

# An odd thing happened... which maintaining a culvert sediment trap...Could it contribute to our understanding of Coastal Cutthroat Trout?

Ted Parker & Stephanie Cotton  
Snohomish County-Public Works-RM

2024 COASTAL CUTTHROAT TROUT SYMPOSIUM

Photo Credit: James R. Tomelleri

April 9-10, 2024

at the Agate Beach Inn Best Western in Newport, Oregon

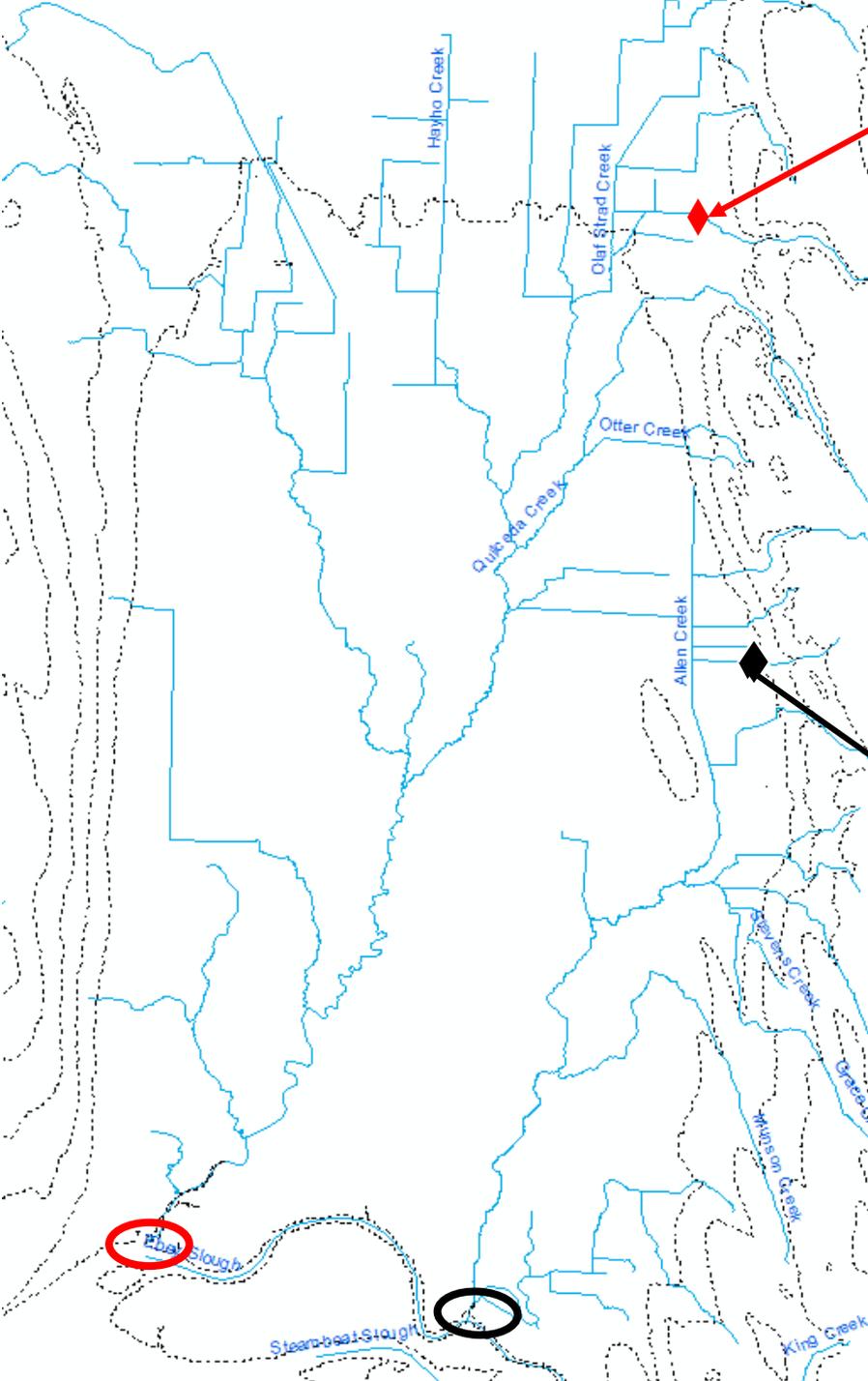




**20' wide  
45' length**



**CCT 87 %  
Coho 26 %  
Lengths (average)  
CCT 138 mm  
Coho 73 mm**



◆ **Middle Fork Quilceda Creek**  
**Around 8 stream miles from**  
**mouth.**  
**High sediment transport, 14,000-**  
**year geology, reaching**  
**equilibrium.**

