



Contact Information

2025 Upper Columbia Regional Project Pre-Application

* Pre-applications (SRFB & Monitoring) due March 12, 2025 (COB)

*Complete SRFB applications due in PRISM April 18, 2025 (COB)

*Complete Monitoring applications due in PRISM May 1, 2025 (COB)

*Revised SRFB proposals due in PRISM May 27, 2025 (COB)

*Final revised SRFB & Monitoring applications due in PRISM June 23, 2025 (noon)

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|------------------------|--|
| Project Title | Assessment of 6PPD-q Contamination Risk from WSDOT Highways to Wentachee Basin Salmonids |
| Sponsor | Cascade Fisheries |
| Primary Contact | Aaron Rosenblum |
| E-Mail Address | aaron@ccfeg.org |

Project Summary

Please provide a description or summary of the proposed project, including project goals. The goal of the project should be to solve identified problems by addressing the root causes. Then clearly state the desired future condition.

This proposal seeks to characterize the risk of 6PPD-q contamination from Washington Department of Transportation (WSDOT) highways to salmonids in the Wenatchee Basin. 6PPD is a chemical added to tire rubber that slows down the weathering process. 6PPD reacts with ozone and transforms into 6PPD-quinone (6PPD-q). 6PPD-q is toxic to coho salmon at levels that are routinely observed in the environment. Though coho salmon have the lowest threshold of the salmonids for 6PPD-q, steelhead are also sensitive to this contaminant at higher concentrations. Approximately 34 miles of WSDOT highways occur in very close proximity rivers and streams in the Wenatchee Watershed. For this project stormwater features within these 34 miles will be identified and characterized. Characterization will include hydraulic modeling to describe runoff potential under different scenarios for each feature. A prioritization scheme will be developed to identify the highest risk stormwater features. Confirmation sampling will occur at the highest risk features to confirm 6PPD-q levels in stormwater runoff. The project will result in a better understanding of the 6PPD-q toxicity risk to salmonids in the Wenatchee Watershed. The project will create a methodology that is repeatable and can be implemented throughout the Upper Columbia. The project addresses a Tier 1 MaDMC Data Gap (Data Gap ID #2.6).

What are the project objectives? Objectives support and refine biological goals, breaking them down into small steps. Objectives are specific, quantifiable actions the project will complete to achieve the stated goal. Each objective should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound).

Note: This exact question is included in the PRISM application. Example format: The project seeks to address [specify limiting factor(s)] for [limiting life stage(s)] by [specific actions proposed] to create an estimated [include specific target metrics, as described below] upon implementation in [estimated year].

The project will achieve the following objectives:

1. Identify all stormwater features within the approximately 34 miles of WSDOT highways that are adjacent to Wenatchee basin rivers and streams
2. Characterize each stormwater feature including attributes such as: area drained, distance from outfall to waterbody, ground surface from outfall to water body, priority species present in receiving waterbody, flow of receiving waterbody during runoff events, etc.
3. Run hydraulic model for each stormwater feature to characterize potential of 6PPD-q reaching receiving waterbodies
4. Create a prioritized list identifying high, medium, and low risk stormwater features.
5. Conduct confirmation sampling at 5 high risk stormwater features during 3 runoff events to document 6PPD-q concentrations at the outfall.

Budget Request

Values MAY be duplicative and do not have to equal TOTAL anticipated budget in pre-application.

Anticipated Request - SRFB (standard round) 75,000

Tributary Committee - Anticipated or Actual 150,000

Anticipated TOTAL Budget 225,000

Project Location

Briefly describe the location of the project The project will occur over approximately 34 miles of river that are in close proximity to WSDOT highways in the Wenatchee Basin. This includes portions of the Wenatchee River, Peshastin Creek, and Nason Creek

Latitude (decimal degrees) 47.480057

Longitude (decimal degrees) -120.389023

Project subbasin

Wenatchee Assessment Unit(s)

Does the proposed project span multiple assessment units?

List the additional assessment units directly impacted by this proposal. Upper Nason Creek; Wenatchee River - Nahahum, Wenatchee River - Ollala, Wenatchee River - Derby; Wenatchee River - Tumwater; Lower Peshastin; Upper Peshastin; Upper Nason

Reach(es) Name

many

Identify the reach(es) priority/ reach ranking. Note: If the project involves work in multiple reaches, select "Multiple" and include details in the text box that will appear below. Please reference the Prioritization Web Map: <https://prioritization.ucsrb.org/>.

