

# State Draft Environmental Impact Statement (EIS) for the Proposed Chehalis River Basin Flood Damage Reduction Project

Chehalis Basin Board

March 5, 2020



# Overview

- Washington State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) Process
- Applicant's Proposed Project
- Probable Adverse Impacts and Mitigation
- How to Provide Comments

# Reminder

**NO PUBLIC COMMENTS  
ON THE DRAFT EIS WILL BE ACCEPTED  
AT THIS BRIEFING**

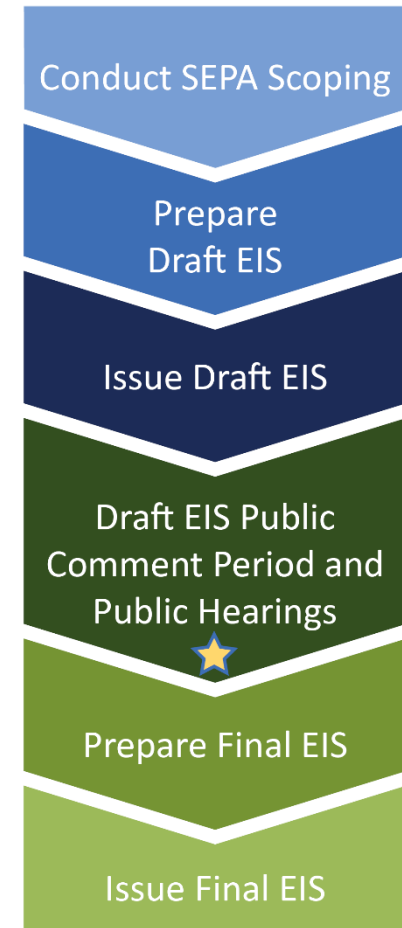
*This briefing is to provide information about the draft environmental review. It has not been posted as a public hearing and is not a public hearing for purposes of receiving comments.*

# Purpose of an EIS

To provide information:

- At an early stage of a project
- To identify likely significant adverse impacts
- For the public and decision-makers to consider

An EIS does not approve or deny a proposed project.

