CHAPTER 1

Project Purpose and Need

This chapter describes the primary objectives for the I-5 Columbia River Crossing (CRC) project.

CHAPTER CONTENTS

1.1 Importance of the I-5 Corridor and the Columbia River Crossing

As the only continuous north-south Interstate on the West Coast connecting the Canadian and Mexican borders, Interstate 5 (I-5) is vital to the local, regional, and national economy. At the Columbia River, I-5 provides a critical connection to two major ports, deep-water shipping, up-river barging, two transcontinental rail lines, and much of the region's industrial land. Truck-hauled freight movement onto, off of, and over the I-5 Columbia River crossing is critical for these industrial centers and to the regional and national economies.

The I-5 crossing provides the primary transportation link between Vancouver and Portland, and the only direct connection between the downtown areas of these cities. Residents of Vancouver and Portland drive, ride buses, bike, and walk across the I-5 bridges for work, recreation, shopping, and entertainment purposes. On average, 135,000 trips over the I-5 bridges occur each day. The I-205 crossing, about five miles east, is the only other highway crossing over the Columbia River within the metropolitan region, but it serves more as a suburban bypass.

1.2 Developing the Purpose and Need for the I-5 Columbia River Crossing Project

Defining the Purpose and Need for a project such as CRC is a crucial step in designing and evaluating alternatives. The Purpose and Need for this project was developed by relying on previous planning studies, solicitation of public input, and coordination with stakeholder groups.

CRC Task Force

The 39-member CRC Task Force is composed of leaders representing a broad cross section of Washington and Oregon communities. Public agencies, businesses, civic organizations, neighborhoods, and freight, commuter, and environmental groups are represented on the Task Force. This group meets regularly to advise the CRC project team and provide guidance and recommendations at key decision points. The Public Involvement Appendix of this DEIS lists task force members.

More than a decade of planning and prior studies have evaluated transportation deficiencies in the I-5 CRC project area. These studies have identified a variety of transportation mobility and safety problems, many of which have been passed on to the I-5 CRC project to correct.

High-capacity transit in the I-5 corridor through north Portland and Vancouver has been studied periodically for over a decade. In 1993, the Federal Transit Administration (FTA), in cooperation with Metro, began studying high-capacity transit in the "South/North Corridor," which stretches from Clackamas and Milwaukie, Oregon to Vancouver, Washington. FTA and Metro published the South/North Corridor Project Draft Environmental Impact Statement in 1998. This document identified a variety of alignments and length options for a light rail corridor connecting Milwaukie, downtown Portland, north Portland, and downtown Vancouver.

More recently, in 2001, the Washington and Oregon governors appointed a bi-state task force of 28 community members, business representatives, and elected officials to address concerns about congestion on I-5 between Portland and Vancouver. This task force developed a plan to improve transportation in the I-5 corridor between the I-405 interchange in Portland and the I-205 interchange north of Vancouver (Exhibit 1.2-1), and adopted the Final Strategic Plan on June 18, 2002. The following recommendations were produced from this Plan:

- Expand I-5 to include three through-lanes in each direction, including the area through Delta Park.
- Introduce a phased light rail loop in Clark County in the vicinity of the I-5, SR 500/Fourth Plain, and I-205 corridors.
- Provide an additional bridge or a replacement crossing for the I-5 crossing of the Columbia River, with up to two additional lanes for merging traffic and two light rail tracks.
- Improve interchanges and add merging lanes between SR 500 in Vancouver and Columbia Boulevard in Portland, including a full interchange at Columbia Boulevard.
- Improve capacity for freight rail.
- Encourage bi-state coordination of land use and transportation issues to reduce highway demand and protect corridor investments.
- Involve communities along the corridor to ensure that final project outcomes are equitable.

Several of these recommendations were passed on to the I-5 CRC project for further consideration.

Public and stakeholder input also played an important role in the development of this project's Purpose and Need. Beginning in early 2005, and concentrated in the fall of 2005, the CRC project worked with stakeholder groups and held public meetings to solicit feedback on how the overall goals and objectives of this project should be defined.

