600 NE Grand Ave.
Portland, OR 97232-2736

Metro | *Agenda*

Meeting: Metro Council
Date: Thursday, March 3, 2011
Time: 2 p.m.
Place: Metro Council Chambers

CALL TO ORDER AND ROLL CALL

1. INTRODUCTIONS

2. CITIZEN COMMUNICATIONS

3. CONSIDERATION OF THE COUNCIL MINUTES FOR FEB. 24, 2011

4. RESOLUTIONS

4.1 **Resolution No. 11-4238**, For the Purpose of Approving the Expo Center Conditional Use Master Plan. **Burkholder**

5. CHIEF OPERATING OFFICER COMMUNICATION

6. COUNCILOR COMMUNICATION

7. EXECUTIVE SESSION HELD PURSUANT WITH ORS 192.660 (2)(e). DELIBERATIONS WITH PERSONS DESIGNATED BY THE GOVERNING BODY TO NEGOTIATE REAL PROPERTY TRANSACTIONS.

ADJOURN

Television schedule for March 3, 2011 Metro Council meeting

Clackamas, Multnomah and Washington counties, and Vancouver, WA Channel 11 – Community Access Network *Web site*: www.tvctv.org *Ph*: 503-629-8534 *Date*: 2 p.m. Thursday, March 3 (Live)	**Portland** Channel 11 – Portland Community Media *Web site*: www.pcmtv.org *Ph*: 503-288-1515 *Date:* 8:30 p.m. Sunday, March 6 *Date*: 2 p.m. Monday, March 7
Gresham Channel 30 - MCTV *Web site*: www.metroeast.org *Ph*: 503-491-7636 *Date*: 2 p.m. Monday, March 7	**Washington County** Channel 30– TVC TV *Web site*: www.tvctv.org *Ph*: 503-629-8534 *Date*: 11 p.m. Saturday, March 5 *Date*: 11 p.m. Sunday, March 6 *Date*: 6 a.m. Tuesday, March 8 *Date*: 4 p.m. Wednesday, March 9
Oregon City, Gladstone Channel 28 – Willamette Falls Television *Web site*: http://www.wftvmedia.org/ *Ph*: 503-650-0275 Call or visit web site for program times.	**West Linn** Channel 30 – Willamette Falls Television *Web site*: http://www.wftvmedia.org/ *Ph*: 503-650-0275 Call or visit web site for program times.

PLEASE NOTE: Show times are tentative and in some cases the entire meeting may not be shown due to length. Call or check your community access station web site to confirm program times.

Agenda items may not be considered in the exact order. For questions about the agenda, call the Metro Council Office at 503-797-1540. Public hearings are held on all ordinances second read and on resolutions upon request of the public. Documents for the record must be submitted to the Clerk of the Council to be included in the decision record. Documents can be submitted by e-mail, fax or mail or in person to the Clerk of the Council. For additional information about testifying before the Metro Council please go to the Metro web site www.oregonmetro.gov and click on public comment opportunities. For assistance per the American Disabilities Act (ADA), dial TDD 503-797-1804 or 503-797-1540 (Council Office).

Agenda Item Number 3.0

Consideration of the Minutes for February 24, 2011

Metro Council Meeting
Thursday, March 3, 2011
Metro Council Chamber

Agenda Item Number 4.1

Resolution No. 11-4238, For the Purpose of Approving the Expo Center Conditional Use Master Plan.

Metro Council Meeting
Thursday, March 3, 2011
Metro Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE EXPO CENTER CONDITIONAL USE MASTER PLAN	)))	RESOLUTION NO. 11- 4238 Introduced by Rex Burkholder

WHEREAS, in 2000, the City of Portland conditioned the construction of Hall D Land Use Review decision to include applying for a Conditional Use Master Plan;

WHEREAS, an Expo Center Conditional Use Master Plan was approved by the City of Portland in June 2001 and it will expire in June 2011;

WHEREAS,the Commission authorized Shiels Obletz Johnson, Inc. to conduct Expo Center Conditional Use Master Plan consulting services and submit a Land Use Review Application in accordance with requirements established by the City of Portland, Bureau of Development Services;

WHEREAS, it is in the best interests of the Commission to have an approved Expo Center Conditional Use Master Plan prior to the expiration of the current plan;

WHEREAS, on February 8, 2011, the MERC Commission approved the Expo Center Conditional Use Master Plan by Resolution No. 11-04 and authorized staff to forward the plan to Metro Council for their consideration, review and approval;

NOW, THEREFORE BE IT RESOLVED,

That the Metro Council approves the Expo Center Conditional Use Master Plan and authorizes staff to take actions necessary for approval of the Plan with the City of Portland, Bureau of Development Services.

ADOPTED by the Metro Council this 3rd day of March , 2011.

Tom Hughes, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 11-4238 FOR THE PURPOSE OF ADOPTING MERC RESOLUTION NO. 11-04 AND APPROVING THE EXPO CENTER CONDITIONAL USE MASTER PLAN

Date: March 3, 2011

Prepared by: Chris Bailey
503.736.5202

BACKGROUND

MERC Commission Resolution 10-12 authorized Shiels Obletz Johnsen Inc., to conduct Expo Center Conditional Use Master Plan (CUMP) consulting services and submit a Land Use Review Application in accordance with requirements established by the City of Portland, Bureau of Development Services.

The Expo's current CUMP was required by the City as a condition in approving the construction of Hall D. The first CUMP was approved in June 2001 and expires in June 2011 and an update is needed to guide the Expo Center for the next ten years.

A Pre-Application conference with the City of Portland was held on September 9, 2010. Affected City Bureaus have indicated that a "refresh" of the previously approved CUMP is appropriate given that there are no major changes anticipated to the amount of development in the next 10 years compared to the current plan. The City has indicated that transportation and storm water management are the elements requiring additional information and updated proposals.

The most significant City policy change since 2001 are the new requirements regarding stormwater management associated with new development. Upgrades will not be required for current facilities. New storm water facilities such as a rain-water garden street, green roof or swales are proposed with future development in order to better manage and treat stormwater run-off on-site.

An updated transportation management plan evaluation has been required by the City to address future access, congestion, parking and transportation management plans. The study by our transportation consultants Kittelson and Associates indicates that the current transportation demand management plan is working effectively at Expo to address impacts, especially those occurring at peak event times, and that expected future impacts will not change significantly. The Expo will continue to proactively encourage transit ridership to events and participate with CRC and the City of Portland on continued transportation planning for the area.

In order to ensure that the new plan successfully completes the land use review process in a timely manner, staff were authorized by Metro's Chief Operating Officer Michael Jordan on December 20, 2010 to submit the plan to the City in January to begin a "completeness check" review by City staff. Upon being deemed complete, City staff will evaluate the application for conformance with approval critera. A staff recommendation will then be presented to the City Hearings Officer for decision making. A public hearing will be held and public testimony will be received prior to the Hearings Officer decision. Assuming no substantive problems with the application and general support from community stakeholders, we anticipate that the final decision be rendered by the City prior to the June 2011 expiration of the current CUMP.

On February 8, 2011, the MERC Commission approved the Expo Center Conditional Use Master Plan by Resolution No. 11-04 and authorized staff to forward the plan to Metro Council for their consideration and approval.

ANALYSIS/INFORMATION

Known Opposition None.

Legal Antecedents MERC Resolution 00-41 approving the current CUMP, November 15, 2000
Metro Resolution 00-3019 approving the current CUMP, December 12, 2000
MERC Resolution 11-04 approving the proposed CUMP, February 8, 2011

Anticipated Effects Once approved by the City of Portland, the proposed CUMP will be valid for 10 years and provides for the potential redevelopment of the Expo Center campus. Among other items, the proposed redevelopment includes:

Replacement of Exhibit Halls A, B & C with a new Exhibit Hall
Addition of new meeting rooms and a Ballroom
A new support services building
Realignment of South Access Drive
Development of the southwest portion of the site for surface parking and outdoor exhibits
Stormwater facilities including options such as a rain-water garden street, green roof and swales

Budget Impacts The Expo Center FY 2010-11 budget scheduled $100,000 to complete the CUMP process; expenditures to date total $76,853.

An approved CUMP does not require or obligate Metro/MERC to complete any or all of the individual redevelopment items during the 10 year term. Should Metro/MERC determine to complete any of the redevelopment items, it would be done so incompliance with the CUMP.

RECOMMENDED ACTION

Staff recommends that the Metro Council adopt Resolution No. 11-4238 approving the Expo Center Conditional Use Master Plan.