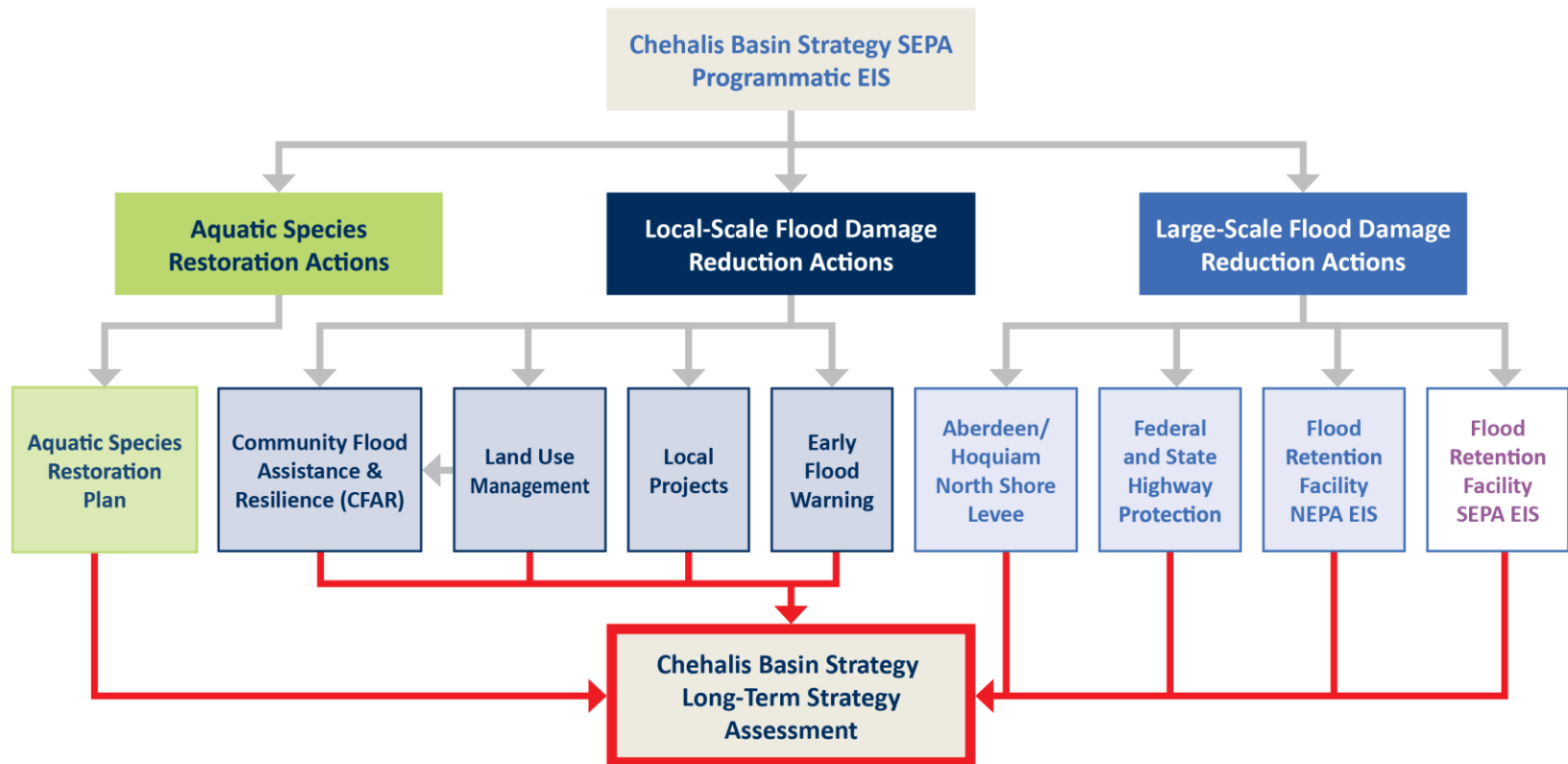


  
We are  
here

# The EIS

- Provides a fact-based, neutral evaluation of impacts which are:
  - Probable
  - Adverse
  - Environmental
- Evaluates reasonable alternatives
- Proposes mitigation measures that would avoid or minimize impacts

# Relationship in Chehalis Basin Strategy





# Chehalis River Basin Flood Control Zone District's Proposed Project

Chehalis River Basin Flood Damage  
Reduction Project



# Proposed Project

To construct a new flood retention facility and temporary reservoir near the town of Pe Ell, Washington, and make levee changes at the Chehalis-Centralia Airport.

## **Applicant's Purpose**

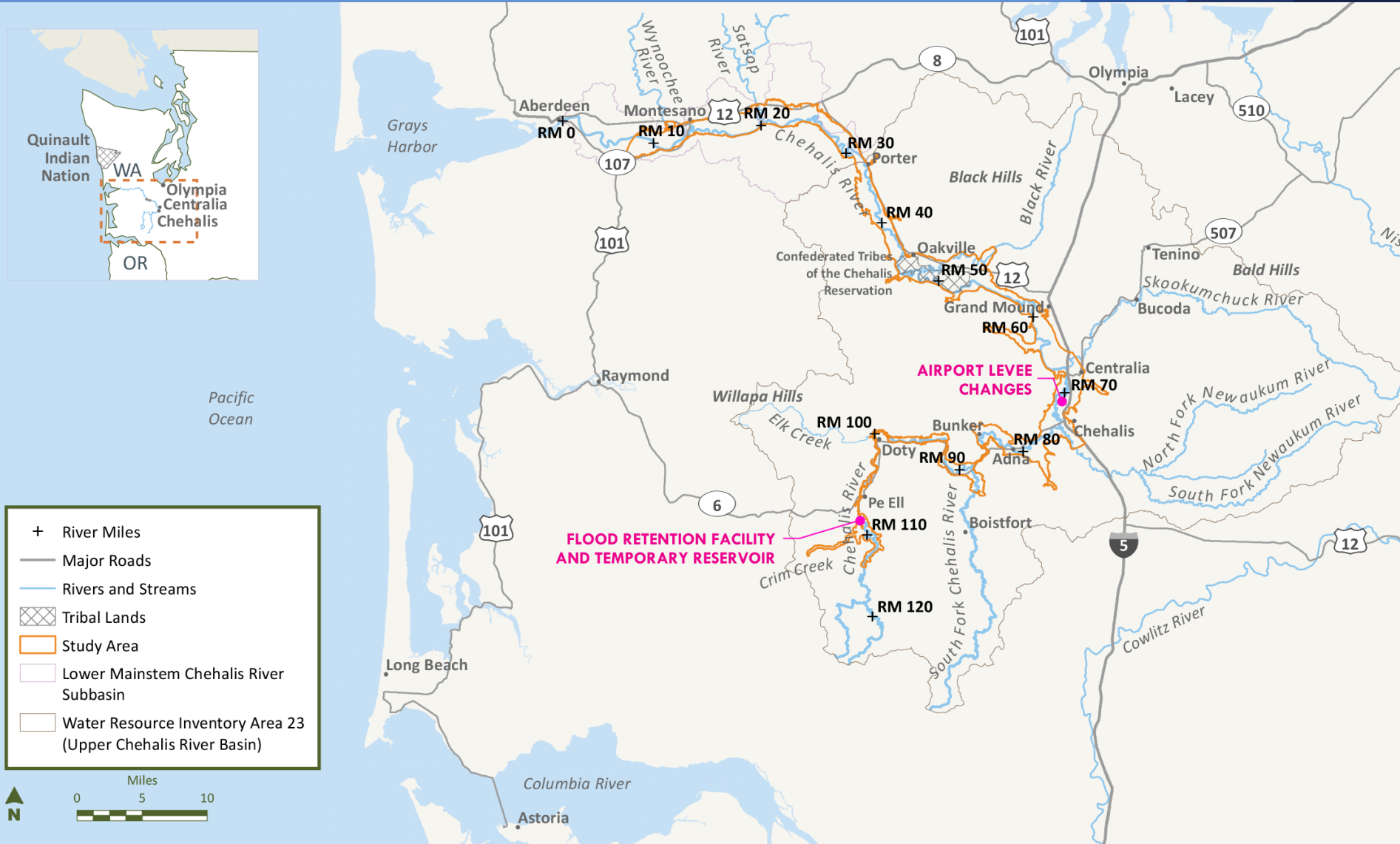
To reduce flood damage in the Chehalis-Centralia area by constructing a flood retention facility and temporary reservoir near Pe Ell and making changes to the Chehalis-Centralia Airport levee.