The CRC project worked with the community to form the CRC Task Force (see sidebar) as a broad group of stakeholders representative of the range of interests affected by the project. This group has met regularly with the CRC project team to provide advice and recommendation on all

project milestones thus far. Meetings with this group throughout 2005 and into early 2006 provided important input during the formation of the Purpose and Need statement. In addition, a series of public Open Houses during the fall of 2005 provided more input from the public regarding how the project should define its goals and objectives.

The CRC project also worked with many other local, state, and federal agencies to ensure that the purpose of this project would not conflict with other local and regional goals and would not predispose itself to an alternative that would be difficult for agencies to permit or approve. Section 1.4 provides more detail on how this project has worked with local, state, and federal agencies in compliance with current federal regulations. The federal co-lead agencies for this project, Federal Transit Administration (FTA) and Federal Highway Administration (FHWA), were also instrumental in the development of the project's Purpose and Need. Appendix A provides further details, describing the agencies this project is working with and the coordination processes with this diverse group.

Ultimately, the preceding transportation planning studies of the CRC project area provided the underlying scope of this project, while coordination with stakeholder groups, the public, and a variety of local, state, and federal agencies provided important input on how this project should define why it is being imitated and what problems it seeks to address.

1.3 Purpose and Need for the I-5 Columbia River Crossing Project

One of the first and most important steps of any major project is to define why the project has been initiated, and what problem(s) it seeks to address. The Purpose and Need statement provides this definition for all projects complying with the National Environmental Policy Act (NEPA), and serves as the basis for defining how alternatives will be developed and measured. A reasonable alternative must address the needs specified in the Purpose and Need statement for the alternative to be considered in a draft environmental impact statement (DEIS), making the purpose and need an influential statement that guides all future development of the project.

The Purpose and Need statement developed by CRC Task Force and the project co-lead agencies is provided below.

Project Purpose

The purpose of the proposed action is to improve Interstate 5 corridor mobility by addressing present and future travel demand and mobility needs in the Columbia River Crossing Bridge Influence Area (BIA). The BIA extends from approximately Columbia Boulevard in the south to SR 500 in the north (Exhibit 1.2-1). Relative to the No-Build Alternative, the proposed action is intended to achieve the following objectives: a) improve travel safety and traffic operations on the Interstate 5 crossing's bridges and associated interchanges; b) improve connectivity, reliability, travel times and operations of public transportation modal alternatives in the BIA; c) improve highway freight mobility and address interstate

Exhibit 1.2-1

CRC Project Area and Bridge Influence Area

DIMENSIONS ARE APPROXIMATE.

The Bridge Influence Area (BIA) encompasses the I-5 corridor within the CRC project area.

travel and commerce needs in the BIA; and d) improve the Interstate 5 river crossing's structural integrity.

Project Need

The specific needs to be addressed by the proposed action include:

- **Growing Travel Demand and Congestion:** Existing travel demand exceeds capacity in the I-5 Columbia River crossing and associated interchanges. This corridor experiences heavy congestion and delay lasting 2 to 5 hours during both the morning and afternoon peak travel periods and when traffic accidents, vehicle breakdowns, or bridge lifts occur. Due to excess travel demand and congestion in the I-5 bridge corridor, many trips take the longer, alternative I-205 route across the river. Spillover traffic from I-5 onto parallel arterials such as Martin Luther King Boulevard and Interstate Avenue increases local congestion. The two crossings currently carry over 260,000 trips across the Columbia River daily. Daily traffic demand over the I-5 crossing is projected to increase by 40 percent during the next 20 years, with stop-and-go conditions increasing to at least 10 to 12 hours each day if no improvements are made.
- **Impaired freight movement:** I-5 is part of the National Truck Network, and the most important freight freeway on the West Coast, linking international, national and regional markets in Canada, Mexico and the Pacific Rim with destinations throughout the western United States. In the center of the project area, I-5 intersects with the Columbia River's deep water shipping and barging as well as two river-level, transcontinental rail lines. The I-5 crossing provides direct and important highway connections to the Port of Vancouver and Port of Portland facilities located on the Columbia River as well as the majority of the area's freight consolidation facilities and distribution terminals. Freight volumes moved by truck to and from the area are projected to more than double over the next 25 years. Vehicle-hours of delay on truck routes in the Portland-Vancouver area are projected to increase by more than 90 percent over the next 20 years. Growing demand and congestion will result in increasing delay, costs and uncertainty for all businesses that rely on this corridor for freight movement.
- **Limited public transportation operation, connectivity, and reliability:** Due to limited public transportation options, a number of transportation markets are not well served. The key transit markets include trips between the Portland Central City and the City of Vancouver and Clark County, trips between North/Northeast Portland and the City of Vancouver and Clark County, and trips connecting the City of Vancouver and Clark County with the regional transit system in Oregon. Current congestion in the corridor adversely impacts public transportation service reliability and travel speed. Southbound bus travel times across the bridge are currently up to three times longer during parts of the am peak compared to off peak. Travel times for public transit using general purpose lanes on I-5 in the bridge influence area are expected to increase substantially by 2030.
- **Safety and Vulnerability to Incidents:** The I-5 river crossing and its approach sections experience crash rates nearly 2.5 times higher

