Bi-State Committee

The following people contributed their valuable time and effort to help guide this effort:

- Arthur Babitz (City of Hood River)
- Betty Barnes (City of Bingen)
- John Davies (Port of Hood River)
- Bart Gernhart (WSDOT)
- Rex Johnston (Klickitat County)
- Rich McBride (Port of Hood River)
- Maui Meyer (Hood River County)
- Paul Pearce (Skamania County)
- David Poucher (City of White Salmon)
- Bill Schmitt (Port of Klickitat)
- Rich Watanabe (ODOT)

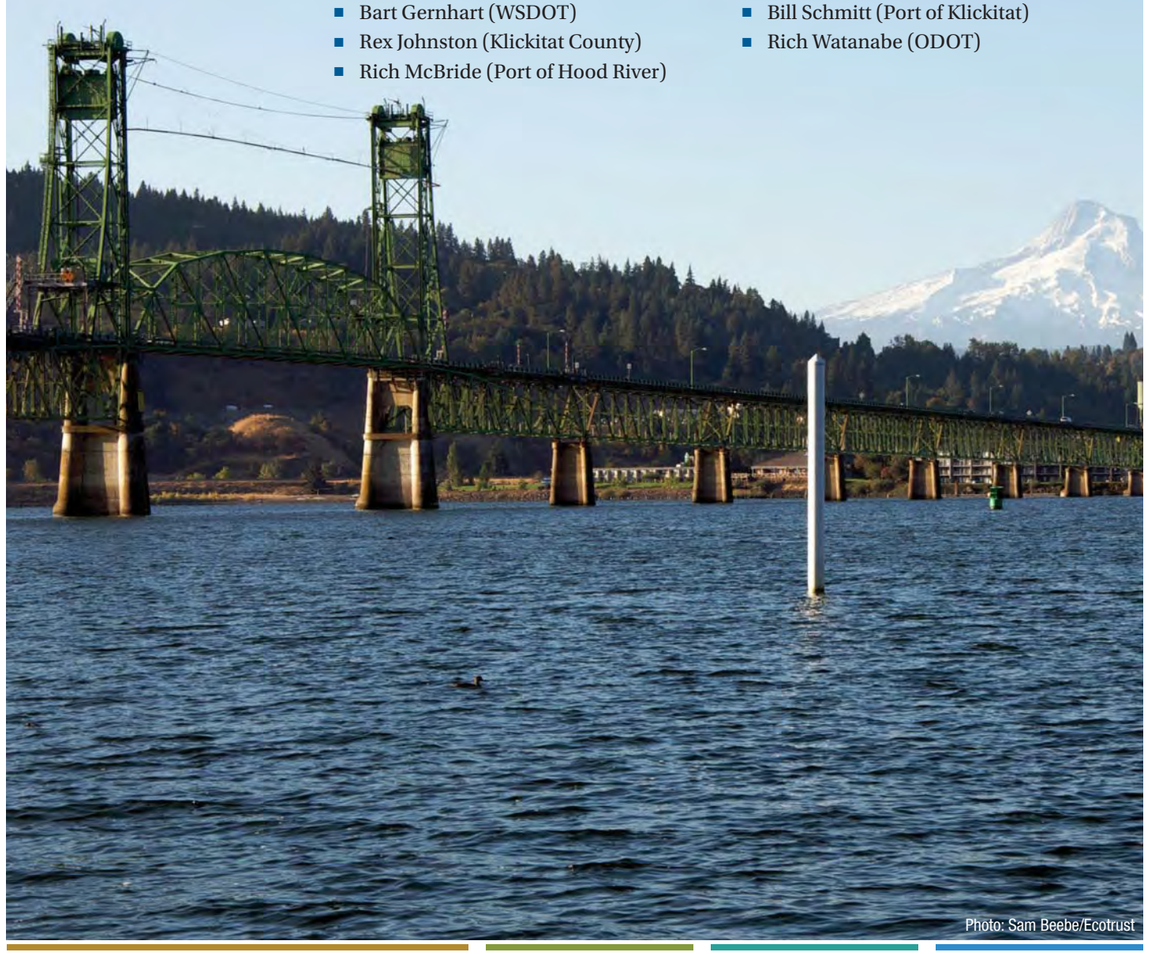

Photo: Sam Beebe/Ecotrust

Further Information

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RTC

Oregon Department of Transportation

Washington State Department of Transportation

Photo: Oregon DOT/Flickr

SR-35 Columbia River Crossing Study – TS&L

Background

The Hood River Bridge was originally built in 1924 and is one of three bridges traversing the Columbia River in the Columbia River Gorge National Scenic Area. The bridge connects the communities of White Salmon and Bingen, Washington, with Hood River, Oregon. It serves as an essential link to local communities, the region and interstate travel.

The economic well-being of this region is dependent on the Hood River Bridge. The existing bridge is functionally obsolete and weight and dimensionally restricted for large trucks. Residents, businesses and the bridge users on both sides of the Columbia River are concerned about the safety and service life of the bridge. If the bridge were closed, the nearest river crossings (to the west and east) are about 20 miles away.

