

**Region3 Yakima River Bull trout Survey 2009**

Upper BUMPING R. SURVEY

9/18/09 YUKI + EASTY

START @ BUMPING Lake @  
1320 h. Temp = 54°f  
(IN RIVER JUST U/S of Lake)

Def = •• = 2

PROB = 0

POS = 0

fish = 0

# Bull Trout Spawning Ground Survey Data Form

Stream: Cle Elum River

Date: Sept. 29, 2009

Location: Start at Silver Creek, ended at Tucquala Lake

Water Temp.: 50° F @ start, 50° F @ end

Investigator: T. Mayo

Start Time: 1217

End Time: 1410

Redds: New Old

Definite: None

Probable: None

Possible: None

## Bull Trout Observed:

Adults: None

Sub-adults: None

Juveniles: None

Comments (mortalities, tagged fish, H2O visibility, etc): Weather – cool, mostly cloudy

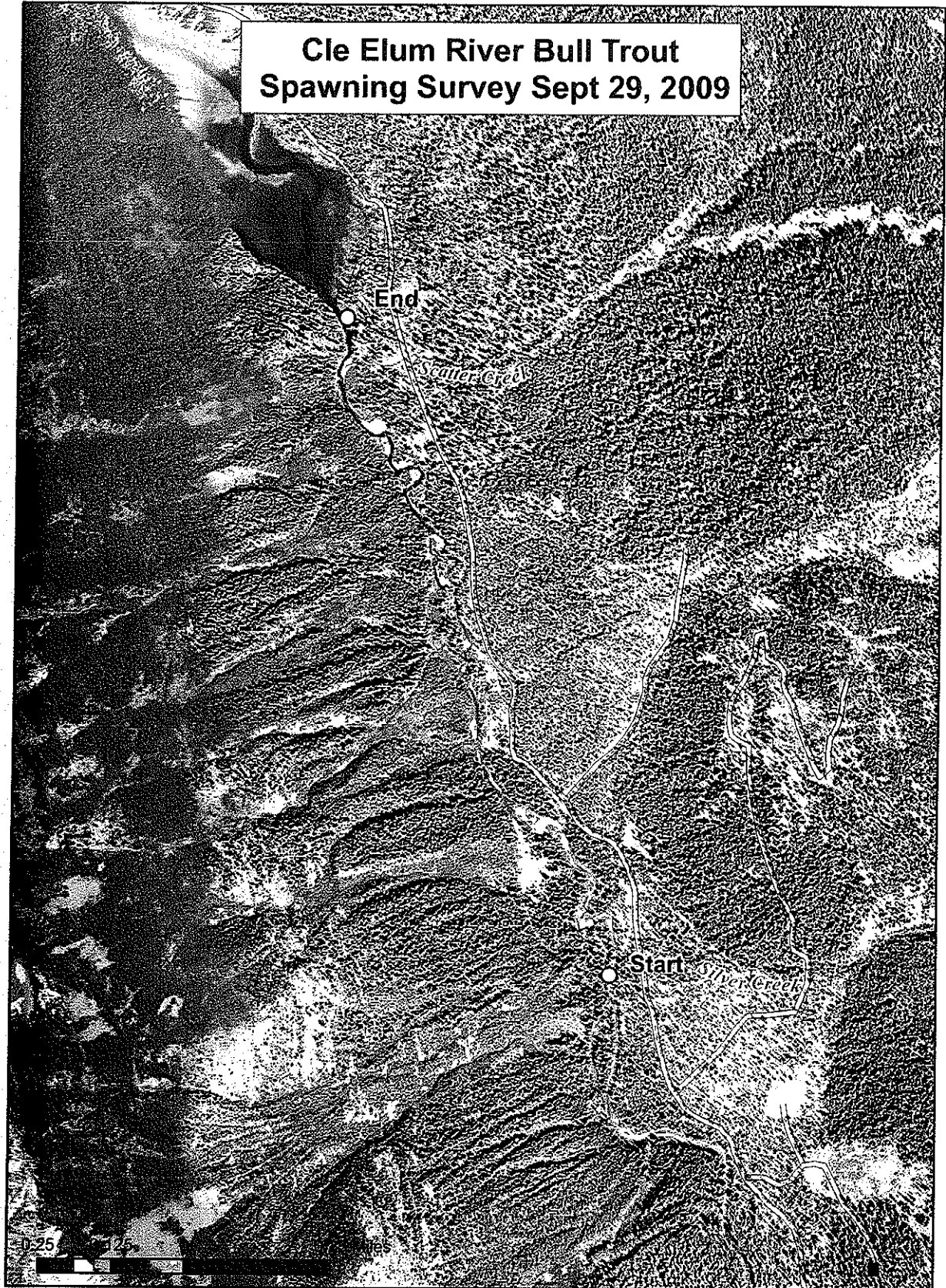
with occasional rain showers. Water visibility good, water level very low. Took GPS points at

start and end of survey reach. Encountered 3 recreation dams which I dismantled as much as

possible. One incorporated large wood from a recent blowdown and was unable to fully

remove (located at the Pena campsite). Saw many juvenile fish in side channels assumed to be

**Cle Elum River Bull Trout  
Spawning Survey Sept 29, 2009**



# Bull Trout Spawning Ground Survey Data Form

Stream: NF Tieton River (First Pass)

Date: October 2, 2009

Location: From about one mile upstream of Scatter Creek to the falls

Water Temp.: Lost my thermometer but it was real cold

Investigator: Jeff Thomas and John Easterbrooks

Start Time: 1000 hours

End Time: 1445 hours

Redds:	New	Old
Definite:	<u>9</u>	<u></u>
Probable:	<u></u>	<u></u>
Possible:	<u></u>	<u></u>

\* Redds were flagged and GPS coordinates obtained

## Bull Trout Observed:

Adults: None

Sub-adults: None

Juveniles: None

**Comments:** We walked in about 9/10 mile and bushwacked to the stream (exit from trail and to the stream is flagged). The starting point of the survey is also flagged (coordinates: N 46<sup>0</sup> 33.828, W 121<sup>0</sup> 21.802). The water clarity was not great but good enough for a survey; the shallows (e.g. riffles) were pretty good but the pools were opaque. The stream cleared a bit as we moved upstream but was still surprisingly cloudy all the way to the falls. The weather was partly cloudy and cool with intermittent light rain (very light). The high country appeared to have gotten a little snow.

The first channel split we came to we flagged and went up the right side (looking upstream). We did not want to split up at that point and Easty did not have a GPS. We figured we would find

where the channels came together upstream and we would survey the other channel when they did. A short distance above the first split the channels split again. The channel on the left (again looking upstream) was fairly wide but moving very slowly and full of silt. It did not look like promising spawning habitat so we again opted not to split up and continued up the right channel. Both of these decisions not to separate proved to be wise.

As we moved upstream in the right channel it became increasingly apparent that some channel changes had taken place since I had last been on the North Fork. Things got really crazy a little further up when the river headed into the deep woods. I definitely did not recall this. There were channels everywhere but they were fairly close to each other and we covered them. It was obvious that these channels were brand new since live trees were in the middle of them. Through the trees off to the right we could occasionally see open areas that we believed to be a former channel. We were right. The stream emerged from the forest and it was really obvious that the river had abandoned its former channel and cut a new one through the woods. A short distance upstream of this point we came to the location that we believed was the place where the channels split going downstream and one, the right channel looking downstream would eventually emerge at the first split I mentioned above. We decided to proceed to the falls and survey that channel on the way back. All this time we were looking for the so-called unnamed tributary where some redds were found last year. We never found it. My guess is that the mouth of it was in the channel that was now abandoned and whatever flow might have been in it was flowing into the now-dry channel and disappearing.

We proceeded to the falls along a single channel that appeared to be on the opposite side of the alluvial valley from where I remembered it before. After reaching the falls we came back down to the split I mentioned above and went down the right channel. It was a jungle and a huge pain in the ass but we found three redds. It was a long trek but we finally merged with the main channel BUT NOT WHERE WE THOUGHT WE WOULD! We came out in the lazy, silt-filled channel that we had bypassed earlier. I have no idea where the channel on the left at the first split (the one we thought we were on) goes to and we did not survey it as it was getting late. It does not appear to originate from the main channel upstream. My guess is that it gathers water from springs and begins to flow as a single channel at some point but I do not believe you would come to the main channel at any point.

The NF is one dynamic system; very tough to survey with two people. It is possible that we missed some redds but probably not a bundle of them. If we make it up there again this year four surveyors should go and radios would be advised. From the time we hit the trail in the morning to the time we returned took just over seven hours.

**South Fork Tieton Redd Coordinates (from 10/1/09)**

redds from the side channel where Eric and Jeff split

	North	West	Redd
1	46° 33.942'	121° 21.943'	Old
2	46° 34.342'	121° 14.545'	Old
3	46° 34.337'	121° 14.557'	Old
4	46° 34.328'	121° 14.563'	Old
5	46° 34.325'	121° 14.564'	Old
6	46° 34.325'	121° 14.564'	Old
7	46° 34.298'	121° 14.585'	Old
8	46° 34.298'	121° 14.585'	New
9	46° 34.294'	121° 14.589'	Old
10	46° 34.294'	121° 14.589'	New
11	46° 34.288'	121° 14.592'	Old
12	46° 34.276'	121° 14.601'	Old
13	46° 34.256'	121° 14.602'	Old
14	46° 34.256'	121° 14.602'	Old
15	46° 34.237'	121° 14.599'	Old
16	46° 34.243'	121° 14.608'	Old
17	46° 34.241'	121° 14.607'	Old
18	46° 34.241'	121° 14.607'	Old
19	46° 34.239'	121° 14.615'	Old
20	46° 34.231'	121° 14.599'	Old
21	46° 34.229'	121° 14.603'	Old
22	46° 34.237'	121° 14.612'	Old
23	46° 34.237'	121° 14.612'	Old

**North Fork Tieton GPS Coordinates (from 10/2/09)**

Survey conducted by Jeff Thomas and Easty- First Pass

Includes both new redds and other coordinates as noted

	North	West	Description
1	46° 33.828'	121° 21.802'	Start of survey
2	46° 33.184'	121° 22.599'	Redd
3	46° 33.018'	121° 22.858'	Redd
4	46° 32.996'	121° 23.027'	Redd
5	46° 32.862'	121° 23.182'	Redd
6	46° 32.862'	121° 23.181'	Major channel change. Old channel abandoned; river takes off through
7	46° 32.435'	121° 23.355'	Redd
8	46° 32.159'	121° 23.427'	Barrier waterfall
9	46° 32.236'	121° 23.449'	Redd
10	46° 32.853'	121° 23.021'	Redd
11	46° 32.882'	121° 22.992'	Redd
12	46° 32.882'	121° 22.992'	Redd
13	46° 33.099'	121° 22.638'	Channel split #1 (downstream of split #2); did not survey, took the
14	46° 33.060'	121° 22.722'	Channel split #2

Forest

right channel

# **Bull Trout Night Snorkel Survey – Deroux Creek/NF Teanaway**

**Date:** October 7th, 2009

**Observers:** William Meyer (WDFW), Judy De La Vergne

**Stream:** Deroux Creek, Tributary to NF Teanaway

**Start/Stop snorkel time:** Start ~7:30pm Finish ~11:00pm

**Weather:** Clear, Calm, Cool (~45°F)

**Survey Area:** Started survey ~75 ft below Deroux confluence in the NF Teanaway and snorkeled up to the mouth of Deroux, then approximately ¾ of the way to the trail crossing.

**Water Temp.:** 39.5 °F (4.2°C)

## **No Bull Trout Observed**

### **Other Fish Species Observed:**

Rainbow	Common (up to ~200-225mm)
Cutthroat Trout	common (up to ~200-225mm)
Shorthead Sculpin	common throughout

**Amphibians:** Tailed frog adult male observed on margin of pool in shallow water

### **Narrative / Comments (H2O visibility, mortalities, tagged fish, etc):**

Judy and I started snorkeling about 75 ft below the Deroux confluence on the NF Teanaway and worked our way up to Deroux Creek. We then snorkeled up Deroux checking most pools and habitat all the way up the survey route. We observed an abundance of cutthroat trout and rainbows up to about 225mm. The margins of the stream had lots of fry. We also observed signs of a disease (?) on many of the fish that appeared as white spots on their sides and were bumps. We observed this on larger fish, and even on the young of year fry. The channel has recruited significantly more wood than the last time I snorkeled it and wood jams/pools have increased greatly. The pools are not only more frequent, but also deeper than the last survey. The insect killed spruce we've seen for the past 7-8 years, seem to be finally falling into the channel. Some of the spruce were very large (4-5 ft diameter). We observed some motorized use of the trail on our way down (either 2 wheeler or 4 wheeler). Judy noted that the spots on the cutthroat looked way different to her than the CT they see up north.



# Bull Trout Spawning Ground Survey Data Form

Stream: Crow Creek

Date: 09.18.09

Location: upper - middle of index upstream to house size boulders/gorge (barrier)

Water Temp.: 47

Investigator: Monk

Start Time: 11:35

End Time: 13:16

Redds:	New	Old	Total
Definite:	<u>2</u>	<u>2</u>	<u>4</u>
Probable:	<u>                    </u>	<u>                    </u>	<u>                    </u>
Possible:	<u>                    </u>	<u>                    </u>	<u>                    </u>

**Bull Trout Observed:**

Adults: one, not on a redd but in a pool

Sub-adults:                     

Juveniles:                     

*There were 3-0ld on 9/18/09. old flag may have been missed or fell off, so (3old, 1 new)*

Comments (mortalities, tagged fish, H2O visibility, etc): Hiking out was a bitch in loose soils on a steep hill. Cummins/Monk lost the flagging coming out and relied on GPS to navigate rather than back track to find marked path.

*EM.*

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# Bull Trout Spawning Ground Survey Data Form

Stream: Kachess River (1<sup>st</sup> Pass)

Date: October 21, 2009

Location: Kachess Reservoir to Mineral Creek Trail.

Water Temp.: 44°F (7°C) at small inflow channel to Kachess Reservoir

Investigator: Scott Willey and Scott Kline

Start Time: 9:26

End Time: 11:20

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>0</u>	<u>0</u>
Probable:	<u></u>	<u></u>
Possible:	<u></u>	<u></u>

## Bull Trout Observed:

Adults: 0 adults: Kachess River is still not connected to the reservoir

Sub-adults: 0

Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):

The Kachess River is still not connected to Kachess Reservoir. We walked down the 1312 trail to the reservoir alluvial fan and found that only a few small rivulets were flowing into the reservoir. These small channels had only recently started to flow from recent rains. The silt and sands covering the gravel was just starting to get washed out from the substrate in these rivulets. The small channels all went subsurface as we walked up the alluvial fan. The Kachess River was completely dry when we got to the main river channel. The survey was canceled at this point and we walked out to the trailhead via the 1312 trail. The Kachess River at the Mineral Creek trail crossing was fairly low and appeared to be lower than in recent years. There was a mixture of lite to moderate rainfall occurring during our survey.

# Bull Trout Spawning Ground Survey Data Form

Stream: Rattlesnake Creek

Date: 09.22.09

Location: MJB trail crossing upstream to Shellcreek Ck *shell creek*

Water Temp.: 45

Investigator: Monk

Start Time: 09:10

End Time: 12:10

<u>Redds:</u>	<u>New</u>	<u>Old</u>	<u>Total</u>
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<u>Definite:</u>	<u>2</u>	<u>5</u>	<u>7</u>
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Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

Bull Trout Observed:

Adults: \_\_\_\_\_

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): For some reason I missed one of the old redds, Cummins marked 6 in this reach but I only found 5 flags. The missing redd was between two that were within hundreds of feet of one another, in an area with a lot of LWD across the creek, so maybe my view of the flag was blocked when I was looking for it.

*or flag was torn off or fell off.*

*\*Note: The upper section from shell to McNeil cr + L. wildcat was not done on this date, will be done at a later date. E.H.*

*(6 old, 1 new total 7)*  
*E.H.*

**Anderson, Eric (DFW)**

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**From:** Gary D Torretta [gtorretta@fs.fed.us]  
**Sent:** Thursday, September 10, 2009 12:40 PM  
**To:** Anderson, Eric (DFW)  
**Cc:** cumijlc@dfw.wa.gov  
**Subject:** Rattlesnake bull trout data

Eric, we completed the survey about 1230, back to trailhead at 1620.

