

WSDOT Fish Passage Program

Chehalis Basin Partnership Meeting

Oct. 23, 2026

Kim Rydholm, Fish Passage Program Director
Heather Hernandez, Communications Lead



Injunction requirements

2013 List Significant Gain Barriers (>200 meters habitat)

- Open 90% blocked habitat by 2030.
- Open remaining 10% deferred habitat at the end of the structure's useful life or as part of another project.

2013 List Limited Gain Barriers (<200 meters habitat)

- Correct at the end of the structure's useful life or as part of another project.

Newly Identified Barriers - those identified after the 2013 List was developed

- Correct within a reasonable period of time.



Area subject to culvert injunction

State requirements

RCW 77.57.030 – Fishways required in dams, obstructions

- Requires the removal of fish barriers caused by obstructions such as road culverts

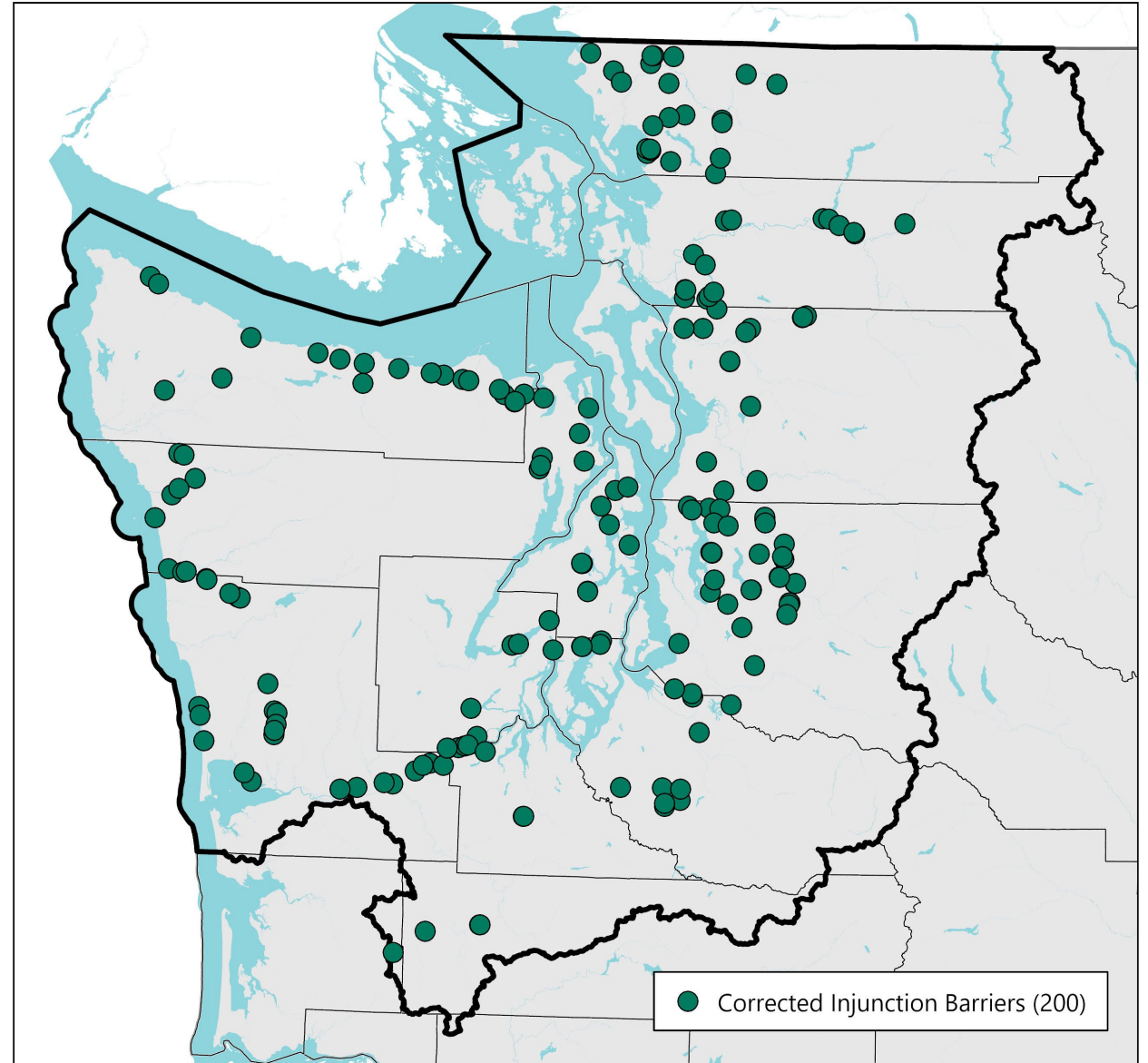
Program Delivery

Through June 2026

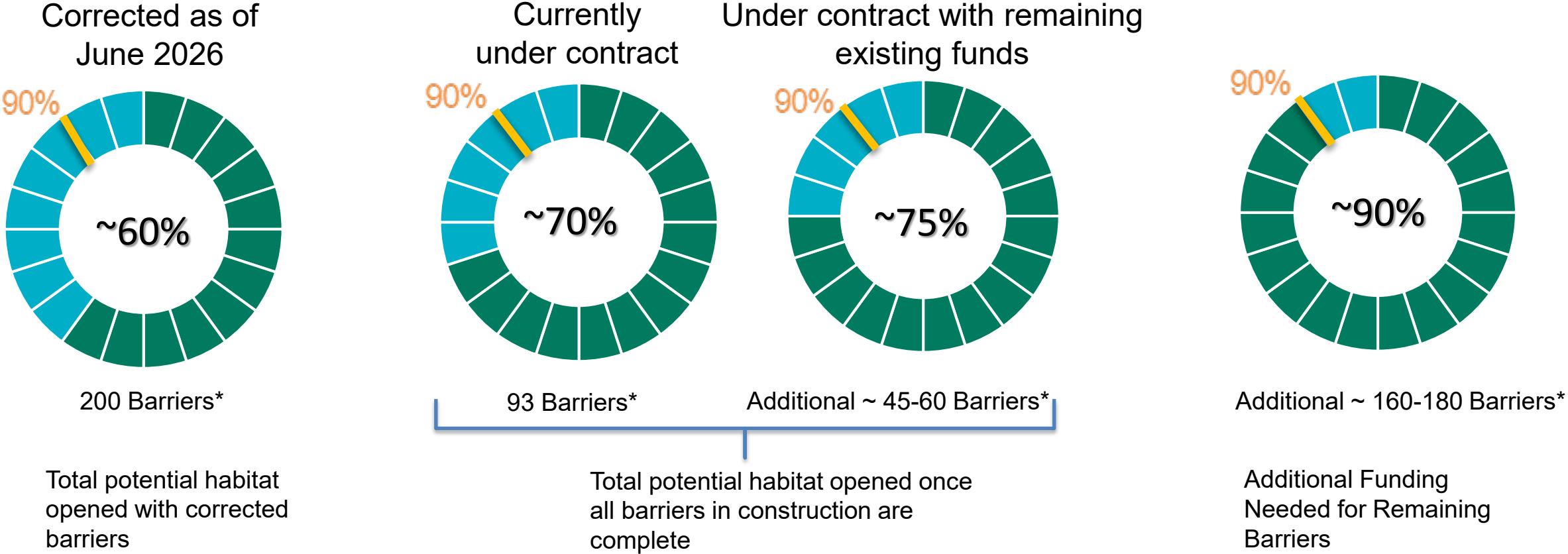
200 injunction fish passage
barrier corrections
COMPLETED



705 miles of upstream habitat
within the injunction area
IMPROVED



Injunction Progress



*Includes Significant Gain, Limited Gain and Newly Identified Barriers. Habitat percentages only reflect Significant Gain 2013 List Barriers that count toward the 90%. Does not include non-injunction culvert replacements

