRIPTION: Section is located by the powerline near the Greenhouses.

Length	Frequen	су		Transect Int				
Species	СМ	Method	Number	Section Length (m)	:	142		
орос.со	Group		Measured	Elevation (m):		991		
LSS		SN	1.00	Gradient (%):		0.00%		
LSS	35	SN	2.00	Population Ést:		0.0	S.E(popest):	0
MWF	10	SN	8.00	Shade (%):		0.0	,	
MWF	15	SN	11.00	Mean Width (m):				
MWF	20	SN	5.00	Mean Depth (m):				
MWF	25	SN	22.00	Cover (%):				
MWF	30	SN	21.00					
MWF	40	SN	1.00	Habitat Type:				
MWF	50	SN	25.00	Pool:	%			
WRB	10		1.00	Riffle:	%			
WRB	22	SN	1.00	Run:	%			
				Pocket:	%			
				Substrate				
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	emistry			
				Time:	,			
				H2O Temp(C):				
				Air Temp(C):				
				pH:				
				Alkalinity(mg/l CaCo	03):			
				Hardness(uS/cm3):				
				Conductivity(mg/l C				

STREAM: SF PAYETTE R EPA REACH: 17050120003

SAMPLE DATE:

8/14/96

RTS: R5E, T9N, S32

QUAD MAP:

Garden Valley

LAT/LONG: 44 4.49 ; 115 46.66

SECTION DESCRIPTION: Section begins below Little Falls just below the F&G property along Hwy.

Length	Frequen	су	Transect Information:					
Species	СМ	Method	Number	Section Le	ength (m):	120		
	Group		Measured	Elevation	(m):	1018		
LSS		SN	1.00	Gradient (	%):	0.84%		
LSS	38	SN	1.00	Population	n Est:	0.0	S.E(popest):	0
LSS	40	SN	3.00	Shade (%	):	0.0		
LSS	45	SN	2.00	Mean Wid	th (m):			
LSS	50	SN	1.00	Mean Dep	th (m):			
MWF	15	SN	5.00	Cover (%)	:			
MWF	20	ŞN	1.00					
MWF	25	ŞN	13.00	Habi	tat Type:			
MWF	30	SN	35.00	Pool:	%			
MWF	33	SN	5.00	Riffle:	%			
MWF	35	SN	10.00	Run:	%			
NSF	28	SN	1.00	Pocket:	%			
NSF	33	SN	1.00					
WRB	7	SN	1.00	5	Substrate			
WRB	10	SN	2.00					
WRB	12	SN	2.00	Organic:	%			
WRB	15	SN	2.00	Sand:	%			
WRB	20	SN	5.00	Gravel:	%			
WRB	25	SN	3.00	Rubble:	%			
WRB	28	SN	2.00	Boulder:	%			
				Bedrock:	%			

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

Length	Frequen	су		Transect Ir	nformatio	n:		
Species	СМ	Method	Number	Section Length (m	<b>)</b> :	135		
Орослос	Group		Measured	Elevation (m):		1000		
LSS	33	SN	1.00	Gradient (%):		0.00%		
LSS	35		5.00	Population Est:		0.0	S.E(popest):	0
LSS	45	SN	4.00	Shade (%):		0.0	G.E(poposi).	·
LSS	50	SN	2.00	Mean Width (m):		0.0		
MWF	10	SN	2.00	Mean Depth (m):				
MWF	15	SN	16.00	Cover (%):				
MWF	20	SN	8.00	(,-				
MWF	22	SN	1.00	Habitat Type:				
MWF	25	SN	19.00	Pool:	%			
MWF	28	SN	2.00	Riffle:	%			
MWF	30	SN	25.00	Run:	%			
MWF	33	SN	1.00	Pocket:	%			
MWF	35	SN	11.00					
NSF	30	SN	1.00	Substrate	•			
WRB	12	SN	1.00					
WRB	20	SN	2.00	Organic:	%			
WRB	25	SN	2.00	Sand:	%			
WRB	30	SN	1.00	Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	nemistry			
				Time:				
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaC Hardness(uS/cm3) Conductivity(mg/l C	: '			

STREAM: SF PAYETTE R

SAMPLE DATE:

8/14/96

EPA REACH: 17050120004 RTS: R7E, T9N, S32

QUAD MAP: Pine Flat LAT/LONG: 0 0 ; 0 0

SECTION DESCRIPTION: Section is located ~100 yds upstream from the oxbow tunnel exit.

Length Frequency				Transect In				
Species	СМ	Method	Number	Section Length (m)	):	129		
Орсоюз	Group	111011100	Measured	Elevation (m):		1104		
MWF	17	SN	2.00	Gradient (%):		0.47%		
MWF	25	SN	1.00	Population Est:		0.0	S.E(popest):	0
MWF	30	SN	2.00	Shade (%):		0.0	* ' '	
MWF	35	SN	3.00	Mean Width (m):				
WRB	5	SN	1.00	Mean Depth (m):				
WRB	7	SN	4.00	Cover (%):				
WRB	10	SN	8.00	, ,				
WRB	12	SN	5.00	Habitat Type:				
WRB	15	SN	33.00	Pool:	%			
WRB	17	SN	18.00	Riffle:	%			
WRB	20	SN	19.00	Run:	%			
WRB	25	SN	10.00	Pocket:	%			
WRB	28	SN	1.00					
WRB	30	SN	2.00	Substrate				
				Organic:	%			
				Sand:	%			
				Gravel:	% %			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	nemistry			
				Time:				
				H2O Temp(C):				
				Air Temp(C):				
				pH:				
				Alkalinity(mg/l CaC	O3):			
				Hardness(uS/cm3):				
				0 1 1 1 1 1 1 1 1				

Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R

SAMPLE DATE:

8/14/96

EPA REACH: 17050120004 RTS: R6E, T9N, S1

QUAD MAP:

Pine Flat

LAT/LONG: 44 3.66 ; 115 41.55

SECTION DESCRIPTION: Section begins 100 yds downstream from hot springs below Pine Flats.

Length Frequency				Transect Information:				
Species	СМ	Method	Number	Section Length (m	1):	149		
Орсою	Group	111011100	Measured	Elevation (m):		1088		
MWF	10	SN	1.00	Gradient (%):		0.47%		
MWF	20	SN	2.00	Population Est:		0.0	S.E(popest):	0
MWF	33	SN	2.00	Shade (%):		0.0	* * /	
MWF	35	SN	2.00	Mean Width (m):				
MWF	38	SN	1.00	Mean Depth (m):				
MWF	40	SN	8.00	Cover (%):				
WRB	5	SN	1.00					
WRB	7	SN	18.00	Habitat Type	:			
WRB	10	SN	27.00	Pool:	%			
WRB	12	SN	13.00	Riffle:	%			
WRB	15	SN	18.00	Run:	%			
WRB	17		6.00	Pocket:	%			
WRB	20	SN	19.00					
WRB	22	SN	8.00	Substrate	е			
WRB	25	SN	11.00					
WRB	28	SN	3.00	Organic:	%			
WRB	30	SN	3.00	Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water C	hemistry			
				Time:	,			
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaC Hardness(uS/cm3) Conductivity(mg/l 0	):			

STREAM: SF PAYETTE R EPA REACH: 17050120004

SAMPLE DATE:

8/14/96

RTS: R6E, T9N, S33

QUAD MAP: Pine Flat LAT/LONG: 44 4.23 ; 115 44.58

SECTION DESCRIPTION: Section begins in a big pool just below a drop just down from the big falls. Note the big spire

at Birch Flat.

Length Frequency				Transect Inform			
Species	СМ	Method	Number	Section Length (m):	155		
Openics	Group	Method	Measured	Elevation (m):	1037		
MWF	15	SN	3.00	Gradient (%):	0.90%		
MWF	20		6.00	Population Est:	0.0	S.E(popest):	0
MWF	25	SN	2.00	Shade (%):	0.0	Q(p-p).	_
MWF	30		29.00	Mean Width (m):	0.0		
MWF	35	SN	14.00	Mean Depth (m):			
MWF	40		1.00	Cover (%):			
WRB	7	SN	4.00	0010. (70).			
WRB	10		8.00	Habitat Type:			
WRB	12		6.00	Pool: %			
WRB	15	SN	10.00	Riffle: %			
WRB	17		4.00	Run: %			
WRB	20	SN	12.00	Pocket: %			
WRB	25	SN	10.00				
WRB	28	SN	3.00	Substrate			
WRB	30	SN	4.00				
				Organic:	%		
				Sand:	%		
				Gravel:	%		
				Rubble:	%		
				Boulder:	%		
				Bedrock:	%		
				Water Chem	istry		
				Time:	•		
				H2O Temp(C):			
				Air Temp(C):			
				pH:			
				Alkalinity(mg/I CaCO3	<b>)</b> :		

Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R EPA REACH: 17050120004 SAMPLE DATE:

8/19/96

RTS: R7E, T8N, S28

QUAD MAP: Garden Valley LAT/LONG: 44 5.16 ; 115 38.36

SECTION DESCRIPTION: Section begins 1.3 mi. downstream of Hwy 21 Junction. Start section at upstream telephone

pole in parking area.

Length Frequency				Transect Information:				
Species	СМ	Method	Number	Section Le	ength (m):	110		
	Group		Measured	Elevation	(m):	1143		
HRB	28	SN	2.00	Gradient (	(%):	0.68%		
HRB	30	SN	1.00	Population	n Est:	0.0	S.E(popest):	0
MWF	7	SN	1.00	Shade (%	):	0.0	,	
MWF	17	SN	1.00	Mean Wid	Íth (m):			
MWF	20	SN	4.00	Mean Der	oth (m):			
MWF	25	SN	1.00	Cover (%)	):			
MWF	30	SN	1.00	` '				
MWF	35	SN	8.00	Habi	tat Type:			
MWF	40	SN	4.00	Pool:	%			
WRB	5	SN	2.00	Riffle:	%			
WRB	7	SN	8.00	Run:	%			
WRB	10	SN	16.00	Pocket:	%			
WRB	12	SN	15.00					
WRB	15	SN	12.00	\$	Substrate			
WRB	17	SN	19.00					
WRB	20	SN	12.00	Organic:	%			
WRB	22	SN	3.00	Sand:	%			
WRB	25	SN	6.00	Gravel:	%			
WRB	28	SN	3.00	Rubbie:	%			
				Boulder:	%			
				Bedrock:	%			

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R EPA REACH: 17050120004

SAMPLE DATE:

8/19/96

QUAD MAP:

Garden Valley

RTS: R7E, T8N, S28 LAT/LONG: 44 4.75 ; 115 38.42 SECTION DESCRIPTION: Section begins 2.0 mi. downstream of Hwy 21 Junction. Site begins at tail out of a pool ~ 35

yds upstream from the vehicle pullout.