## **Applicant's Objective**

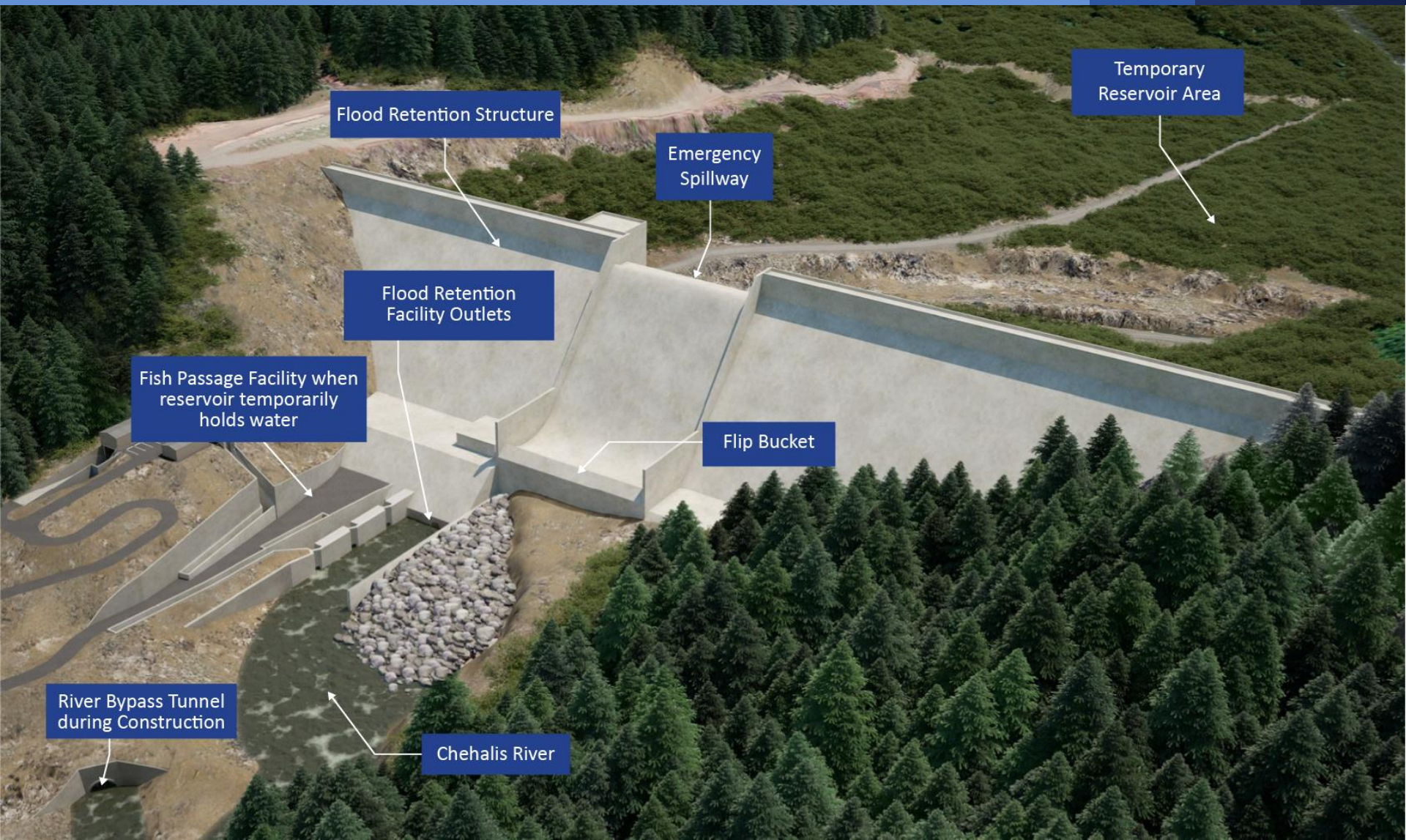
To reduce flooding coming from the Willapa Hills and improve the levee protection level at the Chehalis-Centralia Airport.