October 2026

Habitat Gain

Public
Impacts

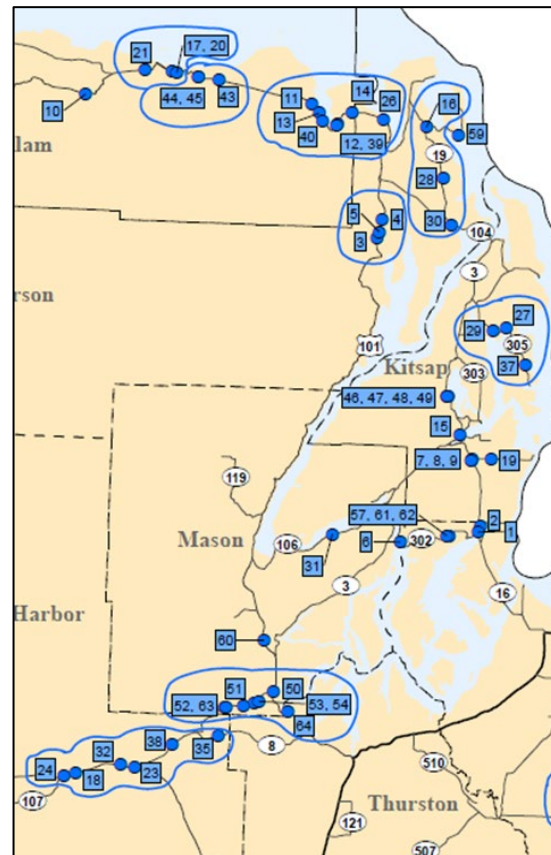
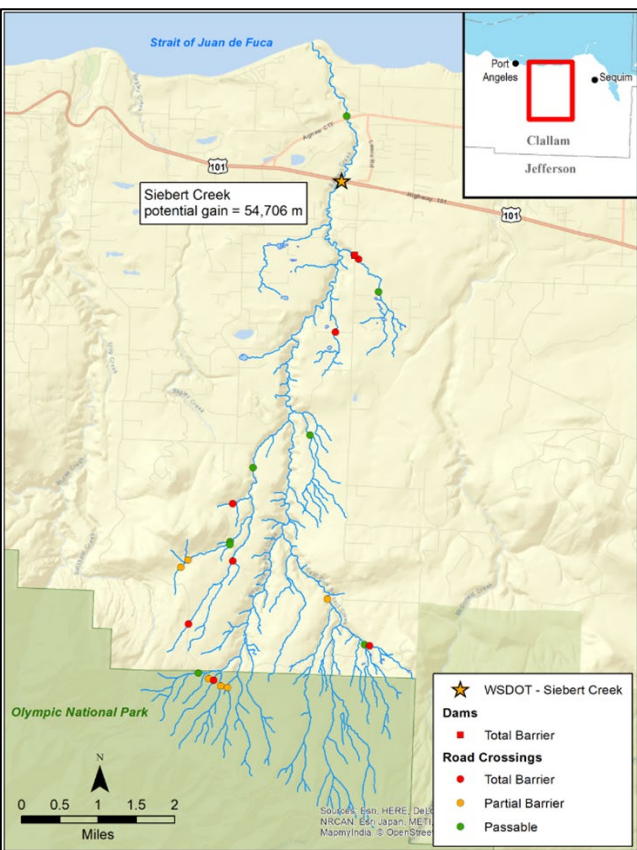
Geographic
Bundling

