600 NE Grand Ave.
Portland, OR 97232-2736

Metro | *Agenda*

Meeting: Joint Policy Advisory Committee on Transportation (JPACT)
Date: Thursday, August 13, 2009
Time: 7:30 to 9 a.m.
Place: Metro Regional Center, Council Chambers

7:30 AM	1.		**CALL TO ORDER & DECLARATION OF A QUORUM**	**Carlotta Collette, Chair**
7:32 AM	2.		**INTRODUCTIONS**	**Carlotta Collette, Chair**
7:35AM	3.		**CITIZEN COMMUNICATIONS ON NON-AGENDA ITEMS**	**Carlotta Collette, Chair**
7:40 AM	4.		**COMMENTS FROM THE CHAIR & COMMITTEE MEMBERS**	
			• OMPOC – Climate Change Committee Member Recommendations	
		*	• Input on STIP Stakeholder Committees	
		*	• Invitation to the Oregon Transportation Summit	
		*	• American Recovery and Reinvestment Act (ARRA) Reporting Update	
7:50 AM	5.		**CONSENT AGENDA**	**Carlotta Collette, Chair**
		*	• Consideration of the JPACT Minutes for July 9, 2009	
	6.		**INFORMATION / DISCUSSION ITEMS**	
7:55 AM	6.1	*	Making the Greatest Place (MGP) Performance Targets Framework – INFORMATION/DISCUSSION	**Christina Deffebach**
	6.2		Regional Transportation Plan (RTP) – INFORMATION/DISCUSSION	
8:20 AM		*	• Adoption package and public comment period overview	**Kim Ellis**
8:25 AM		**	• Project list overview	**Kim Ellis**
8:40 AM		*	• Freight Action Plan	**Deborah Redman**
8:50 AM	6.3	*	Transit element of 2010-13 Metropolitan Transportation Improvement Program (MTIP), and 2010-15 TriMet Transit Investment Plan (TIP) Review and Comment – INFORMATION/DISCUSSION	**Fred Hansen** **Ted Leybold**
9 AM	7.		**ADJOURN**	**Carlotta Collette, Chair**

Upcoming Meetings for September:

1. Regular JPACT meeting scheduled for Thursday, September 10, 2009 from 7:30 to 9 a.m. at the Metro Regional Center, Council Chambers.
2. Joint JPACT, MPAC and Metro Council public hearing on Making the Greatest Place and the Regional Transportation Plan scheduled for Thursday, September 24, 2009 at 5 p.m. at the Beaverton Council Chambers.

* Material available electronically.
** Material to be e-mailed at a later date.
# Material provided at meeting.
All material will be available at the meeting.

For agenda and schedule information, call Kelsey Newell at 503-797-1916, e-mail: kelsey.newell@oregonmetro.gov.
To check on closure or cancellations during inclement weather please call 503-797-1700.

2009 JPACT Work Program
8/6/09

July 9, 2009 – Regular Meeting

- ODOT Tolling Policy – Information
- Draft TSMO Action Plan – Direction
- RTP investment strategy – Status report
- MTIP policy and process retrospective report – Information
- Making the Greatest Place tools and publications – Information
- House Bill 2001: Related Next Steps – Information
- Transportation for America Reauthorization – Status update

August 13, 2009 – Regular Meeting

- OMPOC Climate change – Information
- STIP Stakeholder Committee – Information
- Oregon Transportation Summit – Information
- America Recovery and Reinvestment Act – Reporting update
- Making the Greatest Place Performance Measures – Discussion and direction requested
- Draft RTP – Information
  - Adoption package outline
  - Project list overview
  - Freight Action Plan
- 2010-15 TriMet Transit Investment Plan – Review/comment

August 3rd – OTREC Tour
Time: 3:30 to 5 p.m.
Location: OTREC Offices

September 10, 2009 – Regular Meeting

- Making the Greatest Place and COO recommendation – Information
- Health assessment heath impact assessment on policies reducing VMT in Oregon metropolitan areas – Information
- Sunrise Corridor Locally Preferred Alternative – Approval
- Climate change – Introduce inventory and Climate Prosperity Strategy
- Revised public involvement policy for transportation planning – Action
- Local aspirations investment matrix and RTP projects – Information

September 24th – Metro Council, JPACT, MPAC Public Hearing on MGP/RTP #1
Time: 5 p.m.
Location: Beaverton Council Chambers

October 8, 2009 – Regular Meeting

- Making the Greatest Place Presentation:
  - Chief Operating Officer Recommendation on Making the Greatest Place – Introduction
  - Draft RTP adoption package – Discussion and direction

October 1st – Metro Council, JPACT, MPAC Public Hearing on MGP/RTP #2
Time: 5 p.m.
Location: Gresham Conference Center

October 8th – Metro Council, JPACT, MPAC Public Hearing on MGP/RTP #3
Time: 5 p.m.
Location: Happy Valley Chamber and Foyer

October 15th – Metro Council, JPACT, MPAC Public Hearing on MGP/RTP #4
Time: 2 p.m.
Location: Metro Regional Center, Council Chambers

November 12, 2009 – Regular Meeting	**December 10, 2009 – Regular Meeting**
• Approve air quality conformity analysis of 2010-13 MTIP (including Regional Flexible Funds) • Approve 2010-13 MTIP(including Regional Flexible Funds) • RTP adoption package and public comments – Discussion and direction	• Approve 2035 draft RTP Adoption Package, Pending Air quality Conformity – Action

Parking Lot:

- When to Consider LPA/RTP Actions for Sunrise and I-5/99W
- Involvement with Global Warming Commission

STIP Stakeholder Committee Contact List
July 14, 2009

SALEM

Stephen Dickey
Director of Transportation Development
Salem-Keizer Transit District

Richard Whitman
Director
Department of Land Conservation and Development

Phillip Ditzler
Division Administrator
Oregon Division
Federal Highway Administration

Mike McArthur
Executive Director
Association of Oregon Counties

Mike McCauley
Executive Director
League of Oregon Cities

Sarah Miller
Agency Realignment Project Manager
Oregon Business Development Department

PORTLAND

Angus Duncan
Chair
Oregon Global Warming Commission
c/o Bonneville Environmental Foundation

Chris Hagerbaumer
Deputy Director
Oregon Environmental Council

John Porter
President and CEO
American Automobile Association of Oregon/Idaho

Jonathan Schlueter
Executive Director
Westside Economic Alliance

Susie Lahsene
Chair
Oregon Freight Advisory Committee
C/o Port of Portland

Bob Russell
President
Oregon Trucking Associations

Wayne Lei
Director of Research and Development
Portland General Electric Company

Ted Leybold
MTIP Manager
METRO

Chris Monsere
Assistant Professor
Portland State University
Civil and Environmental Engineering

OTHER

Monte Grove
Region Manager
ODOT, Region 5

Lynn Lundquist
Chair
Central Oregon Area Commission on Transportation

Michael A. Montero
Principal
Montero & Associates, LLC

Dr. Scott Ashford
Head of the School of Civil and Construction Engineering
Oregon State University

Michael Quilty, Chairman
Oregon Metropolitan Planning Organization Consortium
C/O City of Central Point

Relevant House Bill 2001 Clauses
for 2012-15 STIP Stakeholder Committees

SECTION 7. Prior to February 1, 2011, the Department of Transportation shall submit a progress report, including any recommendations for legislation, on the development of a least-cost planning model under section 6 of this 2009 Act to the Seventy-sixth Legislative Assembly.

SECTION 17. The Oregon Transportation Commission shall work with stakeholders to review and update the criteria used to select projects within the Statewide Transportation Improvement Program. When revising the project selection criteria the commission shall consider whether the project:

(1) Improves the state highway system or major access routes to the state highway system on the local road system to relieve congestion by expanding capacity, enhancing operations or otherwise improving travel times within high-congestion corridors.

(2) Enhances the safety of the traveling public by decreasing traffic crash rates, promoting the efficient movement of people and goods and preserving the public investment in the transportation system.

(3) Increases the operational effectiveness and reliability of the existing system by using technological innovation, providing linkages to other existing components of the transportation system and relieving congestion.

(4) Is capable of being implemented to reduce the need for additional highway projects.

(5) Improves the condition, connectivity and capacity of freight-reliant infrastructure serving the state.

(6) Supports improvements necessary for this state's economic growth and competitiveness, accessibility to industries and economic development.

(7) Provides the greatest benefit in relation to project costs.

(8) Fosters livable communities by demonstrating that the investment does not undermine sustainable urban development.

(9) Enhances the value of transportation projects through designs and development that reflect environmental stewardship and community sensitivity.

(10) Is consistent with the state's greenhouse gas emissions reduction goals and reduces this state's dependence on foreign oil.

OREGON TRANSPORTATION SUMMIT

Linking academic and practicing transportation professionals

Friday, September 11, 2009
Portland State University

OTREC, the USDOT-funded partnership of PSU, UO, OSU and OIT, supports approximately $2M in transportation research every year. The Summit aims to leverage this investment to advance the state of transportation practice in Oregon.

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OREGON TRANSPORTATION SUMMIT

Draft Summit Agenda
Friday, September 11, 2009
Smith Memorial Union, Portland State University
Info/registration via http://otrec.us/transportationsummit.php

8:00am Registration

8:30am Plenary Session #1: Moving Cooler
Presentation by Joanne Potter (Cambridge Systematics) with commentary by Chris Hagerbaumer (Oregon Environmental Council) and discussion moderated by Robin McArthur (Metro)

10:00am Break

10:30am Plenary Session #2: Tolling Policy
Presentation by Robert Maestre (Oregon DOT) with commentary by Patrick DeCorla-Souza (FHWA) and discussion moderated by Jay Lyman (David Evans and Associates)

12:00pm Luncheon
Keynote address by Tom Vanderbilt, author of *Traffic: Why We Drive the Way We Do (and What It Says About Us)*

1:30pm Concurrent Sessions

- **Safety "Smackdown"** with Beth Wemple (Kittelson Associates), Chris Monsere (Portland State), Josh Naramore (Metro), Marcy McInelly (SERA), Karen Dixon (Oregon State). The Institute for Transportation Engineering (ITE) and the Congress for the New Urbanism (CNU) have been collaborating on design standards for safety. What issues have been resolved and which are outstanding? Come hear from both sides and see who is left standing at the end of the session.
- **Secretary LaHood Calls for Livability, How Do We Answer?** with Mark Gillem (University of Oregon), Ethan Seltzer (Portland State), Beth Osborne (USDOT), Lynn Peterson (Clackamas County). In June, HUD, EPA and DOT jointly issued six "livability" principles, starting with "provide more transportation choices." But what will it take to unify housing, transportation and environmental agendas in practice? Beth Osborne (USDOT) will share her firsthand perspective on the initiative.
- **Rural ITS: Where's the Potential?** with Dave Neys (ODOT), Steve Albert (Western Transportation Institute), Nathaniel Price (FHWA). Intelligent Transportation Systems (ITS) are generally touted for their ability to "save lives, time and money" but are

most frequently deployed in urban areas. What advanced technologies are effective in rural settings? The session will include highlights from the National Rural Intelligent Transportation Systems conference which will be held in Seaside in August.

- **The Nuts and Bolts of Green Infrastructure** with Margi Lifsey (ODOT), Jason Ideker (Oregon State), Steve Muench (University of Washington), and Susie Serres. In addition to bikes and buses, a major element of sustainable transportation is the infrastructure itself. What are the latest innovations in materials like recycled concretes? What is the right role for LEED-like rating systems such as STARS and Greenroads?
- **Life as a Transportation Writer** with Tom Vanderbilt (Traffic), Jeff Mapes (Pedaling Revolution), Mia Birk (Joyride). Transportation can be fun and exciting but writing about it isn't easy. Hear what these authors have to say about the stops and starts of their vocation.
- **Tolling Policy, the Workshop** with B. Starr McMullen (Oregon State), Tony Rufolo (Portland State), Chris Warner* (Governor's Office), Craig Stone (Washington DOT). In a smaller setting, this session will provide a venue to discuss ODOT's white papers in the context of OTREC research, new legislative mandates, and the experience of our neighbors to the north.

3:00pm Break

3:15pm Concurrent Sessions

- **Safety "Smackdown" Continued** (see description above)
- **System Performance: Beyond V/C** with Lynn Peterson (Clackamas County), Michael Rock (ODOT), Terry Cole (ODOT), Deena Platman (Metro), Rob Inerfeld (City of Eugene). The ratio of volume to capacity (V/C) is currently the law of the land in transportation engineering and planning. Some feel this is mutually exclusive with creating livable communities. Should we aim to replace or complement V/C with other measures? What will it take to move beyond V/C?
- **Managing Rural Transportation Assets with Limited Funding** with Chris Higgins (Oregon State), Peter Dusicka (Portland State), John Sessions (Oregon State), Tom Erkert (US Forest Service). In all types of communities – urban, suburban, and rural – many transportation departments find themselves in the business of "managing a deteriorating infrastructure." With little money for the task, what are realistic strategies for investing in asset management, especially in rural areas?
- **Planning and Engineering for Healthy, Active Living** with Jean Stockard (University of Oregon), Jennifer Dill (Portland State), Carrie Bader (OHSU), Sam Seskin* (CH2M Hill). Transportation is a health strategy and health is a transportation goal but challenges remain to full integration in both academic and practitioner arenas. The session will feature several different perspectives and will aim to identify ways to draw them closer together.
- **OTREC Electric Vehicle Initiative Kickoff Meeting** led by John MacArthur (OTREC). OTREC has selected electric vehicle projects at all four of its campuses for FY2010. This session will provide an opportunity for the faculty and partners involved in those projects to meet, share their plans, and identify opportunities for collaboration. Others are welcome to join and learn more about this electrifying initiative.

- **Moving Cooler, the Workshop** with Joanne Potter (Cambridge Systematics), Chris Hagerbaumer (Oregon Environmental Council), Miguel Figliozzi (Portland State), Jessica Tump (TriMet). Following the morning plenary, take this opportunity to discuss the Moving Cooler report in more detail with the author and a small group of peers. Participants will examine what it will take for their jurisdictions, clients, or constituents to "move cooler."

4:45pm Reception
6:00pm Adjourn

* indicates invited speaker

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U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

James L. Oberstar
Chairman

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

John L. Mica
Ranking Republican Member

James W. Coon II, Republican Chief of Staff

July 20, 2009

Ms. Robin McArthur
Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Dear Ms. McArthur:

The Committee on Transportation and Infrastructure continues to closely oversee the implementation of transportation and infrastructure provisions of the American Recovery and Reinvestment Act of 2009 ("Recovery Act") (P.L. 111-5),[1] to ensure that the funds provided are invested quickly, efficiently, and in harmony with the job-creating purposes of the Recovery Act. To this end, we request that Metropolitan Planning Organizations (MPOs) coordinate with their Governor's office to ensure the Governor provides updated specific transparency and accountability information about funds suballocated to your MPO by **September 20, 2009**, and **November 20, 2009**.

In the nearly five months since enactment of the Recovery Act, many States, MPOs, and public transit agencies have demonstrated the ability of transportation and infrastructure programs to create and sustain family-wage jobs, contribute to our nation's long-term economic growth, and help the United States recover from the worst recession since the Great Depression. These five months have also provided ample time and opportunity for underperforming States, MPOs, and public transit agencies to step up their efforts, sign contracts, and put shovels into the ground. ***Accordingly, beginning in September, the Committee will highlight the best and worst performers in implementing Recovery Act transportation and infrastructure programs.***

The periodic transparency and accountability reports also reveal that States and MPOs are lagging behind in putting to work Recovery Act highway funds that are suballocated to MPOs. I recognize that States had been focused on meeting the June 30, 2009 deadline for obligating 50 percent of State-administered highway funds, a deadline that does not apply to funds suballocated to

[1] The Recovery Act provides $64.1 billion of infrastructure investment authorized by the Committee on Transportation and Infrastructure to enhance the safety, security, and efficiency of our highway, transit, rail, aviation, environmental, inland waterways, public buildings, and maritime transportation infrastructure. This investment includes almost $40 billion of Federal-aid highway, public transit, and Clean Water environmental infrastructure funding under the jurisdiction of this Committee that is distributed directly to States, metropolitan areas, and public transit agencies by existing statutory formulas.

MPOs.[2] Now that this deadline has passed, I expect States and MPOs to increase their rate of obligation on these suballocated funds, as well as of putting contracts out to bid, signing contracts, and breaking ground on projects during the coming months.

COMMITTEE OVERSIGHT

Throughout the development of the Recovery Act, I emphasized the importance of transparency and accountability and ensured that the transportation and infrastructure programs would be subject to rigorous oversight. On February 27, 2009, and May 1, 2009, the Committee sent letters to States, the District of Columbia, Territories, MPOs, and public transit agencies to request information on recipients' use of Recovery Act formula funds for highways, bridges, public transit, clean water, and other infrastructure projects under the Committee's jurisdiction.

According to the most recent submissions, as of May 31, 2009, 4,098 highway and transit projects in all 50 States, three Territories, and the District of Columbia have been put out to bid, totaling nearly $16 billion. This represents 46 percent of the total available formula funds for highway and transit projects. Forty-seven States and the District of Columbia have signed contracts for 2,294 highway and transit projects totaling $6.5 billion, an increase of over 200 percent in the 30 days since the previous reporting deadline (April 30, 2009). Work has begun on 1,243 projects in 47 States and the District of Columbia totaling $4.4 billion, an increase of more than 225 percent in the past 30 days.

The Committee compiled these submissions and released a State-by-State breakdown on this use of Recovery Act formula funds. To download this table, please visit the Committee's website: http://transportation.house.gov/, and click on the blue box entitled "Transparency and Accountability Information". The Committee will continue to release updated data that reflects the regular reporting to the Committee.

On June 25, 2009, the Committee also held its second in a series of oversight hearings on implementation of the Recovery Act. Administrators of Federal transportation agencies and State and local officials, along with a construction representative, testified about how these funds are already getting workers off the bench and back on the job. The information submitted in your previous reports proved critical to this review of Recovery Act programs. Continued direct reporting to the Committee is essential to our efforts to ensure that every State partner in Federally-funded programs can deliver projects and create urgently needed employment in the tight timeframes set forth in the Act.

FOCUS ON BEST AND WORST PERFORMERS

[2] The Recovery Act includes specific "use-it-or-lose-it" deadlines by which States and other recipients must invest transportation and infrastructure funding provided under the Act. For Federal-aid Highway formula funds, 50 percent of State-administered funds must be obligated within 120 days of apportionment (June 30, 2009) and all funds must be obligated within one year of apportionment (March 2, 2010). As of June 19, 2009, all States had met the 50 percent requirement for highway funds. For transit formula grants, 50 percent of funds must be obligated within 180 days of apportionment (September 1, 2009) and all funds must be obligated within one year of apportionment (March 5, 2010).

The five months since the Recovery Act's enactment has provided enough time for States, MPOs, and public transit agencies, to significantly implement Recovery Act programs by signing contracts for and beginning shovel-ready projects. By now recipients of Recovery Act funds should have completed the diversity of actions and processes that exist on State and local levels, including public participation and bidding of projects, and be able to quickly and efficiently invest these funds.

Accordingly, beginning in September, the Committee will highlight the best and worst performers in implementing Recovery Act transportation and infrastructure programs. The Committee plans to focus on the percentage of allocated funds associated with projects under contract and projects underway. Monitoring these indicators, along with the amount of allocated funds associated with obligated projects as well as projects put out to bid, will help us measure the Recovery Act's progress.

Focusing exclusively on the funds outlayed fails to provide a good sense of Recovery Act progress because transportation projects primarily operate on a reimbursement mode. For example, States seek reimbursement for highway projects after construction is underway. Knowing how many funds are associated with projects under contract and projects underway better captures the extent to which Recovery Act funds have arrived on Main Street.

ONGOING REPORTING

The Committee requests that recipients submit updated reports to the Committee by **September 20, 2009**, and **November 20, 2009** (data in these reports should include cumulative information regarding what has occurred as of August 31, 2009, and October 31, 2009, respectively). As before, Governors will report to the Committee on behalf of MPOs regarding highway formula funds suballocated to your MPO, which serves a transportation management area pursuant to Section 133 of Title 23, United States Code. The Committee will continue to request that Governors regularly report to the Committee on behalf of MPOs regarding implementation of the Recovery Act. ***MPOs should not directly report to the Committee.***

If you have any questions regarding this request, please have your staff visit our website or contact Joseph Wender, Counsel to the Committee on Transportation and Infrastructure, at (202) 225-4472 or Joseph.Wender@mail.house.gov.

Thank you for your efforts.

Sincerely,

James L. Oberstar, M.C.
Chairman

ARRA Transportation Reporting Summary: Oregon and Metro Region
Through June 30, 2009

Recipient	Recovery Act Funds Allocated	Recovery Act Funds Obligated	Recovery Act Funds Outlayed	Number of Projects put out to bid	Recovery act funds associated with projects put out to bid	Number of projects under contract	Recovery act funds associated with projects under contract	Number of projects in which work has begun	Recovery act funds associated with projects in which work has begun	Number of projects in which work has been completed	Recovery act funds associated with completed projects	Number of Direct, On-Project Jobs Created or Sustained by Recovery Act Funds	Total Job Hours Created or Sustained by Recovery Act Funds	Total Payroll of Job Hours Created or Sustained by Recovery Act Funds
ODOT (Statewide)	$331,003,072	$100,064,657	$2,026,822	82	$136,096,476	79	$135,926,476	58	$116,802,582	14	$1,869,789	3,063	58,369	$2,187,497
ODOT - Transit (Statewide)	$21,972,418	$0	$0	0	$0	0	$0	0	$0	0	$0	0	0	$0
Capital Assistance	$54,910,293	$37,977,897	$0	23	$33,852,891	12	$5,863,000	12	$5,863,000	1	$75,000	109	9,495	$398,824
TriMet - Fixed Guideway	$1,125,728	$1,125,728	$0	0	$0	0	$0	1	$1,125,728	1	$1,125,728	11	22,880	$915,000
City of Wilsonville - SMART Transit	$709,663	$0	$0	0	$0	0	$0	0	$0	0	$0	0	0	$0
Metro - Local Agencies	$32,680,474	$4,448,978	$11,048	5	$2,211,978	5	$2,211,978	5	$2,211,978	2	$236,978	19	207	$6,522

TriMet figures include TriMet ARRA funds and MPO ARRA funds assigned to transit projects administered by TriMet. Metro figures do not include $5,342,396 of MPO ARRA funding assigned to TriMet for project administration.

