



## Funding Context for Salem River Crossing Project

This memorandum has been prepared for the Salem River Crossing project, an effort to develop an Environmental Impact Statement (EIS) for alternatives to address traffic congestion across the Willamette River in Salem. A locally-preferred corridor and new bridge was identified in 2000 as part of the General Corridor Evaluation prepared by the Salem-Keizer Area Transportation Study. At this early phase in the EIS process, no specific alternatives – a new bridge or otherwise - for addressing mobility in the corridor have been identified. A new or expanded bridge across the river would be expensive. The Willamette River Crossing Capacity Study reports that a previous rough estimate by ODOT placed the construction cost for a new bridge at \$180 million.<sup>1</sup>

Funding is essential to pay for construction costs associated with any alternative or solution for the Salem River Crossing project. Costs for major transportation projects are frequently funded with a mix of federal, state, and local funds. Federal and state funds are allocated through state transportation agencies – in Oregon, that agency is the Oregon Department of Transportation. Major bridges are critical links in the transportation system and are expensive to construct and maintain. For these reasons, bridges are eligible for funding programs at the federal and state level that may not be available for other non-bridge projects.

To be eligible for federal or state funding, a project must be included in the local long-range transportation plan that identifies future transportation improvements needed in the area, funding available for improvement projects, and a list of priority projects eligible for available funding. In Salem that long-range plan is the *Regional Transportation Systems Plan* (RTSP) developed as part of the Salem-Keizer Area Transportation Study (SKATS). This report uses the RTSP as the starting point for describing the level of funding currently available for transportation projects in the Salem area.

This report is organized into four sections:

- **Requirements for Transportation Planning** summarizes federal and state requirements for long-range transportation planning. This section establishes the context for a discussion of funding in the RTSP the following section.
- **Funding for Salem River Crossing Identified in the 2030 RTSP** describes the cost for transportation needs identified in the region and funding sources for those costs. This section identifies costs of the Salem River Crossing project that are identified in the 2030 RTSP and funding sources for these costs.
- **Additional Funding Sources** describes funding sources in addition to those identified in 2030 RTSP that may be considered for funding construction and operation of a Salem

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<sup>1</sup> Salem-Keizer Area Transportation Study, Willamette River Crossing Capacity Study. *General Corridor Evaluation: Executive Summary*. June 2002.

River Crossing solution. This section will identify potential funding sources at the federal, state, and local level.

- **Data Needed for Revenue Analysis** describes the type of data needed to conduct a detailed evaluation of potential revenue sources to fund costs associated with the Salem River Crossing project.

## Requirements for Transportation Planning

Federal and state regulations require that long-range regional transportation plans exhibit "financial constraint." This means that funding must be available to adequately maintain and operate existing transportation facilities and services before calling for the expenditure of resources to expand those systems. If new revenue sources are required, a plan must present the actions to be taken to acquire the new funding. In addition to demonstrating that existing transportation systems are being adequately maintained and operated, the financial element of a regional transportation plan must also identify which improvement projects can be implemented using existing and "reasonably anticipated" funding, and which projects would require the development of new revenue sources.

Funding can be "reasonably anticipated" if the region can show a successful past experience with obtaining this type of funding (e.g., success in obtaining legislative and/or voter approval for new bond issues, tax increases, special appropriations, etc.). New funding beyond that which is demonstrated to be "reasonably anticipated" or likely to be available because of a commitment to a specific course of action must be regarded as speculative. Any improvements that cannot be funded with existing and reasonably anticipated revenue are regarded as "desirable," but not included in the fiscally constrained set of projects. These projects can be included in a regional plan as "illustrative" projects that are needed in the region but that are not funded at this time.

## Funding for Salem River Crossing Identified in the 2030 RTSP

The Salem-Keizer-Turner 2030 Regional Transportation Systems Plan (RTSP) coordinates the regional planning process and investments for regionally-significant transportation systems in the region. The RTSP considers the need for transportation systems for all modes in the region over a 20-year planning horizon, and identifies the maintenance and improvement projects necessary to meet this need at an acceptable level of service. Short-term planning for capital improvements by ODOT and local jurisdictions in the region is coordinated with the RTSP. Regional transportation projects constructed by ODOT and local jurisdictions must be included in, or be consistent with, the RTSP.

The 2030 RTSP identifies two sets of transportation systems improvements: funded (fiscally constrained) and unfunded. The funded set of projects includes the highest priority projects that can be implemented using currently available, committed, or reasonably anticipated revenues. The unfunded set of projects are desirable investments identified in the Plan but which do not, as of yet, have reasonably anticipated funding.

This section starts with an overview of funding and costs identified in the RTSP. It then identifies any portion of the Salem Willamette River Crossing project included in the RTSP

list of project costs, and any funding sources that have been identified in the RTSP to pay for those costs.

### Overview of Funding and Costs in the RTSP

The 2030 RTSP estimated that total revenue available for capital projects in the region will total \$242.9 million over the 25 years. The total cost to maintain and improve the regional transportation system in that period, however, is \$433.5 million (revenue and costs are in 2000 dollars). The result is a funding shortfall of \$190.6 million in the region – this is the estimated cost of local road system, non-transit projects needed in the region that cannot be paid for by available funding in the region. The RTSP identifies 69 projects that are necessary to maintain the region’s mobility but for which no funding has been identified.