Culvert
Condition

Downstream
Barriers

Partnership
Opportunities

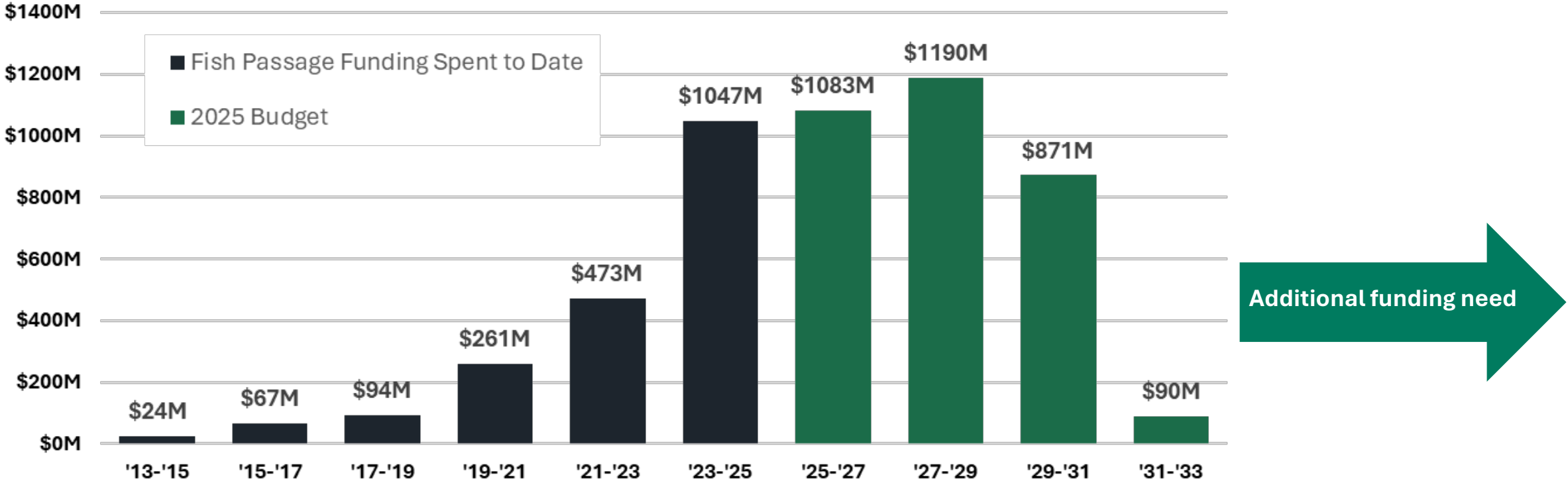
Project
Readiness



SR 169 Ravensdale Cr

Fish Program Funding

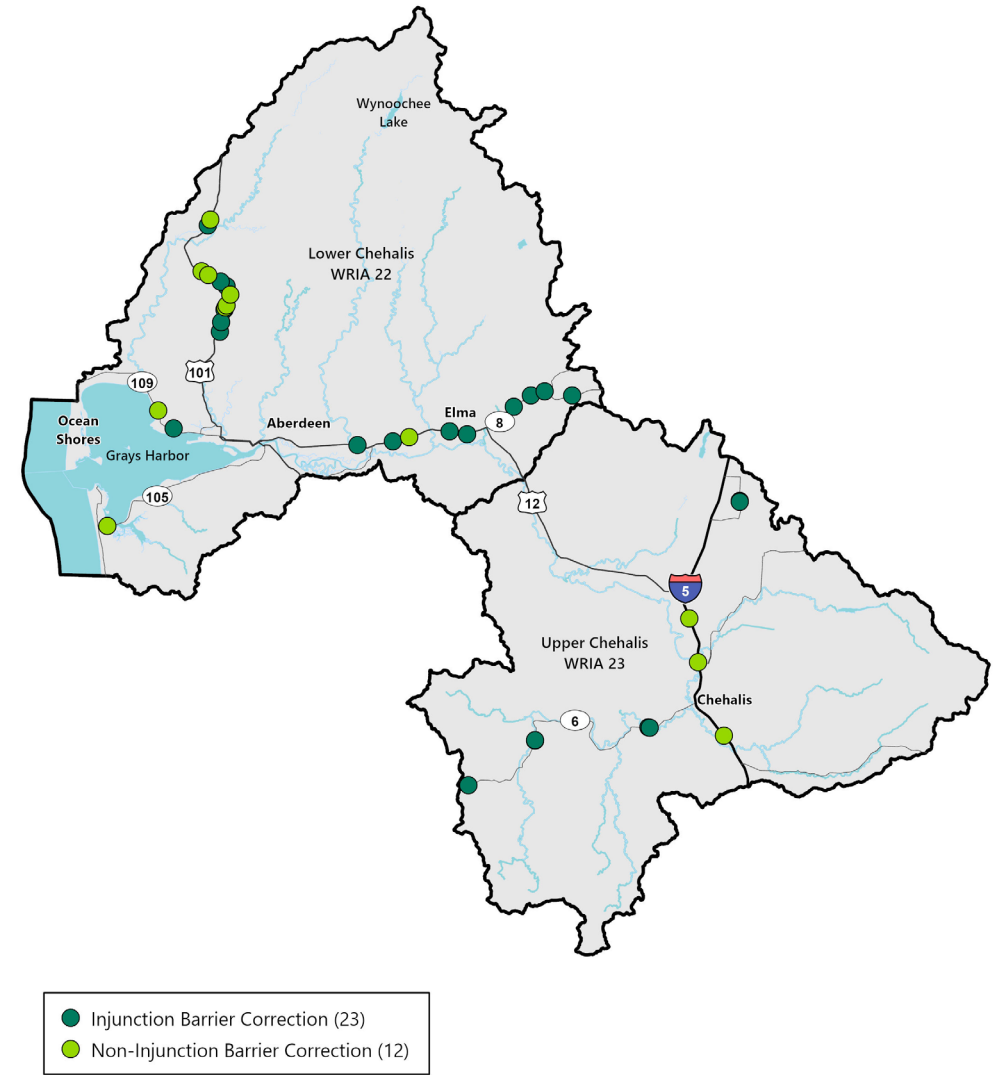
Biennial Program Funding, (I4)
(Current Delivery Plan)



