

**APPENDIX 15-H
2011 FISH AND FISH HABITAT COMPENSATION
BASELINE REPORT**

Seabridge Gold Inc.

KSM PROJECT 2011 Fish and Fish Habitat Compensation Baseline Report

SEABRIDGE GOLD



KSM PROJECT

2011 FISH AND FISH HABITAT COMPENSATION BASELINE REPORT

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Prepared for:

SEABRIDGE GOLD

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Prepared by:



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Executive Summary

The KSM Project infrastructure will require an Authorization under Section 35(2) of the *Fisheries Act* to permit the harmful alteration, destruction or disruption (i.e., HADD) of fish habitat. Fish habitat will be lost as a result of dams, road crossing structures and transmission line crossings. In addition, fish habitat will be lost due to the creation of the Tailing Management Facility (TMF). Fish habitat compensation is required and related to the deposit of deleterious substances within fish bearing watercourses of the TMF and seepage collection ponds. Compensation for the loss of fish habitat within the TMF is governed by Section 36(1) of the *Fisheries Act: Metal Mining Effluent Regulations*.

Wetland habitat will be lost due to KSM Project infrastructure. At the request of Environment Canada (A Robinson pers. comm.), a Wetland Compensation Plan for the proposed KSM project is required. This plan will be designed to mitigate the expected loss of wetland functions and habitats associated with the development of the TMF, and meet the expectations of Environment Canada in regards to the Federal *Wetland Conservation Policy* (Environment Canada 1991). Wetland compensation will be integrated within the fish habitat compensation plan(s).

There are two types of habitat compensation projects identified to compensate for the fish habitat loss. The types are: off-channel creation and instream enhancement. There are six off-channel creation projects and four instream enhancement projects currently proposed.

There were a number of objectives for the 2011 KSM Fish and Fish Habitat Compensation Baseline Program. Generally, the objectives were to assess overwintering habitat within identified fish habitat compensation sites; assess steelhead spawning habitat in Oweegee Creek, Gilbert Creek and East Todedada Creek fish habitat compensation sites; assess rearing habitat within instream fish habitat compensation sites; and propose a fish habitat compensation monitoring plan based upon a synthesis of existing data.

For each instream habitat enhancement project, “poor” and “target” reference stream sites were selected to show differences in abundance, condition and growth within and between streams. For each off-channel habitat enhancement project, “poor” treatment wetlands were selected for comparisons with “target” reference wetlands.

For overwintering habitat assessments, wetland mean ice thickness was 0.6 m and the water column had low dissolved oxygen concentrations. No fish were caught in most wetland and stream sites, except at sites with groundwater influence. For steelhead spawning habitat assessment, a total of 72 steelhead redds were detected in Oweegee Creek with greater than 70 individual fish enumerated. Critical steelhead spawning areas were identified downstream of a confined valley wall section. A total of three steelhead redds were detected within Gilbert Creek with a total of four individual fish enumerated.

The results of cumulative mean instream cover (weighted by wetted area) demonstrate that instream cover at poor habitat (run/cascade) sites is consistently 50% lower compared to target habitat (riffle-pool) sites within the same stream. The results of cumulative mean instream cover demonstrate that target habitat provides a greater diversity of cover types.

Stream CPUE data indicates that, although variable, differences in species-specific CPUE between target and poor habitat are apparent. With respect to each gear type, target habitat CPUE is generally higher than poor habitat CPUE, and in certain cases is statistically significant. Furthermore, biomass/density is higher in target habitats than poor habitat because minnow traps must be used in

combination with electrofishing to effectively sample target pool habitats; and parr and sub-adults are more abundant in pool habitat types.

Wetland CPUE data demonstrates that coho salmon (parr) and Dolly Varden (parr and adult) are more abundant in reference wetlands compared to treatment wetlands, except East Todedada Creek Wetland 2.

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KSM PROJECT

2011 FISH AND FISH HABITAT COMPENSATION BASELINE REPORT

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Glossary and Abbreviations

Terminology used in this document is defined where it is first used. The following list will assist readers who may choose to review only portions of the document.

ANOVA	Analysis of Variance
BACIP	Paired Before-After Control-Impact
CI	Confidence Interval
CPUE	Catch-Per-Unit-Effort
CV	Coefficient of Variation
DFO	Department of Fisheries and Oceans
FDIS	Field Data Inventory System
FHAP	Fish Habitat Assessment Procedures
GPS	Global Positioning System
HADD	Harmful, Alteration, Disruption, Destruction
HV	Horizontal Visibility
KSM	Kerr-Sulphurets-Mitchell
LWD	Large Woody Debris
MMER	Metal Mining Effluent Regulations
MOE	Ministry of Environment
QA	Quality Assurance
QC	Quality Control
RISC	Resource Information Standards Committee
REE	Routine Effectiveness Evaluations
SD	Standard Deviation
SE	Standard Error
SWD	Small Woody Debris
TMF	Tailing Management Facility

1. Project Summary

1.1 PROJECT PROPONENT

Seabridge Gold Inc. (Seabridge) is the proponent for the proposed KSM Project (the Project), a gold, copper, silver, molybdenum mine.

1.2 PROJECT LOCATION

The Project is located in the coastal mountains of northwestern British Columbia. It is approximately 950 km northwest of Vancouver and 65 km northwest of Stewart, within 30 km of the British Columbia-Alaska border (Figure 1.2-1).

1.3 PROJECT OVERVIEW

The Project is located in two geographical areas: the Mine Site and Processing and Tailing Management Area (PTMA), connected by twin 23-km tunnels, the Mitchell-Treaty Twinned Tunnels (Figure 1.3-1). The Mine Site is located south of the closed Eskay Creek Mine, within the Mitchell, McTagg, and Sulphurets Creek valleys. Sulphurets Creek is a main tributary of the Unuk River, which flows to the Pacific Ocean. The PTMA is located in the upper tributaries of Teigen and Treaty creeks. Both creeks are tributaries of the Bell-Irving River, which flows to the Nass River and into the Pacific Ocean. The PTMA is located about 19 km southwest of Bell II on Highway 37.

The Mine Site will be accessed by a new road, the Coulter Creek Access Road, which will be built from km 70 on the Eskay Creek Mine Road. This road will follow Coulter and Sulphurets creeks to the Mine Site. The PTMA will also be accessed by a new road, the Treaty Creek Access Road, the first 3-km segment of which is a forest service road off of Highway 37. The Treaty Creek Access Road will parallel Treaty Creek.

Four deposits will be mined at the KSM Project—Kerr, Sulphurets, Mitchell, and Iron Cap—using a combination of open pit and underground mining methods. Waste rock will be stored in engineered rock storage facilities located in the Mitchell and McTagg valleys at the Mine Site. Ore will be crushed and transported through one of the Mitchell-Treaty Twinned Tunnels to the PTMA. This tunnel will also be used to route the electrical power transmission lines. The second tunnel will be used to transport personnel and bulk materials. The Process Plant will process an average of 130,000 tpd of ore to produce a daily average of 1,200 t of concentrate. Tailing will be pumped to the Tailing Management Facility from the Process Plant. Copper concentrate will be trucked from the PTMA along highways 37 and 37A to the Port of Stewart, which is approximately 170 km away via road.

The mine operating life is estimated at 51.5 years. Approximately 1,800 people will be employed annually during the Operation Phase. Project Construction will take about five years, and the capital cost of the Project is approximately US\$5.3 billion.



Figure 1.2-1

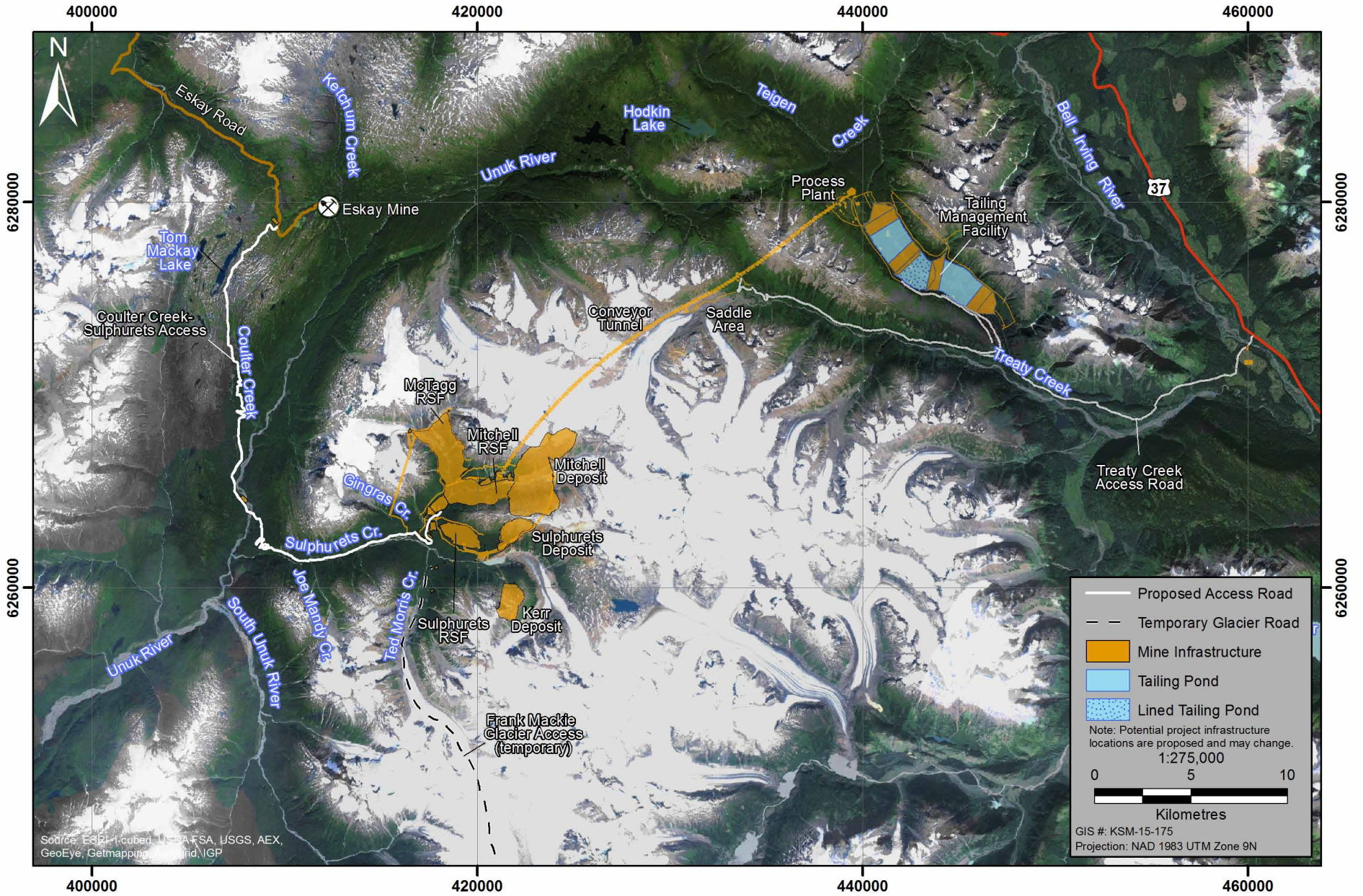


Figure 1.3-1

Figure 1.3-1

2. Introduction

2.1 BACKGROUND

The KSM Project infrastructure will require an Authorization under Section 35(2) of the *Fisheries Act* (DFO 1985) to permit the harmful alteration, destruction or disruption (i.e., HADD) of fish habitat. Fish habitat will be lost as a result of dams, road crossing structures and transmission line crossings.

In addition, fish habitat will be lost due to the creation of a TMF. Fish habitat compensation is required and related to the deposit of deleterious substances within fish bearing watercourses of the TMF and seepage collection ponds. Compensation for the loss of fish habitat within the TMF is governed by Section 36(1) of the *Fisheries Act: Metal Mining Effluent Regulations* (MMER).

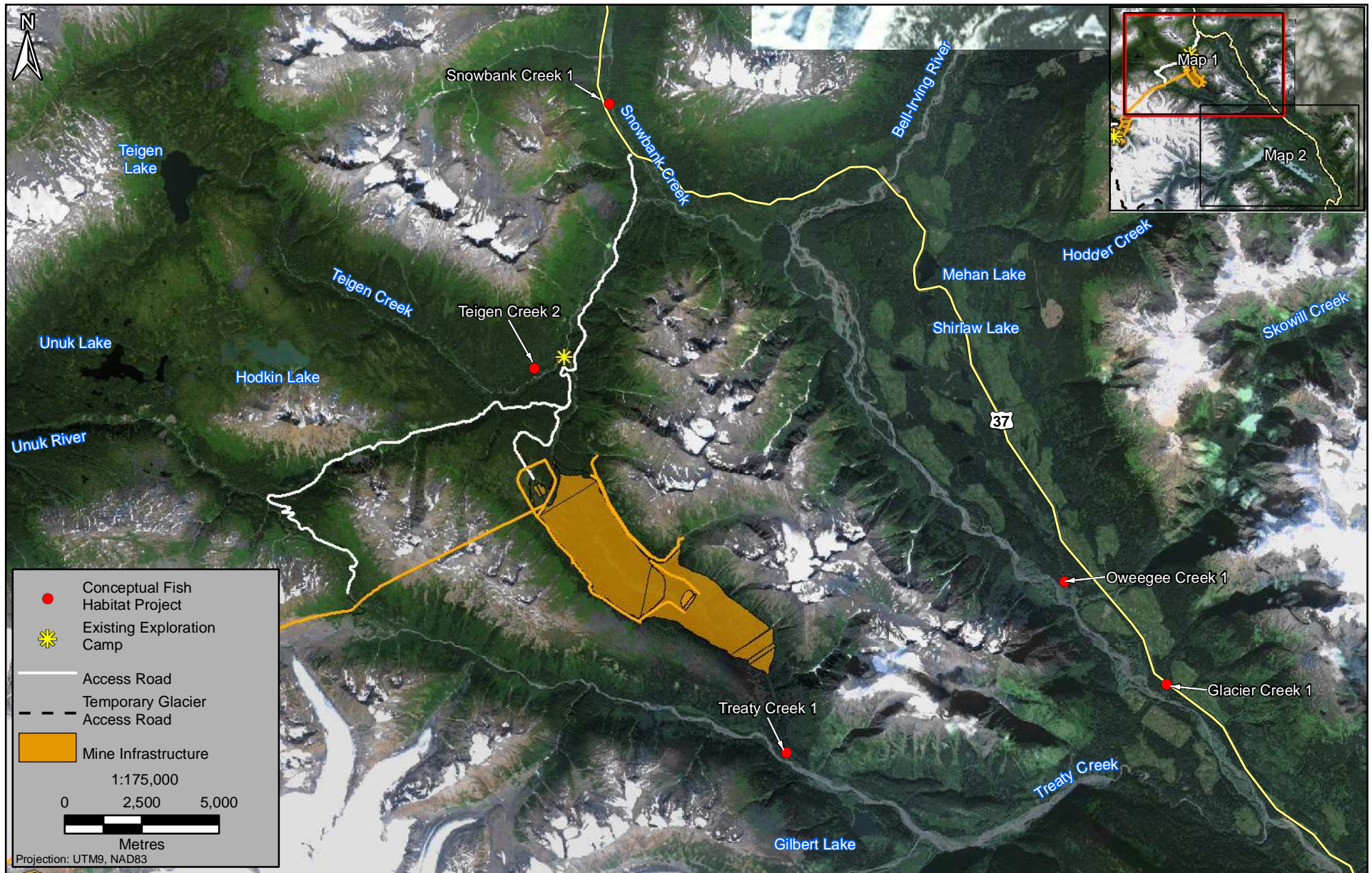
In 2010, desktop analysis and field assessments were conducted to identify a number of conceptual fish habitat compensation projects (Rescan 2011a). Of these conceptual projects, ten were selected for further investigations (i.e., surveying hydrology, engineering) in 2011. The locations of the conceptual projects are presented in Figures 2.1-1 and 2.1-2. The projects are located within seven watersheds. These watersheds include: Teigen, Snowbank, Treaty, Todedada, Glacier, Taft and Oweegee.

Detailed fish and fish habitat assessment data are presented in *KSM Project: 2010 Fisheries Baseline Study Report* (Rescan 2011a) for each compensation project. A summary of fish species and life history stages present at each site is presented in Table 2.1-1. Dolly Varden and coho salmon are the most common species present at the majority of compensation sites. The abundance and distribution of fish at specific compensation sites varies depending upon habitat limitations. Target habitat and species priorities were assigned to each compensation site based upon field assessment data and compensation concept techniques (Table 2.1-2). Target species-specific life history stages were identified for each compensation site.

There are two types of habitat compensation projects identified: off-channel creation and instream enhancement. There are six off-channel creation projects and four instream enhancement projects (Table 2.1-2). Each of these project types are discussed below.

Off-channel habitat is present within and outside of the study area, particularly along the floodplains of Treaty and Teigen creeks, and the Bell-Irving River (Rescan 2010, 2011a). Off-channel habitat includes beaver ponds, side channels, wall-base channels, small tributaries and relic overflow channels along floodplains. Off-channel habitat in the study area is used for summer rearing and overwintering by Dolly Varden and juvenile coho salmon (Rescan 2007, 2009, 2010, 2011a). Off-channel habitats also provide overwintering habitat, which is commonly a limiting factor and a population bottleneck for juvenile salmonids, particularly for coho salmon (Sandercock 1991; Cunjak 1995; Lister and Finnigan 1997; Solazzi et al. 2000). Therefore, the primary biological objective for these conceptual projects is to enhance and create rearing and overwintering habitat in channels, pools and ponds for Dolly Varden and coho salmon.

The biological objectives will be accomplished by constructing ponds, berms, water intakes and small channels along the floodplains of larger streams. New ponds will be excavated or existing ponds deepened and enlarged. Berms will be built to create backwatered ponds connected by small channels. Inlet channels will intercept groundwater and side channels will carry surface water from small tributaries and surface intakes.





Instream enhancement projects involve the creation of pools through the addition of wood, boulders and rock riffles. Pool and cover structures (e.g., wood triangles, log/boulder jams, single logs, opposing v-weirs, rock riffles) will be added to existing channels to improve rearing habitat (Slaney et al. 1997). Wood structures create pools, provide refuge and cover, store and trap sediment, dissipate energy and stabilize channels (Slaney and Martin 1997; Cederholm et al. 1997).

Juvenile salmonids will use the cover and complex shear zones provided by woody debris and boulders in a pool to defend feeding territories. In general, the greater the abundance of cover and pools in a channel, the greater the density of summer rearing and overwintering fish of all life stages (Allan and Lowe 1997; Ward 1997; Slaney and Martin 1997). Fish territory size and preferred depths increase with fish size, hence the deeper and larger a pool becomes, the higher the likelihood it will be used by multiple ages, sizes and species of fish (Keeley et al. 1996). Complex cover within a pool aids juvenile fish in finding refuge from predatory adult fish, each other and peak flows. Adult fish rely upon cover and pools when holding and the tailout sections are commonly used for spawning habitat.

2.2 OBJECTIVES

The overall objective of Fisheries and Oceans Canada's (DFO) *Policy for the Management of Fish Habitat* is to achieve a net gain in the productive capacity of fish habitats (DFO 1986). True gains and losses of habitat are difficult to gauge without clear objectives and structure for biological assessment. To monitor the success of compensation projects rigorous baseline data must be collected to determine the appropriate monitoring method.

There were a number of objectives for the 2011 KSM Fish and Fish Habitat Compensation Baseline Program. The objectives were as follows:

Overwintering Habitat

- determine fish presence, community composition, habitat quality and spatial distribution of overwintering fish habitat within identified fish habitat compensation sites;

Steelhead Spawning Habitat

- determine steelhead spawning habitat distribution and redd abundance in Oweegee Creek, Gilbert Creek and East Todedada Creek fish habitat compensation sites;

Rearing Habitat

- assess the relative abundance, growth and condition of stream rearing salmonids within instream fish habitat compensation sites; and
- assess the relative abundance, growth and condition of wetland rearing Dolly Varden and coho salmon within wetland fish habitat compensation sites.

Table 2.1-1. Species and Life History Stages Present at Compensation Sites

Watershed	Sub-Watershed	Watercourse	Site Number	Project Type	Species and Life Stage Present																				
					Dolly Varden			Bull Trout			Rainbow Trout/ Steelhead			Coho Salmon			Chinook Salmon			Sockeye Salmon			Mountain Whitefish		
					Fry	Parr	Adult	Fry	Parr	Adult	Fry	Parr	Adult	Fry	Parr (1+)	Parr (2+)	Adult	Fry	Parr (1+)	Adult	Fry	Parr	Adult	Fry	Parr
Bell-Irving	Glacier	Glacier Creek	1	Off-channel habitat creation	X	X	X						X			X									
Bell-Irving	Oweegee	Oweegee Creek	1	Mainstem LWD and pool enhancement	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Bell-Irving	Taft	Taft Creek	1	Off-channel habitat creation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Bell-Irving	Taft	Taft Creek	2	Off-channel habitat creation		X	X						X	X	X	X									
Teigen	Snowbank	Snowbank Creek	1	Mainstem pool habitat creation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Teigen	-	Teigen Creek	2	Off-channel habitat creation	X	X	X					X			X	X	X								
Treaty	Todedada	East Todedada Creek	1	Mainstem LWD and pool enhancement	X	X	X						X	X	X	X									
Treaty	Todedada	East Todedada Creek	2	Off-channel pond LWD enhancement	X	X	X						X	X	X	X									
Treaty	Todedada	East Todedada Creek	3	Mainstem LWD and pool enhancement	X	X	X						X	X	X	X				Y		Y			
Treaty	-	Treaty Creek	1	Off-channel pond creation		X	X									X									

Blank cells indicate not present

X indicates species and life history stage confirmed present through fieldwork or FDIS data

Y indicates species only present downstream of 1st beaver dam

Table 2.1-2. Target Habitat, Species, and Life History Stage Priorities for Compensation Sites

Watershed					Target Habitat Priorities				Target Species Priorities						Target Species and Life Stage											
					Watershed	Sub-Watershed	Watercourse	Site Number	Project Type	Spawning	Over-			Dolly Varden	Bull Trout	Rainbow Trout / Steelhead			Coho Salmon	Chinook Salmon			Sockeye Salmon			
											Rearing	wintering	Migration			Fry	Parr	Adult		Fry	Parr	Adult	Fry	Parr	Adult	Fry
Bell-Irving	Glacier	Glacier Creek	1	Off-channel habitat creation	3	1	2		1		2	3			X	X	X	X	X	X	X	X	X			
Bell-Irving	Oweegee	Oweegee Creek	1	Mainstem LWD and pool enhancement	3	2	1			3	1	2				X	X	X	X	X	X	X	X	X		
Bell-Irving	Taft	Taft Creek	1	Off-channel habitat creation	3	1	2			4			3			X	X	X	X	X	X	X	X	X		
Bell-Irving	Taft	Taft Creek	2	Off-channel habitat creation		3	2	1	2			1			X	X	X				X	X	X			
Teigen	Snowbank	Snowbank Creek	1	Mainstem pool habitat creation	3	2	1		5	3	2	4	1		X	X	X	X	X	X	X	X	X	X		
Teigen	-	Teigen Creek	2	Off-channel habitat creation	4	3	1	2	2		3	1			X	X	X				X	X	X			
Treaty	Todedada	East Todedada Creek	1	Mainstem LWD and pool enhancement	3	2	1		2			1			X	X	X				X	X	X			
Treaty	Todedada	East Todedada Creek	2	Off-channel pond LWD enhancement		3	2		2			1			X	X	X				X	X	X			
Treaty	Todedada	East Todedada Creek	3	Mainstem LWD and pool enhancement	3	1	2		2			1			X	X	X				X	X	X		X	X
Treaty	-	Treaty Creek	1	Off-channel pond creation	4	2	1	3	1		3	2			X	X	X				X	X	X			

Dashes indicate not applicable

3. Experimental Design

The purpose of site effectiveness monitoring is to effectively monitor the success of fish habitat enhancement works by comparing fish and fish habitat before and after enhancement. Site effectiveness monitoring is used to ensure that a project is meeting quantitative design objectives. The objectives of site effectiveness monitoring are to quantify the net change in habitat productive capacity (Pearson et al. 2005). Considerations for site effectiveness monitoring include: choosing an appropriate experimental design, choosing the appropriate scales for monitoring, identifying factors limiting production in target populations (bottlenecks), controlling for effects of fish movement, recognizing difficulties in measuring the productive capacity of habitat, avoiding cumulative impacts, and dealing with tradeoffs among species (Pearson et al. 2005).

Before data is collected, an experimental design must be established to address the hypotheses being tested, to anticipate any problems in data collection and to ensure the assumptions underlying statistical tests are met. As recommended by Pearson et al. (2005), a Paired Before-After Control-Impact (BACIP) experimental design was used for this study. It is also the simplest spatially-nested design, with controls at two scales (“local” and “distant”). Local and distant reference sites allows for spatial nesting to permit examination of fish movement effects on local abundance and provides insurance in case of problems with one reference site.

Currently, there are two types of conceptual fish habitat compensation projects proposed (Table 2.1-1). The types are:

- off-channel habitat creation; and
- instream habitat enhancement.

Reference and treatment streams were selected to compare fish abundance between streams, since we are concerned with relative difference between streams. A reference stream represents the conditions one is trying to achieve with the instream habitat enhancement (Roni 2005). A treatment stream represents the stream in which instream habitat enhancement is proposed.

For each instream habitat enhancement project, “poor” and “target” sites were selected to show differences in fish abundance within and between streams (Table 3.1-1). Poor stream sites represent habitat units that have a low productive capacity (i.e., run or cascade habitat units) that would benefit from instream enhancement to increase productive capacity. Target reference stream sites represent habitat units that have a high productive capacity (i.e., pool habitat units) and serve as a reference one is trying to achieve with instream enhancement.

For instream habitat enhancement projects, the analysis is focused on site-level response, not reach-level response to fish abundance (Roni 2005). Inferences about reach-level response can be made post-construction, since sites will be randomly selected.

For each off-channel habitat enhancement project, “poor” treatment wetlands were selected for comparisons with “target” reference wetlands (Table 3.1-2).

Target reference sites were selected to be similar in character to treatment sites, but not assumed to be identical to treatment sites. However, minimizing differences is likely to increase a study’s power to detect change (Pearson et al. 2005).

Table 3.1-1. Instream Habitat Enhancement Project Site Types

Watershed	Watercourse	Site Number	Reference Stream Sites	
			Local (Target and Poor Habitat)	Distant (Target Habitat)
Oweegee	Oweegee Creek	1	Oweegee Creek - Lower	Oweegee Creek - Upper, Gilbert Creek, Snowbank Creek - Trib
Snowbank	Snowbank Creek	1	Snowbank Creek*	Teigen Creek
Todedada	East Todedada Creek	1	East Todedada Creek - Upper	Oweegee Creek - Upper, Gilbert Creek, Snowbank Creek - Trib
Todedada	East Todedada Creek	3	East Todedada Creek - Lower	Oweegee Creek - Upper, Gilbert Creek, Snowbank Creek - Trib

**Only poor habitat present*

Local = Sites located within the same reach

Distant = Sites located within an upstream reach or different watershed

Table 3.1-2. Off-Channel Habitat Creation Project Site Types

Watershed	Watercourse	Site Number	Treatment Wetlands (Poor Habitat)	Reference Wetlands (Target Habitat)
Glacier	Glacier Creek	1	NA	Treaty Wetlands 1, 2, 3 and 7
Taft	Taft Creek	1	NA	Oweegee Wetland 1
Taft	Taft Creek	2	Taft Compensation Wetlands 1 and 2	Teigen Wetland 4, 5, 6, 8, 9
Teigen	Teigen Creek	2	Treaty Compensation Wetlands 1, 2 and 3	
Todedada	East Todedada Creek	2	Todedada Wetland 1 and 2*	
Treaty	Treaty Creek	1	Treaty Compensation Wetlands 1 and 2	

NA = not applicable

4. Methods

4.1 OVERWINTERING HABITAT ASSESSMENT

4.1.1 Fish Habitat

Each overwintering stream/side channel pool habitat site and wetland site was located in the field based upon the previous field seasons site assessment data (Rescan 2011a). Sample locations for overwintering habitat assessment are shown in Table 4.1-1. The timing of this assessment occurred from March 7 to 15, 2011.

Table 4.1-1. Sample Locations for Overwintering Habitat Assessment

Habitat Type	Location
Stream (pool)	Taft Creek
	Glacier Creek
	Oweegee Creek
	East Todedada Creek
	Snowbank Creek
Side Channel (pool)	Oweegee/Bell-Irving
	Teigen Creek
Wetland	East Todedada
	Teigen Creek 2
	Treaty Creek 1
	Treaty Creek Reference

For each wetland and stream/side channel pool habitat site, snow and ice thickness was measured (to the nearest 1 cm) with a tape measure and/or measuring ruler. Water depth was measured (to the nearest 1 cm) with a measuring ruler. Dissolved oxygen (mg/L) was measured with an YSI Meter.

4.1.2 Fish Community and Biology

Fish were sampled using baited minnow traps in each stream/side channel pool and wetland under the ice. Minnow traps were 42 cm long, 23 cm in diameter, constructed of galvanized metal with 6.3 mm mesh size, and possessed a 2 cm diameter opening. Each minnow trap was baited with one roe mesh bag (approximately 10 g in weight) and set overnight.

Single haul minnow trapping CPUE was calculated as an index of relative abundance for all life history stages. All fish captured were placed immediately in a holding tank for biological processing. Captured fish were identified to species and counted. Fork length was measured (to the nearest 1 mm) for all fish captured.

4.2 STEELHEAD SPAWNING ASSESSMENT

Steelhead snorkel/redd surveys were conducted within Oweegee Creek (downstream of the lake), East Todedada Creek and Gilbert Creek to: confirm steelhead spawning presence, determine steelhead spawning habitat distribution throughout the creek, determine timing of steelhead spawning, and provide an index of adult abundance. The timing of this assessment occurred from May 26 to 28, 2011.

Snorkel/redd survey methods followed those detailed in Johnston et al. (2007). Snorkel surveys were conducted with two snorkelers with previous experience conducting steelhead enumeration and redd surveys to develop a consistent application of redd identification. The following data were collected for each snorkel survey: survey date, start and end UTM, start and end time, water clarity (turbid, lightly turbid, moderately turbid, clear), horizontal visibility (m), weather (cloudy, partly cloudy, sunny), water and air temperature (°C), and precipitation (heavy rain, light rain, no rain). Horizontal visibility was measured by one snorkeler holding a black object in the water column, and another snorkeler measured the upstream distance at which he/she could no longer see the object in the water column.

All steelhead observed were enumerated. All redds were identified, measured, flagged and georeferenced. Each redd was assigned a unique number. The number of fish on a redd was recorded, if present. Redd longevity and observer efficiency in redd detection were estimated by tracking the condition of individual redds measured during repeated surveys, if conducted (Gallagher and Gallagher 2005). Each redd was classified as one of the following for each site visit:

1. new since last survey but still clear;
2. still measurable but already measured;
3. no longer measurable but still apparent;
4. no redd apparent, only a flag; and
5. poor conditions; cannot determine if present and measurable or not.

4.3 STREAM SUMMER REARING ASSESSMENT

4.3.1 Site Selection

Consistent application of site selection criteria can reduce the variability of non-normally distributed fish abundance data (Hankin 1984). Due to channel complexity and variable instream cover throughout the reach, standard site lengths were not selected. Site length varied to encompass entire habitat units (riffle, pool, glide, run, cascade) to reduce variability of abundance data.

Target habitat sites (i.e., target habitat to create through instream enhancement) were identified based upon representative riffle-pool habitat unit complexes. Poor habitat sites (i.e., habitat to alter with instream enhancement) were identified based upon representative run or cascade habitat units. All site boundaries commenced at a thalweg crossover point, included one crossover point, and ended at a crossover point. A crossover point is where the stream thalweg is in the centre of the channel during bankfull discharge (Stanfield 2005). Each identified site was assigned a unique number and a sub-sample of sites was selected for assessment with the use of a random number generator from MS Excel.

4.3.2 Fish Habitat

Detailed fish habitat assessments (FHAP) were conducted at all sites to compare channel complexity and instream cover, and to calculate site length (m) and area (m²) (Johnston and Slaney 1996). At each site, UTM coordinates were recorded with a GPS unit. Temperature (°C), pH, and conductivity (µS/cm) were recorded using electronic meters.

FHAP assessments involved differentiating the stream into separate habitat units such as riffles, runs, cascades, glides and pools, and then recording an array of habitat attributes for each unit. These attributes included data on substrate composition, cover for fish and fish habitat type. A complete list of the attributes measured is presented in Table 4.3-1. Data were collected with a measuring tape,

metre stick, or visual estimation. Stream habitats within these sites were separated into the following habitat units:

- pool - low velocity area with smooth, non-turbulent flow, low gradient (near 0%), and a concave bottom;
- glide - an area of smooth, non-turbulent flowing water with moderate velocity and gradient less than 3%;
- riffle - an area of turbulent, fast-flowing water with a gradient less than 3%;
- run - an area of low turbulence, fast-flowing water with a gradient less than 3%; and
- cascade - high gradient (> 3%) area of turbulent, fast-flowing water.

Table 4.3-1. FHAP Attributes Assessed and Measured at Stream Sites

Habitat Type	Substrate Type	Physical Measurements	Habitat	Cover
% Pool	% Sand	Length (m)	Pool Type	% Deep Pool
% Riffle	% Gravel	Wetted Depth (m)	Pool Residual Depth (m)	% Boulder
% Glide	% Cobble	Bankfull Depth (m)	Fish Passage Barriers	% Instream Vegetation
% Cascade	% Boulder	Wetted Width (m)	Off Channel Type	% Overhanging Vegetation
% Run	% Bedrock	Bankfull Width (m)	Islands/Bars	% Undercut Bank
		Gradient (%)	Functional LWD Size Distribution	% LWD
		Bank Height (m)		% SWD
		Temperature (°C)		
		pH		
		Conductivity (µS/cm)		

4.3.3 Fish Community

4.3.3.1 Single Pass Electrofishing

Each site was located and flagged in the field. Electrofishing methods followed those detailed in Johnston et al. (2007). Single pass electrofishing was conducted as an index of abundance. Backpack electrofishing (i.e., Smith-Root LR-24) was conducted within each site by one crew leader and one dip netter. Block nets were not used in single pass electrofishing. Anode ring diameter was 28 cm and dip net diameter was 21 cm with 3.2 mm mesh size. A systematic sweep sampling approach was conducted at each site, in which the entire wetted width was sampled from the downstream to the upstream site boundary (Stanfield 2005). Electrofishing effort was not pre-determined due to differences in site length. Electrofisher voltage (V), duty cycle (%) and frequency (Hz) settings were consistent between sites in each stream.

Single pass electrofishing catch-per-unit-effort (CPUE) was calculated as an index of relative abundance for all life history stages. The assumptions of the assessment were that (Johnson et al. 2007):

- no fish movement in/out of site during the assessment;
- rate of fish catch is proportional to abundance; and
- capture efficiency is independent of field conditions within each creek.

All fish captured were placed immediately in a holding tank for biological processing.

4.3.3.2 *Mark-Recapture Electrofishing*

Each site was located and flagged in the field. Mark-recapture electrofishing was conducted to calibrate index of abundance estimates for East Todedada Creek. The same methods were applied as single pass electrofishing with key differences (Johnston et al. 2007). Block nets (6.3 mm mesh size) were erected at the upstream and downstream boundaries of the site perpendicular to the flow of the water. Block nets were stretched across the stream channel. Small rocks were used to secure the bottom of the net to the streambed. Once the net was secured along the stream channel, the ends were secured to standing timber using ropes. Block nets were erected instream with bipods to reduce drag created by the current (Plate 4.3-1).



Plate 4.3-1. Block net and bipods set perpendicular to the current in East Todedada Creek.

All fish captured were placed immediately in a holding tank for biological processing. For all captured fish, the pelvic fin was notched to identify marked fish. Fish were not anaesthetized due to mortality associated with this procedure and unknown behavioural effects (Skalski et al. 2009). Clipped fish were monitored for recovery. Fish mortalities were not released, and deceased fish were accounted for in the final estimate. Marked fish were released close to their point of capture by subdividing the site into 10 m sections facilitating returning fish close to their capture point.

The site was resampled 24 hours after the first sampling event and recorded the number of fish by species, their sizes (fork length and weight), and whether the fish was marked. During the recapture event, the same method and level of effort applied as the first pass to ensure that detection probabilities at mark-recapture sites would be consistent. Block nets were then removed.

The assumptions of the closed model mark-recapture assessment were that (Johnson et al. 2007):

- no net movement of fish into or out of the study site;

- fish do not lose their marks during the course of sampling;
- marked and unmarked fish are equally catchable; and
- captured fish are reported correctly as marked or unmarked.

4.3.3.3 *Minnow Trapping*

Each pool habitat site was located and flagged in the field. Fish were sampled using baited minnow traps in each pool habitat type. Two traps were used in all stream site pools, except five traps were used in pools for Teigen Creek. Each trap was 42 cm long, 23 cm in diameter, constructed of galvanized metal with 6.3 mm mesh size, and possessed a 2 cm diameter opening. Each minnow trap was baited with one roe mesh bag (approximately 10 g in weight) and set for a minimum of 24 h. If a pool was previously electrofished, then a minimum wait time of 24 h was used before setting minnow traps so that fish could redistribute into their preferred habitats and resume normal behavioural patterns.

Single haul minnow trapping CPUE was calculated as an index of relative abundance for all life history stages. The assumptions of the assessment were the same as previously stated for electrofishing; in addition to:

- one minnow trap does not influence the effort and catch of another trap.

All fish captured were placed immediately in a holding tank for biological processing.

4.3.4 **Fish Biology**

Fish captured were identified to species and counted. Fork length was measured (to the nearest 1 mm) for all fish captured. Life history stages (fry, parr, adult) for fish captured were estimated based upon an analysis of length frequency histograms generated from both the electrofishing and minnow trap data (Section 5.3). Wet weight (to the nearest 0.01 g) with an Ohaus 200 g scale was collected from all fish captured. The first two leading pelvic fin rays were collected from Dolly Varden and rainbow trout for age structure analysis. A maximum of 30 individuals (> 85 mm fork length) were sampled from each stream and wetland.

4.4 **WETLAND SUMMER REARING ASSESSMENT**

4.4.1 **Site Selection**

Treatment wetlands were selected as they will be altered according to the conceptual plans of the compensation project. Reference wetlands were selected based upon a number of criteria. The criteria were as follows:

- direct connection to a fish bearing watercourse;
- no barriers to fish movement;
- similar size of wetlands/ponds to be constructed;
- similar depth of wetlands/ponds to be constructed; and
- same species composition of wetlands/ponds to be constructed.

Both treatment and reference wetlands were sampled for summer rearing assessments.

4.4.2 Fish Habitat

Open water wetland habitat was qualitatively described and connectivity to mainstem creeks was documented. The width and length of open water wetland habitats were measured with a handheld range finder (m), maximum water depth (m) was measured, amount of cover and dominant cover type were recorded.

4.4.3 Fish Community and Biology

Each wetland site was located in the field. The fish were sampled using baited minnow traps in each wetland. Five traps were used in all wetland sites. Each trap was 42 cm long, 23 cm in diameter, constructed of galvanized metal with 6.3 mm mesh size, and possessed a 2 cm diameter opening. Each minnow trap was baited with one roe mesh bag (approximately 10 g in weight) and set for a minimum of 24 h.

Fish caught were processed in a standardized manner as discussed in Section 4.3.4.

4.5 AGE STRUCTURE ASSESSMENT

4.5.1 Sample Processing

Fin rays were aged by Stamford Environmental (Gibsons, British Columbia). Individual fin rays were carefully removed from their envelopes, set into epoxy (Koch and Quist 2007) and transverse cross-sections were removed using a low speed saw (Isomet, Beuler Inc.). At least three sections (approximately 0.5 mm thick) were removed, fixed onto a labelled slide and polished with wet-dry sand paper. As they were being mounted, the sections were assessed under a microscope to ensure sufficient information was removed for aging (based on shape of the hemisegments; Ferrierra et al. 1999). Sections were fixed sequentially from left to right on a slide beginning with the most proximal section to enable readers to observe changes to annuli in more distal sections. This is useful for identifying loss of first or second annuli on fin rays that were clipped more distally in the field.

The larger ventral hemisection from the principle fin ray was the primary focus since the second and third fin rays were sometimes insufficiently proximal or absent in some samples. Cross section shape was noted; since this identifies proximal to distal locations along the fin rays and first or second annuli can be lost in distal sections. Round or short tailed comma sections are more proximal, for instance, than long tailed comma or rod shaped sections (Ferrierra et al. 1999). Sometimes more distal sections display better annulus definition; however winter growth can be clouded over by surrounding summer growth in more proximal sections. Consequently, annulus counts for the fish were determined using all information present on the slide, including all sections and any or all of the first three fin rays present in the sample.

4.5.2 Ageing Determination and Precision

Aging precision depended on collecting two independent counts for each fish. Fin ray cross sections were examined independently two times (i.e., no knowledge of the previous age) by the same reader. The coefficient of variation (CV), a measure of variance, was calculated between each read and a final age was assigned to each fin ray structure.

5. Data Analysis

5.1 CPUE

CPUE is an index of relative abundance that can be used to compare fish populations among different areas. It is defined as the number of fish captured per sampling device per unit time.

For electrofishing, the CPUE was calculated from the number of fish captured per 100 seconds:

$$CPUE = \text{number of fish caught} \times (100/\text{electrofishing effort (s)})$$

For minnow traps, CPUE was calculated from the number of fish captured per trap per day (24 h).

$$CPUE = \text{number of fish caught per trap} \times (24 \text{ h/day/set time (h)})$$

CPUE was calculated for each species and by life history stage (i.e., fry, parr, adult and combined).

5.2 POPULATION ESTIMATE

Population estimates were derived from mark-recapture studies. The Schnabel method was used to estimate population size by fish species because multiple marking and recapture samples were collected over a short period, and the sample size was low (Schnabel 1938; Seber 1982; Guy and Brown 2007). The iterative formula to calculate population estimates was:

$$\hat{N} = \frac{\sum_{i=2}^t n_i M_i}{\sum_{i=2}^t m_i + 1}$$

Where t = number of sampling occasions; n_i = number of fish caught in i^{th} sample; m_i = number of fish with marks caught in i^{th} sample; and M_i = number of marked fish present in the population of i^{th} sample.

The variance of the population estimate was calculated using the following:

$$V(\hat{N}) = \hat{N}^2 \left[\frac{\hat{N}}{\sum n_i M_i} + 2 \cdot \frac{\hat{N}^2}{(\sum n_i M_i)^2} + 6 \cdot \frac{\hat{N}^3}{(\sum n_i M_i)^3} \right]$$

Confidence intervals (95%) for \hat{N} were then calculated.

5.3 LENGTH FREQUENCY

Life history stages (fry, parr, adult) for fish captured were estimated based on an analysis of length frequency histograms generated from both the electrofishing and minnow trap data, as well as from previous fish length and scale data from the Project Area (Rescan 2009, 2010, 2011a). In general, plotted histograms for lengths were reviewed to show clear length-frequency “cut-offs” between age-0 fry and age-1 parr.

Table 5.3-1 shows selected species-specific size ranges assigned to each life history stage.

Table 5.3-1. Species-Specific Fork Length Size Range

Species	Fork Length Size Range (mm)		
	Fry	Parr	Adult*
Chinook Salmon	40 - 80	> 81	NA
Coho Salmon	25 - 65	> 66	NA
Dolly Varden	25 - 50	51 - 90	> 91
Rainbow trout	30 - 65	66 - 105	> 106

NA = sample method not applicable

* Any fish older than parr, not necessarily sexually mature

5.4 CONDITION AND GROWTH

Condition is an index of the relative health of fish (Guy and Brown 2007). It was calculated for all fish for which length and weight data were obtained, and was based on the following formula from Ricker (1975):

$$\text{Condition} = \frac{\text{weight (g)} \times 10^5}{\text{fork length (mm)}^3}$$

Growth models (Ricker 1975) were fit to length-age data using two von Bertalanffy models using a non-linear regression function in R (Version 2.14.1). The equation for the von Bertalanffy model is:

$$l_t = L_{\infty}(1 - \exp^{-K(t-t_0)})$$

where l_t is the length (mm) at age t (years), L_{∞} is the length (mm) that the fish would attain if it were allowed to grow for an infinitely long time, K is a growth coefficient (year⁻¹), and t_0 is the age (years) at zero length.

The alternative von Bertalanffy model (two-parameter model) was used, in which t_0 is fixed at 0, to fit length-age data. The third model used was a linear regression length-age model. All three models were compared to determine which model fits the data best (using the Akaike Information Criterion) and thus providing the best estimate of asymptotic length (L_{∞}) and growth coefficient (K). The Akaike weights show the magnitude of support for each model (scaled between 0 and 1); the model with the highest weight is the best fit model of three models being compared.

5.5 DESCRIPTIVE STATISTICS

Each data set was examined for data entry errors and outliers through the use of box blots using SYSTAT statistics software (SYSTAT 2004). Obvious outliers were reviewed and removed, if applicable. Descriptive statistics were calculated for habitat, biological and CPUE data. Sample size, standard mean, standard deviation (SD) of the mean, standard error (SE) of the mean, and 95% confidence limits (upper and lower) were calculated for all biological and CPUE data.

A non-parametric bootstrap procedure was used to derive means and percentile bootstrap +/-95% confidence intervals (CI) for biological and CPUE (fry, parr, adult and combined) data for comparisons with standard mean values. Bootstrapping is a computer-based method for assigning measures of accuracy to sample means and is useful when the sample size is insufficient or non-normally distributed for straightforward statistical inference (Hubert and Fabrizio 2007). Bootstrapping was accomplished using 10,000 resamples from the repeated sampling of the actual data rather than a theoretical probability distribution to quantify uncertainty in means (Efron and Tibshirani 1993). Upper and lower

95% confidence limits for the mean from the cumulative distribution of the 10,000 bootstrap iterations (Efron and Tibshirani 1993). Bootstrap iterations were computed using an algorithm written in R (Version 2.14.1), an open-source statistical and programming software package.

5.6 STATISTICAL ANALYSIS

SYSTAT statistics software (SYSTAT 2004) was used for all statistical analyses. Data outlier tests were employed to look for abnormal data through the use of box plots. Normal probability plots and Anderson-Darling tests were employed to test for normality among variables. Levene's test were employed to test for homogeneity of variances. Data were transformed with natural logarithms to meet assumptions of normality, if applicable.

Analyses of variance (ANOVA) were used to test for differences among means. Where transformation of data failed to meet assumptions of a parametric ANOVA, a non-parametric Kruskal-Wallis test was used. Following significant ANOVA or Kruskal-Wallis, pairwise multiple comparisons were performed using Tukey's test and a non-parametric multiple comparison method (Siegel and Castellan 1988). Results of statistical tests and regressions were considered significant if the probability (P) of a false significant result was less than 5% (i.e., $P < 0.05$). Results of all regression analyses were reported with a coefficient of determination (r^2) that was adjusted for the number of degrees of freedom.

6. Quality Assurance and Control

In order to ensure consistently accurate data collection, a Quality Assurance (QA) and Quality Control (QC) program was established at the onset of the field program. The program involved a practice session held in the field prior to any crew conducting stream and wetland assessments to review data collection procedures. Throughout the course of the field program, a qualified and experienced Quality Assurance Biologist reviewed each completed data card daily. A QA checklist was also completed for each site. Whenever clarification was required on specific points, the card was returned to the crew leader for editing and was accepted only after the necessary changes were made.

Data entry into the provincial Field Data Inventory System (FDIS) and other databases, subsequent to the field program, provided another opportunity to ensure data consistency through application of the built-in quality assurance routine which generated a QA report for review. Comments were provided to address deficiencies and conflicts identified in the quality assurance report generated by FDIS. Data transcription quality was also verified by comparing a sub-sample of randomly selected site cards with the corresponding data entered into FDIS and into project maps. The standard for QC under the *Reconnaissance (1:20,000) Fish and Fish Habitat Inventory Protocol* is to verify 5% of all site cards (RISC 2001). Each data set was examined for data entry errors and outliers through the use of box plots using SYSTAT statistics software (SYSTAT 2004). Obvious outliers were reviewed and removed, if applicable.

7. Results and Discussion

7.1 OVERWINTERING HABITAT ASSESSMENT

Appendix 7.1-1 shows all minnow trap set location data for overwintering habitat assessments. Appendix 7.1.2 shows minnow trap effort and catch data. Appendix 7.1-3 shows species biological data for compensation sites. From March 7 to 15, 2011, minnow traps were set within stream/side channel pools and wetland habitats to determine overwintering habitat utilization. Minnow traps could not be set in East Todedada Creek wetland because ice depth was greater than the ice auger length (> 2 m).

Within Treaty Creek 1 compensation project, the deepest wetlands were sampled because previous overwintering assessments indicated that shallow wetlands were frozen to the bottom (Rescan 2010) (Plate 7.1-1). Mean ice thickness was 0.6 m and mean water depth was 0.5 m. No fish were caught and dissolved oxygen concentrations were low (2.5 mg/L). Open water was present in the eastern half of the compensation site with mean water depths of 0.1 cm. The open water was likely due to groundwater influence from adjacent unnamed creek on the eastern end of the site.

A reference wetland was selected in Treaty Creek for comparisons of ice depth, dissolved oxygen concentrations and fish habitat utilization. The reference wetland is located a couple kilometres downstream of the Treaty Creek 1 compensation project. Ice thickness, mean water depth and dissolved oxygen concentrations were similar to that of Treaty Creek 1. In addition, no fish were caught in the reference site.

Within Teigen Creek 2, the largest pond was frozen to the bottom; which is consistent with previous winter assessments (Rescan 2010). The smaller wetlands near the eastern end of the site were ice-free suggesting groundwater influence; which is consistent with previous winter assessments (Plate 7.1-2). Coho salmon parr were caught in the wetlands. The side channel associated with Teigen Creek 2 was ice free. Adequate water depths and flow were present within side channel for overwintering fish. Rainbow trout and coho salmon parr were caught in the side channel.

Within Taft, Glacier, East Todedada Creek, Snowbank and Oweegee creeks; pool habitats were sampled (Plates 7.1-1 to 7.1-6). Adequate water depths and flow were present within each mainstem for overwintering fish. Dolly Varden and coho salmon parr were caught in East Todedada Creek; however, no fish were caught in all other creeks.

The Oweegee Creek/Bell-Irving River side channel was sampled (Plate 7.1-7); in which rainbow trout and coho salmon parr were caught.

7.2 STEELHEAD SPAWNING ASSESSMENT

From May 26 to 28, steelhead redds were detected in Oweegee and Gilbert Creeks (Appendices 7.2-1 and 7.2-2). A total of 72 steelhead redds were detected in Oweegee Creek with greater than 70 individual fish enumerated. A total of three steelhead redds were detected within Gilbert Creek with a total of four individual fish enumerated. Figures 7.2-1 and 7.2-2 show the distribution and density of steelhead redds in Oweegee and Gilbert creeks, respectively. Furthermore, numerous resident rainbow trout were observed spawning in Gilbert Creek, upstream of the first beaver dam.

Hydrological data indicate that freshet typically commences in late May and early June (Rescan 2011b). Discharge (Q) and horizontal visibility (HV) are important determinants of snorkeler detection probability (Korman et al. 2007). Horizontal visibility tends to decline with increasing discharge. At the

time of the assessment, the wetted width was at or just below bankfull height and horizontal visibility was good (i.e., clear) in the Oweegee and Gilbert lake headed watersheds. Adult steelhead were detected holding over or within the vicinity of redds, and the majority of fish showed signs of redd construction (e.g., battered caudal fin). All of this data suggests that the timing of the survey was just past the peak spawning period.



Plate 7.1-1. Treaty Creek 1 Compensation Project Site in late winter.



Plate 7.1-2. Teigen Creek 2 Compensation Project Site in late winter.



Plate 7.1-3. Taft Creek.



Plate 7.1-4. Snowbank Creek.



Plate 7.1-5. Glacier Creek.



Plate 7.1-6. East Todedada Creek.



Plate 7.1-7. Oweegee Creek/Bell-Irving River side channel.

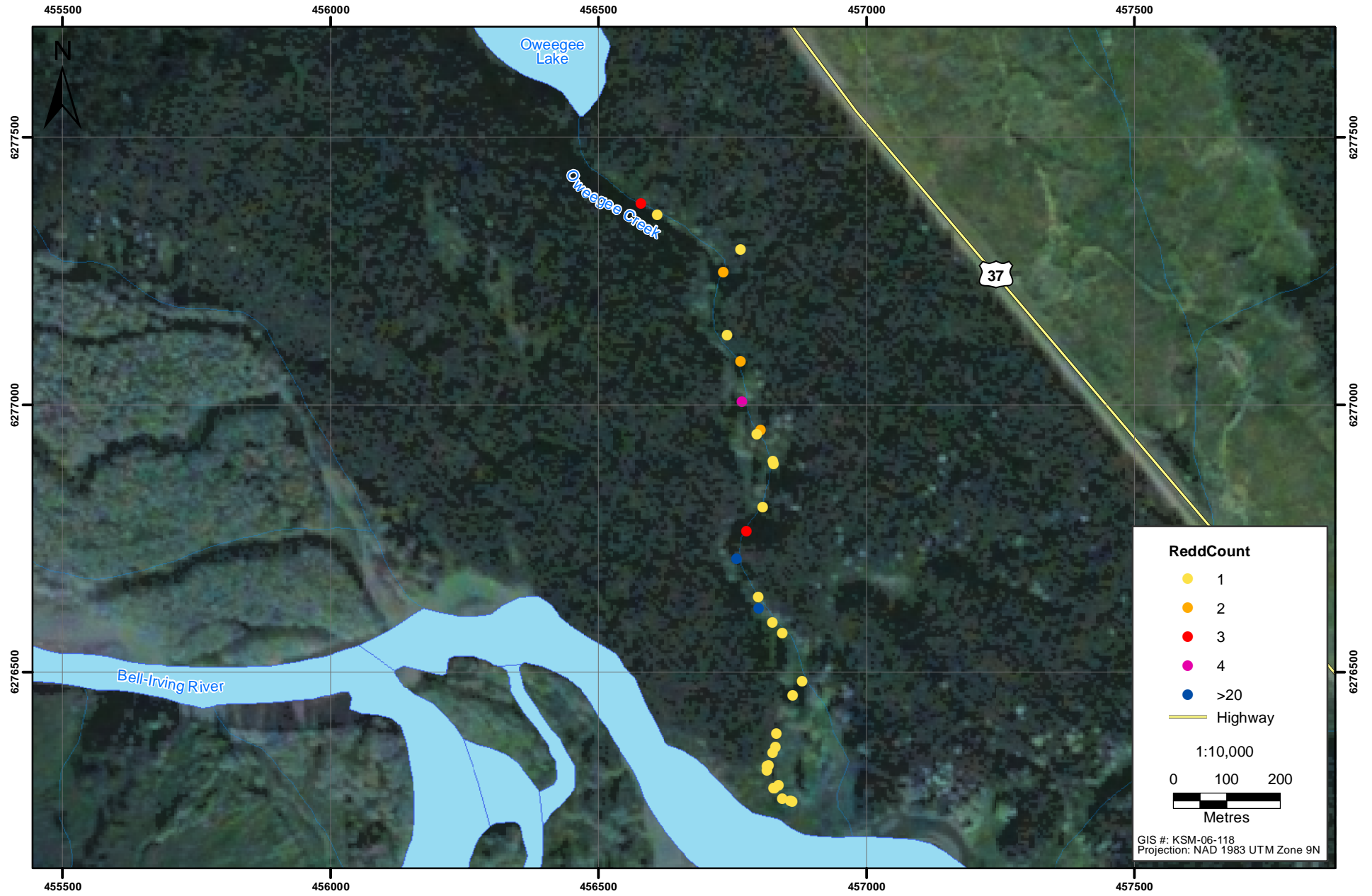


Figure 7.2-1

Figure 7.2-1

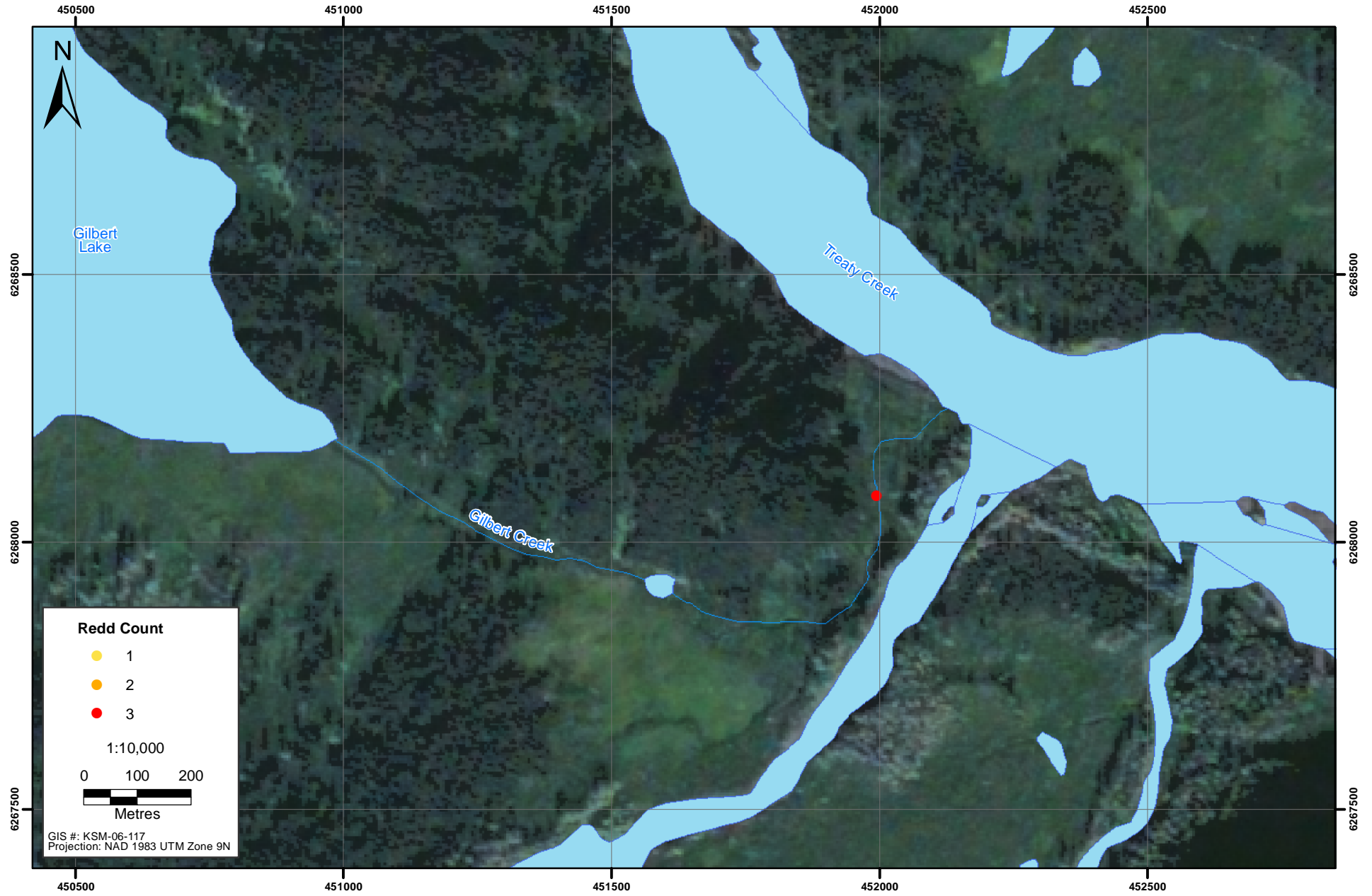


Figure 7.2-2

Figure 7.2-2

Within Oweegee Creek, steelhead utilized micro habitats of gravel tight to the banks (Plate 7.2-1). Certain redds were scoured to clay substrates suggesting lack of gravel supply, which is typical of lake headed watersheds (Bison et al. 2006). Steelhead redds were distributed throughout the lower reach; however, the critical spawning area is immediately downstream of a confined valley wall (Figure 7.1-1; Plate 7.2-2).



Plate 7.2-1. Steelhead Redd adjacent to Oweegee Creek Bank.



Plate 7.2-2. Critical steelhead spawning habitat in Oweegee Creek.

No steelhead redds were detected within East Todedada Creek. The lack of steelhead or redd detection in East Todedada Creek was not surprising given that steelhead fry, parr, or adults have not been captured in the creek.

7.3 STREAMS

7.3.1 Fish Habitat

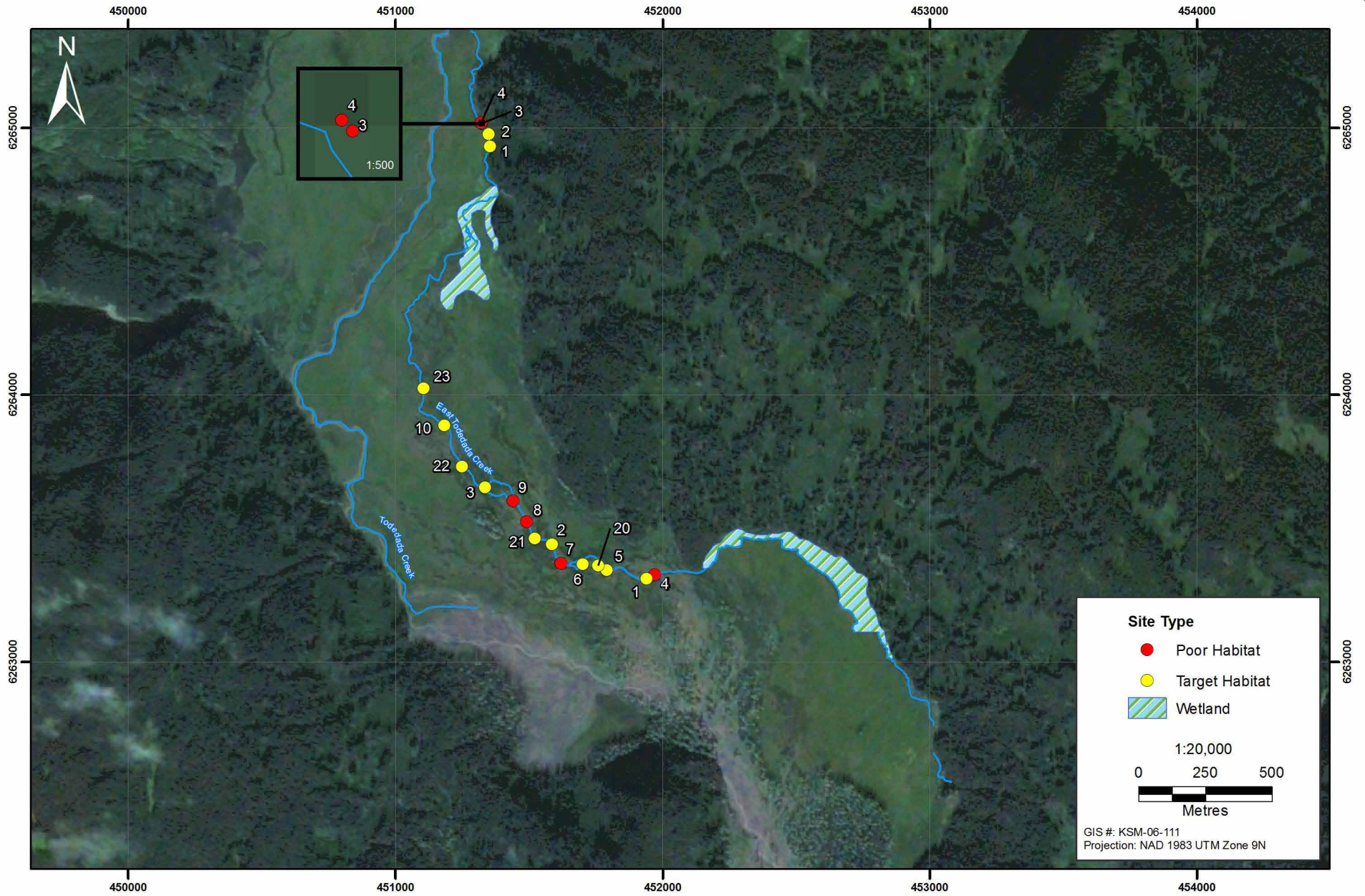
Appendix 7.3-1 presents the sample site location data. Appendix 7.3-2 presents site specific stream habitat data in raw format. The location of stream sample sites are shown in Figures 7.3-1 to 7.3-6. Summary statistics for stream site length, bankfull area and wetted area are shown in Table 7.3-1. Summary statistics for stream site channel characteristics are shown in Table 7.3-2. Target and poor habitat site wetted widths were similar within each treatment stream. Wetted widths of reference streams were not similar to treatment streams, because reference streams are not selected to be identical to the treatment streams (Roni 2005). Target and poor habitat site wetted areas were not similar within each treatment stream. This is expected due to differences site length, habitat unit type (e.g., riffle-pool versus run) hydraulics and stream morphology (Bison et al. 2006).

The results of cumulative mean instream cover (weighted by wetted area) demonstrate that instream cover at poor habitat (run/cascade) sites is consistently 50% lower compared to target habitat (riffle-pool) sites within the same stream (Figure 7.3-7). Overhanging vegetation provides the majority of cover within poor habitat; while pools provide the majority of cover within target habitat. The results of cumulative mean instream cover demonstrate that target habitat provides a greater diversity of cover types. LWD is consistently present in target habitats, but generally absent (or low % instream cover) in poor habitats. East Todedada Creek target habitat is an exception because riparian vegetation is entirely composed of shrubs.

The results of cumulative mean instream cover (weighted by wetted area) for target pool habitat demonstrate that pools provide a diversity of habitat cover types for fish (Figure 7.3-8). This statement is consistent with the previous statements about target habitat. Residual pool depth varied between stream reaches (Table 7.3-3), which is related to differences in stream energy, morphology and instream habitat (Bison et al. 2006). In addition, target pool habitat was not sampled in Snowbank Creek due to the lack of pool habitat throughout the reach.

Substrate is a key component of fish habitat due to its physical properties and its biological functions (e.g., invertebrate habitat, cover for fish and incubator of fish embryos). The results of mean bed substrate composition (weighted by wetted area) demonstrate that poor habitat sites consist of larger substrates compared to target habitat sites within the same stream (Figure 7.3-9). Mean bed substrate composition provides an indication of available fish cover; such as a greater percentage of boulders in poor habitat sites. Larger substrates are resistant to scour and movement at all but peak flows in higher velocity habitat types. The results of mean bed substrate composition demonstrate that target habitat sites generally consist of a greater diversity and uneven composition of substrates types compared to poor habitat sites within the same stream.

Comparisons of mean LWD tally per site demonstrate that LWD is greater in target habitat than poor habitat within the same stream (Figure 7.3-10). LWD causes horizontal stream energy and laminar flow to be interrupted and deflected into the banks and bed causing pools to be scoured while also providing cover for fish.