Length Frequency					Transect Information:			
Species	СМ	Method	Number	Section	Length (m):	150		
•	Group		Measured	Elevation	on (m):	1200		
BLT	33	SN	1.00	Gradier	nt (%):	0.00%		
HRB	25	SN	1.00	Populat	tion Est:	0.0	S.E(popest):	0
HRB	28	SN	2.00	Shade :	(%):	0.0		
HRB	30	SN	1.00	Mean V	Vidth (m):			
MWF	15	SN	3.00	Mean D	Pepth (m):			
MWF	20	SN	4.00	Cover (	%).			
MWF	25	SN	1.00					
MWF	30	SN	10.00	H:	abitat Type:			
MWF	35	SN	8.00	Pool:	%			
MWF	40	SN	3.00	Riffle:	%			
WRB	7	SN	6.00	Run:	%			
WRB	10	SN	19.00	Pocket	: %			
WRB	12	SN	16.00					
WRB	15	SN	26.00		Substrate			
WRB	17	SN	17.00					
WRB	20	SN	16.00	Organio				
WRB	22	SN	9.00	Sand:	%			
WRB	25	SN	11.00	Gravel:				
WRB	28	SN	5.00	Rubble				
WRB	30	SN	2.00	Boulder				
				Bedroc	k: %			

Water Chemistry

Time:

H2O Temp(C): Air Temp(C): pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R SAMPLE DATE: 8/15/96

EPA REACH: 17050120008 QUAD MAP: Lowman
RTS: R8E, T9N, S31 LAT/LONG: 44 4.4 ; 115 33.09
SECTION DESCRIPTION: Section begins at rock outcrop at MP 76.3 just above the Stinker Station across the road.

Length	Frequen	су		Transect in	formatio	n:		
Species	СМ	Method	Number	Section Length (m)	):	130		
	Group		Measured	Elevation (m):		1253		
HRB		SN	1.00	Gradient (%):		0.59%		
MWF		SN	1.00	Population Est:		0.0	S.E(popest):	0
MWF	15	SN	1.00	Shade (%):		0.0	(	
MWF	33	SN	1.00	Mean Width (m):				
MWF		SN	1.00	Mean Depth (m):				
WRB	7	SN	6.00	Cover (%):				
WRB	10	SN	14.00	( ) -				
WRB	12	SN	15.00	Habitat Type:				
WRB	15	SN	19.00	Pool:	%			
WRB	17	SN	4.00	Riffle:	%			
WRB	20	SN	4.00	Run:	%			
WRB	22	SN	3.00	Pocket:	%			
				Substrate	!			
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	emietr <i>i</i>			
				Time:	iernisti y			
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaC Hardness(uS/cm3): Conductivity(mg/l C	:			

SAMPLE DATE:

8/15/96

STREAM: SF PAYETTE R EPA REACH: 17050120009 RTS: R8E, T9N, S34

QUAD MAP: Jackson Peak LAT/LONG: 44 4.44; 115 29.99

SECTION DESCRIPTION: Section begins at MP 79.7, just above Meadow Creek.

Length	Frequenc	су			Transect Inform	nation:		
Species	СМ	Method	Number	Section	n Length (m):	185		
орожи	Group		Measured	Elevati	ion (m):	1234		
HRB	25	SN	1.00		nt (%):	0.76%		
HRB	33	SN	1.00		ition Est:	0.0	S.E(popest):	0
MWF	12	SN	1.00	Shade		0.0	(1 - 1 )	
MWF	15	SN	3.00		Width (m):			
MWF	20	SN	3.00		Depth (m):			
MWF	25	SN	3.00	Cover				
MWF	30	SN	9.00		. ,			
MWF	33	SN	1.00	H	labitat Type:			
MWF	35	SN	2.00	Pool:	%			
MWF	38	SN	1.00	Riffle:	%			
WRB	7	SN	8.00	Run:	%			
WRB	10	SN	11.00	Pocket	:: %			
WRB	12	SN	10.00					
WRB	17	SN	5.00		Substrate			
WRB	20	SN	7.00					
WRB	22	SN	2.00	Organi		6		
WRB	25	SN	3.00	Sand:		6		
WRB	30	SN	1.00	Gravel		6		
				Rubble		6		
				Boulde		6		
				Bedroo	;k: %	6		
					Water Chemis	strv		
				Time:		<b>,</b>		

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R EPA REACH: 17050120009 SAMPLE DATE:

8/15/96

RTS: R8E, T9N, S26

50120009 QUAD MAP: Jackson Peak 526 LAT/LONG: 0 0 ; 0 0

SECTION DESCRIPTION: Section begins below Helende Campground at MP 81.5. Site ends at the end of natural slide.

Length	Frequen	су			Transect Inf				
Species	СМ	Method	Number	Sec	tion Length (m):	:	170		
	Group		Measured	Elev	ation (m):		1262		
MWF		SN	2.00		dient (%):		0.51%		
MWF	12	SN	2.00	Pop	ulation Est:		0.0	S.E(popest):	0
MWF	15	SN	1.00	Sha	de (%):		0.0		
MWF	20	SN	1.00	Mea	n Width (m):				
MWF	30	SN	3.00	Mea	n Depth (m):				
MWF	33	SN	2.00	Cov	er (%):				
MWF	38	SN	1.00						
WRB	7	SN	2.00		Habitat Type:				
WRB		SN	1.00	Pool		%			
WRB		SN	1.00	Riffle		%			
WRB	20	SN	1.00	Run		%			
				Poci	ket:	%			
					Substrate				
				Orga	anic:	%			
				San	d:	%			
				Grav		%			
				Rub	ble:	%			
				Boul	der:	%			
				Bedi	rock:	%			
					Water Ch	emistry			
				Time		,			
				H2O	Temp(C):				
					emp(C):				
				pH:	=				
					linity(mg/l CaC	O3):			
					Iness(uS/cm3):				
					ductivity(mg/l Ć				

SAMPLE DATE: 8/15/96 STREAM: SF PAYETTE R EPA REACH: 17050120009 QUAD MAP: Jackson Peak
RTS: R8E, T9N, S24 LAT/LONG: 44 6.08; 115 27.37
SECTION DESCRIPTION: Section begins 160m upstream of the mouth of Five Mile Creek. QUAD MAP: Jackson Peak LAT/LONG: 44 6.08 ; 115 27.37

Length	Frequen	су		Transect	:			
Species	СМ	Method	Number	Section Length (r	m):	160		
Openies	Group	Mictiliou	Measured	Elevation (m):		1283		
BLT	33	SN	1.00	Gradient (%):	(	).70%		
HRB	28	SN	2.00	Population Est:		0.0	S.E(popest):	0
MWF	15		1.00	Shade (%):		0.0		
MWF	25	SN	4.00	Mean Width (m):		•		
MWF		SN	2.00	Mean Depth (m):				
WRB	7		3.00	Cover (%):				
WRB	10	SN	7.00	` ,				
WRB	12	SN	2.00	Habitat Type	e:			
WRB	15	SN	8.00	Pool:	%			
WRB	17	SN	4.00	Riffle:	%			
WRB	20	SN	4.00	Run:	%			
WRB	22	SN	2.00	Pocket:	%			
WRB	25	SN	1.00					
				Substra	-			
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water 0	Chemistry			
				Time:				
				H2O Temp(C):				
				Air Temp(C):				
				pH;				
				Alkalinity(mg/l Ca				
				Hardness(uS/cm3				
				Conductivity(mg/l	CaCO3):			

 STREAM:
 SF PAYETTE R
 SAMPLE DATE:
 8/15/96

 EPA REACH:
 17050120009
 QUAD MAP:
 Jackson Peak

 RTS:
 R8E, T9N, S24
 LAT/LONG:
 44 5.89 ; 115 27.83

SECTION DESCRIPTION: Section begins at MP 82.4 and ends ~ 20 yds upstream of Helende Creek.

Length	Length Frequency			Transect Information				
Species	СМ	Method	Number	Section Length	(m):	110		
	Group		Measured	Elevation (m):		1271		
HRB	28	SN	1.00	Gradient (%):		0.70%		
HRB	30	SN	2.00	Population Est:		0.0	S.E(popest):	0
MWF	22	SN	1.00	Shade (%):		0.0		
MWF	25	SN	6.00	Mean Width (m)	:			
MWF	30	SN	3.00	Mean Depth (m)	):			
MWF	33	SN	5.00	Cover (%):				
MWF		SN	2.00					
WRB	7		5.00	Habitat Ty <sub>l</sub>				
WRB			3.00	Pool:	%			
WRB		SN	4.00	Riffle:	%			
WRB	15	SN	6.00	Run:	%			
WRB	17	SN	2.00	Pocket:	%			
WRB	20	SN	7.00					
WRB	22	SN	1.00	Substr	ate			
WRB	25	SN	2.00					
WRB	28	SN	1.00	Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water	Chemistry			
				Time:	•			
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l C Hardness(uS/cm Conductivity(mg	n3):			

STREAM: SF PAYETTE R

SAMPLE DATE:

8/15/96

EPA REACH: 17050120009 RTS: R8E, T9N, S32

QUAD MAP: Lowman LAT/LONG: 44 4.31 ; 115 31.97

SECTION DESCRIPTION: Section begins at MP 78 just above the pullout.

Length	Frequen	су		Transect Information:				
Species	СМ	Method	Number	Section Length (m)	):	135		
Species	Group	METHOR	Measured	Elevation (m):		1271		
HRB	28	SN	1.00	Gradient (%):		0.57%		
HRB	30		12.00	Population Est:		0.0	S.E(popest):	0
MWF	15	SN	1.00	Shade (%):		0.0	C.E(popest).	٠
MWF	17	SN	1.00	Mean Width (m):		0.0		
MWF	30		4.00	Mean Depth (m):				
WRB	7	SN	2.00	Cover (%):				
WRB	10		7.00	00101 (70).				
WRB		SN	9.00	Habitat Type:				
WRB	15		10.00	Pool:	%			
WRB	17	SN	2.00	Riffle:	%			
WRB	20	SN	4.00	Run:	%			
WRB	22	SN	2.00	Pocket:	%			
WRB	30	SN	1.00					
				Substrate				
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	emistry			
				Time:				
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/I CaC Hardness(uS/cm3): Conductivity(mg/I C				

STREAM: SF PAYETTE R

SAMPLE DATE:

8/15/96

EPA REACH: 17050120010 RTS: R8E, T9N, S24

QUAD MAP: Jackson Peak LAT/LONG: 44 6.09 ; 115 26.96 SECTION DESCRIPTION: Section begins 150 yds upstream from USFS fire placards at MP 83.1.

