



**Chehalis Basin Strategy:  
Reducing Flood Damage and Enhancing Aquatic Species**

# Scoping Summary Report

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*Programmatic SEPA EIS*

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Prepared for Washington State Department of Ecology



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# ACRONYMS AND ABBREVIATIONS LIST

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Basin	Chehalis Basin
DNR	Washington Department of Natural Resources
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
ESA	Endangered Species Act
I-5	Interstate 5
SEPA	State Environmental Policy Act
WDFW	Washington Department of Fish and Wildlife
Work Group	Governor’s Chehalis Basin Work Group
WRIA	Water Resource Inventory Area



# INTRODUCTION

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## Purpose of Report

The Washington State Department of Ecology (Ecology) is preparing a Programmatic Environmental Impact Statement (EIS) under the State Environmental Policy Act (SEPA) for the Chehalis Basin Strategy, an integrated program to reduce flood damage and restore aquatic species habitat in the Chehalis Basin. A determination of significance/scoping notice for the Programmatic EIS was issued by Ecology on September 18, 2015, which initiated the environmental review process. The scoping period ended on October 19, 2015, and included two public scoping meetings held on September 28 and 29, 2015.

This scoping summary report provides an overview of the draft Study Area, the proposed action and preliminary alternatives, the environmental review and scoping processes, and a summary of the scoping comments received. Also included in this report are the notices, news releases, meeting materials used during scoping, and verbatim copies of all comments received during the scoping comment period.

## Study Area

The Chehalis Basin, located in Southwestern Washington, is the largest river basin in Western Washington and the second largest watershed in Washington. The Basin extends over eight counties and encompasses large portions of Grays Harbor, Lewis, Mason, and Thurston counties; and smaller parts of Pacific, Cowlitz, Wahkiakum, and Jefferson counties (see Figure 1). The Chehalis Basin includes two Water Resource Inventory Areas (WRIAs), WRIA 22 (Lower Chehalis) and WRIA 23 (Upper Chehalis).





Figure 1  
Draft Study Area





## Proposed Action

### Purpose and Need for Action

As identified in the 2014 Recommendation Report from the Governor’s Chehalis Basin Work Group (Work Group, Ruckelshaus Center 2014), the Chehalis Basin suffers from both major flooding and substantial degradation of aquatic species. A clear need for action is demonstrated in the report:

*Peak flood levels have been rising in the Basin over the last 30 years and are likely to get worse. The five largest floods in the Basin’s history have occurred during the past 30 years. Current ‘low’ estimates of climate change impacts predict an 18% increase in peak flows; the ‘high’ estimates are upwards of 90%. Under the latter scenario, floodwaters in the City of Centralia would be almost eight feet higher than in the peak of the 2007 flood. The specter of catastrophic flooding casts a shadow over the region’s future, affecting economic prosperity and the emotional health of the Basin communities.*

*Aquatic species in the Chehalis Basin are significantly degraded, and if action is not taken, this degradation is expected to continue. Salmon habitat in the Basin already is degraded by 44%–78%, depending on the species. Failure to take action to restore physical and ecological Basin processes and habitat, coupled with potential impacts of climate change, are predicted to result in the complete loss (extirpation) of Spring-run Chinook from the Basin late this century, and a 70% loss of coho. It is very possible that the current trajectory would lead to Endangered Species Act listings and related restrictions, as well as great economic and cultural losses for tribal, commercial, and recreational fishers and others who depend on or enjoy these species.*

In order to positively effect change in the Basin, the purpose of the Chehalis Basin Strategy is to provide a long-term, integrated approach to substantially reduce damage from major floods and restore degraded aquatic species habitat in the Basin. The solution should provide a safer future for people, reduced social and economic costs associated with floods and degraded aquatic species habitat, and a healthier, more resilient Chehalis Basin for aquatic species.

### Preliminary Alternatives

The EIS will analyze alternatives that consist of different combinations of action elements. The action elements include flood damage reduction and habitat restoration elements; when taken together these action elements represent a comprehensive strategy that could meet the purpose and need. In addition, a No Action Alternative will be evaluated. All of the alternatives evaluated in the EIS will be projected over the next 100 years.