**Location of Stream Sample Sites
within East Todedada Creek, 2011**

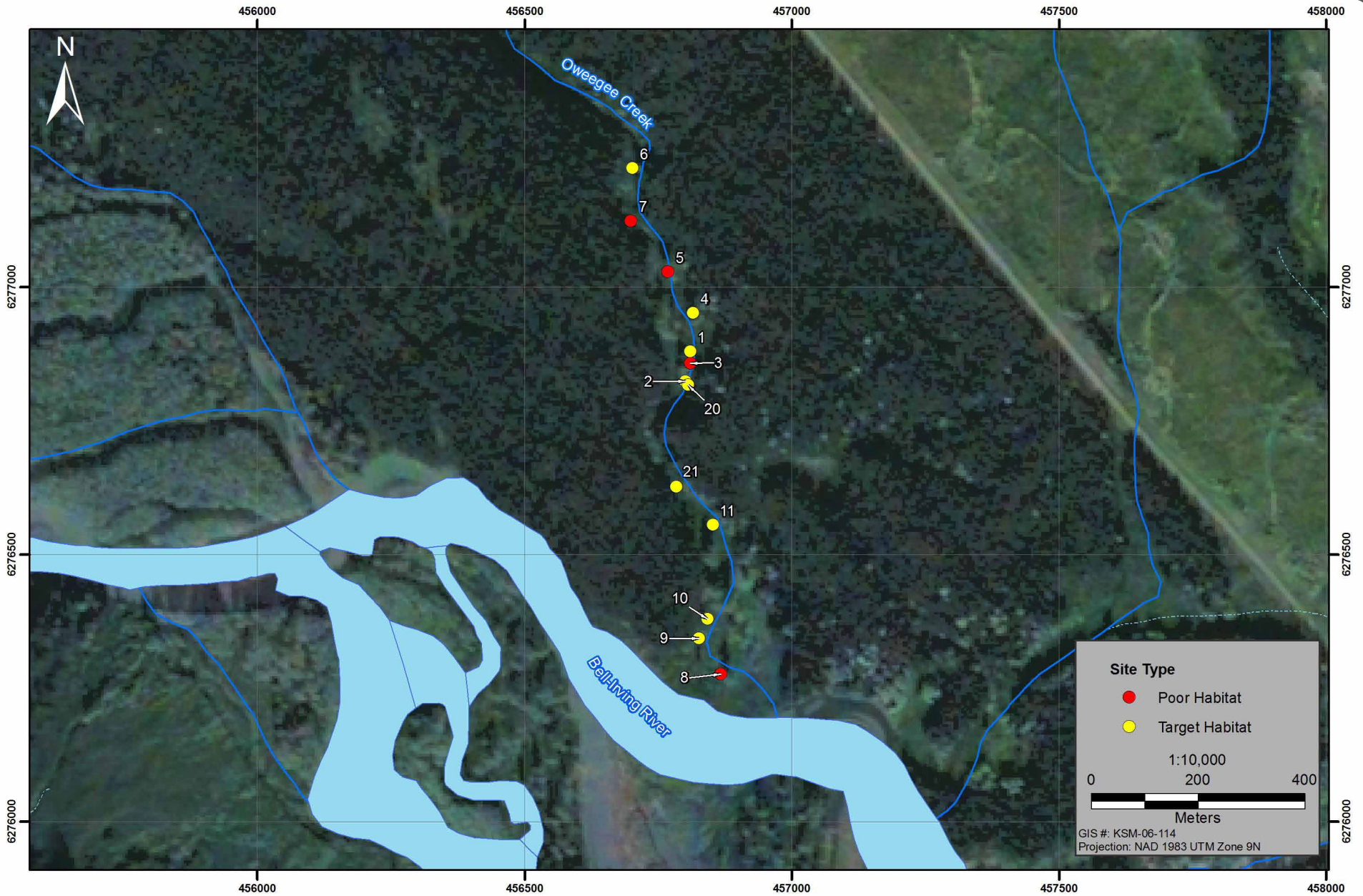
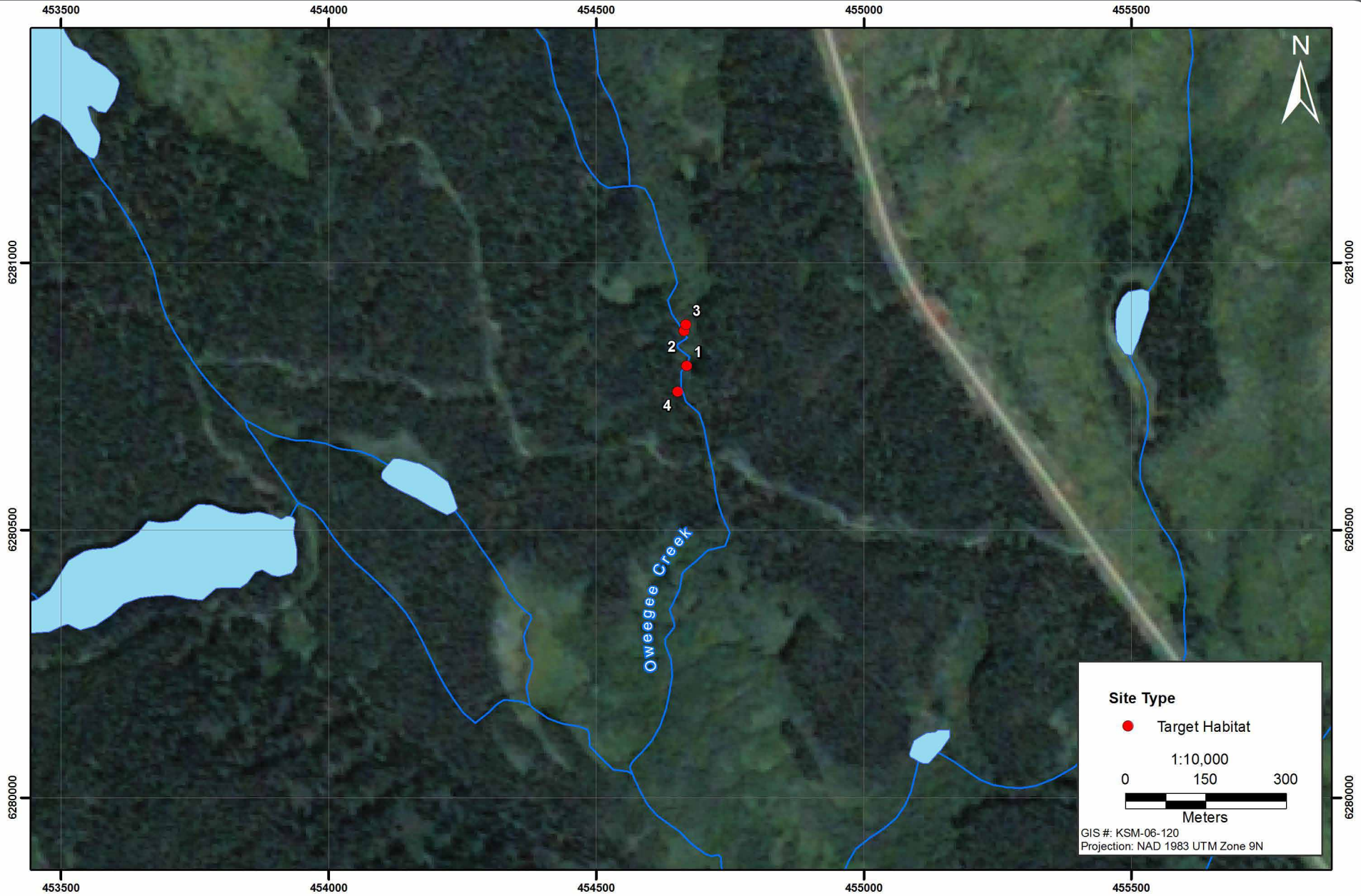


Figure 7.3-2

Location of Stream Sample Sites
within Lower Oweege Creek, 2011

Figure 7.3-2



**Location of Stream Sample Sites
within Upper Oweegee Creek, 2011**

Figure 7.3-3

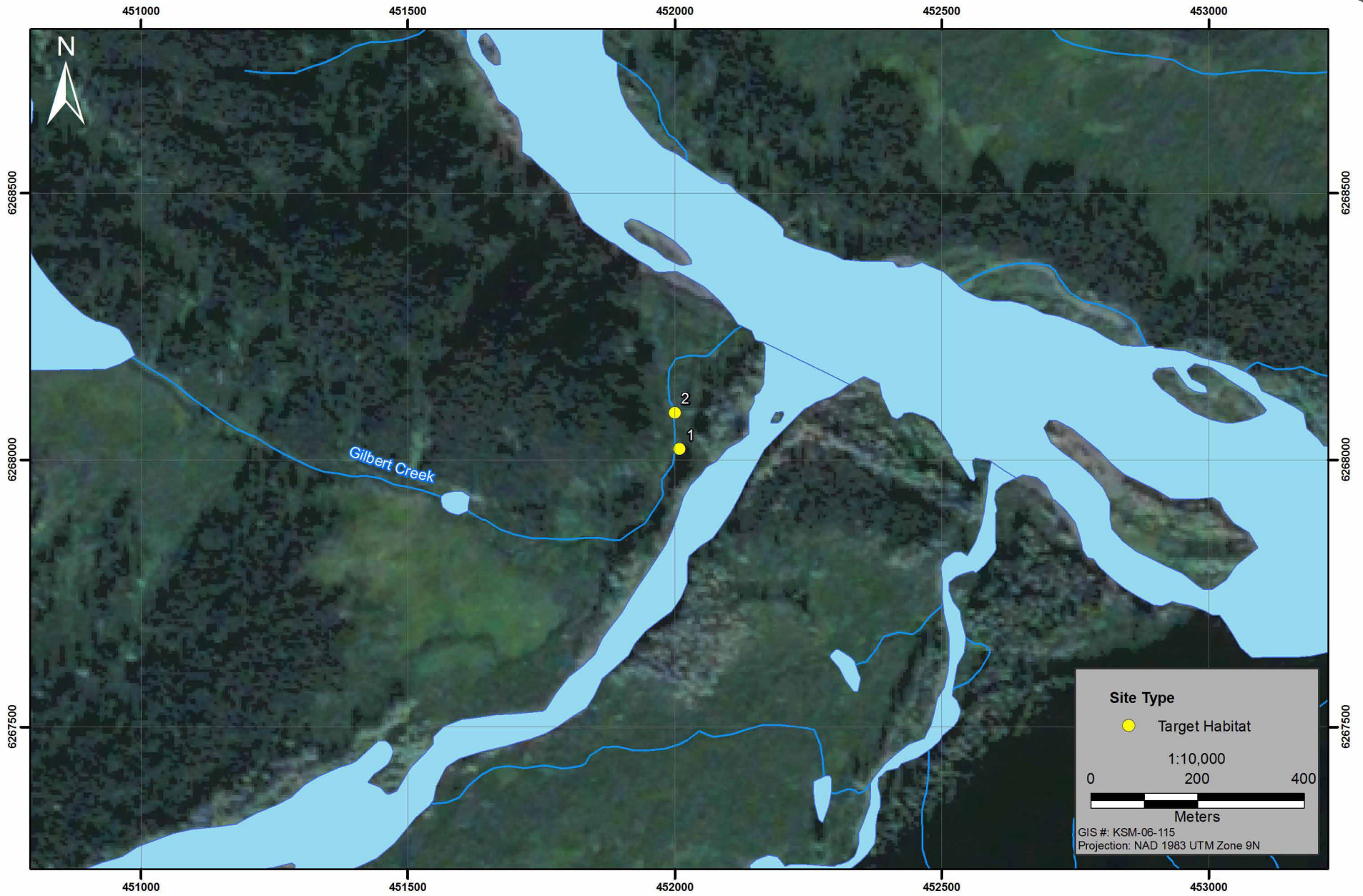
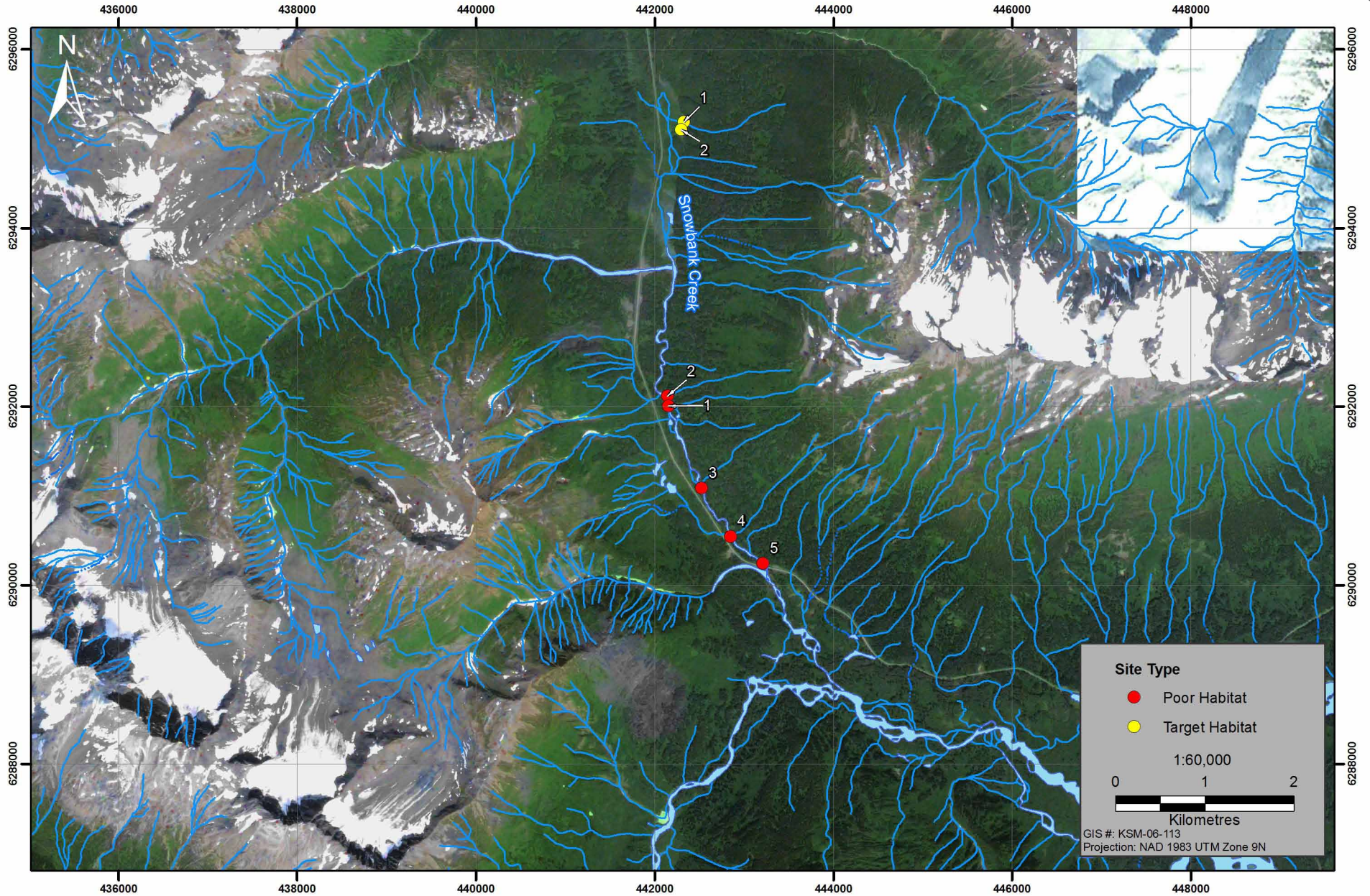


Figure 7.3-4

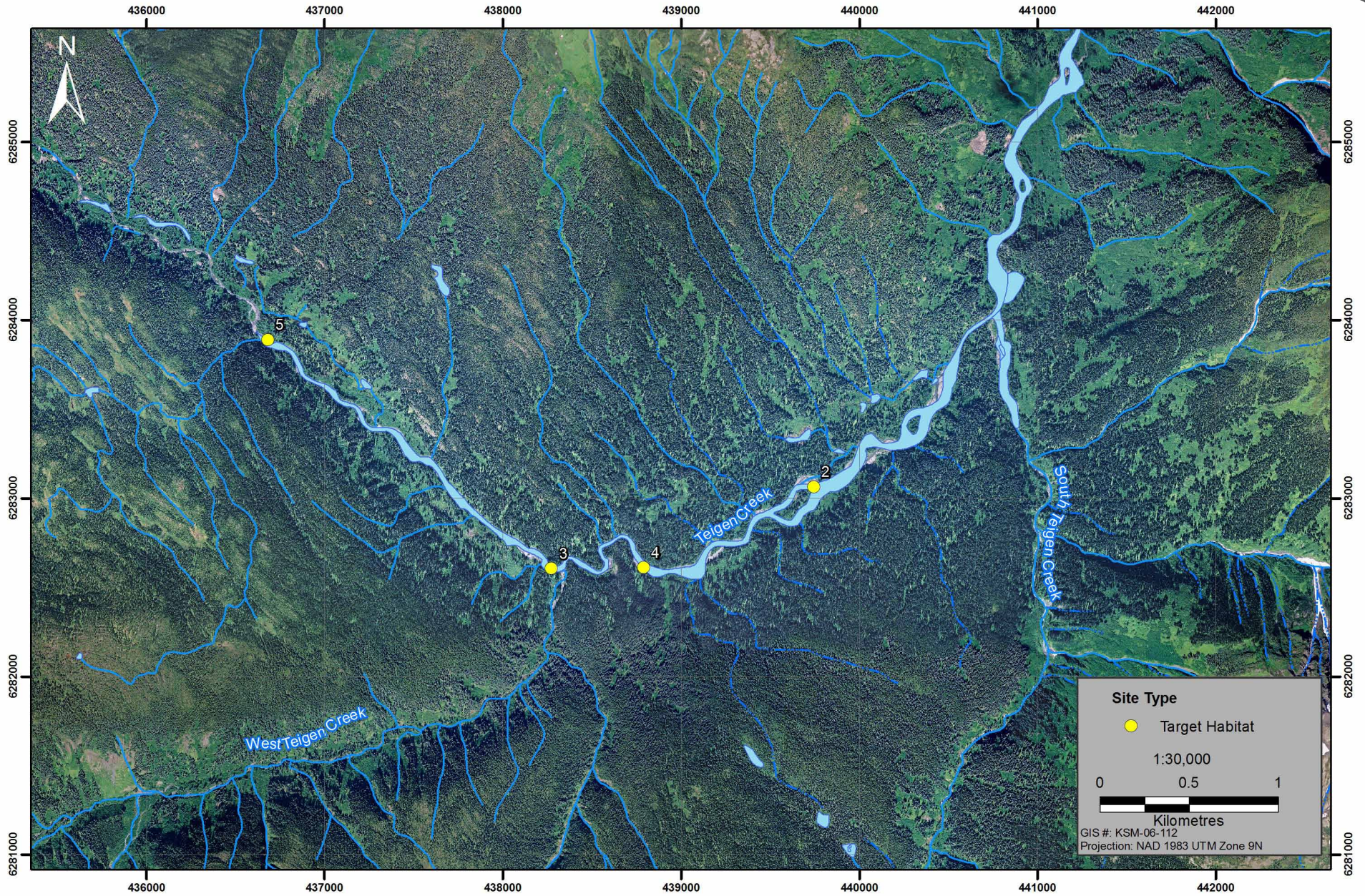
Location of Stream Sample Sites within Gilbert Creek, 2011

Figure 7.3-4



Location of Stream Sample Sites within Snowbank Creek and Snowbank Creek Tributary, 2011

Figure 7.3-5

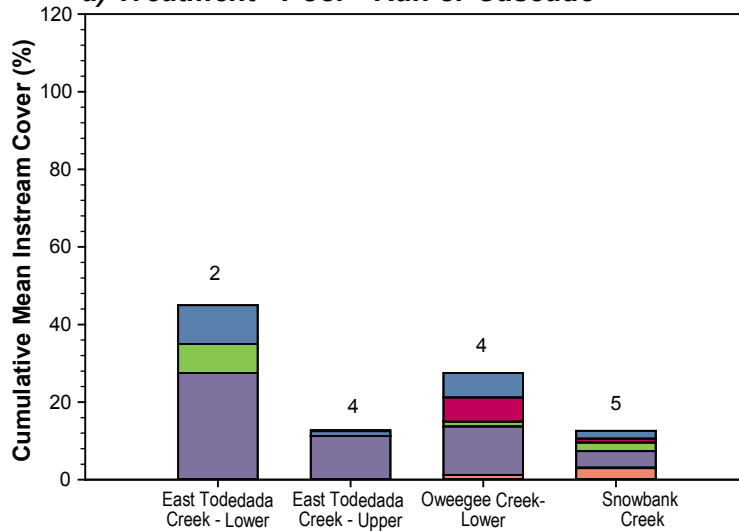


Location of Stream Sample Sites within Teigen Creek, 2011

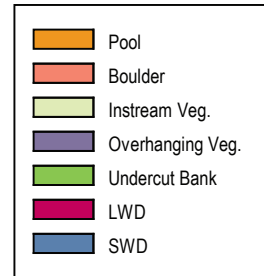
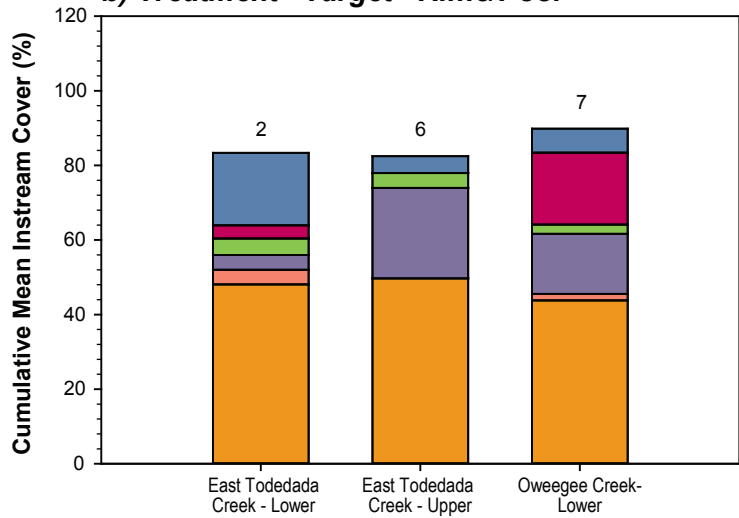
Figure 7.3-6

Figure 7.3-6

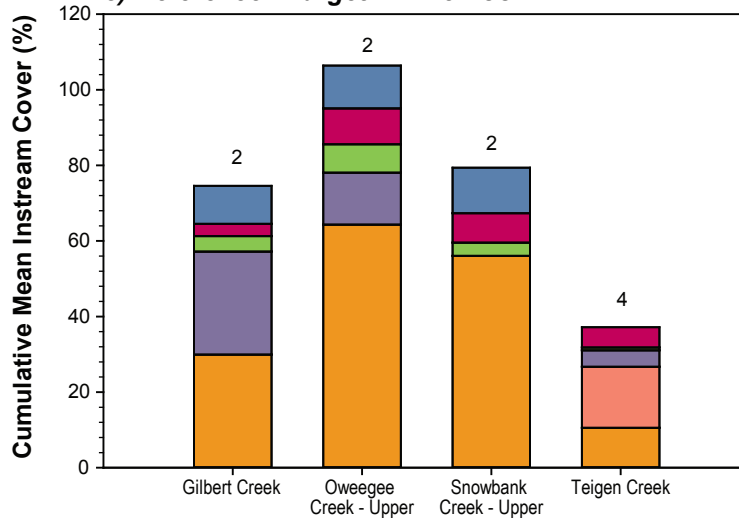
a) Treatment - Poor - Run or Cascade



b) Treatment - Target - Riffle/Pool

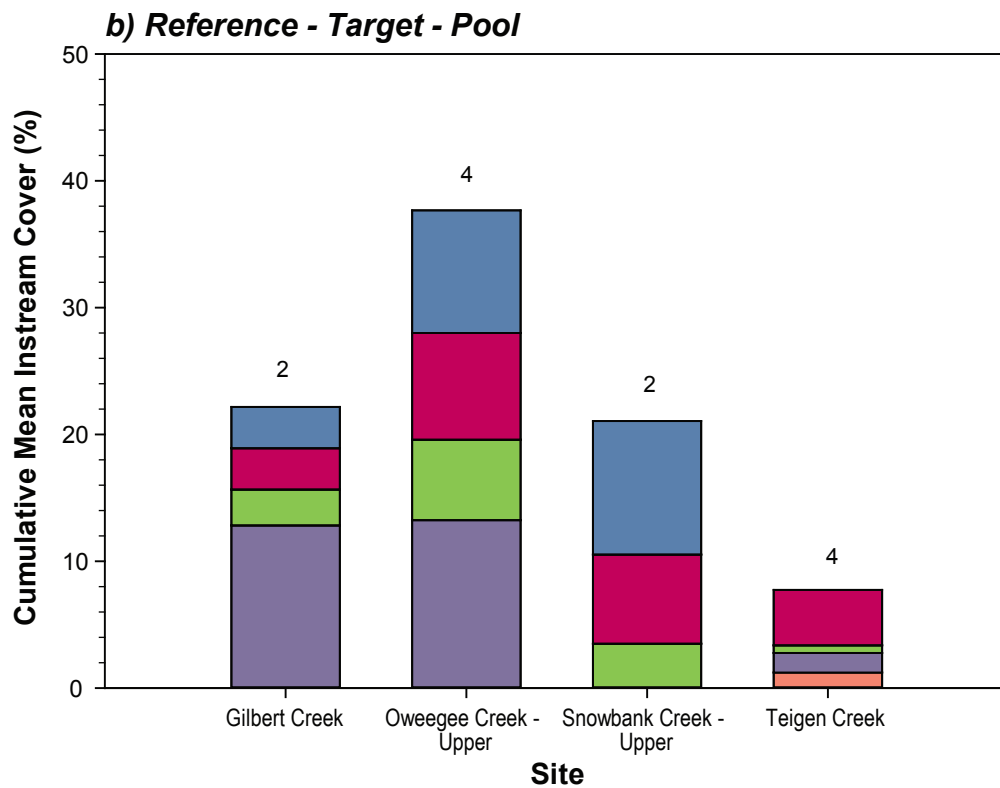
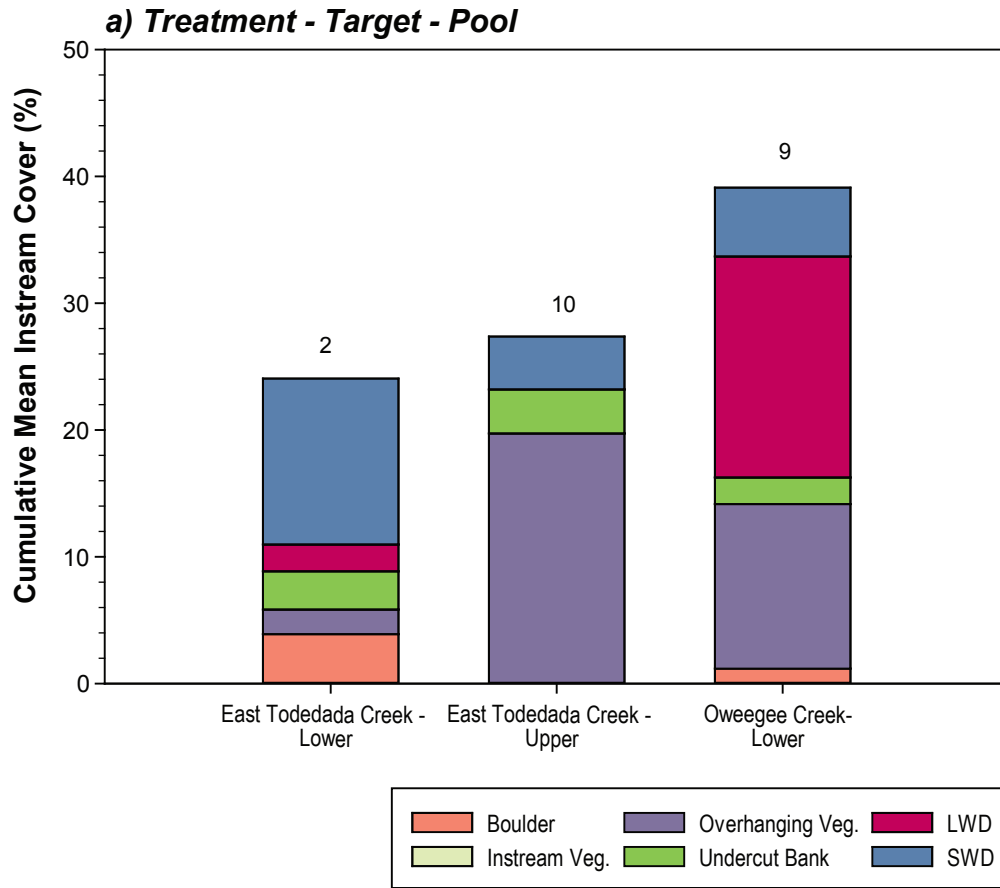


c) Reference - Target - Riffle/Pool

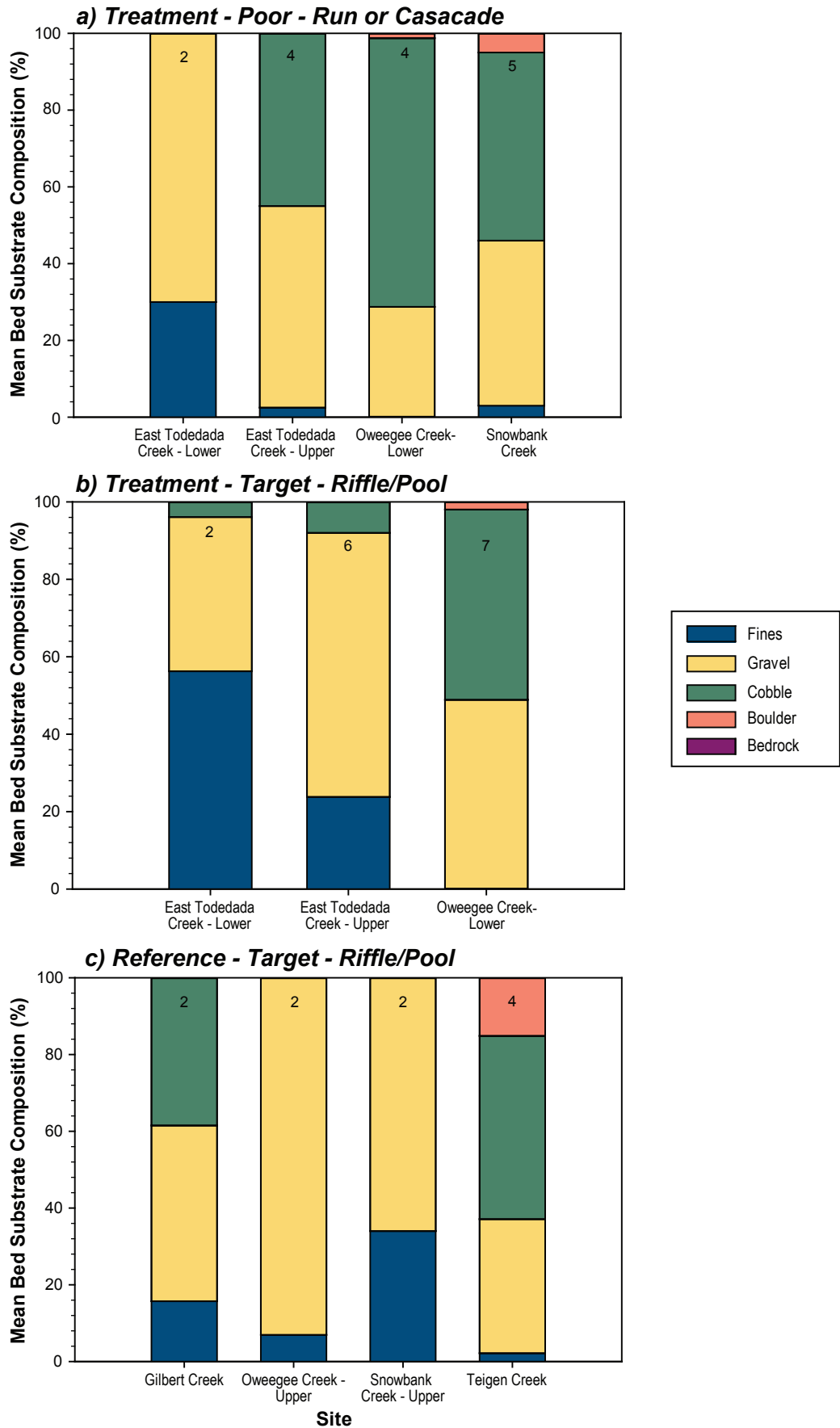


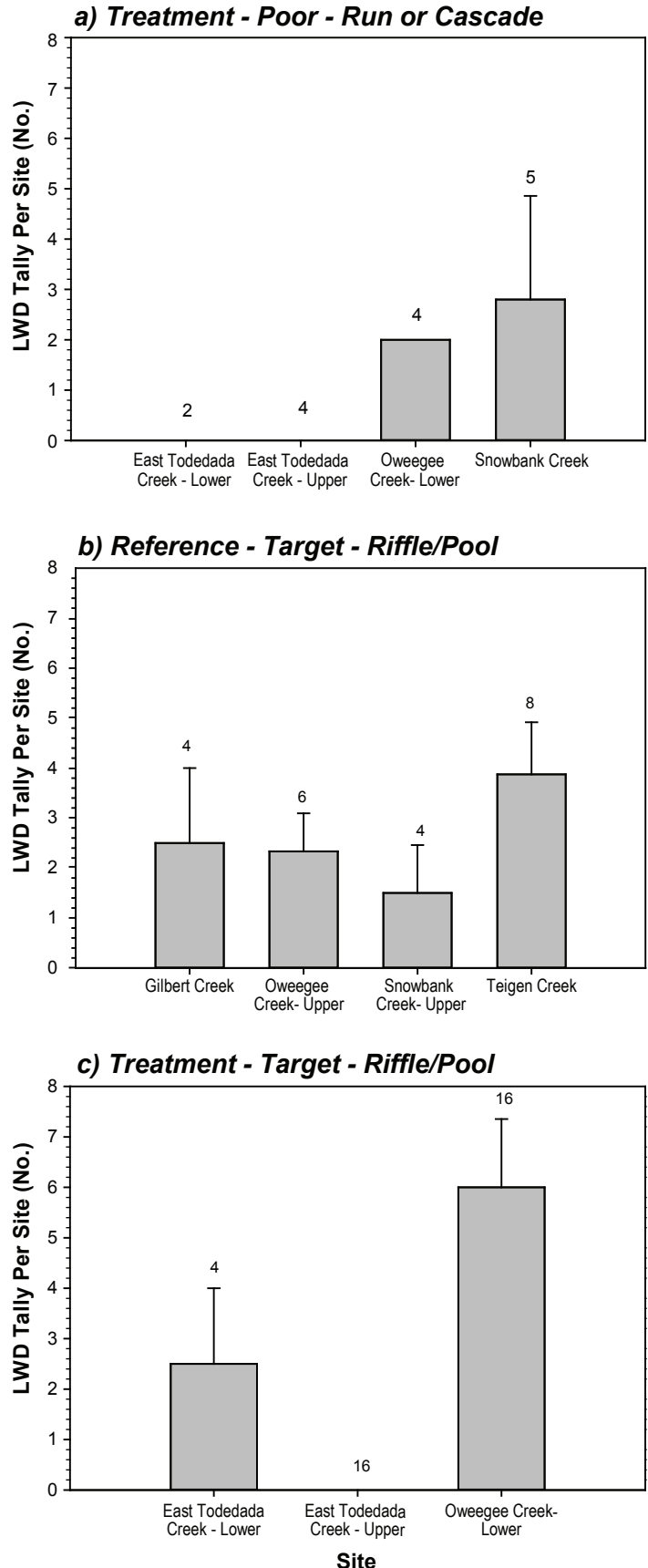
Note: Numbers above the mean represent sample size (n)
 LWD - large woody debris
 SWD - small woody debris

Figure 7.3-7



Notes: Numbers above the mean represent sample size (n)
 LWD = large woody debris
 SWD = small woody debris





Notes: Numbers above the mean represent sample size (n)
 Error bars represent standard error of the mean
 LWD = large woody debris

Figure 7.3-10

Table 7.3-1. Streams: Site Length and Area Summary Statistics, 2011

Type	Watershed	Sampling Gear	Habitat Type	Site Length (m)					Bankfull Area (m ²)					Wetted Area (m ²)				
				n	Mean	SE	Min	Max	n	Mean	SE	Min	Max	n	Mean	SE	Min	Max
Reference	Gilbert Creek	EF	Target	2	34.0	1.0	33.0	35.0	2	168.1	64.6	56.1	280.0	2	143.6	49.2	51.0	218.5
Reference	Gilbert Creek	MT	Target	2	17.5	0.5	17.0	18.0	2	144.0	-	144.0	144.0	2	108.0	-	108.0	108.0
Reference	Oweegee Creek - Upper	EF	Target	2	25.0	1.0	24.0	26.0	2	190.9	46.9	144.0	237.8	2	193.0	49.0	144.0	242.0
Reference	Oweegee Creek - Upper	MT	Target	4	13.8	2.2	10.0	20.0	4	115.5	21.3	78.0	160.0	4	110.5	24.5	60.0	160.0
Reference	Snowbank Creek - Upper	EF	Target	2	28.5	2.5	26.0	31.0	2	160.9	0.9	160.0	161.8	2	151.9	4.2	147.7	156.0
Reference	Snowbank Creek - Upper	MT	Target	2	18.0	0.0	18.0	18.0	2	108.9	0.9	108.0	109.8	2	106.5	3.3	103.1	109.8
Reference	Teigen Creek	EF	Target	4	65.5	10.6	50.0	96.0	4	2154.5	815.8	1003.0	4569.0	4	1014.3	204.6	595.0	1464.0
Reference	Teigen Creek	MT	Target	4	19.3	1.5	15.0	22.0	4	530.8	115.6	286.0	819.0	4	200.5	8.4	189.0	225.0
Treatment	East Todedada Creek - Lower	EF	Poor	2	36.5	2.5	34.0	39.0	2	292.0	20.0	272.0	312.0	2	292.0	20.0	272.0	312.0
Treatment	East Todedada Creek - Lower	EF	Target	2	35.5	5.5	30.0	41.0	2	318.5	50.5	268.0	369.0	2	305.7	63.3	242.4	369.0
Treatment	East Todedada Creek - Lower	MT	Target	2	24.0	8.0	16.0	32.0	2	208.0	80.0	128.0	288.0	2	195.2	92.8	102.4	288.0
Treatment	East Todedada Creek - Upper	EF	Poor	4	39.8	5.2	33.0	55.0	4	350.0	122.9	181.5	715.0	4	333.9	122.4	171.6	698.5
Treatment	East Todedada Creek - Upper	EF	Target	6	33.0	4.5	23.4	53.0	6	252.5	30.0	160.9	377.6	6	193.8	34.5	96.5	303.3
Treatment	East Todedada Creek - Upper	MT	Target	10	15.5	1.4	9.0	21.0	10	119.0	7.6	85.5	168.0	10	100.4	12.2	44.0	168.0
Treatment	Oweegee Creek - Lower	EF	Poor	4	24.3	3.7	15.0	32.0	4	175.0	22.0	127.5	224.0	4	138.9	28.3	85.8	218.4
Treatment	Oweegee Creek - Lower	EF	Target	7	29.5	3.7	18.2	43.0	7	237.4	33.2	153.5	374.0	7	222.4	33.0	117.4	357.0
Treatment	Oweegee Creek - Lower	MT	Target	9	14.4	2.3	5.0	28.0	9	116.0	17.1	41.5	224.0	9	108.7	16.8	40.0	210.0
Treatment	Snowbank Creek	EF	Poor	5	54.8	7.5	35.0	80.0	5	1617.3	317.6	1085.0	2800.0	5	706.5	129.9	467.5	1200.0

Dashes indicate not applicable

SE = standard error of the mean

n = sample size

EF = electrofish

MT = minnow trap

Table 7.3-2. Streams: Sample Site Channel Characteristics, 2011

Type	Watershed	Habitat Type	Channel Gradient (%)			Bankfull Depth (m)			Wetted Width (m)			Bankfull Width (m)		
			n	Mean	SE	n	Mean	SE	n	Mean	SE	n	Mean	SE
Reference	Gilbert Creek	Target	4	0.8	0.3	4	0.72	0.16	4	5.60	0.89	4	6.58	1.12
Reference	Oweegee Creek - Upper	Target	6	1.2	0.3	6	1.02	0.16	6	7.50	0.96	6	7.78	0.92
Reference	Snowbank Creek - Upper	Target	4	0.5	0.3	4	0.68	0.07	4	5.26	0.62	4	5.65	0.56
Reference	Teigen Creek	Target	8	0.8	0.3	8	2.03	0.34	8	14.88	3.10	8	30.50	4.76
Treatment	East Todedada Creek - Lower	Poor	2	0.5	0.0	2	0.95	0.09	2	8.00	0.00	2	8.00	0.00
Treatment	East Todedada Creek - Lower	Target	4	0.5	0.3	4	0.90	0.23	4	8.60	0.77	4	9.00	0.41
Treatment	East Todedada Creek - Upper	Poor	4	1.5	0.3	4	0.50	0.01	4	7.78	1.69	4	8.20	1.68
Treatment	East Todedada Creek - Upper	Target	16	0.8	0.1	16	0.95	0.10	16	6.08	0.35	16	7.75	0.39
Treatment	Oweegee Creek - Lower	Poor	4	1.8	0.3	4	1.00	0.18	4	5.93	1.08	4	7.55	0.97
Treatment	Oweegee Creek - Lower	Target	16	1.1	0.1	16	1.06	0.06	16	7.94	0.42	16	8.38	0.36
Treatment	Snowbank Creek	Poor	5	1.5	0.2	5	1.44	0.06	5	12.90	1.23	5	29.10	2.38

Dashes indicate not applicable

SE = standard error of the mean

n = sample size

Table 7.3-3. Streams: Residual Pool Depth Summary Statistics, 2011

Type	Watershed	Habitat Type	Residual Pool Depth (m)		
			n	Mean	SE
Reference	Gilbert Creek	Target	2	0.45	0.15
Reference	Oweegee Creek - Upper	Target	4	0.70	0.08
Reference	Snowbank Creek - Upper	Target	2	0.35	0.05
Reference	Teigen Creek	Target	4	1.15	0.12
Treatment	East Todedada Creek - Lower	Target	2	0.90	0.04
Treatment	East Todedada Creek - Upper	Target	10	0.71	0.07
Treatment	Oweegee Creek - Lower	Target	9	0.61	0.07

SE = standard error of the mean

n = sample size

All of the above data provides information to support the development fish habitat compensation designs. The fish habitat data provides information on existing natural templates for future fish habitat prescriptions.

7.3.2 CPUE

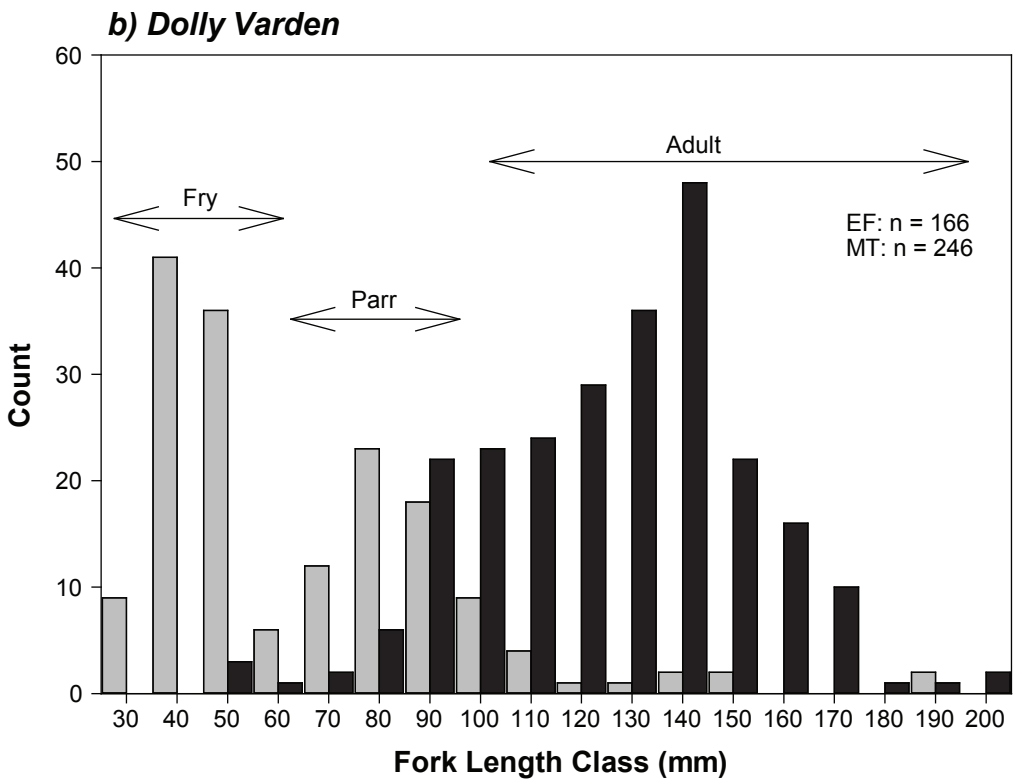
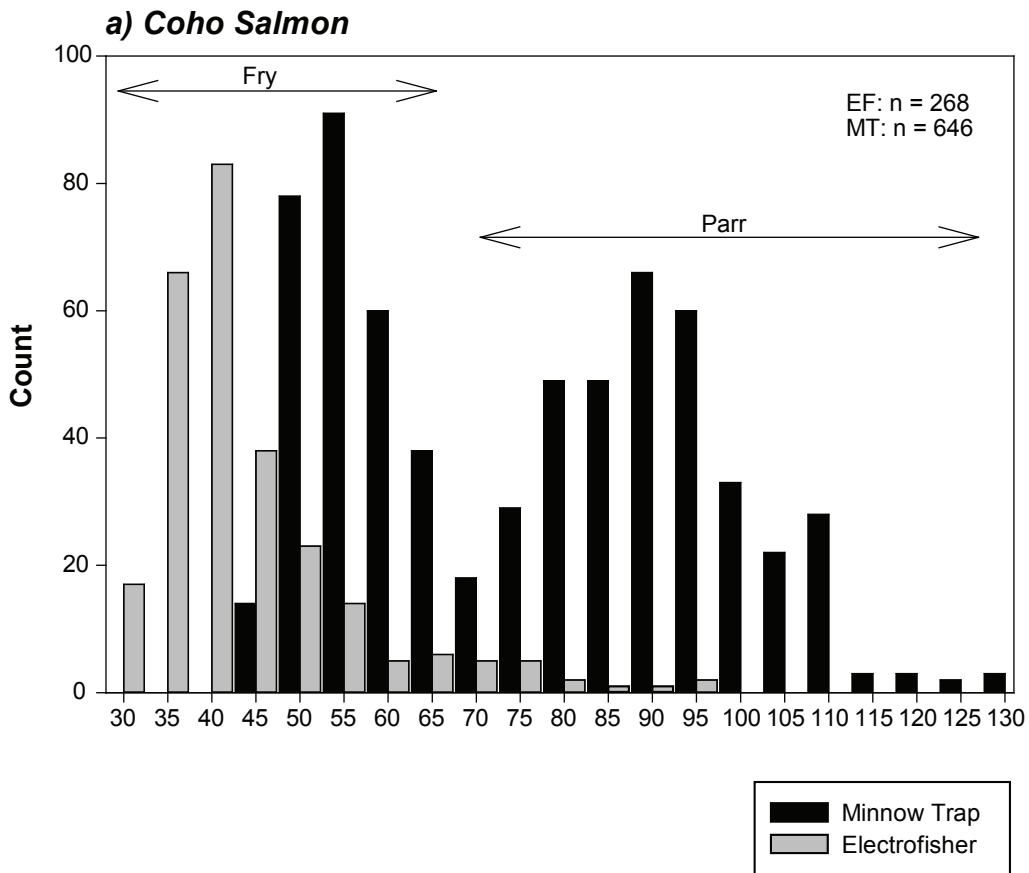
Fish species sampled in the conceptual fish habitat compensation sites are presented in Table 7.3-4. Coho salmon and Dolly Varden are the most dominant species present within the stream compensation sites. Lower Oweegee Creek has the most diverse fish community with a total of five species.

Table 7.3-4. Streams: Fish Species Sampled through Electrofishing and Minnow Trapping, 2011

Type	Watershed	Fish Species Caught						
		Coho Salmon	Chinook Salmon	Dolly Varden	Bull Trout	Rainbow Trout	Mountain Whitefish	Longnose Sucker
Reference	Gilbert Creek	X		X		X	X	
Reference	Oweegee Creek - Upper	X		X		X		
Reference	Snowbank Creek - Trib	X		X				
Reference	Teigen Creek	X	X		X	X		
Treatment	East Todedada Creek - Lower	X		X				
Treatment	East Todedada Creek - Upper	X		X				
Treatment	Oweegee Creek - Lower	X	X			X	X	X
Treatment	Snowbank Creek	X	X	X		X		

'X' indicates fish species caught

To calculate life history stage specific CPUE (fry, parr, adult), each captured fish was assigned a life history stage generated from length frequency histograms and fin ray age data. In general, plotted histograms for lengths recorded electrofishing and minnow trapping showed clear length-frequency "cut-offs" between age-0 fry and age-1 parr, which were in agreement with the cut-offs suggested by scale age data for Dolly Varden, coho salmon, Chinook salmon and rainbow trout (Figures 7.3-11 and 7.3-12). However, in cases where sample size was insufficient ($n < 100$), length frequency histograms did not suggest clear length cut-offs between life history stages.



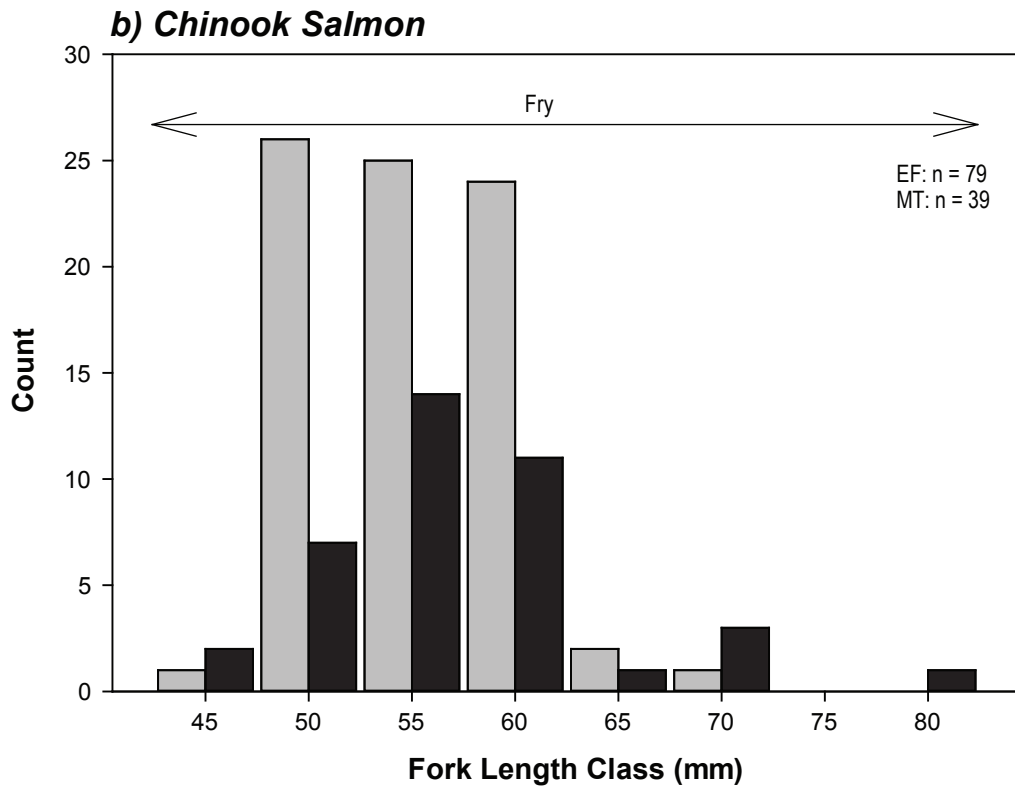
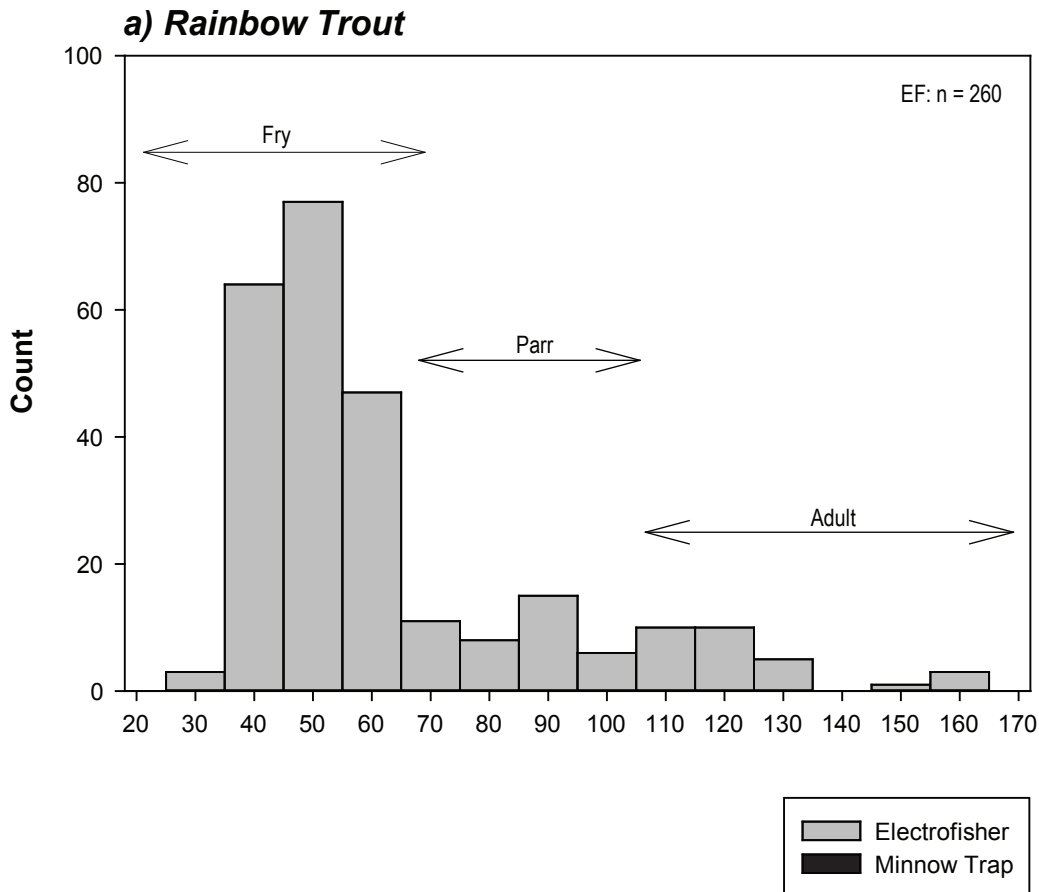


Figure 7.3-12

CPUE was calculated for each gear type (i.e., backpack electrofisher and minnow trap). A dual gear approach was utilized within target habitat sites due to gear efficiency and size selectivity in pool habitat units (Murphy and Willis 1996; Johnson et al. 2007). Electrofishing is effective at sampling shallow water depths with low habitat complexity (Jones and Stockwell 1995); such as riffle, run and cascade habitat types. However, electrofishing is less effective at sampling deep, non-wadable pools, pools with abundant habitat complexity or pools with high turbidity (Jones and Stockwell 1995). Teigen Creek and East Todedada Creek are examples where electrofishing is less effective at sampling pool habitats, thus minnow traps were used. However, CPUE between gear types are not comparable because of differences in size selectivity. Figure 7.3-13 demonstrate that minnow trapping is selective of longer fish, specifically Dolly Varden and coho salmon, compared to electrofishing. The fork length histogram for rainbow trout shows that minnow trapping was ineffective at capturing fish in pool habitats (Figure 7.3-14). This can likely be attributed to the abundance of high rainfall events during the sampling period (Rescan 2012), which resulted in higher velocities in Oweege Creek pool habitats. Therefore, locating low velocity sites to set minnow traps was problematic. The fork length histogram for Chinook salmon shows no size selectivity of the gear because only one age class (i.e., fry) was present in the streams sampled (Rescan 2009, 2010, 2011).

Tables 7.3-5 and 7.3-6 shows mean electrofishing and minnow trapping effort by stream. The predetermined 24 h minnow trap set time was consistent (i.e., never was below the minimum set time and hauls were within a 2 h range) within and between stream sites. Electrofishing effort varied within stream sites because site length varied depending upon the length of the habitat units.

Table 7.3-5. Streams: Mean Stream Electrofishing Sampling Effort, 2011

Watershed	n	Mean (s)	SE	Min (s)	Max (s)
East Todedada Creek - Lower	4	646	7.8	612	684
East Todedada Creek - Upper	13	699	13.0	429	991
Glacier Creek - Lower	2	546	18.7	519	572
Oweege Creek - Lower	11	527	12.6	328	741
Oweege Creek - Upper	2	517	54.1	440	593
Snowbank Creek	5	578	32.8	335	774
Snowbank Creek - Trib	2	359	35.4	309	409
Teigen Creek	5	852	44.7	640	1134
Total	47	636	28.4	309	1134

SE = standard error of the mean

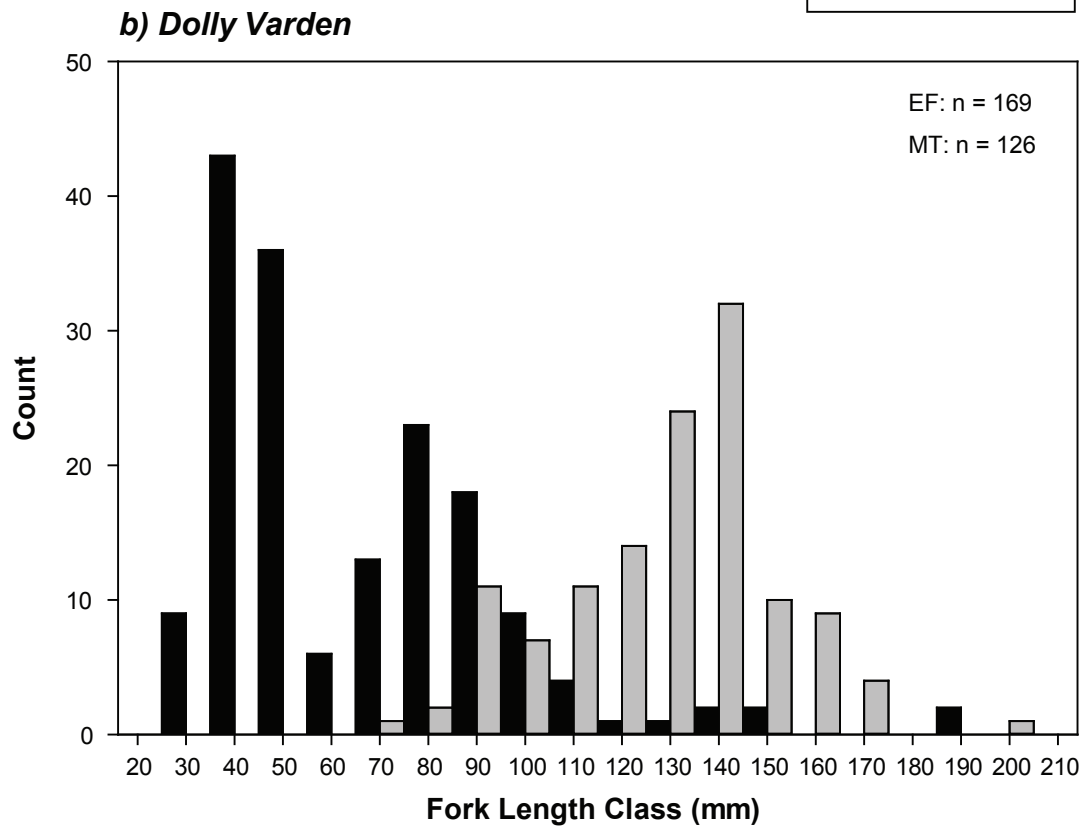
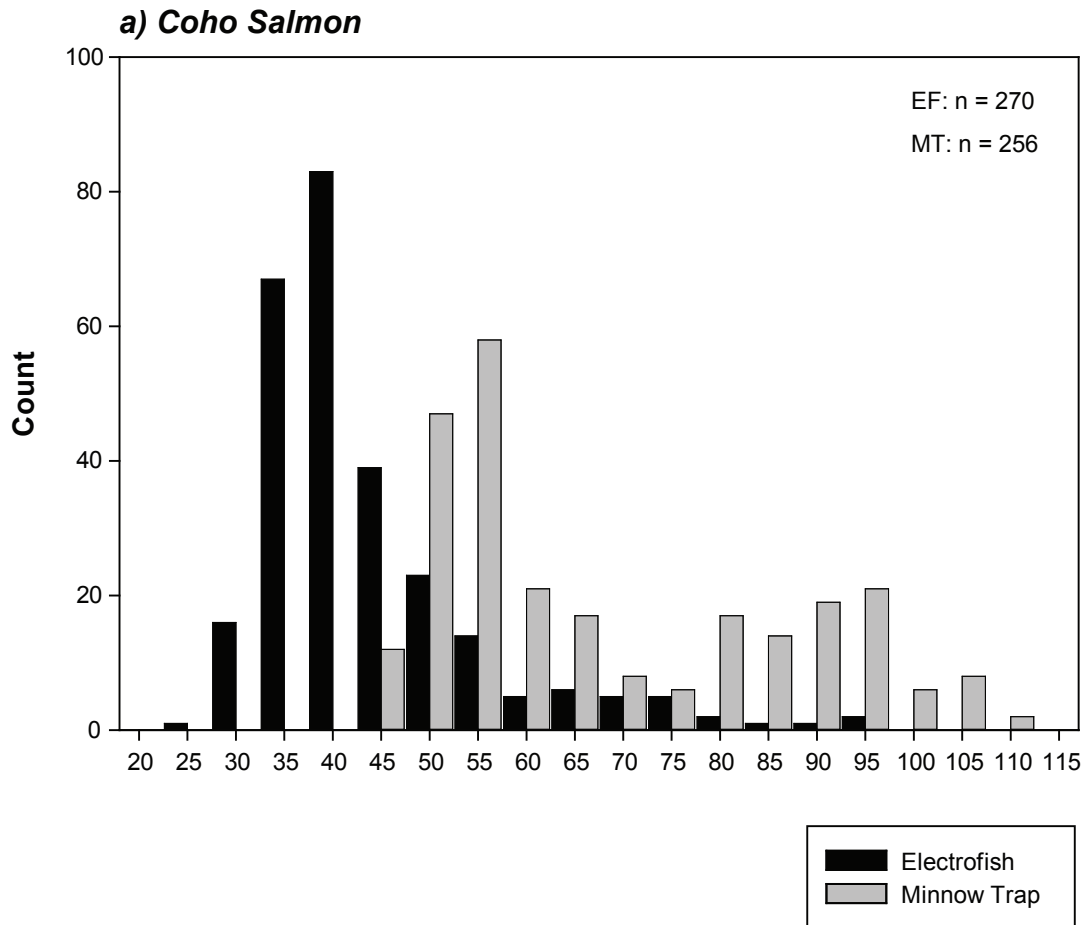
n = sample size

Table 7.3-6. Streams: Mean Stream Minnow Trapping Sampling Effort, 2011

Watershed	n	Mean (h)	SE	Min (h)	Max (h)
East Todedada Creek - Lower	2	51.7	0.17	51.5	51.8
East Todedada Creek - Upper	10	50.3	0.32	48.9	51.8
Oweege Creek - Lower	7	50.0	0.16	49.5	50.5
Oweege Creek - Upper	4	50.0	0.57	48.5	51.0
Snowbank Creek - Trib	4	48.2	0.10	48.0	48.3
Total	27	50.0	0.22	48.0	51.8
Teigen Creek	4	111.9	16.96	79.2	146.7

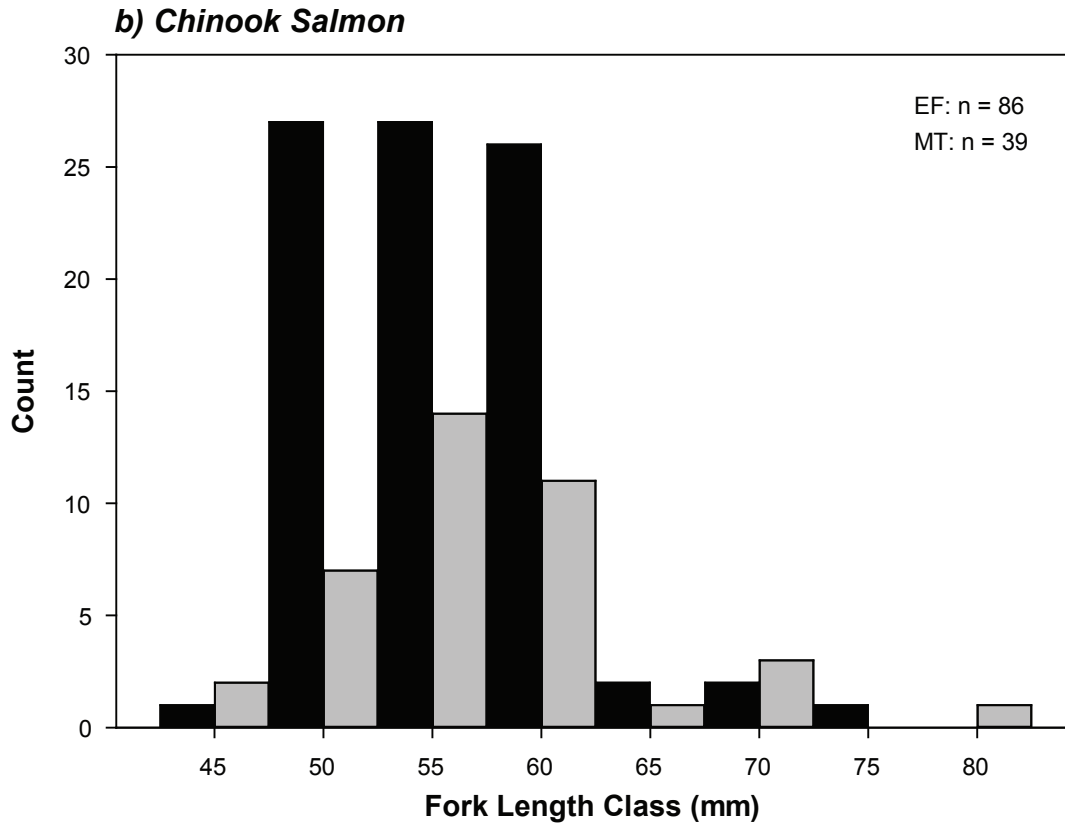
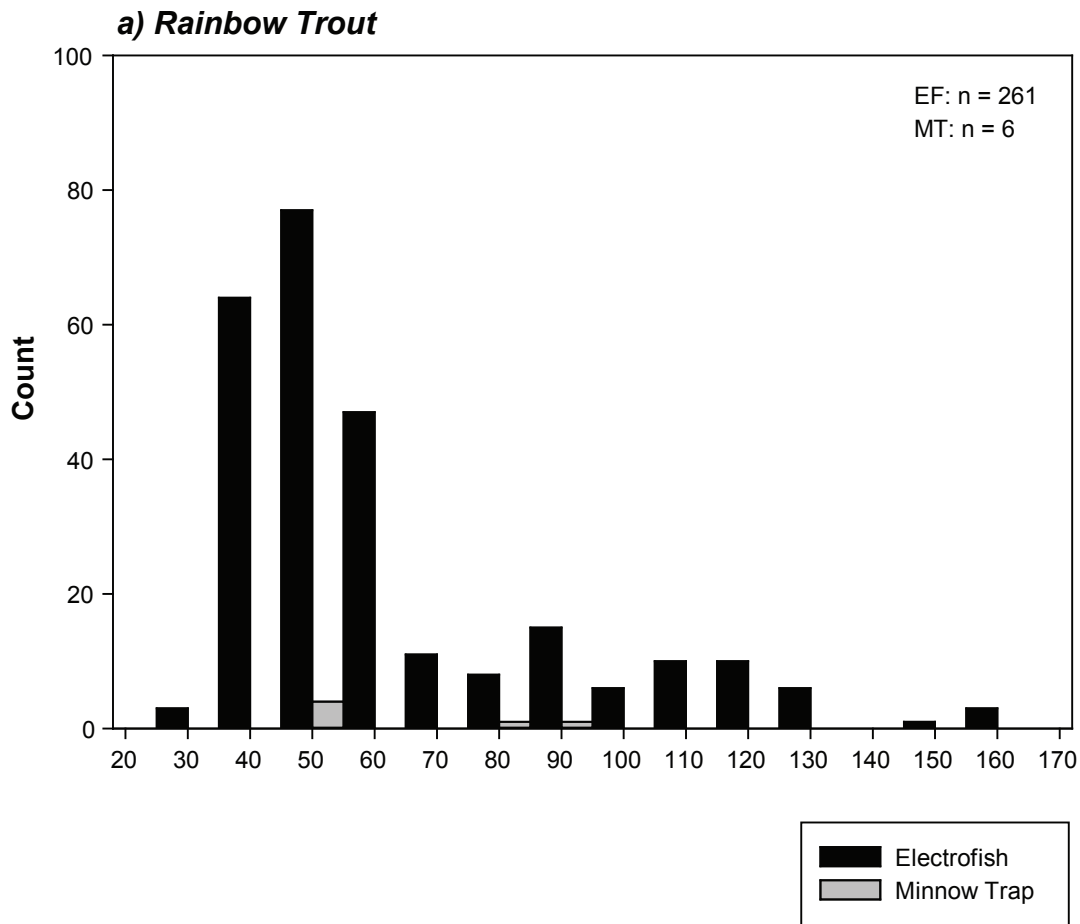
SE = standard error of the mean

n = sample size



Comparison of Fork Length Class Distributions for Stream Rearing Coho Salmon and Dolly Varden Using Dual Gear Sampling Methods

Figure 7.3-13



Comparison of Fork Length Class Distributions for Stream Rearing Rainbow Trout and Chinook Salmon Using Dual Gear Sampling Methods

Figure 7.3-14

Appendices 7.3-3 and 7.3-4 present species effort and catch data for electrofishing and minnow trapping, respectively. Appendices 7.3-5 and 7.3-6 each present a summary of descriptive statistics for standard and bootstrap electrofishing and minnow trapping CPUE means, respectively. Comparisons of standard and bootstrap CPUE means indicate that the means are similar ($< 0.01\%$ difference) when sample size is greater than five; however, when sample size is less than five, the mean difference is greater ($> 2\%$ difference). Furthermore, the SD of bootstrapped means were similar to the SE of the standard mean when sample size was greater than five. Because replication was low, the bootstrapped confidence intervals are likely narrower than true confidence intervals, whereas the regular confidence intervals are likely larger than the true confidence intervals. For these reasons, bootstrap means are presented in illustrative comparisons.

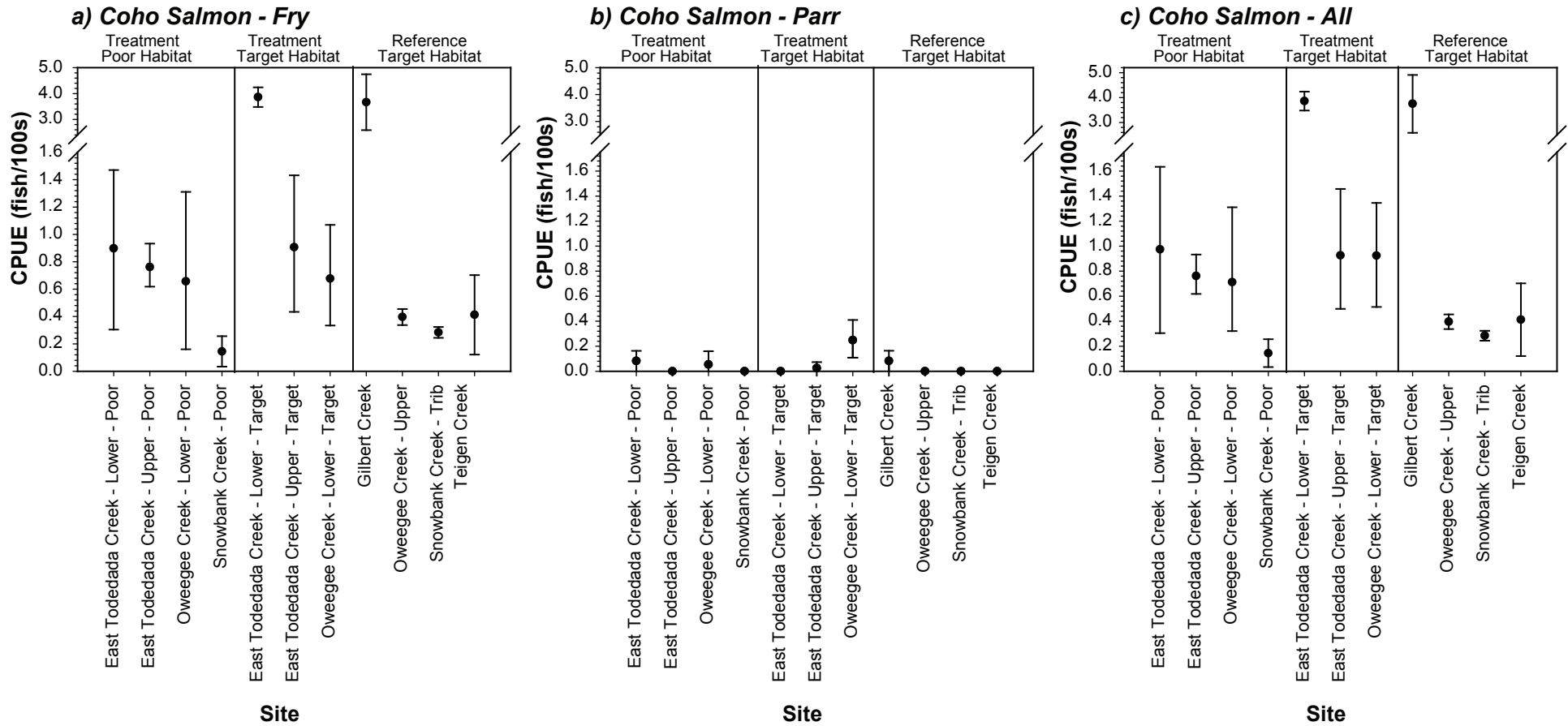
Stream CPUE was analysed using a two factor ANOVA testing for differences in CPUE between habitat types (poor and target) and stream. Stream was used as a block in the ANOVA because samples from within a stream are not independent (Guy and Brown 2007). Only streams that had greater than three CPUE measurements taken from both poor and target habitats were included in the analyses. As a result, only East Todedada Creek Lower, East Todedada Creek Upper and Oweegee Creek Lower fit these criteria. In cases where many zeros (no catches) are present, standard parametric statistics were not performed as the results are unreliable in the presence of large violations of the assumptions of ANOVA (Guy and Brown 2007). Therefore, statistical analysis of CPUE was only completed for the following species: coho salmon, Dolly Varden (only in East Todedada Creek Upper and Lower) and rainbow trout (only in Oweegee Creek Lower).

Electrofishing CPUE of coho salmon (all life stages) was not statistically significant between habitat type or stream (ANOVA - Habitat, $F_{1,20} = 0.31$, $P = 0.58$; ANOVA - Site, $F_{2,20} = 0.34$, $P = 0.72$). In East Todedada Creek Lower and Oweegee Creek Lower, graphical comparison of CIs indicates that mean coho salmon fry CPUE is higher in target habitat versus poor habitat (Figure 7.3-15). Minnow trapping CPUE of coho salmon (all life stages) was statistically significant (ANOVA, $F_{5,25} = 6.74$, $P < 0.01$) between target habitat stream sites (Figure 7.3-16), which can largely be attributed to fry CPUE.

