

CHAPTER 1 SUMMARY

What is the purpose of this Environmental Assessment?

The purpose of this Environmental Assessment (EA) is to provide information to the public about a project's environmental effects; determine whether a proposed action has the potential to significantly affect the quality of the environment; and describe the measures that will be implemented to avoid, minimize, or mitigate project effects. The EA compares two alternatives: the Build Alternative and the No Build Alternative.

The EA fulfills the Washington State Department of Transportation's (WSDOT's) obligation under the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) to disclose project effects and mitigation. Following the public comment period, if the Federal Highway Administration (FHWA) determines that the project would have no significant effects, a Finding of No Significant Impact (FONSI) document will be prepared, which will conclude the environmental review process. Upon final approval, the project will move into the construction phase. Construction of the project will take place over several years as funding becomes available.

How is the EA organized?

- Chapters 2 and 3 of the EA explain why the project is needed, provide background information about the alternatives that were developed for the project, and describe the public outreach and agency coordination efforts that have occurred or are planned.
- Chapter 4 provides a detailed description of what the project will build and improve.
- Chapter 5 discusses the affected environment and the potential effects of the Build Alternative and No Build Alternative by individual element.
- Chapter 6 presents the proposals for avoiding, minimizing, or mitigating the potential effects identified in Chapter 5.

- The appendices provide all of the technical documents that contributed information to the EA.

Where is the project located?

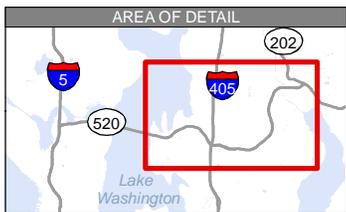
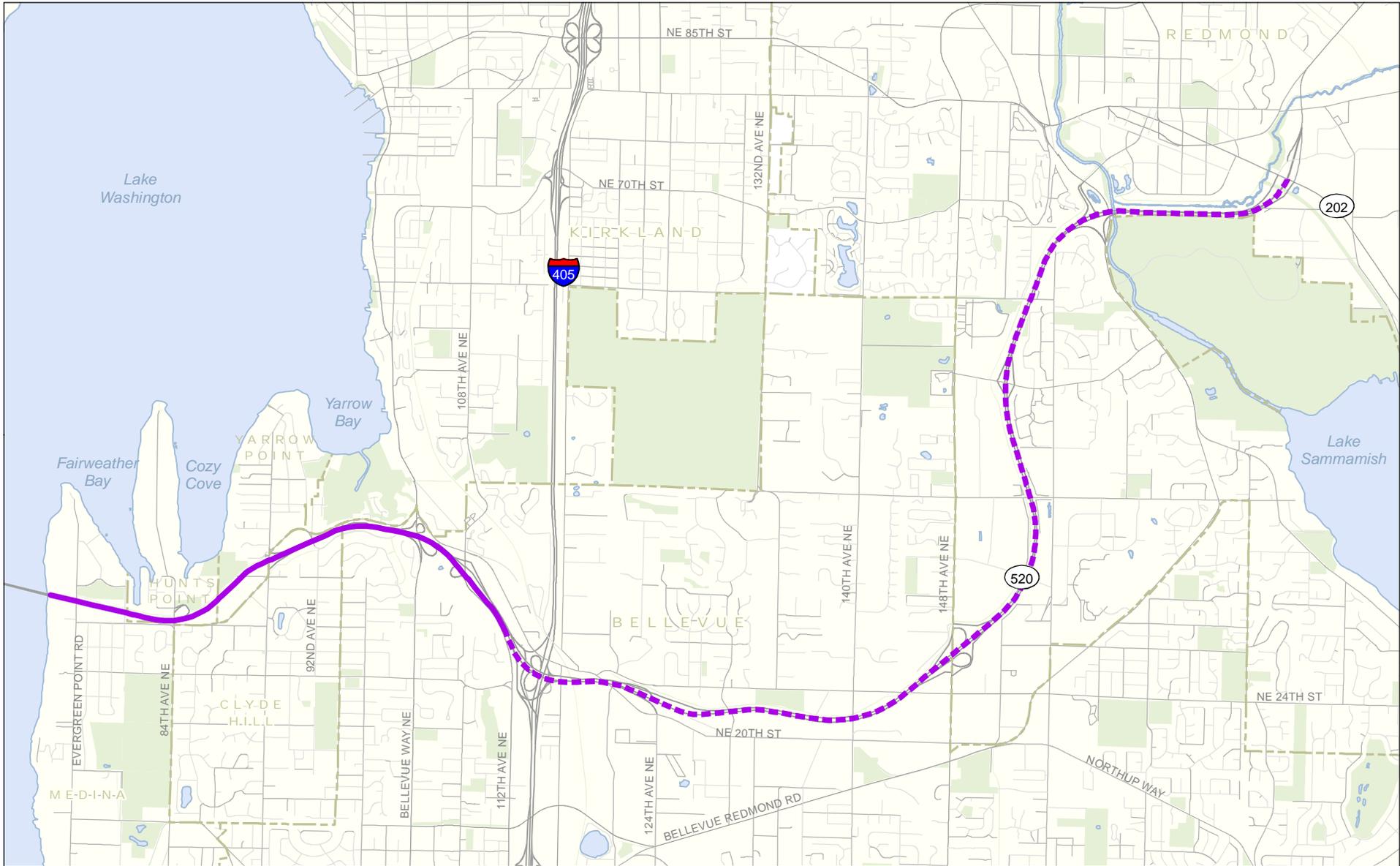
The limits of the SR 520, Medina to SR 202: Eastside Transit and HOV Project (project) extend approximately 8.8 miles along State Route (SR) 520 from the east shore of Lake Washington at approximately milepost 4.0 (Evergreen Point Road) to the interchange with SR 202 in Redmond at approximately milepost 12.8. The project spans the communities of Medina, Hunts Point, Clyde Hill, Yarrow Point, Kirkland, Bellevue, and Redmond (hereafter collectively referred to as the Eastside). Exhibit 1-1 shows the project vicinity.