Flood damage reduction elements include the following:

- Large-scale: flood retention facility, airport levees, Interstate 5 (I-5) projects, and restorative flood protection
- Local-scale: flood-proofing, local projects, land use management, and flood warning systems

Aquatic species habitat restoration elements include the following:

- Restore riparian habitat
- Remove and improve priority fish passage barriers
- Restore off-channel habitat
- Add wood structures
- Land use management

Combinations of the draft action elements within each alternative will continue to be refined during development of the Draft EIS.

The No Action Alternative provides a baseline for comparison to the action alternatives. The No Action Alternative includes a continuation of existing and long-standing programs and actions focused on flood damage reduction and habitat improvements in the Basin.

# SCOPING PROCESS

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## SEPA Scoping Requirements and Purpose

The purpose of scoping is to establish and confirm the focus of the EIS by seeking input from agencies, tribal governments, and members of the public on the content and emphasis (scope) of the EIS. Scoping also provides notice to the public and other agencies that an EIS is being prepared, and initiates their involvement in the process.

Ecology conducted a scoping period from September 18 to October 19, 2015, in accordance with SEPA requirements per Washington Administrative Code 197-11-408. Ecology invited agencies, tribal governments, and members of the public to provide input on the scope of the Programmatic EIS relating to the purpose and need, range of alternatives, probable significant adverse impacts, and elements of the affected environment to be analyzed in the EIS.

The following elements of the environment were preliminarily proposed for discussion in the EIS:

- Geology and soils
- Water resources
- Wetlands and vegetation
- Fish and wildlife
- Air quality
- Climate change
- Visual quality
- Noise
- Land and shoreline use
- Recreation
- Historic and cultural preservation
- Transportation
- Public services and utilities
- Environmental health and safety

## Determination of Significance and Scoping Notice

Scoping under SEPA began with the issuance and publication of a Determination of Significance and Request for Comments on the Scope of the Programmatic EIS (Appendix A: Determination of Significance/Scoping Notice, and Appendix B: SEPA Register Notice). The Scoping Notice included a summary of the Chehalis Basin Strategy, including alternatives and action elements to be considered in the Programmatic EIS. The Scoping Notice also announced public scoping meeting dates and the duration of the scoping comment period.

## Outreach Summary Timeline

Ecology conducted the following public notification and outreach activities to provide notification to agencies, tribal governments, and members of the public and stakeholders of the scoping comment period, and to announce upcoming public scoping meeting dates:

- The **Scoping Notice**, including scoping meeting announcements, was published in Ecology’s SEPA Register on September 18, 2015.
- **Legal notices** were placed in three legal newspapers of local circulation (*The Olympian* [Olympia], *The Daily World* [Aberdeen], and *The Chronicle* [Centralia]) on September 22, 2015 (Appendix C: Legal Notices).
- A **news release** was issued on Ecology’s website on September 22, 2015, and distributed to the three newspapers listed above (Appendix D: Ecology News Release).
- A **Focus Sheet** was developed and sent to local communities for posting to community boards.
- An **e-mail** with the Scoping Notice was sent to the Government Advisory Team, including representatives from federal and state agencies, the Quinault Indian Nation, and the Confederated Tribes of the Chehalis Reservation, on September 18, 2015 (Appendix E: E-mail Notifications to Stakeholders and Interested Parties).
- An **e-mail** was distributed to the Chehalis River Basin Flood Authority members and to over 150 individuals included on the Flood Authority’s interested parties list, including an announcement of the scoping meetings, on September 14, 2015 (Appendix E: E-mail Notifications to Stakeholders and Interested Parties). Chehalis River Basin Flood Authority members include representatives from:
  - Lewis, Grays Harbor, and Thurston counties
  - Cities of Aberdeen, Centralia, Chehalis, Cosmopolis, Montesano, Napavine, and Oakville
  - Towns of Bucoda and Pe Ell
- An **e-mail** was distributed to the local salmon lead entity, Lewis County Public Utility District, U.S. Department of Agriculture, Washington Coast Sustainable Salmon Partnership, and Western Water Futures on September 22, 2015, including the press release and Focus Sheet (Appendix E: E-mail Notifications to Stakeholders and Interested Parties).
- A scoping meeting announcement was posted on the Chehalis Basin Strategy **program website**, [www.chehalisbasinstrategy.com](http://www.chehalisbasinstrategy.com), on September 18, 2015.