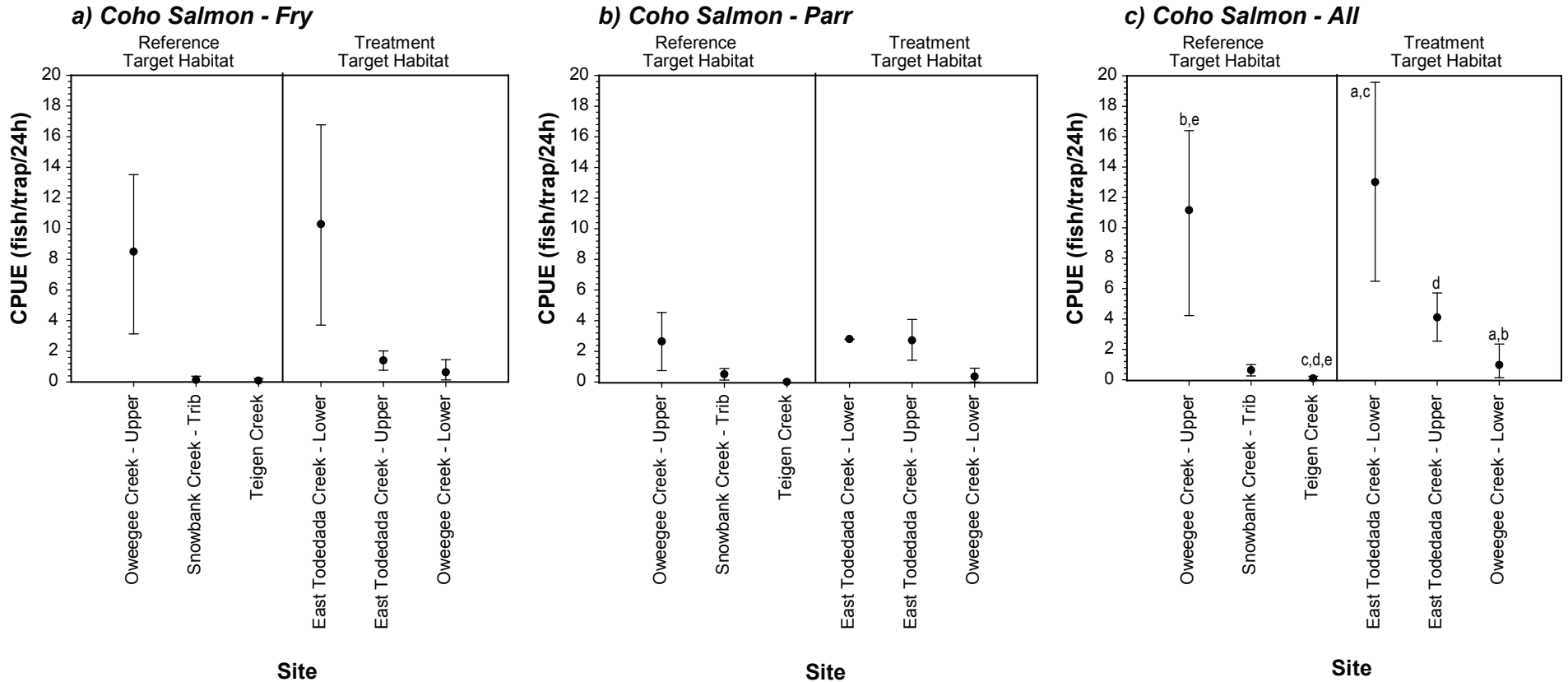
Electrofishing CPUE of Dolly Varden (all life stages) was not statistically significant between habitat type or stream (ANOVA - Habitat $F_{1,11} = 1.74$, $P = 0.21$; ANOVA - Site $F_{1,11} = 0.18$, $P = 0.68$). In East Todedada Creek Lower, graphical comparison of CIs indicates that mean Dolly Varden adult, fry, parr and all life stage CPUE is higher in target habitat versus poor habitat (Figure 7.3-17). In East Todedada Creek Upper, graphical comparison of CIs indicates that mean Dolly Varden parr CPUE is higher in target habitat versus poor habitat (Figure 7.3-17). Minnow trapping CPUE of Dolly Varden (all life stages) was statistically significant (ANOVA, $F_{3,16} = 10.69$, $P < 0.01$) between target habitat sites (Figure 7.3-18). The data demonstrates that Dolly Varden parr and adults utilize pool habitat, whereas fry were not sampled in pool habitats but are dominant in riffle habitats effectively sampled by the electrofisher.

Electrofishing CPUE of rainbow trout (all life stages) was not statistically significant between habitat types in Oweegee Creek (ANOVA, $F_{1,8} = 0.01$, $P = 0.99$). In Oweegee Creek Lower, graphical comparison of CIs indicates that mean rainbow trout parr CPUE is higher in target habitat versus poor habitat (Figure 7.3-19). Graphical comparison of CIs indicates that mean rainbow trout adult, fry, parr and all life stage CPUE is higher in Teigen Creek target habitat versus Snowbank Creek poor habitat (Figure 7.3-19). Minnow trapping CPUE of rainbow trout (all life stages) was not statistically compared due to the abundance of zero catch instances (Figure 7.3-20).

Graphical comparison of CIs indicates that electrofishing CPUE of Chinook salmon (fry) is higher in Teigen Creek target habitat versus Snowbank Creek poor habitat (Figure 7.3-21). Minnow trapping CPUE of Chinook salmon is shown in Figure 7.3-22 for Teigen Creek. This data clearly demonstrates that Chinook fry utilize and are more abundant in target habitat, which is absent in Snowbank Creek.

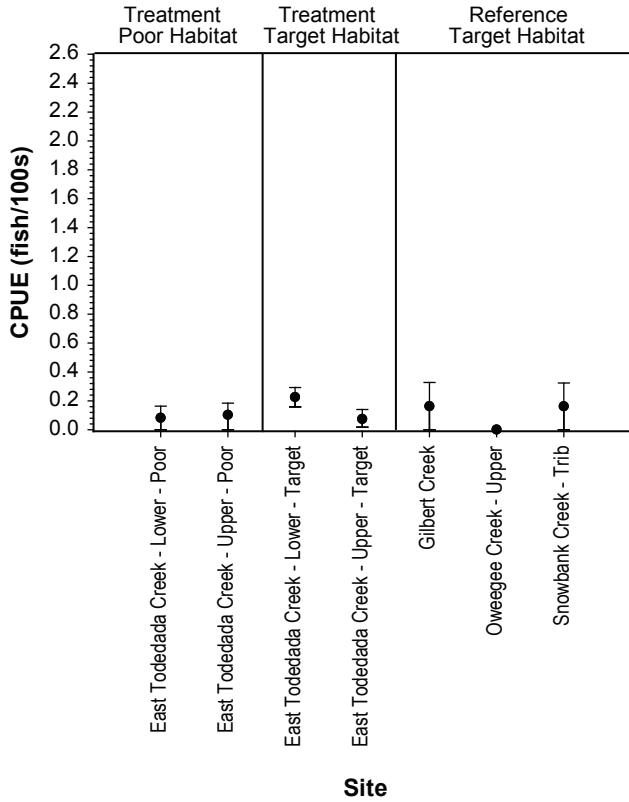


Notes: Bootstrap means are shown
 Error bars represent 95% confidence limits of the mean

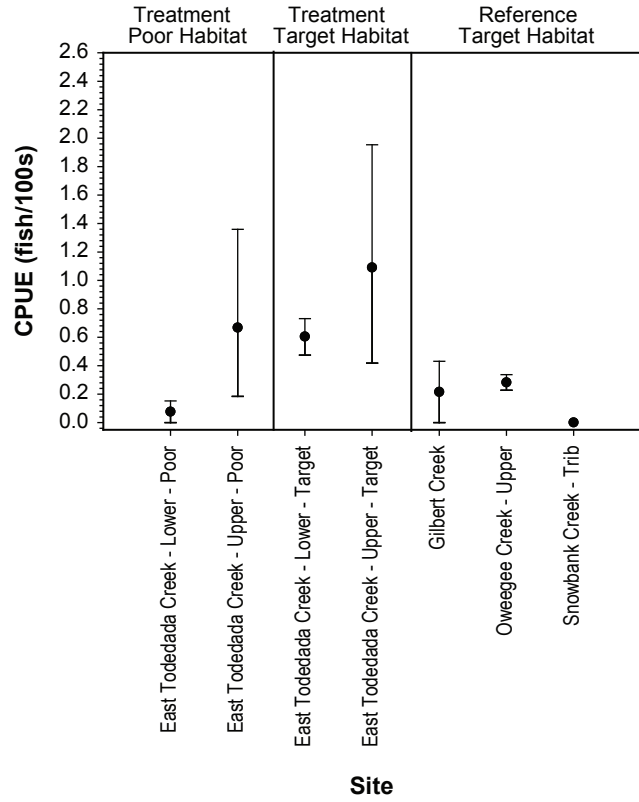


Notes: Bootstrap means are shown
 Error bars represent 95% confidence limits of the mean
 Similar letters indicate significant differences

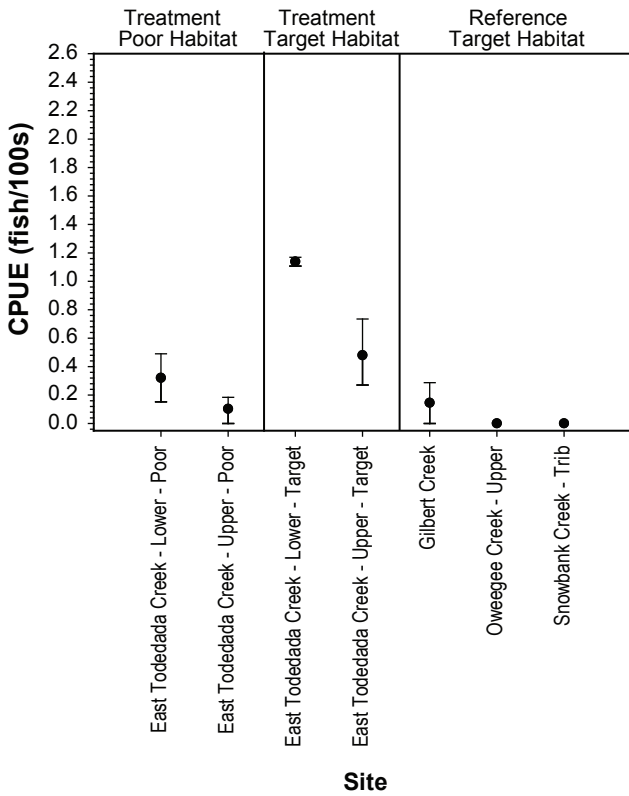
a) Dolly Varden - Adult



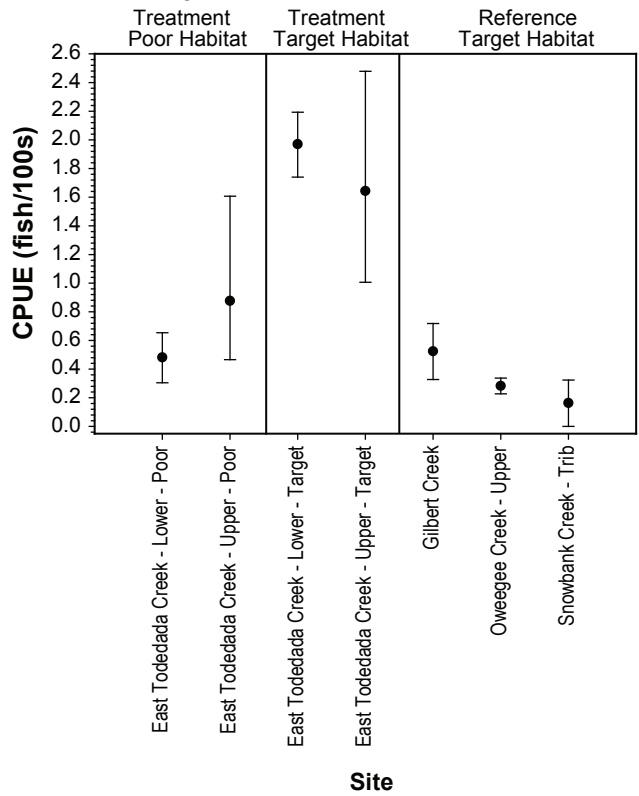
b) Dolly Varden - Fry



c) Dolly Varden - Parr

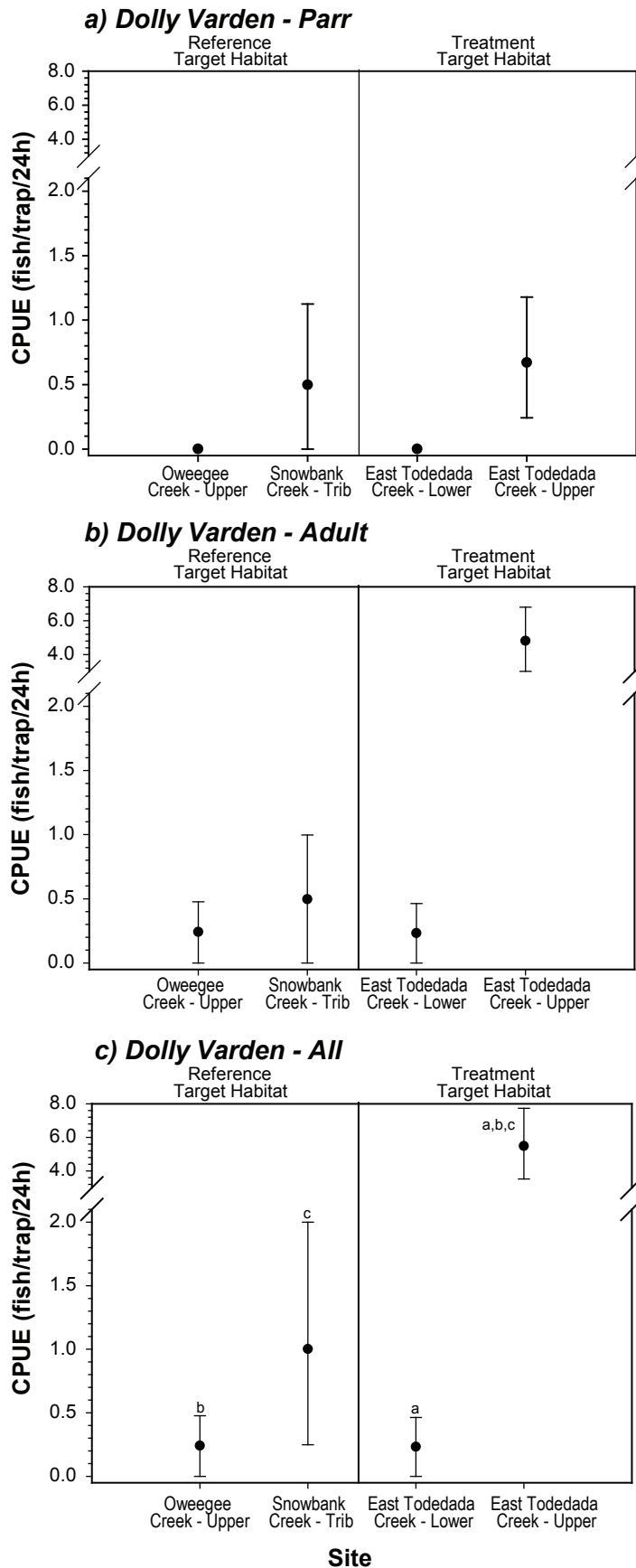


d) Dolly Varden - All



Notes: Bootstrap means are shown
Error bars represent 95% confidence limits of the mean

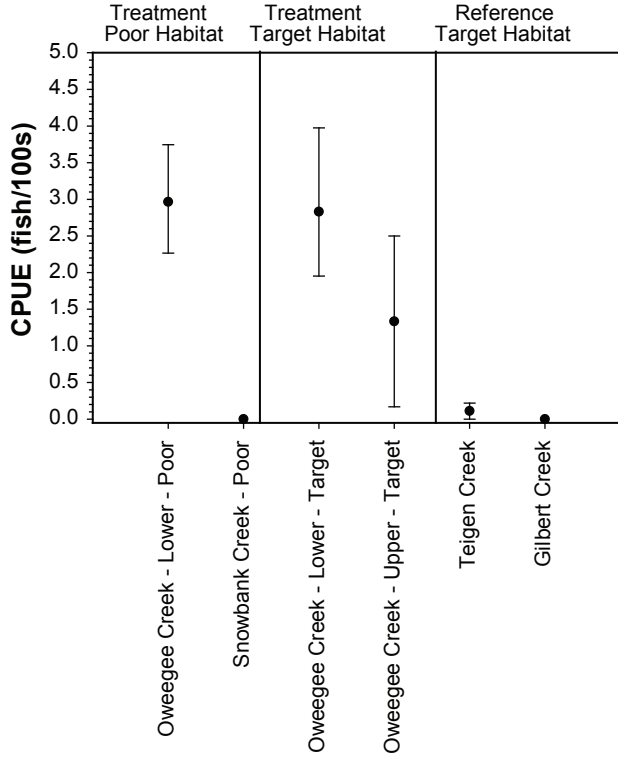
Figure 7.3-17



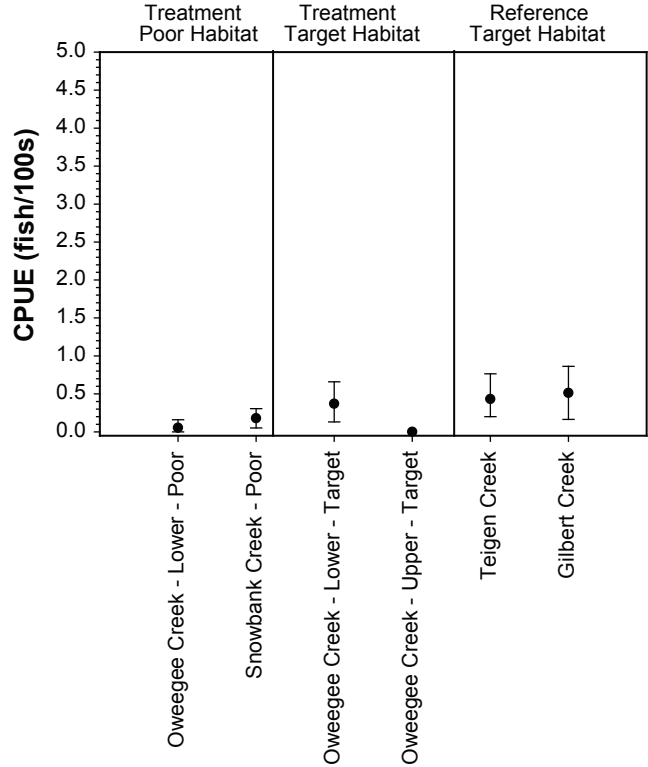
Notes: Bootstrap means are shown
 Error bars represent 95% confidence limits of the mean
 Similar letters indicate significant differences

Figure 7.3-18

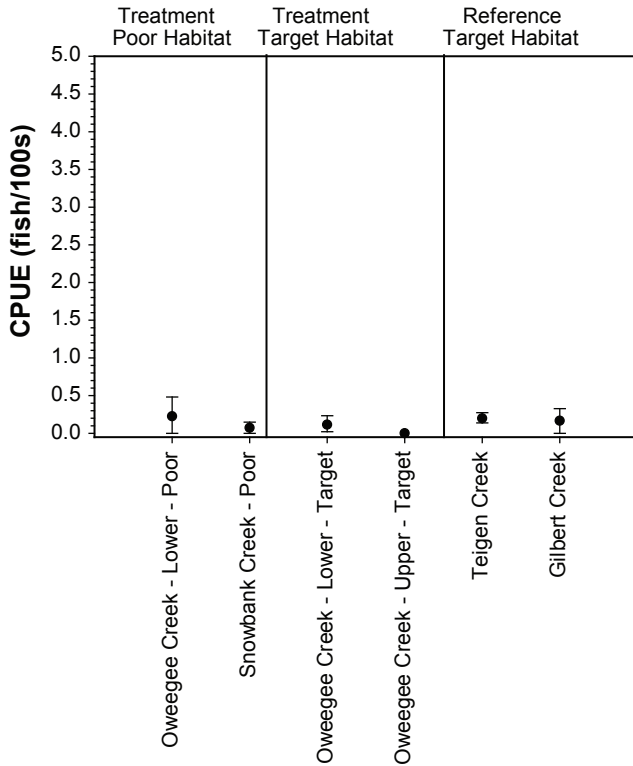
a) Rainbow Trout - Fry



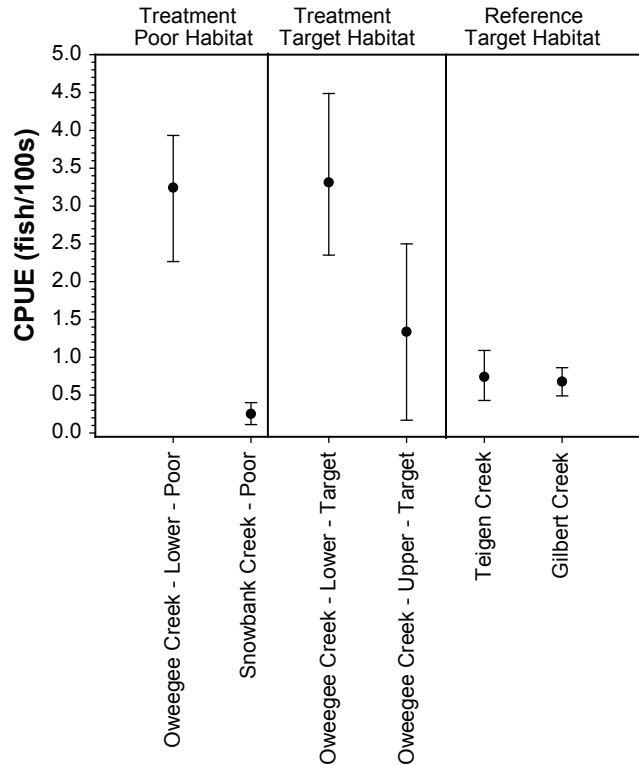
b) Rainbow Trout - Parr



c) Rainbow Trout - Adult

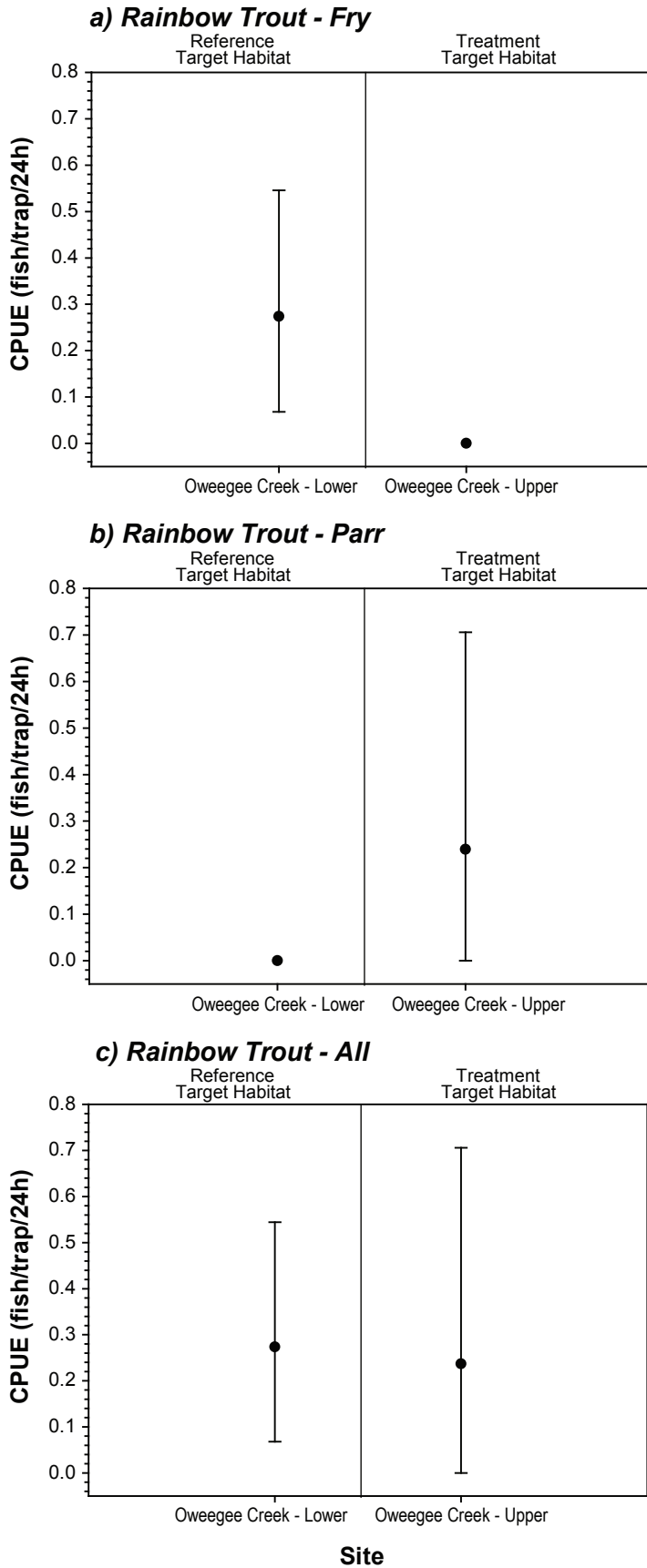


d) Rainbow Trout - All



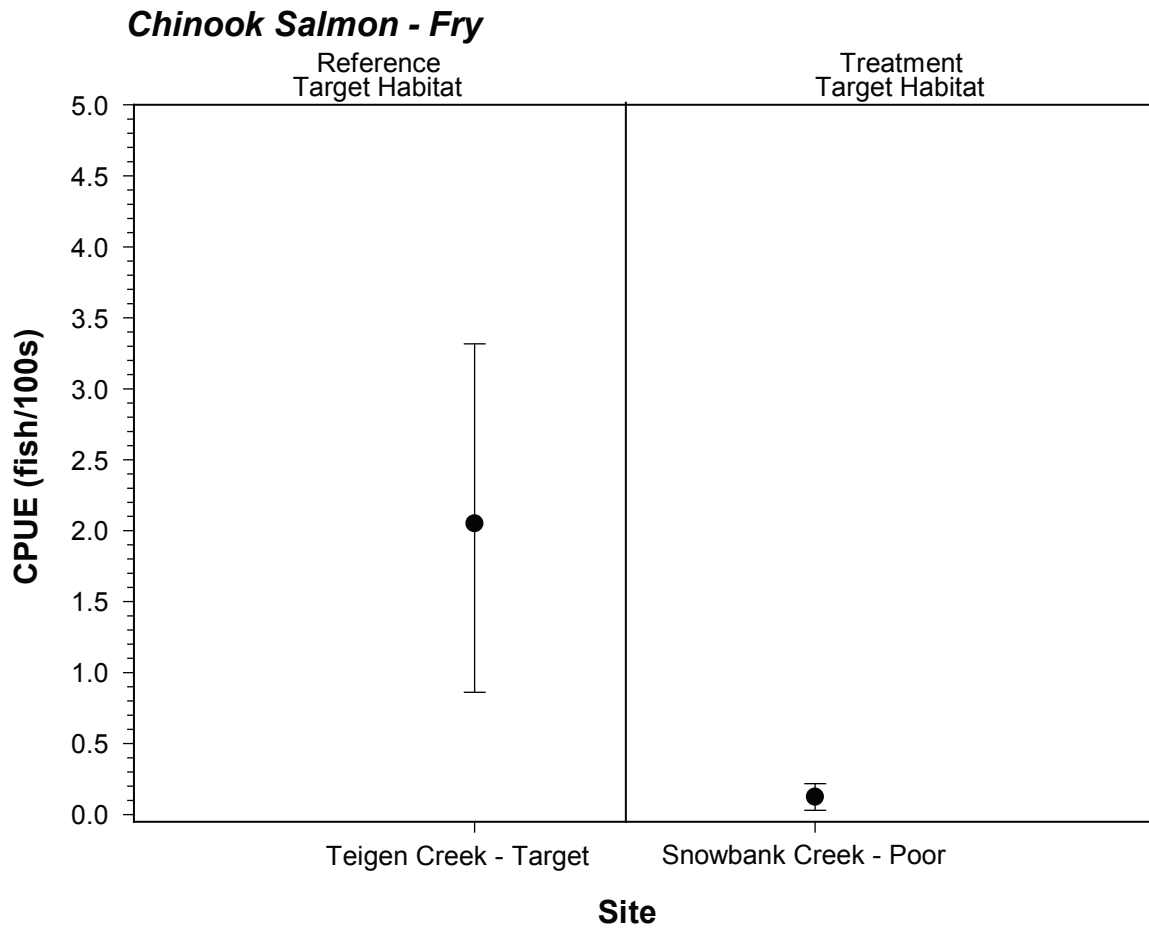
Notes: Bootstrap means are shown
Error bars represent 95% confidence limits of the mean

Figure 7.3-19

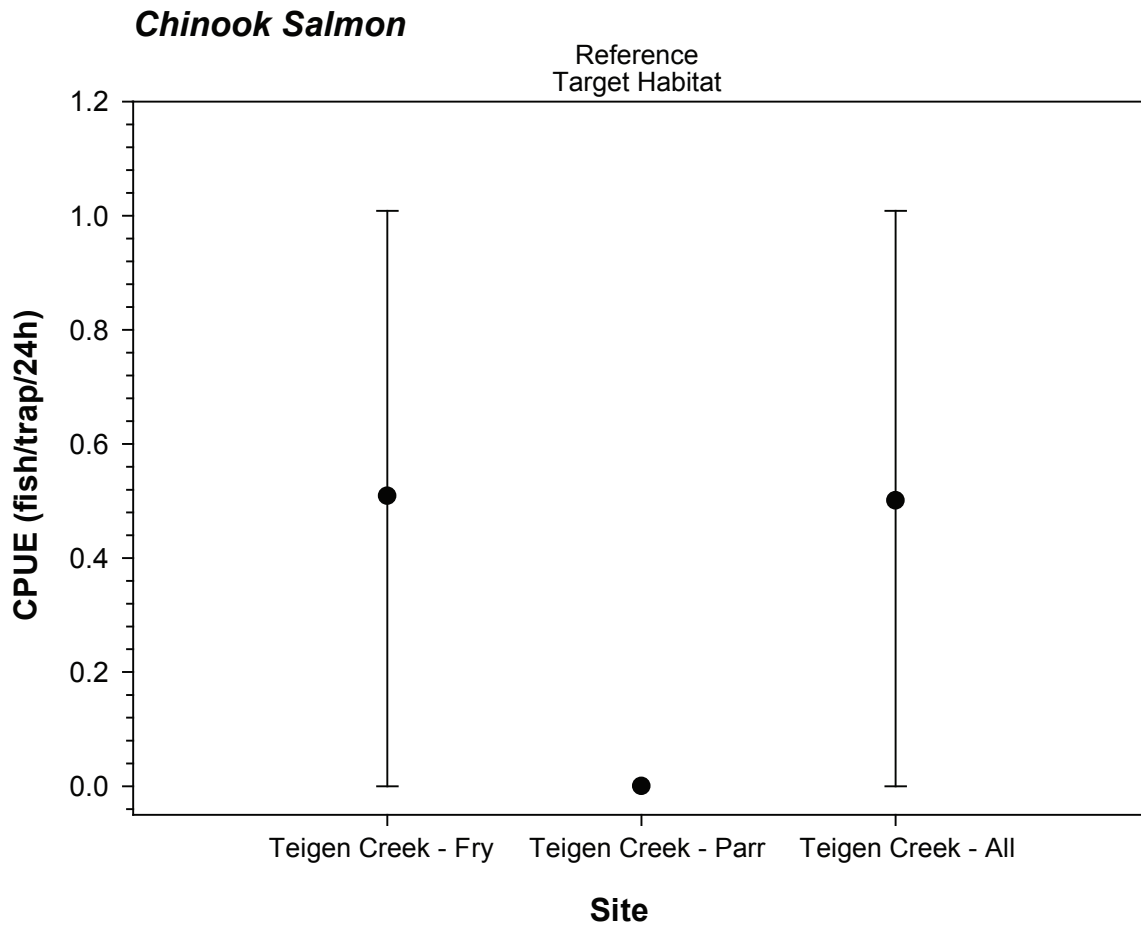


Notes: Bootstrap means are shown
Error bars represent 95% confidence limits of the mean

Figure 7.3-20



Notes: Bootstrap means are shown
Error bars represent 95% confidence limits of the mean



Notes: Bootstrap means are shown
Error bars represent 95% confidence limits of the mean

Total abundance cannot be calculated or compared between stream sites, except East Todedada Creek target habitat sites, due to the inability to enclose sites. The Schnabel Method for estimating population size of target habitat from multiple mark-recapture samples was used for East Todedada Creek. The estimated population size of Dolly Varden utilizing target habitat is 31 (95% CI: 15 - 47). The estimated population size of coho salmon utilizing target habitat is 19 (95% CI: 9 - 29).

The above CPUE data indicates that, although variable, differences in species-specific CPUE between target and poor habitat are apparent. With respect to each gear type, target habitat CPUE is generally higher than poor habitat CPUE, and in certain cases is statistically significant. Biomass, density or total abundance cannot be calculated or compared between stream sites, except East Todedada Creek, due to the inability to enclose sites (e.g., three-pass depletion or mark-recapture methods) and differences in gear type between habitat types (i.e., electrofish and minnow trap). However, it is apparent that biomass/density/abundance is higher in target habitats than poor habitat because minnow traps must be used in combination with electrofishing to effectively sample target pool habitats (i.e., parr and sub-adults are more abundant in pool habitat types).

7.3.3 Biological

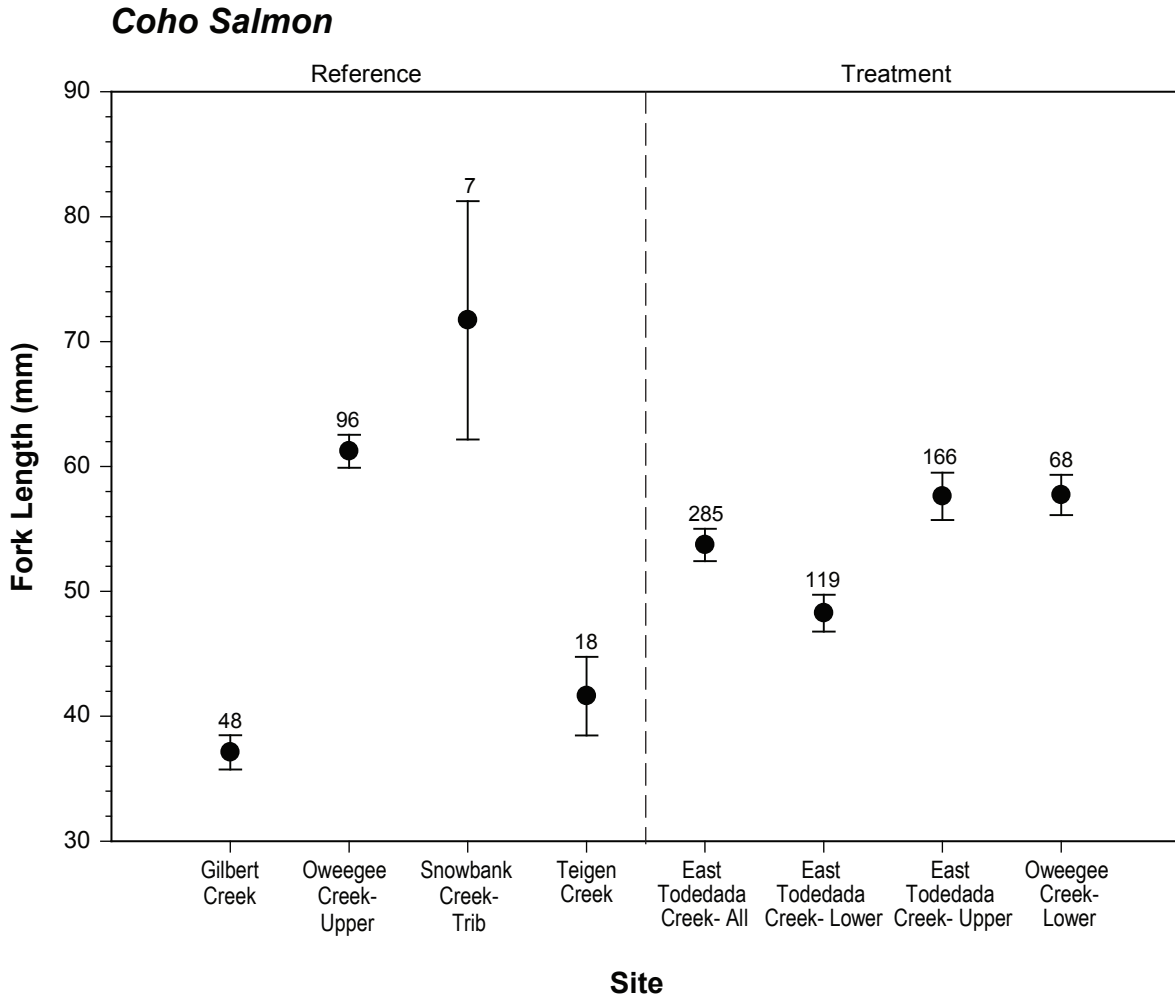
7.3.3.1 Condition

Appendix 7.3-7 presents species-specific biological data for stream habitats. Appendix 7.3-8 presents a summary of descriptive statistics for standard and bootstrap fork length, weight and condition means. Comparisons of regular and bootstrap CPUE means indicate that the means are similar (< 0.01% difference) when sample size is greater than five; however, when sample size is less than five, the mean difference is greater (> 2% difference). Furthermore, the SD of bootstrapped means were similar to the SE of the standard mean when sample size was greater than five. Because replication was high, standard means are presented in illustrative comparisons.

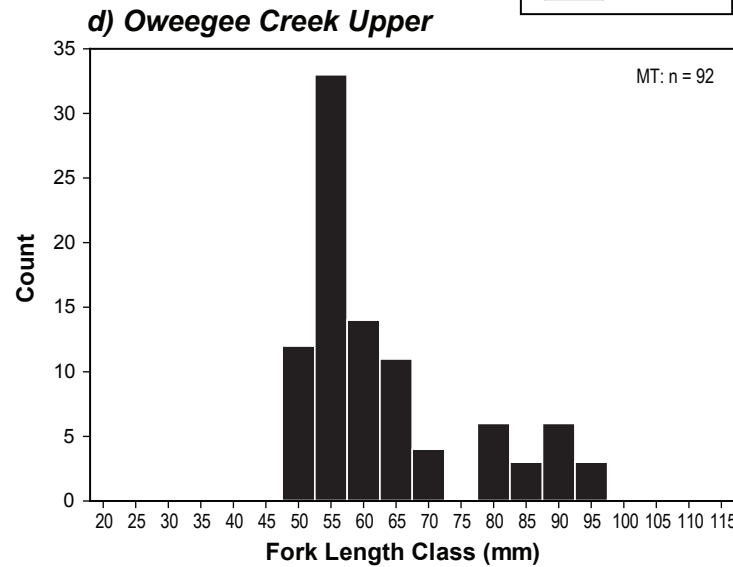
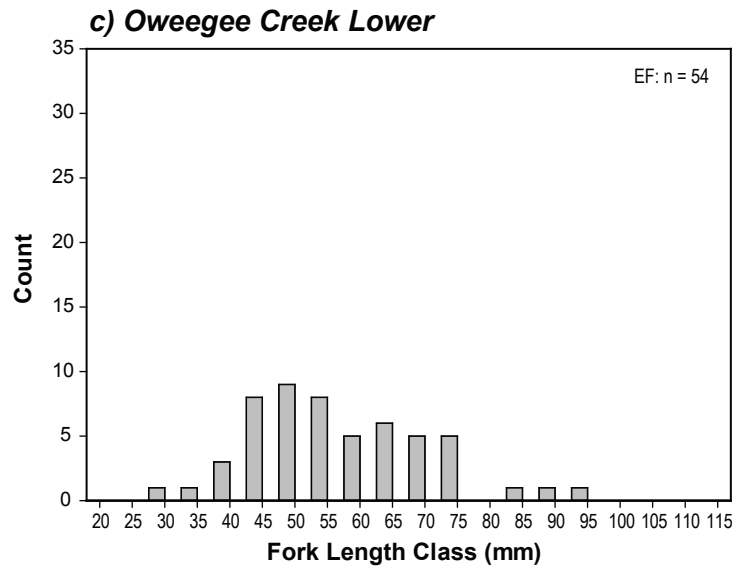
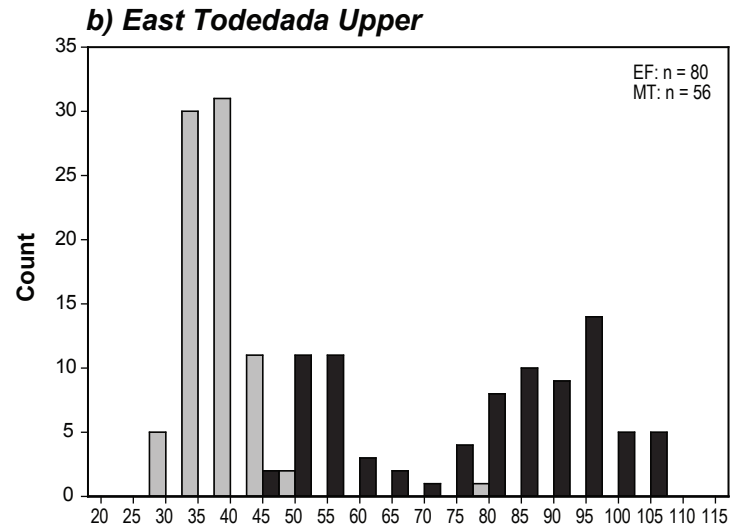
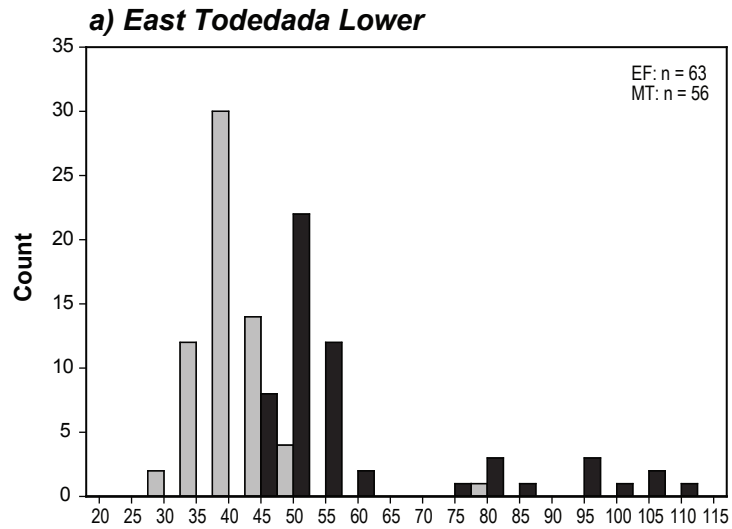
The data collected represents the condition of late summer stream rearing fish. Means were analysed using a one factor ANOVA testing for differences in mean between streams. Where transformation of data failed to meet assumptions of parametric ANOVA, a non-parametric Kruskal-Wallis or Mann-Whitney U test was used.

Mean fork length (Kruskal-Wallis, $H = 134.54$, $df = 7$, $P < 0.01$) and weight (Kruskal-Wallis, $H = 137.41$, $df = 7$, $P < 0.01$) of coho salmon were statistically significant between streams. Table 7.3-7 presents the results of the multiple comparisons test for coho salmon. There are multiple differences between streams; however, the data demonstrates that the abundance of parr sampled/present in each creek and gear type used has an influence on the mean length and weight statistical differences between streams (Figures 7.3-23 to 7.3-25). There are significant differences in condition (Kruskal-Wallis, $H = 84.88$, $df = 7$, $P < 0.01$) between streams (Figure 7.3-26), which is similar to differences reported for mean fork length and weight. Differences in condition could be attributed to local habitat conditions and prey availability in streams (Murphy and Willis 1996).

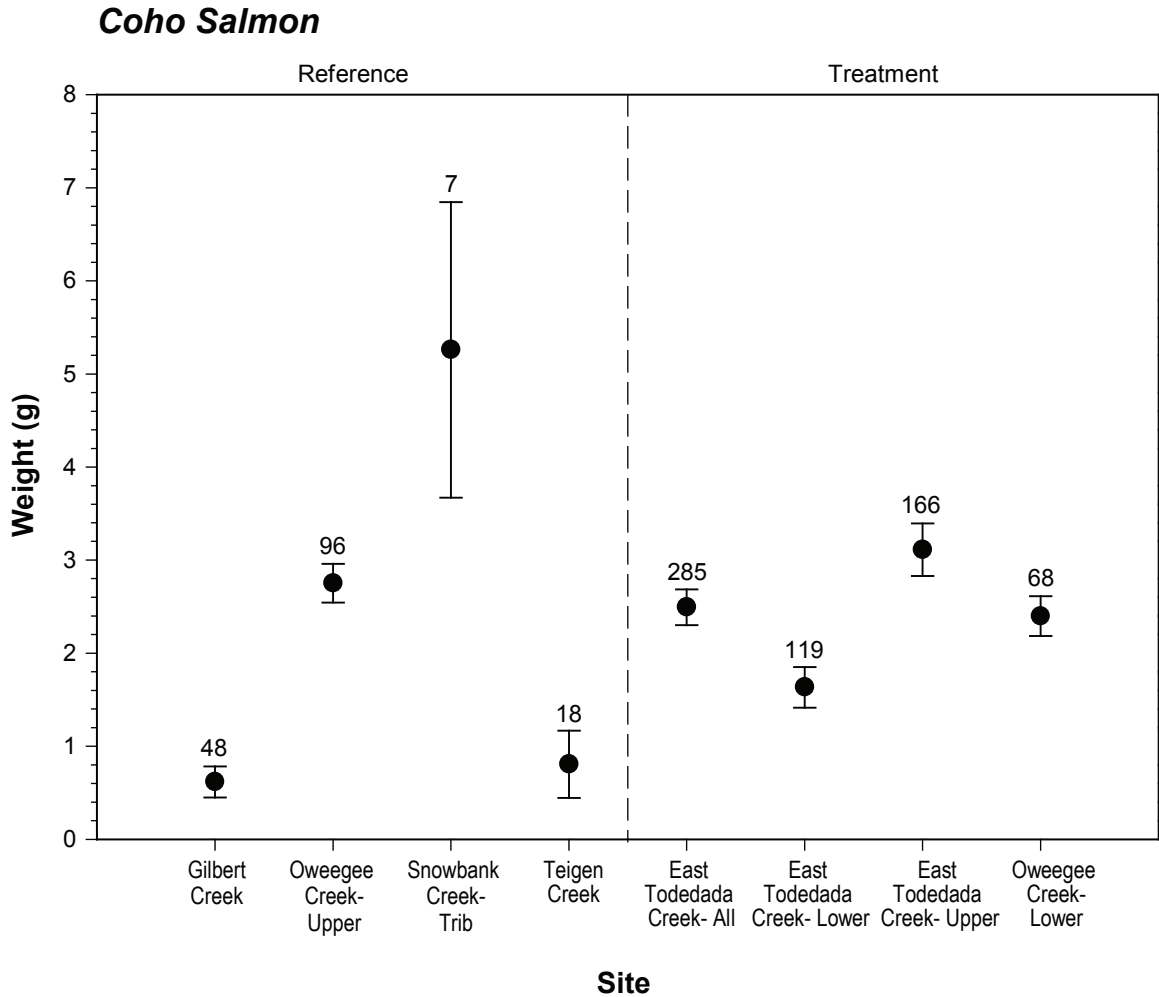
Mean fork length (Kruskal-Wallis, $H = 12.86$, $df = 5$, $P = 0.02$) and weight (Kruskal-Wallis, $H = 11.18$, $df = 5$, $P = 0.04$) of Dolly Varden were statistically significant between streams. The results of the multiple comparisons test indicate that there was a significant difference in mean fork length and weight between East Todedada Creek Lower and East Todedada Creek Upper (Figures 7.3-27 and 7.3-28). The data demonstrates that the abundance of parr and adults sampled/present in each creek and gear type has an influence on the mean length and weight between streams (Figure 7.3-29). There are significant differences in condition (Kruskal-Wallis, $H = 13.01$, $df = 5$, $P = 0.02$) between streams (Figure 7.3-30). Despite the significant differences in the non-parametric Kruskal-Wallis test, there are no significant differences in the multiple comparisons test. This is because the multiple test result in less power to detect differences, which suggests the differences between streams are small, yet significant when analyzed together.



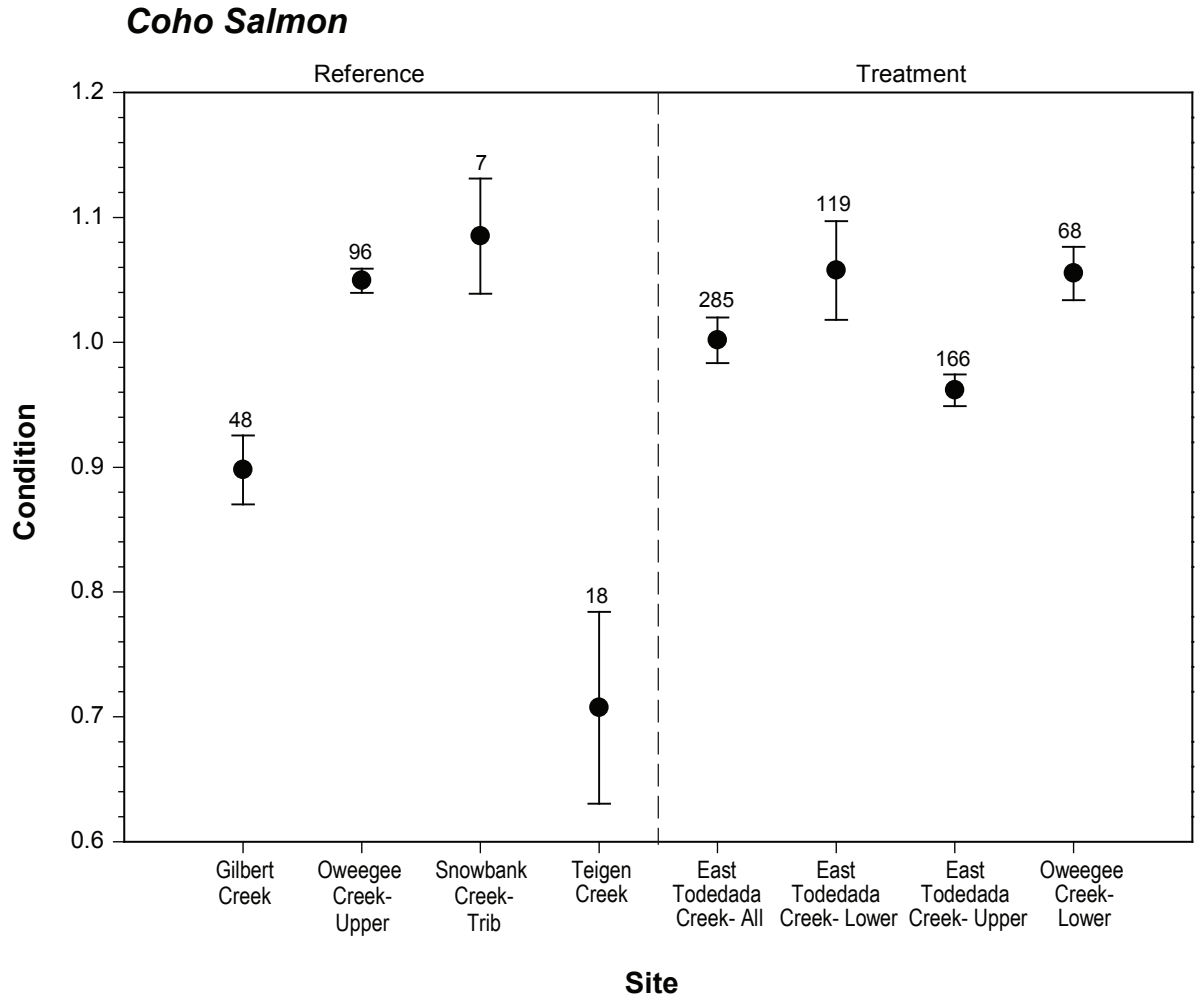
Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).



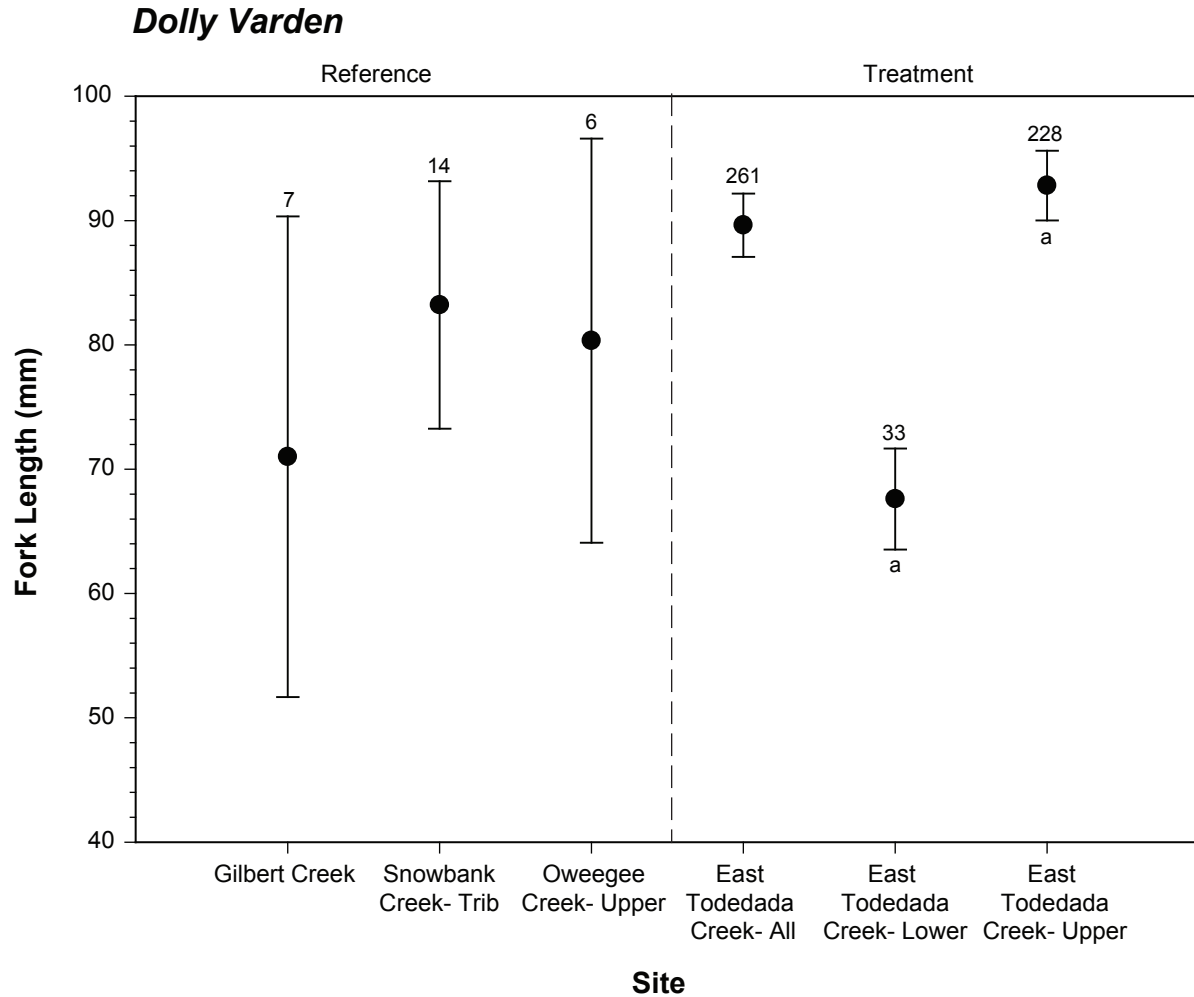
Legend:
 Electrofish
 Minnow Trap



Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).

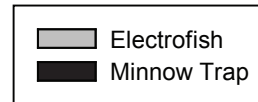
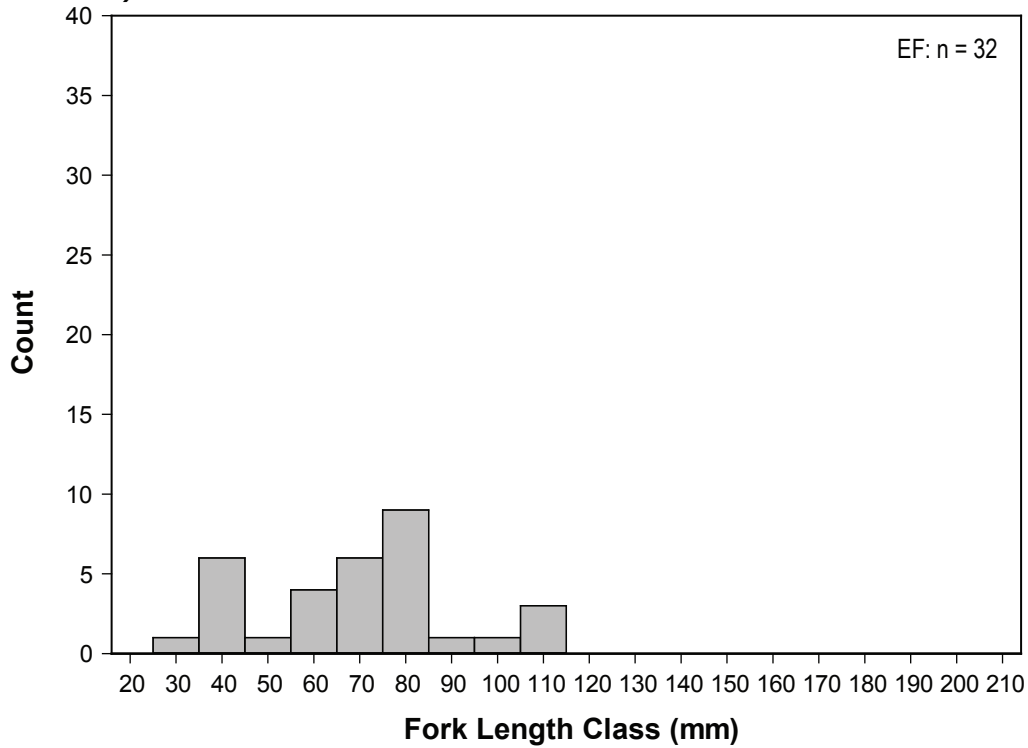


Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).

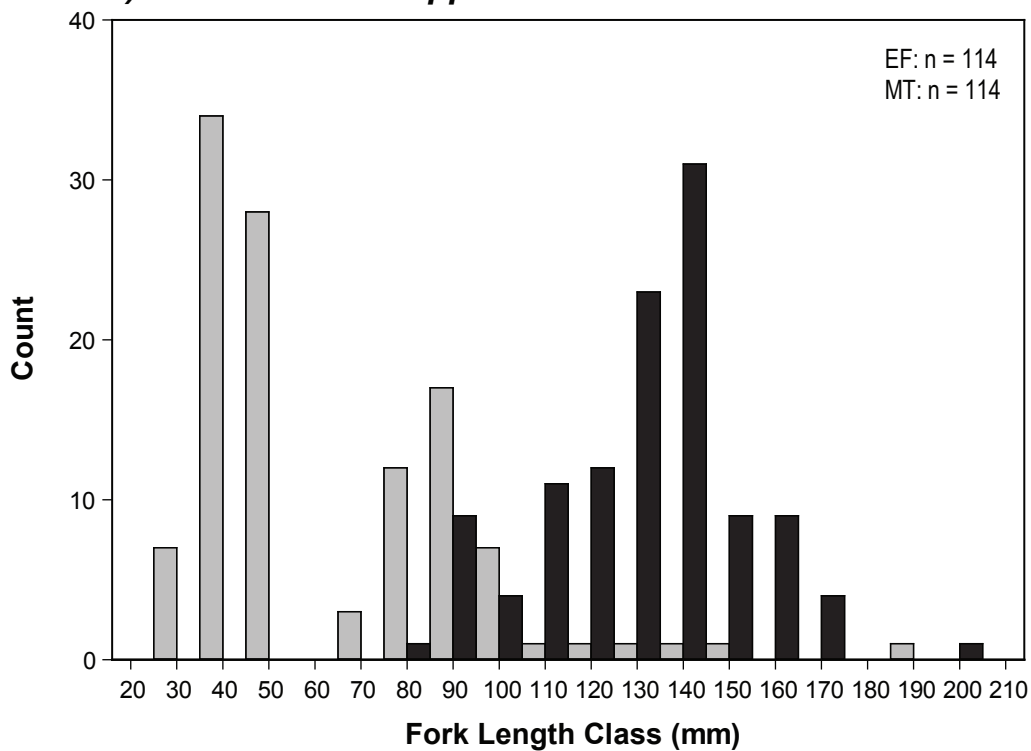


Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).

a) East Todedada Lower

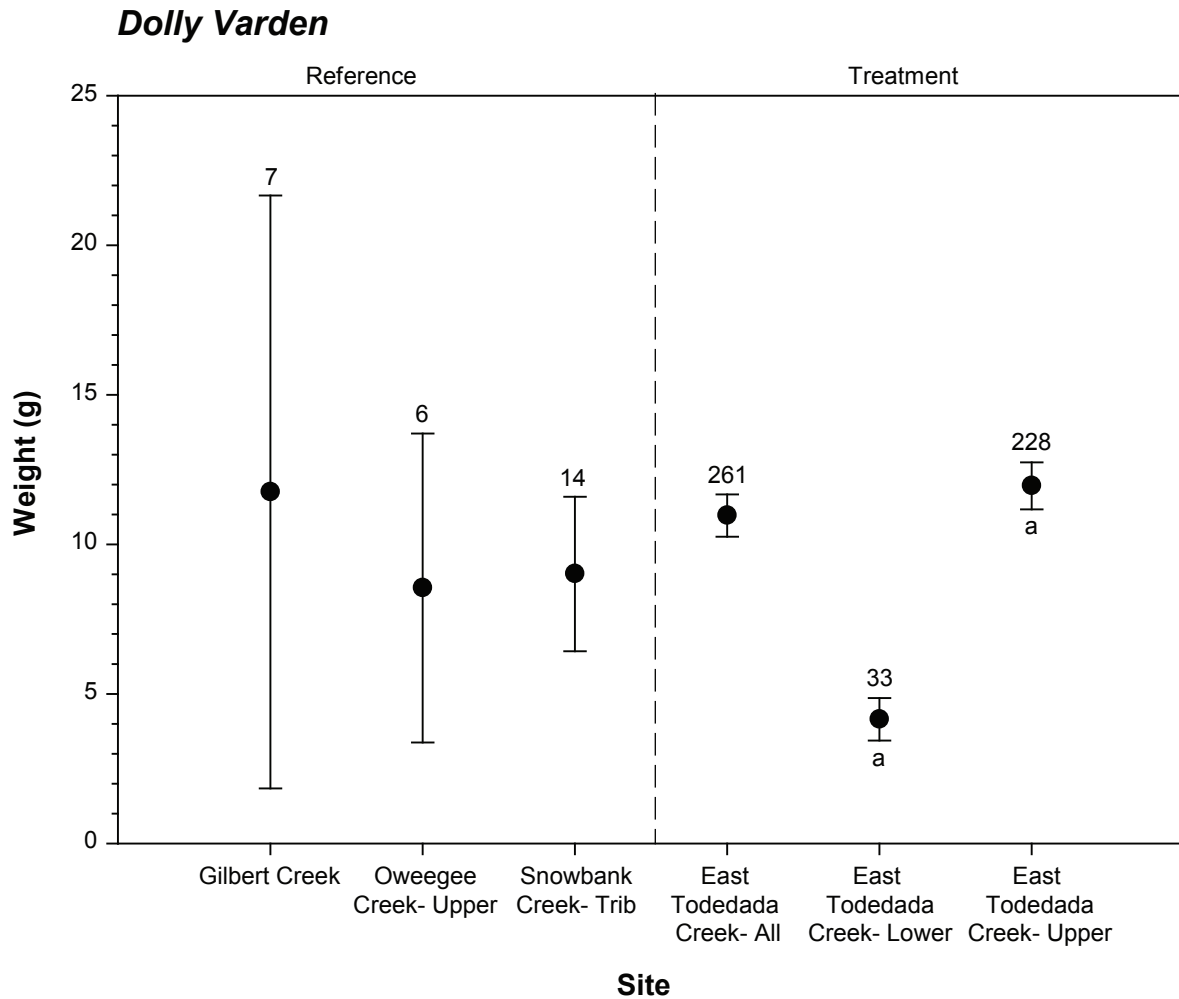


b) East Todedada Upper

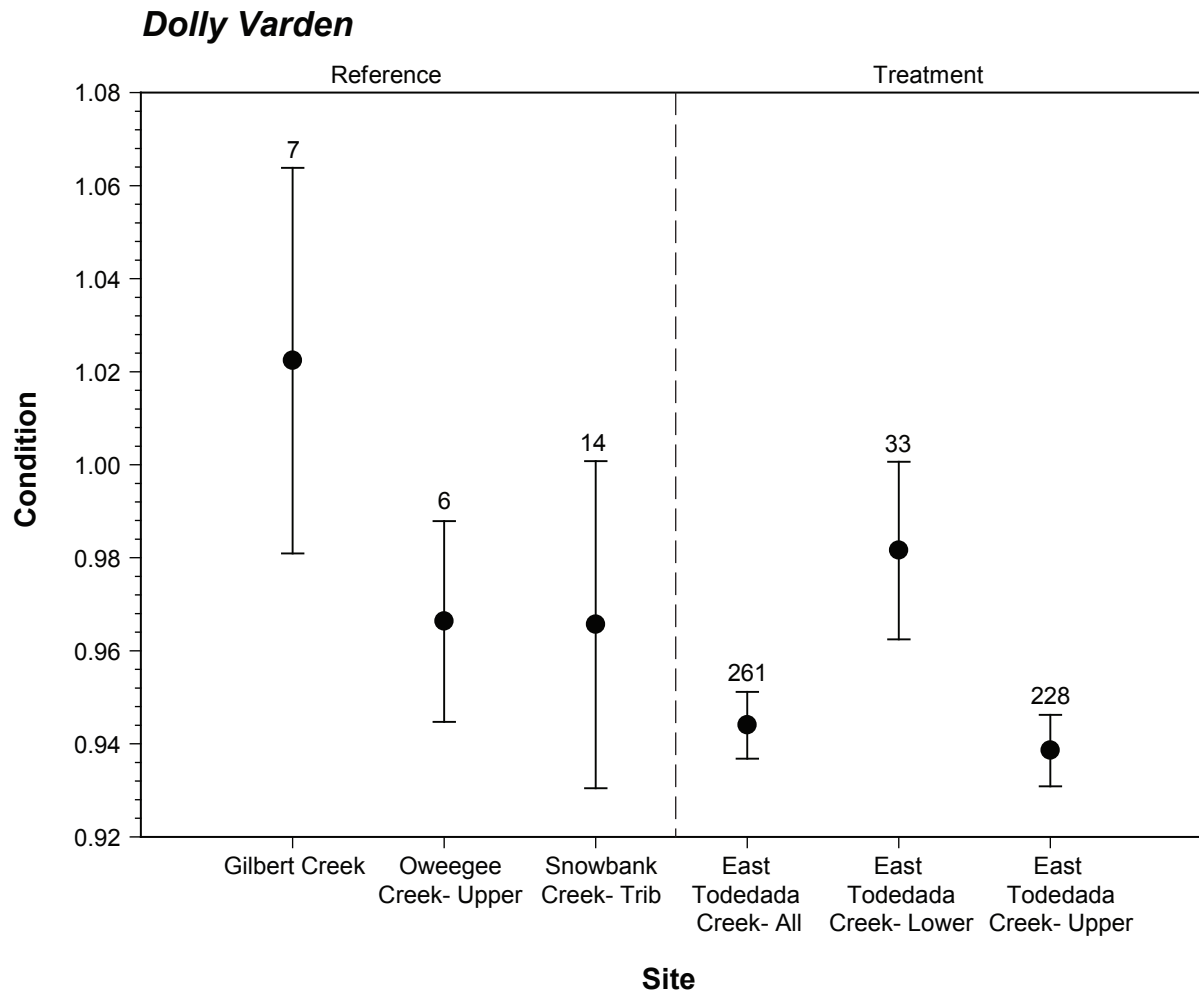


Comparison of Fork Length Class Distributions of Stream Rearing Dolly Varden

Figure 7.3-28



Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).

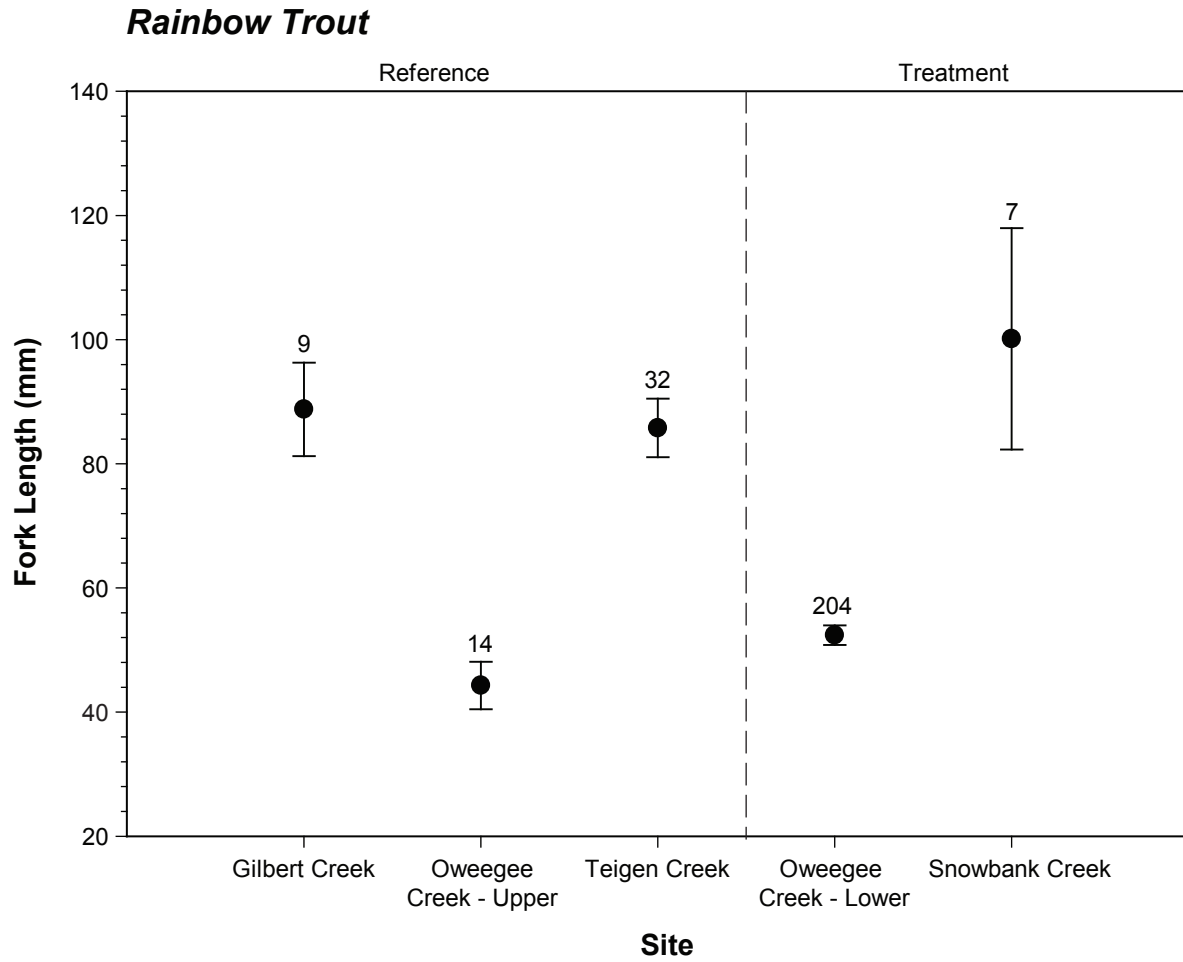


Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).

