

Pojoaque Pueblo Santa Fe, New Mexico

2011 EPA National Tribal Water Quality §106 and §319 Conference

# Reconnecting a Wetland to Thirty Cent Creek

A case study by Makah Fisheries Water Quality

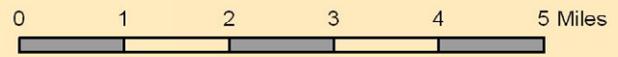
Ray Colby Water Quality Specialist Makah Fisheries



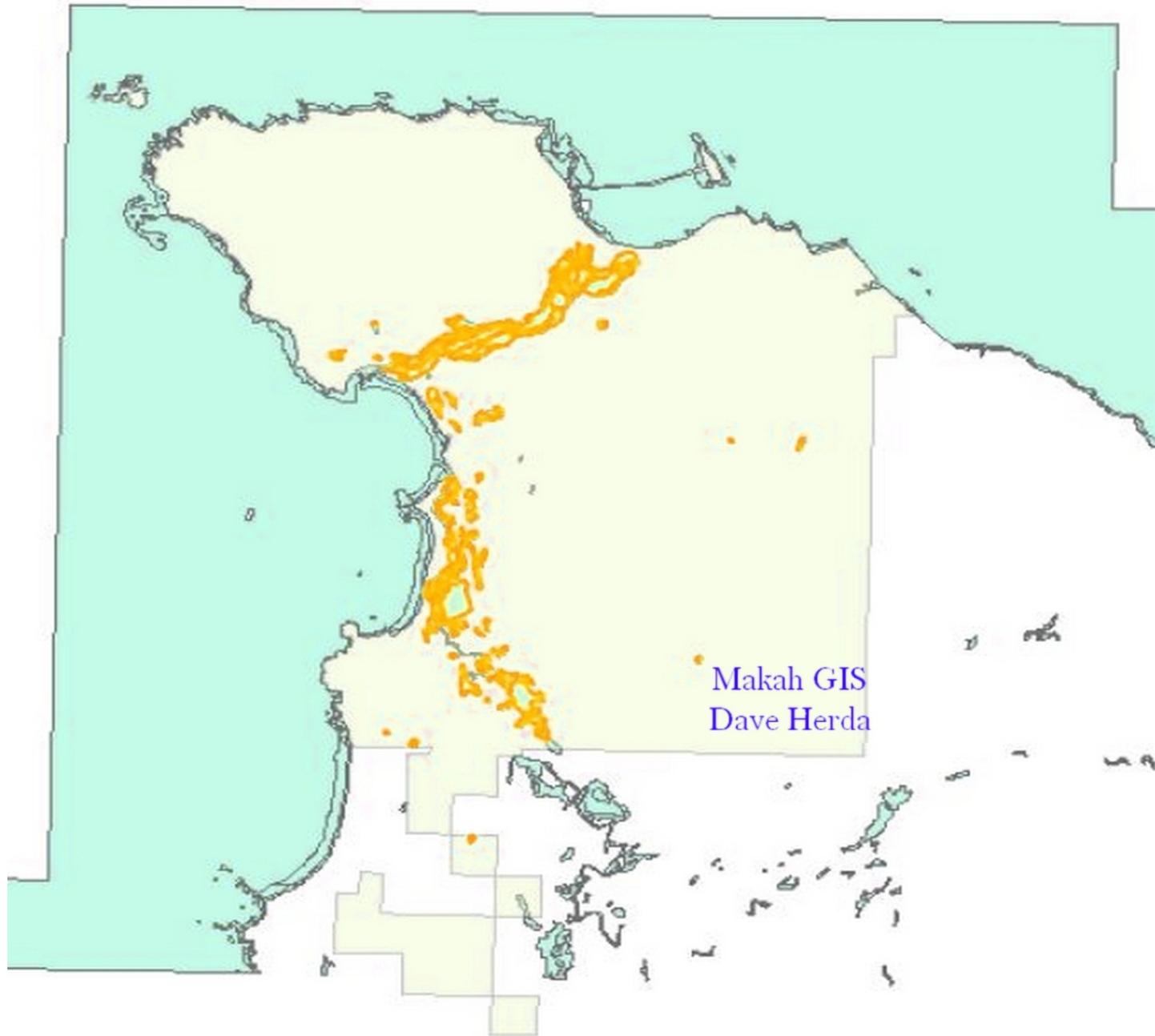
# Cape Flattery Area



Map Courtesy of the Makah Tribe  
-No Reproduction without Permission-  
DMHerda Jan2010