## Public Scoping Meetings

Two public scoping meetings were held within the Study Area during the scoping period. The first scoping meeting was held on September 28, 2015, at the Veterans Memorial Museum in Chehalis,

Washington. The second meeting was held on September 29, 2015, at the Montesano City Hall Banquet Room in Montesano, Washington.

The public scoping meetings were held from 6:00 p.m. to 9:00 p.m. The scoping meetings opened with a 20-minute PowerPoint presentation (Appendix F: Scoping Meetings Presentation), including a question and answer period, followed by an open house. The presentation outlined the environmental review process and described the Chehalis Basin Strategy, including program history and preliminary alternatives. The public had an opportunity to provide formal public comment at the meetings by written comment cards or oral comments to a court reporter.

The program website, [www.chehalisbasinstrategy.com](http://www.chehalisbasinstrategy.com), was also developed prior to the start of the scoping period to provide information on the program and allow for the submission of on-line scoping comments. The website will be maintained and updated throughout the environmental review process.

Staff from Ecology, the Washington Department of Fish and Wildlife (WDFW), the Ruckelshaus Center, and the consultant team were available throughout the open house portion of the scoping meetings to discuss the program and answer questions from the public. Display boards provided information on the Study Area, the environmental review process, program history, and the action elements considered under the alternatives. A copy of the display boards are included in Appendix G: Scoping Meetings Presentation Boards. Scoping meeting handouts are included in Appendix H: Scoping Meetings Handouts.

Approximately 33 people attended the two scoping meetings. During the question and answer portion of the presentations, approximately 15 people provided informal comments and asked questions. The major topics discussed during the question and answer periods are summarized as follows:

- I-5 walls and levees configuration
- Flooding impacts to other areas from I-5 walls, levees and other flood protection measures
- Timeline for flood retention facility construction and interim protection measures
- Level of flood protection provided by a flood retention facility
- Flood protection measures in the lower Basin
- Status of implementation of local projects
- Actions to address existing structures in floodplains; elevating or buying out structures
- Land use management actions to address new development within floodplains, including the extent of new development allowed in floodplains
- Status of Endangered Species Act (ESA)-listed fish and risks for ESA listings
- Lack of water for farmers
- Certainty in project funding
- Inclusion of additional alternatives, including dredging the Chehalis River and raising I-5

## Scoping Comments Statistics

During the scoping comment period, a total of 43 comments were received through the following means:

- Comment cards (16)
- Online form (11)
- Oral comments to court reporter (11)
- E-mail (4)
- Mailed letter (1)

Of the 43 comments received, 11 organizations were represented and include the following:

- Quinault Indian Nation
- Washington Department of Natural Resources (DNR)
- Washington Department of Fish and Wildlife
- Thurston County
- City of Chehalis
- Port of Centralia
- Washington Trollers Association
- American Rivers
- Washington Water Project Trout Unlimited
- Washington Environmental Council
- Friends of Grays Harbor

In addition, 34 individuals were represented in the comments received. See Appendix I: Scoping Comments for a copy of all comments received during the scoping period, including comment cards, letters, e-mails, online comment forms, and court reporter transcripts of oral comments.



# SUMMARY OF SCOPING COMMENTS

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## Representative Summary of Scoping Comments

All of the comments received during the scoping period are attached in Appendix I: Scoping Comments in their original, submitted form. This section provides a summary, organized by topic, of the points made and representative input received during the public comment period. Some members of the public expressed support for certain elements of the strategy, while others opposed specific elements.

This section is not meant to provide a comprehensive or verbatim list of comments; see Appendix I: Scoping Comments for these details. Comments are categorized under the following general topics:

- Urgency to Address Flood Damage and Degradation of Aquatic Species Habitat
- Purpose and Need
- Alternatives
- Elements of the Environment

### **Urgency to Address Flood Damage and Degradation of Aquatic Species Habitat**

Comments related to the urgency to address flood damage and the degradation of aquatic species habitat included the following:

- Effective solutions should be implemented soon as there is significant potential for serious flooding, and associated economic and environmental impacts, this year and in the years ahead.
- Restoration projects are on a 15- to 20-year timeline. What actions will occur in the meantime?
- Permitting can be the slowest part of the process. Consider a strategy to expedite action and streamline the permitting processes for large-scale projects, such as the flood retention facility, by discussing permit requirements with all regulatory agencies in the same room at the same time.

