



## *Task Force Questions & Answers*

### **Introduction**

Below is a list of questions from CRC Task Force members which was started at their November 27, 2007 meeting. Additional questions will be added to the list as they are received.

Project staff will answer questions as data becomes available and those responses will be posted online every Tuesday. Staff answers will be in blue.

Questions are not listed in the order asked but instead are categorized by topic. The questions are not printed verbatim; they are summarized for brevity and clarity.

### **Draft Meeting Summary**

The full Task Force discussion will be reported in the draft meeting summary, available approximately two weeks after the meeting at

<http://www.columbiarivercrossing.org/ProjectPartners/TFMeetingMaterials.aspx>.

### **Video**

Video of the Task Force meeting is available on the Internet at [http://www.cityofvancouver.us/cvtv/cvtvarchive/Community\\_Events/2007\\_Events/Columbia\\_River\\_Crossing\\_Task\\_Force\\_11-27-07.wmv](http://www.cityofvancouver.us/cvtv/cvtvarchive/Community_Events/2007_Events/Columbia_River_Crossing_Task_Force_11-27-07.wmv).



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## Bridge and Highway *shortcut to section* ⇨

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- Why is the Supplemental bridge 10 to 15 percent less expensive than the Replacement bridge? Do cost estimates include operations and maintenance costs?
- What is the difference in vehicle speed and hours of congestion between the No build and the Build alternatives for the year 2030?
- Would an extra southbound high occupancy vehicle lane on Interstate 5 help reduce the hours of congestion around Interstate 405 in Portland?
- Can staff provide a presentation on pedestrian and bicycle connectivity across the river comparing Supplemental vs. Replacement bridge alternatives in January?

## Transit *shortcut to section* ⇨

- Has an option been considered to shrink the size of the terminus park and ride for the Vancouver transit alignment by providing two park and rides, one at the terminus and one near Broadway and 17th?
- Has there been any study done, or is any information available, on the “ramp-up” time for BRT compared to LRT? In other words, could BRT be implemented in less time (e.g. half the time) than it would take to get LRT up and running?
- How many daily transit trips are being made across the river from Clark County today?
- What is the anticipated transit-oriented development in Vancouver for bus rapid transit vs. light rail?
- Do transit operating costs include money for future repairs to the transit bridge?
- What is the cost of security on high capacity transit systems? Should transit security be a CRC project line item or a local jurisdiction cost?
- Do transit costs consider property acquisitions?
- Has “transit in a box” been built before? And would transit be inside the bridge girders for the entire river crossing?
- How would “transit in a box” impact the number of piers and structures in the river? How easy would it be for transit to fit inside a box? Will “transit in a box” work with the final design of the CRC project?
- What are the environmental benefits and cost-savings potential of “transit in a box”? Are there benefits for the waterfront since the design opens up access to the shoreline?
- What are the demographics of the transit markets served by the two alignment options?
- Would the additional headways needed to provide increased transit service cause delays?

## Traffic *shortcut to section* ⇨

- What are the assumptions that underlie the model? (Specifically, what gas prices does it assume? What land use assumptions are there? What TDM measures does it assume? What percent of the traffic is commuter traffic?)
- What are the existing vehicle crash rates and what vehicle crash rates are predicted for each alternative?
- What are the vehicle miles traveled (VMT) under current conditions? What is the VMT for each of the three alternatives?
- How do the different alternatives impact vehicle trips on I-205?
- How many vehicle trips are reduced with tolls in place?



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- How much fossil fuel is being used under current conditions? How much would be used in each alternative?
- Will the Task Force see more information in January on topics including air quality and health impacts, distribution of benefits and burdens, natural resource management issues, carbon emissions and fossil fuel consumption levels?

## **Environmental Justice** [shortcut to section](#) ⇨

- What are the measurement results for air toxics and criteria pollutant levels? What are the health impacts of these toxics on specific communities within the freeway impact zone running roughly .5 mile on either side of the corridor?
- How do I submit a specific proposal to staff regarding a community enhancement fund?