*Survey date 9-9-09*

*EA*

Start time: 1000  
water temp: 41 F  
End time: 1230  
water temp: 43 F

Rattlesnake Creek (Shell to Little Wildcat)  
Def- 10

Fish- 4

Rattlesnake Creek (Lit Wildcat to McNeil) stopped at same place Jim stopped in 2008  
Def- 14  
Pos- 2

*Total = 24  
Redds*

Little Wildcat Creek  
Def-0

Fish- 1

Comment: A lot of the redds were quite small, and small fish (8"-10"presumed to be bull trout) were observed on two redds. Small redds looked like resident bull trout, not fluvial fish.

Legs feel tired today, sorry you had to do Crow Creek back to back with Rattlesnake Creek!

Gary Torretta - Fisheries Biologist  
Okanogan-Wenatchee National Forest  
Naches Ranger District  
(509) 653-1433  
email: [gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)

# Bull Trout Spawning Ground Survey Data Form

Stream: Box Canyon Creek

Date: October 22, 2009

Location: From mouth of Canyon to barrier falls

Water Temp.: 6.1°C @ ~11am

Investigator: William Meyer (WDFW), Scott Willey (BOR)

Start Time: 10:35 from confluence with Lake

End Time: 1:15pm at barrier falls

<u>Redds:</u>	<u>New</u>	<u>Old</u>	<u>Total</u>
Definite:	<u>13</u>	<u>8</u>	<u>= 21</u>
Probable:	<u>0</u>	<u>0</u>	
Possible:	<u>0</u>		

## Bull Trout Observed:

Adults: 4 large adfluvial adults, (One pair on a redd, and two loitering males near redds)

Sub-adults: 0

Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc): GPS of all 21 redd locations.

Mortality: None observed.

Weather: high overcast, cool 45°F, calm

Flow/Visibility/Temp: Good flow, well connected to reservoir and clear water – water level up ~4-5 inches from last survey; 43°F or 6.1°C down near reservoir @~11am.

We walked down to the reservoir and the stream was well connected with good clear flow. Walked up to the falls and noted many (13) new redds. Took GPS points of all redds and the confluence of the Stream and Lake and the barrier falls. No mortality observed. The count includes the two redds that I observed while snorkeling directly under the falls on the 9<sup>th</sup>. The new redds were equally distributed from low to high in the system, typically in similar reaches to the old redds.

*9 of 11 + 1 prev  
last survey  
so adjust total  
(21) 11 new  
redds  
Total = 21  
- missing or misc'd  
# (21) 11?*

*EW*

# Bull Trout Spawning Ground Survey Data Form

Stream: Box Canyon Creek

Date: October 08, 2009

Location: From mouth of Canyon to barrier falls

Water Temp.: 6.7°C @ ~11am

Investigator: William Meyer (WDFW), Scott Willey (BOR), Scott Kline (BOR)

Start Time: 1112 from confluence with Lake

End Time: 2:10pm at barrier falls

Redds:	New	Old	
Definite:	<u>7</u>	<u>2</u>	<u>Total</u>
Probable:	<u>1</u>	<u>0</u>	<u>10</u>
Possible:	<u>3</u>	<u></u>	

Def + Pro,

## Bull Trout Observed:

Adults: 8 large adfluvial adults, (2 each on 4 redds actively spawning/resting etc)

Sub-adults: 0

Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc): GPS of all 13 redd locations.

**Mortality:** None observed.

**Weather:** sunny, cool 50°F, calm

**Flow/Visibility/Temp:** good flow, well connected to reservoir and clear water; 44°F or 6.7°C down near reservoir @11am.

We walked down to the reservoir and the stream was well connected with good clear flow. The channel has shifted all the way against the hillside for its duration and appears to have downcut some in the last year, which will likely keep it there against the hill. This is a switch from past years, when some of the other channels were closer in elevation, and the stream would take them at high water. We were able to take gps points of all redds on the survey. I noted there was a lot more algae on the stream bottom than I have ever seen - nutrient input from campers upstream? Talk to USFS. I returned on Friday (9<sup>th</sup>) in the late afternoon to snorkel the falls pool and on one active redd. Took good video of spawning fish on the gravel piles just below the falls - we have never observed this before, probably because we have never looked. Single female actively digging on one redd, with another nearby. Also took clear video of a spawning pair in the next pool downstream. Recommend a 4<sup>th</sup> pass since it seemed the fish were still actively spawning and there has been such an increase in redds during the past week. Perhaps the fish are later this year?

# Bull Trout Spawning Ground Survey Data Form

Stream: Box Canyon Creek

Date: 9/30/09

Location: kachess reservoir water line to major falls

Water Temp.: 46° F at 1125 hrs , 47° F at 1345 hrs

Investigator: Pat Monk and Scott Kline

Start Time: 1125

End Time: 1345

Redds:                      New    Old

Definite:                      2    \_\_\_\_\_

Probable:                      \_\_\_\_\_

Possible:                      1    \_\_\_\_\_

Bull Trout Observed:

Adults:                      3

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc):

2 adults were paired up on a redd downstream of the canyon reach of this survey. 1 adult was alone upstream of the canyon reach and possibly in poor swimming condition (listing, little gilling or fin movement).

Water visibility was excellent throughout the reach. Fish passage through the reservoir inundation zone was good and flow was estimated visually at 15 cfs.

There appeared to be more LWD in the reach than either of the surveyors had remembered.







# Bull Trout Spawning Ground Survey Data Form

Stream: Gold Creek

Date: 10/2/09

Location: gold creek from highway 90 bridge to downstream of avalanche

Water Temp.: 49° F at 0857 hrs at downstream end of survey reach, 50° F at gold creek pond culvert, 46° F where gold creek flowed again, 45° F at 1225 hrs at upstream end of survey reach

Investigator: Pat Monk and Scott Kline

Start Time: 0857

End Time: 1225

<u>Redds:</u>	New	Old	Total
Definite:	<u>4</u>	<u>13</u>	19
Probable:	<u>2</u>		old + prob.
Possible:	<u>2</u>		

Bull Trout Observed:

Adults: 0

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc):

Water visibility was excellent throughout the reach. The creek was dry above the confluence with the gold creek pond outlet channel until above the cabin area (about 1000' further downstream than it was on 9/23/09). Flow was estimated visually at 5-10 cfs in the upper portion of this survey reach.

There were 17 on last survey, so some Flaps missed or missing, net increase of 2 Redds

19  
EA.

# Bull Trout Spawning Ground Survey Data Form

Stream: Gold Creek (1<sup>st</sup> Pass)

Date: Sept 23, 2009

Location: I-90 Bridges to Avalance/Trail Crossing.

Water Temp.: 53°F (11°C) upstream of I-90 Bridge

54°F (12°C) at outlet of Gold Creek Pond

50°F (10°C) where Gold Cr. rewaters 3/4 to 1 mile upstream of Gold Creek Pond

Investigator: Scott Willey

Start Time: 9:30

End Time: 2:45

Redds:                      New    Old

Definite: 17    \_\_\_\_\_

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

Total 17

## Bull Trout Observed:

Adults: 11 adults between Gold Creek Pond and Avalance/Trail Crossing

Sub-adults: 2 small sub-adults

Juveniles: Many small fry (could be cutthroat) in all wetted areas of the creek

Comments (mortalities, tagged fish, H2O visibility, etc): \_\_\_\_\_

No adult fish holding in deep pool on the downstream side of I-90 bridges or in pool 200 yds upstream of I-90 bridges. I walked about a 1/8<sup>th</sup> of a mile downstream of the I-90 bridges and saw no fish and no stream sections that seemed impassible.

No kokanee observed.

All flow in lower section between Gold Creek Pond and I-90 was from Gold Creek Pond. Gold Creek was completely dry from the Pond to  $\frac{3}{4}$  to 1 mile upstream. No water in residual pools in this section either.

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Very large off-channel beaver dam and huge beaver lodge located between I-90 bridges and Gold Creek Pond.

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Jamie L. (CWU student) has multiple colored flags placed all over the stream channel marking transects?? and places where bull trout were observed.

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**Anderson, Eric (DFW)**

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**From:** Tim Ressigue [timr@yakama.com]  
**Sent:** Wednesday, October 21, 2009 12:19 PM  
**To:** Anderson, Eric (DFW)  
**Subject:** SF Ahtanum Bull Trout Surveys  
**Attachments:** 2004-2009SFahtanumBT.xls

Eric,

We identified 6 Bull Trout Redds in the SF Ahtanum this year. Details are on the attached spread sheet.

Tim

-----  
This mail sent through IMP: <http://horde.org/imp/>

Pass #	Red #	Date	old	new	count	Live BT
	1	1	#####	definite	1	2
		2	#####	definite	1	2
		3	#####	probable	1	2
	2	4	#####	definite	1	
	3	5	#####	definite	1	
total		6	#####	definite	6	6

Location: SF Ahtanum Creek RM 7.7 to RM 10.4 campsite to gate above Reservation Creek

	Lat	Lon
start	46.48008	-120.998
end	46.46578	-121.047







**Anderson, Eric (DFW)**

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**From:** Gary D Torretta [gtorretta@fs.fed.us]  
**Sent:** Thursday, September 17, 2009 8:20 AM  
**To:** Anderson, Eric (DFW)  
**Cc:** yreiss@ybfwrp.org  
**Subject:** RE: Bull Trout Redd Count Surveys

**Eric, here is data from American/Union Creek:**

**9/16/09**

**Water Temp: 45F @1020**

**Water Temp End: 47F @1150**

**Surveyor: Torretta**

**Redds:**

**American River (below Union Creek):**

**1 definite (upgraded old "probable")**

**Union Creek:**

**Old Definite: 4**

**New Definite: 9**

**New Probable: 1**

**No adult bull trout observed.**

Gary Torretta - Fisheries Biologist  
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(509) 653-1433  
email: [gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)



# Bull Trout Spawning Ground Survey Data Form

Stream: Union Creek and American River

Date: 9-08-09

Location: Mouth to falls, plus American River below mouth

Water Temp.: Did not get

Investigator: Yuki Reiss

Start Time: 10:20

End Time: \_\_\_\_\_

<b>Redds:</b>	<u>New</u>	<u>Old</u>
<b>Definite:</b>	<u>4 (Union)</u>	_____

<b>Probable:</b>	<u>1 (Amer)</u>	_____
<b>Possible:</b>	<u>1</u>	_____

**Bull Trout Observed:**

Adults: 6 (Union)

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Bull Trout Spawning Ground Survey Data Form

Stream: Deep Creek

Date: 9-11-09

Location: Culverts to lake

Water Temp.: \_\_\_\_\_

Investigator: Yuki Reiss

Start Time: 10:00

End Time: 1:20

Redds:                      New Adjusted\*    Old Adjusted\*

Definite:                      11 (4)    40 (47) = 51

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

*ER.*

Bull Trout Observed:

Adults: \_\_\_\_\_

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): \* On the previous pass Jim found 47 redds, so some of my "new" redds were likely ones that I did not see the flagging and so marked them again. Thus, likely 4 new redds.

Waypoints were marked on Gary T's USFS GPS. WYPT 2-53 are all redds except 32 & 33 which mark the start and upper extent of water on a side channel. My EPE was ~70 ft all day. Only WYPT 28 was in 2D.

Toadlets everywhere, and fresh chanterelles!

\_\_\_\_\_

Deep creek BK Survey  
(Copper CK → falls)

9/3/09 EASTY + Scott Willey

IN @ 1050 Temp = 45° (7°)

OUT @ 1520 Temp = 0/5

Def =  $\begin{matrix} \text{New} \\ \square \square \square \square \end{matrix} \quad \begin{matrix} \square \square \square \\ \square \square \square \end{matrix} = 27$

Prob =  $\bullet = 41$

Poss =  $\bullet = 1 \quad \bullet = 1$

Live fish =  $\square = 9$

Copper CK falls (Above Bridge)  
TO Mouth

Def =  $\bullet = 2$  0-fish

Prob =  $\bullet = 1$

Temp @ 1035 @ Br. = 49° (6°)

Q ABOVE Copper Approx  
15-20 cfs

LOTS of SPRING WATER  
COMING OUT of UB TALUS  
slope; Temp =  $43^{\circ}$  ( $10^{\circ}$ C)  
Creek @ This location  
=  $45^{\circ}$ C

Spring Q from Talus  
slope approx. 50% of  
Total flow d/s — Q  
CUT in half w/s  
200 meters w/s of Talus  
slope surface @  $\approx$  30 cfs  
↑ of Talus slope radd's  
ARE VERY SMALL — LIKE  
ALTAUNUM BASIN RESIDENT  
SIZE. TEMP ABOVE  
de watered area =  $50^{\circ}$  ( $10^{\circ}$ C)

Q COMES BACK TO  
SURFACE U/S 5-7  
CFS  
SAW 1 10-12" B/C  
in pool in this area.

The 26<sup>th</sup> old def  
is U/S of denuded  
area — big redd  
9' long x 5' wide  
big adfluvial ♀ that  
got up here early before  
section denuded d/s  
est 10 CFS @ redd  
Today → temp = 48° F  
1500h — road culvert without  
1520h " falls



# Bull Trout Spawning Ground Survey Data Form

Stream: Deep Creek

Date: 8/24/09

Location: 1800 Rd. culverts to Copper Creek

Water Temp.: 44.5° Fahrenheit at 1100 hrs

Investigator: Scott Kline and David Child

Start Time: 1100

End Time: 1400

<u>Redds:</u>	New	Old
Definite:	<u>5</u>	<u></u>
Probable:	<u></u>	<u></u>
Possible:	<u></u>	<u></u>

## Bull Trout Observed:

Adults: 2

Sub-adults:

Juveniles:

## Comments (mortalities, tagged fish, H2O visibility, etc):

We found 2 of the redds Jamie Lamperth had flagged and 3 other definite redds for a total of 5 in this reach. We also noted 2 adults. We took down 2008 and older flags as we surveyed.

Water visibility was excellent throughout the reach.

The stream was essentially impassable for about 200 ft starting from where the stream turns right into the woods after it has passed along the left bank slide area. It slowly comes together again in the woods by way of a few different channels.

# Bull Trout Spawning Ground Survey Data Form

Stream: Deep Creek, First Pass

Date: August 24, 2009

Location: Reach: Mouth to the FS road 1800 culverts

Water Temp.: 8 degrees C (start); 9 degrees C (end)

Investigator: Jeff Thomas (USFWS)

Start Time: 1100 hours

End Time: 1335 hours

Redds:                      New    Old

Definite:                      7    \_\_\_\_\_

Probable:                      \_\_\_\_\_

Possible:                      \_\_\_\_\_

## Bull Trout Observed:

Adults: Two on redds; two unassociated with a redd

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): \_\_\_\_\_

Weather was clear and warm. Water clarity was excellent. This reach is chocked full of log jams, some of them massive. Although it is only a mile or so in length, covering it thoroughly requires about 2.5 hours plus another 1.25 or so to get back to the road. Just a note. By the way I surveyed the reach moving downstream and sequentially numbered the seven flags I hung.

Stream:  
Date:  
Location:  
Water Temp:

Indian Cr  
09/30/2009 (final survey)  
Trail to falls and Trail to N. Spring  
42 F @ 1030

Investigator:  
Start Time:  
End Time:

Jim Cummins  
1030

Redds:  
Definite  
Probable  
Possible

	Trail to Falls		Trail to North Spring		Totals
	New	Old	New	Old	
Definite	9	30	9	12	60
Probable	1	3	0	1	5
Possible		1	0	0	65

Handwritten notes: 43 + 22 = 65. Arrows point from 43 to 10 and 33, and from 22 to 9 and 13. A circled '1' is under the 'Old' column for Trail to North Spring.

Bull Trout Observed:  
Adults:  
Sub-adults:  
Juveniles:

4  
0  
0

1

Comments (mortalities, tagged fish, H2O visibility, etc):

Flow low and clear

1 adult mortality just above north spring.

Deleted 2 old def; changed 6 old prob to new def

New beaver activity and ponds. Evidently good population of beavers.