METROPOLITAN EXPOSITION RECREATION COMMISSION

Resolution No. 11-04

Approval of the Expo Center Conditional Use Master Plan and authorizing staff to forward the plan to Metro Council for their consideration and approval.

WHEREAS, in 2000, the City of Portland conditioned the construction of Hall D Land Use Review decision to include applying for a Conditional Use Master Plan;

WHEREAS, an Expo Center Conditional Use Master Plan was approved by the City of Portland in June 2001 and it will expire in June 2011;

WHEREAS, the Commission authorized Shiels Obletz Johnson, Inc. to conduct Expo Center Conditional Use Master Plan consulting services and submit a Land Use Review Application in accordance with requirements established by the City of Portland, Bureau of Development Services;

WHEREAS, it is in the best interests of the Commission to have an approved Conditional Use Master Plan prior to the expiration of the current plan.

BE IT THEREFORE RESOLVED, that the Metropolitan Exposition-Recreation Commission:

1. Approves the Expo Center Conditional Use Master Plan and authorizes staff to forward the plan to Metro Council for their consideration and approval.

Passed by the Commission on February 8, 2011.

Chair

Secretary/Treasurer

Approved as to Form:
Daniel B. Cooper, Metro Attorney

By: _____
Nathan A. Schwartz, Senior Attorney

Materials following this page were distributed at the meeting.

600 NE Grand Ave.
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *People places. Open spaces.*

METRO COUNCIL MEETING
Meeting Summary
Feb. 24, 2011
Metro Council Chambers

Councilors Present: Council President Tom Hughes and Councilors Shirley Craddick, Kathryn Harrington, Carl Hosticka, Carlotta Collette, Barbara Roberts, and Rex Burkholder

Councilors Excused: None

Council President Tom Hughes convened the regular Council meeting at 2 p.m.

1. INTRODUCTIONS

Council President Hughes welcomed former Metro District 1 Councilor Rod Park.

The Honorable Leslie Roberts of the Multnomah County Circuit Court swore in Councilor-elect Barbra Roberts. Councilor Roberts will serve as Metro Councilor, District 6 until Jan. 2013.

2. CITIZEN COMMUNICATIONS

James Lee, 6010 SE Mitchell, Portland: Mr. Lee addressed the Council on ODOT's recent publication of the cost reports from the planning phase of the Columbia River project. He briefly overviewed the itemized report; highlighting the spending listed including the $1.6 million Metro received for employment location and population growth modeling. Mr. Lee expressed concern with the political barriers that prevent the region from completing projects such as the CRC or Sellwood Bridge projects.

Les Poole,15115 SE Lee, Milwaukie: Mr. Poole addressed the Council on the Portland to Milwaukie Light Rail project; specifically his concerns related to potential impacts to Kellogg Lake, Kronberg Park and the surrounding natural area. He recommend a grade-level bridge and pedestrian crossing be considered. (Written testimony included as part of the meeting record.)

3. PORT OF PORTLAND STRATEGIC PLAN AND SUSTAINABLE INITIATIVES

Mr. Bill Wyatt, Executive Director, and Ms. Marla Harrison, Marine Environmental Manager, with the Port of Portland, provided a presentation on the Port's strategic plan and sustainable initiatives. Their presentation included information on the Port's structure and leadership, strategic focus, environmental and sustainability policies, new LEED gold-certified headquarters, and environmental programs (i.e. energy management, water resources, natural resources, waste minimization and recycling, and air quality programs).

Council discussion included brownfields and industrial land, Hillsboro and Troutdale airports, emerging markets (i.e. Brazil, India and China), collaboration with the Port of Vancouver, Washington, the Port's communication and community outreach efforts (i.e. newsletters and open houses), and potential impacts to the Port's terminals due to climate change and/or natural disasters.

4. CONSIDERATION OF THE MINUTES FOR FEBRUARY 17, 2011

Motion:	Councilor Rex Burkholder moved to adopt the Feb. 17, 2011 Council meeting minutes.

Vote:	Council President Hughes and Councilors Harrington, Craddick, Hosticka, Collette, Roberts and Burkholder voted in support of the motion. The vote was 7 aye, the motion passed.

5. RESOLUTIONS

5.1 **Resolution No. 11-4241**, For the Purpose of Confirming the Appointment of Daniel B. Cooper as Acting Chief Operating Office r

Council President Hughes passed the gavel to Deputy Council President Carl Hosticka to officiate the meeting for Resolution Nos. 11-4241 and 11-4242.

Motion:	Council President Hughes moved to adopt Resolution No. 11-4241.
Second:	Councilor Kathryn Harrington seconded the motion.

Council President Hughes introduced Resolution No. 11-4241. On Feb. 22 Mr. Michael Jordan announced his resignation as Metro's Chief Operating Officer effective March 15, 2011. Mr. Jordan leaves Metro for an opportunity to serve as COO for Governor John Kitzhaber's office. This resolution, if adopted, would appoint Mr. Daniel Cooper, Metro Attorney, to serve as the interim COO until the position is filled. The appointment would be effective starting March 15, 2011.

The Council thanked Mr. Jordan for all of his hard work and accomplishments and welcomed Mr. Cooper as the interim COO.

Vote:	Council President Hughes and Councilors Harrington, Craddick, Hosticka, Collette, Roberts, and Burkholder voted in support of the motion. The vote was 7 aye, the motion passed.

5.2 **Resolution No. 11-4242**, For the Purpose of Confirming the Appointment of Alison Kean Campbell as Acting Metro Attorney.

Motion:	Council President Hughes moved to adopt Resolution No. 11-4242.
Second:	Councilor Harrington seconded the motion.

Council President Hughes introduced Resolution No. 11-4242, the companion resolution to Resolution No. 11-4241. The resolution, if adopted, would appoint Ms. Alison Kean Campbell, Deputy Metro Attorney, as Acting Metro Attorney while Mr. Cooper serves as interim COO. The appointment would be effective starting March 15, 2011.

The Council expressed full support for the nomination and highlighted a few of Ms. Kean Campbell's accomplishments to date.

Vote:	Council President Hughes and Councilors Harrington, Craddick, Hosticka, Collette, Roberts and Burkholder voted in support of the motion. The vote was 7 aye, the motion passed.

6. CHIEF OPERATING OFFICER COMMUNICATION

Mr. Michael Jordan of Metro stated that the Clackamas County Metro 101 meeting has been rescheduled to a later date due to inclement weather.

7. COUNCILOR COMMUNICATION

Council discussion included an updated on the Feb. 23 Metro Policy Advisory Committee (MPAC).

7. ADJOURN

There being no further business, Council President Hughes adjourned the regular meeting at 4:04 p.m. and convened a work session in the council annex. The Metro Council will reconvene the next regular council meeting on Thursday, March 3 at 2 p.m. at the Metro Council Chambers.

Prepared by,

Kelsey Newell, Regional Engagement Coordinator

ATTACHMENTS TO THE PUBLIC RECORD FOR THE MEETING OF FEB. 24, 2011

Item	Topic	Doc. Date	Document Description	Doc. Number
	Agenda	2/24/11	Revised Feb. 24, 2011 Council meeting agenda	22411c-01
1.0	Oath of Office	2/24/11	Signed oath of office for Councilor Barbara Roberts	22411c-02
2.0	Testimony	2/12/2011	Written testimony submitted by Les Poole	22411c-03
3.0	PowerPoint	2/24/11	Port of Portland presentation provided by Bill Wyatt and Marla Harrison	22411c-04
3.0	Binder	N/A	Miscellaneous promotional material for the Port of Portland	22411c-05
4.0	Minutes	2/17/11	The draft Feb. 17, 2011 Council minutes	22411c-06
5.1	Resolution	N/A	Resolution No. 11-4241, Exhibit A and Staff Report	22411c-07
5.2	Resolution	N/A	Resolution No. 11-4242, Exhibit A and Staff Report	22411c-08

Building Bridges, Spanning Generations 3/3/2011

In the winter of 1850, my great great grandfather arrived on these shores, a refugee from dysentery and economic distress. He had left home in early 1849 with 40 other men and braved treacherous winter seas sailing around the Horn in hopes of finding gold. That dream, and his life savings, was quickly lost in the camps above Sutter's Mill. Yet, he was one of the lucky ones, as many of his fellow shipmates died in camp that year.

From there, sailing up the coast from San Francisco, and *up* the Columbia River, he arrived in the Oregon Territory and back to a life he knew as a boy back East. Ultimately, he settled just outside Champoeg and returned to the land to farm. He found home here and established roots in this lush Eden.