**Alluvial Fan-chronic flooding**

◆ **Little Coho Creek**  
**Tributary to Allen Creek.**

**Observed Sea Run CCT**  
**spawning**

Collected Data used to support adaptive management in maintaining sediment trap

Permit support

Impacts of sediment Trap

Draft Operation and Maintenance Manual  
Upper Middle Fork Quilceda Sediment Trap and Culvert  
Sediment Sump

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HYDRAULIC PROJECT APPROVAL

Washington Department of Fish & Wildlife  
PO Box 43234  
Olympia, WA 98504-3234  
(360) 902-2200

Issued Date: December 30, 2020  
Project End Date: December 25, 2025  
Permit Number: 2020-4-968+01  
FPA/Public Notice Number: N/A  
Application ID: 19242

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Snohomish County-PW-RM ATTENTION: Len Parker	



DEPARTMENT OF THE ARMY  
SEATTLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 3755  
SEATTLE, WASHINGTON 98124-3755

REPLY TO  
ATTENTION OF

Regulatory Branch

April 29, 2016

ap located  
eam  
around the  
ent.

Ted Parker  
Snohomish County Public Works  
Road Maintenance  
8915 Cathcart Way  
Snohomish, Washington 98296-8692

a project by  
given year.  
) of the

Reference: NWS-2014-191-WRD  
Snohomish County Public Works (Sediment Weir and Ditch Maintenance)

contacting the  
imminent risk

Dear Mr. Parker:

We have received your application for a Department of the Army (DA) permit to remove accumulated sediment from an existing sediment trap located within Middle Fork Quilceda Creek at Marysville, Snohomish County, Washington. We have reviewed the information you provided to us pursuant to Section 404 of the Clean Water Act and determined that a DA permit is not required for your proposed work as described in your application and drawings.

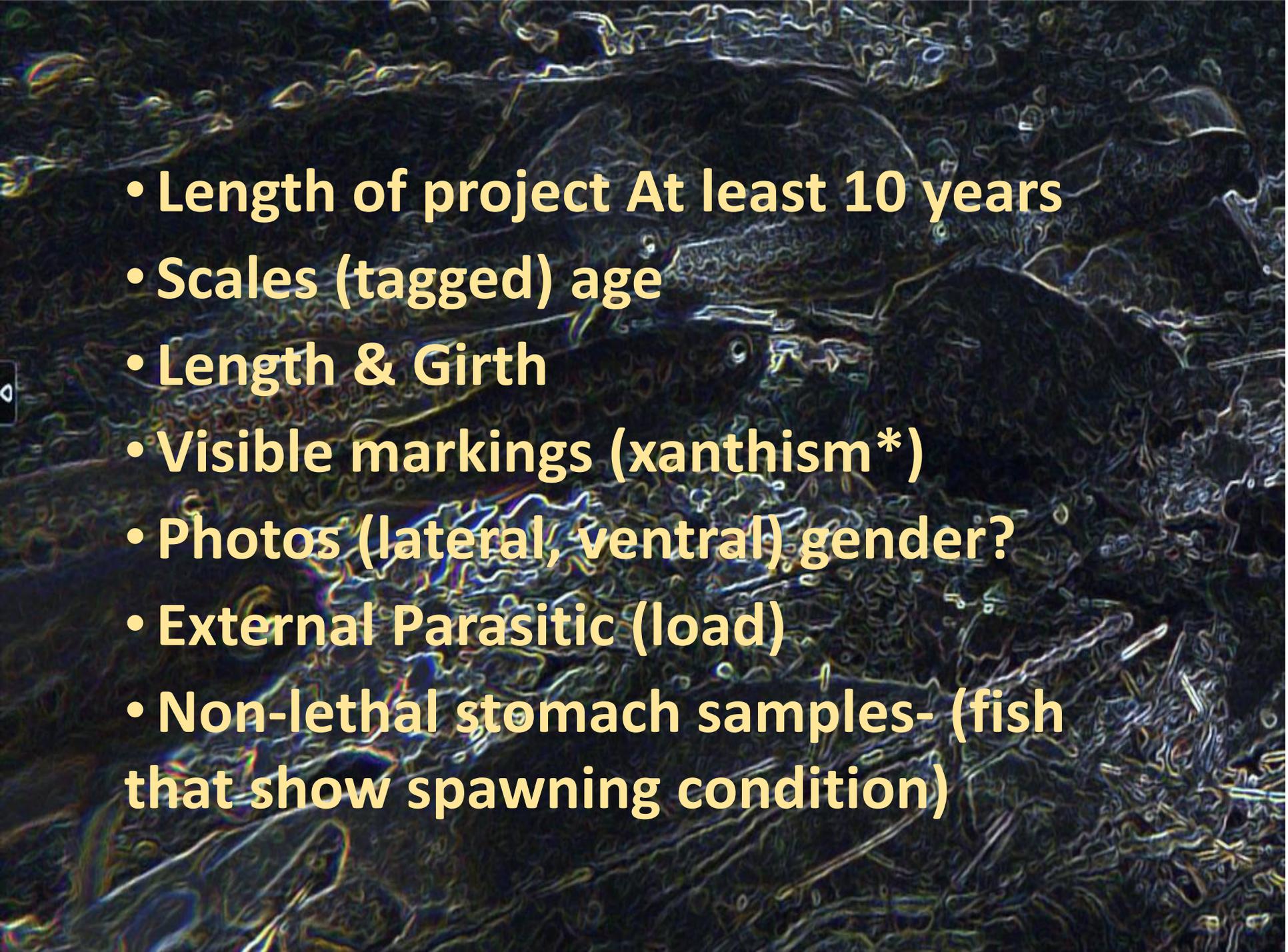
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Under Section 404 of the Clean Water Act, a DA permit is normally required for the discharge of dredged or fill material (e.g., fill, excavation, or mechanized land clearing) into waters of the U.S., including wetlands and navigable waters of the U.S. For more information, see the enclosed *Clean Water Act Extracts and Definitions*. The Middle Fork Quilceda Creek is a water of the U.S. However, because removing accumulated sediment does not involve a discharge of dredged or fill material, a Section 404 DA permit is not required.