*ok 33  
There were  
31 old found  
last survey,  
2 more found.*

GPS data:

	Lat	Long
Redd and start survey (trail crossing)	46.66372488	-121.2865107
Redds	46.66414272	-121.2863079
Redd	46.66389747	-121.2877682
Redd	46.66393141	-121.2877504
Redd	46.66396494	-121.2875857
Redd	46.66371164	-121.2872688
Redd	46.66336765	-121.2871296
Redd	46.66666986	-121.2907028
Redd upper s spring	46.66952784	-121.2945994
Redd upper s spring	46.669483	-121.2945993
Redd upper s spring	46.66950077	-121.2946276
Redd upper s spring	46.6694897	-121.2946356
Redd upper s spring	46.66945542	-121.2946654
Redd upper s spring	46.6695726	-121.294662
Redd upper s spring	46.66961242	-121.2948434
Redd upper s spring	46.66964804	-121.2948693
Redd upper s spring	46.67053199	-121.2964279
Redd upper s spring	46.67083575	-121.2968428
Redd upper s spring	46.67102125	-121.2969208
Upper S Spring end	46.67173966	-121.2971124
Redd	46.67006747	-121.294814

*There were  
21 old redds  
last survey,  
so some  
new redds  
are likely  
older +  
Flags were  
missed or  
were missing  
(torn off, fell  
off, etc).  
Hence, likely only  
1 new redd,  
instead of 9.*

*Ed.*

**Anderson, Eric (DFW)**

---

**From:** Gary D Torretta [gtorretta@fs.fed.us]  
**Sent:** Tuesday, September 22, 2009 3:43 PM  
**To:** Anderson, Eric (DFW)  
**Subject:** 9/21 Indian Creek survey

Eric, here is what I found in Indian: I'm going to combine everything in the main channel, from North spring to the falls. If you want it broken down further let me know.

start: 0950  
temp: 42 F  
end at falls: 1250  
temp: 40 F

Old Def	9
New Def	36
Old Prob	0
New Prob	7
Old Poss	2 (both were changed to new def)
New Poss	2

*→ includes 2 old probabls EA.*

Adult bull trout: 23 (of which 17 were on redds)

Note: On all redds flagged by JL of CWU, I placed a survey ribbon also, with my redd determination call.

Gary Torretta - Fisheries Biologist  
Okanogan-Wenatchee National Forest  
Naches Ranger District  
(509) 653-1433  
email: [gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)

**Anderson, Eric (DFW)**

---

**From:** Gary D Torretta [gtorretta@fs.fed.us]  
**Sent:** Tuesday, September 29, 2009 9:50 AM  
**To:** Anderson, Eric (DFW)  
**Subject:** RE: 9/21 Indian Creek survey

Ok, here is the breakdown:

Trail Crossing to falls

New Def	22
Old Def	7
New Prob	2
Old Prob	0
New Poss	2
Old Poss	2 (both changed to new def)

*Handwritten: } 22+7 = 29+2 = 31*

Fish 18 (13 on redds)

Trailhead dwnstrm to N. Spring

New Def	14
Old Def	2
New Prob	5
Old Prob	0

*Handwritten: } 14+2+5 = 21*

Fish 5 (4 on redds)

Gary Torretta - Fisheries Biologist  
Okanogan-Wenatchee National Forest  
Naches Ranger District  
(509) 653-1433  
email: [gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)

"Anderson, Eric (DFW)" <[Eric.Anderson2@dfw.wa.gov](mailto:Eric.Anderson2@dfw.wa.gov)>

09/29/2009 08:58 AM

To "Gary D Torretta" <[gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)>

cc

Subject RE: 9/21 Indian Creek survey

Gary,

Yes, it would be good to have it by section if possible . E.g., trail crossing to falls, trail crossing to N.Spring & the 2 s. springs. We are doing Indian & S. Fork tomorrow & Thursday. If you are available to help both days great.....if just one day then your help on S. Fork Tieton on Thursday would be appreciated. Let us know.

Thanks. Eric

**From:** Gary D Torretta [<mailto:gtorretta@fs.fed.us>]  
**Sent:** Tuesday, September 22, 2009 3:43 PM  
**To:** Anderson, Eric (DFW)

# Bull Trout Spawning Ground Survey Data Form

Stream: Indian Creek

Date: ~~9/22/09~~ 9-21-09 *EA*

Location: Hwy 12 bridge to N. Spring, including N. Spring

Water Temp.: 7.4° C in Indian Creek, 6.8° C in N. Spring

Investigator: David Child, Eric Anderson and Bill Nicholson (observer)

Start Time: 0945

End Time: 1458

Redds:	New	Old
Definite:	<u>85</u>	<u>10</u>
Probable:	<u>1</u>	<u>1</u>
Possible:	<u>1</u>	<u>1</u>

*ok, 9 old last survey plus 1 pos. changed to det. EA.*

## Bull Trout Observed:

Adults: 44 associated with redds, 7 loose fish for a total of 51 observed

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc):

*Hwy 12 to N. Spring 69 Redds  
N. Spring 27*

Of the 96 redds in the survey, 27 are within N. Spring. A GPS waypoint was taken for each probable or definite redds from the Bridge up to the beaver dam at N. Spring. I can share that data when needed. *96*

Many kokanee are in Indian Creek spawning and we observed many small redds in shallow water in small cobble and sand for the first 1/2 to 1 mile of the survey. A 10 inch brook trout or bull trout hybrid was observed in N. Spring associated with a spawning pair of large adult bull trout.

# Bull Trout Spawning Ground Survey Data Form

Stream: Indian Creek (2<sup>nd</sup> Pass)

Date: September 10, 2009

Location: Lower reach (Highway to and including the North Spring)

Water Temp.: Start: 8 degrees C; End: 8 degrees C

Investigator: Jeff Thomas, USFWS

Start Time: 0940 hours

End Time: 1400 hours

<u>Redds:</u>	New	Old
Definite:	<u>9</u>	<u></u>
Probable:	<u></u>	<u></u>
Possible:	<u>2</u>	<u></u>

## Bull Trout Observed:

Adults: 5

Sub-adults:

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

Weather was sunny and warm. Water clarity was excellent. Ample streamflow; seemed higher than last week. One of the possible redds (the lowest one) was definitely a redd but the question was what species constructed it. Two fairly large kokanee were observed in the vicinity of the redd (not on it), the only two I saw during the survey. The redd was smallish but could have been a bull trout redd which I initially flagged it as before seeing the kokanee. The other possible redd

was in the main channel right at the N. spring. In retrospect it was probably a bull trout redd, albeit a small and rather messy one. Three of the five adult bull trout observed were loose and unpaired. Three of the nine definite redds were located in the N. spring and two of them had a fish on them.



# Bull Trout Spawning Ground Survey Data Form

Stream: Indian Creek

Date: 9/10/09

Location: N. Spring to Barrier Falls

Water Temp.: 8° C

Investigator: David Child

Start Time: 0950

End Time: 1415, which includes the hike to the trailhead and survey time down to N. Spring

<u>Redds:</u>	New	Old
Definite:	<u>8</u>	<u>1</u>
Probable:	<u>2</u>	<u></u>
Possible:	<u>2</u>	<u></u>

## Bull Trout Observed:

Adults: 8

Sub-adults: 2, I saw two small bull trout associated with larger fish

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

This was the 2<sup>nd</sup> pass through this section. The right bank spring ~one mile up from the trailhead had the old redd and 2 new redds. It appears to be really good habitat and was noticeably cooler than Indian Creek. I observed a few pairs actively on redds in this survey. The possible redds may end up being changed to definite on pass 3 as they seemed to be early digs. This survey would be easier with 3 surveyors. What saved our bacon was our handheld radios and good communication.

## Anderson, Eric (DFW)

---

**From:** Thomas, Jeff [JThomas4@usbr.gov]  
**Sent:** Friday, September 04, 2009 3:02 PM  
**To:** Anderson, Eric (DFW)  
**Subject:** Redd survey forms  
**Attachments:** SF Tieton redd survey\_9-2-09.doc

Actually there is only one of them- from the S. Fork Tieton on September 2nd. The notes for the ~~survey I conducted on the upper reach of Indian Creek on Tuesday the 1st~~ are in the notebook I lent to Jim yesterday and did not get back. Or you could just save this email 'cuz here's what I saw:

\* ~~Can't remember the start and end time of the survey.~~

\* ~~Water temp was 8 degrees C when I started and finished.~~

\* ~~Flagged one redd that was kind of small but definitely a redd and a bull trout probably dug it.~~

\* ~~Saw four adult bulls hanging around waiting for the party to begin.~~

Cheers,

Jeff

# Bull Trout Spawning Ground Survey Data Form

Stream: SF Tieton River Extended Survey

Date: October 8, 2009

Location: From Blue Slide, downstream at least 3.5 miles

Water Temp.: \_\_\_\_\_

Investigator: Gary Torretta

Start Time: 1030

End Time: 1340

Redds:                      New    Old

Definite:                      30    N/A

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

## Bull Trout Observed:

Adults: 5, none were on redds

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): One of the adult bull trout appeared

to have a red floy tag on the right dorsal area. Seven redds found in the lower 300 feet of

Spruce Creek. Only one redd below Bakeoven Campground. This was the only pass of this

reach, since this is the extended survey area. All redds noted with GPS.

\_\_\_\_\_

\_\_\_\_\_

# Bull Trout Spawning Ground Survey Data Form

Stream: SF Tieton River

Date: 10/1//09

Location: Falls to Bear Creek, Jim Cummins will report on Bear Creek and on down to 1050 Rd

Water Temp.: 4.6

Investigator: David Child

Start Time: 1005

End Time: 1205

<u>Redds:</u>	New	Old	
Definite:	<u>3</u>	<u>28</u>	28 31 59
Probable:	<u>                    </u>	<u>                    </u>	
Possible:	<u>                    </u>	<u>1</u>	

## Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: 0

## Comments (mortalities, tagged fish, H2O visibility, etc):

I collected all of the old flags. The flags noted 4 old probable redds. I changed 3 of the probable redds from previous surveys to definite and did not conclude that the other was a redd. I observed 2 morts, all adult bull trout which appeared to be males. I collected GPS points for all of the redds and can provide that data when appropriate.

# Bull Trout Spawning Ground Survey Data Form

Stream: SF Tieton and Bear Creek

Date: Sept 24, 2009

Location: Falls to 1050 Rd (Plus Bear Creek)

Water Temp.: 45° F (7°C) at falls Bear Creek 47°F (8°C)

Investigator: Scott Willey/Pat Monk

Start Time: 10:57-3:30 (upper reach and Bear Creek) 3:30-3:50 (upper until meeting up with Yuki and Jim)

End Time: 3:50

Redds: New  $\begin{matrix} 10 \\ 11 \\ \hline 21 \end{matrix}$  Old  $\begin{matrix} 24 \\ 16 \\ \hline 40 \end{matrix}$  *ok 39 marked last survey*

Definite: 11 (+10 recorded by Yuki and Jim) 24 (+16 found by Yuki and Jim)  
Bear Creek = 19 new redds Bear Creek = 19 old *ok (18 marked last survey)*

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

Bull Trout Observed: \_\_\_\_\_

Adults: 0 adults in upper S.F. Tieton (5 live adults in Bear Creek)

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): \_\_\_\_\_

3 old "probable redds" in upper S.F. were determined to be definite redds. 1 "possible" redd determined to not be a redd.

GPS points were taken for all redds. Scott collected GPS points for upper S.F. Tieton, while Pat took points on Bear Creek. Uppermost redd not GPS'd because of lack of signal.

5 whole or partial bull trout carcasses found in Bear Creek. One carcass skin observed in the upper S.F. section.

$\begin{matrix} 40 \\ 21 \\ \hline 61 \end{matrix}$   
 Falls to 1050  
 Bear = 38  
 19 x 2

*gn.*

# Bull Trout Spawning Ground Survey Data Form

Stream: SF Tieton

Date: Sept 24, 09

Location: (Blue Slide) 1040 Rd to 1050 Rd (Plus a section above 1050)

Water Temp.: 46 F

Investigator: Yuki Reiss/Jim Cummins

Start Time: 10:20-2:38 (lower stretch) 2:45-3:50 (upper until meeting up with Pat and Scott)

End Time: \_\_\_\_\_

Redds: New 1050 → Bear Cr. Old 1050 → Bear Cr.

Definite: 34 (10 in upper) 108 (16 in upper)

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_ 1

## Bull Trout Observed:

Adults: 29 (14 in upper reach) - 1050 → Bear Cr.

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): \_\_\_\_\_

3 old "possible" were determined to be not redds. 1 "possible" moved to "def", 1 "prob" moved to "def", and one "definite" was determined to not be a redd.

GPS points were taken for all redds. Most on Jim's GPS, but 4 points were taken on Yuki's

One fish seen had a scar on the dorsal, possibly from an old tag? Of the fish seen, approx half were on redds and the others were seen in pools etc.

*This area above 1050  
OK - recorded on Scott/Pat  
data sheet.  
E.A.*

*109  
34  
142  
Blue Slide  
to 1050*

*E.A.*



# Bull Trout Spawning Ground Survey Data Form

Stream: South Fork Tieton River

Date: 09.15.09

Location: 1050 Bridge to Bear Creek

Water Temp.: n/a

Investigator: Pat Monk

Start Time: 13:05

End Time: ??

Redds: New

Definite: 7

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

## Bull Trout Observed:

Adults: 8

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): After doing Bear Ck I parked at the 1050 Road Bridge and counted redds walking upstream on the left bank of the river until meeting Thomas and Visser. I met them about 0.5 miles upstream of 1050 bridge. After meeting Thomas/Visser we continued downstream, counting the redds on the right bank of the river. The redds that were counted after we met were recorded by Thomas. My redd count should be added to Thomas' count for the day to obtain a total for the reach.

*include with Thomas + Visser count for this section*  
*1050 to Barrier Falls*  
*(includes Bear to 1050)*  
*Old*



# Bull Trout Spawning Ground Survey Data Form

Stream: Bear Ck, tributary to S. Fk. Tieton

Date: 09.15.09

Location: index reach

Water Temp.: n/a

Investigator: Pat Monk

Start Time: 11:00

End Time: 12:25

Redds:                      New    Old

Definite: 14    3

Probable: 1    \_\_\_\_\_

Possible: \_\_\_\_\_

*18 Total*  
*SM*

## Bull Trout Observed:

Adults: 14

Sub-adults: 1

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): excellent visibility

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Anderson, Eric (DFW)

---

**From:** Gary D Torretta [gtorretta@fs.fed.us]  
**Sent:** Tuesday, September 15, 2009 4:58 PM  
**To:** Anderson, Eric (DFW)  
**Cc:** jthomas@usbr.gov  
**Subject:** RE: Bull Trout Redd Count Surveys

Eric, results of today's survey:

SF Tieton River  
Blue Slide to 1050 Road  
9/15/09  
Surveyors: Torretta/Willey/Nicholai  
Start: 1020 Temp: 46F  
End: 1500 Temp: 50F

Definite: 107  
Probable: 1  
Possible: 5

108

Adult bull trout: 98

Comments: About 30+ fish staging at the pool below the Camp Creek side channel.

A good time was had by all, lots of big fish to see.

