

March 16, 2012

The Honorable Lee Beyer, Co-Chair
The Honorable Cliff Bentz, Co-Chair
The Honorable Tobias Read, Co-Chair
Joint Legislative Oversight Committee on Columbia River Crossing
State Capitol
900 Court St. NE, Room 453
Salem, Oregon 97301

RE: Financial Impacts and Risks of the Proposed Columbia River Crossing

Dear Co-Chairs Beyer, Bentz and Read:

I submit the following testimony for your consideration as you undertake oversight of the proposed Columbia River Crossing project.

I have been retained by Plaid Pantries, Inc., to undertake an economic and financial analysis of the Columbia River Crossing. For 16 years, I have been principal economist for my firm, Impresa, Inc. I am appearing today exclusively in that capacity. I have devoted my career to studying and analyzing the Oregon economy and other regional economies and evaluating economic development policies. Prior to starting my firm, Impresa, I served for 12 years as Executive Officer of the Joint Legislative Committee on Trade and Economic Development. I am a non-resident Senior Fellow at the Brookings Institution, Senior Research Advisor for CEOs for Cities, and current chair of the Governor's Council of Economic Advisers.

Over the past four years, I have carefully studied the financial aspects of the Columbia River Crossing. Based on my analysis, detailed below, I conclude that; it is highly unlikely that necessary funding for the construction of the project will be forthcoming from the sources and in the amounts described in the project's financial plan and that this project proposes significant financial risks for the State of Oregon. My analysis is divided into seven parts, as follows:

1. Traffic forecasts and toll revenues
2. Discretionary federal highway funding
3. FTA new starts transit funding
4. Washington
5. Oregon
6. Cost overruns
7. Likely outcomes

The Columbia River Crossing Project

The proposed Columbia River Crossing project would rebuild a 5 mile long segment of Interstate 5 between Portland Oregon and Vancouver Washington, demolishing the existing Interstate Bridges, constructing a new river crossing, widening the freeway, rebuilding several interchanges, and extending light rail from the Expo Center to Clark College. The project is estimated to have an initial capital cost of \$3.40 to \$3.76 billion dollars, which would be funded by a combination of tolls, and federal and state revenues.

The total costs of the project, including capital, and operating costs and financing costs over the next 30 years would be considerably higher. According to documents provided by the Columbia River Crossing, the project would entail the following costs:

- \$2,700 million in toll bond interest payments,
- \$1,700 million in toll collection costs,
- \$ 275 million credit card, sales tax and bond issuance costs
- \$ 175 million incremental transit operating costs

Together, over the next 30 years, all funders—federal and state taxpayers and bridge users—may have to contribute a total of \$8.6 billion, including initial capital costs and ongoing operating and finance costs. The purpose of this analysis is to consider the portion of those costs that are likely to fall on Oregon taxpayers. While funds are projected to come from a variety of different sources (the federal government, tolls from users) ultimately, it is the two states that are responsible to pay for the project.

1. Traffic Forecasts and Toll Revenues

The Columbia River Crossing's project need statement and financial plan are predicated on the assumption that traffic on I-5 across the Columbia River will grow from 127,000 vehicles per day today, to 184,000 vehicles per day in 2030. These projections underpin the assumption that the project can generate more than \$1 billion in toll backed borrowing to pay project construction costs. These projections are seriously flawed, calling into question both the need for the project and the validity of its financial plan.

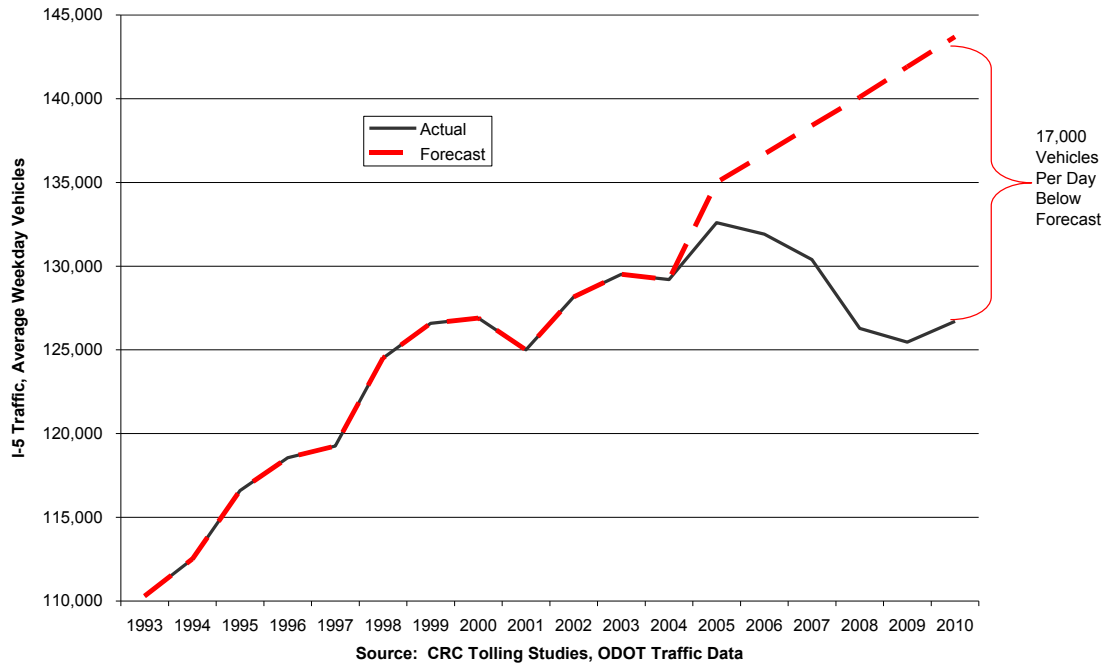
- Actual data show CRC traffic forecasts are wrong. Current traffic levels are 17,000 vehicles per day below the levels forecast by CRC.
- Independent analyses by the State Treasurer found CRC overestimated traffic, overestimated population and employment growth, and missed a big decline in traffic on I-5 that started a decade ago.
- CRC traffic projections haven't changed since 2007, and have completely failed to account for the effect of persistent high gas prices, that have produced steady declines in vehicle miles of travel.
- The Columbia River Crossing's Environmental Impact Statement, issued in September 2011, contains no traffic data after 2005.

- ODOT and CRC consultants have admitted the models used to forecast traffic simply don't work for tolled facilities.
- CRC has yet to perform a rigorous "investment grade" forecast that would show how much could realistically be borrowed against toll revenues
- CRC's models do not allow for an absolute and sustained post-tolling decline in I-5 traffic similar to that actually experienced on SR 520.
- WSDOT has just admitted that in the case of the Alaskan Way Viaduct Replacement project, it has over-estimated the amount of money available from tolling by 100%-- rather than getting \$400 million from tolls, it will likely get only \$200 million
- CRC's so-called peer review was not provided with materials in CRC's possession that criticized CRC results, nor was it provided with actual data on traffic on I-5.

The traffic and toll revenue forecasts prepared for the Columbia River Crossing are not accurate. The original forecasts were prepared based on 2005 base year data, and were published in 2007, and incorporated in the May 2008, Draft Environmental Impact Statement. The Columbia River Crossing has not produced new forecasts of travel since that time. The Final Environmental Impact Statement, published in September 2011 contains no information on traffic levels on I-5 between 2005 and 2011.

Actual traffic data show that CRC traffic projections are wrong. The CRC projections are that traffic on the I-5 bridges should have reached 143,700 vehicles per day in 2010. Actual traffic levels were 126,700 vehicles per day in 2010, 17,000 vehicles per day below the CRC forecast. These figures are based on our analysis of ODOT's data on traffic levels on I-5, through November 2010.

CRC Forecast v. Actual



In addition, the question is not merely whether traffic is increasing again now, but whether it will recover to the previous levels, and whether traffic will grow at anything close to the rate CRC projected in the DEIS. The evidence shows the growth rate is much slower than forecast, raising serious questions about the project's financial viability.

The Treasurer's independent review of the traffic forecasts confirmed the flaws in CRC traffic forecasts. In 2011, the Oregon State Treasurer retained Robert Bain of RB Consult to review the CRC finance plan and traffic projections. Bain concluded that:

- Traffic and revenue analyses prepare for the CRC were unsuitable for credit analysis
- CRC traffic projections were confusing and outdated
- Authors of the traffic projections failed to examine historical data or verify their models against actual trends
- Diversion estimates to I-205 were "worrying."
- Overall, the CRC appears to have overestimated traffic.
- Toll revenue appears to be over-estimated by 25 percent.

(Bain 2011)

Both ODOT and CRC consultants have concluded that the models used to estimate CRC traffic do not produce valid, accurate estimates of traffic for tolled facilities. In February 2009, the Oregon Department of Transportation received a report prepared by Parsons Brinckerhoff, David Evans and Associates Inc., and Stantec Consulting Services Inc. The authors of this report all happen to be contractors for the Columbia River Crossing project. The report is entitled *Tolling White Paper 3: Travel Demand Model Sufficiency*. This document is available on the Internet at the following address:

<http://www.oregon.gov/ODOT/TD/TP/docs/LRPU/twp3.pdf>

ODOT's report finds that the current models used to forecast traffic in Oregon, and specifically in the Portland Metropolitan Area, including the Metro model, are inadequate to accurately predict traffic volumes on tolled facilities, such as the proposed Columbia River Crossing. Consider ODOT's summary of this report:

Existing models in Oregon are rated as excellent for the purposes they were designed, and some are internationally recognized. However, Oregon models have not been specifically designed to evaluate toll projects, so **planners are not able to confidently forecast travel patterns for projects that are considering tolling/pricing. Existing models are not able to determine how travelers would change their mode, route, travel time, or destination in response to tolling/pricing.**

Oregon Department of Transportation, Tolling and Travel Demand Model Sufficiency, Highlights of Tolling White Paper 3, March 2009, page 1,

http://www.oregon.gov/ODOT/TD/TP/docs/LRPU/Highlight3.pdf#Tolling_White_Paper_3

(Emphasis added)

As the ODOT study shows, the Oregon Department of Transportation and the principal contractors for the Columbia River Crossing concur that the traffic forecasting methods used by the CRC are not accurate or reliable. Accurate estimates of future traffic levels are central to assessing the need for this project, justifying its size, evaluating its environmental impacts, and most crucially, determining the viability of its financial plan.

An investment grade financial analysis that would accurately predict potential revenue from tolling has not been prepared. The analytical cornerstone of any borrowing secured by future toll revenues is the preparation of an independent investment grade financial analysis. Such an analysis rigorously assesses the underlying financial, traffic and economic assumptions behind toll revenue forecasts, frequently adjusting them downward to offset "optimism bias" in agency-sponsored forecasts (Bain 2009). The Independent Review Panel (2010), the Oregon State Treasurer (2011), and the Bain (2011) report prepared for the Oregon State Treasurer have all called for the preparation of an investment grade financial analysis for the Columbia River Crossing. Such an analysis will be required both to obtain bond funding and is also a requirement for eligibility for TIFIA loans from the federal government (Federal Highway Administration 2011). The CRC has not undertaken an investment grade financial analysis, nor

does the May 31, 2011 project schedule show any timetable for preparing an investment grade analysis (Columbia River Crossing 2011). Until an investment grade analysis is prepared no one can be sure of how much money can be borrowed against future toll revenues from the Columbia River Crossing. Even local agencies have indicated that the lack of an investment grade analysis impairs their ability to commit to the project. The Clark County Regional Transportation Council has withheld any approval of funding for the CRC, saying:

The information in the finance chapter is reasonable, it does not mean that RTC has committed to fund or build the project. An investment grade analysis of the financial plan has yet to occur and is necessary in order to satisfy RTC's concerns regarding cost sharing, project costs, and potential project phasing.
(Regional Transportation Council 2011).

