

Aug 31, 2007 Eric Anderson  
Deep Ck. Bull Trout Redd Survey  
1000 Hrs. 45.5°F H<sub>2</sub>O Temp.

Start @ USFS Rd 1800 stream Culvert  
upstream to Copper Cr. (includes  
Deep Creek main channel & braided  
stream sections)

Rd 1800 culvert start N 46.83362°  
W 121.31087°

New Redds - 1st Pass

Def. IIII IIII IIII IIII IIII IIII IIII IIII IIII (44)

Pro. 1

Pos

Adult Bull Trout IIII IIII IIII IIII IIII IIII (28)

Bull Trout Carcass 11 (2)  
(Morts)

The main channel adjacent to the braided  
stream sections was dry for several  
hundred feet preventing any further  
fish passage upstream. Only one  
redd was found in the main channel  
above this dry area up to Copper  
Creek. No fish were observed above  
the dry section but Jim Cummins  
has additional data showing some  
fish & redds above Copper Creek.

End @ Copper Creek 1410 Hrs N 46.81348°  
W 121.30813°

**Bull Trout Redd Surveys (exploratory) 2007****North Fork Teanaway****09-24-07**

Sunny, clear, air temp ~60 F

Survey time: ~11:15-1:00

Camp Wahoo to barrier falls:

Surveyors: William Meyer, Hank Fraser

- DeRoux Creek, mouth to trail crossing  
Surveyors: Yuki Reiss, Becca Wassell  
Water temp: 6 C at 11:50 AM

No redds or bull trout seen on either reach. DeRoux Creek has changed since the Nov 06 floods, and appears to have upstream barriers at current flow in 2 or 3 places.

**10-04-07**

Cloudy, snowing, air temp ~32 F

Survey time: ~11:00-2:00

Mainstem NFT from 225 spur to DeRoux:

Surveyor: Scott Kline

- DeRoux Creek, mouth to trail crossing  
Surveyors: Yuki Reiss and Becca Wassell  
Water temp: 4 C at 11:30

NFT: DeRoux to falls

Yuki, Scott and Becca

No redds or bull trout were seen in any reach.

- **Upper Bumping River**

**10-02-07**

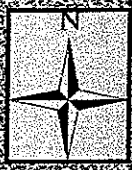
Cloudy, raining intermittently, air temp ~45-50 F

Survey time: Arrived at trailhead 9:30, back by 12:00.

Surveyors: Yuki Reiss, Scott Wiley

No redds or bull trout were seen in the main channel or side channels. This system has also changed since Nov 06 flood events. A very large log jam was washed away, and the channel has lost complexity, wood and much of its available spawning gravels. One main side channel was still flowing, and some suitable gravels were present here. Connectivity to the reservoir was not a problem.

# Kachess River Bull Trout Redds



**Legend**

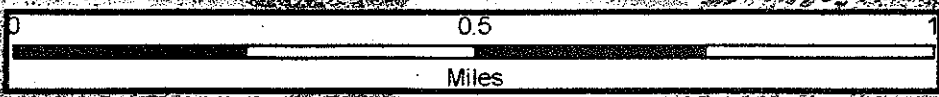
**Kachess River Bull Trout Redds 2007**

- Bull Trout redds
- ⊖ 3-4 Kokanee redds
- Confluence of Mineral Cr. and Kachess River
- ⊙ Edge of lake - higher than in past years
- ⊛ Kachess River falls

**Kittitas\_2006.sid**

**RGB**

- Red: Band\_1
- Green: Band\_2
- Blue: Band\_3





skin, body minus much flesh). Took picture and a genetic sample of caudal fin :  
sample # 06BK12 Unknown sex. The mortality appeared to be an otter caused  
mortality due to the inside-out nature of the body and the skin condition.

1 new definite bulltrout redd: 47.42391 121.23489 ~150 feet below falls.

GPS of falls = 47.42402 121.23468 at falls at 2:19pm end survey. Back at truck 2:44pm

Sep 5, 2007 Eric Anderson  
S.F. Tipton Bull Trout Redd Survey  
0945 Hrs.

Start @ Blue Slide upstream to  
USFS Rd Bridge 1050 (N 46.57564° Blue Slide  
W 121.23978°) Coord.

New Redds - 1st Pass  
Def III III III III (19)  
Pro.

Pos.

Adult Bull Trout approx. 2 dozen observed  
in pool below Camp Creek.  
111 on redds (3)

1350 Hrs end. USFS  
1050 Rd Bridge  
N 46.54747°  
W 121.25403°  
52.2° F end temp

Note:

Cattle tracks + fresh cow pies were  
observed in the area between Camp Cr.  
+ Corral Creek. Considerable cattle  
tracks across lower end of Camp Cr.  
No cows observed on this trip.

Jim Cummins has more data.

Sep 6, 2007 Eric Anderson (end)  
 American River system Bull T. Redd Survey (Ribbon)  
 Kettle Creek - mouth to steep canyon (Flags)  
 0945 Hrs. N. 46.94128°  
 ↓ W. 121.32799° N. 46.93345°  
 H<sub>2</sub>O Temp. 47.3°F W. 121.32704°

No redds.  
 Observed one adult bull trout in  
 upper Kettle near end of survey section,  
 end 1100 Hrs.

Sep. 6, 2007 Eric Anderson  
 American River - From Mesatchee Cr. Trail  
 crossing @ American River downstream  
 to Spur Road on south side of Hwy 450  
 above Lodgepole Campground 1/4 mile,  
 Start 1245 Hrs. @ Spur Road / Mesatchee T-Xing  
 H<sub>2</sub>O Temp 51.4°F N. 46.90125°  
 New Pot. Redds W. 121.41600

NI 11 (7)

No adult bull trout observed.

Spur Road above Lodgepole

N. 46.91312

W. 121.39237

Jim Cummins  
 did upper  
 section & I  
 did lower  
 section.

Jim Cummins has more data.

## Bull Trout Redd Survey

Sep 10, 2007

Eric Anderson WDFW

Indian Creek

Jeff Thomas USFWS

1000 Hrs. H<sub>2</sub>O Temp 46.6°F @ mouth  
 Mouth to N. Spring ( Hwy 12 Bridge 1025 Hrs)  
 No Redds.

Observed 2 adult bull trout above Hwy 12  
 Bridge. No kokanee present yet.

End Survey section @ N. Spring 1235 Hrs.

H<sub>2</sub>O Temp above N. Spring 45.3°F

" " in N. Spring 44.4°F

N. Spring mouth coord. N. 46.65759

W. 121.27787

Jim Cummins has more data for upper  
 sections.

Did not do North Spring because there  
 were no fish/redds in mouth to N. Spring  
 section. Fish have not come in yet  
 or very low abundance this year.

Took Photos at the mouth to show  
 braided conditions across the lake bed.  
 Believe that conditions are favorable  
 for passage.

I dismantled 2 major recreational barriers  
 near Indian Creek Campground during  
 the last week of August (25th). No  
 additional barriers were observed on this survey.



Sep. 11, 2007

Eric Anderson

Rattlesnake Creek Bull Trout Redd Survey

Started at the Trail crossing below the

↙ MJB trail, + worked up to the MJB trail, ↘  
start 1000 Hrs.

N. 46.771950  
W. 121.16812

H<sub>2</sub>O Temp. 43.2°F

New Det. Redds

1551 (4)

No adult bull trout were observed,  
one adult chinook carcass was observed  
in a pool @ N. 46.76230

W. 121.17087

Ended this section @ 1210 Hrs. + began  
next section

MJB Trail Crossing to Shell Cr. 1230 Hrs.

↓

Eric Anderson

N. 46.75084  
W. 121.17785

New Det Redds

1 (one)

No adult bull trout were observed.

Ended survey section @ Shell Cr. at 1445 Hrs.

↓  
N. 46.73690

H<sub>2</sub>O Temp. 46.8°F W. 121.21855

Jim Cummins has more data for upper  
sections.



Sep 14, 2007

Eric Anderson  
Jim Cummins

17

Crow Creek Bull Trout Redd Survey

Start in stream near end of USFS Rd 1922

→ N. 47.01510 W. 121.23538

H<sub>2</sub>O Temp 44.6°F @ 0810 Hrs.