### **Purpose and Need**

Comments related to the purpose and need of the EIS included the following:

- The imbalance of water supply and demand should be addressed in the purpose and need statement.
- Proposed actions should address the following needs:
  - Protect human life, domestic and farm animals, and wildlife
  - Protect tribal treaty rights

- Prevent damage to the built environment
- Protect and improve salmon habitat and the watershed
- Prevent financial loss to private individuals
- Judiciously use public funds
- Outcomes from proposed actions should be effective, reliable, predictable, durable, permanent, and should improve the environment.

## **Alternatives**

Comments related to the EIS alternatives included the following:

### **General**

The comments below reflect the range of opinions expressed by the public during scoping regarding the preliminary alternatives.

- The strategy recommended by the Work Group should be implemented.
- A non-structural alternative should be included.
- A cost/benefit comparison between the proposed alternatives, including a non-structural alternative, should be considered.
- The dam and levee should be prioritized first, followed by other programs based on the new floodplain mapping resulting from the dam and levee build-out scenario.
- Non-structural activities should be prioritized first, with engineered solutions being considered only if non-structural approaches are determined to be ineffective at achieving the purpose and need.
- With climate change and the importance of water for fish and agriculture, the alternative that is chosen should address summer water availability for fish and agriculture.
- The alternative including the Work Group's recommended strategy without a flood retention facility does not appear to be a viable alternative, given the Washington State Department of Transportation analysis on the cost-effectiveness of I-5 levees. If this is not a viable alternative, the alternatives are predisposed to result in a favorable outcome for the alternative with the flood retention facility.
- The alternatives should be re-evaluated to look for approaches that result in multiple benefits from each proposed action.
- The proposed sequencing and staging for the various elements of each proposed alternative should be specified, as well as the assurances that later elements, especially the aquatic species restoration work, will actually be funded and executed.
- Actions that speed drainage in the upper reaches in the Chehalis Basin will overwhelm the lower reaches.

- The evaluation of alternatives should be separated by each action element and sub-options (i.e., flood retention with and without flow augmentation). The analysis of the restoration element should consider low and high levels of investment.
- Additional alternatives that sufficiently address major flood damage without requiring a dam should be considered.
- Gravel removal from oversized gravel bars should be allowed.
- Additional information on costs, risks, and needs should be provided.

### **Quinault Indian Nation's Proposed Alternative – Restorative Flood Protection**

Several commenters requested evaluation and inclusion of the Quinault Indian Nation's proposed alternative related to restorative flood protection.

- A new alternative to reduce flood damage through ecological restoration and non-structural land use actions should be considered (see the Restorative Flood Protection Alternative approach proposed by the Quinault Indian Nation in Appendix I: Scoping Comments).
- The Quinault Indian Nation's proposed alternative should be considered as the preferred alternative.
- The Quinault Indian Nation's restorative flood protection approach should also be incorporated into other alternatives to reduce the need for structural approaches, such as a retention dam and levees.
- The Quinault Indian Nation's restorative flood protection approach should be included in a less-structural alternative combined with land use management, flood damage mitigation, and limited use of structural elements such as levees.

### **Action Elements**

Specific comments related to the action elements, which when combined represent the various EIS alternatives, are grouped below by action element.

#### **Large-scale Actions:**

- Flood retention facility comments included the following:
  - Other alternatives that are more cost-effective than a dam should be considered.
  - A cost-benefit analysis should be conducted for the dam proposal.
  - The dam is the only solution to flooding.
  - The dam option is not supported.
  - The dam option should not proceed without tribal buy-in.
  - The dam solution seems practical at Pe Ell because studies indicate that major opportunities for improvement of fish habitat are not in the upper Chehalis River.