Gary Torretta - Fisheries Biologist  
Okanogan-Wenatchee National Forest  
Naches Ranger District  
(509) 653-1433  
email: [gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)

"Anderson, Eric (DFW)" <[Eric.Anderson2@dfw.wa.gov](mailto:Eric.Anderson2@dfw.wa.gov)>

09/15/2009 08:06 AM

To "Anderson, Eric (DFW)" <[Eric.Anderson2@dfw.wa.gov](mailto:Eric.Anderson2@dfw.wa.gov)>, "Alex Conley" <[aconley@ybfwrp.org](mailto:aconley@ybfwrp.org)>, "Brandon Rogers" <[brandonr@yakama.com](mailto:brandonr@yakama.com)>, "Dave Fast" <[fast@yakama.com](mailto:fast@yakama.com)>, "David Child" <[dccconsult@dreamflyfishing.com](mailto:dccconsult@dreamflyfishing.com)>, "David Morgan" <[David.T.Morgan@fws.gov](mailto:David.T.Morgan@fws.gov)>, "Gary Torretta" <[gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)>, "Jeff Krupka" <[Jeff.Krupka@fws.gov](mailto:Jeff.Krupka@fws.gov)>, "Jeff Thomas" <[jthomas@usbr.gov](mailto:jthomas@usbr.gov)>, "Scott, Jennifer L (DFW)" <[Jennifer.Scott@dfw.wa.gov](mailto:Jennifer.Scott@dfw.wa.gov)>, "Jim Matthews" <[jmatthews@yakama.com](mailto:jmatthews@yakama.com)>, "Judy Delavergne" <[Judy.Delavergne@fws.gov](mailto:Judy.Delavergne@fws.gov)>, "Pat Monk" <[pmonk@usbr.gov](mailto:pmonk@usbr.gov)>, "Paul James" <[jamesp@cwu.edu](mailto:jamesp@cwu.edu)>, "Scott Kline" <[skline@pn.usbr.gov](mailto:skline@pn.usbr.gov)>, "Scott Willey" <[swilley@pn.usbr.gov](mailto:swilley@pn.usbr.gov)>, "Tina Mayo" <[tmayo@fs.fed.us](mailto:tmayo@fs.fed.us)>, "Todd Newsome" <[tnews@yakama.com](mailto:tnews@yakama.com)>, "Walt Larrick" <[wlarrick@pn.usbr.gov](mailto:wlarrick@pn.usbr.gov)>, "Meyer, William R (DFW)" <[William.Meyer@dfw.wa.gov](mailto:William.Meyer@dfw.wa.gov)>, <[yreiss@ybfwrp.org](mailto:yreiss@ybfwrp.org)>, "James Lampert" <[lampertj@cwu.edu](mailto:lampertj@cwu.edu)>

cc "Cummins, James L (DFW)" <[James.Cummins@dfw.wa.gov](mailto:James.Cummins@dfw.wa.gov)>, "Easterbrooks, John A (DFW)" <[John.Easterbrooks@dfw.wa.gov](mailto:John.Easterbrooks@dfw.wa.gov)>

Subject RE: Bull Trout Redd Count Surveys

Hello everyone,

# Bull Trout Spawning Ground Survey Data Form

Stream: South Fork Tieton River (First Pass)

Date: September 2, 2009

Location: Blue Slide to the 1050 Road Bridge

Water Temp.: Start: 10 degrees C End: 12 degrees C

Investigator: Jeff Thomas (USFWS), Karen Lindhorst (USFS)

Start Time: 1020 hours

End Time: 1320 hours

Redds:                      New    Old

Definite: None    \_\_\_\_\_

Probable: \_\_\_\_\_

Possible: \_\_\_\_\_

## Bull Trout Observed:

Adults: 44

Sub-adults: \_\_\_\_\_

Juveniles: \_\_\_\_\_

Comments (mortalities, tagged fish, H2O visibility, etc): Weather was clear and warm. Water clarity was fine. Water temperature was apparently too warm as no spawning activity was observed. There was considerable circumstantial evidence of illegal fishing in the reach--Lots of boot tracks, the severed head of a cutthroat. I suspect that it is getting hit pretty hard by poachers. Also saw three otters.

## Anderson, Eric (DFW)

---

**From:** Anderson, Eric (DFW)  
**Sent:** Monday, November 16, 2009 2:47 PM  
**To:** 'Gary D Torretta'  
**Subject:** RE: Yakima Basin Bull Trout Redd Count Summary

Gary,  
Yes, will definitely incorporate into the index. Let's give that lower section 2 passes in the future, Cedar thru Blue Slide. We can start it when we do the second pass on the upper. Will also shove the first pass back a bit ....it's too early.  
Sound ok?  
Eric

---

**From:** Gary D Torretta [mailto:gtorretta@fs.fed.us]  
**Sent:** Monday, November 16, 2009 1:33 PM  
**To:** Anderson, Eric (DFW)  
**Subject:** Re: Yakima Basin Bull Trout Redd Count Summary

Wow, this was a good year, Eric! Are you still considering expanding the SF index area to include downstream to Cedar Creek, since we last talked? I think significant numbers are there frequently enough to include it: 8% of index count in 2003, 12% of index in 2009, and at least 12% in 2006 (I only surveyed to about Spruce Creek in 2006, no survey thru Blue Slide), so actual count could have easily been 30 + redds, or 16+% of index in 2006. Many redds were found thru Blue Slide area in 2009. If you decide to include next year, would you want to survey 3, 2, or 1 pass(es)? Perhaps 2 times would be adequate, to reduce staff time. If we started at Cedar Creek and went to current index start, this would include approximately 2.5 miles.

Thanks for the report,  
Gary

Gary Torretta - Fisheries Biologist  
Okanogan-Wenatchee National Forest  
Naches Ranger District  
(509) 653-1433  
email: [gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)

"Anderson, Eric (DFW)" <[Eric.Anderson2@dfw.wa.gov](mailto:Eric.Anderson2@dfw.wa.gov)>

11/16/2009 12:10 PM

To "Alex Conley" <[aconley@ybfwr.org](mailto:aconley@ybfwr.org)>, "Brandon Rogers" <[brandonr@yakama.com](mailto:brandonr@yakama.com)>, "Dave Fast" <[fast@yakama.com](mailto:fast@yakama.com)>, "David Child" <[dcconsult@dreamflvfishing.com](mailto:dcconsult@dreamflvfishing.com)>, "David Morgan" <[David\\_T\\_Morgan@fws.gov](mailto:David_T_Morgan@fws.gov)>, "Gary Torretta" <[gtorretta@fs.fed.us](mailto:gtorretta@fs.fed.us)>, "Jeff Krupka" <[Jeff\\_Krupka@fws.gov](mailto:Jeff_Krupka@fws.gov)>, "Jeff Thomas" <[jthomas@usbr.gov](mailto:jthomas@usbr.gov)>, "Scott, Jennifer L (DFW)" <[Jennifer.Scott@dfw.wa.gov](mailto:Jennifer.Scott@dfw.wa.gov)>, "Jim Matthews" <[jmatthews@yakama.com](mailto:jmatthews@yakama.com)>, "Judy Delavergne" <[Judy\\_Delavergne@fws.gov](mailto:Judy_Delavergne@fws.gov)>, "Pat Monk" <[pmonk@usbr.gov](mailto:pmonk@usbr.gov)>, "Paul James" <[jamesp@cwu.edu](mailto:jamesp@cwu.edu)>, "Scott Kline" <[skline@pn.usbr.gov](mailto:skline@pn.usbr.gov)>, "Scott Willey" <[swilley@pn.usbr.gov](mailto:swilley@pn.usbr.gov)>, "Tina Mayo" <[tmayo@fs.fed.us](mailto:tmayo@fs.fed.us)>, "Todd Newsome" <[tnews@yakama.com](mailto:tnews@yakama.com)>, "Walt Larrick" <[wlarrick@pn.usbr.gov](mailto:wlarrick@pn.usbr.gov)>, "Meyer, William R (DFW)" <[William.Meyer@dfw.wa.gov](mailto:William.Meyer@dfw.wa.gov)>, "yreibs@ybfwr.org", "James Lamperth" <[lampertj@cwu.edu](mailto:lampertj@cwu.edu)>, "Tim Ressigie" <[timr@yakama.com](mailto:timr@yakama.com)>, "Bob Tuck" <[salmon1242@fairpoint.net](mailto:salmon1242@fairpoint.net)>, "Dale Bambrick" <[Dale.Bambrick@noaa.gov](mailto:Dale.Bambrick@noaa.gov)>, "Karen Lindhorst" <[klindhorst@fs.fed.us](mailto:klindhorst@fs.fed.us)>, "Scott Nicolai" <[vykfp@habitat@elltel.net](mailto:vykfp@habitat@elltel.net)>, "Harvester, Perry J (DFW)" <[Perry.Harvester@dfw.wa.gov](mailto:Perry.Harvester@dfw.wa.gov)>, "Bartrand, Eric L (DFW)" <[Eric.Bartrand@dfw.wa.gov](mailto:Eric.Bartrand@dfw.wa.gov)>, "Renfrow, Brent D (DFW)" <[Brent.Renfrow@dfw.wa.gov](mailto:Brent.Renfrow@dfw.wa.gov)>, "Tayer, Jeff J (DFW)" <[James.Tayer@dfw.wa.gov](mailto:James.Tayer@dfw.wa.gov)>, "Mann, Rich P (DFW)" <[Rich.Mann@dfw.wa.gov](mailto:Rich.Mann@dfw.wa.gov)>, "Ryan Cloud" <[ryan.cloud@wadnr.gov](mailto:ryan.cloud@wadnr.gov)>

cc "Cummins, James L (DFW)" <[James.Cummins@dfw.wa.gov](mailto:James.Cummins@dfw.wa.gov)>, "Easterbrooks, John A (DFW)" <[John.Easterbrooks@dfw.wa.gov](mailto:John.Easterbrooks@dfw.wa.gov)>

Subject Yakima Basin Bull Trout Redd Count Summary

## **Anderson, Eric (DFW)**

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**From:** Anderson, Eric (DFW)  
**Sent:** Monday, November 16, 2009 3:20 PM  
**To:** Anderson, Eric (DFW); Alex Conley; Brandon Rogers; Dave Fast; David Child; David Morgan; Gary Torretta; Jeff Krupka; Jeff Thomas; Scott, Jennifer L (DFW); Jim Matthews; Judy Delavergne; Pat Monk; Paul James; Scott Kline; Scott Willey; Tina Mayo; Todd Newsome; Walt Larrick; Meyer, William R (DFW); Yuki Reiss (yreiss@ybfwr.org); James Lamperth ; Tim Ressigue; Bob Tuck; Dale Bambrick; Karen Lindhorst; Scott Nicolai; Harvester, Perry J (DFW); Bartrand, Eric L (DFW); Renfrow, Brent D (DFW); Tayer, Jeff J (DFW); Mann, Rich P (DFW); Ryan Cloud; Joel Freudenthal  
**Cc:** Cummins, James L (DFW); Easterbrooks, John A (DFW)  
**Subject:** RE: Yakima Basin Bull Trout Redd Count Summary  
**Attachments:** BullTrReddSum09.xls

In addition, we did some exploratory redd count surveys in the N.F. Little Naches R, Quartz Creek & N.F. Quartz Creek, Nile & upper Crow Creek (between the lake & the barrier falls at the current index). No redds/spawning bull trout were encountered, but we will be conducting more investigative work in Nile Creek in 2010.

Eric

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**From:** Anderson, Eric (DFW)  
**Sent:** Monday, November 16, 2009 12:08 PM  
**To:** Alex Conley; Brandon Rogers; Dave Fast; David Child; David Morgan; Gary Torretta; Jeff Krupka; Jeff Thomas; Scott, Jennifer L (DFW); Jim Matthews; Judy Delavergne; Pat Monk; Paul James; Scott Kline; Scott Willey; Tina Mayo; Todd Newsome; Walt Larrick; Meyer, William R (DFW); Yuki Reiss (yreiss@ybfwr.org); James Lamperth ; Tim Ressigue; Bob Tuck; Dale Bambrick; Karen Lindhorst; Scott Nicolai; Harvester, Perry J (DFW); Bartrand, Eric L (DFW); Renfrow, Brent D (DFW); Tayer, Jeff J (DFW); Mann, Rich P (DFW); Ryan Cloud  
**Cc:** Cummins, James L (DFW); Easterbrooks, John A (DFW)  
**Subject:** Yakima Basin Bull Trout Redd Count Summary

Hello Everyone,

Attached is the updated bull trout redd count summary for the Yakima basin.  
Thanks to all those that provided assistance on getting it done.  
We had a good year!

Here are a few high lights & notes:

Indian Creek -- 200 redds, highest count since YR2000. It crashed in 2001, & annual counts have varied from 50-130 redds until now.

Deep Creek -- 178 redds, a new record for that population. Previous record highs were in YR2000 (147 redds) & YR2008 (145 redds).

S.F. Tieton River -- 259 redds in the index area. An additional 30 redds counted in a 3.5 mile reach below the standard index. Another record!

(Note: for year to year comparison purposes the 30 redds were not included with the index total. When included, that makes the count 289).

Box Canyon Creek -- although chronically low redd counts in this stream, it is good to see this one increase. New record, 21 redds.

Ahtanum drainage increased over last year's low (7 redds in 2008) ....18 in 2009.

N.F. Tieton & Kachess Rivers were incomplete counts due to flow, turbidity issues.

Year end index summary count was 795 redds (825 with the 30 in the S.F Tieton). Previous high was 704 in YR2000.

Cheers.....Eric

Eric Anderson  
WDFW District Fish Biologist  
Yakima & Kittitas Counties  
509-457-9301  
[Eric.Anderson2@dfw.wa.gov](mailto:Eric.Anderson2@dfw.wa.gov)

# Bull Trout Spawning Ground Survey Data Form

**Stream:** DeRoux Creek Redd Survey- 2<sup>nd</sup> Pass  
(WDFW did the first pass on Sept 15<sup>th</sup> – no redds; also see night snorkel notes for 10/5-we found no bull trout).

**Date:** 10-5-09

**Location:** DeRoux Creek, beginning at DeRoux Creek confluence and ending at the DeRoux Trail crossing bridge

**Water Temperature:** 4:30 pm, air temp is 11.7 degrees C/ 53 degrees F; water temp is 4.4 degrees C/40 degrees F.

**Weather:** Clear, sunny. No precipitation since Labor Day, cooler weather last week: 60s during day to 30s at night.

**Investigator:** Judy De La Vergne(USFWS)

**Start Time/End Time:** Begin 4:30 pm/End 5:49 pm

<b>Redds:</b>	<b>New</b>	<b>Old</b>
Definite:	<u>  0  </u>	<u>  0  </u>
Probable:	<u>  0  </u>	<u>  0  </u>
Possible:	<u>  2  </u>	<u>  2  </u>

Avg. Redd size:

## **Bull Trout Observed:**

Adults:   0  

Sub-adults:   0  

Juveniles:   0  

**Comments (mortalities, tagged fish, H2O visibility, etc):** I found Eric's first redd flag at about 5:32. There was no change since Eric had flagged on 9-15-09. They did not really look like redds now and there was no mounding or pits that I could see. There were areas of deer tracks nearby in some of the gravel and on the banks, the gravels were very nice in this area (GPS location: 47.42084, 120.95483). Found Eric's second flag just above the first and there was no change (GPS location: 47.2219, 120.95729). There are many new log jams with gravels and small pools

through the area with recent bug killed trees. Habitat looks good, stream volume is small. Saw a many juveniles that were likely westslope cutthroat trout juveniles.



coho released this spring by the Yakama Nation. I stopped at China Point Falls on my way out to check if anything (sockeye or bull trout) might be attempting to get over the falls. I waited for about ½ hour and did not see anything.

Pass #	Red #	Date	old	new	count	Live BT
1	1	09/03/2009		definite	1	2
		09/03/2009		definite	1	2
		09/03/2009		probable	1	2
2	4	09/16/2009		definite	1	
3	5	10/01/2009		definite	1	
total	6	10/01/2009		definite	1	
					6	6

Location: SF Ahtanum Creek RM 7.7 to RM 10.4 campsite to gate above Reservation Creek.

	Lat	Lon
start	46.48008	-120.998
end	46.46578	-121.047

Stream: Crow Creek  
Date: 9/10/2009 (1st survey)  
Location: From lower end of index (beaver pond) up to Eric's start.  
Water Temp: 47 F @ 1125

Investigator: Jim Cummins  
Start Time: 1125  
End Time: NA

Redds: New  
Definite 0  
Probable 0  
Possible 0

Bull Trout Observed:  
Adults: 0  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

Flow low and clear.

Eric did upper part of index area. This data only for area that I walked.

GPS data:	Lat	Long
Start Survey (beaver ponds)	47.01775652	-121.2664107
Right bank trib.	47.01788192	-121.2758405
End where Eric A started	47.02096076	-121.2858368
Better halfway point?	47.02229742	-121.2899211

Stream: Crow Creek  
Date: 09/18/2009 (final survey)  
Location: From lower end of index (beaver pond) up to about halfway point.  
Water Temp: 47 F

Investigator: Jim Cummins  
Start Time: 1100  
End Time: 1315

Redds:	New	Old
Definite	1	0
Probable	0	0
Possible	0	0

Bull Trout Observed:

Adults:	0
Sub-adults:	0
Juveniles:	0

Comments (mortalities, tagged fish, H2O visibility, etc):  
Pat Monk surveyed upper half of index and has more data.  
Small cutthroat present, mostly YOY.

GPS data:	Lat	Long
Redd	47.01721053	-121.2683037
End survey where Pat started	47.02138857	-121.2871687

Stream: Deep Creek  
Date: 9/3/2009 (2nd survey)  
Location: 1800 Rd to Bumping Reservoir  
Water Temp: 45 F @ 1007

Investigator: Jim Cummins  
Start Time: 1007  
End Time: 1254

Redds:	New	Old	Total
Definite	40	7	47
Probable	0	0	0
Possible	0	1	1

Bull Trout Observed:

Adults: 1

Sub-adults:

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

Flows low and clear

GPS data:

	Lat	Long
Deep Cr/Bumping Res confluence	46.84502235	-121.317797
1800 Rd crossing	46.83356822	-121.310905

Stream: Gold Creek  
Date: 9/23/2009 (1st survey)  
Location: Avalanche to lower falls (cascades).  
Water Temp: 47 F @ 1100

Investigator: Jim Cummins  
Start Time: 1100  
End Time: ?

