



## Chapter 8: Other Considerations

*The National Environmental Policy Act (NEPA) requires agencies responsible for highway projects to analyze a number of “big-picture” effects of these projects that extend beyond the immediate confines of the roadway right-of-way. These include:*

- *Adverse effects that cannot be mitigated*
- *Irreversible decisions that would be made, or irretrievable resources committed, to building the project*
- *Tradeoffs between the short-term use of environmental resources and long-term benefits from the project*
- *Areas of controversy remaining to be resolved*

*This chapter discusses each of these topics for the SR 520, I-5 to Medina: Bridge Replacement and high-occupancy vehicle (HOV) Project.*

### 8.1 Are there any adverse effects that cannot be mitigated?

Many infrastructure projects—even projects that provide substantial public benefit, like this one—have some unavoidable negative effects on the natural and/or the human environment. WSDOT is strongly committed to avoiding, minimizing, and mitigating such effects whenever possible; previous chapters of this document include information about how project design has avoided and minimized impacts and about the mitigation measures that could be used when avoidance is not feasible. Nevertheless, the SR 520, I-5 to Medina project would have several adverse effects that are not possible to mitigate completely. These include:

- Destruction of the existing Evergreen Point Bridge, which is eligible for the National Register of Historic Places and the Washington State Historic Register. Although WSDOT would mitigate the removal of the bridge through photo documentation and other measures, it would no longer exist after completion of the project.

- Additional fill and shading in and over habitat in Portage Bay and Lake Washington. These effects would be greatest under Options K and L, which would involve wider structures within the nearshore aquatic environment to construct the new single-point urban interchange (SPUI). Option K would have the largest in-water effect: a 2.7-acre wedge of fill in the nearshore area of Union Bay, just east of the Montlake shoreline. While these effects would be mitigated, the existing habitat would be altered.
- The visual effects of the wider roadway and larger structures. Under the Preferred Alternative and all SDEIS options, SR 520 would be considerably wider throughout the corridor and somewhat higher across and east of Washington Park Arboretum (except under Option K). Option L, and potentially Option A, would be lined with noise walls in most locations other than the Evergreen Point Bridge. SR 520 would look considerably different than it does today. While the new structures would include architectural treatments to enhance their aesthetics, some people would likely consider at least some of the visual changes created by the new structures adverse. Options K and L would have greater visual effects than the Preferred Alternative and Option A in the Montlake and Arboretum areas because of the new interchanges.
- The need to pay tolls to cross the Evergreen Point Bridge. If the SR 520 project is built, drivers would have to pay to use the Evergreen Point Bridge for a longer period of time than if the bridge were not replaced. While drivers would be receiving the benefit of a new, safer bridge and a more reliable commute in return for the payment, the toll would be a hardship for some lower-income people who are unable to use transit or take other routes.
- Construction and operation of the project would affect access to usual and accustomed fishing areas of the Muckleshoot Indian Tribe. The multi-year construction period would also affect fish habitat in the project area. WSDOT is working with the Muckleshoot Tribe on avoidance, minimization, and mitigation of effects on tribal fishing.
- The project would create a wider footprint for SR 520 across Foster Island, a traditional cultural property. In addition, Foster Island and other nearby areas have a high probability for the discovery of archaeological sites. The Preferred Alternative minimizes effects on Foster Island, and archaeological investigations did not identify any cultural resources in the areas that would be excavated for bridge piers. However, the area still holds considerable importance in light of its historic and prehistoric use, and the potential exists to encounter an unidentified site. WSDOT is working with the Department Archeology of Historic Preservation (DAHP) and the affected tribes to develop mitigation measures for the project's effects on the traditional cultural properties (TCP), as well as measures to be taken if cultural resources are discovered during project construction.

- Effects from construction that would span a period of years. Option K would have the longest construction time frame and the Preferred Alternative and Option A the shortest. The primary adverse construction effects include work bridges in Portage Bay and Union Bay, closure of the Lake Washington Boulevard ramps during construction, closure of a portion of Pacific Street under Options K and L, and closure of the Delmar Drive East bridge under the SDEIS options (it would remain open under the Preferred Alternative). Construction of Options K and L could add cumulative construction effects to those of Sound Transit's University Link light rail station and projects proposed under the University of Washington's master plan. Early action projects that may help improve traffic flow during construction will be considered during final design. WSDOT would work with Metro Transit and Sound Transit to find ways to minimize adverse effects on transit service if Option K or L were ultimately selected.
- More restricted navigation on Lake Washington. If the floating span of the Evergreen Point Bridge is replaced, the new bridge would not include a drawbridge. Thus, vessels taller than 70 feet would no longer be able to travel south of SR 520. This would be about the same as the current restriction on navigation south of the I-90 bridge across Lake Washington. Based on the extremely infrequent use of the SR 520 drawspan during recent years, this should not be a substantial hardship on people using the lake for recreational or commercial activities.

## 8.2 What irreversible decisions or irretrievable resources would be committed to building the project?

Some resources would be irretrievable after the project was completed, including the physical materials used to build the project: aggregate to make concrete and asphalt, steel to make rebar and structures, oil to make asphalt, and fill material. These are finite resources, but they are not currently in short supply. Some excavated soils not reused for the new roadway would be disposed of at landfills, and the space used for these soils would not be available for other wastes. However, there is adequate landfill space available to accommodate all wastes that project-area communities will dispose of for the foreseeable future.