Table 7.3-7. Summary of Significant Kruskal-Wallis Pairwise Multiple Comparison Tests for Coho Salmon and Rainbow Trout

Species	Fork Length Significant Differences	Weight Significant Differences	Condition Significant Differences
Coho Salmon	East Todedada Creek - Lower: Gilbert Creek	East Todedada Creek - Lower: Gilbert Creek	East Todedada Creek - Lower: Gilbert Creek
	East Todedada Creek - Lower: Oweegee Creek - Lower	East Todedada Creek - Lower: Oweegee Creek - Lower	East Todedada Creek - Lower: Oweegee Creek - Lower
	East Todedada Creek - Lower: Oweegee Creek - Upper	East Todedada Creek - Lower: Oweegee Creek - Upper	East Todedada Creek - Lower: Teigen Creek
	East Todedada Creek - Upper: Gilbert Creek	East Todedada Creek - Upper: Gilbert Creek	East Todedada Creek - Upper: Oweegee Creek - Lower
	East Todedada Creek - Upper: Oweegee Creek - Upper	East Todedada Creek - Upper: Oweegee Creek - Upper	East Todedada Creek - Upper: Oweegee Creek - Upper
	East Todedada Creek - Upper: Teigen Creek	East Todedada Creek - Upper: Teigen Creek	-
	Gilbert Creek: Oweegee Creek - Lower	Gilbert Creek: Oweegee Creek - Lower	Gilbert Creek: Oweegee Creek - Lower
	Gilbert Creek: Oweegee Creek - Upper	Gilbert Creek: Oweegee Creek - Upper	Gilbert Creek: Oweegee Creek - Upper
	Gilbert Creek: Snowbank Creek - Trib	Gilbert Creek: Snowbank Creek - Trib	Gilbert Creek: Snowbank Creek - Trib
	Oweegee Creek - Lower: Teigen Creek	Oweegee Creek - Lower: Teigen Creek	Oweegee Creek - Lower: Teigen Creek
	Oweegee Creek - Upper: Teigen Creek	Oweegee Creek - Upper: Teigen Creek	Oweegee Creek - Upper: Teigen Creek
	Snowbank Creek - Trib: Teigen Creek	Snowbank Creek - Trib: Teigen Creek	Snowbank Creek - Trib: Teigen Creek
	Rainbow Trout	Gilbert Creek: Oweegee Creek - Lower	Gilbert Creek: Oweegee Creek - Lower
Gilbert Creek: Oweegee Creek - Upper	Gilbert Creek: Oweegee Creek - Upper	-	
Oweegee Creek - Lower: Snowbank Creek	Oweegee Creek - Lower: Snowbank Creek	-	
Oweegee Creek - Lower: Teigen Creek	Oweegee Creek - Lower: Teigen Creek	-	
Oweegee Creek - Upper: Snowbank Creek	Oweegee Creek - Upper: Snowbank Creek	-	
Oweegee Creek - Upper: Teigen Creek	Oweegee Creek - Upper: Teigen Creek	-	

Mean fork length (Kruskal-Wallis, $H = 66.38$, $df = 4$, $P < 0.01$) and weight (Kruskal-Wallis, $H = 63.39$, $df = 4$, $P < 0.01$) of rainbow trout were statistically significant between streams. Table 7.3-7 presents the results of the multiple comparisons test for rainbow trout. There are multiple differences between streams; however, the data demonstrates that the abundance of fry sampled/present in Oweegee Creek (upper and lower) has an influence on the mean length and weight statistical differences and is dependent upon the effectiveness fish capture technique and their size-selectivity (Figures 7.3-31 to 7.3-33). There are significant differences in condition (Kruskal-Wallis, $H = 27.54$, $df = 4$, $P < 0.01$) between streams (Figure 7.3-34). The significant differences are between Oweegee Creek Lower and Teigen Creek (Table 7.3-7).



Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).

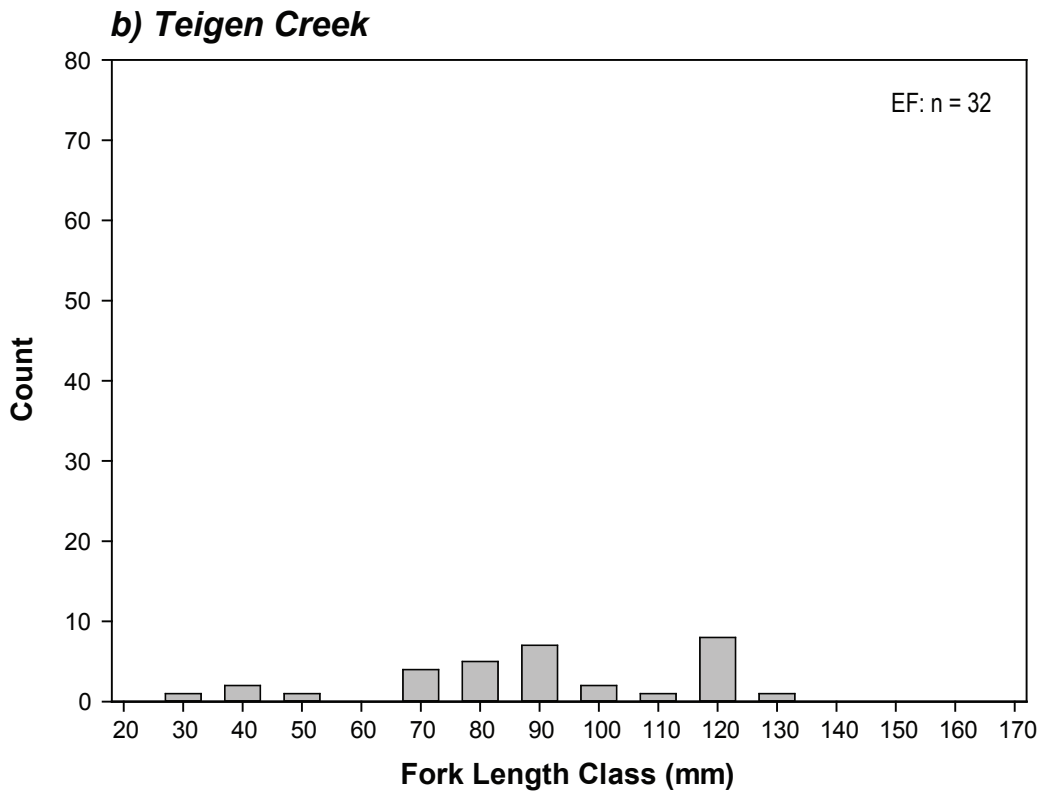
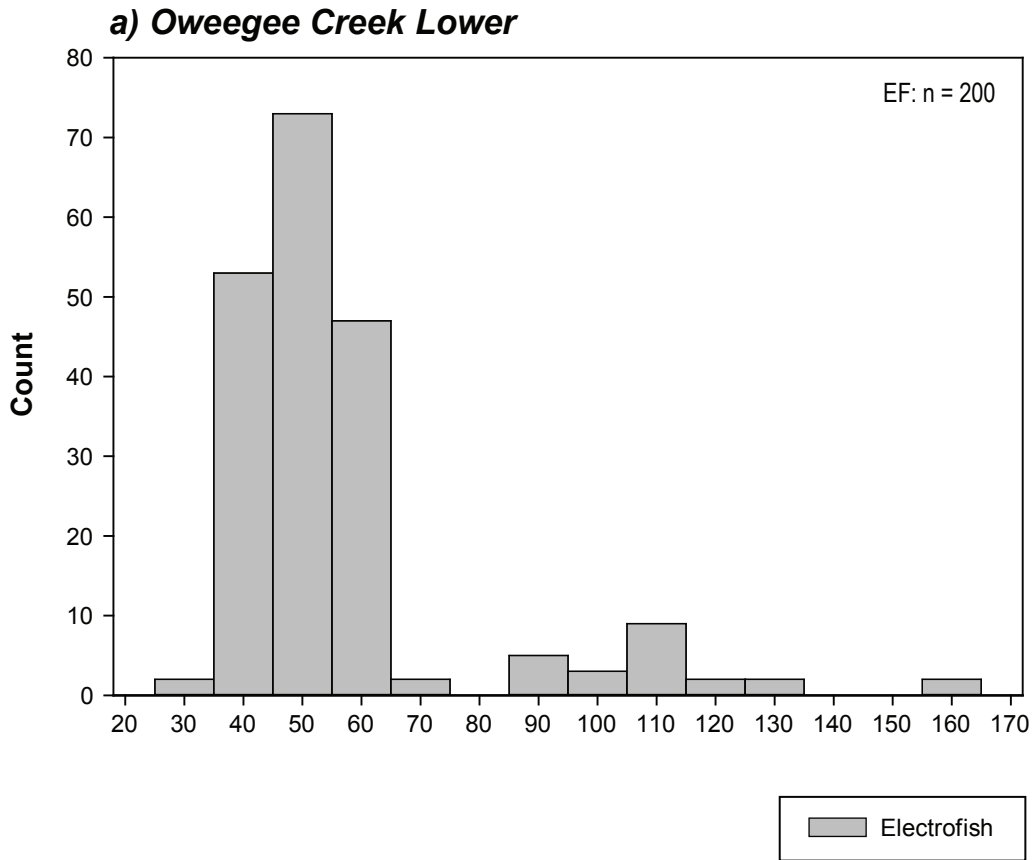
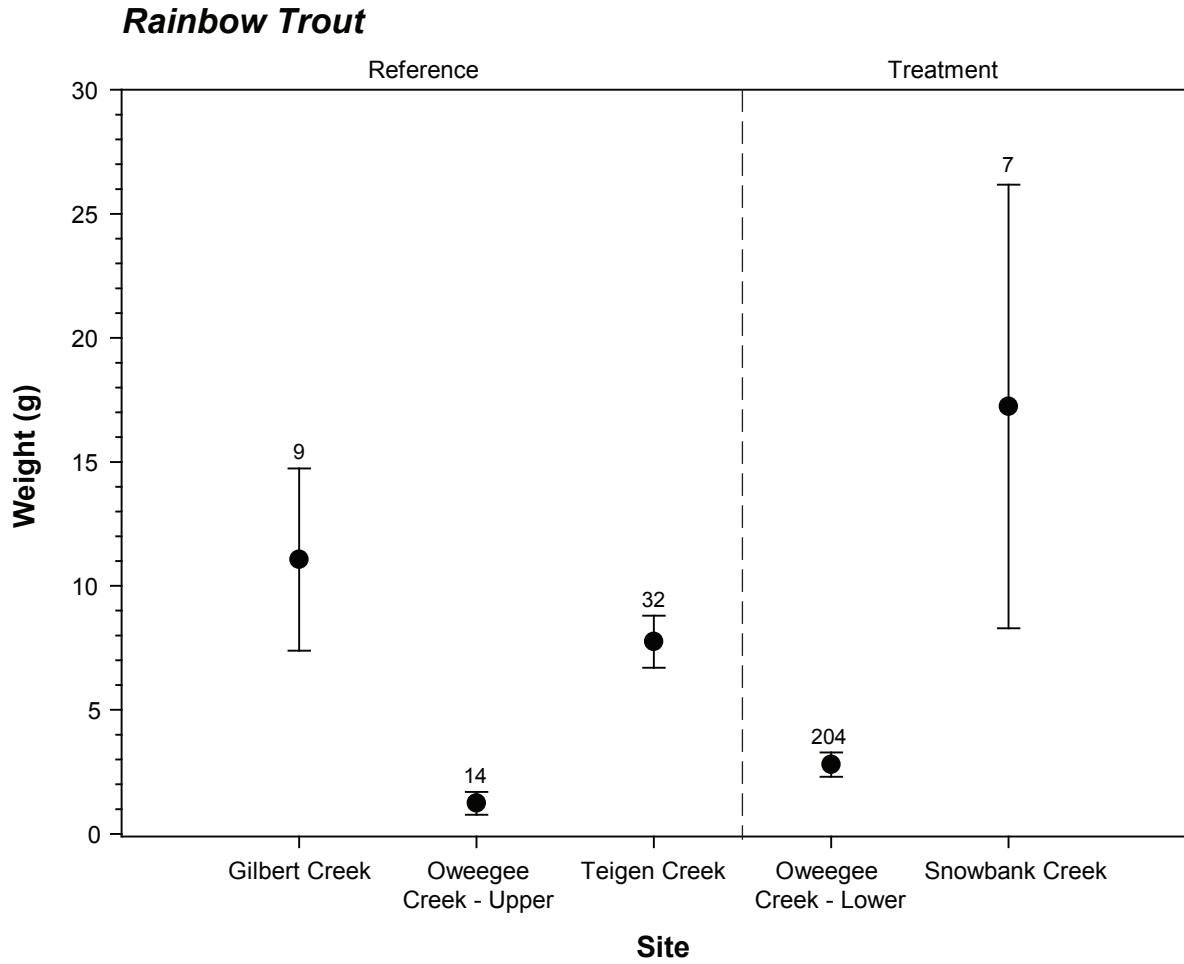
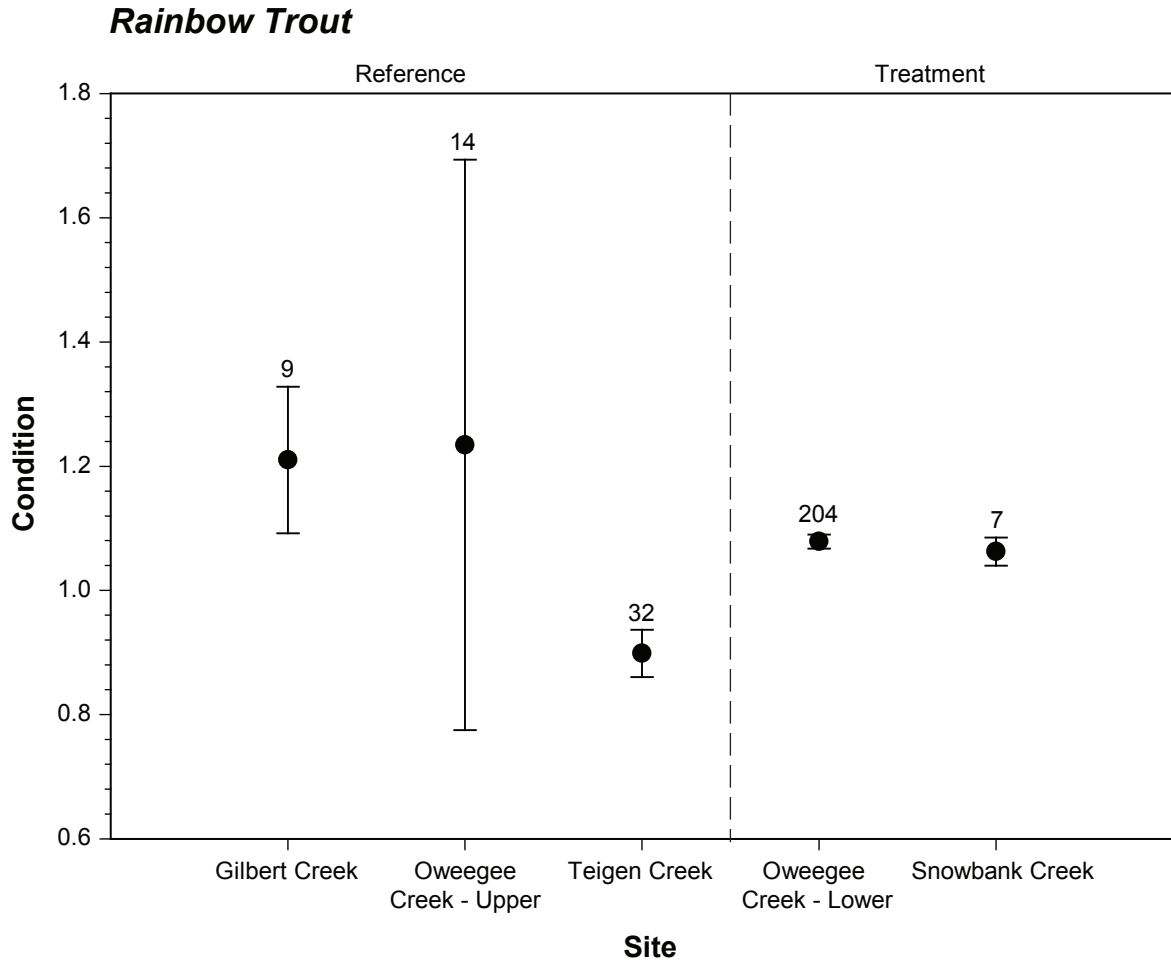


Figure 7.3-32



Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).



Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).

Statistical analysis was not conducted for Chinook salmon because of insufficient sample size. Sample size was only sufficient for Teigen Creek ($n = 118$) and cannot be compared statistically with Snowbank Creek (Figures 7.3-35 to 7.3-37).

7.3.3.2 Growth

Appendix 7.3-7 presents species-specific biological data for stream habitats. Appendix 7.3-9 presents a summary of descriptive statistics for standard and bootstrap mean ages. The SD of bootstrapped means were similar to the SE of the standard mean when sample size was greater than five. Since replication was high, standard means are presented in illustrative comparisons.

The data collected represents the growth of late summer stream rearing Dolly Varden. Sample size was only sufficient to construct a growth model for East Todedada Creek Upper ($n = 30$), which had a mean age of 3.2 years (± 0.2 SE).

Von Bertalanffy growth curves and a size-at-age linear regression was conducted for Dolly Varden in East Todedada Creek (Figure 7.3-38). The Akaike weights show the magnitude of support for each model; the model with the highest weight being the best fit model of three models compared. The fit of the all models was poor. However, the two-parameter (zero) von Bertalanffy growth model fit through zero performed best compared to other models (e.g., twice as good as the three-parameter (full) von Bertalanffy model). The two-parameter (zero) von Bertalanffy growth model predicted an asymptotic fork length of 159 mm with a growth coefficient (K) of 0.52 year^{-1} .

7.4 WETLANDS

7.4.1 Fish Habitat

Appendix 7.4-1 presents the sample site location data. The location of wetland sample sites is shown in Figures 7.4-1 and 7.4-2.

Summaries of wetted widths, area and depths are shown in Table 7.4-1. The area of treatment wetlands ranged from 0.08 to 0.85 ha. In comparison, reference wetlands ranged from 0.05 to 1.44 ha. Maximum depth ranged from 0.8 to 2 m in both wetlands types. All reference wetlands were of similar size and depth to those planned for off-channel habitat creation projects.

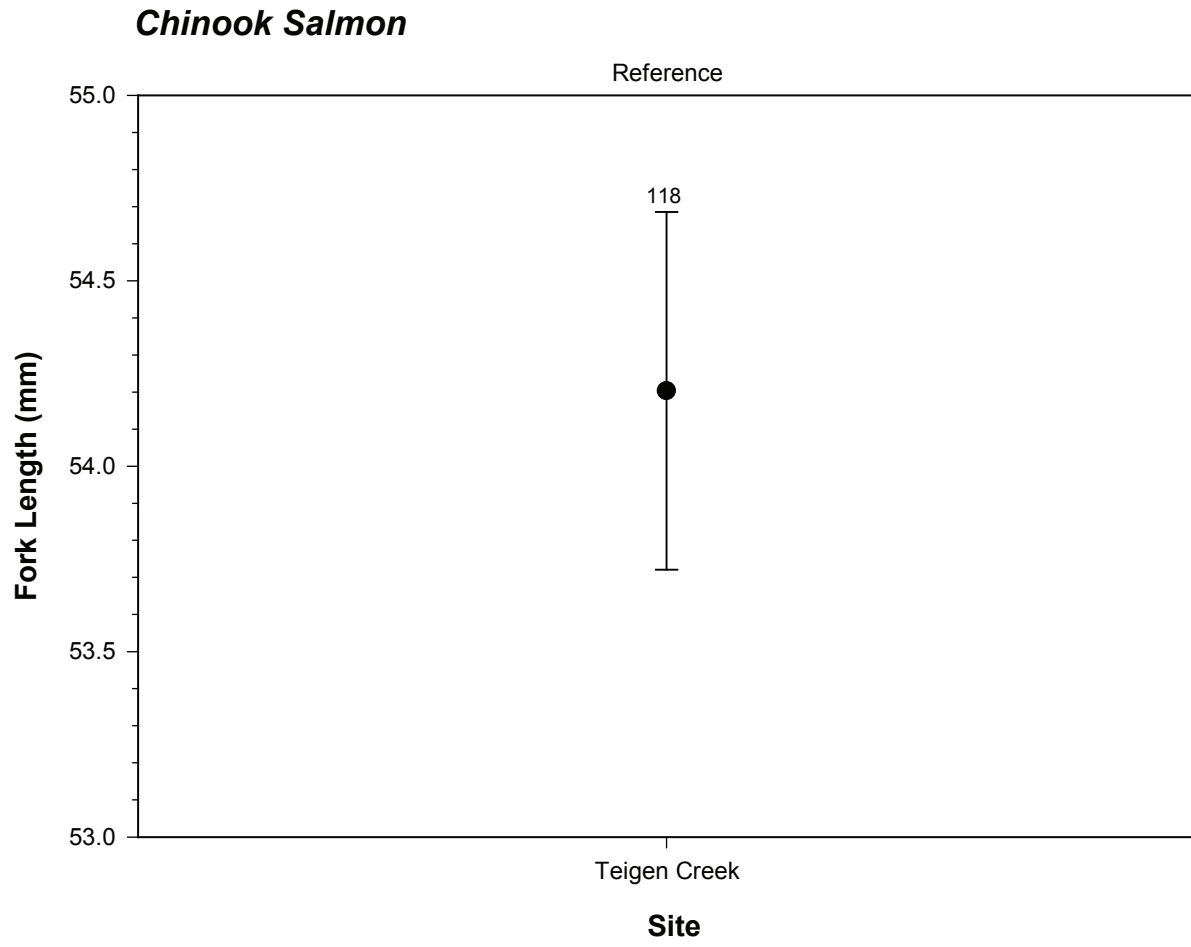
All treatment wetlands were selected based upon previous fieldwork that confirmed them as fish bearing. However, prior fish presence information was not necessarily known for reference wetlands. Of the ten reference wetlands selected, five were confirmed as fish bearing. These wetlands were: Oweege Creek Wetland 1, Teigen Creek Wetland 4, Treaty Creek Wetland 1, 3 and 7 (Plates 7.4-1 to 7.4-5).

7.4.2 CPUE

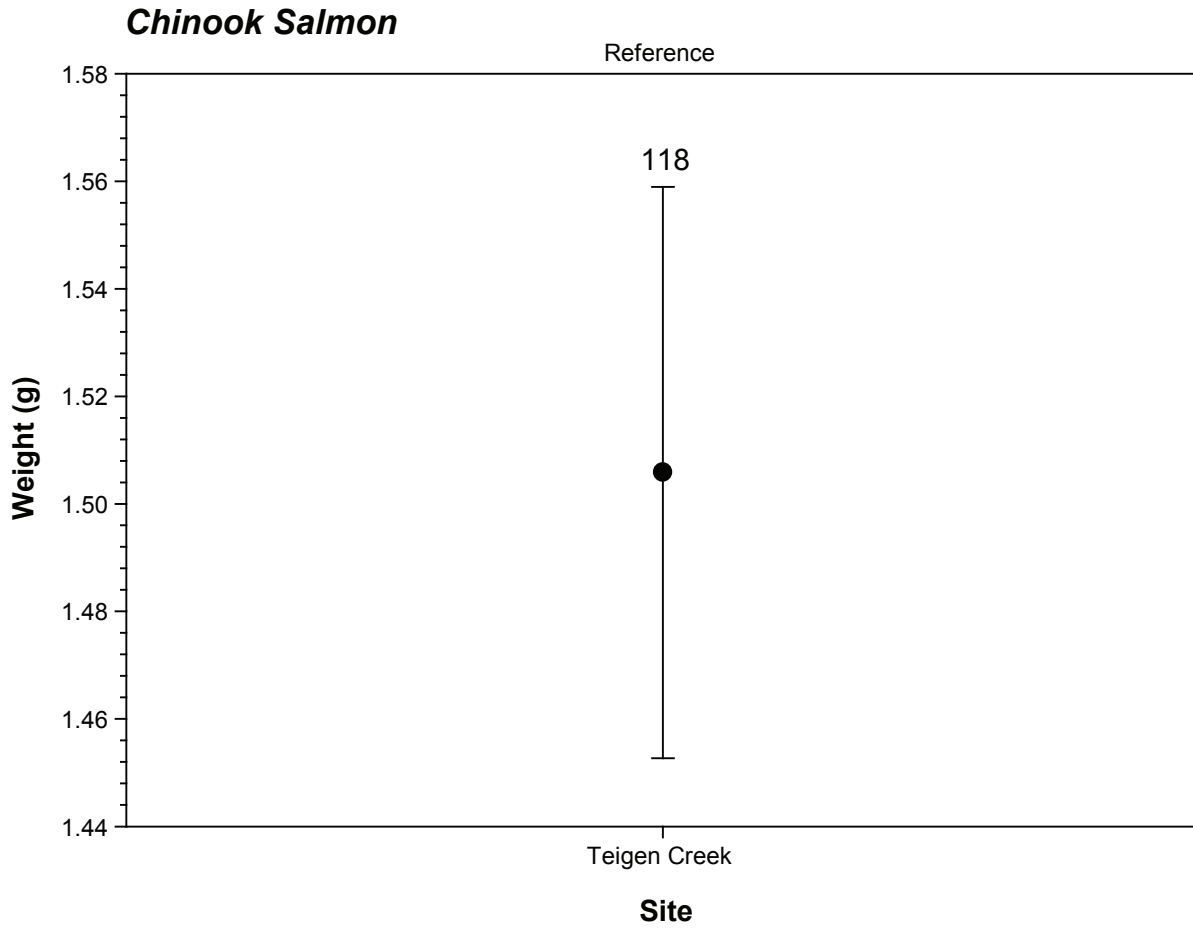
Fish species sampled in the conceptual fish habitat compensation sites are presented in Table 7.4-2. Coho salmon and Dolly Varden are the most dominant species present within the stream compensation wetland sites.

Tables 7.4-3 shows total minnow trapping effort (h) for non-fish bearing wetlands. For fish bearing wetlands, the mean set time was 24.1 h (± 0.18 SE) with a range of 20.0 h to 27.3 h.

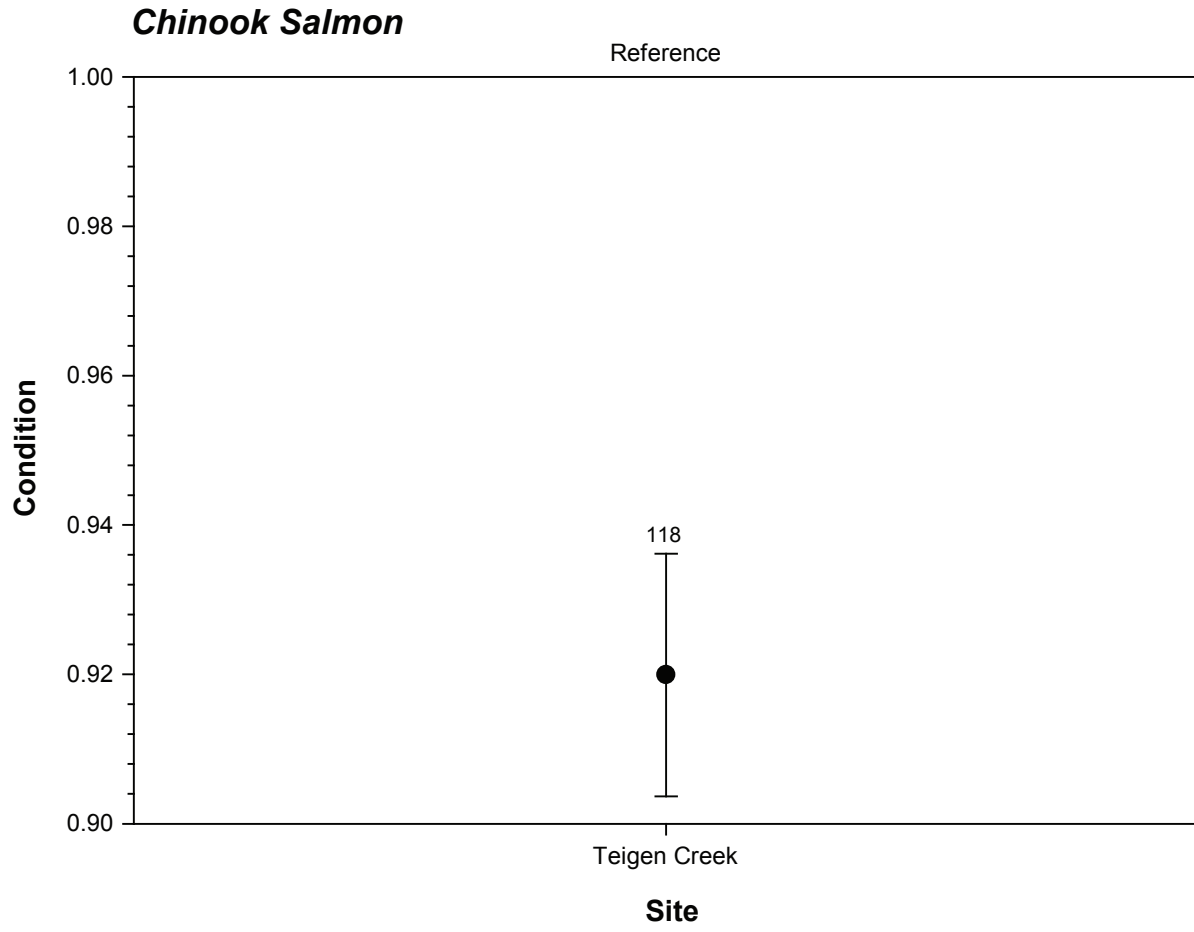
Appendix 7.4-2 presents species-specific effort and catch data for minnow trapping. Appendix 7.4-3 presents a summary of descriptive statistics for standard and bootstrap minnow trapping CPUE means.



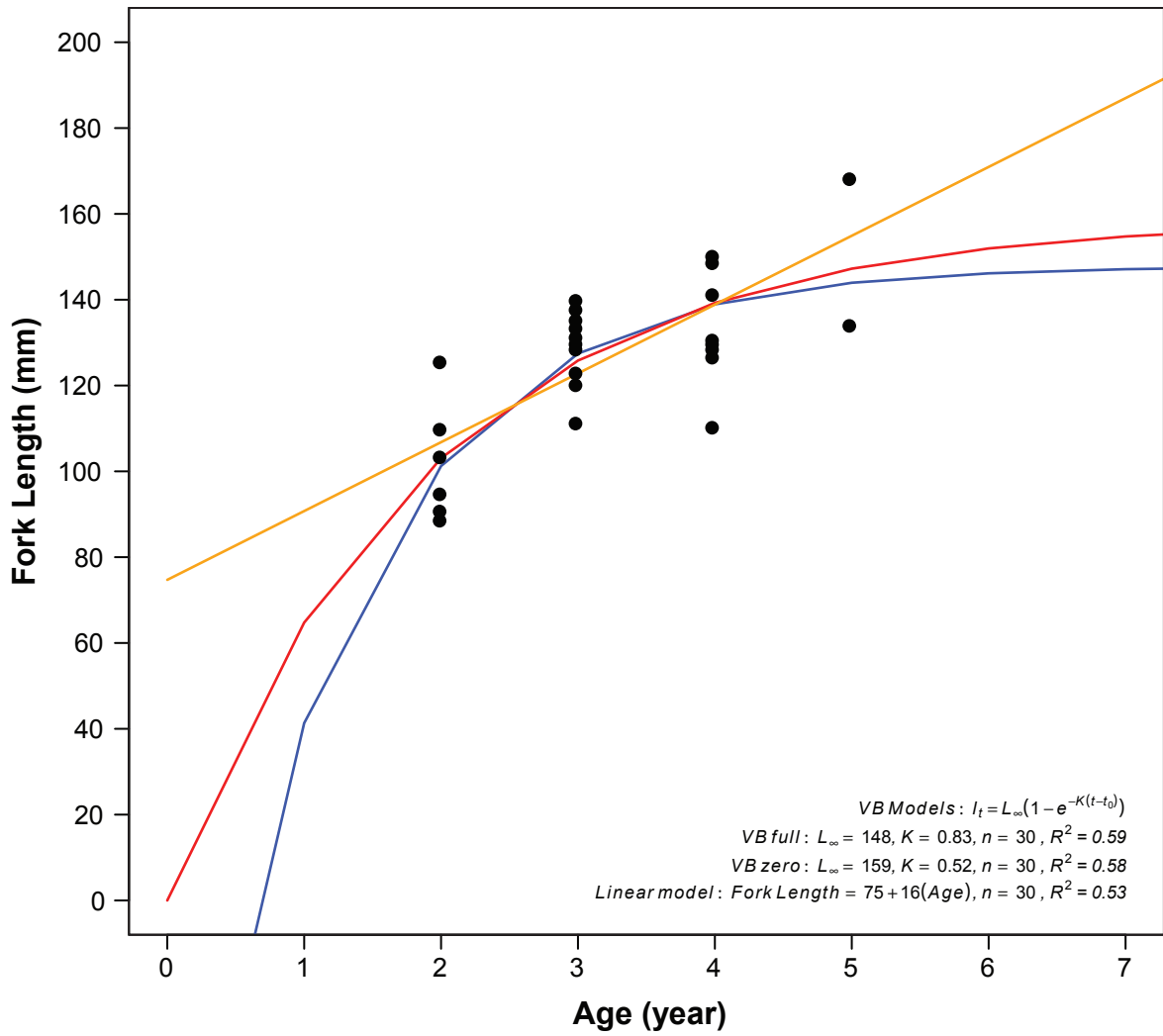
Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).



Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).

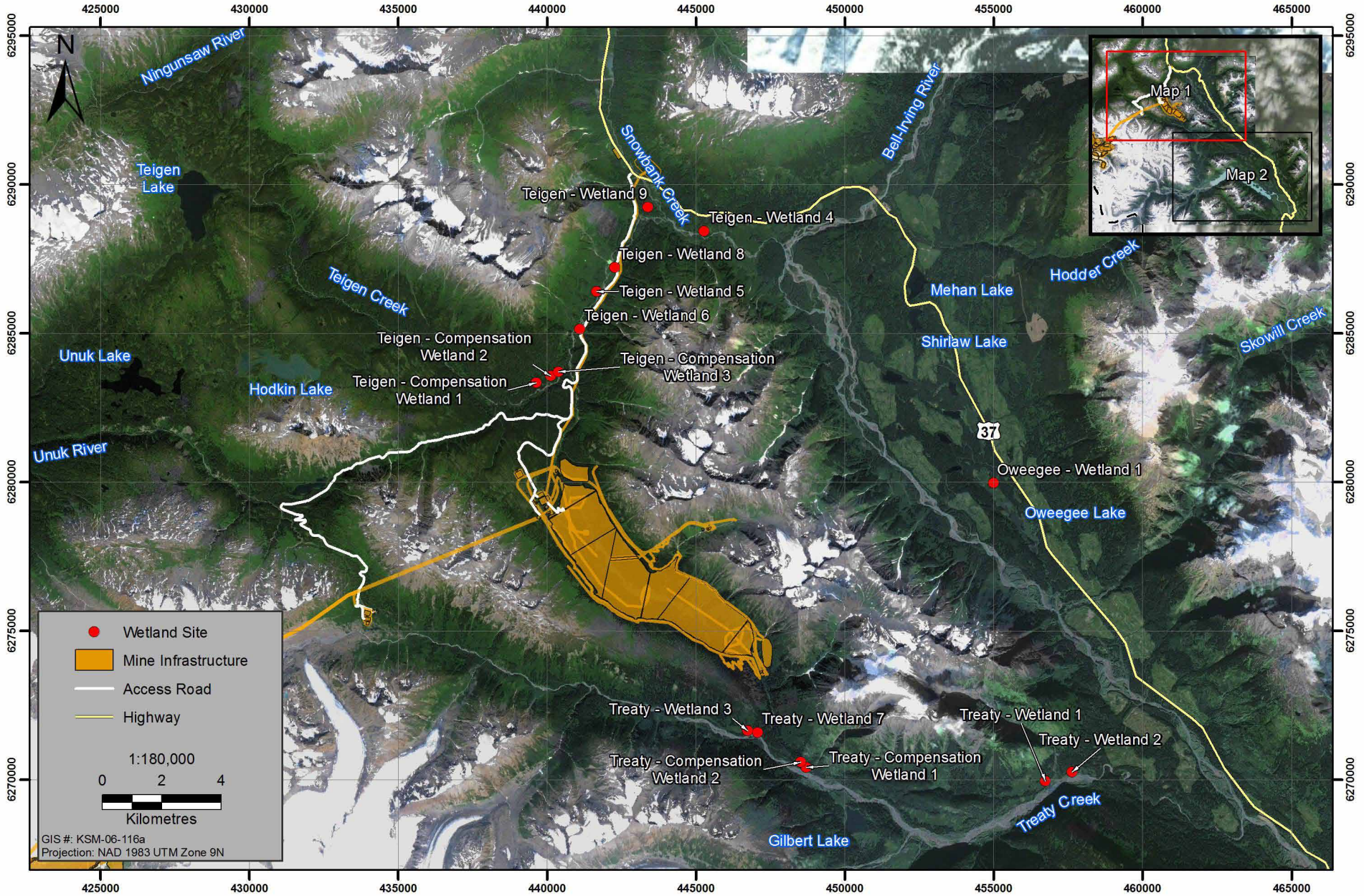


Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).



Model	Akaike Weight
VB Full	0.28
VB Zero	0.61
Linear Model	0.11

Figure 7.3-38



Location of Wetland Sample Sites - April 2011

Figure 7.4-1

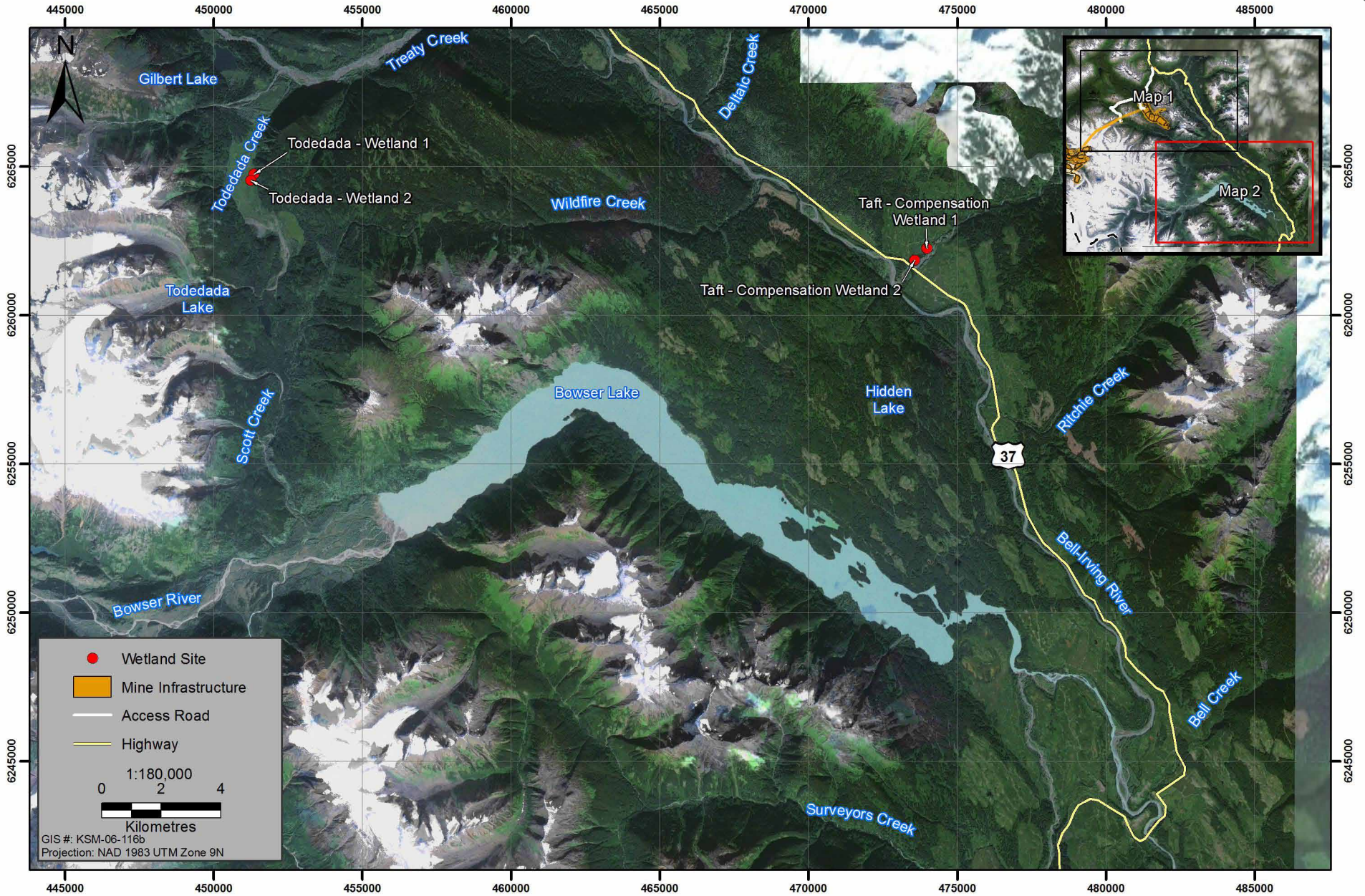


Figure 7.4-2

Figure 7.4-2

Table 7.4-1. Treatment and Reference Wetland Site Dimensions

Type	Watershed	Wetland Name	Dimensions			Max. Depth (m)
			Length (m)	Width (m)	Area (ha)	
Reference	Oweegee Creek	Wetland 1	39	116	0.45	1.5
Reference	Teigen Creek	Wetland 5	44	35	0.15	1.5
Reference	Teigen Creek	Wetland 6	15	30	0.05	2.0+
Reference	Teigen Creek	Wetland 4	50	30	0.15	1.5+
Reference	Teigen Creek	Wetland 8	74	28	0.21	2.0+
Reference	Teigen Creek	Wetland 9	48	170	0.82	2.0+
Reference	Treaty Creek	Wetland 2	100	56	0.56	1.5+
Reference	Treaty Creek	Wetland 3	75	50	0.38	2.0+
Reference	Treaty Creek	Wetland 7	120	120	1.44	1.0
Reference	Treaty Creek	Wetland 1	88	120	1.06	0.8
Treatment	Taft Creek	Wetland 1	70	20	0.14	1.0
Treatment	Taft Creek	Wetland 2	61	49	0.30	0.8
Treatment	Teigen Creek	Compensation Wetland 1	137	62	0.85	1.5+
Treatment	Teigen Creek	Compensation Wetland 2	41	70	0.29	2.0+
Treatment	Teigen Creek	Compensation Wetland 3	37	33	0.12	2.0+
Treatment	Todedada Creek	Wetland 1	10	75	0.08	1.5+
Treatment	Todedada Creek	Wetland 2	100	8	0.08	1.0
Treatment	Treaty Creek	Compensation Wetland 1	12	70	0.08	1.0
Treatment	Treaty Creek	Compensation Wetland 2	70	40	0.28	1.0



Plate 7.4-1. Reference Wetland: Oweegee Creek Wetland 1.



Plate 7.4-2. Reference Wetland: Teigen Creek Wetland 4.



Plate 7.4-3. Reference Wetland: Treaty Creek Wetland 1.



Plate 7.4-4. Reference Wetland: Treaty Creek Wetland 3.



Plate 7.4-5. Reference Wetland: Treaty Creek Wetland 7.

Table 7.4-2. Wetlands: Fish Species Sampled through Minnow Trapping, 2011

Type	Watershed	Wetland	Fish Species Caught		
			Coho Salmon	Dolly Varden	Rainbow Trout
Reference	Oweege Creek	Wetland 1	X	X	
Reference	Teigen Creek	Wetland 5			
Reference	Teigen Creek	Wetland 6			
Reference	Teigen Creek	Wetland 4	X	X	
Reference	Teigen Creek	Wetland 8			
Reference	Teigen Creek	Wetland 9			
Reference	Treaty Creek	Wetland 2			
Reference	Treaty Creek	Wetland 3		X	
Reference	Treaty Creek	Wetland 7		X	
Reference	Treaty Creek	Wetland 1	X		
Treatment	Taft Creek	Wetland 1		X	
Treatment	Taft Creek	Wetland 2	X	X	
Treatment	Teigen Creek	Compensation Wetland 1	X		
Treatment	Teigen Creek	Compensation Wetland 2			
Treatment	Teigen Creek	Compensation Wetland 3	X	X	X
Treatment	Todedada Creek	Wetland 1	X	X	
Treatment	Todedada Creek	Wetland 2	X	X	
Treatment	Treaty Creek	Compensation Wetland 1		X	
Treatment	Treaty Creek	Compensation Wetland 2		X	

'X' indicates fish species caught

Table 7.4-3. Wetlands: Non-Fish Bearing Wetland Sampling Effort, 2011

Type	Watershed	No. Minnow Traps	Total Effort (h)
Control	Teigen Creek - Wetland 5	5	126.4
Control	Teigen Creek - Wetland 6	5	126.8
Control	Teigen Creek - Wetland 8	5	113.8
Control	Teigen Creek - Wetland 9	5	100.0
Control	Treaty Creek - Wetland 2	5	115.4
Treatment	Teigen Creek - Compensation Wetland 2	5	113.8

Comparisons of standard and bootstrap CPUE means indicate that the means are similar (< 0.01% difference) when sample size is greater than five; however, when sample size is less than five, the mean difference is greater (> 2% difference). Furthermore, the SD of bootstrapped means were similar to the SE of the standard mean when sample size was greater than five. Because replication was low, the bootstrapped confidence intervals are likely narrower than true confidence intervals, whereas the regular confidence intervals are likely larger than the true confidence intervals. For these reasons, bootstrap means are presented in illustrative comparisons.

Wetland CPUE was analysed using a two factor ANOVA testing for differences in CPUE between life history stage (e.g., fry, parr, adult) and wetland. Wetland was used as a block in the ANOVA because samples from within a wetland are not independent (Guy and Brown 2007). Then a one factor ANOVA was used to test for differences in total CPUE, by species, among wetlands. A one factor ANOVA was

not used to test for differences in individual life history CPUE because of lost power in detecting differences when sub-divided.

Minnow trap CPUE of coho salmon was statistically significant between life history stage and wetland (ANOVA - Stage, $F_{3,194} = 10.48$, $P < 0.01$; ANOVA - Site, $F_{13,194} = 9.75$, $P < 0.01$). Generally, parr are significantly more abundant in wetlands than fry ($P = 0.04$). The results of the one factor ANOVA indicates that there are significant differences (Table 7.4-4) between coho salmon abundance in wetlands (ANOVA, $F_{13,56} = 24.02$, $P < 0.01$). Graphical comparison of CIs indicates that mean coho salmon CPUE is higher in Oweegee Creek Wetland 1, Teigen Creek Wetland 4 and East Todedada Creek Compensation Wetland 2 (Figure 7.4-3), which can largely be attributed to parr CPUE. These data also demonstrates that coho salmon are more abundant in reference wetlands compared to treatment wetlands, except East Todedada Creek Wetland 2.

Minnow trap CPUE of Dolly Varden was statistically significant between life history stage and wetland (ANOVA - Stage, $F_{2,194} = 7.94$, $P < 0.01$; ANOVA - Site, $F_{13,194} = 4.47$, $P < 0.01$). Generally, adults are significantly more abundant in wetlands than fry ($P < 0.01$) because fry are generally absent from wetland habitats. Adults are significantly more abundant than parr ($P = 0.02$), which is influenced by the abundance of adults in three wetlands (Treaty Creek Wetlands 3 and 7, East Todedada Creek Compensation Wetland 2). The results of the one factor ANOVA indicates that there are significant differences (Table 7.4-4) between Dolly Varden abundance in wetlands (ANOVA, $F_{13,56} = 4.82$, $P < 0.01$). Graphical comparison of CIs indicates that mean Dolly Varden CPUE is higher in Treaty Creek Wetland 3 (Figure 7.4-4), which can largely be attributed to adult CPUE. These data demonstrate that Oweegee Creek Wetland 1 and Teigen Creek Wetland 4 are not suitable reference wetlands for Dolly Varden. These data also demonstrate that Dolly Varden are more abundant in reference wetlands compared to treatment wetlands, with the exception of East Todedada Creek Wetland 2.

7.4.3 Biological

7.4.3.1 Condition

Appendix 7.4-4 presents species-specific biological data for wetland habitats. Appendix 7.4-5 presents a summary of descriptive statistics for standard and bootstrap fork length, weight and condition means. Comparisons of standard and bootstrap CPUE means indicate that the means are similar ($< 0.01\%$ difference) when sample size is greater than five; however, when sample size is less than five, the mean difference is greater ($> 2\%$ difference). Furthermore, the SD of bootstrapped means were similar to the SE of the standard mean when sample size was greater than five. Because replication was high, standard means are presented in illustrative comparisons.

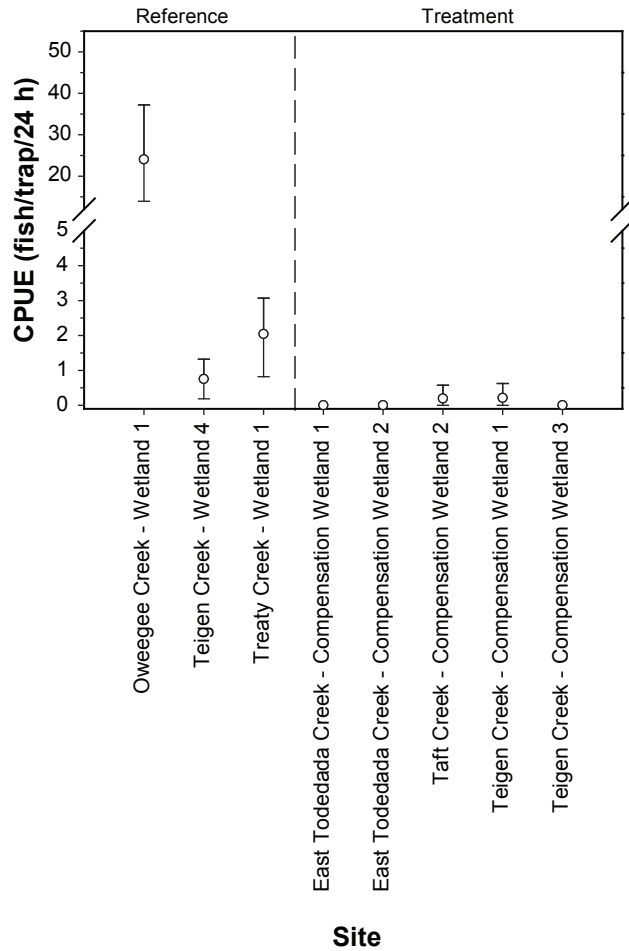
The data collected represents the condition of late summer wetland rearing fish. Means were analysed using a one factor ANOVA testing for differences in mean between wetlands. Where transformation of data failed to meet assumptions of parametric ANOVA, a non-parametric Kruskal-Wallis or Mann-Whitney U test was used.

Mean fork length (Kruskal-Wallis, $H = 206.98$, $df = 6$, $P < 0.01$) and weight (Kruskal-Wallis, $H = 207.37$, $df = 6$, $P < 0.01$) of coho salmon were statistically significant between wetlands. Oweegee Creek Wetland 1 had a significantly lower mean fork length and weight than all other wetlands. These significant differences can be attributed to the abundance of fry sampled/present (Figures 7.4-5 to 7.4-7). There are significant differences in the condition (ANOVA, $F_{6,383} = 6.51$, $P < 0.001$) of sampled fish between wetlands (Figure 7.4-8). The condition of coho salmon in East Todedada Creek Wetland 2 was significantly lower than many other wetlands. Differences in condition could be attributed to local habitat conditions, population abundance and prey availability (Murphy and Willis 1996).

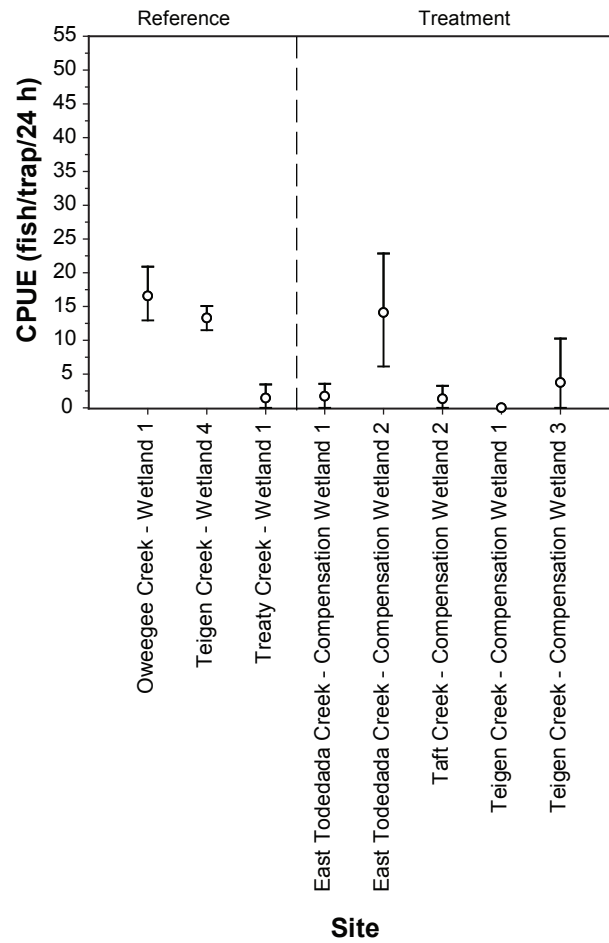
Table 7.4-4. Results of Significant Tukey's Pairwise Multiple Comparison Tests for Coho Salmon and Dolly Varden

Species	CPUE Significant Differences	P Value
Coho Salmon	Taft Creek - Wetland 1: Oweegee Creek - Wetland 1	< 0.001
	Taft Creek - Wetland 2: Oweegee Creek - Wetland 1	< 0.001
	Teigen Creek - ComWetland 1: Oweegee Creek - Wetland 1	< 0.001
	Teigen Creek - ComWetland 2: Oweegee Creek - Wetland 1	< 0.001
	Teigen Creek - ComWetland 3: Oweegee Creek - Wetland 1	< 0.001
	Teigen Creek - Wetland 4: Oweegee Creek - Wetland 1	< 0.001
	Todedada Creek - Wetland 1: Oweegee Creek - Wetland 1	< 0.001
	Todedada Creek - Wetland 2: Oweegee Creek - Wetland 1	< 0.001
	Treaty Creek - ComWetland 1: Oweegee Creek - Wetland 1	< 0.001
	Treaty Creek - ComWetland 2: Oweegee Creek - Wetland 1	< 0.001
	Treaty Creek - Wetland 1: Oweegee Creek - Wetland 1	< 0.001
	Treaty Creek - Wetland 3: Oweegee Creek - Wetland 1	< 0.001
	Treaty Creek - Wetland 7: Oweegee Creek - Wetland 1	< 0.001
	Teigen Creek - Wetland 4: Taft Creek - Wetland 1	0.004
	Todedada Creek - Wetland 2: Taft Creek - Wetland 1	0.004
	Teigen Creek - Wetland 4: Taft Creek - Wetland 2	0.018
	Todedada Creek - Wetland 2: Taft Creek - Wetland 2	0.016
	Teigen Creek - Wetland 4: Teigen Creek - ComWetland 1	0.005
	Todedada Creek - Wetland 2: Teigen Creek - ComWetland 1	0.005
	Teigen Creek - Wetland 4: Teigen Creek - ComWetland 2	0.004
	Todedada Creek - Wetland 2: Teigen Creek - ComWetland 2	0.004
	Todedada Creek - Wetland 1: Teigen Creek - Wetland 4	0.021
	Treaty Creek - ComWetland 1: Teigen Creek - Wetland 4	0.004
	Treaty Creek - ComWetland 2: Teigen Creek - Wetland 4	0.004
	Treaty Creek - Wetland 3: Teigen Creek - Wetland 4	0.004
	Treaty Creek - Wetland 7: Teigen Creek - Wetland 4	0.004
	Todedada Creek - Wetland 2: Todedada Creek - Wetland 1	0.018
	Treaty Creek - ComWetland 1: Todedada Creek - Wetland 2	0.004
	Treaty Creek - ComWetland 2: Todedada Creek - Wetland 2	0.004
	Treaty Creek - Wetland 3: Todedada Creek - Wetland 2	0.004
	Treaty Creek - Wetland 7: Todedada Creek - Wetland 2	0.004
	Dolly Varden	Treaty Creek - Wetland 3: Oweegee Creek - Wetland 1
Treaty Creek - Wetland 3: Taft Creek - Wetland 1		< 0.001
Treaty Creek - Wetland 3: Taft Creek - Wetland 2		< 0.001
Treaty Creek - Wetland 3: Teigen Creek - ComWetland 1		< 0.001
Treaty Creek - Wetland 3: Teigen Creek - ComWetland 2		< 0.001
Treaty Creek - Wetland 3: Teigen Creek - ComWetland 3		0.004
Treaty Creek - Wetland 3: Teigen Creek - Wetland 4		< 0.001
Treaty Creek - Wetland 3: Todedada Creek - Wetland 1		< 0.001
Treaty Creek - Wetland 3: Treaty Creek - ComWetland 1		0.001
Treaty Creek - Wetland 3: Treaty Creek - ComWetland 2		< 0.001
Treaty Creek - Wetland 3: Treaty Creek - Wetland 1		< 0.001

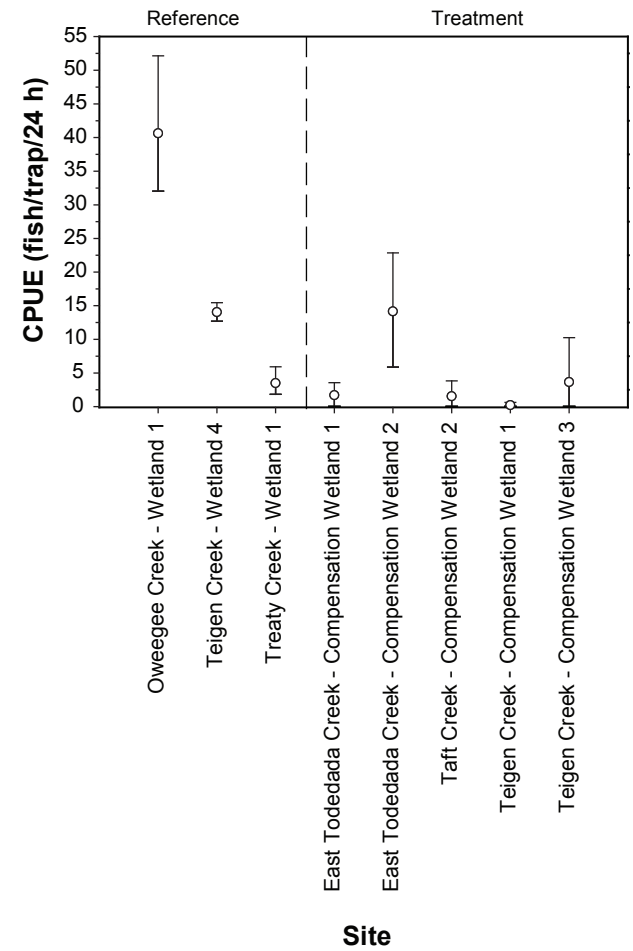
a) Coho Salmon - Fry



b) Coho Salmon - Parr



c) Coho Salmon - All

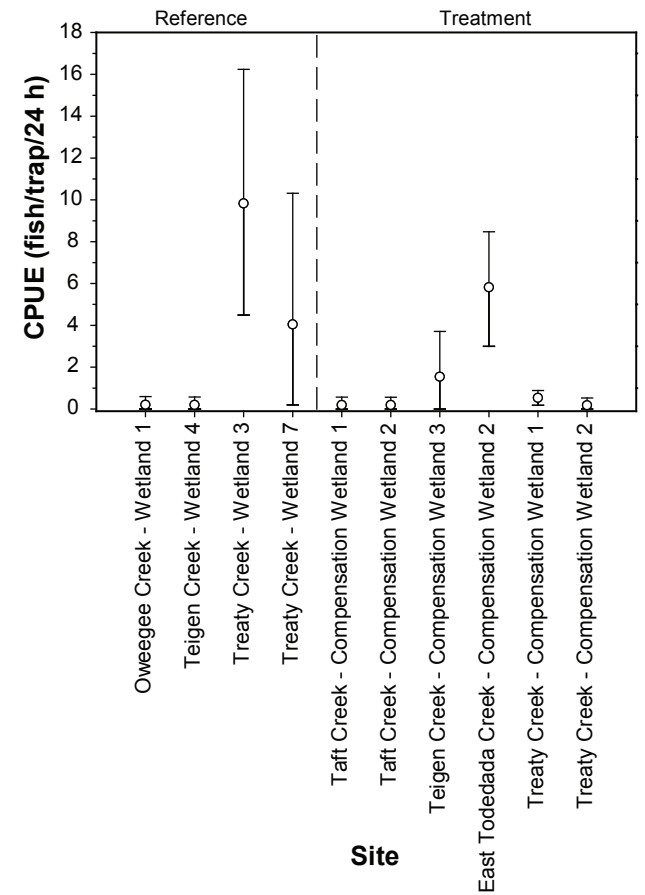
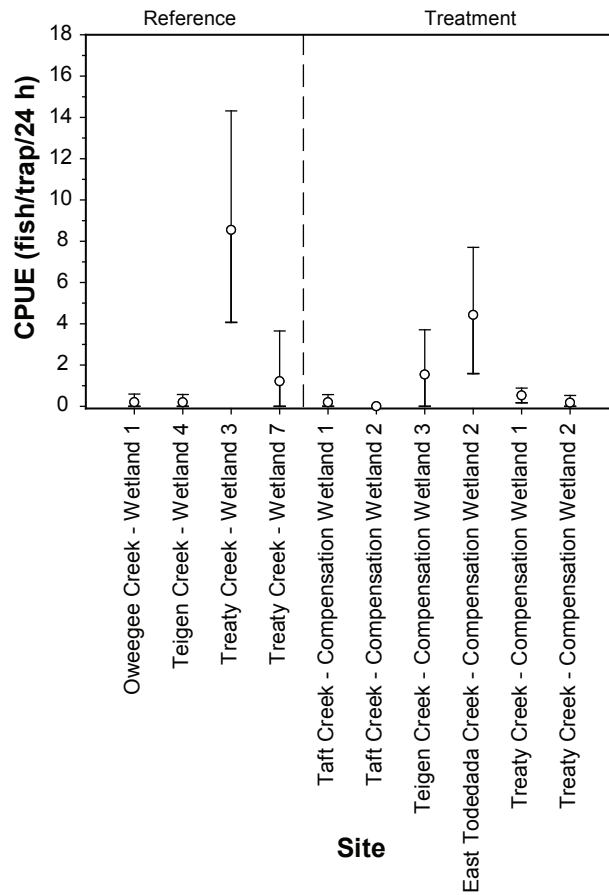
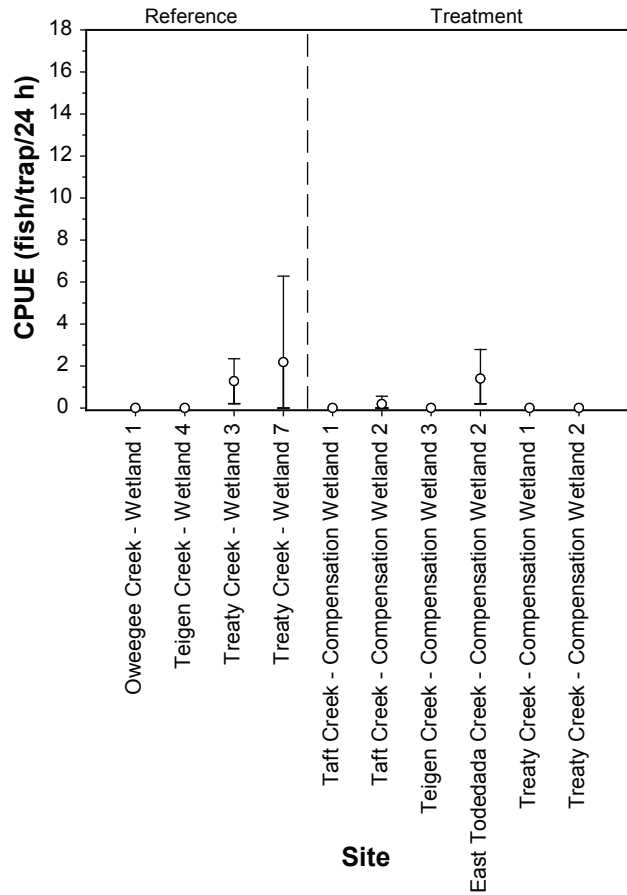


Notes: Bootstrap means are shown.
Error bars represent 95% confidence limits of the mean.

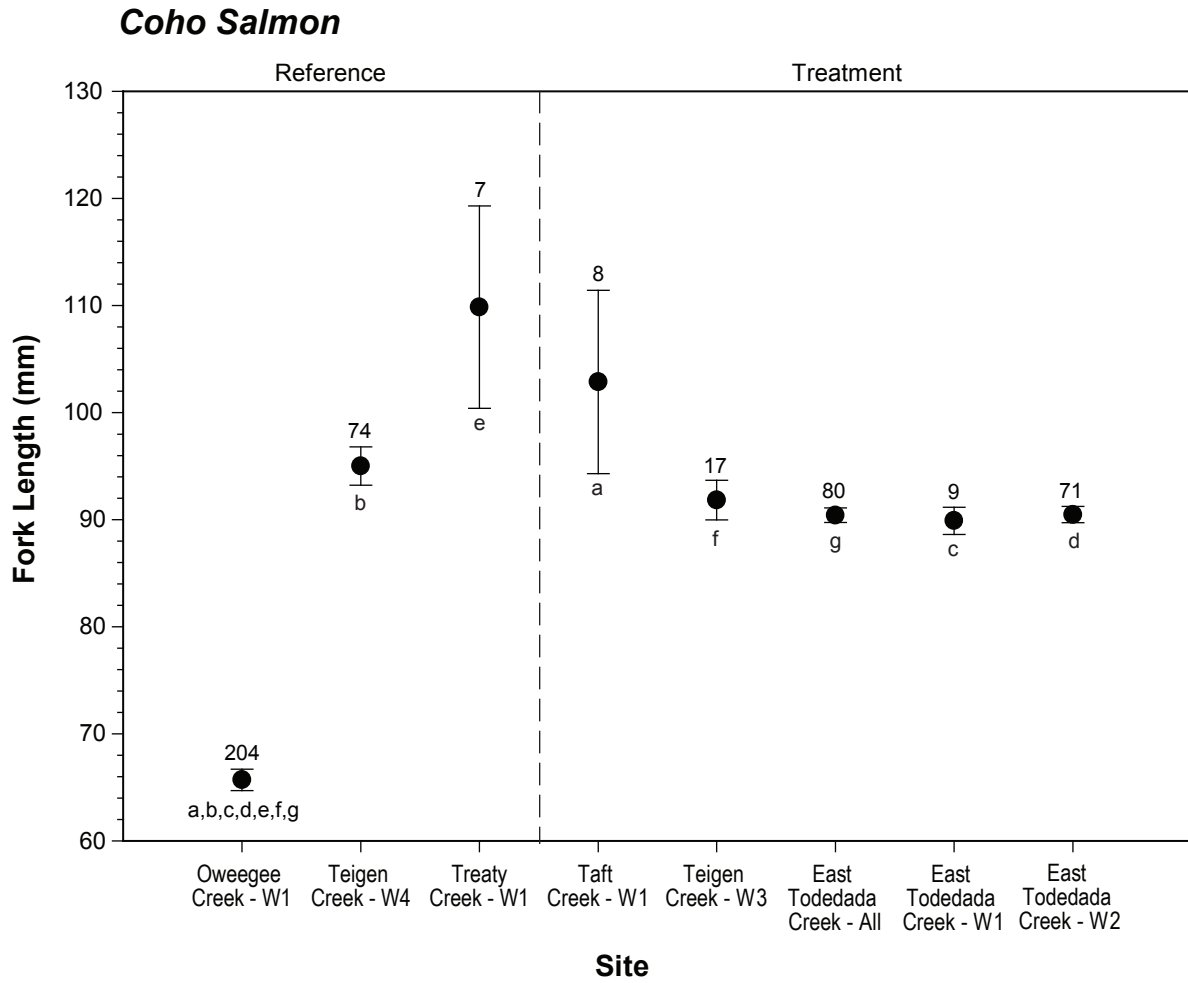
a) Dolly Varden - Parr

b) Dolly Varden - Adult

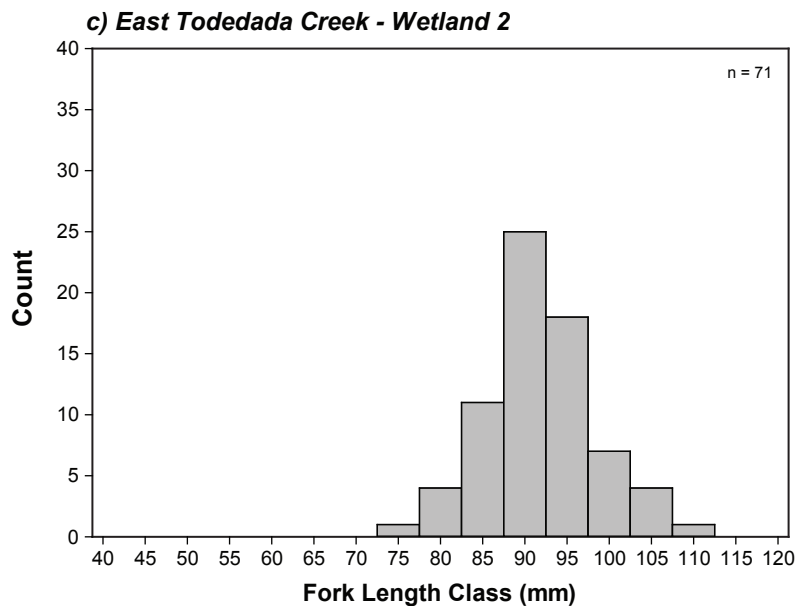
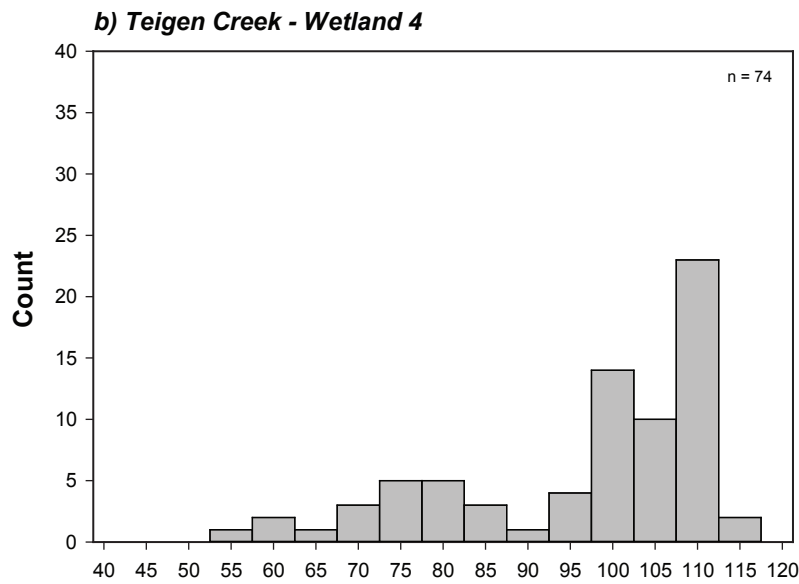
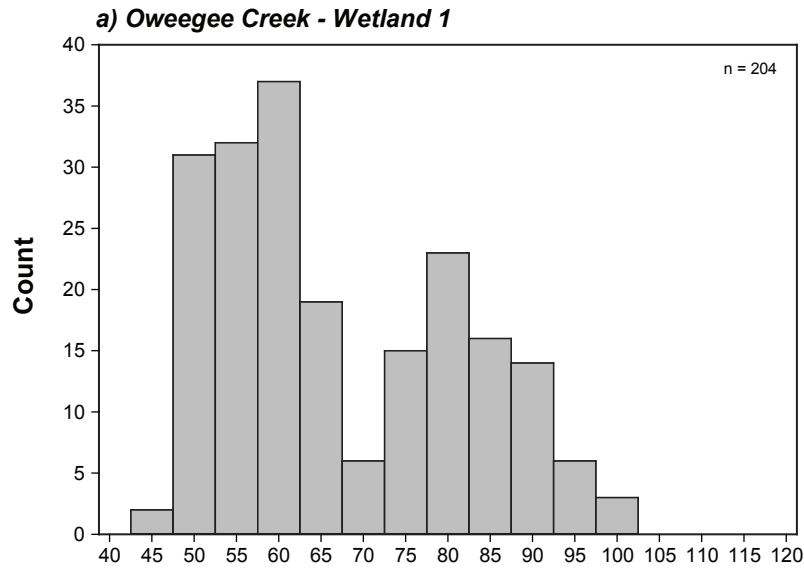
c) Dolly Varden - All

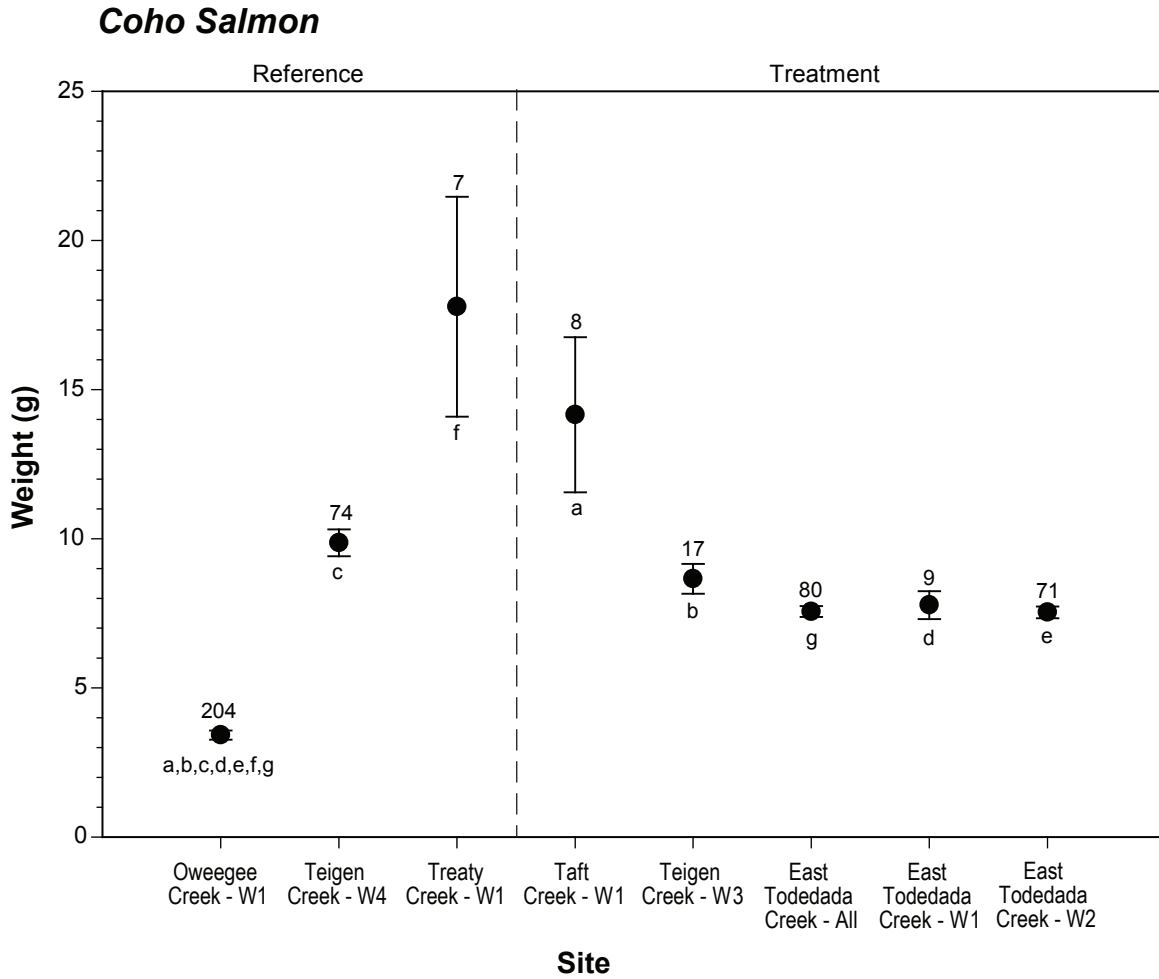


Notes: Bootstrap means are shown.
Error bars represent 95% confidence limits of the mean.