Remarkably, this occurred just 44 years after the Corps of Discovery made their epic journey into the wilderness, ultimately sailing *down* the Great River of the West, just a few miles from where we sit today. We all know how profound that journey was, and one day I hope we might honor that feat by building a bridge as worthy as that amazing journey.

There should be no doubt this river is special - a river of immense force and great lore that became a conduit for the inspired dreams of a nation still willing to forge field and stream, scale mountains and brave rapids just to get here. It's long been a source of our prosperity. It is our gateway to the world. Its bounty has fed us. Its power sustains us. And we should always be mindful we were not the first nation to enjoy these fruitful gifts.

So, what does any of this have to do with building a replacement bridge over the very river that allowed passage and prosperity for my forefathers and undoubtedly many of yours?

Well, as far as I see it, this bridge over the Columbia will define us, as much as we choose to define it. The bridge should be inspired, not unremarkable. It should compliment and enhance the beauty of its surroundings. Like Timberline Lodge, the Coast Highway, or the St. John's Bridge, it has the power to lift our spirits, telling the story of our hopes and our aspirations. If we choose well, it can become a symbol of our generation's optimism in the face of hardship; a testament to our willingness to lay the foundation for even greater prosperity and opportunity in the future.

In closing, we *are* at the tipping point in this decision. It's time for us to open our eyes, really study the options before us, and commit to build a landmark bridge. By all means, let's do it now. Yet, I have witnessed there are people -- well-intentioned people -- who believe we can no longer afford the time or the potential risk to this project to bother too much about the bridge itself or worry too much about the legacy we'll undoubtedly leave. Yes, we must choose soon, but *expedience* for it's own sake poses it's own risks and may lead us back down the wrong path again. We've been there already. This project can ill afford that mistake again.

My hope is that we all spend a moment at this very critical juncture to reflect deeply on the decision we are about to make - a decision that will have profound effects well in to the next century.

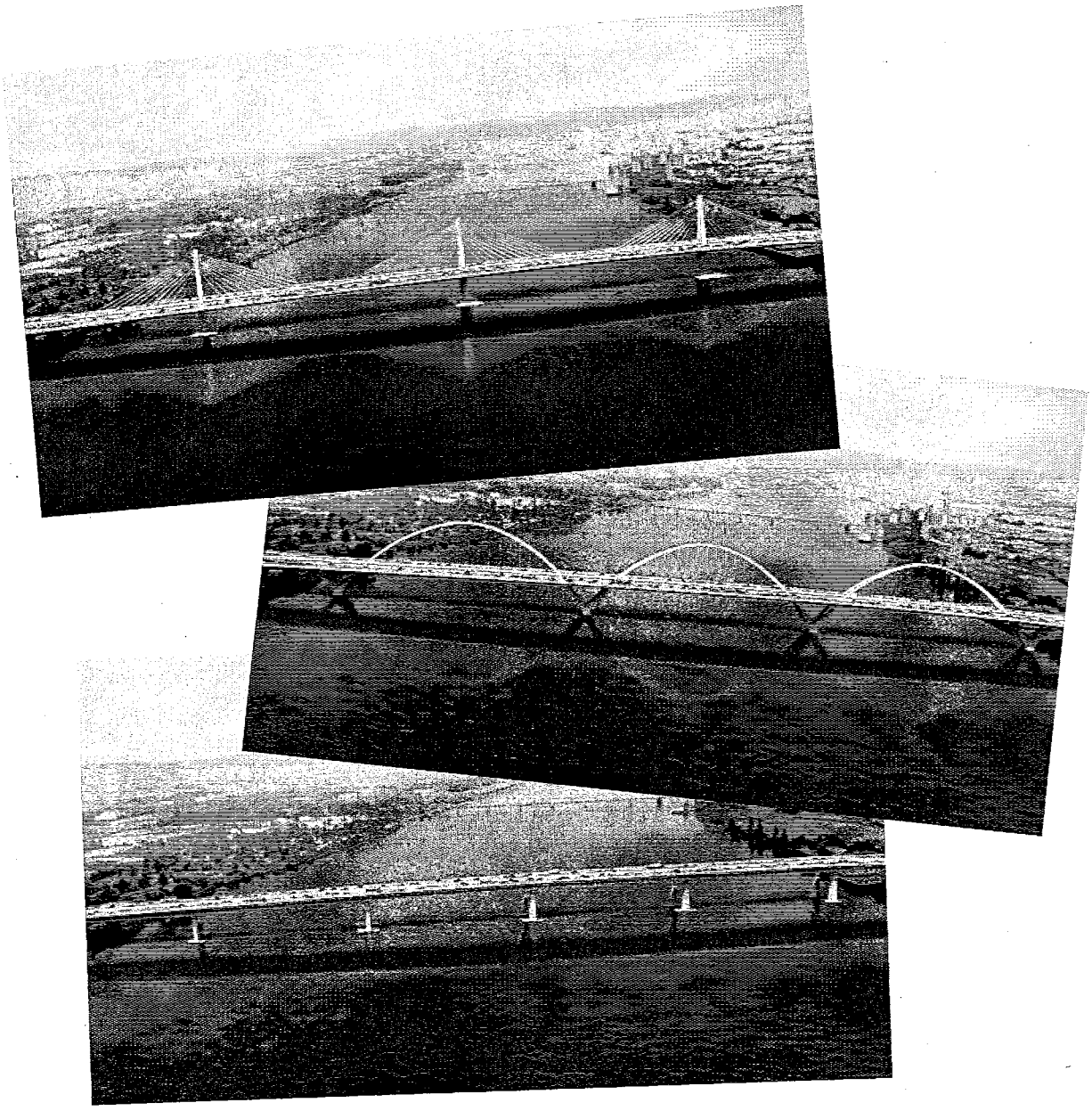
History bears witness that we've been in this place before. Past generations rose to great challenges and found their way. Now it's our turn. It's not too late to think boldly, to build broad consensus, then move ahead purposefully to achieve the desired outcome.

Thank you

Jeffrey Stuhr

Columbia River Crossing Project
Bridge Review Panel Final Report

February 3, 2011



Chair/Contact: Thomas R. Warne, PE • Tom Warne & Associates
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Executive Summary

The Columbia River Crossing (CRC) project is an important initiative intended to replace aging bridges that currently carry I-5 across the river between the cities of Portland and Vancouver. The formal environmental process as defined by the National Environmental Policy Act (NEPA) has proceeded to the point of publishing a Draft Environmental Impact Statement (DEIS) and work is proceeding towards a Record of Decision (ROD), which indicates formal federal approval of the environmental document and authorizes the state transportation agencies to proceed with design and construction based on funding availability.

The new Columbia River crossing represents the most dramatic river structure in the northwest and may be one of the last major crossings ever to be built along the West Coast. It will serve as an important transportation connection between Oregon and Washington and a gateway to Portland and Vancouver. Its significance cannot be overstated as it will meet the immediate and future needs of the growing and progressive area communities for many generations to come.

A number of issues remain unresolved; the most problematic concerns the current open-web box girder bridge design still in development. These concerns originated in the community and were echoed by the Independent Review Panel (IRP) report submitted to Governors Gregoire and Kulongoski in July 2010. Consequently, a Bridge Review Panel (BRP) was formed by the executives of the respective state DOTs. This 16 member panel was comprised of national and international bridge experts, plus key representatives from federal, state and local partner transportation agencies. The mission of the BRP was to examine the current design and potential bridge types given current project constraints and including scenarios where constraints are relaxed or modified. Issues such as meeting current environmental project commitments, sound technical and engineering approaches, aesthetic statements and cost effectiveness were also key considerations.

The current open-web box girder design stems from an evolutionary process that occurred over many years. A number of constraints have controlled the characteristics of this alternative. They include navigation, environmental, aviation, local and regional access, safety

and security, geologic considerations, architectural, and historic and protected properties. In an attempt to satisfy the many disparate constraints, the CRC project team developed the open-web box girder. Last year the IRP found that the open-web box girder has technical, cost and constructability risks, rendering it an impractical and costly alternative. The BRP was given license to reevaluate various project constraints and seek alternative solutions for the new crossing.

The Bridge Review Panel met three times between November 2010 and January 2011, and conducted the rest of the evaluations via email and teleconferences. The initial meeting on November 3, 2010 included a public session for presentation to the BRP of project specific information. Individual members of the panel performed substantial engineering analysis and other work during this period of time.

