INTRODUCTION

The Hood River Bridge is one of the three highway bridges crossing the Columbia River in the Columbia River Gorge National Scenic Area. The nearest highway bridges to the west and east are both about 20 miles away. The Bridge connects the communities of White Salmon/Bingen, Washington with Hood River, Oregon.

In 1923 Congress approved the construction of the Hood River Bridge by the Oregon-Washington Bridge Company. In December 1924, the bridge was completed and opened to traffic. The completion of the Bonneville Dam in 1938 caused the river's water level to rise and created the need to rebuild the Hood River Bridge. At the same time a lift span and toll booth were added to the Bridge. The Port of Hood River purchased the bridge in 1950 and continues to operate and maintain it.

Recent studies of the Bridge began in 1999. Their purpose, broadly, is "to improve the movement of people and goods across the Columbia River between communities of White Salmon/Bingen, Washington with Hood River, Oregon." The *SR-35 Columbia River Crossing Feasibility Study* and *Draft Economic Impact Statement* were completed in 2004 and identified a preferred alternative: building a replacement bridge to the west of the existing Hood River Bridge. The next phase of analysis is a Final Environmental Impact Statement (FEIS).

This project builds on previous work and focuses on completing engineering elements that will provide information for the completion of the FEIS. It will address current and future transportation inadequacies and deficiencies associated with the current Hood River Bridge:

- Alleviate current and future congestion at the bridge termini, on the bridge itself, and on the access road to and from the bridge (SR-35). Alleviate congestion related to diverted traffic due to severe weather conditions or incidents on Mount Hood, I-84, or SR-14.
- Accommodate increases in cross-river demand while also providing for bicycle and pedestrian travel across the Columbia River.
- Comply with funding and legislative requirements regarding the SR-35 Columbia River Crossing.
- Satisfy social demands and economic needs for cross-river flow of goods and people.

- Accommodate river navigation by providing horizontal and vertical clearances that meet current standards while also providing intermodal and multimodal connections across the river.
- Improve safety and the current substandard design of the current bridge.

A key part of this project is assessing the economic role the Hood River Bridge plays within the Hood River, White Salmon, and Bingen region and within the larger Columbia River Gorge region. The economic analysis evaluates the dependence of the region on the existing Bridge and the economic benefits to the region of a new bridge.

One part of the evaluation of the role of the Bridge within the region is talking with local business people and residents who use the Bridge regularly. ECONorthwest conducted the focus groups to discuss the role of the Bridge in the regional economy, with substantial assistance from Parsons Brinckerhoff (the prime contractor on the study), the Regional Transportation Council (RTC), and staff from Washington State Department of Transportation (WSDOT), Oregon Department of Transportation (ODOT).

This memorandum summarizes the methodology used to conduct the focus groups and the results from the focus groups.

METHODOLOGY

The focus groups were held on June 3, 2010 in the Port of Hood River's conference room, with four groups meeting for 90 minutes each. The following section describes the methodology used to organize and run the focus groups.

- **Select and invite participants.** The RTC developed a list of participants to invite to the focus groups based on input from the Project Management Team (which includes staff from RTC, WSDOT, and ODOT) and the consulting staff. Participants represented a broad range of interests, from commuters to business and freight operators to recreational and environmental interests. The RTC first tried to invite people by telephone and then by mail. The RTC sent out letters confirming focus group attendance for invitees that said they would participate and made reminder phone calls the day before the focus groups to confirm attendance. A complete list of focus group attendees is found in Appendix A.
- **Separate participants into groups.** The optimal size of a focus group is between 6 and 10 participants. The consultants and RTC worked together to separate participants into groups based on common interests among participants. The groups were: (1) public agencies and transportation providers; (2) business, retail, and commute interests; (3) private companies and freight-dependent businesses; and (4) recreational economy interests. Scheduling conflicts resulted in some mixing of the groups (e.g., people from the recreational economy group

participating in the focus group with business, retail, and commute interests) but did not create issues for the focus groups.