Redds: New  
Definite 7  
Probable  
Possible

Bull Trout Observed:  
Adults: 2  
Sub-adults: 1 8" fish on redd with 2 adults  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):  
Scott Willey surveyed from I-90 Bridge to avalanche (my start location).  
Flows very low and clear. No water in Silver Creek.  
Dry reach identified by GPS data.  
Bull trout cannot pass upstream of avalanche on this date.  
GPS data was collected for redds on the last survey.

GPS data:	Lat	Long
Start just below avalanche	47.43144091	-121.3517523
Redd	47.43156698	-121.3516303
Redd	47.43151492	-121.351684
Redd	47.43229235	-121.3521222
Redd	47.43221783	-121.3512433
Redd	47.4322734	-121.3512539
Redd	47.432434	-121.3514324
House sized rock - photo	47.4372494	-121.3511864
Redd	47.44039186	-121.349873
Silver Creek - dry	47.44207981	-121.3488036
Low flow barrier photo	47.44420479	-121.3491351
Dry channel - photo	47.44633673	-121.3480902
Watered up again - photo	47.44692405	-121.3476287
End Lower falls - photos	47.45087402	-121.341602

Stream: Indian Creek  
Date: 09/01/2009 (1st survey)  
Location: Highway 12 to North Spring and North Spring  
Water Temp: 47F N. Spring 45F

Investigator: Jim Cummins and Scott Willey  
Start Time: 950  
End Time: 1330

Redds: New  
Definite 0  
Probable 0  
Possible 0

Bull Trout Observed:  
Adults: 0  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):

Flows low and clear, weather warm, high clouds.

J. Thomas surveyed upper reaches, and we helped from N. Spring to trail crossing.

No GPS data on this first survey.

Stream: Kettle Creek - American R trib.  
Date: 08/27/2009 (1st survey)  
Location: Mouth to cascades  
Water Temp: 45F

Investigator: Jim Cummins  
Start Time:  
End Time:

Redds:	New
Definite	0
Probable	0
Possible	0

Bull Trout Observed:  
Adults: 0  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):  
Flows low, clear, but good fish access from American River.  
We decided that this survey was conducted too early.  
Did not survey upper American R this date. Eric surveyed Union Cr with same result.  
Could not get satellites at end of survey to get lat, long., but same location as every other year



Stream: North Fork Ahtanum  
Date: 09/04/2009 1st survey)  
Location: Grey Rock Trail crossing to first road (bridge) crossing upstream  
Water Temp: 45 F

Investigator: Jim Cummins  
Start Time: 945  
End Time: 1108

Redds: New  
Definite 0  
Probable  
Possible

Bull Trout Observed:  
Adults: 0  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc:

Flows low and clear.

Eric surveyed upstream part of this index reach.

GPS data:

	Lat	Long
Grey Rock Trail - start	46.52889	-121.1229758
Bridge - end	46.529247	-121.1462333

Stream: North Fork Ahtanum Creek  
Date: 09/29/2009 (final survey)  
Location: Bridge with locked gate to Shellneck Cr and Shellneck Cr.  
Water Temp: NF Ahtanum 40 F; Shellneck 38 F.

Investigator: Jim Cummins  
Start Time: 1056  
End Time: 1158

	North Fork Ahtanum		Shellneck	
Redds:	New	Old	New	Old
Definite	0	0	0	0
Probable	0	0	1	0
Possible	0	0	0	0

Bull Trout Observed:		
Adults:	0	0
Sub-adults:	0	0
Juveniles:	0	0

Comments (mortalities, tagged fish, H2O visibility, etc:

Weather cold, mostly sunny

A few salmonid fry and fish to 8 inches observed.

Flows low and clear.

Eric Anderson surveyed lower half of index reach.

GPS data:	Lat	Long
Redd in Shellneck Cr.	46.5292916	-121.1636574
End survey in Shellneck Cr	46.5290421	-121.1654244

Stream: North Fork Teanaway and DeRoux Creek  
Date: 09/15/2009  
Location: Explore new area. See GPS data  
Water Temp:

Investigator: Jim Cummins and Eric Anderson. Eric has more data  
Start Time: 1048  
End Time:

Redds: New  
Definite 0  
Probable 0  
Possible 2 De Roux Creek

Bull Trout Observed:  
Adults: 0  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):  
Started below De Roux Creek, walked De Roux to footbridge, then NF Teanaway to falls.  
Flows low and clear. De Roux Creek is very small.

This is not an index area survey.

GPS data:	Lat	Long
Start below DeRoux Cr	47.416611	-120.93824
NF Teanaway/DeRoux confluence	47.418936	-120.94117
Pos Redd and photo	47.421211	-120.95539
End Survey DeRoux Cr - footbridge	47.422022	-120.95733
Falls on NF Teanaway -photos	47.429025	-120.93861

Stream: Nile Creek  
Date: 09/25/2009  
Location: Upstream from 1611 Rd crossing (near Orr Creek).  
Water Temp: 50 F @ 1030

Investigator: Jim Cummins and Yuki Reiss  
Start Time: 1030  
End Time: 1130

Redds: New  
Definite 0  
Probable 0  
Possible 0

Bull Trout Observed:  
Adults: 0  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):

Flows very low and clear.

Limited spawning habitat

YOY salmonids plentiful, and a few to 7 inches.

Nile Creek at Nile Road 57 F @ 1330.

Small salmonids plentiful above and below Nile Rd.

No bull trout observed in vicinity of Nile Rd.

GPS data:	Lat	Long
Start	46.8579445	-121.040997
End	46.8641768	-121.0551397

Stream: Rattlesnake Creek  
Date: 9/22/2009 (final survey)  
Location: Trail 1114 crossing upstream to MJB Trail crossing.  
Water Temp: 43 F @ 1015

Investigator: Jim Cummins (Pat Monk surveyed upstream from MJB Trail crossing).  
Start Time: 1015  
End Time: 1300

Redds:	New	Old
Definite	2	0
Probable	0	0
Possible	0	0

Bull Trout Observed:

Adults:	0
Sub-adults:	0
Juveniles:	0

Comments (mortalities, tagged fish, H2O visibility, etc):

Flows low and clear, weather cool, but good.

The area upstream from Shellneck was not surveyed this date.

Trail 1114 crosses Rattlesnake Creek several times; see GPS data for start location.

GPS data:		Lat	Long
Start	434	46.77201639	-121.16826
Redd	436	46.77082289	-121.169781
Redd	437	46.75598172	-121.176268
End Survey (MJB Trail crossing)	438	46.75082291	-121.177967

Stream: Quartz Creek (South Fork); Little Naches R trib.  
Date: 09/16/2009  
Location: See GPS data  
Water Temp: 49 F

Investigator: Jim Cummins and Eric Anderson  
Start Time: 1115  
End Time: 1150

Redds: New  
Definite 0  
Probable 0  
Possible 0

Bull Trout Observed:  
Adults: 0  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):  
YOY salmonid fry present and several slightly larger.  
Eric and I both walked short reach of Quartz Creek to SF/NF confluence  
I walked SF and Eric walked NF. He has data, but we found no redds.

GPS data:	Lat	Long
Start confluence SF and NF	47.02435317	-121.1214819
4' falls on SF Quartz	47.0242504	-121.1179077
End survey	47.02422651	-121.1167007

Water temp at Pileup Creek 52 F. Did not survey.

Stream: South Fork Tieton and Bear Creek  
 Date: 09/02/2009 (1st survey)  
 Location: Bear Creek to falls; SF Tieton 1050 Rd to falls  
 Water Temp: Bear 48 F @ 1035; SF Tieton @ 1050 Rd 51 F; SF at Falls 45 F @1050.

Investigator: Jim Cummins and Gary Torretta.  
 Start Time: Bear 1035; SF Tieton @ 1050 Rd 1210; SF Tieton at falls 1015  
 End Time: Bear 1128; SF Tieton NA

	Bear Cr	1050 Road to Bear Cr	Bear Cr to falls
Redds:			
Definite	3	1	1
Probable	0	0	0
Possible	0	0	0
Bull Trout Observed:			
Adults:	7	17	2
Sub-adults:			
Juveniles:			

Comments (mortalities, tagged fish, H2O visibility, etc):  
 Bear Creek flow low and clear, 1 adult mort in Bear Creek.  
 SF Tieton flow low, but very slight turbidity.  
 This form includes Torretta's data  
 1 mort above Bear Cr in SF Tieton

Stream: Crow Creek (upper)  
Date: 09/17/2009  
Location: From below Crow Creek Lake to near upper end index reach  
Water Temp: 50 F at upper end

Investigator: Jim Cummins and Eric Anderson (Eric has more info/data)  
Start Time: 1041  
End Time:

Redds: New  
Definite 0  
Probable 0  
Possible

Bull Trout Observed:  
Adults: 0  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):

Flows low and clear. Long reaches with little gravel, but some spawning habitat.

Left vehicle about 0900 and returned 1640

We walked down Cougar Lake and Crow Creek Lake Trails from Ravens Roost

We both walked downstream almost to where we end the index surveys.

Cliffs and a log jam created falls prevented us from going all the way to the index reach.

We returned cross country up the steep hill.

GPS data:	Lat	Long
Start Survey - upper end	47.0032688	-121.3539185
End Survey (log jam - 15 foot falls)	47.0183935	-121.3142669



Stream: Deep Creek  
Date: 08/24/2009 (1st survey)  
Location: Copper Creek to falls  
Water Temp: 44F

Investigator: Jim Cummins and Scott Kline  
Start Time: 1040  
End Time: 1430

Redds: New  
Definite 27  
Probable 0  
Possible 2

Bull Trout Observed:  
Adults: 2  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

Jamie Lamperth CWU flagged 1 def redd on 8/16, 2 def redds on 8/10 and 10 redds on 8/16.

This was the first WDFW survey so Jamie's flagged redds are "new" redds.

Flow low and clear, dry reach between Copper Creek and 1808 Rd.

Redds above dry reach, but no upstream passage this date (see GPS data).

GPS data:

	Lat	Long
Channel dry	46.80257178	-121.3220458
Channel wetted	46.800266	-121.3224408
Deep Cr Falls	46.78948998	-121.3281894

Stream: Deep Creek  
Date: 09/11/2009 (final survey)  
Location: 1800 Rd to Copper Creek  
Water Temp: 45 @ 1025; 46 F @ 1415

Investigator: Jim Cummins and Scott Willey  
Start Time: 1025  
End Time: 1415

Redds:	New	Old	Total
Definite	14	42	56
Probable	0	0	0
Possible	0	0	0

Bull Trout Observed:  
Adults: 0  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):  
Flows low and clear. 1 mortality, dry reach fish passage barrier this date.  
Scott Willey has some GPS data for redds that I did not observe (probably 16 redds)

GPS data:	Lat	Long
Redd	46.83338114	-121.3106887
Redd	46.8332653	-121.310595
Redd	46.83320755	-121.3106149
Redd	46.83315215	-121.3107102
Redd	46.83319489	-121.3104758
Redd	46.83270195	-121.3111373
Redd	46.83237012	-121.310775
Redd	46.83221103	-121.3108962
Redd	46.83219611	-121.3109438
Redd	46.83199762	-121.3105466
Redd	46.83166084	-121.310573
Redd	46.83167702	-121.3105244
1st trib (split)	46.83101694	-121.3102705
Redd	46.8308431	-121.3095846
Redd	46.83088509	-121.3095454
Redd	46.83059826	-121.3095149
1st trib splits again	46.83055032	-121.3093692
Redd	46.83044429	-121.3093709
Redd	46.83043708	-121.3094506
Redd	46.82990776	-121.3094529
Redd	46.82972554	-121.3094757
Redd	46.82950585	-121.309146

Redd	46.82921056	-121.3090537
Redd	46.82919865	-121.3090314
Redd	46.82904493	-121.3088402
Redd	46.82863045	-121.3089522
Redd	46.82863355	-121.309003
Redd	46.82860572	-121.3092233
<b>1st trib splits 2nd time</b>	<b>46.82853062</b>	<b>-121.3093207</b>
Redd	46.82847102	-121.309299
Redd	46.82817606	-121.3090638
Redd	46.82867261	-121.3100465
<b>End 1st trib system</b>	<b>46.83074143</b>	<b>-121.3106584</b>
Redd	46.82787222	-121.3094855
Redd	46.83030356	-121.3105759
Redd	46.83030398	-121.3105623
Redd	46.83007674	-121.3102316
Redd	46.82978941	-121.3101314
Redd	46.82980458	-121.310138
Redd & adult BLC mortality	46.82926563	-121.3097366
<b>Dry channel starts</b>	<b>46.82905985</b>	<b>-121.3098714</b>
<b>End dry channel ends</b>	<b>46.82825653</b>	<b>-121.3109703</b>
Redd	46.81810479	-121.3111834
Redd	46.8169195	-121.3103364
Redd	46.81599204	-121.3093088
Redd	46.81553842	-121.3093031
<b>End - Copper Cr confluence</b>	<b>46.81346272</b>	<b>-121.3082662</b>



Stream: Indian Cr  
 Date: 09/30/2009 (final survey)  
 Location: Trail to falls and Trail to N. Spring  
 Water Temp: 42 F @ 1030

Investigator: Jim Cummins  
 Start Time: 1030  
 End Time:

	Trail to Falls		Trail to North Spring		Totals
	New	Old	New	Old	
Redds:					
Definite	9	30	9	12	60
Probable	1	3	0	1	5
Possible		1	0	0	
					65

Bull Trout Observed:	Trail to Falls	Trail to North Spring
Adults:	4	1
Sub-adults:	0	
Juveniles:	0	

Comments (mortalities, tagged fish, H2O visibility, etc):  
 Flow low and clear  
 1 adult mortality just above north spring.  
 Deleted 2 old def; changed 6 old prob to new def  
 New beaver activity and ponds. Evidently good population of beavers.

GPS data:	Lat	Long
Redd and start survey (trail crossing)	46.66372488	-121.2865107
Redds	46.66414272	-121.2863079
Redd	46.66389747	-121.2877682
Redd	46.66393141	-121.2877504
Redd	46.66396494	-121.2875857
Redd	46.66371164	-121.2872688
Redd	46.66336765	-121.2871296
Redd	46.66666986	-121.2907028
Redd upper s spring	46.66952784	-121.2945994
Redd upper s spring	46.669483	-121.2945993
Redd upper s spring	46.66950077	-121.2946276
Redd upper s spring	46.6694897	-121.2946356
Redd upper s spring	46.66945542	-121.2946654
Redd upper s spring	46.6695726	-121.294662
Redd upper s spring	46.66961242	-121.2948434
Redd upper s spring	46.66964804	-121.2948693
Redd upper s spring	46.67053199	-121.2964279
Redd upper s spring	46.67083575	-121.2968428
Redd upper s spring	46.67102125	-121.2969208
Upper S Spring end	46.67173966	-121.2971124
Redd	46.67006747	-121.294814

Redd	46.6731681	-121.2971795
Redd	46.67382826	-121.2969583
Redd	46.67440577	-121.2976555
Redd	46.67475144	-121.29833
Redd	46.67488907	-121.2984329
Redd	46.67518353	-121.2984788
Redd	46.67585107	-121.2987965
Redd	46.6757245	-121.2986955
Redd	46.67597839	-121.2988635
Redd	46.67618835	-121.2989511
Redd	46.67617125	-121.2986993
Redd	46.67611459	-121.2987066
Redd	46.67618584	-121.29874
Redd	46.67620964	-121.298844
Redd	46.67624971	-121.298841
Redd	46.67658515	-121.2988021
Redd	46.67663394	-121.2987708
Redd	46.67674131	-121.2991861
Redd	46.67730072	-121.299531
Redd	46.67751085	-121.2996031
Redd	46.67759609	-121.2993592
Redd	46.67769827	-121.299661
Redd	46.67778008	-121.2998576
Log jam barrier	46.67819297	-121.2999311
Falls -end survey	46.67918723	-121.3005714

Redds between trail crossing to North Spring.