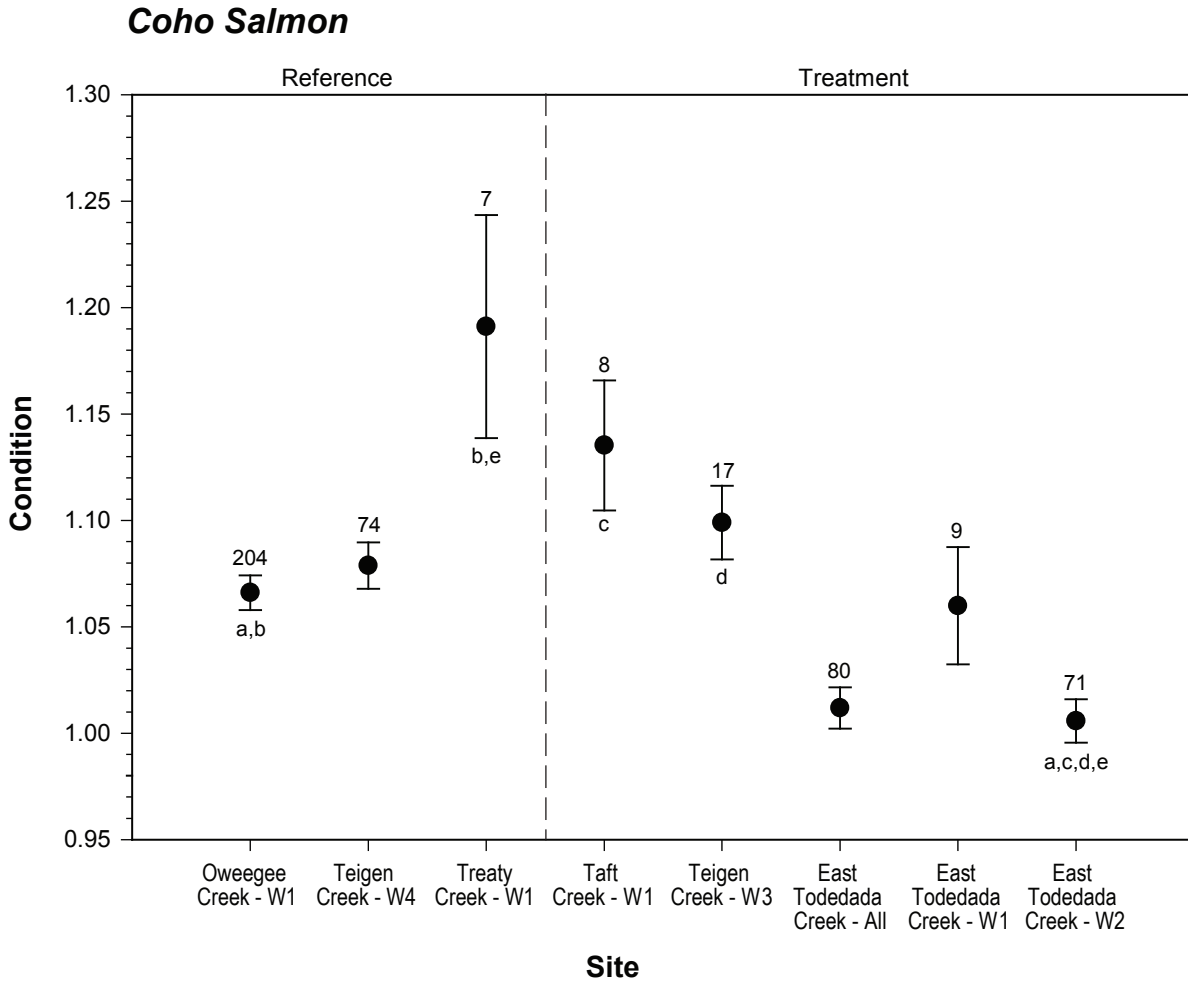


Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).
 Similar letters indicate significant differences.





Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).
 Similar letters indicate significant differences.



Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).
 Similar letters indicate significant differences.

Figure 7.4-8

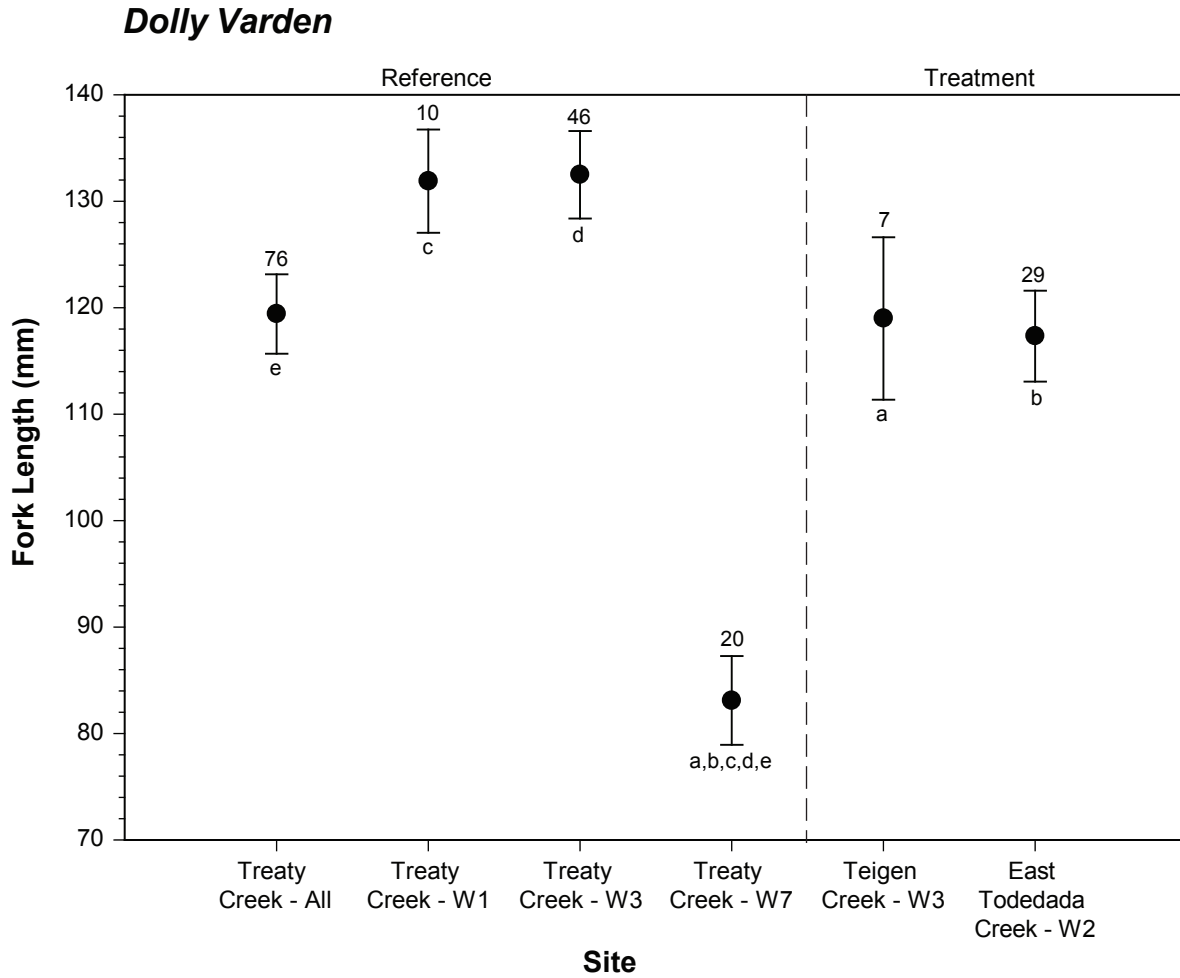
Mean fork length (ANOVA, $F_{4,107} = 15.77$, $P < 0.01$) and weight (ANOVA, $F_{4,106} = 9.28$, $P < 0.01$) of Dolly Varden were statistically significant between wetlands. Treaty Creek Wetland 7 had a significantly lower mean fork length and weight than all other wetlands. These significant differences can be attributed to the abundance of fry sampled/present (Figures 7.4-9 to 7.4-11). There are significant differences in condition (ANOVA, $F_{4,106} = 3.81$, $P < 0.01$) between wetlands (Figure 7.4-12). The condition of Dolly Varden in Teigen Creek Wetland 3 was significantly higher than Treaty Creek Wetland 4 and 7. Differences in condition could be attributed to local habitat conditions, population abundance and prey availability (Murphy and Willis 1996).

7.4.3.2 Growth

Appendix 7.4-4 presents species-specific biological data for wetland habitats. Appendix 7.4-6 presents a summary of descriptive statistics for standard and bootstrap mean ages. The SD of bootstrapped means were similar to the SE of the standard mean when sample size was greater than five. Since replication was high, standard means are presented in illustrative comparisons.

The data collected represents the growth of late summer wetland rearing Dolly Varden. Mean age (Kruskal-Wallis, $H = 24.99$, $df = 4$, $P < 0.01$) of Dolly Varden were statistically significant between wetlands. The mean age of Treaty Creek Wetland 7 was significantly lower than most of the other wetlands (Figure 7.4-13). The majority of Dolly Varden within the wetlands had a mean age of 3.5 years.

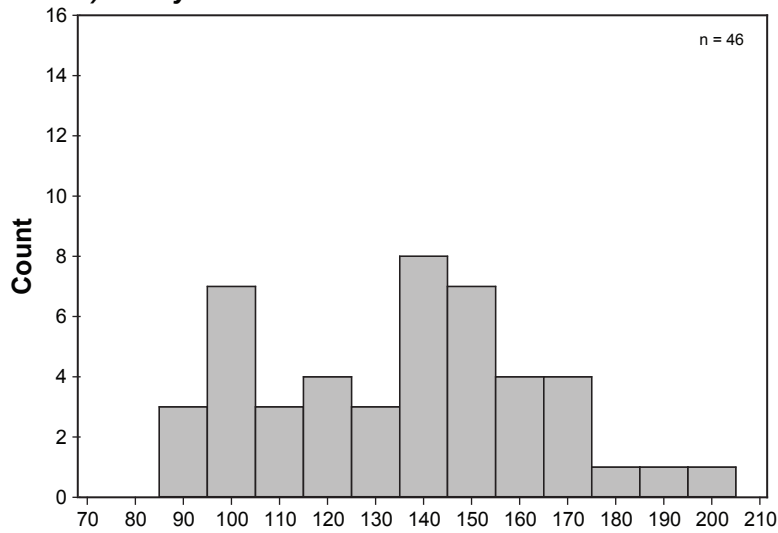
von Bertalanffy growth curves and a size-at-age linear regression was conducted for Dolly Varden in East Todedada Creek and Treaty Creek (Figures 7.4-14 to 7.4-16). The Akaike weights show the magnitude of support for each model; the model with the highest weight being the best fit model of three models compared. The fit of the all the von Bertalanffy growth models was poor given the narrow size range of the data, which is related to the short life expectancy of the species, and the lack of younger age classes present. Generally, the two-parameter (where t_0 is fixed at zero) von Bertalanffy growth model performed best compared to the three-parameter (or full) von Bertalanffy growth model because it predicted more realistic maximum (or asymptotic) fork lengths. However, the linear regression model performed better (almost twice as good) than the von Bertalanffy growth models.



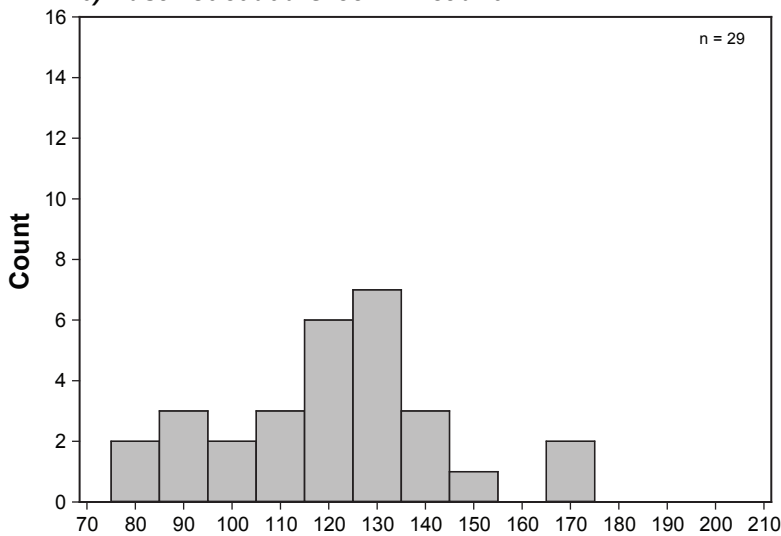
Notes: Regular means are shown.
Error bars represent standard error of the mean.
Numbers above the mean represent sample size (n).
Similar letters indicate significant differences.

Figure 7.4-9

a) Treaty Creek - Wetland 3



b) East Todedada Creek - Wetland 2



c) Treaty Creek - All Wetlands

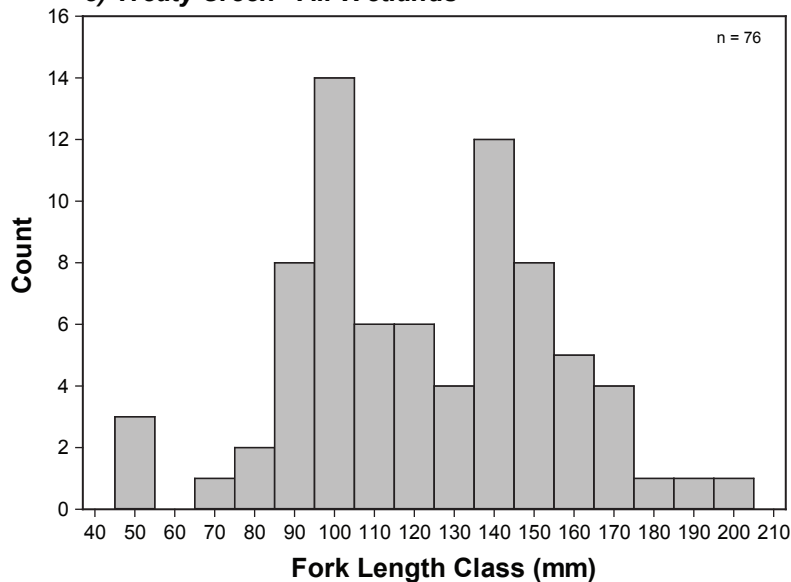
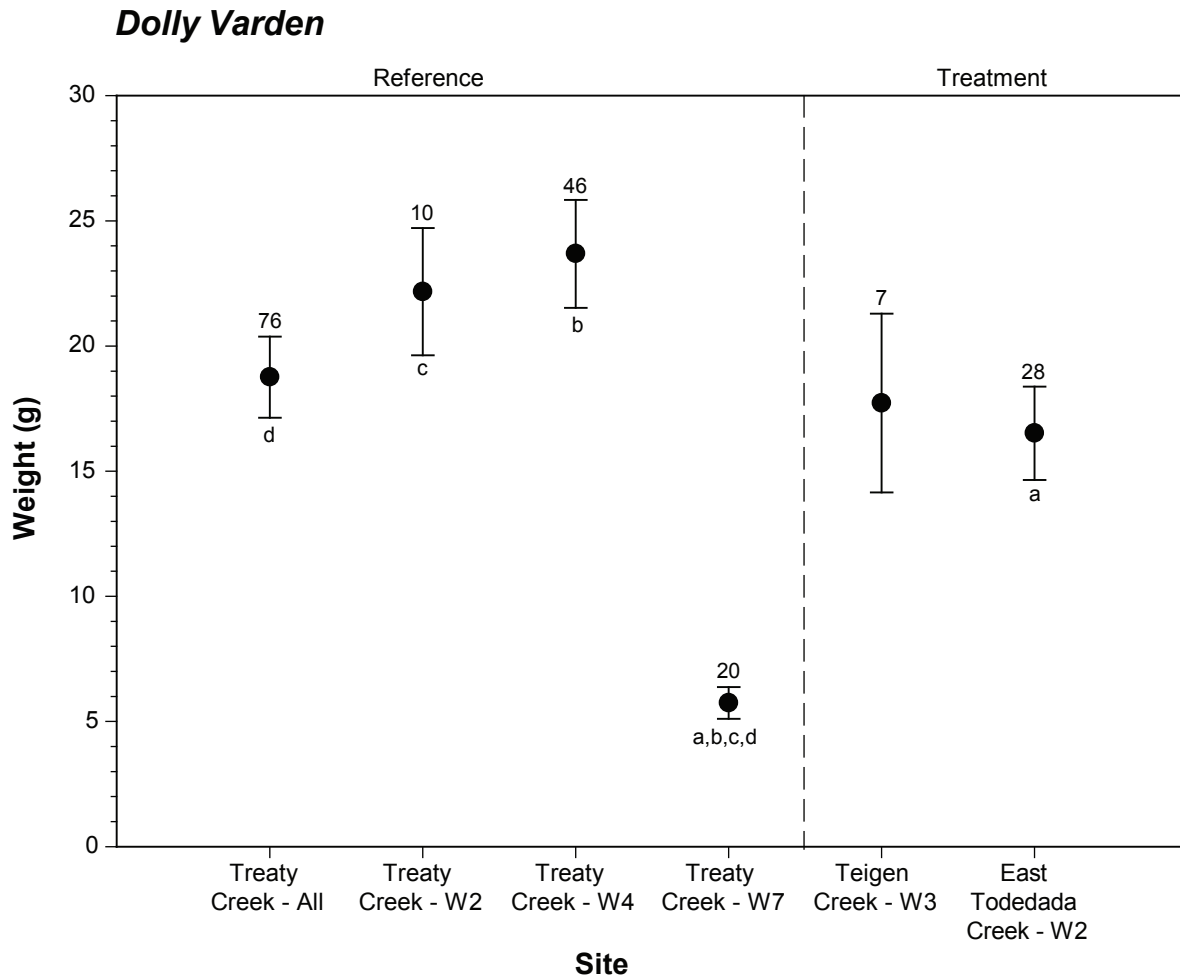
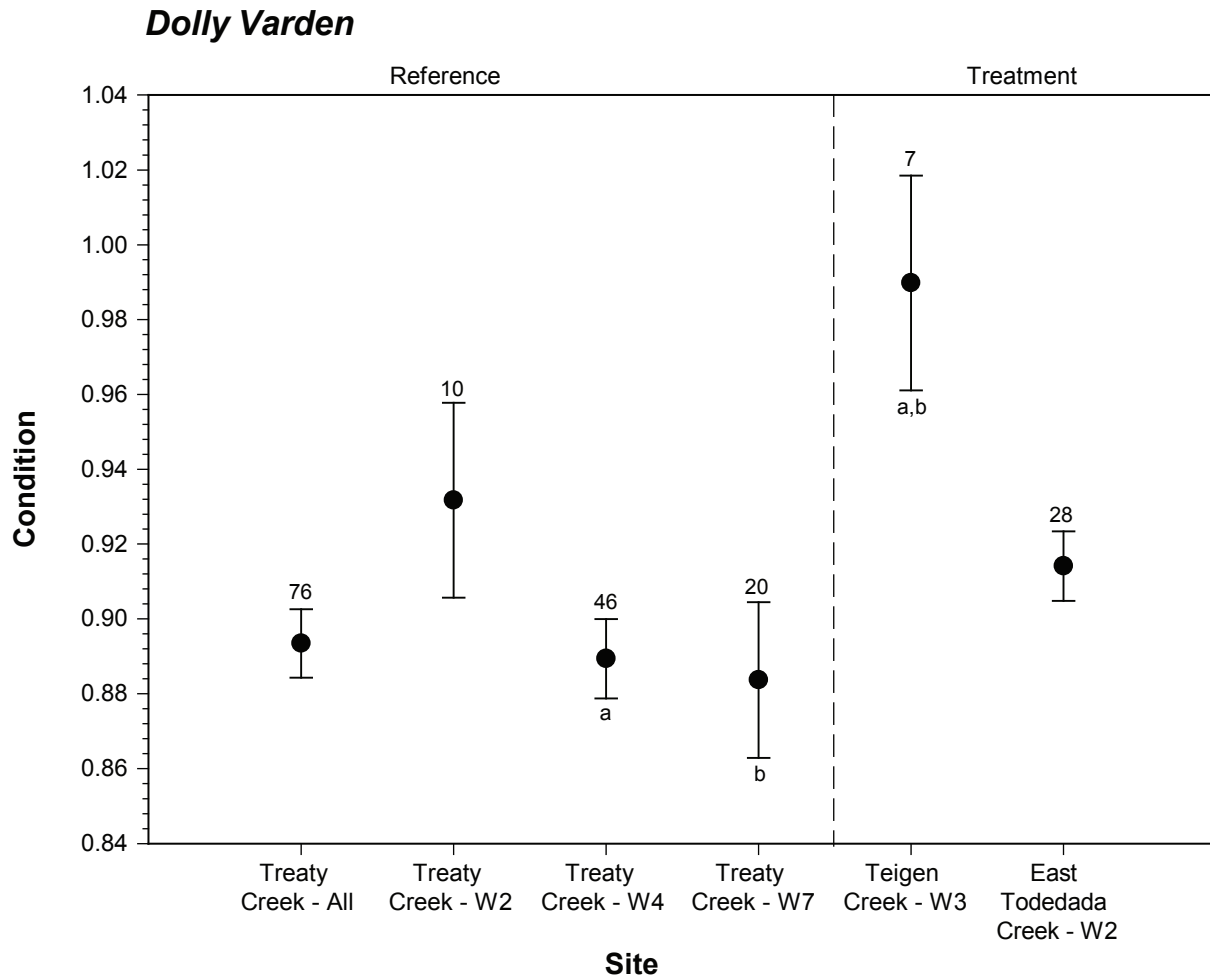


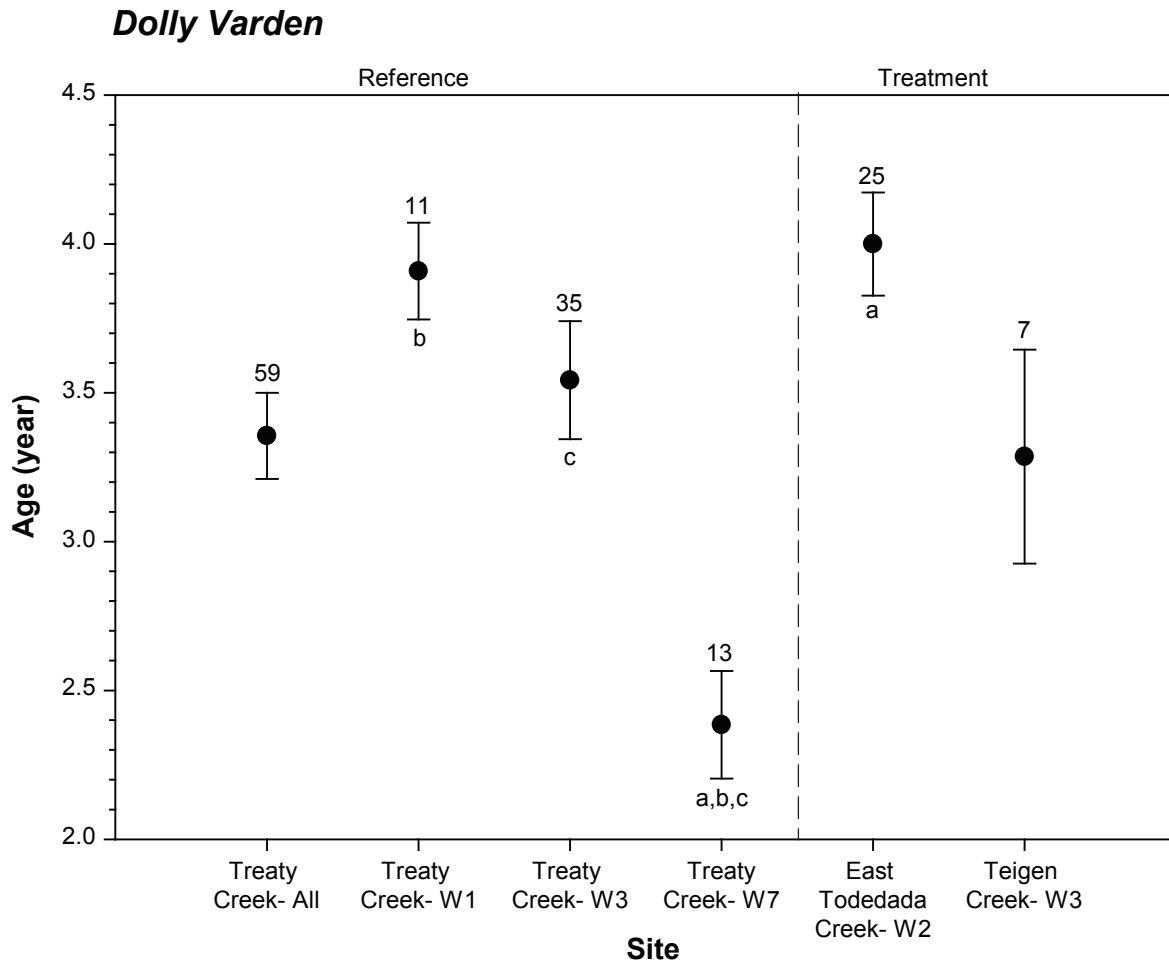
Figure 7.4-10



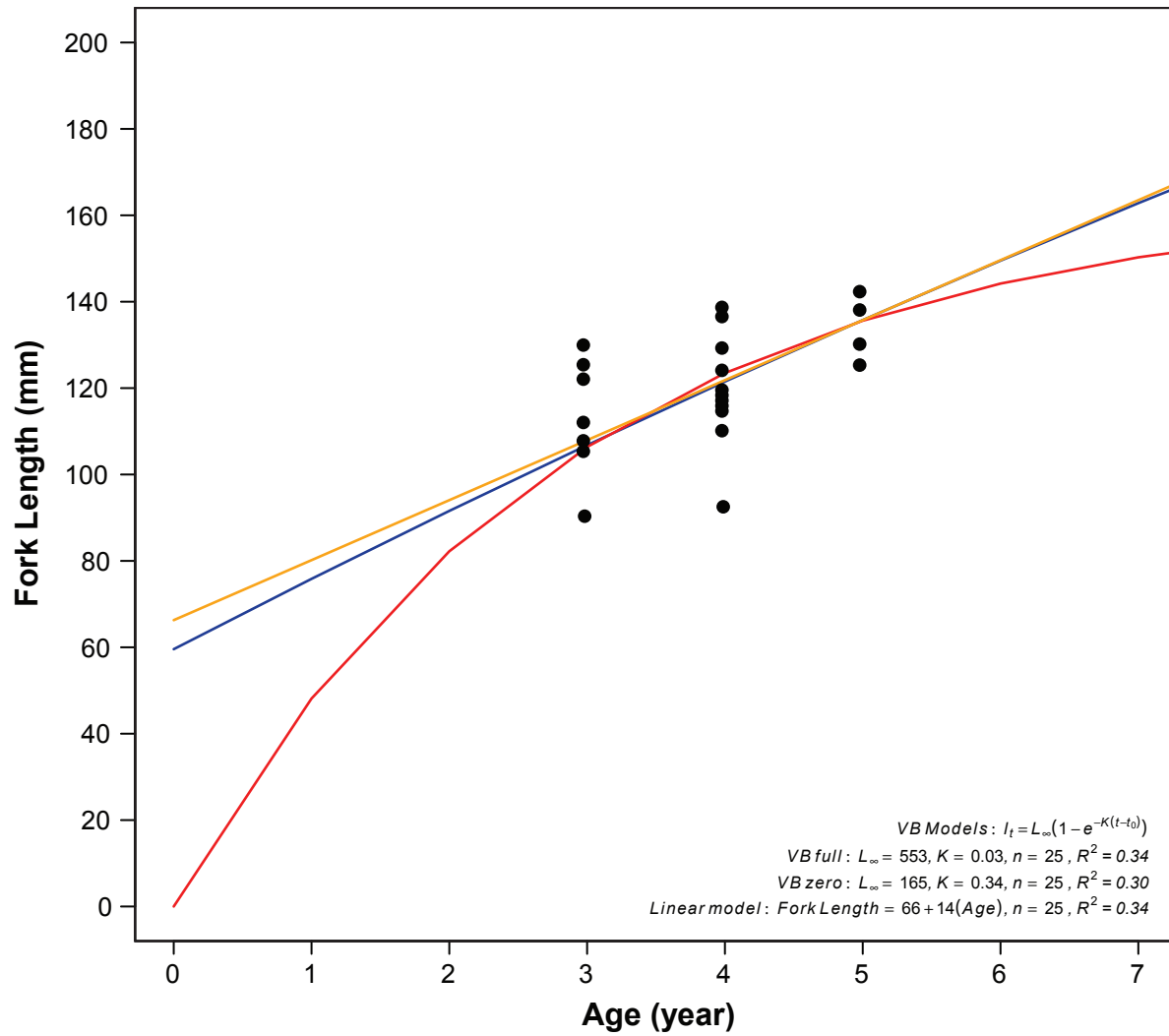
Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).
 Similar letters indicate significant differences.



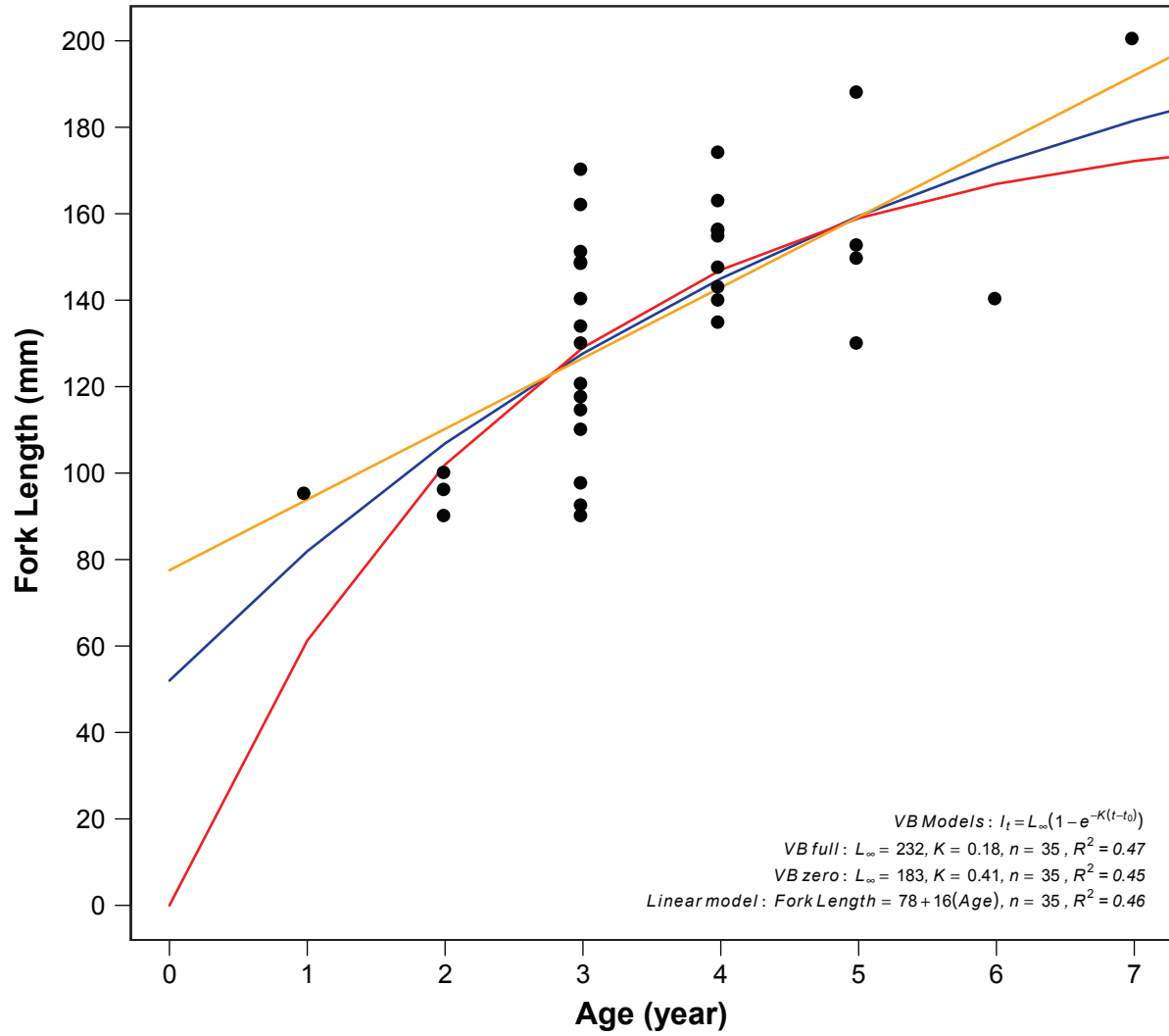
Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).
 Similar letters indicate significant differences.



Notes: Regular means are shown.
 Error bars represent standard error of the mean.
 Numbers above the mean represent sample size (n).
 Similar letters indicate significant differences.

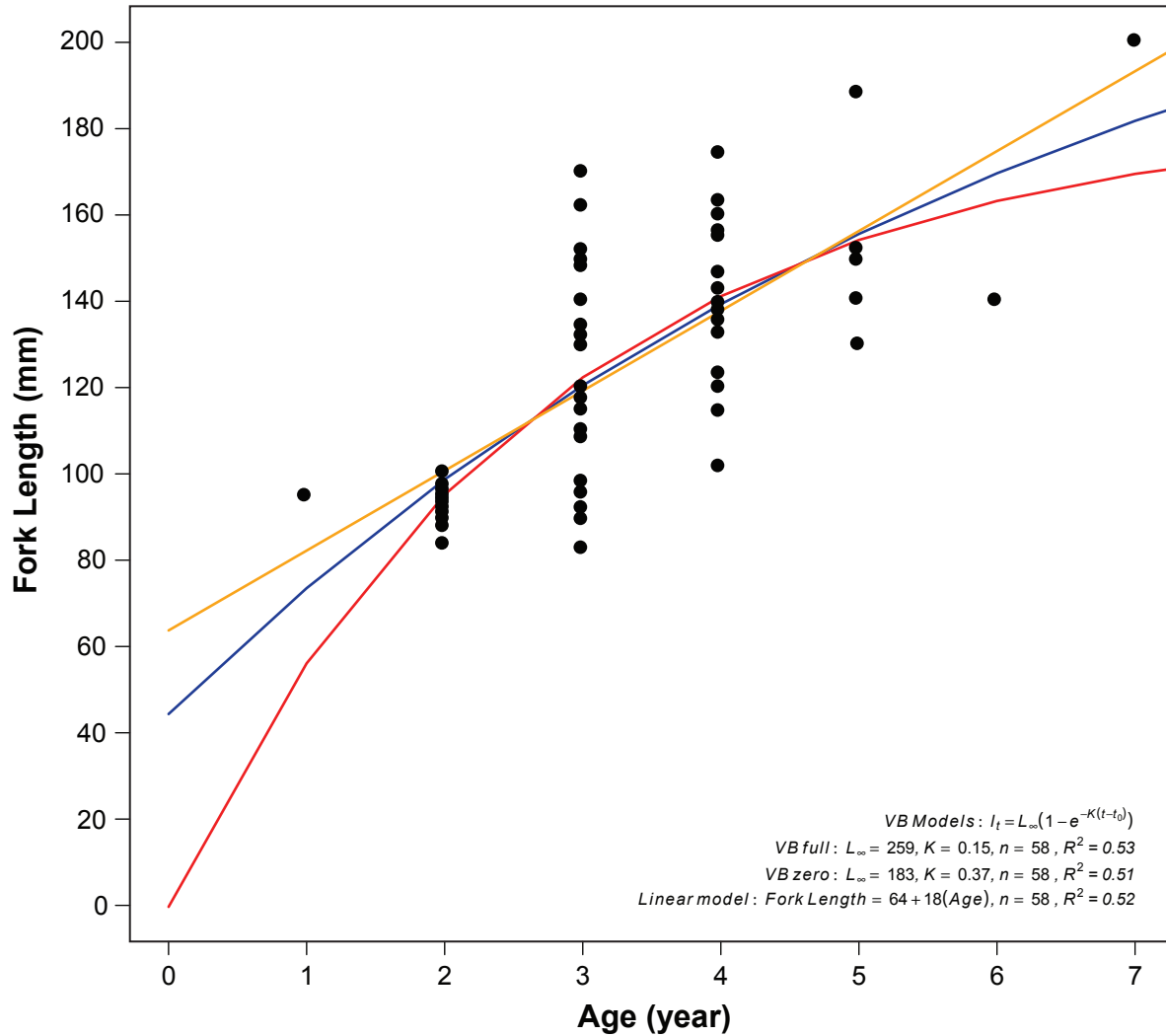


Model	Akaike Weight
VB Full	0.19
VB Zero	0.26
Linear Model	0.55



Model	Akaike Weight
VB Full	0.25
VB Zero	0.30
Linear Model	0.45

Figure 7.4-15



Model	Akaike Weight
VB Full	0.27
VB Zero	0.26
Linear Model	0.47

8. Conclusion

8.1 OFF-CHANNEL HABITAT CREATION PROJECTS

The results of this study provide valuable insight into the feasibility and effectiveness of various sampling gear types and methods. The results provide an indication of gear bias and selectivity to sample life history stages of target fish species.

In 2011, streams selected for population abundance estimation were not conducive for mark-recapture or three-pass removal methods because habitat and flow conditions dictated that stop nets could not be utilized effectively. Stop nets could be used in East Todedada Creek, as attempted in 2011; however, only under low discharge conditions. The 2011 East Todedada Creek data was influenced by higher discharge and poor visibility during the recapture event.

The importance of multiple reference sites was highlighted in 2011, in which Treaty Creek Wetland 7 was lost/draind in August due to high flood events. In addition, Gilbert Creek reference stream sites were lost/alterd due to flood and channel migration events, which alterd the stream morphology, water thermal regime, riparian community, discharge and resulting fish community.

8.2 INSTREAM HABITAT ENHANCEMENT PROJECTS

The results of stream enhancement compensation sites indicate that habitat cover is greater in target habitats than poor habitats. The results also indicate that the relative abundance is generally higher than poor habitat CPUE, and in certain cases is statistically significant. Biomass, density or total abundance cannot be calculated or compared between stream sites, except East Todedada Creek, due to the inability to enclose sites (i.e., three-pass depletion or mark-recapture methods) and differences in gear type between habitat types (i.e., electrofish and minnow trap). However, it is clearly apparent that biomass/density/abundance is higher in target habitats than poor habitat because minnow traps must be used in combination with electrofishing to effectively sample target pool habitats (i.e., parr and sub-adults are more abundant in pool habitat types).

Relative abundance data was variable between and within sites. The error associated with spatial variation in fish abundance/density within a stream (first stage error; Hankin 1984) is generally much greater than the measurement error in streams associated with estimating fish abundance at each site (second stage error). Stream fish populations are often highly clumped in their distribution as a result of spawning distribution (Beard and Carline 1991), geomorphic influences such as elevation, channel slope and stream size (Kruse et al. 1997), habitat variability, intercohort competition (Bohlin 1978), channel alterations (Elser 1968) or other factors. Research in streams has suggested that, as a result of high spatial variation in fish abundance, sampling a greater number of sites using a quicker but less precise method can provide greater precision in an abundance estimate overall for a given cost (Hankin and Reeves 1988; Decker et al. 1999). Hankin and Reeves (1988) recommended a strategy whereby a relatively quick method of population assessment, which is applied at a large number of sites, is calibrated to results from a more accurate but time-consuming method at a portion of the sites.

Each gear type was also biased in terms of size selectivity/capture. In all sites, the primary target life history stage and habitat is parr in pool habitats. The data demonstrated that minnow trapping was the most effective technique in sampling parr pool habitats. Oweegee Creek minnow trap CPUE was strongly influenced by high rain events during the sampling period; therefore, minnow trapping would have been more effective given seasonal normal discharge conditions. An analysis of the variation

between electrofishing and minnow trap CPUE data indicates that minnow trap CPUE data has less variation in targeting parr. Minnow trapping is a relatively quick method of population assessment, which will be applied to a greater number of sites.

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Appendix 7.1-1

Overwinter Habitat Assessment: Minnow Trap Set Location Data

Appendix 7.1-1. Overwinter Habitat Assessment: Minnow Trap Set Location Data

Compensation Site	Habitat Type	Gear Type	Set No.	UTM	
				Easting	Northing
Taft Creek	Stream	MT	1	473429	6261678
Taft Creek	Stream	MT	2	473429	6261678
Taft Creek	Stream	MT	3	473462	6261720
Taft Creek	Stream	MT	4	473462	6261720
Taft Creek	Stream	MT	5	473444	6261624
Glacier Creek	Stream	MT	1	460183	6273130
Glacier Creek	Stream	MT	2	460183	6273130
Glacier Creek	Stream	MT	3	460183	6273130
Glacier Creek	Stream	MT	4	460183	6273130
Glacier Creek	Stream	MT	5	460183	6273130
Oweegee Creek	Side Channel	MT	1	457184	6276204
Oweegee Creek	Side Channel	MT	2	457184	6276204
Oweegee Creek	Side Channel	MT	3	457172	6276142
Oweegee Creek	Side Channel	MT	4	457172	6276142
Oweegee Creek	Side Channel	MT	5	457123	6276105
Oweegee Creek	Stream	MT	1	456839	6276272
Oweegee Creek	Stream	MT	2	456839	6276272
Oweegee Creek	Stream	MT	3	456848	6276378
Oweegee Creek	Stream	MT	4	456848	6276378
East Todedada Creek - Upper	Stream	MT	1	452037	6263344
East Todedada Creek - Upper	Stream	MT	2	452153	6263340
East Todedada Creek - Upper	Stream	MT	3	451918	6263304
East Todedada Creek - Upper	Stream	MT	5	451918	6263304
East Todedada Creek - Upper	Stream	MT	4	451831	6263358
East Todedada Creek - Lower	Stream	MT	1	451292	6265195
East Todedada Creek - Lower	Stream	MT	2	451291	6265221
East Todedada Creek - Lower	Stream	MT	3	451306	6265258
East Todedada Creek - Lower	Stream	MT	4	451302	6265272
East Todedada Creek - Lower	Stream	MT	5	451313	6265315
Treaty Creek 1	Wetland	MT	1 to 5	448495	6270586
Teigen Creek 2 and 3	Side Channel	MT	1	439934	6283268
Teigen Creek 2 and 3	Side Channel	MT	2	439934	6283268
Teigen Creek 2 and 3	Side Channel	MT	3	439975	6283275
Teigen Creek 2 and 3	Wetland	MT	1	440284	6283655
Teigen Creek 2 and 3	Wetland	MT	2	440284	6283655
Snowbank Creek	Stream	MT	1	442254	6293528
Snowbank Creek	Stream	MT	2	442254	6293528
Snowbank Creek	Stream	MT	3	442254	6293528
Snowbank Creek	Stream	MT	4	442254	6293528
Snowbank Creek	Stream	MT	5	442254	6293528
Treaty Creek Reference	Wetland	MT	1 to 5	455406	6269017

MT = minnow trap

Appendix 7.1-2

Overwinter Habitat Assessment: Minnow Trap Effort and Catch Data

Appendix 7.1-2. Overwinter Habitat Assessment: Minnow Trap Effort and Catch Data

Compensation Site	Habitat	MT No.	Date Set (d/m/y)	Time Set	Time Set Conversion	Date Pulled (d/m/y)
Taft Creek	Stream	1	9-Mar-11	11:56	11.93	10-Mar-11
Taft Creek	Stream	2	9-Mar-11	11:56	11.93	10-Mar-11
Taft Creek	Stream	3	9-Mar-11	12:13	12.22	10-Mar-11
Taft Creek	Stream	4	9-Mar-11	12:13	12.22	10-Mar-11
Taft Creek	Stream	5	9-Mar-11	12:46	12.77	10-Mar-11
Glacier Creek	Stream	1	9-Mar-11	15:00	15.00	10-Mar-11
Glacier Creek	Stream	2	9-Mar-11	15:00	15.00	10-Mar-11
Glacier Creek	Stream	3	9-Mar-11	15:00	15.00	10-Mar-11
Glacier Creek	Stream	4	9-Mar-11	15:00	15.00	10-Mar-11
Glacier Creek	Stream	5	9-Mar-11	15:00	15.00	10-Mar-11
Oweegee Creek	Side Channel	1	10-Mar-11	13:00	13.00	11-Mar-11
Oweegee Creek	Side Channel	2	10-Mar-11	13:00	13.00	11-Mar-11
Oweegee Creek	Side Channel	3	10-Mar-11	13:15	13.25	11-Mar-11
Oweegee Creek	Side Channel	4	10-Mar-11	13:15	13.25	11-Mar-11
Oweegee Creek	Side Channel	5	10-Mar-11	13:00	13.00	11-Mar-11
Oweegee Creek	Stream	1	10-Mar-11	14:24	14.40	11-Mar-11
Oweegee Creek	Stream	2	10-Mar-11	14:24	14.40	11-Mar-11
Oweegee Creek	Stream	3	10-Mar-11	14:35	14.58	11-Mar-11
Oweegee Creek	Stream	4	10-Mar-11	14:35	14.58	11-Mar-11
East Todedada Creek - Upper	Stream	1	11-Mar-11	13:30	13.50	12-Mar-11
East Todedada Creek - Upper	Stream	2	11-Mar-11	13:40	13.67	12-Mar-11
East Todedada Creek - Upper	Stream	3	11-Mar-11	14:00	14.00	12-Mar-11
East Todedada Creek - Upper	Stream	5	11-Mar-11	14:00	14.00	12-Mar-11
East Todedada Creek - Upper	Stream	4	11-Mar-11	14:05	14.08	12-Mar-11
East Todedada Creek - Lower	Stream	1	11-Mar-11	14:15	14.25	12-Mar-11
East Todedada Creek - Lower	Stream	2	11-Mar-11	15:38	15.63	12-Mar-11
East Todedada Creek - Lower	Stream	3	11-Mar-11	15:45	15.75	12-Mar-11
East Todedada Creek - Lower	Stream	4	11-Mar-11	15:50	15.83	12-Mar-11
East Todedada Creek - Lower	Stream	5	11-Mar-11	15:55	15.92	12-Mar-11
Treaty Creek 1	Wetland	1 to 5	12-Mar-11	13:20	13.33	13-Mar-11
Teigen Creek 2 and 3	Side Channel	1	13-Mar-11	14:42	14.70	14-Mar-11
Teigen Creek 2 and 3	Side Channel	2	13-Mar-11	14:45	14.75	14-Mar-11
Teigen Creek 2 and 3	Side Channel	3	13-Mar-11	15:00	15.00	14-Mar-11
Teigen Creek 2 and 3	Wetland	1	13-Mar-11	15:18	15.30	14-Mar-11
Teigen Creek 2 and 3	Wetland	2	13-Mar-11	15:18	15.30	14-Mar-11
Snowbank Creek	Stream	1	14-Mar-11	14:00	14.00	15-Mar-11
Snowbank Creek	Stream	2	14-Mar-11	14:00	14.00	15-Mar-11
Snowbank Creek	Stream	3	14-Mar-11	14:00	14.00	15-Mar-11
Snowbank Creek	Stream	4	14-Mar-11	14:00	14.00	15-Mar-11
Snowbank Creek	Stream	5	14-Mar-11	14:00	14.00	15-Mar-11
Treaty Creek Reference	Wetland	1	13-Mar-11	13:06	13.10	14-Mar-11
Treaty Creek Reference	Wetland	2	13-Mar-11	13:06	13.10	14-Mar-11
Treaty Creek Reference	Wetland	3	13-Mar-11	13:06	13.10	14-Mar-11
Treaty Creek Reference	Wetland	4	13-Mar-11	13:06	13.10	14-Mar-11
Treaty Creek Reference	Wetland	5	13-Mar-11	13:06	13.10	14-Mar-11

MT = minnow trap

Species: DV = Dolly Varden, RB = rainbow trout, CO = coho salmon, CH = Chinook salmon

Appendix 7.1-2. Overwinter Habitat Assessment: Minnow Trap Effort and Catch Data

Compensation Site	Time Pulled	Time Pulled Conversion (h)	Duration Conversion	Total Catch				
				DV	RB	CO	CH	All
Taft Creek	10:15	10.25	22.32	0	0	0	0	0
Taft Creek	10:15	10.25	22.32	0	0	0	0	0
Taft Creek	10:15	10.25	22.03	0	0	0	0	0
Taft Creek	10:15	10.25	22.03	0	0	0	0	0
Taft Creek	10:15	10.25	21.48	0	0	0	0	0
Glacier Creek	11:00	11.00	20.00	0	0	0	0	0
Glacier Creek	11:00	11.00	20.00	0	0	0	0	0
Glacier Creek	11:00	11.00	20.00	0	0	0	0	0
Glacier Creek	11:00	11.00	20.00	0	0	0	0	0
Glacier Creek	11:00	11.00	20.00	0	0	0	0	0
Oweegee Creek	10:00	10.00	21.00	0	0	2	0	2
Oweegee Creek	10:00	10.00	21.00	0	0	1	0	1
Oweegee Creek	10:05	10.08	20.83	0	0	1	0	1
Oweegee Creek	10:05	10.08	20.83	0	0	0	0	0
Oweegee Creek	10:10	10.17	21.17	0	8	0	0	8
Oweegee Creek	10:43	10.72	20.32	0	0	0	0	0
Oweegee Creek	10:43	10.72	20.32	0	0	0	0	0
Oweegee Creek	10:49	10.82	20.23	0	0	0	0	0
Oweegee Creek	10:49	10.82	20.23	0	0	0	0	0
East Todedada Creek - Upper	10:35	10.58	21.08	0	0	0	0	0
East Todedada Creek - Upper	10:39	10.65	20.98	0	0	0	0	0
East Todedada Creek - Upper	10:53	10.88	20.88	0	1	0	0	1
East Todedada Creek - Upper	10:53	10.88	20.88	0	0	0	0	0
East Todedada Creek - Upper	11:00	11.00	20.92	1	0	0	0	1
East Todedada Creek - Lower	11:23	11.38	21.13	0	0	0	0	0
East Todedada Creek - Lower	11:28	11.47	19.83	0	0	0	0	0
East Todedada Creek - Lower	11:34	11.57	19.82	1	0	0	0	1
East Todedada Creek - Lower	11:36	11.60	19.77	0	0	1	0	1
East Todedada Creek - Lower	11:43	11.72	19.80	0	0	0	0	0
Treaty Creek 1	9:40	9.67	20.33	0	0	0	0	0
Teigen Creek 2 and 3	10:50	10.83	20.13	1	0	0	0	1
Teigen Creek 2 and 3	10:55	10.92	20.17	0	0	1	0	1
Teigen Creek 2 and 3	11:00	11.00	20.00	0	1	0	0	1
Teigen Creek 2 and 3	11:30	11.50	20.20	0	0	1	0	1
Teigen Creek 2 and 3	11:30	11.50	20.20	0	0	0	0	0
Snowbank Creek	10:50	10.83	20.83	0	0	0	0	0
Snowbank Creek	10:50	10.83	20.83	0	0	0	0	0
Snowbank Creek	10:50	10.83	20.83	0	0	0	0	0
Snowbank Creek	10:50	10.83	20.83	0	0	0	0	0
Snowbank Creek	10:50	10.83	20.83	0	0	0	0	0
Treaty Creek Reference	9:30	9.50	20.40	0	0	0	0	0
Treaty Creek Reference	9:30	9.50	20.40	0	0	0	0	0
Treaty Creek Reference	9:30	9.50	20.40	0	0	0	0	0
Treaty Creek Reference	9:30	9.50	20.40	0	0	0	0	0
Treaty Creek Reference	9:30	9.50	20.40	0	0	0	0	0

MT = minnow trap

Species: DV = Dolly Varden, RB = rainbow trout, CO = coho salmon, CH = Chinook salmon

Appendix 7.1-2. Overwinter Habitat Assessment: Minnow Trap Effort and Catch Data

Compensation Site	Fry Catch					Parr Catch				
	DV	RB	CO	CH	All	DV	RB	CO	CH	All
Taft Creek	0	0	0	0	0	0	0	0	0	0
Taft Creek	0	0	0	0	0	0	0	0	0	0
Taft Creek	0	0	0	0	0	0	0	0	0	0
Taft Creek	0	0	0	0	0	0	0	0	0	0
Taft Creek	0	0	0	0	0	0	0	0	0	0
Glacier Creek	0	0	0	0	0	0	0	0	0	0
Glacier Creek	0	0	0	0	0	0	0	0	0	0
Glacier Creek	0	0	0	0	0	0	0	0	0	0
Glacier Creek	0	0	0	0	0	0	0	0	0	0
Glacier Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	0	2	0	2
Oweegee Creek	0	0	0	0	0	0	0	1	0	1
Oweegee Creek	0	0	0	0	0	0	0	1	0	1
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	8	0	0	8
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
Oweegee Creek	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0	0	0	0	0	0
East Todedada Creek - Lower	1	0	0	0	1	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0	0	0	1	0	1
East Todedada Creek - Lower	0	0	0	0	0	0	0	0	0	0
Treaty Creek 1	0	0	0	0	0	0	0	0	0	0
Teigen Creek 2 and 3	0	0	0	0	0	1	0	0	0	1
Teigen Creek 2 and 3	0	0	0	0	0	0	0	1	0	1
Teigen Creek 2 and 3	0	0	0	0	0	0	1	0	0	1
Teigen Creek 2 and 3	0	0	0	0	0	0	0	1	0	1
Teigen Creek 2 and 3	0	0	0	0	0	0	0	0	0	0
Snowbank Creek	0	0	0	0	0	0	0	0	0	0
Snowbank Creek	0	0	0	0	0	0	0	0	0	0
Snowbank Creek	0	0	0	0	0	0	0	0	0	0
Snowbank Creek	0	0	0	0	0	0	0	0	0	0
Snowbank Creek	0	0	0	0	0	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0	0	0	0	0	0

MT = minnow trap

Species: DV = Dolly Varden, RB = rainbow trout, CO = coho salmon, CH = Chinook salmon

Appendix 7.1-2. Overwinter Habitat Assessment: Minnow Trap Effort and Catch Data

Compensation Site	Adult Catch				
	DV	RB	CO	CH	All
Taft Creek	0	0	0	0	0
Taft Creek	0	0	0	0	0
Taft Creek	0	0	0	0	0
Taft Creek	0	0	0	0	0
Taft Creek	0	0	0	0	0
Glacier Creek	0	0	0	0	0
Glacier Creek	0	0	0	0	0
Glacier Creek	0	0	0	0	0
Glacier Creek	0	0	0	0	0
Glacier Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
Oweegee Creek	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0
East Todedada Creek - Upper	0	0	0	0	0
East Todedada Creek - Upper	0	1	0	0	1
East Todedada Creek - Upper	0	0	0	0	0
East Todedada Creek - Upper	1	0	0	0	1
East Todedada Creek - Lower	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0
East Todedada Creek - Lower	0	0	0	0	0
Treaty Creek 1	0	0	0	0	0
Teigen Creek 2 and 3	0	0	0	0	0
Teigen Creek 2 and 3	0	0	0	0	0
Teigen Creek 2 and 3	0	0	0	0	0
Teigen Creek 2 and 3	0	0	0	0	0
Teigen Creek 2 and 3	0	0	0	0	0
Snowbank Creek	0	0	0	0	0
Snowbank Creek	0	0	0	0	0
Snowbank Creek	0	0	0	0	0
Snowbank Creek	0	0	0	0	0
Snowbank Creek	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0
Treaty Creek Reference	0	0	0	0	0

MT = minnow trap

Species: DV = Dolly Varden, RB = rainbow trout, CO = coho salmon, CH = Chinook salmon

Appendix 7.1-3

Overwinter Habitat Assessment: Biological Data

Appendix 7.1-3. Overwinter Habitat Assessment: Biological Data

Compensation Site	Habitat Type	Method	Set No.	Species	Length (mm)	Maturity
Oweegee Creek	Side Channel	MT	1	CO	67	P
Oweegee Creek	Side Channel	MT	1	CO	69	P
Oweegee Creek	Side Channel	MT	2	CO	68	P
Oweegee Creek	Side Channel	MT	3	CO	73	P
Oweegee Creek	Side Channel	MT	5	RB	67	P
Oweegee Creek	Side Channel	MT	5	RB	69	P
Oweegee Creek	Side Channel	MT	5	RB	75	P
Oweegee Creek	Side Channel	MT	5	RB	71	P
Oweegee Creek	Side Channel	MT	5	RB	83	P
Oweegee Creek	Side Channel	MT	5	RB	70	P
Oweegee Creek	Side Channel	MT	5	RB	69	P
Oweegee Creek	Side Channel	MT	5	RB	74	P
East Todedada Creek	Stream - Upper	MT	3	CO	117	A
East Todedada Creek	Stream - Upper	MT	4	DV	112	A
East Todedada Creek	Stream - Lower	MT	4	DV	53	P
East Todedada Creek	Stream - Lower	MT	4	CO	67	P
Teigen Creek 2 and 3	Side Channel	MT	1	DV	46	P
Teigen Creek 2 and 3	Side Channel	MT	2	CO	78	P
Teigen Creek 2 and 3	Side Channel	MT	2	CO	71	P
Teigen Creek 2 and 3	Side Channel	MT	3	RB	47	P
Teigen Creek 2 and 3	Wetland	MT	1	CO	82	P

MT = minnow trap

Species: DV = Dolly Varden, RB = rainbow trout, CO = coho salmon

Maturity: P = parr, A = adult

Appendix 7.2-1

Steelhead Snorkel Redd and Adult Enumeration Spawning
Survey Data, 2011

Appendix 7.2-1. Steelhead Snorkel Redd and Adult Enumeration Spawning Survey Data, 2011

Stream Name	Survey Date (d/m/y)	Survey Start Time	Survey End Time	Start Location	End Location	Water Clarity
Gilbert Creek	27/5/2011	9:10	11:30	Reach 1	Treaty Creek Confluence	Clear/Lightly Turbid
East Todedada Creek	28/5/2011	8:00	10:00	Upper Wetland Mouth	Mid Wetland	Moderately Turbid
Oweegee Creek	26/5/2011	9:20	14:20	Bell-Irving S/C Confluence	Lake Outlet	Clear (3 m)

Stream Name	Weather	Precipitation	Water Temp	Air Temp	No. Fish Observed	No. Redds Observed
Gilbert Creek	Overcast	None	8	15	4	3
East Todedada Creek	Sunny	None	3	12	0	0
Oweegee Creek	Sunny	None	8.5	13	70+	72

Appendix 7.2-2

Steelhead Redd Locations, 2011

Appendix 7.2-2. Steelhead Redd Locations, 2011

Waterbody	Date (d/m/y)	Redd No.	Redd Count	Fish On Redd	Redd Age	UTM		
Oweegee Creek	26/5/2011	1	1	Y	1	9 V	456858	6276260
Oweegee Creek	26/5/2011	2	1	Y	1	9 V	456861	6276259
Oweegee Creek	26/5/2011	3	1	Y	1	9 V	456843	6276264
Oweegee Creek	26/5/2011	4	1	Y	1	9 V	456836	6276289
Oweegee Creek	26/5/2011	5	1	N	1	9 V	456827	6276284
Oweegee Creek	26/5/2011	6	1	N	1	9 V	456828	6276285
Oweegee Creek	26/5/2011	7	1	N	1	9 V	456814	6276318
Oweegee Creek	26/5/2011	8	1	Y	1	9 V	456817	6276326
Oweegee Creek	26/5/2011	8	1	Y	1	9 V	456814	6276325
Oweegee Creek	26/5/2011	9	1	Y	1	9 V	456825	6276350
Oweegee Creek	26/5/2011	10	1	Y	1	9 V	456830	6276361
Oweegee Creek	26/5/2011	11	1	Y	1	9 V	456832	6276386
Oweegee Creek	26/5/2011	12	1	Y	1	9 V	456862	6276457
Oweegee Creek	26/5/2011	13	1	Y	1	9 V	456880	6276484
Oweegee Creek	26/5/2011	14	1	Y	1	9 V	456843	6276573
Oweegee Creek	26/5/2011	15	1	Y	1	9 V	456824	6276594
Oweegee Creek	26/5/2011	16	1	Y	1	9 V	456798	6276641
Oweegee Creek	26/5/2011	17	7	Y	1	9 V	456757	6276713
Oweegee Creek	26/5/2011	18	25	Y	1	9 V	456799	6276620
Oweegee Creek	26/5/2011	27	3	Y	1	9 V	456776	6276765
Oweegee Creek	26/5/2011	19	1	Y	1	9 V	456806	6276810
Oweegee Creek	26/5/2011	20	1	Y	1	9 V	456827	6276891
Oweegee Creek	26/5/2011	21	1	Y	1	9 V	456825	6276896
Oweegee Creek	26/5/2011	22	2	Y	1	9 V	456802	6276954
Oweegee Creek	26/5/2011	23	1	Y	1	9 V	456795	6276946
Oweegee Creek	26/5/2011	24	4	Y	1	9 V	456767	6277007
Oweegee Creek	26/5/2011	25	2	Y	1	9 V	456765	6277082
Oweegee Creek	26/5/2011	26	1	Y	1	9 V	456739	6277131
Oweegee Creek	26/5/2011	28	2	Y	1	9 V	456733	6277250
Oweegee Creek	26/5/2011	29	1	Y	1	9 V	456765	6277292
Oweegee Creek	26/5/2011	30	1	Y	1	9 V	456610	6277357
Oweegee Creek	26/5/2011	31	3	N	1	9 V	456579	6277378
Gilbert Creek	27/5/2011	1	3	Y	1	9 V	451994	6268088

Y = yes

N = no

Appendix 7.3-1

Treatment and Reference Stream Site Locations, 2011

Appendix 7.3-1. Treatment and Reference Stream Site Locations, 2011

Stream	Habitat Type	Sample Method	Site No.	UTM	
				Easting	Northing
Snowbank Creek	Poor Habitat	EF	5	443210	6290243
Snowbank Creek	Poor Habitat	EF	3	442523	6291086
Snowbank Creek	Poor Habitat	EF	2	442142	6292118
Snowbank Creek	Poor Habitat	EF	1	442152	6292009
Snowbank Creek	Poor Habitat	EF	4	442847	6290545
Teigen Creek	Target Habitat	EF/MT	2	439743	6283065
Teigen Creek	Target Habitat	EF/MT	3	438272	6282607
Teigen Creek	Target Habitat	EF/MT	4	438788	6282612
Teigen Creek	Target Habitat	EF/MT	5	436680	6283890
East Todedada Creek - Lower	Target Habitat	EF/MT	1	451353	6264930
East Todedada Creek - Lower	Target Habitat	EF/MT	2	451349	6264977
East Todedada Creek - Lower	Poor Habitat	EF	3	451321	6265017
East Todedada Creek - Lower	Poor Habitat	EF	4	451320	6265018
East Todedada Creek - Upper	Target Habitat	EF/MT	10	451183	6263885
East Todedada Creek - Upper	Poor Habitat	EF	9	451440	6263603
East Todedada Creek - Upper	Poor Habitat	EF	8	451491	6263525
East Todedada Creek - Upper	Poor Habitat	EF	7	451620	6263369
East Todedada Creek - Upper	Target Habitat	EF/MT	6	451700	6263366
East Todedada Creek - Upper	Target Habitat	EF/MT	5	451790	6263344
East Todedada Creek - Upper	Poor Habitat	EF	4	451969	6263326
East Todedada Creek - Upper	Target Habitat	EF/MT	2	451585	6263440
East Todedada Creek - Upper	Target Habitat	EF/MT	1	451940	6263311
East Todedada Creek - Upper	Target Habitat	EF/MT	3	451335	6263654
East Todedada Creek - Upper	Target Habitat	MT	20	451758	6263360
East Todedada Creek - Upper	Target Habitat	MT	21	451521	6263462
East Todedada Creek - Upper	Target Habitat	MT	22	451248	6263732
East Todedada Creek - Upper	Target Habitat	MT	23	451105	6264025
Gilbert Creek	Target Habitat	EF	1	452008	6268021
Gilbert Creek	Target Habitat	EF	2	452000	6268089
Snowbank Creek - Upper	Target Habitat	EF/MT	1	442323	6295191
Snowbank Creek - Upper	Target Habitat	EF/MT	2	442294	6295100
Oweegee Creek - Lower	Target Habitat	EF/MT	11	456852	6276556
Oweegee Creek - Lower	Target Habitat	EF/MT	9	456826	6276343
Oweegee Creek - Lower	Poor Habitat	EF	8	456867	6276276
Oweegee Creek - Lower	Target Habitat	EF/MT	10	456842	6276380
Oweegee Creek - Lower	Target Habitat	EF/MT	4	456815	6276952
Oweegee Creek - Lower	Poor Habitat	EF	3	456810	6276858
Oweegee Creek - Lower	Target Habitat	EF/MT	2	456801	6276824
Oweegee Creek - Lower	Target Habitat	EF/MT	6	456702	6277223
Oweegee Creek - Lower	Target Habitat	EF/MT	1	456810	6276880
Oweegee Creek - Lower	Poor Habitat	EF	5	456768	6277029
Oweegee Creek - Lower	Poor Habitat	EF	7	456698	6277124
Oweegee Creek - Lower	Target Habitat	MT	20	456806	6276817
Oweegee Creek - Lower	Target Habitat	MT	21	456784	6276627
Oweegee Creek - Upper	Target Habitat	EF/MT	2	454664	6280872
Oweegee Creek - Upper	Target Habitat	EF/MT	1	454669	6280807
Oweegee Creek - Upper	Target Habitat	MT	3	454667	6280884
Oweegee Creek - Upper	Target Habitat	MT	4	454652	6280759