What is the project?

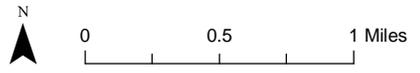
The project includes building a complete high-occupancy vehicle (HOV) system between Lake Washington and 108th Avenue NE and restriping the existing HOV lanes from the outside lanes to the inside between the 108th Avenue NE interchange and SR 202 in Redmond. The project will provide six lanes (four general-purpose lanes and two HOV lanes) from just west of Evergreen Point Road to SR 202. New construction between Evergreen Point Road and I-405 will add a new eastbound HOV lane and provide standard 10-foot-wide shoulders both eastbound and westbound. The project will also rebuild or improve the existing interchanges and crossings from Evergreen Point Road to 108th Avenue NE. The project design includes several elements that will provide environmental benefits, including noise walls and landscaped lids, improved fish passage facilities at stream crossings, and new stormwater management and treatment facilities.

Why is WSDOT proposing to build this project?

FHWA and the WSDOT are proposing to construct the project to enhance travel time reliability, mobility, access, and safety for transit and HOVs in rapidly growing areas along the SR 520 corridor east of Lake Washington.



- Construction Extent
- - - Restriping Extent
- Park
- City Limits



Source: King County (2008) GIS Data (Streams, Streets, Water Bodies), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91), vertical datum for layers is NAVD88.

Exhibit 1-1. Project Vicinity
 Medina to SR 202: Eastside Transit and HOV Project

When will construction begin and how long will it take?

If fully funded, it is anticipated that the project will begin as early as the winter of 2010, with major construction beginning in spring 2011. WSDOT plans to complete the project prior to the proposed opening of the Evergreen Point Bridge, which is planned for in 2014. Because it is anticipated that this project will be design-build, the contractor will have the opportunity to modify this approach with prior approval from WSDOT. If the project is not fully funded, the project will be constructed in phases as funds become available.

What is a design-build project?

A design-build project provides contractors with the flexibility to offer innovative and cost-effective alternatives to deliver the project, while complying with WSDOT design standards and protecting the environment. The design-builder determines specifics of the project such as construction stages, how construction will occur, and location of construction staging areas.