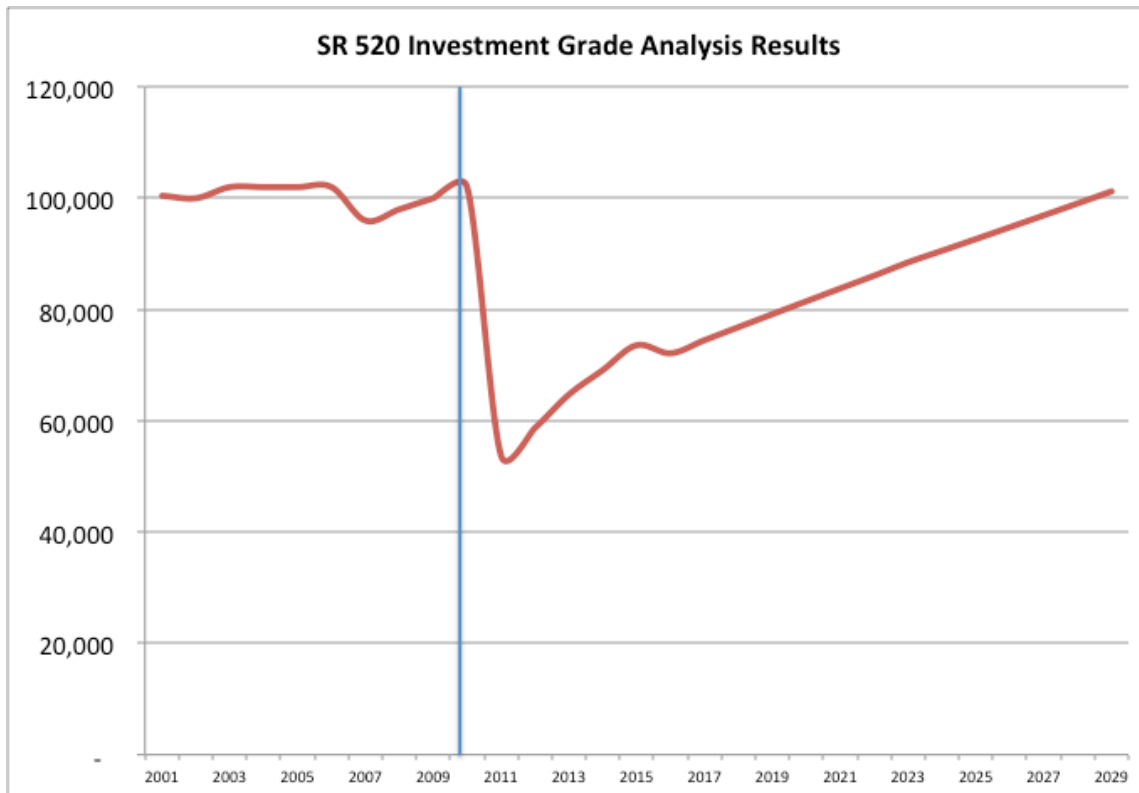
The presence of a non-tolled alternative jeopardizes CRC toll revenue potential. The current financial plan for the Columbia River Crossing calls for tolling the I-5 bridge, but not the I-205 bridge. In approving tolling for the I-5 bridge, the Washington Legislature specifically included a prohibition on tolling the I-205 bridge. The presence of a non-tolled alternative in close proximity to a newly tolled facility is a red flag for bond rating agencies and bond buyers (Bain 2009). The ready availability of a non-tolled alternative makes it difficult for bond purchasers to be assured that the tolled facility will produce sufficient revenue to repay bonds, and makes it likely that toll rate increases will divert traffic to the non-tolled facility rather than providing increased revenue. If I-5 is tolled but I-205 is not, it may be difficult to sell toll-backed bonds. Alternatively, the principal amount of such bonds may be much lower than the amounts now assumed in the Columbia River Crossing financial plan.

The recession does not explain the decline in I-5 traffic, and in any case, CRC has not revised its traffic projections or impact analysis to reflect the much slower rate of growth. It has been claimed that the decline in traffic since 2005 is attributable to the economic recession, which began in December 2007. Robert Bain, the consultant to the Oregon State Treasurer conclusively disposed of this argument in his report:

Traffic volumes using the I-5 Bridge have flattened-off over the last 15-20 years; well before the current recessionary period. This is highlighted by the red dotted trend line in the chart below which was estimated up to and including the year 2006 (i.e. it omits the recent 2007 – 2010 period characterised by fuel price hikes and economic recession). The clear inference is that the flattening-off is a long-term traffic trend; not simply a manifestation of recent circumstances.
(Bain 2011, page 3)

The experience with tolling the 520 Floating Bridge in Seattle suggests that traffic could decline much more than forecast by CRC. How much below projections could toll revenues fall? If the experience with the Highway 520 Floating Bridge in Seattle is any indication, tolling I-5 could result in dramatically lower volumes for a sustained period of time. Washington

instituted tolling on the Highway 520 floating bridge between Seattle and Bellevue in December 2011; this bridge carried about 105,000 vehicles per day (in the same range as the 127,000 traveling across the I-5 bridges). Tolling produced an immediate and sustained decline in traffic: over the first few months, traffic is down 34 percent from the comparable period a year earlier. The Investment Grade Analysis prepared for the 520 Floating Bridge suggests that it will take nearly 20 years to recover the previous volume on this highway, because of the disincentive created by tolling.



Source: Wilbur Smith & Associates SR 520 Investment Grade Analysis

A similar analysis for the SR 520 bridge in Seattle showed tolling cutting traffic up to 40 percent from current levels, and not recovering for 20 years; a similar effect on I-5 would slice the amount CRC could expect from bonds by hundreds of millions of dollars.

If the I-5 bridges experience a 34 percent decline from current levels, this would cause traffic to drop from an expected level of about 135,000 vehicles per day before tolling begins to about 90,000 vehicles per day. This traffic shortfall would reduce the revenues from tolls, which assume that travel on the bridge rebounds quickly, and grows to 178,000 toll-paying vehicles per year by 2030.

Lower incomes in Clark County mean I-5 would experience higher toll-related traffic diversion than SR 520. It is worth noting that the combination of SR 520 and I-90, the two bridges crossing Lake Washington, which are generally comparable to the I-5 and I-205 bridges over the Columbia River, serve a larger, and importantly much higher income population. Data collected by the U.S. Census Bureau show that about 70,000 workers cross Lake Washington each day commuting to or from jobs in Seattle and Eastside communities. (Microsoft’s world headquarters is in Redmond, and more people commute from Seattle to Eastside jobs than vice-versa). About 60,000 workers each day cross the Columbia River commuting to jobs in Clark County or Multnomah, Clackamas or Washington Counties. Significantly, 68 percent of Lake Washington crossing commuters earn \$40,000 or more, while only 50 percent of trans-Columbia River commuters earn that much. Because they earn higher wages, Seattle area commuters are much less likely to be influenced to change travel patterns because of tolls.

Cross Columbia and Cross Lake Commuters, 2009, Seattle and Portland, by Average Annual Wage

	All Workers	Workers Earning \$40,000 or more	
<u>Seattle (Cross Lake Commuters)</u>			
Eastside to Seattle	25,041	16,875	67.4%
Seattle to Eastside	45,859	31,829	69.4%
Total	70,900	48,704	68.7%
<u>Portland (Cross Columbia Commuters)</u>			
Clark County to Oregon	50,307	25,300	50.3%
Oregon to Clark County	11,002	5,432	49.4%
Total	61,309	30,732	50.1%

(Source: U.S. Census Bureau, LED On-the-Map, 2012)

WSDOT has cut its toll revenue projections in half. The experience with the 520 bridge, has led the Washington Department of Transportation to radically lower its estimation of the revenues that are likely to be produced by tolling. WSDOT now concedes that it has over-estimated the value of time that highway users attach to faster travel on toll facilities. For several years, WSDOT confidently predicted that tolling the replacement deep bore tunnel for the Alaska Way Viaduct in downtown Seattle would produce \$400 million in revenue to defray construction costs. Last month, WSDOT cut its estimate of net toll revenue in half, to \$200 million.

Years before the first car will pay a toll to travel through the new tunnel along the Seattle waterfront, the State Department of Transportation is being forced to significantly revise downward the amount of money it will collect in tolls.

WSDOT is revising the revenue downward by \$200 million, in effect cutting the projection in half.

“We felt confident in the projections,” said WSDOT's David Dye. But Dye says the sluggish economic recovery, and experience with tolling on the 520 bridge has shown people are now more willing to sit in traffic to avoid paying tolls. Traffic volumes on 520 are down by 40 percent.

“We surveyed the value of time people have,” Dye said. In other words drivers are valuing their time less.

Forman, Jim “The \$200 million tunnel miscalculation,” King5.com, February 27, 2012.

The CRC has made only modest adjustments to its toll revenue forecasts since the DEIS. In the Draft Environmental Impact Statement, CRC estimated that post-construction tolling would provide between \$1,070 and \$1,350 million in net financial resources for project construction (DEIS, Financial Report, Exhibit 4.3-2). In testimony to the Legislature, CRC claims to have adjusted these figures to reflect the critical comments made as part of the Treasurer’s review. However, the Final Environmental Impact Statement shows that the project anticipates only slightly lower levels of net bonding revenue from post-completion tolling: between \$932 and \$1,106 million (FEIS, Financial Report, Exhibit 4.4-2). This means that the CRC has reduced its expectation for tolling by between 13 percent and 18 percent. This is obviously a far smaller adjustment than WSDOT has just made to its forecast for the Alaska Way Viaduct replacement project. And traffic on I-5 is already 17,000 vehicles per day, or about 12 percent below CRC’s baseline projections.

CRC's peer review panel does not validate the accuracy of CRC projections. In 2008, the CRC hired transportation planners from metropolitan planning organizations in other states to spend two days reviewing CRC traffic forecasts. The group was provided with a narrow list of questions constructed by CRC advocates. They did not invite or receive testimony from any critics of the CRC traffic projections. The participants were provided with a briefing book prepared by CRC staff. The briefing book contained no information about criticisms made of the CRC projections. Nor did it contain historical data on traffic over the I-5 and I-205 bridges. Nor did it contain data showing that after the base year of the CRC projections (2005) traffic levels had declined for three consecutive years. (See Columbia River Crossing 2010b). In its report, the peer review panel concluded only that the CRC methods and assumptions used were “within standard practice.” The panel did not vouch for the accuracy or reliability of the CRC forecast numbers. As noted by the Government Accountability Office (2005), and the Transportation Research Board (2007), the problem is that the standard four-step (trip generation, trip distribution, mode choice and routing) transportation models consistently over-estimate traffic congestion, and as pointed out above, are incapable of accurately predicting traffic on tolled facilities.

Actual traffic data show that CRC traffic projections are wrong. The CRC projections are that traffic on the I-5 bridges should have reached 143,700 vehicles per day in 2010. Actual

traffic levels were 126,700 vehicles per day in 2010, 17,000 vehicles per day below the CRC forecast. These figures are based on our analysis of ODOT's data on traffic levels on I-5, through November 2010. These data show:

- Traffic growth rebounded modestly in 2010. According to ODOT's calculation, for the first 11 months of 2010, traffic levels were up 1 percent over the 12 months of 2009. (Compared to the first 11 months of 2009, traffic in the first 11 months of 2010 was up 0.7 percent).
- Traffic in 2010 was 126,700 vehicles per average weekday.
- This traffic level is still almost 6,000 vehicles per day below the 2005 peak of 132,600.
- The 2010 traffic level is 17,000 vehicles per day below the DEIS forecast of 143,700 vehicles per day in 2010.
- In order to reach the DEIS forecast, traffic growth would have to almost double -- to 1.9 percent per year -- and grow that fast every year for the next two decades. Over the past decade, traffic has increased that fast in only one year (2002).

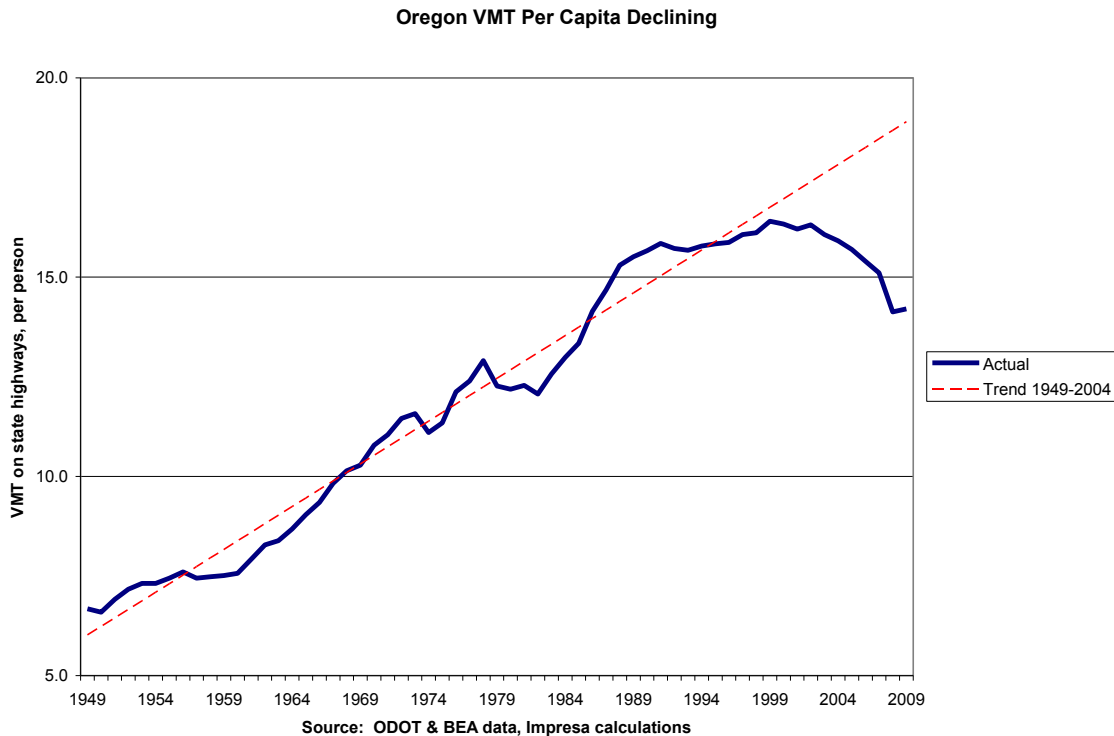
CRC traffic forecasts do not account for higher gas prices.