## **Local Impacts** [shortcut to section](#) ⇨

- What type of land use pattern does each alternative produce? What assumptions guide the land use pattern model?
- What is the land use impact/plan for West Hayden Island related to the project?
- How does each alternative affect property values in Multnomah and Clark counties?

## **Process and Decision-making** [shortcut to section](#) ⇨

- What is the decision-making process within each jurisdiction? It would be very helpful to have all of the information on briefings, hearings, decision points for each of the jurisdictions that have authority accessible in one place.
- How will the Task Force form its recommendation?
- Can staff provide an “apples to apples” comparison of bridge alternatives by holding levels of transit service and tolls constant?

## **Costs and Funding** [shortcut to section](#) ⇨

- If tolling is implemented on the I-5 bridge(s), will tolling be required on the I-205 bridge to mitigate the potential impact of driver avoidance of the I-5 toll?
- Why did the project study a higher I-5 toll and increased transit service under the Supplemental bridge alternative but not under the Replacement? And how does that affect the cost differences between alternatives? Can you analyze the Replacement bridge with a higher toll?
- In January, will we have more details about the finance plan?
- In January, can you share more information with us on tolling?



For each alternative, what is the precise location of piers and their relationship to the barge channels?

The precise pier locations have not been determined. We know that in any pier placement scenario, one of the three main barge channels would be impacted by the Supplemental bridge alternative. The Replacement bridge alternative would re-align the primary barge channel.

The impact of piers on barge channels is discussed in a navigation fact sheet available on the CRC Web site at <http://www.columbiarivercrossing.org/FileLibrary/FactSheets/RiverNavigation.pdf>. This fact sheet discusses navigation under the Supplemental and Replacement bridge alternatives.

Why is the Supplemental bridge 10 to 15 percent less expensive than the Replacement bridge? Do cost estimates include operations and maintenance costs?

The preliminary cost estimates for the Replacement and Supplemental bridge alternatives only include construction costs. Operations and maintenance are additional annual costs not calculated in the preliminary estimate.

The difference in costs is based on the number of new structures required and the overall highway width over the river.

The Supplemental bridge alternative requires:

- seismic retrofits to the existing I-5 bridges,
- cantilevering a pedestrian and bicycle path on the existing east bridge, and;
- one new structure that will accommodate four southbound travel lanes, full width shoulders and high capacity transit.

The Replacement bridge alternative requires three new structures:

- one to accommodate northbound lanes,
- one to accommodate southbound lanes, and;
- one for high capacity transit and a pedestrian and bicycle path.

What is the difference in vehicle speed and hours of congestion between the No Build and the Build alternatives for the year 2030?

Congestion is defined as vehicle speed less than 30 mph. The difference in hours of congestion is summarized in the table below.

<i>Scenario</i>	<i>Northbound Congestion (in hours)</i>	<i>Southbound Congestion (in hours)</i>
No Build (2030)	7.75	6.25
Replacement bridge (2030)	2* (74% less than No Build)	3.25** (48% less than No Build)
Supplemental bridge (2030)	7 (10% less than No Build)	3.25** (48% less than No Build)

\*Hours of congestion expected to be 0-2 hours.

\*\*Affected by congestion north of I-5/I-405 junction

Would an extra southbound high occupancy vehicle lane on Interstate 5 help reduce the hours of congestion around Interstate 405 in Portland?

The CRC project limits do not include Interstate 405. Staff has not analyzed the impact of high occupancy vehicle lanes outside the Bridge Influence Area. The Bridge Influence Area extends from SR 500 in Vancouver to Columbia Boulevard in Portland.

Can staff provide a presentation on pedestrian and bicycle connectivity across the river comparing Supplemental vs. Replacement bridge alternatives in January?

An update on the Pedestrian and Bicycle Advisory Committee's (PBAC) activities and design suggestions will be provided at the next Task Force meeting.