Redd	46.66237464	-121.2860129
Redd	46.65980752	-121.2829454
Redd	46.65981573	-121.2829609
Mort - no redd	46.65820674	-121.2808124
Redd	46.6579811	-121.2805648
Redd	46.65797138	-121.2804816
Redd	46.65750492	-121.2807699
Redd	46.65750157	-121.280755
Redd	46.65769729	-121.2809906
Redd	46.65768455	-121.2810029
Redd	46.6576698	-121.2810108
Redd	46.65769737	-121.2811807
Redd	46.65800583	-121.2814952
Redd	46.65701685	-121.2798209
Redd	46.65699623	-121.2798173
Redd	46.65703403	-121.2798132
Redd	46.65697644	-121.2795749
Redd	46.65677243	-121.2792356
Redd	46.65676715	-121.2792374
Redd	46.65651686	-121.2787508

Redd  
Redd  
65 redds

46.65648761	-121.2786327
46.65647043	-121.2785869

Stream: Kettle Creek - American R. Trib.  
Date: 9/8/2009 (2nd survey)  
Location: Mouth to cascades, see GPS waypoints below.  
Water Temp: 42 F

Investigator: Jim Cummins  
Start Time: 1041  
End Time: 1210

Redds:	New	Old
Definite	2	0
Probable	0	0
Possible	0	0

Bull Trout Observed:  
Adults: 2  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):  
Low and clear. Marked location of 2 adult bull trout.  
Ended survey at same location on 8/28/2009 and past years (flagged).

GPS data:	Lat	Long
Adult BLC	46.93722605	-121.3273388
Redd	46.93683336	-121.3272563
Redd	46.93681005	-121.327264
Adult BLC	46.93631602	-121.3277232
End Survey	46.93293451	-121.3272957



Stream: North Fork Ahtanum  
Date: 09/14/2009 (2nd survey)  
Location: Bridge at locked gate to Shellneck Cr and Shellneck Creek  
Water Temp: NF Ahtanum 47 F @ 0945; 48 F @ 1040; Shellneck 46 F @ 1045.

Investigator: Jim Cummins (Eric Anderson surveyed lower half of index.)  
Start Time: 945  
End Time: 1120

Redds:	New	Old
Definite	0	0
Probable	0	0
Possible	0	0

Bull Trout Observed:

Adults:	0
Sub-adults:	0
Juveniles:	0

Comments (mortalities, tagged fish, H2O visibility, etc):

Flows low and clear

GPS data:	Lat	Long
Barrier	46.529736	-121.1625196
End survey on Shellneck.	46.528883	-121.1653888

Stream: North Fork Little Naches River  
Date: 09/16/2009  
Location: Trail 941 crossing to Rd 1913 bridge  
Water Temp: 52 F @ Trail

Investigator: Jim Cummins and Eric Anderson  
Start Time: 1330  
End Time: 1445

Redds: New  
Definite 0  
Probable 0  
Possible 0

Bull Trout Observed:  
Adults: 0  
Sub-adults: 0  
Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):  
Flow low and clear  
Eric started at Rd 1913 bridge and we met near center of the reach  
We found 4 chinook redds  
YOY salmonid fry and few larger salmonids observed.

GPS data:	Lat	Long
Start Survey	47.09776	-121.3174332
Chinook Redd	47.090611	-121.3006025
Chinook Redd, end, met Eric	47.090831	-121.2991703

Stream: North Fork Tieton River  
 Date: 10/22/2009  
 Location: Start (see GPS data) to waterfall  
 Water Temp: 37 F

Investigator: Jim Cummins, Gary Torretta, Paul Huffman  
 Start Time: 1012  
 End Time: 1334 @ waterfall; 1505 at trib.

Redds:	NF Tieton River		Tributary (see GPS data)
	Old	New	New
Definite	9	0	6
Probable	0		
Possible	0		

Bull Trout Observed:  
 Adults: 0  
 Sub-adults: 0  
 Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc):  
 We did not find new redds, but the old redds were generally not visible.  
 There was evidently a high water event since the last survey.  
 Flow was low. Water was slightly turbid, but spawning gravel was visible.  
 Easterbrooks and Thomas could not find the trib during their survey.  
 The flag marking the trib was there and the trib is flowing into the NF.  
 The NF channel has changed substantially upstream from this trib.,  
 but little below the trib.  
 There is a 1/4 mile or longer reach that has jumped to the south side of  
 canyon, and has split many times.  
 Jeff Thomas described the changes on his survey report.  
 Jeff Thomas should have all the old redd GPS data.

My GPS data:	Lat	Long
Start	46.56365359	-121.3635658
Redd	46.55305786	-121.3765849
Redd	46.55031178	-121.3808617
Redd	46.55000224	-121.3837581
Redd	46.5476667	-121.3863589
Redd	46.53733978	-121.3906769
Redd	46.53638433	-121.3908584
Falls - End	46.5353593	-121.3909856
Trib Confluence	46.55023081	-121.3822793
Trib Redd	46.55084847	-121.3828216
Trib Redd	46.5509198	-121.3831262
Trib Redd	46.55108199	-121.3830458
Trib Redd	46.55247901	-121.3841974
Trib Redd	46.55313028	-121.3843227

Trib Redd	46.55339171	-121.384818
End trib. Survey	46.55337285	-121.385096

Stream: Rattlesnake Creek  
Date: 9/9/2009 (1st survey)  
Location: Shell Cr Confluence down to MJB Trail (see GPS data)  
Water Temp: 43 F @0955

Investigator: Jim Cummins  
Start Time: 955  
End Time: 1310

Redds: New  
Definite 6  
Probable 0  
Possible 0

Bull Trout Observed:  
Adults: 0  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):  
Flow low and clear. Shell Creek 44 F @ 0950. No redds in Shell Creek  
Eric Anderson did part of this reach, but found no redds.

GPS data:	Lat	Long
Redd	46.7398448	-121.211345
Redd	46.74001797	-121.210918
Redd	46.74058316	-121.210601
Redd	46.7408746	-121.209925
Redd	46.74098524	-121.209052
Redd	46.74459315	-121.19953
Enter canyon	46.74592202	-121.194262
Huge log jam	46.74710152	-121.189145
End - met Eric A	46.74745289	-121.185719

Stream: Rattlesnake Creek  
Date: 10/09/2009 (final survey)  
Location: Upstream from Shell Cr (Trail crossing)  
Water Temp: 38 F @ 1042

Investigator: Jim Cummins and Eric Anderson  
Start Time: 1042  
End Time: 1315

Redds:	New	Old	Total
Definite	6	20	26
Probable			
Possible			

Bull Trout Observed:

Adults:

Sub-adults:

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

Eric and I both walked hiked in and out on Burnt Mt. Trail.

We both surveyed up to L. Wildcat Cr.

Eric surveyed L. Wildcat and I surveyed Rattlesnake upstream.

Change 1 pos to new def and deleted 1 def (beaver no redd).

New beaver ponds near upper end of index. Evidently good population.

Beaver disturbing substrate near dams (3 dams).

GPS data:

	Lat	Long
Redd	46.7356629	-121.2201518
Redd	46.73570062	-121.2201959
Redd	46.73573608	-121.2201896
Redd	46.73582668	-121.2218718
Redd	46.73566977	-121.2235209
Redd	46.73566709	-121.2235236
Redd	46.73527482	-121.2242442
Redd	46.73506519	-121.2243376
Redd	46.73505102	-121.224359
Redd	46.7320327	-121.2298908
Redd	46.73206002	-121.2300685
Redd - upriver of L. Wildcat Cr	46.73250142	-121.2334381
Redd	46.73225868	-121.2333098
Redd	46.73075949	-121.2350722
Redd	46.73072034	-121.2355749
Redd	46.7306299	-121.235825
Redd	46.73061934	-121.2358196
Redd	46.73062244	-121.2358285
Redd	46.73062278	-121.2358837
Redd	46.73095169	-121.2366148

Redd	46.73042606	-121.2372984
Redd	46.7304331	-121.2373017
Redd	46.72989163	-121.2379686
Redd	46.73026227	-121.2380104
Beaver Dam	46.72908789	-121.244792
Redd	46.72944789	-121.2467875
Redd	46.72957814	-121.2468287
End of Survey	46.73000964	-121.2490971

Stream: South Fork Tieton River  
Date: 09/24/2009 (3rd survey)  
Location: 1040 Rd (upper Blue Slide) to 1050 Rd and above 1050 Rd.  
Water Temp: Yuki has the data.

Investigator: Jim Cummins and Yuki Reiss  
Start Time:  
End Time:

Redds:	New	Old
Definite	Yuki Kept redd count data, even for areas we split up.	
Probable		
Possible		

Bull Trout Observed:  
Adults: Yuki has data  
Sub-adults:  
Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):  
This was scheduled as the last survey but many fish were present.

GPS data was recorded again on final survey, 10/1/2009.

Yuki and I surveyed most of the reach between 1050 Rd and Bear Cr.  
Pat Monk and Scott Willey surveyed up stream of where we met them and Bear Cr.

GPS data (Yuki has more data):	Lat	Long
Start Survey @ 1st Redd	46.57563904	121.2405536
Redd	46.57543528	-121.239616
Redd	46.57557559	-121.239867
Redd	46.57548113	-121.239856
Redd	46.5754564	-121.239863
Redd	46.57524291	-121.239961
Redd	46.57521291	-121.239947
Redd	46.57521618	-121.239869
Redd	46.57521643	-121.239835
Redd	46.57520159	-121.239863
Redd	46.5752207	-121.239785
Redd	46.57525641	-121.23978
Redd	46.57465794	-121.24068
Redd	46.57463129	-121.240628
Redd	46.57460086	-121.240598
Redd	46.57461042	-121.240555
Redd	46.57458125	-121.240547
Redd	46.57454177	-121.240551
Redd	46.57454219	-121.240554
Redd	46.57348422	-121.240021
Redd	46.57370936	-121.240099
Redd	46.57371095	-121.240154



Redd	46.57377365	-121.240254
Redd	46.57379611	-121.240322
Redd	46.57385596	-121.241158
Redd	46.5738542	-121.241141
Redd	46.57358497	-121.240855
Redd	46.57352161	-121.241198
Redd	46.57352119	-121.241211
Redd	46.57332011	-121.241219
Redd	46.57331935	-121.241227
Redd	46.57330074	-121.24126
Redd	46.57328884	-121.241288
Redd	46.57326797	-121.241306
Redd	46.57325481	-121.241313
Redd	46.57324484	-121.241338
Redd	46.57322573	-121.241402
Redd	46.57322673	-121.241405
Redd	46.57324752	-121.241439
Redd	46.5732637	-121.241433
Redd	46.57336017	-121.241604
Redd	46.57322405	-121.241942
Redd	46.57320796	-121.241972
Redd	46.57300654	-121.242037
Redd	46.57300972	-121.241746
Redd	46.57291258	-121.242071
Redd - left bank channel(trib)	46.57229433	-121.242605
Redd - left bank channel(trib)	46.57218	-121.242713
Redd - left bank channel(trib)	46.5720935	-121.242858
Redd - left bank channel(trib)	46.57210263	-121.242841
Redd - left bank channel(trib)	46.5716252	-121.243157
Redd - left bank channel(trib)	46.57159092	-121.243216
Redd - left bank channel(trib)	46.5715765	-121.243239
Redd - left bank channel(trib)	46.5715672	-121.243232
Redd - left bank channel(trib)	46.5714149	-121.243316
Redd - left bank channel(trib)	46.57121273	-121.243363
Redd - left bank channel(trib)	46.57093981	-121.243342
Redd - left bank channel(trib)	46.57095037	-121.243367
Redd - left bank channel(trib)	46.57093344	-121.243379
Redd - left bank channel(trib)	46.57067545	-121.243212
Redd - left bank channel(trib)	46.57004421	-121.242926
Redd - left bank channel(trib)	46.57062599	-121.243613
Redd - left bank channel(trib)	46.57060747	-121.243524
Redd - left bank channel(trib)	46.57061703	-121.243346
Redd - left bank channel(trib)	46.57055718	-121.243564
Redd - left bank channel(trib)	46.57052424	-121.243572
Redd - left bank channel(trib)	46.57052617	-121.243575
Redd - left bank channel(trib)	46.57035082	-121.243444
Redd - left bank channel(trib)	46.5704421	-121.243343

Redd - left bank channel(trib)	46.57043455	-121.243396
Redd - back to main channel	46.56958362	-121.243623
Redd	46.56765855	-121.244764
Redd	46.56724264	-121.244303
Redd	46.56723778	-121.244305
Redd	46.56723141	-121.244309
Redd	46.56720928	-121.244321
Redd	46.56597119	-121.244667
Redd	46.56446127	-121.246134
Redd	46.56333013	-121.247516
Redd	46.5632697	-121.247528
Redd	46.5623005	-121.248086
Redd	46.56232908	-121.24809
Redd	46.56231534	-121.248103
Redd	46.56157765	-121.248666
Redd	46.56119811	-121.248492
Redd	46.56119283	-121.248464
Redd	46.56120021	-121.248462
Redd	46.56119409	-121.247941
Redd	46.56118856	-121.247961
Redd	46.56076938	-121.248048
Redd	46.56098471	-121.247987
Redd	46.55990864	-121.247087
Redd	46.56082428	-121.247909
Redd	46.56096485	-121.247883
Redd	46.56055011	-121.248194
Redd	46.56054852	-121.248332
Redd	46.56046855	-121.248251
Redd	46.56049001	-121.248223
Redd	46.56048666	-121.248231
Redd	46.56047073	-121.248281
Redd	46.56047082	-121.24829
Redd	46.56043159	-121.248431
Redd	46.55983329	-121.249114
Redd	46.55983262	-121.249118
Redd	46.55950916	-121.249149
Redd	46.55950313	-121.249159
Redd	46.55931864	-121.249368
Redd	46.55932518	-121.249359
Redd	46.55939123	-121.250163
Redd	46.5600943	-121.250441
Redd	46.55895176	-121.251278
Redd	46.55892234	-121.251347
Redd	46.55856913	-121.251959
Redd	46.55598273	-121.251392
Redd	46.55513691	-121.251721
Redd	46.55457247	-121.251885

Redd	46.55455537	-121.251867
Redd	46.55456032	-121.251879
Redd	46.55428849	-121.25183
Redd	46.55333471	-121.2513
Redd	46.55332541	-121.251298
Redd	46.552952	-121.251095
Redd	46.55273071	-121.251047
Redd	46.5519667	-121.251298
Redd	46.55190527	-121.251299
Redd	46.55189093	-121.251258
Redd	46.55098217	-121.253764
Redd	46.55095635	-121.253769
Redd	46.54922239	-121.254894
Redd	46.54891167	-121.254409
Redd	46.54792369	-121.253379
Redd	46.5479936	-121.253166
Redd	46.54773166	-121.253641
Redd	46.548322	-121.25418
Redd	46.54767056	-121.254097
Redd	46.54788924	-121.253795
Redd	46.54770979	-121.253831
Redd	46.54742891	-121.253718

SF Tieton upstream from 1050 Road. Pat Monk and Scott Willey did part of this reach.

Redd	46.54722942	-121.254598
Redd	46.54726127	-121.255032
Redd	46.54725716	-121.25502
Redd	46.54722431	-121.25503
Redd	46.54701359	-121.254787
Redd	46.54700227	-121.254783
Redd	46.54699825	-121.254788
Redd	46.54696329	-121.254826
Redd	46.54707268	-121.254991
Redd	46.54694737	-121.255049
Redd	46.54645778	-121.25505
Redd	46.54639291	-121.254874
Redd	46.54554717	-121.254304
Redd	46.54557458	-121.254354
Redd	46.54555287	-121.254354
Redd	46.54454855	-121.256624
Redd	46.54457378	-121.256603
Redd	46.54421722	-121.255946
Redd	46.54386316	-121.255778
Redd	46.54376015	-121.255695
Redd	46.54319571	-121.255868
Redd	46.54315439	-121.255934
Redd	46.54287385	-121.256084

Redd	46.54293034	-121.256022
Redd	46.54243933	-121.257408
Redd	46.541448	-121.259257
Redd	46.54143283	-121.259215

Stream: South Fork Tieton and Bear Creek  
 Date: 10/01/2009 (final survey)  
 Location: Bear Cr and SF Tieton between 1050 Rd and Bear Cr.  
 Water Temp: Bear Cr 39 F@ 1005; SF Tieton 42F @12 noon

Investigator: Jim Cummins  
 Start Time: Bear Cr 1005; SF Tieton 1200  
 End Time: Bear Cr 1115; SF Tieton 1330

Bear Creek		
Redds:	New	Old
Definite	7	34
Probable	0	2
Possible	0	0

SF Tieton from 1050 Rd to Bear Cr		
	New	Old
	9	31
	0	0
	0	0

Bull Trout Observed:  
 Adults: 0 1  
 Sub-adults:  
 Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc):

Flow low and clear

David Child surveyed SFTieton Falls to Bear Cr.

