

Chapter 5 Preferred Alternative and Next Steps

This chapter identifies the preferred alternative and summarizes the rationale supporting it. The preferred alternative is subject to change throughout the NEPA process. Key project milestones are listed through proposed project completion in 2014, and ongoing and next steps in the environmental compliance, design, and construction process are described for the duration of the SR 520 Pontoon Construction Project.

What is the preferred alternative for this project and why?

The SR 520 Pontoon Construction Project lead agencies, WSDOT and FHWA, have identified the Aberdeen Log Yard Alternative as the preferred alternative for pontoon construction. Preliminary investigations and analyses indicate that WSDOT could build a casting basin facility at the Aberdeen Log Yard site in a more economically efficient manner and with lower risk than at the Anderson & Middleton Alternative site.

WSDOT and FHWA considered many factors while evaluating the two Grays Harbor build alternative sites, and preliminary analyses indicated that the two sites were similar with respect to several environmental factors. For example, both sites are zoned for industrial use; the combined wetland and aquatic habitats (tidal mudflats) on each site are approximately 7 to 8 acres; neither site has been found to contain high levels of hazardous materials, and both sites contain a historical-period archaeological site (lumber mill works), which WSDOT has determined are not eligible for the NRHP. In addition to the mill site, there is also a complex of precontact Native American fish trap remnants on the Anderson & Middleton site, which is eligible for the NRHP; this is a differentiating factor with respect to environmental considerations.

Key factors supporting the preferred alternative are mostly engineering-based and include cost and risks. However, WSDOT acknowledges that the Anderson & Middleton site contains an NRHP-eligible, precontact archaeological site, while the Aberdeen Log Yard site does not. This further supports the preferred alternative. Key differentiating factors

What is “preferred alternative”?

The preferred alternative is the alternative that the lead agencies believe would best fulfill the project purpose and need. The preferred alternative is identified after considering the lead agencies’ statutory missions and responsibilities, as well as economic, environmental, technical, and social factors. The preferred alternative might not be ultimately selected at the end of the NEPA process.

supporting the preferred alternative are discussed in the following sections.

Project Costs and Risks

Conceptual engineering estimates indicate that constructing a casting basin facility at the Aberdeen Log Yard site would cost notably less than at the Anderson & Middleton Alternative site. Higher development costs at the Anderson & Middleton site are associated primarily with foundation requirements.

Conceptual engineering estimates indicate that a deep-pile foundation—the most reliable foundation type identified for both sites—would cost substantially less at the Aberdeen Log Yard site than at the Anderson & Middleton site because shorter piles could be used to reach the bearing layer, which is approximately 30 feet shallower than at the Anderson & Middleton site. About 2,000 to 2,500 piles would be needed for the proposed deep-pile foundation, so shorter piles would result in substantial cost savings.

WSDOT would need to install a temporary construction dewatering system at either site during site development to maintain reasonably dry working conditions.

Available geotechnical investigations indicate that dewatering at either site could pull water out of the soil over an area (zone of influence) that extends beyond the property boundaries. Potential offsite dewatering effects at both sites could include drawing in groundwater contaminated by unknown hazardous materials on nearby properties and ground settling on adjacent properties that could affect nearby infrastructure. Dewatering at the Anderson & Middleton site could have a greater effect on adjacent wetlands because there are over 25 acres of known wetlands adjacent to this site. Potential dewatering effects on wetlands would be less of an issue at the Aberdeen Log Yard site because adjacent wetlands are small (less than 0.5 acre), degraded, perched on fill, and separated from the site by ditches. The potential for ground settlement associated with dewatering would be the same at both sites, but there is a greater potential for effects on surrounding infrastructure at the Aberdeen Log Yard site.

WSDOT would implement best management practices to minimize the effects of dewatering, but further geotechnical investigations would be required to identify appropriate and reasonable measures to mitigate dewatering effects.

Cultural Resources

The lumber mill works at both of the Grays Harbor build alternative sites are considered historic-period archaeological sites, but WSDOT has determined that they are not eligible for inclusion on the NRHP. The complex of precontact Native American fish trap remnants on the Anderson & Middleton site is eligible for listing on the NRHP. Further consultation with FHWA, DAHP, and the concerned tribes would be required to determine whether the fish trap complex warrants preservation in place. Because the fish trap complex would not be affected by the current preferred alternative, this determination will not be made at this time.