Has an option been considered to shrink the size of the terminus park and ride for the Vancouver transit alignment by providing two park and rides, one at the terminus and one near Broadway and 17th?

Yes, CRC transit staff is currently evaluating ways to distribute park and ride facilities at strategic locations along the transit alignment alternatives. The number of parking spaces and the exact locations and sizes of the park and ride lots is subject to change for all transit alignment options.

For the Vancouver alignment, CRC transit staff is considering a range in the number of parking spaces, from 1,250 to 1,800, at the proposed 40th and Main transit station to maximize ridership and minimize traffic impacts. The 40th and Main site was identified as a possible site because it is already owned by WSDOT and it would co-locate parking with the proposed transit terminus. It has the right combination of size and terrain to accommodate a cost-efficient number of spaces and a design with minimal visual impact. The Draft Environmental Impact Statement (Draft EIS) will evaluate the effects of a 1,800 space underground park and ride structure at the proposed 40th and Main transit station. This represents the highest possible impact at this site, a standard assumption for Draft EIS analysis.

The primary function of a park and ride is to provide transit access for people who cannot walk or bike to a station. CRC transit staff expect that much of the demand for the 40th and Main transit station park and ride will come from north of the project area or from SR 500 to the east. Park and rides are generally placed at the last station of a transit alignment to minimize the distance these commuters must travel in their cars. Other strategies to reduce the need for park and rides may include developing joint-use facilities, improving connections between transit routes and stations and improving pedestrian and bicycle access to transit stations.

Has there been any study done, or is any information available, on the “ramp-up” time for BRT compared to LRT? In other words, could BRT be implemented in less time (e.g. half the time) than it would take to get LRT up and running?

There are many factors that could influence the construction time of either transit mode, some of which can be anticipated and others that might arise during construction.

The elevated structure from the Expo Center MAX station over the Columbia River to downtown Vancouver would take approximately the same amount of time to build for either mode.

On land, a light rail system could take longer to construct than bus rapid transit because of additional physical infrastructure, such as steel track and overhead catenary wires. BRT routes could start operating in general purpose lanes as soon as new buses are obtained from the manufacturer. For either system, the river crossing must be complete before service can start.

The details of construction phasing are still being evaluated and will be refined once a transit mode and alignment are selected.

How many daily transit trips are being made across the river from Clark County today?

In 2006, surveys showed approximately 3,300 weekday daily transit passenger trips across the Columbia River in the I-5 corridor. This includes approximately 1,400 trips on C-TRAN's express bus routes and 1,900 local bus trips. Approximately 200 more cars cross the Columbia River to park at the Delta Park and Expo Center park and rides to access the MAX light rail.

What is the anticipated transit-oriented development in Vancouver for bus rapid transit vs. light rail?

Academic research indicates that both types of transit attract economic investment, but that LRT can attract more investment than BRT. Rail lines are more visible than bus lines and rail infrastructure is perceived as a more permanent public investment. These factors may encourage developers to invest around light rail. Other factors will also affect redevelopment potential, such as availability of vacant land, zoning and comprehensive plan designations and ratio of land to building values.

Exact transit-oriented development has not been determined for this project. The cities of Vancouver and Portland will need to determine their transit-oriented development needs.

Web references for more information:

Institute for Sustainability and Technology Study:

[http://www.sustainability.murdoch.edu.au/casestudies/Case\\_Studies\\_Asia/qtrans/qtrans.htm](http://www.sustainability.murdoch.edu.au/casestudies/Case_Studies_Asia/qtrans/qtrans.htm)

Columbia Pike Transit Alternatives Analysis Final Report:

<http://www.piketransit.com/media/publications.aspx>

Do transit operating costs include money for future repairs to the transit bridge?

No, the costs of maintaining the bridge structures are not included in the estimates of transit operating costs.