M = Millions

WSDOT's work in Chehalis Basin

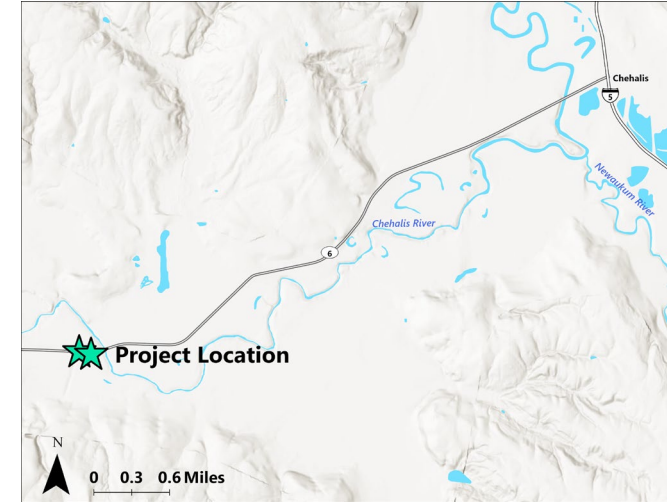
- Corrected 35 barriers since 1998, improving access to 95 miles habitat for salmon and steelhead.
- 16 of those sites were identified in the Chehalis Basin Strategy's WDFW Chehalis Fish Passage Barrier Prioritization Tool.
- 5 sites corrected barriers that were identified as 'Priority 1' category (top 10% highest priorities) in the Chehalis Basin Strategy.