Sandstone Cliff N. 47.01772 W. 121.25627

Old Hunting / Mining Camp N. 47.01873 W. 121.26167

Beaver Pond meadow @ lower end.

N. 47.01781 W. 121.26644

New Redds - all Redds above Beaver Pond; none below.

Def. NU 111 (8)

No adult bull trout were observed.

The survey ended at the subterranean boulder  
→ gorge area, ribbons / flags  
marked the end.

N. 47.02242 W. 121.30680

Ended @ 1340 Hrs H<sub>2</sub>O Temp. 45.9°F

Spawning appears to be over.

Sep 19, 2007

Eric Anderson

Indian Creek Bull Trout Redd Survey

1030 Hrs. H<sub>2</sub>O Temp 46.4°F at mouth.

mouth to Hwy 12 Bridge

No Redds, No Adult Bull Trout, No Kokanee.

Hwy 12 Bridge to N. Spring

N. 46.64527 → 40 Feet above Bridge

W. 121.25091

No redds on 1st pass in this section.

2nd pass

New Det. Redds

||||| (16)

New Pro.

1 (one)

New Pos

1 (one)

Adult Bull Trout

Observed on or

near redds

|||| (4)

End this section @ N. Spring at 1250 Hrs.

N. Spring survey section, Eric Anderson  
Start 1255 Hrs. H<sub>2</sub>O Temp 43.5°F Jim CumminsNew Det. Redds

||||| (21)

New Pos. 1 (one)

Adult Bull Trout observed on or near redds.

11 (2)

No Redds or Adult Bulls observed  
above the large beaver dam on the N. Spring

End Survey 1400 Hrs.

Jim Cummins has survey data for upper  
sections.

Sep 20, 2007

Eric Anderson WDFW 19  
Jim Cummins WDFW  
Jeff Thomas USFWS

# N.F. Tieton R. Bull Trout Redd Survey

↳ above Clear Lake

Survey section started in the N.F. Tieton River  
near the end of USFS Rd. 1207

(Trail #128 Crossing at N.F. Tieton) ← start

Redds & Adult Bull Trout were  
observed in active spawning.  
Jim Cummins has data with redd  
counts for this section.

We surveyed several braids and  
some GPS coordinates are noted  
here:

From downstream to upstream:

3rd Def. Redd N. 46,55183 W 121,37119 <sup>above</sup> split

8th Def. Redd N. 46,55098 W 121,37826

9th Def. Redd N. 46,55107 W. 121,37935

10th Def. Redd ≈ 75 yards upstream of #9

11 & 12th Def. Redds N. 46,55079 W. 121,38040

↓  
1 Fish on Redd.

Sep. 21, 2007

Eric Anderson

American River Bull Trout Redd Survey

I started at the Mesatchee Creek Trail  
crossing over the American River &  
surveyed downstream to the Spur Road  
above Lodgepole Camp Ground

Jim Cummins surveyed upstream towards  
me from the Spur Road access.

Start at Mesatchee Cr. Trail Xing

1015 Hrs. H<sub>2</sub>O Temp 41°F

New Def. Redds - 2nd Pass

11 (2) (Eric Anderson)

old Def. Redds

7 in this lower section (James Cummins)  
Combined total for this section is 9 def.  
(Eric & Jim redds) redds.

No Adult bull trout were observed.

One adult chinook carcass was  
observed in a log jam pool.

Survey ended @ 1200 Hrs.

Spawning appears to be complete

James Cummins has additional notes  
& surveys for Union & Kettle creeks.

15  
9/21/07

Future date

Sep 24, 2007

Eric Anderson

Deep Creek Bull Trout Redd Survey

Start Copper Creek to barrier Falls,

1010 Hrs H<sub>2</sub>O Temp 39.6°F

old Def Redds

Nil 11 (7)

old Pos Redd

1 (one)

New Def Redds

1 (one)

No adult bull trout were observed in this section.

Subsurface (dry) creek above most redds,  
(1 above)

Steeped culvert at Road crossing below the falls,  $\approx$  2.5 FT vertical drop.

No bull trout or redds were observed above the road to the barrier Falls.

James Cummins has more data for the lower sections of Deep Cr.

Survey ended in this section @ 1220 Hrs.

Sep 26, 2007 Eric Anderson  
 N.F. Ahtanum Bull Trout Redd Survey  
 1000 Hrs start @ Grey Rock Trail  
 Footbridge upstream to Log Road  
 Crossing, H<sub>2</sub>O Temp 41.7°C  
 Gray Rock Trail Bridge N. 46,52856

W. 121, 12309

Log Road Crossing N. 46,52958

W. 121, 14635

Old Redds

Def. 1 (one) Pro. 1 (one)

New Redds - 2nd Pass No adult bull  
 trout observed,

Def. 1 (one) end section 1120 Hrs

Log Road Crossing to Shellneck Creek  
 start section 1125 Hrs

Old Redds

New Redds 2nd Pass

Def. 11 (2) Def. 1 (one)

No adult bull  
 trout observed,

end section 1220 Hrs,

start section 1225 Hrs,

Shellneck Creek from mouth to upstream  
 end  $\approx$  100 meters upstream from bend at road.

Old Redds

New Redds 2nd Pass

Def. 1 (one) Def. 1 (one)

No adult bull trout observed,

end section 1310 Hrs.

Shellneck confluence N. 46,53033

W. 121, 15950



Oct. 1, 2007

Eric Anderson

M.F. Antanum Bull Trout Redd Survey

0915 Hrs. Start @ pullout along Road  
( $\approx$  2 miles below Treephones Camp Ground)upstream to Road Bridge over M.F. at  
upstream end of Treephones C.G.(Treephones C.G. Bridge)  $H_2O$  Temp  
41.2°Fold Redds

Def. 1 (one)

Pos. 1 (one)

New Redds

Def. 111

one pos. changed to  
- New Def.

No adult bull trout were observed,

(2 of the new redds looked a bit old  
& were in the upper braids near  
the campground).

end survey at 1130 Hrs.

Oct. 2, 2007

Eric Anderson

S.F. Tieton River Bull Trout Redd Survey

Start @ 10005 Hrs @ Blue Slide to  
1050 Rd Bridge, H<sub>2</sub>O Temp. 41.9°F3rd  
passOld Redds

Def. III III III III III III III III III III III

III III III III III III I 86

Pos III II (all changed to New Def or Eliminated)

Pro III (all 3 changed to New Def)

New Redds

Def. III III III III III I 26

Only one adult bull trout observed in a pool.

Survey section end @ 1400 Hrs. 86

H<sub>2</sub>O Temp 44.4°F 26

112

Spawning is over!

James Cummins has data for upper  
sections.Several cows (cattle) were observed along  
the road between Corral Creek + Bear  
Creek. Did not see any down by  
the river on this survey but  
tracks + cow pies were along the  
stream banks.

Oct. 4, 2007

Eric Anderson

Indian Creek Bull Trout Redd Survey

start 1000 Hrs. H<sub>2</sub>O Temp. @ 41.0°F↳ Trail crossing over creek downstream  
to N. Spring. 3rd passold Redds

Def. IIII (4)

All redds + the 2

Pos. I (one)

fish were in the

New Redds

lower section.

Def. II (2)

stream has low flow in  
this area.2 Adult bull trout were observed on a redd,  
in a braid below probable barrier falls created  
by log jam.

checked the lower 200 meters of

S. Spring by trail, No bull trout  
or redds were observed

end section 1100 Hrs.

N. Spring  
old Redds

starts 1105 Hrs.

Did not do  
upper section  
to falls due  
to low number  
absence below.

Def. IIII IIII IIII IIII I (21)

Pos. I (one) old Pos changed to new Def.

New Redds

Def. IIII IIII IIII (14)

Adult bull trout observed on or near  
redds III (3) Spawning appears to be  
complete!

Survey end at 1150 Hrs.

Jim Cummins has more data for lower  
section.