Lost satellite reception upper Bear Creek (no GPS for 7 redds),

Pat Monk may have GPS data for those redds.

GPS data:	Lat	Long
Bear Creek		
Redd	46.53799499	-121.2621742
Redd	46.53794504	-121.2622563
Redd	46.53797848	-121.2622824
Redd	46.53796691	-121.26231
Redd	46.53783473	-121.2625313
Redd	46.53777723	-121.2625613
Redd	46.53777564	-121.2625852
Redd	46.53748764	-121.2625856
Redd	46.53746928	-121.2625681
Redd	46.53711624	-121.2625067
Redd	46.53725546	-121.2626676
Redd	46.53721221	-121.2629364
Redd	46.53705941	-121.2631598
Redd	46.5370584	-121.2631707
Redd	46.53715471	-121.2633061
Redd	46.53693845	-121.2640973
Redd	46.53694776	-121.2640941
Redd	46.536946	-121.2640967
Redd	46.53674877	-121.2640945
Redd	46.53680191	-121.2641433

Redd	46.53675003	-121.2646245
Redd	46.53648533	-121.264794
Redd	46.53648491	-121.2647938
Redd	46.53653654	-121.2647861
Redd	46.5365875	-121.2647814
Redd	46.5373941	-121.2650572
Redd	46.53731413	-121.2654379
Redd	46.53733643	-121.2658362
Redd	46.53712973	-121.2660029
Redd	46.5372024	-121.2660832
Redd	46.53721992	-121.2660634
Redd	46.53801084	-121.2619185
Redd	46.53801469	-121.2619662
Redd	46.53802827	-121.2611294

SF Tieton R - Bear Creek down to 1050 Rd

Redd	46.53875766	-121.2609571
Redd	46.53885875	-121.261107
Redd	46.53952612	-121.2595611
Redd	46.54069279	-121.2600618
Redd	46.54066136	-121.2599322
Redd	46.54076002	-121.2596901
Redd	46.54096948	-121.2596497
Redd	46.54126058	-121.2594454
Redd	46.5412527	-121.2593392
Redd	46.54126729	-121.2593427
Redd	46.54147717	-121.2582511
Redd	46.5402421	-121.2616971
Redd	46.54308566	-121.25623
Redd	46.5430699	-121.2562213
Redd	46.54317828	-121.2558219
Redd	46.54318104	-121.2558281
Redd	46.54322371	-121.2559057
Redd	46.5438241	-121.2557069
Redd	46.54379326	-121.2556879
Redd	46.54409979	-121.2560399
Redd	46.54491073	-121.256402
Redd	46.54488718	-121.2564085
Redd	46.54488785	-121.2542557
Redd	46.54554265	-121.2543344
Redd	46.54552555	-121.2543053
Redd	46.54561171	-121.2542457
Redd	46.54622946	-121.2548173
Redd	46.54646533	-121.2551348
Redd	46.54692264	-121.2547877
Redd	46.54708215	-121.2548312
Redd	46.54708182	-121.2548306

Redd	46.54696958	-121.2547655
Redd	46.54695944	-121.2547747
Redd	46.54697084	-121.2547621
Redd	46.54697713	-121.2547474
Redd	46.54711409	-121.2549186
Redd	46.54711694	-121.2549244
Redd	46.54711568	-121.2549313
Redd	46.54716748	-121.2544819
Redd	46.54717351	-121.2544796

Stream: North Fork Ahtanum Creek  
Date: 09/29/2009 (final survey)  
Location: Bridge with locked gate to Shellneck Cr and Shellneck Cr.  
Water Temp: NF Ahtanum 40 F; Shellneck 38 F.

Investigator: Jim Cummins  
Start Time: 1056  
End Time: 1158

North Fork Ahtanum		
Redds:	New	Old
Definite	0	0
Probable	0	0
Possible	0	0

Shellneck	
New	Old
0	0
1	0
0	0

Bull Trout Observed:

Adults:	0	0
Sub-adults:	0	0
Juveniles:	0	0

Comments (mortalities, tagged fish, H2O visibility, etc:

Weather cold, mostly sunny

A few salmonid fry and fish to 8 inches observed.

Flows low and clear.

Eric Anderson surveyed lower half of index reach.

GPS data:	Lat	Long
Redd in Shellneck Cr.	46.5292916	-121.1636574
End survey in Shellneck Cr	46.5290421	-121.1654244



# Bull Trout Spawning Ground Survey Data Form

Stream: Box Canyon Creek

Date: Sept 23, 2009

Location: from mouth (reservoir) to barrier falls

Water Temp.: 47 F @ 1025 hrs near footbridge

Investigator: Eric Anderson (WDFW) & Tina Mayo (USFS)

Start Time: 1015 hrs

End Time: 1215 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

## Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: see comments

Comments (mortalities, tagged fish, H2O visibility, etc): First pass. No adult bull trout or redds were observed in the index. Flow was very low, but passable throughout from reservoir to the barrier falls. A few unidentified fry were observed. Waypoint 140 trail footbridge, waypoint 141 barrier falls.

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**Bull Trout Spawning Ground Survey Data Form** — printed grl

Stream: American River

Date: Sept 8, 2009

Location: Mesatchee Creek Trail crossing downstream to access road 1/2 mile above  
Lodgepole Camp Ground

Water Temp.: 45 F

Investigator: Eric Anderson

Start Time: 1020 hrs

End Time: 1300 hrs

<u>Redds:</u>	New	Old
Definite:	<u>6</u>	<u>0</u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc): First pass for this reach. Due to lack of spawning activity during earlier survey we did not survey this reach until today. A few unknown salmonid fry observed.

2 photos of stream taken. Waypoint 33 nothing?

Redd waypoints 34, 35, 36, 37 (2 redds), 38. End survey @ waypoint 39

# Bull Trout Spawning Ground Survey Data Form — printed grl

Stream: Kachess River - Incomplete survey

Date: October 30<sup>th</sup>, 2009

Location: Reservoir to Old USFS Rd; Mineral/Kachess confl. To falls

Water Temp.: 5.5°F @ 2pm at falls

Weather.: 46°F, overcast, raining medium to hard, breezy

Investigator: Jim Cummins (WDFW), William Meyer (WDFW), Bill Ehinger (USFS)

Start Time: 11a.m. @ trail

End Time: 2:40p.m. at falls

Redds:	New	Old
Definite:	<u>2</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

## Bull Trout Observed:

Adults: 7 adults (2 fish paired, 1 fish solo, 2 fish paired on redd, 2 fish on redd)

Sub-adults: 1 (sneaker on redd behind adults)

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc): The water was high but clear. We walked to the reservoir bed and started the survey at the confluence with the river-took gps point (#38). Observed 2 bald eagles at the edge of the forest near the high pool/river confluence. Observed some Huge canid tracks and took pictures. Walked up the river to just above where the old USFS road comes down to the river. At this point the water had been rising and it was unsafe to continue the survey, so we skipped this portion all the way to the confluence with Mineral/Kachess, where we began the survey again. Walked up Kachess to the falls and observed the 7 adults and one sub-adult bull trout. Fish appeared to be just starting construction of their redds. Lots of alder leaves in the pools of Kachess River – most off the trees at this point. Much of the gravel that used to be behind log jams and rock knick points seems to be flushed out of the system after the last couple years of big flows. Many of the old log jams have been broken apart. The survey was Incomplete as we had to skip the middle section

and the water was so high below the Kachess/Mineral confluence that it was difficult to see redds that may have been in this portion of the index area. \_\_\_\_\_



# Bull Trout Spawning Ground Survey Data Form – printed grl

Stream: Deep Creek

Date: Sept 3, 2009

Location: From 1800 Road Culvert upstream to confluence with Copper Creek.

Water Temp.: 46 F

Investigator: Eric Anderson (WDFW) & Jeff Thomas (USFWS)

Start Time: 1051 hrs

End Time: 1443 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>40</u>	<u>7</u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

## Bull Trout Observed:

Adults: 38 (about a dozen adults were staging in one pool below the braids)

Sub-adults: 0

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc): Second pass. There were 5 old redds from the previous Child/Kline survey & 2 from Lamperth = 7 old redds. Waypoint 4 @ 1800 Road Culvert. Waypoints 5 thru 30 were redds except waypoint 20 was end of survey reach in left braid at beaver dam (facing upstream), waypoint 21 was end of survey reach in middle braid at beaver dam, waypoint 25 was in the main channel at a point where the water goes subsurface, waypoint 26 was in the main channel at a point where there was water in the main channel but very low, waypoint 27 was a dead bull trout (mort). Most of the redds were in the braided channels. Not all of the 47 redds were GPS'ed, only redds that I observed. Jeff Thomas did not GPS redds for the braided areas that he helped me with. Will GPS all in a future Survey.



# Bull Trout Spawning Ground Survey Data Form – printed grl

Stream: Deep Creek

Date: Sept 11, 2009

Location: Deep Creek -- from mouth of Copper Creek upstream to the barrier falls including a short section of Copper Creek from the falls above the 1808 bridge down to the confluence with Deep Creek

Water Temp.: 45 F in Copper @ 1015 hrs & 45 F in Deep @ 1030 hrs

Investigator: Eric Anderson

Start Time: 1015 hrs

End Time: 1420 hrs

Redds:	New		Old	
Definite:	Copper 1	Deep 0	Copper 2	Deep 67
Probable:	Copper 0	Deep 0	Copper (1 changed to new def)	Deep 0
Possible:	Copper 0	Deep 0	Copper 0	Deep 1

**Bull Trout Observed:**

Adults: 0

Sub-adults: 0

Juveniles: 1 approx 8 inches (1 approx 6 inch mortality, possible bull/brook hybrid)

Comments (mortalities, tagged fish, H2O visibility, etc): Third pass.

No adults observed. Spawning appears to be complete. Copper Creek GPS waypoints for redds -- 45,46,47. Deep Creek waypoints – 48 to 120, except waypoint 53 impassable dry creek channel in mainstem for 100 ft with a side channel in this area having most of the connected flow which was still passable. Waypoint 108 totally dry mainstem channel, impassable at this point. Waypoint 109 mainstem channel rewatered, but very low. Waypoint 110 was juvenile mort, approx 6 inch in watered section. Waypoint 121 barrier falls on Deep Creek. Waypoint 122 is Road 1808 crossing at Deep Creek. Several photos of Deep Creek were taken as well as several photos of mort. Tissue sample of mort also taken.

# Bull Trout Spawning Ground Survey Data Form – printed grl

Stream: Indian Creek

Date: Sept 30, 2009

Location: Hwy 12 Bridge to N.Spring

Water Temp.: 45 F

Investigator: Eric Anderson (Jim Cummins has additional data for upper reach)

Start Time: 1015 hrs

End Time: 1429 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>25</u>	<u>68</u>
Probable:	<u>0</u>	<u>1</u>
Possible:	<u>0</u>	<u>2 changed to new definite</u>

## Bull Trout Observed:

Adults: 6 adults tending redds

Sub-adults: 0

Juveniles: fry observed but not enumerated (most appeared to be bull trout fry)

Comments (mortalities, tagged fish, H2O visibility, etc): 4<sup>th</sup> pass. GPS waypoint 147 at Hwy 12 bridge. Redd Waypoints from 148 to 242. Kokanee still spawning in lower reach from Hwy 12 bridge upstream for about 3/4 mile. Bull trout appeared to be finished spawning as only 6 adults were encountered in this section, all tending redds; no loose fish. Jim Cummins has additional data for the upper portion of this index (i.e., above N.Spring). I will record N.Spring data on a separate data sheet.

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# Bull Trout Spawning Ground Survey Data Form – printed grl

Stream: Indian Creek (North Spring)

Date: Sept 30, 2009

Location: from North Spring upstream to impassable beaver dam

Water Temp.: 45 F

Investigator: Eric Anderson (Jim Cummins has additional data for mainstem Indian Creek above the N.Spring)

Start Time: 1430 hrs

End Time: 1552 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>14</u>	<u>27</u>
Probable:	<u>0</u>	<u>0</u>
Possible:	<u>0</u>	<u>0</u>

## Bull Trout Observed:

Adults: 4 adults tending redds

Sub-adults: 0

Juveniles: fry observed but not enumerated (most appeared to be bull trout fry)

Comments (mortalities, tagged fish, H2O visibility, etc): 4<sup>th</sup> pass. Redd waypoints from 243 to 284. Waypoint 285 is at impassable beaver dam. Bull trout appeared to be finished spawning as only 4 adults were encountered in this section, all single fish tending redds; no loose fish, no active spawning. Jim Cummins has additional data for the upper portion of this index (i.e., above N.Spring).

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**Bull Trout Spawning Ground Survey Data Form** – printed grl

Stream: M.F. Ahtanum Creek

Date: Sept 6, 2009

Location: from Treephones Campground road bridge to 2 miles downstream @ point where road comes close to creek (vehicle parking spot)

Water Temp.: 45 F @ 1000 hrs

Investigator: Eric Anderson

Start Time: 1000 hrs

End Time: 1400 hrs

<u>Redds:</u>	New	Old
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: see comments

Comments (mortalities, tagged fish, H2O visibility, etc): First pass. Observed several dozen unidentified salmonid fry & some cutthroat in the 6-10 inch range. No adult bull trout or redds observed.

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# Bull Trout Spawning Ground Survey Data Form – printed grl

Stream: M.F. Ahtanum Creek

Date: Sept 14, 2009

Location: from Treephones Campground road bridge downstream approx 1 mile plus see data from David Child (Yakima Irrigation District Bio) for other half of this section (total 2 mile index).

Water Temp.: 46 F @ 0930 hrs

Investigator: Eric Anderson

Start Time: 0930 hrs

End Time: 1213 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>7</u>	<u>0</u>
Probable:	<u>0</u>	<u>0</u>
Possible:	<u>1</u>	<u>0</u>

## Bull Trout Observed:

Adults: 2

Sub-adults: 0

Juveniles: several dozen unidentified juvenile salmonids observed

Comments (mortalities, tagged fish, H2O visibility, etc): Second pass. GPS - redd waypoints 123,124 (2 redds) 125,126,127,128.

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# Bull Trout Spawning Ground Survey Data Form — printed grl

Stream: M.F. Ahtanum Creek

Date: Oct 6, 2009

Location: started approximate 2 miles below Treephones Campground & surveyed upstream to the road bridge at the upper end of Treephones (standard index)

Water Temp.: 40 F @ 0935 hrs

Investigator: Eric Anderson

Start Time: 0930 hrs

End Time: 1400 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>2</u>	<u>7</u>
Probable:	<u>0</u>	<u>(2 changed to new definite)</u>
Possible:	<u>0</u>	<u>(2 eliminated, not redds)</u>

## Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: observed a few unidentified juvenile salmonids

Comments (mortalities, tagged fish, H2O visibility, etc): Third pass. GPS'ed waypoints at the start & the end of the index plus the 2 lower redds that were changed from probable to definite. GPS shut off due to weak batteries during the survey, but already had GPS coordinates for upper 7 redds from earlier survey recorded on Sep 14. Nine redds total. No bull trout were observed on this pass. Lesson, always carry extra batteries. GPS waypoint 411 – start at lower index, redd waypoints 412 & 413 (2 new redds that were changed from probable to definite). Waypoint 414 – end at upper index (road bridge at Treephones).

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**Bull Trout Spawning Ground Survey Data Form** — printed grl

Stream: N.F. Little Naches River

Date: Sept 16, 2009

Location: from USFS Rd bridge 1913 to Trail 941. Jim Cummins did upper half from trail down & I did lower half from bridge up, we met in the middle.

Water Temp.: 53 F @ 1322 hrs @ 1913 bridge

Investigator: Eric Anderson & Jim Cummins (JC has data sheet also)

Start Time: 1322 hrs

End Time: 1446 hrs

<u>Redds:</u>	New	Old
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: see comments

Comments (mortalities, tagged fish, H2O visibility, etc): Exploratory survey. No bull trout or bull trout redds were observed. 4 spring Chinook salmon redds were observed in this reach. Observed a few unidentified salmonid fry. Few trout were observed. Encountered a Yakama Nation work crew conducting sediment cores in the area. USFS bridge 1913 waypoint 137.