Unnamed tributary to Chehalis River at SR 6



Before construction



After construction



Jan. 2022 high water event

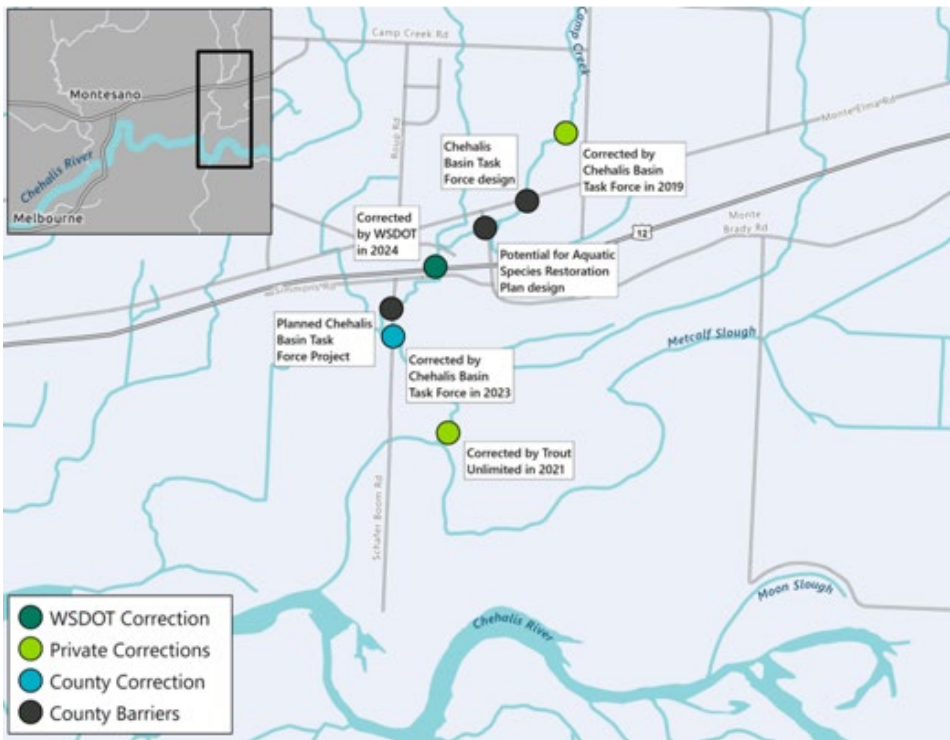
Camp Creek at US 12



Before construction



After construction



Map of the watershed

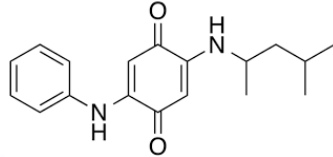
Additional benefits



WSDOT & 6PPDQ

Problem

6PPD-quinone

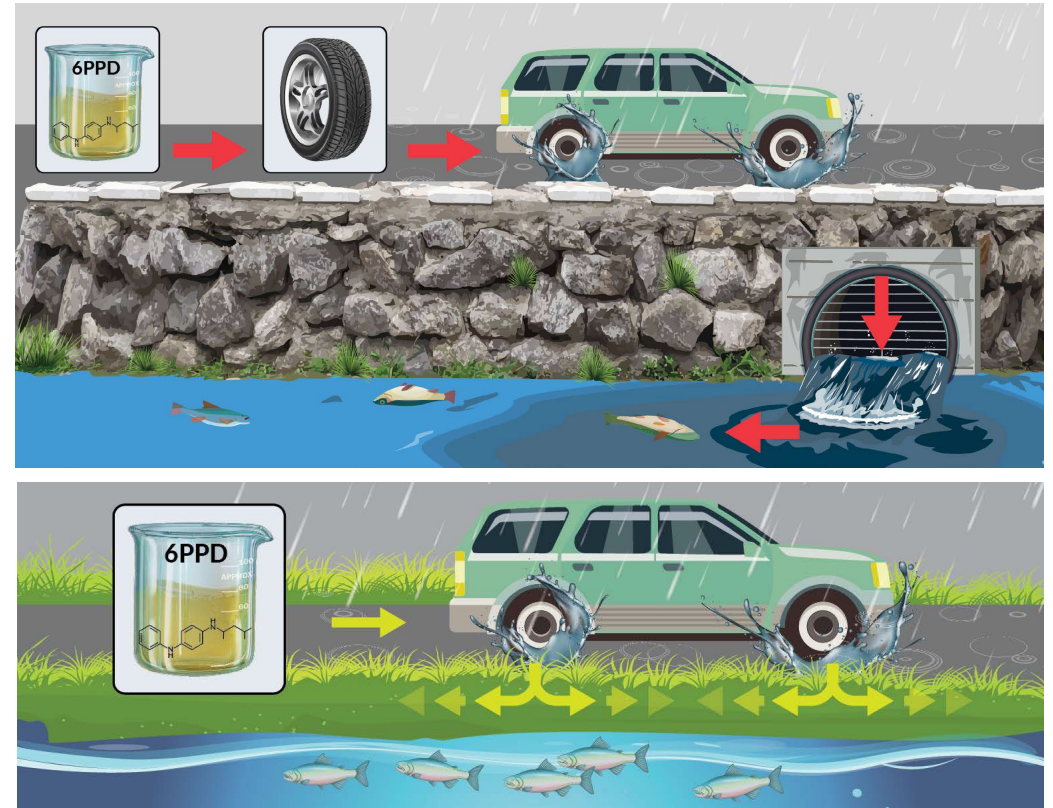


tire wear particles
lethal to some salmonids



Solution

green stormwater infrastructure/LID



Highway Runoff Manual preferences GSI/LID BMPs

HRM identifies
Low Impact Development (LID)/
Green Stormwater Infrastructure
(GSI)

Many common WSDOT BMPs we
already use are LID



Highway Runoff Manual

M 31-16.05
April 2019

Engineering and Regional Operations
Development Division, Design Office

RT.07 – Media Filter Drain



Description: Linear flow-through stormwater runoff treatment device along highway side slopes and medians. Also has end-of-pipe configurations.

Geometry Limitations

Contributing Flow Path ≤ 150'
Embankment Slope 2%-25%

BMP Function	
☒	LID
☐	Flow Control
☒	Runoff Treatment
☐	Oil Control
☒	Phosphorus*
☒	TSS - Basic
☒	Dissolved Metals - Enhanced

Effective Life (Years)

25

Capital Cost