Table 1 shows the non-transit project costs included in the 2030 RTSP by project type and funding status. Project costs in the Fiscally Constrained set of projects equals the level of funding available for capital improvements over the planning period, \$242.9 million. Table 1 shows the level of unfunded costs by project type. The majority of unfunded costs are in the categories for which there is the greatest need for expenditures in the region: Signals/Safety/Efficiency, Capacity Increasing, and Urban Standards.

**TABLE 1**  
 Non-transit project costs included in the 2030 RTSP by project type and funding status  
 (millions of 2000 dollars)

Project Type	Fiscally Constrained	Unfunded	Total
Signals/Safety/Efficiency	\$91.2	\$57.0	\$148.2
Capacity Increasing	\$37.0	\$83.2	\$120.2
Urban Standards	\$29.3	\$42.7	\$72.0
Fixed Programs	\$31.2	\$0.0	\$31.2
Bridges	\$17.7	\$6.4	\$24.1
Right-of-Way	\$20.0	\$0.0	\$20.0
Bike/Pedestrian	\$14.8	\$1.3	\$16.1
Transit Support in Road Projects	\$1.8	\$0.0	\$1.8
<b>Total</b>	<b>\$242.9</b>	<b>\$190.6</b>	<b>\$433.5</b>

Source: *Salem-Keizer-Turner 2030 Regional Transportation Systems Plan*, Table 5-2.

The comparison in Table 1 does not include funding or improvement for transit services. It also does not include costs for improvements to the National and State Highway System needed in the region, which total \$212.9 million (in 2000 dollars). The 2030 RTSP assumes that these costs will be funded by appropriations from the US Congress.

### Salem River Crossing Elements Included in the RTSP

The 2030 RTSP identifies river crossing capacity as the first of several outstanding issues that are not fully addressed by the projects in the Plan (funded or unfunded). The 2030



RTSP identifies an EIS as the next step for evaluating the potential construction of a bridge in the Tryon/Pine Corridor, which was identified as the preferred eastern terminus of a new bridge by the Willamette River Crossing Capacity Study (2000). To protect that right-of-way from other uses, the RTSP includes \$20 million in the fiscally constrained plan for acquisition of this right-of-way in the planning period.

The RTSP describes the inclusion of \$20 million for acquisition of right-of-way as a first step for the region to show its commitment to the construction of a new bridge. While this property acquisition is included in the fiscally-constrained plan, no specific funding source for this is identified in the RTSP. But inclusion of this cost in the fiscally-constrained plan implies that funding for this property acquisition is reasonably available in the plan period. No other costs for bridge construction in this corridor are included in the RTSP, in part because the total costs are not known at this time and the bridge and related improvements may not be fully constructed in the time frame of the RTSP.

## Additional Funding Sources

As the previous section shows, the long-range need for transportation projects in the Salem region exceeds the level of reasonably available funding in the region, and funding for the Salem River Crossing project beyond acquisition of right-of-way has not been identified. In this context, some funding sources in addition to the existing and reasonably available sources identified in the RTSP will be needed to pay for costs associated with the Salem River Crossing project. This section identifies potential sources of additional funds at the federal, state, and local level.

### Federal Sources

Federal funding programs for surface transportation are established by authorizing legislation. The most recent federal legislation authorizing funding for transportation is the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Federal legislation authorizes expenditures of federal funds through *programs* and *earmarks*:

- *Programs* apportion funds using formulas or criteria established by legislation. Funds distributed by formula are automatically apportioned to state transportation agencies for expenditure or further distribution to local jurisdictions. Funds distributed by criteria are awarded through a competitive grant process.
- *Earmarks* are funds designated for specific projects or types of expenditures. In many cases, earmarks designate a portion of a state's allocation of programmed funds for specific projects. In such cases, earmarks do not increase the overall level of federal funding to the affected state, but rather just direct a portion of the funds to a specific project. Earmarks can also be in addition to programmed funds distributed to states.

For Oregon, SAFETEA-LU boosted programmed funding for Oregon's highways by 30% and earmarked an additional \$200 million for improvements to Oregon's bridges. The earmarked funding for Oregon's bridges in SAFETEA-LU is primarily for a backlog of high-priority maintenance and improvement projects on highways and bridges in Oregon.

Given this backlog of maintenance and improvement needs, none of the earmarked funding in SAFETEA-LU will be available for the Salem River Crossing project.