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# Bull Trout Spawning Ground Survey Data Form — printed grl

Stream: Quartz Creek & N.F. Quartz (Little Naches drainage)

Date: Sept 16, 2009

Location: Quartz Cr – started less than ¼ mile below NF/SF confluence & surveyed upstream to N/S forks, I surveyed N.F. & Jim Cummins surveyed S.F. (see Cummins data). Parked vehicle at USFS spur Rd 720.

Water Temp.: 49 F @ 1057 hrs below N/S fork confluence

Investigator: Eric Anderson & Jim Cummins

Start Time: 1057 hrs

End Time: 1147 hrs

<u>Redds:</u>	New	Old
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

## Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: see comments

Comments (mortalities, tagged fish, H2O visibility, etc): Exploratory survey for potential bull trout spawning. No bull trout or redds observed. Observed unidentified juvenile salmonid fry, suspect they were cutthroat &/or rainbow trout fry. Took a couple of photos of N.Fork. GPS waypoint 134 was junction of SF/NFork, waypoint 135 was ORV trail bridge crossing N.F., waypoint 136 was where I ended the survey reach on the N.F. After the survey we stopped by nearby Pileup Creek & took water temp, 52 F. Did not survey Pileup.

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**Bull Trout Spawning Ground Survey Data Form** — printed grl

Stream: Rattlesnake Creek

Date: Sept 9, 2009

Location: Rattlesnake Trail 1114 crossing upstream to MJB Trail crossing

Water Temp.: 47 F

Investigator: Eric Anderson

Start Time: 1015 hrs

End Time: 1230 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc): First pass. A few 8-10 inch cutthroat observed & unknown trout fry.

1 photo of stream taken. Waypoint 40 MJB Trail crossing.

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**Bull Trout Spawning Ground Survey Data Form** — printed grl

Stream: Little Wildcat Creek in the Rattlesnake drainage

Date: Oct. 9, 2009

Location: from mouth to upstream near the rock slide (approx 1/2 mile)

Water Temp.: 37 F

Investigator: Eric Anderson (Jim Cummins has additional data for Rattlesnake Cr from Shell Creek upstream to McNeil Creek)

Start Time: 11145 hrs

End Time: 1310 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>3</u>	<u>0</u>
Probable:	<u>0</u>	<u>0</u>
Possible:	<u>0</u>	<u>0</u>

Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: a few unidentified fry observed

Comments (mortalities, tagged fish, H2O visibility, etc): Second & final pass.

GPS waypoint 415 at mouth of Little Wildcat Creek. Redd waypoints -- 416, 417, 418. Ended survey at waypoint 419.

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# Bull Trout Spawning Ground Survey Data Form — printed grl

Stream: S.F. Tieton River

Date: Oct. 1, 2009

Location: from upper Blue Slide Canyon to USFS 1050 Road Bridge

Water Temp.: 44 F

Investigator: Eric Anderson (WDFW) & Jeff Thomas (USFWS)  
(Jim Cummins & David Child have additional data for upper S.Fork & Bear Creek Index)

Start Time: 0948 hrs

End Time: 1400 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>3</u>	<u>142</u>
Probable:	<u>0</u>	<u>0</u>
Possible:	<u>0</u>	<u>1 (eliminated)</u>

## Bull Trout Observed:

Adults: 1 adult was observed on a redd

Sub-adults: 0

Juveniles: Unidentified fry observed but not enumerated

Comments (mortalities, tagged fish, H2O visibility, etc): 4<sup>th</sup> pass. Started at upper Blue Slide Canyon (waypoint 286) and surveyed upstream. Recorded redd waypoints from 287 to 409. Ended survey for this reach at USFS 1050 bridge (waypoint 410). Bull trout were done spawning; only one adult was observed in the reach. Jeff Thomas has 23 additional GPS waypoints for redds in this reach which were recorded from a side channel. His 23 redds are included in the above total.

**Bull Trout Spawning Ground Survey Data Form** — printed grl

Stream: Union Creek

Date: Aug 27, 2009

Location: Confluence with the American River upstream to the Union Creek barrier falls.

Water Temp.: 45 F

Investigator: Eric Anderson

Start Time: 0950 hrs

End Time: 1034 hrs

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc): First pass. A few unknown salmonid fry observed.

2 photos of Union Creek index taken. Photo 3 of "Closed Waters" sign at Union Creek trail.

Photo 4 of Union Creek barrier falls. Waypoint 1 @ lower portion of Union Creek barrier falls. Waypoint 2 @ mouth (confluence) of Union Creek.

Jim Cummins surveyed Kettle Creek. There were no redds. Due to lack of spawning activity we did not survey the American River index section above Union Creek (e.g. Mesatchee Creek area.

# Bull Trout Spawning Ground Survey Data Form – printed grl

**Stream:** DeRoux Creek Redd Survey- 2<sup>nd</sup> Pass  
(WDFW did the first pass on Sept 15<sup>th</sup> – no redds; also see night snorkel notes for 10/5-we found no bull trout).

**Date:** 10-5-09

**Location:** DeRoux Creek, beginning at DeRoux Creek confluence and ending at the DeRoux Trail crossing bridge

**Water Temperature:** 4:30 pm, air temp is 11.7 degrees C/ 53 degrees F; water temp is 4.4 degrees C/40 degrees F.

**Weather:** Clear, sunny. No precipitation since Labor Day, cooler weather last week: 60s during day to 30s at night.

**Investigator:** Judy De La Vergne(USFWS)

**Start Time/End Time:** Begin 4:30 pm/End 5:49 pm

<b>Redds:</b>	<b>New</b>	<b>Old</b>
Definite:	<u>  0  </u>	<u>  0  </u>
Probable:	<u>  0  </u>	<u>  0  </u>
Possible:	<u>  2  </u>	<u>  2  </u>

Avg. Redd size:

## **Bull Trout Observed:**

Adults:   0  

Sub-adults:   0  

Juveniles:   0  

**Comments (mortalities, tagged fish, H2O visibility, etc):** I found Eric's first redd flag at about 5:32. There was no change since Eric had flagged on 9-15-09. They did not really look like redds now and there was no mounding or pits that I could see. There were areas of deer tracks nearby in some of the gravel and on the banks, the gravels were very nice in this area (GPS location: 47.42084, 120.95483). Found Eric's second flag just above the first and there was no change (GPS location: 47.2219, 120.95729). There are many new log jams with gravels and small pools

through the area with recent bug killed trees. Habitat looks good, stream volume is small. Saw a many juveniles that were likely westslope cutthroat trout juveniles.

**From:** [Anderson, Eric \(DFW\)](#)  
**To:** [Lippert, Gregory \(DFW\);](#)  
**Subject:** FW: Kachess River 1st pass notes and second attempt  
**Date:** Wednesday, December 30, 2009 1:06:55 PM  
**Attachments:** [Bullspawnform Kachess 1st Pass 10-30-2009.doc](#)

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Here is the 10-30 Kachess Survey (attached) & an email from William referencing the attempt to do a survey on Nov 6...but cancelled due to high water.

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**From:** Meyer, William R (DFW)  
**Sent:** Monday, November 09, 2009 5:29 PM  
**To:** Cummins, James L (DFW); Anderson, Eric (DFW)  
**Cc:** Tina Mayo  
**Subject:** Kachess River 1st pass notes and second attempt

Eric, Attached are the notes for the first pass (incomplete survey due to flows) on Kachess River. We did observe 7 adult fish and a couple redds, but the fish appeared to be just getting started.

Tina and I attempted to go up to Kachess on Friday (Nov. 6th), but the Cle Elum River was as high as the week before and it was raining mighty hard, so we bagged the survey due to flows and the weather was predicted to dump 3-5 inches of snow, which we were able to occasionally see on the surrounding mountains as the clouds parted.

I will most likely not be able to make a second pass this week, so perhaps others could attempt a run at it if the weather settles down. I can probably make another pass next week if we can get there. Let me know and talk soon. William

## William R. Meyer

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Region 3 Habitat Program  
201 N. Pearl St.  
Ellensburg, WA 98926

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# Bull Trout Spawning Ground Survey Data Form

**Stream:** North Fork Teanaway Redd Survey- 2<sup>nd</sup> Pass  
(WDFW did the first pass on Sept 15<sup>th</sup> – no redds; also see night snorkel notes for 10/5-we found no bull trout).

**Date:** 10-5-09

**Location:** Mainstem North Fork Teanaway, beginning at DeRoux Creek confluence and ending at the falls

**Water Temperature:** 4:30 pm, air Temp is 11.7 degrees C/ 53 degrees F

**Weather:** Clear, sunny. No precipitation since Labor Day, cooler weather last week: 60s during day to 30s at night.

**Investigator:** David Morgan (USFWS)

**Start Time/End Time:** Begin 4:30 pm/End 5:30 pm

<u>Redds:</u>	New	Old
Definite:	<u>0</u>	<u>0</u>
Probable:	<u>0</u>	<u>0</u>
Possible:	<u>0</u>	<u>0</u>

Avg. Redd size:

**Bull Trout Observed:**

Adults: 0

Sub-adults: 0

Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc): Judy De La Vergne did DeRoux and we snorkeled this later the same evening. That night our wet suits were freezing to the truck. We did not find any bull trout in the night snorkel survey on 10-5-09. Notes are attached as a pdf file with the email. Habitat changed since I was here last (2006?). There are many new log jams with gravels and small pools. Habitat looks good, stream volume is small (~10cfs?). Saw a few fish that were likely westslope cutthroat trout, approximately 6 inches.

NE Teanaway DeKaux CR

2nd pass 35

Reach - DeKaux upstream

Swingway & DeLagune / DMorgan  
Morgan in N Fork

Date: 10/8/09

Comments: Weather is clear

Begin Temp 40°E Time 4:30

L. Bank is looking downstream old stream

~~Red dirt pool / old / Del Comments~~

~~pass~~ R. Bank Time 4:59

Flag bulldozed no A at 1st flag

know what for small area under

log 1.5 x 1.5'

may be div. area? pit under log

not clean

PKT Pool

40°E

Flag tree in a row

Time = 5:18

WP 035 @ side ch. Below lg

N 47.42079 feel aggradation

W 120.95280 lg treasure

EPB = 21 / 1.6 DOP channels

Finally a dipper

1 ~~pass~~

Found Birds

Flag #1 / 9-18-09

no A

doesn't look like anything / not <sup>very</sup> clean

a few rocks found  
one / mound / no pit

5:32 Temp 40.5°E

maybe deer -

Saw quite a few  
deer tracks in  
creek

WP 036

EPB = 23 / 1.9 DOP

N 47.42084

W 120.95483

5:40

2 ~~pass~~

mounded looks

like old pit

residual soil

not real clean

1' x 1'

Just above #1

ripple pocket ~~pass~~ EPB

Trail  
at bridge

End Survey 5:49 Temp = 40 21/1.7

WP = .037 N 47.42019 / W 120.95729 DOP

NR Tearaway 10/5/09 2nd PASS

DM did main stain above Deer Creek CG

430 PM air = 53 water = 42

no precip since L day

cooler weather last week: -60s-30s

Flay on thermo reads -  $+0^{\circ}$

End of falls at  $+530$

many channel changes since last time I was here

(2006?)

- no redds, few fish - prob.

WCT  $> 6"$

- many jams + small pools

- habitat looks good although stream volume is pretty small (~10 cfs?)

North Fork

3rd pass

41

Tearaway Redd Survey

Reach - DeRous up to Falls

Date - 10/22/09 Surveyors - H. McDonald  
J. Detert

Weather - Clear / high wispy clouds

Rained a bit yesterday water not  
changed from Monday note Snorkel

Comment - <sup>w/100%</sup> few leaves off not mod  
snorkled Monday nite 10/19

Began 10:30 Temp ~ 38 F Air about  
40 F

Read#	pos	prob	Ref	Comments
1	Def		10:44	rounded 2' x 2' fit under bldr. Clean gravel - gravel/sand on top of other gravel & on newly fallen leaves pocket pool edge mid ch.

William bpsid this site  
lat/long in genetics notes.

no other areas like #1  
No other redds

End @ 12:22

**From:** [Anderson, Eric \(DFW\)](#)  
**To:** [Lippert, Gregory \(DFW\);](#)  
**Subject:** RE: Emailing: PDF\_SurveySummary.xls  
**Date:** Wednesday, December 30, 2009 1:37:11 PM

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Yes....Copper Creek was surveyed, about 1,000 ft, 3 redds. It is also in my survey notes on 9-11.

After you digest all let me know what is left on your missing list.

-----Original Message-----

From: Lippert, Gregory (DFW)  
Sent: Wednesday, December 30, 2009 12:06 PM  
To: Anderson, Eric (DFW)  
Subject: RE: Emailing: PDF\_SurveySummary.xls

Eric, I have gone through your pdf hardcopies and reviewed J Cummings spreadsheet twice. I am still missing the following:

Union 8-27 Still missing  
MF Ahtanum 9-6, 10-6  
Shellneck 9-4 I have Jim's portion but not yours  
L Wildcat 10-9 Jim says you did survey but I do not have field notes  
Kachess 10-30 Still missing  
NF Teanaway 10-5, 10-22 Still missing  
Quartz / N.F. Quartz 9-16 Have JC's notes

If you can PDF those and email them to me when you get a chance I will include them and send you the PDF for 2009.

Did Copper Creek get surveyed? I can't tell from East's notes if it was a survey point or a actual survey.

-----Original Message-----

From: Anderson, Eric (DFW)  
Sent: Wednesday, December 30, 2009 9:44 AM  
To: Lippert, Gregory (DFW)  
Subject: RE: Emailing: PDF\_SurveySummary.xls

You are missing some. You should already have all of them between the emailed files and the hard copies.

Missing:

S.F. Tieton 9-24

Union 8-27

MF Ahtanum 9-6, 10-6

Shellneck 9-4

L Wildcat 10-9

Kachess 10-30 & note from William on an attempt to do survey on 11/6, but canceled due to high water.

NF Teanaway 10-5, 10-22

Quartz / N.F. Quartz 9-16

Eric

-----Original Message-----

From: Lippert, Gregory (DFW)

Sent: Monday, December 28, 2009 1:43 PM

To: Anderson, Eric (DFW)

Subject: Emailing: PDF\_SurveySummary.xls

Eric, I have attached a spreadsheet with Streams and survey dates that I have PDF'd notes for. Please look it over and make sure I have all the day's and notes and let me know which ones I have missed. Thanks Greg.

# Bull Trout Spawning Ground Survey Data Form

Stream: N.F. Ahtanum Creek & Shellneck Creek

Date: Sept 4, 2009

Location: Logging Road bridge (gated road) to confluence with Shellneck Creek plus Shellneck Creek from mouth upstream to take out (end of index area).

Water Temp.: 45 F in N.F. Ahtanum & Shellneck Creek

Investigator: Eric Anderson

Start Time: 0951 hrs

End Time: 1115 hrs to mouth of Shellneck & 1140 hrs to end of survey on Shellneck

<u>Redds:</u>	<u>New</u>	<u>Old</u>
Definite:	<u>0</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u></u>

## Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles:

Comments (mortalities, tagged fish, H2O visibility, etc): First pass. A few unknown salmonid fry observed. Observed a few cutthroat 6-10". Bridge start at waypoint 31. Waypoint 32 mouth of Shellneck Creek. Seven photos of N.F. index area taken above & below Snowcabin C.G. Also, 2 photos of Shellneck Creek were taken.

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# Bull Trout Spawning Ground Survey Data Form

Stream: N.F. Ahtanum Creek

Date: Sept 29, 2009

Location: Grey Rock Trail Bridge Crossing upstream to spur road bridge crossing below Snow Cabin Campground.

Water Temp.: 40 F @ 1051 hrs at Grey Rock Trail Bridge

Investigator: Eric Anderson (Jim Cummins has additional data for upper section)

Start Time: 1051 hrs

End Time: 1236 hrs

<u>Redds:</u>	New	Old
Definite:	<u>3</u>	<u></u>
Probable:	<u>0</u>	<u></u>
Possible:	<u>0</u>	<u>1</u>

## Bull Trout Observed:

Adults: 0

Sub-adults: 0

Juveniles: (see comments)

Comments (mortalities, tagged fish, H2O visibility, etc): Third pass. A few unknown salmonid fry observed. Observed a few cutthroat 6-10". Waypoint 142 parking lot near Grey Rock Bridge Trailhead (?) or accidental save location (?). GPS Redd waypoints 143,144,145. Waypoint 146 spur road bridge crossing below Snow Cabin CG.

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