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Portland, OR 97232-2736
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Joint Policy Advisory Committee on Transportation
M I N U T E S
July 9, 2009
7:30 a.m. – 9:00 a.m.
Council Chambers

MEMBERS PRESENT	AFFILIATION
Carlotta Collette, Chair	Metro Council
Rex Burkholder	Metro Council
Shane Bemis	City of Gresham
Nina DeConcini	Department of Environmental Quality
Craig Dirksen	Cities of Washington County
Donna Jordan	City of Lake Oswego, Representing Cities of Clackamas Co.
Roy Rogers	Washington County
Bill Wyatt	Port of Portland

MEMBERS EXCUSED	AFFILIATION
Sam Adams	City of Portland
Fred Hansen	TriMet
Kathryn Harrington	Metro Council
Lynn Peterson	Clackamas County
Royce Pollard	City of Vancouver
Steve Stuart	Clark County
Jason Tell	Oregon Department of Transportation
Don Wagner	Washington Department of Transportation
Ted Wheeler	Multnomah County

ALTERNATES PRESENT	AFFILIATION
Bob Austin	Clackamas County
Deborah Kafoury	Multnomah County
Dean Lookingbill	City of Vancouver
Neil McFarlane	Tri-Met
Rian Windsheimer	ODOT
Troy Rayburn	Clark County

STAFF: Deena Platman, Andy Cotugno, Kelsey Newell, Kayla Mullis, Stephan Lashbrook, Robin McArthur, Kim Ellis, Andy Shaw, Ina Zucker, Kathryn Sofich.

1. CALL TO ORDER AND DECLERATION OF A QUORUM

Chair Carlotta Collette declared a quorum and called the meeting to order at 7:32 a.m.

2. INTRODUCTIONS

Chair Carlotta Colette introduced Mr. Troy Rayburn, alternate for the City of Vancouver and Commissioner Bob Austin, alternate for Clackamas County.

3. CITIZEN COMMUNICATIONS ON NON-AGENDA ITEMS

Ms. Debbie Peterson, a resident of the City of Vancouver, addressed the committee on her concerns with the Columbia River Crossing (CRC) project. Presented concerns included use of public outreach funding resources, open project communication sessions, public opinion on light rail to Vancouver, toll pricing and using job creation as a reason to support the project. Ms. Peterson feels that the bridge should be repaired, not rebuilt.

4. COMMENTS FROM THE CHAIR & COMMITTEE MEMBERS

Chair Collette reminded the committee that the Regional Transportation Plan (RTP) call for projects ends July 29th. In addition, she indicated that JPACT has approved (via e-mail ballot) to submit a letter on behalf of the committee to ODOT requesting to work on a joint plan for high speed rail in the region.

Mr. Andy Cotugno of Metro reminded the committee to respond to Kelsey Newell concerning availability for the JPACT Oregon Transportation Research and Education Consortium (OTREC) tour.

5. CONSENT AGENDA

Consideration of JPACT meeting minutes for June 11, 2009

MOTION: Councilor Donna Jordan moved, and Mr. Bill Wyatt seconded, to approve the JPACT meeting minutes for June 11, 2009.

ACTION TAKEN: With all in favor, the motion passed.

6. ACTION ITEMS

6.1 Transportation System Management Operations (TSMO) Action Plan

Ms. Deena Platman of Metro and Mr. Jim Peters of DKS & Associates provided a brief overview of the strategies for the Transportation System Management Operations (TSMO) action plan and discussed how aggressively to pursue TSMO strategies in the RTP. TSMO uses the following four management strategies to improve accessibility, safety, multimodal mobility and travel options:

- Multimodal traffic management;
- Traffic incident management;
- Traveler Information;
- Transportation demand management.

The TSMO action plan proposes expanding investment in management strategies over a 10 year plan cycle. The final version of the TSMO action plan will be incorporated into the 2035 RTP state and federal investment strategy.

The committee then discussed the following topics:

- Including employer outreach in TSMO analyses;
- The fact that TSMO strategies will have to compete with other transportation funding;
- Including enforcement of policies in TSMO analyses (i.e. speed zones);
- Project costs and what the projected amount includes;
- Support for management strategies but not funding amount;
- Funding some aspects of TSMO through other sources besides the RTP;
- Cost-benefit analysis;
- Integrating TSMO projects individually into the RTP;
- TSMO strategies as ongoing investments; and
- Highlighting benefits more aggressively when presenting TSMO strategies.

7. INFORMATION/ DISCUSSION ITEMS

7.1 2010-2013 MTIP Policy and Process Retrospective Report

Ms. Amy Rose of Metro briefed the committee on the Metropolitan Transportation Improvement Program (MTIP) policy and process retrospective. In this retrospective Metro staff and outside stakeholders responded to a questionnaire about the 2010-2013 MTIP process. Metro staff has formulated a series of recommendations based on responses to the questionnaire. The suggested changes are as follows:

- Narrow policy direction to allow for more targeted investment
- Link RFF policy development to RTP objectives
- Structure the RFF process on outcomes based approach
- Utilize the two-step approach for allocating funds
- Additional streamlining of technical measures
- Identify opportunities to improve the narrowing factors
- Consider collaborative approach to simplify the RFF process
- Improve clarity of how transit agency and ODOT administered funds are allocated
- Incorporate Congestion Management Process and Federal Transportation Planning Factors in MTIP policy update

Metro staff will use these recommendations as a starting point for improving the next MTIP process starting with the policy update in the fall.

7.2 House Bill 2001- Related Next Steps

Mr. Andy Shaw of Metro briefed the committee on House Bill 2001 and the policy effects it will have on Metro's work plan. Mr. Shaw highlighted the following portions of the bill:

- Transportation hearings and studies;
- Congestion pricing pilot projects;
- Urban Trail fund;
- Least-cost planning;
- ConnectOregon III; and
- Greenhouse gas and vehicle miles traveled (VMT) reduction modeling.

Councilor Burkholder commented that JPACT will need to decide what their level of involvement will be in these areas.

7.3 Transportation for America Reauthorization Update

Mr. Andy Cotugno of Metro briefed the committee on the House Transportation and Infrastructure Committee's recently adopted *Surface Transportation Authorization Act of 2009*. Mr. Cotugno highlighted the following portions of the bill:

- 38% increase in the highway and transit program;
- Significant component for high speed rail;
- New branches within USDOT including the office of livability, the office of public benefit and the office of expedited delivery;
- Program for projects of national significance;
- Increased funding thresholds for New Starts/Small Starts; and
- Increased recourses for elderly, disabled and low-income transit services.

7.4 Tolling in Oregon

Mr. Dave Williams of ODOT briefed the committee on the seven ODOT commissioned tolling and pricing white papers. In reaction to the new authority in the legislator, ODOT commissioned seven white papers to bring the agency up-to-date on the different aspects of tolling. The papers are intended to address the different goals and types of tolling while establishing basic policy standards for implementation.

The seven papers addressed the following topics related to tolling:

- Greenhouse Gas Emission Impacts of Tolling and Pricing Strategies;
- Geographic and situational limits of tolling; Tolling and traffic demand model efficiency;
- Economic evaluation of improved reliability;
- Assessing the economic effects of congestion pricing;
- Economic comparison of the alternatives for tolling projects; and
- Truck-only toll lanes.

The committee then discussed creating an executive summary of each tolling paper, public readiness for tolling, required tolling pilot project in the Portland Metropolitan Region and the importance of these technical papers in public policy.

7.5 Making the Greatest Place Tools and Publications

Mr. Stephan Lashbrook of Metro briefed the committee on the Making the Greatest Place tools and publications. This introduction is also meant to be an invitation for JPACT to be integrated into the land use component of Metro policy decisions.. Mr. Lashbrook outlined the following specific tools and publications:

- *Regional Population and Employment Range Forecasts*;
- *Preliminary Urban Growth Report: Employment Trends*; *Preliminary Urban Growth Report: Residential Trends;*
- *Preliminary Housing Needs Analysis; and*
- Urban and Rural Reserves memorandum outlining the reserves timeline and process.

Ms. Robin McArthur of Metro added that this information will inform JPACT on how transportation investments affect land use and other components of Making the Greatest Place.

8. ADJOURN

With no further business, Chair Collette adjourned the meeting at 9:04 a.m.

Respectfully submitted,

K.L. Mullis

Kayla Mullis
Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR JULY 9, 2009

The following have been included as part of the official public record:

ITEM	TYPE OF DOCUMENT	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
6.1	PowerPoint	7/9/09	TSMO Refinement Plan power point presentation	070909j-01
7.1	PowerPoint	7/9/09	MTIP Retrospective power point presentation	070909j-02
7.3	Handout	N/A	*House Transportation and Infrastructure Committee:* Surface Transportation Authorization Act of 2009	070909j-03
7.3	Handout	6/18/09	House Transportation and Infrastructure Committee Surface Transportation Authorization Act Summary	070909j-04
7.4	PowerPoint	N/A	ODOT Tolling Policy Papers power point presentation	070909j-05
7.5	Report	March 09'	20 & 50 year Regional Population and Employment Range Forecasts	070909j-06
--	Handout	6/24/09	MPAC Small Group Discussion Responses	070909j-07
7.5	Report	May 09'	Preliminary Urban Growth Report: Employment	070909j-08
7.5	Report	March 09'	Preliminary Urban Growth Report: Residential	070909j-09
7.5	Report	April 09'	Preliminary Housing Needs Analysis: Executive Summary	070909j-10
--	Publication	Summer 09'	GreenScene: Your summer guide to great places and green living.	070909j-11

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Metro | *Memo*

Date: August 5, 2009

To: MPAC, JPACT and interested parties

From: John Williams, Land Use Planning Manager
Chris Deffebach, Planning Manager
Kim Ellis, Principal Transportation Planner

Re: Performance Targets for Making the Greatest Place

Purpose

The purpose of this memo is to summarize the framework and approach recommended to guide selection of more detailed measures that will be used to evaluate and monitor the effectiveness of local and regional land use, transportation and investment decisions. The proposed framework and preliminary targets are shown in **Attachment 1**.

Action Requested

- Support for the recommended framework and categories of targets to allow staff to further refine the preliminary performance targets in 2010.

Background

In 2008, Council adopted Resolution No. 08-3940 expressing the intent of Metro and its regional partners to use a performance-based approach to guide policy and investment decisions in the region.

The Metro Policy Advisory Committee (MPAC) and the Metro Council resolved to:

- Affirm a definition of a successful region and its constituent communities, which have since become known as the "six desired outcomes."
- Work with regional partners to identify the performance indicators, targets, actions and decision-making process necessary to create successful communities.

In response to the Resolution, the *Making the Greatest Place* (MGP) effort continued to evolve to be both outcomes-based and performance-driven. The Regional Transportation Plan (RTP) update, High Capacity Transit (HCT) plan and Urban Growth Report further developed and applied an outcomes-based evaluation framework that considers economic, environmental and equity benefits and impacts in the decision-making process.

The framework is an organizational construct that blends the three-legs of the sustainability stool concept with the triple-bottom line concept to ensure land use, transportation and investment decisions support the long-term sustainability of the region and provide the best return on public investments.

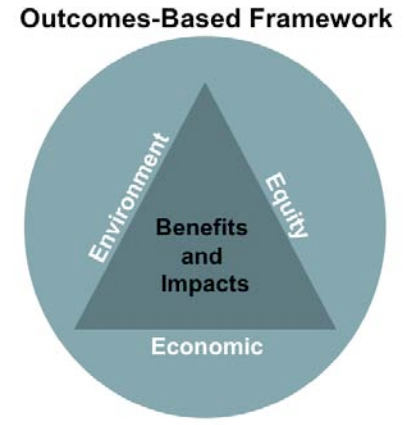

Figure 1. Outcomes-Based Evaluation Framework to evaluate whether land use, transportation and investment decisions help the region make progress toward achieving the Six Desired Outcomes.

Staff Recommendation

Staff proposes using this framework and the following approach to further implement the intent of Resolution No. 08-3940:

- Amend the Regional Framework Plan to formally adopt the six Desired Outcomes as policy.
- Finalize the preliminary list of targets for use in measuring progress toward achieving the six Desired Outcomes, also to be adopted as part of the Regional Framework Plan, as appropriate.

The proposed framework policy and targets are shown in **Attachment 1**. The recommended approach will codify the Desired Outcomes, define broad targets, and allow for more detailed transportation, land use, environmental, equity, and economic measures to be compiled in either an appendix to the framework plan or as part of the Regional Transportation Functional Plan or Urban Growth Management Functional Plan. The measures will help track the effectiveness of various regional and local actions. This will link together the performance measures already adopted (e.g., for Nature in Neighborhoods) and give Metro the flexibility to modify them as new measures or analysis tools are developed through the Regional Indicators process, Regional Transportation Plan or other efforts. In some cases, there are (or will be) state or federal standards that the region must meet. **Attachment 2** illustrates the relationship between the Six Desired Outcomes, proposed Regional Framework Plan policy and more detailed measures that have been or will be developed.

Further refinement of the targets is needed as they are intended to be broad yet descriptive. Many measures have already been defined – some to respond to state requirements and recent federal legislation, some have been identified through the Regional Transportation Plan and High Capacity Transit Plan, some through previous environmental efforts and infrastructure analysis -- yet they have never been assembled or linked together.

Next Steps

Staff is seeking support for the proposed framework and categories of targets. With this support, staff will continue to refine the draft targets with Metro's advisory committees for inclusion in the Regional Framework Plan and appendix in 2010. Both MPAC and JPACT have endorsed a preliminary set of targets for evaluating the Regional Transportation Plan – which served as a starting point for this proposal. The measures the RTP work group developed will be used to evaluate the RTP and determine contribution to achieving the targets and desired outcomes. This evaluation process will help define reasonable targets and test measures. This evaluation may also inform the final set of targets established in 2010.

Over time, effectiveness of the various local and regional actions will be monitored through such existing methods as the State of the Watersheds report (as directed by Title 13), periodic Regional Transportation Plan updates, redevelopment capacity updates as well as new monitoring methods, such as the federally-required Congestion Management Process Report and future updates to the State of the Centers Report and the Regional Mobility Corridor Atlas. Regional and local jurisdictions can use the results of these reports to modify budgets and action plans.

ATTACHMENT 1

Draft "Outcomes" Policy for the Regional Framework Plan

It is the policy of the Metro Council to manage growth in the region to achieve the following outcomes:

- People live and work in vibrant communities where they can choose to walk for pleasure and to meet everyday needs.
- Current and future residents benefit from the region's sustained economic competitiveness and prosperity.
- People have safe and reliable transportation choices that enhance their quality of life.
- The region is a leader in minimizing contributions to global warming.
- Current and future generations enjoy clean air, clean water and healthy ecosystems.
- The benefits and burdens of growth and change are distributed equitably.

Metro and local governments will adopt strategies and take actions to achieve these outcomes, measure the effectiveness of its strategies and actions in achieving the outcomes and adjust the strategies and actions over time to make them more effective. Local government strategies and actions will be defined in the Urban Growth Management Functional Plan and the Regional Transportation Functional Plan. The performance targets shall be included in an appendix to this Regional Framework Plan, as appropriate, and may be revised as more and better data become available. The following targets shall guide selecting more detailed performance measures:

Regional Performance Targets

Wealth creation – By 2035, the share of living-wage jobs in centers, corridors, employment and industrial areas increases by XX percent.
Compact urban form – By 2035, the share of residents who live in centers and corridors increases by XX percent.
Traveler safety – By 2035, crashes, injuries and fatalities decline by XX percent.
Business efficiency – By 2035, the cost of delay for freight and goods movement on the regional freight network declines by XX percent.
Infrastructure resilience – By 2035, the share of the region's infrastructure systems in good condition increases by XX percent.
Climate change – By 2035, the region reduces its greenhouse gas emissions by XX percent.
Active transportation – By 2035, walking, biking and transit trips increases by XX percent.
Energy efficiency – By 2035, the amount of energy used per person declines by XX percent.
Water efficiency – By 2035, the share of the region's wastewater that is recycled or beneficially reused increases by XX percent.
Clean air – By 2035, XX percent of the region's population is exposed to at-risk levels of air pollution.
Clean water – By 2035, XX percent of the region's streams and rivers are fishable[1] and swimmable.
Healthy ecosystems – By 2035, tree and other vegetative cover in the region increases by XX percent and impervious surface declines by XX percent.
Affordability – By 2035, the share of the region's households that are cost-burdened declines by XX percent.
Poverty - By 2035, the share of the region's high school students that qualify for free and reduced lunch programs declines by XX percent.
Access to daily needs – By 2035, the share of region's low-income, minority, senior and disabled populations that live within 30 minutes of essential destinations by bicycle and public transit increases by XX percent.
Access to nature – By 2035, XX percent of the region's residents live within ½-mile of a park, open space or regional trail.

[1] Rivers and streams that have historically been fish-bearing.

Attachment 2

COORDINATED OUTCOME-BASED FRAMEWORK FOR MAKING THE GREATEST PLACE

Six Desired Outcomes

Adopted into the Framework Plan policies

Broad Targets for Achieving Desired Outcomes

Adopted into Framework Plan policies, as appropriate

Measures

- Nature in Neighborhood measures
- State statue requirements
- Transportation measures
- Land use measures

Adopted in Functional Plan or amended into framework plan appendix

Actions

- Local
- Regional

Taken through investment decisions, regulatory actions, partnerships, etc.

Monitoring

Nature in Neighborhoods watershed report – 2 years

Urban growth report – 5 years

Congestion Management Process report - 2 years

Regional Transportation Plan – 4 years

State of the Centers report – to be determined

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Metro | *Memo*

Date: August 5, 2009

To: MPAC, JPACT and interested parties

From: Kim Ellis, RTP Project Manager

Re: 2035 Regional Transportation Plan (RTP) adoption package and public comment period

Purpose

The purpose of this memo is to provide background information on the RTP adoption package that will be subject to public comment and next steps for finalizing the plan – adopting the policy framework and core planning elements by the end of the year and final adoption during Summer 2010. Throughout the summer, Metro staff will be updating the 2035 Regional Transportation Plan (RTP) document and other supporting documents in preparation for a 30-day public comment period. The comment period is planned for September 15 through October 15, 2009.

Action Requested

No action is requested. This is informational.

Background

During the past year, RTP work focused on framing and refining transportation and land-use choices as part of the broader *Making the Greatest Place* effort. This comprehensive effort seeks to integrate local and regional land use and transportation investments to focus future population and employment growth in centers, corridors, employment and industrial areas, in keeping with the 2040 Growth Concept.

At the same time, Metro and its regional partners continued to work on related planning efforts that will be included in the RTP: the Sunrise Corridor project, the I-5/99W connector study, the Sellwood Bridge study, the high-capacity transit (HCT) system plan, the regional freight and goods movement plan and the Transportation System Management and Operations (TSMO) plan. Metro also worked with communities around the region to identify their local land use, transportation and public infrastructure-related aspirations for managing growth and the investments needed to support them.

Metro has also convened a bicycle work group to identify policy refinements to respond to public comments received during the federal component of the RTP update and to incorporate active transportation policy recommendations identified by the Blue Ribbon Committee for Trails. Metro will develop other policy refinements in the draft plan to further implement policy direction from the HCT, TSMO and Freight Plans and policy direction from JPACT and MPAC on performance targets. Finally, local governments, the Oregon Department of Transportation, TriMet and South Metro Area Rapid Transit (SMART) also identified investment priorities to include in the draft plan.

Now is the time to pull the pieces of these planning efforts together to finalize the 2035 RTP by the end of 2009. Work is underway to prepare a series of draft documents that will be subject to public comment this fall. The current schedule provides for technical advisory committee review of the draft

RTP documents during the public comment period. Projects and programs submitted by local, state and regional agencies will undergo a system-level performance evaluation, policy review and formal public comment as part of the process of finalizing the RTP.

Summary of RTP Adoption Package and Public Comment Period

The integrated technical and public comment period is scheduled from September 15 to October 15, 2009. The public comment period will also provide an opportunity to comment on other *Making the Greatest Place* elements (including an updated draft of the Urban Growth Report and potential urban and rural reserves) and the following RTP-related documents:

- **Exhibit A: Draft 2035 Regional Transportation Plan**
  The plan document approved in 2007 as part of the federal component of the RTP update will be modified to reflect refinements to policies, projects and strategies identified since 2008. In addition, the plan will be consolidated into the following chapters to improve readability:

  Chapter 1 – THE CASE FOR CHANGE: Why is a new approach needed for planning and investment in the region's transportation system?
  This chapter describes the role of the RTP and its relationship to the *Making the Greatest Place* effort, key trends and challenges affecting the region and the need do things differently to achieve local and regional aspirations.

  Chapter 2– VISION: What is our vision for the transportation system?
  This chapter presents the role of the RTP in helping achieve the region's desired outcomes and policies to guide planning and investment in the regional transportation system.

  Chapter 3 – INVESTMENT STRATEGY: What is our strategy for achieving this vision?
  This chapter documents transportation funding constraints and the strategies recommended to address the region's desired outcomes and transportation needs given limited funding.

  Chapter 4 – PERFORMANCE ASSESSMENT AND MONITORING: How far can we get toward achieving our vision?
  This chapter describes the outcomes-based framework that will be used to evaluate benefits and impacts of the system of investments recommended in Chapter 3 and direct on-going monitoring conducted in between plan updates.

  Chapter 5 – IMPLEMENTATION: How do we implement our strategy?
  This chapter describes implementation processes and actions that will follow this update, setting the stage for addressing issues that remain unresolved at the time the RTP is adopted.

- **Exhibit B: Draft Transportation System Management and Operations (TSMO) Action Plan**
  The draft plan was developed in partnership with agencies across the region. The plan includes a policy framework, strategies and investments recommended to expand current TSMO investment efforts.

- **Exhibit C: Draft Regional Freight and Goods Movement Action Plan**
  The draft plan was developed in partnership with the Regional Freight and Goods Movement Task Force with representatives from the freight industry, community members and government agencies. The plan includes a policy framework, strategies and investments recommended to support a multi-modal, sustainable freight network.

- **Exhibit D: Draft High Capacity Transit (HCT) System Plan**
  The draft plan was developed in partnership with agencies and community members across the region. The plan identifies where new HCT connections could be developed over the next 30 years. The plan provides a policy framework for prioritizing corridors for HCT investment and strategies recommended to leverage the existing HCT system and future HCT investments.

- **Exhibit E: Draft Regional Transportation Functional Plan**
  The draft regional transportation functional plan codifies existing functional plan elements that were included in Chapter 7 of the current 2035 RTP. Additional refinements will be developed in partnership with Metro advisory committees to address new policies and strategies recommended in Exhibits A-D.

The draft documents will be available for review on Metro's website at www.oregonmetro.gov and as printed documents upon request once the comment period begins.