The transit operating costs include routine maintenance of all the infrastructure of the high capacity system, including bridges and retaining walls. However, the transit operating costs do not include major repairs and/or replacement of the transit bridge. The annual budget for operating and maintaining the high capacity transit system would be the responsibility of the owner/operator of the system.

What is the cost of security on high capacity transit systems? Should transit security be a CRC project line item or a local jurisdiction cost?

Estimates for providing security on either a bus rapid transit or light rail system have been included in the project's transit operating costs. They are based on an average cost of security on the C-TRAN and TriMet systems. The CRC project will work with our partners and the public to determine the transit security features and equipment that will be included in the final design.

The physical construction of the transit security features, such as better lighting and security cameras, would be included as part of CRC construction costs. The annual budget for maintaining the physical transit security features and for managing and running security staff would be the responsibility of the owner/operator of the high capacity transit system. Security needs would be similar for either BRT or LRT.

Do transit costs consider property acquisitions?

Yes, potential property acquisitions are included in the cost estimates for construction of the transit alignments.

Has “transit in a box” been built before? And would transit be inside the bridge girders for the entire river crossing?  
Yes, there are examples of similar types of projects in other countries such as Austria and the Czech Republic.

“Transit in a box” is being explored as a design option for the Replacement bridge alternative. Exact design details are not known. From Portland, the current design calls for transit to operate on its own structure over Hayden Island, enter the Replacement bridge on the south shore of the river and then exit at the north shore.

How would “transit in a box” impact the number of piers and structures in the river? How easy would it be for transit to fit inside a box? Will “transit in a box” work with the final design of the CRC project?

Many of the details of the “transit in a box” design option are still being evaluated for feasibility and compatibility with other elements of the project. The type and extent of potential benefits is still being studied. As a design option under the Replacement bridge alternative, “transit in a box” will be evaluated further if a replacement bridge is selected as part of the Draft Locally Preferred Alternative (LPA).

What are the environmental benefits and cost-savings potential of “transit in a box”? Are there benefits for the waterfront since the design opens up access to the shoreline?

This design option could have cost savings because the number of bridge structures would be reduced from three to two.

Many of the details of the “transit in a box” design option are still being evaluated for feasibility and compatibility with other elements of the project. The type and extent of potential benefits is still being studied. As a design option under the Replacement bridge alternative, “transit in a box” will be evaluated further if a replacement bridge is selected as part of the Draft Locally Preferred Alternative (LPA).

What are the demographics of the transit markets served by the two alignment options?

The Vancouver alignment passes through the Arnada, Shumway and Lincoln neighborhoods. Diversity of race and income in these neighborhoods is similar to the overall Bridge Influence Area. The I-5 alignment passes through the Central Park and Rose Village neighborhoods. These neighborhoods have more low income and minority residents than the overall Bridge Influence Area.

Would the additional headways needed to provide increased transit service cause delays?

Increased transit service is a component of the Supplemental bridge alternative analysis. The effect of increased transit service varies by transit mode.

The increased frequency of bus rapid transit and local buses in the exclusive guideway would cause more vehicle conflicts in downtown Vancouver, increasing travel time by up to six minutes for each bus. In order to maintain transit schedule reliability, local buses could be relocated from the exclusive guideway to other local streets.

The increased frequency of light rail trains would have a minor to moderate effect on downtown Vancouver traffic.





What are the assumptions that underlie the model? (Specifically, what gas prices does it assume? What land use assumptions are there? What TDM measures does it assume? What percent of the traffic is commuter traffic?)

Without knowledge of the future cost of fuel and the potential for other types of vehicle propulsion systems, the travel demand model assumes an operations and maintenance cost for a vehicle. This operations and maintenance cost includes the cost of fuel. The travel demand model assumes the cost of fuel will keep pace with inflation although many studies have shown that this real cost has actually declined over the years as vehicles have become more efficient. The assumption that operations and maintenance costs will follow inflation levels is consistent with Federal Transit Administration and Federal Highway Administration guidance.