Rank 1

Rank 2

Rank 3

Multiple reaches (provide details below)

Project Information

1. What species will the project benefit?

Spring Chinook

Steelhead

Bull Trout

Summer Chinook

Coho

2. Select the project's objectives and the associated tracking metrics

Design, Monitoring or Assessment

4. Does this project already exist in Salmon Recovery Portal or PRISM?

No

5. Has this project been submitted previously for funding through the SRFB and/or other process(es)?

No

6. What category is the project?

Assessment

Is the project eligible for Riparian Funding?

No

Design and Restoration Proposals

Assessment Proposals

7. What type of assessment are you proposing?

Assessment of stormwater and 6PPD-q contaminatin

8. Is the assessment identified on the MaDMC monitoring and data gaps list?

Yes

9. Describe how the assessment fills a regional priority and where that priority is identified.

This topic is identified as a Tier 1 data gap in the Upper Columbia MaDMC data gap list

10. Methods - What methods will you use in your assessment and how will they achieve your stated objective(s)?

We are working with an experienced consulting firm that has completed this type of work previously and has extensive experience with 6PPD-q specifically. Methods will be adapted from previous work and are summarized here:

A simple GIS exercise can be conducted to identify potential problem locations, ie where the highway is in

close proximity to the river. WSDOT can provide a spreadsheet with stormwater feature attributes and locations. These features will be field verified. Additional attributes about each stormwater feature will be collected in the field as well. Hydraulic modeling using standard practices will be completed under different rain event magnitudes and seasons. A prioritization scheme will be developed from the data acquired in previous steps to create a ranked list of highest to lowest risk stormwater features. Five of the highest features will be sampled during three runoff events to verify 6PPD-q levels.

11. Will a design result from the project?

12. If yes, what level of design (e.g. conceptual, preliminary, final)? What proportion of your budget will support design? 10

13. Briefly describe why SRFB funds are necessary, rather than other sources of funding.

A combination of SRFB and other funding sources are proposed. Matching funds will lessen the overall financial requirement of any one funder. 6PPD-q effects SRFB (ESA-listed) species including steelhead, and to a lesser degree spring chinook.

Protection Proposals

Monitoring Proposals

Project Risk and Economic Benefits

1. What is the landownership? WSDOT

2. Have you secured landowner participation in or acceptance for this project?

Please explain

We have discussed the project with regional WSDOT staff and they are excited and supportive. They said that WSDOT headquarters in Olympia is interested in the results.

3. Describe any land owner requirements (e.g., design elements, right-of-ways, access agreements, liability waivers, etc.) and if/how they could affect the project

A right of entry agreement will be required which will include safety measures and will require proof of liability insurance.

4. Will the project raise potential concerns for interest groups (e.g., recreational users) or the community at large (including upstream/ downstream/ adjacent landowners)?

Not likely to raise concern from interest groups or the public at large.

5. Who will have the responsibility to manage and maintain the project? What is the responsibility of current or future landowners?

Cascade Fisheries will manage the project. WSDOT may choose to correct high risk stormwater features in the future but will not be required to.

6. Are other projects being proposed immediately upstream or downstream of worksite?

7. Please describe the risk of failure associated with this project.

There is a low risk of failure for this assessment project. We will work with an experienced consultant to deliver a high quality result.

8. Is there any public outreach planned during and/or after implementation? Does the project build community support for salmon recovery efforts?

6PPD-q is in the news and the public's eye right now. Taking a proactive approach to better understanding the problem will be view favorably in the community and will build public support for the project. Presentations of the methods and results following the project will be valuable, especially to other project sponsors around the state.

9. Does the project represent an opportunity for economic benefit? How much benefit does the project create for the dollars invested?

6PPD-q is highly toxic to coho salmon and steelhead. This fish are prized among sportfisherman, who would travel long distances and pump lots of dollars into the local economy if a fishing season were to open for them. These species also provide significant economic and cultural value to our local tribes. The project will support two staff at CF and staff at a WA based environmental consulting firm.

10. Describe any partnerships, their experience, and types of contributions supporting the project.

We are partnering with WSDOT on this project. CF has two existing projects occurring with WSDOT. We have a high quality working relationship with their regional staff. WSDOT will provide staff time and data on existing stormwater features.

Optional Section - Preparation for PRISM (SRFB applications only)

The following questions are identical to the questions RCO requires in the PRISM application for SRFB projects. If desired, sponsors can complete associated questions early and copy responses into PRISM during the "Complete Application" phase due on April 18, 2025.

*please note, this section is not applicable for Monitoring proposals

Do you want to review and/or pre-populate PRISM questions?

Supporting Documents

[Upper Columbia Process Guide 2025](#)

[SRFB Manual 18 \(2025\)](#)

[RCO Application Resources \(2025\)](#)