- The dam proposal does not address flooding from storm events occurring downstream of the dam location.
- The dam poses the highest risk for damage to ecological function.
- The dam should be a multi-purpose dam to help manage floods, and provide water for fish, residents, and agriculture.
- History has shown that no dam has ever helped a salmon run. Adding a dam will only exacerbate negative effects for fish, wildlife, and habitat within the Chehalis Basin.
- Damming the Chehalis River will result in ESA-listed fish.
- The dam with flow augmentation should be limited to helping maintain aquatic species habitat under low-flow conditions, and water should be protected from other uses and diversions.
- Providing hydroelectricity at the dam could provide income to manage the facility.
- Hydroelectricity should not be included in the dam proposal.
- Additional technical and design work is needed for the dam, including studies for fish passage facilities.
- There is limited federal funding for new large-scale projects like water retention.
- The timeline for dam approval and construction can take longer with the many opportunities for challenge by opponents.
- I-5 walls and levees comments included the following:
  - Levees will not solve flooding problems.
  - Levees do not provide Basin-wide solutions to flooding.
  - Levees will make flooding worse in other areas.
  - Raising I-5 should be considered.
  - I-5 levees and walls should be considered if a dam is not proposed.
  - If the dam does not get approved, the I-5 projects (while protecting I-5) will make flooding worse in adjacent areas.
  - Raising the I-5 road bed and/or building dikes would protect I-5 from flooding and would be a much less costly alternative to a dam.
  - Additional alternatives involving structural work on I-5 should be considered.

*Local-scale Actions:*

- The Napavine Kirkland Project will protect some properties and transportation resources while increasing flood risk to other property owners.
- Instead of a dam, moving people and businesses out of the floodplains as a more effective and permanent flood protection solution, and a relatively more cost-effective solution in comparison to dam construction, should be considered.
- In addition to oxbows to reconnect floodplains, pond structures to provide significant water retention during flood events should be included.

- The techniques used in Eastern Washington where channels are installed in sharp river bends to siphon water during high-flow events should be considered.
- The Kirkland Road Project would flush water downstream by bypassing a horseshoe bend at I-5.
- The Dillenbaugh Creek realignment project would flush water quickly downstream and cut off approximately 120 acres of wetlands, resulting in the loss of valuable aquatic and waterfowl habitat, as well as water-holding capacity.

*Land Use Actions:*

- A program that incentivizes landowners to build water retention structures that mitigate floods and provides critical aquatic species habitat should be considered.
- Comprehensive plans should be revised so that filling in floodplains is not allowed. It would be important for all cities to buy off on this to make sure filling does not occur in some areas but not others.
- Rivers and floodplains should be set aside as natural resources, best suited for agricultural and temporary summer recreation use.
- Modifying land use practices to discourage the development of flood-prone areas that also rely on unmitigated exempt wells should be considered.
- Including modification of forest practices as an action element should be considered.

*Aquatic Species Habitat Restoration Actions:*

- River water levels should be increased in summer months to help salmon and other fish survive dry summer months.
- Restoration of aquatic species habitat to pre-dam historic levels is desired.
- Fully funded alternative for aquatic species restoration is desired.
- Projects that include habitat restoration for salmonid species on the South Fork Newaukum River should be given the highest priority.
- More oxbows are desired.
- The long-term sustainability and maintenance requirements of restoration actions should be considered.
- Support was shown for culvert removal/replacement, adding wetlands, and reconnecting horseshoe bends.
- All fish barriers in the Aquatic Species Restoration Plan, particularly on parcels owned by small forest landowners, should be considered.
- The cost to purchase conservation easements for channel migration zones that may be expanded as a result of reconnecting floodplains should be considered. Funds may be available through the DNR Riparian Habitat Open Space Program.

## Elements of the Environment

Comments related to the elements of the environment included the following:

### Climate Change

- With climate change, summer low flows are evident to those living on the North or South forks of the Chehalis River.
- The effects of climate change need to be addressed for water storage for residents, as well as water flow for aquatic organisms.
- How climate change may affect water supply and demand for out-of-stream uses should be evaluated.
- Multiple potential storm scenarios should be evaluated in order to adequately forecast the mitigating effects of any proposed alternative.
- Climate change, changes in ocean conditions, and other climate-affecting factors that could result in an increase or decrease to flooding in the Chehalis Basin should be considered.