Oct. 15, 2007 Eric Anderson  
Gold Creek Bull Trout Redd Survey  
0945 Hrs. From access road bridge  
above I-90 to Trail Crossing.  
Access Road Bridge N. 47.39115  
W. 121.38193

Old Redds

Def. 111 (3)

New Redds

Def. 11 (2)

Adult Bull Trout observed on or  
near redds 111 (3)

There was a long dry (subsurface)  
section of stream from above  
Gold Creek Pond to area above  
private cabins.

Encountered a land cabin owner +  
fish consultant contemplating  
bank stream work near a cabin.  
Also observed area near a large  
cabin where a large cat or backhoe  
had been working in the stream moving  
logs + rock. - Reported to USFWS + WDFW

N/F ALTANUM Creek B/C Survey  
 9/17/07 sunny, cool, excellent  
 visibility

Q: 10-15 cfs (1<sup>ST</sup> PASS)

Footbridge  $\frac{1}{2}$  Logging Rd.

Grey Rock TRAIL  $\rightarrow$  Bridge

(Lower Section)

DEF = ° = ①

PROB = ° = ①

POS =

Fish =  $\emptyset$  (CT 6-10" frags  
 ABUNDANT)

START: 11:10

FINISH: 12:45

= 1h 35 M.

MF Ak TANUM cr BLC SURG 18

9/17/07 JC + EASTY SUR  
COOL

excellent visibility. Q = 5-10 cfs

Upper section

(1st PASS)

(MID PT. → see photos CG)  
± 1.1 miles BRIBOE

Def = • = (1)

Prob =

Pos = • = (1)

Fish = • = (1)

9-10" BLC  
Near  
rectd

START @ 1415

FINISH @ 1615

2h 0m.

**From:** <Judy\_Delavergne@fws.gov>  
**To:** <kreiss@fs.fed.us>  
**Date:** 09/21/2007 2:22:08 PM  
**Subject:** Re: Yak redd surveys

I need to relay another piece of information that I just learned about from Jeff Thomas.

He did end up with one flagged redd in the upper Yakima between the double powerline crossing and the Chrystal Springs Bridge.

He did not see any fish but the redd was very much a redd and if he was in a bull trout area would call it a definite redd. So, for now it stays a possible redd and next time through we might want to snorkel more of the area near this redd.

Judy De La Vergne, Fish and Wildlife Biologist  
US Fish and Wildlife Service, Central Washington Field Office  
215 Melody Lane, Wenatchee, WA 98801  
509-665-3508 ext. 21(office), 509-665-3509 (fax)

"What was big was not the trout, but the chance." "What was full was not my creel, but my memory." Aldo Lepold

Judy

Delavergne/WNES/R  
1/FWS/DOI

09/20/2007 11:06  
AM

Yuki Reiss

To

cc

rwassell@fs.fed.us,  
tmayo@fs.fed.us,  
cathomas@fs.fed.us,  
anderea@dfw.wa.gov,  
jthomas.pn.usbr.gov,  
meyerwrm@dfw.wa.gov, Karl  
Halupka/WNES/R1/FWS/DOI@FWS, Jeff  
Krupka/WNES/R1/FWS/DOI@FWS, David T  
Morgan/WNES/R1/FWS/DOI@FWS, Gregg  
Kurz/WNES/R1/FWS/DOI@FWS

Subject

Yak redd surveys

#### Yakima Redd survey Update

We did the redd survey the upper Yak. this Tuesday and Wednesday (Sept. 18th and 19th)

Thanks Jeff T for your help.

<Karl\_Halupka@fws.gov>, <Jeff\_Krupka@fws.gov>, <David\_T\_Morgan@fws.gov>,  
<Gregg\_Kurz@fws.gov>



We observed 2 males in the large pool below the first mid-way falls battling it out for a female just below the pool. Eventually (20min) one of the males succeeded in driving the other out of the pool. We also observed a sub-adult (12-14") trailing the two males and then the male-female, and it was chased out of the pool several times. The males repeatedly bit and shook each other just behind their dorsal fin, then would swim parallel to one another before one would turn and attack the other – pretty neat – kype to fin combat!

We observed one definite redd, 0 fish present, on the upper flats at GPS 47.36907 121.25836; and we observed 1 possible redd with 0 fish present at GPS 47.37350 121.25832. We reached Peek-a-boo falls at ~12pm and walked back to the truck. Peek-a-Boo falls GPS 47.37490 121.25925 2<sup>nd</sup> reading at : 47.37628 121.25829.

After getting back to the truck, we traveled back up the canyon to the upper falls (1<sup>st</sup> falls above Peek-a-Boo) and got a GPS 47.37993 121.26062 for Greg Lippert and the database.