SAFETEA-LU continued many long-standing programs that form the core of the federal transportation funding system including the Surface Transportation Program, National Highway System, and Bridge programs. These core federal transportation programs are likely to be continued by future legislation, although their future level of funding is unknown. Funds administered by the Federal Highway Administration (FHWA), including the STP and NHS programs, can generally be used on any portion of the National Highway System and all other functionally classified routes except rural minor collectors, local rural roads, and local urban streets. While FHWA funds generally cannot be used on local urban streets, they can be used for bridges on local urban streets.<sup>2</sup> This section describes these federal programs and funding opportunities.<sup>3</sup>

The Surface Transportation Program (STP) and National Highway System (NHS) are the largest federal highway programs for Oregon. The STP provides funds on a formula basis to states and urban areas with populations greater than 200,000, including Salem-Keizer. STP funds are very flexible and can be used for operations, maintenance, or capital improvements. The NHS program provides funds for maintenance and improvement of roads that are part of the NHS. The current bridges in downtown Salem are part of State Highway 22, which is part of the NHS.<sup>4</sup> Thus an additional bridge in Salem could possibly be linked to the NHS, making it eligible for funding from this program. Since funds from these programs are distributed on a formula basis and are relatively stable, they are a core element of state and local transportation budgets.

The previous section shows that there is a significant funding shortfall for transportation improvements needed in the Salem-Keizer area. The following section describes the capital funding shortfall at the state level. In addition to this shortfall, evidence suggests that most jurisdictions, including Salem, are deferring needed maintenance and preservation projects, which will increase the future need for expenditures to preserve the existing system. Given the overwhelming need for transportation maintenance and capital improvements at the state and local level, and the integration of STP and NHS funding into state and local budgets, there will not be excess STP or NHS funding available for the Salem Crossing project unless the State or local jurisdictions develop other funding sources that would free up STP funds.

SAFETEA-LU maintained the federal Highway Bridge Replacement and Rehabilitation Program (HBRR), which will allocate a total of \$391.9 million to Oregon between 2005 and 2009. A new requirement in SAFETEA-LU is that 15% of this funding be shared with local governments for work on bridges not on the state highway system. ODOT will distribute an average of almost \$18 million per year for these bridge projects. Use of federal HBRR program funding, however, is restricted to replacement, rehabilitation, and preventative maintenance of existing bridges. A bridge must be classified as either structurally deficient

<sup>2</sup> Oregon Transportation Quality Initiative and ODOT Bridge Section. Local Agency Project Development Manual. Page 13.

<sup>3</sup> This summary of federal highway funding in Oregon is based on *SAFETEA-LU: A Reference Guide* published by ODOT's Government Relations Section in January 2006.

<sup>4</sup> [http://www.fhwa.dot.gov/hep10/nhs/maps/or/salem\\_or.pdf](http://www.fhwa.dot.gov/hep10/nhs/maps/or/salem_or.pdf)

or functionally obsolete to receive HBRR funds.<sup>5</sup> Given this restriction, funding from this source is not available for the construction of a new bridge as part of the Salem River Crossing project. Funding from this source could be used for any portion of the Salem Crossing project that would expand or rehabilitate portions of an existing bridge.

Future federal legislation authorizing transportation funding programs could include earmarked funds for the Salem River Crossing project. This funding, however, is regarded as too uncertain to rely on for planning purposes.

## State Sources

The need for maintenance and improvement of the transportation system in Oregon exceeds the level of available funding into the foreseeable future. The *Transportation Needs Analysis*<sup>6</sup> prepared for the Oregon Transportation Plan compares the current level of funding for highway-related programs to the “feasible needs” for these programs in the future. Feasible needs are based on maintaining the existing system at a level slightly more optimal than current levels, replacing infrastructure on a reasonable life-cycle, bringing facilities up to standards, and adding capacity in reasonable ways. This analysis finds that current annual funding is \$786.5 million compared to an annual feasible need of \$1.27 billion, leaving a total annual funding gap of \$480.5 million for all highway-related programs (all in 2004 dollars).

For the State Highway Bridge Program, the *Transportation Needs Analysis* finds that current annual funding is \$71.0 million compared to an annual feasible need of \$129.6 million, leaving an annual funding gap of \$58.6 million (in 2004 dollars). This analysis includes \$1.3 billion of funding from bonds issued under the Oregon Transportation Investment Act III (OTIA III) as well as the debt service needed to repay these bonds.

Road and bridge needs at the local level also exceed available funding. The *Transportation Needs Analysis* finds that current annual funding for local roads and bridges in Oregon is \$718 million compared to an annual feasible need of \$1 to \$1.2 billion, leaving an annual funding gap of \$282 to \$482 million (in 2004 dollars). This analysis includes \$300 million of funding for bridges on county and city roads from bonds issued under OTIA III.

The Oregon Department of Transportation recently developed a list of critical investments that are needed to maintain and improve the transportation system in Oregon.<sup>7</sup> These critical investments are those that are currently unfunded but that the State should fund if additional funding becomes available. This identifies a wide variety of needed critical investments, including \$80 million for pavement repair and preservation, \$40 million for strengthening highway bridges, \$30 million to replace railing on bridges, \$42 million per year to improve city street maintenance, and \$300 million per year to increase capacity on state highways and local arterials. The critical investments identified by ODOT do not appear to include the Salem River Crossing project. Thus, even if additional funding becomes available at the State level due to increases in federal or state funding, this funding is unlikely to fully fund the maintenance and improvement projects already identified for

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<sup>5</sup> Oregon Transportation Quality Initiative and ODOT Bridge Section. Local Agency Project Development Manual. Page 14.