The transportation data included in this section is explained in greater detail in Chapter 3, and further detail in the CRC Traffic Technical Report and CRC Transit Technical Report.

Exhibit 1.3-1
Accident Blocking the Bridge

Congestion and Safety

Congestion not only causes delays for travelers, but also increases the risk of accidents. Right now, accidents are more than twice as likely to occur during peak travel periods as during off-peak periods. The number of cars using the I-5 crossing is predicted to increase by about 35% by 2030. Accident rates in the CRC project area could double if nothing is done to improve existing conditions.

than statewide averages for comparable facilities. Incident evaluations generally attribute these crashes to traffic congestion and weaving movements associated with closely spaced interchanges. Without breakdown lanes or shoulders, even minor traffic accidents or stalls cause severe delay or more serious accidents.

- **Substandard bicycle and pedestrian facilities:** The bike/pedestrian lanes on the I-5 Columbia River bridges are 6 to 8 feet wide, narrower than the 10-foot standard, and are located extremely close to traffic lanes, thus impacting safety for pedestrians and bicyclists. Direct pedestrian and bicycle connectivity are poor in the BIA.
- **Seismic vulnerability:** The existing I-5 bridges are located in a seismically active zone. They do not meet current seismic standards and are vulnerable to failure in an earthquake.

Exhibit 1.3-2
Bicycle and Pedestrian Path

1.4 Compliance with SAFETEA-LU

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period 2005-2009. SAFETEA-LU includes many provisions for USDOT and includes a section (Section 6002) dedicated to the environmental review process.

SAFETEA-LU requires the development of a coordination plan to outline how the CRC project will work with the public, stakeholder groups, and local, state, and federal agencies with an interest in the project. Appendices A and B of this DEIS document how this project has worked with agencies, tribes, and the public to date.

Section 6002 of SAFETEA-LU added a new category of participants in major transportation projects that allows state, local and tribal agencies to have a more formal role in the environmental process of these projects. These agencies are called “participating agencies.” The CRC project team sent out participating agency invitations in January 2006 to Tribal Governments with an interest in the project area, and to various state and local governments. Nineteen agencies and Tribal Governments accepted the invitation to be participating agencies. These agencies include:

- City of Vancouver
- Clark County Community Development Department
- Clark Public Utilities
- Confederated Tribes of Grand Ronde
- Cowlitz Indian Tribe
- Oregon Department of Land Conservation and Development
- Portland Fire & Rescue
- Portland Office of Neighborhood Involvement
- Portland Police Bureau
- Washington Department of Fish and Wildlife
- Portland Parks and Recreation
- Portland Bureau of Water Works

- Portland Bureau of Development Services
- Portland Planning Bureau
- Portland Bureau of Environmental Services
- Portland Development Commission
- Vancouver Housing Authority
- Washington Department of Ecology
- Washington Department of Archaeology and Historic Preservation

The CRC project has also worked with another group of state and federal agencies that are likely to have permitting or approval authority over one or more elements of this project. This group is referred to as the Interstate Collaborative Environmental Process group, or InterCEP. The InterCEP group has assisted the project in many ways, including identifying applicable environmental information early in the analytical process and providing technical expertise on state and federal regulations, such as Section 106 of the National Historic Preservation Act and Section 4(f) of the Department of Transportation Act of 1966. Work with InterCEP has increased communication with these agencies, avoided duplication with other federal, state, tribal, and local procedures, and established a mechanism for addressing intergovernmental issues.