The 2030 forecast year assumptions for the Draft EIS reflect currently adopted land uses in the Portland metropolitan area, the Growth Management Act (GMA) policy direction in Clark County's Final Environmental Impact Statement (Final EIS), and the City of Vancouver's adopted comprehensive plan.

The principle Travel Demand Management (TDM) measures used in the model are tolls and increased transit service. Other characteristics that have an impact on TDM are also included in the model such as the cost of operating and maintaining vehicles and commute trip reduction policies. More than two dozen TDM strategies and programs are considered as a part of all of the build alternatives.

Information on the percent of commuter traffic is being researched.

What are the existing vehicle crash rates and what vehicle crash rates are predicted for each alternative?

During the five-year period from January 1, 2002 to December 31, 2006, a total of 2,051 collisions were reported on mainline I-5 and its ramps within the Bridge Influence Area. There are no estimates available for the number of collisions that were not reported. There was an average rate of 1.12 reported collisions per day. The collision rate experienced on I-5, within the Oregon segment of the Bridge Influence Area, was 1.08 collisions per million vehicle-miles traveled, which is 1.96 times greater than the average rate experienced on similar urban interstate facilities in Oregon. The collision rate experienced within the Washington segment of the Bridge Influence Area was 1.02 collisions per million vehicle-miles traveled.

The existence of non-standard geometric design features, the presence and duration of current congested traffic conditions, and the occurrence of bridge lifts/traffic stops all contribute to the high number of vehicular collisions and the high collision rate currently experienced in the I-5 Bridge Influence Area.

As long as the existing non-standard features remain, traffic levels increase, the duration of congestion lengthens, and bridge lifts/traffic stops continue at their current rate or increase in the future, the number of collisions is likely to substantially increase. It is predicted that if no improvements are made within the I-5 Bridge Influence Area (i.e., existing non-standard geometric features remain and no traffic capacity is added), by the year 2030 the rise in traffic levels and extension of congestion would increase the potential for collisions by approximately 80 percent over existing conditions.

The Replacement Bridge alternative would remove both Interstate Bridge lift spans and address most of the non-standard geometric and safety design features for I-5's mainline and ramps within the Bridge Influence area, including the existing short ramp merges/acceleration lanes, short weaving areas, vertical curves limiting sight distance, and narrow shoulders. In addition, the Replacement Bridge would substantially reduce traffic congestion in the Bridge Influence Area compared to No Build conditions.

Since the number of vehicular collisions in the I-5 Bridge Influence Area is related to non-standard design, congestion and bridge lifts, the Replacement Bridge alternative would substantially improve traffic safety within I-5's Bridge Influence Area.

The Supplemental Bridge alternative would address some of I-5’s existing non-standard geometric and safety design elements, including freeway and interchange enhancements affecting southbound I-5. However, the Supplemental Bridge would not eliminate bridge lifts for northbound traffic, or non-standard ramp features such as short merging and diverging areas for northbound traffic immediately south of and north of the existing bridges (according to ODOT collision statistics, I-5’s highest collision rate, considering all 300 miles of I-5 in Oregon, occurs on northbound I-5 just south of the existing bridgehead on Hayden Island).

The Supplemental Bridge option would create a northbound mainline “diverge” point near Marine Drive. Two northbound lanes, handling through traffic, would travel on the west bridge which now carries southbound traffic. Two northbound lanes, handling traffic entering or exiting at Marine Drive, Hayden Island, SR 14, downtown Vancouver, Mill Plain or Fourth Plain, would travel on the east bridge. This atypical design would require drivers to be in the auxiliary lanes at Marine Drive to exit at Hayden Island, SR 14, downtown Vancouver, Mill Plain or Fourth Plain. Requiring drivers to make a lane decision so far in advance of their exit from the highway is contrary to driver expectation. This potential driver confusion is expected to result in traffic turbulence and weaving. In addition, the Supplemental Bridge alternative would result in substantial congestion in the northbound direction at the bridgehead. For the above reasons, the Supplemental Bridge would not provide the same level of safety benefits as the Replacement Bridge.