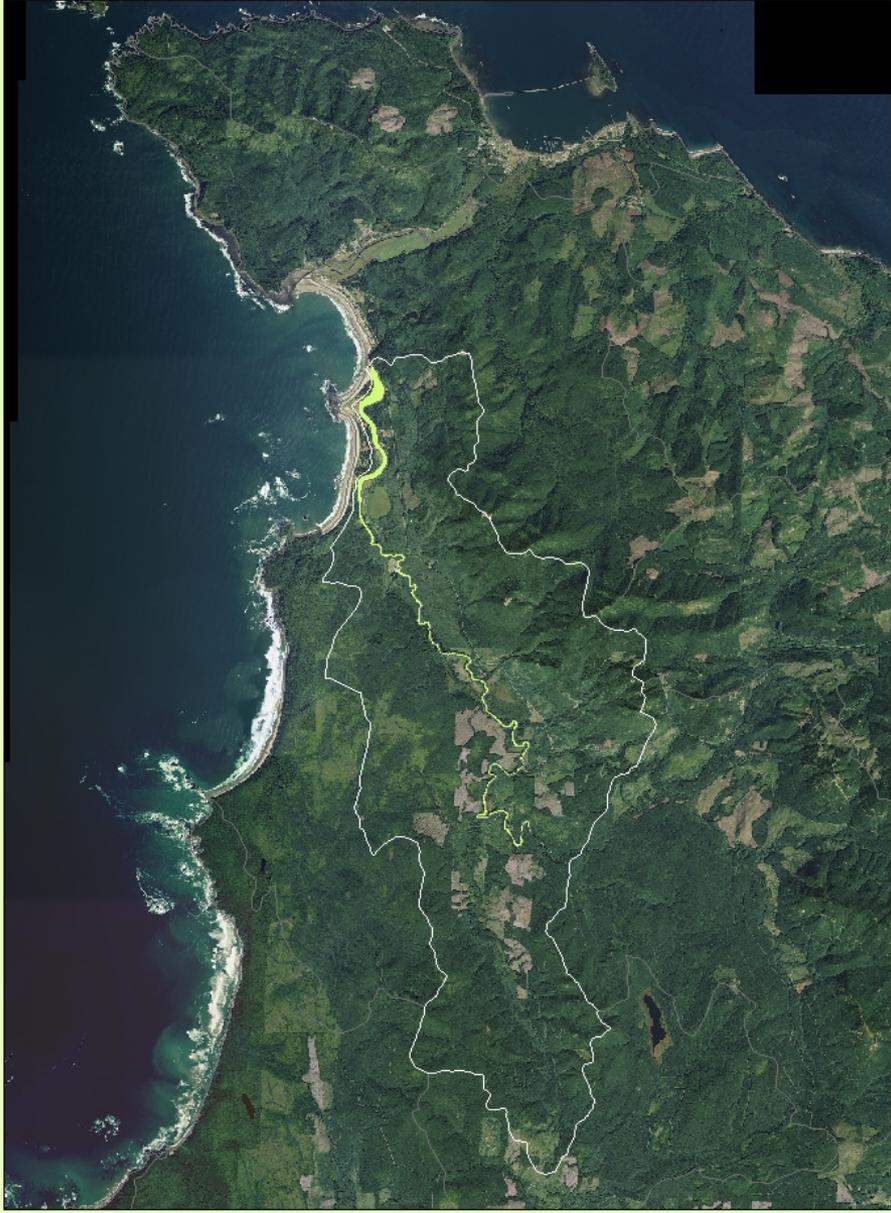


Makah GIS  
Dave Herda



Makah GIS  
Dave Herda











**MAKAH**  
NATIONAL FISH HATCHERY









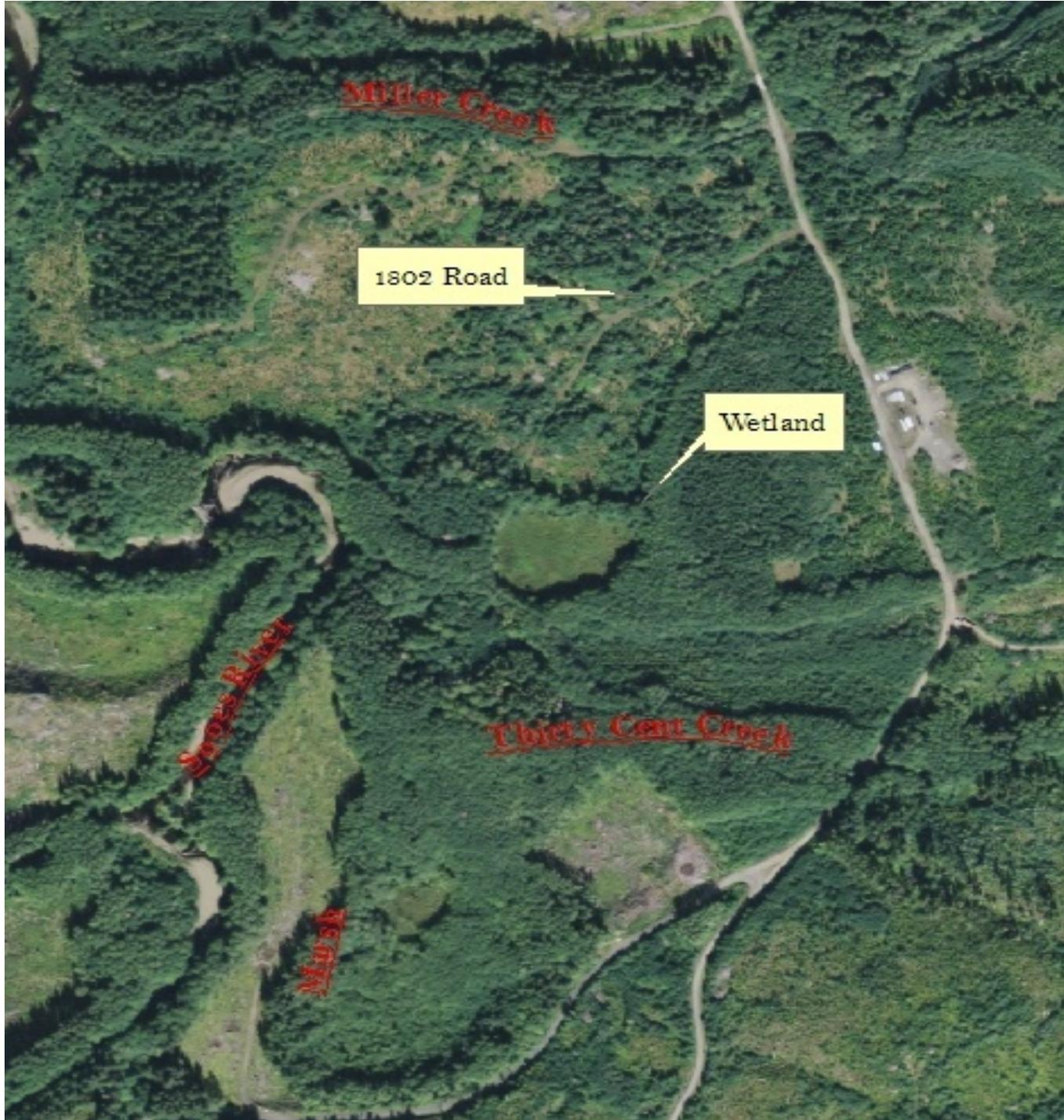