Low

M & O Cost

Low to Moderate

Additional Constraints/Requirements

- | | |
|---|--|
| ☐ 4-5 Infiltration Design Criteria | ☒ Soil Amendments/Compost |
| ☐ Setback | ☐ Energy Dissipater/Level Spreader |
| ☒ Landscaping/Planting | ☐ 5-4.3.3 Facility Liners |
| ☐ Wetland Planting and Plant Establishment | ☒ 5-4.3.7 Signing |
| ☐ Inlet and Outlet Spacing | ☐ Fencing |
| ☐ Overflow | ☐ Presettling/Pretreatment |
| ☐ Multidisciplinary Team | ☒ Underdrain (Where Permitted) |
| ☐ WSDOT Pavement Engineer Approval | ☒ Soil Preparation |

TMDL/303(d) – Considerations¹

- | Avoid | Preferred |
|-------------------------------------|--|
| ☐ | ☐ Fecal Coliform |
| ☒ | ☐ Phosphorus (w/ compost blanket)* |
| ☐ | ☐ Nitrogen |
| ☐ | ☐ Temperature |
| ☐ | ☒ Dissolved Metals |
| ☐ | ☒ Total Suspended Solids/Turbidity |
| ☐ | ☐ Dissolved Oxygen |
| ☐ | ☐ pH |
| ☐ | ☐ Oil/Grease |
| ☐ | ☐ PAHs |
| ☐ | ☐ Pesticides |

1. See Table 3-1 and Section 2-4.2 for additional guidance.

Maintenance Requirements

- ☐ Access Roads or Pullouts
- ☐ Vector Truck Access
- ☒ Mowing
- ☐ Valve Access
- ☐ Specialized Equipment
- ☐ Specialized Training

Further Requirements: See Sections 5-3.7.1 and 5.5. Also, see Table 5-21.