# Vicinity Map and Study Area

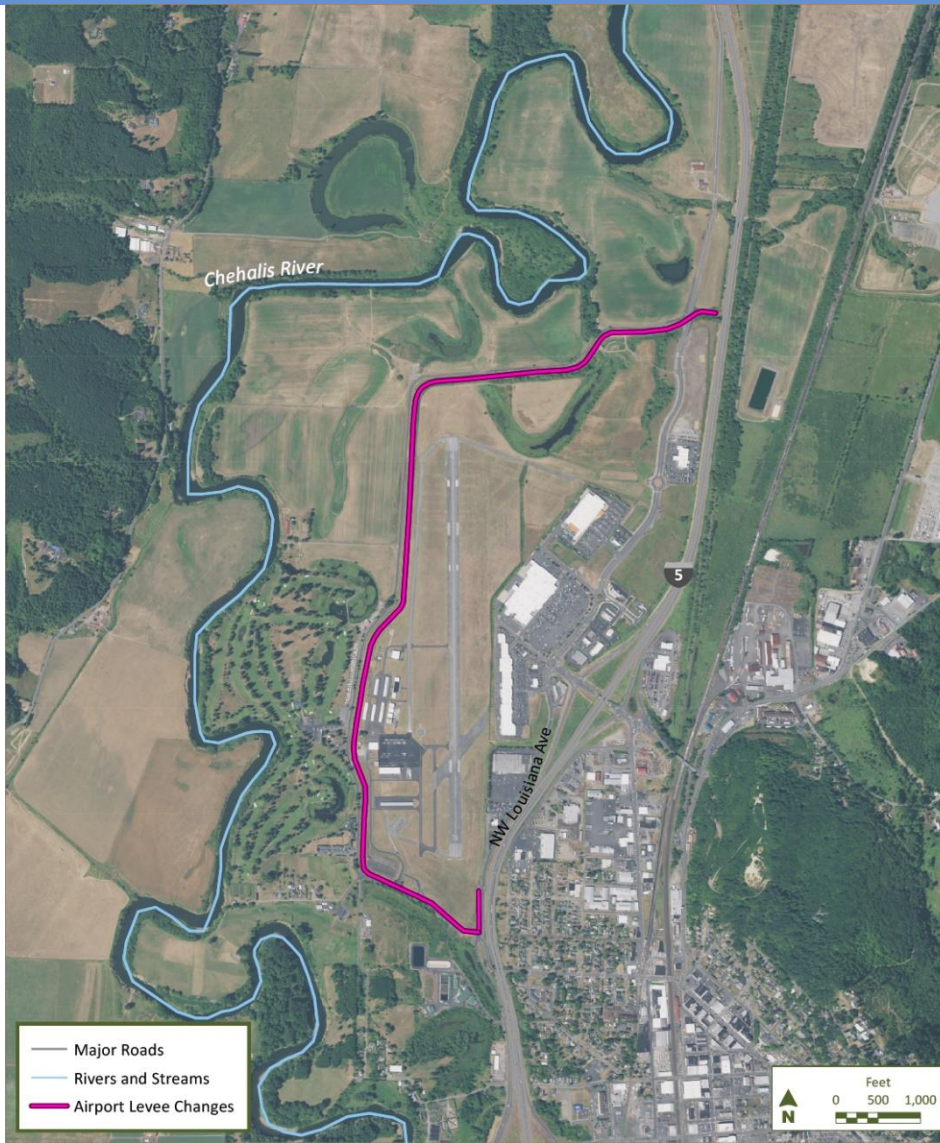


# Flood Retention Facility





# Airport Levee Improvements

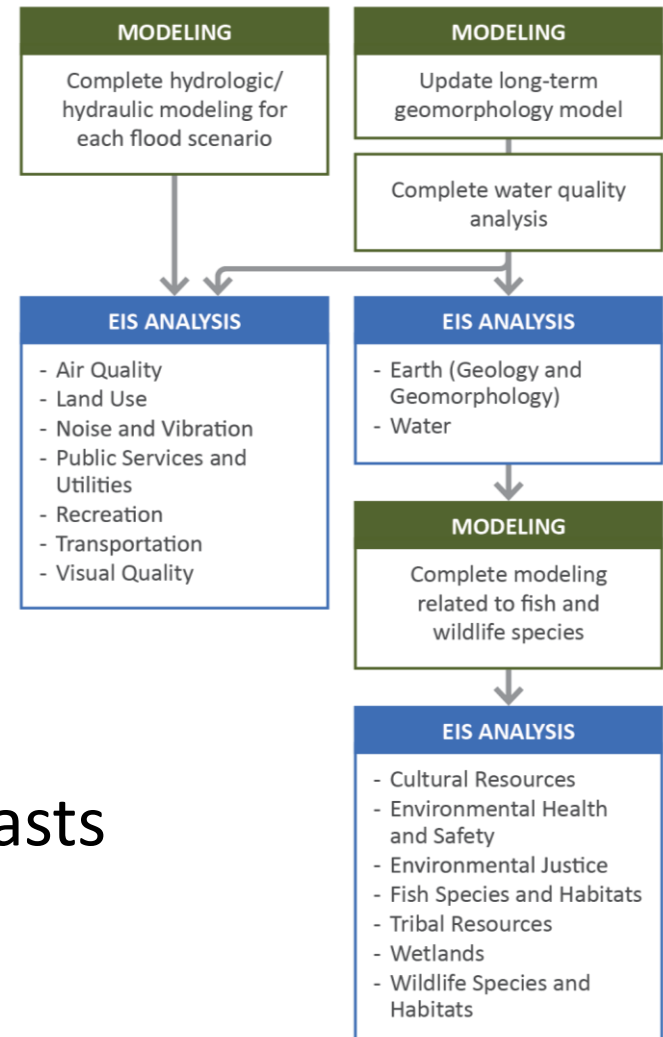


# Resources Evaluated

- Air Quality and Greenhouse Gases
- Cultural Resources
- Environmental Health and Safety
- Environmental Justice
- Fish Species and Habitats
- Earth Land Use
- Noise and Vibration
- Public Services and Utilities
- Recreation
- Transportation
- Tribal Resources
- Visual Quality
- Water
- Wetlands
- Wildlife Species and Habitats

# EIS Analysis Approach

- 3 scenarios
  - Major flood
  - Catastrophic flood
  - Recurring flood
- Models
  - Water
  - Earth
  - Fish
- Includes climate change forecasts
  - Mid century and late century