Appendix 7.3-2

Treatment and Reference Stream Site Fish Habitat
Data, 2011

Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Habitat Number	Habitat Type	Distance from Start	Length (m)	Bankfull Area (m ²)	Wetted Area (m ²)	Proportional Length	Proportional Wetted Area	Slope (%)	Depth (m)				Width (m)		Bed Material		
														Wetted	Wetted	Wetted	Bankfull	Wetted	Bankfull	Sand (%)	Weighted Sand	Gravel (%)
Snowbank Creek	Poor Habitat	EF	5	19-Sep-11	1	Run	0	55	1127.5	467.5	1.0	1.0	1.5	0.5	0.8	0.45	1.5	8.5	20.5		0.0	50
Snowbank Creek	Poor Habitat	EF	3	15-Sep-11	1	Run	0	46	1127.5	467.5	Run	1.0	1	0.45	0.5	0.4	1.5	14	29	5	5.0	35
Snowbank Creek	Poor Habitat	EF	2	15-Sep-11	1	Run	0	58	1334.0	644.0	Run	1.0	2	0.2	0.5	0.48	1.5	12	30	5	5.0	50
Snowbank Creek	Poor Habitat	EF	1	15-Sep-11	1	Run	0	35	1740.0	696.0	Run	1.0	1.5	0.3	0.6	0.7	1.5	15	31	5	5.0	50
Snowbank Creek	Poor Habitat	EF	4	17-Aug-11	1	Run	0	80	1085.0	525.0	Run	1.0	1.5	0.5	0.7	0.5	1.2	15	35		0.0	30
Teigen Creek	Target Habitat	EF	2	17-Aug-11	1	Riffle	0	75	2800.0	1200.0	Run	1.0		0.5	0.5	0.3	1	17	50		0.0	10
Teigen Creek	Target Habitat	EF/MT	2	17-Aug-11	2	Pool	75	21	3750.0	1275.0	0.2	0.1	0	0.5	1.5	0.7	2	9	39		0.0	15
Teigen Creek	Target Habitat	EF	3	18-Aug-11	1	Riffle	0	30	819.0	189.0	Riffle	0.9		0.2	0.4	0.15	2.5	35	37		0.0	50
Teigen Creek	Target Habitat	EF/MT	3	18-Aug-11	2	Pool	30	22	4569.0	1464.0	Pool	0.1		0.7	1.5	1.5	2.5	9	13	30	4.8	70
Teigen Creek	Target Habitat	EF	4	17-Aug-11	1	Riffle	0	35	286.0	198.0	Riffle	0.8		0.5	0.7	0.4	1.5	15	30		0.0	10
Teigen Creek	Target Habitat	EF/MT	4	17-Aug-11	2	Pool	35	15	1396.0	1248.0	Pool	0.2		1.5	2.5	1.5	4	15	40		0.0	20
Teigen Creek	Target Habitat	EF	5	18-Aug-11	1	Riffle	0	45	600.0	225.0	Pool	0.3		0.2	0.2	0.4	1.2	9	13		0.0	10
Teigen Creek	Target Habitat	EF/MT	5	18-Aug-11	2	Pool	45	19	1650.0	750.0	Riffle	0.7		0.4	0.7	1	1.5	10	22		0.0	65
East Todedada Creek - Lower	Target Habitat	EF	1	17-Aug-11	1	Riffle	0	9	418.0	190.0	Pool	0.3		0.2	0.2	0.4	1.2	9	13		0.0	10
East Todedada Creek - Lower	Target Habitat	EF/MT	1	17-Aug-11	2	Pool	45	19	81.0	81.0	Pool	0.3		0.06	0.24	0.2	0.45	9	9	5	1.1	95
East Todedada Creek - Lower	Target Habitat	EF	2	17-Aug-11	1	Riffle	0	14	288.0	288.0	Riffle	0.2		0.89	0.99	1.1	1.35	9	9	80	62.4	10
East Todedada Creek - Lower	Target Habitat	EF/MT	2	17-Aug-11	2	Pool	14	16	369.0	369.0	Pool	0.8		0.25	0.4	0.41	0.56	10	10	30	17.3	70
East Todedada Creek - Lower	Target Habitat	EF	2	17-Aug-11	1	Riffle	0	14	128.0	102.4	Riffle	0.6		1.1	0.86	0.99	1.25	6.4	8	75	31.7	25
East Todedada Creek - Lower	Target Habitat	EF/MT	2	17-Aug-11	2	Pool	14	16	268.0	242.4	Pool	0.4		0.25	0.4	0.41	0.56	10	10	30	17.3	70
East Todedada Creek - Lower	Poor Habitat	EF	3	17-Aug-11	1	Glide	0	39	272.0	272.0	Glide	1.0	0.5	0.58	0.7	0.68	0.85	8	8	30	30.0	70
East Todedada Creek - Lower	Poor Habitat	EF	4	17-Aug-11	1	Glide	0	34	272.0	272.0	Glide	1.0	0.5	0.5	0.58	0.84	1.04	8	8	30	30.0	70
East Todedada Creek - Upper	Target Habitat	EF	10	18-Aug-11	1	Riffle	0	23	184.0	177.1	Glide	1.0	1	0.1	0.1	0.15	0.5	7.7	8	10	6.4	90
East Todedada Creek - Upper	Target Habitat	EF/MT	10	18-Aug-11	2	Pool	23	13	104.0	98.8	Pool	0.4	0.5	0.81	0.5	0.7	1.2	7.6	8	20	7.2	80
East Todedada Creek - Upper	Poor Habitat	EF	9	18-Aug-11	1	Run	0	33	288.0	275.9	Riffle	0.6		0.2	0.2	0.15	0.52	5.2	5.5		0.0	70
East Todedada Creek - Upper	Poor Habitat	EF	8	18-Aug-11	1	Run	0	55	181.5	171.6	Run	1.0	2	0.16	0.16	0.16	0.46	12.7	13	10	10.0	80
								55	715.0	698.5	Run	1.0									10.0	

EF = electrofishing
MT = minnow trap
LWD = large woody debris
SWD = small woody debris
Pool Type:
S = scour
Riparian Type:
D = deciduous
M = mixed
C = coniferous
S = shrub
Riparian Structure:
S = shrub
M = mature forest
YF = young forest

Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Habitat Number	Habitat Type	Distance from Start	Length (m)	Bankfull Area (m ²)	Wetted Area (m ²)	Proportional Length	Proportional Wetted Area	Slope (%)	Depth (m)				Width (m)		Bed Material		
														Wetted	Wetted	Wetted	Bankfull	Wetted	Bankfull	Sand (%)	Weighted Sand	Gravel (%)
East Todedada Creek - Upper	Poor Habitat	EF	7	18-Aug-11	1	Run	0	38	239.4	228.0	1.0	1.0	2	0.1	0.21	0.2	0.5	6	6.3		0.0	40
East Todedada Creek - Upper	Target Habitat	EF	6	18-Aug-11	1	Riffle	0	16	94.7	91.2	0.5	0.4	1.5	0.16	0.25	0.2	0.51	5.7	5.92		0.0	90
East Todedada Creek - Upper	Target Habitat	EF/MT	6	18-Aug-11	2	Pool	16	18	135.0	126.0	0.5	0.6	0.5	0.54	0.74	0.5	1.1	7	7.5	20	11.6	80
								34	229.7	217.2	Riffle	0.4									11.6	
											Pool	0.6										
East Todedada Creek - Upper	Target Habitat	EF	5	18-Aug-11	1	Riffle	0	33	237.6	171.3	0.6	0.6	2	0.16	0.17	0.24	0.45	5.19	7.2		0.0	60
East Todedada Creek - Upper	Target Habitat	EF/MT	5	18-Aug-11	2	Pool	33	20	140.0	132.0	0.4	0.4	0.5	0.25	0.9	0.95	1	6.6	7	40	17.4	55
								53	377.6	303.3	Riffle	0.6									17.4	
											Pool	0.4										
East Todedada Creek - Upper	Poor Habitat	EF	4	18-Aug-11	1	Run	0	33	264.0	237.6	1.0	1.0	1	0.24	0.3	0.25	0.5	7.2	8		0.0	20
								33	264.0	237.6	Run	1.0									0.0	
East Todedada Creek - Upper	Target Habitat	EF	2	15-Aug-11	1	Riffle	0	14.3	135.9	85.8	0.5	0.6	1	0.2	0.32	0.33	0.48	6	9.5	5	3.0	80
East Todedada Creek - Upper	Target Habitat	EF/MT	2	15-Aug-11	2	Pool	14.3	13.7	98.6	57.5	0.5	0.4	0	0.26	0.72	1.01	1.26	4.2	7.2	20	8.0	75
								28	234.5	143.3	Riffle	0.6									11.0	
											Pool	0.4										
East Todedada Creek - Upper	Target Habitat	EF	1	15-Aug-11	1	Riffle	0	14.5	75.4	71.1	0.6	0.6	1	0.21	0.46	0.49	0.59	4.9	5.2	10	5.6	60
East Todedada Creek - Upper	Target Habitat	EF/MT	1	15-Aug-11	2	Pool	14.5	9	85.5	55.8	0.4	0.4	0	0.44	0.86	0.56	1.23	6.2	9.5	20	8.8	40
								23.5	160.9	126.9	Riffle	0.6									14.4	
											Pool	0.4										
East Todedada Creek - Upper	Target Habitat	EF	3	15-Aug-11	1	Riffle	0	12.8	110.1	52.5	0.5	0.5	1	0.22	0.4	0.3	0.65	4.1	8.6	20	10.9	70
East Todedada Creek - Upper	Target Habitat	EF/MT	3	15-Aug-11	2	Pool	12.8	10.6	114.5	44.0	0.5	0.5	0	0.44	0.7	0.7	0.85	4.15	10.8	20	9.1	80
								23.4	224.6	96.5	Riffle	0.5									20.0	
											Pool	0.5										
East Todedada Creek - Upper	Target Habitat	MT	20	15-Aug-11	1	Pool	0	21	105.0	105.0	1.0	1.0	1	1.4	1.3	0.7	1.7	5	5	20	20.0	80
								21	105.0	105.0	Pool	1.0									20.0	
East Todedada Creek - Upper	Target Habitat	MT	21	15-Aug-11	1	Pool	0	14	112.0	112.0	1.0	1.0	1	1.1	0.9	0.5	1.4	8	8	20	20.0	80
								14	112.0	112.0	Pool	1.0									20.0	
East Todedada Creek - Upper	Target Habitat	MT	22	15-Aug-11	1	Pool	0	15	127.5	105.0	1.0	1.0	1	0.8	0.7	0.5	1.1	7	8.5	20	20.0	80
								15	127.5	105.0	Pool	1.0									20.0	
East Todedada Creek - Upper	Target Habitat	MT	23	15-Aug-11	1	Pool	0	21	168.0	168.0	1.0	1.0	1	0.9	0.7	0.5	1.2	8	8	90	90.0	10
								21	168.0	168.0	Pool	1.0									90.0	
Gilbert Creek	Target Habitat	EF	1	17-Aug-11	1	Riffle	0	16	112.0	110.4	0.5	0.7	1	0.1	0.21	0.24	0.4	6.9	7		0.0	30
Gilbert Creek	Target Habitat	EF	1	17-Aug-11	2	Pool	16	17	56.1	51.0	0.5	0.3	1	0.63	0.6	0.84	1.1	3	3.3	5	1.6	35
								33	168.1	161.4	Riffle	0.7									1.6	
											Pool	0.3										
Gilbert Creek	Target Habitat	EF	2	17-Aug-11	1	Riffle	0	17	136.0	110.5	0.5	0.5	1	0.2	0.3	0.24	0.5	6.5	8	20	10.1	60
Gilbert Creek	Target Habitat	EF	2	17-Aug-11	2	Pool	17	18	144.0	108.0	0.5	0.5	0	0.57	0.5	0.4	0.87	6	8	40	19.8	60
								35	280.0	218.5	Riffle	0.5									29.9	
											Pool	0.5										
Snowbank Creek - Upper	Target Habitat	EF	1	16-Sep-11	1	Riffle	0	13	52.0	44.6	0.4	0.3	1	0.2	0.2	0.2	0.8	3.43	4	20	6.0	80
Snowbank Creek - Upper	Target Habitat	EF/MT	1	16-Sep-11	2	Pool	13	18	108.0	103.1	0.6	0.7	0	0.48	0.5	0.4	0.8	5.73	6	40	27.9	60
								31	160.0	147.7	Riffle	0.3									34.0	
											Pool	0.7										
Snowbank Creek - Upper	Target Habitat	EF	2	16-Sep-11	1	Riffle	0	8	52.0	46.2	0.3	0.3	1	0.4	0.3	0.3	0.5	5.78	6.5	20	5.9	80
Snowbank Creek - Upper	Target Habitat	EF/MT	2	16-Sep-11	2	Pool	8	18	109.8	109.8	0.7	0.7	0	0.55	0.6	0.5	0.6	6.1	6.1	40	28.1	60

EF = electrofishing
MT = minnow trap
LWD = large woody debris
SWD = small woody debris
Pool Type:
S = scour
Riparian Type:
D = deciduous
M = mixed
C = coniferous
S = shrub
Riparian Structure:
S = shrub
M = mature forest
YF = young forest

Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Habitat Number	Habitat Type	Distance from Start	Length (m)	Bankfull Area (m ²)	Wetted Area (m ²)	Proportional Length	Proportional Wetted Area	Slope (%)	Depth (m)				Width (m)		Bed Material			
														Wetted	Wetted	Wetted	Bankfull	Wetted	Bankfull	Sand (%)	Weighted Sand	Gravel (%)	
Oweegee Creek - Upper	Target Habitat	EF	1	14-Sep-11	1	Riffle	0	14	93.8	98.0	0.5	0.4	2	0.2	0.2	0.3	0.5	7	6.7		0.0	100	
Oweegee Creek - Upper	Target Habitat	EF/MT	1	14-Sep-11	2	Pool	14	12	144.0	144.0	0.5	0.6	1	0.9	0.7	0.8	1.1	12	12	30	17.9	70	
								26	237.8	242.0	Riffle	0.4									17.9		
											Pool	0.6											
Oweegee Creek - Upper	Target Habitat	MT	3	16-Sep-11	1	Pool	0	10	80.0	60.0	1.0	1.0	1	0.9	0.8	0.7	1.2	6	8		0.0	100	
								10	80.0	60.0	Pool	1.0										0.0	
Oweegee Creek - Upper	Target Habitat	MT	4	16-Sep-11	1	Pool	0	20	160.0	160.0	1.0	1.0	1	0.7	0.7	0.5	1	8	8		0.0	100	
								20	160.0	160.0	Pool	1.0										0.0	
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	1	Cascade	0	14	54.6	72.8	0.5	0.5	1	0.39	0.4	0.3	1.1	5.2	3.9		0.0	10	
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	2	Pool	14	5	35.0	24.5	0.2	0.2	2.5	0.3	0.7	0.5	1	4.9	7		0.0	10	
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	3	Cascade	19	12	92.4	62.4	0.4	0.4	3	0.15	0.3	0.32	0.8	5.2	7.7		0.0	10	
								31	182.0	159.7	Cascade	0.8										0.0	
											Pool	0.2											
North Treaty Creek	Target Habitat	EF	2	14-Sep-11	1	Cascade	0	26	171.6	171.6	0.9	0.9	3.5	0.05	0.4	0.4	1.1	6.6	6.6		0.0	10	
North Treaty Creek	Target Habitat	EF	2	14-Sep-11	2	Pool	26	4	22.0	18.8	0.1	0.1	1	0.4	0.55	0.36	0.8	4.7	5.5		0.0	10	
								30	193.6	190.4	Cascade	0.9										0.0	
											Pool	0.1											
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	1	Cascade	0	11	60.5	50.6	0.4	0.3	3	0.25	0.21	0.4	0.7	4.6	5.5		0.0		
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	2	Pool	11	7	26.6	25.2	0.2	0.1	0.5	0.5	0.4	1	1.5	3.6	3.8		0.0	60	
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	3	Cascade	18	13	111.8	92.3	0.4	0.5	4	0.4	0.35	0.35	1	7.1	8.6		0.0		
								31	198.9	168.1	Cascade	0.9										0.0	
											Pool	0.1											
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	1	Cascade	0	10	92.0	70.0	0.2	0.3	3	0.01	0.25	0.36	1	7	9.2		0.0	15	
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	2	Pool	10	4	30.4	20.4	0.1	0.1	1	0.57	0.7	0.25	1	5.1	7.6		0.0	30	
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	3	Cascade	14	14	84.0	75.6	0.3	0.3	3	0.27	0.5	0.28	1	5.4	6		0.0	10	
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	4	Pool	24	24	156.0	108.0	0.5	0.4	1	0.6	0.75	0.65	1.7	4.5	6.5		0.0	30	
								52	362.4	274.0	Cascade	0.5										0.0	

EF = electrofishing
MT = minnow trap
LWD = large woody debris
SWD = small woody debris
Pool Type:
S = scour
Riparian Type:
D = deciduous
M = mixed
C = coniferous
S = shrub
Riparian Structure:
S = shrub
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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Bed Material						Instream Cover									
					Weighted Gravel	Cobble (%)	Weighted Cobble	Boulder (%)	Weighted Boulder	Bedrock (%)	Weighted Bedrock	Pool (%)	Weighted Pool	Boulder (%)	Weighted Boulder	Instream Veg (%)	Weighted Veg.	Overhang Veg (%)	Weighted Overhang Veg.	Undercut Bank (%)
Snowbank Creek	Poor Habitat	EF	5	19-Sep-11	50.0	50	50.0		0.0	0.0			0.0		0.0	10	10.0	1	1.0	
					50.0		50.0		0.0	0.0			0.0		0.0		10.0		1.0	
Snowbank Creek	Poor Habitat	EF	3	15-Sep-11	35.0	55	55.0	5	5.0	0.0			0.0	5	5.0		0.0		0.0	
					35.0		55.0		5.0	0.0			0.0		5.0		0.0		0.0	
Snowbank Creek	Poor Habitat	EF	2	15-Sep-11	50.0	40	40.0	5	5.0	0.0			0.0		0.0	5	5.0	5	5.0	
					50.0		40.0		5.0	0.0			0.0		0.0		5.0		5.0	
Snowbank Creek	Poor Habitat	EF	1	15-Sep-11	50.0	45	45.0		0.0	0.0			0.0	5	5.0	1	1.0	5	5.0	5
					50.0		45.0		0.0	0.0			0.0		5.0		5.0		5.0	
Snowbank Creek	Poor Habitat	EF	4	17-Aug-11	30.0	55	55.0	15	15.0	0.0			0.0	5	5.0		0.0	1	1.0	0.0
					30.0		55.0		15.0	0.0			0.0		5.0		1.0		1.0	5
Teigen Creek	Target Habitat	EF	2	17-Aug-11	8.7	75	65.3	15	13.1	0.0			0.0	20	17.4		0.0		0.0	5
Teigen Creek	Target Habitat	EF/MT	2	17-Aug-11	1.9	65	8.4	20	2.6	0.0	75	9.7	1	0.1	0.0	5	0.6		0.0	15
					10.6		73.7		15.6	0.0			9.7		17.5		0.6		0.0	
Teigen Creek	Target Habitat	EF	3	18-Aug-11	42.1	45	37.9	5	4.2	0.0			0.0	15	12.6		0.0	5	4.2	0.0
Teigen Creek	Target Habitat	EF/MT	3	18-Aug-11	11.1		0.0		0.0	0.0	65	10.3		0.0	0.0	15	2.4	15	2.4	20
					53.2		37.9		4.2	0.0			10.3		12.6		0.0		2.4	
Teigen Creek	Target Habitat	EF	4	17-Aug-11	7.0	70	49.0	20	14.0	0.0			0.0	30	21.0		0.0		0.0	1
Teigen Creek	Target Habitat	EF/MT	4	17-Aug-11	6.0	50	15.0	30	9.0	0.0	80	24.0		0.0	0.0		0.0		0.0	20
					13.0		64.0		23.0	0.0			24.0		21.0		0.0		0.0	
Teigen Creek	Target Habitat	EF	5	18-Aug-11	6.8	60	40.8	30	20.4	0.0			0.0	20	13.6		0.0	5	3.4	5
Teigen Creek	Target Habitat	EF/MT	5	18-Aug-11	20.8	20	6.4	15	4.8	0.0	25	8.0	15	4.8	0.0	10	3.2		0.0	20
					27.6		47.2		25.2	0.0			8.0		18.4		6.6		0.7	
East Todedada Creek - Lower	Target Habitat	EF	1	17-Aug-11	20.9		0.0		0.0	0.0			0.0		0.0		0.0	5	1.1	0.0
East Todedada Creek - Lower	Target Habitat	EF/MT	1	17-Aug-11	7.8	10	7.8		0.0	0.0	80	62.4	10	7.8	0.0	5	3.9	5	3.9	
					28.7		7.8		0.0	0.0			62.4		7.8		5.0		3.9	
East Todedada Creek - Lower	Target Habitat	EF	2	17-Aug-11	40.4		0.0		0.0	0.0			0.0		0.0		0.0	5	2.9	5
East Todedada Creek - Lower	Target Habitat	EF/MT	2	17-Aug-11	10.6		0.0		0.0	0.0	80	33.8		0.0	0.0		0.0	5	2.1	10
					51.0		0.0		0.0	0.0			33.8		0.0		2.9		5.0	
East Todedada Creek - Lower	Poor Habitat	EF	3	17-Aug-11	70.0		0.0		0.0	0.0			0.0		0.0		0.0	15	15.0	10
					70.0		0.0		0.0	0.0			0.0		0.0		15.0		10.0	
East Todedada Creek - Lower	Poor Habitat	EF	4	17-Aug-11	70.0		0.0		0.0	0.0			0.0		0.0		0.0	40	40.0	5
					70.0		0.0		0.0	0.0			0.0		0.0		40.0		5.0	
East Todedada Creek - Upper	Target Habitat	EF	10	18-Aug-11	57.8		0.0		0.0	0.0			0.0		0.0		0.0	10	6.4	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	10	18-Aug-11	28.6		0.0		0.0	0.0	50	17.9		0.0	0.0	40	14.3		0.0	
					86.4		0.0		0.0	0.0			17.9		0.0		20.7		0.0	
East Todedada Creek - Upper	Poor Habitat	EF	9	18-Aug-11	70.0	30	30.0		0.0	0.0			0.0		0.0		0.0	10	10.0	0.0
					70.0		30.0		0.0	0.0			0.0		0.0		10.0		0.0	
East Todedada Creek - Upper	Poor Habitat	EF	8	18-Aug-11	80.0	10	10.0		0.0	0.0			0.0		0.0		0.0	10	10.0	0.0
					80.0		10.0		0.0	0.0			0.0		0.0		10.0		0.0	

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Pool Type:
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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Bed Material						Instream Cover									
					Weighted Gravel	Cobble (%)	Weighted Cobble	Boulder (%)	Weighted Boulder	Bedrock (%)	Weighted Bedrock	Pool (%)	Weighted Pool	Boulder (%)	Weighted Boulder	Instream Veg (%)	Weighted Veg.	Overhang Veg (%)	Weighted Overhang Veg.	Undercut Bank (%)
East Todedada Creek - Upper	Poor Habitat	EF	7	18-Aug-11	40.0	60	60.0		0.0		0.0		0.0		0.0	20	20.0		0.0	
					40.0		60.0		0.0		0.0		0.0		0.0		20.0		0.0	
East Todedada Creek - Upper	Target Habitat	EF	6	18-Aug-11	37.8	10	4.2		0.0		0.0		0.0		0.0	30	12.6		0.0	
East Todedada Creek - Upper	Target Habitat	EF/MT	6	18-Aug-11	46.4		0.0		0.0		0.0	70	40.6		0.0	40	23.2	5	2.9	
					84.2		4.2		0.0		0.0		40.6		0.0		35.8		2.9	
East Todedada Creek - Upper	Target Habitat	EF	5	18-Aug-11	33.9	40	22.6		0.0		0.0		0.0		0.0	5	2.8		0.0	
East Todedada Creek - Upper	Target Habitat	EF/MT	5	18-Aug-11	23.9	5	2.2		0.0		0.0	80	34.8		0.0	30	13.1	5	2.2	
					57.8		24.8		0.0		0.0		34.8		0.0		15.9		2.2	
East Todedada Creek - Upper	Poor Habitat	EF	4	18-Aug-11	20.0	80	80.0		0.0		0.0		0.0		0.0	5	5.0		0.0	
					20.0		80.0		0.0		0.0		0.0		0.0		5.0		0.0	
East Todedada Creek - Upper	Target Habitat	EF	2	15-Aug-11	47.9	15	9.0		0.0		0.0		0.0		0.0	20	12.0		0.0	
East Todedada Creek - Upper	Target Habitat	EF/MT	2	15-Aug-11	30.1	5	2.0		0.0		0.0	70	28.1		0.0	25	10.0		0.0	
					78.0		11.0		0.0		0.0		28.1		0.0		22.0		0.0	
East Todedada Creek - Upper	Target Habitat	EF	1	15-Aug-11	33.6	30	16.8		0.0		0.0		0.0		0.0	10	5.6		0.0	
East Todedada Creek - Upper	Target Habitat	EF/MT	1	15-Aug-11	17.6	40	17.6		0.0		0.0	100	44.0		0.0	5	2.2		0.0	
					51.2		34.4		0.0		0.0		44.0		0.0		7.8		0.0	
East Todedada Creek - Upper	Target Habitat	EF	3	15-Aug-11	38.1	10	5.4		0.0		0.0		0.0		0.0	10	5.4	10	5.4	
East Todedada Creek - Upper	Target Habitat	EF/MT	3	15-Aug-11	36.5		0.0		0.0		0.0	70	31.9		0.0	10	4.6	10	4.6	
					74.6		5.4		0.0		0.0		31.9		0.0		10.0		10.0	
East Todedada Creek - Upper	Target Habitat	MT	20	15-Aug-11	80.0		0.0		0.0		0.0	80	80.0		0.0	30	30.0	5	5.0	
					80.0		0.0		0.0		0.0		80.0		0.0		30.0		5.0	
East Todedada Creek - Upper	Target Habitat	MT	21	15-Aug-11	80.0		0.0		0.0		0.0	80	80.0		0.0	50	50.0	5	5.0	
					80.0		0.0		0.0		0.0		80.0		0.0		50.0		5.0	
East Todedada Creek - Upper	Target Habitat	MT	22	15-Aug-11	80.0		0.0		0.0		0.0	50	50.0		0.0	40	40.0	5	5.0	
					80.0		0.0		0.0		0.0		50.0		0.0		40.0		5.0	
East Todedada Creek - Upper	Target Habitat	MT	23	15-Aug-11	10.0		0.0		0.0		0.0	90	90.0		0.0	10	10.0	10	10.0	
					10.0		0.0		0.0		0.0		90.0		0.0		10.0		10.0	
Gilbert Creek	Target Habitat	EF	1	17-Aug-11	20.5	70	47.9		0.0		0.0		0.0		0.0	20	13.7		0.0	
Gilbert Creek	Target Habitat	EF	1	17-Aug-11	11.1	60	19.0		0.0		0.0	80	25.3		0.0	50	15.8	10	3.2	5
					31.6		66.8		0.0		0.0		25.3		0.0		29.5		3.2	
Gilbert Creek	Target Habitat	EF	2	17-Aug-11	30.3	20	10.1		0.0		0.0		0.0		0.0	30	15.2	5	2.5	
Gilbert Creek	Target Habitat	EF	2	17-Aug-11	29.7		0.0		0.0		0.0	70	34.6		0.0	20	9.9	5	2.5	10
					60.0		10.1		0.0		0.0		34.6		0.0		25.1		5.0	
Snowbank Creek - Upper	Target Habitat	EF	1	16-Sep-11	24.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
Snowbank Creek - Upper	Target Habitat	EF/MT	1	16-Sep-11	41.9		0.0		0.0		0.0	80	55.9		0.0		0.0	5	3.5	
					66.0		0.0		0.0		0.0		55.9		0.0		0.0		3.5	
Snowbank Creek - Upper	Target Habitat	EF	2	16-Sep-11	23.7		0.0		0.0		0.0		0.0		0.0		0.0		0.0	5
Snowbank Creek - Upper	Target Habitat	EF/MT	2	16-Sep-11	42.2		0.0		0.0		0.0	80	56.3		0.0		0.0	5	3.5	20

EF = electrofishing
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 LWD = large woody debris
 SWD = small woody debris

Pool Type:
 S = scour

Riparian Type:
 M = mature forest
 D = deciduous
 YF = young forest
 M = mixed
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Riparian Structure:
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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Bed Material						Instream Cover											
					Weighted Gravel	Cobble (%)	Weighted Cobble	Boulder (%)	Weighted Boulder	Bedrock (%)	Weighted Bedrock	Pool (%)	Weighted Pool	Boulder (%)	Weighted Boulder	Instream Veg (%)	Weighted Veg.	Overhang Veg (%)	Weighted Overhang Veg.	Undercut Bank (%)	Weighted Bank	LWD (%)
					65.9		0.0		0.0		0.0		56.3		0.0		0.0		0.0		3.5	
Oweegee Creek - Lower	Target Habitat	EF	11	20-Aug-11	13.3	70	31.0		0.0		0.0		0.0		0.0		20		8.9		0.0	
Oweegee Creek - Lower	Target Habitat	EF/MT	11	20-Aug-11	16.7	60	33.4	10	5.6		0.0	80	44.6	5	2.8		80		44.6	10	5.6	50
					30.0		64.4		5.6		0.0		44.6		2.8				53.4		5.6	
Oweegee Creek - Lower	Target Habitat	EF	9	19-Aug-11	51.4	40	34.3		0.0		0.0		0.0		0.0		5		4.3		0.0	5
Oweegee Creek - Lower	Target Habitat	EF/MT	9	19-Aug-11	8.6	30	4.3	10	1.4		0.0	80	11.5	10	1.4		10		1.4	10	1.4	40
					60.0		38.6		1.4		0.0		11.5		1.4				5.7		1.4	
Oweegee Creek - Lower	Poor Habitat	EF	8	19-Aug-11	35.0	60	60.0	5	5.0		0.0		0.0	5	5.0		10		10.0		0.0	5
					35.0		60.0		5.0		0.0		0.0		5.0				10.0		0.0	
Oweegee Creek - Lower	Target Habitat	EF	10	19-Aug-11	9.4	80	37.6		0.0		0.0		0.0		0.0				0.0		0.0	10
Oweegee Creek - Lower	Target Habitat	EF/MT	10	19-Aug-11	10.6	80	42.4		0.0		0.0	40	21.2		0.0		20		10.6	5	2.7	10
					20.0		80.0		0.0		0.0		21.2		0.0				10.6		2.7	
Oweegee Creek - Lower	Target Habitat	EF	4	19-Aug-11	2.9	80	22.9	10	2.9		0.0		0.0		0.0		20		5.7	5	1.4	5
Oweegee Creek - Lower	Target Habitat	EF/MT	4	19-Aug-11	50.0	30	21.4		0.0		0.0	50	35.7	5	3.6		30		21.4	5	3.6	50
					52.9		44.3		2.9		0.0		35.7		3.6				27.1		5.0	
Oweegee Creek - Lower	Poor Habitat	EF	3	19-Aug-11	30.0	70	70.0		0.0		0.0		0.0		0.0				0.0	5	5.0	5
					30.0		70.0		0.0		0.0		0.0		0.0				0.0		5.0	
Oweegee Creek - Lower	Target Habitat	EF	2	19-Aug-11	11.6	70	32.4	5	2.3		0.0		0.0		0.0		20		9.3	5	2.3	10
Oweegee Creek - Lower	Target Habitat	EF/MT	2	19-Aug-11	16.1	70	37.6		0.0		0.0	50	26.8		0.0		10		5.4	5	2.7	20
					27.7		70.0		2.3		0.0		26.8		0.0				14.6		5.0	
Oweegee Creek - Lower	Target Habitat	EF	6	19-Aug-11	10.2	75	38.1	5	2.5		0.0		0.0	5	2.5				0.0		0.0	5
Oweegee Creek - Lower	Target Habitat	EF/MT	6	19-Aug-11	14.8	70	34.5		0.0		0.0	60	29.5		0.0		5		2.5		0.0	20
					24.9		72.5		2.5		0.0		29.5		2.5				2.5		0.0	
Oweegee Creek - Lower	Target Habitat	EF	1	19-Aug-11	16.5	60	24.7		0.0		0.0		0.0	5	2.1				0.0		0.0	1
Oweegee Creek - Lower	Target Habitat	EF/MT	1	19-Aug-11	38.2	30	17.6	5	2.9		0.0	60	35.3	5	2.9		10		5.9	5	2.9	20
					54.7		42.4		2.9		0.0		35.3		5.0				5.9		2.9	
Oweegee Creek - Lower	Poor Habitat	EF	5	19-Aug-11	30.0	70	70.0		0.0		0.0		0.0		0.0		10		10.0		0.0	5
					30.0		70.0		0.0		0.0		0.0		0.0				10.0		0.0	
Oweegee Creek - Lower	Poor Habitat	EF	7	19-Aug-11	20.0	80	80.0		0.0		0.0		0.0		0.0		30		30.0		0.0	10
					20.0		80.0		0.0		0.0		0.0		0.0				30.0		0.0	
Oweegee Creek - Lower	Target Habitat	MT	20	17-Sep-11	70.0	30	30.0		0.0		0.0	100	100.0		0.0		20		20.0		0.0	20
					70.0		30.0		0.0		0.0		100.0		0.0				20.0		0.0	
Oweegee Creek - Lower	Target Habitat	MT	21	17-Sep-11	100.0		0.0		0.0		0.0	90	90.0		0.0		5		5.0		0.0	30
					100.0		0.0		0.0		0.0		90.0		0.0				5.0		0.0	
Oweegee Creek - Upper	Target Habitat	EF	2	14-Sep-11	41.3		0.0		0.0		0.0		0.0		0.0				0.0	10	4.6	5
Oweegee Creek - Upper	Target Habitat	EF/MT	2	14-Sep-11	48.8		0.0		0.0		0.0	40	21.7		0.0				0.0	10	5.4	5
					90.0		0.0		0.0		0.0		21.7		0.0				0.0		10.0	

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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Bed Material						Instream Cover											
					Weighted Gravel	Cobble (%)	Weighted Cobble	Boulder (%)	Weighted Boulder	Bedrock (%)	Weighted Bedrock	Pool (%)	Weighted Pool	Boulder (%)	Weighted Boulder	Instream Veg (%)	Weighted Veg.	Overhang Veg (%)	Weighted Overhang Veg.	Undercut Bank (%)	Weighted Bank	LWD (%)
Oweegee Creek - Upper	Target Habitat	EF	1	14-Sep-11	40.5		0.0		0.0		0.0		0.0		0.0	5	2.0		0.0	5		
Oweegee Creek - Upper	Target Habitat	EF/MT	1	14-Sep-11	41.7		0.0		0.0		0.0		60	35.7	0.0		0.0	5	3.0	0.0	10	
					82.1		0.0		0.0		0.0			35.7	0.0		0.0		5.0	0.0		
Oweegee Creek - Upper	Target Habitat	MT	3	16-Sep-11	100.0		0.0		0.0		0.0		100	100.0	0.0		0.0	30	30.0	10	10.0	5
					100.0		0.0		0.0		0.0			100.0	0.0		0.0		30.0	10.0		
Oweegee Creek - Upper	Target Habitat	MT	4	16-Sep-11	100.0		0.0		0.0		0.0		100	100.0	0.0		0.0	20	20.0	10	10.0	20
					100.0		0.0		0.0		0.0			100.0	0.0		0.0		20.0	10.0		
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	4.6	75	34.2	15	6.8		0.0		10	4.6	10	4.6	0.0	5	2.3	15	6.8	15
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	1.5	80	12.3	10	1.5		0.0		30	4.6	1	0.2	0.0	1	0.2		0.0	20
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	3.9	70	27.4	20	7.8		0.0		15	5.9	20	7.8	0.0	5	2.0	1	0.4	
					10.0		73.8		16.2		0.0			15.0		12.5	0.0		4.4		7.2	
North Treaty Creek	Target Habitat	EF	2	14-Sep-11	9.0	70	63.1	20	18.0		0.0			0.0	15	13.5	0.0	40	36.1	5	4.5	1
North Treaty Creek	Target Habitat	EF	2	14-Sep-11	1.0	60	5.9	30	3.0		0.0		20	2.0	20	2.0	0.0	65	6.4		0.0	
					10.0		69.0		21.0		0.0			2.0		15.5	0.0		42.5		4.5	
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	0.0	70	21.1	30	9.0		0.0			0.0	15	4.5	0.0	80	24.1		0.0	1
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	9.0	30	4.5	10	1.5		0.0		60	9.0	1	0.1	0.0	1	0.1	5	0.7	
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	0.0	30	16.5	70	38.4		0.0			0.0	40	22.0	0.0	10	5.5	1	0.5	1
					9.0		42.0		49.0		0.0			9.0		26.6	0.0		29.7		1.3	
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	3.8	50	12.8	35	8.9		0.0		15	3.8	15	3.8	0.0	30	7.7		0.0	5
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	2.2	50	3.7	20	1.5		0.0		50	3.7	10	0.7	0.0	60	4.5		0.0	
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	2.8	40	11.0	50	13.8		0.0			0.0	20	5.5	0.0	30	8.3		0.0	
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	11.8	50	19.7	20	7.9		0.0		30	11.8	20	7.9	0.0	20	7.9		0.0	20
					20.6		47.2		32.1		0.0			19.4		18.0	0.0		28.3		0.0	

EF = electrofishing
MT = minnow trap
LWD = large woody debris
SWD = small woody debris
Pool Type:
S = scour
Riparian Type:
D = deciduous
M = mixed
C = coniferous
S = shrub
Riparian Structure:
S = shrub
M = mature forest
YF = young forest

Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Instream Cover			Functional LWD				Pool Info		Riparian Cover (%)			
					Weighted LWD	SWD (%)	Weighted SWD	10-20cm	20-50cm	>50cm	Total LWD Tally	Type	Residual	Type	Structure	Canopy	Weighted Canopy
Snowbank Creek	Poor Habitat	EF	5	19-Sep-11	0.0	5	5.0	0	1	0	1			D	M	5	5.0
					0.0		5.0										5.0
Snowbank Creek	Poor Habitat	EF	3	15-Sep-11	0.0		0.0	0	1	0	1			S	S	0	0.0
					0.0		0.0										0.0
Snowbank Creek	Poor Habitat	EF	2	15-Sep-11	0.0	5	5.0	1	0	0	1			D	M	10	10.0
					0.0		5.0										10.0
Snowbank Creek	Poor Habitat	EF	1	15-Sep-11	0.0		0.0	0	0	0	0			D	M	1	1.0
					0.0		0.0										1.0
Snowbank Creek	Poor Habitat	EF	4	17-Aug-11	5.0		0.0	0	11	0	11			S	S	0	0.0
					5.0		0.0										0.0
Teigen Creek	Target Habitat	EF	2	17-Aug-11	4.4		0.0	1	0	0	1			S	S	0	0.0
Teigen Creek	Target Habitat	EF/MT	2	17-Aug-11	1.9		0.0	1	2	0	3	S	1.2	S	S	0	0.0
					6.3		0.0										0.0
Teigen Creek	Target Habitat	EF	3	18-Aug-11	0.8		0.0	0	1	0	1			M	M	5	4.2
Teigen Creek	Target Habitat	EF/MT	3	18-Aug-11	3.2		0.0	0	10	0	10	S	1.3	S	S	10	1.6
					4.0		0.0										5.8
Teigen Creek	Target Habitat	EF	4	17-Aug-11	0.7		0.0	0	2	1	3			S	S	0	0.0
Teigen Creek	Target Habitat	EF/MT	4	17-Aug-11	6.0		0.0	0	5	1	6	S	1.3	S	S	0	0.0
					6.7		0.0										0.0
Teigen Creek	Target Habitat	EF	5	18-Aug-11	3.4		0.0	1	2	0	3			S	S	5	3.4
Teigen Creek	Target Habitat	EF/MT	5	18-Aug-11	6.4		0.0	1	3	0	4	S	0.8	S	S	0	0.0
					9.8		0.0										3.4
East Todedada Creek - Lower	Target Habitat	EF	1	17-Aug-11	0.0	5	1.1	0	0	0	0			S	S	0	0.0
East Todedada Creek - Lower	Target Habitat	EF/MT	1	17-Aug-11	0.0	20	15.6	0	0	0	0	S	0.93	S	S	0	0.0
					0.0		16.7										0.0
East Todedada Creek - Lower	Target Habitat	EF	2	17-Aug-11	2.9	20	11.6	4	0	0	4			S	S	0	0.0
East Todedada Creek - Lower	Target Habitat	EF/MT	2	17-Aug-11	4.2	25	10.6	0	6	0	6	S	0.86	S	S	0	0.0
					7.1		22.1										0.0
East Todedada Creek - Lower	Poor Habitat	EF	3	17-Aug-11	0.0	10	10.0	0	0	0	0			S	S	0	0.0
					0.0		10.0										0.0
East Todedada Creek - Lower	Poor Habitat	EF	4	17-Aug-11	0.0	10	10.0	0	0	0	0			S	S	0	0.0
					0.0		10.0										0.0
East Todedada Creek - Upper	Target Habitat	EF	10	18-Aug-11	0.0	5	3.2	0	0	0	0			S	S	0	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	10	18-Aug-11	0.0	5	1.8	0	0	0	0	S	0.6	S	S	0	0.0
					0.0		5.0										0.0
East Todedada Creek - Upper	Poor Habitat	EF	9	18-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Poor Habitat	EF	8	18-Aug-11	0.0	5	5.0	0	0	0	0			S	S	0	0.0
					0.0		5.0										0.0

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Pool Type:
 S = scour

Riparian Type:
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 M = mixed
 C = coniferous
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Riparian Structure:
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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Instream Cover			Functional LWD				Pool Info		Riparian Cover (%)			
					Weighted LWD	SWD (%)	Weighted SWD	10-20cm	20-50cm	>50cm	Total LWD Tally	Type	Residual	Type	Structure	Canopy	Weighted Canopy
East Todedada Creek - Upper	Poor Habitat	EF	7	18-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Target Habitat	EF	6	18-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	6	18-Aug-11	0.0		0.0	0	0	0	0	S	0.59	S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Target Habitat	EF	5	18-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	5	18-Aug-11	0.0		0.0	0	0	0	0	S	0.85	S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Poor Habitat	EF	4	18-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Target Habitat	EF	2	15-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	2	15-Aug-11	0.0		0.0	0	0	0	0	S	0.75	S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Target Habitat	EF	1	15-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	1	15-Aug-11	0.0		0.0	0	0	0	0	S	0.56	S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Target Habitat	EF	3	15-Aug-11	0.0		0.0	0	0	0	0			S	S	0	0.0
East Todedada Creek - Upper	Target Habitat	EF/MT	3	15-Aug-11	0.0		0.0	0	0	0	0	S	0.7	S	S	0	0.0
					0.0		0.0										0.0
East Todedada Creek - Upper	Target Habitat	MT	20	15-Aug-11	0.0	10	10.0	0	0	0	0	S	1.14	S	S	0	0.0
					0.0		10.0										0.0
East Todedada Creek - Upper	Target Habitat	MT	21	15-Aug-11	0.0	5	5.0	0	0	0	0	S	0.91	S	S	0	0.0
					0.0		5.0										0.0
East Todedada Creek - Upper	Target Habitat	MT	22	15-Aug-11	0.0	20	20.0	0	0	0	0	S	0.6	S	S	0	0.0
					0.0		20.0										0.0
East Todedada Creek - Upper	Target Habitat	MT	23	15-Aug-11	0.0	5	5.0	0	0	0	0	S	0.4	S	S	0	0.0
					0.0		5.0										0.0
Gilbert Creek	Target Habitat	EF	1	17-Aug-11	0.0	5	3.4	0	0	0	0			S	S	0	0.0
Gilbert Creek	Target Habitat	EF	1	17-Aug-11	1.6	5	1.6	4	0	0	4	S	0.6	S	S	0	0.0
					1.6		5.0										0.0
Gilbert Creek	Target Habitat	EF	2	17-Aug-11	0.0	20	10.1	0	0	0	0			D	YF	1	0.5
Gilbert Creek	Target Habitat	EF	2	17-Aug-11	4.9	10	4.9	3	2	1	6	S	0.3	D	YF	1	0.5
					4.9		15.1										1.0
Snowbank Creek - Upper	Target Habitat	EF	1	16-Sep-11	0.0	10	3.0	0	0	0	0			S	S	0	0.0
Snowbank Creek - Upper	Target Habitat	EF/MT	1	16-Sep-11	0.0	10	7.0	0	0	0	0	S	0.3	S	S	0	0.0
					0.0		10.0										0.0
Snowbank Creek - Upper	Target Habitat	EF	2	16-Sep-11	1.5		0.0	0	2	0	2			S	S	0	0.0
Snowbank Creek - Upper	Target Habitat	EF/MT	2	16-Sep-11	14.1	20	14.1	3	1	0	4	S	0.4	S	S	0	0.0

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SWD = small woody debris
Pool Type:
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Riparian Type:
D = deciduous
M = mixed
C = coniferous
S = shrub
Riparian Structure:
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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Instream Cover			Functional LWD				Pool Info		Riparian Cover (%)			
					Weighted LWD	SWD (%)	Weighted SWD	10-20cm	20-50cm	>50cm	Total LWD Tally	Type	Residual	Type	Structure	Canopy	Weighted Canopy
					15.6		14.1										0.0
Oweegee Creek - Lower	Target Habitat	EF	11	20-Aug-11	0.0	5	2.2	0	0	0	0			M	M	10	4.4
Oweegee Creek - Lower	Target Habitat	EF/MT	11	20-Aug-11	27.9	5	2.8	6	10	0	16	S	1	M	M	80	44.6
					27.9		5.0										49.0
Oweegee Creek - Lower	Target Habitat	EF	9	19-Aug-11	4.3	5	4.3	0	1	0	1			M	M	20	17.1
Oweegee Creek - Lower	Target Habitat	EF/MT	9	19-Aug-11	5.7	5	0.7	3	6	0	9	S	0.47	M	M	20	2.9
					10.0		5.0										20.0
Oweegee Creek - Lower	Poor Habitat	EF	8	19-Aug-11	5.0	20	20.0	2	0	0	2			D	YF	10	10.0
					5.0		20.0										10.0
Oweegee Creek - Lower	Target Habitat	EF	10	19-Aug-11	4.7		0.0	0	1	0	1			M	M	20	9.4
Oweegee Creek - Lower	Target Habitat	EF/MT	10	19-Aug-11	5.3	5	2.7	4	0	0	4	S	0.4	M	M	70	37.1
					10.0		2.7										46.5
Oweegee Creek - Lower	Target Habitat	EF	4	19-Aug-11	0.0		0.0	0	0	0	0			D	YF	30	8.6
Oweegee Creek - Lower	Target Habitat	EF/MT	4	19-Aug-11	35.7	10	7.1	5	2	4	11	S	0.6	D	YF	30	21.4
					35.7		7.1										30.0
Oweegee Creek - Lower	Poor Habitat	EF	3	19-Aug-11	5.0		0.0	0	2	0	2			D	YF	60	60.0
					5.0		0.0										60.0
Oweegee Creek - Lower	Target Habitat	EF	2	19-Aug-11	4.6	5	2.3	0	3	0	3			D	YF	5	2.3
Oweegee Creek - Lower	Target Habitat	EF/MT	2	19-Aug-11	10.7	5	2.7	11	0	3	14	S	0.5	D	YF	5	2.7
				19-Aug-11	15.4		5.0										5.0
Oweegee Creek - Lower	Target Habitat	EF	6	19-Aug-11	2.5		0.0	1	0	0	1			D	YF	50	25.4
Oweegee Creek - Lower	Target Habitat	EF/MT	6	19-Aug-11	9.8	10	4.9	7	1	0	8	S	0.43	D	YF	50	24.6
					12.4		4.9										50.0
Oweegee Creek - Lower	Target Habitat	EF	1	19-Aug-11	0.4		0.0	1	0	0	1			D	YF	10	4.1
Oweegee Creek - Lower	Target Habitat	EF/MT	1	19-Aug-11	11.8	5	2.9	8	2	0	10	S	0.56	D	YF	10	5.9
					12.2		2.9										10.0
Oweegee Creek - Lower	Poor Habitat	EF	5	19-Aug-11	5.0	5	5.0	2	0	0	2			D	YF	60	60.0
					5.0		5.0										60.0
Oweegee Creek - Lower	Poor Habitat	EF	7	19-Aug-11	10.0		0.0	0	1	1	2			D	YF	5	5.0
					10.0		0.0										5.0
Oweegee Creek - Lower	Target Habitat	MT	20	17-Sep-11	20.0	5	5.0	4	1	0	5	S	0.7	M	YF	5	5.0
					20.0		5.0										5.0
Oweegee Creek - Lower	Target Habitat	MT	21	17-Sep-11	30.0	20	20.0	7	5	0	12	S	0.8	C	M	20	20.0
					30.0		20.0										20.0
Oweegee Creek - Upper	Target Habitat	EF	2	14-Sep-11	2.3	10	4.6	2	0	0	2			D	YF	5	2.3
Oweegee Creek - Upper	Target Habitat	EF/MT	2	14-Sep-11	2.7	5	2.7	0	0	1	1	S	0.9	D	YF	5	2.7
					5.0		7.3										5.0

EF = electrofishing
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 SWD = small woody debris

Pool Type:
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Riparian Type:
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 C = coniferous
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Riparian Structure:
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Appendix 7.3-2. Treatment and Reference Stream Site Fish Habitat Data, 2011

Stream	Type	Sample Method	Site	Date	Instream Cover			Functional LWD				Pool Info		Riparian Cover (%)			
					Weighted LWD	SWD (%)	Weighted SWD	10-20cm	20-50cm	>50cm	Total LWD Tally	Type	Residual	Type	Structure	Canopy	Weighted Canopy
Oweegee Creek - Upper	Target Habitat	EF	1	14-Sep-11	2.0	5	2.0	1	0	0	1			S	S	10	4.0
Oweegee Creek - Upper	Target Habitat	EF/MT	1	14-Sep-11	6.0	10	6.0	2	0	0	2	S	0.7	S	S	0	0.0
					8.0		8.0										4.0
Oweegee Creek - Upper	Target Habitat	MT	3	16-Sep-11	5.0	10	10.0	2	0	0	2	S	0.7	S	S	0	0.0
					5.0		10.0										0.0
Oweegee Creek - Upper	Target Habitat	MT	4	16-Sep-11	20.0	20	20.0	4	2	0	6	S	0.5	S	S	0	0.0
					20.0		20.0										0.0
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	6.8	10	4.6	0	2	0	2			C	M	40	18.2
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	3.1	5	0.8	0	1	0	1	S	0.4	C	M	10	1.5
North Treaty Creek	Target Habitat	EF	1	14-Sep-11	0.0		0.0	0	0	0	0			C	M	20	7.8
					9.9		5.3										27.6
North Treaty Creek	Target Habitat	EF	2	14-Sep-11	0.9		0.0	0	1	0	1			C	M	60	54.1
North Treaty Creek	Target Habitat	EF	2	14-Sep-11	0.0	20	2.0	0	0	0	0	S	0.3	C	M	60	5.9
					0.9		2.0										60.0
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	0.3	30	9.0	0	0	0	0			C	M	80	24.1
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	0.0		0.0	0	1	0	1	S	0.6	C	M	20	3.0
North Treaty Creek	Target Habitat	EF	3	14-Sep-11	0.5		0.0	1	1	0	2			C	M	35	19.2
					0.9		9.0										46.3
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	1.3	15	3.8	1	0	0	1			C	M	50	12.8
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	0.0	1	0.1	0	0	0	0	S	0.2	C	M	60	4.5
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	0.0	15	4.1	0	0	0	0			C	M	60	16.6
North Treaty Creek	Target Habitat	EF	4	15-Sep-11	7.9	15	5.9	1	0	0	1	S	0.4	C	M	30	11.8
					9.2		14.0										45.6

EF = electrofishing
MT = minnow trap
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SWD = small woody debris

Pool Type:
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Riparian Type:
D = deciduous
M = mixed
C = coniferous
S = shrub

Riparian Structure:
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Appendix 7.3-3

Electrofishing Site Effort and Species Catch Data, 2011

Appendix 7.3-3. Electrofishing Site Effort and Species Catch Data, 2011

Reference No.	Gazetted Name	Local Name	Site No.	Sampling Method	Method No.	Temperature (°C)	Conductivity (µS/cm)	Turbidity	Haul or Pass	Effort (s)	Length (m)	Width (m)	Enclosure	Voltage (V)	Frequency (Hz)	Pulse (%)	Make	Model
39	Bell-Irving River	Glacier Creek - Lower	1	EF	1	5.0	61	T	1	572	-	-	O	635	30	12	Smith-root	LR24
40	Bell-Irving River	Glacier Creek - Lower	2	EF	1	5.0	61	T	1	519	-	-	O	635	30	12	Smith-root	LR24
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	12.0	112	C	1	483	-	-	O	450	30	12	Smith-root	LR24
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	12.0	112	C	1	398	-	-	O	450	30	12	Smith-root	LR24
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	12.0	112	C	1	595	-	-	O	450	30	12	Smith-root	LR24
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	12.0	112	C	1	542	-	-	O	450	30	12	Smith-root	LR24
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	12.0	112	C	1	397	-	-	O	475	30	12	Smith-root	LR24
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	12.0	112	C	1	419	-	-	O	375	30	12	Smith-root	LR24
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	12.0	112	C	1	623	-	-	O	375	30	12	Smith-root	LR24
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	12.0	112	C	1	741	-	-	O	375	30	12	Smith-root	LR24
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	12.0	112	C	1	328	-	-	O	375	30	12	Smith-root	LR24
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	12.0	112	C	1	534	-	-	O	450	30	12	Smith-root	LR24
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	12.0	112	C	1	741	-	-	O	450	30	12	Smith-root	LR24
62	Oweegee Creek	Oweegee Creek - Upper	1B	EF	1	12.0	112	C	1	593	-	-	O	425	30	12	Smith-root	LR24
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	9.0	99	C	1	440	-	-	O	425	30	12	Smith-root	LR24
32	Snowbank Creek	Snowbank Creek	1	EF	1	7.2	158	T	1	660	35	10	O	350	30	12	Smith-root	LR24
33	Snowbank Creek	Snowbank Creek	2	EF	1	7.1	154	T	1	774	58	5	O	300	30	12	Smith-root	LR24
34	Snowbank Creek	Snowbank Creek	3	EF	1	8.1	159	T	1	595	46	6	O	300	30	12	Smith-root	LR24
35	Snowbank Creek	Snowbank Creek	4	EF	1	6.1	122	T	1	335	80	15	O	400	30	12	Smith-root	LR24
36	Snowbank Creek	Snowbank Creek	5	EF	1	5.9	168	T	1	525	55	-	O	350	30	12	Smith-root	LR24
13	Snowbank Creek	Snowbank Creek - Trib	1	EF	1	7.0	158	L	1	409	-	-	O	355	30	12	Smith-root	LR24
14	Snowbank Creek	Snowbank Creek - Trib	2	EF	1	7.0	158	L	1	309	-	-	O	355	30	12	Smith-root	LR24
31	Teigen Creek	Teigen Creek	2	EF	1	7.5	119	L	1	1024	75	17	O	400	30	12	Smith-root	LR24
28	Teigen Creek	Teigen Creek	3	EF	1	8.3	90	L	1	640	30	35	O	400	30	12	Smith-root	LR24
29	Teigen Creek	Teigen Creek	4	EF	1	7.0	119	L	1	641	35	15	O	400	30	12	Smith-root	LR24
30	Teigen Creek	Teigen Creek	5	EF	1	9.0	91	L	1	820	45	9	O	500	30	12	Smith-root	LR24
24	Teigen Creek	Teigen Creek	2B	EF	2	7.5	120	L	2	1134	-	-	O	400	30	12	Smith-root	LR24
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	7.0	179	C	1	684	-	-	O	375	30	12	Smith-root	LR24
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	7.0	173	C	1	632	-	-	O	375	30	12	Smith-root	LR24
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	7.0	173	C	1	612	-	-	O	350	30	12	Smith-root	LR24
67	Todedada Creek	East Todedada Creek - Lower	4B	EF	1	7.0	173	C	1	657	-	-	O	350	30	12	Smith-root	LR24
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	8.0	169	C	1	683	-	-	O	350	30	12	Smith-root	LR24
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	8.0	191	C	1	769	-	-	O	375	30	12	Smith-root	LR24
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	8.0	191	M	2	800	-	-	C	365	30	12	Smith-root	LR24
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	8.0	191	C	1	922	-	-	O	375	30	12	Smith-root	LR24
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	8.0	191	M	2	750	-	-	C	365	30	12	Smith-root	LR24
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	8.0	191	C	1	521	-	-	O	375	30	12	Smith-root	LR24
22	Todedada Creek	East Todedada Creek - Upper	3C	EF	2	8.0	191	M	2	550	-	-	C	365	30	12	Smith-root	LR24
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	8.0	169	C	1	546	-	-	O	350	30	12	Smith-root	LR24
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	8.0	169	C	1	991	-	-	O	350	30	12	Smith-root	LR24
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	8.0	169	C	1	771	-	-	O	350	30	12	Smith-root	LR24
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	8.0	169	C	1	543	-	-	O	350	30	12	Smith-root	LR24
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	8.0	169	C	1	809	-	-	O	350	30	12	Smith-root	LR24
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	8.0	169	C	1	429	-	-	O	350	30	12	Smith-root	LR24
37	Todedada Creek	Gilbert Creek	1	EF	1	8.0	121	M	1	696	-	-	O	370	30	12	Smith-root	LR24
38	Todedada Creek	Gilbert Creek	2	EF	1	8.0	121	M	1	611	-	-	O	370	30	12	Smith-root	LR24

Turbidity:
 C = clear
 L = low turbidity
 M = moderate turbidity
 H = high turbidity
 Dashes indicate not available in dataset
 n = sample size

Enclosure:
 O = open
 C = closed
 PE = partially enclosed

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Appendix 7.3-3. Electrofishing Site Effort and Species Catch Data, 2011

Reference No.	Gazetted Name	Local Name	Site No.	Total Catch (n)							Fry Catch (n)						Parr Catch (n)						Adult Catch (n)								
				DV	RB	CH	CO	MWF	LSU	BT	DV	RB	CH	CO	MWF	LSU	BT	DV	RB	CH	CO	MWF	LSU	BT	DV	RB	CH	CO	MWF	LSU	BT
39	Bell-Irving River	Glacier Creek - Lower	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
40	Bell-Irving River	Glacier Creek - Lower	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	Oweegee Creek	Oweegee Creek - Lower	10B	0	12	2	2	0	0	0	0	12	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
61	Oweegee Creek	Oweegee Creek - Lower	11B	0	8	0	2	0	0	0	0	8	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	Oweegee Creek	Oweegee Creek - Lower	1B	0	41	0	9	0	1	0	0	37	0	8	0	0	0	0	3	0	1	0	1	0	0	1	0	0	0	0	0
52	Oweegee Creek	Oweegee Creek - Lower	2B	0	14	0	10	0	0	0	0	11	0	9	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0
53	Oweegee Creek	Oweegee Creek - Lower	3B	0	9	0	2	0	0	0	0	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Oweegee Creek	Oweegee Creek - Lower	4B	0	6	0	4	0	1	0	0	4	0	2	0	0	0	0	0	0	2	0	1	0	0	2	0	0	0	0	0
55	Oweegee Creek	Oweegee Creek - Lower	5B	0	22	0	2	0	0	0	0	18	0	1	0	0	0	0	1	0	1	0	0	0	0	3	0	0	0	0	0
56	Oweegee Creek	Oweegee Creek - Lower	6B	0	29	0	11	0	0	0	0	25	0	6	0	0	0	0	3	0	5	0	0	0	0	1	0	0	0	0	0
57	Oweegee Creek	Oweegee Creek - Lower	7B	0	12	0	0	0	0	0	0	8	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
58	Oweegee Creek	Oweegee Creek - Lower	8B	0	21	0	7	0	1	0	0	20	0	7	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
59	Oweegee Creek	Oweegee Creek - Lower	9B	0	26	2	5	1	0	0	0	23	2	3	1	0	0	0	2	0	2	0	0	0	0	1	0	0	0	0	0
62	Oweegee Creek	Oweegee Creek - Upper	1B	2	1	0	2	0	0	0	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	Oweegee Creek	Oweegee Creek - Upper	2B	1	11	0	2	0	0	0	1	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Snowbank Creek	Snowbank Creek	1	4	0	1	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
33	Snowbank Creek	Snowbank Creek	2	5	2	0	2	0	0	0	2	0	0	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0
34	Snowbank Creek	Snowbank Creek	3	0	3	1	1	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0
35	Snowbank Creek	Snowbank Creek	4	0	1	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
36	Snowbank Creek	Snowbank Creek	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
13	Snowbank Creek	Snowbank Creek - Trib	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Snowbank Creek	Snowbank Creek - Trib	2	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
31	Teigen Creek	Teigen Creek	2	0	8	25	0	0	0	0	0	2	25	0	0	0	0	0	4	0	0	0	0	0	0	2	0	0	0	0	0
28	Teigen Creek	Teigen Creek	3	0	8	4	5	0	0	0	0	0	4	5	0	0	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0
29	Teigen Creek	Teigen Creek	4	0	2	26	4	0	0	1	0	0	26	4	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0
30	Teigen Creek	Teigen Creek	5	0	5	9	2	0	0	0	0	2	9	2	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0
24	Teigen Creek	Teigen Creek	2B	1	9	15	4	0	0	5	0	0	15	4	0	0	0	0	5	0	0	0	0	0	1	4	0	0	0	0	4
64	Todedada Creek	East Todedada Creek - Lower	1B	15	0	0	29	0	0	0	5	0	0	29	0	0	0	8	0	0	0	0	0	0	2	0	0	0	0	0	0
65	Todedada Creek	East Todedada Creek - Lower	2B	11	0	0	22	0	0	0	3	0	0	22	0	0	0	7	0	0	0	0	0	0	1	0	0	0	0	0	0
66	Todedada Creek	East Todedada Creek - Lower	3B	4	0	0	10	0	0	0	0	0	0	9	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0
67	Todedada Creek	East Todedada Creek - Lower	4B	2	0	0	2	0	0	0	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Todedada Creek	East Todedada Creek - Upper	10B	9	0	0	2	0	0	0	7	0	0	1	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
68	Todedada Creek	East Todedada Creek - Upper	1B	9	0	0	15	0	0	0	1	0	0	15	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Todedada Creek	East Todedada Creek - Upper	1C	1	0	0	7	0	0	0	0	0	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
69	Todedada Creek	East Todedada Creek - Upper	2B	20	0	0	4	0	0	0	14	0	0	4	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0
21	Todedada Creek	East Todedada Creek - Upper	2C	8	0	0	4	0	0	0	8	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	Todedada Creek	East Todedada Creek - Upper	3B	18	0	0	2	0	0	0	16	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Todedada Creek	East Todedada Creek - Upper	3C	1	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	Todedada Creek	East Todedada Creek - Upper	4B	15	0	0	4	0	0	0	1	0	0	4	0	0	0	10	0	0	0	0	0	0	4	0	0	0	0	0	0
72	Todedada Creek	East Todedada Creek - Upper	5B	6	0	0	12	0	0	0	3	0	0	12	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
73	Todedada Creek	East Todedada Creek - Upper	6B	9	0	0	10	0	0	0	4	0	0	10	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0
74	Todedada Creek	East Todedada Creek - Upper	7B	3	0	0	9	0	0	0	1	0	0	9	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
1	Todedada Creek	East Todedada Creek - Upper	8B	13	0	0	5	0	0	0	11	0	0	5	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
2	Todedada Creek	East Todedada Creek - Upper	9B	2	0	0	4	0	0	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Todedada Creek	Gilbert Creek	1	5	6	0	18	0	0	0	3	0	0	18	0	0	0	2	6	0	0	0	0	0	0	0	0	0	0	0	0
38	Todedada Creek	Gilbert Creek	2	2	3	0	30	2	0	0	0	0	0	29	0	0	0	0	1	0	1	0	0	0	2	2	0	0	2	0	0

Turbidity:
 C = clear
 L = low turbidity
 M = moderate turbidity
 H = high turbidity
 Dashes indicate not available in dataset
 n = sample size

Enclosure:
 O = open
 C = closed
 PE = partially enclosed

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Appendix 7.3-4

Minnow Trap Site Effort and Species Catch Data, 2011

Appendix 7.3-4. Minnow Trap Site Effort and Species Catch Data, 2011

Local Name	Site No.	Trap No.	Date Set	Time Set	Time Set Conversion (h)	Date Pulled	Time Pulled	Time Pulled Conversion (h)	Set Duration Conversion (h)	Total Catch (n)					Fry Catch (n)				Parr Catch (n)				Adult Catch (n)			
										DV	RB	CO	CH	ALL	DV	RB	CO	CH	DV	RB	CO	CH	DV	RB	CO	CH
East Todedada Creek - Upper	1	1	15-Sep-11	8:20	8.33	16-Sep-11	8:48	8.80	24.47	8	0	3	0	11	0	0	0	0	0	0	3	0	8	0	0	0
East Todedada Creek - Upper	1	2	15-Sep-11	8:20	8.33	16-Sep-11	8:48	8.80	24.47	1	0	2	0	3	0	0	1	0	0	0	1	0	1	0	0	0
East Todedada Creek - Upper	5	1	15-Sep-11	8:30	8.50	16-Sep-11	9:19	9.32	24.82	0	0	7	0	7	0	0	5	0	0	0	2	0	0	0	0	0
East Todedada Creek - Upper	5	2	15-Sep-11	8:30	8.50	16-Sep-11	9:19	9.32	24.82	6	0	10	0	16	0	0	1	0	2	0	9	0	4	0	0	0
East Todedada Creek - Upper	20	1	15-Sep-11	8:45	8.75	16-Sep-11	9:25	9.42	24.67	5	0	0	0	5	0	0	0	0	3	0	0	0	2	0	0	0
East Todedada Creek - Upper	20	2	15-Sep-11	8:45	8.75	16-Sep-11	9:25	9.42	24.67	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
East Todedada Creek - Upper	6	1	15-Sep-11	9:12	9.20	16-Sep-11	10:05	10.08	24.88	1	0	5	0	6	0	0	5	0	0	0	0	0	1	0	0	0
East Todedada Creek - Upper	6	2	15-Sep-11	9:12	9.20	16-Sep-11	10:05	10.08	24.88	9	0	0	0	9	0	0	0	0	1	0	0	0	8	0	0	0
East Todedada Creek - Upper	2	1	15-Sep-11	9:30	9.50	16-Sep-11	10:15	10.25	24.75	10	0	6	0	16	0	0	1	0	0	0	5	0	10	0	0	0
East Todedada Creek - Upper	2	2	15-Sep-11	9:30	9.50	16-Sep-11	10:15	10.25	24.75	2	0	4	0	6	0	0	3	0	1	0	1	0	1	0	0	0
East Todedada Creek - Upper	21	1	15-Sep-11	9:47	9.78	16-Sep-11	11:15	11.25	25.47	4	0	11	0	15	0	0	2	0	1	0	9	0	3	0	0	0
East Todedada Creek - Upper	21	2	15-Sep-11	9:47	9.78	16-Sep-11	11:15	11.25	25.47	12	0	5	0	17	0	0	0	0	1	0	5	0	11	0	0	0
East Todedada Creek - Upper	3	1	15-Sep-11	10:09	10.15	16-Sep-11	11:28	11.47	25.32	9	0	2	0	11	0	0	0	0	0	0	2	0	9	0	0	0
East Todedada Creek - Upper	3	2	15-Sep-11	10:09	10.15	16-Sep-11	11:28	11.47	25.32	0	0	8	0	8	0	0	6	0	0	0	2	0	0	0	0	0
East Todedada Creek - Upper	22	1	15-Sep-11	10:30	10.50	16-Sep-11	12:25	12.42	25.92	0	0	2	0	2	0	0	1	0	0	0	1	0	0	0	0	0
East Todedada Creek - Upper	22	2	15-Sep-11	10:30	10.50	16-Sep-11	12:25	12.42	25.92	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
East Todedada Creek - Upper	10	1	15-Sep-11	10:45	10.75	16-Sep-11	12:30	12.50	25.75	13	0	6	0	19	0	0	0	0	0	0	6	0	13	0	0	0
East Todedada Creek - Upper	10	2	15-Sep-11	10:45	10.75	16-Sep-11	12:30	12.50	25.75	4	0	2	0	6	0	0	1	0	0	0	1	0	4	0	0	0
East Todedada Creek - Upper	23	1	15-Sep-11	11:10	11.17	16-Sep-11	12:40	12.67	25.50	15	0	6	0	21	0	0	2	0	3	0	4	0	12	0	0	0
East Todedada Creek - Upper	23	2	15-Sep-11	11:10	11.17	16-Sep-11	12:40	12.67	25.50	14	0	7	0	21	0	0	1	0	2	0	6	0	12	0	0	0
East Todedada Creek - Lower	2	1	15-Sep-11	12:30	12.50	16-Sep-11	14:25	14.42	25.92	0	0	4	0	4	0	0	2	0	0	0	2	0	0	0	0	0
East Todedada Creek - Lower	2	2	15-Sep-11	12:30	12.50	16-Sep-11	14:25	14.42	25.92	1	0	10	0	11	0	0	6	0	0	0	4	0	1	0	0	0
East Todedada Creek - Lower	1	1	15-Sep-11	12:35	12.58	16-Sep-11	14:20	14.33	25.75	0	0	28	0	28	0	0	22	0	0	0	6	0	0	0	0	0
East Todedada Creek - Lower	1	2	15-Sep-11	12:35	12.58	16-Sep-11	14:20	14.33	25.75	0	0	14	0	14	0	0	14	0	0	0	0	0	0	0	0	0
Snowbank Creek - Trib	1	1	17-Sep-11	15:30	15.50	18-Sep-11	15:30	15.50	24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowbank Creek - Trib	1	2	17-Sep-11	15:30	15.50	18-Sep-11	15:30	15.50	24.00	1	0	2	0	3	0	0	0	0	1	0	2	0	0	0	0	0
Snowbank Creek - Trib	2	1	17-Sep-11	15:30	15.50	18-Sep-11	15:30	15.50	24.00	2	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0	0
Snowbank Creek - Trib	2	2	17-Sep-11	15:30	15.50	18-Sep-11	15:30	15.50	24.00	3	0	0	0	3	0	0	0	0	2	0	0	0	1	0	0	0
Snowbank Creek - Trib	3	1	17-Sep-11	15:40	15.67	18-Sep-11	15:50	15.83	24.17	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0
Snowbank Creek - Trib	3	2	17-Sep-11	15:40	15.67	18-Sep-11	15:50	15.83	24.17	2	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0
Snowbank Creek - Trib	4	1	17-Sep-11	15:40	15.67	18-Sep-11	15:50	15.83	24.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowbank Creek - Trib	4	2	17-Sep-11	15:40	15.67	18-Sep-11	15:50	15.83	24.17	0	0	2	0	2	0	0	1	0	0	0	1	0	0	0	0	0
Oweegee Creek - Lower	6	1	16-Sep-11	9:00	9.00	17-Sep-11	10:15	10.25	25.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	6	2	16-Sep-11	9:00	9.00	17-Sep-11	10:15	10.25	25.25	0	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	1	1	16-Sep-11	9:30	9.50	17-Sep-11	10:45	10.75	25.25	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	1	2	16-Sep-11	9:30	9.50	17-Sep-11	10:45	10.75	25.25	0	1	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0
Oweegee Creek - Lower	2	1	16-Sep-11	9:45	9.75	17-Sep-11	10:50	10.83	25.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	2	2	16-Sep-11	9:45	9.75	17-Sep-11	10:50	10.83	25.08	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	20	1	16-Sep-11	10:05	10.08	17-Sep-11	10:50	10.83	24.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	20	2	16-Sep-11	10:05	10.08	17-Sep-11	10:50	10.83	24.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Species:

DV = dolly varden

RB = rainbow trout

CH = chinook salmon

CO = coho salmon

Appendix 7.3-4. Minnow Trap Site Effort and Species Catch Data, 2011

Local Name	Site No.	Trap No.	Date Set	Time Set	Time Set Conversion (h)	Date Pulled	Time Pulled	Time Pulled Conversion (h)	Set Duration Conversion (h)	Total Catch (n)					Fry Catch (n)				Parr Catch (n)				Adult Catch (n)						
										DV	RB	CO	CH	ALL	DV	RB	CO	CH	DV	RB	CO	CH	DV	RB	CO	CH			
Oweegee Creek - Lower	21	1	16-Sep-11	10:30	10.50	17-Sep-11	11:15	11.25	24.75	0	1	1	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	21	2	16-Sep-11	10:30	10.50	17-Sep-11	11:15	11.25	24.75	0	0	9	0	9	0	0	5	0	0	0	4	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	11	1	16-Sep-11	10:50	10.83	17-Sep-11	11:45	11.75	24.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	11	2	16-Sep-11	10:50	10.83	17-Sep-11	11:45	11.75	24.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	10	1	16-Sep-11	10:50	10.83	17-Sep-11	11:55	11.92	25.08	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Lower	10	2	16-Sep-11	10:50	10.83	17-Sep-11	11:55	11.92	25.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Upper	1	1	17-Sep-11	12:30	12.50	18-Sep-11	13:20	13.33	24.83	0	0	9	0	9	0	0	7	0	0	0	2	0	0	0	0	0	0	0	0
Oweegee Creek - Upper	1	2	17-Sep-11	12:30	12.50	18-Sep-11	13:20	13.33	24.83	1	0	23	0	24	0	0	16	0	0	0	7	0	1	0	0	0	0	0	0
Oweegee Creek - Upper	2	1	17-Sep-11	12:40	12.67	18-Sep-11	14:10	14.17	25.50	1	0	2	0	3	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0
Oweegee Creek - Upper	2	2	17-Sep-11	12:40	12.67	18-Sep-11	14:10	14.17	25.50	0	2	22	0	24	0	0	13	0	0	2	9	0	0	0	0	0	0	0	0
Oweegee Creek - Upper	3	1	17-Sep-11	12:49	12.82	18-Sep-11	14:10	14.17	25.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Upper	3	2	17-Sep-11	12:49	12.82	18-Sep-11	14:10	14.17	25.35	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Upper	4	1	17-Sep-11	13:00	13.00	18-Sep-11	13:15	13.25	24.25	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Oweegee Creek - Upper	4	2	17-Sep-11	13:00	13.00	18-Sep-11	13:15	13.25	24.25	0	0	34	0	34	0	0	31	0	0	0	3	0	0	0	0	0	0	0	0
Teigen Creek	5	1	18-Aug-11	13:30	13.50	19-Aug-11	16:30	16.50	27.00	0	0	1	7	8	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	5	2	18-Aug-11	13:30	13.50	19-Aug-11	16:30	16.50	27.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	5	3	18-Aug-11	13:30	13.50	19-Aug-11	16:30	16.50	27.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	5	4	18-Aug-11	13:30	13.50	19-Aug-11	16:30	16.50	27.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	5	5	18-Aug-11	13:30	13.50	19-Aug-11	16:30	16.50	27.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	4	1	17-Aug-11	14:00	14.00	18-Aug-11	7:20	7.33	17.33	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	4	2	17-Aug-11	14:00	14.00	18-Aug-11	7:20	7.33	17.33	0	0	0	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	4	3	17-Aug-11	14:00	14.00	18-Aug-11	7:20	7.33	17.33	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	4	4	17-Aug-11	14:00	14.00	18-Aug-11	7:20	7.33	17.33	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	4	5	17-Aug-11	14:00	14.00	18-Aug-11	7:20	7.33	17.33	0	0	0	3	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	3	1	18-Aug-11	11:10	11.17	19-Aug-11	16:30	16.50	29.33	0	0	1	12	13	0	0	0	12	0	0	1	0	0	0	0	0	0	0	0
Teigen Creek	3	2	18-Aug-11	11:10	11.17	19-Aug-11	16:30	16.50	29.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	3	3	18-Aug-11	11:10	11.17	19-Aug-11	16:30	16.50	29.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	3	4	18-Aug-11	11:10	11.17	19-Aug-11	16:30	16.50	29.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	3	5	18-Aug-11	11:10	11.17	19-Aug-11	16:30	16.50	29.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	2	1	16-Aug-11	15:30	15.50	17-Aug-11	7:20	7.33	15.83	0	0	0	7	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	2	2	16-Aug-11	15:30	15.50	17-Aug-11	7:20	7.33	15.83	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	2	3	16-Aug-11	15:30	15.50	17-Aug-11	7:20	7.33	15.83	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	2	4	16-Aug-11	15:30	15.50	17-Aug-11	7:20	7.33	15.83	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	2	5	16-Aug-11	15:30	15.50	17-Aug-11	7:20	7.33	15.83	0	0	1	2	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0

Species:

DV = dolly varden

RB = rainbow trout

CH = chinook salmon

CO = coho salmon

Appendix 7.3-5

Stream Species Electrofishing CPUE Standard and
Bootstrap Summary Statistics, 2011

Appendix 7.3-5A. Streams: Coho Salmon Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)						Bootstrap CPUE (fish/100 s)			
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	Target	Fry	2	3.67	1.53	1.08	2.64	4.69	3.66	0.76	2.59	4.75
Reference	Gilbert Creek	Target	Parr	2	0.08	0.12	0.08	0.00	0.16	0.08	0.06	0.00	0.16
Reference	Gilbert Creek	Target	Total	2	3.75	1.64	1.16	2.64	4.85	3.75	0.82	2.59	4.91
Reference	Oweegee Creek - Upper	Target	Fry	2	0.40	0.08	0.06	0.34	0.45	0.40	0.04	0.34	0.45
Reference	Oweegee Creek - Upper	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Oweegee Creek - Upper	Target	Total	2	0.40	0.08	0.06	0.34	0.45	0.40	0.04	0.34	0.45
Reference	Snowbank Creek - Trib	Target	Fry	2	0.28	0.06	0.04	0.25	0.32	0.28	0.03	0.24	0.32
Reference	Snowbank Creek - Trib	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Snowbank Creek - Trib	Target	Total	2	0.28	0.06	0.04	0.25	0.32	0.28	0.03	0.24	0.32
Reference	Teigen Creek	Target	Fry	4	0.41	0.36	0.18	0.02	0.77	0.41	0.15	0.12	0.70
Reference	Teigen Creek	Target	Parr	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Teigen Creek	Target	Total	4	0.41	0.36	0.18	0.02	0.77	0.41	0.15	0.12	0.70
Treatment	East Todedada Creek - Lower	Poor	Fry	2	0.89	0.82	0.58	0.33	1.44	0.90	0.41	0.30	1.47
Treatment	East Todedada Creek - Lower	Poor	Parr	2	0.08	0.12	0.08	0.00	0.16	0.08	0.06	0.00	0.16
Treatment	East Todedada Creek - Lower	Poor	Total	2	0.97	0.94	0.66	0.34	1.60	0.97	0.47	0.30	1.63
Treatment	East Todedada Creek - Lower	Target	Fry	2	3.86	0.54	0.38	3.50	4.22	3.86	0.27	3.48	4.24
Treatment	East Todedada Creek - Lower	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Treatment	East Todedada Creek - Lower	Target	Total	2	3.86	0.54	0.38	3.50	4.22	3.86	0.27	3.48	4.24
Treatment	East Todedada Creek - Upper	Poor	Fry	3	0.76	0.16	0.09	0.62	0.92	0.76	0.07	0.62	0.93
Treatment	East Todedada Creek - Upper	Poor	Parr	3	0.00	-	-	-	-	0.00	-	-	-
Treatment	East Todedada Creek - Upper	Poor	Total	3	0.76	0.16	0.09	0.62	0.92	0.76	0.07	0.62	0.93
Treatment	East Todedada Creek - Upper	Target	Fry	6	0.90	0.69	0.28	0.18	1.87	0.91	0.26	0.43	1.43
Treatment	East Todedada Creek - Upper	Target	Parr	6	0.02	0.06	0.02	0.00	0.13	0.02	0.02	0.00	0.07
Treatment	East Todedada Creek - Upper	Target	Total	6	0.93	0.66	0.27	0.30	1.87	0.93	0.25	0.50	1.46
Treatment	Oweegee Creek - Lower	Poor	Fry	3	0.66	0.59	0.34	0.18	1.27	0.66	0.28	0.16	1.31
Treatment	Oweegee Creek - Lower	Poor	Parr	3	0.05	0.09	0.05	0.00	0.15	0.05	0.04	0.00	0.16
Treatment	Oweegee Creek - Lower	Poor	Total	3	0.71	0.53	0.30	0.33	1.27	0.71	0.25	0.32	1.31
Treatment	Oweegee Creek - Lower	Target	Fry	8	0.68	0.57	0.20	0.04	1.61	0.68	0.19	0.33	1.07
Treatment	Oweegee Creek - Lower	Target	Parr	8	0.25	0.23	0.08	0.00	0.64	0.25	0.08	0.11	0.41
Treatment	Oweegee Creek - Lower	Target	Total	8	0.92	0.64	0.23	0.07	1.79	0.92	0.21	0.51	1.35
Treatment	Snowbank Creek	Poor	Fry	5	0.14	0.14	0.06	0.00	0.29	0.14	0.06	0.03	0.26
Treatment	Snowbank Creek	Poor	Parr	5	0.00	-	-	-	-	0.00	-	-	-
Treatment	Snowbank Creek	Poor	Total	5	0.14	0.14	0.06	0.00	0.29	0.14	0.06	0.03	0.26

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-5B. Streams: Dolly Varden Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)					Bootstrap CPUE (fish/100 s)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	Target	Adult	2	0.16	0.23	0.16	0.01	0.32	0.16	0.12	0.00	0.33
Reference	Gilbert Creek	Target	Fry	2	0.22	0.30	0.22	0.01	0.42	0.21	0.15	0.00	0.43
Reference	Gilbert Creek	Target	Parr	2	0.14	0.20	0.14	0.01	0.28	0.14	0.10	0.00	0.29
Reference	Gilbert Creek	Target	Total	2	0.52	0.28	0.20	0.34	0.71	0.52	0.14	0.33	0.72
Reference	Oweegee Creek - Upper	Target	Adult	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Oweegee Creek - Upper	Target	Fry	2	0.28	0.08	0.05	0.23	0.33	0.28	0.04	0.23	0.34
Reference	Oweegee Creek - Upper	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Oweegee Creek - Upper	Target	Total	2	0.28	0.08	0.05	0.23	0.33	0.28	0.04	0.23	0.34
Reference	Snowbank Creek - Trib	Target	Adult	2	0.16	0.23	0.16	0.01	0.32	0.16	0.11	0.00	0.32
Reference	Snowbank Creek - Trib	Target	Fry	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Snowbank Creek - Trib	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Snowbank Creek - Trib	Target	Total	2	0.16	0.23	0.16	0.01	0.32	0.16	0.11	0.00	0.32
Treatment	East Todedada Creek - Lower	Poor	Adult	2	0.08	0.12	0.08	0.00	0.16	0.08	0.06	0.00	0.16
Treatment	East Todedada Creek - Lower	Poor	Fry	2	0.08	0.11	0.08	0.00	0.15	0.08	0.05	0.00	0.15
Treatment	East Todedada Creek - Lower	Poor	Parr	2	0.32	0.24	0.17	0.16	0.48	0.32	0.12	0.15	0.49
Treatment	East Todedada Creek - Lower	Poor	Total	2	0.48	0.25	0.17	0.31	0.64	0.48	0.12	0.30	0.65
Treatment	East Todedada Creek - Lower	Target	Adult	2	0.23	0.09	0.07	0.16	0.29	0.23	0.05	0.16	0.29
Treatment	East Todedada Creek - Lower	Target	Fry	2	0.60	0.18	0.13	0.48	0.72	0.60	0.09	0.47	0.73
Treatment	East Todedada Creek - Lower	Target	Parr	2	1.14	0.04	0.03	1.11	1.17	1.14	0.02	1.11	1.17
Treatment	East Todedada Creek - Lower	Target	Total	2	1.97	0.32	0.23	1.75	2.18	1.97	0.16	1.74	2.19
Treatment	East Todedada Creek - Upper	Poor	Adult	3	0.10	0.09	0.05	0.01	0.18	0.10	0.04	0.00	0.18
Treatment	East Todedada Creek - Upper	Poor	Fry	3	0.67	0.61	0.35	0.20	1.32	0.67	0.29	0.18	1.36
Treatment	East Todedada Creek - Upper	Poor	Parr	3	0.10	0.09	0.05	0.01	0.18	0.10	0.04	0.00	0.18
Treatment	East Todedada Creek - Upper	Poor	Total	3	0.88	0.64	0.37	0.47	1.55	0.88	0.30	0.47	1.61
Treatment	East Todedada Creek - Upper	Target	Adult	6	0.07	0.09	0.04	0.00	0.19	0.07	0.03	0.02	0.14
Treatment	East Todedada Creek - Upper	Target	Fry	6	1.09	1.09	0.45	0.15	2.88	1.09	0.41	0.42	1.95
Treatment	East Todedada Creek - Upper	Target	Parr	6	0.48	0.32	0.13	0.12	0.98	0.48	0.12	0.27	0.73
Treatment	East Todedada Creek - Upper	Target	Total	6	1.65	1.02	0.42	0.68	3.29	1.64	0.38	1.01	2.48
Treatment	Glacier Creek - Lower	Poor	Adult	1	0.00	-	-	-	-	0.00	-	-	-
Treatment	Glacier Creek - Lower	Poor	Fry	1	0.17	-	-	0.17	0.17	0.17	-	0.17	0.17
Treatment	Glacier Creek - Lower	Poor	Parr	1	0.00	-	-	-	-	0.00	-	-	-
Treatment	Glacier Creek - Lower	Poor	Total	1	0.17	-	-	0.17	0.17	0.17	-	0.17	0.17
Treatment	Glacier Creek - Upper	Poor	Adult	1	0.00	-	-	-	-	0.00	-	-	-
Treatment	Glacier Creek - Upper	Poor	Fry	1	0.19	-	-	0.19	0.19	0.19	-	0.19	0.19
Treatment	Glacier Creek - Upper	Poor	Parr	1	0.00	-	-	-	-	0.00	-	-	-
Treatment	Glacier Creek - Upper	Poor	Total	1	0.19	-	-	0.19	0.19	0.19	-	0.19	0.19
Treatment	Snowbank Creek	Poor	Adult	5	0.03	0.07	0.03	0.00	0.14	0.03	0.03	0.00	0.09
Treatment	Snowbank Creek	Poor	Fry	5	0.14	0.21	0.09	0.00	0.43	0.14	0.08	0.00	0.32
Treatment	Snowbank Creek	Poor	Parr	5	0.08	0.17	0.08	0.00	0.35	0.08	0.07	0.00	0.23
Treatment	Snowbank Creek	Poor	Total	5	0.25	0.34	0.15	0.00	0.64	0.25	0.14	0.00	0.51

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-5C. Streams: Rainbow Trout Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)						Bootstrap CPUE (fish/100 s)			
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	Target	Adult	2	0.16	0.23	0.16	0.01	0.32	0.17	0.12	0.00	0.33
Reference	Gilbert Creek	Target	Fry	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reference	Gilbert Creek	Target	Parr	2	0.51	0.49	0.35	0.18	0.84	0.51	0.25	0.16	0.86
Reference	Gilbert Creek	Target	Total	2	0.68	0.26	0.19	0.50	0.85	0.68	0.13	0.49	0.86
Reference	Teigen Creek	Target	Adult	4	0.20	0.08	0.04	0.12	0.30	0.20	0.11	0.43	0.74
Reference	Teigen Creek	Target	Fry	4	0.11	0.13	0.06	0.00	0.24	0.11	0.06	0.00	0.22
Reference	Teigen Creek	Target	Parr	4	0.43	0.35	0.18	0.16	0.90	0.43	0.15	0.20	0.76
Reference	Teigen Creek	Target	Total	4	0.74	0.39	0.20	0.33	1.21	0.74	0.17	0.43	1.09
Treatment	Glacier Creek - Lower	Poor	Adult	1	0.17	-	-	0.17	0.17	0.17	0.00	0.17	0.17
Treatment	Glacier Creek - Lower	Poor	Fry	1	0.00	-	-	-	-	0.00	-	-	-
Treatment	Glacier Creek - Lower	Poor	Parr	1	0.00	-	-	-	-	0.00	-	-	-
Treatment	Glacier Creek - Lower	Poor	Total	1	0.17	-	-	0.17	0.17	0.17	0.00	0.17	0.17
Treatment	Oweegee Creek - Lower	Poor	Adult	3	0.22	0.24	0.14	0.01	0.47	0.22	0.11	0.00	0.48
Treatment	Oweegee Creek - Lower	Poor	Fry	3	2.97	0.74	0.43	2.30	3.70	2.96	0.35	2.27	3.75
Treatment	Oweegee Creek - Lower	Poor	Parr	3	0.05	0.09	0.05	0.00	0.15	0.05	0.04	0.00	0.16
Treatment	Oweegee Creek - Lower	Poor	Total	3	3.24	0.87	0.50	2.33	3.91	3.24	0.41	2.27	3.93
Treatment	Oweegee Creek - Lower	Target	Adult	8	0.11	0.16	0.06	0.00	0.42	0.11	0.05	0.02	0.23
Treatment	Oweegee Creek - Lower	Target	Fry	8	2.83	1.56	0.55	1.14	5.72	2.83	0.52	1.95	3.97
Treatment	Oweegee Creek - Lower	Target	Parr	8	0.37	0.41	0.15	0.00	1.10	0.37	0.14	0.13	0.66
Treatment	Oweegee Creek - Lower	Target	Total	8	3.31	1.68	0.59	1.53	6.37	3.31	0.55	2.35	4.49
Treatment	Oweegee Creek - Upper	Target	Adult	2	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Upper	Target	Fry	2	1.33	1.65	1.17	0.23	2.44	1.33	0.82	0.17	2.50
Treatment	Oweegee Creek - Upper	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Upper	Target	Total	2	1.33	1.65	1.17	0.23	2.44	1.34	0.82	0.17	2.50
Treatment	Snowbank Creek	Poor	Adult	5	0.07	0.10	0.04	0.00	0.19	0.07	0.04	0.00	0.15
Treatment	Snowbank Creek	Poor	Fry	5	0.00	-	-	-	-	0.00	-	-	-
Treatment	Snowbank Creek	Poor	Parr	5	0.18	0.17	0.07	0.00	0.33	0.18	0.07	0.05	0.31
Treatment	Snowbank Creek	Poor	Total	5	0.25	0.18	0.08	0.02	0.48	0.25	0.07	0.11	0.40

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-5D. Streams: Mountain Whitefish Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)					Bootstrap CPUE (fish/100 s)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	Target	Adult	2	0.16	0.23	0.16	0.01	0.32	0.16	0.12	0.00	0.33
Reference	Gilbert Creek	Target	Fry	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Gilbert Creek	Target	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Reference	Gilbert Creek	Target	Total	2	0.16	0.23	0.16	0.01	0.32	0.16	0.12	0.00	0.33
Treatment	Oweegee Creek - Lower	Target	Adult	8	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	Fry	8	0.02	0.05	0.02	0.00	0.11	0.02	0.02	0.00	0.05
Treatment	Oweegee Creek - Lower	Target	Parr	8	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	Total	8	0.02	0.05	0.02	0.00	0.11	0.02	0.02	0.00	0.05

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-5E. Streams: Longnose Sucker Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)					Bootstrap CPUE (fish/100 s)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Treatment	Oweegee Creek - Lower	Poor	Adult	3	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Poor	Fry	3	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Poor	Parr	3	0.06	0.11	0.06	0.00	0.18	0.06	0.05	0.00	0.19
Treatment	Oweegee Creek - Lower	Poor	Total	3	0.06	0.11	0.06	0.00	0.18	0.06	0.05	0.00	0.19
Treatment	Oweegee Creek - Lower	Target	Adult	8	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	Fry	8	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	Parr	8	0.05	0.10	0.03	0.00	0.23	0.05	0.03	0.00	0.12
Treatment	Oweegee Creek - Lower	Target	Total	8	0.05	0.10	0.03	0.00	0.23	0.05	0.03	0.00	0.12

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-5F. Streams: Chinook Salmon Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)					Bootstrap CPUE (fish/100 s)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	Target	Fry	4	2.06	1.54	0.77	0.66	3.94	2.05	0.66	0.86	3.32
Reference	Teigen Creek	Target	Parr	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Teigen Creek	Target	Total	4	2.06	1.54	0.77	0.66	3.94	2.05	0.66	0.86	3.32
Treatment	Oweegee Creek - Lower	Target	Fry	8	0.09	0.16	0.06	0.00	0.39	0.09	0.05	0.00	0.20
Treatment	Oweegee Creek - Lower	Target	Parr	8	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	Total	8	0.09	0.16	0.06	0.00	0.39	0.09	0.05	0.00	0.20
Treatment	Snowbank Creek	Poor	Fry	5	0.12	0.13	0.06	0.00	0.29	0.12	0.05	0.03	0.22
Treatment	Snowbank Creek	Poor	Parr	5	0.00	-	-	-	-	0.00	-	-	-
Treatment	Snowbank Creek	Poor	Total	5	0.12	0.13	0.06	0.00	0.29	0.12	0.05	0.03	0.22

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-5G. Streams: Bull Trout Electrofishing CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Life Stage	Standard CPUE (fish/100 s)					Bootstrap CPUE (fish/100 s)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	Target	Adult	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Teigen Creek	Target	Fry	4	0.04	0.08	0.04	0.00	0.14	0.04	0.03	0.00	0.12
Reference	Teigen Creek	Target	Parr	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Teigen Creek	Target	Total	4	0.04	0.08	0.04	0.00	0.14	0.04	0.03	0.00	0.12

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-6

Stream Species Minnow Trap CPUE Standard and
Bootstrap Summary Statistics, 2011

Appendix 7.3-6A. Streams: Coho Salmon Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)						Bootstrap CPUE (fish/trap/24 h)			
					N	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweegee Creek - Upper	Target	199.9	Fry	4	8.50	6.55	3.28	0.93	15.48	8.49	2.82	3.13	13.52
Reference	Oweegee Creek - Upper	Target	199.9	Parr	4	2.63	2.27	1.14	0.11	4.68	2.64	0.97	0.74	4.53
Reference	Oweegee Creek - Upper	Target	199.9	Total	4	11.14	7.54	3.77	1.28	17.18	11.15	3.28	4.22	16.39
Reference	Snowbank Creek - Trib	Target	192.7	Fry	4	0.12	0.25	0.12	0.00	0.46	0.12	0.11	0.00	0.37
Reference	Snowbank Creek - Trib	Target	192.7	Parr	4	0.50	0.41	0.20	0.04	0.96	0.50	0.17	0.12	0.87
Reference	Snowbank Creek - Trib	Target	192.7	Total	4	0.62	0.48	0.24	0.04	1.00	0.62	0.21	0.25	1.00
Reference	Teigen Creek	Target	447.5	Fry	4	0.08	0.15	0.08	0.00	0.28	0.08	0.07	0.00	0.23
Reference	Teigen Creek	Target	447.5	Parr	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Teigen Creek	Target	447.5	Total	4	0.08	0.15	0.08	0.00	0.28	0.08	0.07	0.00	0.23
Treatment	East Todedada Creek - Lower	Target	103.3	Fry	2	10.24	9.24	6.54	4.03	16.45	10.29	4.61	3.70	16.78
Treatment	East Todedada Creek - Lower	Target	103.3	Parr	2	2.79	0.01	0.01	2.78	2.80	2.79	0.01	2.78	2.80
Treatment	East Todedada Creek - Lower	Target	103.3	Total	2	13.03	9.26	6.55	6.81	19.25	13.00	4.66	6.48	19.57
Treatment	East Todedada Creek - Upper	Target	503.1	Fry	10	1.39	1.07	0.34	0.10	2.89	1.39	0.32	0.76	2.02
Treatment	East Todedada Creek - Upper	Target	503.1	Parr	10	2.71	2.29	0.72	0.00	6.31	2.71	0.69	1.42	4.08
Treatment	East Todedada Creek - Upper	Target	503.1	Total	10	4.10	2.72	0.86	0.21	8.07	4.09	0.82	2.54	5.71
Treatment	Oweegee Creek - Lower	Target	350.2	Fry	7	0.62	1.04	0.39	0.00	2.54	0.62	0.36	0.14	1.45
Treatment	Oweegee Creek - Lower	Target	350.2	Parr	7	0.34	0.73	0.27	0.00	1.72	0.35	0.26	0.00	0.90
Treatment	Oweegee Creek - Lower	Target	350.2	Total	7	0.97	1.75	0.66	0.00	4.26	0.96	0.62	0.14	2.35

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-6B. Streams: Dolly Varden Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)						Bootstrap CPUE (fish/trap/24 h)			
					N	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweegee Creek - Upper	Target	199.9	Adult	4	0.24	0.28	0.14	0.00	0.48	0.24	0.12	0.00	0.48
Reference	Oweegee Creek - Upper	Target	199.9	Fry	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Oweegee Creek - Upper	Target	199.9	Parr	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Oweegee Creek - Upper	Target	199.9	Total	4	0.24	0.28	0.14	0.00	0.48	0.24	0.12	0.00	0.48
Reference	Snowbank Creek - Trib	Target	192.7	Adult	4	0.50	0.58	0.29	0.00	1.00	0.50	0.25	0.00	1.00
Reference	Snowbank Creek - Trib	Target	192.7	Fry	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Snowbank Creek - Trib	Target	192.7	Parr	4	0.50	0.71	0.35	0.00	1.43	0.50	0.31	0.00	1.13
Reference	Snowbank Creek - Trib	Target	192.7	Total	4	1.00	1.08	0.54	0.04	2.39	1.00	0.47	0.25	2.00
Treatment	East Todedada Creek - Lower	Target	103.3	Adult	2	0.23	0.33	0.23	0.01	0.45	0.23	0.16	0.00	0.46
Treatment	East Todedada Creek - Lower	Target	103.3	Fry	2	0.00	-	-	-	-	0.00	-	-	-
Treatment	East Todedada Creek - Lower	Target	103.3	Parr	2	0.00	-	-	-	-	0.00	-	-	-
Treatment	East Todedada Creek - Lower	Target	103.3	Total	2	0.23	0.33	0.23	0.01	0.45	0.23	0.16	0.00	0.46
Treatment	East Todedada Creek - Upper	Target	503.1	Adult	10	4.80	3.24	1.02	0.69	10.54	4.81	0.97	3.01	6.80
Treatment	East Todedada Creek - Upper	Target	503.1	Fry	10	0.00	-	-	-	-	0.00	-	-	-
Treatment	East Todedada Creek - Upper	Target	503.1	Parr	10	0.67	0.78	0.25	0.00	2.15	0.67	0.23	0.24	1.18
Treatment	East Todedada Creek - Upper	Target	503.1	Total	10	5.47	3.63	1.15	1.01	12.36	5.49	1.07	3.52	7.74

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-6C. Streams: Rainbow Trout Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)						Bootstrap CPUE (fish/trap/24 h)			
					N	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Treatment	Oweegee Creek - Lower	Target	350.2	Adult	7	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	350.2	Fry	7	0.27	0.37	0.14	0.00	0.88	0.27	0.13	0.07	0.55
Treatment	Oweegee Creek - Lower	Target	350.2	Parr	7	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Lower	Target	350.2	Total	7	0.27	0.37	0.14	0.00	0.88	0.27	0.13	0.07	0.54
Treatment	Oweegee Creek - Upper	Target	199.9	Adult	4	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Upper	Target	199.9	Fry	4	0.00	-	-	-	-	0.00	-	-	-
Treatment	Oweegee Creek - Upper	Target	199.9	Parr	4	0.24	0.47	0.24	0.00	0.87	0.24	0.21	0.00	0.71
Treatment	Oweegee Creek - Upper	Target	199.9	Total	4	0.24	0.47	0.24	0.00	0.87	0.24	0.20	0.00	0.71

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-6D. Streams: Chinook Salmon Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Habitat Type	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)						Bootstrap CPUE (fish/trap/24 h)			
					N	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	Target	447.5	Fry	4	0.50	0.59	0.29	0.00	1.09	0.51	0.25	0.00	1.01
Reference	Teigen Creek	Target	447.5	Parr	4	0.00	-	-	-	-	0.00	-	-	-
Reference	Teigen Creek	Target	447.5	Total	4	0.50	0.59	0.29	0.00	1.09	0.50	0.26	0.00	1.01

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-7

Stream Habitat Biological Data, 2011

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
11	Todedada Creek	East Todedada Creek - Lower	2	MT	1	1	CO	85	6.30	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	1	1	CO	78	4.85	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	1	1	CO	51	1.43	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	1	1	CO	54	1.56	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	108	14.08	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	102	10.54	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	DV	114	12.97	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	105	11.64	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	93	8.23	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	53	1.52	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	54	1.46	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	51	1.07	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	45	1.14	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	43	1.60	-	-	-	-
11	Todedada Creek	East Todedada Creek - Lower	2	MT	2	1	CO	45	0.95	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	100	10.25	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	80	5.00	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	91	6.67	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	91	8.23	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	73	4.10	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	51	1.43	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	49	1.08	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	49	1.24	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	46	1.16	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.43	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	76	4.62	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	54	1.59	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.11	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	52	1.50	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	49	0.93	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.27	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	57	1.70	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.25	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	52	1.76	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	49	1.26	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	48	0.91	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	58	2.01	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	47	1.15	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.47	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	51	1.58	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.26	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	47	0.98	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
12	Todedada Creek	East Todedada Creek - Lower	1	MT	1	1	CO	50	1.29	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	45	0.96	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	44	0.83	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	48	1.04	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	48	1.07	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	47	1.21	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	46	0.79	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	45	0.77	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	48	1.07	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	51	1.41	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	49	1.13	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	46	1.09	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	45	0.83	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	43	1.16	-	-	-	-
12	Todedada Creek	East Todedada Creek - Lower	1	MT	2	1	CO	52	1.56	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	34	0.37	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	45	0.98	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	85	6.43	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	32	0.24	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	28	0.14	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	35	0.40	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	39	0.57	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	35	0.45	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	37	0.64	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	44	0.88	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.59	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.65	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	57	2.30	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	110	13.73	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	109	14.27	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	39	0.54	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	73	3.56	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	38	0.51	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	42	0.56	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	35	0.53	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	36	0.46	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	32	0.41	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	33	0.35	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	75	4.04	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	65	2.69	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.56	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	37	0.45	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	73	4.05	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	40	0.59	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	45	1.14	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	38	0.49	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	38	0.43	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.69	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	66	3.04	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	75	4.61	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	37	0.47	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	DV	30	0.30	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.52	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	45	0.95	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.74	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	41	0.72	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	37	0.44	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	39	0.84	-	-	-	-
64	Todedada Creek	East Todedada Creek - Lower	1B	EF	1	1	CO	40	0.61	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	45	1.02	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	45	0.93	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	41	0.59	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	40	0.64	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	46	0.90	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	42	0.66	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	40	0.61	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	44	0.67	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	49	1.06	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	37	0.52	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	32	0.27	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	73	3.61	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	34	0.36	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	73	3.40	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	36	0.47	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	100	9.30	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	38	0.67	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	38	0.42	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	35	0.37	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	66	2.30	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	60	1.81	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	79	5.18	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	60	2.27	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	37	0.44	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	47	1.16	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	65	2.95	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	39	0.55	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	50	1.21	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	DV	32	0.32	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	39	0.54	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	40	0.73	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	39	0.84	-	-	-	-
65	Todedada Creek	East Todedada Creek - Lower	2B	EF	1	1	CO	37	0.81	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	27	1.05	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	DV	76	4.09	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	DV	110	13.60	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	35	0.44	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	DV	67	2.82	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	37	0.46	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	35	0.42	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	40	0.68	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	DV	80	5.25	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	40	0.61	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	77	5.06	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	42	0.74	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	44	0.89	-	-	-	-
66	Todedada Creek	East Todedada Creek - Lower	3B	EF	1	1	CO	49	1.43	-	-	-	-
67	Todedada Creek	East Todedada Creek - Lower	4B	EF	1	1	CO	35	0.41	-	-	-	-
67	Todedada Creek	East Todedada Creek - Lower	4B	EF	1	1	DV	55	1.54	-	-	-	-
67	Todedada Creek	East Todedada Creek - Lower	4B	EF	1	1	DV	68	2.95	-	-	-	-
67	Todedada Creek	East Todedada Creek - Lower	4B	EF	1	1	CO	41	0.62	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	182	40.20	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	CO	40	0.52	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	85	5.70	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	CO	32	0.29	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	CO	42	0.73	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	38	0.45	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	CO	40	0.66	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	CO	42	0.68	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	42	0.68	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	30	0.39	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	46	0.95	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	36	0.33	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	45	0.66	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	43	0.87	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	32	0.24	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	49	0.86	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
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 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	33	0.53	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	8B	EF	1	1	DV	36	0.39	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	1	CO	30	0.31	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	1	CO	37	0.44	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	1	CO	47	0.94	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	1	CO	37	0.62	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	1	DV	41	0.63	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	9B	EF	1	1	DV	36	0.43	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	CO	78	5.48	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	64	2.44	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	84	6.07	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	35	0.43	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	33	0.31	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	46	0.68	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	37	0.42	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	CO	28	0.15	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	37	0.49	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	38	0.58	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	10B	EF	1	1	DV	35	0.32	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	149	29.91	fin ray	1	4	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	132	22.68	fin ray	2	3	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	137	25.58	fin ray	3	3	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	132	22.88	fin ray	4	3	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	130	20.52	fin ray	5	4	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	120	19.25	fin ray	6	3	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	130	19.97	fin ray	7	3	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	DV	103	9.50	fin ray	8	2	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	CO	78	5.15	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	CO	75	4.34	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	1	1	CO	80	5.60	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	2	1	CO	56	1.90	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	2	1	CO	80	5.19	-	-	-	-
1	Todedada Creek	East Todedada Creek - Upper	1	MT	2	1	DV	150	30.36	fin ray	9	4	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	90	7.55	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	82	5.85	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	51	1.42	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	49	1.30	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	45	1.20	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	49	1.36	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	1	1	CO	49	1.25	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	80	5.27	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	95	8.71	-	-	-	-

Species:
 DV = dolly varden
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 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	90	7.23	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	92	8.25	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	80	5.55	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	95	8.53	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	89	7.40	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	97	9.88	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	94	8.03	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	CO	59	2.42	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	DV	95	8.27	fin ray	10	2	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	DV	84	5.88	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	DV	125	15.82	fin ray	11	2	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	DV	140	-	-	-	-	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	DV	133	25.83	fin ray	12	3	-
2	Todedada Creek	East Todedada Creek - Upper	5	MT	2	1	DV	168	46.40	fin ray	13	5	-
3	Todedada Creek	East Todedada Creek - Upper	20	MT	1	1	DV	75	3.52	-	-	-	-
3	Todedada Creek	East Todedada Creek - Upper	20	MT	1	1	DV	90	7.46	fin ray	14	2	-
3	Todedada Creek	East Todedada Creek - Upper	20	MT	1	1	DV	95	8.24	fin ray	15	2	-
3	Todedada Creek	East Todedada Creek - Upper	20	MT	1	1	DV	110	12.65	fin ray	16	2	-
3	Todedada Creek	East Todedada Creek - Upper	20	MT	1	1	DV	111	13.25	fin ray	17	3	-
3	Todedada Creek	East Todedada Creek - Upper	20	MT	2	1	DV	102	10.14	-	-	-	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	1	1	CO	55	1.69	-	-	-	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	1	1	CO	45	1.00	-	-	-	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	1	1	CO	47	1.06	-	-	-	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	1	1	CO	55	1.68	-	-	-	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	1	1	CO	57	1.63	-	-	-	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	1	1	DV	123	18.47	fin ray	18	3	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	88	6.20	fin ray	19	2	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	128	21.23	fin ray	20	4	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	111	13.03	fin ray	21	3	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	110	11.60	fin ray	22	4	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	135	24.70	fin ray	23	3	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	127	20.70	fin ray	24	4	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	141	28.80	fin ray	25	4	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	140	28.35	fin ray	26	3	-
4	Todedada Creek	East Todedada Creek - Upper	6	MT	2	1	DV	140	22.16	fin ray	27	3	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	CO	65	2.59	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	CO	67	2.73	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	CO	94	8.83	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	CO	85	5.77	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	CO	90	7.93	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	CO	105	12.65	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	134	24.62	fin ray	28	5	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	128	18.16	fin ray	29	3	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	150	27.17	fin ray	30	4	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	122	16.35	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	158	34.26	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	140	26.30	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	139	29.70	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	142	28.81	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	123	18.42	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	1	1	DV	160	40.84	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	2	1	DV	125	16.13	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	2	1	CO	90	8.65	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	2	1	CO	50	1.46	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	2	1	CO	51	1.38	-	-	-	-
5	Todedada Creek	East Todedada Creek - Upper	2	MT	2	1	CO	52	1.46	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	79	4.94	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	102	11.28	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	62	2.44	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	99	11.25	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	93	8.05	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	95	8.75	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	DV	131	21.92	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	DV	120	17.30	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	DV	86	5.64	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	84	6.03	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	DV	119	15.16	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	92	8.00	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	74	4.36	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	72	3.84	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	1	1	CO	52	1.35	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	CO	83	6.19	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	CO	86	6.13	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	121	17.15	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	CO	99	10.72	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	CO	94	8.34	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	135	22.31	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	88	6.18	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	142	30.28	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	156	32.31	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	161	40.20	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	139	22.93	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	140	23.19	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	134	23.40	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	147	27.91	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	154	33.60	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	CO	84	5.89	-	-	-	-
6	Todedada Creek	East Todedada Creek - Upper	21	MT	2	1	DV	138	25.50	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	131	20.75	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	CO	85	6.10	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	108	10.94	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	CO	94	8.02	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	151	29.66	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	126	19.18	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	134	20.55	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	113	13.91	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	127	17.09	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	121	15.58	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	1	1	DV	112	12.45	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	52	1.50	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	49	1.07	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	52	1.50	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	48	1.06	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	52	1.42	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	105	11.64	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	50	1.18	-	-	-	-
7	Todedada Creek	East Todedada Creek - Upper	3	MT	2	1	CO	93	7.82	-	-	-	-
8	Todedada Creek	East Todedada Creek - Upper	22	MT	1	1	CO	87	5.92	-	-	-	-
8	Todedada Creek	East Todedada Creek - Upper	22	MT	1	1	CO	46	0.80	-	-	-	-
8	Todedada Creek	East Todedada Creek - Upper	22	MT	2	1	DV	162	41.41	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	CO	74	4.52	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	121	17.68	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	CO	82	5.79	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	146	29.84	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	CO	102	11.58	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	120	14.75	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	129	18.12	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	CO	99	9.90	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	133	22.18	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	100	8.78	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	121	15.05	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	110	12.71	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	170	41.69	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	CO	99	10.28	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	CO	79	5.79	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	119	15.01	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
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 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	156	35.61	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	154	32.85	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	1	1	DV	132	20.27	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	2	1	DV	153	35.54	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	2	1	CO	53	1.58	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	2	1	CO	92	8.41	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	2	1	DV	151	34.15	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	2	1	DV	134	23.70	-	-	-	-
9	Todedada Creek	East Todedada Creek - Upper	10	MT	2	1	DV	135	22.47	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	124	16.49	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	CO	47	0.81	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	CO	82	5.68	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	CO	94	8.12	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	CO	89	7.09	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	CO	54	1.48	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	103	9.48	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	132	20.80	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	126	18.86	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	136	22.53	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	136	25.15	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	140	23.30	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	140	25.15	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	87	6.19	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	141	22.20	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	128	17.40	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	CO	90	7.17	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	86	5.75	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	125	20.36	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	191	69.90	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	1	1	DV	88	5.83	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	110	12.22	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	95	7.48	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	112	12.24	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	130	20.20	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	79	5.26	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	50	1.16	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	125	17.08	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	117	15.32	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	120	15.93	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	136	22.04	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	132	22.40	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	134	20.93	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
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 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	85	6.30	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	105	12.32	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	82	5.68	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	119	18.08	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	108	10.57	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	107	12.00	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	CO	91	7.52	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	86	5.56	-	-	-	-
10	Todedada Creek	East Todedada Creek - Upper	23	MT	2	1	DV	106	11.25	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	85	6.41	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	85	7.94	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	92	7.34	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	79	4.86	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	84	6.94	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	72	3.66	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	77	4.63	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	80	5.65	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	32	0.20	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	38	0.60	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	28	0.14	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	38	0.35	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	40	0.65	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	35	0.45	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	38	0.53	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	35	0.45	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	34	0.35	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	40	0.62	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	40	0.61	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	43	0.66	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	37	0.40	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	DV	46	0.95	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	29	0.14	-	-	-	-
68	Todedada Creek	East Todedada Creek - Upper	1B	EF	1	1	CO	36	0.41	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	145	31.02	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	71	3.37	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	84	5.93	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	90	6.33	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	84	5.86	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	93	8.05	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	37	0.46	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	40	0.54	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	CO	35	0.23	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	43	0.68	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	38	0.54	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	25	0.12	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	46	0.86	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	50	1.20	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	31	0.19	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	44	0.75	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	41	0.63	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	34	0.20	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	39	0.51	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	CO	40	0.61	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	CO	35	0.30	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	43	0.65	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	DV	40	0.58	-	-	-	-
69	Todedada Creek	East Todedada Creek - Upper	2B	EF	1	1	CO	36	0.44	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	CO	39	0.52	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	35	0.32	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	44	0.87	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	35	0.45	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	29	0.20	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	30	0.31	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	30	0.31	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	29	0.33	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	48	0.98	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	43	0.61	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	27	0.26	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	32	0.28	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	32	0.28	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	CO	34	0.31	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	41	0.65	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	45	0.85	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	40	0.59	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	43	0.76	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	85	5.73	-	-	-	-
70	Todedada Creek	East Todedada Creek - Upper	3B	EF	1	1	DV	83	5.40	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	80	5.15	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	74	3.73	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	111	10.56	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	65	2.31	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	78	4.34	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	100	10.73	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	85	5.78	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	99	8.73	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	CO	35	0.38	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	83	5.32	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	72	3.76	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	101	10.41	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	95	7.77	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	CO	34	0.50	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	CO	34	0.29	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	CO	40	0.51	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	90	7.63	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	86	6.35	-	-	-	-
71	Todedada Creek	East Todedada Creek - Upper	4B	EF	1	1	DV	40	0.67	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	43	0.78	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	DV	133	22.25	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	DV	96	10.71	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	DV	79	4.74	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	37	0.35	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	34	0.28	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	47	0.89	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	43	0.79	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	40	0.62	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	40	0.62	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	41	0.62	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	DV	44	0.76	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	35	0.49	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	34	0.30	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	DV	37	0.60	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	DV	49	0.83	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	35	0.38	-	-	-	-
72	Todedada Creek	East Todedada Creek - Upper	5B	EF	1	1	CO	31	0.54	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	43	0.80	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	42	0.74	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	79	4.49	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	85	5.47	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	98	8.64	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	86	6.40	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	35	0.33	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	43	0.79	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	40	0.60	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	45	0.82	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	86	6.20	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	34	0.28	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	40	0.65	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	DV	45	0.92	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	40	0.61	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	40	0.36	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	42	0.63	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	39	0.33	-	-	-	-
73	Todedada Creek	East Todedada Creek - Upper	6B	EF	1	1	CO	35	0.22	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	DV	122	17.66	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	DV	72	3.56	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	40	0.58	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	34	0.37	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	36	0.43	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	DV	37	0.44	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	31	0.15	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	41	0.74	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	39	0.51	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	40	0.63	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	36	0.45	-	-	-	-
74	Todedada Creek	East Todedada Creek - Upper	7B	EF	1	1	CO	38	0.55	-	-	-	-
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	35	0.39	-	-	-	-
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	33	0.30	-	-	-	-
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	37	0.52	-	-	-	-
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	38	0.55	-	-	-	RECAPTURE
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	34	0.33	-	-	-	RECAPTURE
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	33	0.27	-	-	-	-
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	DV	68	3.27	-	-	-	-
20	Todedada Creek	East Todedada Creek - Upper	1C	EF	2	2	CO	33	0.27	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	CO	33	0.31	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	44	0.73	-	-	-	RECAPTURE
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	CO	34	0.35	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	42	0.73	-	-	-	RECAPTURE
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	CO	30	0.22	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	40	0.61	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	35	0.45	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	42	0.70	-	-	-	RECAPTURE
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	38	0.59	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	35	0.39	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	DV	40	0.65	-	-	-	-
21	Todedada Creek	East Todedada Creek - Upper	2C	EF	2	2	CO	33	0.20	-	-	-	-
22	Todedada Creek	East Todedada Creek - Upper	3C	EF	2	2	CO	32	0.31	-	-	-	-
22	Todedada Creek	East Todedada Creek - Upper	3C	EF	2	2	DV	37	0.51	-	-	-	-
22	Todedada Creek	East Todedada Creek - Upper	3C	EF	2	2	CO	42	0.72	-	-	-	RECAPTURE

Species:
 DV = dolly varden
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Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
37	Todedada Creek	Gilbert Creek	1	EF	1	1	RB	88	6.92	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	RB	70	3.40	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	RB	87	6.75	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	40	0.68	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	34	0.36	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	RB	68	3.25	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	41	0.63	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	DV	65	2.72	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	30	0.22	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	32	0.31	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	DV	25	0.91	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	DV	45	0.91	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	RB	72	3.64	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	33	0.35	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	34	0.32	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	40	0.63	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	30	0.19	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	RB	78	4.39	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	31	0.20	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	35	0.43	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	38	0.47	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	35	0.26	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	DV	49	1.29	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	33	0.31	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	32	0.32	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	34	0.34	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	DV	64	2.56	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	33	0.22	-	-	-	-
37	Todedada Creek	Gilbert Creek	1	EF	1	1	CO	35	0.30	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	MW	179	70.30	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	DV	182	71.20	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	RB	128	29.80	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	MW	105	15.30	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	91	8.22	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	RB	125	30.20	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	RB	83	11.19	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	49	1.18	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	50	1.28	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	50	1.27	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	44	0.74	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	37	0.44	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	38	0.49	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	41	0.75	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	35	0.29	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	41	0.61	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	36	0.48	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	42	0.90	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	31	0.29	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	34	0.28	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	38	0.49	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	35	0.37	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	40	0.65	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	36	0.38	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	37	0.42	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	36	0.45	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	35	0.36	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	36	0.56	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	33	0.31	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	33	0.34	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	25	0.11	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	27	0.14	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	28	0.38	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	37	0.33	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	34	0.28	-	-	-	-
38	Todedada Creek	Gilbert Creek	2	EF	1	1	CO	32	0.24	-	-	-	-
17	Oweegee Creek	Oweegee Creek - Lower	6	MT	2	1	RB	43	0.87	-	-	-	-
17	Oweegee Creek	Oweegee Creek - Lower	6	MT	2	1	RB	42	0.84	-	-	-	-
18	Oweegee Creek	Oweegee Creek - Lower	1	MT	1	1	CO	47	1.06	-	-	-	-
18	Oweegee Creek	Oweegee Creek - Lower	1	MT	2	1	CO	67	3.03	-	-	-	-
18	Oweegee Creek	Oweegee Creek - Lower	1	MT	2	1	RB	50	1.39	-	-	-	-
19	Oweegee Creek	Oweegee Creek - Lower	2	MT	2	1	CO	60	2.27	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	1	1	CO	52	1.52	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	1	1	RB	42	0.87	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	65	2.89	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	62	2.43	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	68	3.49	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	65	2.81	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	74	4.12	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	60	2.27	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	62	2.58	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	67	3.29	-	-	-	-
21	Oweegee Creek	Oweegee Creek - Lower	21	MT	2	1	CO	93	8.59	-	-	-	-
23	Oweegee Creek	Oweegee Creek - Lower	10	MT	1	1	CO	55	2.40	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	41	0.72	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	52	1.56	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	LSU	75	4.71	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	50	1.46	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	45	0.92	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	110	14.04	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	66	3.29	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	89	8.01	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	52	1.43	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	83	6.18	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	72	4.20	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	48	1.21	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	54	1.66	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	51	1.50	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	61	2.50	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	51	1.36	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	43	0.91	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	58	2.32	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	35	0.38	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	49	0.80	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	37	0.60	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	56	1.84	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	42	0.52	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	45	0.86	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	48	1.22	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	45	0.88	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	44	0.89	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	46	1.07	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	42	0.75	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	42	0.56	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	48	1.28	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	47	1.13	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	37	0.56	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	51	1.49	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	38	0.52	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	CO	41	0.74	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	40	0.61	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	45	1.03	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	47	1.13	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	45	0.94	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	40	0.66	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	46	1.06	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	39	0.70	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	38	0.54	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	40	0.72	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	39	0.55	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	42	0.81	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	46	1.03	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	31	0.22	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	51	1.47	-	-	-	-
51	Oweegee Creek	Oweegee Creek - Lower	1B	EF	1	1	RB	35	0.48	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	35	0.44	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	41	0.72	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	40	0.65	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	43	0.91	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	45	1.01	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	56	2.04	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	40	0.78	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	102	11.46	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	103	12.75	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	100	10.73	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	71	4.34	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	47	1.17	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	47	1.43	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	55	1.63	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	46	1.09	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	55	1.95	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	CO	47	1.28	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	52	1.55	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	32	0.49	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	40	0.80	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	39	0.71	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	40	0.69	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	30	0.28	-	-	-	-
52	Oweegee Creek	Oweegee Creek - Lower	2B	EF	1	1	RB	35	0.46	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	44	0.79	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	52	1.30	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	CO	55	1.40	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	48	1.30	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	CO	44	1.02	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	46	1.22	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	38	0.60	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	52	1.60	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	36	0.58	-	-	-	-
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	46	1.00	-	-	-	-

Species:
DV = dolly varden
RB = rainbow trout
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Gear:
EF = electrofisher
MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
53	Oweegee Creek	Oweegee Creek - Lower	3B	EF	1	1	RB	55	1.89	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	RB	190	77.39	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	RB	153	43.50	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	LSU	110	15.68	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	CO	82	5.82	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	CO	58	2.07	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	CO	74	4.06	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	RB	54	1.50	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	CO	56	1.95	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	RB	35	0.39	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	RB	32	0.36	-	-	-	-
54	Oweegee Creek	Oweegee Creek - Lower	4B	EF	1	1	RB	38	0.55	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	107	14.80	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	129	22.64	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	120	19.02	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	105	12.11	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	58	3.59	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	53	1.74	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	50	1.62	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	54	2.13	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	43	1.00	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	57	2.20	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	53	1.27	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	35	0.42	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	CO	70	4.13	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	CO	55	2.73	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	52	1.64	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	54	1.74	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	48	1.50	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	44	1.00	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	34	0.45	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	45	0.72	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	43	1.20	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	52	1.79	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	37	0.76	-	-	-	-
55	Oweegee Creek	Oweegee Creek - Lower	5B	EF	1	1	RB	33	0.40	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	44	0.94	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	54	1.42	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	50	1.27	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	65	2.97	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	70	3.81	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	55	1.91	-	-	-	-

Species: DV = dolly varden
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 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	72	4.34	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	50	1.30	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	39	0.50	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	54	1.60	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	48	1.22	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	122	19.20	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	56	1.75	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	65	3.42	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	59	2.19	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	52	1.39	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	51	1.33	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	55	1.65	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	41	0.63	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	43	0.80	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	41	0.60	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	51	1.28	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	40	0.60	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	65	2.23	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	48	1.22	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	53	1.65	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	42	0.76	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	86	6.78	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	67	3.18	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	93	8.74	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	98	9.81	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	63	2.58	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	66	2.50	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	CO	73	4.35	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	35	0.43	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	51	1.30	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	39	0.63	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	45	0.82	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	51	1.35	-	-	-	-
56	Oweegee Creek	Oweegee Creek - Lower	6B	EF	1	1	RB	37	0.38	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	60	2.21	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	42	0.74	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	99	9.95	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	37	0.56	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	54	1.41	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	48	1.18	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	101	11.70	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	50	1.17	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	52	1.46	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	83	5.72	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	105	12.54	-	-	-	-
57	Oweegee Creek	Oweegee Creek - Lower	7B	EF	1	1	RB	44	0.84	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	37	0.48	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	49	1.20	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	56	2.01	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	49	0.28	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	28	0.15	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	45	0.90	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	60	2.31	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	47	1.06	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	44	0.88	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	115	16.48	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	38	0.52	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	CO	38	0.37	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	44	0.67	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	46	0.89	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	57	1.94	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	40	0.76	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	45	0.79	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	49	1.15	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	47	1.97	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	55	1.89	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	47	1.11	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	55	1.84	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	32	0.65	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	47	1.09	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	LSU	89	9.11	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	36	0.57	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	51	1.33	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	56	1.32	-	-	-	-
58	Oweegee Creek	Oweegee Creek - Lower	8B	EF	1	1	RB	42	0.79	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CH	58	2.08	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	45	1.00	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	51	1.30	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	106	12.72	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	52	1.44	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CO	48	1.17	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	104	11.73	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CO	68	3.02	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	40	0.68	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	84	6.22	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	55	1.66	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	45	0.86	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	42	0.85	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CO	68	3.65	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	50	1.21	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	54	1.48	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	42	0.78	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	40	0.88	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	56	1.76	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	40	0.66	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CH	60	3.37	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	46	1.15	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	MW	58	1.72	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	40	0.74	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	37	0.70	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	49	1.35	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	39	0.62	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	40	0.64	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CO	49	1.34	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	44	0.71	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	CO	54	1.43	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	47	0.97	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	40	0.67	-	-	-	-
59	Oweegee Creek	Oweegee Creek - Lower	9B	EF	1	1	RB	47	1.12	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	CO	65	3.20	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	CO	88	7.38	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	CH	66	2.98	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	51	1.70	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	CH	75	5.06	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	45	0.93	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	52	1.62	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	40	0.78	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	45	1.04	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	36	0.51	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	40	0.74	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	42	0.85	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	45	0.93	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	37	0.59	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	30	0.27	-	-	-	-
60	Oweegee Creek	Oweegee Creek - Lower	10B	EF	1	1	RB	34	0.36	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	CO	45	1.03	-	-	-	-

Species:
 DV = dolly varden
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 CO = coho salmon
 MWF = mountain whitefish
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Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	56	1.93	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	50	1.43	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	CO	50	1.28	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	36	0.49	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	44	0.88	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	37	0.48	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	43	0.86	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	43	0.81	-	-	-	-
61	Oweegee Creek	Oweegee Creek - Lower	11B	EF	1	1	RB	40	0.57	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	51	1.39	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	55	1.85	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	50	1.09	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	52	1.46	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	52	1.46	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	65	2.75	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	80	5.76	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	59	2.06	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	53	1.06	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	87	7.16	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	DV	100	8.68	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	63	2.62	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	55	1.67	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	67	3.00	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	87	7.18	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	50	1.00	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	53	1.28	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	70	3.68	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	64	2.53	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	55	1.88	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	61	2.44	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	58	2.20	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	50	1.23	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	66	3.01	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	56	1.95	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	64	2.55	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	78	4.76	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	55	1.76	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	2	1	CO	58	2.22	-	-	-	-
26	Oweegee Creek	Oweegee Creek - Upper	3	MT	2	1	CO	57	2.08	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	1	1	DV	150	33.68	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	1	1	CO	90	7.30	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	1	1	CO	60	2.30	-	-	-	-

Species: DV = dolly varden
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Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	55	1.70	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	64	2.60	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	51	1.30	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	64	2.77	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	95	8.50	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	51	1.45	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	94	9.33	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	90	7.36	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	55	1.75	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	85	5.86	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	80	5.66	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	85	6.15	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	65	2.74	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	95	9.42	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	55	1.48	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	55	1.68	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	64	2.56	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	58	2.19	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	RB	82	6.25	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	78	4.92	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	RB	72	4.04	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	DV	80	4.93	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	76	4.40	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	60	2.56	-	-	-	-
25	Oweegee Creek	Oweegee Creek - Upper	2	MT	2	1	CO	55	1.56	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	66	2.74	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	61	2.16	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	82	5.80	-	-	-	-
24	Oweegee Creek	Oweegee Creek - Upper	1	MT	1	1	CO	55	1.65	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	1	1	CO	51	1.33	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	88	7.02	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	1.93	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	59	1.92	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	89	7.45	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	1.53	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	54	1.82	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	1.87	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	50	1.45	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	52	1.54	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	49	1.16	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	61	2.59	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	52	1.53	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	80	5.75	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	50	1.40	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	1.81	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	1.62	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	51	1.27	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	51	1.50	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	60	2.33	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	58	2.03	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	59	2.03	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	2.02	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	1.60	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	53	1.57	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	46	1.29	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	50	1.45	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	56	1.78	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	51	1.58	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	55	2.21	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	56	2.12	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	49	1.29	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	49	1.27	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	47	1.19	-	-	-	-
27	Oweegee Creek	Oweegee Creek - Upper	4	MT	2	1	CO	49	1.27	-	-	-	-
62	Oweegee Creek	Oweegee Creek - Upper	1B	EF	1	1	CO	54	1.58	-	-	-	-
62	Oweegee Creek	Oweegee Creek - Upper	1B	EF	1	1	RB	39	0.53	-	-	-	-
62	Oweegee Creek	Oweegee Creek - Upper	1B	EF	1	1	CO	50	1.31	-	-	-	-
62	Oweegee Creek	Oweegee Creek - Upper	1B	EF	1	1	DV	55	1.70	-	-	-	-
62	Oweegee Creek	Oweegee Creek - Upper	1B	EF	1	1	DV	52	1.38	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	CO	54	1.62	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	35	0.53	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	CO	45	1.05	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	37	0.48	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	36	0.49	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	41	0.68	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	38	0.48	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	42	0.75	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	35	0.43	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	40	0.57	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	DV	45	0.88	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	39	0.56	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	46	0.97	-	-	-	-
63	Oweegee Creek	Oweegee Creek - Upper	2B	EF	1	1	RB	38	0.52	-	-	-	-
32	Snowbank Creek	Snowbank Creek	1	EF	1	1	DV	135	22.04	fin ray	1	4	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
32	Snowbank Creek	Snowbank Creek	1	EF	1	1	CH	52	1.52	-	-	-	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	RB	96	9.40	fin ray	1	2	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	DV	78	5.55	-	-	-	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	RB	68	3.24	-	-	-	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	DV	72	3.60	-	-	-	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	CO	48	1.20	-	-	-	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	DV	67	2.90	-	-	-	-
33	Snowbank Creek	Snowbank Creek	2	EF	1	1	CO	52	1.20	-	-	-	-
34	Snowbank Creek	Snowbank Creek	3	EF	1	1	RB	65	3.23	-	-	-	-
34	Snowbank Creek	Snowbank Creek	3	EF	1	1	RB	146	31.82	fin ray	1	5	-
34	Snowbank Creek	Snowbank Creek	3	EF	1	1	RB	68	3.16	-	-	-	-
34	Snowbank Creek	Snowbank Creek	3	EF	1	1	CH	47	0.90	-	-	-	-
34	Snowbank Creek	Snowbank Creek	3	EF	1	1	CO	52	1.60	-	-	-	-
35	Snowbank Creek	Snowbank Creek	4	EF	1	1	CO	40	0.70	-	-	-	-
35	Snowbank Creek	Snowbank Creek	4	EF	1	1	CH	52	1.60	-	-	-	-
35	Snowbank Creek	Snowbank Creek	4	EF	1	1	RB	73	4.30	-	-	-	-
36	Snowbank Creek	Snowbank Creek	5	EF	1	1	RB	185	65.50	fin ray	1	5	-
13	Snowbank Creek	Snowbank Creek - Trib	1	MT	2	1	CO	87	6.96	-	-	-	-
13	Snowbank Creek	Snowbank Creek - Trib	1	MT	2	1	DV	86	6.72	fin ray	1	2	-
13	Snowbank Creek	Snowbank Creek - Trib	1	MT	2	1	CO	86	7.24	-	-	-	-
14	Snowbank Creek	Snowbank Creek - Trib	2	MT	1	1	DV	92	7.15	fin ray	2	2	-
14	Snowbank Creek	Snowbank Creek - Trib	2	MT	1	1	DV	120	16.65	fin ray	3	3	-
14	Snowbank Creek	Snowbank Creek - Trib	2	MT	2	1	DV	90	6.45	fin ray	4	3	-
14	Snowbank Creek	Snowbank Creek - Trib	2	MT	2	1	DV	98	10.15	fin ray	5	2	-
14	Snowbank Creek	Snowbank Creek - Trib	2	MT	2	1	DV	69	2.86	-	-	-	-
15	Snowbank Creek	Snowbank Creek - Trib	3	MT	1	1	CO	87	7.19	-	-	-	-
15	Snowbank Creek	Snowbank Creek - Trib	3	MT	2	1	DV	125	19.19	-	-	-	-
15	Snowbank Creek	Snowbank Creek - Trib	3	MT	2	1	DV	131	22.14	-	-	-	-
16	Snowbank Creek	Snowbank Creek - Trib	4	MT	2	1	CO	43	0.70	-	-	-	-
16	Snowbank Creek	Snowbank Creek - Trib	4	MT	2	1	CO	104	11.89	-	-	-	-
13	Snowbank Creek	Snowbank Creek - Trib	1	EF	1	1	CO	40	0.69	-	-	-	-
13	Snowbank Creek	Snowbank Creek - Trib	1	EF	1	1	DV	43	0.83	-	-	-	-
13	Snowbank Creek	Snowbank Creek - Trib	1	EF	1	1	DV	49	1.15	-	-	-	-
13	Snowbank Creek	Snowbank Creek - Trib	1	EF	1	1	DV	42	0.88	-	-	-	-
14	Snowbank Creek	Snowbank Creek - Trib	2	EF	1	1	CO	55	2.15	-	-	-	-
14	Snowbank Creek	Snowbank Creek - Trib	2	EF	1	1	DV	143	31.09	-	-	-	-
14	Snowbank Creek	Snowbank Creek - Trib	2	EF	1	1	DV	42	0.65	-	-	-	-
14	Snowbank Creek	Snowbank Creek - Trib	2	EF	1	1	DV	35	0.27	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	55	1.90	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	52	1.50	-	-	-	RECAPTURED
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	50	1.00	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	48	0.70	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CO	35	0.40	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	50	1.20	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CO	52	1.30	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	52	1.60	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	50	1.50	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	50	1.30	-	-	-	-
1	Teigen Creek	Teigen Creek	2B	EF	2	2	CO	32	0.40	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CO	86	6.80	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	55	1.40	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	56	1.96	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	50	1.17	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	51	1.40	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	50	1.26	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	45	1.09	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	58	1.90	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	45	0.84	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	59	1.96	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	56	1.72	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	47	1.16	-	-	-	-
28	Teigen Creek	Teigen Creek	3	MT	1	1	CH	50	1.38	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	1	1	CH	60	2.10	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	2	1	CH	59	1.90	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	2	1	CH	55	1.60	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	3	1	CH	61	2.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	4	1	CH	58	1.70	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	5	1	CH	68	2.70	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	5	1	CH	58	1.80	-	-	-	-
29	Teigen Creek	Teigen Creek	4	MT	5	1	CH	58	1.90	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CO	42	0.70	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	56	1.70	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	53	1.53	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	54	1.68	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	52	1.60	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	48	1.35	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	52	1.60	-	-	-	-
30	Teigen Creek	Teigen Creek	5	MT	1	1	CH	53	1.79	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	66	2.10	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	58	1.50	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	52	1.40	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	50	1.40	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	50	1.20	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	52	1.40	-	-	-	-

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DV = dolly varden
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CH = chinook salmon
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LSU = longnose sucker

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Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
31	Teigen Creek	Teigen Creek	2	MT	1	1	CH	52	1.10	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	2	1	CH	53	1.10	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	3	1	CH	53	1.10	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	4	1	CH	52	1.30	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	5	1	CH	77	4.40	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	5	1	CO	50	1.00	-	-	-	-
31	Teigen Creek	Teigen Creek	2	MT	5	1	CH	68	3.00	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	120	16.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	120	16.00	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	90	7.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	86	5.30	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	74	4.30	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	82	5.20	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	58	1.70	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	60	2.20	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	63	4.30	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	50	1.10	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	58	1.80	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	37	0.30	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	60	1.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	50	1.00	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	50	1.00	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	50	0.80	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	57	1.40	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	50	0.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	47	0.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	57	1.60	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	52	1.50	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	44	0.50	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	53	1.20	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	51	1.30	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	60	1.50	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	53	1.20	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	60	1.50	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	52	1.50	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	55	1.20	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	48	0.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	48	0.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	CH	48	0.90	-	-	-	-
31	Teigen Creek	Teigen Creek	2	EF	1	1	RB	45	0.50	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	RB	112	13.30	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	RB	89	5.90	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
30	Teigen Creek	Teigen Creek	5	EF	1	1	RB	73	2.50	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	57	1.50	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	52	0.90	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	62	1.90	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CO	47	0.70	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	RB	33	0.10	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	57	1.60	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	54	1.00	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	57	1.40	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	50	0.90	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	RB	30	0.10	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	56	1.60	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CH	52	1.20	-	-	-	-
30	Teigen Creek	Teigen Creek	5	EF	1	1	CO	37	0.30	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	RB	112	14.50	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	RB	71	4.50	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	1.30	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CO	40	0.60	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	60	2.50	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	55	1.50	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	57	2.00	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	1.30	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	53	1.30	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	60	2.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	48	1.00	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	57	1.00	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	57	1.70	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	1.50	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	1.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	52	1.50	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	53	1.40	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	52	1.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	52	1.70	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	52	1.70	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CO	40	0.60	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	60	2.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	60	1.90	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	51	1.40	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	49	1.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	60	1.70	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	1.20	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CO	47	0.50	-	-	-	-

Species:
 DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear:
 EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-7. Stream Habitat Biological Data, 2011

Reference No.	Gazetted Names	Local Name	Site No.	Method	Method No.	Haul or Pass	Species Code	Fork Length (mm)	Weight (g)	Age Structure	Age Sample No.	Age	Comments
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	1.00	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	BT	50	0.90	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	50	0.80	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CO	40	0.40	-	-	-	-
29	Teigen Creek	Teigen Creek	4	EF	1	1	CH	58	1.40	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	112	13.80	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	118	15.80	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	100	8.40	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	82	4.70	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	85	6.50	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	70	3.00	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	68	2.70	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	RB	65	2.10	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CH	55	1.30	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CH	54	0.70	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CO	33	0.10	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CH	58	1.30	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CH	53	1.20	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CO	48	0.10	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CO	30	0.10	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CO	30	0.10	-	-	-	-
28	Teigen Creek	Teigen Creek	3	EF	1	1	CO	30	0.10	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	73	4.00	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	110	12.30	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	120	16.80	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	117	17.30	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	125	20.10	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	85	7.00	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	78	5.00	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	95	7.60	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	50	1.00	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	BT/DV	130	21.20	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	BT/DV	145	24.20	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	BT/DV	107	9.90	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	BT/DV	100	9.40	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	DV	98	7.70	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	68	2.80	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	BT/DV	82	4.10	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	RB	68	3.50	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	58	1.50	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CO	30	0.30	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	53	1.60	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	50	1.10	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	55	1.60	-	-	-	-
24	Teigen Creek	Teigen Creek	2B	EF	2	2	CH	58	2.00	-	-	-	-

Species: DV = dolly varden
 RB = rainbow trout
 CH = chinook salmon
 BT = bull trout
 CO = coho salmon
 MWF = mountain whitefish
 LSU = longnose sucker

Gear: EF = electrofisher
 MT = minnow trap
 Dashes indicate not applicable

Appendix 7.3-8

Stream Species Fork Length, Weight and Condition
Standard and Bootstrap Summary Statistics, 2011

Appendix 7.3-8A. Streams: Coho Salmon Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Fork Length (mm)						Bootstrap Fork Length (mm)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	48	37.1	9.5	1.4	27.2	50.0	37.1	1.4	34.8	40.2
Reference	Oweegee Creek	Upper	96	61.2	12.9	1.3	47.8	92.5	61.2	1.3	58.8	63.9
Reference	Snowbank Creek	Trib	7	71.7	25.2	9.5	40.5	101.5	71.7	8.9	54.4	88.9
Reference	Teigen Creek	-	18	41.6	13.3	3.1	30.0	71.6	41.6	3.1	36.3	48.4
Treatment	East Todedada Creek	Combined	285	53.7	21.8	1.3	31.0	102.0	53.7	1.3	51.3	56.2
Treatment	East Todedada Creek	Lower	119	48.3	16.1	1.5	32.0	100.1	48.2	1.5	45.5	51.3
Treatment	East Todedada Creek	Upper	166	57.6	24.4	1.9	30.1	102.0	57.6	1.9	54.0	61.4
Treatment	Oweegee Creek	Lower	68	57.7	13.3	1.6	36.4	89.6	57.7	1.6	54.6	60.9
Treatment	Snowbank Creek	-	4	48.0	5.7	2.8	40.6	52.0	48.0	2.4	43.0	52.0

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8B. Streams: Coho Salmon Weight Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Weight (g)					Bootstrap Weight (g)				
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	48	0.6	1.2	0.2	0.1	1.3	0.6	0.2	0.4	1.0
Reference	Oweegee Creek	Upper	96	2.8	2.0	0.2	1.1	8.1	2.8	0.2	2.4	3.2
Reference	Snowbank Creek	Trib	7	5.3	4.2	1.6	0.7	11.2	5.3	1.5	2.5	8.3
Reference	Teigen Creek	-	18	0.8	1.5	0.4	0.1	4.5	0.8	0.4	0.3	1.6
Treatment	East Todedada Creek	Combined	285	2.5	3.2	0.2	0.2	11.3	2.5	0.2	2.1	2.9
Treatment	East Todedada Creek	Lower	119	1.6	2.4	0.2	0.3	10.3	1.6	0.2	1.2	2.1
Treatment	East Todedada Creek	Upper	166	3.1	3.6	0.3	0.2	11.5	3.1	0.3	2.6	3.7
Treatment	Oweegee Creek	Lower	68	2.4	1.8	0.2	0.3	7.8	2.4	0.2	2.0	2.8
Treatment	Snowbank Creek	-	4	1.2	0.4	0.2	0.7	1.6	1.2	0.2	0.8	1.5

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8C. Streams: Coho Salmon Condition Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Condition						Bootstrap Condition			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	48	0.90	0.19	0.03	0.62	1.21	0.90	0.03	0.85	0.95
Reference	Oweegee Creek	Upper	96	1.05	0.09	0.01	0.86	1.21	1.05	0.01	1.03	1.07
Reference	Snowbank Creek	Trib	7	1.08	0.12	0.05	0.91	1.27	1.08	0.04	1.00	1.17
Reference	Teigen Creek	-	18	0.71	0.33	0.08	0.17	1.17	0.71	0.07	0.56	0.85
Treatment	East Todedada Creek	Combined	285	1.00	0.31	0.02	0.61	1.31	1.00	0.02	0.97	1.04
Treatment	East Todedada Creek	Lower	119	1.06	0.43	0.04	0.76	1.47	1.06	0.04	1.00	1.14
Treatment	East Todedada Creek	Upper	166	0.96	0.16	0.01	0.56	1.19	0.96	0.01	0.94	0.99
Treatment	Oweegee Creek	Lower	68	1.06	0.18	0.02	0.68	1.31	1.06	0.02	1.01	1.10
Treatment	Snowbank Creek	-	4	1.04	0.13	0.06	0.87	1.13	1.04	0.06	0.91	1.12

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8D. Streams: Dolly Varden Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Waterhsed	Location	Standard Fork Length (mm)						Bootstrap Fork Length (mm)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	7	71.0	51.2	19.3	28.0	164.8	71.0	17.8	43.7	110.3
Reference	Snowbank Creek	Trib	14	83.2	37.2	9.9	37.3	139.1	83.2	9.5	64.6	102.2
Reference	Teigen Creek	-	1	98.0	-	-	98.0	98.0	98.0	-	-	-
Reference	Oweegeee Creek	Upper	6	80.3	39.8	16.3	45.9	143.8	80.5	14.8	54.8	112.5
Treatment	East Todedada Creek	Combined	261	89.6	41.2	2.6	30.0	159.0	89.6	2.5	84.7	94.6
Treatment	East Todedada Creek	Lower	33	67.6	23.4	4.1	31.6	110.8	67.6	4.0	59.8	75.5
Treatment	East Todedada Creek	Upper	228	92.8	42.3	2.8	30.0	160.3	92.8	2.8	87.3	98.4
Treatment	Snowbank Creek	-	4	88.0	31.7	15.8	67.4	130.7	88.1	13.6	69.5	119.3

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8E. Streams: Dolly Varden Weight Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Weight (g)						Bootstrap Weight (g)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	7	11.8	26.2	9.9	0.9	60.9	11.8	9.2	1.4	31.8
Reference	Oweegee Creek	Upper	6	8.5	12.7	5.2	0.9	30.6	8.6	4.7	1.8	18.8
Reference	Snowbank Creek	Trib	14	9.0	9.7	2.6	0.4	28.2	9.0	2.5	4.5	14.4
Reference	Teigen Creek	-	1	7.7	-	-	7.7	7.7	7.7	-	-	-
Treatment	East Todedada Creek	Combined	260	11.0	11.5	0.7	0.3	38.0	11.0	0.7	9.6	12.4
Treatment	East Todedada Creek	Lower	33	4.1	4.1	0.7	0.3	13.8	4.1	0.7	2.9	5.6
Treatment	East Todedada Creek	Upper	227	12.0	11.8	0.8	0.3	40.2	12.0	0.8	10.4	13.6
Treatment	Glacier Creek	Lower	2	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3	0.3
Treatment	Snowbank Creek	-	4	8.5	9.1	4.5	3.0	20.8	8.5	4.0	3.3	17.4