*if a compost blanket is not used over the media filter drain then this BMP is approved for phosphorous control.

Stormwater Retrofit Assessment on every fish passage project

Stormwater and Hydraulic Assessments on all projects



**SR 106 Twanoh Creek – Remove Fish Barrier
Compost Amended Biofiltration Swale**

First projects meet requirements for mitigating stormwater

Then look for opportunities to add additional retrofit

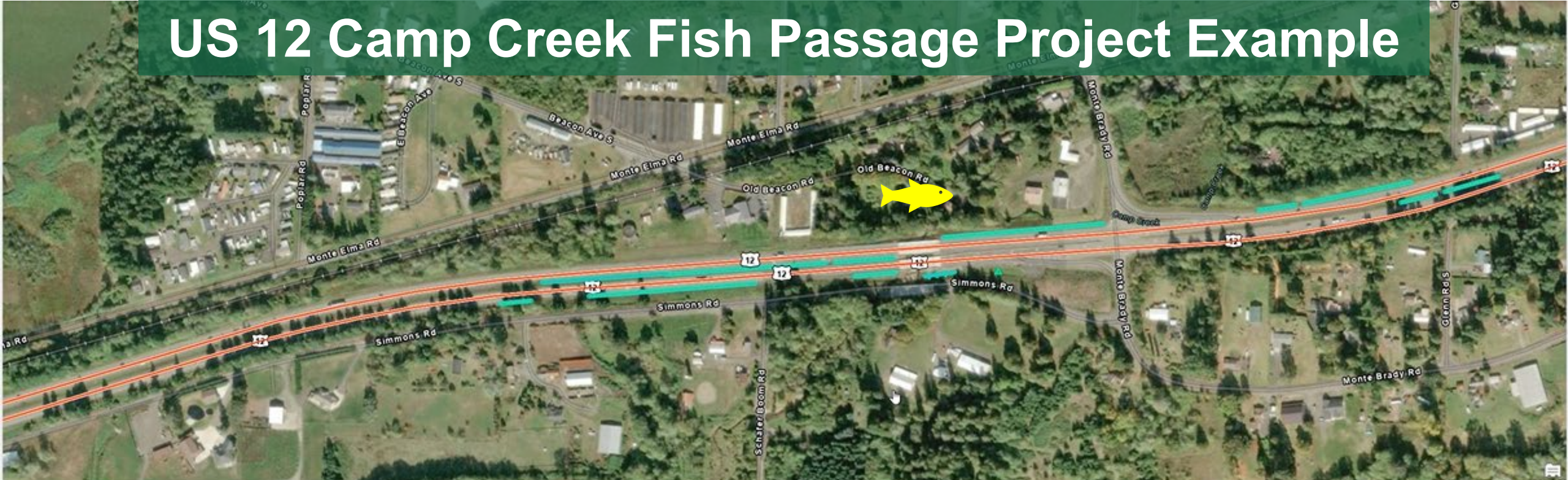
*Many common WSDOT BMPs are GSI, which are likely to treat 6PPD-quinone