Public Comment Opportunities

During the comment period, six *Making the Greatest Place* open houses will be held around the region. Four of the open houses will be held in conjunction with Metro Council meetings that will include public hearings where oral and written comments may be submitted on several *Making the Greatest Place* products, including the RTP-related documents listed above. Two of the open houses will accept written and online comments only. Efforts will be made to increase participation by minority, low-income and limited English proficiency community members. The table below lists all the open houses and the kinds of comment that may be submitted.

Fall 2009 Open House and Public Hearing Schedule

	Date/Time	Location
#1	**Monday, September 21, 2009** • Open house only • 2 – 4 p.m.	Hillsboro Civic Center 150 E. Main Street
#2	**Tuesday, September 22, 2009** • Open house only • 5 p.m. to 7:45 p.m.	Multnomah County Library, N. Portland branch 512 N. Killingsworth St., Portland
#3	**Thursday, September 24** • Open house begins at 4 p.m. • Public hearing begins at 5 p.m.	Beaverton City Hall 4755 SW Griffith Dr.
#4	**Thursday, October 1** • Open house begins at 4 p.m. • Public hearing begins at 5 p.m.	Gresham City Hall 1333 NW Eastman Parkway
#5	**Thursday, October 8** • Open house begins at 4 p.m. • Public hearing begins at 5 p.m.	Happy Valley City Hall 16000 SE Misty Drive
#6	**Thursday, October 15** • Open house begins at 4 p.m. • Public hearing begins at 5 p.m.	Metro Regional Center Council Chamber 600 NE Grand Avenue, Portland

In addition, RTP-related comments may be submitted via fax to (503) 797-1930, e-mail to rtp@oregonmetro.gov, mail to RTP Public Comment, Metro Planning, 600 NE Grand Avenue, Portland, OR 97232 or through testimony provided at the Metro Council public hearings. All written comments are due at Metro by 5:00 p.m. on Thursday, October 15, 2009. RTP-related comments will be entered into the public record and will be provided to staff and elected officials prior to final consideration and action on the 2035 RTP and related documents.

Final consideration by MPAC, JPACT and the Metro Council is scheduled for November 18 and December 10 and 17, respectively. This action is pending completion of additional work in 2010. The approval action, which involves adoption of the RTP plan elements by resolution, will direct staff to complete the final system analysis (including air quality conformity), prepare findings and a final document, and finalize regional transportation functional plan amendments to guide local plan implementation.

Next Steps

August	Metro staff will begin the performance evaluation and compile draft RTP documents to be released for public comment.
September 15 to October 15	30-day public comment period is planned as part of the Making the Greatest Place effort. Opportunities to comment will be made available on Metro's website and through a series of public hearings and open house events held throughout the region.
October – December	JPACT, MPAC and Metro Council will consider public comments, the preliminary system evaluation, and amendments prior to action (by Resolution).
Winter-Spring 2010	Staff completes the final system analysis (including air quality conformity), prepare findings and a final document, and finalize regional transportation functional plan amendments to guide local plan implementation.
Spring 2010	Final 45-day public comment period will occur prior to final action.
Summer 2010	JPACT, MPAC and Metro Council consider public comments and prior to final action (by Ordinance).
Fall 2010	Consultation with federal and state agencies on conformity and periodic review of the RTP begins.

WORKING DRAFT

REGIONAL FREIGHT PLAN

Note:

This July 2009 working draft does not incorporate post July 6 RFGM Task Force suggestions or recent factual updates. A new section 10.0 will be inserted, which will include near-term action items. Substantial new, updated or reorganized material will be added to the Executive Summary, Introduction and Section 11.0, and brought to the Task Force in August 2009.

Contents

EXECUTIVE SUMMARY

The Portland region hosts Oregon's economic crossroads. While this permits the region to have a vibrant, diverse and flourishing economy, it also carries certain responsibilities. This Regional Freight Plan identifies mode-specific issues, policies, strategies and investments designed to support a truly multimodal, sustainable freight network within the Portland metropolitan region. The recommended actions will necessarily require collaboration between public and private sectors; the coordination of freight modes that are often competitors; and the reconciliation of institutional, jurisdictional and political perspectives. Yet stakeholders have evidenced a strong interest in and commitment to improving freight mobility and access, and reducing freight's impacts on the communities it serves. In a volatile economy that demands a thoughtful and dynamic response, that level of engagement will be needed to move strategic projects along the path to implementation.[1]

The Portland-Vancouver area is a globally competitive international gateway and domestic hub for commerce. The multimodal freight transportation system is a foundation for economic activities and we must strategically maintain, operate, and expand it in a timely manner to ensure a vital and healthy economy. A systems approach to plan and manage our multimodal freight transportation infrastructure must recognize and coordinate both regional and local transportation and land use decisions to maintain seamless freight and goods flow and access that benefit us all.

Portland as a global gateway

The ports of Portland and Vancouver processed over 20 million U.S. tons of cargo in 2007. Another to 8 to 10 million tons of inland barge cargo also moves through these facilities. In addition to being the leading grain and mineral bulk harbor on the West Coast, the ports processed nearly 500,000 automobiles in 2007. In total, $12 billion in foreign trade moved through Portland Harbor in 2007. Most of this cargo is transported beyond the Portland metro region, generally by truck and rail. There is also a huge support industry located in Portland associated with moving this freight.

The Port of Portland also operates the largest international airport in Oregon. Portland International Airport acts as the air freight hub for much of Oregon and Southwest Washington. Approximately 288,000 tons of domestic and international air freight shipped through Portland International during 2005.

The 2002 Commodity Flow Survey projects an overall doubling of freight tonnage moved in the region by 2030. Currently 1 in 10 jobs in Oregon are transportation related.

[1] Freight volumes are down—temporarily, but substantially, since the draft Regional Freight Plan was completed in the early fall of 2008. Although most observers expect a turnaround to result in an increase in those volumes, the timeline and robustness of the recovery is not known. The downturn does offer the region an opportunity to plan and implement vital freight projects in time for the eventual transition to a healthier economy over the long term.

Mounting congestion and capacity issues on several freight modes could impede the region's ability to compete globally. Regional congestion and capacity issues already impact several national goods movement corridors traversing the region, including freight rail and trucking corridors.

If the region is to maintain its status as an international freight gateway, immediate steps must be taken to ensure that a flexible, adaptable, efficient and reliable goods movement system is in place.

Made in Oregon

The Portland metro region is home to several traded sector industries that help drive the regional economy, including Nike, Adidas, Columbia, Intel, Lattice Semiconductor, FLIR, Genentech, Precision Cast Parts, Boeing, Oregon Steel Mills and Boise Cascade.

The 2005 Cost of Congestion to the Economy of the Portland Region Study reported that the region has a higher than average dependency on traded sector industries, particularly computer and electronic products; wholesale distribution services; metals; forestry, wood and paper products; and publishing. These business sectors serve broader regional, national and international markets and bring dollars from outside the local economy into the region.

Traded sector industries require well-integrated and highly efficient international and domestic transportation connections to stay competitive in the global economy. These firms have historically located in the region to take advantage of the pipeline, rail, marine, aviation and highway connections it offers.

Increased roadway congestion and decreased system reliability have adversely impacted the productivity of traded sector firms throughout the region. This has led to decreases in equipment productivity, increased labor costs and inefficient use of fuel, leading to increased pollution for combined air cargo, trucking, pipeline, marine and rail carriers. Each of these modes relies on the regional road system for some portion of their operations, and all are impacted by congestion.

Manufacturers, shippers and distributors in the region operate in a time sensitive production environment, with each operating under a unique set of parameters. Missing critical connections due to transportation system failure costs these firms significant sums of money and can also result in a loss of customers over time. This can drive companies to consider relocating outside the region, or prevent companies starting up operations in our region.

Preserving essential industrial lands in the Portland metro region has proven difficult over time. The region's industrial areas are also experiencing diminished access to rail infrastructure and deteriorating performance on freight route connections. Road and rail freight corridors, and the industrial lands they serve, need buffers from residential land uses surrounding them. Further, the types of industries being accommodated in industrial areas are changing. Many new industries are better characterized as light industrial or distribution operations, with very different operational requirements than their heavy

industrial predecessors. Redevelopment of existing industrial lands for modern industrial uses should be studied and supported.

Daily necessities

Modern urban life would be impossible without local goods movement. Nearly all the foodstuffs, clothing, housing materials, medical supplies, etc. that we rely on daily come from outside the region.

The region is forecast to have an additional 1 million residents and 600,000 jobs by 2030, which should drive a proportional increase in local freight volumes.

Local suppliers and retailers require good connections to regional, national and international goods movement systems. They also need reasonably sized lane widths, curve and curb radii, and loading zones.

Roadway congestion and deteriorated system reliability within the region heavily impact the productivity of local parcel, store and fuel delivery firms. This leads to decreases in equipment productivity, inefficient use of fuel, increased pollution and higher operating costs.

Shippers and distributors also operate in a more time sensitive production environment, with each operating under a unique set of parameters. System failure costs these firms significant sums of money, and can also result in a loss of customers over time. This can drive these firms to reevaluate their choice of location.

The current situation

Public sector funding for transportation infrastructure, particularly targeting freight movement, has diminished over time. If nothing changes, competition for available funds will increase, and most (road) funds are likely to be funneled into critical safety projects. The region's funding dilemma is real: the state of Oregon hasn't had a gas tax increase since 1993, and the federal Highway Trust Fund is teetering on insolvency. For most of the first decade of this century, the cost of construction materials has risen significantly on the global market, greatly increasing the cost to construct infrastructure improvements. Simply put, costs to construct improvements having been trending upward rapidly, while available revenues to pay for them are declining.

The private sector portion of the goods movement community has been making great strides in adopting sustainable technologies and wringing efficiencies out of their respective portions of the goods movement system. The public sector must also effectively weigh policies, programs and investments to achieve the maximum benefit for the goods movement system, particularly during a time of uncertain funding for transportation.

This means coordination at all levels of government must occur with the business community to address the immediate and long term freight transportation funding needs.

Key Task Force goals and issues for the regional freight transportation system

A systems approach must be taken in order to address the Regional Freight and Goods Movement Task Force goals of reducing delay, increasing reliability, improving safety and providing more choices to help area businesses remain competitive. Such an approach must target the following issues identified by the Task Force:

Congestion and hotspots – chronic road and rail network bottlenecks impede regional freight/goods movement

Reliability – unpredictable travel time due to crashes, construction, special events, and weather

Capacity constraints – due to physical and operational issues as well as lack of capacity in critical corridors

Network barriers – safety concerns and out of direction travel resulting from weight-limited bridges, low bridge clearances, steep grades, at grade rail crossings and poorly designed turns or intersections

Land use – system capacity and land for industrial uses is being lost to other activities

Impacts – managing adverse impacts including diesel emissions, water quality, noise and land use conflicts

Investing in our regional freight system

The many advantages offered by the Portland metro region's unique location and transportation infrastructure need to be fully realized and capitalized upon if the region is to maximize its economic opportunities during the coming century. This will require strategic investment in the multimodal regional freight and goods movement system. Freight-oriented preservation, management and investment priorities should focus on:

- Core throughway system bottlenecks to improve truck mobility in and through the region – hotspots of note include the Columbia River Crossing influence area, the I-5/I-405 loop and the I-5 corridor south of I-205.
- Improving and protecting the throughway interchanges that provide access to major industrial areas, particularly: I-5/Marine Drive and I-5/Columbia Blvd serving the Columbia Corridor and Rivergate industrial areas; I-205/Hwy 212 serving the Clackamas and Milwaukie industrial areas; and I-205/Airport Way serving Portland International Airport and east Columbia Corridor industrial areas.
- Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased improvements recommended by the Sunrise Project Policy Committee and *last mile* local industry connectors, e.g., Columbia/Cascade River District Projects)
- Looking beyond the roadway network to address critical marine and freight rail transportation needs such as completing the Columbia River channel deepening and upgrading main line and rail yard infrastructure.

1.0 Introduction

The Portland metropolitan region has a vibrant and flourishing economy that is more diversified than ever before. Industry has historically located in the region to take advantage of regional and global connections via pipeline, rail, marine, aviation and highway infrastructure. Today, the region is both an international gateway for trade and a hub for distribution and warehousing activities.

The 2005 Cost of Congestion to the Economy of the Portland Region Study reported that the region has a higher than average dependency on traded sector industries, particularly computer and electronic products; wholesale distribution services; metals; forestry, wood and paper products; and publishing. These business sectors serve broader regional, national and international markets and bring outside dollars into the region's economy. These industries depend on a well-integrated and well-functioning international and domestic transportation system to stay competitive in a global economy.

As an international gateway and domestic freight hub, the region is particularly influenced by the dynamic trends affecting distribution and logistics. The 2002 Commodity Flow Survey projected an overall doubling of freight tonnage moved in the region by 2030. The region's forecasted population and job growth, estimated at an additional 1 million residents and 600,000 jobs by 2030, and the associated boost in the consumption of goods and services are significant drivers of projected increases in local freight volume. Much of the projected doubling of freight tonnage passing through the Portland metropolitan region doesn't terminate here, but instead moves well beyond the region's boundaries to the rest of the country.

Complications rising from congestion and capacity issues on several of the region's freight modes impede the region's ability to compete nationally and globally. Congestion has led to reduced productivity, wasted fuel and increased operating costs for businesses. For local shippers and carriers, traffic congestion has led to an erosion of system reliability. Shippers in the region who miss critical connections due to system failure incur costs in a time sensitive production environment and can also lose customers as a result.

Maintaining essential industrial and commercial lands in the Portland metropolitan region has also become more difficult as pressure builds from competing land development, adjacent residential districts, and diminished access to rail and roadway infrastructure.

The private sector portion of the goods movement community has been making great strides in adopting sustainable technologies and wringing efficiencies out of their portions of the goods movement system. The public sector must also effectively weigh channel policies, programs and investment to achieve the maximum benefit for the goods movement system, particularly during a time of uncertain funding for transportation.

The region's goods movement system must improve and adapt if the region is to maintain its economic competiveness in the global economy and its status as an international freight gateway. Immediate action is required to meet the economic opportunities of the 21st century.

The Regional Freight and Goods Movement Action Plan highlights the key issues for the regional freight transportation system and suggests policies and investments to address them.

Freight trends

The global economy is in the midst of a profound change. Twenty-first century innovations in trade policy, communications and transportation have altered the sourcing, production and marketing of products on a global scale.

Due to open trade policies, more freight than ever before is moving across international boundaries.

The rise of worldwide communications networks allow for the inexpensive and instantaneous transfer of information around the globe. These networks have allowed businesses to expand operations and markets, and given rise to new business models like e-commerce, leading to a higher volume of smaller, demand-responsive shipments.

Access to good transportation services has allowed businesses to develop increasingly complex supply chains that are longer and far more specialized, yet increasingly fragile.

As a result of these global trends, U.S. international and domestic trade volumes are expected to grow at an accelerated rate. Trade volumes in Portland are expected to double by 2035, to 600 million tons annually.[2] This is expected to have a profound effect on shippers and the infrastructure they depend upon.

West Coast ports are struggling to keep pace with the increasing volumes of marine and air cargo coming from Pacific Rim trading partners like Japan, China, South Korea and Taiwan. While 2007 and 2008 witnessed a temporary slowing of this trend nationally, Portland Harbor will likely return to the longer-term growth in freight volumes as the economic recovery proceeds. In addition, the ports of Portland and Vancouver are not as constrained by dockside capacity as a number of other West Coast ports.

In total, Pacific Rim trade amounted to $359.2 billion in 2002. Much of the Pacific Rim freight processed by West Coast ports is destined for the rest of the country. However, the financial burden of maintaining and expanding the publicly owned transportation system serving this national need falls to local West Coast trade gateway jurisdictions.

[2] METRO, ODOT, PDC, Port of Portland, Port of Vancouver, Portland and Vancouver International and Domestic Trade Capacity Analysis, 2006.

The North America Free Trade Agreement has also generated large volumes of trade between the U.S., Canada and Mexico on the West Coast, amounting to $73.4 billion in 2002 and growing annually. Trade between major West Coast cities within the U.S. amounted to $182 billion in 2002, for a total of approximately $255 billion in north-south coastal trade. This number has continued to expand rapidly since 2002.

The goods movement industry has responded to this capacity crunch by employing larger trucks, rail cars, ships and planes. This trend places new demands on the goods movement infrastructure and reinforces the need to reconsider our approach to providing goods movement infrastructure. Government and industry must also work together to address increasingly stringent safety and security requirements being placed on the goods movement system.

Against this backdrop of sustained expansion in global trade the region must prepare to compete globally. The viability of the regional and state economy, and the ability to attract and sustain business investment in both, depend on it. Industry needs tangible and continuous improvements in the operating efficiency, capacity, modal redundancy and reliability of the regional goods movement system to remain competitive globally. Government must do its best to work with private sector stakeholders to accomplish this in a sustainable, environmentally sensitive and cost effective manner. Recent fluctuations in fuel prices have merely underscored the importance to industry of having an efficient, reliable and redundant regional goods movement system.

The regional goods movement system is failing certain large shippers: several traded sector firms in the region must truck loads to San Francisco or Seattle/Tacoma to achieve satisfactory international aviation or marine connections. Other resource based industries in, or served by, the Portland metropolitan region's goods movement system are very sensitive to transportation costs and can easily lose global market share with shipping cost increases measured in pennies per pound. Still other area manufacturers have had to repeatedly adjust production schedules to compensate for congestion on the region's runways, roads and rail lines, leading to increased production costs and reduced productivity.

As shippers' supply chain logistics evolve, the definition of "state of the art" warehousing and distribution centers continues to change dramatically. Larger, increasingly truck-biased cross dock facilities are becoming the new standard. Higher fuel costs could lead to decentralization of regional distribution centers nationally, in an effort to reduce the distance trucks need to move to their final destinations. The Portland metro region is well positioned to take advantage of this opportunity.

The local component of the goods movement system is also critically important to the economy and daily life. The local movement of goods and services is focused primarily on trucks. The ability to maneuver on local streets and to park to unload freight is vital for those trying to deliver goods and services to local communities.

With so many new residents expected in the Portland metro region by 2030, family wage job creation is going to be of paramount importance

The region's goods movement infrastructure and unique geographic location are competitive advantages that have created transportation sector jobs for more than a century. These jobs, in turn, serve the industrial and local freight needs of the Portland metro region, the state, the Pacific Northwest, the West Coast and the nation.

Engaging stakeholder to develop a regional freight plan

The center point for the engagement of stakeholders was the Metro Council appointed Regional Freight and Goods Movement Task Force. The 33-member task force included representatives from the multimodal freight industry, community and government agencies. The group was charged with guiding the formation of policy and strategy recommendations for the region's multimodal freight transportation system. Metro Councilor Rod Park served as chairperson for the Task Force. The list of members included:

Steve Akre
OIA Global Logistics

Grant Armbruster
Columbia Sportswear

Steve Bates
Redmond Heavy Haul

Scott Bricker
Bicycle Transportation Alliance

Katy Brooks
Port of Vancouver

Gary Cardwell
NW Container Service

Terry Cleaver
Columbia Grain

Lynda David
Southwest Washington RTC

Tom Dechenne
Norris, Beggs & Simpson

John Drew
Far West Fibers

Ann Gardner
Schnitzer Steel Industries

Pete George
PW George Consulting

Cam Gilmour
Clackamas County

Van Hooper
Sysco Foods

Tom Hughes
City of Hillsboro

Monica Isbell
Starboard Alliance

Susie Lahsene
Port of Portland

Brian McMullen
WSDOT

Jeanne Morgan
Xerox

James Nave
Union Pacific RR

Rod Park
Metro

Michael Powell
Powell's Books

Warren Rosenfeld
Calbag Metals

Robert Russell
Oregon Trucking Association

Paul Smith
City of Portland

John Speight
Portland & Western RR

Paul Thalhofer
City of Troutdale

Jason Tell
ODOT

Elizabeth Wainwright
Merchants Exchange

Tracy Ann Whalen
ESCO Corporation

Rick Williams
Lloyd District TMA

The RFGM Task Force met 11 times between July 2006 and October 2007. Additionally, the task force worked in ad hoc subcommittees to tackle specific issues, such as a regional vision for freight, freight-related RTP goals and objectives, and project prioritization criteria, and brought back recommendations to the full task force. Task Force members also participated in a combined Metropolitan Policy Advisory Committee and Joint Policy Advisory Committee on Transportation meeting held in October 2007.

The long-standing Metro committee on regional freight coordination, the Regional Freight Advisory Committee, served as the technical advisory committee on this plan, providing data, input on analysis, and review of memorandums and reports. The committee is loosely comprised of transportation agencies in the region with an interest in freight issues. Active participants include:

Oregon Department of Transportation
Washington Department of Transportation
Metro
Southwest Washington Regional Transportation Council
Port of Portland
Port of Vancouver
FHWA
Clackamas County
Washington County
Multnomah County
City of Gresham
City of Milwaukie
City of Portland
City of Tualatin
City of Wilsonville

The Regional Freight Advisory Committee met monthly during the course of the planning effort. Some members participated in RFGM Task Force subcommittee meetings.

Targeted stakeholder workshops and presentations were conducted within the 2035 Regional Transportation Plan outreach process. A series of targeted workshops were held in Fall 2006 with various stakeholder groups, including one specifically targeted to the business community, to gather needs and issues. The role of freight in the transportation system was address in each of these targeted workshops. Additionally, several Metro Councilors and key Metro staff were enlisted to talk with business groups in the region about the role of transportation in Portland's economy. Metro spoke with 29 business and advisory groups over the course of the project.

Collectively, these outreach efforts and strategies have educated stakeholders and informed the technical and policy development work on community values, desired outcomes and transportation needs, investment priorities and implementation strategies.

2.0 Goal statement and policy

Goal statement

The RGFM Task Force developed the following goal statement after considerable deliberation:

> The Portland-Vancouver region is a globally competitive international gateway and domestic hub for commerce. The multimodal freight transportation system is a foundation for economic activities and we must strategically maintain, operate, and expand it in a timely manner to ensure a vital and healthy economy.

- We must use a systems approach to plan and manage our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.
- We must adequately fund and sustain investment in our multimodal freight transportation system to ensure that the region and its businesses stay economically competitive.
- We must create first-rate multimodal freight networks that reduce delay, increase reliability, improve safety, and provide choices.
- We must integrate freight mobility and access needs in land use decisions to ensure the efficient use of prime industrial lands, protection of critical freight corridors, and access for commercial delivery activities.
- We must ensure that our multimodal freight transportation system supports the health of the economy and the environment.
- We must enlighten our region's citizens and decision makers about the importance of freight movement on our daily lives and economic well-being.