Miller Creek

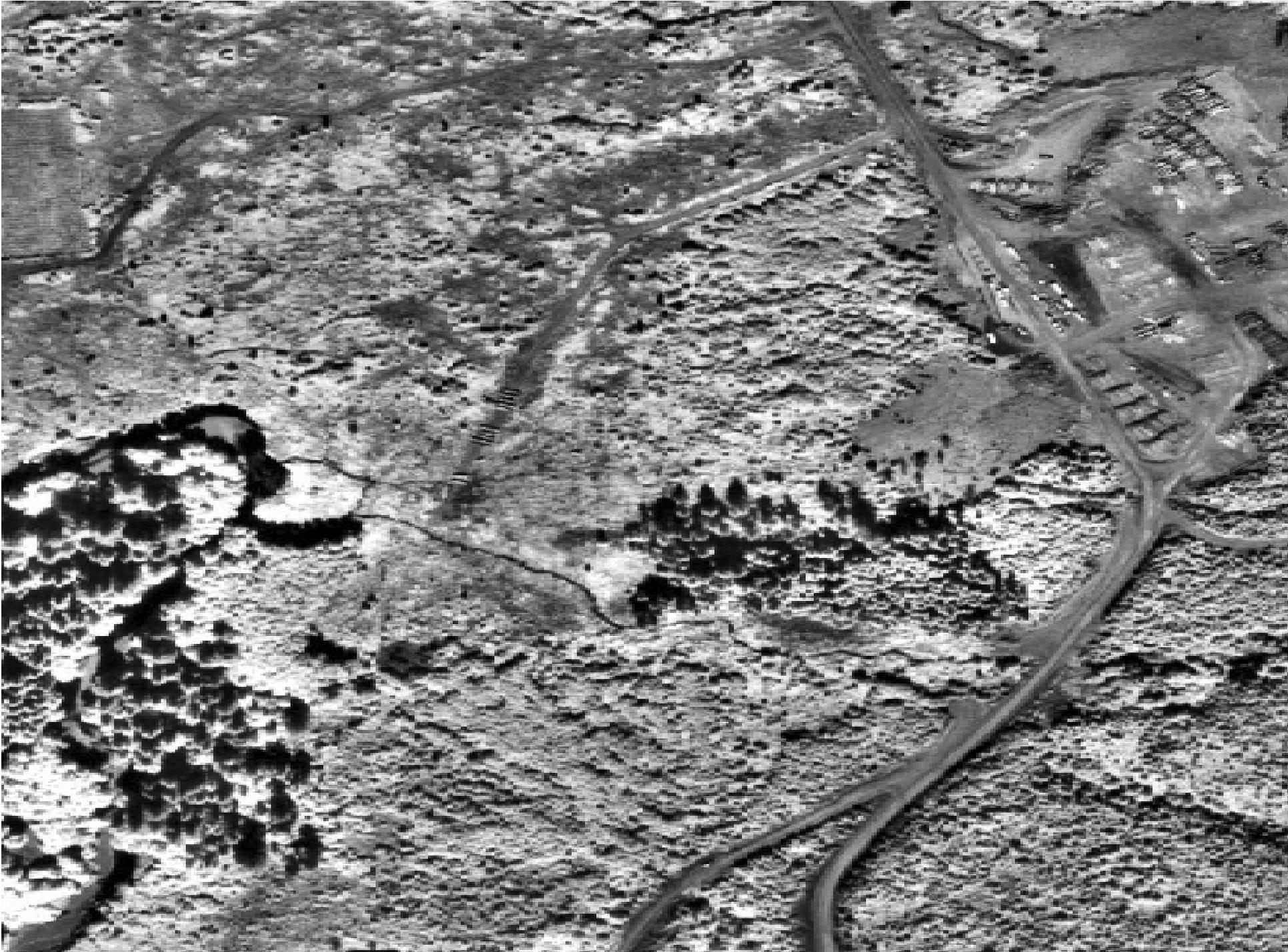
1802 Road

Wetland

Gross Run

Thirty Cent Creek

Mill



**1802 at 1967**



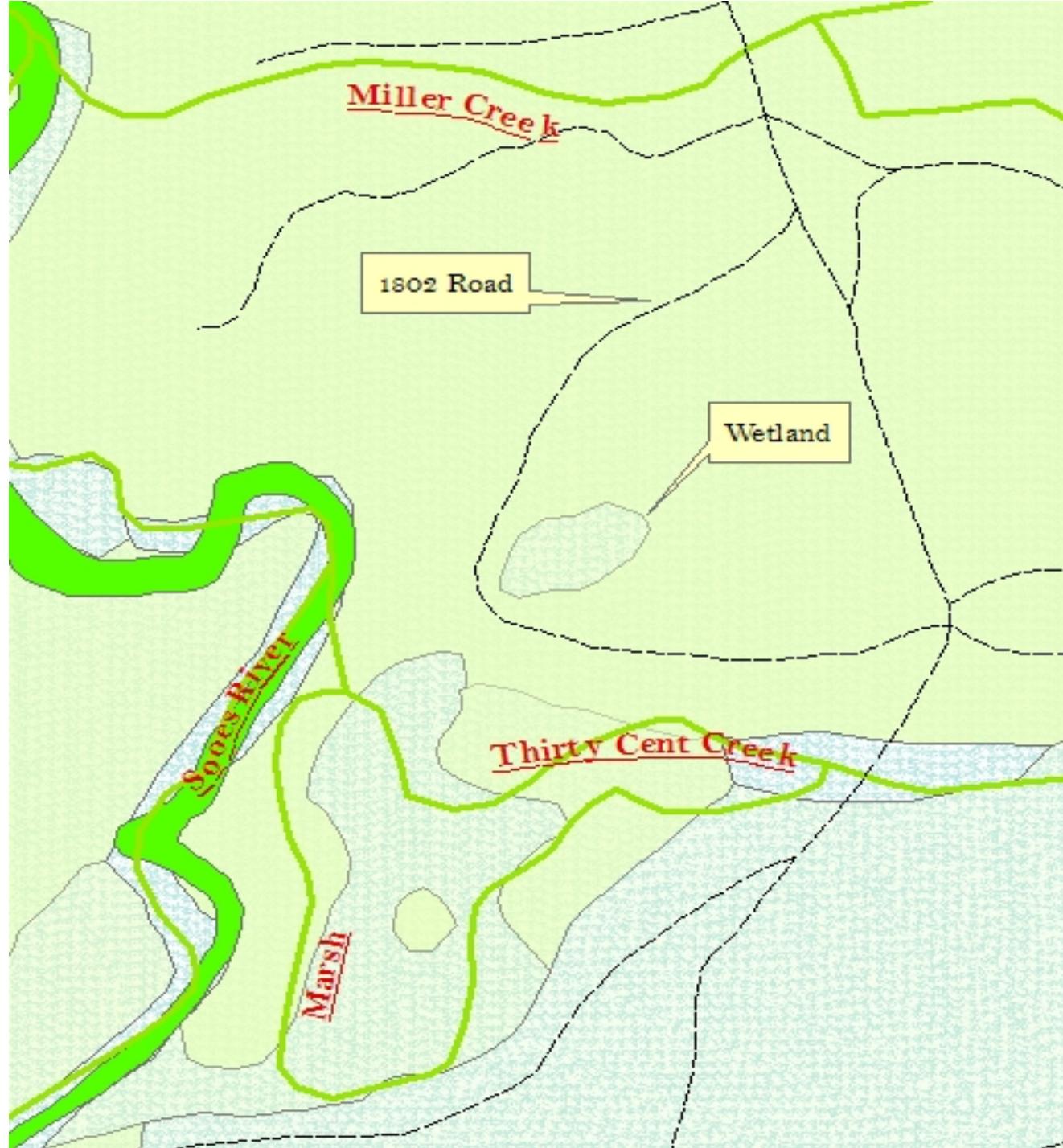
**1802 at 1967 high alt**











Miller Creek

1802 Road

Wetland

Sooes River

Thirty Cent Creek

Marsh











A photograph showing a man in an orange safety vest and a dark cap looking at two large, dark pipes protruding from a stream bed. The stream is surrounded by dense green vegetation and trees. In the background, a blue truck is parked on a path. The scene is outdoors in a wooded area.