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micals used to  
Wildlife's

While a DA permit is not required, local, state, and other federal requirements may still apply. For assistance in determining other permit requirements for the proposed project, we recommend you contact the Washington State Office of Regulatory Assistance via the internet at [www.ora.wa.gov](http://www.ora.wa.gov).

Washington  
4, Olympia,

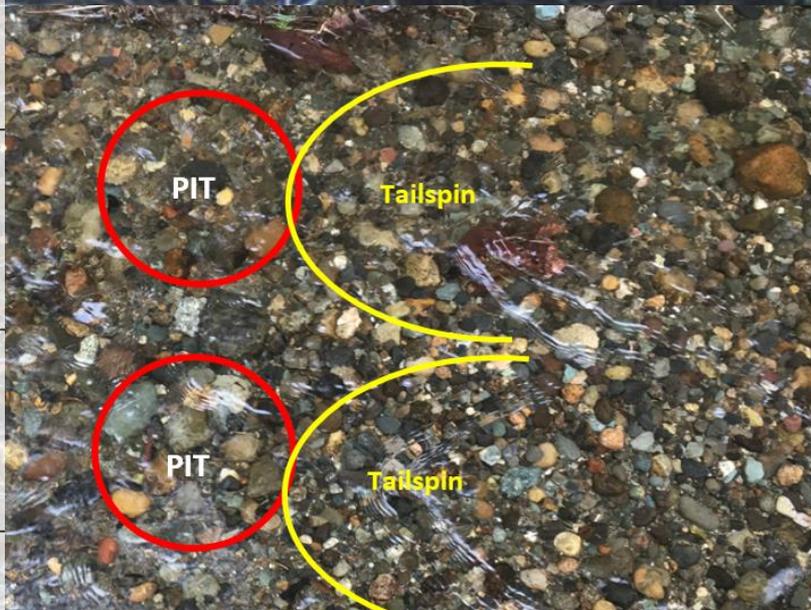
- 
- **Length of project At least 10 years**
  - **Scales (tagged) age**
  - **Length & Girth**
  - **Visible markings (xanthism\*)**
  - **Photos (lateral, ventral) gender?**
  - **External Parasitic (load)**
  - **Non-lethal stomach samples- (fish that show spawning condition)**