CRC traffic forecasts appear to be badly out of date, and there is no evidence that they have been adjusted to deal with current gasoline prices or development trends. The CRC traffic forecasts are poorly documented, and don't indicate what baseline data were used, what assumptions were made, and what error and uncertainty factors are associated with these estimates. It appears from the documents included in the Environmental Impact Statement that traffic projections were made in 2007, based on 2005 data. The forecast documents refer to the "current year" for traffic purposes as "2005." The key measures of traffic activity (184,000 crossings of the I-5 bridge in the no-build, and 178,000 in the build alternatives), have remained essentially unchanged for several years.

The CRC transportation model assumes low gas prices that do not increase faster than inflation, and is based on behavior observed in the 1990s when gasoline cost about \$1.00 per gallon. The modeling was based on Metro's transportation model (Columbia River Crossing, 2010f). The Metro model was calibrated based on behavioral data collected in 1994 and assumes that real gasoline prices would not increase at all, i.e. that gasoline prices increase no faster than the rate of inflation (Higgins, 2008).

There is clear evidence that the persistently much higher level of gas prices since 2005 has produced a sea change in consumer behavior. Nationally, per capita driving has been in decline since 2004, and is now at 1999 levels. The decline in CRC traffic is symptomatic of a wider national trend. Overall per capita vehicle miles traveled continue to decline nationally.

This is confirmed by ODOT’s own data on travel on state highways; vehicle miles traveled per capita on state highways peaked in 1999, and are 13 percent below that level. On a per capita basis, Oregonians are driving on state highways at rates lower than at any time since 1987. This shift is not a small or temporary change induced by the recession—it is a long term shift in the nation’s driving habits that is not captured in transportation models calibrated in an era of cheap energy.



This trend is also confirmed by similar data from the Washington DOT. Between 2006 and 2009, per capita vehicle miles traveled in Washington State have declined 3.9 percent (Washington State Department of Transportation, 2010b)

The CRC has not addressed traffic projection issues identified by the Independent Review Panel in July 2010. In 2010, Governors Kulongoski and Gregoire appointed an Independent Review Panel (IRP) to examine the CRC. CRC advocates have implied that the Independent Review panel validated CRC traffic projections. For example, in defending CRC projections, Metro Councilor Burkholder claimed that “The Independent Review Panel that was convened came in, had some good criticisms, every criticism has been responded to and we’ve adopted almost every one of those.” (Metro Council Recording, June 9, 2011).

In fact, the IRP raised numerous significant questions about the project, traffic projections and related issues, many of which are still unaddressed. Specifically:

- The IRP said that the CRC would need to do new and more finely detailed traffic projections (Independent Review Panel 2010, p 179). These have not been prepared.
- The IRP said that the CRC should do a sensitivity analysis of 8-, 10- and 12-lane configurations (Independent Review Panel 2010, p. 119). These have not been prepared.
- The IRP said that the City of Portland and ODOT should “fully program” a solution for the Rose Quarter bottleneck (Independent Review Panel 2010, p. 114). This has not been done.

CRC altered the output of the Metro model to shift traffic to the I-5 bridge. While it is frequently claimed that CRC projections should be trusted because they are the product of the Metro transportation planning model, it is very important to note that the CRC traffic forecasters manually adjusted the outputs of the Metro model in what they called “post-processing.” The reasonableness of this adjustment is not supported. The CRC claims that an analysis of 2005 actual traffic data shows that actual traffic on I-5 was underestimated, relative to I-205 by the regional model. The authors made no apparent attempt to see if their adjustment was supported by data in any subsequent year. But each year after 2005, traffic volumes have been proportionately higher on I-205 than I-5, undercutting the stated basis for this “post-processing” adjustment.

According to the report, the effect of the “post-processing” adjustment was to increase traffic volumes assigned to the I-5 bridges by 6 percent over the levels predicted by the regional transportation model without this modification. Despite its technical sounding name “post-processing” really represents a judgment on the part of the CRC to disregard the outputs of the Metro travel demand model, and to manually choose the values for traffic.

2. Discretionary Federal Highway Funding

CRC is counting on a \$400 to \$500 million earmark—over and above what the state would otherwise get from the federal government for highways—but Congress has virtually banned earmarks and the federal government is more likely to cut transportation funding from current levels. Only a year ago, ODOT officials claimed that this money would come exclusively from a special earmark program—money that would not otherwise come to Oregon. But now, the FEIS makes it clear that almost every formula grant program that comes to Oregon may be used to pay for the CRC. Already, the CRC has used federal and state money for planning that could be (and in the past has been) used to pay for a wide range of projects around the state.

- The CRC finance plan counts on up to \$500 million in federal discretionary highway funds between 2012 and 2020 (see Columbia River Crossing Final Environmental Impact Statement, Exhibit 4.4-9 Finance Plan Scenario for LPA: High Cost Estimate with Low

Estimate of Funding from Toll Rate Schedule 3 in Millions of Year-of-Expenditure Dollars, page 4-25).

- The outlook for discretionary funding in current transportation reauthorization legislation is dim. Both the Senate (MAP-21) and House (HR7) reauthorization bills ban earmarks.
- ODOT and CRC officials now concede that they don't know where federal highway funds for CRC would come from.
- Both the Senate and House reauthorization bills eliminate funding for discretionary grants. Nearly all funds are allocated by formula.
- Under the pending reauthorization legislation, Oregon will get less in formula funds in the future than in previous years (\$8 million less annually in the Senate Bill, \$45 million less annually in the House Bill (HR 7.) These numbers represent the "best case" scenario because both bills have provisions to rescind funding if sufficient revenues don't become available. (Oregon Department of Transportation, 2012)
- Even these lower levels of funding are unlikely to be realized because the Highway Trust Fund is running out of money; both the Senate and House bills are likely to produce dramatically lower levels of funding for transportation, because other sources of revenue have not been found.
- The House reauthorization bill eliminates the "Projects of National and Regional Significance, the Senate Bill continues the program, but provides no funding. Congress may appropriate general funds to the PNRS program in the future, but CBO projects it will provide a total of only \$780 million nationally over the next 7 years, or about \$110 million per year for the entire country
- The sources of "discretionary" funds that have been used for CRC have regularly been used for other projects around the state. The state used "interstate maintenance discretionary (IMD)" funds for projects in Medford, Oregon City, Ontario, Salem and Tualatin. There is no "special pot" of money from which the state will receive funding only if it proceeds with the CRC.
- The CRC already anticipates obtaining federal formula funds coming to the state to finance the project. The FEIS financial plan lists nine different formula funded programs as possible sources of funds for the CRC.
- Any federal funds used for the CRC in the future are likely to be taken from a diminished pot of formula allocated funds that could be used for a wide variety of needed projects throughout the state.

The CRC claims that federal highway funds would come from a special pot that could not otherwise fund projects in Oregon. For years, CRC advocates have traded on the idea that the CRC is a special project that will get funding from "a special pot" that wouldn't otherwise be available to the region, and that it wouldn't compete for dollars that could go to other projects, like federal formula funds. For example, earlier Matt Garrett, ODOT director told Legislators:

"Federal highway funds are being sought from a category known as Projects of National Significance. Very few projects in the country and no other projects in the region can

compete for these funds These sources are unique to the CRC project and do not affect other Oregon projects.”

Garrett Letter to Legislators, January 27, 2011

Notice in particular three things about Mr. Garrett’s statements. First, the passive voice and indefinite form “funds are being sought.” Second, Mr. Garrett is silent on what would happen if these discretionary funds either aren’t available, or fall short of the amounts being “sought.” And third, Mr. Garrett in no way rules out seeking funding for CRC from other sources.

CRC now plans to divert federal funds from formula allocations that automatically come to Oregon regardless of which projects the state selects. The FEIS Financial Plan, however, now makes it clear that CRC will tap any available source of federal funds, including using federal formula allocations that are available for a wide range of projects in the region and the state. The FEIS financial specifically identifies nine categories of formula funds that could be used to pay for the CRC, including:

- National Highway System funds (NHS)
- Surface Transportation Program Funds (STP)
- Interstate Maintenance Funds (IM)
- Fixed Guideway Modernization Funds (Section 5309)
- National Highway Traffic Safety grants (NTSA)
- Congestion Mitigation Air Quality funds (CMAQ)
- Urbanized Area Formula Grants (Section 5307)
- Job Access and Reverse Commute Funds (JARC)
- New Freedom Funds

(Final Environmental Impact Statement, Financial Plan, page 4-5 to 4-6)

And CRC leaves the door open to seek additional funds. The wording of the FEIS Financial Plan makes it clear that everything about the plan is effectively hypothetical, and will change later.

As stated earlier, the financial plan scenarios discussed above are illustrative of the financial tradeoffs between the alternatives. The finance plan will be refined during final design, and the final plan may differ from the scenarios discussed above.

(Final Environmental Impact Statement, Financial Plan, page 4-18)

The current illustrative financial plan scenarios are valid if, and only if, the CRC could obtain a \$400 million to \$500 million earmark or discretionary allocation. This was always at best just a speculation. Recent developments in Washington DC make it clear that it is a virtual impossibility.

Federal transportation reauthorization legislation makes it highly unlikely that any discretionary funds will be available for CRC highway improvements. While the outcome of the reauthorization debate is still unsettled, this much is clear. Oregon will get less federal

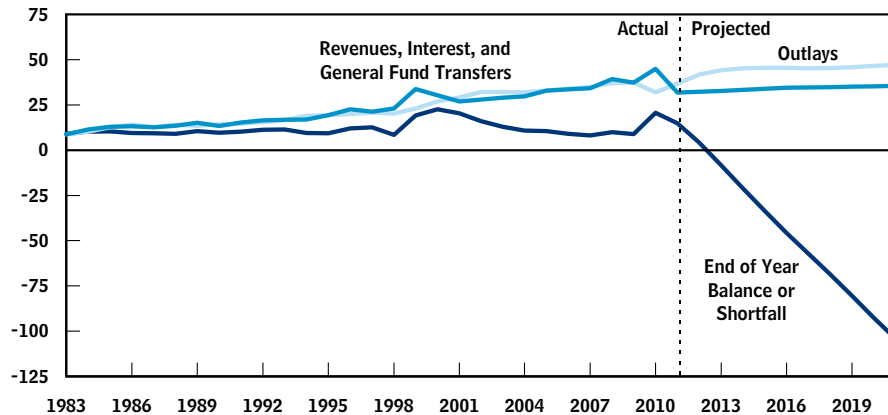
money in the next few years than it has in the past, and it will get exactly the same amount of highway money whether or not it builds the CRC. The only source of federal funding for CRC highway improvements will come from money that Oregon would get otherwise and could legally spend on highways throughout the state.

Neither the Senate nor the House reauthorization bills contain funding for "projects of national or regional significance." And both drafts ban earmarks. The House bill, HR 7, consolidates categories and eliminates Projects of National and Regional Significance and Interstate Maintenance Discretionary funds. The Senate bill, called MAP-21 has a so-called national freight provision, but that money is allocated to the states by formula, and consequently wouldn't represent any overall increase in highway funding above current levels. Under either of these bills, nearly all funds allocated to Oregon will be by formula.

The federal Highway Trust Fund is running out of money. According to the Congressional Budget Office, outlays now exceed revenues under current law by more than \$10 billion annually, and the trust fund will run out of money within the next two years. Over the next decade the fund is expected to have a deficit of \$115 billion (Kile 2011).

Status of the Highway Account of the Highway Trust Fund

(Billions of dollars)



Source: Congressional Budget Office.

Key Legislators regard CRC as oversized and unlikely to get federal funding.

Representative Peter DeFazio, a key legislator, whose support is vital to any federal funding, has repeatedly expressed his dismay about the size and cost of the CRC. On August 7, 2011 Representative DeFazio told the Associated Press that the outlook for funding for the Columbia River Crossing is now "very, very, very, very grim." (Fought and Cooper 2011).