**Eric Anderson - NF Tieton bull trout survey**

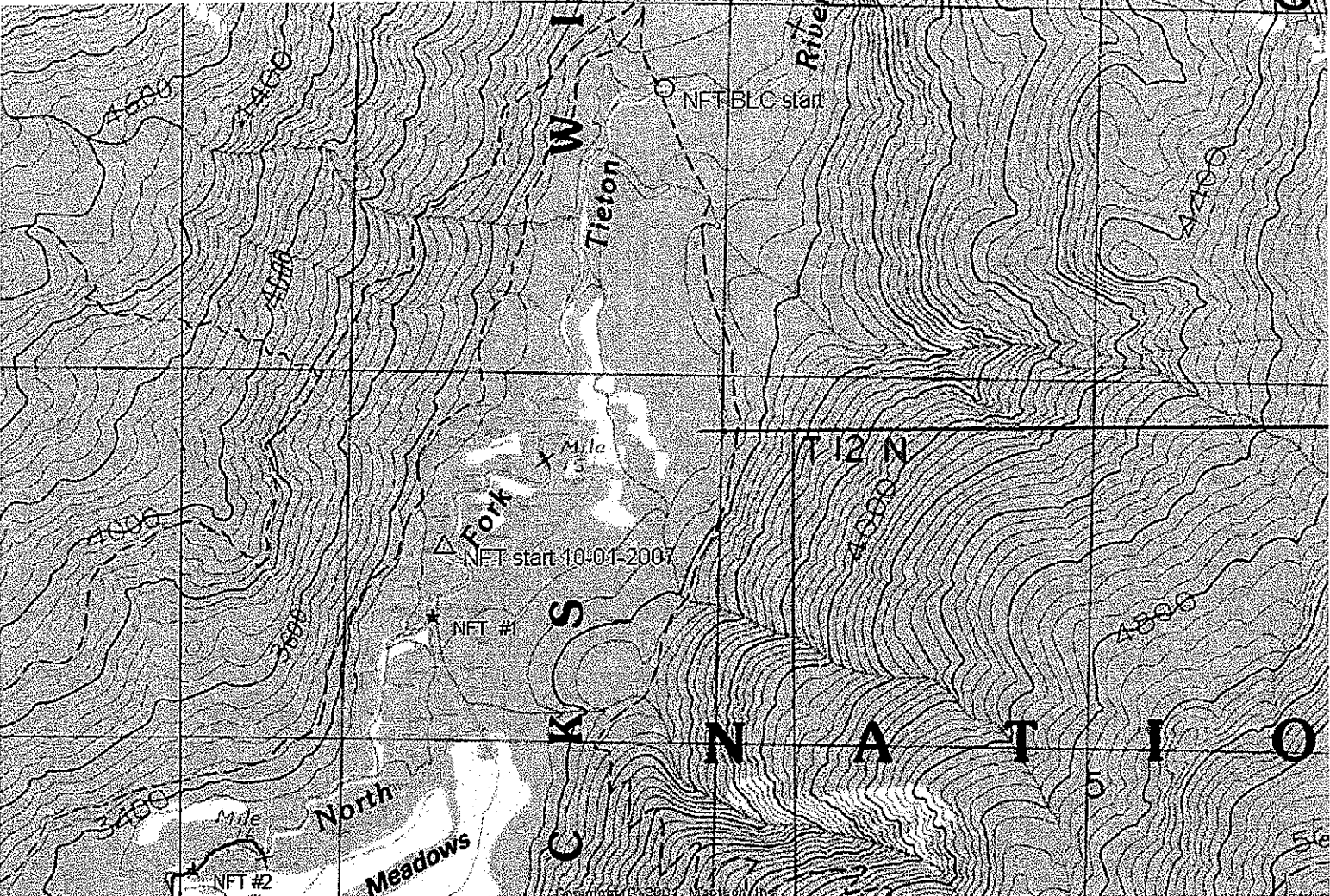
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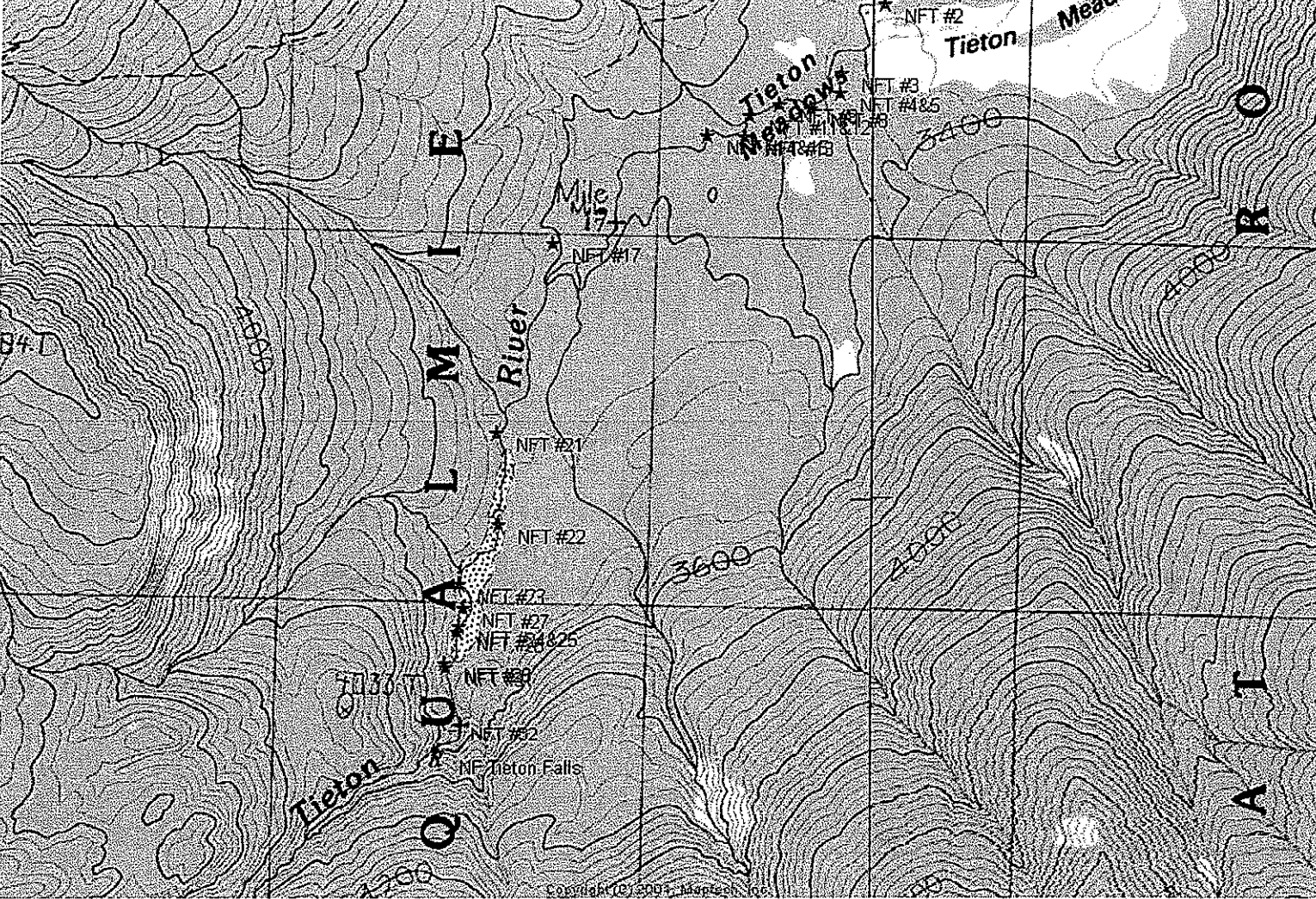
**From:** James Cummins  
**To:** Torretta, Gary  
**Date:** 10/31/2007 3:39 PM  
**Subject:** NF Tieton bull trout survey  
**CC:** Anderson, Eric

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We counted a total of 37 redds. The first survey started at the Bear Creek Mtn Trail crossing. There were no redds for almost 2 miles. The 2nd survey started at N46.56139 W121.36690. Two maps are attached that show redd locations and the location of the falls (N46.53522, W121.39123). The only map software I have to mark locations is Terrain Navigator. The quality of these files is not good, but I think you can see where the falls and most of the redds are located. I didn't take GPS readings the last survey, but all redds are between redd #1 and the falls. The distance covered is about 4.2 miles as roughly measured on the attached maps.

Jim Cummins  
Washington Department of Fish and Wildlife  
1701 S. 24th Ave  
Yakima, WA 98902  
509-457-9316  
[cummijlc@dfw.wa.gov](mailto:cummijlc@dfw.wa.gov)





T E T O N  
N A T I O N A L  
F O R E S T

River

Mile 17

Teton Meadows

Teton Meadows

Teton Falls

Teton Falls

### Bull Trout Spawning Ground Survey Data Form

Stream: Gold Creek, First Pass

Date: 10/5/07

Location: I-90 bridges to trail crossing

Water Temp.: Start: 7.5 degrees C, End: 5 degrees C

Investigator: Jeff Thomas and Judy Delavergne (USFWS)

Start Time: 1000 hours

End Time: 1500 hours

Redds: New Old

Definite: 2

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

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

**Bull Trout Observed:**

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

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

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

Comments (mortalities, tagged fish, H2O visibility, etc): Weather was cloudy and cool with some drizzle later in the day. Flows were healthy and the reach was fully connected. Visibility was excellent. In the area where the first cabin is encountered as one walks upstream there was major channel disturbance. Heavy equipment had been all over the active channel moving large trees (which had probably fallen in the creek during last November's storm) up against the east bank. It looked like a major violation of the HPA (if they had one) to us. Judy has photos.

**From:** "Brandon Rogers" <brandonr@yakama.com>  
**To:** "Eric Anderson" <ANDEREA@DFW.WA.GOV>  
**Date:** 10/24/2007 7:09:59 AM  
**Subject:** FW: Bull trout redds on South Fork Ahtanum

I'm doing fine, Eric. Tim sent this to you a couple of weeks ago, it probably got lost in the shuffle. How did the NF and MF surveys go?

Brandon

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**From:** Tim Resseguie [mailto:timr@yakama.com]  
**Sent:** Thursday, October 11, 2007 2:48 PM  
**To:** Eric Anderson; Brandon Rogers; elaine@ykfp.org  
**Subject:** Bull trout redds on South Fork Ahtanum

5 bull trout redds this year 3 definite and 2 probable.