# 152<sup>nd</sup> 67<sup>th</sup> Sediment Trap Location – M.F. Quilceda

340 METER RESTORED CHANNEL



<b>Puget Sound Area Coastal Cutthroat Spawning</b>	
<b>Wydoski &amp; Whitney 2003 (general WA)</b>	<b>December through February, extend May (north)</b>
<b>Trotter 2008</b>	<b>Winter through spring, peak April through May</b>
<b>McMillan et al. 2014 (Elwha River)</b>	<b>October through November</b>
<b>Losee et al. 2016 (Skookum Creek) S. Puget Sound</b>	<b>February through end of April</b>
<b>Unpublished observation (LTP), Little Coho Creek</b>	<b>Redds 1<sup>st</sup> week of April (sea-run female)</b>



**Tributary to Allen Creek-Snohomish  
1<sup>st</sup> week April 2021**

## **The long time Resident (Joe)**

**Small trout observed spawning in stream before Pacific Salmon begin spawning in early fall**

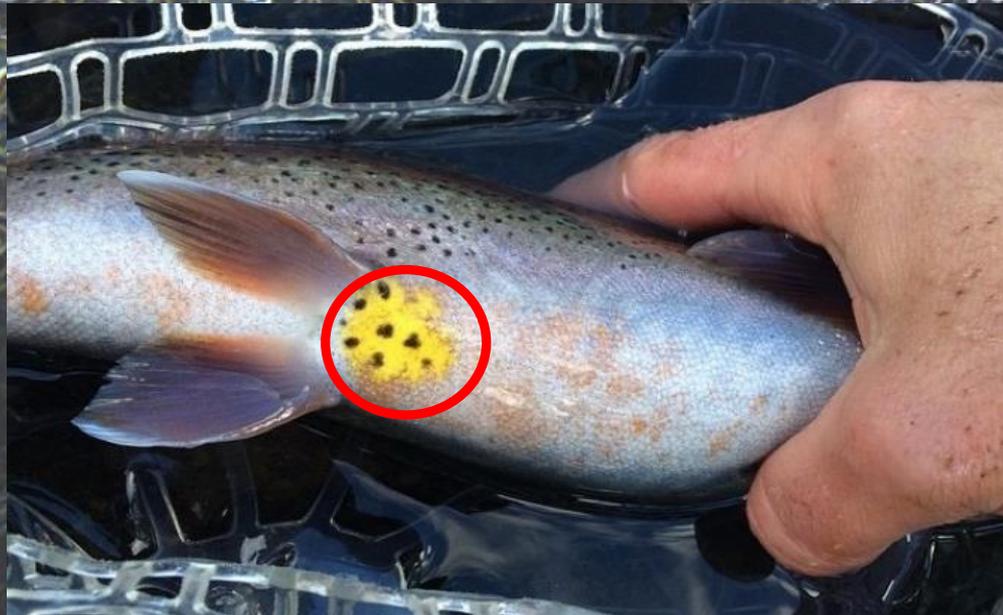
**He said he also observed Large Golden trout in the stream in December**



**August 31**

Visible markings (spotting, coloration, **maturity state**, **xanthism**)

Xanthism (yellow patch markings, noted by anglers on sea-run cutthroat trout, (Dr. Patrick trotter).



Xanthism  
FISHBIO website  
Jess Armstrong



**21 CCT tagged**

**7 showed  
xanthism**

**Visible markings (xanthism\*)**

Sexing a spawning CCT via visual non-lethal means?



*Salmincola californiensis*





**SnoCo Surface Management & The Tulalip Tribes are fyke netting distributary channels. Working with them to check CCT for PIT tags.**

**CCT use of Snohomish Estuary? DATA.....**

# Acknowledgements



**Snohomish County PW & Road Maintenance Management**

**Coastal Cutthroat Coalition**

**Greg Shimek & James Losee (PIT Tags & equipment)**



**Skagit County-Public Works**

**Emily Derenne, Chakong Thao, Cindy Elston**



**Snohomish County\_Public works**

**Amber Morison, Greyson Hopkins, Shannon Wadey, Richard Smithson, Kelly Kauk, County RM staff**



**WDFW**

**Ashley Kees, Kathryn Weilert, Peter Verhey (scale cards)**

L. Ted Parker  
SnoCo PW RM  
t.parker@snoco.com

Received: 5 June 2023 | Revised: 23 September 2023 | Accepted: 26 September 2023

DOI: 10.1002/nafm.10956

### MANAGEMENT BRIEF

## Validating morphometrics as a nonlethal tool to determine Arctic Grayling sex

William T. Samuel<sup>1</sup> | Lauren E. Yancy<sup>2</sup> | Elizabeth G. Hinkle<sup>1</sup> | Jeffrey A. Falke<sup>3</sup>