In the Oregonian on August 14, Representative DeFazio said:

"I kept on telling the project to keep the costs down, don't build a gold-plated project," a

clearly frustrated DeFazio said. "How can you have a \$4 billion project? They let the engineers loose, told them to solve all the region's infrastructure problems in one fell swoop... They need to get it all straight and come up with a viable project, a viable financing plan that can withstand a vigorous review."

(Manning, Jeff. "Columbia River Crossing could be a casualty of the federal budget crunch", The Oregonian, August 14, 2011).

Later, Representative DeFazio told Oregon Public Broadcasting:

"I said, how can it cost three or four billion bucks to go across the Columbia River? . . . Now with the proposed Republican cuts in transportation . . . they want to cut this [transportation spending] by 35 percent, that means minimally we lose 600,000 to a million jobs and projects like this don't go forward. . . . Right now it's very problematic. . . . The Columbia River Crossing problem was thrown out to engineers, it wasn't overseen: they said solve all the problems in this twelve-mile corridor and they did it in a big engineering way, and not in an appropriate way."

"Think Out Loud," Oregon Public Broadcasting, August 18, 2011.

CRC officials concede that they have no idea of where federal discretionary funding or earmarks might come from. In recent public statements, CRC officials have conceded that discretionary federal funding is unlikely. At Metro's hearing on the Land Use Final Order in August 2011, ODOT Director Matt Garrett conceded there was currently no evidence that there would be any such funding available as part of the transportation reauthorization process:

We thought there might be a specific project of national significance. At least with the language we have right now, the discretionary money is not really clear where that's going to present itself.

Matt Garrett, Metro LUFO Hearing August 11, 2011

Testifying to the Oregon Legislature on January, 2012, Patricia McCaig, said, pointing to a diagram showing "FHWA" Federal Highway Administration funding for the CRC:

"We don't know where this money is going to come from."

Joint Legislative Oversight Committee on the Columbia River Crossing, January 19, 2012, Legislative audio recording at 1:39:30

Federal discretionary funding for the CRC would come from funds that would otherwise be available for a wide range of projects in Oregon. There is no reason to think that the CRC is the only project that would be eligible for discretionary funding, even if some discretionary funding is available in reauthorization. Historically, Oregon has received discretionary funding for a wide range of projects throughout the state. The state has wide latitude to select candidate projects, and many other projects around the state can receive such funding.

Interstate Maintenance Discretionary (IMD) Awards to Oregon, 2000 to 2011

- Kuebler Boulevard Interchange Improvements, \$3,625,000, 2011
- CRC, \$3,325,000, 2009
- I-84 Truck Climbing Lane, Ontario \$475,000 2009
- CRC, \$15,000,000 2007
- I-205 Widening, Stafford to Tualatin, \$1,000,000, 2006
- I-205 Interchange, Oregon City \$500,000, 2006
- I-205 Widening, Stafford to Tualatin, 1,000,000 2005
- I-5 Boone Road Bridge, Salem \$800,000 2003
- I-5 Interchange, Medford, \$1,000,000 2002

Source: U.S. Department of Transportation, 2012 Discretionary Grant Programs,
<http://www.fhwa.dot.gov/discretionary/imd2012selc.htm>

Federal discretionary funding for CRC in the range of \$400 million to \$500 million is highly unlikely, and has become more so, because of the shortfall in federal highway trust fund revenues, and a new political climate that is hostile to earmarks. As a result, if CRC gets any federal highway money for construction, it will have to come substantially or entirely from formula funds allocated to Oregon, funds the state will receive regardless of whether it undertakes the CRC, and funds which could be used for a wide range of projects throughout the state. As a result federal funding for CRC will reduce money available for other Oregon highway projects, and this effect will be compounded by the reductions in federal funding that are anticipated regardless of whether the Senate or House version of reauthorization passes. Claims that CRC highway improvements will be funded from a special pot of money available only for the CRC are untrue.

TIFIA funding is unlikely to offset shortfalls in toll bond funding. The CRC financial plan contemplates that a portion of project costs may be borrowed from the federal Transportation Infrastructure Finance and Innovation Act (TIFIA) program. The TIFIA program allows states to borrow funds from the federal treasury for a period of up to 35 years, and to defer repayment (while continuing to accumulate interest on outstanding balances) for the initial five years of the loan. States are generally expected to repay debt from dedicated funding sources, such as toll revenues.

In the wake of the State Treasurer's critical analysis of the assumptions of toll bond projections, CRC proponents have suggested that TIFIA can be used to fill some portion of the nearly \$600 million hole in the CRC's proposed bond financing package. TIFIA is unlikely to fill this hole for several reasons. First, like bonds, TIFIA loans have to be repaid. Revenues pledged to repay toll bonds cannot also be used to repay TIFIA loans, and vice versa. Second, TIFIA is a competitive program with limited resources. Oregon and Washington will have to compete with other states, and there is no assurance that the project will qualify for TIFIA funding, or qualify in sufficient amounts to provide a substantial additional funding to the project. The Treasurer's report warned that the TIFIA process is becoming "increasingly competitive." (Oregon State

Treasurer 2011). Third, in order to qualify for TIFIA financing, either the toll bonds or the TIFIA loan must achieve an investment grade rating—which it has neither sought nor obtained. Fourth, the federal government is likely to treat the TIFIA loan as part of its contribution to the project, and reduce support from other sources. Indeed, one of the criteria for approving TIFIA loans is the extent to which TIFIA assistance would reduce the contribution of Federal grant assistance to the project (Federal Highway Administration 2011).

3. FTA New Starts Transit Funding

A major portion of CRC costs—approximately \$944 million of the up to \$3.5 billion total price, are associated with capital cost for the extension of the light rail line to Washington, and the construction of nearly 3,000 parking spaces in 3 parking structures in and near downtown Vancouver. The CRC hopes that nearly 90 percent of these funds are provided from the federal government.

- The CRC anticipates receiving \$850 million from the Federal Transit Administration’s “New Starts” program.
- The FTA New Starts program is competitive and discretionary, and there is no guarantee that funding, or funding in the amounts requested will be forthcoming.
- The level of federal funding is contingent on an un-tested appropriations rider that would direct the FTA to treat highway funding as match for the transit portion of the project.
- The financial plan assumes that the FTA pays for an unprecedented equivalent of 90 percent of transit capital costs, at a time when most projects get no more than 50 percent.
- Funding for the FTA New Starts program is in jeopardy in the reauthorization debate. Local officials have already warned that existing federal funding contracts, such as those for the Portland Milwaukee Light Rail may not be honored as a result.
- Funding is assumed to be provided at a maximum program rate of \$100 million a year, which will be less than is needed for construction, which generates interest costs. Slower, more protracted funding, which is possible would produce higher interest costs.
- Local project advocates have a poor track record of predicting federal funding; after expecting 60 percent funding for the Portland Milwaukee Light Rail, the region got only 50 percent, necessitating additional borrowing to pay for the shortfall.

The project assumes that it will be able to get the federal government to pay a 90 percent share of all transit costs through a special, and untested provision of law added as a rider to an appropriations bill in 2009. (The total cost of the transit portion of the project is \$944 million; the CRC financial plan anticipates \$850 million in New Starts funding. Project Management Oversight Consultant Report, January 2012.) For most transit projects, FTA New Starts provides a match of not more than 50 percent of project costs. In 2009, Senator Patty Murray had a provision added to the Consolidated Appropriations Act that directs the FTA to treat local funds spent on highway expenditures as “match” for the light rail portion of the project. This special

provision applies only to “interstate projects in Interstate highway corridors.” This provision has never been used to fund any previous project.

The Consolidated Appropriations Act, 2010, Section 173 (H.R. 3288, December 9, 2009) states as follows: “Hereafter, for interstate multi-modal projects which are in Interstate highway corridors, the Secretary shall base the rating under section 5309(d) of title 49, United States Code, of the non-New Starts share of the public transportation element of the project on the percentage of non-New Starts funds in the unified finance plan for the multi-modal project: Provided, That the Secretary shall base the accounting of local matching funds on the total amount of all local funds incorporated in the unified finance plan for the multi-modal project for the purposes of funding under chapter 53 of title 49, United States Code and title 23, United States Code: Provided further, That the Secretary shall evaluate the justification for the project under section 5309(d) of title 49, United States Code, including cost effectiveness, on the public transportation costs and public transportation benefits.”

Columbia River Crossing Final Environmental Impact Statement, September 2011, page 4-12

In effect, the rider contained in the 2009 appropriations bill functions as a “stealth earmark” solely for the benefit of the CRC—because none of the other projects currently in the FTA “New Starts” process meet the criteria of “interstate projects in an interstate highway corridor.” This provision of law could easily be changed or repealed by any subsequent Congress.

Because the FTA new starts program is discretionary, and because this provision is untested, there is no guarantee that the New Starts program will provide funding for CRC, or provide funding for the full \$850 million requested.

The FEIS concedes that both the amount and timing of FTA funding is uncertain:

The assumed amount of New Starts funding and target dates scheduled are not guaranteed by FTA; funding amount and schedule will be negotiated as part of preparing the FFGA.

Columbia River Crossing Final Environmental Impact Statement, September 2011, page 4-18

Funding for the Federal Transit Administration is in political jeopardy in the transportation reauthorization debate. The House version of reauthorization removed transit funding entirely from the Federal Highway Fund, making it subject to annual appropriations by Congress. This change, in the words of Metro Executive Tom Hughes would undercut even existing contracted funding:

“Eroding the ongoing federal commitment to transit funding could make it impossible for the federal government to honor contracts it signed to

fund projects like the Milwaukie light rail line..”
Andy Giegerich , “Metro: CRC, light rail funding in doubt, ” *Portland Business Journal*,
February 7, 2012 (Quoting Tom Hughes).

Unfortunately, Tri-Met and local officials have had a poor record of accurately estimating the amount of money that FTA will contribute to major local transit projects. After assuming for years that the federal government would pay 60 percent of the cost of the PMLR—something that FTA could legally have done—FTA determined that it would pay not more than 50 percent of PMLR costs. Despite being warned more than a year and a half in advance of the actual decision, local officials continued to assume 60 percent federal funding. When FTA announced its actual funding would be only 50 percent, local officials scrambled to fill a \$100 million hole in the project budget.

With nine months remaining before construction is set to begin on a new light rail-line between Portland and Milwaukie, Tri-Met officials find themselves scrambling to fill a funding gap that recently exceeded \$100 million.

It's not as if they had no warning. Federal officials told them 18 months ago to count on federal money covering only half the roughly \$1.5 billion price tag -- that's it.

But TriMet officials crossed their fingers and kept pressing for more, confident they would receive federal funding of 60 percent, as they had on past projects.

Schmidt, B. (2010, October 2). \$100 million-plus gap for Portland-Milwaukie light rail came with some warning. *The Oregonian - OregonLive.com*. Retrieved from http://www.oregonlive.com/portland/index.ssf/2010/10/city_hall_100_million-plus_gap.html

The unexpected shortfall in funding has caused Metro, Tri-Met and the City of Portland to borrow additional funds to finance the PMLR project, and to reallocate funds that would otherwise be available for operations, including new construction for other projects, street-repair and transit operations. For example, as part of PMLR financing, Tri-Met has issued bonds that are backed by \$80 million in future revenues from the payroll tax, and \$99.9 million in expected future federal grants. Portland has committed a portion of its state-shared gas tax revenues; These commitments have effectively exacerbated revenue shortfalls that are forcing Tri-Met to reduce transit service, and Portland to cut back on street maintenance.

The FTA New Starts program faces all of the same funding difficulties that confront funding for the highway portion of the project. Monies for the New Starts program are funded through the Highway Trust Fund, which as noted above, is facing insolvency, and has been supported by nearly \$35 billion in transfers from the General Fund over the past three years.

New Starts is a competitive program with limited funding. It is not clear that the Columbia River Crossing project can be competitive, especially if funding for the New Starts program is reduced in coming years. The Independent Review Panel noted that the FTA program is highly competitive, and that the federal share of the transit portion of the CRC is higher than all but one other project in the New Starts process. The IRP warned that weaknesses in the financial commitment by local agencies to the project and overly optimistic financial assumptions were a risk to obtaining New Starts funding (Independent Review Panel 2010, pages 180-184). In addition, eligibility for funding under the New Starts program is contingent, in part, on a demonstrated local financial commitment to project capital and operating costs. Reductions in transit service or financial weakness in CTRAN due to the failure of a proposed sales tax increase measures in Clark County could jeopardize the eligibility of CRC for federal New Starts funding.