What are the vehicle miles traveled (VMT) under current conditions? What is the VMT for each of the three alternatives?

The regional VMT for peak period conditions for each alternative is shown below. The peak periods in the model were assumed to be on weekdays from 6 to 10 a.m., from 12 to 1 p.m., and from 3 to 7 p.m. It should be noted that some VMT decreases could result outside of these seven hours.

*Regional VMT for all facilities during peak periods*

<i>Alternative</i>	<i>Existing</i>	<i>2030 No Build</i>	<i>2030 Replacement</i>	<i>2030 Supplemental</i>
<i>VMT (9-hour)</i>	26,251,413	36,701,203	36,717,531	36,848,242
<i>% Growth</i>		40% <sup>1</sup>	0.04% <sup>2</sup>	0.40% <sup>2</sup>

1) % growth over Existing conditions

2) % growth over 2030 No Build conditions

How do the different alternatives impact vehicle trips on I-205?

Under the Replacement Bridge alternative, by 2030 the average weekday traffic across the I-5 crossing is expected to be 178,000 vehicles. For the Supplemental Bridge alternative, the daily traffic is estimated to be 165,000 vehicles per day. These levels are both lower than the 184,000 daily vehicle-trips expected under 2030 No-Build conditions due to vehicle-trip reductions that would result with the provision of high capacity transit and because of tolling. The Supplemental Bridge option would carry less traffic on the I-5 crossing than the Replacement Bridge option because less capacity, an enhanced transit system and more traffic congestion would result under the Supplemental Bridge option. However, more traffic would shift to I-205 under the Supplemental Bridge option.

Interstate 205’s traffic volumes would increase from 210,000 vehicles per day under year 2030 No-Build conditions to 219,000 vehicles with the Supplemental Bridge alternative. With the Replacement Bridge alternative, the I-205 crossing’s daily volumes would increase to 213,000 vehicles.

## How many vehicle trips are reduced with tolls in place?

The following table summarizes year 2030 average daily traffic volumes for the I-5 and I-205 crossings under a non-tolling scenario and two tolling scenarios. The comparative analysis was conducted for the Replacement Bridge alternative; however, similar trends would result under the Supplemental Bridge option.

*Year 2030 Average Daily Traffic Volumes for I-5 and I-205 Crossings for Tolling Scenario (Replacement Bridge)*

<i>Tolling Scenario</i>	<i>I-5 Crossing</i>	<i>I-205 Crossing</i>	<i>Total</i>
<i>No Toll</i>	210,000	200,000	410,000
<i>Toll I-5 only</i>	178,000	213,000	391,000
<i>Toll I-5 and I-205</i>	196,000	170,000	366,000

Under the toll I-5 only scenario, the Replacement Bridge alternative would result in 178,000 daily vehicle trips across the I-5 bridge and 213,000 vehicle trips across the I-205 bridge.

If no toll were provided in year 2030, the I-5 crossing's daily traffic levels would increase by 32,000 vehicles or 18 percent. Interstate 205's daily traffic would decrease by 13,000 vehicles or six percent. Without tolling, an additional five percent or 19,000 cross-river vehicle-trips would be made in 2030.

If both the I-5 and I-205 crossings were tolled, the total daily cross-river vehicle-trips would decrease by six percent compared to the scenario with only I-5 tolled. Daily traffic levels would increase by 18,000 vehicles or by 10 percent at the I-5 crossing and would decrease by 33,000 vehicles or by 20 percent at the I-205 crossing.



How comprehensively are air toxics being measured? Are criteria air pollutants the only ones being measured or are other hazardous air pollutants associated with motor vehicle use being assessed, including those such as acrolein, benzene, 1,3-butadiene, chromium, diesel particulate, naphthalene, polycyclic organic matter, toluene and xylenes?