Previous studies from transportation agencies in Washington and Oregon have evaluated the need to reconstruct or replace the bridge. In 1999, the scoping phase for the SR-35 Columbia River Crossing Feasibility Study was conducted, which identified the key issues and recommended a scope of services for conducting the full feasibility study.

By 2004, the SR-35 Columbia River Crossing feasibility study and draft environmental impact statement (EIS) were completed, which identified a preferred bridge alignment, just west of the existing structure, as well as three feasible bridge type alternatives.

Artist rendering of the concrete segmental box girder bridge from Oregon, looking toward Washington. Inset: Original photo used to create rendering.

A concrete segmental box girder bridge was selected as the recommended bridge type.

Artist rendering of the view from the pedestrian path, looking toward one of the two outlooks.

Gateway markers and aesthetic treatments will be placed at each of the entry points of the bridge and will provide a coordinated treatment with the stone formwork and railing used on the pedestrian side of the roadway barrier.

This type, size and location (TS&L) phase of the project continued the previous work by advancing the following project elements:

Economic Analysis

An economic analysis confirmed that the bridge plays a significant role in both the regional transportation network and the regional economy. Businesses depend on access to workers on both sides of the bridge. Commuting to work accounts for about 10–15 percent of daily bridge trips.

Hood River is the economic center of the region. Residents of Washington depend on the bridge to shop and conduct business in Hood River. Businesses in Hood River depend on Washington residents as customers.

Most freight goods that cross the bridge are wood products and fruit for processing, use within the region, or for export outside of the region. The weight-restricted bridge limits manufacturing and processing choices for businesses.

Visitors to the region use the bridge to access attractions or recreational opportunities on both sides of the river, as well as the retail and accommodations services available primarily in Hood River.

The bridge also allows local emergency-service providers with the opportunity to combine resources and support each other.

Disruption to bridge service would have a detrimental impact on the regional economy.

Bridge Type, Size and Location Analysis

The starting points for the analysis were the outcomes of the draft EIS. The draft EIS identified a preferred bridge alignment, directly west of the existing bridge, as well as three feasible bridge types (the tied arch bridge, the girder bridge, and the concrete segmental box girder bridge). The new bridge would tie into the existing bridge access road on the Oregon side and a new intersection with SR-14 immediately west of the existing intersection. The bridge will be constructed to minimize traffic disruptions, with the existing bridge being removed after the new bridge is opened. Unlike the existing bridge, the new bridge will be constructed high enough over the water to not need a movable span and the associated long term maintenance cost.

The analysis included collecting data such as ground survey, soil samples and river depths. The River Navigation Survey, performed during the DEIS, was refreshed and the navigation clearance validated. Preliminary engineering determined specific characteristics of the bridge types such as the maximum economical span lengths, pier locations, foundation sizes and types, likely construction methods and the ability to easily be maintained in the future.

Recommendation:

A concrete segmental box girder bridge was selected as the recommended bridge type. The new bridge would include two 12-foot travel lanes and 8-foot shoulders, providing for a wider and safer crossing. The environmentally unfriendly steel grate deck would be replaced with a concrete deck. Multimodal options for walking or biking across the bridge would be introduced with a 12-foot pathway on the west side and two overlooks straddling the main span. This bridge would have a wider main span of 500 feet that will significantly improve the navigation clearance. The bridge piers will consist of an hourglass shape and will be supported on footings that are placed above the elevation of the Columbia River. Gateway markers and aesthetic treatments will be placed at each of the entry points of the bridge and will provide a coordinated treatment with the stone formwork and railing used on the pedestrian side of the roadway barrier.

The project's purpose and need, along with input gathered on key attributes of a new crossing, helped determine the evaluation criteria used to evaluate the three bridge types. The criteria included cost, bridge aesthetics, design criteria, construction, risk, impact to recreation users, and natural environment.

Updated Project Cost Estimate

With the determination of the concrete segmental box girder as the recommended alternative, the construction cost estimate range and an overall project cost estimate range was prepared for that structure type. The project's overall cost estimate consists of the bridge capital cost and contingencies.

The project's overall cost range (in year 2011 dollars) is $190 million to $205 million.

Future Steps

All federally funded projects must follow an evaluation process outlined in the National Environmental Policy Act (NEPA). The NEPA process includes a draft environmental impact statement (EIS) with public comment and a final EIS. The pre-construction NEPA process concludes with the Record of Decision, which states which alternative will be constructed. With the draft EIS and the preliminary engineering complete, the next step in the process is the final EIS. Although funding is unsecured at this time, in preparation for the final EIS phase, a scope of services outline has been developed that lists the activities and areas of further study needed to prepare for a Record of Decision.

Final engineering and right-of-way purchase would follow the Record of Decision. Funding would need to be secured before construction can begin. Given the current state and federal transportation limitations, construction of the new SR-35 Columbia River Bridge is likely to be a long-term future project.