Shortfalls in FTA funding for the light rail portion of the project could jeopardize the entire project. The State Treasurer's report found that:

Failure to win Federal funding for the transit portion of the project may require rethinking of the overall project scope, timeline and financing plan.
(Oregon State Treasurer 2011)

4. Washington

Washington State is assumed to be an equal partner with Oregon in the Columbia River Crossing project. Although Washington has approved tolling authority for the CRC, and like Oregon, has provided funding for the project's environmental impact statement, it has yet to commit any funds to actual project construction.

- Washington is also expected to commit \$450 million to the cost of the Columbia River Crossing.
- Washington's transportation budget contains no funding for the construction of the CRC.
- Washington has no plans to consider a major transportation funding package prior to 2014.
- Two other major projects in Washington, replacement of the Highway 520 Floating Bridge (\$4.65 billion), and construction of the Alaska Way Viaduct/Deep Bore Tunnel (\$3.15 billion), have unmet revenue needs and appear to be a much higher priority for Washington.
- Washington Governor Chris Gregoire has not proposed funding for construction of the CRC in her transportation package, her last opportunity before leaving office.
- Washington's gas tax revenues are heavily committed to paying debt service for bonds issued to build projects already under construction; money for new projects is scarce.

- Washington is predicting an \$400 million shortfall in revenues from motor fuel taxes in the coming ten years, jeopardizing its ability to maintain existing roads, much less build new ones.

CRC is counting on Oregon and Washington each coming up with \$450 million in cash. But neither state has money in hand, and both states would have to raise their gas taxes in order to get that money. What's more, even if they raised gas taxes now, it would take a decade or more of collections to come up with the cash needed for construction. Because the money won't be in hand, ODOT and WSDOT both plan to borrow the money against future tax collections—and interest costs on this kind of borrowing will effectively double the cost of the state contribution.

The Washington Legislature has not approved, nor even received, a request for this level of funding. The current ten-year state transportation budget makes no allocation of state transportation funds for construction of the Columbia River Crossing. Each biennium, the Washington Legislature adopts a multi-year listing indicating, project-by-project funding levels for the current biennium, and the four subsequent biennia. The list adopted by the 2011 Washington Legislature provides funding for further planning of the CRC, but no construction funding, and no amounts beyond the 2011-13 biennium. In contrast, the Legislature has already appropriated \$1.4 billion for the Alaska Way Viaduct replacement project and \$1.6 billion for the Highway 520 floating bridge project through the current biennium, and scheduled an additional \$635 million for the Alaska Way Viaduct replacement for 2013-2017, and \$679 million for the Highway 520 floating bridge project for 2013-19 (Washington Legislative Evaluation and Accountability Program Committee 2011).

Washington's legislatively adopted budget plan for transportation, covering the period through 2021, likewise makes no provision for CRC construction financing. The budget has \$39.7 for Columbia River Crossing "EIS" activities for the current 2011-13 Biennium, but nothing for CRC construction in this, or any subsequent biennium through 2019-21. (Washington State Legislative Evaluation and Accountability Program Committee, 2011-13 Biennium Transportation Budget Nickel/TPA Highway Project List LEAP Transportation Document 2011-1 as developed April 19, 2011 Highway Improvements Program (I), As Passed Legislature Version: 11LEGFIN, page 3).

Both the Alaska Way Viaduct/Deep Bore Tunnel Project and the Highway 520 Floating Bridge Replacement Project have significant funding holes. Some \$2.2 billion has yet to be identified for financing the Highway 520 project, which is already under construction. The WSDOT recently had to shift an additional \$200 million in federal funds to the project in order to make up for the toll revenue shortfall, and the state has yet to negotiate a definitive binding agreement for the Port of Seattle to provide \$300 million for project construction. The state has already signed a contract with the tunnel contractor for this project. If either of these projects—with budget's totaling \$7.8 billion experience revenue shortfalls or cost overruns, this could further jeopardize Washington's ability to provide funding for the CRC.

Providing the state share of the Columbia River Crossing will likely necessitate an increase in state gas taxes. Washington's available state gas tax revenues are almost fully pledged for debt service; by 2014, an estimated 70 percent of state gas tax revenues will go to debt service (Washington Department of Transportation 2011, page E-178). In contrast, as recently as 2006, the state was devoting only 30 percent of state gas tax revenues to debt service (Washington State Department of Transportation 2011-13 Budget Request, page 539).

Washington's financial situation is aggravated by the fact that state gas tax revenues are falling below projections: the state now forecasts that revenues over the next decade will fall \$400 million short of earlier projections and over the next sixteen years will be \$1.6 billion short, due higher fuel prices, less driving and more fuel efficient vehicles (Washington Department of Transportation 2010a).

Despite her stated support for the Columbia River Crossing, Governor Chris Gregoire has not included funding for the CRC in her latest transportation budget—her last before her term of office expires in January 2013. Instead, she proposed a \$1.50 a barrel fee for oil produced in Washington with proceeds dedicated to road repair and transportation system operation and maintenance. Even this measure was not approved by the Washington Legislature. Transportation advocates had sought a statewide ballot measure for transportation, but this is not moving forward because of a desire to build support for the needed voter approval for a one-half cent statewide sales tax increase to close the gap in Washington's general fund budget.

Washington lacks the revenue to fund the CRC, and legislative leaders have indicated that funding for new construction projects in Washington would be contingent on voter approval of tax increases that will not even be submitted to voters until 2014. The 2012 regular session of the Washington Legislature adjourned without considering a major funding package for highway construction. The Chairs of the Senate and House transportation committees agree on the 2014 time frame.

She [House Transportation Chairwoman, Rep. Judy Clibborn (D-41st, Mercer Island)] said, however, that in order to maintain the transportation infrastructure and secure projects going forward, a substantial revenue package is needed.

She said voters should expect to see some kind of proposal on the ballots in 2014, a timeline Haugen [Sen. Mary Margaret Haugen (D-10th, Camano Island), chairwoman of the Senate Transportation Committee] agreed with.

Panitz, S. (2012, March 13). House, Senate pass transportation budget in final hour - Vashon-Maury Island Beachcomber. Vashon-Maury Island Beachcomber. Retrieved from <http://www.vashonbeachcomber.com/news/142492105.html>

5. Oregon

- Oregon is expected to provide more than \$520 million for CRC: \$450 million in new appropriations, on top of an estimated \$70 million that it has already contributed to project planning.
- ODOT faces a major 50 percent drop in revenue for new construction, due to the need to pay debt service from already constructed projects and revenues falling short of projections.
- Any state contribution to the CRC will likely need to be borrowed, nearly doubling the total dollar cost to the state. Financed over 30 years at 5.3 percent interest, a \$450 million dollar state contribution will consume \$900 million of gas tax revenues.
- Oregon’s liability for the CRC is not limited to its \$520 million initial contribution; once the project is started Oregon is fully liable for cost overruns, shortfalls in revenue from other sources, interest costs to repay borrowed funds, and the costs of supplemental projects needed to make CRC “work.”

The CRC budget calls for an Oregon contribution of \$450 million on top of \$70 million that Oregon has already contributed for CRC planning. (Our estimate of Oregon’s cost is based on the assumption that Oregon has contributed slightly less than half of the \$147.3 million shown as “ODOT/WSDOT: Existing” in the Final Environmental Impact Statement.

Exhibit 4.4-3

Summary of Capital Finance Plan Scenarios in Millions of Year-of-Expenditure Dollars^a

Revenue Source	LPA		LPA with Highway Phasing	
	Medium Cost Estimate	High Cost Estimate	Medium Cost Estimate	High Cost Estimate
F Federal Discretionary Highway	\$400	\$500	\$400	\$400
A ODOT/WSDOT: Existing	\$147.3	\$147.3	\$147.3	\$147.3
F ODOT/WSDOT: Additional	\$900	\$900	\$900	\$900
F Post-completion Toll Bond and Loan Proceeds ^a	\$918.2–\$1,140.0	\$1,161.9	\$901.3	\$918.2–\$1,166.2
F Residual Toll Revenues ^a	\$0–\$17.4	\$0	\$0	\$44.2–\$87.8
F Pre-completion Toll Revenues ^a	\$0–\$204.4	\$204.4	\$0	\$0 - \$204.4
F Section 5309 New Starts Funds ^b	\$808.7	\$850.0	\$808.7	\$850.0
Total Revenues	\$3,396.0	\$3,763.6	\$3,157.3	\$3,507.8

Notes: A = currently available and committed to project; F = subject to future approvals; not currently available.

a The amounts shown for post-completion toll bond proceeds, residual toll revenues, and pre-completion toll revenues in all finance plan scenarios are based the Low forecast of toll revenues.

b The assumed amount of New Starts funding and target dates scheduled are not guaranteed by FTA; funding amount and schedule will be negotiated as part of preparing the FFCA.

And this comes at a time when ODOT is literally running out of money for capital construction. ODOT's Director Matt Garrett, presented a report to the Oregon Legislature indicating that ODOT is in dire financial straits and lacks funding to begin new capital projects.

. . . due to a variety of factors ODOT is now facing significant long-term funding challenges. ODOT's construction program has started to drop off. By 2015 the program will be cut in half from current levels . . .

ODOT's State Highway Fund resources are now essentially fully committed to debt service, the costs of running the agency, and maintaining highways, leaving virtually no state funding for new capital projects in the Statewide Transportation Improvement Program (STIP) (other than the JTA projects and matching funds for federal resources).

Garrett, Matthew L., and Mather, Paul, Memorandum to House Interim Committee on Transportation and Economic Development, November 17, 2011, Subject: ODOT's Funding Picture and Implications for the Transportation System

Similarly, the Oregon Department of Transportation is seeing a huge escalation in its debt service liabilities, due to the decision to bond the net proceeds of recent fuel tax and vehicle registration fee increases. ODOT's annual debt service requirements are expected to exceed \$210 million annually (Garrett & Mather, 2011, page 2).

Oregon has borrowed heavily against future transportation revenues, and obligated the proceeds to projects built or now under construction. Combined with the termination of federal stimulus funds, state highway capital construction budgets are expected to decline from a level of more than \$800 million annually to about \$300 million annually (Esteve 2011).

The CRC financial plan calls for ODOT to commit to the largest single construction project it has ever undertaken, at a time when its available resources for capital construction are expected to be falling by half, an unprecedented share of its revenue is already tied up in paying debt service on earlier projects, and revenues from its key revenue source—the gas tax—are falling further and further behind projections. The multi-billion dollar CRC would be a risky undertaking for a financially healthy agency with a robust revenue stream—and ODOT, by its own admission, is neither of these things.

6. Cost Overruns

The Columbia River Crossing is currently estimated to have a capital cost, in year of construction dollars of between \$3.1 and \$3.5 billion dollars, and the project is now projected to be complete in 2022. Pre-construction estimates for multi-billion dollar projects have a strong propensity to be under-estimated. The project is actually likely to cost considerably more and take longer to complete than is currently forecast. In addition, the capital cost estimate excludes the significant costs associated with operations and maintenance, and financing costs.

- Megaprojects like the CRC routinely experience cost overruns, the expected average value of cost overruns is on the order of 25 percent.
- All of ODOT's three largest highway projects currently underway or proposed have more than doubled in price from the estimates provided in the planning stages of the project.
- The proposed "Design-Build" contracting process exposes Oregon to significant risks.
- Oregon and Washington, and not the federal government, are responsible for CRC project cost overruns.
- CRC planning efforts have already been subject to cost-overruns and schedule delays
- Washington, too, has experienced significant cost overruns on its transportation projects.
- The CEVP process that CRC officials maintain will protect us from cost overruns has not been used for any completed multi-billion dollar project, and has already failed to detect or prevent at least two major cost and schedule risks to the CRC.
- CRC staff regard cost overruns and schedule delays as routine and expected.
- Oregon and Washington have yet to sign a legally binding agreement that addresses who is responsible for cost overruns on the CRC.
- CRC statements that the project is "on schedule" are often misleading.
- The need to fix the Rose Quarter bottleneck to make the CRC work as planned could add \$1.3 billion to project costs

CRC is counting on being able to deliver this megaproject under budget. CRC's budget predicts the initial construction cost—exclusive of financing costs—will range between \$3.1 and \$3.5 billion (according to the May 2011 CEVP).

Cost overruns are endemic in megaprojects. CRC is a megaproject. Megaprojects routinely exceed their budgets and take longer than scheduled to complete. Large projects such as the Columbia River Crossing routinely exceed pre-construction cost estimates. A careful study of more than 250 transportation megaprojects—including multi-billion dollar projects like the CRC—showed a consistent pattern of cost overruns, with an average overrun of 28 percent of the originally forecasted budget amount

Bent and Soren Buhl, "Underestimating Costs in Public Works Projects: Error or Lie?," *Journal of the American Planning Association*, Vol. 68, No. 3 (2002). Overruns are attributable to the scale, complexity, and uniqueness of these projects, coupled with optimism bias among project supporters.