Tim

Tim Resseguie

Fisheries Biologist

Yakama Nation Fisheries

P.O. Box 151

Toppenish, WA 98948

(509) 865-2255 x 6358

(509) 945-7409

Pass #	Red #	Date	old	new	count	Live BT
1		1	9/10/07	definite	1	2
		2	9/10/07	probable	1	0
2		1	9/25/07	probable	1	0
3		1	10/10/07	definite	1	0
		2	10/10/06	definite	1	0
Total					5	2

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

Lat Lon

start 46.48008-120.99762

end 46.46578-121.04743

Pass #	Red #	Date	old	new	count	Live BT
1		9/5/06			0	0
2		9/12/06			0	0
3	1	9/20/06		probable	1	0
4	1	10/6/06		probable	1	0
	2	10/6/06		probable	1	0
	3	10/6/06		definite	1	1
Total					4	1

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

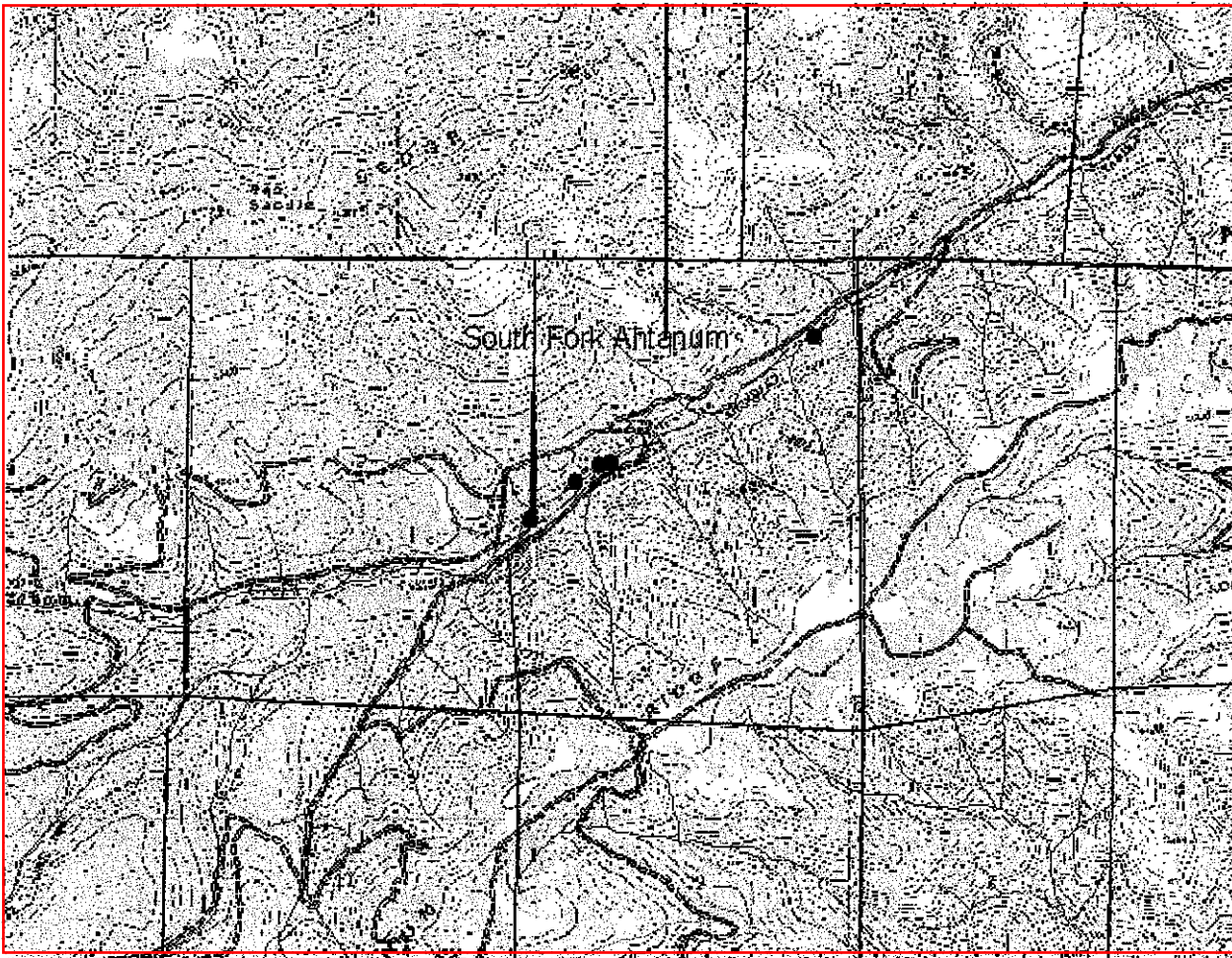
	Lat	Lon
start	46.48008	-120.99762
end	46.46578	-121.04743

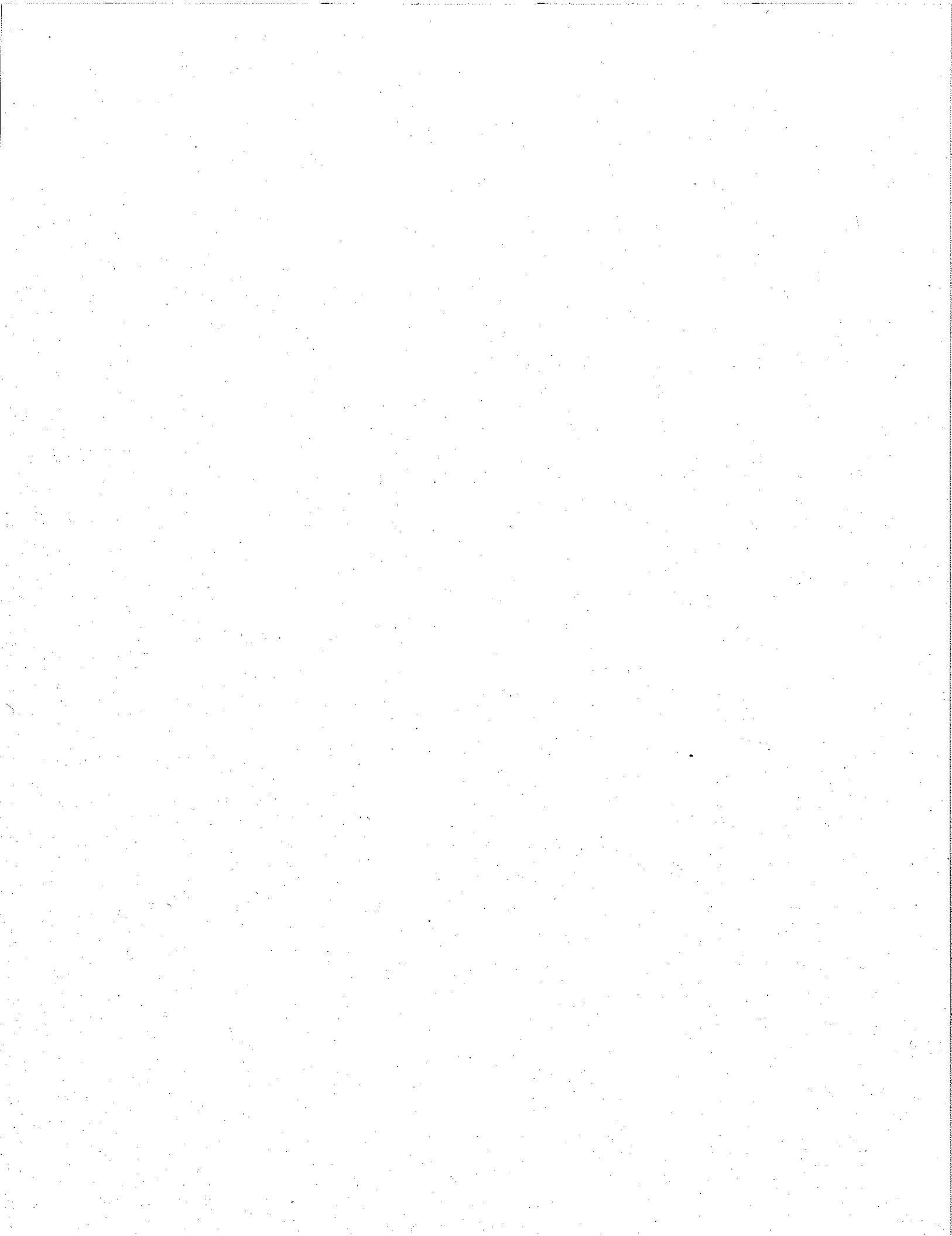


Pass #	Redd #	Date	Old	New	count	Live BT
	1	1 9/14/04		definite	1	0
		2 9/14/04		definite	1	0
		3 9/14/04		possible	0	0
		4 9/14/04		definite	1	0
		5 9/14/04		probable	1	0
	2	1 9/30/04		definite	1	0
Total					5	0

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

	Lat	Lon
start	46.48008	-120.99762
end	46.46578	-121.04743





## Cle Elum River Redd Surveys 2007

### September 27, 2007

**Weather:**

Overcast and calm

Air temperature: ~50 – 55 F

Survey time: ~1030 - 1300

**Silver Creek to Tucquala Lake:**

Surveyors – Scott Kline, Tina Mayo

Water Temperature: 50.2 F @ 1200

**1 mile below Hyas Lake to Hyas Lake:**

Surveyors – Becca Wassell

Water Temperature: 10 C @ 1115

No redds or bull trout seen any either reach. Several unidentified juvenile salmonids were seen in the Silver Creek reach with what appeared to be spinal deformities.