Integration with the Metro planning process

The Regional Freight and Goods Movement Action Plan is being developed along with broader Metro initiatives evaluating implementation of the regional growth concept (a set of activities under the umbrella of "Making the Greatest Place" or MGP, was developed earlier under the name "New Look") and the update of the region's overall transportation system plan (2035 RTP Update). This project has coordinated both its technical analysis and public participation elements with these other efforts to ensure a consistent and integrated planning approach.

The work program included a New Look (MGP)/RTP coordinated public involvement process that established desired outcomes specific to the regional freight transportation system. It has provided a common base of knowledge about the different elements of the system and has identified issues, needs, and deficiencies within the system. The project has also refined existing regional freight policies and updated the multimodal freight network map. Infrastructure improvements for freight have been called out and

prioritized. Implementation strategies for addressing environmental and community impacts, system management, economic development and financing have been reviewed and recommended. The project will also put forth recommendations for incorporating truck movement into the Creating Livable Streets Design Guide.

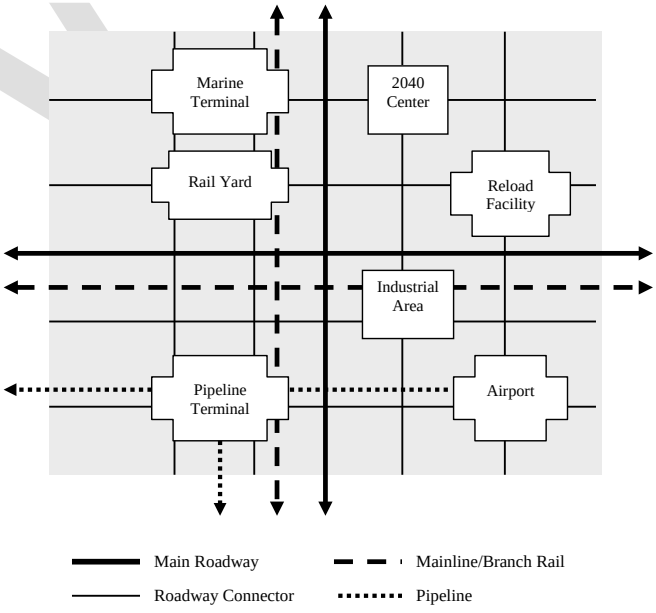
2035 Regional Transportation Plan

Metro periodically reviews and updates the Regional Transportation Plan (RTP) to keep it current with transportation challenges facing the region, and to incorporate new information, technologies and strategies. The updated plan provides a blueprint for building a sustainable transportation future that allows the region to compete in the global economy and preserve the unique qualities and natural beauty that define our region. An overarching aim of the RTP is to move the region closer to the vision of the region's long-range strategy for managing growth, the 2040 Growth Concept. Fundamentally, the RTP defines a framework for making choices about the future of the region – choices about where to allocate limited transportation resources and choices about the future we wish to see for our region and, by extension, the State of Oregon. The Regional Freight and Goods Movement Action Plan for the Portland metro region is an element of the RTP. While the plan targets needs and issues specific to the freight transportation system, key policies and actions are incorporated into the comprehensive RTP.

RTP freight transportation system

The transport and distribution of freight occurs via the regional freight system, a combination of interconnected publicly and privately owned networks and terminal facilities. The concept in Figure 1 shows the components of the regional freight system and their relationships.

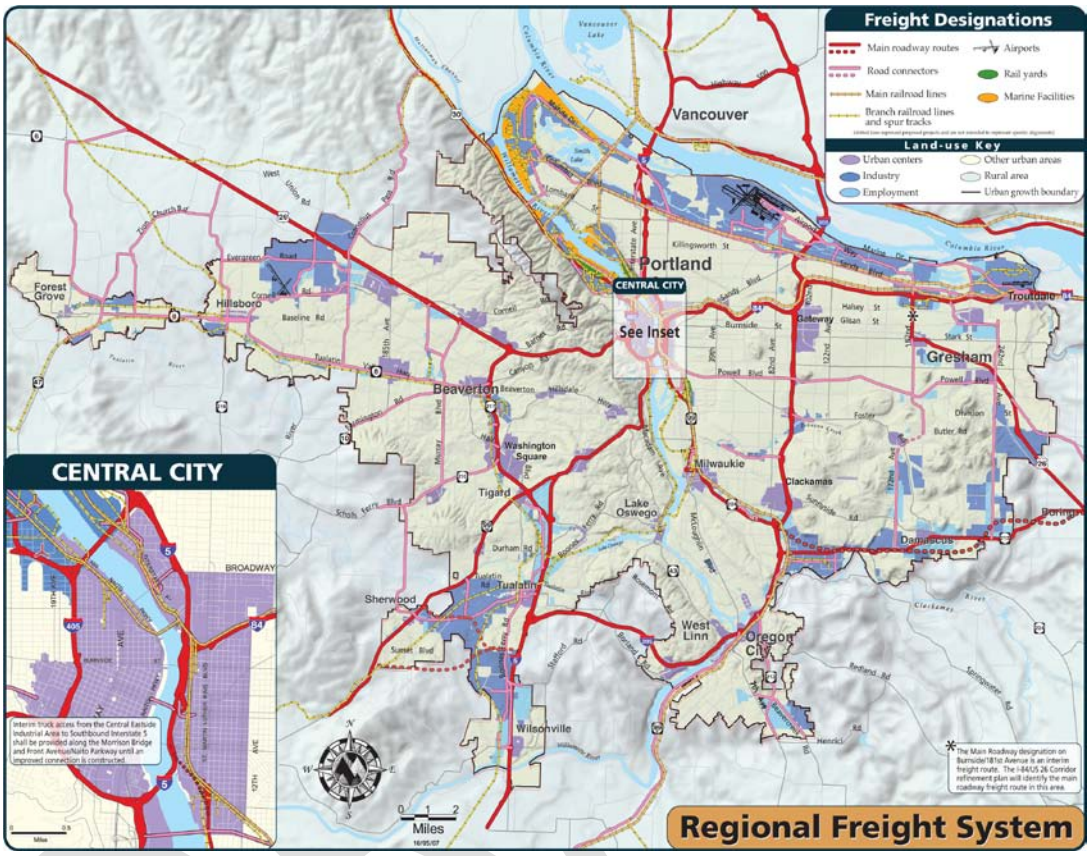
Figure 1. Regional freight concept



Rivers, mainline rail, pipeline, air routes, and arterial streets and throughways connect the region to international and domestic markets and suppliers beyond local boundaries. Inside the region, throughways and arterial streets distribute freight moved by truck to air, marine and pipeline terminal facilities, rail yards, industrial areas and commercial centers. Rail branch lines connect industrial areas, marine terminals and pipeline terminals to rail yards. Pipelines transport petroleum products to and from terminal facilities.

The Regional Freight System Map, shown in Figure 2, applies the regional freight concept on the ground to identify the transportation networks and facilities that serve the region and state's freight mobility needs

Figure 2. Regional freight system



3.0 Key issues on the regional freight transportation system

Between April 2006 and February 2007, Metro staff interviewed nearly two dozen individuals and facilitated discussions at more than 35 meetings with regional stakeholders and analysts.[3] The result was more than 225 discrete comments reflecting desires and concerns regarding the state of the region's freight transportation system. With input for the Regional Freight and Goods Movement Task Force, the collection of comments was refined into a list of key issues that the plan should begin to address. Table 1 provides a summarized list of the key issues and needs.

Table 1. Priority issues for freight
Appendix A contains the actual comments as transcribed by the interviewers.

Issue category	Key issues
Mobility and accessibility	• Road congestion on regional truck routes • Travel time reliability on regional truck routes • Accessibility between intermodal terminals, industrial areas, centers and interstate system • Class 1/short line rail – throughput and velocity, capacity constraints in rail yards, sidings • Improved rail access and service for regional shippers • Barriers: weight/vertical clearance issues on bridges; gaps in connectivity (new roads/bridges) • Safe barge navigation in I-5/BNSF bridges area • At-grade rail crossings – grade separation • River channel deepening
System management	• Preservation and efficient use of existing capacity • Intelligent Transportation System tools (signal timing, cameras) • Access management • Increase in truck crash rate • Faster response to roadway incidents (crashes) • Truck parking: hours of service limitations • Efficient loading/unloading operations in commercial centers • Advances in traveler information (road conditions, directional signage) • Workforce access to industrial and employment areas • Maintenance dredging and lock repair • Rail system management (directional running, grade crossing info) • Modal redundancy

[3] Ibid.

Issue category	Key issues
Land use	• General population growth and impacts to transportation system • Competition between industrial and other uses for interchange capacity • Adequate supply of industrial land served by transportation system (i.e., marine accessible) • Incompatible land uses along rail lines and major truck corridors • Accommodation of truck delivery in pedestrian-friendly areas and corridors (street design trade-offs)
Environment	• Air quality impacts from diesel engine emissions • Residential noise impacts from truck, rail and air cargo operations • Water quality
Investment strategies	• Link transportation investment decisions to regional, state, and national economy. • Expand types and amounts of funding for infrastructure and programs (i.e., gas tax indexing, user pays cost responsibility). • Use public-private partnerships to fund improvements. • Create a role for the public sector in funding private operations. • Use a building block approach to fix corridors (i.e., ITS first, then graduate to other solutions). • Incorporate lifecycle cost (maintenance) into project.
Coordination	• Create better coordination between freight system stakeholders in the region. • Educate decision makers and public about importance of region's freight transportation system. • Consider rail service needs for regional shippers. • Consider freight/goods movement needs in project development.
Research and data	• Freight system performance over time • Ongoing truck count program • Economic impact assessments of investments

4.0 Freight generation in the region

Manufacturing, warehousing and distribution

The Portland metro region is home to a number of traded sector firms engaged in a broad array of activities. These firms bring wealth from outside the local economy into the region, helping communities to prosper. All of these enterprises have unique goods movement needs, some local, others national or international.

Unlike many areas of the country which have witnessed a substantial decline in manufacturing/industrial employment, the region has experienced growth in the manufacturing sector of the economy during the last two decades. This has created a need to efficiently deliver the materials needed for production (domestically and internationally) and to cost effectively ship finished products. Manufacturers in the region assemble products from components delivered from around the globe and ship components for assembly internationally. The mobility needed to support commerce in the region is as diverse as the commerce itself.

Manufacturers and shippers from throughout Oregon and Southwest Washington depend on the Portland metro region's warehousing, distribution, logistics, customs and multimodal goods movement infrastructure to move raw materials, semi-finished and finished products. These activities create substantial quantities of jobs within the region. Warehousing and distribution services, and related activities, are a major employer within the Portland metro region, with at least 46,000 local jobs attributed to this sector.

These activities are spread throughout the region, with concentrations in the Rivergate, Columbia Corridor, Sunset Corridor, Swan Island, Clackamas-Milwaukee, Springwater-Damascus, inner Eastside, North Wilsonville-Tualatin-Sherwood, Beaverton-Tigard, Beavercreek and Northwest Portland industrial areas.

Port activities

The ports of Portland and Vancouver host more than 1,000 ocean going ships each year. These vessels transport 18 to 20 million short tons of cargo annually to and from public and private facilities located in the Portland-Vancouver Harbor. Another to 8 to 10 million tons of inland barge cargo also moves through these facilities. In total, $12 billion in foreign trade moved through Portland Harbor in 2007. Much of this cargo is transported beyond the Portland metropolitan area, through key truck and rail corridors.

In addition, the Port of Portland operates the largest international airport in Oregon. It is the hub for the vast majority of air freight activity in the Portland metro region, western Oregon, and Southwest Washington. Approximately 288,000 tons of domestic and international air freight shipped through Portland International during 2005.

5.0 Regional goods movement

Highway

Trucks will remain the predominant mode of freight transport for the foreseeable future, due to their flexibility, speed, adaptability and availability. West Coast truck traffic is expected to increase 200 percent by 2035*, placing increasing pressure on the interstate highway system and local freight corridors. As much as 52 percent of the total truck traffic in the region is through traffic.[4] This reflects the importance of our stewardship role for maintaining the through-put efficiency of the interstate freeway system for national freight movement.

Maintaining access to, and adequate capacity on, designated freight corridors, the National Network, and the National Highway System within the region will remain critical to efficient goods movement. Performance of NN and NHS roads within the region varies, but there are locations with regularly recurring chokepoints. It is not unusual for these chokepoint locations to experience frequent failures, particularly during peak weekday travel times, greatly reducing overall system efficiency and reliability.

Recurring highway system chokepoint locations within the region identified by the RFGM Task Force as having broad impacts to goods movement included:

- I-5/CRC (Columbia River Crossing) and Delta Park: North Marine Drive to Columbia Boulevard operates near or over capacity during all peaks.
- I-5/I-84 Interchange: Operates at or over capacity during the a.m., p.m. and mid-day peaks.
- I-5/I-405 Loop: Is congested through the central city area.
- I-5 Corridor, south of I-205 interchange: the South Metro I-5 Corridor and Boone Bridge is reaching capacity, and carries a larger percentage of trucks that the CRC.
- I-205/OR 224 Interchange: Operates near capacity during the mid-day and p.m. peak hour.
- I-205: I-84 to Northeast Marine Drive: Several interchanges connecting to and sections of I-84 and I-205 within these limits operate near or over capacity during the p.m. peak hour.
- I-205: OR 212 to I-5: I-205, particularly south of the Oregon City I-205 bridge has long had capacity issues; enhanced merge lanes to I-205 are also needed.

[4] *Portland and Vancouver International and Domestic Trade Capacity Analysis, 2006: WCCC Trade and Transportation Study, Cambridge Systematics, 2008*

- OR 217: Inadequate interchange spacing leads to merge/weave congestion chokepoints in the area of the Southwest Beaverton-Hillsdale Highway, Allen Boulevard and Hall Boulevard interchanges.

- I-205/Airport Way: Eastbound to northbound on-ramp is a bottleneck to providing access to and from Portland International Airport

- Non-continuous or challenging parallel arterials and connections: Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased connectors) are needed.

- Last-mile chokepoints: Various locations experience congested last-mile local industry connectors (e.g., Columbia/Cascade River District Projects)

Several of these highway segments and interchanges have also been identified as projects of statewide significance due, in part, to their negative impact on the statewide or national goods movement systems.

Rail

Class 1 rail lines[5] operating in the Portland metropolitan area (BNSF Railway and Union Pacific Railroad) have been capacity-constrained due to several long-standing and well documented historical factors. These constraints will worsen as freight volumes at the region's ports and intermodal facilities increase. Capacity chokepoints for the Class 1 railroads in the Portland metropolitan area have primarily centered on the Portland Triangle, located in the industrial/port areas of North Portland and Southwest Vancouver.

Issues in the Portland Triangle area include inadequate siding lengths (Class 1 railroads are now fielding up to 8,000 foot long unit trains), rail bridges with inadequate capacity and lowered sufficiency ratings, at-grade rail crossings, sidings and mainline track sections that are over capacity. Other Class 1 capacity constraints within the region include switch control at the Steel Bridge, and inadequate rail and intermodal yard capacity for current and future needs. Outside the region, railcar clearances and increasing weights will need to be addressed, as the Class 1 railroads look to longer trains and heavier carloads to increase their operating efficiency and revenues.

Short line rail operators have taken over many of the local and regional rail functions formerly performed by the Class 1 railroads. Rail car weights are a critical issue for short line railroads. The Class 1 railroads are now considering rail car weights above 286,000 pounds, which will exceed the carrying capacity of many short line tracks in the region.

[5] Railroads are classified according to their revenue; following decades of decline and mergers, there are now seven Class 1 railroads—constituting largest companies--currently operating in the United States. Class II railroads are also known as regional railroads; Class III includes the short line railroads.

Assisting regional short line railroads with track upgrades could reduce the risk of derailments, a potential public safety issue and certainly a productivity issue for the railroads. It also keeps trucks off the road. The short lines are also having to make-up more trains in their yards, which have limited capacity, before delivering them to the Class 1 rail yards. Assisting short line railroads requires government to show a clear public benefit, since these facilities are privately owned and operated.

Government and the railroads have historically cooperated to implement rail crossing safety improvements. The Class 1 and short line railroads have multiple at-grade crossings of their lines in the region, limiting train speeds and increasing the risk of conflicts between trains, vehicles, pedestrians and bicycles. Improving, eliminating, or grade separating at grade crossings improves safety as the number and size of trains increase. Crossing improvements increase rail and road system productivity by helping longer trains clear crossings more quickly. Crossing improvements are the first step in applying for "quiet zone" status with the Federal Railroad Administration.

Aviation

Combined air cargo providers generally operate on a hub-and-spoke system, where freight is picked up at airports throughout the country in the early evening, flown back to a central destination to be sorted, and then reloaded and flown to its final destination in the early hours of the morning for next day delivery. In order for this system to work, schedules must be maintained. This generally places air freight carriers' trucks on the road during p.m. peak hour traffic.

While traffic flows on the roadways immediately adjacent to Portland International have improved within the last decade, trucks carrying air freight to the airport during the p.m. peak hour face increasing congestion on several area highways leading to the airport. I-205, I-84, I-5, I-405 and US26 all serve locations feeding generating air freight, but have failing p.m. peak hour level of service.

Several traded sector manufacturers within the region are heavy users of air freight. Frequent roadway congestion forces many of these users to move shipping deadlines up, causing firms to lose valuable production time and increasing their production costs. Many shippers in the region were disappointed when direct air freight connections to Asia were lost. They now have to truck their shipments to Sea-Tac or San Francisco International airports to make their desired connections.

Portland International began (May 2009) to implement a project to extend its north runway, as well as a complete overhaul of its south runway. With these improvements runway and taxiway capacity at the airport should be adequate to meet the needs of air freight carriers through the next decade, based on recent statements by the Port of Portland.

Marine

Modern commercial navigation of the Columbia River began in 1877, when Congress approved dredging a navigation channel between the Portland-Vancouver area and the mouth of the river in Astoria. Currently, more than 1,000 ocean-going vessels call on the Portland-Vancouver Harbor each year. Navigation channel depth on the Columbia River continues to be the limiting factor on the size, and therefore the number, of ships that call on the Portland-Vancouver Harbor. Channel deepening has been pursued for several decades, balanced by the need to protect various fish stocks migrating on the river.

The ports of Portland and Vancouver, as well as the other ports located along the lower Columbia River, lead the nation in the shipment of grain. They also ship large quantities of other bulk agricultural commodities from Oregon, Idaho and Washington to the rest of the world. The region's ports will still manage to grow by moving a wide range of marine cargoes, such as energy and transportation project related materials, manufactured goods, automobiles, agricultural and mining related products, and fuel. The ability of the ports of Portland and Vancouver to serve as major ports will be hampered by the size of ships that can traverse the Columbia River channel, since ocean carriers try to reduce per slot vessel (docking) cost by using larger ships.

The ports generate significant volumes of truck and rail traffic in the West Vancouver and Rivergate areas. Congestion during peak commute hours adversely impacts these truck movements. Intermittent congestion also impacts the Class 1 and shortline railroads serving the area.

Barge operators on the Columbia/Snake River system use equipment specifically constructed to operate in the locks on those rivers, adding significantly to their capital costs. In 2004, these barge operators moved 16,262 TEU's[6] and 9,779,000 tons of containers, bulk (wet and dry) and break bulk cargoes on the Columbia/Snake River system. Barges are also used to transport grain, fuel, steel and aggregate related products on the lower Willamette River. It should be noted, however, that most import and export shippers prefer to use truck and rail for any higher value products moving through the ports.

The primary limiting factors to barge movement in the region are the BNSF rail and I-5 bridges crossing the Columbia River and the maintenance of navigable locks on the Columbia and Snake rivers.

[6] Standard container measurements, known as twenty-foot equivalent units.

Pipelines

The Olympic Petroleum pipeline transports 65 percent of the petroleum products that Oregon uses. The pipeline delivers the equivalent of 750 tanker trucks of fuel between the Puget Sound and the Portland tank farm located in the Northwest Portland industrial area every day. The product in the petroleum pipeline generally moves at approximately 4 to 5 miles per hour. The pipeline is privately owned and is regulated by the federal government. [7]

Regional distribution occurs from the tank farm through a Chevron owned pipeline to Portland International Airport and through the Kinder-Morgan pipelines to users and distributors throughout the region. Maintaining good quality access to the tank farm facility is critical, particularly in light of a recent at-grade rail crossing closure on an access road to the tank farm.

The Williams Northwest Pipeline transports natural gas products to northwestern Oregon and Southwest Washington. Northwest Natural Gas operates a private natural gas network that connects to the Williams Northwest Pipeline and radiates through and beyond the Portland metro region. This pipeline network delivers gas directly to end users within and beyond the Portland metropolitan area.

[7] http://www.phmsa.dot.gov/index.html

6.0 Goods movement and land use concerns

While the success of the region's economy is directly tied to its ability to efficiently move freight, it is important to recognize that freight movement and operations can potentially produce adverse impacts on local communities in the form of:

- Increased emissions, noise and vibration, lighting and safety concerns
- Impacts to land uses, community access, and bicycle and pedestrian movements
- Competition for highway and parking capacity
- A perceived (though not often real) reduction in land values
- Impediments to visual quality and redevelopment efforts

These concerns are likely to increase over time as freight volumes increase. Freight carriers and shippers can be impacted when communities seek to restrict access by trucks on certain streets, limit night-time operations, reduce the number of truck loading zones, increase water recreation activities and public access within working waterfront areas, or when communities seek to use a freight railroad's track for passenger rail service. These impacts are not the exclusive domain of freight operations – highways, transit and other transportation systems and services can engender comparable concerns over impacts.

As shippers' supply chain logistics continue to evolve, the definition of "state of the art" warehousing and distribution centers changes as well. Larger, increasingly truck-biased facilities are becoming the new standard. In addition, higher fuel costs could lead to decentralization of regional distribution centers nationally, with the Portland metro region well positioned to take advantage of this opportunity.[8]

Certain key regional intermodal rail to truck transfer facilities are quickly reaching their capacity and are constrained by the physical dimensions of their facilities. A regional discussion regarding retaining or restoring rail access into industrial areas should occur between the warehousing, manufacturing and distribution sectors, and the short line rail operators.

There has been a demand, at times, for conversion of industrial property to mixed-use residential. This is often incompatible with surrounding industrial operations and freight movement. New residential development along truck and rail corridors, and adjacent to industrial sanctuary areas should be discouraged, with land uses that provide a buffer for freight related uses being preferred in these areas. From the viewpoint of freight carriers and shippers, allowing new, incompatible land uses into industrial areas impedes business operations and access, resulting in higher operating costs, reduced safety and efficiency.