Major projects undertaken by the Oregon Department of Transportation (ODOT) have regularly exceeded pre-construction cost estimates by margins well in excess of 100 percent. ODOT's current three largest projects, the Pioneer Mountain Eddyville project on US 20 between Corvallis and Newport, the MLK/Grand Avenue Viaduct in Portland and the proposed Newberg-Dundee bypass now all have estimated costs that exceed by 100 percent or more the amounts discussed at the time the projects were at the point in the review process that CRC is today. But every one of ODOT's large projects in the past decade has gone more than

100 percent over budget, and nationally the typical mega project is 25 percent over budget—in the case of CRC that kind of “average” overrun would add a billion dollars to project costs.

ODOT’s largest current construction project, Pioneer Mountain-Eddyville—a 7-mile long rebuild of U.S. Highway 20 between Corvallis and Newport—is more than 100 percent over budget. When it was planned in 2003, the project was supposed to cost about \$110 million and be complete by 2009. Highway officials confidently stated:

“The estimated cost of the Pioneer Mountain to Eddyville project is \$110 million dollars (2003 dollars). Construction is anticipated to begin in 2005 and take about 4 years to complete.”

(Federal Highway Administration and Oregon Department of Transportation, 2003)

Today, the project is not complete and has expended more than \$234 million—more than double the original estimate (AASHTO, 2010). In addition, the project is at least three years behind the original construction schedule with no resolution in sight.

One of the largest recent highway projects in the Portland area is the Grand Avenue Viaduct, connecting Portland’s central Eastside with McLoughlin Boulevard. The project was approved by the Portland City Council in 2002, with an estimated price tag of \$31.2 million (Leeson, F. (2002, July 19). Council Backs Long Bridge in Viaduct’s Spot. *The Oregonian*, p. E1. Portland.) As it neared completion in 2010, ODOT reported to the federal government that the total price of the project was \$97.8 million (ODOT ARRA Report, 2010).

The next large project in ODOT’s pipeline is the Newberg-Dundee bypass. Its cost has also more than doubled as it has moved through the planning process. At the time of the Draft Environmental Impact Statement on the proposed Newberg-Dundee bypass (2003), total project costs were estimated at \$222 million. Just two years later, after additional, more precise engineering analyses, the cost had ballooned 40 percent, to more than \$311 million (Oregon Department of Transportation, 2005). Today, it is estimated that completing this project may require between \$752 and \$880 million (Federal Highway Administration and Oregon Department of Transportation, 2010).

Initial and Current Cost Estimates for Large ODOT Projects

Project	Initial Estimate	Current Estimate	Increase
Pioneer Mountain-Eddyville Highway 20 Realignment	\$110 million (2003 DEIS)	\$234 million (ODOT AASHTO Report, 2010)* * project incomplete	+132%
Grand Avenue Viaduct Replacement	\$31.2 million (Portland City Council approval, 2002)	\$97.8 million (ODOT ARRA report, 2010)	+214%
Newberg-Dundee Bypass	\$222 million (2003 DEIS)	\$752 million to \$880 million (2010 FEIS)	+239% to +296%

And Washington has its own track record of running over budget. For example, a 2011 report by the Washington State auditor found that a WSDOT project to widen Highway 18 originally budgeted for \$56 million, ended up costing \$99 million because of bad design and mismanagement.

A 2003 road-widening project on Highway 18 was filled with failures that nearly doubled the cost of the project, according to a report released Monday by the state auditor.

"Based on our investigation ... we find reasonable cause to believe an improper governmental action occurred," said the auditor's report. "We found ... failures in the design process, a lack of control and oversight during construction, failure to monitor wetland areas that resulted in environmental violations and fines. This resulted in a gross waste of public funds."

The report found the project, originally bid at \$55.9 million, grew to \$98.5 million.

Gilmore, S. (2011, January 18). "State auditor says goofs nearly doubled cost of Highway 18 project." *Seattle Times*. Seattle. Retrieved from http://seattletimes.nwsourc.com/html/localnews/2013967559_audit19m.htm

The Design-Build acquisition process chosen for major project components poses additional financial risk for the state. The Oregon Department of Transportation's single experience with large-scale application of the design-build process, the Pioneer Mountain Eddyville project, serves as a cautionary tale, and shows that in practice the state does not actually shift responsibility for project design flaws to private contractors. The project was hailed as a new way of constructing projects that would be faster and cheaper, and would shift

the financial risk of cost overruns from the state to contractors. The original design-build contract awarded in 2005 was valued at \$129.9 million. After construction problems in 2008 emerged, and following a contract impasse that stalled construction, ODOT subsequently agreed to add \$47 million to the contractor's compensation. After further work was completed, in 2010, four main bridges were discovered to be out of plumb, and the project again has been stopped. ODOT and the contractor are again at an impasse over who is responsible for the costs of the failed design. The experience with the Pioneer Mountain Eddyville project shows that ODOT's application of the Design-Build process does not effectively shift financial risk to contractors; in fact, it appears that Design-Build leads to overruns and delays.

Oregon and Washington, and not the federal government are responsible for cost overruns.

While there may be multiple sources of financing for the CRC project, ultimately, it is the two states, and not other funders, including the federal government, which are legally responsible to pay cost overruns. In the federal/state highway system, the federal government provides some financial resources, and sets guidelines, but individual projects are owned and managed by states, which are financially responsible for their construction. Cost overruns create liabilities for states, but not for the federal government. In famous cases of cost overruns, like Boston's "Big Dig"—the liability for the overrun fell on state government, not the Federal Highway Administration.

The CRC lacks crucial legal agreements between the two states on financial responsibility for the CRC, and the lack of these agreements endangers the project schedule. Early on, the project identified the need for formal agreements to establish responsibility for dealing with cost overruns. In 2008, the Draft Environmental Impact Statement was quite clear:

“WSDOT, ODOT, C-TRAN, TriMet, and possibly the Cities of Vancouver and Portland, must prepare agreements on roles and responsibilities for project development, construction, and capital funding that address such issues as project management and decision-making, capital cost sharing, how potential cost-overruns are managed, and contracting procedures.”

(CRC, Draft Environmental Impact Statement, 2008 page 4-42).

The failure to negotiate and sign such agreements was identified by the Independent Review Panel as a risk to the project budget and schedule. They wrote:

“The lack of formation on the legal entities and/or formal agreement between states has the potential to delay the funding/financing process. (Independent Review Panel, 2010, page 155)

No agreements have been yet signed that establish the liability for paying for cost overruns. According to the November 2009 project schedule, Draft Agreements between DOTs, Transit and Cities for Financial and Project Responsibility Task AF 3027) were supposed to be completed by April 15, 2010. According to the December 31, 2011 project schedule, the draft

agreement was not complete as of that date. The currently labeled “Bi-State funding agreement” is now scheduled to be drafted by April 13, 2012, two-years later than originally scheduled.

The project has experienced, and is likely to continue to experience schedule delays, which will increase costs still further. Already the project has been delayed significantly, even though it has yet to undertake the difficult process of actually building anything. A comparison of the official project schedules for the CRC from 2009 and 2011 shows the project schedule has slipped by about 16 months over the past two years.

Comparison of CRC Project Schedules, 2009 and 2011

Task	2009 Project Schedule	2011 Project Schedule	Schedule Slippage (Months)
<i>Schedule Date</i>	<i>11/30/09</i>	<i>12/31/11</i>	
Bi-State Funding Agreement	6/8/09	9/24/12	39.6
Publish FEIS	5/10/10	9/23/11	16.5
Record of Decision	7/20/10	12/7/11	16.6
FTA Approval to Enter Final Design	5/9/11	10/5/12	16.9
CRB Contract Award	10/23/12	9/19/13	10.9
CRB Start Construction	1/21/13	9/30/13	8.3
Marine Drive Start Construction	4/29/13	1/19/17	44.7
Marine Drive Finish	7/5/16	12/28/20	53.8
CRB Finished	9/21/16	7/9/20	45.6
Transit Start Up	5/17/18	9/12/19	15.9
CRB Construction Time	44 months	81 months	37 months
Marine Drive Construction Time	38 months	47 months	9 months

The CEVP process has failed to predict or prevent delays. The project schedule produced by the CEVP process in April 2010 predicted that the project would be complete between June 2019 and January 2021; just 13 months later the CEVP schedule (the latest completed version) shows that the project will be complete between August 2021 and August 2022, a delay of 19 to 26 months from the earlier estimates. In addition, the new most optimistic completion date (August 2021) is now seven months later than the most pessimistic completion date (January 2021) in the previous schedule. This is a delay that the earlier schedule claimed had less than a 10 percent chance of occurring.

Comparison of April 2010 and May 2011 Cost Estimate Validation Process Schedules

	CEVP, April 2010	CEVP May, 2011	Change
Project Completion Date (10%)	June 2019	August 2021	+26 months
Project Completion Date (50-60%)	Feb 2020	March 2022	+25 months
Project Completion Date (90%)	Jan 2021	August 2022	+19 months

Source: Cost Estimation Validation Process Reports, April 2010 and August 2011.

Official statements that the project is “on schedule” have not proven to be reliable or consistent. To most observers, “on schedule” means completed by a specific date that is established in advance. CRC officials regularly change the project schedule, and as a result regularly change the expected date of completion, and then use this new—and later—completion date to report that the project is “on the current schedule.” In fact, in August of last year, ODOT Director Matt Garrett used exactly this carefully chosen phraseology to report that the CEVP process had extended the expected completion date for the CRC by 19 to 26 months, but that this represented the project being on “the current schedule,”

Despite ongoing controversy about the scope and cost of the Columbia River Crossing, project managers insist it is still on schedule and have even reduced its estimated cost by \$100 million.

“The direction last spring from Gov. Gregoire and Gov. Kitzhaber on bridge type allowed us to move forward on a solid path to meet the current schedule,” said Oregon Transportation Director Matt Garrett on Friday.

Redden, J. (2011, August 26) “Officials shave \$100 million from I-5 bridge project budget” *Portland Tribune*.

In effect, given this interpretation, it is impossible for the CRC to be behind “the current schedule” because the current schedule is regularly changed to reflect delays experienced since the last schedule.

CRC has already run over budget and taken longer than scheduled just for planning tasks.

In 2006, CRC officials commenced the Environmental Impact Statement process for the CRC, which was then estimated to take about three years, and cost \$22 million. The timetable for completion of the EIS was repeatedly extended and the budget increased. The schedule published by the CRC in October 2007 said that the Final Environmental Impact Statement would be completed in January 2009. A schedule published in late 2009, said the FIES would be published in May 2010; and the actual FEIS was published in September 2011—two years and nine months later than the 2007 schedule.

Comparison of 2007, 2009, and 2011 CRC EIS Schedules

	2007 Schedule	2009 Schedule	2011 Schedule
	10/09/2007	11/30/2009	12/31/2011
Issue DEIS	4/1/2008	4/1/2008	4/1/2008
Issue FEIS	1/1/2009	5/10/2010	9/21/2011
Receive ROD	4/1/2009	7/20/2010	12/7/2011

As a result, just the *planning* process for the CRC has taken two years longer than projected and cost more than twice as much as planned. After interviewing project officials and consultants, the *Columbian* reported:

“After David Evans and Associates took on its role as the Columbia River Crossing's largest private contractor, it said it would have the final environmental planning for the \$3.5 billion project wrapped up for construction by the end of 2009, for about \$21.6 million.

Instead, the job has dragged on more than two extra years, and the estimated cost has grown to \$58.8 million, documents show. And time and again, the Portland firm has been granted time extensions and more money to finish the work.”

(Andrea Damewood, “CRC bridge plan exceeds budget, schedule: Critics ask what the performance suggests about ability to deliver, *The Columbian*, January 15, 2012.)

CRC officials regard cost overruns as a regular and inevitable occurrence in projects like the CRC. Cost overruns and project delays are routine, and after the fact, CRC officials regularly cite unforeseen circumstances. “But project officials say that the CRC's contracts are no different from engineering agreements they make on any project, and that **cost increases are inevitable** as new challenges are discovered during the planning phase of a stunningly complex process.” (Andrea Damewood, “CRC bridge plan exceeds budget, schedule: Critics ask what the performance suggests about ability to deliver, *The Columbian*, January 15, 2012, emphasis added.)

WSDOT's CEVP process has not shown any demonstrated capability to predict or prevent cost-overruns on multi-billion dollar projects. ODOT officials have repeatedly told the Legislature that they expect WashDOT's Cost Estimate Validation Process (CEVP) to prevent CRC cost overruns. For example, in March of 2011, Patricia McCaig told the House Transportation and Economic Development Committee:

There is a cost estimating validation process called CEVP from Washington, that is a nationally known model that is applied to the Columbia River Crossing and we will spend as much time as you as like to go through that with you.