Length	Frequen	су		Trar	nsect Informati	on:		
Species	СМ	Method	Number	Section Len	igth (m):	210		
<b>-</b> p-0.00	Group		Measured	Elevation (n	n):	1384		
HRB	28	SN	2.00	Gradient (%	•	0.76%		
HRB	30		4.00	Population I		0.0	S.E(popest):	0
HRB	33		1.00	Shade (%):		0.0	G. <u>L</u> (popost).	J
MWF	7	SN	3.00	Mean Width		0.0		
MWF	15	SN	6.00	Mean Depth	` '			
MWF	17	SN	1.00	Cover (%):	, (111 <i>)</i> .			
MWF	20		2.00	Cover (70).				
MWF	25		6.00	Hobits	it Type:			
MWF	30		6.00		н туре. %			
			1.00	Pool:	% %			
MWF	33			Riffle:				
WRB	5	SN	1.00	Run:	%			
WRB	7	SN	27.00	Pocket:	%			
WRB	10	SN	25.00	_	_			
WRB	12		31.00	Su	ıbstrate			
WRB	15	SN	27.00					
WRB	17	SN	8.00	Organic:	%			
WRB	20	SN	18.00	Sand:	%			
WRB	22	SN	2.00	Gravel:	%			
WRB	25	SN	4.00	Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				w	ater Chemistry	,		

Vater Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

 STREAM:
 SF PAYETTE R
 SAMPLE

 EPA REACH:
 17050120010
 QUAD M

 RTS:
 R9E, T9N, S17
 LAT/LON

SAMPLE DATE: 8/15/96
OLIAD MAP: Jackson Peak

QUAD MAP: Jackson Peak LAT/LONG: 44 6.95 ; 115 25.35

SECTION DESCRIPTION: Section begins downstream of Richards Creek below some cabins and ends at Red Root cabin.

Length	Frequen	су		Transect In				
Species	СМ	Method	Number	Section Length (m)	):	115		
0,000.00	Group		Measured	Elevation (m):		1311		
MWF		SN	1.00	Gradient (%):		0.61%		
MWF	25	SN	1.00	Population Est:		0.0	S.E(popest):	0
MWF	28	SN	1.00	Shade (%):		0.0	, ,	
MWF	30	SN	1.00	Mean Width (m):				
MWF	38	SN	1.00	Mean Depth (m):				
WRB	5	SN	2.00	Cover (%):				
WRB	7	SN	6.00	` '				
WRB	10	SN	9.00	Habitat Type:				
WRB	12	SN	4.00	Pool:	%			
WRB	15	SN	10.00	Riffle:	%			
WRB	17	SN	1.00	Run:	%			
WRB	20	SN	4.00	Pocket:	%			
WRB	22	SN	1.00					
WRB	25	SN	2.00	Substrate	•			
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				· Water Ch	nemistry			
				Time:				
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaC Hardness(uS/cm3) Conductivity(mg/l C	:			

 STREAM:
 SF PAYETTE R
 SAMPLE DATE:
 8/15/96

 EPA REACH:
 17050120011
 QUAD MAP:
 Jackson Peak

 RTS:
 R9E, T9N, S10
 LAT/LONG:
 44 7.17; 115 23.17

SECTION DESCRIPTION: Section begins just above Tenmile Creek and ends at MP 86.7 - Hwy 21 and Little Tenmile.

Length	Frequen	Су		Trans	ect Information	on:		
Cassian	СМ	Method	Number	Section Leng	ith (m):	125		
Species	Group	Method	Measured	Elevation (m)	١٠	1329		
HRB	25	SN	2.00	Gradient (%):		0.57%		
HRB	28	SN	1.00	Population E		0.0	S.E(popest):	0
HRB	30	SN	1.00	Shade (%):	<b>3</b> 1.	0.0	O.L(popest).	· ·
MWF	12	SN	1.00	Mean Width (	(m):	0.0		
MWF	15	SN	1.00	Mean Depth				
MWF	17	SN	1.00	Cover (%):	(111).			
MWF	30	SN	5.00	Cover (76).				
WRB	7	SN	3.00	Habitat	Type:			
WRB	10	SN	2.00	Pool:	1 ype. %			
WRB	12		7.00	Riffle:	%			
WRB	15	SN	4.00	Run:	%			
WRB	17		2.00	Pocket:	%			
WRB		SN	5.00	1 Ocket.	70			
WRB		SN	1.00	Sub	strate			
VVIND		011	1.00	Organic:	%			
				O.92	,,			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Wat	ter Chemistry			
				Time:				
				H2O Temp(C	)·			
				Air Temp(C):	,-			
				pH:				
				Alkalinity(mg/	(I CaCO3):			
				Hardness(uS/	•			
				Conductivity(r				
				(	J			

STREAM:

SF PAYETTE R

SAMPLE DATE:

8/15/96

EPA REACH: 17050120013

QUAD MAP:

Tyee Mountain

RTS: R9E, T9N, S14

LAT/LONG: 44 7.19; 115 21.48

SECTION DESCRIPTION: Section begins 170 m up from the mouth of Cassner Creek. at MP 88.1.

Species	CM Group	Method	Number Measured
MWF	12	SN	2.00
MWF	15	SN	1.00
MWF	20	SN	2.00
MWF	25	SN	1.00
MWF	30	SN	5.00
WRB	7	SN	6.00
WRB	10	SN	7.00
WRB	12	SN	5.00
WRB	15	SN	6.00
WRB	20	SN	2.00

Transect Information:

Section Length (m): 170 Elevation (m): 1345 Gradient (%): 0.76%

Population Est: 0.0 0.0 S.E(popest):

0

Shade (%): Mean Width (m): Mean Depth (m): Cover (%):

Habitat Type:

Pool: % Riffle: Run: % Pocket:

Substrate

Organic: Sand: % Gravel: % Rubble: % Boulder: % Bedrock: %

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R EPA REACH: 17050120013 RTS: R9E, T9N, S12

8/13/96

SAMPLE DATE: 8/13 QUAD MAP: Eightmile Mtn LAT/LONG: 44 7.77; 115 20.12

SECTION DESCRIPTION: Section begins .6 mi upstream from MP 89.

Length	Frequen	су		Transect In	formatio	n:		
Species	СМ	Method	Number	Section Length (m)	):	105		
•	Group		Measured	Elevation (m):		1348		
HRB	30	SN	1.00	Gradient (%):		0.79%		
MWF	17	SN	1.00	Population Ést:		0.0	S.E(popest):	0
MWF	28	SN	1.00	Shade (%):		0.0	, ,	
MWF	30	SN	1.00	Mean Width (m):				
MWF	33	SN	3.00	Mean Depth (m):				
MWF	35	SN	1.00	Cover (%):				
WRB	5	SN	2.00	. ,				
WRB	7	SN	9.00	Habitat Type:				
WRB		SN	14.00	Pool:	%			
WRB		SN	15.00	Riffle:	%			
WRB	15	SN	12.00	Run:	%			
WRB	17	SN	7.00	Pocket:	%			
WRB		SN	8.00					
WRB		SN	4.00	Substrate	•			
WRB	25	SN	2.00					
WRB	30	SN	2.00	Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				. Water Ch	nemistry			
				Time:				
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaC Hardness(uS/cm3) Conductivity(mg/l C	:			

STREAM: SF PAYETTE R

8/13/96

SAMPLE DATE: 8/1: QUAD MAP: Eightmile Mtn LAT/LONG: 44 8.23 ; 115 18.89 EPA REACH: 17050120013 RTS: R10E, T9N, S7

SECTION DESCRIPTION: Section starts at MP 90.0 ~100 yds upstream from mouth of Chapman Creek.

Length Frequency				Transec	t Information	on:		
Species	СМ	Method	Number	Section Length	(m):	105		
Opcoics	Group	141011104	Measured	Elevation (m):		1384		
HRB	25	SN	1.00	Gradient (%):		0.93%		
MWF	25	SN	2.00	Population Est:		0.0	S.E(popest):	0
MWF	30		3.00	Shade (%):		0.0	(1 1 7	
WRB	5	SN	2.00	Mean Width (m	):			
WRB	7	SN	10.00	Mean Depth (m				
WRB	10	SN	18.00	Cover (%):	,			
WRB	12	SN	18.00					
WRB	15	SN	10.00	Habitat Ty	/pe:			
WRB	17	SN	7.00	Pool:	%			
WRB	20	SN	3.00	Riffle:	%			
WRB	22	SN	3.00	Run:	%			
WRB	25	SN	2.00	Pocket:	%			
WRB	28	SN	1.00					
WRB	30	SN	1.00	Subst				
				Organic:	%			
				Sand:	%			
				Gravel:	% %			
				Rubble:	% %			
				Boulder:	%			
				Bedrock:	%			
				Douroux.	70			
				Wate	r Chemistry	1		
				Time:				
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/I ( Hardness(uS/c) Conductivity(mg	m3):	:		

 STREAM:
 SF PAYETTE R
 SAMPLE DATE:
 8/13/96

 EPA REACH:
 17050120016
 QUAD MAP:
 Eightmile Mtn

 RTS:
 R10E, T10N, S32
 LAT/LONG:
 44 9.01;
 115 17.76

SECTION DESCRIPTION: Section begins at MP 92.3 at the middle of the pull off above guardrail.

Length Frequency				Transect	t Informatio	on;		
Species	СМ	Method	Number	Section Length	(m):	85		
000000	Group		Measured	Elevation (m):		1415		
MWF	30	SN	4.00	Gradient (%):		0.83%		
MWF	33	SN	2.00	Population Est:		0.0	S.E(popest):	0
MWF	35	SN	1.00	Shade (%):		0.0	(1 -1 7	
WRB	5	SN	1.00	Mean Width (m)	):			
WRB	7	SN	10.00	Mean Depth (m)	):			
WRB	10	SN	14.00	Cover (%):				
WRB	12	SN	9.00					
WRB	15	SN	9.00	Habitat Ty <sub>l</sub>	Habitat Type:			
WRB	20	-	4.00	Pool:	%			
WRB	22		2.00	Riffle:	%			
WRB	25	SN	3.00	Run:	%			
WRB	30	SN	1.00	Pocket:	%			
				Substra	ate			
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water	Chemistry			
				Time:	On Common y			
				H2O Temp(C): Air Temp(C):				
				pH:	-00%			
				Alkalinity(mg/l C				
				Hardness(uS/cm	13):			

Conductivity(mg/l CaCO3):

SF PAYETTE R STREAM:

SAMPLE DATE:

8/13/96

EPA REACH: 17050120017 QUAD MAP: Grandjean
RTS: R11E, T10N, S33 LAT/LONG: 44 9.66; 115 11.49
SECTION DESCRIPTION: Section is located 60 yds downstream from the mouth of Bear Creek.