### Economics

- Challenges for leasing flood-affected commercial property since 2007 has grown way beyond all the other events put together, resulting in tenancy battles and trying to overcome the fear of the flooding.
- The best thing for economic development is to control floodwaters as well as have fish available for our people to enjoy and to bring tourists down.
- It has been difficult attracting new industry or people to live in Lewis County because they are afraid of flooding.
- The material eroded from the river bank in Satsop has to be dredged out of Grays Harbor at 6 dollars per cubic yard.
- The commercial fishing industry is the largest single employer to Grays Harbor. The cost to the fishing industry, and the numbers of jobs lost and income lost, needs to be explored.
- There is a lot of room for growth that is not within the floodplain, including in Napavine and the Winlock Industrial Park.
- The impacts or effects to the “intrinsic” value of salmon needs to be evaluated under each alternative.
- Major flood events and the perception of flood risk adversely affects the region’s economy.
- Land use regulation changes should be described in sufficient detail to enable comprehensive environmental review, include socioeconomic impacts.
- The economic impact of flood damages under the No Action Alternative should be evaluated.
- Water quantity, water quality, and the timing of flow are important to the health and economic vitality of the region.

### **Environmental Health and Safety**

- Filling in the floodplain and floodways is exacerbating flooding.
- The risk of dam failure, and other unforeseen risks to the entire town of Pe Ell and schools that would be put in harm's way, should be considered.
- Additional seismic design assessments for the dam by using peak ground acceleration, rather than seismic magnitude, should be considered. Aftershocks should also be considered. The area in the vicinity of the proposed dam needs additional study and may contain undetected faults.

### **Fish, Wildlife, Wetlands, and Vegetation**

- A water retention system would provide cold water for salmon and other fish during hot times of the year.
- As water temperatures in the rivers increase, new exotic fish species like bass may survive and move into new areas.
- The ESA listing of spring-run Chinook salmon would not be acceptable.
- ESA-listed fish are not wanted in the Chehalis Basin.
- Studying spawning habitat that will be lost, and to which species, if the dam is built should be considered.
- A redd survey for salmon- and steelhead-spawning habitat should be conducted through at least three cycles.
- The effect that increased water temperatures will have on both returning fish for spawning and juveniles throughout the river system should be considered.
- The loss of aquatic life as a part of the dam option should be evaluated.
- Local conservation districts, lead entities, and land trusts should be engaged to identify potential restoration projects and to help advance restoration projects on private lands.
- There is support for analyzing a broad range of aquatic species.
- Instream water supply needs, including hyporheic flow, should be defined for aquatic species under the current conditions and under the proposed alternatives.
- Local jurisdictions' restoration plans (developed as part of the Shoreline Master Program updates) should be consulted.
- Analysis should consider the "no net loss of ecological function" provision in local jurisdictions' Shoreline Master Programs.
- Fill and modification of wetlands and riparian areas should be prohibited.
- Out-of-kind and off-site mitigation projects should be not allowed.

- To successfully complete analysis of impacts to species and habitat, data gaps should be addressed. Study efforts are currently under way (see WDFW's comment letter, dated October 19, 2015, in Appendix I: Scoping Comments for a list of studies underway and data gaps).
- Habitat loss and the potential recovery benefits from restoration activities should be quantitatively assessed under each alternatives.

### **Geology and Soils**

- The erosion and landslides that are occurring (e.g., Newaukum hillside is gradually moving) should be considered.
- Dredging the river should be considered as part of the flood retention facility, levee, and I-5 walls discussion.
- Gravel deposition causes river migration and bank erosion.
- Restricted river flow is causing increased sedimentation and shallower and warmer rivers.
- The effects of reduced silt outflow on the Grays Harbor coastline should be examined.
- The effect of flow restriction and siltation on river health and flood protection functions of the Chehalis River should be considered.
- Dredging presents downstream impacts such as increased flooding and damage to aquatic habitat and riparian zones.
- Analysis should include geomorphology of the Chehalis River and tributaries, particularly with structural components associated with the alternatives.
- Dam design and reservoir operations should include an analysis of local geology, impacts to geology, slope stability and geomorphology.
- Reservoir operations should consider optimizing flood release rates to minimize downstream erosion impacts and minimize slope instability within the reservoir areas.
- Landslide-related studies or other geotechnical investigation related to potential hazards within the reservoir area, such as activation of dormant landslides, should include the following:
  - Tectonics or faults that may affect dam design
  - Potential ground motions from the Doty fault or reservoir-induced slip on inactive faults
  - Aggregate sourcing, testing, and availability
  - Impacts of road building and construction to sedimentation in the Chehalis River

### **Land and Shoreline Use**

- The development and fill within the floodplain and floodways should not be allowed.
- There is not a way to elevate some commercial buildings.
- There is a concern about land owner rights. Land owners need to be encouraged and supported in their attempts to address land erosion from river banks. Permitting processes are too cumbersome and expensive, and many times prohibitive.