<sup>6</sup> Oregon Department of Transportation. 2005. *Transportation Needs Analysis: 2005–2030 Summary Report*. July 14.

<sup>7</sup> Matthew L. Garrett, Director, Oregon Department of Transportation. “Critical Investments in Transportation.” Memo to Critical Transportation Investments Discussion Participants. August 31, 2006.

additional funding. This means that there is little chance that substantial state funding will be available for the Salem Crossing project.

## Local Sources

From the previous discussion of federal and state funding, it appears that local funding for the Salem River Crossing project will be needed. Even if federal or state funding for the project can be secured, it will likely require a minimum local match. In addition, developing local funding sources for the project may help the region find other federal, state, and local contributions.

For the purposes of this section, it is assumed that a new Salem River Crossing bridge and related improvements would serve regional traffic and that, therefore, local funding for the project would be regional as well. This section looks at local funding sources that could be used by Salem, Keizer, Marion County, or Polk County to raise funds for the Salem River Crossing project.

## Bond Financing

Given the relatively high costs and long life-span of a bridge sufficient to span the Willamette River in Salem, the costs would be financed over time. Thus, the key cost consideration for the Salem River Crossing project would be not just the overall project cost but also the amount of funding that would be needed to make annual payments on the borrowed funds used to finance these costs.

Municipal bonds<sup>8</sup> are the most likely way that project costs would be financed because their tax-exempt status and relatively low risk result in lower interest rates for borrowers. The lowest interest rates for municipal bonds are for those with the lowest risk, typically General Obligation bonds from a public agency with a good credit rating. General Obligation bonds are backed by a pledge of “full faith and credit,” which means that the issuing government pledges to charge taxes sufficient to make the annual payment. In Oregon, General Obligation bonds are backed by property taxes and require voter approval.

Municipal bonds can also be backed by revenue from other sources, such as a fuel tax, vehicle registration surcharge, or tolls. Bonds backed by these revenue sources have more risk and thus a higher interest rate. Revenue bonds can be backed by a secondary pledge of full faith and credit to reduce the interest rate closer to that for General Obligation bonds. This secondary pledge of full faith and credit also requires voter approval.

Recent issues of 20-year A-Rated municipal bonds in Oregon have had an annual interest rate of about 4.5%.<sup>9</sup> Table 2 shows the annual payment needed for 20-year bonds with an annual interest rate of 4.5% for a range of principal amounts between \$100 and \$250 million. Table 2 shows that the payment needed to finance costs of this magnitude range from \$7.7 million to \$19.2 million per year in current dollars. Given this, we will evaluate potential funding sources for the Salem River Crossing project for their capacity to generate annual funding sufficient for the annual payment needed to finance total project costs.

<sup>8</sup> Municipal bonds can be issued by any level of public jurisdiction, including but not exclusively municipalities.

<sup>9</sup> Oregon Municipal Debt Advisory Committee. Oregon Bond Index. [http://www.ost.state.or.us/divisions/dmd/bondcalendar\\_index/dbondindex.pdf](http://www.ost.state.or.us/divisions/dmd/bondcalendar_index/dbondindex.pdf) Accessed September 25, 2006.

**TABLE 2**  
 Bond Financing Example: Annual payment needed for 20-year bonds  
 (\$ millions)

Principal	Annual Payment
\$100	\$7.7
\$150	\$11.5
\$200	\$15.4
\$250	\$19.2

Source: ECONorthwest.

Note: Assumes annual interest rate of 4.5%.

### Existing Funding Sources

The Salem Keizer Area Transportation Study (SKATS) collected data on funding sources and amounts for the RTSP update. Table 3 summarizes expected funds by source and jurisdiction from 2007 to 2031 that would be available to pay for capital projects identified in the RTSP. The data show that the primary existing funding sources for RTSP projects are the federal STP allocations, proceeds from the sale of bonds in Salem, developer-funded improvements, State Highway Fund Apportionments, and System Development Charges.

**TABLE 3**  
 Anticipated Revenues for Capital Projects from SKATS, Salem, Keizer, and Marion County, Year 2007- 2031

	Salem	Keizer	Marion Co.	SKATS
<b>Receipts from Local Sources</b>				
Proceeds from Sale of Bonds	\$39,301,000			
Transfers from Non-Road Funds	\$23,695,000	\$4,265,000		
System Development Charges	\$40,233,000	\$2,100,000	\$4,565,000	
Developer Funded Improvements	\$42,008,000		\$2,500,000	
State Highway Fund Apportionment dedicated to capital projects	\$353,000	\$3,006,000	\$8,000,000	
<b>Receipts from Federal Government</b>				
STP Allocations				\$53,711,000
<b>TOTAL RESOURCES</b>	<b>\$145,590,000</b>	<b>\$9,371,000</b>	<b>\$15,065,000</b>	<b>\$53,711,000</b>

Source: SKATS. March 2007 communication. Revenues are shown in 2006 dollars.