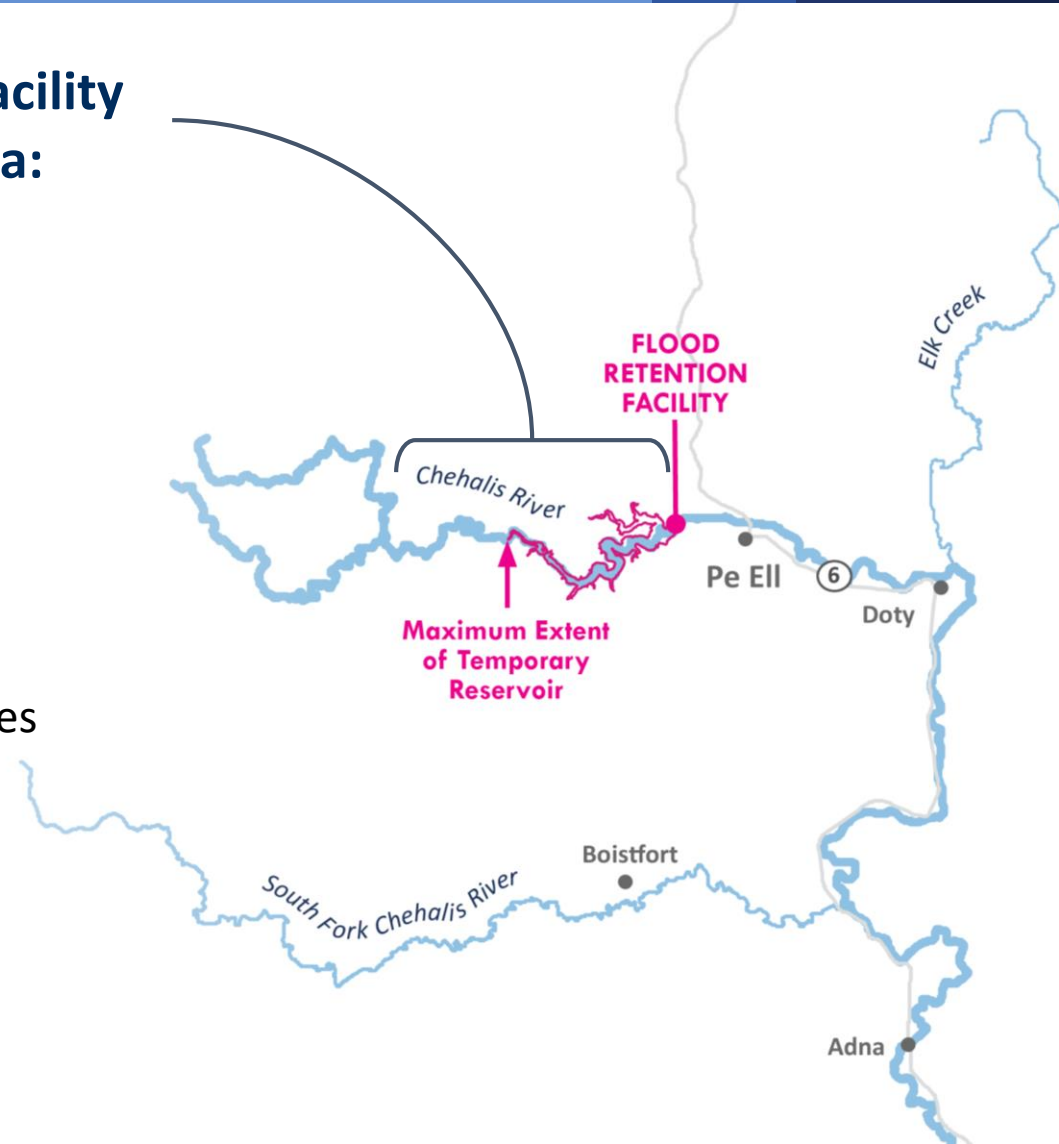
# Climate Change

- The EIS incorporated climate change projections throughout the analyses and modeling.
- Climate change is included in the baseline condition for the Proposed Project and Alternatives.
- Climate change projections include:
  - Water and air temperatures
  - Flood peak flows
  - Precipitation
  - Streamflow
  - Sea level rise

# Probable Significant Adverse Impacts

## Impacts in Flood Retention Facility and Temporary Reservoir Area:

- Fish and Aquatic Species
- Fish Habitat
- Wildlife Species
- Wildlife Habitat
- Water Quality
- Wetlands and Streams
- Recreation
- Land Use
- Air Quality and Greenhouse Gases