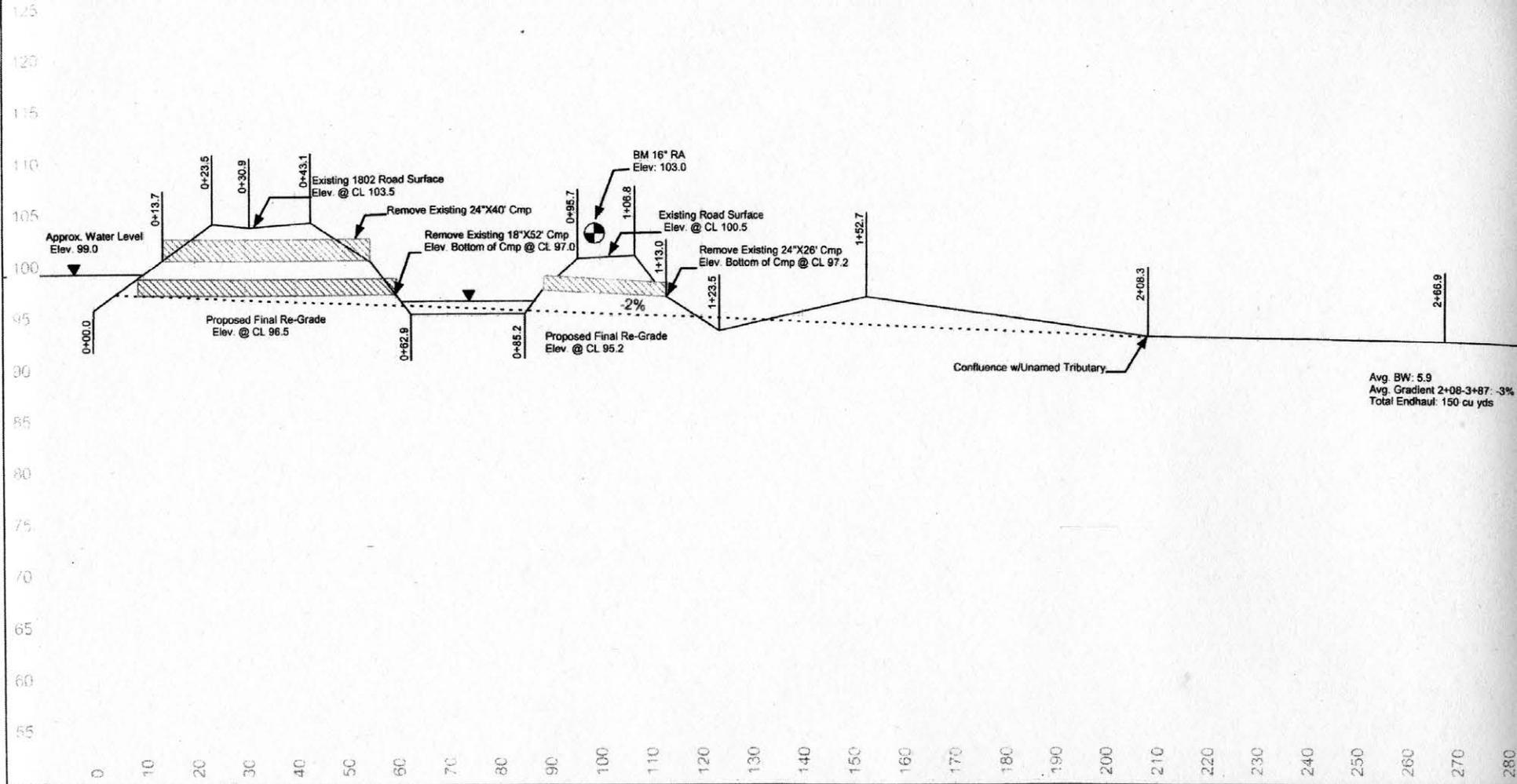
2009 Site Visit with Jeremy  
Gilman Watershed Scientist