Transfers from Non-Road Funds in Table 3 are primarily from the Urban Renewal Funds of the relevant jurisdictions. Given the large demands for expenditures of public funds, it is unlikely that additional transfers from the Urban Renewal Funds of cities and counties in the region can be used to fund a substantial share of costs for the Salem Crossing project.

Motor vehicle registration fees, gas taxes and weight mile taxes provide revenue for the State Highway Fund and a portion of these revenues are distributed to cities and counties. Revenues from the State Highway Fund Apportionment are distributed by formula, so there

is nothing that local governments can do to increase revenue from this source. Revenue from this source will automatically increase with increases in total State Highway Fund revenue in Oregon and shifts in the share of Oregon's population and registered vehicles in the region. Table 4 shows ODOT's latest revenue forecast for total State Highway Fund revenue available for distribution to cities, counties, and the Highway Division. Table 4 shows that this revenue will decline between fiscal year 2005 and 2011 in both current and constant dollars. In constant, inflation-adjusted dollars, total State Highway Fund revenue for distribution to counties and cities will decline by 18% over this time period. It should be noted that the jurisdictions in the SKATS region use much of their State Highway Fund Apportionment to fund maintenance, rather than capital needs. While the jurisdictions could choose to apply a greater amount towards capital projects, this is not anticipated in the RTSP.

TABLE 4  
State Highway Funds for Distribution to Counties and Cities, Fiscal Year 2004—Fiscal Year 2011  
(millions of 2005 dollars)

Current Dollars	Actual		Forecast					
	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
County Apportionment	\$173.2	\$173.1	\$174.7	\$175.6	\$174.8	\$177.4	\$180.9	\$185.6
City Apportionment	\$111.1	\$119.2	\$120.2	\$120.8	\$120.1	\$121.8	\$124.1	\$127.1
Highway Division Apportionment	\$412.5	\$449.4	\$451.8	\$438.0	\$416.3	\$403.4	\$410.7	\$420.9
Special County/City Transfers	\$1.8	\$1.8	\$1.8	\$1.8	\$1.8	\$1.8	\$1.8	\$1.8
<b>Total Revenue for Distribution</b>	<b>\$698.4</b>	<b>\$743.4</b>	<b>\$748.4</b>	<b>\$736.1</b>	<b>\$713.0</b>	<b>\$704.4</b>	<b>\$717.7</b>	<b>\$735.4</b>
2005 Dollars	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
County Apportionment	\$178.7	\$173.1	\$169.3	\$164.9	\$159.0	\$156.4	\$154.5	\$153.6
City Apportionment	\$114.7	\$119.2	\$116.5	\$113.4	\$109.3	\$107.4	\$106.0	\$105.2
Highway Division Apportionment	\$425.7	\$449.4	\$437.8	\$411.3	\$378.8	\$355.7	\$350.9	\$348.4
Special County/City Transfers	\$1.9	\$1.8	\$1.7	\$1.7	\$1.6	\$1.6	\$1.5	\$1.5
<b>Total Revenue for Distribution</b>	<b>\$720.9</b>	<b>\$743.5</b>	<b>\$725.3</b>	<b>\$691.3</b>	<b>\$648.7</b>	<b>\$621.0</b>	<b>\$613.0</b>	<b>\$608.8</b>

Source: ODOT. June 2006. Summary of Transportation Economic and Revenue Forecasts. Conversion to 2005 dollars by ECONorthwest using an assumed annual inflation rate of 3.1%.

System Development Charges (SDCs) are a primary source of current road and street revenue in the region. SDCs are applied to new development and substantial expansions of existing buildings to pay for infrastructure needed to serve growth. It is likely the need for a new bridge in Salem is due in part to expected growth in the region, so SDCs could be charged to pay for a portion of project costs. The amount of Salem Crossing cost that can be funded through SDCs is limited by two factors:

- First, SDCs could only be used for the portion of the project needed to serve new development in the jurisdiction in which the SDC is charged. While part of the need for a new bridge would be from growth and development in the region, it is likely that part of the need is also for a lack of capacity for existing traffic in the corridor and for anticipated growth outside of jurisdictions in the region. Thus, only a portion of Salem River Crossing costs can be funded by SDCs.

- Second, the portion of Salem River Crossing costs that could be attributed to new growth is probably substantial. But including a substantial cost in the set of projects that determines the SDC rate could increase that rate beyond a level acceptable to local elected officials. Many jurisdictions charge only a fraction of the maximum SDC for this reason. A 2004 study by the League of Oregon Cities<sup>10</sup> shows that Salem's SDC for transportation was roughly \$1,500 for an average residence, while those for other cities in Oregon ranged from a low of \$200 in several cities to a high of \$4,700 in Happy Valley. Based on this cursory review, it appears that there is room for increases in Salem's Transportation SDC without raising it to the high end of SDCs charged by other cities in Oregon.

Table 3 shows that SDCs could generate roughly \$47 million in Salem, Keizer, and Marion County over the 25 year period. Thus, a 50% increase in SDCs would generate roughly \$23 million over the 25-year period, and a 100% increase would generate \$47 million over the 25-year period. Increases of this magnitude would put the Salem area at the high end of SDCs charged in Oregon. Increases beyond this magnitude are unlikely. In the context of annual funding needed to finance potential project costs (see Table 1), it appears that SDCs could fund only a small share of costs for the Salem Crossing project.