CRC project staff analyzed six Mobile Source Air Toxics (MSATs) that are identified by the Environmental Protection Agency as a priority. These MSATs analyzed for the CRC project include, diesel particulate emissions, benzene, formaldehyde, 1,3-butadiene, acrolein, and acetaldehyde.

Air toxics are analyzed by modeling the emissions generated by vehicles for each alternative. To better understand potential air quality impacts of this project for the region, we compared the emissions projected for the project alternatives to the emissions used as the basis for concentration and health-related analyses that is included in the published Portland Air Toxics Assessment (PATA).

The impacts to air quality will be documented in the Draft EIS.

How much fossil fuel is being used under current conditions? How much would be used in each alternative?

Global oil demand is projected to grow by 37 percent by 2030, driven in large part by transportation needs. Local transportation energy demand is expected to grow as well. Fossil fuel use in the project area was analyzed in terms of energy use. Because gasoline and diesel are the primary energy sources for the transportation sector, the analysis of energy use focuses on petroleum-based fuel sources.

The CRC build alternatives are projected to reduce future transportation petroleum demand compared to No-Build. On a global scale, these fuel savings will be very small but incrementally beneficial over the No-Build Alternative.

Based on estimated future energy use and traffic and transit models for the CRC project, a replacement bridge performs better than a supplemental bridge and light rail performs better than bus rapid transit.

This information is being reviewed and will be available in the technical appendices of the Draft EIS.

Will the Task Force see more information in January on topics including air quality and health impacts, distribution of benefits and burdens, natural resource management issues, carbon emissions and fossil fuel consumption levels?

Yes, environmental project impacts will be covered in more detail at the next Task Force meeting.



What are the measurement results for air toxics and criteria pollutant levels? What are the health impacts of these toxics on specific communities within the freeway impact zone running roughly .5 mile on either side of the corridor?

Measurement results for air toxics and criteria pollutant levels are being reviewed and will be available in the technical appendices of the Draft EIS.

CRC project staff compared emissions projected for CRC project alternatives to the emissions used as a basis for concentration and health-related analysis that is included in PATA. This information will be available in the technical appendices of the Draft EIS.

How do I submit a specific proposal to staff regarding a community enhancement fund?

Answer pending



What type of land use pattern does each alternative produce? What assumptions guide the land use pattern model?

Federal Transit Administration and Federal Highway Administration guidance for the preparation of EIS's require the use of consistent land use assumptions for all alternatives. Therefore, all alternatives assume currently adopted land uses in Oregon, the GMA policy direction in Clark County's Final EIS, and the City of Vancouver's adopted comprehensive plan.

What is the land use impact/plan for West Hayden Island related to the project?

Redevelopment plans for Hayden Island are currently being discussed by the City of Portland as part of a new Hayden Island Neighborhood Plan. More information about this effort can be found on the City of Portland's Web site: <http://www.portlandonline.com/planning/index.cfm?c=45219>. The CRC project is in regular conversation with the City of Portland about this effort.

How does each alternative affect property values in Multnomah and Clark counties?

A wide range of factors influence property values, most of which are not affected by this project. However, there are a couple of different ways that this project could affect property values, including the introduction of high capacity transit (HCT) on Hayden Island and through Vancouver, and improved I-5 travel times and access. Both these factors are expected to have generally minor influence on property values relative to other factors, such as zoning, and established land uses in the area, that are not affected by CRC.