Length	Frequen	су		Transect	Information	n:		
		Method	Number	Section Length (	<b>m)</b> :	45		
Species	CM Group	Method	Measured	Elevation (m):		1627		
вкт	15	SN	1.00	Gradient (%):		0.76%		
MWF	7	SN	1.00	Population Est:		0.0	S.E(popest):	0
MWF	25	SN	1.00	Shade (%):		0.0	O.L(popest).	U
WRB	25 5	SN	1.00	Mean Width (m):		0.0		
WRB	5 7	SN	4.00	Mean Depth (m):				
WRB	10		4.00	Cover (%):				
WRB		SN	3.00	Cover (76).				
WRB	15		2.00	Habitat Typ	٠.			
WRB		SN	1.00	Pool:	%			
VVKD	22	SIN	1.00	Riffle:	%			
				Run:	%			
				Pocket:	%			
				1 ooket.	,,			
				Substra	ate			
				Organic:	%			
				Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water (	Chemistry			
				Time:	•			
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l Ca Hardness(uS/cm: Conductivity(mg/l	3):			

STREAM:

SF PAYETTE R

SAMPLE DATE:

8/13/96

EPA REACH: 17050120020 RTS: R11E, T9N, S2

QUAD MAP: Grandjean LAT/LONG: 44 8.76 ; 115 9.22

SECTION DESCRIPTION: Section begins at the confl. of Trail Creek near Grandjean campground.

 nati	 	 

СМ	Method	Number
Group		Measured
15	SN	1.00
25	SN	1.00
7	SN	1.00
10	SN	3.00
15	SN	2.00
	Group 15 25 7 10	Group 15 SN 25 SN 7 SN

Transect Information:

Section Length (m):	72		
Elevation (m):	1555		
Gradient (%):	0.76%		
Population Est:	0.0	S.E(popest):	0
Shade (%):	0.0		
Mean Width (m):	16.5		
Mean Depth (m):	0.7		
Cover (%):	0		

Habitat Type:

0.0 % Pool: Riffle: 100.0 % % Run: 0.0 0.0 % Pocket:

#### Substrate

Organic:	0	%
Sand:	3	%
Gravel:	27	%
Rubble:	42	%
Boulder:	28	%
Bedrock:	0	%

#### Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: SF PAYETTE R

SAMPLE DATE:

8/13/96

EPA REACH: 17050120020 RTS: R11E, T10N, S34

QUAD MAP: Grandjean LAT/LONG: 44 9.58 ; 115 10.5

SECTION DESCRIPTION: Section begins ~ 150 yds above hot springs below the Sawtooth Lodge

Length	Frequen	су		Transect In	-			
Species	СМ	Method	Number	Section Length (m)	:	60		
Орсою	Group		Measured	Elevation (m):		1640		
BKT	5	SN	1.00	Gradient (%):		1.01%		
BKT	7	SN	9.00	Population Est:		0.0	S.E(popest):	0
BKT	10	SN	8.00	Shade (%):		0.0		
BKT	15	SN	4.00	Mean Width (m):				
BLT	33	SN	1.00	Mean Depth (m):				
MWF	15	SN	1.00	Cover (%):				
MWF	17	SN	1.00					
MWF	20	SN	1.00	Habitat Type:				
MWF	25	SN	2.00	Pool:	%			
MWF	30	SN	1.00	Riffle:	%			
WCT	15	SN	1.00	Run:	%			
WRB	5	SN	2.00	Pocket:	%			
WRB	7	SN	2.00					
WRB	10		2.00	Substrate	·			
WRB	12	SN	1.00					
WRB	15		4.00	Organic:	%			
WRB	17	SN	1.00	Sand:	%			
				Gravel:	%			
				Rubble:	%			
				Boulder:	%			
				Bedrock:	%			
				Water Ch	emistry			
				Time:	·•·····			
				H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaC Hardness(uS/cm3): Conductivity(mg/l C	:			

# Appendix C

Length frequency of captured and measured fish from raft electrofishing on the Boise River, December 1996.

STREAM: Boise R EPA REACH: 17050114026 RTS: R3E, T3N, S30

SAMPLE DATE:

12/17/96

QUAD MAP: Boise South

LAT/LONG: 00;00

SECTION DESCRIPTION: Section begins at riffle immediately below Barber Park float tube launch.

Length Frequency				Transect Inf	formation	:			
Species	СМ	Method	Number	Sect	ion Length (m):	:	0		
Оробіов	Group	mounou	Measured	Flev	ation (m):		2750		
BLS		EF	1.00		lient (%):	1	0.23%		
BLS	46	EF	1.00		ulation Est:		0.0	S.E(popest):	0
HBN	15	EF	1.00	•	de (%):		0.0	o.L(popest).	J
HBN	16	EF	1.00		n Width (m):		0.0		
HBN	20	EF	1.00		п Depth (m):				
HRB	23	EF	2.00		er (%):				
HRB	24	EF	4.00		(/-/-				
HRB	25	EF	1.00		Habitat Type:				
HRB	26	EF	2.00	Pool		%			
HRB	27	EF	3.00	Riffle	<b>e</b> :	%			
HRB	28	EF	1.00	Run:		%			
HRB	29	EF	2.00	Pock	cet:	%			
HRB	33	EF	1.00						
HSK	45	EF	1.00		Substrate				
LSS	-	EF	1.00						
LSS	47	EF	3.00	Orga	inic:	%			
LSS	48	EF	2.00	Sand	<b>i</b> :	%			
LSS		EF	1.00	Grav	el:	%			
LSS		EF	1.00	Rubb	ole:	%			
LSS	55		1.00	Boul		%			
LSS	59		1.00	Bedr	ock:	%			
MTS	-	EF	1.00						
MWF	24	EF	1.00		Water Che	emistry			
MWF		EF	1.00						
MWF	27		2.00	Time			11:00		
MWF		EF	9.00		Temp(C):			8	
MWF		EF	15.00		emp(C):			1	
MWF	30		24.00	pH:		_			
MWF	31		17.00		inity(mg/l CaC	<b>J3</b> ):			
MWF	32		9.00		ness(uS/cm3):				
MWF	33		4.00	Conc	luctivity(mg/l Ca	aCO3):			
MWF	34		3.00						
NSF	43		1.00						
WRB WRB	11 13		2.00						
WRB	13		2.00						
WRB	15		4.00 1.00						
WRB	19		1.00						
VVICD	19	LF	1.00						

STREAM: Boise R SAMPLE DATE: 12/17/96

EPA REACH: 17050114026 QUAD MAP: Boise South RTS: R3E, T3N, S30 LAT/LONG: 0 0; 0 0

SECTION DESCRIPTION: Section begins immediately below 1st irrigation diversion structure drop downstream from Barber

Park

Length Frequency				Transec	t Informatio	n:		
Species	СМ	Method	Number	Section Length	(m):	0		
	Group		Measured	Elevation (m):		2740		
BLS	10	EF	1.00	Gradient (%):		0.23%		
BLS	18		1.00	Population Est:		0.0	S.E(popest):	0
HBN	18		1.00	Shade (%):		0.0	O.—(popoot):	_
HRB		EF	1.00	Mean Width (m)	١٠	0.0		
HRB		EF	1.00	Mean Depth (m	,			
LSS	58	EF	2.00	Cover (%):	<i>,.</i>			
MWF	22		1.00	0010. (70).				
MWF	23	EF	1.00	Habitat Ty	rpe:			
MWF	24		1.00	Pool:	%			
MWF	26	EF	3.00	Riffle:	%			
MWF	27	EF	6.00	Run:	%			
MWF	28	EF	5.00	Pocket:	%			
MWF	29	EF	15.00					
MWF	30	EF	23.00	Substr	rate			
MWF	31	EF	14.00					
MWF	32	EF	13.00	Organic:	%			
MWF	33	EF	5.00	Sand:	%			
MWF	34	EF	2.00	Gravel:	%			
WBN	17	EF	1.00	Rubble:	%			
WRB	9	EF	3.00	Boulder:	%			
WRB	11	EF	2.00	Bedrock:	%			
WRB	13	EF	1.00					
WRB	17	EF	1.00	Water	Chemistry			
WRB	18	EF	1.00					
WRB	30	EF	1.00	Time:		11:0	0 AM	
WRB	36	EF	1.00	H2O Temp(C):			8	
				Air Temp(C):			1	
				pH:				
				Alkalinity(mg/l C	CaCO3):			
				Hardness(uS/cn	,			
				Conductivity(mg	/I CaCO3):			

STREAM: Boise R SAMPLE DATE: 12/17/96

EPA REACH: 17050114026 QUAD MAP: Boise South RTS: R2E, T3N, S24 LAT/LONG: 0 0 ; 0 0

SECTION DESCRIPTION: Section begins at 2nd diversion downstream from Barber Park downstream to Goodwin Dam.

Length Frequency					Transect Int				
Species	СМ	Method	Number	Sec	ction Length (m)	:	0		
0,000.00	Group		Measured	Ele	vation (m):		2735		
HBN		EF	1.00		adient (%):	(	0.23%		
HBN	19	EF	1.00		pulation Est:	-	0.0	S.E(popest):	0
HRB	24		1.00		ade (%):		0.0	(p-p).	_
HRB	26		1.00		an Width (m):		0.0		
MWF	19	EF	1.00		an Depth (m):				
MWF	24	EF	1.00		ver (%):				
MWF	25	EF	1.00						
MWF	27	EF	5.00		Habitat Type:				
MWF	28	EF	2.00	Pod	• •	%			
MWF	29	EF	2.00	Riff	fle:	%			
MWF	30	EF	6.00	Rur	n;	%			
MWF	31	EF	10.00	Pod	cket:	%			
MWF	32	EF	7.00						
MWF	33	EF	4.00		Substrate				
MWF	44	EF	1.00						
WBN	14	EF	1.00	Org	ganic:	%			
WBN	29	EF	1.00	Sar	nd:	%			
WRB	12	EF	2.00	Gra	ivel:	%			
WRB	13	EF	1.00	Ruk	bble:	%			
WRB		EF	1.00	Воц	ulder:	%			
WRB		EF	2.00	Bed	drock:	%			
WRB		EF	1.00						
WRB		EF	1.00		Water Ch	emistry			
WRB	25	EF	1.00		•				
				Tim			11:00		
					O Temp(C):			8	
					Temp(C):			1	
				pH:					
					alinity(mg/l CaC	,			
					dness(uS/cm3):				
				Cor	nductivity(mg/l C	aCO3):			

STREAM: Boise R

SAMPLE DATE:

12/17/96

EPA REACH: 17050114026 QUAD MAP: Boise South
RTS: R2E, T3N, S13 LAT/LONG: 0 0; 0 0
SECTION DESCRIPTION: Section begins where Goodwin channel returns to river at upstream end of Golf course downstream to 200 yds above water treatment plant.

Length	Length Frequency		Trans	sect Informatio	n:			
Species	СМ	Method	Number	Section Leng	jth (m):	0		
Opedies	Group	Mictiloa	Measured	Elevation (m	۸٠	2710		
BLS		EF	1.00	Gradient (%)	•	0.19%		
HRB	24		1.00	Population E		0.0	S.E(popest):	0
HRB	27		1.00	Shade (%):		0.0	(F-F)·	
HSK		EF	1.00	Mean Width	(m):	•		
HSK		EF	1.00	Mean Depth	` '			
LSS	44		2.00	Cover (%):	· · · · ·			
LSS	46		2.00	,				
LSS	50		1.00	Habitat	:Type:			
LSS	52	EF	1.00	Pool:	%			
LSS	56	EF	1.00	Riffle:	%			
MTS	10	EF	1.00	Run:	%			
MWF	18	EF	3.00	Pocket:	%			
MWF	19	EF	4.00					
MWF	20	EF	1.00	Sub	bstrate			
MWF	25	EF	1.00					
MWF		EF	2.00	Organic:	%			
MWF	27	EF	2.00	Sand:	%			
MWF	28	EF	12.00	Gravel:	%			
MWF	29	EF	11.00	Rubble:	%			
MWF	30	EF	11.00	Boulder:	%			
MWF	31	EF	7.00	Bedrock:	%			
MWF	32	EF	12.00					
MWF	33	EF	5.00	Wa	ater Chemistry			
MWF	34	EF	1.00	_				
MWF	35	EF	1.00	Time:		11:0	0 AM	
MWF	49	EF	1.00	H2O Temp(C	•		8	
NSF		EF	1.00	Air Temp(C):			1	
SCP	8	EF	1.00	pH:				,
WBN		EF	1.00	Alkalinity(mg				
WRB		EF	2.00	Hardness(uS	,			
WRB		EF	2.00	Conductivity(	(mg/l CaCO3):			
WRB	14	EF	1.00					
WRB	34	EF	1.00					

STREAM:

Boise R

SAMPLE DATE:

12/18/96

QUAD MAP:

Boise South

EPA REACH: 17050114026 RTS: R2E, T3N, S14

LAT/LONG: 00;00

SECTION DESCRIPTION: Section begins at special regulations sign at water treatment plant. end at outflow from

Nature Center Pond.