### Potential New Local Funding Sources

Cities and counties in Oregon use a variety of funding sources for roads and streets that are currently not being used in Salem, Keizer, Marion County, or Polk County. These funding sources are used by other jurisdictions to fund road and streets in general or for specific improvement projects. Jurisdictions in the region could implement one or several of these new funding sources to help pay for the Salem Crossing project. These potential new funding sources include the following:

- Fuel tax surcharge
- Vehicle registration surcharge
- Transportation Utility Fees
- Property taxes

In addition, tolls have historically been used to fund construction and operation of major bridges in Oregon, including the Astoria Megler Bridge on US 101 and the Vancouver-Portland Bridge on I-5. Given the historical use of tolls to fund bridge construction, they are a potential funding source for Salem Crossing. Oregon law also allows public-private partnerships for the provision of infrastructure such as bridges. This section will examine each of these potential funding sources.

### *Fuel Tax*

A local fuel tax would be assessed at the pump and added to existing State and federal taxes. Several jurisdictions in Oregon have a local fuel tax, including Eugene, Springfield, Cottage Grove, Multnomah County, and Washington County. Table 5 shows the fuel tax rate charged in these jurisdictions, the revenue this tax generated, and the tax revenue per person per penny of tax charged.

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<sup>10</sup> League of Oregon Cities. 2004. *Systems Development Charges Survey*. December.

Table 5 shows that local taxes in these jurisdictions range between \$0.01 and \$0.05 per gallon. The amount of annual revenue ranges widely depending on the tax rate charged and the size of the jurisdiction. To normalize this wide range, Table 5 shows the amount of revenue per capita per penny of tax charged in each jurisdiction. Even this measure varies widely, and is generally higher in small jurisdictions and lower in large jurisdictions. This measure is particularly high in Cottage Grove and Sandy; this is probably due to their small size as well as their location on freeways at the fringe of urbanized areas.

**TABLE 5**  
 Fuel tax rate, tax revenue, and tax revenue per person  
 per penny of tax charged in selected Oregon jurisdictions, 2005

Jurisdiction	Tax Rate per Gallon	Tax Revenue	Revenue per Capita per Penny Tax
Multnomah County	\$0.03	\$6,744,233	\$3.24
Washington County	\$0.01	\$834,500	\$1.70
Eugene (before April)	\$0.03		
Eugene (after April)	\$0.05	\$2,303,658	\$3.50
Springfield	\$0.03	\$1,072,753	\$6.40
Cottage Grove	\$0.03	\$367,906	\$13.46
Sandy	\$0.01	\$121,430	\$18.18
<b>Oregon</b>	<b>\$0.24</b>	<b>\$376,340,791</b>	<b>\$4.32</b>

Source: ODOT Fuel Tax Group. Calculation of revenue per capita perpenny of tax by ECONorthwest.

A fuel tax in Salem would be likely to generate revenue at a level similar to that in Eugene given the two cities’ similar size. The measure of revenue per capita per penny for Eugene in Table 5 is an approximation due to the increase in the tax from \$0.03 to \$0.05 in April 2005. To calculate the potential revenue per penny of tax in the Salem region, we will use the Oregon average in Table 5, which is close but slightly higher than that for Eugene. This analysis is shown in Table 6.

**TABLE 6**  
Potential revenue generated per penny of fuel tax in Salem, Keizer, Marion County, and Polk County

Jurisdiction	Revenue per Capita per Penny Tax	2005 Population	Potential Tax Revenue per Penny Tax
Salem	\$4.32	147,250	\$636,120
Keizer	\$4.32	34,735	\$150,055
Salem + Keizer	\$4.32	181,985	\$786,175
Marion County	\$4.32	302,135	\$1,305,223
Polk County	\$4.32	65,670	\$283,694
Marion + Polk County	\$4.32	367,805	\$1,588,918

Source: ECONorthwest. Population from Population Research Center, PSU.

Table 6 shows that every penny of fuel tax would generate roughly \$786,000 per year if applied in the cities of Salem and Keizer alone, or \$1.6 million per year if applied in all of Marion and Polk County (including Salem and Keizer). The fuel tax is a relatively stable and robust source of revenue. The fuel tax a good source of revenue for financing project costs because its stability reduces risk in the market and a low tax rate can generate funds sufficient to finance substantial costs.

***Vehicle Registration Surcharge***

Counties in Oregon can assess a surcharge on vehicle registrations. This surcharge would be in addition to the regular two-year vehicle registration fee charged in Oregon, which is currently \$54 for a two-year renewal. Table 7 shows that a \$10 surcharge in Marion and Polk counties would generate annual revenue of \$1.9 million, based on the number of vehicles currently registered in the two counties.