- **Agree on discussion topics.** ECONorthwest worked with the consulting team and the Project Management Team to develop broad topics to discuss during the focus groups. The topics were covered to varying degrees in each group, with some groups choosing to focus more or less on certain topics:
    - Use of the bridge by business customers, employees, shippers, and others and ways that use of the bridge differs by business type, such as manufacturers, retailers, offices, or tourism.
    - Whether the current bridge conditions (width, weight limits, congestion, tolls) affect decisions about how and when to travel.
    - Use of the bridge by bicyclists and pedestrians (who are currently prohibited), and transit.
    - Measuring benefits of the project beyond transportation, such as growth in businesses that may not use the bridge much, but that provide goods or services to businesses that do use the bridge.
- **Hold the focus groups.** The four focus groups met for 90 minutes each, beginning in the morning and ending in the early evening. Terry Moore facilitated the focus groups, ensuring that each participant had an opportunity to talk and that all the topics of discussion were covered to some degree in each group. The discussions were relatively conversational and free flowing. Terry recorded key ideas on notes that he arranged on the wall. ECONorthwest staff took formal meeting notes, which was supplemented by Parsons Brinckerhoff staff.

FOCUS GROUP DISCUSSION RESULTS

The following section summarizes the discussions and key ideas from all four of the focus groups. The results are organized by the four broad topics of discussion described in the section above. Within those topics, the results are organized by themes that emerged from the discussions.

USE OF THE BRIDGE BY BUSINESS AND WAYS THAT USE OF THE BRIDGE DIFFERS BY BUSINESS

Interdependence of communities within the region

- The participants generally indicated that they consider both side of the Columbia River to be one community, rather than two (or three) separate communities in two different states, and the Hood River Bridge allows the cities of Hood River, Bingen, and White Salmon to operate as one

community. Residents and businesses throughout the larger community access shared public and private services on either side of the River. For example, the Veterans' Service Officer in Hood River has clients from both sides of the River.

- The economies of the three communities within the region are closely inter-dependent on each other. Businesses located in Oregon are dependent on employees and customers from Washington. Businesses in Washington are also dependent on Oregon for employees and customers, although perhaps to a lesser degree. Several Oregon-based business people indicated that about 20% to 30% of their employees and roughly 20% to 40% of their customers were from Washington. The cities have grown more economically intertwined over the last 10 years.
- The affect of a prolonged closure of the Bridge, such as a Bridge failure caused by a natural disaster, would cause an economic catastrophe within the region because the economies are so intertwined. Past closures of the Hood River Bridge resulted in business closures on the Oregon side of the River. A prolonged closure of the Bridge would have a large negative effect on Hood River, which is the regional economic center, but it would have a larger negative effect on White Salmon and Bingen, which some participants feared might "dry up" if the Bridge was closed for long. In addition, closure of the Bridge would have a negative effect on the larger Columbia River Gorge region by restricting transportation and increasing usage of the other two bridges within the Gorge. A bridge failure will also result in a disruption of utility service between both sides of the river: gas, phone, and cable utilities, supplied out of Hood River, cross the river on the bridge.

Commuting across the Bridge

- Workers in both Oregon and Washington are dependent on the bridge for their daily commute. It is not uncommon for people to live and work on different sides of the bridge. The majority of the jobs have historically been (and still are) located on the Oregon side of the River. Workers need the ability to easily get across the river via the bridge. The level of commuting results in difficulty crossing the bridge in the morning from 7am to 9am, at noon, and at 4pm or 5pm in the evening during normal morning, lunch, and evening commute times.
- Non-workers also create a large demand for bridge travel. A lot of people drive across the bridge during the day to engage in shopping, children's activities, and recreation opportunities. These people usually leave before 6 pm at which point traffic levels drop. It is important that

these people have access to both sides of the river because they promote the tourism and business.