How would the preferred alternative be treated in the EIS process?

WSDOT has—as allowed under Section 6002 of SAFETEA-LU—developed the preferred alternative at a higher level of detail than the other alternatives being considered. With a more detailed design, WSDOT could develop more specific mitigation measures and more easily ensure compliance with applicable environmental laws and regulations, such as Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, and Section 7 of the Endangered Species Act. The design components that WSDOT has developed to a higher level of detail for the preferred alternative, since it was identified in August 2009, include the casting basin gates, hydraulic control structure, launch channel, shoreline protection, water-handling facilities, and some site utilities.

NEPA requires that, even after a preferred alternative has been identified and additional time and resources have been used to more fully develop the preferred alternative, the lead agencies must be able to select a different alternative or the No Build Alternative, if warranted, at the end of the NEPA process. WSDOT has taken care to ensure that all alternatives in this Draft EIS have been evaluated objectively. Furthermore, provisions are included in the design-build agreement executed in January 2010 requiring that no commitments be made to a particular alternative and that all reasonable alternatives, including the No Build Alternative, continue to be considered. The design-build agreement includes termination provisions in the event that the No Build Alternative is selected.

Why might a preferred alternative be developed to a higher level of detail?

SAFETEA-LU permits the preferred alternative to be developed to a higher level of detail than the other alternatives for only the following reasons: (1) To facilitate the development of mitigation measures, or (2) To facilitate concurrent compliance with other applicable environmental laws.

What irreversible and irretrievable commitments of resources would the project involve?

Environmental resources that could be irretrievably lost as a result of the build alternatives include the irretrievable and irreversible use of both natural and built resources when constructing and operating the proposed project. Constructing a new casting basin and pontoons would result in irreversible effects to wetlands and mudflats and irretrievable use of materials and energy.

Wetlands and mudflats would be irreversibly excavated and filled under both build alternatives. Proposed excavation and fill activities would also have irreversible effects on wetlands, upland habitat, and vegetation and might result in displaced terrestrial species. Such adverse effects would be considered irreversible. Effects to aquatic species would be limited to individual animals and would not constitute an irreversible impact to any entire population. Although compensatory mitigation for wetland effects would occur at an offsite location, the onsite adverse effects would be considered irreversible.

Both Grays Harbor build alternative sites are currently developed as log sorting yards, although only the Aberdeen Log Yard site is actively used as such. Redeveloping either Grays Harbor site to an operational casting basin facility would be an irreversible commitment.

The construction materials and human effort required to construct the proposed new casting basin and pontoons would be irretrievable. Materials would include—but not be limited to—aggregate used to make concrete; steel for pilings, rebar, and pontoon forms; oil used to make asphalt; and wood used for pilings and forms. WSDOT would not anticipate any shortage of these materials resulting from the SR 520 Pontoon Construction Project.

The energy used to build the proposed new casting basin and pontoons, and to maintain the casting basin during periods of nonuse, would not be retrievable. During active construction, gasoline, oil, and electricity would be used, but construction likely would not substantially affect energy supplies.

What would be the relationship between the short-term effects and the long-term benefits of the project?

To determine whether the proposed project's long-term benefits warrant the short-term effects, this section assesses the tradeoffs between short-term effects and uses of resources and the long-term benefits. For this

What are the irreversible and irretrievable commitments of resources?

Resources are considered irretrievably or irreversibly committed when their reuse (or recoverability) for other purposes would be excluded, limited, or highly unlikely.

assessment, short term refers to time required to build the casting basin facility and the pontoons needed for the SR 520 Pontoon Construction Project and the potential use of the proposed casting basin facility to construct pontoons needed for the SR 520 Program's I-5 to Medina: Bridge Replacement and HOV Project. Based on current schedules, WSDOT projects this short-term period to extend 5 years, from 2010 and 2015. Long term refers to an indefinite period of time beyond the construction of both the new casting basin facility and foreseeable need for SR 520 pontoons.

Constructing the proposed casting basin facility and pontoons would result in potential short-term effects and uses of natural resources, some of which are listed below:

- New jobs
- Decreased revenues at businesses that depend on unimpeded access
- Increased sales at nearby businesses, such as restaurants
- Noise
- Particulate air pollution
- Increased traffic congestion
- Increased power demand
- Fish being trapped
- Water quality effects

All proposed short-term uses of and effects to natural resources would be in accordance with state and federal resource agencies' permit conditions. Furthermore, these short-term effects and uses would not occur at the expense of long-term resource productivity or availability.