WSDOT has identified a likely construction staging sequence for the project with different stages focusing on different areas and project elements. To the extent possible, in-water work and stream realignment have been promoted to earlier construction stages to avoid ongoing conflicts between natural resources and the roadway and to provide environmental enhancements as early in the project as practicable. The project will include five major stages. For more information about construction, see Appendix F, Description of Alternatives and Construction Techniques.

How is tolling addressed in the SR 520 corridor?

Tolling legislation was enacted by the Washington State Legislature (ESHB 2211) in May 2009. This legislation authorizes tolling on the Evergreen Point Bridge and tolling will begin sometime between late 2010 and early 2011 on the floating bridge only. The 520 corridor will use all-electronic tolling, meaning that there will be no toll booths at all. Drivers on SR 520 will be able to cross without stopping to pay, allowing more traffic to flow at normal highway speeds. This project is part of the Lake Washington Urban Partnership. FHWA and the Federal Transit Administration analyzed the Lake Washington Urban Partnership Environmental Assessment and other project documents, and on June 5, 2009 WSDOT issued a FONSI for this project. ESHB 2211 provides that if the tolls on the SR 520 corridor significantly alter the performance of nearby facilities (for example, I-90), the legislature will reconsider the tolling policy for the corridor.

At this time it is not anticipated that tolls would be required for vehicles using the SR 520, Medina to SR 202: Eastside Transit and HOV Project between Medina and SR 202 in Redmond. Since the Build Alternative is not proposing tolling, it is not included in the baseline assumptions for this project. However, tolling on the SR 520 corridor is considered as a reasonably foreseeable future action for the purposes of evaluating cumulative effects associated with the SR 520, Medina to SR 202: Eastside Transit and HOV Project and acknowledged in the cumulative effects section in Chapter 5.

How will the project affect the environment?

The analyses described in this EA support the conclusion that the project will have no significant adverse effect on the environment. A summary of the key findings of the evaluation of the project's environmental effects is provided below. Additional detail about the potential environmental effects of the project may be found in Chapter 5. The technical memoranda and discipline reports that describe the evaluations of environmental effects are provided in Appendices G through U.

Air Quality. The project is not expected to cause or contribute to any new violation of the National Ambient Air Quality Standards. The project is expected to have a low potential for mobile source air toxic emissions. Any air quality effects related to project construction will be temporary. Best management practices (BMPs) will be implemented to avoid or minimize any construction-related air quality effects. Dust and odors may be present during construction, but after implementing construction BMPs, these effects will be minor and temporary. Additional information may be found in Appendix G, Air Quality Technical Memorandum.

Environmental Justice. Low-income and minority populations live within the study area, but WSDOT does not anticipate that project construction or operation will have high and adversely disproportionate effects on low-income or minority populations.

The study area is within the "usual and accustomed" fishing area of the Muckleshoot Indian Tribe. WSDOT will continue to work with the Muckleshoot Indian Tribe to avoid, minimize, or mitigate adverse effects. Additional detail may

be found in Appendix H, Environmental Justice Technical Memorandum.

Geology and Soils. The proposed project will have minimal effects on the geology and soils in the study area. There are several hazards in the study area, including unstable slopes, areas of potential liquefaction, and historic landslides. These hazards will be taken into account during design and construction of the project to minimize the effects.

The project will result in changes in soil conditions as materials are removed to accommodate project elements (e.g., retaining walls) or as soils are moved or placed to improve performance of project elements. Construction activities on steep slopes and through areas with known or suspected past landslides will use appropriate engineering and construction techniques developed to minimize landslide hazards. Additional detail may be found in Appendix I, Geology and Soils Technical Memorandum.

Hazardous Materials. No unavoidable negative effects relating to hazardous materials or human health due to contamination are expected as a result of construction or operation of the project. The most likely project effects associated with hazardous materials include encountering contaminated soils and groundwater, potentially generating hazardous building material waste through demolition, encountering underground storage tanks or leaking underground storage tanks, creating accidental spills, and addressing worker safety and public health issues. In the event that contaminated soil or groundwater is encountered, WSDOT will adhere to standard mitigation measures for addressing hazardous materials. Additional detail may be found in Appendix J, Hazardous Materials Technical Memorandum.