### October 26, 2007

**Weather:**

Sunny, clear and calm

Air temperature: ~45 F

Survey time: 1200 – 1400

**Silver Creek to Tucquala Lake**

Surveyors – Becca Wassell, Tina Mayo

Water Temperature: 41.1 F @ 1200, 41.9 F @ 1400

1 possible redd was found in the main channel on the right bank side in an area where the previous winter's high water had cause bank erosion and the deposition of several small trees. 2 probable redds where found approximately 500 foot downstream of the confluence with Scatter Creek. One redd was in the main channel on the left bank side and was adjacent to downed wood approximately 8 inches in diameter embedded in the channel. There were several other areas that looked like test pits. The second redd was 50 feet upstream in a side-channel on the left bank of the main channel. No bull trout were seen. One approximately 10-12 inch unidentified trout was seen briefly up-stream in the same side channel the redd was located.

**Bull Trout Spawning Ground Survey Data Form**Stream: South Fork Tieton RiverDate: September 5, 2007Location: Reach: Barrier waterfall to Bear Creek confluenceWater Temp.: 9 degrees C @1000 hours, 10.5 degrees C @ 1300 hrsInvestigator: Jeff Thomas, USFWSStart Time: 1010 hoursEnd Time: 1300 hoursRedds: New OldDefinite: 6 \_\_\_\_\_

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

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

**Bull Trout Observed:**Adults: Two fish observed on two of the redds. One on another. Three adult bulls were observed holding in pools. My guess is there were a few more I could not see.

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

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

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

Weather was clear, sunny and warm. Visibility was typical for the SF Tieton. I flagged one other apparent excavation but it did not appear to be a completed redd. It was small and incomplete. I noted on the flagging that I believed it to be a "test dig".

**Bull Trout Spawning Ground Survey Data Form**Stream: Deep CreekDate: September 7, 2007Location: Culverts to the lake. First PassWater Temp.: 7.5 degrees C @ 1000 hrs, 8 degrees C @ 1220 hrsInvestigator: Jeff Thomas, USFWSStart Time: 1000 hrsEnd Time: 1220 hrsRedds: New OldDefinite: 14 \_\_\_\_\_Probable: 3 \_\_\_\_\_

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

**Bull Trout Observed:**Adults: 2 on a redd. No others.

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

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

Comments (mortalities, tagged fish, H2O visibility, etc. Water clarity was excellent. Weather was sunny and warm. This survey was an absolute BEAR- worse than I remember. Logjam central. Matter of fact, I fell through one of them and screwed up my big toe. I was not able to finish the survey but believe I was pretty close to the lake. I had just flagged a redd so I hung a second piece of flagging next to that one that indicates that it was my stopping point. Like I said I don't believe there was much stream left so somebody can cover the remaining stretch on the second

Stream:	American River						
Date:	09/06/2007	1st survey					
Location:	Below Union Creek						
Water Temp	50.2 F	Below Union Creek					
Investigator:	Jim Cummins						
Start time:	1115						
End Time	1140						
	New Redds						
Definite	0						
Probable	0						
Possible	0						
Def + Prob	0						
Fish	Observations						
Adult BLC	Sub-adult						
0	0						
Comments (mortalities, water flows, visibility, etc)							
Clear, sunny, low flow, excellent visibility							
This reach is approximately 1/4 mile in length and extends from confluence with Union Creek downstream							
Union/American Confluence GPS: N46.9316 W121.35752							
End Survey below Union GPS: N46.93297 W121.35101							
Eric and I surveyed the upriver section; 1/4 mile above Lodgepole CG to Mesatchee Creek. Eric has data.							

Stream:	American River						
Date:	09/21/2007	1st survey					
Location:	Below Union Creek						
Water Temp	40.8 F	Below Union Creek					
Investigator:	Jim Cummins						
Start time:	1045						
End Time	1105						
	Below Union Creek		Lodgepole to Mesatchee Trail				
	New Redds	Old Redds	New Redds	Old Redds			
Definite	0	0	2	7	9		
Probable	0	0	0	0	0		
Possible	0	0	0	0	0		
Def + Prob	0	0	2	7	9		
Fish	Observations						
Adult BLC	Sub-adult						
	0	0					
Comments (mortalities, water flows, visibility, etc)							
Clear, sunny, low flow, excellent visibility							
This reach is approximately 1/4 mile in length and extends from confluence with Union Creek downstream.							
Union/American Confluence GPS: N46.9316 W121.35752							
End Survey below Union GPS: N46.93297 W121.35101							
Eric and I surveyed the upriver section; 1/4 mile above Lodgepole CG to Mesatchee Creek.							
Eric started at Mesatchee Creek and I started near Lodgepole; we meet at the location of the Chinook carcass							
5 redds were in a 100 foot reach at N46.91197 W121.39684.							
There was a Chinook carcass at N46.91179 W121.39708.							



Stream:	Box Canyon Creek							
Date:	10/12/2007							
Location:	Foot bridge to falls							
Water Temp								
Investigator:	Jim Cummins							
Start time:								
End Time								
	New Redds	Old Redds	Totals					
Definite	1	1	2					
Probable	0	0	0					
Possible	0	1	1					
Def + Prob	1	1	2					
Fish	Observations							
Adult BLC	Sub-adult	Juvenile	Other					
1	0							
Comments (mortalities, water flows, visibility, etc)								
Weather cloudy, cool, but appears that there has been moderate to heavy rain past several days.								
Water flow high enough to make wading difficult.								
Redds constructed before water flows increased may not have been visible.								
Foot bridge location: N47.35947 W121.24738								
End survey at falls: N47.37606 W121.35809								

Stream:	Crow Creek			
Date:	09/14/2007			
Location:	Index area - see GPS below			
Water Temp	46.6F @0825			
Investigator:	Jim Cummins, Eric Anderson			
Start time:	825			
End Time	1340			
	New Redds			
Definite	8			
Probable				
Possible				
Def + Prob	8		This is Eric's data	
Fish	Observations			
Adult BLC	Sub-adult			
0	0			
Comments (mortalities, water flows, visibility, etc)				
Lower end of index area: 47.01506 W121.23550				
Sandstone bluff: N47.01783 W121.26633				
Meadow/old beaver pond location:N47.01783 W121.26633				
Upper end index area: N47.02169 W121.30694				
No redds below meadow/old beaver pond.				
Saw a few cutthroat				
Eric recorded the redd data. We found 8 def redds				

Stream:	Deep Creek					
Date:	08/31/2007	1st survey				
Location:	Copper Creek to Falls					
Water Temp	44.6 @1040	just above Copper Creek				
Water Temp	48.7 @ 1330	just below falls				
Investigator:	Jim Cummins					
Start time:	1030					
End Time	1310					
	New Redds					
Definite	8					
Probably	0					
Possible	1					
Def + Prob	8					
Fish	Observations					
Adult BLC	Sub-adult	Juvenile	Other			
4	0	0	0			
Comments (mortalities, water flows, visibility, etc)						
Water flow low, visibility excellent, weather warm and partly cloudy.						
About 18 minutes into this survey there was a potential low flow migration block.						
First redds (6 in 100 ft reach) were above rockslide where springs flow into Deep Creek						
Short distance (10 minute walk) above rockslide Deep creek was completely dry.						
Walled 12 minutes through dry area before creek water up again, no redds, fish upriver.						
Eric Anderson surveyed from 1800 Rd culvert to Copper Creek						
We did not survey the reach from 1800 Rd down to Bumping Res.						