While substantive improvements to the current open-web box girder design were suggested by the BRP, technical and engineering issues with this alternative could not be overcome. Therefore, the BRP developed three new bridge types: cable-stayed, tied arch and composite deck truss. The cable-stayed design offers both a pleasing aesthetic statement and a cost effective engineering solution. The tied arch bridge alternative is also viable for the same reasons but at a higher cost. The composite deck truss is the least costly alternative and also provides a sound engineering solution. The cost estimates included in this report are preliminary in nature but accurate for this level of planning. They have been normalized to the open-web box girder and are relevant for comparative purposes.

All three bridge types proposed by the panel are more cost effective than the open-web box girder design and provide viable engineering solutions for the new crossing. The tied arch and cable-stayed alternatives have less "in-water" impacts than either the current open-web box girder or composite deck truss and provide a more meaningful aesthetic statement. The composite deck truss offers less "in-water impact" than the open-web box girder and similar aesthetic value. Both the tied arch and cable-stayed designs would require resolving aviation issues relating to Pearson Field, but these will not be insurmountable. The panel recognizes that a public and technical review process will now proceed to finalize a selection of the preferred bridge type.

The panel found that replacing the North Portland Harbor Bridge would be a cost-effective strategy, as would adopting a straight or tangent alignment downstream from the current bridges. The currently planned curved alignment is longer, unnecessarily limits bridge type options, increases the technical issues with the new bridge and has greater impacts on the viewshed of the surrounding area. The general layout of the interchanges and ramps for the corridor were also reviewed. The panel concluded that improvements to the functionality of the overall roadway network in the project limits should address urban design issues. The use of a collector/distributor system was found to be unworkable, but reducing and simplifying the number of interchanges would significantly improve both functionality and cost.

Any major civil project includes detractors, although concerns and issues surrounding the CRC project seem higher than normal, particularly for aesthetics and cost of the current design. The BRP has reviewed options to address these concerns early in the process so corrective action can be taken to avoid later delays.

Recommendations

Based on the research and information previously referenced, the Bridge Review Panel offers the following primary recommendations:

- **Recommendation 1: Discontinue any further design or planning work on the open-web box girder bridge alternative.**
- **Recommendation 2: Select a new bridge type from among three feasible alternatives: cable-stayed, tied arch and composite deck truss.**
- **Recommendation 3: Proceed with further analysis and public review of recommended alternatives in order to select a preferred bridge type.**
- **Recommendation 4: Work with the Federal Aviation Administration to resolve airspace issues with Pearson Field relating to either the cable-stayed or tied arch bridge designs.**
- **Recommendation 5: Develop a tangent (straight) alignment for the main river crossing downstream of the existing bridges.**
- **Recommendation 6: Replace the North Portland Harbor Bridge.**

Secondary Recommendations / Opportunities for Improvement

- Review all interchanges, ramps and other geometric features to simplify the overall corridor design for substantial cost savings and to improve safety and corridor operations.
- Review the potential impacts to the project description and technical studies for the environmental document and develop a work plan to maintain a realistic target date for the Record of Decision.
- Provide uniform seismic performance levels for the North Portland Harbor Bridge and Columbia River Bridge.
- Establish performance-based project specific criteria for all primary and secondary members upon selection of the final bridge type crossing the Columbia River.

Washington State Department of Transportation
Paula J. Hammond, P.E.
Secretary of Transportation

Oregon Department of Transportation
Matthew L. Garrett
Director

COLUMBIA RIVER CROSSING
KEY FINDINGS AND RECOMMENDATION RELATED TO BRIDGE TYPE
FEBRUARY 25, 2011

Three weeks ago Governors Gregoire and Kitzhaber instructed the two state Departments of Transportation to conduct an expedited review of three bridge types for the Columbia River Crossing (CRC) project and report back the week of February 21 with a draft bridge type recommendation. This report contains our work to date, a draft recommendation and next steps.

BACKGROUND:

In November 2010 the Columbia River Crossing Bridge Review Panel was convened to evaluate the bridge type under consideration for the CRC project. The 16-member bridge panel consisted of national and international experts with experience designing, managing and constructing large bridge projects.

On February 3, 2011, the panel of expert bridge designers and engineers released a report that offered three bridge types for consideration. Panel members found these three types to be less risky and potentially less expensive to construct than the proposed CRC bridge type.

The Governors responded immediately by adopting the panel's recommendation to discontinue any further design work on the current CRC bridge type. They also asked their Departments to perform an expedited review of the panel's three recommended bridge types – the tied arch, cable-stayed and deck truss. The Governors' identified specific criteria to be included in the expedited review of the three bridge types:

1. is the most affordable,
2. maintains the project schedule,
3. minimizes environmental impacts,
4. honors commitments that have been made to communities in both states, and
5. provides the least risk.

EXPEDITED REVIEW PROCESS:

Using the governors' criteria, the Departments of Transportation convened a group of bridge engineers, designers, project managers, and environmental managers who met daily to review the independent panel's conclusions and conduct further analysis related to the governors' charge. The Departments met with FHWA, FTA and resource agencies to receive input.

The Departments also simultaneously arranged for the chair of the panel to meet with CRC stakeholders, project partners and the public to present the panel's findings and respond to questions. Meetings were held with members from the bicycle/pedestrian, freight, urban design, and Portland and Vancouver

advisory groups; local elected officials and agency partners; an open meeting with the public; and the Project Sponsors Council.

The work of the independent bridge panel, supplemental review by ODOT/WSDOT's technical team, and the questions and concerns from project partners and the public have informed this report and our draft recommendation on bridge type.

KEY FINDINGS:

The independent panel found that all three bridge type options – tied arch, cable-stayed, deck truss – would be suitable for the crossing over the Columbia River and did not endorse any one over the others.

Our findings are organized specifically to evaluate the three bridge types against the criteria outlined by the governors. The states' technical team built on the panel's work, vetting the panel's observations and conclusions, and conducting further analysis, noting additional questions, concerns or findings.

Is the most affordable

Comparative Costs* (Bridge Panel Report)

CRC design	$ 440,000,000
Tied Arch	$ 430,000,000
Cable-stayed	$ 390,000,000
Deck Truss	$ 340,000,000
*2011 dollars, no adjustments, estimates only	

The Departments concur with the panel's finding that the deck truss has the lowest comparative cost. It should be noted that the panel focused on the comparative cost of the over-water structure, not the landings on both sides of the river. Once the bridge type is selected, additional work will be needed to determine specific costs associated with the landings. The full project cost estimate will be updated in 2011, after a cost estimate validation process (CEVP) workshop is conducted.

Potential schedule changes and new environmental, design and engineering work are not included in the cost estimates above.

Maintains project schedule

The CRC project schedule includes publication of the Final Environmental Impact Statement and receipt of the federal Record of Decision by the end of 2011. According to the panel's report, the deck truss is the only bridge type that would allow the project to maintain this schedule. The chair of the panel confirmed that the deck truss is also the only bridge type option that can apply much of the work done to date by the CRC. Consequently, the deck truss has the least risk to the project schedule during design and construction phases.

The bridge panel ranked risk factors on a scale of one to four, with one being low risk and four being the highest risk. The Departments of Transportation reviewed and endorsed the following key findings and risk factors related to project schedule.

Project Schedule: Risk ranking	Record of Decision	Design	Construction
Arch	2	2	2
Cable-stayed	2	2	1
Deck Truss	1	1	1

The Departments agree that a Record of Decision in 2011 would be possible with the deck truss. Due to the alignment and footprint changes, in addition to airspace intrusion, the cable-stayed and tied arch bridge types would require additional coordination with resource agencies and the Federal Aviation Administration (FAA).

CRC staff has reviewed the panel's report with resource agencies, FTA and FHWA. Agency review further supports the panel's work and provided more detail about schedule changes that would be associated with the cable-stayed or tied arch options. These options would likely require a supplemental draft environmental impact statement.

The cable-stayed or tied arch bridge types would invade Pearson airspace and require further work with FAA. The schedule for a hazard determination from the FAA is still being confirmed and further work would be necessary for an accurate assessment of the impact on the project schedule. The findings from a hazard determination process would result in further work to determine risk, liability and mitigation requirements.

Minimizes environmental impact

The panel did not include environmental specialists, but members worked to develop feasible bridge types that would have similar or improved environmental effects to the open web design. The panel provided preliminary information about the number of piers in the Columbia River and the overall footprint of the piers. The panel's report notes that the cable-stayed bridge would have the fewest piers in the water and the deck truss would have the smallest in-water footprint.