- HCT station areas: Perhaps the greatest potential for the CRC project to affect property values is around proposed HCT stations. HCT stations can attract transit-oriented development (TOD), which is generally medium or high density commercial, residential, and mixed-use development that is pedestrian friendly and relies on the nearby transit service. Providing improved transit services to areas around the proposed HCT stations increases the attractiveness of properties around these stations, and could thus increase the value of properties in these areas. There are many examples of TOD and the increase of property values around HCT stations. For example, a study found that locations near Dallas Area Rapid Transit (DART) lines experienced a 25 percent increase in value over comparable properties away from rail lines.
- Improved I-5 travel times and access: Reducing travel times on I-5 could increase the attractiveness of housing in Clark County as locations become more viable for commuters working in Portland. However, the I-5 transportation benefits of this project are primarily safety, reliability, and congestion reduction, not overall travel time reductions from locations in Clark County to employment centers in Portland. Metroscope, an iterative land use/transportation model, evaluated improvements similar to those being evaluated by the CRC project (additional I-5 lanes through the project area and an HCT extension through Vancouver). That model predicted that by 2020, the improvements would result in slight (up to 3 percent) increases in housing values in parts of Clark County compared to values in 2020 without such improvements. It is important to note that these changes are relatively minor compared to overall changes in property values. For example, between 2000 and 2005 the median home value in Portland rose 45 percent.



What is the decision-making process within each jurisdiction? It would be very helpful to have all of the information on briefings, hearings, decision points for each of the jurisdictions that have authority accessible in one place.

Each sponsoring agency's decision-making process for signing the project's Draft EIS and adopting the LPA is different. Signatory agencies to the Draft EIS will include ODOT, WSDOT, RTC, Metro, C-TRAN, TriMet, FTA and FHWA. Agencies adopting the LPA will include the Draft EIS signatories and the cities of Vancouver and Portland.

Each agency will act independently per directions from their boards or councils. CRC project staff has been responsive to information requests by each of the participating agencies. At this time we do not have a specific schedule for briefings, hearings and adoption by each of the signatory agencies; the general timeframe would be from May through June. These requests for briefings or information typically occur within three weeks of the actual meetings.

How will the Task Force form its recommendation?

*Answer pending*

Can staff provide an "apples to apples" comparison of bridge alternatives by holding levels of transit service and tolls constant?

*Answer pending*



If tolling is implemented on the I-5 bridge(s), will tolling be required on the I-205 bridge to mitigate the potential impact of driver avoidance of the I-5 toll?

Toll revenues will most likely be required to help fund the CRC project. The project is currently assuming that only I-5 would be tolled in a build scenario. Current federal guidelines make it difficult to place tolls on Interstate highways that aren't tied to funding a project on that facility.

In the Draft EIS, CRC will evaluate the traffic impacts of tolling I-5 alone and both I-5 and I-205, including the impacts of trip diversion for the various build alternatives. Traffic analysis indicates that there will be trip diversion to I-205 if only I-5 is tolled, but that this impact will be fairly minor because I-205 will be congested and the distance penalty will be significant for many I-5 users. Tolling I-5 and not tolling I-205 does provide an option for those who don't want to pay a toll.

Why did the project study a higher I-5 toll and increased transit service under the Supplemental bridge alternative but not under the Replacement? And how does that affect the cost differences between alternatives? Can you analyze the Replacement bridge with a higher toll?

The Supplemental bridge alternative was introduced to explore the potential cost savings of reusing the existing structures. By using the existing structures, fewer highway lanes are available for the river crossing than in the Replacement bridge alternative. Having fewer lanes decreases vehicle capacity, reducing the number of people who can cross the bridge and increasing congestion. To better understand the potential of the Supplemental bridge alternative to function in the future, additional transit service and a higher toll were added to mimic the likely choices of future decision makers in the face of increasing congestion and limited vehicle capacity.

Cost estimates do not include maintenance and operations; maintenance and operations do not affect cost differences between alternatives.

Once a Draft Locally Preferred Alternative (LPA) is selected, sensitivity analyses will be conducted on tolls to determine if capacity and diversion to I-205 would change by raising or lowering the rate of the toll.

In January, will we have more details about the finance plan?

Yes, the finance plan will be covered in more detail at the next Task Force meeting.

In January, can you share more information with us on tolling?

Yes, tolling will be covered in more detail at the next Task Force meeting.