# Probable Significant Adverse Impacts

## From the Flood Retention Facility to the South Fork Chehalis River

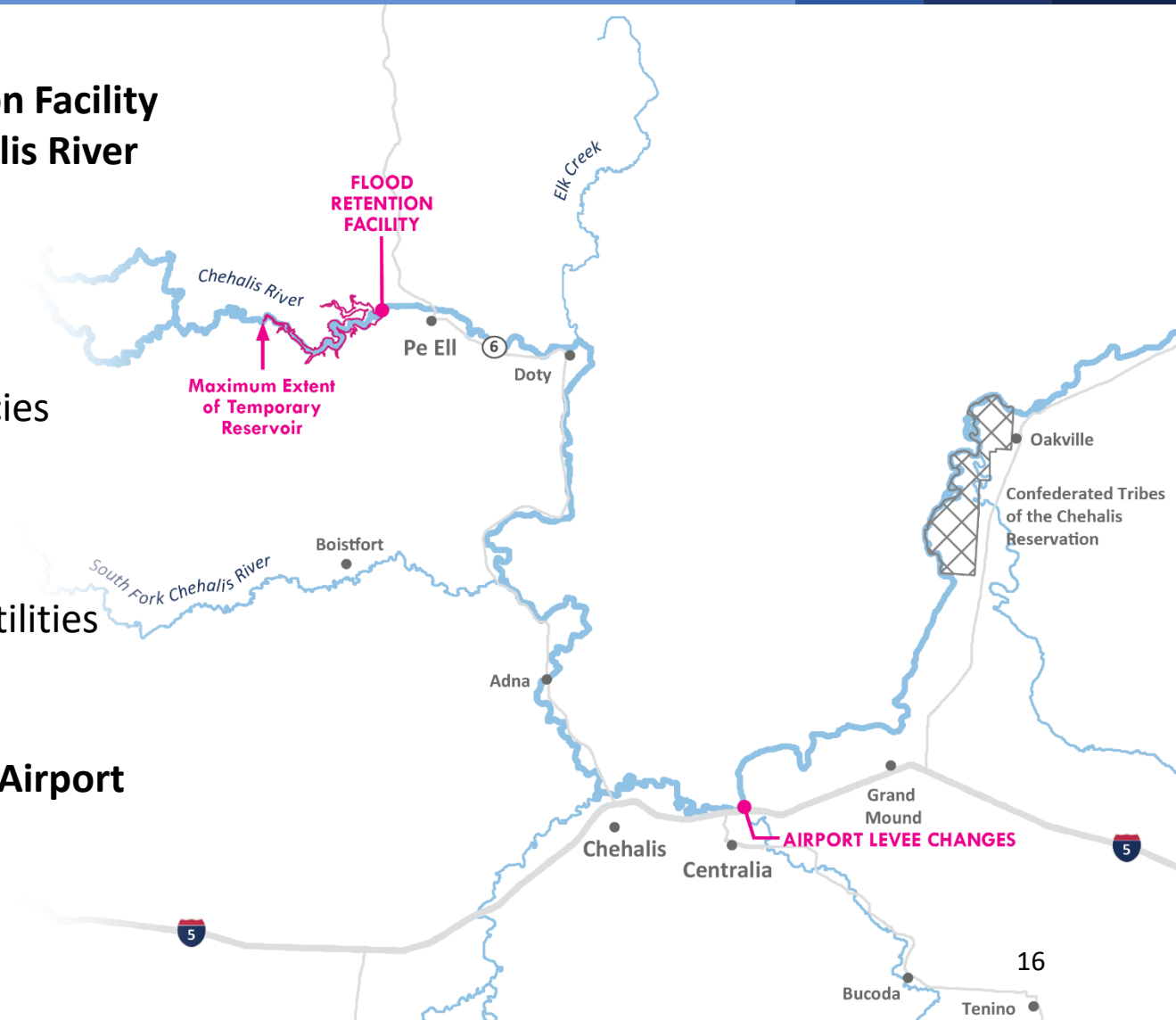
- Environmental Health and Safety
- Water
- Fish Habitat
- Fish and Aquatic Species