In- Water Impacts	# of Piers	Footprint
Arch	4	60,000 SF
Cable-stayed	3	52,000 SF
Deck Truss	10	44,000 SF

Long term and temporary construction environmental impacts of the deck truss would be similar to the previous design and supplemental analysis would be minimal. The cable-stayed and arch options would require additional analysis with resource agencies to determine the effects associated with the size of the piers and the piers needed to transition the bridge to the land-side highway. The Departments also

identified questions about the potential for different or more temporary construction impacts for the cable-stayed and tied arch bridges. Resource agencies are interested in the number of piers, size of the piers, overall footprint, the location of the piers (nearshore or in-water), level of shading, and the specific in-water structures necessary during construction.

Honors commitments

The panel provides three bridge types that are technically feasible for the interstate crossing over the Columbia River. The arch and cable-stayed require a tangent (straight) alignment which would require some changes to the areas where the bridge touches down to land on each side of the Columbia River. The deck truss proposed by the panel has a straightened alignment, but the departments note that the bridge type can be modified to include a slight curve to allow landings more consistent with existing commitments. The deck truss alignment and landings would closely match the assumptions and commitments made as the previous bridge design was developed. The tied arch and cable-stayed bridge landing would require revisiting some past commitments.

Separately, the panel also suggests replacing the North Portland Harbor bridges, to the south of the Columbia River. The panel was not asked to evaluate how well these options met prior commitments to communities and stakeholders.

The departments agree that all three of the bridge types could be constructed without replacing the North Portland Harbor Bridge. Built in 1985, this structure does not need to be replaced as part of the CRC project.

Provides the least risk

The panel identified 15 risk factors for consideration. When presenting the report, the panel chair noted that cost growth, procurement and construction claims along with schedule are the key risks to evaluate for delivering a project on time and on budget. The Departments' analysis supported the panel's findings that the deck truss was found to have the least risk.

SUMMARY OF RISK	ROD (Record of Decision)	Design	Const.	Procurement	Cost growth	Const. claim
Arch	2	2	2	3	3	3
Cable-stayed	2	2	1	3	2	2
Deck Truss	1	1	1	1	1	1

STAKEHOLDER, ADVISORY GROUPS AND PUBLIC COMMENTS

Comments from the public generally fell into three areas: aesthetics; the importance of moving the project forward; and detailed questions about different aspects like the bike path elevation with the cable-stayed, the covered vs. uncovered pedestrian paths, and access to transit.

Themes expressed by the more than 70 people who attended the public meeting include:

- Support for moving the entire CRC project forward as quickly as possible and selecting a bridge type that will allow that to occur.
- Support for keeping construction and planning costs down.
- The replacement I-5 bridge will stand for at least 100 years and time should be taken to 'get it right.'
- Appreciation of a process that resulted in new designs that could provide an "iconic" feature for the region.
- Agreements made in summer 2010 related to the design and alignment of the Hayden Island interchange should be maintained. However, some Hayden Island residents expressed a willingness to re-consider previous project designs to accommodate a cable-stayed bridge.
- Support for a cable-stayed bridge based on aesthetics, cost, potential to reduce adverse effects to fish and wildlife and seismic performance.
- Support for a composite deck truss based on similarity to previous open-web box girder design, cost and ability to stay on schedule.
- Questions related to location of bicycle and pedestrian pathway, including grades and pathway widths.
- Questions about the ability of the single-bridge designs (cable-stayed and tied arch) to place light rail track on top and the pedestrian/bicycle pathway under deck to keep people away from traffic.
- Questions related to costs for operations and maintenance for each of the three bridge designs proposed by the bridge review panel.
- Questions about the impacts of different bridge types on traffic operations.

Aesthetics

Aesthetics were a more prominent issue for some advisory committee members and local agency staff than other issues initially.

Local agency staff asked the CRC to recommend to the governors to include aesthetics as a criterion for determining a bridge type. This request reflects comments we heard from different stakeholders and advisory members. It is based in part on a belief by some stakeholders and bridge panel members that the cable-stayed bridge type is a more aesthetically pleasing option than the deck truss. Other supporters of the cable-stayed bridge type also argue that a more aesthetically pleasing design would build greater public acceptance for tolls and/or general support for the bridge. This sentiment is reflected again in a belief by some that although the cable-stayed option may cost more, and take a little longer, it would take less time in the end because the community would be more supportive of the project. Finally, a few stakeholders feel so strongly about the opportunity for making a statement with the bridge that they would prefer that aesthetics be a primary consideration when selecting the bridge type and that schedule, cost and environmental effects should be secondary.

Local agency staff pointed out that the bridge panel included a public support (aesthetics) factor in their risk rating. The deck truss was rated a 4 while the arch and cable-stayed bridge options both received a

1. The chair did not include it in his presentations based on the more subjective nature of the finding and the limited public input.

The bridge panel chair has stressed that much of the aesthetic and design discussion can occur after the bridge type has been decided. His presentations included an example of how a relatively standard bridge type can result in an award winning architectural design.

The Departments agree that aesthetics should be recognized as an important element and evaluated in the context of all of the competing needs. We also agree that a comprehensive public conversation about aesthetics should occur after the bridge type is selected.

DRAFT RECOMMENDATION

After review of the panel's work and report, supplemental technical analysis, conversations with resource agencies, consultation with project partners, and consideration of public comments, the Departments are prepared to recommend the deck truss as the only bridge type that meets the needs of both states and the criteria established by the Governors.

It is the Departments' and the independent Bridge Panel's findings that the deck truss:

- is the most affordable,
- allows the project to stay on schedule,
- adheres to the current environmental commitments,
- builds on the resources spent to date,
- has the least impact in the river,
- is the easiest bridge to build,
- will attract multiple contractors thus giving the public the most competitive prices, and
- is overall the least risky path forward.

NEXT STEPS

The Departments of Transportation and the CRC will meet with the public, stakeholders, project sponsor council staff, and local elected official to discuss, answer questions and gather feedback on the recommended deck truss bridge option. Project advisory committees (CRC Urban Design, Freight, Pedestrian/Bicycle and Portland and Vancouver advisory groups) will continue to be briefed and their feedback and concerns will be delivered to the Governors, along with all public, stakeholders, and local partners' feedback prior to any final recommendation. Additional opportunities for public review and comment on the recommendation will be held in both Portland and Vancouver on March 10, 2011

By mid March, the Departments will provide a final bridge type recommendation to the Governors for their consideration.

Columbia River Crossing
Bridge Type Review
February 25, 2011

Criteria	Deck Truss	Cable-Stayed	Tied Arch
Cost* (Most affordable)	$340,000,000	$390,000,000	$430,000,000
Cost Growth (Probability of cost increases during construction)	Least likelihood due to problems arising during construction	Higher likelihood due to problems arising during construction	Highest likelihood due to problems arising during construction
Schedule (Least impact on project schedule)	Allows project to stay on current schedule	Would likely require a Supplemental DEIS due to airspace issues with Pearson Airfield and changes to the Biological Opinion. If required, a SDEIS would add 1-2 years	Would likely require a Supplemental DEIS due to airspace issues with Pearson Airfield and changes to the Biological Opinion. If required, a SDEIS would add 1-2 years and would also lengthen construction duration
Environmental Impacts (in-river area)	44,000 SF footprint in the river with 10 in-water piers	52,500 SF footprint in the river with 3 in-water piers	58,000 SF footprint in the river with 4 in-water piers
Honors Stakeholder Commitments	Commitments are largely unchanged and maintained depending on the alignment	Straighter alignment may impact commitments at touchdown points in Vancouver and on Hayden Island	Straighter alignment may impact commitments at touchdown points in Vancouver and on Hayden Island
Risk (Design, Procurement)	Lowest risk: most straight forward design, attract largest pool of bidders	More risk: Design is common but more complicated, attract good pool of bidders	More risk: Design is common but more complicated, attract good pool of bidders

***Cost estimates shown are comparative costs for the bridge types over the Columbia River only and do not include any costs over land to connect back into the proposed infrastructure. Costs are not inflated for year of expenditure and should not be used to compare to previous estimates for CRC bridge or project costs.**

Deck Truss Bridge Type | Looking north to Vancouver

Metro Conditions from Exhibit A to Resolution No. 08-3960B

Overall Status Classification:

- Issue is settled or on track to be settled with the conclusion of the FEIS and ROD
- Issue is settled or on track to be settled with the conclusion of the FEIS and ROD but further refinement and decision-making after the FEIS/ROD will be required
- Conflict or inconsistency between jurisdictions; or issue is unresolved; or issue needs additional work