Length	Frequen	су			t Informatio			
Species	СМ	Method	Number	Section Length	(m):	0		
opecies	Group	MECHOU	Measured	Elevation (m):		2705		
BLS		EF	1.00	Gradient (%):		0.19%		
HRB		EF	1.00	Population Est:		0.0	S.E(popest):	0
HRB	20	EF	2.00	Shade (%):		0.0	O.L(popest).	· ·
HRB		EF	1.00	Mean Width (m	١٠	0.0		
HRB	25	EF	1.00	Mean Depth (m				
HSK		EF	1.00	Cover (%):	<i>)</i> .			
HSK	49	EF	1.00	Cover (70).				
MWF		EF	1.00	Habitat Ty	me.			
MWF	25	EF	1.00	Pool:	, ре. %			
MWF	26	EF	2.00	Riffle:	%			
MWF	27	EF	7.00	Run:	%			
MWF	28	EF	10.00	Pocket:	%			
MWF		ĒF	8.00	r ocket.	70			
MWF	30	EF	15.00	Subst	rate			
MWF	31	EF	23.00	Gubati				
MWF	32		14.00	Organic:	%			
MWF	33	EF	4.00	Sand:	%			
MWF	34	EF .	2.00	Gravel:	%			
MWF	40	EF	1.00	Rubble:	%			
MWF	43	EF	1.00	Boulder:	%			
RSS	9	EF	1.00	Bedrock:	%			
RSS	10	EF	1.00		,,			
WBN	11	EF	1.00	Water	Chemistry			
WBN		EF	2.00					
WBN	15	EF	2.00	Time:		11:3	0 AM	
WBN	17		1.00	H2O Temp(C):			7	
WBN	27	EF	1.00	Air Temp(C):			0	
WBN	29	EF	2.00	pH:				
WBN	30	EF	1.00	Alkalinity(mg/l C	CaCO3):			
WBN	34	EF	1.00	Hardness(uŠ/cr				
WBN	37	EF	1.00	Conductivity(mg				
WBN	42	EF	1.00	• •				
WRB	10	EF	2.00					
WRB	11	EF	4.00					
WRB		EF	1.00					
WRB	14	EF	2.00					
WRB		EF	1.00					
WRB		EF	1.00					
WRB	39		1.00					

STREAM: Boise R SAMPLE DATE: 12/18/96

EPA REACH: 17050114026 QUAD MAP: Boise South
RTS: R2E, T3N, S14 LAT/LONG: 0 0; 0 0
SECTION DESCRIPTION: Start at riprap on S. bank at top of riffle below mouth of Loggers creek. End 150 yds above

Broadway Bridge.

Length Frequency				Transect Inform	ation:		
Species	СМ	Method	Number	Section Length (m):	0		
Species	Group	Method	Number Measured	Elevation (m):	2695		
HBN		EF	1.00	` ,	0.27%		
HBN		EF	1.00	Gradient (%): Population Est:	0.27%	S.E(popest):	0
HRB		EF	1.00	Shade (%):	0.0	S.⊏(popest).	U
HRB			2.00	• • • • • • • • • • • • • • • • • • • •	0.0		
HRB			2.00	Mean Width (m):			
HRB		EF	1.00	Mean Depth (m):			
HRB	23		1.00	Cover (%):			
HRB		EF	2.00	Habitat Type:			
HRB	25		5.00	Pool: %			
HRB		EF	1.00	Riffle: %			
HRB		EF	5.00	Run: %			
HRB		EF	2.00	Pocket: %			
HRB		EF	4.00	Focket. %			
HRB	30		1.00	Substrate			
HRB	31	EF	3.00	Substrate			
LSS	53		1.00	Organic: %	<u>,</u>		
MWF	17	EF	1.00	Sand: %			
MWF	18	EF	1.00	Gravel: %			
MWF	19	EF	1.00	Rubble: %			
MWF	27	EF	1.00	Boulder: %			
MWF	28	EF	1.00	Bedrock: %			
MWF	29	EF	1.00	Dedrock. //	D		
MWF	30	EF	4.00	Water Chemis	etn.		
MWF	31	EF	2.00	VVater Chemis	ou y		
MWF	32	EF	2.00	Time:	11.1	30 AM	
MWF		EF	1.00	H2O Temp(C):	11.	7	
MWF	38	EF	1.00	Air Temp(C):		Ó	
MWF		EF	1.00	pH:		· ·	
WBN		EF	2.00	Alkalinity(mg/l CaCO3):			
WBN		EF	2.00	Hardness(uS/cm3):			
WBN		EF	1.00	Conductivity(mg/l CaCC	3).		
WBN		EF	1.00	Conductivity (mg/r Cacc	,.		
WBN	29	EF	1.00				
WBN		EF	1.00				
WBN	40		1.00				
WRB		EF	2.00				
WRB	13		4.00				
WRB	14		4.00				
WRB	15		2.00				
WRB	18		1.00				
WRB		EF	2.00				
WRB	27		1.00				
			1.00				

STREAM: Boise R SAMPLE DATE: 12/18/96

EPA REACH: 17050114026 QUAD MAP: Boise South RTS: R2E, T3N, S10 LAT/LONG: 0 0; 0 0

SECTION DESCRIPTION: Section begins at Broadway bridge; ends 80 yds upstream from BSU foot bridge.

Length	Frequen	су			ct Informatio			
Species	СМ	Method	Number	Section Length	( <b>m</b> ):	0		
Орсска	Group	Medioa	Measured	Elevation (m):		2690		
HBN	•	EF	1.00	Gradient (%):		0.27%		
HRB		EF	1.00	Population Est:		0.0	S.E(popest):	0
HRB		EF	2.00	Shade (%):		0.0	o(popost).	Ū
HRB		EF	1.00	Mean Width (m	٠)٠	0.0		
HRB		EF	2.00	Mean Depth (m	,			
HRB		EF	1.00	Cover (%):	1).			
HRB		EF	2.00	00101 (70).				
HRB	28	EF	3.00	Habitat Ty	vne.			
HRB		EF	1.00	Pool:	% %			
HRB		EF	1.00	Riffle:	%			
HSK		EF	1.00	Run:	%			
LSS		EF	1.00	Pocket:	%			
LSS		EF	1.00		,•			
LSS		EF	1.00	Subst	rate			
LSS		EF	1.00					
LSS		EF	1.00	Organic:	%			
LSS		EF	1.00	Sand:	%			
MWF		EF	1.00	Gravel:	%			
MWF	17	EF	3.00	Rubble:	%			
MWF	18	EF	6.00	Boulder:	%			
MWF	19	EF	5.00	Bedrock:	%			
MWF	21	EF	1.00					
MWF	24	EF	1.00	Wate	r Chemistry			
MWF	25	EF	1.00		•			
MWF	26	EF	4.00	Time:		11:3	30 AM	
MWF	27	EF	1.00	H2O Temp(C):			7	
MWF	29	EF	5.00	Air Temp(C):			0	
MWF	30	EF	6.00	pH:				
MWF	31	EF	9.00	Alkalinity(mg/l (	CaCO3):			
MWF	32	EF	7.00	Hardness(uS/ci	m3):			
MWF	33	EF	2.00	Conductivity(mg	g/I CaCO3):			
MWF	34	EF	1.00					
MWF		EF	2.00					
RSS	9	EF	4.00					
RSS	10	EF	4.00					
RSS	11	EF	4.00					
RSS	12	EF	2.00					
RSS	13	EF	1.00					
WBN	14	EF	1.00					
WBN	31	EF	1.00					
WBN		EF	1.00					
WBN		EF	1.00					
WRB		EF	1.00					
WRB		EF	1.00					
WRB	20		1.00					
WRB	24		1.00					
WRB	25	EF	1.00					

STREAM: Boise R

SAMPLE DATE:

12/18/96

EPA REACH: 17050114026

QUAD MAP: Boise South LAT/LONG: 0 0 ; 0 0

RTS: R2E, T3N, S10 LAT/LONG: 0 0; SECTION DESCRIPTION: BSU foot bridge to Capitol Bridge.

Length	Frequen	су			ansect Information			
Species	СМ	Method	Number	Section Le	ngth (m):	0		
Openics	Group	Wicking	Measured	Elevation (	m)·	2685		
HBN		EF	1.00	Gradient (		0.27%		
HBN		EF	1.00	Population	•	0.0	S.E(popest):	0
HBN		EF	1.00	Shade (%)		0.0	C(popoot).	•
HBN		EF	1.00	Mean Widt		0.0		
HRB		EF	1.00	Mean Dept	• •			
HRB		EF	1.00	Cover (%):	• ,			
HRB		EF	1.00	Cover (70).				
HRB		EF	2.00	Habit	at Type:			
HRB		EF	1.00	Pool:	at Type. %			
				Riffle:	% %			
HRB		EF	1.00	=				
HSK		EF	1.00	Run:	%			
HSK		EF	1.00	Pocket:	%			
HSK		EF	1.00					
HSK		EF	1.00	S	Substrate			
LSS		EF	1.00					
LSS		EF	2.00	Organic:	%			
LSS		EF	1.00	Sand:	%			
LSS		EF	2.00	Gravel:	%			
LSS		EF	2.00	Rubble:	%			
MWF		EF	1.00	Boulder:	%			
MWF		EF	1.00	Bedrock:	%			
MWF		EF	1.00					
MWF			1.00	V	Vater Chemistry	1		
MWF	31		2.00					
MWF		EF	1.00	Time:		11:3	30 AM	
MWF		EF	1.00	H2O Temp	` '		7	
MWF		EF	1.00	Air Temp(0	<b>)</b> ):		0	
SCP	8	EF	1.00	pH:				
WBN	13	EF	2.00	Alkalinity(n	ng/I CaCO3):			
WBN		EF	2.00	Hardness(	uS/cm3):			
WBN	15	EF	1.00	Conductivi	ty(mg/l CaCO3)			
WBN	16	EF	1.00					
WBN	23	EF	1.00					
WBN	24	EF	1.00					
WBN	29	EF	1.00					
WBN	32	EF	1.00					
WBN	40	EF	2.00					
WBN	44	EF	1.00					
WBN	62	EF	1.00					
WRB	15	EF	3.00					
	_							

#### Appendix D

Summaries of snorkeled sample transects on the Middle Fork Payette River and Silver Creek, July 1996.