**TABLE 7**  
Vehicle registrations and potential revenue from a \$10 surcharge in Marion and Polk counties, 2005

County	Registered Vehicles	Surcharge	Annual Revenue
Marion	309,642	\$10	\$1,548,210
Polk	71,377	\$10	\$356,885
Marion + Polk	381,019		\$1,905,095

Source: Oregon Department of Transportation, Driver and Motor Vehicles Division.

Annual Revenue calculated by ECONorthwest.



### *Transportation Utility Fees*

A Transportation Utility Fee (TUF) is a monthly charge assessed on occupants of homes and businesses in a jurisdiction. A TUF is based on the average number of trips generated by types of land uses, so the charge is loosely tied to use of the transportation system. TUF revenues are usually reserved for maintenance and preservation projects only, not for capital improvements. By increasing funding for maintenance and preservation, however, a TUF can free up a similar amount of unrestricted funding for capital projects.

Table 8 shows most of the cities in Oregon that have a Transportation Utility Fee, the annual revenue this fee generates, and the average revenue per capita in each of these cities. Table 8 shows that average revenue per capita from TUFs in Oregon cities ranges from \$3 to \$66, with an average of \$28. Applying this average to the population of Salem and Keizer suggests that an average TUF in the region would generate annual revenue of roughly \$5 million.

**TABLE 8**  
Transportation Utility Fee revenue and average revenue per capita for selected cities in Oregon, 2005

<b>City</b>	<b>Annual Revenue</b>	<b>Population</b>	<b>Revenue per Capita</b>
Medford	\$4,647,886	70,855	\$66
Lake Oswego	\$959,112	36,075	\$27
Ashland	\$933,641	20,880	\$45
Tualatin	\$662,928	25,465	\$26
Grants Pass	\$651,649	26,085	\$25
Wilsonville	\$548,668	16,510	\$33
Corvallis	\$174,277	53,165	\$3
Brookings	\$110,625	6,185	\$18
Talent	\$72,866	6,255	\$12
<b>Average</b>			<b>\$28</b>

Source: Annual Revenue from the Oregon Department of Transportation, Local Road and Street Questionnaire for the Fiscal Year Ending June 30, 2005.

Population from the Population Research Center, Portland State University.

Revenue per Capita calculated by ECONorthwest.

### *Property Tax Levy*

A property tax levy could be used to fund General Obligation (GO) bonds for financing costs associated with the Salem River Crossing project. GO bonds issued by local governments are secured by a pledge of the issuer's power to levy property taxes. Property taxes necessary to repay GO bonds are not subject to the limitations imposed by Measure 5. However, Oregon law requires GO bonds to be authorized by popular vote. Table 9 shows the property tax levy that would be needed to generate annual revenue of \$5 to \$20 million

(property tax rates are stated in terms of dollars per thousand of assessed value). Table 9 shows the rates if applied in the cities alone or together, and the counties alone and together. Table 9 shows that the levy rate would range from roughly \$0.50 to \$2 per \$1,000 assessed value if applied in the cities together, and \$0.25 to \$1 per \$1,000 assessed value if applied in the counties together.

**TABLE 9**  
 Property tax levy needed to generate annual revenue of \$5 to \$20 million  
*(dollars per thousand assessed value)*

Jurisdiction	Annual Revenue (\$ millions)			
	\$5	\$10	\$15	\$20
Salem	\$0.63	\$1.27	\$1.90	\$2.53
Keizer	\$3.03	\$6.06	\$9.09	\$12.12
Salem + Keizer	\$0.52	\$1.05	\$1.57	\$2.09
Marion County	\$0.32	\$0.64	\$0.96	\$1.28
Polk County	\$1.42	\$2.84	\$4.27	\$5.69
Marion + Polk County	\$0.26	\$0.52	\$0.78	\$1.04

Source: ECONorthwest. Based on total assessed values reported by the Oregon Department of Revenue, *Oregon Property Tax Statistics, Fiscal Year 2005-06*.

**Tolls**

Tolls are charges to users of a transportation facility. Tolls have traditionally been used to fund bridge construction and operation for a variety of reasons, including their high cost, the relatively large benefits for their use, the relative ease of controlling access and charging users, and the lack of substitutes. Tolls have been used to build other bridges in Oregon.

Tolling a new bridge in the Salem Crossing corridor would probably require charging tolls on the existing bridges across the Willamette River in Salem as well so that drivers would not divert to the existing bridges to avoid the toll. Tolls or, more specifically, congestion pricing, on the existing bridges could also be explored as a potential substitute for a new bridge. Congestion pricing is a form of tolling with lower tolls or no tolls at off-peak times and higher tolls during periods of peak use. In theory, tolls on the existing bridges could be set high enough to reduce congestion to acceptable levels during peak periods. The impact of congestion pricing on area residents and businesses, however, may be too great for this to be an acceptable solution.

In theory, tolls have the ability to support a substantial share or all of the construction and operation costs for a bridge that is in demand. The amount of funding that a toll in the Salem River Crossing corridor could generate would vary depending on the traffic level in the corridor, the availability of substitute crossings, and public policy regarding the tolling of other bridges and the amount of costs to be funded by tolls. The last section of this report will address the data needed to assess the level of revenue that tolls could generate for the Salem River Crossing project.