[8] **CSCMP Explores, Vol. 5, Spring 2008*

Protecting and redeveloping industrial areas for industrial uses is in keeping with the goal of creating and preserving industrial sanctuaries in the Region 2040 plan, but managing and balancing competing land uses will continue to be difficult as the region grows. Maintaining reliable multi-modal transport options to our industrial areas is critical, particularly truck and rail connections. Providing rail service is becoming particularly difficult as rail operating practices continue to change rapidly.

7.0 Technology and planning in sustainable freight transport

Going green

There are two variables that every commercial carrier must come to grips with: fuel cost and fuel use. The former frequently dictates the lengths to which a carrier will go to conserve fuel, while the later directly impacts the production of greenhouse gases and PM 2.5[9] emissions.

The goods movement industry is responding to the prospect of sustained higher fuel costs and tightening emissions standards. Tools being used to improve powertrain operating efficiency and reduce stationary idling of truck diesel engines include:

- Clean diesel technologies, more efficient powertrains and improved aerodynamics
- Low sulfur and bio-diesel fuels
- On board auxiliary power units
- Parking area power and HVAC hook-ups for trucks
- Ongoing and innovative operational changes that reduce the carbon footprint of freight.

Every operator of commercial vehicles, be they aircraft, marine, rail or truck, has grown increasingly sophisticated at load, route, operator and vehicle optimization in an effort to minimize equipment downtime and maximize profit. Recent increases in the cost of fuel have only intensified efforts to increase operational efficiencies. Still, there is little evidence of a shift to alternative modes due to fuel costs.

The public sector needs to compliment these efforts by optimizing their own facilities and strategies to gain maximum through-put capacity and efficiency where it matters most. This effort needs to include multi-jurisdictional coordination and ongoing participation from the private sector goods movement community. The challenge of increasing the capacity of the goods movement system while remaining environmentally sustainable will require close coordination and cooperation between the private and public sectors.

Transportation system management

Several tools are available for transportation system management on the corridor level. These tools include variable message signs, traveler information systems, incident management and response, traffic signal progression, ramp metering and demand (traffic volume) responsive signal timing. Truck signal priority might also be considered in certain situations.

[9] Particulate matter smaller than 2.5 microns have been shown to affect human health.

The public sector needs to manage its roadway infrastructure with the same degree of efficiency that the private sector manages their assets. Managing roadway performance through congestion pricing means charging road users on a sliding scale, based on the actual demand for roadway capacity throughout the day, with higher prices occurring during periods of peak travel demand.

Weigh-in-motion scales have been in use for several years, allowing trucks to bypass conventional truck scales, saving time, fuel and wear. Weigh-in-motion systems could be improved through the use of a single, common transponder system for commercial vehicles operating throughout several western states.

Some industrial areas within the Portland metro region have freed up roadway capacity by forming transportation management associations. These associations can facilitate and promote enhanced pedestrian, transit, carpooling and bicycle alternatives to the daily commute. These associations also work with employees to tailor transit services to their work shifts and with employers to facilitate staggered shifts, compressed work weeks and work-from-home programs. These efforts can reduce single occupant vehicle travel within industrial areas during critical peak travel times.

Freight data collection and analysis

Portland State University's Intelligent Transportation Systems lab has begun a project to produce truck travel time estimates using the transponder information from ODOT's Green Light weigh-in motion-system. The system can supplement Tripcheck's traveler information system as well as help calculate key freight measurements by linking the other data collected by the weigh stations to the travel time estimates. The ITS lab at PSU houses and maintains the Portland Oregon Regional Transportation Archive Listing. PORTAL collects data from all of the in-bed loop detection sensors in the Portland area as well as free floating dynamic sensors that can be placed in TriMet buses or other vehicles. The archive also collects weather and incident reports, all of which can be accessed in a variety of methods to help monitor and evaluate traffic improvements and patterns.

Planning, coordination, and education

The RFGM Task Force requested that freight coordination continue at the regional level. Metro staff would like to honor this request through coordination with jurisdictions and organizations having an interest in commerce and freight, and by holding bi-annual meetings of the RFGM Task Force. Ongoing coordination, planning and data collection efforts would allow Metro to be more responsive to requests from the goods movement community.

The RFGM Task Force also recommended that efforts to educate the public on the importance of goods movement, and the critical role it plays in the economy, continue on an ongoing basis.

8.0 Freight plan findings

The following findings were developed or compiled by Metro staff, but are based on RFGM Task Force input, as well as data collected as part of this project.

Trade and the Portland economy

- Trade volumes in the Portland/Vancouver region will double by 2035.
- Continued trade growth will create economic opportunities for the region and state that are dependent on adequate transportation infrastructure.
- The goods movement needs of the Portland-Vancouver region, and the markets it serves, require access to a broad range of modal options and service providers.
- The ability to transport goods into, out of, through and within the region in an efficient, timely and reliable manner is critically important to the economic health of the region and the state as well as West Coast trade.
- Maintaining an efficient, accessible, multimodal goods movement system is essential to attracting and retaining traded sector companies. These firms require access to the global marketplace comparable or superior to any firm they might compete against.

Industrial land supply

- There will be an increased need for industrial waterfront lands to support growth in maritime trade. Industrial land uses are frequently incompatible with, and pressured by, residential development. Extra care must also be taken when placing industrial land uses in close proximity to recreational or environmental resources.
- Industrial sanctuaries should continue to be considered a unique and protected land use. Preserving the region's existing industrial sanctuaries is essential to maintaining economic growth. As industrial land in the region becomes increasingly scarce, active protection of the region's industrial sanctuaries will become critical.
- Protection of industrial sanctuaries should include modernization of existing sites as needed, as long as the industrial nature of the land use is maintained.
- Industrial land users consider residential development incompatible with their operations, while residential property owners take issue with aspects of industrial development. Similarly, locating housing adjacent to primary truck routes or rail lines is also viewed as undesirable by carriers and residential property owners alike.
- Maintaining and improving multimodal freight access to the 2040 industrial sanctuaries is critically important to ensuring long-term viability of industry in the region.

Freight rail

- Rail service characteristics are changing. Class 1 railroads, and even certain short line railroads, are moving towards a "hook (up) and haul" business model, where the railroad focuses on pulling assembled trains long distances between cities.
- Class 1 railroads are currently struggling to meet existing freight demand. They are facing shortages in rolling stock, siding and yard capacity, and track capacity. They are attempting to address these deficiencies in a timely manner, but are struggling to do so.
- In response to projected increases in rail freight volumes, Class 1 railroads intend to haul heavier per car loads and employ longer trains. The former will require upgrading tracks throughout their systems, and the later will likely increase the need to grade separate more intersections over time.
- The current Class 1 railroad business model focuses on delivering service to railheads with intermodal yards or directly to port facilities. The Class 1 railroad intermodal yards in the region are operating near capacity now, and they will need to be expanded. These intermodal yards are predominantly dependent on trucks to move freight to and from their facilities. This may require use of scarce lands within certain Industrial Sanctuaries.
- Short line railroads have generally taken over the role of distributing rail cars throughout the region on their rail networks to end users requiring direct local rail service. Lack of space in Class 1 rail yards means short line railroads need additional marshalling yards on their own properties to make up trains. Identifying locations for these yards is challenging, as it often requires the acquisition of scarce lands within certain industrial sanctuaries.
- Short line railroads and certain private operators are also operating intermodal facilities, frequently offering additional logistics services to shippers. Maintaining and improving both truck and rail access to these satellite intermodal locations is critical.

Trucking

- Trucks will continue to be the dominant mode of transport in the freight transportation system, with West Coast truck volumes expected to increase over 250 percent by 2035. Even though the use of other modes will expand, trucks will maintain their preeminent status as the first and last links in delivering goods to the end user due to their flexibility.
- A trend toward lighter weight, higher value, increasingly time sensitive, producer to retailer shipments is expected to continue, again reinforcing the role of trucking in the freight transportation system hierarchy.
- Truck access between port facilities, industrial sanctuaries and the National Highway System is critically important to shippers, carriers and distributors of freight. These connections are commonly referred to as "first mile/last mile" connections.

- Motor carriers identified correcting regional bottlenecks on the principal NHS roads as their first priority. Motor carriers are also supportive of active Transportation System Management, to include incident management.
- Transportation service providers identified the Columbia River Crossing, I-5 through Delta Park, the I-84/I-5 interchange area, I-205 from OR 224 to I-5, and the Sunrise Corridor projects, as well as improved access to the North Wilsonville-Tualatin-Sherwood and Clackamas industrial areas as their highest regional road improvement priorities.

Air Cargo

Air cargo continues to require efficient access. Area industries producing goods shipped via air freight have had to adjust their production schedules repeatedly due to roadway congestion in order to meet air freight departure deadlines. This has led, in turn, to higher production costs and reduced productivity.

General concerns and observations

- The rail, truck, marine, pipeline and air cargo carriers all invest in their own equipment and infrastructure and are privately owned for-profit businesses. This complicates public sector investment in safety, access, reliability or capacity improvements for these modes.
- Every privately owned carrier, of whatever mode, relies on publicly owned infrastructure for at least a portion of their activities.
- Firms relying on the goods movement system monitor the efficiency, reliability and speed of the existing transportation system and use these measures to evaluate system performance. The vast majority of this information is considered proprietary and is used by shippers to gain an advantage over competitors. Much of this data is also derived from proprietary systems that generate unique data outputs focused on parameters specific to that firm. This can make even anonymous data sharing very difficult.
- The goods movement industry provides over 46,000 family wage jobs within the region.
- Maintaining the Portland metro region's historic preeminence as a goods movement and industrial hub should remain a regional priority.
- Long-term under investment in transportation infrastructure within the region, for both maintenance and capacity improvements, has led to congestion, weight limits and frequent system breakdown.
- Transportation revenues to fund maintenance and capacity enhancements are at an historical low on the federal, state and local levels.

- An ongoing regional freight data collection effort needs to be undertaken and sustained over time. One of the better efforts to date is PORTAL, operated by PSU, but several other efforts under development also show promise.
- A component of regional freight data collection efforts needs to include interviewing shippers directly on ongoing basis, to capture current supply chain dynamics.
- The importance of freight transportation to the regional economy needs to be reinforced through an ongoing public education effort.

Funding background

Funding for transportation projects has historically come from several federal, state, regional and local funding sources, as reflected in the following lists. There are several programs funded under the current federal transportation act, the Safe, Accountable, Flexible, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), that can be directed towards freight. The next federal transportation act is expected to specifically address freight movement. Similarly, funding for transportation is expected to be taken up by the Oregon Legislature during their upcoming session.

Change is needed: federal and state fuel tax revenues have been in decline for several years. Oregon has not had a gas tax rate increase since 1993, but the Weight-Mile Tax levied on trucks over 26,000 pounds (GCW) has increased since that date. Nationally, funding for transportation projects has become scarce. The need to replace aging transportation infrastructure and expand facilities in areas of the country experiencing growth has exploded. This need comes at a time when infrastructure project costs have increased significantly during the last several years.

The following funding sources are currently available to the region.

Federal funding sources or programs (FHWA programs, unless otherwise noted):

- Modernization (freight chokepoints, capacity enhancements, dimensional issues on NN/NHS freight routes)
- Preservation (road and bridge maintenance)
- Surface Transportation Program
- National Corridor Infrastructure Improvement Program
- Congestion Management and Air Quality Improvement Program
- Transportation Infrastructure Finance and Innovation Act of 1998 – allowed the creation of state infrastructure banks through a federal credit, generally fund state infrastructure banks (Funds are expected to be repaid.)
- Truck Parking Facilities
- Freight Intermodal Distribution Pilot Grant Program

- Transportation, Community, and System Preservation Program
- Elimination of Hazards and Installation of Protective Devices at Rail-Highway Crossing
- High Risk Rural Roads (e.g., Cornelius Pass)
- Intelligent Transportation Systems Research
- FTA dollars for TDM measures on truck corridors and in industrial areas
- MARAD: provides funding for harbor and channel maintenance
- FAA: various programs for providing airside, landside and runway protection zone funding

State funding sources (generally administered through ODOT):

- Oregon Gas Tax: Oregon's fuel tax on gasoline has not been increased since 1993.
- Existing and Proposed Vehicle Registration Fees: Oregon's next legislative session is expected to revisit vehicle registration fees as a potential source of revenue.
- Oregon Weight Mile Tax: Charged to trucks weighing over 26,000 pounds, the tax is the primary source of tax revenue raised by trucks in the state. Weight Mile Tax receipts are primarily directed at roadway maintenance and system preservation efforts throughout Oregon, with a smaller amount allocated to administering the program.
- Oregon Energy Income Tax Credit: The Oregon Department of Energy offers a tax credit for businesses that invest in reducing energy consumption. Under this program transportation projects that reduce the number of single-occupancy vehicle trips are eligible for the credit. The credit covers up to 35 percent of eligible project costs.
- Connect Oregon I & II: Funded through lottery proceeds, this effort has focused on projects that enhance intermodal connections and improve freight mobility for several modes, to include aviation, marine, and freight rail. It was allocated a total of $200 million for both phases.
- OTIA: The various OTIA funding programs relied on bond proceeds to raise funding for critical statewide infrastructure needs. While this program was a success, these bonds now need to be paid off.

The Connect Oregon and OTIA programs have shown that government and the private sector can collaborate successfully. These programs have delivered tangible benefits to freight movement within the Portland metro region and the state. The Connect Oregon program should be continued. The program has proven particularly useful in funding much needed projects for off-highway modes. Dedicating the loan revenues from the Connect Oregon program into a revolving fund could help the program be more self sustaining.

Regional funding sources:

- Congestion pricing/use-based toll: Set up a regional congestion pricing program, starting with CRC (both bridges). Enforce through WMT transponders or cell phones. Dedicate revenues generated by trucks to truck oriented projects.
- Vehicle registration fee: Apply a uniform vehicle registration fee to all vehicles.
- Regional funding initiative: Regional transportation improvement districts have experienced success in the Northwest. These packages use increments of vehicle registration fees, fuel taxes, and/or property taxes to fund a specific list of infrastructure improvements. A regional transportation improvement fee is under development for consideration.
- Value capture: Certain transportation projects generate greater tax revenues for a community during their construction and throughout their active lifespan. Projecting this value and using it to help bond the project is another way to help fund certain capital projects, such as shortline railroad intermodal facilities.
- Freight innovation initiative: A fund for innovative, freight-oriented technological and operational efforts using commercial vehicle congestion pricing tolls. Revenues could fund freight-oriented TSM, ITS, fuel consumption reduction or alternative fuel efforts, and technology proof of concepts/trials/ demonstration projects. A small percentage of these funds could also support a regional freight database and associated freight movement research.

Local transportation funding efforts in other regions and states have illustrated that the public is willing to pay for infrastructure under certain conditions. The public needs to see a demonstrable need for the project and how the proposed project will meet that need; it has to feel confident in the cost estimate and projected schedule and also in the constructing agency's ability to deliver a project within that cost and schedule.

9.0 Developing a freight strategy tool kit

Linking Freight Plan goals and issues to targeted solutions

The RFGM Task Force identified specific issues associated with the RTP goals for freight movement. These issues, summarized in the table below, require an ongoing, creative and collaborative approach to problems that are sometimes systemic, sometimes localized, and usually complex. The Task Force recognized that freight problems occur on a multimodal system, and that even when problems appear to be localized bottlenecks or network barriers, there are often multiple underlying causes that extend far beyond the apparent "problem". The interdependent nature of our transportation system, economy and environment all demand that a rigorous analysis of potential solutions be performed, in order to avoid downstream impacts or unintended consequences.

The tables are structured around the Freight Plan goals developed by the Task Force and found in section 2.0 of this document. These goals have been combined under one of the following categories:

System planning for efficient freight mobility and access

This category of issues and solutions speaks to Metro's mission as the Metropolitan Planning Organization for the Portland metro area. It seeks to provide better freight and goods movement data, to analyze that date with freight considerations in mind, and to implement a multimodal plan that facilitates freight movements required for a vibrant regional and state economy.

System management to increase network efficiency

This category comprises the "first step" to improved freight and goods movement operations on the existing system, and includes preservation, maintenance and operations-focused projects and associated planning and coordinating activities.

Public understanding of freight issues

To gain public support for projects and funding of freight initiatives, and to help the public and elected officials make wiser land use decisions, a program of public education is required.

Sustainable freight transportation system

This category of issues and solutions deals with traditional nuisance and hot spot issues associated with "smokestack and tailpipe" problems, but it also recognizes the many current contributions and new opportunities for the evolving green freight community to be part of the larger environmental and economic solution set required in these times, including greenhouse gas curtailments.

Freight-sensitive land use planning

This category targets land use planning and design issues that can affect the ability of freight, goods movement and industrial uses to live harmoniously with their neighbors.

Freight-sensitive land use planning includes everything from long-range aspirations for freight and industrial lands to short-term and smaller scale design and access issues.

Strategic transportation investments

This category of solutions focuses on planning and building capital projects and developing the funding sources, partnerships, and coordination to implement them. It includes the list of regional freight project priorities attached as Appendix B to this report, identifying a wide range of projects from preservation and maintenance to major facility construction.

Freight-oriented preservation, management and investment priorities should focus on:

- Core throughway system bottlenecks to improve truck mobility in and through the region – hotspots of note include the Columbia River Crossing influence area, the I-5/I-405 loop and the I-5 corridor south of I-205.
- Improving and protecting the throughway interchanges that provide access to major industrial areas, particularly: I-5/Marine Drive and I-5/Columbia Blvd serving the Columbia Corridor and Rivergate industrial areas; I-205/Hwy 212 serving the Clackamas and Milwaukie industrial areas; and I-205/Airport Way serving Portland International Airport and east Columbia Corridor industrial areas.
- Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased improvements recommended by the Sunrise Project Policy Committee and *last mile* local industry connectors, e.g., Columbia/Cascade River District Projects)
- Looking beyond the roadway network to address critical marine and freight rail transportation needs such as completing the Columbia River channel deepening and upgrading main line and rail yard infrastructure.

Several issues raised by the stakeholders are difficult to resolve, primarily because the improvements suggested involve infrastructure that is under private ownership. In these instances, identified public benefits must be rigorously quantified to demonstrate net benefits associated with public investment. In addition, qualitative benefits must be logically articulated and assessed.

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
System planning for efficient freight mobility and access;. *We must use a systems approach to **plan** and manage our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.*	• Inability to track freight system performance over time • Inability to measure economic impact of investments • Accessibility between intermodal terminals, industrial areas, commercial centers and the interstate system • Improved rail access and service for regional shippers • Consideration of freight and goods movement needs in project development • Protection of modal redundancy	**Data, Research, Modeling and Analysis** • Improve Metro's truck module within the regional travel forecast model • Investigate predictive risk analysis, economic models and/or manual estimates of monetary benefits based on predicted travel time savings, incident clearance, enforcement, etc. • Submit proposals for relevant regional, state and national freight-related research or pilot project opportunities (e.g., Transportation Research Board projects) • Continue and expand work with Portland State University faculty and research staff to improve tools for freight analysis (e.g., truck counts) **Planning and Coordination** • Maintain Regional Freight Technical Advisory Committee meetings (monthly) and hold twice-yearly Task Force meetings (or as needed to provide timely input) • Periodic development, and ongoing advocacy for RTP freight projects list • Coordinate with and through ODOT, Oregon Freight Advisory Committee (OFAC) on statewide freight, port and rail planning to ensure regional issues are addressed • Monitor freight innovations across the country and globally to mine for Portland metro application • Ensure that freight needs are included in all Metro planning efforts, such as corridor refinement plans

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
System management to increase network efficiency *We must use a systems approach to plan and **manage** our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.*	• Travel time reliability on regional truck routes • Efficient use of existing capacity • Increasing truck crash rate • Need for faster response to roadway incidents • Improved traveler information – road conditions, directional signage • Maintenance dredging and lock repair	**Data Collection, Analysis and Planning** • Regional Transportation System Management Plan • Periodic development and refinement of RTP freight projects list • Monitor/comment on ODOT statewide freight planning studies (Statewide Freight Plan, related studies for ports and rail at the state level) • Continued support for use and expansion of tools such as the PORTAL program of real-time traffic delay, etc. • Periodic surveys/interviews with shippers about the services provided by the region's carriers in the multimodal system ***Projects (Operations, Build Options)*** • Access management • Improved incident management • VMS/GPS active (in cab) truck route management • Truck-only lanes, ramp meter bypass lanes, next generation ITS infrastructure for commercial vehicles • Road pricing, congestion pricing, managed lanes studies, pilots or deployment if appropriate • Rail track/yard improvements to eliminate rail/highway conflicts and increase rail functional capacity • Facilitate multiple shippers' combined shipments to meet railroad's operating plans • Increase enforcement of traffic/carrier regulations • Expand rest areas/better utilization of rest areas for extended truck rest areas, including smart truck parking • Continued support for Regional Transportation Options program, Transportation Management Associations, expanded transit service/vanpools, bicycle and pedestrian facility improvements in industrial areas (for workforce access to jobs)

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
Better public understanding of freight issues *We must enlighten our region's citizens and decision-makers about the importance of freight movement on our daily lives and economic well-being.*	• Better coordination between freight system stakeholders in region • Education of decision makers and public about importance of region's freight transportation system	**Education and Coordination** • Improve information exchange between public and private stakeholders via existing state, regional and local freight advisory groups • Improve analysis and communication of freight impacts on regional economy • Quarterly regional freight transportation system stakeholder roundtable • Annual state of regional freight report
Sustainable freight transportation system *We must ensure that our multimodal freight transportation system supports the health of the economy and the environment.*	• Regional air quality impacts from diesel emissions, which, if not addressed, will grow as freight volumes increase • Marine freight movement impact on water quality and habitat (e.g., invasive species introduced through ballast water)	**Air Quality** • Promotion of existing programs such as diesel retrofit technologies, idle reduction regulations, transportation system management tools **Water Quality** • Support of regulations that address environmental quality in riparian areas **Other Environmental** • Aggressively implement clean, green and smart best practices, as appropriate • Legislation to regulate and enforce ballast water release • Reduction of light sources and/or filtering or redirecting lighting • Proactive public outreach strategies • Performance monitoring and review following public and regulatory processes such as environmental justice mitigation, where appropriate

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
Freight-sensitive land use planning *We must integrate freight mobility and access needs in land use decisions to ensure the efficient use of prime industrial lands, protection of critical freight corridors, and access for commercial delivery activities.*	• Inadequate supply of industrial land well served by transportation infrastructure • Incompatible land uses along rail lines and major truck corridors • Incompatible land uses often adjacent to one another resulting in complaints about, and adverse impacts to, freight movement • Inadequate areas for trucks to conduct off and on-street loading and unloading • Competition between industrial and other uses for system capacity • Truck deliveries to local commercial and neighborhood districts that are difficult due to narrow lanes/turning radii • Growing noise impacts from truck, rail and air cargo operations in residential areas • Limited truck parking to meet needs of drivers (hours of service limitations) • Workforce access to industrial areas	**Planning and Coordination** • Coordinate with land use planning efforts to ensure that current and future freight/industrial needs are addressed • Expand regional Brownfields programs to allow return of industrial land to industrial uses • Take advantage of Regional Freight Task Force experts to inform Metro planning activities, e.g., in creating better linkages between commodity flow data and employment projections in determining long-term land use and freight routes • Consider revising "regionally significant industrial land" designation to protect high value industrial areas • Use interchange management plans to protect capacity at key industrial areas • Support affordable housing with access to employment/industrial centers • Advocate for full disclosure to property buyers adjacent to freight/industrial uses • Explore strategies where businesses co-locate in order to share resources (e.g. the local "resourceful use pilot") to conserve resources and use transportation system efficiently **Design and Projects** • Prioritize infrastructure investment to support existing industrial areas • Develop good neighborhood agreements between facilities and residential neighborhoods • Create "Quiet Zones" for rail corridors. • Updating livable streets design guide to better incorporate truck movement and operations. • New strategies to buffer residential and commercial land uses near industrial areas and along major truck, rail, airport and pipeline corridors

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
Strategic transportation investments *We must create first-rate multimodal freight networks that reduce delay, increase reliability, improve safety, and provide choices.* *We must adequately fund and sustain investment in our multimodal freight transportation system to ensure that the region and its businesses stay economically competitive.*	• Network barrier deficiencies such as weight and vertical clearance issues on bridges, at-grade rail crossings • Existing capacity constraints in rail yards and sidings • Road congestion on regional truck routes • Main line rail congestion • Expand types and amounts of funding for freight transportation infrastructure and programs • Role of public sector in funding private operations • Need for public-private partnerships to fund improvements • Transportation investment decisions linked to economy • Concerns about safe barge navigation in I-5/BNSF bridge area	**Project Development and Implementation (not all-inclusive)** • Implement RTP freight projects with focus on identified Task Force priorities, (see Appendix B). • Fill in gaps in truck route alternatives to interstate (e.g., parallel arterials for emergency detours) **Funding Policy and Partnering** • Expanded use of public-private partnerships to fund transportation system expansion • Expanded ability to invest public dollars in private facilities when improvements in those facilities result in public benefits • When funds aren't available for major system improvements, make incremental improvements to those facilities through Intelligent Transportation System and traffic demand strategies, access management and less-costly strategies • Common ground and linkages in the needs of different funding sources, and the opportunities presented by them • Expanded types of programs and amounts of funding for freight transportation infrastructure (gas tax indexing, user pay cost responsibility) • Appropriate coordination with planning, political and advocacy groups, including Oregon delegation, OFAC, West Coast Corridor Coalition, etc., to ensure adequate funding for freight priorities • Regional Freight TAC/RFGM Task Force participation in any regional road pricing pilots or planning studies • Support regional ConnectOregon freight and goods movement projects

10.0 Going forward—from goals to projects on the ground

Section 9 constituted a "tool kit" of freight strategies that responded to a broad range of needs. Section 10 constitutes the Action Plan. Its elements are pulled from the tool kit and elaborated. This section identifies who does what, and includes a timeframe for implementation.