Cultural Resources. The project is not likely to adversely affect any significant historic or archaeological resources. Several aspects of the project will have beneficial effects on historic properties adjacent to the roadway. These include noise walls incorporated into the project design to reduce road noise, and landscaped lids that will enhance the setting of historic properties. Additional detail may be found in Appendix K, Cultural Resources Technical Memorandum.

Ecosystems. The project is designed to avoid effects to ecosystems to the greatest extent practicable. In all cases where temporary or permanent effects on ecosystems are unavoidable, mitigation will be implemented in accordance with applicable local, state, and federal regulations to compensate for affected resources.

The project will temporarily disturb approximately 1.6 acres of wetlands and 0.9 acre of wetland buffer, and permanently fill approximately 7.0 acres of wetlands and 1.7 acres of wetland buffer. The project will result in a gain of 980 linear feet of open channel habitat within fish-bearing streams, including opening up approximately 860 linear feet of stream channel currently in culverts, principally in the Yarrow Creek basin. These improvements will result in a substantial net increase in both instream habitat quality and quantity within the study area.

The project will temporarily disturb approximately 14 acres of wildlife habitat and 3.0 acres of riparian buffer. A total of approximately 65 acres of wildlife habitat and 1.7 acres of riparian buffer will be permanently disturbed by the project. Most of these effects will occur to roadside deciduous and coniferous trees and ornamental trees and lawns. Noise walls constructed as part of the project will reduce noise disturbance to urban-adapted species in the study area.

Construction activities could temporarily disturb in-water sediments and fish passage, affecting fish and aquatic species and their habitats. These effects will be avoided, minimized, and mitigated through the use of BMPs. Once completed, the project will provide improvements in fish passage and stream alignments, resulting in substantial long-term benefits to habitat quality and quantity for fish and aquatic species. Additional detail may be found in Appendix L, Ecosystems Discipline Report.

Energy. Energy will be consumed during construction of the project by activities such as site preparation, equipment operation, and construction lighting. The amount of energy consumed during construction, and the amount of greenhouse gases produced as a result of energy consumption, will depend on the equipment used and the construction methods chosen. WSDOT will adhere to construction BMPs that encourage efficient energy use. Energy will also be consumed

during operation of the project due to fuel consumption by cars, heavy trucks, and transit buses as they travel the 520 corridor. Based on the precision of the methodology used to estimate emissions during operation of the project once complete, its contribution to greenhouse gas emissions would be similar to what could be expected if the project were not built. Additional detail may be found in Appendix M, Energy Technical Memorandum.

Land Use, Economics, and Relocation. To construct the project, 10 parcels will need to be fully acquired, and 23 parcels will either be partially acquired or encumbered by permanent easement, for a total of approximately 9.4 acres. An additional 1.3 acres will be temporarily affected during construction. This represents only a fraction of the total land within the study area and will result in only minor changes in land use. WSDOT will provide fair compensation and relocation assistance for people and businesses.

Construction of the project could have minor short-term effects on properties and businesses in the study area, including increased noise, dust, traffic, odor from equipment operations, and/or glare from construction lighting. The project would result in 2,480 direct, indirect, and induced jobs during the peak year of construction (estimated 2012) and a total of 7,326 person-year jobs. A person-year job is equivalent to one person employed for one year.

Once completed, the project will improve traffic circulation and access and reduce congestion in the study area. This will attract customers from a broader geographic area and shorten the commute time for employees of local businesses, resulting in a small improvement in the economic prospects of businesses in the SR 520 corridor. The additional right of way needed to construct the project will be removed from local jurisdictions' tax bases, which will result in a minor decrease in tax revenues. Additional detail may be found in Appendix N, Land Use, Economics, and Relocation Technical Memorandum.

Noise. Project construction will temporarily increase noise levels in some areas. WSDOT has incorporated measures to minimize construction noise. Noise walls have been incorporated into the project design. These features will substantially reduce traffic noise throughout the SR 520

corridor. Additional detail may be found in Appendix O, Noise Technical Memorandum.