Stream:	Deep Creek						
Date:	09/07/2007	2nd Survey					
Location:	1800 Road up to rockslide where the channel was dry						
Water Temp ?							
Investigator:	Jim Cummins						
Start Time	1000						
End Time	1430						
	New Redds	Old Redds	Totals				
Definite	37	44	81				
Probable	3	1	4				
Possible	3	0	3				
Def + Prob	40	45	85				
Fish							
Adult BLC							
	28						
Comments (mortalities, water flows, visibility, etc)							
Low flow, excellent visibility.							
Did not do all the way to Copper Creek because there is no fish passage upriver.							
Will do entire index area on last survey, so this can be treated as Copper Creek to falls.							
Jeff Thomas surveyed below the 1800 Road most of the way to Bumping Reservoir. He has data.							
Observed and photographed one radio tagged bull trout.							
All but 4 of the bull trout observed were on redds.							

Stream:	Deep Creek			
Date:	09/24/2007			
Location:	1800 Road culvert to Copper Creek			
Water Temp	44.1 F @0955; Air 33F @0955			
Investigator:	Jim Cummins			
Start time:	955			
End Time	not recorded - approx. 1330			
	New Redds	Old Redds	Totals	
Definite	10	82	92	
Probable	0	3	3	
Possible	0	3	3	
Def + Prob	10	85	95	
Fish	Observations			
Adult BLC	Sub-adult	Juvenile	Other	
0	0			
Comments (mortalities, water flows, visibility, etc)				
Weather cold, clear, sunny. Creek low and clear, excellent visibility.				

Stream:	Deep Creek					
Date:	9/26/07					
Location:	1800 Road culvert to Bumping Reservoir					
Water Temp	43.9 @ 1245					
Investigator:	Jim Cummins					
Start time:	1245					
End Time	1415					
	New Redds	Old Redds	total			
Definite	8	15	23			
Probable	0	3	3			
Possible	0	0	0			
Def + Prob	8	18	26			
Fish	Observations					
Adult BLC	Sub-adult	Juvenile	Other			
0	0					
Comments (mortalities, water flows, visibility, etc)						
Weather warm, clear, sunny. Flow low and clear.						
Changed 2 old redds from prob to def.						
Note: Jeff Thomas did not complete the previous survey, so 4-5 redds may be "old redds."						
The Deep Creek/Bumping Reservoir confluence was at: N46.84653 W121.32044 today.						
There were no redds in the lakebed.						
The approximate high water mark is at: N46.84413 W121.3172.						

Stream:	Gold Creek								
Date:	10/05/2007								
Location:	Trail crossing to falls								
Water Temp									
Investigator:	Jim Cummins								
Start time:	1120 (after walking trail)								
End Time	1249 (at upper falls)								
	New Redds								
Definite	0								
Probable	0								
Possible	0								
Def + Prob	0								
Fish	Observations								
Adult BLC	Sub-adult	Juvenile	Other						
2	0								
Comments (mortalities, water flows, visibility, etc)									
Start survey at Gold Creek Trail #1314 crossing: N47.43913 W121.35026									
Lower falls: N47.45092 W121.34166 (not a migration barrier at most flows).									
Falls (migration barrier): N47.45369 W121.33724									
Weather cloudy, rain as we were leaving.									
Precipitation that started 10/1 likely increased flow substantially between 10/1 and 10/5.									
Gold Creek likely dry in more than half mile reach below and above Gold Cr Pond until 10/2 or 10/3.									
Water flow moderate, but clear. No passage barriers as the result of low flows.									
I walked part of the section below the trail until I met Jeff Thomas and Judy DeLaverge.									
I found 1 prob. redd under construction with 3 fish on it a short distance below the trail crossing.									
Thomas reported 2 redds from Gold Creek frontage road to where he met me, so total of 3 in that reach.									
Thomas reported very few kokanee.									
I looked at the footbridge crossing just below the pond and saw only a handful of kokanee.									
No kokanee or redds visible under the frontage road bridge. There were many last year.									

Stream:	Gold Creek							
Date:	10/15/2007							
Location:	Trail crossing to lower falls							
Water Temp								
Investigator:	Jim Cummins							
Start time:	1115 (after walking to trail crossing)							
End Time	1212 (lower falls)							
	New Redds							
Definite	0							
Probable	0							
Possible	0							
Def + Prob	0							
	Fish Observations							
Adult BLC	Sub-adult	Juvenile	Other					
0	0							
Comments (mortalities, water flows, visibility, etc)								
Start survey at trail crossing: N47.43913 W121.35026								
Lower falls: N47.45092 W121.34166. This is not a migration barrier.								
Weather cloudy and cool.								
Water flow moderate, slightly lower than first survey, clear. No passage barriers as the result of low flows.								
Eric has data for lower reach. He found 5 redds.								
Drove through gate (USFS lock); started hike on trail at 1005, arrived at trail crossing at 1106.								



Stream:	Gold Creek							
Date:	10/23/2007							
Location:	Trail crossing to falls							
Water Temp								
Investigator:	Jim Cummins							
Start time:	1150 (after walking trail)							
End Time								
	New Redds	Old Redds						
Definite	1	0						
Probable	0	0						
Possible	0	0						
Def + Prob	1	0						
Fish	Observations							
Adult BLC	Sub-adult	Juvenile	Other					
0	0							
Comments (mortalities, water flows, visibility, etc)								
Weather, cold, fog early, but mostly sunny latter in the morning.								
Flower moderately high, almost too high to do survey. Water clear.								
Start survey at trail crossing: N47.43913 W121.35026								
Lower falls: N47.45092 W121.34166								
Falls (migration barrier): N47.45369 W121.33724								
William Meyer did lower reach, but due to high water did not complete the survey. He found no new redds.								
There was more water in the downstream reach than upstream.								
Fewer kokanee near Gold Creek Pond than during last survey. Only a very small number of redds.								

Stream:	Indian Creek							
Date:	09/10/2007	1st survey						
Location:	Trail #1147 to Falls*	Located near end of road.						
Water Temp	43.5 F @ 1020 @ 40.5 at end of survey							
Investigator:	Jim Cummins							
Start time:	1020							
End Time	1152							
	New Redds	Old Redds						
Definite	0							
Probably	0							
Possible	0							
Def + Prob	0							
Fish	Observations							
Adult BLC	Sub-adult							
	0	0						
Comments (mortalities, water flows, visibility, etc)								
Ended survey below falls because there were no fish or redds.								
End survey @ N46.66393 W121.28689; 5-6 foot log jam at this location today.								
Channel changes as result of November 2006 flood were extensive in the lower part of this reach.								
Walked upper and lower South Springs - no fish or redds.								
Upper South Spring/Indian Creek confluence @N46.66906 W121.29406 and end N46.67087 W121.29703								
I noted that there must be a passage barrier below where I started this survey.								
Jeff Thomas and Eric Anderson have data for lower Indian Creek index. Poor results in lower reach.								
Eric will probably note this, but we did not survey the reach between North Spring and the trail.								
The fact that there were no redds or fish is very unusual.								

Stream:	Indian Creek							
Date:	09/19/2007 2nd survey							
Location:	Trail 1147 to lower end of Canyon.							
Water Temp	43.9 F @1045							
Investigator:	Jim Cummins							
Start time:	1045							
End Time	1200 (upper reach)							
	upstream from Trail 1147			North Spring to Trail 1147				
	New Redds	Old Redds		New Redds	Old Redds			
Definite	0	0		4 *				
Probable	0	0		0 *				
Possible	1	0		0 *				
Def + Prob	0	0		4 *				
Fish above trail	Fish below trail							
Adult BLC	Sub-adult	Adults BLC						
0	0	1						
Comments (mortalities, water flows, visibility, etc)								
Water flow low and clear								
Based on radio discussion with Eric Anderson, and no redds or fish, stopped survey before reaching falls.								
Trail 1147 is at end of road.								
* This section was not surveyed on 1st survey.								
Fish passage barriers between Trail crossing and North Spring (only 200 ft above N. Spring).								
Eric has data for lower half of index.								