We will summarize it by saying the independent review panel as well as the project sponsor council and the local governments have all accepted the premises and the work from this process, which is updated yearly. And it concludes that the cost of the project is estimated today based on the information that we have-and remember there are still a lot of decisions to be made-that the cost is between \$3.2 and \$3.6 billion dollars. Hearing on HJM 22, House Transportation and Economic Development Committee, March 30, 2011 Recording, Excerpt 47:38-52:25

Despite Ms. McCaig's claim, the CEVP process was strongly criticized by the Independent Review Panel appointed by Governor's Kulongoski and Gregoire. The IRP seriously questioned the validity of the CEVP cost, risk and schedule estimates. In July 2010, they wrote:

“As the CEVP performed in February 2009 used information and assumptions available at the time which are fundamentality different than the design concept and assumptions being put forth in the Final EIS, there is a **significant risk** that the range of numbers and dates used for the financing model, which in turn will be used for funding and financing of the Project is **not accurate enough** for such purposes.”
(Independent Review Panel Report, 2010, pp. 167-68, emphasis added)

“Another example of an inaccuracy in the CEVP risk model that may or may not have any affect when the CEVP is rerun is the decision on the number of lanes. The risk is that ‘the final 10 versus 12 lane decision is delayed’. In the ‘SMART’ column of the risk table attached to the CEVP report it is noted that ‘If the decision is not made by January 2010 it will cause a delay’ to the schedule. Unless this assumption, which if according to the CEVP has already come true, is evaluated in the midst of these other known changes, **the reliability of the final outputs for cost and schedule are seriously suspect**. Until these changed conditions are considered in conjunction with the other risks included in the CEVP, the credibility of the cost basis for the project as a means for communicating the needed funding and financing is **problematic**.”
(Independent Review Panel Report, 2010, p. 166, emphasis added).

CEVP has been applied to the Columbia River Crossing for several years. It has already failed to detect or prevent at least two significant risks to the project schedule and budget: the unbuildable “open-web” design and adequate navigation clearance. Up until February 2011, the CRC was pursuing an “open web” bridge design that a Bridge Expert Review Panel determined to be unbuildable. The CEVP review process failed to detect this problem.

This month, it has become apparent that the CRC designed the bridge under the incorrect assumption that the Coast Guard would approve a 95-foot navigational clearance for the fixed span. The CEVP review process did not identify the failure to allow for sufficient clearance as a risk to the project, even though CRC conceded in the Record of Decision that raising the bridge could add \$100 million or more to project costs.

Despite its intentions, the CEVP process which has been in existence less than 10 years, has no completed multi-billion dollar projects that illustrate that it is accurate in predicting costs, or provides a mechanism by which they can be contained. The three largest projects to which CEVP has been applied—the Alaska Way Viaduct Replacement, the Highway 520 Floating Bridge, and the Highway 509 Freeway project are all incomplete (and have been studied under CEVP since 2005). There is simply no evidence yet that CEVP can reduce the inflation in project costs.

CRC cost savings are illusory. To date, major examples of CRC reportedly “saving” money have come from changing the timing of project components rather than actually reducing project costs. At the January 19 Legislative Oversight Committee hearing, Patricia McCaig said that the CRC could reduce the needed state contribution to CRC to \$300 million from \$450 by deferring interchange improvements.

"But the reality is, we've clearly been directed by the Governor, the public and conversations with you to go for a smaller project. That's the reality of these times." Manning, J. (2012, January 20). Columbia River Crossing officials suggest significant downsizing to trim \$650 million from the controversial project. *The Oregonian - OregonLive.com*. Retrieved from http://www.oregonlive.com/environment/index.ssf/2012/01/kitzhaber_suggests_cutbacks_to.html

Later, however, the Governor’s spokesperson clarified that there were no plans to cut any elements from the project, and that CRC was only considering re-ordering the sequence in which different project parts were constructed, so in fact, this represented no savings in total project costs.

“There’s no discussion on eliminating anything. We’re discussing options for phasing and sequencing elements,” [Governor’s spokesman Tim] Raphael said. Damewood, A. (2012, January 20). *Columbian.com - Oregon may scale back CRC spending*. Retrieved from <http://www.columbian.com/news/2012/jan/20/oregon-scales-back-its-portion-crc-project/>

Similarly, CRC has claimed that it will save \$60 million by deleting provisions for seismically retrofitting the North Portland Harbor Bridge (the bridge over the Columbia Slough that connects Hayden Island to the Oregon mainland). But moving this bridge out of the description of the project does not change ODOT’s plan to replace the bridge. ODOT Director Matt Garrett said that the bridge would be replaced “later” so that the cost of the bridge would not be included in the CRC. The Cost Estimate Validation Process (CEVP) Report says:

Risk that Phase II seismic retrofit is required for North Portland Harbor mainline bridge. Cost impact of around \$60 million for seismic retrofit.

Retire this risk. ODOT director says retrofit will not be done, bridge to be replaced at some point
CEVP, May 2011, page 108

According to recent press reports, it is now clear that CRC may have planned for a navigational clearance for the proposed Columbia River Bridge that is too low to be permitted by the U.S. Coast Guard. The project has known since at least 2006 that some existing river users needed 125 feet of clearance, and that the Coast Guard was inclined to protect those uses; but the project elected to set its own standard for river clearance—95 feet—creating the risk that it may not get approval from the Coast Guard.

The failure of CRC to deal with the navigation issue is important for several reasons. First, it could add more than \$100 million to the price of the project, and delay completion. Second, the project's CEVP process, which was supposed to identify, quantify, and reduce risks to project costs and schedule, failed even to identify that the Coast Guard permitting process might affect project costs and schedule.

The CRC faces a significant schedule and cost risk from a certain legal challenge to the adequacy of the project's Environmental Impact Statement. It is beyond the scope of this report to ascertain the ultimate outcome of this challenge, but project opponents have raised a number of issues that may lead to the project being required to prepare a new EIS. These issues include:

- CRC failed to adequately study a range of alternatives, including a “transit-only” option, and a toll-only option.
- CRC made major changes to the project after the DEIS, but failed to prepare a supplemental environmental impact statement
- CRC failed to adequately study the project's impact on endangered species
- CRC relied on out-dated and inaccurate traffic projections to model traffic and air quality impacts
- CRC improperly discarded the cable-stayed and tied-arch designs that may have less impacts on endangered species.

The need to fix the Rose Quarter bottleneck to make the CRC work as planned could add \$1.3 billion to project costs. In addition to the direct cost of constructing and operating the Columbia River Crossing, it is likely that the traffic generated by this project may necessitate further expansions of the freeway system in Portland. The Oregon Department of Transportation has already identified the need for capacity expansion between the Fremont Bridge and I-84, a need that will be substantially increased by the construction of the Columbia River Crossing. ODOT estimates that such a project would cost between \$780 million and \$1.3 billion over and above the cost of the CRC (Tindall, 2008). In addition, since this would have to be financed exclusively by Oregon (i.e. no toll revenues, federal earmarks or Washington contribution), it

would require a financial contribution from the State of Oregon in addition to the state's share of the CRC project.

The Independent Review Panel warned that unless the chokepoint at the Rose Quarter is fixed, the utility of the entire CRC investment is jeopardized. They wrote:

“Questions about the reasonableness of investment in the CRC bridge because unresolved issues remain to the south threaten the viability of the project.” (Independent Review Panel Report, 2010, page 112).

The panel recommends a new set of traffic studies to test whether the CRC will simply shift the bottleneck south, and call for ODOT and the City of Portland to “fully develop a solution for I-5 from I-405 to I-84” and to program that solution in conjunction with the phasing of the construction of the CRC (page 113).

The Chokepoints report published by TRIP, a Washington DC based road advocacy organization, identified the I-5/I-405/I-84 exchange, that portion of the I-5 system between the Fremont Bridge and I-84, as the second most severe bottleneck in the Portland metropolitan area (TRIP, 2010). It actually carries more traffic than the I-5 bridges (135,000 vehicles per day vs. 127,000 for the I-5 bridges). According to the Chokepoints report, this project will require \$800 million to \$1.3 billion and \$300 to \$350 million for improvements to Broadway-Weidler and widening I-5 to 3 lanes in each direction (TRIP, 2010).

Based on the information in the 2008 ODOT report and the 2010 Chokepoints report, the need to fix the Rose Quarter bottleneck to improve traffic flow on I-5 in the wake of the CRC project could necessitate the state spending an additional \$1.3 billion.

7. Likely Outcomes

Given the uncertainty associated with toll revenues and traffic projections, federal highway and transit funding, Oregon and Washington financial contributions, and project cost overruns and potential delays, it is likely that the CRC will not be financed for the amount and in the manner shown in the project's current financial plan. This section considers the probable cost to the state of Oregon if CRC's optimistic assumptions about project finance are not fully realized.

- The CRC financial plan is inherently risky because its success depends on every one of its very optimistic assumptions being realized.
- The failure to propose realistic phasing increases project risks.
- The project's organizational structure—bi-state ownership, multiple funding sources, projects scale and complexity, multiply risk.
- The CRC has systematically hidden the extensive costs associated with interest and financing of this project.

- The states and not the federal government bear full financial risk for cost overruns and revenue shortfalls.
- The most likely scenario is that the CRC will cost the state billions more than projected over the next 30 years.

The CRC financial plan is inherently risky because its success depends on every one of its very optimistic assumptions being realized. The CRC financial plan is a series of “best case” estimates: the best case is that FTA will provide \$850 million, that the project will get \$400 or \$500 million in discretionary highway funds and that tolling will generate more than \$1 billion in revenues. None of these assumptions have been independently verified—the federal government has not approved funding levels in these amounts, and CRC has not undertaken the Investment Grade Analysis needed to verify its toll revenue estimates. The risk, indeed the likelihood is that most or all of these revenue sources will provide less revenue than in the best case scenario—and the CRC financial plan does not address what happens when such shortfalls occur. The IRP specifically warned of this risk:

As currently envisioned development of the CRC is counting on full funding from multiple sources, including tolling which will be new to the community and unproven in its revenue generating potential. Failure to achieve one or more major sources of funding can make the entire project unmanageable or unaffordable in the present.
Independent Review Panel Report, p. 187

The lack of any meaningful phasing increases financial risks. The Independent Review Panel warned that funding was so uncertain that CRC should plan for an initial phase that was much smaller, and recommended breaking the project up into thirds. In July 2010, this panel wrote:

There is a possibility that despite best efforts to assemble funding, the Project Sponsors may encounter a significant shortfall in funding to complete all of CRC as currently envisioned. There is also a possibility that a number of current uncertainties in design and schedule will adversely affect the total cost of the project. (page 184)

Projects of this size and scope are often planned and developed assuming a phased construction effort. Phasing (as opposed to staging) refers to the completion of some major portion of a total project, with such completion having meaningful value, yet deferring subsequent construction till later, often uncertain, dates when additional funding can be obtained. (page 185).

Successful phasing for projects of this magnitude addresses the most pressing problems in initial phases, and produces manageable projects (say, three phases each in the \$1B to \$1.5B range). (page 186)

Developing and reviewing different phasing concepts with Project Sponsors and other key stakeholder groups. This would be more than a cost cutting exercise but rather

explore what a workable project might look like if, for example, only \$2.5B rather than \$3.5B were available. (page 187)

This key recommendation of the IRP has been effectively ignored by the CRC. CRC has proposed only a token project phasing effort—removing small portions of parts on two intersection rebuilds) costing about \$165 million (or about 5 percent of total project costs). This is exactly the minor cost cutting the IRP specifically ruled out when it described the appropriate scale of project phasing.

CRC’s financial plan optimism exposes the state to substantial risk for which CRC has developed no contingency plans. Intrinsic aspects of the project’s organization—the aggressive optimism of all revenue assumptions, bi-state ownership, multiple funding sources, project scale, and the design-build procurement—are risk multipliers. CRC’s financial plan is based on an unrealistic “best case scenario” in which every possible source of funding is approved in the full amount requested, and is available in a timely fashion.

So, what happens when ODOT moves forward with CRC—it signs a design-build contract and issues billions of dollars in bonds, based on shaky projections of future traffic, tolls and gas tax revenues? Strikingly, CRC has not developed or presented any financial contingency plans that describe what sources of revenue would be tapped and how the state’s liability to contractors and bond-holders would be met if its optimistic baseline projections of revenues and costs are not met.