- The effect of the dam on the town of Pe Ell, and the cemeteries in the vicinity that would be inundated, should be considered.
- When evaluating the effects of land use actions, substantial coordination with local governments should occur.
- The risks associated with the uncertainty in regulatory land use changes should be evaluated.
- The effects of continued fill in the floodplains as a baseline for evaluating the benefits of the alternatives should be evaluated.
- The effect of each alternative on Federal Emergency Management Agency flood mapping and the mapping effects on land use should be evaluated.
- A comprehensive review of all zoning regulations, exemptions, and variances in and around the watershed should be conducted.
- DNR authorization will be required for any actions on the state's navigable waters, which includes portions of the Chehalis River and its tributaries.
- The contribution of forest practices on the following should be evaluated:
  - Flooding and low-flow conditions
  - Landslides and contribution to sedimentation
  - Water supply
- Financial and regulatory mechanisms to achieve any necessary changes in forest practices that are identified should be considered.
- Current forest practice rules need to be followed, such as road maintenance and abandonment plans, and forest roads standards.
- The water storage provided by trees should be considered.
- Salmon recovery contributions made by forest landowners under forest practices should be recognized.

## **Water Resources**

- The project should consider shifting in-river channel alignments that is occurring from debris, landslides, and other naturally-caused shifting events.
- The Newaukum River is shifting towards toward Dillenbaugh Creek.
- Analysis of the effects of the dam and subsequent water release on the lower reaches of the Chehalis River and estuary should be considered along with tidal influences, and heavy rains and winds.
- Analysis of hydrology should consider the whole system in order to determine and forecast impacts to downstream communities and resources.
- The water supply and demands for out-of-stream uses in the Chehalis Basin, including future needs, and current and anticipated agricultural trends should be characterized.
- The potential contribution to groundwater recharge under the alternatives should be analyzed.

- Potable water supplies should be considered.
- Water quality effects should be evaluated. The Chehalis River has an existing water quality cleanup plan.
- Groundwater modeling should be conducted to better understand how groundwater is stored within the aquifer system and how it interacts with floodwater.

### ***Operations and Maintenance***

- The operations and maintenance costs and risks associated with all alternatives should be evaluated and considered.
- Entities who would own, manage, and be financially responsible for structures considered in the alternatives should be identified.
- The ongoing costs and impacts of removing and handling debris from the dam should be considered.

### ***Recreation***

- The potential impacts to public access and recreational activities throughout the Chehalis Basin should be evaluated.

### ***Transportation***

- Bridges behave like miniature dams along the rivers and make floods worse.

### ***Tribal Treaty Rights and Historic and Cultural Preservation***

- Proposed alternatives should be evaluated against tribal treaty rights.
- The need for free and unobstructed flows based on the Skokomish Indians Tribe's recent claim to "usual and accustomed grounds" on the Satsop and Chehalis rivers should be considered.

## **Next Steps**

The scoping comments have been shared with the Work Group, Ecology's EIS Government Advisory Team, and the consultant team responsible for preparing the EIS. The comments will be considered in refining the EIS scope and alternatives, and in the environmental analysis. This report will also be posted on the Chehalis Basin Strategy program website.

Public and agency outreach will continue for the duration of the environmental review process, including open houses, newsletters, website updates, and meetings with organizations, agencies, tribal representatives, and Basin communities.

There will be a formal review process and opportunity to comment when the Draft EIS is issued in the summer or fall of 2016, including open house(s). Comments made on the Draft EIS will be formally addressed in the Final EIS, which is anticipated to be published in the winter of 2016 or early 2017.



# REFERENCES

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Ruckelshaus Center (William D. Ruckelshaus Center), 2014. *Governor's Chehalis Basin Strategy Work Group: 2014 Recommendation Report*. November 25, 2014.