Stream:	Indian Creek				
Date:	10/04/2007				
Location:	Highway 12 to North Spring				
Water Temp	42.4 F				
Investigator:	Jim Cummins				
Start time:	915				
End Time	1140				
	New Redds	Old Redds			
Definite	0	16			
Probable	0	1			
Possible	0	1			
Def + Prob	0	17			
Adult BLC	Sub-adult				
0	0				
Comments (mortalities, water flows, visibility, etc)					
Rain for several days, flow moderate, but water clear.					
Hundreds of kokanee were spawning upstream for more than an hour (to 1040).					
All but 1 of the old bull trout redds were above where kokanee were spawning.					
Didn't have GPS.					

Stream:	Indian Creek						
Date:	09/11/2007	1st survey					
Location:	Trail #1147 to Falls*	Located near end of road.					
Water Temp	43.5 F @ 1020 @ 40.5 at end of survey						
Investigator:	Jim Cummins						
Start time:	1020						
End Time	1152						
	New Redds	Old Redds					
Definite	0						
Probably	0						
Possible	0						
Def + Prob	0	0					
Fish	Observations						
Adult BLC	Sub-adult						
0	0						
Comments (mortalities, water flows, visibility, etc)							
Ended survey below falls because there were no fish or redds.							
End survey @ N46.66393 W121.28689; 5-6 foot log jam at this location today.							
Channel changes as result of November 2006 flood were extensive in the lower part of this reach.							
Walked upper and lower South Springs - no fish or redds.							
Upper South Spring/Indian Creek confluence @N46.66906 W121.29406 and end N46.67087 W121.29703							
I noted that there must be a passage barrier below where I started this survey.							
Jeff Thomas and Eric Anderson have data for lower Indian Creek index. Poor results in lower reach.							
Eric will probably note this, but we did not survey the reach between North Spring and the trail.							
The fact that there were no redds or fish is very unusual.							

Stream:	Kachess River						
Date:	10/26/2007						
Location:	Kachess Reservoir to falls						
Water Temp							
Investigator:	Jim Cummins						
Start time:	1030						
End Time	1330						
	New Redds						
Definite	11						
Probable	0						
Possible	0						
Def + Prob	11						
Fish	Observations						
Adult BLC	Sub-adult	Juvenile	Other				
5							
Comments (mortalities, water flows, visibility, etc)							
Weather cold (20-25 F), clear, sunshine. Beautiful day.							
BOR Copper Lake weather station data shows significant rain events 10/1-3 and 10/18-21.							
Flows moderate, excellent visibility. No low flow passage issues this date.							
Kachess R. goes dry every year at confluence with the reservoir; flowing today reservoir.							
No redds below confluence with Mineral Creek.							
No kokanee, kokanee redds, or bull trout observed below Mineral Creek.							
GPS would not locate satellites at redd locations and falls.							
Only 1 redd with fish, and that redd had 1 adult blc and unidentified 8 inch fish.							

Stream:	Kachess River						
Date:	11/05/2007						
Location:	Kachess Reservoir to falls						
Water Temp							
Investigator:	Jim Cummins and William Meyer						
Start time:	1102						
End Time	1415						
	New Redds	Old Redds					
Definite	5	11	16				
Probable	0	0	0				
Possible	0	0	0				
Def + Prob	5	11	16				
Fish	Observations						
Adult BLC	Sub-adult	Juvenile	Other				
0	0						
Comments (mortalities, water flows, visibility, etc)							
Weather cool clear, sunshine. Beautiful day.							
BOR Copper Lake weather station data shows significant rain events 10/1-3 and 10/18-21.							
No rain since the last survey according to BOR Copper Lake weather station.							
Flows much lower than first survey, excellent visibility.							
About 275 feet of the Kachess R in the lakebed is dry. No fish passage.							
6 redds in the reservoir bed, not counted in totals above.							
Approximately 5 kokanee redds, but no live kokanee or carcasses.							
William Meyer has GPS data for redds and falls.							

Stream:	Middle Fork Ahtanum Creek						
Date:	09/17/2007	1st survey					
Location:	Upper half of index to Tree Phones CG. See GPS						
Water Temp	44.6 F @ 1409						
Investigator:	Jim Cummins						
Start time:	1409						
End Time	1536						
	New Redds						
Definite	3						
Probable	1						
Possible	1						
Def + Prob	4						
Fish	Observations						
Adult BLC	Sub-adult						
	0						
	0						
Comments (mortalities, water flows, visibility, etc)							
Flows low and clear, but late afternoon visibility only fair due to low angle of sun.							
John Easterbrooks did the lower half of this index and reported 1 def redd.							
Observed several cutthroat.							
Lower end of survey reach. GPS from Road, Could not get satellite on creek: N46.49612 W121.08103							
Upper end of survey at Tree Phones (bridge crossing):N46.49710 W121.12192.							



Stream:	North Fork Ahtanum				
Date:	09/17/2007	1st survey			
Location:	Bridge crossing to Shellneck, and Shellneck Cr				
Water Temp	44.1 F @1120				
Water Temp	42.2 @ 1221				
Investigator:	Jim Cummins				
Start time:	1120 NF Ahtanum, 1221 Shellneck Creek				
End Time	1215 NF Ahtanum, 1252 Shellneck Creek				
	NF Ahtanum		Shellneck		
	New Redds				
Definite	2		1		
Probable	0		0		
Possible	0		0		
Def + Prob	2		1		
Fish	Observations				
Adult BLC	Sub-adult				
0	0				
Comments (mortalities, water flows, visibility, etc)					
John Easterbrooks has data for lower index reach.					
Weather partly cloudy, water flow low and clear, good visibility, but dark in shaded area.					
GPS at lower end of index (bridge): N46.52943 W121.14613					
NF Ahtanum/Shellneck Creek Confluence:N46.53046 W121.15959					
Shellneck Creek upper end index on this date:N46.52728 W121.16596					
At one time fish passed upstream above the location ended on this date.					

## Bull Trout Spawning Ground Survey Data Form

Stream: Box Canyon Creek – 1<sup>st</sup> Pass

Date: 10/04/2007

Location: Box Canyon Creek – campground to Peek-a-Boo falls barrier

Water Temp.: 5 °C

Weather: Partially overcast, cool (~50°F), calm, recent significant rains and drizzle by the end of the survey

Investigator: William Meyer (WDFW), Hank Fraser (YIN)

Start Time: 9:20am

End Time: 12 pm

Redds: New Old

Definite: 1

Probable: 0

Possible: 1

Bull Trout Observed: 3 adults observed, 1 sub-adult

Adults: 3

Sub-adults: 1

Juveniles: 0

Comments (mortalities, tagged fish, H2O visibility, etc): Flow was good, visibility was clear and the creek was well connected to the reservoir. The reservoir was still pretty high . There have been several recent rain events that have kept the stream flowing well. We started at the lower campground and walked up to Peek-a-boo falls. There was lots of evidence of last years November floods, including debris lines along the bank, scour lines, movement of LARGE wood and rocks. We found an old decaying BT carcass and took a genetics sample – looked a few weeks old as only some skin and flesh were left and this was pretty rotten. Took a photo of carcass and sample # 06BK8 will be sent to WDFW Olympia lab. The 2d GPS location was : 47.36322 121.24841 (WGS 84). We independently estimated the live fish must have been larger than 15".

We observed 2 males in the large pool below the first mid-way falls battling it out for a female just below the pool. Eventually (20min) one of the males succeeded in driving the other out of the pool. We also observed a sub-adult (12-14") trailing the two males and then the male-female, and it was chased out of the pool several times. The males repeatedly bit and shook each other just behind their dorsal fin, then would swim parallel to one another before one would turn and attack the other – pretty neat – kype to fin combat!

We observed one definite redd, 0 fish present, on the upper flats at GPS 47.36907 121.25836; and we observed 1 possible redd with 0 fish present at GPS 47.37350 121.25832. We reached Peek-a-boo falls at ~12pm and walked back to the truck. Peek-a-Boo falls GPS 47.37490 121.25925 2<sup>nd</sup> reading at : 47.37628 121.25829.

After getting back to the truck, we traveled back up the canyon to the upper falls (1<sup>st</sup> falls above Peek-a-Boo) and got a GPS 47.37993 121.26062 for Greg Lippert and the database.