### *Public-Private Partnerships*

The State of Oregon has established the Oregon Innovative Partnership Program (OIPP). This program allows ODOT to enter into partnerships with private-sector businesses and local governments to study, design, fund, construct, and operate critically needed transportation projects, including bridges. The goal of OIPP is to expedite the construction of critically needed infrastructure and to bring new funding sources, expertise, technology, and methods to maximize the public's investment in transportation.

A public-private partnership has some potential to reduce construction and operating costs for a new bridge in Salem. But the costs will still be substantial, and a private-sector business will need a return on their investment to justify their involvement. Thus, some funding source is still needed. Tolls are the most likely source of revenue to provide cash flow for operating a bridge and financing its construction costs within a public-private partnership. It is possible to use other funding sources identified in this report in a public-private partnership, but that would require payment of public funds to the private partner, which may not be acceptable. If tolls are used in a public-private partnership for a new Salem River Crossing bridge, then all bridges over the Willamette River in Salem would likely be tolled so that drivers would not use the existing crossings to avoid the toll on the new bridge. This arrangement might require some sharing of the revenues from the other tolled bridges with the private partner or having that partner operate all of the bridges.

The last section of this report will identify data needed to better assess the opportunities for public-private partnerships for the Salem River Crossing project.

### **Summary of Local Funding for Project Costs**

Table 10 summarizes the level of tax rates or fees needed from each potential funding source to make the annual payment needed to fully finance a range of potential project costs for the Salem River Crossing project. The annual payments shown in Table 10 are based on a 20-year bond at 4.5% annual interest, the same assumptions as those used in Table 2. Table 10 shows that a fuel tax would need to range from \$0.10 to \$0.24 per gallon if applied in the cities of Salem and Keizer alone, or from \$0.05 to \$0.12 per gallon if applied in Marion and Polk County.

TABLE 10  
Summary of tax rates and fees needed to finance potential project costs

	Project Cost (\$ millions)			
	\$100	\$150	\$200	\$250
<b>Annual Payment (\$ millions)</b>	<b>\$7.7</b>	<b>\$11.5</b>	<b>\$15.4</b>	<b>\$19.2</b>
<b>Salem + Keizer</b>				
Fuel Tax (\$ per gallon)	\$0.10	\$0.15	\$0.20	\$0.24
Transportation Utility Fee (\$ per month per household)	\$14	\$21		
Property Tax Levy (\$ per \$1,000 assessed value)	\$0.18	\$1.21	\$1.61	\$2.01
<b>Marion + Polk County</b>				
Fuel Tax (\$ per gallon)	\$0.05	\$0.07	\$0.10	\$0.12
Vehicle Registration Fee (\$ per vehicle per year)	\$20	\$30	\$40	\$50
Property Tax Levy (\$ per \$1,000 assessed value)	\$0.40	\$0.60	\$0.80	\$1.00

Source: ECONorthwest. Transportation Utility Fee per household based on assumption of 2.5 persons per household.

Rates for the Transportation Utility Fee in Table 10 were not estimated for annual payments of \$15.4 or \$19.2 million dollars because this fee must be based on actual maintenance costs for existing roads and we doubt that rates high enough to generate this revenue could be justified.

Table 10 is intended to show the magnitude of taxes or fees that would be needed to fund potential project costs if each tax or fee were used alone. Actual funding for the Salem River Crossing project, however, would likely be a combination of the local funding sources in Table 10 along with federal and state funds and possibly toll revenues.

## Data Needed for Revenue Analysis

The assessment in this report is based on rough estimates of possible project costs and a general assessment of the capacity of potential funding sources to generate revenue sufficient to finance those costs. Obviously, the magnitude of project costs would have a significant impact on the amount of funding that would be needed to construct and operate the project. In addition, phasing and the structure of financing for the project could significantly affect the annual payments and cash-flow needed to pay for the project. Once more detailed solutions and associated costs are developed, an analysis of phasing and financial structure can be conducted.

The analysis of potential funding sources in this report is rough, using statewide averages to assess the amount of revenue that could be generated by each source in the Salem-Keizer

region. Additional data would allow a more detailed assessment of revenue that might be generated by each potential funding source. Additional data needed for assessment of potential revenue includes the following:

- Fuel sales in Marion and Polk counties.
- SDC methodology for Salem and Keizer.
- Number of residences and commercial structures by type in Salem and Keizer for assessment of Transportation Utility Fee.

The analysis needed to assess potential revenue from tolls is more complicated. This assessment would begin with forecasts of future peak-hour traffic volumes on existing and potential new bridges in Salem. Tolls, however, will affect traffic volume on the bridges, so traffic analysis is needed to show the impact of bridge tolls on traffic volumes given various policy scenarios. This traffic analysis is typically conducted by introducing tolls as an “impedance” in the system that affects traffic volumes. With peak-hour volumes under various tolling scenarios, off-peak volumes and toll revenues can be extrapolated using observations from existing tolled facilities. ECONorthwest will work with the project team members to identify additional data need for assessment of revenue sources for the Salem River Crossing project.