## Near Pe Ell

- Public Services and Utilities

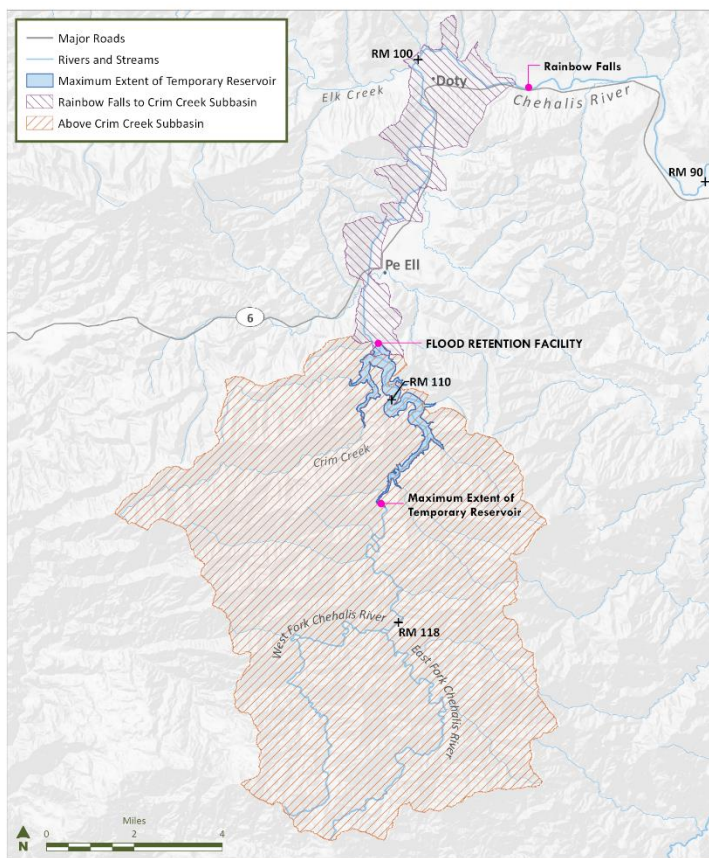
## Near Chehalis-Centralia Airport

- Wetlands



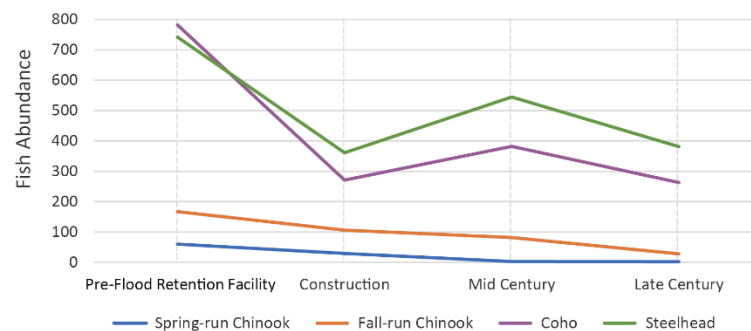


# Salmon and Steelhead

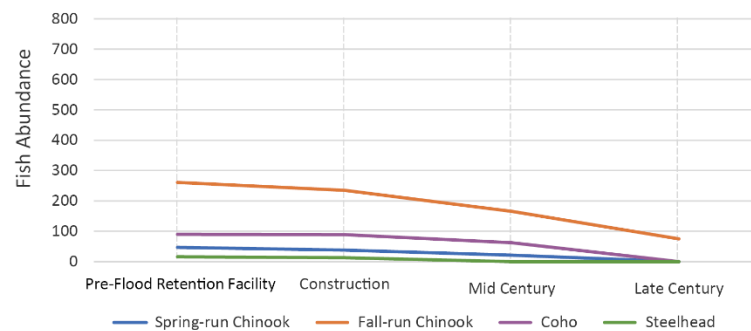


## Predicted Changes in Fish Abundance

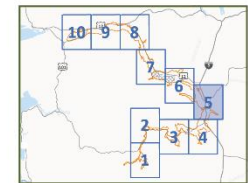
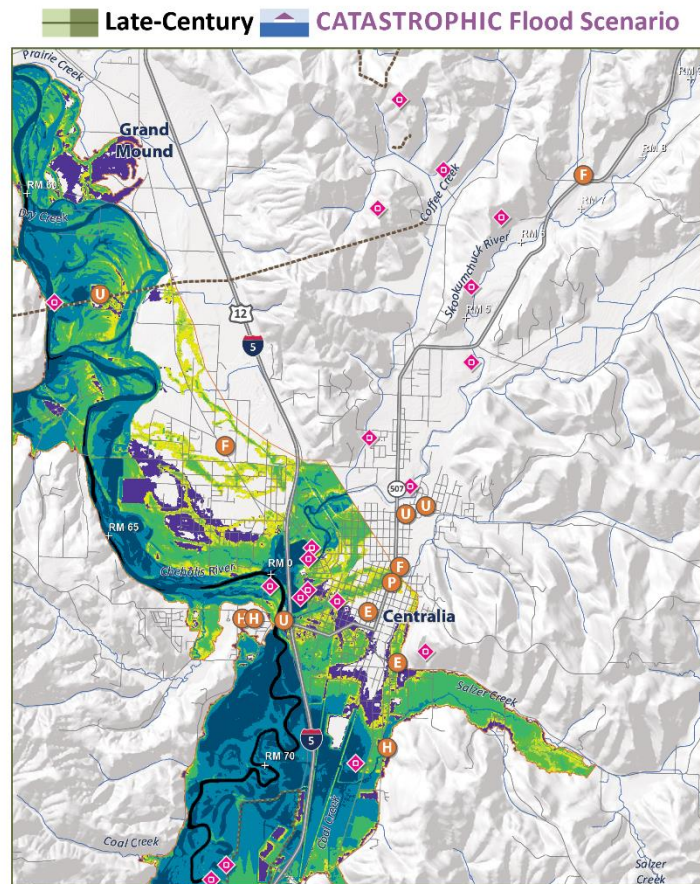
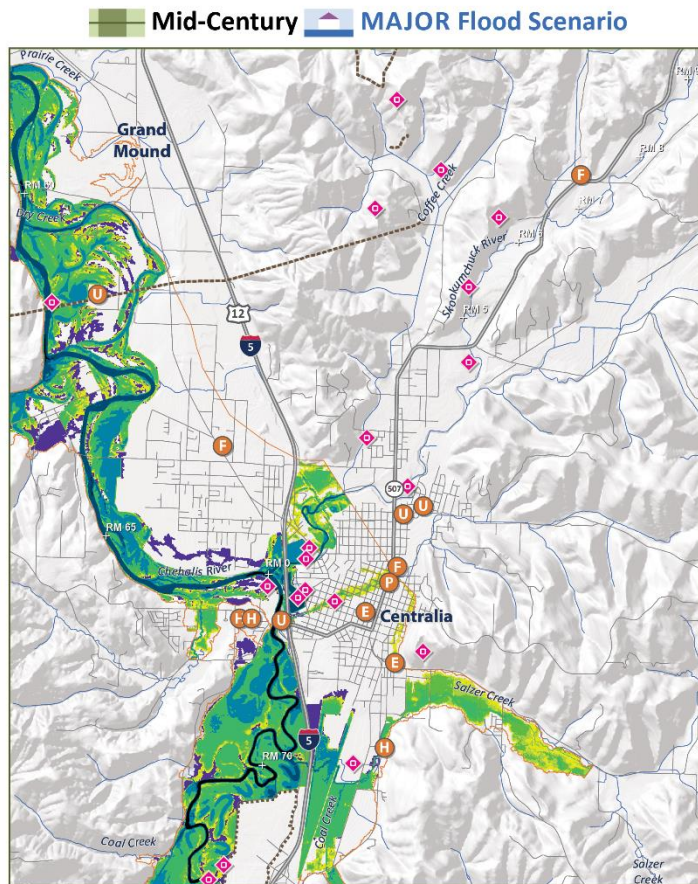
Above Crim  
Creek



Rainbow  
Falls to Crim  
Creek



# Water Model Maps



## Legend

- Major Roads
- Trails
- River and Streams
- Modeled Flood Extent

## Features

- Police and Court (P)
- Fire Station (F)
- Public Health (H)
- Utilities (U)
- Public Education (E)
- Recreation/Parks (diamond)

## Water Depth (ft)

- 0.2-0.5
- 0.5-1
- 1-2
- 2-5
- 5-10
- 10-25
- >25
- This area is flooded in the No Action Alternative but is not flooded with the Proposed Project

# Impacts to Communities

- While very unlikely, if ground shaking from a large earthquake damaged the facility while the reservoir holds water, impacts to people, environmental justice populations, infrastructure, and the environment would be significant and unavoidable.
- The project would reduce flood levels downstream. The amount would vary by location and size of the flood.