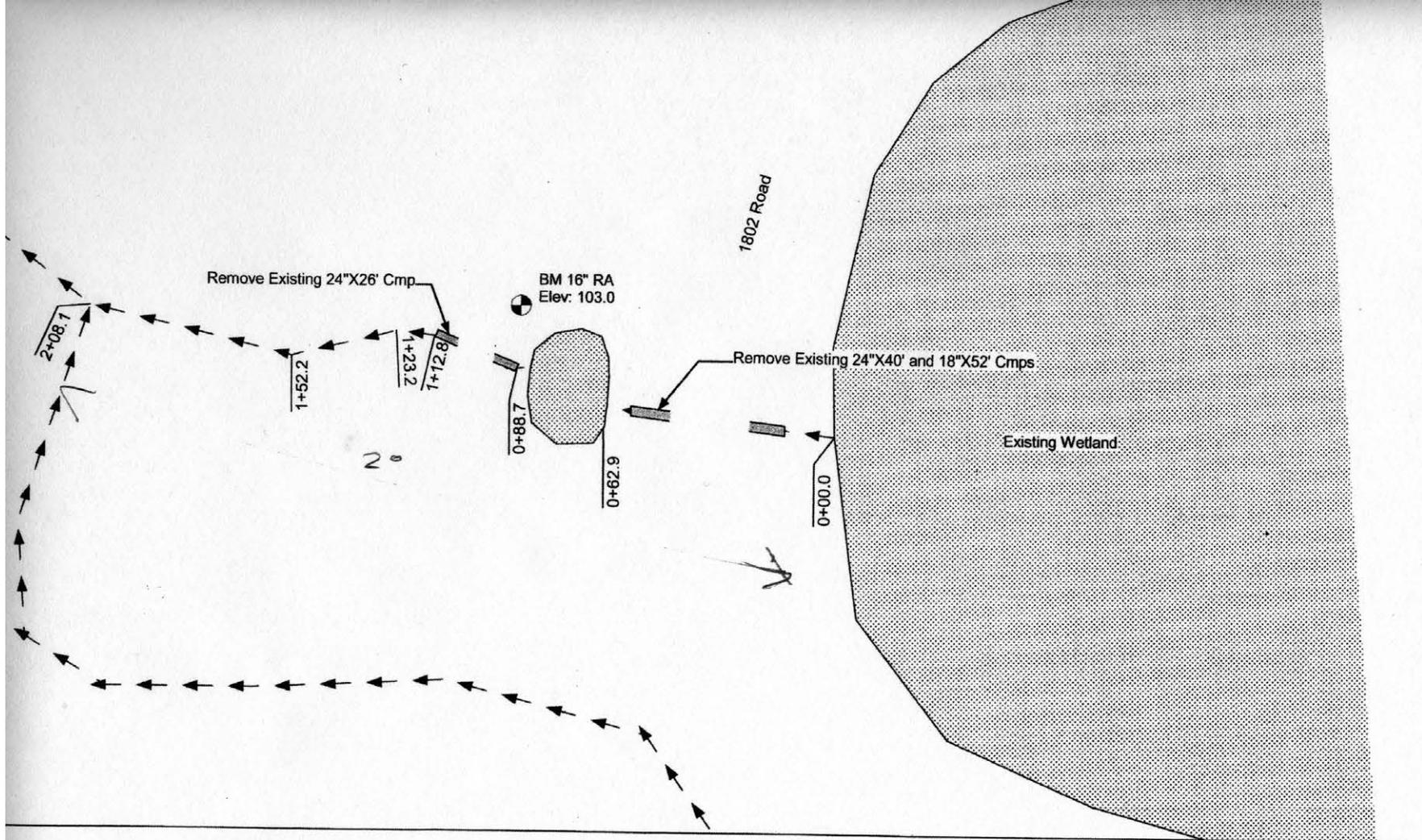




Avg. BW: 5.9  
 Avg. Gradient 2+08-3+87 -3%  
 Total Endhaul: 150 cu yds

### MFE/Makah Fisheries 1802 Road Culvert Removal Profile

——— Ground Profile	LEGAL: 22(32-15W)
..... Final Stream Gradient	SCALE: HORIZONTAL 1:300 VERTICAL 1:
——— Existing Water Level	DATE: 9/29/2010
SURVEY CREW: Joel W. Wes R.	