In 2008, the RFGM Task Force a long list of prioritized freight projects submitted for consideration as part of the July/August 2009 RTP project solicitation process. These are included in an appendix to this plan. In addition, a handful of important, achievable near-term items are included and recommended for implementation within this RTP cycle of 2009-2013, to support the approved regional freight and goods movement goals. Although circumstances and regional priorities may shift, the Task Force believes that a four year period is short enough to be relevant to the freight community, yet long enough for activities to be programmed, refined and deployed, as described in this section.

The action items described below are the result of review with the Regional Freight and Goods Movement Task Force, the Regional Freight Technical Advisory Committee (TAC). Many of the actions described are foundational activities that constitute the glue holding the regional freight action plan together—planning, coordinating, research and policy-making that take place on both an ongoing and cyclic basis. Some of the action items below are quite well developed; others will require elaboration during Fall 2009, for inclusion in the Spring 2010 RTP adoption process. The list of efforts will need to find staff, time and funding resources, whether that includes Metro, members of the freight, goods movement and economic development community, or other agencies. Those actions that eventually are adopted by the Task Force and Metro Council, and which do fall within Metro's purview will be incorporated, as appropriate, into Metro's Unified Planning Work Program (UPWP) for FY 2010-2011.

[The Task Force will review the contents of this new section at its August meeting, and a preliminary list will be included in the final plan].

11.0 Summary

Why should we invest in freight now?

Portland and Vancouver were founded on vibrant and profitable statewide, regional and international trade. Access to the Pacific Ocean via the Columbia River from the inland empire to the east created the region's original economic engine. The Willamette River delivered the wealth of the various river valleys south and west of the Portland metro region in much the same way. It was through this trade that the Portland metro region established itself as a trade hub and prospered.

Today, the Portland-Vancouver region boasts a strong and diverse regional economy that supports an enviable quality of life. The local economy is still very dependent upon an efficient, reliable and safe freight transportation system that recognizes the region's role as an international gateway and key domestic freight hub.

One critical element of sustaining the region's high quality of life is ensuring that residents have access to high quality, family wage employment. As the region grows, the population will depend on decision makers that appreciate the interdependence of economic, transportation and land use goals.

Strong growth in international, national and regional trade will drive the need for a flexible, adaptable, high performance multimodal freight transportation system. Efforts must consider these new stresses on marine, air, road, rail and pipeline networks and facilities. The region's goods movement system will need to absorb a doubling of freight volumes by 2035, and a 200 percent growth in truck traffic during the same time period.

Many local manufacturing firms that trade internationally, and who could locate globally, have chosen to make the greater Portland-Vancouver region their home because of its connections as an international transportation hub. These firms require a smoothly functioning goods movement system to operate efficiently and maintain profitability. In the absence of such a system, they will consider relocating to an area that meets these requirements.

The logistics and (freight) transportation sectors provide 46,000 jobs to the region by facilitating the transport or trans-shipment of goods entering the region via various modes and routes to intermediate or end users. These firms also perform the vital task of distributing the myriad goods that Oregonians consider essential to the maintenance of our households, businesses and lifestyles. The region has a responsibility to provide a goods movement system that continues serving this requirement.

It is true that the world economy is currently strained, but current and future economic stimulus package components, including funds to reduce the backlog of long-deferred infrastructure maintenance are coming on line. The reauthorization of the surface transportation act is due next year, and early indications are that key freight corridors

and infrastructure will be targeted for special consideration. It is in this context that the region's freight plan will operate.

And as the global economy grows, the Portland metro region will be called upon to address vastly expanded regional, national and international shipping needs reliably, safely, efficiently and sustainably. We have a responsibility to the region, the state, and the nation to maintain an efficient and flexible goods movement system of sufficient capacity to meet future needs.

Boosting the triple bottom line

Policies and programs designed to take advantage of the opportunities hidden in the downturn should begin to be refined and implemented, to ensure that the Portland metro region is flexibly and securely positioned for the future of freight and goods movement. However, in addition to regional policy and program development and implementation, concrete freight-related projects must be built to ensure that the goals of the Regional Freight Plan are met. Maintaining the Portland region's historic preeminence as a goods movement and industrial hub must remain a regional priority; our economic future depends on it. Investment in smart, strategic and green freight system improvements now can help Portland secure not only its economic future by increasing its share of family-wage jobs, but also support development of a green economy that is the Portland area's trademark.

Transit Funds and the MTIP

Ted Leybold: Metro,
Jessica Tump: TriMet

METRO

Transit Funds and the MTIP

MTIP Process

- Adopt Policy Report to establish program objectives
- Allocate STP and CMAQ funds to local projects
- Coordinate with ODOT and transit providers on selection of highway and transit projects
- Coordinate programming of projects by phase, year and fund type
- Conduct air quality analysis
- Submit for inclusion in STIP

July 2009

METRO

Transit Funds and the MTIP

Federal Transit Funds

- Congressional Earmarks (HPP)
- New & Small Starts
- Maintenance Support
- Special Needs Transit
  - New Freedom
  - Jobs Access – Reverse Commute
  - State pass through grants
- Regional Flexible Funds
- American Recovery & Reinvestment Act (ARRA)

July 2009

METRO

Transit Funds and the MTIP

Congressional earmarks

- Transit earmark requests endorsed by JPACT
- Amended into MTIP after adopted in bill
- Historic source for authority and appropriation to rail projects

July 2009

METRO

Transit Funds and the MTIP

New & Small Starts

- New fixed-guideway systems
- Discretionary - typically fully earmarked
- TriMet TIP identifies Milwaukie LRT, Lake Oswego streetcar and Eastside streetcar as current priorities
- HCT System Plan to prioritize next corridors
- TriMet TIP and RTP to reflect HCT system plan

July 2009

METRO

Transit Funds and the MTIP

Maintenance Support

- Capital improvements to existing rail (5309): $9 m/yr
- Capital improvements to transit buses & facilities (5307): TriMet: $35 m/yr, SMART: $.35 m/yr
- Enhancements (1% of 5307 $)

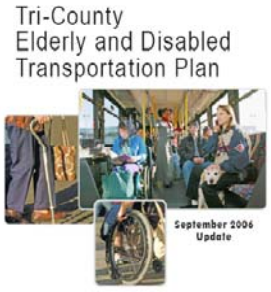
July 2009

METRO

Transit Funds and the MTIP

Special Needs Transit

- New Freedom (Address work barriers for disabled): $0.4 m/yr
- Jobs Access – Reverse Commute (low income access to employment) $0.7 m/yr
- State pass through grants
- Consistent with Coordinated Public Transit Human Services Transportation Plan



July 2009

METRO

Transit Funds and the MTIP

Regional Flexible Funds

- Competitive award of MPO funds
- Regional Rail Bonding: $13 m/yr
- On-Street transit improvements $1.4 to $0.7 m/yr
- Individual Awards
  - Diesel emission reduction
  - Portland to LO DEIS
  - Pedestrian to transit plan
  - SMART TC/P&R

July 2009

METRO

Transit Funds and the MTIP

American Recovery & Reinvestment Act (ARRA)

- One-time allocation of $45 million
- Funds must be obligated by March 2010
- JPACT approved projects in May 2009

July 2009

METRO

Transit Funds and the MTIP

TriMet TIP

- 5 year Capital Improvement Plan
- Prioritizes RTP transit projects
- Coordinated with MTIP Policy Report

July 2009

METRO

Oregon
Theodore R. Kulongoski, Governor

Department of Transportation
Office of the Director
355 Capitol St NE Rm 135
Salem, OR 97301

July 16, 2009

The Honorable David Bragdon
President, Metro Council
600 NE Grand Ave.
Portland, OR 97232-2736

The Honorable Carlotta Collette
Chair, Joint Policy Advisory Committee
on Transportation
Metro Council District 2
600 NE Grand Ave.
Portland, OR 97232-2736

Dear Mr. Bragdon and Ms. Collette:

Thank you for your letter regarding High Speed Rail in the Pacific Northwest Rail Corridor between Eugene, OR and Vancouver, BC., and the potential federal stimulus funds to assist with implementing high speed rail in the Portland Metro area.

This is an exciting and unprecedented time for passenger rail in the United States and Oregon is prepared to take full advantage of every opportunity available to achieve its vision of reliable high speed intercity passenger rail service in the Willamette Valley.

As directed by the Governor, the Oregon Department of Transportation (ODOT) will apply for federal stimulus funds to make previously identified improvements on the existing passenger rail route that will enhance both passenger and freight operations. In addition, ODOT will also apply for planning funds to complete an Environmental Impact Statement (EIS) to assess where best to run intercity passenger trains to achieve faster, reliable and more frequent service in the future.

The EIS will be developed in concert with conceptual and preliminary engineering, multi-disciplinary technical analyses, and public outreach. The process will include scoping key issues with stakeholder agencies and communities along the entire 124-mile corridor, including the Portland Metro area. The process also will include identifying purpose and need, studying alternatives, evaluating environmental, social and economic impacts of the alternatives, and refining a preferred solution resulting in a Record of Decision from the Federal Railroad Administration.

I understand that ODOT rail staff has met with you and members of your staff on several occasions to discuss this vision, Metro's recently completed High Capacity Transit Study and our statewide rail study which is currently underway. We look forward to continuing to work with Metro--and the other regional and local agencies--as the EIS and the rail study work proceeds.

Thank you for your support of, and willingness to work with, ODOT as we move forward on securing federal funding for reliable, higher speed passenger rail in Oregon.

Sincerely,

Matthew L. Garrett
Director

Materials following this page were distributed at the meeting.

Oregon
Theodore R. Kulongoski, Governor

Department of Transportation
Office of the Director
355 Capitol St NE Rm 135
Salem, OR 97301

June 25, 2009

Ted Leybold, MTIP Manager
Regional Transportation Planning, Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Dear Mr. Leybold:

Thank you for your willingness to represent Metro and the constituency represented by the Joint Policy Advisory Committee on Transportation (JPACT) as a member of the Statewide Transportation Improvement Program (STIP) Stakeholder Committee. The Oregon Department of Transportation (ODOT) is seeking to reconvene the STIP Stakeholder Committee. Andy Cotugno told us that you would be the best representative from Metro for the committee. To fulfill this responsibility, you will need to represent these two constituencies for the duration of the Stakeholder Committee's work in the months ahead.

The STIP is our four-year program of investments that helps implement Oregon's long-range transportation plan. In 2000, the Oregon Transportation Commission heard testimony that led them to identify subjects that a stakeholder committee could address regarding the STIP development process. The STIP Stakeholder Committee was first convened in 2001 and have worked intermittently since then (2001-2003, 2005 and again in 2007) on the STIP development process and the recommendation of STIP project eligibility criteria and prioritization factors for each subsequent STIP cycle.

It is almost time to begin work on the STIP project eligibility criteria and prioritization factors for the next STIP cycle, the 2012-2015 STIP. The ongoing legislative process raises new issues to be considered by the STIP Stakeholder Committee this time. House Bill 2001 evolved from the November 2008 Report of Governor Kulongoski's Transportation Vision Committee and the Governor's Jobs and Transportation Act legislative proposal. House Bill 2001 requires ODOT to consider new STIP criteria and to enhance its strategic investment decision-making (see the attached sections on STIP Criteria and "least cost planning" from the bill). The legislation also requires ODOT to provide a progress report on "least cost planning" with recommendations for legislation to the Seventy-sixth Legislative Assembly by February 1, 2011. The Oregon Transportation Commission will use the same STIP Stakeholder Committee to further develop the "least cost planning" concept following development of the new STIP criteria.

We would like to convene the Stakeholder Committee to begin work on a draft of the criteria as soon as possible. The first meeting of the committee is scheduled for the afternoon of Tuesday, August 11, 2009. Due to the potential for a more complex set of tasks for the Stakeholder Committee this time, we expect that the work of the Committee could take one to two years with meetings approximately once every six weeks.

Please contact Jerri Bohard, TDD Administrator if you have questions. Thank you again for being willing to represent METRO and the constituency of JPACT. Ms. Bohard can be reached at (503) 986-4163 or via e-mail at Jerri.L.Bohard@odot.state.or.us .

Sincerely,

Matthew L. Garrett
Director

CC: Jerri Bohard, TDD Administrator
Barbara Fraser, Planning Section Manager

Attachment: Excerpt from HB 2001, Section 17
Excerpt from HB 2001, Sections 6 and 7

Excerpted from House Bill 2001 regarding STIP Criteria (B – Engrossed, ordered by the House on May 22, 2009)

"SECTION 17. The Oregon Transportation Commission shall work with stakeholders to review and update the criteria used to select projects within the Statewide Transportation Improvement Program. When revising the project selection criteria the commission shall consider whether the project:

(1) Improves the state highway system or major access routes to the state highway system on the local road system to relieve congestion by expanding capacity, enhancing operations or otherwise improving travel times within high-congestion corridors.

(2) Enhances the safety of the traveling public by decreasing traffic crash rates, promoting the efficient movement of people and goods and preserving the public investment in the transportation system.

(3) Increases the operational effectiveness and reliability of the existing system by using technological innovation, providing linkages to other existing components of the transportation system and relieving congestion.

(4) Is capable of being implemented to reduce the need for additional highway projects.

(5) Improves the condition, connectivity and capacity of freight-reliant infrastructure serving the state.

(6) Supports improvements necessary for this state's economic growth and competitiveness, accessibility to industries and economic development.

(7) Provides the greatest benefit in relation to project costs.

(8) Fosters livable communities by demonstrating that the investment does not undermine sustainable urban development.

(9) Enhances the value of transportation projects through designs and development that reflect environmental stewardship and community sensitivity.

(10) Is consistent with the state's greenhouse gas emissions reduction goals and reduces this state's dependence on foreign oil."

Excerpted from House Bill 2001 regarding "least cost planning" (B – Engrossed, ordered by the House on May 22, 2009)

"SECTION 6. (1) As used in this section, "least-cost planning" means a process of comparing direct and indirect costs of demand and supply options to meet transportation goals, policies or both, where the intent of the process is to identify the most cost-effective mix of options.
(2) The Department of Transportation shall, in consultation with local governments and metropolitan planning organizations, develop a least-cost planning model for use as a decision-making tool in the development of plans and projects at both the state and regional level."

"SECTION 7. Prior to February 1, 2011, the Department of Transportation shall submit a progress report, including any recommendations for legislation, on the development of a least-cost planning model under section 6 of this 2009 Act to the Seventy-sixth Legislative Assembly."

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Metro | *Memo*

Date: August 12, 2009
To: Metro Policy Advisory Committee
Joint Policy Advisory Committee on Transportation
From: John Williams and Chris Deffebach, Land Use Planning
Subject: MTAC and TPAC Comments on Performance Targets for Making the Greatest Place

The Transportation Policy Alternatives Committee (TPAC) and the Metro Technical Advisory Committee (MTAC) had the opportunity to review the Memo on Performance Targets for Making the Greatest Place on July 31, 2009 and August 5, 2009 respectively and discussed the proposed framework, targets and measures to evaluate the region's performance on achieving desired outcomes. This memo summarizes their comments for the benefit of your review and discussion.

Comments on the overall structure of the framework:

- TPAC supported the overall framework and comprehensiveness of the preliminary performance targets and cautioned that development of the targets should not slow down needed decision-making in 2009 and 2010.
- While some MTAC members expressed support for the overall framework, other members requested greater clarification regarding the implications for local governments, the expectations for the role of local governments to meet the targets and how the targets may be used to guide investment decisions.
- Both MTAC and TPAC requested that the targets be linked directly to the desired outcomes.

Comments on the target in general:

- Make sure all the targets are written in a similar manner, e.g., include "increase" or "decrease" by XX percent.
- Make the targets consistent in level of detail – some are more detailed than others.
- Important to understand how well the region is currently performing relative to the draft targets as a starting point for establishing what the targets should be. Clarify the base year and horizon year.
- More work is needed to clarify the appropriate geography – which are measured regionally and which at a smaller scale. Some may even be measured at the SMSA level. For example, what is the appropriate scale to consider equity?
- Some targets imply a different role for Metro and agreement is needed on the appropriate breadth of the targets. MTAC and TPAC indicated that a broader suite of targets and topics will make decision making more challenging and stressed the importance of staying focused on actions that are under Metro's control, or Metro and local government control.

- Data collection and monitoring for some of the targets will be difficult and should also be considered as the targets are finalized. More information will be needed about how the tracking will occur over time and how the results will affect Metro and local government decisions.

Comments on specific targets:
Wealth Creation: Consider other measures, including tax base, unemployment or foreclosure data and measures of GDP.

Compact urban form: Consider a measure that identifies the number of centers and corridors that have adopted zoning that fully supports 2040 implementation.

Traveler safety: Too narrow – consider other safety and security measures.

Business efficiency: Reliability is more important than delay as a measure of business efficiency. Other measures include market access to services.

Infrastructure resilience: May be difficult to measure. Suggest measuring the decrease in systems that are in bad or substandard condition and clarify what infrastructure is included.

Climate change: Make this measure consistent with the work already underway by local jurisdictions.

Active transportation: Include a measure of access to transit, bike and walk facilities.

Clean air, water and healthy ecosystems: Combine into one healthy ecosystem target.

Affordability: Measure the percent of cost-burdened households with access to transit.

Poverty: More work on poverty target is needed. Suggestions included replacing high school with elementary school students; consideration of poverty levels rather than reduced lunch program eligibility; looking to the Multnomah County Health Department for ideas; and consideration of racial disparities highlighted in a recent "State of Black Oregon" report which touches on many equity issues. Other suggestions for equity measures included distribution of living wage jobs and jobs/housing balance.

Access to daily needs: Expand the definition of access to daily needs. Suggestions included adding access to food, water and shelter. Consider Portland's 20-minute neighborhood walk as a measure of access to daily needs.

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Metro | *Memo*

Date: August 12, 2009

To: Metro Council, MPAC, JPACT and interested parties

From: Kim Ellis, RTP Project Manager

Re: 2035 Regional Transportation Plan (RTP) Update – Project List Summary

Action Requested

This is an information item. No action is required.

Purpose

This memo summarizes a preliminary evaluation of the projects submitted by sponsoring agencies, in response to the "Call for Projects" issued in June.

Background

During the past year, RTP work focused on framing transportation and land-use choices as part of the "Making the Greatest Place" effort. This comprehensive effort seeks to integrate local and regional land use and transportation investments to focus future population and employment growth in centers, corridors, employment and industrial areas, in keeping with the 2040 Growth Concept – the region's adopted vision for managing growth.

On June 15, the Metro Council, in conjunction with the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Policy Advisory Committee (MPAC) issued a "call for projects" to refine Regional Transportation Plan (RTP) investment priorities this summer. The RTP goals, draft performance targets and refinement criteria provided policy direction for investment priorities to be brought forward for consideration in the final 2035 RTP.

Two levels of investment were developed for the 2035 RTP. The first level, the *2035 RTP Federal Priorities* (also known as the Financially Constrained System), will represent the most critical transportation investments for the plan period.[1] The second level, the "state" *2035 RTP Investment Strategy*, will represent additional priority investments that would be considered for funding if new or expanded revenue sources are secured[2]; this level of investment is tied to a funding target recommended by JPACT on June 11. The "state" RTP Investment Strategy will be developed to be adequate to serve planned land uses and will be the basis for future local and regional land use decisions.

[1] The 2035 RTP Federal Priorities will be the basis for findings of consistency with federal metropolitan transportation planning factors, the Clean Air Act and other planning provisions identified in SAFETEA-LU.

[2] The 2035 "state" RTP Investment Strategy will be the basis for findings of consistency with the Statewide Planning Goal 12, the Oregon Transportation Planning Rule and the Oregon Transportation Plan and its components.