- Peak commuting times create traffic congestion at the intersections at either end of the bridge. The participants consider the capacity issue lies as much with the bridge's endpoint intersections as much as with the narrowness of the bridge itself. The construction work currently being performed on the I-84 interchange exacerbates this issue but many hope that the current project provides long-term relief on the Hood River side.

Retail and service customers use of the Bridge

- Washington residents must cross the Bridge to access shopping and services in Oregon. For example, shopping options on the Washington side do not include clothing retailers and the Washington side of the river also lacks nursing homes. Small retailers such as restaurants and recreation-related rentals in Hood River rely on patrons from White Salmon/Bingen and the reverse is true.
- Visitors view the communities as a united region and cross the Bridge freely to access retail and services on either side of the Bridge. The natural attractions and recreational opportunities are attractive to visitors on both sides of the Bridge. The connection the Bridge provides is important in the future development of the Columbia Gorge National Scenic Area as a national and international tourist attraction.

Manufacturer and freight business use of the Bridge

- Most freight that crosses the Bridge is from local lumber and wood products manufacturers and fruit growers and processors. Much of the freight that goes through the region does so on I-84, without crossing the Hood River Bridge.
- Local businesses rely on the bridge to connect them with suppliers and customers. For example, there is a juice factory that buys fruit on the Washington side but will soon be located at the Port of Hood River. Specific manufacturing and freight businesses that rely on the bridge: lumber, fruit growers, juice factory, businesses with suppliers on one side and the business on the other.
- Fruit growers and processors are major users of the bridge. Their major use of the bridge occurs in the fall: August through October (apples/pears) and June to July (cherries). There are a lot of bins that go out of the Valley across the bridge.

- Wood products businesses frequently use the Bridge for moving freight across the River. The lumber industry would be hurt badly if there was no Bridge. For example, Allen Brown Wood hauls 20 to 30 loads of wood chips and sawdust across the Bridge daily for local businesses. Being able to move freight across the Hood River Bridge, rather than making a detour to a more distant bridge, is key to the success of this business.
- Truck freight originating on the Washington side of the River will need to cross the River to access I-84. Trucks prefer to travel west via I-84 because of height limitations in the tunnels on SR 14. Trucks traveling east have a choice of using the Hood River Bridge or the bridge at SR 197, at the Dalles.
- The tunnels on Route 14 can be a barrier to trucks.
- Trucks have other incentives to use the Hood River Bridge. There is some attempt by businesses and truck drivers to avoid the Weigh Station in Oregon. Truckers might cross to the Washington side and cross back to Oregon at Hood River to avoid the truck scales.

Emergency uses of the Bridge

- The bridge provides an important connection in the event of an emergency, such as a natural disaster (e.g., flood or wild fire) or weather emergency (e.g., the closure of I-84 as a result of winter storms). The Bridge provides an important connection between both sides of the River for emergency management. Without the Bridge, emergency personnel or equipment would have difficulty crossing the River in a timely fashion. In addition, SR 14 is has a danger of rock slides, which could close SR 14, making I-84 an important transportation route on the Oregon side of the River.
- The bridge provides quicker access to hospitals from the Washington side. Transportation from the Washington side to Portland hospitals saves 5 to 15 minutes using the existing bridge, which may be significant for some patients.

AFFECT OF CURRENT BRIDGE CONDITIONS ON HOW AND WHEN TO TRAVEL

Safety issues with the Bridge

- Many users, including businesses, residents, and tourists perceive the bridge as unsafe. The participants reported that the bridge is very frightening to some people crossing the bridge and some people refuse to use the bridge because they do not feel safe. This is true for some

residents and visitors alike. Some RV users seek local advice to find an alternative way to cross from the Washington to Oregon side of the River. Motorcyclists have a hard time riding on the grating of the bridge.