OVERALL STATUS CATEGORY	NUMBER	ISSUE	EXPLANATION OF STATUS
	A	Tolling – Implement tolling on I-5 as soon as legally and practically permissible; consider diversion to I-205 and tolling of that facility with revenues used for projects in the region.	The project has undertaken various analyses of tolls and the impact of tolling, though additional studies and analysis will need to be undertaken as the project advances. At this point, tolling of I-5 is an essential element of the project, both to manage congestion and as part of the funding package for the CRC project along with federal and state funding. Tolling of interstate facilities must be consistent with the provisions of Title 23 U.S.C. Section 129, the federal law that specifies the circumstances under which interstate facilities may be tolled. The CRC project qualifies, though tolling of I-205 does not because federal regulations allow tolling of existing facilities only if a project involves reconstruction or replacement of that facility. Reconstruction or replacement of I-205 is not being proposed as part of the CRC project nor is tolling being proposed for I-205 in connection with the CRC project. At this time, tolling is not being considered to fund other projects in the region. Further information on federal requirements can be found at: http://www.ops.fhwa.dot.gov/tolling_pricing/toll_agreements.htm Tolling of I-5 during construction of a new facility is permissible under federal statutes, but no recommendations or decisions about tolling during construction have been made. Tolling during construction could serve as a demand reduction measure to reduce traffic during the construction phase. An aggressive construction phase Transportation Demand Management (TDM) program has been developed and tolling during construction is still a possibility. Specific decisions on tolling, including the possibility of advance tolling as well as toll rates and toll structure, will be made by the appropriate bodies after consultation with the project's local partners and a public outreach and education process. Under current statutory authority, the Washington Transportation Commission and the Oregon Transportation Commission have tolling authority in their respective states. The issues of tolling and tolling authority may also be explored in the forthcoming discussions on governance related to the project. Analyses conducted for the CRC project included using the regional traffic forecasting model to assess the impact of various tolls on total traffic and diversion to I-205. The Tolling Study Report, released in January 2010, included analyses of a no-build scenario, a no-toll build scenario, and ten other scenarios with varying toll structures and some with tolling of the I-205 and I-5 bridges. Key findings from the analysis undertaken for the CRC project included:

			• The regional travel forecasting models project that under the base tolling scenario, the CRC project will reduce auto travel on I-5 across the Columbia River, as compared to the No Build. The CRC project will also reduce overall person trips on I-5, as compared to the No Build due to the effect tolls have on shifting some cross river trip origins and destinations. • When looking at the tolled vs. no toll scenarios, tolling and transit improvements reduce auto travel across the river on I-5 by approximately 40,000 trips per day for the base tolling scenario (the numbers of trips vary by tolling scenario). • At the Columbia River, there is an approximate 4.5% shift of auto trips on an all day basis from I-5 to I-205 as compared to the Build No-Toll scenario. More diversion to I-205 is predicted in the off-peak hours when capacity is available than during peak hours. On I-205 south of I-84, the models estimate that diversion will be approximately 1% on an all day basis as compared to the no build. The Tolling Study Report had three principal conclusions about diversion: • For most of the I-5 only toll scenarios, the majority of drivers would not change their travel patterns. Some would choose a new destination or a non-tolled route. Additional diversion to transit is minimal due to the already significantly increased ridership associated with project improvements. • Higher tolls on I-5 would cause more route diversion; however, the percentage of diversion tends to be lower during peak periods when travelers' willingness to pay tolls may be higher and/or alternative routes are congested, and thus, time-consuming and diversion during off-peak periods occurs when available capacity can accommodate the diversion. • For scenarios that toll both the I-5 and I-205 bridges, traffic levels would be higher on I-5 and lower on I-205 compared to tolling only the I-5 bridge. However, compared to the No Toll "No Build" project scenario, total cross-river traffic demand would be less on both the I-5 and I-205 bridges as many trips would divert to transit or not be made across the Columbia River. The No Toll "No Build" scenario would result in the most significant congestion in the I-205 corridor due to diversion from the I-5 corridor due to the severe congestion bottleneck in that corridor. Additional information about the impact of tolling and diversion to I-205 can be found in The Tolling Study report at: http://www.columbiarivercrossing.org/FileLibrary/Tolling/CRC_TollingStudyCommitteeReport.pdf
	B	Number of Auxiliary Lanes – Determine the number of auxiliary lanes across the Columbia River.	During summer 2010, additional study was undertaken through the Integrated Project Staff (IPS) and the Project Sponsors Council (PSC). Developing performance measures and a more robust Transportation Demand Management Plan were among the actions considered to reduce the need for auxiliary lanes. The IPS recommendation forwarded to the PSC on August 5, 2010 was for a configuration with three through lanes and two auxiliary lanes in each direction and with standard 12-foot shoulders. The new recommendation results in narrower bridges than were previously recommended. PSC concurred and forwarded its recommendation to the Governors on August 13, 2010. The decision on the number of lanes will be confirmed and finalized with the publication of the Final EIS and the issuance of the Record of Decision. Both are expected in 2011.

	C	Impact Mitigation and Community Enhancement – Mitigate for adverse human health impact of the project or existing health impacts in the project area; implement community enhancement projects that address environmental justice.	The project is committed to providing users and the surrounding neighborhoods with a safe and reliable transportation facility. The project is working with and within the surrounding communities to help build upon and support their community goals. The CRC project has been working with and will continue to work with the community to blend the transportation system enhancements and improvements into the fabric of the community. The project's goals include designing and constructing the project with as little disruption to the community as possible and developing the project such that it enhances the transportation and livability of the community and preserves the environmental, scenic, aesthetic, historic, natural and social resources of the area. The philosophy of the project is to leave the area better off and to provide enhancements within the community as part of the overall project design rather than providing a funding source for enhancement elements separate and disjointed from the rest of the project. Many enhancements are included in the project, such as improved local street connections in downtown Vancouver and Hayden Island, the provision of light rail transit in the corridor, replacement of substandard facilities for bicyclists and pedestrians with new "world class" facilities, local auto access from North Portland to Hayden Island on a separate arterial bridge and a safer highway network for all users. Human health issues are embedded in the National Environmental Policy Act's intent and in its implementation. The analyses conducted for the Columbia River Crossing DEIS, and further updates for the FEIS, address all potentially significant human health impacts that could reasonably result from the proposed action. The project, with planned mitigation, would not have adverse health impacts. Key findings leading to the conclusion that the project would not have adverse health impacts include analyses related to air quality, noise and vibration, climate change and greenhouse gases, and water quality. These four areas are highlighted below: • All criteria air pollutants and mobile source air toxins will be lower, in some cases significantly lower, in 2030 than they are today. Some pollutants will be slightly higher in some areas with the project than with the no-build, but emissions will be substantially below today's levels and will be well within relevant standards established to promote public health and welfare. Long-term mitigation for air quality impacts is not proposed. The FEIS will describe measures to reduce impacts from construction emissions. • Noise impacts from highway traffic will be lower with the project than without due to proposed mitigation, primarily sound walls. All light rail noise can be mitigated. • The project will reduce greenhouse gas (GHG) emissions compared to the no-build. The project will implement recommendations from the Governor's Climate Change Integration Group regarding how transportation in Oregon can reduce GHG emissions. • Currently, all runoff from the river crossing and most runoff from I-5 in the project area discharges untreated into the Columbia River and other surface waters. The project will provide water quality treatment for 115 percent of the new impervious surface, including the entire river crossing and most of I-5 in the project area that is currently untreated. These changes are beneficial to the health of aquatic species and people. The Draft EIS included and the Final EIS will include more detailed information, including analysis, applicable standards, conclusions, and mitigation where appropriate on the following topics related to human health:

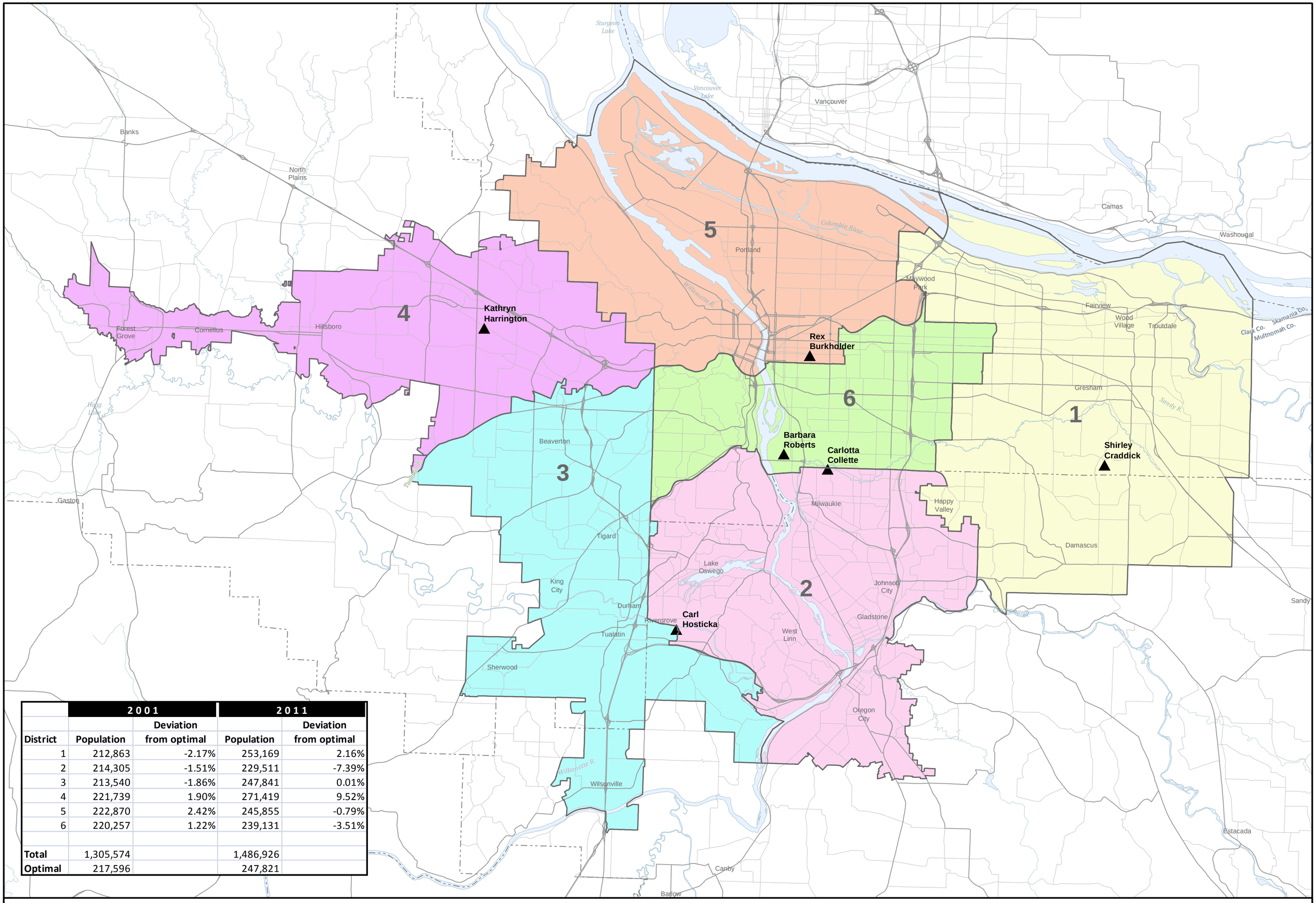
			· Air Quality · Noise and Vibration · Land Use and Economics · Neighborhoods · Pedestrians and bicycles · Traffic and Transit · Visual and Aesthetics · Parks and recreation · Public services · Environmental justice· Hazardous materials · Water Quality The major steps to the impact analysis that followed or occurred simultaneously with data collection were: neighborhood resource mapping, the completion of displacement surveys, review of potential impacts and benefits from other disciplines (such as air quality), evaluation of potential impacts to low-income housing developments, and a robust outreach and communication program. In response to questions raised by various parties commenting on the DEIS, including the Multnomah County Health Department, the project team did undertake additional analyses including assessing greenhouse gases, additional air quality and noise studies. The Final EIS will include substantially more documentation than the DEIS related to health impacts. The CRC website will provide access to the FEIS and technical reports upon their publication.

	D	Demand Management – Develop state-of-the-art demand management techniques in addition to tolls to influence travel behavior and reduce greenhouse gas emissions.	The TDM Working Group developed both a Construction Phase and a Post-Construction Phase TDM program. The recommended Construction Phase program is a bi-state, multi-pronged approach that seeks to maximize use of alternative modes of travel through targeted marketing and additional services. The IPS has also endorsed a Post-Construction TDM Program with the goal of shifting as much as an additional 11 percent of peak person trips to non-SOV modes above the level assumed in the travel forecasts generated for the project, resulting in a non-SOV mode share that could exceed 50 percent. The Construction Phase TDM Plan was endorsed by the PSC. Additional follow-on work has been recommended to move toward implementation. To facilitate the active management of the corridor, the PSC adopted the concept of a Mobility Council on March 6, 2009. The Mobility Council would regularly assess all aspects of the corridor and the direct and indirect impacts. The PSC vision of the Mobility Council would include active management in four areas: the toll rate structure, the use of through and auxiliary lanes; transit policies; and transportation demand management strategies. During 2009 and 2010, the PSC oversaw the development and endorsed the TDM plans. TDM Plans were presented to and endorsed by the PSC on January 22, 2010 and on August 9, 2010. The PSC also established a Performance Measures Advisory Group to help establish performance measures, targets and strategies to help inform the design of the CRC project and to manage the system after construction. Key performance measures focused on freight, commuter and transit travel times; safety; greenhouse gas emissions; financial considerations; and the benefit/cost ratio. The Performance Measures Advisory Group recommendations were presented to and endorsed by the PSC on January 22, 2010 and August 9, 2010.
	E	Financing Plan – Develop a financing plan for presentation to the project partners and the public that indicates federal, state and local funding and how the project could impact other expenditures in the region.	A Conceptual Finance Plan was developed and shared with the PSC on January 22, 2010. The plan illustrates how the project could be funded using a combination of federal and state funds and toll revenues. On May 14, 2010, the PSC received additional presentations related to tolling and federal funding priorities. The funding plan in the FEIS is based on these concepts and will be updated as appropriate, The funding plan will be continually reviewed with the PSC as it evolves and will be finalized prior to the FTA approval of entry into final design, which is anticipated in the fall of 2011. The federal funding sources being sought for the project are principally those for which no other projects in the region are eligible. Financing issues will continue to evolve with consultation among the project partners. Additional work remains on the financing plan with each additional step requiring more detailed analyses in accordance with requirements of the Federal Transit Administration and Federal Highway Administration. After the approval of the Final EIS, additional financial analysis and commitment will be required before federal agencies authorize entering into final design. An even more detailed financial analysis and a higher level of commitment will be required before federal agencies enter into a full funding grant agreement. Since issuance of bonds for the construction of the project is envisioned, a formal investment grade bond revenue analysis and a determination of bonding capacity will be required in the future. The Tolling Study can be found at: http://www.columbiarivercrossing.org/FileLibrary/Tolling/CRC_TollingStudyCommitteeReport.pdf Information presented to the PSC about funding from federal sources can be found at: http://www.columbiarivercrossing.org/FileLibrary/MeetingMaterials/PSC/PSC_WorkshopMaterials_051410_1of2.pdf

	F	Capacity Considerations, Induced Demand and Greenhouse Gases – Conduct additional analysis of GHG and induced automobile demand; prominently display the results in the FEIS; include comparisons of the auxiliary lanes; pursue reductions in VMT in support of targets established by the states.	In November 2008, the Greenhouse Gas Emissions Expert Review Panel was convened to review the GHG and climate change methodology used in the project's Draft EIS. In its report issued on January 8, 2009, the panel validated the methodology and confirmed the findings in the Draft EIS - that the CRC project would be expected to reduce GHG emissions relative to the No-Build. They made suggestions for future analyses that will be incorporated into the FEIS. This updated analysis has been completed including use of the latest EPA MOVES model, taking into account mode shift to transit, bike and pedestrian, the effect of speeds on emission rates and the reduction of emissions due to crashes and bridge lifts. This analysis shows similar results to the DEIS analysis but with even greater GHG reductions than previously estimated. Additionally, the GHG and Climate Change analysis in the CRC Draft EIS received the 2009 NEPA Excellence Award from the National Association of Environmental Professionals. The Greenhouse Gas Expert Review Panel's report can be found at: http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/GHG_PanelReport_010809.pdf Since release of the DEIS, several groups, including the Transportation Demand Working Group, the Performance Measures Advisory Group, and the IPS, have worked on strategies designed to enhance mobility, especially through promotion of alternative modes of travel that reduce both GHG emissions and VMT. The strategies and plans of each of these groups have been endorsed by PSC. Additional work relating to implementation of these strategies and plans will be needed as the project advances. Further discussion relating to the recommendations and implementation of transportation demand management strategies can be found in Issue D, above. A qualitative analysis of the potential for induced travel demand was conducted by the Travel Demand Expert Review Panel. In its report dated November 25, 2008, the panel concluded that "the CRC project finding that the project would have a low impact to induce growth is reasonable for this corridor because the project is located in a mature urban area." The report can be found at: http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/TravelDemandModelReview_PanelReport.pdf An additional study of induced growth was conducted by Metro during summer 2010 using its Metroscope model. This quantitative study also concluded "that the proposal would have negligible impact on population and employment growth in Clark County, when comparing the projected growth that would occur with the project with the projected growth that would occur even with no change to the existing bridge." According to Metro, the three main conclusions from its summer 2010 analysis using Metroscope were: • The CRC project produces a minor difference in regional growth relative to the no-build alternative and almost no change compared to the No-Build if tolls are imposed on I-5. • The results using Metroscope reinforce the previous qualitative analysis with its quantitative approach. • The no-build and build scenarios result in basically the same growth patterns for population and employment and confirm the validity of the approach used for forecasting traffic volumes in the Draft and Final EIS involving holding population and employment forecasts constant between the Build and No-Build scenarios. Results of the Metroscope analysis were summarized by Metro in its news release that can be found at: http://news.oregonmetro.gov/1/post.cfm/metro-finds-columbia-river-crossing-toll-bridge-with-light-rail-would-have-negligible-impact-on-growth