STREAM: Payette R, MF EPA REACH: 17050121010 SAMPLE DATE:

7/25/96

QUAD MAP: Pyle Creek RTS: R5E, T11N, S21 LAT/LONG: 00;00

SECTION DESCRIPTION: 4.7 miles upstream from Tie Creek Campground.

Length			
Species	CM	Method	Number
	Group		Measured
HRB	30	SN	1
MWF	5	SN	24
MWF	7	SN	16
MWF	10	SN	5
MWF	12	SN	1
MWF	15	SN	1
MWF	17	SN	1
MWF	20	SN	1
MWF	22	SN	1
MWF	25	SN	4
MWF	27	SN	3
MWF	30	SN	7
MWF	33	SN	5
MWF	35	SN	. 1
SPD	7	SN	12
WRB	5	SN .	1
WRB	7	SN	3
WRB	10	SN	6
WRB	15	SN	1
WRB	17	SN	4
WRB	25	SN	2
WRB	33	SN	1

**Species** 

Transect Information: Section Length (m):

Elevation (m):

Gradient (%):

0.00% Population Est: 0.0 S.E(popest):

61

Shade (%): 0.0 Mean Width (m): 26.0 Mean Depth (m): 0.8 Cover (%): 0

Habitat Type:

Pool: 25.0 % Riffle: 0.0 % Run: 16.7 Pocket: 58.3

STREAM: Payette R, MF SAMPLE DATE: EPA REACH: 17050121010 QUAD MAP:

Pyle Creek LAT/LONG: 00;00 RTS: R5E, T11N, S6

SECTION DESCRIPTION: 2.5 miles above Tie Creek Campground.

Species	CM Group	Method	Number Measured
MWF	25	SN	7
MWF	27	SN	1
MWF	33	SN	15
WRB	4	SN	1
WRB	15	SN	1
WRB	30	SN	1

**Species** 

Transect Infor	mation:
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51 Section Length (m):

7/25/96

Elevation (m):

Gradient (%): 0.00% 0.0 S.E(popest): Population Est:

Shade (%): 0.0 Mean Width (m): 16.8 Mean Depth (m): 0.8 Cover (%): 0

Habitat Type:

Pool: 0.0 % Riffle: 20.0 % 80.0 % Run: 0.0 % Pocket:

#### Substrate

0 % Organic:

25 % Sand: Gravel: 10 % Rubble: 19 % Boulder: 45 % 0 % Bedrock:

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

STREAM:

Payette R, MF

SAMPLE DATE:

7/25/96

EPA REACH: 17050121010 RTS: R5E, T11N, S6

QUAD MAP: Pyle Creek LAT/LONG: 00;00

SECTION DESCRIPTION: 2.3 miles above Tie Creek Campground.

Length	Frequency
--------	-----------

Species	CM Group	Method	Number Measured
HRB	20	SN	1
MWF	20	SN	1
MWF	25	SN	8
MWF	27	SN	6
MWF	30	SN	1
MWF	33	SN	12
MWF	35	SN	1

Transect Information:

Section Length (m):

76

Elevation (m):

Gradient (%): Population Est: 0.00%

0.0 S.E(popest):0

Shade (%): Mean Width (m): 0.0

Mean Depth (m):

20.8

Cover (%):

0.9 0

**Species** 

Habitat Type:

Pool:

0.0 % 20.0 %

Riffle: Run:

80.0 % 0.0 %

Pocket:

Substrate

Organic: 0 %

Sand: 32 %

Gravel:

1 % Rubble: 17 %

Boulder: 32 % %

17 Bedrock:

Water Chemistry

Time:

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

Conductivity(mg/I CaCO3):

STREAM: Silver Creek EPA REACH: 17050121011 SAMPLE DATE: QUAD MAP:

7/24/96

RTS: R5E, T11N, S1

LAT/LONG: 00;00

Boiling Springs SE

SECTION DESCRIPTION: 100 m below bridge entering the valley.

	_
Lenath.	Frequency

Species	CM Group	Method	Number Measured
BKT	12	SN	1
BKT	15	SN	5
BKT	25	SN	1
WRB	10	SN	2
WRB	12	SN	1
WRB	15	SN	3
WRB	20	SN	5

Transect Information:

 Section Length (m):
 50

 Elevation (m):
 0.00%

 Gradient (%):
 0.00 S.E(popest):

 Shade (%):
 0.0

 Mean Width (m):
 7.5

 Mean Depth (m):
 0.4

 Cover (%):
 0

**Species** 

Habitat Type:

Pool: 41.7 % Riffle: 33.3 % Run: 25.0 % Pocket: 0.0 %

#### Substrate

Organic:	0	%
Sand:	27	%
Gravel:	12	%
Rubble:	22	%
Boulder:	37	%
Bedrock:	0	%

#### Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: Silver Creek, Long Fork of SAMPLE DATE: Boiling Springs SE EPA REACH: 17050121013 QUAD MAP:

RTS: R6E, T12N, S20 LAT/LONG: 00;00

SECTION DESCRIPTION: Site is a jeep trial crossing of Silver Creek above road junction of 671 and 671 E.

Length Frequency			Transect Information:	
Species	СМ	Method	Number	Section Length (m): 76.3
	Group		Measured	Elevation (m):
BKT	12	SN	4	Gradient (%): 0.00%
BKT	15	SN	5	Population Est: 0.0 S.E(popest):0
BKT	20	SN	10	Shade (%): 0.0
BKT	30	SN	4	Mean Width (m): 6.9
WRB	5	SN	1	Mean Depth (m): 0.3
WRB	7	SN	1	Cover (%): 0
WRB	10	SN	2	
WRB	12	SN	5	
WRB	15	SN	16	
WRB	20	SN	8	
WRB	25	SN	1	

**Species** Habitat Type: Pool:

26.7 % Riffle: 33.3 % 0.0 % Run: Pocket: 40.0 %

Substrate

7/24/96

Organic: Sand: 43 % Gravel: 6 % Rubble: 46 %

Boulder: 4 % Bedrock: 0 %

Water Chemistry

Time:

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

EPA REACH: 17050121013

RTS: R6E, T12N, S9

STREAM:

Silver Creek, Long Fork of

SECTION DESCRIPTION: Site starts at bridge at end of Road 671 E. Length Frequency Transect Information: Section Length (m): 50 Species CM Method Number Measured Elevation (m): Group Gradient (%): 0.00% Population Est: 0.0 S.E(popest): 0 Shade (%): 0.0 Mean Width (m): Mean Depth (m): Cover (%): **Species** Habitat Type: Pool: % Riffle: Run: % Pocket: % Substrate % Organic: Sand: % Gravel: % % Rubble: % Boulder: Bedrock: Water Chemistry Time: H2O Temp(C): Air Temp(C): pH: Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/I CaCO3):

SAMPLE DATE:

LAT/LONG: 00;00

QUAD MAP:

7/24/96

**Boiling Springs SE** 

STREAM: Payette R, MF EPA REACH: 17050121014 SAMPLE DATE:

7/23/96

RTS: R5E, T12N, S15

QUAD MAP:

**Boiling Springs SE** 

LAT/LONG: 00;00

SECTION DESCRIPTION: First trail crossing above Boiling Spring Guard Station.

Length Frequency

Species

WRB

**Species** 

CM Method Group 15 SN

Number Measured

1

Transect Information:

Section Length (m):

70.3

Elevation (m):

Gradient (%):

0.00%

Population Est: 0.0 S.E(popest): Shade (%): 0.0 Mean Width (m): 20.3

Mean Depth (m): Cover (%):

0.5 0 0

Habitat Type:

0.0 % Pool: Riffle: 33.3 % % Run: 66.7 0.0 % Pocket:

Substrate

0 % Organic:

Sand: 26 % Gravel: 14 % 57 % Rubble: Boulder: 3 % Bedrock: 0 %

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/I CaCO3):

STREAM: Payette R, MF SAMPLE DATE: 7/23/96 EPA REACH: 17050121014 QUAD MAP: Boiling Springs SE

RTS: R5E, T12N, S10 LAT/LONG: 0 0; 0 0 SECTION DESCRIPTION: 1.5 miles above Boiling Springs Guard Station.

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Species	CM Group	Method	Number Measured
MWF	30	SN	5
MWF	35	SN	4
MWF	40	SN	2
WRB	10	SN	1
WRB	12	SN	1
WRB	15	SN	1
WRB	20	SN	2
WRB	25	SN	3

Transect Information:

Section Length (m): 61.5

Elevation (m):

Gradient (%): 0.00%

Population Est: 0.0 S.E(popest):0

 Shade (%):
 0.0

 Mean Width (m):
 14.2

 Mean Depth (m):
 0.8

 Cover (%):
 0

**Species** 

Habitat Type:

Pool: 13.3 % Riffle: 0.0 % Run: 86.7 % Pocket: 0.0 %

Substrate

Organic: 0 %

 Sand:
 33
 %

 Gravel:
 7
 %

 Rubble:
 27
 %

 Boulder:
 15
 %

 Bedrock:
 19
 %

Water Chemistry

Time:

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

STREAM: Payette R, MF SAMPLE DATE: 7/22/96 EPA REACH: 17050121014 QUAD MAP: Boiling Springs SE

RTS: R5E, T12N, S28 LAT/LONG: 0 0 ; 0 0

SECTION DESCRIPTION: 0.7 miles below gate at Boiling Spring Guard Station.

Length	Frequen	су		Transect Information:
Species	СМ	Method	Number	Section Length (m): 65
•	Group		Measured	Elevation (m):
BLT	27	SN	1	Gradient (%): 0.00%
HRB	30	SN	1	Population Est: 0.0 S.E(popest):0
LND	10	SN	1	Shade (%): 0.0
MWF	7	SN	1	Mean Width (m): 11.6
MWF	30	SN	2	Mean Depth (m): 0.9
MWF	33	SN	6	Cover (%): 0
WRB	5	SN	2	
WRB	7	SN	2	
WRB	10	SN	4	
WRB	12	SN	1	
WRB	15	SN	1	
WRB	20	SN	1	

Species Habitat Type:

Pool: 6.7 % Riffle: 40.0 % Run: 53.3 % Pocket: 0.0 %

Substrate

Organic: 0 %

Sand: 36 %

Gravel: 18 %

Rubble: 19 %

Boulder: 21 %

Bedrock: 5 %

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/l CaCO3):

STREAM: Payette R, MF EPA REACH: 17050121014 SAMPLE DATE:

7/22/96

RTS: R5E, T12N, S28

QUAD MAP:

Boiling Springs SE

LAT/LONG: 00;00 SECTION DESCRIPTION: 2.2 miles below gate at Boiling Springs.