- Users report that the bridge is narrow to the point that it causes safety issues. There are many instances of mirrors getting clipped off by either making contact with the bridge or vehicles traveling in the opposite direction. Children on school buses are required to keep windows up out of fear that metal and glass from a clipped mirror will harm them.
- For large vehicles, crossing the bridge is a better option than traveling on SR 14. The school district busses use the bridge for safety issues, as opposed to tunnels which are too narrow for many trucks. School district risk managers advise against allowing buses to travel through the tunnels. The narrowness of the tunnels and their arches forces large trucks to travel down the center of the tunnel in both lanes. Additionally, SR 14 suffers from dangerous rock slides during the rainy season.
- Some Bridge users consolidate their trips across the Bridge because of concerns about safety crossing the bridge or the cost of the toll. For example, the Wal-mart on the Oregon side is a large draw, but due to safety concerns with the bridge and the cost of crossing (tolls and gas), many consumers consolidate their trips across the river.
- Traffic congestion on both sides of the Bridge, at the interchanges of SR 14 and I-84, creates safety issues. Traffic queuing on I-84 is especially hazardous.
- The Bridge has the narrowest passages for Barges along the River, creating safety concerns for barges.

Commuting constraints on the Bridge

- Peak commuting times create traffic congestion at the intersections at either end of the bridge, with the majority of people originating from the Washington side to destinations on the Oregon side. The capacity issue lies as much with the intersections on each bridge end as much as it does with the narrowness of the bridge itself. The current construction work being performed on the I-84 interchange exacerbates this issue.

Freight limitations on the Bridge

- Weight limits on the bridge impede freight movement. One of the limiting effects of the bridge is the weight limitation of about 80,000

pounds. The bridge would facilitate more efficient freight movement if it allowed more weight. The Bridge of the Gods has the same weight limitation as the Hood River Bridge.

- Very heavy equipment and construction trucks (for road construction and logging) are overweight for the bridge. The Port allows this type of heavy equipment to cross under very controlled situations, rather than requiring them to detour to a different bridge crossing.
- On the Washington side, SR 14 was not built to accommodate high weight and width trucks and has tunnels that are too small for large trucks. Therefore, trucks need to cross the river at Hood River to get on I-84.
- Wood products businesses have issues using the bridge, the biggest of which are the weight limitation and the width problems. The weight limit forces some wood products businesses to make more cross-bridge trips than they would with a higher weight limit. The width of the bridge is also a constraint. Some trucks have had near accidents on the bridge: some have nearly tipped up on to the rails and some lose their mirrors against the bridge or other large vehicles.
- Fruit growers and processors are major users of the bridge and the limitation for them is the width of the bridge. The movement of fruit (especially cherries) is time sensitive because fruit cannot stay in the sun for long periods; delays caused by the bridge hurt these users.
- Underwood is a fruit packing plant that uses semi-trucks to haul the fruit out of Hood River via the Hood River Bridge to Washington state. These are some of the heavier trucks that use the bridge and they operate from September through May.

Tolling on the Bridge

- There are multiple ways that toll collection could be improved. Tolls could be collected in one direction or fast-pay tolling strategies could be implemented to minimize queuing on SR 35 or I-84. Toll collection could be dynamic: fees should vary throughout the day and a fast-pass method should be implemented. Further, fees should be reduced during non-peak hours to encourage shoppers and day users to cross the bridge.
- If the method of collecting tolls is changed (e.g. collecting tolls one-way), the new method should consider actual and perceived safety issues. Some Bridge-users would strongly prefer not to queue on the Bridge while waiting to pay the toll.