On January 25, 2006, the InterCEP Agreement was signed by WSDOT, ODOT, FHWA, FTA and 12 resource agencies from Oregon, Washington, and the federal government. This agreement formally established the InterCEP group, defined obligations of the signatory agencies and the CRC project, and described the process for communication and collaboration within this group.

The following resource agencies signed the InterCEP Agreement:

- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife
- Washington State Department of Archaeology and Historic Preservation
- Oregon Department of Fish and Wildlife
- Oregon Department of Land Conservation and Development
- Oregon Department of State Lands
- Oregon State Historic Preservation Office
- Oregon Department of Environmental Quality

Participating agencies and InterCEP agencies have been given opportunity for formal comment on several important elements of this project:

- Purpose and Need – InterCEP agencies had an opportunity to comment on the Purpose and Need in November and December,

2005, through meetings. The Purpose and Need was sent to the participating agencies in the invitation letter, and discussion was held at a meeting in late January, 2006.

- Methodologies – The CRC project solicited input on the methodologies used to analyze the various environmental effects of each Alternative in the DEIS through the development of Method and Data Reports. All cooperating, participating and InterCEP agencies were integrally involved in developing these reports from March 2006 through October 2006.
- Range of alternatives – The CRC project held several meetings with the InterCEP and participating agencies during the fall of 2006 and winter of 2007 to discuss the range of alternatives to be evaluated in the DEIS.

1.5 Vision and Values

The CRC project co-lead agencies, with the help and recommendation of the CRC Task Force, developed a vision for how to address the CRC's Purpose and Need, and the values they would follow to develop a solution. These values were instrumental in the development of evaluation criteria used during the development of the range of alternatives evaluated in this DEIS (see Section 2.5 for more information on this process).

The following describes the CRC project vision:

> The Columbia River Crossing Vision provides the foundation for developing criteria and performance measures that will be used to evaluate the I-5 Bridge Influence Area alternatives. The Columbia River Crossing Project NEPA process will include consideration of: crossing infrastructure; multimodal transportation; connectivity; high capacity transit; land use; funding; community and business interests; under-represented, low income and minority communities; commuter and freight mobility; maritime mobility; and the environment.

Values that have guided this project's development and framed identification and evaluation of alternatives are noted below.

Community Livability

- Supporting a healthy community.
- Supporting a healthy and vibrant land use mix of residential, commercial, industrial, recreational, cultural, and historic areas.
- Supporting aesthetic quality that achieves a regional landmark.
- Recognizing the history of the community surrounding the I-5 bridge influence area, supporting improved community cohesion, and avoiding neighborhood disruption.
- Preserving parks, historic and cultural resources, and green spaces.

Mobility, Reliability, Accessibility, Congestion Reduction and Efficiency

- Providing congestion reduction and mobility, reliability, and accessibility for all users, and recognizing the requirements of local, intra-corridor, and interstate movement now and in the future.
- Providing an efficient transportation system through transportation system management, encouraging reduced reliance on single occupancy vehicles, improved incident management, and increased capacity measures.

Modal Choice

- Providing modal choice for users of the river crossing, including highway, transit, high-capacity transit, bicycle, and pedestrian modes.

Safety

- Ensuring safety for vehicles (trucks, autos, emergency, and transit), pedestrians, bicyclists, river users, and air traffic at the crossing.

Regional Economy; Freight Mobility

- Supporting a sound regional economy and job growth.
- Enhancing the I-5 corridor as a global trade gateway by addressing the need to move freight efficiently and reliably through the I-5 bridge influence area, and allowing for river navigational needs.

Stewardship of Natural and Human Resources

- Respecting, protecting, and improving natural resources including fish, wildlife habitat, and water quality.
- Supporting improved air quality.
- Minimizing impacts of noise, light, and glare.
- Supporting energy efficiency through design, construction, and use.

Distribution of Impacts and Benefits

- Ensuring the fair distribution of benefits and adverse effects of the project for the region, communities, and neighborhoods adjacent to the project area.

Cost-Effectiveness and Financial Resources

- Ensuring cost-effectiveness in design, construction, maintenance, and operation.
- Ensuring a reliable funding plan for the project.

Bi-State Cooperation

- Fostering regional cooperation and planning.
- Supporting existing growth management plans in both states.
- Supporting balanced job growth.