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Species	СМ	Method	Number
	Group		Measured
BLT	30	SN	1
MWF	30	SN	8
WRB	5	SN	2
WRB	7	SN	1
WRB	10	SN	6
WRB	12	SN	1
WRB	15	SN	4
WRB	20	SN	3
WRB	25	SN	2

Transect Information:

Section Length (m):

69

Elevation (m): Gradient (%):

0.00%

Population Est: 0.0 S.E(popest):0 Shade (%): 0.0 Mean Width (m): 12.5 Mean Depth (m): 1.3

Cover (%):

0

**Species** 

Habitat Type:

Pool: Riffle: 0.0 % 0.0 %

Run:

86.7 %

Pocket: 13.3 %

#### Substrate

0 % Organic:

47 % Sand: Gravel: 11 % Rubble: 13 %

Boulder: 29 % % Bedrock: 0

#### Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/I CaCO3):

STREAM: Payette R, MF EPA REACH: 17050121014 SAMPLE DATE:

7/24/96

RTS: R5E, T11N, S4

QUAD MAP:

Boiling Springs SE

LAT/LONG: 00;00

SECTION DESCRIPTION: 3.9 miles below gate at Boiling Springs where West Fork Road leaves stream.

Species	CM Group	Method	Number Measured
WRB	5	SN	2
WRB	10	SN	8
WRB	17	SN	3
WRB	20	SN	2

Transect Information:

71 Section Length (m):

Elevation (m):

Gradient (%): 0.00%

Population Est: 0.0 S.E(popest):0 Shade (%): 0.0 Mean Width (m): 17.4

Mean Depth (m): 1.1 Cover (%): 0

**Species** 

Habitat Type:

Pool: 46.7 Riffle: 0.0 % 53.3 % Run: % Pocket: 0.0

#### Substrate

0 % Organic: 58 % Sand: Gravel: 4 % Rubble: 8 % Boulder: 8 %

Bedrock: 22 %

Water Chemistry

Time:

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

Conductivity(mg/I CaCO3):

#### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u> Program: <u>Fisheries Management F-71-R-21</u>

Project I: <u>Surveys and Inventories</u> Subproject I-D: <u>Southwest Region</u>

Job: <u>d</u> Title: Salmon and Steelhead Investigations

Contract Period: July 1, 1996 to June 30, 1997

#### **ABSTRACT**

Regional fisheries staff conducted snorkel surveys for chinook salmon *Oncorhynchus tshawytscha* parr monitoring in Bearskin, Elk, and Sulphur creeks in 1996. Only one chinook parr was observed in the parr monitoring sites in Sulphur Creek. No chinook parr were observed in Bearskin and Elk creeks. No redds were counted in Elk Creek and only one redd was counted in Sulphur Creek in 1995, so low numbers of chinook parr were expected.

Salmon spawning ground surveys were conducted in Bear Valley, Elk, and Sulphur creek trend areas on August 26-29. Redds numbered 15, 17, and 13 in Bear Valley, Elk, and Sulphur creek trend areas, respectively.

Authors:

Dale B. Allen Regional Fishery Biologist

Steve P. Yundt Regional Fishery Manager

#### METHODS

#### **Snorkel Counts**

Parr monitoring snorkel counts were conducted with two snorkelers moving upstream through the trend section identifying fish species and sizes, and recording information on waterproof tablets. Snorkel sections were then measured for area (length and minimum of four widths) snorkeled. Observations were also made and recorded concerning habitat type, substrate particle size, and depth and temperature of water.

#### **Redd Counts**

Redds were enumerated according criteria described in the draft <u>Idaho Redd Counting Manual</u>. Carcasses encountered were identified as to sex (F-female, M-male) and measured (fork length) where possible. Live fish observed were visually classified as to sex and ocean age (jacks, II, or III, IV) when possible.

#### RESULTS

#### **Snorkel Counts**

Three snorkel transects were completed in Bearskin Creek, five in Elk Creek, and two in Sulphur Creek. The only chinook parr seen was seen in Sulphur Creek in the section south of the Sulphur Creek Ranch lodge.

A summary of fish observed, and area, depth, temperature, substrate particle size, and habitat type measurements is included in Appendix A.

#### **Redd Counts**

Salmon redds were counted in trend areas in Bear Valley, Elk, and Sulphur creeks on August 26-29, 1996. Redds counted, dates of counts, live fish observed, and carcasses encountered by area are reported in Table 1.

Timing of redd counts is such that "on time" counts are made as soon as all redds for the year are under construction or complete (draft <u>Idaho Redd Counting Manual</u>). Relative to past years, timing of redd counts in 1996 was on time in Bear Valley Creek, early in Upper Elk Creek (WS-11a), on time in the remainder of Elk Creek, and late in Sulphur Creek.

**TABLES** 

1996 salmon redd counts conducted by southwest regional fishery staff. Table 1.

STREAM	SECTION	DATE	REDDS	LIVE FISH Age & Sex	CARCASSES (Number by sex)
Mine Exclosure	WS-9a	8/26	0	0	0
Mine-Cub Creek	WS-9b	8/26	0	0	0
Cub-Sack Creek	WS-9c	8/28	4	2F,2F,J,3M <sup>1</sup>	2/1
Sack-Elk Creek	WS-9d	8/29	5	2F,3M	0
Elk-Poker Br. Poker Br	WS-10a	8/29	4	Ĵ	4/6
Fir Creek	WS-10b	8/29	2	0	0/1

Bear Valley Creek

<sup>&</sup>lt;sup>1</sup>In addition 7 live fish, unknown age and sex were observed.

	Elk				
STREAM	SECTION	DATE	REDDS	LIVE FISH Age & Sex	CARCASSES (Number by sex)
WF-Twin Br.	WS-11a	8/27	15	2F,2F,2F,3F 3F,3F,3F,J 2M,2M,2M 2M,2M,3M 3M,3M,3M 3M <sup>1</sup>	7/3
Twin Br Guard Sta. Guard Sta	WS-11b	8/28	2	2F,2F <sup>2</sup>	1/1
Mouth	WS-11c	8/28	0	2F	0/0

## Sulphur Creek

STREAM	SECTION	ECTION DATE REDDS LIVE F		LIVE FISH	CARCASSES	
				Age & Sex	(Number by sex)	
Below Ranch	WS-12	08/29	4	0	0	
Above Ranch	OS-4	08/29	9	0	0	

<sup>&</sup>lt;sup>1</sup>In addition 1 live fish, unknown age and sex was observed. <sup>2</sup>In addition 3 live fish, unknown age and sex were observed.

**APPENDICES** 

### Appendix: A

STREAM: Sulphur Creek EPA REACH: 17060205021 SAMPLE DATE:

8/1/96

RTS: R9E, T14N, S22

QUAD MAP:

Big Soldier Mountain, ID

LAT/LONG: 00;00 SECTION DESCRIPTION: opposite rockslide on north side of creek

су

Species	CM Group	Method	Number Measured
MWF	5	SN	53
WCT	30	SN	1
WCT	33	SN	1

Transect Information:

Section Length (m):

100

Elevation (m):

Gradient (%):

1750

Population Est:

S.E(popest):

Shade (%):

Mean Width (m):

9.5 0.6

Mean Depth (m):

Cover (%):

**Species** 

**MWF** Mountain whitefish WCT Westslope Cutthroat trout

Habitat Type: Pool:

20.0 %

0.0 % Riffle:

80.0 % Run: 0.0 % Pocket:

Substrate

0 % Organic:

Sand: 25 %

Gravel: 56 % Rubble: 18 %

Boulder: 1 % Bedrock: 0 %

Water Chemistry

Time:

02:00 PM

17

H2O Temp(C):

Air Temp(C): pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

STREAM: Sulphur SAMPLE DATE: 8/1/96
EPA REACH: 17060205021 QUAD MAP: Big Soldier Mountain, ID

RTS: R9E, T14N, S21 LAT/LONG: 00;00

SECTION DESCRIPTION: straight south of Lodge

	<b></b>			<b></b>			
Length	Frequen	су		I ra Section Le	ansect Info	ormatio	on: 117
Species	CM	Method	Number	Oodion Lo	ngu (m).		, , ,
	Group		Measured	Elevation (			1765
CH0		SN	1	Gradient (			
MWF	_	SN	1	Population	Est:		S.E(popest):
WCT		SN	1	Shade (%)	):		
WCT	38	SN	1	Mean Width (m):			11.6
				Mean Dep	th (m):		0.6
				Cover (%):	:		
Species				Habit	at Type:		
CH0	Chino	ok, Age 0		Pool:		%	
MWF	Moun	tain whitef	ish	Riffle:		%	
WCT	Wests	slope Cutth	roat trout	Run:	66.7	%	
		-		Pocket:	0.0	%	
				S	Substrate		
				Organic:	0	%	
				Sand:	81	%	
				Gravel:	9	%	
				Rubble:	10	%	
				Boulder:	0	%	
				Bedrock:	0	%	
				v	Vater Che	mistrv	
				Time:		,	12:00 PM
				H2O Temp	o(C):		11
				Air Temp(C):			
				pH:			
				Alkalinity(n	ng/l CaCO	3):	
					-		

Hardness(uS/cm3): Conductivity(mg/l CaCO3):

STREAM: Elk Creek
EPA REACH: 17060205026
RTS: R8E, T13N, S35

SAMPLE DATE: 7/31/96 QUAD MAP: Bear Valley Mtn, ID

LAT/LONG: 00;00

SECTION DESCRIPTION:

Species	CM Group	Method	Number Measured
BKT	5	SN	1
BKT	15	SN	2
BKT	33	SN	1
MWF	5	SN	6
MWF	30	SN	2

Transect Information: Section Length (m):

Elevation (m): 1965

130

0.5

S.E(popest):

17

Gradient (%): Population Est:

Shade (%): Mean Width (m): 15.2

Mean Depth (m): Cover (%):

Species

BKT Brook trout
MWF Mountain whitefish

Habitat Type: Pool: 20.0 %

Riffle: 20.0 % Run: 60.0 %

Pocket: 0.0 %

Substrate

Organic: 8 %

 Sand:
 25
 %

 Gravel:
 46
 %

 Rubble:
 21
 %

 Boulder:
 0
 %

Bedrock: 0 %

Water Chemistry

Time: 05:00 PM

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

STREAM: Elk Creek EPA REACH: 17060205026 RTS: R8E, T13N, S36

SECTION DESCRIPTION:

SAMPLE DATE:

7/31/96

QUAD MAP: Bear Valley Mtn, ID

LAT/LONG: 00;00

end			

Species	CM Group	Method	Number Measured
вкт	7	SN	3
вкт	10	SN	1
BKT	12	SN	1
BKT	15	SN	1
BKT	17	SN	1
MWF	5	SN	42
MWF	15	SN	1
MWF	20	SN	4
MWF	25	SN	1
MWF	28	SN	1
MWF	30	SN	2
MWF	33	SN	1
MWF	35	SN	2
WRB	7	SN	3
WRB	10	SN	3

Transect Information:

Section Length (m):

99

1964

Elevation (m): Gradient (%):

Population Est:

S.E(popest):

Shade (%):

Mean Width (m):

17.1 0.6

Mean Depth (m):

Cover (%):

Species

BKT Brook trout **MWF** Mountain whitefish WRB Wild (natural)

Habitat Type:

Pool: 20.0 % Riffle: 26.7 %

Run: 53.3 % 0.0 % Pocket:

Substrate

Organic: 0 %

Sand: 43 % Gravel: 57 % Rubble: 0 % Boulder: 0 % Bedrock: 0 %

Water Chemistry

Time:

05:00 PM

17

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

STREAM:

CHA

**MWF** 

**MWF** 

**MWF** 

**MWF** 

MWF MWF

MWF

MWF

**MWF** 

MWF

Elk Creek

EPA REACH: 17060205026 RTS: R8E, T13N, S26

0 SN

5 SN

10 SN

12 SN 15 SN

20 SN

25 SN

28 SN

30 SN

33 SN

35 SN

SECTION DESCRIPTION:

SAMPLE DATE:

7/31/96

QUAD MAP:

Bear Valley Mtn, ID

LAT/LONG: 00;00

Length Frequency

Transect Information:

161

Section Length (m): CM Method Number Species Group Measured Elevation (m):

3

14

4

7

5

4

6

6

Gradient (%):

1964

Population Est:

S.E(popest):

12

Shade (%):

Mean Width (m):

12.4 8.0

Mean Depth (m):

Cover (%):

Species

CHA **MWF**  Chinook, Adult Mountain whitefish Habitat Type:

Pool: 66.7 % Riffle: 0.0 %

Run: 33.3 %

Pocket: 0.0

Substrate

Organic: 0 %

Sand: 27 % Gravel: 55 % 19 % Rubble: Boulder: 0 %

Bedrock: 0 %

Water Chemistry

Time: 03:00 PM

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

Elk Creek

SAMPLE DATE:

7/31/96

STREAM:

EPA REACH: 17060205026

RTS: R8E, T13N, S13 SECTION DESCRIPTION: QUAD MAP:

Bear Valley Mtn, ID

LAT/LONG: 00;00

Length Frequency

CM Number Species Method Measured Group 5 SN 14 **MWF** 30 SN MWF 2 MWF 35 SN 1

Transect Information:

Section Length (m):

212 1976

Elevation (m): Gradient (%):

S.E(popest):

Population Est: Shade (%):

Mean Width (m):

11.4

Mean Depth (m): 0.4

Cover (%):

Species

**MWF** 

Mountain whitefish

Habitat Type:

Pool: Riffle:

6.7 53.3 %

Run:

40.0 %

Pocket:

0.0 %

Substrate

Organic:

Sand:

33 %

Gravel: Rubble: 35 %

Boulder:

31 %

Bedrock:

0 %

0 %

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

STREAM: Elk Creek EPA REACH: 17060205026 RTS: R8E, T13N, S13 SECTION DESCRIPTION:

SAMPLE DATE: 7/31/96 QUAD MAP: Bear Valley Mtn, ID

LAT/LONG: 00;00

Length Frequency

Transect Information:

CM Method Species Number Section Length (m): 84

Group Measured **MWF** 5 SN 9

Elevation (m): Gradient (%):

1979

Population Est:

S.E(popest):

Shade (%):

Mean Width (m):

7.3

Mean Depth (m):

0.6

Cover (%):

**Species** 

MWF Mountain whitefish Habitat Type:

Pool: % 26.7 Riffle: 0.0 %

Run: 73.3 % Pocket: 0.0 %

Substrate

Organic:

Sand: 20 % Gravel: 48 % Rubble: 27 % Boulder: 5 %

Water Chemistry

0

Time:

H2O Temp(C):

12

12:30 PM

Air Temp(C):

Bedrock:

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3): Conductivity(mg/I CaCO3):

STREAM: Bearskin Creek EPA REACH: 17060205084 RTS: R8E, T12N, S10

SECTION DESCRIPTION:

SAMPLE DATE: QUAD MAP:

7/30/96

Bear Valley Mtn, ID

LAT/LONG: 00;00

Length Frequency

**Species** 

BKT

**WRB** 

Species CM Method Number Group Measured **BKT** 10 SN 2 **BKT** 12 SN 1 BKT 20 SN 3 **WRB** 5 SN 2

Brook trout

Wild (natural)

Transect Information:

Section Length (m):

90

Elevation (m): Gradient (%):

1967

Population Est:

Shade (%):

6.8

S.E(popest):

Mean Width (m): Mean Depth (m):

0.6

Cover (%):

Habitat Type:

Pool: Riffle: 33.3 % 6.7 %

Run: Pocket: 53.3 % 0.0 %

Substrate

Organic:

Sand:

65 %

Gravel: Rubble: 35 % 0 %

Boulder:

0 %

Bedrock:

0 %

Water Chemistry

Time:

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3):

Hardness(uS/cm3):

STREAM: Bearskin Creek EPA REACH: 17060205084 RTS: R8E, T12N, S10 SECTION DESCRIPTION: SAMPLE DATE: 7/30/96 QUAD MAP: Bear Valley Mtn, ID

LAT/LONG: 00;00

Length Frequency

Species	C <b>M</b> Group	Method	Number Measured
BKT	5	SN	2
BKT	7	SN	4
WRB	5	SN	2
WRB	7	SN	1

Transect Information:
Section Length (m): 92

Elevation (m): 1982

Gradient (%):

Population Est:

S.E(popest):

Shade (%):

Mean Width (m): Mean Depth (m): 5.0 0.4

Cover (%):

Pocket:

Species Bro

BKT Brook trout
WRB Wild (natural)

 Habitat Type:

 Pool:
 46.7
 %

 Riffle:
 26.7
 %

Riffle: 26.7 % Run: 26.7 %

0.0 %

Substrate

Organic: 0 %

 Sand:
 72 %

 Gravel:
 28 %

 Rubble:
 0 %

 Boulder:
 0 %

 Bedrock:
 0 %

Water Chemistry

Time:

H2O Temp(C): Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

STREAM: Bearskin Creek EPA REACH: 17060205084 RTS: R8E, T12N, S16

SECTION DESCRIPTION:

SAMPLE DATE:

7/30/96

Cache Creek QUAD MAP:

LAT/LONG: 00;00

Length Frequency

Species CM Method Number Measured Group **BKT** 15 SN 2 **BKT** 25 SN 2

**Species** 

вкт **Brook trout**  Transect Information:

Section Length (m):

93

S.E(popest):

Elevation (m):

Gradient (%):

1988

Population Est: Shade (%):

Mean Width (m):

5.2

Mean Depth (m):

0.5

Cover (%):

Habitat Type:

Pool:

60.0 % 0.0 %

Riffle: Run:

40.0 %

Pocket:

0.0 %

Substrate

Organic:

Sand:

53 %

Gravel: Rubble: 47 %

Boulder:

0 % 0 %

Bedrock:

0

Water Chemistry

Time:

12:53 PM

9

H2O Temp(C):

Air Temp(C):

pH:

Alkalinity(mg/l CaCO3): Hardness(uS/cm3):

#### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u> Name: <u>Fisheries Management F-71-R-21</u>

Project II: <u>Technical Guidance</u> Subproject II-D: <u>Southwest Region</u>

Period Covered: <u>July 1, 1996 to June 30, 1997</u>

#### **ABSTRACT**

Regional fisheries staff continue to provide a large amount of information about regional and statewide fisheries to the general public. Staff coordinated with the Natural Resource Policy Bureau Staff Biologist on comment letters on various topics. One paper was published.

Allen, D.B., K. Fite, J. Nelson, and B.J. Flatter. 1997. Redband Trout *Oncorhynchus mykiss gairdneri* Population and Stream Habitat Surveys in Western Owyhee County, Idaho. Idaho Bureau of Land Management, January 1997.

Authors:

Dale B. Allen Regional Fishery Biologist

Steve P. Yundt Regional Fishery Manager

### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u> Name: <u>Fisheries Management F-71-R-21</u>

Project II: <u>Habitat Management</u> Subproject III-D: <u>Southwest Region</u>

Period Covered: <u>July 1, 1996 to June 30, 1997</u>

#### **ABSTRACT**

Habitat type and substrate measurements, part of standard stream surveys, were made on 14 stream sections from streams in Owyhee County, 10 stream sections on the North Fork Boise River and tributaries, and 10 stream sections on the Middle Fork Payette River and tributaries. Results are reported in Project 1, Job c of this report.

Three and one-half miles of fence was constructed to divide one large pasture into four smaller pastures along West Fork Long Tom Creek and main Long Tom Creek. Also, a small riparian exclosure was constructed on West Fork Long Tom Creek. Four small pastures were created to better utilize existing forage and minimize grazing impacts in riparian areas. Permanent transects were established to monitor stream response to grazing and exclosure construction. Habitat measurements were made both within the exclosure and outside the exclosure. This was a cooperative project between Idaho Department of Fish and Game, Boise Valley Fly Fisherman, Idaho Soil Conservation Service, Elmore County soil Conservation District, Natural Resource Conservation Service and private landowners Steve and Jim Percy of Mountain Home.

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#### 1996 ANNUAL PERFORMANCE REPORT

State of: <u>Idaho</u> Name: <u>Fisheries Management F-71-R-21</u>

Project II: <u>Population Management</u> Subproject IV-D: <u>Southwest Region</u>

Period Covered: <u>July 1. 1996 to June 30. 1997</u>

#### **ABSTRACT**

Warmwater fish species were captured and transferred to Lake Lowell, Paddock Valley Reservoir and C.J. Strike Reservoir rearing ponds in 1996. Lake Lowell received 541 bluegill *Lepomis macrochirus* (mean length =128 mm, mean weight = 69 g) from Brownlee Reservoir on May 29, 1996 and 70 largemouth bass *Micropterus salmoides* from Paddock Valley Reservoir on May 23, 1996. Paddock Valley Reservoir received 270 black crappie *Pomoxis nigromaculatus* (mean length = 163 mm, mean weight = 96 g) from Brownlee Reservoir on May 29, 1996.

C.J. Strike Reservoir rearing ponds received 57 adult white crappie *P. Annularis from* Brownlee Reservoiron May 29, 1996 and 20 adult largemouth bass from Paddock Valley Reservoir on May 23, 1996. White crappie and largemouth bass were placed in separate rearing ponds and allowed to spawn. Following rearing during the summer, juvenile white crappie and largemouth bass were released directly into C.J. Strike Reservoir in October.

Sixty-four bull trout *Salvelinus confluentus* (size range 75-150 mm) were collected from Ballentyne Creek and 50 redband trout Oncorhynchus mykiss gairdneri were collected from Big Silver Creek (tributaries to North Fork Boise River) and released in Bear River on October 7, 1996.

Forty redband trout (size range 100-225 mm) were collected from below Long Tom Reservoir and 90 redband trout (size range 75-150 mm) were collected from Syrup Creek and released in West Fork Long Tom Creek.

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