The combination of the design build contract, the sheer scale of this project, and the legal obligation to bond-holders mean that CRC would present the state with immediate obligations that it could not avoid. If, and more likely when, costs are higher than CRC projects, and revenues come in slower than expected: both the project’s design-build contractor and bond holders can insist on payment, putting CRC in the position to essentially soak up every available dollar of transportation funding in the state.

Already, ODOT contemplates issuing General Obligation bonds, backed by state gas tax and/or general fund revenues. So if tolls or gas tax revenues are less than projected—as is almost certain—the state will be legally obligated raise taxes and/or take money from other projects to repay bonds.

The states and not the federal government bear full financial risk for cost overruns and revenue shortfalls. Common view is that feds will pay for cost overruns, but in reality, it is the states not the federal government which is liable for costs, including cost overruns and revenue shortfalls. Consider the infamous case of Boston’s Big Dig—while it is widely believed that the federal government paid much of the cost, it was actually the Commonwealth of Massachusetts that was financially responsible for the cost overruns, and it is still paying back the accumulated debt from that project, which ballooned from an estimated \$5 billion to more than \$15 billion.

Debt repayment and contract obligations will put CRC first in line for all future available transportation-related revenues. Once started, CRC will effectively have first claim on available transportation dollars in Oregon, whether from state gas taxes or federal grants. In issuing general obligation bonds, the state pledges to make annual principal and interest payments from pledged revenues, such as the gas tax, before using gas tax revenues for other purposes. As a result, in the event gas tax revenues fall short of projections—as they have in recent years—revenues are first used to pay back bondholders. Other uses, including other capital projects around the state, have to absorb the entire shortfall.

Interest and financing costs will add dramatically to the cost of the Columbia River Crossing. The CRC faces a major cash flow mismatch: the costs of the project are up-front (during the project construction period) and revenues will be available to pay for the project only over a longer period of time—ranging to a two to three decades for state taxes and toll revenues. As a result, Oregon and Washington will have to borrow more than two billion dollars to finance the project. The state will issue several different series of bonds: bonds to be repaid by projected future gas taxes, bonds to be repaid by future projected toll revenues, bonds to be repaid by projected future federal grants. In the case of long term bonds—those issued for 25 or 30 years—the cost of interest payments roughly doubles the cost of the project. For toll bonds, if the project anticipates issuing \$1 billion in bonds, it can expect to pay roughly another \$1 billion in interest over the life of the bonds. The state will be asked to contribute \$450 million up front, but with borrowing costs added in this will work out to more than \$850 million over the next 30 years.

These bonds will be costly in at least two ways: first, they will add hundreds of millions of additional costs—not included in the widely claimed \$3.4 billion CRC price tag. But second, they carry with them a liability for the taxpayers of Oregon to make up for shortfalls if the revenues are less than projected.

CRC plans to pledge either state gas tax revenues or general funds to repay these bonds. So if toll revenues or gas taxes or federal grants don't meet projections, money will be taken either from other projects or taxes will be raised to pay these bonds.

And this scenario appears to be extremely likely given the CRC's track record for overestimating traffic and revenue and underestimating costs and delays.

The most likely scenario is that the CRC will cost the state billions more than projected. It is likely that some, and possibly many of these optimistic assumptions will not be realized. In a reasonable alternative scenario, the CRC could produce a cascade of events that result in serious financial problems for transportation investment in Oregon.

Here are some of the key risks:

The project goes over budget and/or takes longer than anticipated. Cost overruns have been a regular occurrence for major ODOT projects. Cost overruns are common at megaprojects. A 28 percent cost overrun—which is typical for megaprojects around the country, would add approximately a billion dollars to the project’s cost. Cost increases could come from any number of possible sources—including unexpected engineering, geological and environmental challenges (such as those that have plagued the Highway 20 Pioneer Mountain Eddyville project)—or other demands (like the need to accommodate the Coast Guard’s minimum clearance requirements). Delays, such as those the project has already experienced, also drive up costs.

The expected federal contribution may not be forthcoming, and may not be on schedule. Right now, the finance plan anticipates up to \$1.35 billion in federal funds. But federal transportation reauthorization is unsettled and Congress is more likely to cut transportation funding than add to it. In addition, Congress has effectively banned earmarks—which were touted as a way to finance the CRC. If Congress holds to its current plans to eliminate earmarks and discretionary allocations, and send virtually all highway funds to the states by formula, the CRC project will get \$400 million less than anticipated in the project’s published finance plan. The federal government cut the expected contribution to the Portland Milwaukie Light Rail to 50 percent, if it does so with the CRC the project will get \$400 million less than now anticipated.

What federal money is available for the project may be slow in coming—driving up costs. In addition, the CRC financial plan assumes that the federal contribution comes at a rate of \$200 million a year for the first four years of the project’s schedule--\$100 million each from federal transit and highway funds. Congress may string out the payment schedule, driving up borrowing costs, which are already estimated at \$69 million for the transit portion alone (Project Management Oversight Consultant Report, December 15, 2011). Indeed, the U.S. Department of Transportation has already announced that as the Highway Trust Fund is depleted it will ration payments to states; the Congressional Budget Office projects that the fund will go into deficit in Fiscal Year 2013. (Congressional Budget Office, 2011).

Toll revenues are likely to be dramatically less than over-optimistic CRC projections. The amount of bonds the project can issue will be determined by an investment grade analysis which the CRC has yet to perform (and which is not even mentioned in the Project Schedule). The project has not considered the possibility—which is occurring in Seattle right now—that tolling I-5 produced a reduction below today’s traffic levels that is not recovered for perhaps the next two decades.

The project is relying on the ability to raise toll rates if revenues fall short of projections,—but because a free alternative in the form of I-205 is just a short distance away, increased toll rates may simply increase diversion, and not produce additional net revenues. And again, CRC has not undertaken the Investment Grade Analysis that would test the effect of higher tolls on increasing diversion, and how much if any net revenue would result.

If toll revenues aren't sufficient to pay bonds, the States of Oregon and Washington will be legally obligated to pay back any general obligation bonds. This will likely mean dipping in to gas tax revenues that would otherwise go to projects around the state.

Borrowing costs will substantially increase the costs of the project over its lifetime. The project anticipates a substantial amount of borrowing to cover all of the costs of the Columbia River Crossing. The project's financial plan anticipates borrowing against future toll revenues, borrowing against future state gas tax and vehicle licensing revenues, borrowing against future federal grant receipts. In addition, in the event of cost overruns, the state will almost certainly be forced to increase borrowing in the short run to produce additional funds needed to keep construction going. All of this borrowing will add to the total cost of the project.

The project's borrowing plans are not fully developed, and some of the borrowings may be over a short time period (borrowing against federal grant monies for the duration of construction, three to seven years, but much of the borrowing will be for a much longer term): bonds issued against toll-revenues and state taxes are projected to have terms of up to 30-years. For a thirty-year bond with a 5.3 percent interest rate, the total amount of interest paid over the life of the bonds is roughly equal to the original principal amount of the bonds, meaning that every dollar in initial construction cost is doubled by interest payments. In the case of the proposed initial \$450 million state contribution to construction costs, the state would pay \$900 million over 30 years; \$450 million in principal, plus \$450 million in interest.

Cost overruns and shortfalls in funding from other sources could add \$1.1 billion to the state's direct cost liability for the CRC, driving total costs to more than \$1.5 billion. We assume that Oregon and Washington agree to share the costs of any overruns and revenue shortfalls equally.

Additional Direct CRC Costs to Oregon if CRC Assumptions are Not Realized

Risk Item	Cost to Project	Oregon Liability
Cost Overrun CRC experiences typical megaproject cost overrun of 28 percent	\$1 billion	\$500 million
FTA Shortfall FTA finances only 50 percent of transit costs in the PMLR	\$400 million	\$200 million
No Earmark Congress follows current policy with no earmarks	\$400 million	\$200 million
Toll Revenue Shortfall CRC experiences high and sustained diversion as 520.	\$400 million	\$200 million
Cumulative Risk Factors	\$2.2 billion	\$1.1 billion

Financing the direct costs of the CRC could drive the total thirty-year cost of the project to Oregon to nearly \$3 billion. Because the state does not have additional available revenue to make payments during the construction period, it is most likely that increased project costs will require additional borrowing, and consequently additional interest costs. As with other state financing, we assume that the state finances these shortfalls at 5.3% interest over thirty years, meaning that the state ends up paying an equivalent amount of interest over thirty years as the initial amount financed.

Direct Costs, Plus Financing Costs of if CRC Assumptions are Not Realized

Cost	Direct Cost	Interest Cost	30 -Year Cost
Planned State Contribution Best Case	\$450 million	\$450 million	\$900 million
Additional Risk Items	\$1.1 billion	\$1.1 billion	\$2.2 billion
Potential Total: Cost	\$1.55 billion	\$1.2 billion	\$3.1 billion

Only under the most optimistic circumstances will the State of Oregon end up spending as little as \$900 million over the next 30 years on the CRC. Given the demonstrable propensity of such project—including this one—to experience significant cost overruns, and the likelihood that one or several of the projected sources of funding could fall hundreds of millions of dollars short of CRC’s optimistic projections, the state could end up spending more than \$3 billion over the next 30 years on CRC from tax revenues. These amounts would be in addition to tolls paid by road users, and would represent a similar liability to the state of Washington. In the event that the project experienced cost overruns on the scale already recorded by the Pioneer Mountain/Eddyville and Grand Avenue Viaduct projects, the cost could be even higher. If the state agrees to proceed with this project, it should be prepared to allocate as much as \$3 billion to the CRC over the next 30 years.

Conclusion

A careful review of the record shows that the proposed financing plan for the Columbia River Crossing is fraught with risk:

- The project’s traffic models are flawed and based on outdated data, and have produced overly optimistic estimates of likely toll revenue, and the project has failed to undertake an Investment Grade revenue analysis.
- A hoped for \$500 million federal highway earmark is unlikely to materialize as Congress has effectively banned earmarks and eliminated most discretionary funding from proposed reauthorization. Federal Highway funds for CRC will have to come from diverting formula money that comes to Oregon

- Federal Transit Administration funding is uncertain, and hinges on an untested legislative provision allowing highway funds to be treated as match for transit, and assumes that FTA doesn't cut the federal share of funding back to 50 percent as it did for the Portland Milwaukie Light Rail line.
- Washington has allocated no funding for CRC in its multi-biennium transportation budget, it faces revenue shortfalls and has obligated 70 percent of its fuel tax revenues to debt service; the state has unmet obligations for two multi-billion dollar Seattle area projects that are underway and will take precedence over CRC.
- Oregon faces a serious decline in revenues for transportation capital projects as a result of having bonded recent tax increases, and experienced declines in fuel sales.
- Megaprojects like the CRC go over budget 90 percent of the time and produce cost overruns averaging 28 percent; ODOT's three largest current projects have experienced more than 100 percent cost overruns. The CRC's processes have failed to detect major cost risks, and the project has fallen 16 months behind schedule in the past two years.
- The CRC's financial plan hinges on several optimistic assumptions being fully realized. If they are not the costs to Oregon will be much larger than an initial \$450 million down payment. Borrowing costs to provide revenue up front for construction will effectively double the 30 year cost to the state, and Oregon could find itself facing a budget liability of up to \$3 billion.

Proceeding with the Columbia River Crossing poses major financial risks to the State of Oregon. None of the major sources of construction funding—toll-backed revenue bonds, state appropriations from Oregon and Washington, and federal highway and transit funds have been obtained. The financial and political environment is now more constrained than ever: both Oregon and Washington have heavily leveraged their existing transportation funds, and are experiencing revenue shortfalls due to lower levels of driving and higher fuel efficiency. As a result, state funding would necessitate increased fuel taxes. Similarly, the federal highway trust fund is experiencing a significant net outflow and faces insolvency in the next two years. Reauthorization legislation now pending in Congress would not even maintain the current level of funding, and may reduce federal transportation spending one-third. And both the House and Senate reauthorization bills preclude earmarks.

The looming state and federal funding shortfall is likely to be exacerbated by the risk and high likelihood of cost overruns, which are endemic in mega-projects like the CRC, and which have not been addressed as part of its financial plan. The project's traffic projections have been shown to be wrong by six years of actual experience, and their authors now admit the models used are incapable of accurately predicting traffic on tolled facilities such as the proposed CRC.

In sum, the huge cost of this project, coupled with great uncertainty surrounding the realism of the very optimistic assumptions that underlie its financial plan mean that proceeding with the Columbia River Crossing as proposed poses grave financial risks to the State of Oregon. I urge this committee and the Oregon Legislature, in the strongest terms possible, to fully apprise itself of the nature and extent of these risks before allowing this project to proceed further.

Very truly yours,

A handwritten signature in black ink, appearing to read 'J. Cortright', with a long horizontal flourish extending to the right.

Joseph Cortright

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