### MFE/Fisheries 1802 Road Culvert Removal Plan View

LEGAL: 22(32-15W)

SCALE: HORIZONTAL 360

DATE: 9/29/2010



























CATERPILLAR

320C

DANGER  
STAY CLEAR  
OF SWINGING  
PARTS

CAT

DANGER  
STAY CLEAR  
OF SWINGING  
PARTS

320C







































## 1802 Wetland Restoration Project 2011

### Grab Sample Parameter Readings @ Wetland

Date	Time	Temp	Turb NTU	DO mg/L	pH	Conductivity	Salinity
7/7/2011	1:56	15.29	112	0.32	6.6	0.192	0.09
10/11/2011	1:35	12.07	13.2	5.23	5.8	0.082	0.04

### Grab Sample Parameter Reading @ Thirty Cent Creek

Date	Time	Temp	Turb NTU	DO mg/L	pH	Conductivity	Salinity
7/7/2011	2:06	13.16	7.56	5.64	6.35	0.109	0.05
10/13/2011	11:18	10.1	2.52	8.33	6.36	0.075	0.03

### Grab Sample Parameter Readings @ Tsou Yess

Date	Time	Temp	Turb NTU	DO mg/L	pH	Conductivity	Salinity
10/11/2011	1:17	11.15	4.25	11.19	6.07	0.056	0.03





September 23, 2011

Ray Colby  
Makah Tribe  
181 Resort Drive  
Neah Bay, WA 98357

**Project: Wetland**  
**Sample Date: 9/19/11**

**Lab Work Order #: 118575**  
**Sample Received: 9/19/11**

**Report on Analysis**

**Sample ID: 1) Wetland**  
**Lab No.: 118575-01**

<b>Parameter</b>	<b>Method</b>	<b>Result</b>	<b>Flag</b>	<b>Unit</b>	<b>Date Analyzed</b>
Nitrate+Nitrite as N	SM4500-N0 <sub>3</sub> F	0.03		mg/L	9/20/11
Total Phosphorus as P	SM 4500-P F	0.48		mg/L	9/21/11

**Sample ID: 2) Thirty Cent Creek**  
**Lab No.: 118575-02**

<b>Parameter</b>	<b>Method</b>	<b>Result</b>	<b>Flag</b>	<b>Unit</b>	<b>Date Analyzed</b>
Nitrate+Nitrite as N	SM4500-N0 <sub>3</sub> F	0.05		mg/L	9/20/11
Total Phosphorus as P	SM 4500-P F	0.05		mg/L	9/21/11

**Sample ID: 3) Tsooyass River**  
**Lab No.: 118575-03**

<b>Parameter</b>	<b>Method</b>	<b>Result</b>	<b>Flag</b>	<b>Unit</b>	<b>Date Analyzed</b>
Nitrate+Nitrite as N	SM4500-N0 <sub>3</sub> F	0.02		mg/L	9/20/11
Total Phosphorus as P	SM 4500-P F	0.02		mg/L	9/21/11

Approved for Release,



















## Reconnecting a Wetland to Thirty Cent Creek

The Makah Fisheries Water Quality Department Wishes to Thank the following :

Jim Haney Makah Forestry Management  
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Washington State Department of Natural Resources  
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Dahlgren Logging, Forks WA  
Caroline Peterschmidt Makah National Fish Hatchery  
Makah Fisheries staff: Billy Noel, Doug Sternback, Larry Cook, Lenny Knaus,  
Mike Dulik, Kimberly Clark  
EPA Region X, Seattle WA



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2011