# Impacts to Infrastructure

Town of Pe Ell's water system – Significant adverse impact

- A water supply line may require relocation or improvement. Mitigation is proposed for the Applicant to work with Pe Ell to determine what is needed and provide funding.

Flood levels and duration downstream would be reduced and would not cause significant adverse impacts to infrastructure. However, many locations would still experience flooding during a catastrophic flood. The EIS evaluated:

- I-5 and SR 6
- Local roads
- Public service facilities
- Recreational facilities

# Mitigation Proposed in the EIS

- Mitigation is proposed for the Applicant to develop and implement multiple mitigation and management plans.
- The plans must be developed in coordination with and approved by applicable local, state, and federal agencies and tribes.
- The significant adverse impacts would be unavoidable unless the plans meet regulatory requirements and implementation is feasible.



# Mitigation and Management Plans Proposed in the Draft EIS

- Fish and Aquatic Species and Habitat Plan
- Greenhouse Gas Emissions Mitigation Plan
- Large Woody Material Management Plan
- Recreation Mitigation Plan
- Riparian Habitat Mitigation Plan
- Stream and Stream Buffer Mitigation Plan
- Surface Water Quality Mitigation Plan
- Vegetation Management Plan
- Wetland and Wetland Buffer Mitigation Plan
- Wildlife Species and Habitat Management Plan

# Alternatives Evaluated

## 1. No Action Alternative

- Future if proposed project is not built

## 2. Local Actions Alternative

- Local scale approaches which could achieve the Applicant's objective
- Examples: land use management actions, buying out or relocating properties or structures, improving emergency response, improving floodplain function

# Draft EIS

- Review of Key Findings for each resource area
- Review Cumulative Impacts

*See handout with language from the Draft EIS from the Key Findings on the first page for each resource.*



## **Water** (Surface Water, Ground Water, Water Use, Water Rights)

Draft EIS Chapter: 5.1

Appendix N

## **Earth (Geology, Geomorphology, Earthquake Risk, Landslide, Erosion)**

Draft EIS Chapter: 5.2  
Appendix F

# Draft EIS

**Fish Species and Habitat** (Spring-run and fall-run Chinook salmon, Coho salmon, Steelhead, Other Native Fish, Shellfish, Macroinvertebrates, Marine Mammals)

Draft EIS Chapter: 5.3  
Appendix E

## **Wildlife Species and Habitat (Mammals, Birds, Amphibians)**

Draft EIS Chapter: 5.4  
Appendix P

## **Wetlands (Wetlands, Wetland Buffers, Streams, Stream Buffers)**

Draft EIS Chapter: 5.5  
Appendix O

## **Tribal Resources**

Draft EIS Chapter: 5.6

Appendix L

## Land Use

Draft EIS Chapter: 5.7  
Appendix G

## **Recreation**

Draft EIS Chapter: 5.8

Appendix J



## **Cultural Resources**

Draft EIS Chapter: 5.9

Appendix B

## **Environmental Health and Safety**

Draft EIS Chapter: 5.10

Appendix C

## **Air Quality and Greenhouse Gases**

Draft EIS Chapter: 5.11  
Appendix A

## **Environmental Justice**

Draft EIS Chapter: 5.12

Appendix D

## **Noise and Vibration**

Draft EIS Chapter: 5.13

Appendix H

## **Public Services and Utilities**

Draft EIS Chapter: 5.14

Appendix I

## **Transportation**

Draft EIS Chapter: 5.15

Appendix K

## **Visual Quality**

Draft EIS Chapter: 5.16

Appendix M



## **Cumulative Impacts**

Draft EIS Chapter: 6  
Appendix 2

## **Project Description and Alternatives** (No Action Alternative, Local Actions Alternative, Alternatives Considered but Eliminated from Further Study)

### Appendix 1

# Providing Comments

## **Ways to Comment – from February 27 to April 27**

- **Public Hearings**  
Verbal comments through the court reporters or written comment cards
- **Online comment form via the website**  
[chehalisbasinstrategy.com/eis/comment-form](http://chehalisbasinstrategy.com/eis/comment-form)
- **Mail**  
Chehalis River Basin Flood Damage Reduction Project  
Anchor QEA  
1201 3rd Avenue, Suite 2600  
Seattle, Washington 98101

All comments will be valued equally, regardless of how they are submitted.

# Where to Find Information

Information about the SEPA EIS and the comment period is available at:

Chehalis Basin Strategy website

<http://chehalisbasinstrategy.com/eis/sepa-process/>

Ecology's website

<https://ecology.wa.gov/About-us/Get-to-know-us/Our-Programs/Office-of-Chehalis-Basin/EIS> .

*Ecology SEPA EIS Point of Contact:*

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