The long-term benefits of the project would justify any short-term adverse effects on and uses of resources that would occur during the proposed project. The primary long-term benefit of the SR 520 Pontoon Construction Project is that WSDOT would build pontoons needed to replace the Evergreen Point Bridge in the event of catastrophic failure, and the time required to replace the bridge in the event of a catastrophic failure would be reduced from 5 years without the project to 1.5 years. If a catastrophic bridge failure occurred before the planned I-5 to Medina: Bridge Replacement and HOV Project, then having the pontoons and casting basin facility built would reduce the time required for the planned replacement of the Evergreen Point Bridge by approximately 3 years to 3.5 years.

As discussed in Chapter 1 of this Draft EIS, the Evergreen Point Bridge is a critical component of the Puget Sound region's transportation system, and the consequences of a catastrophic failure and subsequent 5-year closure would be severe. The proposed project would avoid approximately 3 to 3.5 years of the following effects:

- Impaired movement of goods and people and subsequent adverse effects on the local and regional economy
- Substantial increases in commute times, vehicle miles traveled, and use of fuel
- Increased congestion and air quality effects on alternate routes

Without the SR 520 Pontoon Construction Project, constructing a new casting basin and pontoons would be carried out under an emergency action, possibly resulting in time constraints that would reduce opportunities for cost savings and environmentally sensitive design, environmental stewardship, and avoidance and minimization of effects.

What is the current project schedule?

Constructing the new facility in Grays Harbor could begin in late 2010, and pontoon construction at the new Grays Harbor casting basin facility could begin in 2012; if used, pontoon construction at the existing CTC facility in Tacoma could also begin in late 2010. All pontoons for this project are anticipated to be complete as soon as 2014. Listed below by year are the key milestones for the SR 520 Pontoon Construction Project:

- 2009:
 - Quarter 1: Held comment period on the revised range of alternatives.
 - Quarter 2: Issued request for qualifications for the design-build contractor.
 - Quarter 3: Announced the preferred alternative; issued request for proposals for construction of new casting basin facility and pontoons.
 - Quarter 4: Awarded design-build contract.
- 2010:
 - Quarter 1: Approve design-build contractor to conduct preliminary engineering work.
 - Quarter 2: Issue Draft EIS, hold public hearing, and start 45-day comment period.
 - Quarter 3: Complete 45-day comment period on Draft EIS.
 - Quarter 4: Final EIS, Record of Decision, and construction of new casting basin facility in Grays Harbor could begin as early as fourth quarter 2010. Pontoon construction at the existing CTC facility in Tacoma, if used, could also begin as early as fourth quarter 2010.
- 2011:
 - Quarters 1 through 4: Continue construction of new casting basin facility at Grays Harbor and pontoons at CTC (if used).

- 2012:
 - Quarter 1: Continue construction of new casting basin facility at Grays Harbor and pontoons at CTC (if used).
 - Quarters 2 and 3: Finish construction of the first chamber of the new casting basin and begin pontoon construction at Grays Harbor.
- 2013:
 - Quarter 1: Complete construction of the new casting basin facility at Grays Harbor.
 - Quarters 2 through 4: Continue building pontoons at Grays Harbor.
- 2014:
 - Quarter 2: Complete pontoon construction for catastrophic failure preparedness.

Are there unresolved issues or concerns and controversy?

General Public Concerns

Overall, the SR 520 Pontoon Construction Project has received strong support from the general public and the Grays Harbor community. Some concerns, however, have been raised:

- Traffic and access issues resulting from increased truck trips
- Noise related to pile-driving and other proposed construction activities
- Project effects on sport and commercial fishing in Grays Harbor
- Future use of the site

WSDOT will continue to work closely with the public through final project design and during casting basin and pontoon construction to ensure that best management practices are used to minimize traffic and noise-related effects and effects to local fishing. WSDOT will continue to communicate to interested parties and the general public about the fate of the proposed casting-basin facility after pontoons are built for this project and the I-5 to Medina: Bridge Replacement and HOV Project.