**SR 3 Chico Creek – Remove Fish Barrier
Media Filter Drain**

WSDOT- Chico Creek Remove Fish Barrier Project
05/04/2023 3:13:15 PM

US 12 Camp Creek Fish Passage Project Example



1 detention pond

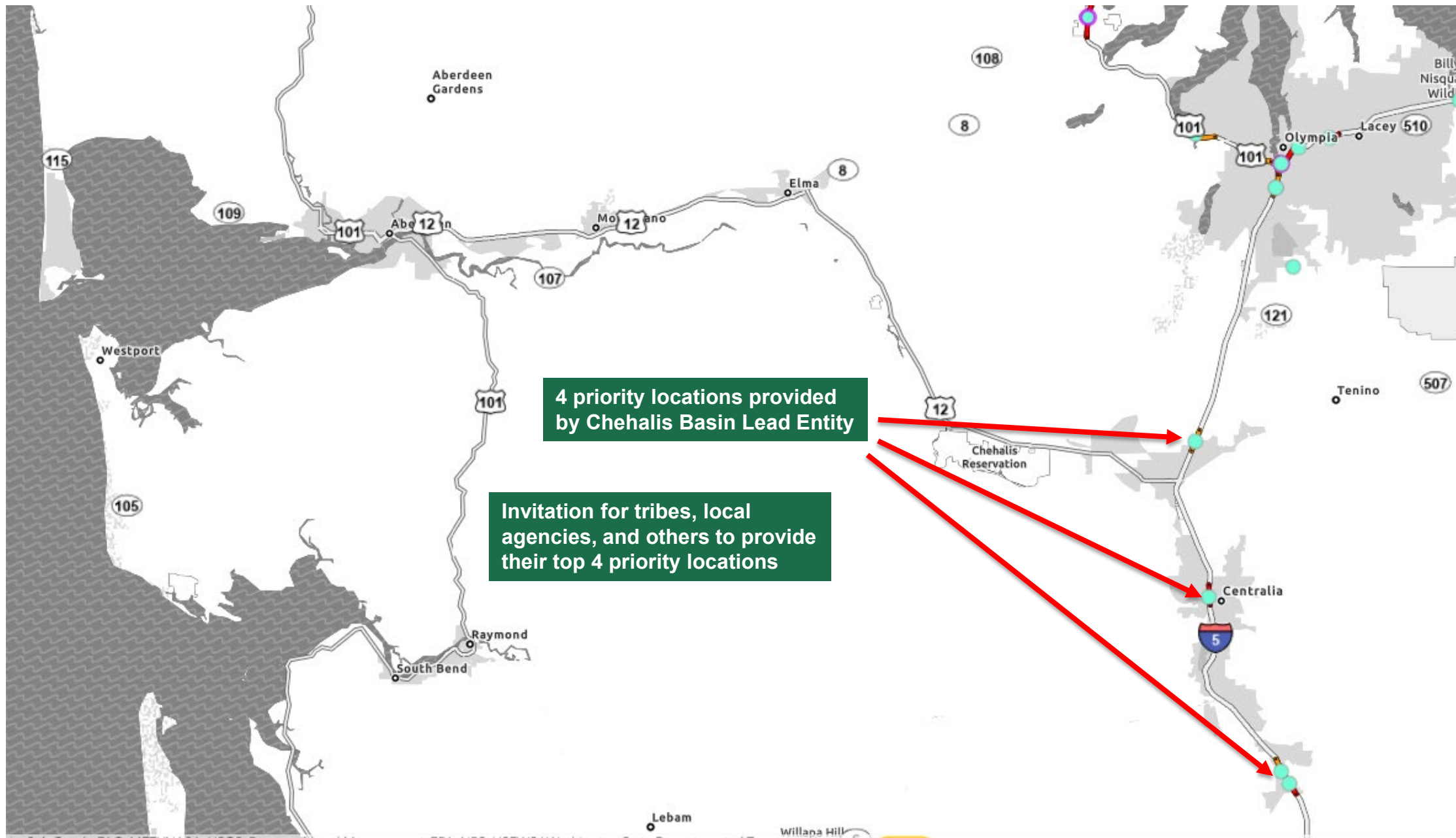
1 compost amended bioswale (flows out of pond)

1 compost amended vegetative strip

10 media filter drains

54

BMPs in the
bundle



Tony Bush

WSDOT Stormwater Branch Manager



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Tatiana Dreisbach

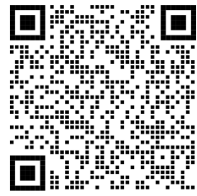
WSDOT Stormwater Retrofit Outreach & Innovation Lead



tatiana.dreisbach@wsdot.wa.gov

WSDOT Stormwater Retrofit Information

Folios



20232026

Prioritization Web Map



Share your priority recommendations





Questions

WSDOT Fish Passage Program

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Chum salmon using new stream channel at SR 108 Trib to Skookum Creek October 2024

Contacts & Resources

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Resources:

WSDOT Fish Passage information page: wsdot.wa.gov/construction-planning/protecting-environment/fish-passage

WSDOT Fish Guidance: wsdot.wa.gov/engineering-standards/environmental-guidance/fish

WSDOT Fish Passage inventory interactive map:

wsdot.maps.arcgis.com/apps/webappviewer/index.html?id=c2850f301118480fbb576f1ccfda7f47

WSDOT Fish Passage Flickr page: [flickr.com/photos/wsdot/collections/72157720114579917/](https://www.flickr.com/photos/wsdot/collections/72157720114579917/)

WSDOT Fish Passage videos:

Restoring Fish Passage: youtu.be/1oFZ1VSzMjA?si=Y1zMKUILLYOSVaP8

Designing Fish Passage projects: youtu.be/u7HT6oMqAco?si=rHITPjR9r_BO97lp

Up-close look at Minter Creek (2020): youtu.be/W8HLPmu8WhE?si=GTo2dHNVy7ppvkvx

Siebert and Bagley Creeks: youtu.be/2BsyZLctMn4?si=med3Wluz33ZoAj1p