	G	Preservation of Freight Access – Describe the physical improvements and tolling methods that will be used to ensure trucks are granted priority due to their importance relative to single-occupant autos; ensure that freight capacity at interchanges is not diminished by industrial land use conversion.	The importance of freight has been recognized throughout the project. The Freight Working Group provided key input to the design process, including the design of key interchanges such as the Marine Drive interchange. The design standards used for the project seek to accommodate trucks used in commerce. The ramp terminals, ramps, and interchanges have been sized to provide needed capacity for trucks. Freight-only lanes and ramps were considered, but were not recommended by the Freight Working Group. The project's plan for the Marine Drive interchange includes a flyover ramp from eastbound Marine Drive to northbound I-5 and braided ramps on southbound I-5 between the Marine Drive and Interstate/Victory Boulevard interchanges. Analyses conducted for the project indicate that neither of these is required short-term and can be delayed until after year 2030. Both projects, however, are considered part of a long-term solution because of the importance of accommodating freight movements, particularly those associated with the Port of Portland and other industrial uses along Marine Drive. The revised plan for the Hayden Island Interchange includes provision of an arterial bridge across the Portland Harbor, connecting Hayden Island to North Interstate Avenue and Martin Luther King Blvd in lieu of ramp connections through the I-5/Hayden Island interchange complex to the Marine Drive interchange. This has a beneficial impact for freight by removing this auto traffic from the key freight access interchange, the Marine Drive interchange. Electronic tolling is planned for the project. It is currently assumed that trucks will pay more based on number of axles or weight. Both DOTs share the concern about capacity being used up by unplanned non-industrial development, but must rely upon the partners with land use authority to prevent industrial lands from being converted to other uses with unacceptable transportation impacts. One of the relatively new methods of protecting the capacity of interchanges being used in Oregon is an Interchange Area Management Plan (IAMP). An IAMP identifies long-range improvements, access management strategies, and land use tools that are used to protect the interchange. IAMPs are adopted by the local jurisdiction and by the Oregon Department of Transportation. Development of IAMPs is underway for both the Hayden Island and Marine Drive interchanges. Adoption by the City of Portland and the Oregon Transportation Commission are expected sometime during 2011.
	H	Light Rail Transit – Implement light rail transit as a required element in any plan that moves forward.	Light rail transit was selected as the high capacity transit mode and is being advanced as a key element of the project. Confirmation of the selection of light rail transit as a project element will be with the publication of the Final EIS and the issuance of the Record of Decision. Both actions are expected in 2011.
	I	Design of Bicycle and Pedestrian Facilities – Undertake additional design to include "world class" bicycle and pedestrian facilities on the bridge, approaches and throughout the bridge influence area; meet or exceed standards; be adequate to meet the	A "world class" facility for pedestrians and bicyclists is being advanced. It will feature a facility for bicyclists and pedestrians on the main span with more width than other facilities in the Portland-Vancouver region and far exceeds minimum standards. The capacity of the facility is calculated to be more than adequate for the predicted use. The Pedestrian and Bicycle Advisory Committee (PBAC) spent considerable effort helping develop a complete system that features a river crossing using one of the lower-level sections of the bridge for the main river crossing. PBAC helped develop appropriate connections at both ends of the project and for Hayden Island. PBAC also recommended development of a future maintenance and security plan that has been endorsed by PSC and committed to by the Oregon and Washington DOTs. Connections for bicyclists and pedestrians to the local network in downtown Vancouver, Hayden Island, and streets and multi-use paths in the vicinity of Marine Drive and Delta Park are still undergoing refinement. The project is committed to providing good connections that meet or exceed all applicable standards, such as width and grade, that avoid or minimize conflicts among modes of travel, and that seeks to improve the

		demand considering tolls and other transportation demand measures.	existing circuitous routing patterns in the area. Many features needed to implement this vision for a world class facility in the corridor, such as the precise locations, widths, grades, etc will be determined in the final design phase including consultation with local agencies and stakeholders.
	J	Urban Development Impacts at Re-designed Interchanges – Undertake additional evaluation of the impact of redesigned interchanges and urban development potential; preserve and improve access to the Expo Center.	Several of the interchanges, especially the Marine Drive and Hayden Island interchanges, have undergone considerable additional analyses. Key participants in these evaluations have been the Marine Drive Stakeholder Group and the Portland Working Group. Several options for the Marine Drive interchange were explored. Key issues considered in the designs for the Marine Drive interchange included the impact on freight movements, access to existing industrial uses in the area, access to the Expo Center, and the creation of parcels that could be put to beneficial uses. The Hayden Island interchange also underwent additional study designed to further the Hayden Island Plan and implement features that are supportive of transit, seek to implement a "main street" for Tomahawk Island Drive, and minimize the footprint of the project on Hayden Island. Additional analyses led to a new concept (known as Concept D) utilizing an arterial bridge to provide access between Hayden Island and N. Expo Road with a corresponding elimination of direct freeway ramps within the project design between Hayden Island and the Marine Drive interchange. Efforts are currently underway to incorporate this into a design that will be included as the preferred option in the Final EIS. Additional refinement work addressing urban design characteristics will continue as the project advances toward construction. The Portland Working Group and other stakeholders will be consulted as the project seeks to advance the design. Overall, the combination of improvements at and around the Marine Drive and Hayden Island interchanges substantially improves local connectivity and access apart from the freeway improvements and the resulting removal of the congestion bottleneck. Access to/from Expo is substantially improved and representatives from Expo have been involved in the process.
	K	Bridge Design – Consider bridge type and aesthetics before the final design.	In seeking to achieve a quality design meeting aesthetic values, the project has made extensive use of advisory groups including the Urban Design Advisory Committee (UDAG), a Sustainability Working Group, the Independent Review Panel (IRP), the Hayden Island Design Group, and a constructability working group. The Urban Design Advisory Committee (UDAG) developed design guidelines and recommended a two-level, two-bridge concept that is being advanced. Overall guidance has been provided by the IPS and PSC to meet these objectives. UDAG's recommended guidelines are currently being developed into "architectural standards" by WSDOT and CRC staff to use as the project moves into final design. These standards will be shared with UDAG, the cities of Portland and Vancouver, and other stakeholders and will be used for the bridge and other elements of the project. Beginning on November 3, 2010, the Bridge Expert Review Panel began reassessing bridge types, and constraints. The Bridge Expert Review Panel is expected to complete its work by the end of January 2011 and is expected to provide its findings on design and aesthetics in a manner integrated with their review of the bridge type. The Panel's recommendations will be used by the project to advance the project to final design with changes as appropriate. Design and aesthetic conversations will continue with the public and advisory groups as the project advances.



	2001		2011	
District	Population	Deviation from optimal	Population	Deviation from optimal
1	212,863	-2.17%	253,169	2.16%
2	214,305	-1.51%	229,511	-7.39%
3	213,540	-1.86%	247,841	0.01%
4	221,739	1.90%	271,419	9.52%
5	222,870	2.42%	245,855	-0.79%
6	220,257	1.22%	239,131	-3.51%
Total	1,305,574		1,486,926	
Optimal	217,596		247,821	

Metro Council Districts

DRAFT, March 3, 2011

▲ Current council home location

miles
0 0.5 1 2

Metro
Making a great place