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8F. Streams: Dolly Varden Condition Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Condition						Bootstrap Condition			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	6	1.02	0.10	0.04	0.90	1.17	1.02	0.04	0.95	1.10
Reference	Oweegee Creek	Upper	6	0.97	0.05	0.02	0.88	1.02	0.97	0.02	0.92	1.00
Reference	Snowbank Creek	Trib	14	0.97	0.13	0.04	0.71	1.15	0.97	0.03	0.89	1.03
Reference	Teigen Creek	-	1	0.82	-	-	0.82	0.82	0.82	-	-	-
Treatment	East Todedada Creek	Combined	260	0.94	0.12	0.01	0.73	1.23	0.94	0.01	0.93	0.96
Treatment	East Todedada Creek	Lower	33	0.98	0.11	0.02	0.80	1.24	0.98	0.02	0.94	1.02
Treatment	East Todedada Creek	Upper	227	0.94	0.12	0.01	0.72	1.19	0.94	0.01	0.92	0.95
Treatment	Snowbank Creek	-	4	1.00	0.12	0.06	0.90	1.15	1.00	0.05	0.91	1.12

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8G. Streams: Rainbow Trout Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Fork Length (mm)						Bootstrap Fork Length (mm)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	9	88.8	22.6	7.5	68.4	127.4	88.8	7.1	76.1	103.7
Reference	Oweegee Creek	Upper	14	44.3	14.3	3.8	35.0	78.8	44.3	3.7	38.2	52.4
Reference	Teigen Creek	-	32	85.8	26.7	4.7	32.3	121.1	85.8	4.6	76.6	94.7
Treatment	Oweegee Creek	Lower	204	52.4	22.6	1.6	32.1	114.6	52.4	1.6	49.4	55.7
Treatment	Snowbank Creek	-	7	100.1	47.2	17.8	65.5	179.2	100.0	16.3	71.6	134.9

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8H. Streams: Rainbow Trout Weight Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Weight (g)						Bootstrap Weight (g)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	9	11.1	11.0	3.7	3.3	30.1	11.1	3.5	5.0	18.7
Reference	Oweegee Creek	Upper	14	1.2	1.7	0.5	0.4	5.5	1.2	0.4	0.6	2.2
Reference	Teigen Creek	-	32	7.7	6.0	1.1	0.1	17.9	7.7	1.0	5.8	9.9
Treatment	Glacier Creek	Lower	1	22.8	-	-	22.8	22.8	11.5	1.3	8.9	14.1
Treatment	Oweegee Creek	Lower	204	2.8	7.0	0.5	0.4	16.4	2.8	0.5	2.0	3.8
Treatment	Snowbank Creek	-	7	17.2	23.7	8.9	3.2	60.4	17.2	8.3	4.2	34.9

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8I. Streams: Rainbow Trout Condition Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Condition						Bootstrap Condition			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	9	1.21	0.35	0.12	0.94	1.87	1.21	0.11	1.02	1.45
Reference	Oweegee Creek	Upper	14	1.23	1.72	0.46	0.45	5.53	1.23	0.44	0.55	2.22
Reference	Teigen Creek	-	32	0.90	0.22	0.04	0.35	1.17	0.90	0.04	0.82	0.97
Treatment	Oweegee Creek	Lower	204	1.08	0.16	0.01	0.79	1.49	1.08	0.01	1.06	1.10
Treatment	Snowbank Creek	-	7	1.06	0.06	0.02	1.01	1.17	1.06	0.02	1.03	1.11

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8J. Streams: Chinook Salmon Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Fork Length (mm)						Bootstrap Fork Length (mm)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	-	118	54.2	5.2	0.5	46.9	68.0	54.2	0.5	53.3	55.2
Treatment	Oweege Creek	Lower	4	64.8	7.6	3.8	58.2	74.3	64.7	3.3	59.0	71.3
Treatment	Snowbank Creek	-	3	50.3	2.9	1.7	47.3	52.0	50.3	1.4	47.0	52.0

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8K. Streams: Chinook Salmon Weight Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Weight (g)						Bootstrap Weight (g)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	-	118	1.5	0.6	0.1	0.8	2.8	1.5	0.1	1.4	1.6
Treatment	Oweegee Creek	Lower	4	3.4	1.2	0.6	2.1	4.9	3.4	0.5	2.4	4.5
Treatment	Snowbank Creek	-	3	1.3	0.4	0.2	0.9	1.6	1.3	0.2	0.9	1.6

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8L. Streams: Chinook Salmon Condition Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Condition						Bootstrap Condition			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	-	118	0.92	0.18	0.02	0.63	1.21	0.92	0.02	0.89	0.95
Treatment	Oweegee Creek	Lower	4	1.22	0.24	0.12	1.04	1.53	1.22	0.10	1.05	1.44
Treatment	Snowbank Creek	-	3	1.03	0.14	0.08	0.88	1.14	1.03	0.07	0.87	1.14

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8M. Streams: Other Species Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Species	Standard Fork Length (mm)					Bootstrap Fork Length (mm)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	Mountain Whitefish	2	142.0	52.3	37.0	106.9	177.2	142.4	26.0	105.0	179.0
Reference	Teigen Creek	-	Bull Trout	6	102.3	34.0	13.9	54.0	143.1	102.4	12.5	77.0	126.2
Treatment	Oweegee Creek	Lower	Longnose Sucker	3	91.3	17.6	10.2	75.7	109.0	91.3	8.3	75.0	110.0
Treatment	Oweegee Creek	Lower	Mountain Whitefish	1	58.0	-	-	58.0	58.0	29.5	2.2	25.2	33.8

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-8N. Streams: Other Species Weight Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Species	Standard Weight (g)						Bootstrap Weight (g)			
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	Mountain Whitefish	2	42.8	38.9	27.5	16.7	68.9	42.8	19.4	15.3	70.3
Reference	Teigen Creek	-	Bull Trout	6	11.6	9.3	3.8	1.3	23.8	11.6	3.5	5.0	18.4
Treatment	Oweegee Creek	Lower	Longnose Sucker	3	9.8	5.5	3.2	4.9	15.4	9.9	2.6	4.7	15.7
Treatment	Oweegee Creek	Lower	Mountain Whitefish	1	1.7	-	-	1.7	1.7	1.0	0.0	1.0	1.0

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-80. Streams: Other Species Condition Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Species	Standard Condition					Bootstrap Condition				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Gilbert Creek	-	Mountain Whitefish	2	1.27	0.07	0.05	1.23	1.32	1.27	0.03	1.23	1.32
Reference	Teigen Creek	-	Bull Trout	6	0.83	0.10	0.04	0.72	0.96	0.83	0.04	0.76	0.90
Treatment	Oweegee Creek	Lower	Longnose Sucker	3	1.20	0.09	0.05	1.12	1.29	1.20	0.04	1.12	1.29
Treatment	Oweegee Creek	Lower	Mountain Whitefish	1	0.88	-	-	0.88	0.88	0.88	0.00	0.88	0.88

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-9

Stream Species Age Standard and Bootstrap Summary
Statistics, 2011

Appendix 7.3-9A. Streams: Dolly Varden Age Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Age (year)						Bootstrap Age (year)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Snowbank Creek	Trib	5	2.4	0.5	0.2	2.0	3.0	2.4	0.2	2.0	2.8
Treatment	East Todedada Creek	Upper	30	3.2	0.9	0.2	2.0	5.0	3.2	0.2	2.9	3.5
Treatment	Snowbank Creek	-	1	4.0	-	-	4.0	4.0	2.5	0.6	1.5	3.5

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.3-9B. Streams: Rainbow Trout Age Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Location	Standard Age (year)					Bootstrap Age (year)				
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Treatment	Snowbank Creek	-	3	4.0	1.7	1.0	2.2	5.0	4.0	0.8	2.0	5.0

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-1

Treatment and Reference Wetland Site Locations, 2011

Appendix 7.4-1. Treatment and Reference Wetland Site Locations, 2011

Watershed	Local Name	Site No.	Trap No.	UTM	
				Easting	Northing
Treaty Creek	Wetland 2	-	1	457632	6270258
Treaty Creek	Wetland 2	-	2	457678	6270277
Treaty Creek	Wetland 2	-	3	457704	6270208
Treaty Creek	Wetland 2	-	4	457749	6270285
Treaty Creek	Wetland 2	-	5	457771	6270294
Teigen Creek	Wetland 5	-	1	441661	6286404
Teigen Creek	Wetland 5	-	2	441658	6286385
Teigen Creek	Wetland 5	-	3	441655	6286413
Teigen Creek	Wetland 5	-	4	441653	6286426
Teigen Creek	Wetland 5	-	5	441653	6286421
Teigen Creek	Wetland 6	-	1	441088	6285144
Teigen Creek	Wetland 6	-	2	441109	6285149
Teigen Creek	Wetland 6	-	3	441104	6285128
Teigen Creek	Wetland 6	-	4	441102	6285160
Teigen Creek	Wetland 6	-	5	441094	6285173
Teigen Creek	Wetland 4	-	1	445266	6288438
Teigen Creek	Wetland 4	-	2	445262	6288432
Teigen Creek	Wetland 4	-	3	445270	6288444
Teigen Creek	Wetland 4	-	4	445264	6288479
Teigen Creek	Wetland 4	-	5	445235	6288475
Treaty Creek	Compensation Wetland 1	1	1	448696	6270414
Treaty Creek	Compensation Wetland 1	1	2	448717	6270414
Treaty Creek	Compensation Wetland 1	1	3	448707	6270427
Treaty Creek	Compensation Wetland 1	1	4	448674	6270438
Treaty Creek	Compensation Wetland 1	1	5	448663	6270454
Treaty Creek	Compensation Wetland 2	2	1	448512	6270593
Treaty Creek	Compensation Wetland 2	2	2	448515	6270601
Treaty Creek	Compensation Wetland 2	2	3	448492	6270581
Treaty Creek	Compensation Wetland 2	2	4	448468	6270575
Treaty Creek	Compensation Wetland 2	2	5	448447	6270576
Treaty Creek	Wetland 3	-	1	446737	6271656
Treaty Creek	Wetland 3	-	2	446780	6271657
Treaty Creek	Wetland 3	-	3	446781	6271675
Treaty Creek	Wetland 3	-	4	446792	6271711
Treaty Creek	Wetland 3	-	5	446798	6271718
Treaty Creek	Wetland 7	-	1	447067	6271593
Treaty Creek	Wetland 7	-	2	447041	6271597
Treaty Creek	Wetland 7	-	3	447016	6271695
Treaty Creek	Wetland 7	-	4	446959	6271702
Treaty Creek	Wetland 7	-	5	446917	6271736
Teigen Creek	Wetland 8	-	1	442263	6287210
Teigen Creek	Wetland 8	-	2	442250	6287178
Teigen Creek	Wetland 8	-	3	442236	6287179
Teigen Creek	Wetland 8	-	4	442248	6287159
Teigen Creek	Wetland 8	-	5	442249	6287161
Teigen Creek	Wetland 9	-	1	443372	6289237
Teigen Creek	Wetland 9	-	2	443391	6289235
Teigen Creek	Wetland 9	-	3	443368	6289199

Dashes indicate not applicable

Appendix 7.4-1. Treatment and Reference Wetland Site Locations, 2011

Watershed	Local Name	Site No.	Trap No.	UTM	
				Easting	Northing
Teigen Creek	Wetland 9	-	4	443355	6289192
Teigen Creek	Wetland 9	-	5	443343	6289186
Teigen Creek	Compensation Wetland 1	-	1	439625	6283345
Teigen Creek	Compensation Wetland 1	-	2	439702	6283368
Teigen Creek	Compensation Wetland 1	-	3	439731	6283387
Teigen Creek	Compensation Wetland 1	-	4	439741	6283370
Teigen Creek	Compensation Wetland 1	-	5	439724	6283360
Teigen Creek	Compensation Wetland 2	-	1	440110	6283561
Teigen Creek	Compensation Wetland 2	-	2	440105	6283551
Teigen Creek	Compensation Wetland 2	-	3	440105	6283557
Teigen Creek	Compensation Wetland 2	-	4	440097	6283570
Teigen Creek	Compensation Wetland 2	-	5	440081	6283580
Teigen Creek	Compensation Wetland 3	-	1	440373	6283710
Teigen Creek	Compensation Wetland 3	-	2	440381	6283720
Teigen Creek	Compensation Wetland 3	-	3	440374	6283678
Teigen Creek	Compensation Wetland 3	-	4	440331	6283691
Teigen Creek	Compensation Wetland 3	-	5	440337	6283688
Treaty Creek	Wetland 1	-	1	456733	6269963
Treaty Creek	Wetland 1	-	2	456689	6269911
Treaty Creek	Wetland 1	-	3	456688	6269867
Treaty Creek	Wetland 1	-	4	456691	6269824
Treaty Creek	Wetland 1	-	5	456698	6269817
Taft Creek	Compensation Wetland 1	-	1	473978	6262239
Taft Creek	Compensation Wetland 1	-	2	473959	6262250
Taft Creek	Compensation Wetland 1	-	3	474938	6262242
Taft Creek	Compensation Wetland 1	-	4	473940	6262287
Taft Creek	Compensation Wetland 1	-	5	473935	6262307
Taft Creek	Compensation Wetland 2	-	1	473568	6261843
Taft Creek	Compensation Wetland 2	-	2	473557	6261847
Taft Creek	Compensation Wetland 2	-	3	473558	6261844
Taft Creek	Compensation Wetland 2	-	4	473567	6261833
Taft Creek	Compensation Wetland 2	-	5	473585	6261848
Todedada Creek	Wetland 1	-	1	451349	6264752
Todedada Creek	Wetland 1	-	2	451373	6264749
Todedada Creek	Wetland 1	-	3	451325	6264733
Todedada Creek	Wetland 1	-	4	451391	6264746
Todedada Creek	Wetland 1	-	5	451282	6264715
Todedada Creek	Wetland 2	-	1	451242	6264525
Todedada Creek	Wetland 2	-	2	451230	6264522
Todedada Creek	Wetland 2	-	3	451231	6264516
Todedada Creek	Wetland 2	-	4	451214	6264523
Todedada Creek	Wetland 2	-	5	451192	6264522
Oweegee Creek	Wetland 1	-	1	454990	6279968
Oweegee Creek	Wetland 1	-	2	455069	6279871
Oweegee Creek	Wetland 1	-	3	454947	6279939
Oweegee Creek	Wetland 1	-	4	455072	6279868
Oweegee Creek	Wetland 1	-	5	454955	6279943

Dashes indicate not applicable

Appendix 7.4-2

Wetland Minnow Trap Site Effort and Species Catch
Data, 2011

Appendix 7.4-2. Wetland Minnow Trap Site Effort and Species Catch Data, 2011

Watershed	Local Name	Site No.	Trap No.	Date Set	Time Set	Time Set Conversion (h)	Date Pulled	Time Pulled	Time Pulled Conversion (h)	Set Duration Conversion (h)	Total Catch (n)					Fry Catch (n)				Parr Catch (n)				Adult Catch (n)									
											DV	RB	LSU	CO	All	DV	RB	LSU	CO	DV	RB	LSU	CO	DV	RB	LSU	CO						
Treaty Creek	Wetland 2	-	1	16-Sep-11	11:00	11.00	17-Sep-11	10:19	10.32	23.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treaty Creek	Wetland 2	-	2	16-Sep-11	11:10	11.17	17-Sep-11	10:19	10.32	23.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treaty Creek	Wetland 2	-	3	16-Sep-11	11:20	11.33	17-Sep-11	10:28	10.47	23.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treaty Creek	Wetland 2	-	4	16-Sep-11	11:30	11.50	17-Sep-11	10:28	10.47	22.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treaty Creek	Wetland 2	-	5	16-Sep-11	11:50	11.83	17-Sep-11	10:40	10.67	22.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 5	-	1	18-Sep-11	10:56	10.93	19-Sep-11	12:00	12.00	25.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 5	-	2	18-Sep-11	10:56	10.93	19-Sep-11	12:10	12.17	25.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 5	-	3	18-Sep-11	11:15	11.25	19-Sep-11	12:30	12.50	25.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 5	-	4	18-Sep-11	11:15	11.25	19-Sep-11	12:40	12.67	25.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 5	-	5	18-Sep-11	11:25	11.42	19-Sep-11	12:52	12.87	25.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 6	-	1	18-Sep-11	11:40	11.67	19-Sep-11	13:00	13.00	25.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 6	-	2	18-Sep-11	11:50	11.83	19-Sep-11	13:10	13.17	25.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Wetland 6	-	3	18-Sep-11	12:00	12.00	19-Sep-11	13:20	13.33	25.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 6	-	4	18-Sep-11	12:10	12.17	19-Sep-11	13:30	13.50	25.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 6	-	5	18-Sep-11	12:17	12.28	19-Sep-11	13:44	13.73	25.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 4	-	1	18-Sep-11	9:25	9.42	19-Sep-11	10:23	10.38	24.97	0	0	0	16	16	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 4	-	2	18-Sep-11	9:35	9.58	19-Sep-11	10:43	10.72	25.13	1	0	0	13	14	0	0	0	1	0	0	0	12	1	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 4	-	3	18-Sep-11	9:45	9.75	19-Sep-11	11:00	11.00	25.25	0	0	0	17	17	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 4	-	4	18-Sep-11	9:55	9.92	19-Sep-11	11:25	11.42	25.50	0	0	0	15	15	0	0	0	2	0	0	0	13	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 4	-	5	18-Sep-11	10:00	10.00	19-Sep-11	11:47	11.78	25.78	0	0	0	13	13	0	0	0	1	0	0	0	12	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 1	1	1	22-Aug-11	8:00	8.00	23-Aug-11	11:09	11.15	27.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 1	1	2	22-Aug-11	8:05	8.08	23-Aug-11	11:15	11.25	27.17	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 1	1	3	22-Aug-11	8:09	8.15	23-Aug-11	11:20	11.33	27.18	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 1	1	4	22-Aug-11	8:15	8.25	23-Aug-11	11:30	11.50	27.25	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 1	1	5	22-Aug-11	8:18	8.30	23-Aug-11	11:30	11.50	27.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 2	2	1	22-Aug-11	8:30	8.50	23-Aug-11	11:40	11.67	27.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 2	2	2	22-Aug-11	8:32	8.53	23-Aug-11	11:45	11.75	27.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 2	2	3	22-Aug-11	8:40	8.67	23-Aug-11	11:50	11.83	27.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 2	2	4	22-Aug-11	8:45	8.75	23-Aug-11	11:57	11.95	27.20	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Treaty Creek	Compensation Wetland 2	2	5	22-Aug-11	8:50	8.83	23-Aug-11	12:00	12.00	27.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 3	-	1	16-Sep-11	13:02	13.03	17-Sep-11	11:30	11.50	22.47	20	0	0	0	20	0	0	0	0	2	0	0	0	18	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 3	-	2	16-Sep-11	13:12	13.20	17-Sep-11	11:40	11.67	22.47	11	0	0	0	11	0	0	0	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 3	-	3	16-Sep-11	13:22	13.37	17-Sep-11	11:50	11.83	22.47	5	0	0	0	5	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 3	-	4	16-Sep-11	13:32	13.53	17-Sep-11	12:00	12.00	22.47	9	0	0	0	9	0	0	0	0	1	0	0	0	8	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 3	-	5	16-Sep-11	13:40	13.67	17-Sep-11	12:00	12.00	22.33	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 7	-	1	22-Aug-11	7:30	7.50	23-Aug-11	7:10	7.17	23.67	16	0	0	0	16	0	0	0	0	10	0	0	0	6	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 7	-	2	22-Aug-11	7:36	7.60	23-Aug-11	8:00	8.00	24.40	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 7	-	3	22-Aug-11	7:35	7.58	23-Aug-11	8:20	8.33	24.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 7	-	4	22-Aug-11	7:40	7.67	23-Aug-11	8:25	8.42	24.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treaty Creek	Wetland 7	-	5	22-Aug-11	7:42	7.70	23-Aug-11	8:30	8.50	24.80	3	0	0	0	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 8	-	1	21-Aug-11	12:45	12.75	22-Aug-11	11:30	11.50	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 8	-	2	21-Aug-11	12:45	12.75	22-Aug-11	11:30	11.50	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 8	-	3	21-Aug-11	12:45	12.75	22-Aug-11	11:30	11.50	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 8	-	4	21-Aug-11	12:45	12.75	22-Aug-11	11:30	11.50	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 8	-	5	21-Aug-11	12:45	12.75	22-Aug-11	11:30	11.50	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 9	-	1	22-Aug-11	12:00	12.00	23-Aug-11	8:00	8.00	20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 9	-	2	22-Aug-11	12:00	12.00	23-Aug-11	8:00	8.00	20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 9	-	3	22-Aug-11	12:00	12.00	23-Aug-11	8:00	8.00	20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 9	-	4	22-Aug-11	12:00	12.00	23-Aug-11	8:00	8.00	20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Wetland 9	-	5	22-Aug-11	12:00	12.00	23-Aug-11	8:00																									

Appendix 7.4-2. Wetland Minnow Trap Site Effort and Species Catch Data, 2011

Watershed	Local Name	Site No.	Trap No.	Date Set	Time Set	Time Set Conversion (h)	Date Pulled	Time Pulled	Time Pulled Conversion (h)	Set Duration Conversion (h)	Total Catch (n)					Fry Catch (n)				Parr Catch (n)				Adult Catch (n)								
											DV	RB	LSU	CO	All	DV	RB	LSU	CO	DV	RB	LSU	CO	DV	RB	LSU	CO					
Teigen Creek	Compensation Wetland 1	-	1	21-Aug-11	9:00	9.00	22-Aug-11	8:00	8.00	23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teigen Creek	Compensation Wetland 1	-	2	21-Aug-11	9:00	9.00	22-Aug-11	8:00	8.00	23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 1	-	3	21-Aug-11	9:00	9.00	22-Aug-11	8:00	8.00	23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 1	-	4	21-Aug-11	9:00	9.00	22-Aug-11	8:00	8.00	23.00	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 1	-	5	21-Aug-11	9:00	9.00	22-Aug-11	8:00	8.00	23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 2	-	1	21-Aug-11	11:00	11.00	22-Aug-11	9:45	9.75	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 2	-	2	21-Aug-11	11:00	11.00	22-Aug-11	9:45	9.75	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 2	-	3	21-Aug-11	11:00	11.00	22-Aug-11	9:45	9.75	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 2	-	4	21-Aug-11	11:00	11.00	22-Aug-11	9:45	9.75	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 2	-	5	21-Aug-11	11:00	11.00	22-Aug-11	9:45	9.75	22.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 3	-	1	21-Aug-11	12:00	12.00	22-Aug-11	10:00	10.00	22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 3	-	2	21-Aug-11	12:00	12.00	22-Aug-11	10:00	10.00	22.00	2	0	0	15	17	0	0	0	0	0	0	0	0	15	2	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 3	-	3	21-Aug-11	12:00	12.00	22-Aug-11	10:00	10.00	22.00	5	1	0	2	8	0	0	0	0	0	1	0	2	5	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 3	-	4	21-Aug-11	12:00	12.00	22-Aug-11	10:00	10.00	22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Teigen Creek	Compensation Wetland 3	-	5	21-Aug-11	12:00	12.00	22-Aug-11	10:00	10.00	22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treaty Creek	Wetland 1	-	1	16-Sep-11	8:48	8.80	17-Sep-11	8:15	8.25	23.45	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Treaty Creek	Wetland 1	-	2	16-Sep-11	8:53	8.88	17-Sep-11	8:25	8.42	23.53	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Treaty Creek	Wetland 1	-	3	16-Sep-11	9:05	9.08	17-Sep-11	8:35	8.58	23.50	0	0	0	8	8	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	3	
Treaty Creek	Wetland 1	-	4	16-Sep-11	9:23	9.38	17-Sep-11	8:45	8.75	23.37	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Treaty Creek	Wetland 1	-	5	16-Sep-11	9:33	9.55	17-Sep-11	9:10	9.17	23.62	0	0	0	2	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 1	-	1	20-Sep-11	8:30	8.50	21-Sep-11	10:00	10.00	25.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 1	-	2	20-Sep-11	8:43	8.72	21-Sep-11	10:02	10.03	25.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 1	-	3	20-Sep-11	8:53	8.88	21-Sep-11	10:05	10.08	25.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 1	-	4	20-Sep-11	8:53	8.88	21-Sep-11	10:10	10.17	25.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 1	-	5	20-Sep-11	8:57	8.95	21-Sep-11	10:15	10.25	25.30	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
Taft Creek	Wetland 2	-	1	20-Sep-11	9:00	9.00	21-Sep-11	10:00	10.00	25.00	0	0	0	6	6	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 2	-	2	20-Sep-11	9:00	9.00	21-Sep-11	10:15	10.25	25.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 2	-	3	20-Sep-11	9:00	9.00	21-Sep-11	10:25	10.42	25.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 2	-	4	20-Sep-11	9:00	9.00	21-Sep-11	10:25	10.42	25.42	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Taft Creek	Wetland 2	-	5	20-Sep-11	9:00	9.00	21-Sep-11	10:30	10.50	25.50	0	0	0	2	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 1	-	1	20-Sep-11	9:20	9.33	21-Sep-11	10:30	10.50	25.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 1	-	2	20-Sep-11	9:20	9.33	21-Sep-11	10:40	10.67	25.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 1	-	3	20-Sep-11	9:20	9.33	21-Sep-11	10:50	10.83	25.50	0	0	0	4	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 1	-	4	20-Sep-11	9:20	9.33	21-Sep-11	11:00	11.00	25.67	0	0	0	5	5	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 1	-	5	20-Sep-11	9:20	9.33	21-Sep-11	11:10	11.17	25.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 2	-	1	20-Sep-11	12:00	12.00	21-Sep-11	11:30	11.50	23.50	10	0	0	15	25	0	0	0	0	0	0	0	15	10	0	0	0	0	0	0	0	
Todedada Creek	Wetland 2	-	2	20-Sep-11	12:10	12.17	21-Sep-11	12:00	12.00	23.83	4	0	0	17	21	0	0	0	0	2	0	0	17	2	0	0	0	0	0	0	0	
Todedada Creek	Wetland 2	-	3	20-Sep-11	12:20	12.33	21-Sep-11	12:30	12.50	24.17	8	0	0	9	17	0	0	0	0	4	0	0	9	4	0	0	0	0	0	0	0	
Todedada Creek	Wetland 2	-	4	20-Sep-11	12:30	12.50	21-Sep-11	12:30	12.50	24.00	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Todedada Creek	Wetland 2	-	5	20-Sep-11	12:30	12.50	21-Sep-11	13:00	13.00	24.50	6	0	0	30	36	0	0	0	0	0	0	0	30	6	0	0	0	0	0	0	0	
Oweegee Creek	Wetland 1	-	1	18-Sep-11	12:30	12.50	19-Sep-11	12:37	12.62	24.12	0	0	0	42	42	0	0	0	27	0	0	0	15	0	0	0	0	0	0	0	0	
Oweegee Creek	Wetland 1	-	2	18-Sep-11	12:30	12.50	19-Sep-11	12:37	12.62	24.12	0	0	0	63	63	0	0	0	49	0	0	0	14	0	0	0	0	0	0	0	0	
Oweegee Creek	Wetland 1	-	3	18-Sep-11	12:30	12.50	19-Sep-11	12:37	12.62	24.12	1	0	0	37	38	0	0	0	12	0	0	0	25	1	0	0	0	0	0	0	0	
Oweegee Creek	Wetland 1	-	4	18-Sep-11	12:30	12.50	19-Sep-11	12:37	12.62	24.12	0	0	0	31	31	0	0	0	13	0	0	0	18	0	0	0	0	0	0	0	0	
Oweegee Creek	Wetland 1	-	5	18-Sep-11	12:30	12.50	19-Sep-11	12:37	12.62	24.12	0	0	0	31	31	0	0	0	20	0	0	0	11	0	0	0	0	0	0	0	0	

Species:

DV = dolly varden

RB = rainbow trout

CO = coho salmon

LSU = longnose sucker

n = sample size

Dashes indicate not applicable

Appendix 7.4-3

Wetland Species Minnow Trap CPUE Standard and
Bootstrap Summary Statistics, 2011

Appendix 7.4-3A. Wetlands: Coho Salmon Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)					Bootstrap CPUE (fish/trap/24 h)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweegee Creek - Wetland 1	120.6	Fry	5	24.08	15.05	6.73	12.04	46.57	24.01	6.03	13.93	37.22
			Parr	5	16.52	5.29	2.37	11.25	24.18	16.54	2.11	12.94	20.90
			Total	5	40.60	13.17	5.89	30.85	60.61	40.61	5.24	32.04	52.15
Reference	Teigen Creek - Wetland 4	126.6	Fry	5	0.75	0.79	0.35	0.00	1.79	0.75	0.31	0.19	1.32
			Parr	5	13.28	2.32	1.04	11.20	16.08	13.28	0.93	11.50	15.06
			Total	5	14.03	1.78	0.80	12.13	16.08	14.03	0.71	12.69	15.44
Reference	Treaty Creek - Wetland 1	117.5	Fry	5	2.05	1.45	0.65	0.10	3.08	2.04	0.58	0.82	3.07
			Parr	5	1.43	2.24	1.00	0.00	4.80	1.43	0.90	0.00	3.47
			Total	5	3.47	2.76	1.23	1.12	7.66	3.48	1.10	1.83	5.92
Treatment	East Todedada Creek - Compensation Wetland 1	127.5	Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	1.69	2.33	1.04	0.00	4.58	1.70	0.94	0.00	3.56
			Total	5	1.69	2.33	1.04	0.00	4.58	1.68	0.94	0.00	3.56
Treatment	East Todedada Creek - Compensation Wetland 2	120.0	Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	14.15	10.84	4.85	0.89	28.16	14.09	4.32	6.13	22.84
			Total	5	14.15	10.84	4.85	0.89	28.16	14.13	4.34	5.88	22.84
Treatment	Taft Creek - Compensation Wetland 2	126.6	Fry	5	0.19	0.43	0.19	0.00	0.86	0.19	0.17	0.00	0.58
			Parr	5	1.34	2.10	0.94	0.00	4.51	1.33	0.84	0.00	3.26
			Total	5	1.53	2.50	1.12	0.00	5.37	1.53	1.00	0.00	3.83
Treatment	Teigen Creek - Compensation Wetland 1	115.0	Fry	5	0.21	0.47	0.21	0.00	0.94	0.21	0.19	0.00	0.63
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	0.21	0.47	0.21	0.00	0.94	0.21	0.19	0.00	0.63
Treatment	Teigen Creek - Compensation Wetland 3	110.0	Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	3.71	7.14	3.19	0.00	14.95	3.73	2.86	0.00	10.25
			Total	5	3.71	7.14	3.19	0.00	14.95	3.64	2.83	0.00	10.25

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence intervals (95%)

Appendix 7.4-3B. Wetlands: Dolly Varden Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)					Bootstrap CPUE (fish/trap/24 h)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweegee Creek - Wetland 1	120.6	Adult	5	0.20	0.45	0.20	0.00	0.90	0.20	0.18	0.00	0.60
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	0.20	0.45	0.20	0.00	0.90	0.20	0.18	0.00	0.60
Reference	Teigen Creek - Wetland 4	126.6	Adult	5	0.19	0.43	0.19	0.00	0.86	0.19	0.17	0.00	0.57
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	0.19	0.43	0.19	0.00	0.86	0.19	0.17	0.00	0.57
Reference	Treaty Creek - Wetland 3	112.2	Adult	5	8.55	6.71	3.00	1.50	18.16	8.55	2.70	4.06	14.31
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	1.28	1.39	0.62	0.00	3.10	1.28	0.55	0.21	2.35
			Total	5	9.83	7.64	3.42	1.50	20.40	9.83	3.05	4.49	16.24
Reference	Treaty Creek - Wetland 7	122.4	Adult	5	1.22	2.72	1.22	0.00	5.48	1.21	1.08	0.00	3.65
			Fry	5	0.58	0.87	0.39	0.00	1.84	0.58	0.35	0.00	1.36
			Parr	5	2.22	4.45	1.99	0.00	9.22	2.18	1.75	0.00	6.28
			Total	5	4.02	6.92	3.10	0.00	14.89	4.04	2.77	0.20	10.32
Treatment	Taft Creek - Compensation Wetland 1	126.6	Adult	5	0.19	0.42	0.19	0.00	0.85	0.19	0.17	0.00	0.57
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	0.19	0.42	0.19	0.00	0.85	0.19	0.17	0.00	0.57
Treatment	Taft Creek - Compensation Wetland 2	126.6	Adult	5	0.00	-	-	-	-	0.00	-	-	-
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.19	0.42	0.19	0.00	0.85	0.19	0.17	0.00	0.57
			Total	5	0.19	0.42	0.19	0.00	0.85	0.19	0.17	0.00	0.57
Treatment	Teigen Creek - Compensation Wetland 3	110.0	Adult	5	1.53	2.39	1.07	0.00	5.13	1.54	0.95	0.00	3.71
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	1.53	2.39	1.07	0.00	5.13	1.54	0.96	0.00	3.71
Treatment	East Todedada Creek - Compensation Wetland 2	120.0	Adult	5	4.42	3.91	1.75	0.20	9.78	4.43	1.57	1.59	7.71
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	1.40	1.66	0.74	0.00	3.78	1.39	0.66	0.20	2.79
			Total	5	5.81	3.54	1.59	1.30	9.99	5.82	1.41	2.99	8.48
Treatment	Treaty Creek - Compensation Wetland 1	136.0	Adult	5	0.53	0.48	0.22	0.00	0.88	0.53	0.19	0.18	0.88
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	0.53	0.48	0.22	0.00	0.88	0.53	0.19	0.18	0.88
Treatment	Treaty Creek - Compensation Wetland 2	135.9	Adult	5	0.18	0.39	0.18	0.00	0.79	0.18	0.16	0.00	0.53
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.00	-	-	-	-	0.00	-	-	-
			Total	5	0.18	0.39	0.18	0.00	0.79	0.18	0.16	0.00	0.53

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence intervals (95%)

Appendix 7.4-3C. Wetlands: Rainbow Trout Minnow Trap CPUE Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Total Effort (h)	Life Stage	Standard CPUE (fish/trap/24 h)					Bootstrap CPUE (fish/trap/24 h)				
				n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Treatment	Teigen Creek - Compensation Wetland 3	110.0	Adult	5	0.00	-	-	-	-	0.00	-	-	-
			Fry	5	0.00	-	-	-	-	0.00	-	-	-
			Parr	5	0.22	0.49	0.22	0.00	0.98	0.22	0.20	0.00	0.65
			Total	5	0.22	0.49	0.22	0.00	0.98	0.22	0.19	0.00	0.65

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence intervals (95%)

Appendix 7.4-4

Wetland Habitat Biological Data, 2011

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	43	1.11	F	-	-	-	1.40
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	45	1.05	F	-	-	-	1.15
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	46	1.07	F	-	-	-	1.10
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	46	1.00	F	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	46	0.90	F	-	-	-	0.92
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	47	1.44	F	-	-	-	1.39
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	47	1.07	F	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	48	1.10	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	48	1.11	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	48	0.80	F	-	-	-	0.72
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	49	1.16	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	49	1.52	F	-	-	-	1.29
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	49	1.36	F	-	-	-	1.16
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	49	1.23	F	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	49	1.40	F	-	-	-	1.19
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	50	1.54	F	-	-	-	1.23
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	50	1.29	F	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	50	1.08	F	-	-	-	0.86
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	50	1.79	F	-	-	-	1.43
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	50	1.57	F	-	-	-	1.26
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.37	F	-	-	-	1.10
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.53	F	-	-	-	1.22
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.59	F	-	-	-	1.27
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.87	F	-	-	-	1.50
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.42	F	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.30	F	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.44	F	-	-	-	1.15
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.34	F	-	-	-	1.07
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	50	1.36	F	-	-	-	1.09
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	50	1.61	F	-	-	-	1.29
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	50	1.48	F	-	-	-	1.18
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	50	1.42	F	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	50	1.32	F	-	-	-	1.06
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	51	1.51	F	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	51	1.30	F	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	51	1.25	F	-	-	-	0.94
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	51	1.51	F	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	51	1.31	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	52	1.36	F	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	52	1.75	F	-	-	-	1.24
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	52	1.65	F	-	-	-	1.17
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	52	1.41	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	52	1.36	F	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	52	1.44	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	52	1.46	F	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	53	1.59	F	-	-	-	1.07
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	53	1.33	F	-	-	-	0.89
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	53	1.70	F	-	-	-	1.14

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	54	1.60	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	54	1.89	F	-	-	-	1.20
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	54	1.95	F	-	-	-	1.24
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	54	1.81	F	-	-	-	1.15
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	54	1.61	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	54	1.41	F	-	-	-	0.90
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	55	1.69	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	55	1.60	F	-	-	-	0.96
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	55	2.00	F	-	-	-	1.20
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	55	1.89	F	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	55	1.92	F	-	-	-	1.15
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	55	2.10	F	-	-	-	1.26
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	55	1.99	F	-	-	-	1.20
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	55	1.64	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	55	1.91	F	-	-	-	1.15
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	55	1.56	F	-	-	-	0.94
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	55	1.80	F	-	-	-	1.08
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	56	1.76	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	56	1.80	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	56	1.76	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	56	1.91	F	-	-	-	1.09
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	56	2.02	F	-	-	-	1.15
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	56	1.89	F	-	-	-	1.08
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	56	1.88	F	-	-	-	1.07
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	57	1.90	F	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	57	1.89	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	57	1.97	F	-	-	-	1.06
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	57	2.44	F	-	-	-	1.32
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	57	1.50	F	-	-	-	0.81
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	57	2.10	F	-	-	-	1.13
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	57	1.84	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	57	1.90	F	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	57	1.83	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	57	1.72	F	-	-	-	0.93
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	58	2.55	F	-	-	-	1.31
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	58	2.17	F	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	58	2.12	F	-	-	-	1.09
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	58	1.71	F	-	-	-	0.88
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	59	2.04	F	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	59	2.27	F	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	59	2.92	F	-	-	-	1.42
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	59	2.29	F	-	-	-	1.12
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	59	2.06	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	59	2.30	F	-	-	-	1.12
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	59	2.05	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	60	2.34	F	-	-	-	1.08
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	60	2.11	F	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	60	2.53	F	-	-	-	1.17

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	60	2.93	F	-	-	-	1.36
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	60	2.26	F	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	60	2.47	F	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	60	1.99	F	-	-	-	0.92
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	60	2.20	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	60	2.39	F	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	61	2.57	F	-	-	-	1.13
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	61	2.43	F	-	-	-	1.07
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	61	2.26	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	61	2.22	F	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	62	2.86	F	-	-	-	1.20
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	62	2.60	F	-	-	-	1.09
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	62	2.80	F	-	-	-	1.17
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	62	2.44	F	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	62	2.65	F	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	62	1.70	F	-	-	-	0.71
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	62	2.25	F	-	-	-	0.94
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	63	2.14	F	-	-	-	0.86
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	63	2.19	F	-	-	-	0.88
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	64	3.30	F	-	-	-	1.26
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	64	2.64	F	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	65	2.74	F	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	65	3.04	F	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	65	2.69	F	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	65	2.49	F	-	-	-	0.91
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	66	3.17	P	-	-	-	1.10
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	67	3.15	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	68	4.15	P	-	-	-	1.32
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	70	3.76	P	-	-	-	1.10
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	70	3.34	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	70	3.86	P	-	-	-	1.13
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	71	3.95	P	-	-	-	1.10
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	72	4.15	P	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	72	3.99	P	-	-	-	1.07
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	72	3.85	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	72	4.25	P	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	72	3.64	P	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	73	4.00	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	73	3.44	P	-	-	-	0.88
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	73	3.99	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	74	4.11	P	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	74	3.98	P	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	75	4.64	P	-	-	-	1.10
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	75	4.44	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	75	4.18	P	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	75	4.20	P	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	76	4.55	P	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	76	4.28	P	-	-	-	0.97

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	77	4.99	P	-	-	-	1.09
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	77	4.42	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	78	4.80	P	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	78	4.84	P	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	78	4.59	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	79	5.80	P	-	-	-	1.18
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	79	5.61	P	-	-	-	1.14
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	79	5.54	P	-	-	-	1.12
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	79	4.65	P	-	-	-	0.94
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	79	5.10	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	79	5.12	P	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	80	5.38	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	80	5.40	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	80	5.25	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	80	6.08	P	-	-	-	1.19
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	80	5.33	P	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	80	5.37	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	80	4.93	P	-	-	-	0.96
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	80	5.66	P	-	-	-	1.11
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	80	5.26	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	80	5.45	P	-	-	-	1.06
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	81	5.99	P	-	-	-	1.13
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	82	5.41	P	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	82	5.61	P	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	82	5.53	P	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	82	5.85	P	-	-	-	1.06
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	83	6.20	P	-	-	-	1.08
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	84	5.90	P	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	84	5.81	P	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	84	5.98	P	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	84	6.12	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	84	6.13	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	85	6.20	P	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	85	6.40	P	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	85	5.93	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	85	5.98	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	85	7.80	P	-	-	-	1.27
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	86	6.71	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	86	6.43	P	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	87	7.80	P	-	-	-	1.18
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	87	6.66	P	-	-	-	1.01
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	87	6.25	P	-	-	-	0.95
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	88	6.41	P	-	-	-	0.94
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	2	1	CO	88	7.90	P	-	-	-	1.16
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	88	6.58	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	89	6.95	P	-	-	-	0.99
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	89	7.17	P	-	-	-	1.02
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	89	7.72	P	-	-	-	1.10

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	90	7.61	P	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	90	7.66	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	90	7.17	P	-	-	-	0.98
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	91	7.84	P	-	-	-	1.04
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	92	8.19	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	92	7.76	P	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	95	8.56	P	-	-	-	1.00
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	95	9.35	P	-	-	-	1.09
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	5	1	CO	95	9.01	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	4	1	CO	96	9.15	P	-	-	-	1.03
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	1	1	CO	97	9.54	P	-	-	-	1.05
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	CO	98	9.15	P	-	-	-	0.97
19	Oweegee Creek	Oweegee Creek - Wetland 1	1	MT	3	1	DV	140	24.49	A	-	-	-	0.89
15	Taft Creek	Taft Creek - Wetland 1	1	MT	5	1	DV	120	13.80	A	fin ray	1	-	0.80
16	Taft Creek	Taft Creek - Wetland 2	1	MT	1	1	CO	61	2.50	F	-	-	-	1.10
16	Taft Creek	Taft Creek - Wetland 2	1	MT	1	1	CO	68	3.42	P	-	-	-	1.09
16	Taft Creek	Taft Creek - Wetland 2	1	MT	1	1	CO	109	12.95	P	-	-	-	1.00
16	Taft Creek	Taft Creek - Wetland 2	1	MT	5	1	CO	110	16.89	P	-	-	-	1.27
16	Taft Creek	Taft Creek - Wetland 2	1	MT	1	1	CO	114	16.82	P	-	-	-	1.14
16	Taft Creek	Taft Creek - Wetland 2	1	MT	1	1	CO	119	20.80	P	-	-	-	1.23
16	Taft Creek	Taft Creek - Wetland 2	1	MT	1	1	CO	120	20.12	P	-	-	-	1.16
16	Taft Creek	Taft Creek - Wetland 2	1	MT	5	1	CO	122	19.80	P	-	-	-	1.09
16	Taft Creek	Taft Creek - Wetland 2	1	MT	4	1	DV	60	1.89	P	-	-	-	0.88
11	Teigen Creek	Teigen Creek - Compensation Wetland 1	1	MT	4	1	CO	48	1.06	F	-	-	-	0.96
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	73	4.55	P	-	-	-	1.17
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	3	1	CO	83	5.94	P	-	-	-	1.04
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	85	6.60	P	-	-	-	1.07
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	87	7.08	P	-	-	-	1.08
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	3	1	CO	88	7.18	P	-	-	-	1.05
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	90	8.15	P	-	-	-	1.12
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	90	8.14	P	-	-	-	1.12
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	91	7.72	P	-	-	-	1.02
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	92	9.91	P	-	-	-	1.27
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	95	8.86	P	-	-	-	1.03
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	95	10.24	P	-	-	-	1.19
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	95	8.73	P	-	-	-	1.02
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	95	9.76	P	-	-	-	1.14
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	95	10.15	P	-	-	-	1.18
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	100	10.64	P	-	-	-	1.06
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	100	10.46	P	-	-	-	1.05
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	CO	107	13.00	P	-	-	-	1.06
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	DV	101	10.89	A	fin ray	1	-	1.06
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	4	1	DV	107	11.48	A	fin ray	2	-	0.94
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	5	1	DV	110	13.75	A	fin ray	6	-	1.03
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	5	1	DV	111	12.33	A	fin ray	7	-	0.90
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	5	1	DV	114	15.17	A	fin ray	4	-	1.02
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	5	1	DV	130	23.70	A	fin ray	3	-	1.08
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	5	1	DV	160	36.75	A	fin ray	5	-	0.90

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
13	Teigen Creek	Teigen Creek - Compensation Wetland 3	3	MT	3	1	RB	80	4.88	P	-	-	-	0.95
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	52	1.56	F	-	-	-	1.11
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	56	1.93	F	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	58	2.60	F	-	-	-	1.33
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	65	3.35	F	-	-	-	1.22
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	66	3.65	P	-	-	-	1.27
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	69	3.72	P	-	-	-	1.13
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	69	3.36	P	-	-	-	1.02
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	72	4.68	P	-	-	-	1.25
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	73	4.08	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	75	4.45	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	75	4.75	P	-	-	-	1.13
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	75	3.96	P	-	-	-	0.94
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	76	5.27	P	-	-	-	1.20
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	77	5.21	P	-	-	-	1.14
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	78	5.36	P	-	-	-	1.13
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	80	5.46	P	-	-	-	1.07
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	80	4.98	P	-	-	-	0.97
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	82	5.85	P	-	-	-	1.06
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	82	4.29	P	-	-	-	0.78
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	83	6.61	P	-	-	-	1.16
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	90	7.46	P	-	-	-	1.02
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	92	7.62	P	-	-	-	0.98
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	94	9.12	P	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	95	8.98	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	95	8.23	P	-	-	-	0.96
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	97	10.75	P	-	-	-	1.18
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	98	9.96	P	-	-	-	1.06
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	98	9.84	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	98	11.64	P	-	-	-	1.24
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	98	9.99	P	-	-	-	1.06
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	98	10.35	P	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	98	10.33	P	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	100	10.76	P	-	-	-	1.08
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	100	11.76	P	-	-	-	1.18
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	100	11.58	P	-	-	-	1.16
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	100	9.85	P	-	-	-	0.99
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	100	10.33	P	-	-	-	1.03
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	100	10.87	P	-	-	-	1.09
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	100	11.65	P	-	-	-	1.17
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	102	10.65	P	-	-	-	1.00
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	102	12.47	P	-	-	-	1.18
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	103	10.98	P	-	-	-	1.00
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	103	11.50	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	103	10.86	P	-	-	-	0.99
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	104	10.81	P	-	-	-	0.96
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	105	11.71	P	-	-	-	1.01
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	105	12.05	P	-	-	-	1.04

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	105	12.51	P	-	-	-	1.08
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	105	11.17	P	-	-	-	0.96
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	106	11.79	P	-	-	-	0.99
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	106	13.06	P	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	106	10.96	P	-	-	-	0.92
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	106	12.15	P	-	-	-	1.02
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	106	15.44	P	-	-	-	1.30
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	106	12.98	P	-	-	-	1.09
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	107	11.91	P	-	-	-	0.97
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	107	13.06	P	-	-	-	1.07
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	107	13.26	P	-	-	-	1.08
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	107	12.61	P	-	-	-	1.03
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	108	13.22	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	108	13.38	P	-	-	-	1.06
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	5	1	CO	108	13.21	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	108	12.84	P	-	-	-	1.02
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	108	13.16	P	-	-	-	1.04
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	108	13.86	P	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	108	16.15	P	-	-	-	1.28
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	108	13.88	P	-	-	-	1.10
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	108	12.52	P	-	-	-	0.99
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	110	15.35	P	-	-	-	1.15
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	1	1	CO	110	14.79	P	-	-	-	1.11
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	110	15.26	P	-	-	-	1.15
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	CO	110	14.06	P	-	-	-	1.06
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	4	1	CO	111	14.76	P	-	-	-	1.08
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	3	1	CO	113	15.12	P	-	-	-	1.05
4	Teigen Creek	Teigen Creek - Wetland 4	4	MT	2	1	DV	150	32.35	A	fin ray	1	-	0.96
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	4	1	CO	84	5.76	P	-	-	-	0.97
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	3	1	CO	85	6.07	P	-	-	-	0.99
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	3	1	CO	87	6.97	P	-	-	-	1.06
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	3	1	CO	90	8.14	P	-	-	-	1.12
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	4	1	CO	90	8.39	P	-	-	-	1.15
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	3	1	CO	92	7.56	P	-	-	-	0.97
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	4	1	CO	92	7.77	P	-	-	-	1.00
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	4	1	CO	94	9.07	P	-	-	-	1.09
17	Todedada Creek	Todedada Creek - Wetland 1	1	MT	4	1	CO	95	10.22	P	-	-	-	1.19
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	73	4.03	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	79	5.11	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	80	6.00	P	-	-	-	1.17
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	80	4.96	P	-	-	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	80	5.80	P	-	-	-	1.13
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	82	5.22	P	-	-	-	0.95
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	83	5.41	P	-	-	-	0.95
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	83	5.56	P	-	-	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	84	5.81	P	-	-	-	0.98
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	84	5.66	P	-	-	-	0.95
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	85	6.46	P	-	-	-	1.05

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	85	6.06	P	-	-	-	0.99
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	85	6.40	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	85	7.00	P	-	-	-	1.14
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	85	5.50	P	-	-	-	0.90
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	85	6.74	P	-	-	-	1.10
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	86	6.24	P	-	-	-	0.98
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	87	6.83	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	87	7.17	P	-	-	-	1.09
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	88	6.71	P	-	-	-	0.98
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	88	6.75	P	-	-	-	0.99
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	88	6.55	P	-	-	-	0.96
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	88	6.98	P	-	-	-	1.02
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	88	7.03	P	-	-	-	1.03
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	89	7.92	P	-	-	-	1.12
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	89	6.73	P	-	-	-	0.95
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	89	7.43	P	-	-	-	1.05
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	89	7.40	P	-	-	-	1.05
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	90	7.98	P	-	-	-	1.09
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	90	7.37	P	-	-	-	1.01
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	90	7.84	P	-	-	-	1.08
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	90	8.28	P	-	-	-	1.14
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	90	6.85	P	-	-	-	0.94
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	90	6.45	P	-	-	-	0.88
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	90	7.61	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	90	7.58	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	90	7.08	P	-	-	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	90	7.46	P	-	-	-	1.02
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	90	7.58	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	90	7.65	P	-	-	-	1.05
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	90	7.89	P	-	-	-	1.08
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	91	8.12	P	-	-	-	1.08
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	91	8.00	P	-	-	-	1.06
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	CO	91	7.00	P	-	-	-	0.93
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	91	7.67	P	-	-	-	1.02
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	92	7.90	P	-	-	-	1.01
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	92	7.89	P	-	-	-	1.01
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	92	7.52	P	-	-	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	92	7.14	P	-	-	-	0.92
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	92	6.72	P	-	-	-	0.86
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	92	7.55	P	-	-	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	93	8.47	P	-	-	-	1.05
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	93	9.28	P	-	-	-	1.15
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	94	7.98	P	-	-	-	0.96
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	94	7.91	P	-	-	-	0.95
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	95	8.06	P	-	-	-	0.94
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	95	9.00	P	-	-	-	1.05
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	95	9.37	P	-	-	-	1.09
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	95	7.92	P	-	-	-	0.92

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	97	7.02	P	-	-	-	0.77
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	97	9.83	P	-	-	-	1.08
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	98	7.00	P	-	-	-	0.74
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	98	9.50	P	-	-	-	1.01
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	98	9.27	P	-	-	-	0.98
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	98	9.83	P	-	-	-	1.04
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	CO	100	10.12	P	-	-	-	1.01
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	102	10.35	P	-	-	-	0.98
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	103	10.58	P	-	-	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	104	7.98	P	-	-	-	0.71
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	CO	105	12.39	P	-	-	-	1.07
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	CO	110	14.08	P	-	-	-	1.06
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	105	11.74	A	fin ray	1	-	1.01
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	DV	108	10.35	A	fin ray	2	-	0.82
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	DV	110	12.75	A	fin ray	5	-	0.96
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	112	12.80	A	fin ray	5	-	0.91
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	115	13.64	A	fin ray	4	-	0.90
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	116		A	-	-	-	0.00
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	118	14.28	A	fin ray	8	-	0.87
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	119	14.47	A	fin ray	2	-	0.86
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	DV	120	15.44	A	-	-	-	0.89
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	122	16.10	A	fin ray	7	-	0.89
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	DV	124	18.00	A	fin ray	3	-	0.94
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	125	17.60	A	fin ray	5	-	0.90
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	DV	125	17.54	A	fin ray	1	-	0.90
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	129	18.94	A	fin ray	10	-	0.88
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	130	18.75	A	fin ray	6	-	0.85
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	DV	130	21.26	A	fin ray	6	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	137	26.40	A	fin ray	9	-	1.03
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	138	25.63	A	fin ray	3	-	0.98
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	1	1	DV	138	24.40	A	fin ray	4	-	0.93
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	142	25.67	A	fin ray	3	-	0.90
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	DV	165	39.80	A	-	-	-	0.89
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	5	1	DV	170	45.25	A	fin ray	3	-	0.92
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	77	4.36	P	-	-	-	0.96
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	80	4.63	P	-	-	-	0.90
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	DV	84	5.62	P	-	-	-	0.95
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	2	1	DV	90	6.52	P	fin ray	1	-	0.89
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	90	6.47	P	fin ray	2	-	0.89
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	3	1	DV	92	7.53	P	fin ray	1	-	0.97
18	Todedada Creek	Todedada Creek - Wetland 2	2	MT	4	1	DV	92	6.61	P	fin ray	1	-	0.85
5	Treaty Creek	Treaty Creek - Compensation Wetland 1	1	MT	4	1	DV	106	11.44	A	fin ray	4	-	0.96
5	Treaty Creek	Treaty Creek - Compensation Wetland 1	1	MT	2	1	DV	142	24.62	A	fin ray	2	-	0.86
5	Treaty Creek	Treaty Creek - Compensation Wetland 1	1	MT	3	1	DV	148	29.96	A	fin ray	3	-	0.92
6	Treaty Creek	Treaty Creek - Compensation Wetland 2	2	MT	4	1	DV	153	36.32	A	fin ray	4	-	1.01
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	5	1	CO	72	3.88	P	-	-	-	1.04
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	5	1	CO	85	7.20	P	-	-	-	1.17
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	CO	96	12.78	P	-	-	-	1.44

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	CO	125	24.86	P	-	-	-	1.27
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	CO	127	21.50	P	-	-	-	1.05
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	CO	130	26.36	P	-	-	-	1.20
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	CO	134	27.90	P	-	-	-	1.16
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	4	1	DV	110	13.13	A	fin ray	5	-	0.99
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	5	1	DV	115	14.48	A	fin ray	9	-	0.95
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	4	1	DV	120	14.03	A	fin ray	7	-	0.81
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	5	1	DV	123	18.29	A	fin ray	8	-	0.98
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	DV	133	19.90	A	fin ray	2	-	0.85
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	5	1	DV	133	20.60	A	fin ray	10	-	0.88
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	DV	138	23.56	A	fin ray	3	-	0.90
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	4	1	DV	140	28.86	A	fin ray	6	-	1.05
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	2	1	DV	147	33.00	A	fin ray	1	-	1.04
14	Treaty Creek	Treaty Creek - Wetland 1	1	MT	3	1	DV	160	35.86	A	fin ray	4	-	0.88
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	96	7.39	A	fin ray	13	-	0.84
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	97	7.74	A	-	-	-	0.85
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	3	1	DV	98	7.76	A	fin ray	27	-	0.82
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	100	8.59	A	fin ray	20	-	0.86
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	105	9.82	A	-	-	-	0.85
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	110	9.96	A	-	-	-	0.75
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	110	13.22	A	fin ray	23	-	0.99
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	3	1	DV	115	14.05	A	fin ray	25	-	0.92
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	118	12.50	A	fin ray	1	-	0.76
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	118	15.61	A	fin ray	11	-	0.95
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	3	1	DV	120	15.05	A	fin ray	26	-	0.87
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	5	1	DV	128	19.25	A	-	-	-	0.92
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	130	20.73	A	fin ray	18	-	0.94
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	130	19.45	A	fin ray	28	-	0.89
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	133	22.87	A	-	-	-	0.97
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	134	23.72	A	fin ray	30	-	0.99
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	135	22.54	A	fin ray	22	-	0.92
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	140	23.67	A	fin ray	16	-	0.86
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	140	26.63	A	fin ray	19	-	0.97
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	3	1	DV	140	21.15	A	fin ray	24	-	0.77
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	140	25.05	A	-	-	-	0.91
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	140	26.48	A	fin ray	33	-	0.97
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	143	23.20	A	fin ray	3	-	0.79
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	145	24.98	A	-	-	-	0.82
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	3	1	DV	145	29.38	A	-	-	-	0.96
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	147	29.59	A	fin ray	15	-	0.93
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	149	29.60	A	fin ray	2	-	0.89
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	150	31.62	A	fin ray	9	-	0.94
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	150	31.35	A	fin ray	14	-	0.93
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	151	34.97	A	fin ray	12	-	1.02
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	152	29.90	A	fin ray	7	-	0.85
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	155	30.87	A	fin ray	4	-	0.83
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	156	35.24	A	fin ray	32	-	0.93
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	162	38.81	A	fin ray	31	-	0.91

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-4. Wetland Habitat Biological Data, 2011

Reference Number	Gazetted Names	Local Name	Site No.	Method	Method Number	Haul or Pass	Species Code	Length (mm)	Weight (g)	Maturity	Age Structure	Age Sample		Condition
												No.	Age	
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	163	37.35	A	fin ray	34	-	0.86
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	168	47.16	A	-	-	-	0.99
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	170	44.83	A	fin ray	29	-	0.91
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	174	53.95	A	fin ray	10	-	1.02
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	188	57.50	A	fin ray	6	-	0.87
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	200	66.79	A	fin ray	8	-	0.83
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	88	5.95	P	-	-	-	0.87
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	1	1	DV	90	5.75	P	fin ray	5	-	0.79
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	90	5.50	P	fin ray	21	-	0.75
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	92	6.29	P	fin ray	17	-	0.81
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	2	1	DV	95	7.58	P	-	-	-	0.88
7	Treaty Creek	Treaty Creek - Wetland 3	1	MT	4	1	DV	95	8.05	P	fin ray	35	-	0.94
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	96	7.98	A	fin ray	5	-	0.90
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	96	7.18	A	fin ray	12	-	0.81
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	97	7.78	A	fin ray	2	-	0.85
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	98	8.50	A	fin ray	3	-	0.90
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	102	9.19	A	fin ray	11	-	0.87
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	109	10.90	A	fin ray	9	-	0.84
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	2	1	DV	46	1.05	F	-	-	-	1.08
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	5	1	DV	47	0.65	F	-	-	-	0.63
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	5	1	DV	47	0.83	F	-	-	-	0.80
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	63	2.31	P	-	-	-	0.92
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	78	4.73	P	-	-	-	1.00
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	78	4.68	P	-	-	-	0.99
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	81	4.64	P	-	-	-	0.87
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	83	5.33	P	fin ray	10	-	0.93
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	84	4.98	P	fin ray	6	-	0.84
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	88	6.13	P	fin ray	8	-	0.90
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	90	5.88	P	fin ray	1	-	0.81
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	92	6.63	P	fin ray	7	-	0.85
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	5	1	DV	93	7.39	P	fin ray	1	-	0.92
8	Treaty Creek	Treaty Creek - Wetland 7	1	MT	1	1	DV	94	8.01	P	fin ray	4	-	0.96

Dashes indicate not applicable

Species:
 DV = dolly varden
 RB = rainbow trout
 CO = coho salmon

Maturity:
 P = parr
 F = fry
 A = adult

Gear:
 MT = minnow trap

Appendix 7.4-5

Wetland Species Fork Length, Weight and Condition
Standard and Bootstrap Summary Statistics, 2011

Appendix 7.4-5A. Wetlands: Coho Salmon Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Wetland Name	Standard Fork Length (mm)						Bootstrap Fork Length (mm)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweegee Creek	Wetland 1	204	65.7	14.3	1.0	47.0	94.8	65.7	1.0	63.7	67.7
Reference	Teigen Creek	Wetland 4	74	95.0	15.4	1.8	57.7	110.2	95.1	1.8	91.3	98.4
Reference	Treaty Creek	Wetland 1	7	109.9	25.0	9.5	74.0	133.4	109.9	8.8	92.0	125.4
Treatment	East Todedada Creek	Combined	80	90.4	6.2	0.7	80.0	104.0	90.4	0.7	89.1	91.8
Treatment	East Todedada Creek	Wetland 1	9	89.9	3.9	1.3	84.2	94.8	89.9	1.2	87.6	92.1
Treatment	East Todedada Creek	Wetland 2	71	90.5	6.4	0.8	79.8	104.3	90.5	0.8	89.0	92.0
Treatment	Taft Creek	Comp. Wetland 2	8	102.9	24.2	8.6	62.2	121.7	102.9	7.9	85.5	116.9
Treatment	Teigen Creek	Comp. Wetland 1	1	48.0	-	-	-	-	48.0	-	-	-
Treatment	Teigen Creek	Comp. Wetland 3	17	91.8	7.7	1.9	77.0	104.2	91.8	1.8	88.1	95.3

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-5B. Wetlands: Coho Salmon Weight Standard and Bootstrap Summary Statistics, 2011

Type	Waterhsed	Wetland Name	Standard Weight (g)						Bootstrap Weight (g)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweege Creek	Wetland 1	204	3.4	2.2	0.2	1.1	8.5	3.4	0.2	3.1	3.7
Reference	Teigen Creek	Wetland 4	74	9.9	3.9	0.5	2.5	15.4	9.9	0.4	9.0	10.7
Reference	Treaty Creek	Wetland 1	7	17.8	9.7	3.7	4.4	27.7	17.7	3.4	11.0	24.2
Treatment	East Todedada Creek	Combined	80	7.6	1.6	0.2	5.1	10.6	7.6	0.2	7.2	7.9
Treatment	East Todedada Creek	Wetland 1	9	7.8	1.4	0.5	5.8	10.0	7.8	0.4	6.9	8.6
Treatment	East Todedada Creek	Wetland 2	71	7.5	1.6	0.2	5.1	11.0	7.5	0.2	7.2	7.9
Treatment	Taft Creek	Comp. Wetland 2	8	14.2	7.4	2.6	2.7	20.7	14.2	2.4	9.1	18.5
Treatment	Teigen Creek	Comp. Wetland 1	1	1.1	-	-	1.1	1.1	1.1	0.0	1.1	1.1
Treatment	Teigen Creek	Comp. Wetland 3	17	8.7	2.1	0.5	5.1	12.1	8.7	0.5	7.7	9.6

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-5C. Wetlands: Coho Salmon Condition Standard and Bootstrap Summary Statistics, 2011

Type	Waterhsed	Wetland Name	Standard Condition						Bootstrap Condition			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweegee Creek	Wetland 1	204	1.07	0.12	0.01	0.88	1.35	1.07	0.01	1.05	1.08
Reference	Teigen Creek	Wetland 4	74	1.08	0.09	0.01	0.94	1.28	1.08	0.01	1.06	1.10
Reference	Treaty Creek	Wetland 1	7	1.19	0.14	0.05	1.04	1.42	1.19	0.05	1.10	1.29
Treatment	East Todedada Creek	Combined	80	1.01	0.09	0.01	0.77	1.15	1.01	0.01	0.99	1.03
Treatment	East Todedada Creek	Wetland 1	9	1.06	0.08	0.03	0.97	1.18	1.06	0.03	1.01	1.11
Treatment	East Todedada Creek	Wetland 2	71	1.01	0.09	0.01	0.76	1.14	1.01	0.01	0.99	1.02
Treatment	Taft Creek	Comp. Wetland 2	8	1.14	0.09	0.03	1.02	1.26	1.14	0.03	1.08	1.19
Treatment	Teigen Creek	Comp. Wetland 1	1	0.96	-	-	0.96	0.96	0.96	0.00	0.96	0.96
Treatment	Teigen Creek	Comp. Wetland 3	17	1.10	0.07	0.02	1.02	1.24	1.10	0.02	1.07	1.13

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-5D. Wetlands: Dolly Varden Fork Length Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Wetland Name	Standard Fork Length (mm)					Bootstrap Fork Length (mm)				
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweege Creek	Wetland 2	1	140.0	-	-	140.0	140.0	140.0	-	-	-
Reference	Teigen Creek	Wetland 4	1	150.0	-	-	150.0	150.0	150.0	-	-	-
Reference	Treaty Creek	Combined	76	119.4	32.6	3.7	47.0	175.8	119.4	3.7	112.3	126.8
Reference	Treaty Creek	Wetland 1	10	131.9	15.3	4.8	111.1	157.1	131.9	4.6	122.9	141.1
Reference	Treaty Creek	Wetland 3	46	132.5	27.9	4.1	90.0	186.3	132.6	4.1	124.5	140.4
Reference	Treaty Creek	Wetland 7	20	83.1	18.6	4.2	46.5	105.7	83.1	4.1	74.7	90.6
Treatment	East Todedada Creek	Wetland 2	29	117.3	23.0	4.3	79.1	166.5	117.3	4.2	109.3	125.7
Treatment	Taft Creek	Comp. Wetland 1	1	120.0	-	-	120.0	120.0	120.0	-	-	-
Treatment	Taft Creek	Comp. Wetland 2	1	60.0	-	-	60.0	60.0	60.0	-	-	-
Treatment	Teigen Creek	Comp. Wetland 3	7	119.0	20.2	7.6	101.9	155.5	118.9	7.1	107.7	134.1
Treatment	Treaty Creek	Comp. Wetland 1	3	132.0	22.7	13.1	107.8	147.7	132.0	10.7	106.0	148.0
Treatment	Treaty Creek	Comp. Wetland 2	1	153.0	-	-	153.0	153.0	153.0	-	-	-

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-5E. Wetlands: Dolly Varden Weight Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Wetland Name	Standard Weight (g)						Bootstrap Weight (g)				
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI	
Reference	Oweege Creek	Wetland 1	1	24.5	-	-	24.5	24.5	24.5	-	-	-	-
Reference	Teigen Creek	Wetland 4	1	32.4	-	-	32.4	32.4	32.4	-	-	-	-
Reference	Treaty Creek	Combined	76	18.8	14.1	1.6	1.0	54.4	18.8	1.6	15.7	22.1	
Reference	Treaty Creek	Wetland 1	10	22.2	8.0	2.5	13.3	35.2	22.2	2.4	17.7	27.1	
Reference	Treaty Creek	Wetland 3	46	23.7	14.6	2.2	5.8	57.1	23.7	2.1	19.6	28.0	
Reference	Treaty Creek	Wetland 7	20	5.7	2.8	0.6	0.7	10.1	5.7	0.6	4.5	6.9	
Treatment	East Todedada Creek	Wetland 2	28	16.5	9.9	1.9	4.5	41.6	16.5	1.8	13.1	20.4	
Treatment	Taft Creek	Comp. Wetland 1	1	13.8	-	-	13.8	13.8	13.8	-	-	-	-
Treatment	Taft Creek	Comp. Wetland 2	1	1.9	-	-	1.9	1.9	1.9	-	-	-	-
Treatment	Teigen Creek	Comp. Wetland 3	7	17.7	9.4	3.6	11.0	34.8	17.7	3.3	12.3	24.7	
Treatment	Treaty Creek	Comp. Wetland 1	3	22.0	9.5	5.5	12.1	29.7	22.0	4.5	11.4	30.0	
Treatment	Treaty Creek	Comp. Wetland 2	1	36.3	-	-	36.3	36.3	36.3	-	-	-	-

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-5F. Wetlands: Dolly Varden Condition Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Wetland Name	Standard Condition						Bootstrap Condition			
			n	mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Oweege Creek	Wetland 1	1	0.89	-	-	0.89	0.89	0.89	-	-	-
Reference	Teigen Creek	Wetland 4	1	0.96	-	-	0.96	0.96	0.96	-	-	-
Reference	Treaty Creek	Combined	76	0.89	0.08	0.01	0.75	1.04	0.89	0.01	0.88	0.91
Reference	Treaty Creek	Wetland 1	10	0.93	0.08	0.03	0.82	1.05	0.93	0.02	0.89	0.98
Reference	Treaty Creek	Wetland 3	46	0.89	0.07	0.01	0.76	1.01	0.89	0.01	0.87	0.91
Reference	Treaty Creek	Wetland 7	20	0.88	0.09	0.02	0.71	1.04	0.88	0.02	0.84	0.92
Treatment	East Todedada Creek	Wetland 2	28	0.91	0.05	0.01	0.84	1.02	0.91	0.01	0.90	0.93
Treatment	Taft Creek	Comp. Wetland 1	1	0.80	-	-	0.80	0.80	0.80	-	-	-
Treatment	Taft Creek	Comp. Wetland 2	1	0.88	-	-	0.88	0.88	0.88	-	-	-
Treatment	Teigen Creek	Comp. Wetland 3	7	0.99	0.08	0.03	0.90	1.08	0.99	0.03	0.94	1.04
Treatment	Treaty Creek	Comp. Wetland 1	3	0.91	0.05	0.03	0.86	0.96	0.92	0.02	0.86	0.96
Treatment	Treaty Creek	Comp. Wetland 2	1	1.01	-	-	1.01	1.01	1.01	-	-	-

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)

Appendix 7.4-6

Wetland Dolly Varden Age Standard and Bootstrap
Summary Statistics, 2011

Appendix 7.4-6. Wetland Dolly Varden Age Standard and Bootstrap Summary Statistics, 2011

Type	Watershed	Wetland Name	Standard Age (year)						Bootstrap Age (year)			
			n	Mean	SD	SE	Lower CI	Upper CI	Mean	SD	Lower CI	Upper CI
Reference	Teigen Creek	Wetland 4	1	5.0	-	-	5.0	5.0	3.0	0.6	1.8	4.2
Reference	Treaty Creek	Combined	59	3.4	1.1	0.1	2.0	5.6	3.4	0.1	3.1	3.6
Reference	Treaty Creek	Wetland 1	11	3.9	0.5	0.2	3.0	4.8	3.9	0.2	3.6	4.2
Reference	Treaty Creek	Wetland 3	35	3.5	1.2	0.2	1.9	6.2	3.5	0.2	3.2	3.9
Reference	Treaty Creek	Wetland 7	13	2.4	0.7	0.2	2.0	3.7	2.4	0.2	2.1	2.8
Treatment	East Todedada Creek	Wetland 2	25	4.0	0.9	0.2	3.0	5.4	4.0	0.2	3.7	4.3
Treatment	Teigen Creek	Comp. Wetland 3	7	3.3	1.0	0.4	2.2	4.9	3.3	0.3	2.7	4.0
Treatment	Treaty Creek	Comp. Wetland 1	3	3.7	0.6	0.3	3.1	4.0	3.7	0.3	3.0	4.0
Treatment	Treaty Creek	Comp. Wetland 2	1	5.0	-	-	5.0	5.0	3.0	0.6	1.8	4.2

Dashes indicate not applicable

SD = standard deviation of the mean

SE = standard error of the mean

n = sample size

CI = confidence interval (95%)