2035 RTP Investment Strategy - Project List

All of the projects submitted as part of the Call for Projects have been compiled into a comprehensive master list and coding of the road and transit capacity projects into the travel demand model is underway. A total number of 1,036 projects and programs were submitted through the process, with an estimated cost of $ 18.78 billion (in 2007 dollars).

An initial review of the projects and programs submitted to Metro found the following trends for several categories of the RTP project investment data requested:

Mobility Corridors and Community-Building Investment Focus

Table 1. Projects by mobility corridor and community-building focus

Investment Focus	Number of projects	Percent of total projects
Mobility Corridor	381	37%
Community Building	585	56%
Hybrid**	29	3%
Other Solutions***	41	4%
Total	1036	

.

Table 1 shows that just over half the projects are categorized as community-building projects and 37 percent are categorized as mobility-focused projects.

**Examples of hybrid projects include: frequent bus service, bike boulevards and pedestrian bridges.
***Examples of "other solutions" include park-and-rides, transit-oriented development (TOD) and Terminal 6 modernization.

Modal Focus

Table 2. Summary of projects by primary mode

Primary Mode	Number of projects	Percent of total projects
Bike/Pedestrian	238	23%
Freight	55	5%
ITS/TDM	54	5%
Regional Trails	62	6%
Roads/bridges	483	47%
Throughways	56	5%
Transit capital/TOD	91	9%
N/A or blank	4	0%

Table 2 shows that nearly half of the projects submitted to the RTP relate to roads and bridges. Approximately one-quarter of the projects are bicycle or pedestrian projects. Projects that focus on the following modes make up the final twenty percent of the project list: freight, ITS/TDM, regional trails, and throughways.

2040 Land Use Focus

Table 3. Summary of projects by 2040 land use

2040 Land Use	Number of projects	Percent of total projects
Intermodal Facility	8	1%
Industrial and Employment Areas	206	20%
Central City or Regional Center	161	16%
Town Center	163	16%
2040 Corridor	95	9%
Main Street	77	7%
Station community	72	7%
Neighborhood/Other	124	20%
No data provided	163	16%

Table 3 illustrates that 20 percent of projects submitted to the RTP are in industrial and employment areas. Portland central city, and Regional and town centers are the next most common land use, with 32 percent of the projects serving these areas. Additional work is needed to review projects submitted as "neighborhood" projects and to categorize projects for which no data was provided.

Summary by Coordinating Committee, City of Portland, TriMet and ODOT

Table 4 Summary of projects by coordinating committee

Coordinating Committee	Number of projects	Percent of all projects submitted
Clackamas County	162	16%
Multnomah County	197	19%
Washington County	345	33%
Portland	245	24%
ODOT	49	5%
TriMet	54	5%
Region	2	Less than 1%

Table 4 illustrates that approximately one-third of projects were submitted by Washington County, followed by Portland with 23 percent of project submittals. Multnomah and Clackamas County submitted 19 percent and 16 percent of the projects, respectively.

Tables 5-10 show a breakdown of the projects by primary mode by coordinating committee, City of Portland, ODOT and TriMet for reference.

Table 5. Clackamas County projects by primary mode

Primary Mode	Number of projects	Percent of Clack. Co. Coordinating Committee projects	Percent of all projects in that mode category
Bike/Pedestrian	38	23%	16%
Freight	2	1%	4%
ITS/TDM	3	2%	6%
Regional Trails	17	10%	27%
Roads/bridges	75	46%	16%
Throughways	14	9%	25%
Transit capital/TOD	13	8%	14%

Table 6. Multnomah County projects by primary mode

Primary Mode	Number of projects	Percent of Mult. Co. Coordinating Committee projects	Percent of all projects in that mode category
Bike/Pedestrian	16	8%	7%
Freight	18	9%	33%
ITS/TDM	29	54%	15%
Regional Trails	11	6%	18%
Roads/bridges	116	59%	24%
Throughways	2	1%	4%
Transit capital/TOD	5	3%	5%

Table 7. Washington County projects by primary mode

Primary Mode	Number of projects	Percent of Wash. Co. Coordinating Committee projects	Percent of all projects in that mode category
Bike/Pedestrian	84	24%	34%
Freight	13	4%	24%
ITS/TDM	5	9%	1%
Regional Trails	22	6%	35%
Roads/bridges	202	59%	42%
Throughways	14	4%	25%
Transit capital/TOD	5	1%	5%

Table 8. City of Portland projects by primary mode

Primary Mode	Number of projects	Percent of City of Portland/Port projects submitted	Percent of all projects in that mode category
Bike/Pedestrian	98	40%	40%
Freight	18	7%	33%
ITS/TDM	14	6%	26%
Regional Trails	11	4%	18%
Roads/bridges	88	36%	18%
Throughways	2	1%	4%
Transit capital/TOD	14	6%	15%

Table 9. Oregon Department of Transportation (ODOT) projects by primary mode

Primary Mode	Number of projects	Percent of ODOT projects submitted	Percent of all projects in that mode category
Bike/Pedestrian	8	16%	3%
Freight	4	8%	7%
ITS/TDM	3	6%	6%
Regional Trails	0	0%	0%
Roads/bridges	10	20%	2%
Throughways	24	49%	43%
Transit capital/TOD	0	0%	0%

Table 10. TriMet projects by primary mode

Primary Mode	Number of projects	Percent of TriMet projects submitted	Percent of all projects in that mode category
Bike/Pedestrian	1	2%	Less than 1%
Freight	0	0%	0%
ITS/TDM	0	0%	0%
Regional Trails	0	0%	0%
Roads/bridges	0	0%	0%
Throughways	0	0%	0%
Transit capital/TOD	53	98%	58%

Next Steps

Metro staff will begin the performance evaluation of the system of investments and compile an draft investment strategy (project list) and RTP document to be released for public comment. A 30-day public comment period is planned from September 15 to October 15, 2009. Opportunities to comment will be available on Metro's website and through a series of public hearings and open house events held throughout the region. The preliminary system evaluation is expected to be completed in October.

JPACT, MPAC and Metro Council will consider public comments, the preliminary system evaluation, and recommended amendments prior to final action (by Resolution) in December. The approval action will "accept" the RTP document and recommended amendments, and direct staff to complete the final analysis, prepare findings and a final document, and develop regional transportation functional plan amendments to guide local plan implementation.

A final public comment period will be held in Spring 2010. JPACT, MPAC and Metro Council will review public comments and consider final adoption (by Ordinance) in Summer 2010.

WASHINGTON COUNTY
OREGON

August 10, 2009

Carlotta Collette, Chair,
Joint Policy Advisory Committee on Transportation -- Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Dear Chair Collette,

Washington County local government officials and staff have been working with Metro to develop lists of projects to include in the 2035 Regional Transportation Plan. While we are making significant progress, there are two issues we would like considered as project list recommendations move into the regional decision making process. First, these lists have been developed from local plans that – with planning horizons often 15 years short of 2035 -- reflect somewhat dated definitions of need. Second, these lists are being developed within a framework constrained by Federal and State revenue targets established by Metro through JPACT (with input from local governments), that we are concerned may leave many needs unaddressed.

On the first point: We are concerned that the project identification process has not been based upon a systematic evaluation of 2035 transportation needs. We are concerned that additional needs arising from a full 2035 analysis and projects necessary to address them will not be included in the 2035 RTP in a way that supports local governments' regulatory authority. (For example, can a local government continue to require dedication of right of way as development occurs along a substandard arterial if a project to improve that arterial is not included or only informally incorporated in the State RTP?)

On the second point: The revenue targets for Washington County local government projects rest on assumptions that in some cases are questionable. Metro and Washington County staff are in agreement on this issue, and have adjusted the revenue assumptions and project lists to reflect recent adoption of the Washington County Transportation Development Tax and recent endorsement by the Hillsboro Council's Transportation Committee of additional Urban Renewal, Transportation Utility fee and Surface Water Management fee revenues. We deferred other revenue assumption adjustment considerations -- primarily the likelihood of future MSTIP initiatives -- until the lists and costs of projects became clearer. At this time, it appears adjustments are not only warranted but necessary to address the identified projected need. The Washington County local governments' Financially Constrained list of projects is close to target, but the State RTP list of projects is approximately $837 million over target. This shortfall is approximately equivalent to the estimated $839 million in revenues that would be generated by two successful six-year MSTIP local option levies of a size and duration consistent with policy direction recently provided by the WCCC and the Board of Commissioners, and similar in design to three successful levies approved by voters during the last twenty-five years. Based on Washington County local governments' track record of successful local transportation levies, and given recent policy discussions and the WCCC's decision last year to move forward with

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planning the next local option levy, the WCCC expects past trends to continue. We therefore consider the addition of $839 million to Washington County's State RTP revenue target as a reasonable future revenue assumption and recommend that Metro adjust the State RTP revenue target to reflect it.

We would like to emphasize our concern about the use of revenue targets as a constraining mechanism for identifying State RTP projects and, thereby, needs. We have discussed this with Metro staff, but remain uncertain about how needs that can't be accommodated within a forecasted revenue cap will be addressed in the RTP.

To us, constraining project needs by anticipated revenues suggests that there are no needs beyond things we think we will be able to pay for. We don't think that this is the intent, but it still seems to us to be the way the RTP is setting up.

Some questions that arise under this interpretation might include:

- If there are additional needs arising from a full 2035 system analysis, how will these be addressed if the cost of projects necessary to address them exceeds the State RTP revenue target?
- If the solution is to remove other projects from the State RTP list, how are the needs represented by those projects addressed?
- Can local governments still require dedication of right-of-way, as we have been doing, from properties developing along roadways for which projects have been removed from the State RTP list due to revenue constraint? How about construction of "half streets" or placement of sidewalks at the "ultimate" location on these facilities?
- If ODOT doesn't envision having sufficient funding for I-5, OR 217, I-405 and I-205 projects, are these no longer considered needs (and we did not have the benefit of knowing what is on ODOT's lists in Washington County while we were compiling our own lists)? And if they are no longer considered needs, are we indirectly creating new performance standards for ODOT?
- Can regulatory authorities continue to do the preparatory work or place requirements on others to prepare for improvement of these facilities if they're not included on the State RTP project list?
- How does this play out for transit? Are the majority of HCT projects recently identified in the HCT Plan not considered "needs"? Should we spend time advancing some of the projects on the list if we collectively don't define them as needs?

Fundamentally, we don't see a compelling case for a need-limiting revenue constraint for the State RTP. The State Transportation Planning Rule focuses on identifying needs and the mechanisms through which they might be met, not on identifying a list of projects we think we can pay for. The Rule describes transportation system planning as establishing "... land use controls and a network of facilities and services to meet overall transportation needs" (660-12-0010). The Rule calls for a financing plan that includes " ... a discussion of the facility provider's existing funding mechanisms and the ability of these and possible new mechanisms to fund ..." identified system improvements. (660-012-0040). This is not the same as ensuring overall needs can be paid for with revenues expected to be raised over the planning period.

It is our understanding that Metro staff intends to incorporate submitted projects into the regional model and conduct the kind of systematic evaluation of 2035 needs we're seeking. Assuming this to be the case, once 2035 needs are identified, jurisdictions will want to undertake a considered review of their project lists to determine whether a better balance might be achieved between any newly defined 2035 needs, the projects they submitted as part of the State RTP list, and the funding objectives and strategies necessary to pay for them. They will also want to be clear on how needs that aren't associated with projects on the State RTP list will be recognized in order to allow regulatory authorities to effectively manage development of those facilities to their ultimate planned capacity and design.

We'd like to note that as we move forward with the plan, we fully expect that the regional definition of "needs" may change from previous plans. For example, as we continue to urbanize, we realize "level of service" or "v/c ratios" will not be the only factors in determining roadway needs. In fact, we expect and encourage a lively discussion about how traditional tools for defining roadway needs should be balanced against other regional performance targets.

In summary, we recommend that Metro 1) increase Washington County's State RTP revenue target by $839 million to reflect the anticipated two local capital improvement initiatives between now and 2035, 2) allow an additional $837 million or so in project costs not currently included under the State Priorities RTP revenue cap to be added to the State RTP project list, and 3) identify the project lists that will be considered by JPACT on August 13 as preliminary and subject to further testing, and acknowledge the potential for modifications to the project list and regional funding strategies and targets once subsequent evaluation is complete.

Finally, I should say that we do see the case for prioritizing our needs and focusing some attention on the likely outcomes of our planning decisions. However, we believe the Financially Constrained RTP list, rather than the State Priorities list, is the appropriate revenue control for determining these outcomes. If JPACT would like to pursue a more strategic look at the Financially Constrained RTP in order to evaluate how well it will help support achieving desired regional outcomes, we would be supportive.

Thank you for your consideration of this request.

Sincerely,

Roy R Rogers

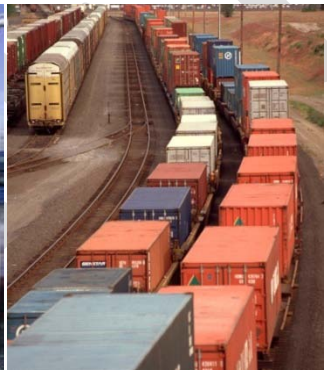
Roy Rogers, Chair
Washington County Coordinating Committee

cc. Kathryn Harrington, Metro Councilor
Kim Ellis, Principal Transportation Planner
Josh Naramore, Associate Transportation Planner
Kathy Lehtola, Director, Land Use and Transportation

FINAL REVIEW DRAFT

REGIONAL FREIGHT PLAN



Incorporating comments from August 6, 2009
Regional Freight and Goods Movement Task Force Meeting
and other reviewers through August 12, 2009

Contents

EXECUTIVE SUMMARY

Investment in Efficient Freight Transportation Improves Mobility and Creates Jobs

Our region is a great place to live, work and play, and we've worked hard to keep it that way. But whether we are harvesting the fruits of sustainable economic growth, or facing tough times together, it's important to understand that much of our prosperity is directly tied to the investments we make in our regional freight infrastructure, by making consumer goods readily available to us, providing multimodal systems that help our businesses efficiently reach global and domestic marketplaces, and developing high-quality regional jobs. This *Regional Freight Plan* defines goals, strategies and actions designed to guide the stewardship of our critical multimodal regional freight infrastructure and industrial land supply, to support a sustainable, balanced and prosperous tomorrow.

Our natural and built resources—and our people—also make the Portland-Vancouver region a globally competitive international gateway and domestic hub for commerce. Since 1994, every study that has examined the Portland-Vancouver area (and the Oregon and Washington economies in general) has found a much higher-than-average link between economic health, creation and retention of family-wage jobs, and infrastructure

Trade-Dependent Economies-
Oregon is 9th and Washington is 1st in the US*

Exports: 2007 Oregon exports totaled $16.5B; 2007 Portland/Vancouver exports totaled $15.8 B

Businesses: Thousands of Oregon companies depend on Portland's marine, rail, air and road facilities for access to resources and markets: onions, apples, hazelnuts, grass seed, seafood, wood products, Les Schwab, Fred Meyer, Intel, Nike, Columbia Sportswear…etc.

Jobs: One of five statewide jobs relies on effective transportation network for operations**.** In 2008, 14,80 direct jobs and $530 M in direct income were tied to marine and air terminals at Port of Portland. Sharing the same regional and national transportation network, the Port of Vancouver (2005) generated nearly 2,300 direct marine and industrial jobs. Thousands more indirect jobs were also created in the region, along with associated millions of dollars in income.

Local Revenue: $182 million in local/state taxes generated by the Port of Portland (2008) help make this Greatest Place.

Sources: US Dept of Commerce Industry Trade Data and Analysis; EDRG White Paper (2008); *Port of Portland (2009); Port of Vancouver (2009); Martin & Associates (2006, 2009)*
** "Trade-dependency" rankings are based on value of state exports as a percentage of gross state product*

that helps goods move more quickly to destinations through our multimodal freight network.[1] Increased transportation capacity, efficiency, flexibility and travel time reliability reduce transportation costs for firms (improving access to markets and inputs) and individuals (reducing travel costs and time). A multimodal system, with connections between modes also means more competitive shipping rates for our local businesses. By increasing productivity, our investments increase this region's ability to compete in the global marketplace. That advantage facilitates retention or expansion of existing businesses, supports homegrown startups and attracts new businesses to the region. Regional benefits of the resulting increase or retention of employment include direct, indirect and induced jobs, income, taxes and spending, and in fact, one in ten regional jobs are associated with transportation, distribution or the logistics industry.

The Regional Freight Plan Positions Us for the Economic Rebound

This *Regional Freight Plan* is an element of the RTP update, and has been guided by the Metro Council-appointed 33-member private-public sector Regional Freight and Goods Movement (RFGM) Task Force, and a technical advisory committee. The plan is built on a foundation of technical work, including research on our freight transportation systems and facilities, needs and issues.

Logistics Supplies Family-Wage Jobs

Logistics provides living wage jobs and a career path for workers without a college education, picking up the slack as manufacturing jobs continue to decline. The mean annual income for logistics jobs (2006) was about $47,000 which is $5,000 per year higher than construction jobs.

Source: Portland/Vancouver International and Domestic Trade Capacity Analysis, Executive Summary, p.6)

It may seem counterintuitive to focus on freight and goods movement issues during the depths of a severe global recession.[2] Why should we focus attention on freight planning when volumes are down, wholesale and consumer demand is stagnant, shippers aren't shipping, and rail cars are mothballed? Because we know from experience that our challenging global and regional economic downturn is only a temporary retreat from a generally upward trend line. Recovery—even this one, that is likely to include significant structural changes— will again put pressure on the functional capacity of the intermodal freight system, and its ability to deliver local goods and services, link regional suppliers and producers to domestic and global trading partners, and provide efficient access to industrial lands and employment areas. This downturn is an opportunity

[1] Studies include the *Portland/Vancouver International and Domestic Trade Capacity Analysis* (2006); Metro's *Profile of the Regional Freight Transportation System (2007); The Cost of Congestion to the Economy of the Portland Region* (2005);*Comprehensive Economic Development Strategy for the Portland-Vancouver Metropolitan Region* (June 2005); *The Cost of Highway Limitations and Traffic Delay to Oregon's Economy* (March 2007); *Use of Freight and Business Impact Criteria for Evaluating Transportation Investments* (EDRG White Paper 2008*); Freight Moves the Economy* (ODOT, 1999).

[2] Oregon Department of Transportation is updating the state's commodity flow forecast through 2035, taking into account the effects of the recent economic downturn. This work, which can be disaggregated to identify county level impacts and trends, will be available in late 2009.

to catch our collective breath, and collect data, implement needed projects as funding and other priorities permit. And it's an opportunity to sharpen our planning and analysis methods, to better define future projects that we'll need to manage post-recovery growth.

The region's goods movement system must improve and adapt if the region is to maintain its economic competiveness in the global economy and its status as an international freight gateway. Immediate action is required to meet the economic opportunities of the 21st century. This *Regional Freight Plan* highlights the key issues for the regional freight transportation system and suggests policies and investments to address them.

The Importance of a *Regional* Plan for Freight and Goods Movement

Currently, the Oregon Department of Transportation (ODOT) is examining all freight modes (highway, rail, port, airport, pipeline and intermodal) to create a comprehensive freight plan at the state level. And within the Metro region, the City of Portland has recently completed a Freight Master Plan for the City of Portland (adopted 2006). The Southwest Washington Regional Transportation Council in Clark County, WA is preparing its own regional freight transportation plan, to be completed by spring 2010. Between the statewide scale of issues, concerns and solutions and those associated with the scale of the City of Portland and Clark County, Washington, lies the Metro region. A freight plan at the regional level is important because it is big enough to include multiple modes, employment and industrial centers, economic clusters and major regional access points. A region has a larger scope of reference and more resources to direct appropriate attention and funding to tackle these problems than the city, and its focus on interstate and inter-regional movements is more refined than are the view taken from the statewide level. This region also functions as the trade and transportation gateway for Oregon, and provides market access for many southwest Washington businesses. In that regard, the Metro region can take Clark County, Washington dynamics, trip patterns and commodity flows into consideration in a way that the state cannot. Finally, through federally established metropolitan planning organization functions, prioritizing among competing modes and subregions is also an important function to be handled regionally.

> "Regions—not states or cities—are the essential geography for economic development and competition….Leaders in both the public and private sectors realize they must work together to keep the region competitive."
>
> *Source:* Portland-Vancouver Region Comprehensive Economic Development Strategy (2005, p.i)

Freight Goals Reinforce Other Important Regional Goals

The freight and goods movement community shares goals with advocates of all transportation modes. Our desired outcomes are not so very different. Under business as usual, we are all impacted by traffic congestion. Just as individuals need to get places in a reasonable time at a reasonable cost, so too do our regional employers need to service electric lines, meet airline schedules, and receive and ship goods on a reliable multimodal network. Shippers often have fewer good travel choices than do passengers—especially in the Portland area where good alternatives to the automobile abound. Again, a multimodal

approach to freight mobility means that every mode must be used effectively for each trip purpose, and must reduce its respective environmental and community footprint as well.

Preservation of urban, rural and industrial lands, protection of public investment in infrastructure for its intended purpose, innovation in reducing waste, energy use, pollutants and greenhouse gases—all these are important to businesses and communities alike. The "traded sector"[3] aids in realizing this common vision by bringing in money from outside the region through robust exports with our domestic and international trading partners.

Regional Freight Goals and Outcome-Driven Action

The RFGM Task Force described six goals or outcomes, and concerns and needs associated with the desired outcomes listed below:

- We must use a systems approach to plan and manage our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.
- We must adequately fund and sustain investment in our multimodal freight transportation system to ensure that the region and its businesses stay economically competitive.
- We must create first-rate multimodal freight networks that reduce delay, increase reliability, improve safety, and provide choices.
- We must integrate freight mobility and access needs in land use decisions to ensure the efficient use of prime industrial lands, protection of critical freight corridors, and access for commercial delivery activities.
- We must ensure that our multimodal freight transportation system supports the health of the economy and the environment.
- We must enlighten our region's citizens and decision makers about the importance of freight movement on our daily lives and economic well-being.

In addition, the RFGM Task Force has highlighted the need for better emergency planning to consider the freight component associated with natural or manmade disasters. Another issue that is costly to overlook is the need to preserve access routes for occasional, but critical oversize and overweight loads for a variety of public and private construction and maintenance purposes, as well as for disaster response.

[3] As defined in ORS 285A.010, (8) "Traded sector" means industries in which member firms sell their goods or services into markets for which national or international competition exists. As a result of their exchange earnings, these industries increase spending power within their regional or state economies.

A set of specific actions designed to move us closer to these outcomes is described in Section 10 of this document.