The energy used to build the project and keep it operating would not be retrievable. Energy that would be consumed includes the gasoline used by cars to drive on the roadway; the electricity needed to keep lights and electrical systems running; and gasoline, oil, and electricity needed for construction. Project construction is not expected to have a substantial effect on energy sources or fuel available in the region or the state.

### 8.3 What are the tradeoffs between the short-term uses of environmental resources and long-term gains (or productivity) from the project?

Another way of phrasing the question above is to ask whether the project's long-term benefits make it worth the short-term disruption and resource use involved in building it. The short-term cost of replacing the bridge and improving the nearby roadway would be a number of years of construction, which would create some level of noise, dust, and traffic congestion; even with the most careful planning and the most diligent use of mitigation measures. The long-term cost of not replacing the bridge, however, would be much greater: higher traffic congestion, regional economic effects, reduced quality of life in project area neighborhoods, and the increasing likelihood that high winds or an earthquake could destroy the Portage Bay and/or Evergreen Point bridges. The potential consequences range from severe regional traffic disruption to injury and loss of life.

For more than 45 years, SR 520 has been a vital artery in the Puget Sound region's transportation system, carrying over 100,000 vehicles across Lake Washington each day. It connects the major commercial centers on the Eastside with downtown Seattle, a connection that takes on increasing importance as Eastside businesses play larger roles in the state's economy. The importance of SR 520 to this area comes into focus when we think of its recent closures due to windstorms. When this occurs during peak commute hours, traffic seeking alternate routes creates gridlock up and down I-5 and I-405 as well as across I-90. Building safe, reliable, well-designed replacement bridges now will avoid the prospect of losing the existing bridges to an act of nature. By improving mobility and providing dedicated HOV lanes for transit and carpools, the project will allow more people to travel in fewer vehicles, reducing air emissions and supporting regional goals for increased use of transit. It will improve water quality in Lake Washington by treating stormwater that currently runs off the highway untreated. It will also create new park area in Seattle with a net increase in Section 6(f) lands, provide funding to implement elements of the Arboretum Master Plan, and reconnect communities with two large new lids across the highway.

### 8.4 Do any areas of controversy remain to be resolved?

Like most projects of its magnitude, the SR 520, I-5 to Medina project has generated controversy in several areas. WSDOT has actively worked with tribes, agencies, elected officials, and members of the public to resolve the issues identified in the SDEIS. These issues and WSDOT's work to resolve them are discussed below.

## Design Options Considered

The SR 520 mediation process did not result in a single preferred design option for Seattle, as intended, but three separate design options. Each option represented a different set of choices and priorities for moving traffic and minimizing effects on neighborhoods. When the legislative workgroup convened under Engrossed Substitute House Bill (ESHB) 2211 identified Option A+ as its preferred design for the corridor, some residents of communities adjacent to SR 520 were strongly opposed to this choice. The Preferred Alternative addresses many of the public comments received on the SDEIS, including concerns regarding the design of Option A. However, continuing public input indicates that there is still controversy regarding decisions made during the mediation process and the legislative workgroup.

Although there was not a formal request for its analysis in the SDEIS comments, several commenters suggested that Option M, which was proposed by the former supporters of Option K during the legislative workgroup process, was dropped without sufficient consideration. Option M had a similar alignment to Option K, but substituted a dredged tunnel across the Montlake Cut for the excavated tunnel included in Option K. As described in Chapter 2, WSDOT's evaluation of Option M at that time indicated that it was not a reasonable alternative. See also Chapter 2 under the heading "ESHB 2211 and the SR 520 Legislative Workgroup." However, some people still feel strongly that a tunnel is the best choice for providing additional capacity under the Montlake Cut.

## Resource Agency and Tribal Concerns

Several resource agencies and the Muckleshoot Indian Tribe identified concerns with the effects of the design options considered in the SDEIS on the natural environment. Some of the key issues they raised were the effects of low bridge profiles through the west approach and the amount of in-water filling that would be required for Option K. These design features may result in difficulties with permitting the design options if modifications are not made to address agency concerns. The Preferred Alternative has a higher bridge profile in the west approach area than any of the SDEIS options, and minimizes the amount of in-water fill. Work with agency and tribal representatives during the Natural Resources technical working group (TWG) following the SDEIS (see Chapter 1) has helped to address agency and tribal concerns and identify appropriate mitigation for the Preferred Alternative. However, if Option K or L were chosen, or if the project design were to change significantly, these concerns could pose difficulties in the permitting process.

## 4-Lane Alternative

Despite the findings of the Governor and State Legislature that the 6-Lane Alternative is the best solution for the region, some controversy still exists regarding the optimum number of lanes in the SR 520 corridor.

Commenters on the SDEIS suggested evaluation of a “transit-optimized” 4-Lane Alternative, which they believed would provide sufficient capacity on SR 520 if higher tolls were imposed and additional transit service provided. An explanation of why this alternative was not evaluated is included in Chapter 2.

## Initial Implementation of Light Rail Transit

Following publication of the SDEIS, Seattle Mayor Mike McGinn and some community members argued that WSDOT should have planned for implementation of light rail transit on SR 520 concurrent with project completion in 2018. A consultant report commissioned by the Mayor (Nelson/Nygaard Consulting Associates 2010) also stated that Option A as then designed would preclude the future construction of light rail. The Preferred Alternative contains several design changes to improve future light rail compatibility; Chapter 2 explains why immediate implementation of light rail on SR 520 is not being considered further. However, there may continue to be public interest in this concept.