USE OF THE BRIDGE BY BICYCLISTS AND PEDESTRIANS AND TRANSIT

Desire for bicycle and pedestrian facilities

- There is a lot of desire to allow pedestrians and bicyclists a safe way to cross using the Hood River Bridge. There is no safe way for pedestrians and bicyclists to cross, except by automobile. Some bicyclists, visitors and residents alike, will wait on the Washington side of the Bridge until a driver stops to pick them up to cross the Bridge and offer to pay the toll in exchange for the ride across the Bridge.
- Residents and employees within the region have expressed a desire to be able to commute across the Bridge by bicycle. At a recent bicycle summit, people in the region expressed strong support for providing a way for bicyclists and pedestrians to cross the Bridge. As things currently stand, even if bicycles were allowed to use the Bridge, the narrowness and Bridge's gridded surface would be a barrier to bicycling because of safety concerns.
- Housing on the Washington side of the River has historically been less expensive than on the Oregon side. And the majority of the jobs have historically been (and still are) located on the Oregon side of the River. The lack of a pedestrian and bicycle crossing limits lower-income residents, who may not be able to afford an automobile, from living in Washington and working in Oregon.
- The lack of bicycle facilities on the Bridge is an economic constraint for bicycle tourism. Bicyclists visiting the area want to be able to safely cross the River and explore areas on both sides of the River. Some bicycle supporters hope that allowing bicycling across the Bridge would decrease parking pressure in Hood River during the summer.
- The Columbia Gorge National Scenic Area is becoming a national and international bicycling destination. In order to support this development, the Gorge's infrastructure, including the Hood River Bridge, should accommodate bicyclists.
- Local efforts are underway to try to address the lack of bicycle facilities on the Bridge and the fact that, even if the Bridge is replaced, a new Bridge is unlikely to be completed for at least 10 to 20 years. The Mid-Columbia Economic Development District (MCEDD) is working to develop a demonstration project, which would offer bicyclists a shuttle service with which to carry their bikes to cross the Bridge.

Lack of regular transit service to cross the Bridge

- There are two transit agencies within the region, the Klickitat County Mt. Adams Transportation in Washington and the Hood River County Transportation District in Oregon. The two transit agencies do not have fixed routes that cross the Bridge, for several reasons: (1) the two agencies are separated by state bureaucracies and funding sources and (2) the narrowness of the Bridge at times results in damage to the transit buses, such as broken mirrors or vehicle body damage.
- Washington residents, desiring to access services in Oregon, have a greater demand for transit to cross the bridge than Oregon residents. The Klickitat County Mt. Adams Transportation crosses the Bridge several times per day, generally to take residents to medical appointments in Hood River. The demand for transit crossing on the Bridge could increase if the toll is increased substantially.
- Oregon residents need to cross the bridge to the Washington side but to a lesser degree than Washington residents need to cross in the opposite direction. The Hood River County Transportation District occasionally takes residents across the Bridge, most frequently to the hospital in White Salmon. Another source of demand for transit from the Oregon side include the fact that the Amtrak stop is on the Washington side of the River, making it difficult for Amtrak riders in Oregon to get to the train station.

BENEFITS OF A NEW BRIDGE BEYOND TRANSPORTATION

- A Bridge that accommodates bicycles and pedestrian could support the transformation of the Columbia Gorge Scenic Area into a world-class tourism destination. The Centennial Celebration of the Historic Columbia River Highway will occur in 2016 and will attract bicyclists from across the nation to ride along the newly restored Historic Highway. If bicyclists are unable to cross to the Washington side, tourism opportunities will be missed both by visitors and businesses.
- The construction of a new bridge opens the opportunity for an added attraction to the area. A new Bridge could be an attraction in and of itself, both as a man-made feature in the Gorge and as a pedestrian destination and observation point. The Bridge of the Gods currently has some of this effect: it attracts people and interests them.
- Replacing the Bridge potentially provides ecosystem benefits, through promoting "clean" commuting solutions (e.g., bicycling or transit) or decreasing air and water pollution. In addition, the design of a new bridge could incorporate "clean" energy features, such as wind turbines.

- Replacing the Bridge provides opportunities for increasing regional linkages and economic opportunities. It also provides an opportunity for increasing natural hazard preparedness, by building a seismically safer bridge.