Participating Agency and Tribal Issues

As described in Chapter 1, WSDOT and FHWA invited tribes, local jurisdictions, and federal, state, and local agencies with a potential interest in the project to serve as participating agencies throughout the environmental review process. Participating agencies were invited to comment on the purpose and need statement, the screening process used

to evaluate new casting basin facility candidate sites, and the range of alternatives. Comments received from participating agencies were fully considered by WSDOT and FHWA before a final purpose and need statement was developed and before a final decision on which alternatives to advance for full Draft EIS evaluation was made. Controversial issues and concerns raised by participating agencies are summarized below.

Port of Grays Harbor IDD #1 Site

WSDOT worked closely with the participating agencies to ensure that all reasonable alternatives were identified and fully evaluated in the Draft EIS, consistent with environmental regulations. Early in the alternatives analysis process, there was substantial controversy among participating regulatory agencies about including the Port of Grays Harbor IDD #1 site in the range of alternatives because developing a casting basin facility on the IDD #1 site would directly affect over 25 acres of federally protected wetlands. Given the availability of other feasible sites that would be less environmentally damaging to develop, however, WSDOT and FHWA decided to eliminate the IDD #1 site from further consideration. The Port of Grays Harbor and the City of Hoquiam did not express support for the dismissal of IDD #1 but did not dispute the WSDOT and FHWA decision; they continue to be strong partners supporting the environmental process and the project itself. This is no longer considered a controversial issue.

Potential Pontoon Moorage Effects

Several resource agencies, the tribes, and local environmental and fishing groups have expressed concern about the effects of pontoon moorage on fish and aquatic resources in Grays Harbor. The moored pontoons could change how sediment is transported in the vicinity, shade the sea bottom beneath the pontoons, become colonized by marine fauna such as barnacles that could cause biofouling, and interfere with nearby fishing activities. In response to these concerns, WSDOT has pursued studies to better determine potential pontoon moorage effects. The Fish and Aquatic Resources discussion of Section 3.1, Ecosystems, in this Draft EIS describes the general findings of this work, and WSDOT will continue to work closely with the appropriate resource agencies and tribes on this issue.

Launch Channel Dredging at the Aberdeen Log Yard Site

Participating agencies and interested tribes have raised concerns about the dredging required to construct the launch channel in the relatively shallow nearshore at the Aberdeen Log Yard site. Concerns include the

effects on benthic organisms, the release of contaminated sediments, altered sediment movement patterns, effects on Port of Gray Harbor's Terminal 4 facility operations from sediment transport issues and maintenance dredging, and interruptions to local and tribal fishing. WSDOT conducted studies and analyses in response to these concerns, and findings of that work are presented in Chapter 3.1.

Tribal Fishing

The Quinault Indian Nation is concerned about the project interrupting and potentially conflicting with tribal fishing in Grays Harbor. WSDOT is working closely with the Quinault Indian Nation to maintain open and frequent communications about these issues and ensure that best management practices would be implemented to minimize project effects on tribal fishing. During the project, WSDOT would work with the Quinault Indian Nation to schedule and notify fishers of upcoming in-water activities, such as floating the pontoons out of the casting basin.

Native American Fish Traps on the Anderson & Middleton Site

A precontact Native American fish trap complex present on the Anderson & Middleton site is eligible for listing on the National Register of Historic Places. Further consultation with FHWA, the DAHP, and the identified concerned tribes would be required to determine whether the fish traps warrant preservation in place. WSDOT would pursue this determination if the Anderson & Middleton Alternative was ultimately selected.

What are the next steps for this project?

WSDOT will continue preliminary engineering and design work for the proposed project. WSDOT will continue to work closely with participating agencies and tribes to avoid and minimize environmental effects.

WSDOT might pursue additional environmental analysis, if warranted, to better inform the alternatives analysis, decision-making, and mitigation planning, or to address concerns raised by interested parties. Technical discipline reports and memoranda (appended to this Draft EIS) would be updated to include the results of such analysis, and results would also be presented in the Final EIS.

WSDOT will review all comments received during the 45-day comment period for this Draft EIS and consider further analysis, including additional or revised information in the Final EIS, and design changes as appropriate to respond to comments. Comments received on this Draft

EIS will be presented and responded to in the Final EIS and considered before the Record of Decision is issued.

After the Record of Decision is issued, WSDOT will move into the final design and permitting phase and then into construction. WSDOT will continue to coordinate with the public, participating agencies, and interested tribes throughout casting basin construction and operation.