Social Elements. Social elements include community cohesion; regional and community growth; community services; recreational resources; and pedestrian, bicycle, and transit facilities. Communities in the study area could experience temporary effects from construction activities, including increases in noise and dust, visual quality effects from construction activities, and glare from construction lighting. The project will be constructed in stages, which will lessen the amount of time any individual area is disturbed. Once completed, the project will provide a variety of benefits to communities along the SR 520 corridor. These include decreased traffic noise, improved emergency response times, improved traffic circulation and access, and new and improved opportunities for community interaction and recreation. Additional detail may be found in Appendix P, Social Elements Technical Memorandum.

Transportation. Construction of the project will result in temporary effects to travel along the SR 520 corridor. These effects might include reduced speed limits, reduced lanes on arterial streets, temporary closures of lanes or transit stops, or limited freeway access from some arterials. The project will relieve existing design constraints (e.g., narrow shoulders) and improve traffic operations and safety along the SR 520 corridor. The project will improve transit and carpool access between the local street system and SR 520, improve the reliability of HOV travel, and provide HOV infrastructure and HOV operational improvements needed to support future anticipated growth in transit services in the study area. The project also includes new facilities that will improve and promote bicycle and pedestrian connections and enhance nonmotorized travel in the project area. The project will result in the loss of approximately 32 parking spaces from two locations. Additional detail may be found in Appendix Q, Transportation Discipline Report.

Visual Quality and Aesthetics. Project construction will result in noticeable changes to visual quality wherever demolition and construction occur. WSDOT will follow BMPs for minimizing visual effects of construction activities. Configuration and operation of the project could affect

structures, vegetation, and views and create new sources of shadow, glare, or light. Throughout the study area, bands of vegetation on both sides of SR 520 will be temporarily or permanently removed by widening of the roadway, which will alter views of motorists and residents with close views of the roadway. WSDOT has incorporated approaches based on an extensive collaboration process with local jurisdictions and community members to minimize project effects on visual quality in the project design, and will adhere to all applicable aesthetic design guidelines and visual quality standards. Additional detail may be found in Appendix R, Visual Quality and Aesthetics Technical Memorandum.

Water Resources. Water resources could be temporarily affected during project construction. Construction activities such as replacing culverts or installing retaining walls could temporarily alter the quality or flow of surface water or groundwater in the study area. Prior to the start of construction, a temporary erosion and sediment control plan (TESC) and fugitive dust plan will be developed to determine the appropriate BMPs to be selected and installed during construction.

WSDOT will meet the criteria of the 2008 *Highway Runoff Manual* (WSDOT 2008a), which is considered equivalent to the Washington State Department of Ecology's (Ecology's) *Stormwater Management Manual for Western Washington* (Ecology 2005) within WSDOT right of way. The completed project will add approximately 24.2 acres of new pollution-generating impervious surface (PGIS) to the study area. This PGIS, combined with the existing 38.1 acres of PGIS in the study area, will result in a total of 62.3 acres of PGIS that will be treated for flow control and pollutants. The project will have minimal or no effect on groundwater. Additional detail may be found in Appendix S, Water Resources Discipline Report.

Section 4(f) Resources. Section 4(f) resources within the study area include the Points Loop pedestrian/bicycle trail, four parks, and three historic properties eligible for listing in the National Register of Historic Places (NRHP). Construction and operational activities of the proposed project will meet the *de minimis* effect criteria for the Points Loop Trail, for two of the parks (Fairweather Park and Wetherill Nature Preserve).

Additionally, there will be temporary occupancy, but no Section 4(f) use of the two other parks located in the study area (Hunts Point Park and Yarrow Bay wetlands). Additional detail may be found in Appendix T, Section 4(f) Technical Memorandum.

Indirect and Cumulative Effects. It is unlikely that the project will have adverse indirect or cumulative effects. Additional detail may be found in Appendix U, Indirect and Cumulative Effects Technical Memorandum.

SR 520, MEDINA TO SR 202: EASTSIDE TRANSIT AND HOV PROJECT
ENVIRONMENTAL ASSESSMENT