Supporting the regional connections and development patterns

- The policies that regulate growth within the Columbia Gorge Scenic Area are intended to limit development to urban areas. The characteristics of the Gorge itself (e.g., the beauty of the area and the proximity to Portland) make it a desirable area to live in. Growth pressures in the Gorge region are likely to continue into the future.
- The development pattern in the local region was developed around the Bridge and provides opportunities with more housing opportunities, on either side of the River, regardless of where an individual's job is located. All three communities have some capacity to accommodate growth but there may be more capacity for residential growth on the Washington side of the Bridge. Hood River is likely to continue to be the economic center of the Region, meaning that people will need to be able to commute from Washington to Oregon for work.
- One way to support the continued growth and prosperity of the region is to replace the Bridge with one that better accommodates automotive, freight, bicycle, pedestrian, and transit users.

OTHER CONSIDERATIONS OF REPLACING THE BRIDGE

Potential affect of increasing the tolls

- Increasing the bridge toll may have negative economic consequences for area businesses, depending on the amount of the increase. Currently the difference in sales tax brings retail customers from Washington to Oregon.
- Some residents and businesses in the area recognize that increasing the toll may be necessary and acceptable action. There is a desire, however, for positive and tangible use of toll money that improves the existing Bridge or that there is a concrete plan to use toll increase to build a new bridge.
- The cost of the toll will affect willingness to travel. Increasing the toll from $0.75 to $2 each way may be supportable. If the toll is $5, for instance, some people may choose to shop in The Dalles, rather than Hood River. The long-term consequence of a higher toll may is that it may cause people to change trip behavior, especially for casual trips for shopping.

- Business and residents on the Washington side of the River are generally aware of their dependence on the Bridge. But those in Oregon may not be aware that a change in travel behavior could hurt businesses in Oregon because 20% to 40% of their customers and a substantial amount of employees come from Washington.
- Increases in tolls may be tolerable for freight businesses that depend on the Bridge, especially if a new Bridge has fewer weight, width, and safety limitations.

Cost of replacing the Bridge

- The current Bridge is marginally functional, even with the current deficiencies. Is there a very strong economic need to replace the current Bridge, considering the cost of replacement? A new bridge might not be a benefit to the region if it would result in an unaffordable toll. It is important to have a replacement for the existing Bridge, when it ultimately fails (possibly in 20 or more years) but using the Bridge should be affordable in order to support the regional economy and allow easy interchange across the River, for businesses, private individuals, and transit crossing.
- Is it financially and politically feasible to replace the Bridge, given the costs of replacement and other bridge replacement projects in the broader region? If the bridge replacement project goes forward soon, it may compete for funding with the Columbia River Crossing project in Portland. In addition, is there political support for a new bridge—thus far neither WSDOT nor ODOT has placed a new bridge on its STIP.

APPENDIX A: FOCUS GROUP PARTICIPANTS

The following people participated in the June 3, 2010 focus groups about the Hood River Bridge:

Alina Aaron, Mid-Columbia Economic Development District
Betty Barnes, City of Bingen
Mike Benedict, Hood River County
Allen Brown, Allen Brown Woodwaste, Inc
Andrew Bryden, DaKine
Ken Burgsthaler, Washington State Department of Transportation
Michael Cannon, Klickitat County Economic Development
Sharon Carter, Klickitat County Mt Adams Transportation
Mike Doke, Port of Hood River
Ty Erickson, Providence Hood River Memorial Hospital
Jean Godfrey, Columbia Gorge Fruitgrowers' Association
Jonathan Graca, Hood River Valley Residents Committee
Dugan Harris, Wal-Mart
Chuck Hinman, Hood River Inn
Marsha Holliston, Mount Adams Chamber of Commerce
Jim Kacena, Mt. Adams Chamber of Commerce
Michael Lang, Friends of the Gorge
Jerry Lewis, White Salmon Valley School District
Kevin Liburdy, Hood River City Planning
Brian Litt, Columbia River Gorge Commission Director
Michael Madden, Skyline Hospital
Dan Schwanz, Columbia Area Transit
Linda Shames, Port of Hood River
Tom Stevenson, Stevenson Ranch
Marc Thornsbury, Port of Klickitat
Susan Tibke, White Salmon Valley School District
Johanna Wyers, In Situ Company