RFGM Task Force Targets Top Freight Focus Areas

In line with sound regional planning practice in our area, the Task Force believes that a systems approach must be taken in order to produce important outcomes such as reduced delay, better travel time reliability, safer travel across all modes and trip types, and broader shipping choices and better customer service to help area businesses remain competitive. Such an approach must target the following topics identified by the Task Force:

> ***Metro's RFGM Task Force Calls for Comprehensive Data Collection, Robust Analysis & Modeling***
>
> "Despite the wealth of information on transportation's contribution to the economy, debate continues on the linkages between transportation improvements and economic performance and the relative strength of these links….Decisionmakers need detailed information and analytical tools to prioritize projects and determine spending levels."
>
> *Source:* Freight Transportation Improvements and the Economy (FHWA 2004, p.iii)

Congestion and hotspots – chronic road and rail network bottlenecks that impede regional freight/goods movement

Reliability – unpredictable travel time due to crashes, construction, special events, and weather

Capacity constraints – due to physical and operational issues as well as lack of capacity in critical corridors

Network barriers – safety concerns and out of direction travel resulting from weight-limited bridges, low bridge clearances, steep grades, at-grade rail crossings and poorly designed turns or intersections

Land use – system capacity and land for industrial uses that is being lost to other activities

Impacts – managing adverse impacts including diesel emissions, greenhouse gas emissions, water quality, noise and land use conflicts

Invest Now to Boost the Triple Bottom Line

If this region is to fairly share expanded economic opportunities across a broad spectrum of the population, and maintain the economic engine that sustains the health of our communities and environment, we must fully utilize the Portland metro region's unique location and transportation infrastructure that keeps our traded sector competitive. In addition to smaller scale, phased system management and operational fixes, this will require medium and larger-scale strategic investment in the multimodal regional freight and goods movement system. To maximize the return on public investment, these freight-oriented preservation, management and investment priorities should focus on:

- More carefully evaluating *what, where and when* the freight problems occur (noting, e.g., that they do not always coincide with the commute peaks)
- Core throughway system bottlenecks to improve truck mobility in and through the region – hotspots of note include the Columbia River Crossing influence area, the I-5/I-405/US 26 loop, ~~US 26,~~ and the I-5 corridor south to Wilsonville.
- Improving and protecting the throughway interchanges that provide access to major industrial areas, particularly: I-5/Marine Drive and I-5/Columbia Blvd serving the Columbia Corridor and Rivergate industrial areas; I-205/Hwy 212 serving the Clackamas and Milwaukie industrial areas; and I-205/Airport Way serving Portland International Airport and east Columbia Corridor industrial areas.
- Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased improvements recommended by the Sunrise Project Policy Committee and *last mile* local industry connectors, e.g., Columbia/Cascade River District Projects, including the I-84/257th Ave. Troutdale interchange)
- Providing or maintaining alternatives for safe transport of hazardous loads (e.g., Cornelius Pass)
- Looking beyond the roadway network to address critical marine and freight rail transportation needs such as completing the Columbia River channel deepening and upgrading main line and rail yard infrastructure.

The Cost of Doing Nothing

"Failure to invest adequately in transportation improvements will result in a potential loss valued at $844 million *annually by 2025 – that's $882 per household—and 6,500 jobs*."

Source: The Cost of Congestion to the Economy of the Portland Region, Exec Summary (2005) p.1

Going Forward—From Freight Goals to Implementation

Section 9 of this *Regional Freight Plan* includes a "tool kit" of freight strategies designed to address the broad range of needs and issues clustered around the six goals articulated by the RFGM Task Force. Section 10 constitutes the action plan, with specific improvements, and in some cases, general timeframes for implementation and responsibilities identified. Between September and December 2009, as the region refines and finalizes the RTP project list (including projects important to freight and economic development stakeholders) the large list of possible actions identified in Section 10 will be prioritized, with some selected for refinement and inclusion in a work program for the 2010-2013 time period.

1 Introduction

1.1 Trade, Transportation and Economic Health

Portland and Vancouver were founded and grew on the basis of vibrant and profitable statewide, regional and international trade. Access to the Pacific Ocean via the Columbia River from the inland empire to the east created the region's original economic engine. The Willamette River delivered the wealth of the various river valleys south and west of the Portland metro region in much the same way. It was through this trade that the Portland metro region established itself as a trade hub and prospered.

The 2005 study, *Cost of Congestion to the Economy of the Portland Region* ~~study~~ reported that the region has a higher than average dependency on traded sector industries, particularly computer and electronic products; wholesale distribution services; metals; forestry, wood and paper products; and publishing. These business sectors serve broader regional, national and international markets and bring outside dollars into the region's economy. These industries depend on a well-integrated and well-functioning international and domestic transportation system to stay competitive in a global economy.

As an international gateway and domestic freight hub, the region is particularly influenced by the dynamic trends affecting distribution and logistics. The 2002 Commodity Flow Survey projected an overall doubling of freight tonnage moved in the region by 2030. The region's forecasted population and job growth—an additional 1.13 million residents and 767,000 jobs by 2035[4]—along with the associated boost in the consumption of goods and services are significant drivers of projected increases in local freight volume. Much of the projected doubling of freight tonnage passing through the Portland metropolitan region doesn't terminate here, but instead moves well beyond the region's boundaries to the rest of the country.

Today, notwithstanding the current downturn, the Portland-Vancouver region boasts an underlying foundation for a strong and diverse regional economy that will continue to support an enviable quality of life. Our local economy is still very dependent upon an efficient, reliable and safe freight transportation system that recognizes the region's role as an international gateway and key domestic freight hub.

1.2 Jobs and Infrastructure

One critical element of sustaining the region's high quality of life is ensuring that residents have access to ~~high quality,~~ family wage employment. As the region grows, the

[4] *2035 Regional Transportation Plan (January 2008, Chapter 2, Tables 2.2 and 2.3).*Population and employment forecasts include Multnomah, Clackamas, Washington counties in Oregon, and Clark County in southwest Washington. The percentage increases from 2005 are 58% (population) and 74% (employment).

health of our people and our communities ~~population~~ will depend on decision-~~-~~makers ~~that~~ who appreciate the interdependence of economic, transportation and land use goals.

The logistics and (freight) transportation sectors provide 46,000 jobs to the region by facilitating the transport or trans-shipment of goods entering the region via various modes and routes to intermediate or end users. These firms also perform the vital task of distributing the myriad goods that we Oregonians consider essential to the maintenance of our households, businesses and ~~lifestyles~~communities. The region has a responsibility to provide a goods movement system that continues to function effectively.~~serving this requirement.~~

~~It is true that the world economy is currently strained, but current and future economic stimulus package components, including funds to reduce the backlog of long-deferred infrastructure maintenance are coming on line. The reauthorization of the surface transportation act may be delayed for 18 months, but early indications are that key freight corridors and infrastructure will be targeted for special consideration. It is in this context that the region's freight plan will operate, and for which regional partners must prepare.~~

1.3 Regional Competitiveness Requires Regional Cooperation across Jurisdictions and Sectors

The Portland-Vancouver area is a globally competitive international gateway and domestic hub for commerce. While Portland's status as Oregon's economic crossroads permits the region to have a vibrant, diverse and flourishing economy, it also carries certain responsibilities. The multimodal freight transportation system is a foundation for economic activities and we must strategically maintain, operate, and expand it in a timely manner to ensure a vital and healthy economy.

This *Regional Freight Plan* identifies mode-specific issues, policies, strategies and investments designed to meet those responsibilities and support a truly multimodal, sustainable freight network within the Portland metropolitan region. A systems approach to planning and managing our multimodal freight transportation infrastructure must recognize and coordinate both regional and local transportation and land use decisions to maintain seamless freight and goods flow and access that benefit us all.

The recommended actions will necessarily require collaboration between public and private sectors; the coordination of freight modes that are often competitors; and the reconciliation of institutional, jurisdictional and political perspectives. Yet stakeholders have shown a strong interest in and commitment to improving freight mobility and access, and reducing freight's impacts on the communities it serves. In a volatile

economy that demands a thoughtful and dynamic response, that level of engagement will be needed to move strategic projects along the path to implementation.[5]

1.4 Portland is a Global Gateway

The ports of Portland and Vancouver processed over 20 million U.S. tons of cargo in 2007. Another to 8 to 10 million tons of inland barge cargo also moves through these facilities. In addition to being the leading grain and mineral bulk harbor on the West Coast, the ports processed nearly 500,000 automobiles in 2007. In total, $12 billion in foreign trade moved through Portland Harbor in 2007. Most of this cargo is transported beyond the Portland metro region, generally by truck and rail. There is also a huge support industry located in Portland associated with moving this freight.

- The Port of Portland also operates the largest international airport in Oregon. Portland International Airport acts as the air freight hub for much of Oregon and Southwest Washington. Approximately 288,000 tons of domestic and international air freight shipped through Portland International during 2005.
- The 2002 *Commodity Flow Survey* projects an overall doubling of freight tonnage moved in the region by 2030. Currently 1 in 10 jobs in Oregon are transportation related. Though the Port of Portland is sufficiently diversified to bear this downturn better than some, there are many hard-hit employers, large and small, who make up the Port's customer base.
- Mounting congestion and capacity issues on several freight modes could impede the region's ability to compete globally. Regional congestion and capacity issues already impact several national goods movement corridors traversing the region, including freight rail and trucking corridors.

If the region is to maintain its status as an international freight gateway, immediate steps must be taken to ensure that a flexible, adaptable, efficient and reliable goods movement system is in place. Coordination across the state border with Washington is critical to make sure that freight throughways and access to primary hubs are seamless, and that needed improvements are coordinated.

Made in Oregon: the 9th-Most Trade-Dependent State

The Portland metro region is home to several traded sector industries that help drive the regional economy, including Nike, Adidas, Columbia, Intel, Lattice Semiconductor, FLIR, Genentech, Precision Cast Parts, Boeing, Oregon Steel Mills and Boise Cascade.

[5] Freight volumes are down—temporarily, but substantially, since the draft *Regional Freight Plan* was completed in the early fall of 2008. Although most observers expect a turnaround to result in an increase in those volumes, the timeline and robustness of the recovery is not known. The downturn does offer the region an opportunity to plan and implement vital freight projects in time for the eventual transition to a healthier economy over the long term.

Deliveries of Daily Necessities Increase with Population and Jobs

Modern urban life would be impossible without local goods movement. Nearly all the foodstuffs, clothing, housing materials, medical supplies, etc. that we rely on daily come from outside the region.

The region is forecast to have an additional 1.13 million residents (a 58% increase) and ~~600~~767,000 jobs (up 74%) by 2035~~0~~, which should drive a proportional increase in local freight volumes.

Local suppliers and retailers require good connections to regional, national and international goods movement systems. They also need reasonably sized lane widths, curve and curb radii, and loading zones.

Roadway congestion and deteriorated system reliability within the region heavily impact the productivity of local parcel, store and fuel delivery firms. This leads to decreases in equipment productivity, inefficient use of fuel, increased pollution and higher operating costs.

Shippers and distributors also operate in a more time sensitive production environment, with each operating under a unique set of parameters. System failure costs these firms significant sums of money, and can also result in a loss of customers over time. This can drive these firms to reevaluate their choice of location.

1.5 Congestion's Costs

Traded sector industries require well-integrated and highly efficient international and domestic transportation connections to stay competitive in the global economy. These firms have historically located in the region to take advantage of the pipeline, rail, marine, aviation and highway connections it offers.

Increased roadway congestion and decreased system reliability have adversely impacted the productivity of traded sector firms throughout the region. This has led to decreases in equipment productivity, increased labor costs and inefficient use of fuel, leading to increased pollution for combined air cargo, trucking, pipeline, marine and rail carriers. Each of these modes relies on the regional road system for some portion of their operations, and all are impacted by congestion.

Manufacturers, shippers and distributors in the region operate in a time sensitive production environment, with each operating under a unique set of parameters. Missing critical connections due to transportation system failure costs these firms significant sums of money and can also result in a loss of customers over time. This can drive companies to consider relocating outside the region, or prevent companies starting up operations in our region.

1.6 Land Supply

Preserving essential industrial lands in the Portland metro region has proven difficult over time. The region's industrial areas are also experiencing diminished access to rail infrastructure and deteriorating performance on freight route connections. Road and rail freight corridors, and the industrial lands they serve, need buffers from residential

land uses surrounding them. Further, the types of industries being accommodated in industrial areas are changing. Many new industries are better characterized as light industrial or distribution operations, with very different operational requirements than their heavy industrial predecessors. Redevelopment of existing industrial lands for modern industrial uses should be studied and supported.

Additionally, in order to be fully utilized, industrial land must be correctly located. For shipping access, this often means competing with residential, commercial, tourist, recreational and environmental users for highly sought and environmentally sensitive waterfront acreage.

1.7 Freight trends

The global economy is in the midst of a profound change. Twenty-first century innovations in trade policy, communications and transportation have altered the sourcing, production and marketing of products on a global scale. Some of the most important trends are identified below:

- Due to open trade policies, more freight than ever before is moving across international boundaries.
- The rise of worldwide communications networks allow for the inexpensive and instantaneous transfer of information around the globe. These networks have allowed businesses to expand operations and markets, and given rise to new business models like e-commerce, leading to a higher volume of smaller, demand-responsive shipments.
- Access to good transportation services has allowed businesses to develop increasingly complex supply chains that are longer and far more specialized, yet increasingly fragile.

As a result of these global trends, U.S. international and domestic trade volumes are expected to grow at an accelerated rate. Trade volumes in Portland are expected to double by 2035, to 600 million tons annually.[6] This is expected to have a profound effect on shippers and the infrastructure they depend upon.

West Coast ports have beenare struggling to keep pace with the increasing volumes of marine and air cargo coming from Pacific Rim trading partners like Japan, China, South Korea and Taiwan. While 20087 and 20098 witnessed a temporary slowing of this trend nationally, Portland Harbor still posted an overall increase in volumes for 2008, and will likely return to the longer-term trend of growth in freight volumes as the economic recovery proceeds. In addition, the ports of Portland and Vancouver are not as constrained by dockside capacity as a number of other West Coast ports, so additional growth here can be handled at the ports.

[6] METRO, ODOT, PDC, Port of Portland, Port of Vancouver, Portland and Vancouver International and Domestic Trade Capacity Analysis, 2006.

In total, Pacific Rim trade amounted to $359.2 billion in 2002. Much of the Pacific Rim freight processed by West Coast ports is destined for the rest of the country. However, the financial burden of maintaining and expanding the publicly owned transportation system serving this national need falls to local West Coast trade gateway jurisdictions.

The North America Free Trade Agreement has also generated large volumes of trade between the U.S., Canada and Mexico on the West Coast, amounting to $73.4 billion in 2002 and growing annually. Trade between major West Coast cities within the U.S. amounted to $182 billion in 2002, for a total of approximately $255 billion in north-south coastal trade. This number has continued to expand rapidly since 2002.

The goods movement industry has responded to this capacity crunch by employing larger trucks, rail cars, ships and planes. This trend places new demands on the goods movement infrastructure and reinforces the need to reconsider our approach to providing goods movement infrastructure. Government and industry must also work together to address increasingly stringent safety and security requirements being placed on the goods movement system.

Against this backdrop of sustained expansion in global trade the region must prepare to compete globally. The viability of the regional and state economy, and the ability to attract and sustain business investment in both, depend on it. Industry needs tangible and continuous improvements in the operating efficiency, capacity, modal redundancy and reliability of the regional goods movement system to remain competitive globally. Government must do its best to work with private sector stakeholders to accomplish this in a sustainable, environmentally sensitive and cost effective manner. Recent fluctuations in fuel prices have merely underscored the importance to industry of having an efficient, reliable and redundant regional goods movement system.

The regional goods movement system is failing certain large shippers: several traded sector firms in the region must truck loads to San Francisco or Seattle/Tacoma to achieve satisfactory international aviation or marine connections. Other resource based industries in, or served by, the Portland metropolitan region's goods movement system are very sensitive to transportation costs and can easily lose global market share with shipping cost increases measured in pennies per pound. Still other area manufacturers have had to repeatedly adjust production schedules to compensate for congestion on the region's runways, roads and rail lines, leading to increased production costs and reduced productivity.

As shippers' supply chain logistics evolve, the definition of "state of the art" warehousing and distribution centers continues to change dramatically. Larger, increasingly truck-biased cross dock facilities are becoming the new standard. Higher fuel costs could lead to decentralization of regional distribution centers nationally, in an effort to reduce the distance trucks need to move to their final destinations. The Portland metro region is well positioned to take advantage of this opportunity.

The local component of the goods movement system is also critically important to the economy and daily life. The local movement of goods and services is focused primarily on trucks. The ability to maneuver on local streets and to park to unload freight is vital for those trying to deliver goods and services to local communities.

With so many new residents expected in the Portland metro region by 2035, family wage job creation is going to be of paramount importance

The region's goods movement infrastructure and unique geographic location are competitive advantages that have created transportation sector jobs for more than a century. These jobs, in turn, serve the industrial and local freight needs of the Portland metro region, the state, the Pacific Northwest, the West Coast and the nation.

1.8 Ready for the Rebound

It is true that the world economy is currently strained. However, current and future economic stimulus package components, including funds to reduce the backlog of long-deferred infrastructure maintenance are coming on line. And though the reauthorization of the surface transportation act may be delayed for 18 months, early indications are that key freight corridors and infrastructure will be targeted for special consideration. It is in this context that the region's freight plan will operate, and for which regional partners must prepare.

In the post-recovery world economy, strong growth in international, national and regional trade will once again drive the need for a flexible, adaptable, high performance multimodal freight transportation system. Efforts must consider these new stresses on marine, air, road, rail and pipeline networks and facilities. The region's goods movement system will need to absorb a doubling of freight volumes by 2035, with much of that necessarily dependent on trucks to link producers and consumers, or to reach intermodal nodes for import and export.

Many local manufacturing firms that trade internationally, and who could locate globally, have chosen to make the greater Portland-Vancouver region their home because of its connections as an international transportation hub. These firms require a smoothly functioning goods movement system to operate efficiently and maintain profitability. In the absence of such a system, they will consider relocating to an area that meets these requirements.

And as the global economy recovers and grows, the Portland metro region will be called upon to address vastly expanded regional, national and international shipping needs reliably, safely, efficiently and sustainably. We have a responsibility to the region, the state, and the nation to maintain an efficient and flexible goods movement system of sufficient capacity to meet future needs.

1.9 Invest Now to Boosting the Triple Bottom Line

The Portland-Vancouver region is a globally competitive international gateway and domestic hub for commerce. The multimodal freight transportation system is a

foundation for economic activities and we must strategically maintain, operate, and expand it in a timely manner to ensure a vital and healthy economy. Policies and programs designed to take advantage of the opportunities hidden in the downturn should begin to be refined and implemented, to ensure that the Portland metro region is flexibly and securely positioned for the future of freight and goods movement.

However, in addition to regional policy and program development and implementation, concrete freight-related projects must be built to ensure that the goals of the Regional Freight Plan are met. Maintaining the Portland region's historic preeminence as a goods movement and industrial hub must remain a regional priority; our economic future depends on it. Investment in smart, strategic and green freight system improvements now can help Portland secure not only its economic future by increasing its share of family-wage jobs, but also support development of a green economy that is the Portland area's trademark.

Engaging stakeholder to develop a regional freight plan

The center point for the engagement of stakeholders was the Metro Council appointed Regional Freight and Goods Movement Task Force. The 33-member task force included representatives from the multimodal freight industry, community and government agencies. The group was charged with guiding the formation of policy and strategy recommendations for the region's multimodal freight transportation system. Metro Councilor Rod Park served as chairperson for the Task Force. The list of members included:

Steve Akre
OIA Global Logistics

Grant Armbruster
Columbia Sportswear

Steve Bates
Redmond Heavy Haul

Scott Bricker
Bicycle Transportation Alliance

Katy Brooks
Port of Vancouver

Gary Cardwell
NW Container Service

Terry Cleaver
Columbia Grain

Lynda David
Southwest Washington RTC

Tom Dechenne
Norris, Beggs & Simpson

John Drew
Far West Fibers

Ann Gardner
Schnitzer Steel Industries

Pete George
PW George Consulting

Cam Gilmour
Clackamas County

Van Hooper
Sysco Foods

Tom Hughes
City of Hillsboro

Monica Isbell
Starboard Alliance

Susie Lahsene
Port of Portland

Brian McMullen
WSDOT

Jeanne Morgan
Xerox

James Nave
Union Pacific RR

Rod Park
Metro

Michael Powell
Powell's Books

Warren Rosenfeld
Calbag Metals

Robert Russell
Oregon Trucking Association

Paul Smith
City of Portland

John Speight
Portland & Western RR

Paul Thalhofer
City of Troutdale

Jason Tell
ODOT

Elizabeth Wainwright
Merchants Exchange

Tracy Ann Whalen
ESCO Corporation

Rick Williams
Lloyd District TMA

The RFGM Task Force met 11 times between July 2006 and October 2007. Additionally, the task force worked in ad hoc subcommittees to tackle specific issues, such as a regional vision for freight, freight-related RTP goals and objectives, and project prioritization criteria, and brought back recommendations to the full task force. Task Force members also participated in a combined Metropolitan Policy Advisory Committee and Joint Policy Advisory Committee on Transportation meeting held in October 2007.

The long-standing Metro committee on regional freight coordination, the Regional Freight Advisory Committee, served as the technical advisory committee on this plan, providing data, input on analysis, and review of memorandums and reports. The committee is loosely comprised of transportation agencies in the region with an interest in freight issues. Active participants include:

Oregon Department of Transportation
Washington Department of Transportation
Metro
Southwest Washington Regional Transportation Council
Port of Portland
Port of Vancouver
FHWA
Clackamas County
Washington County
Multnomah County
City of Gresham
City of Milwaukie
City of Portland
City of Tualatin
City of Wilsonville

The Regional Freight Advisory Committee met monthly during the course of the planning effort. Some members participated in RFGM Task Force subcommittee meetings.

Targeted stakeholder workshops and presentations were conducted within the 2035 Regional Transportation Plan outreach process. A series of targeted workshops were held in Fall 2006 with various stakeholder groups, including one specifically targeted to the business community, to gather needs and issues. The role of freight in the transportation system was address in each of these targeted workshops. Additionally, several Metro Councilors and key Metro staff were enlisted to talk with business groups in the region about the role of transportation in Portland's economy. Metro spoke with 29 business and advisory groups over the course of the project.

Collectively, these outreach efforts and strategies have educated stakeholders and informed the technical and policy development work on community values, desired outcomes and transportation needs, investment priorities and implementation strategies.

2 Goal statement and policy

2.1 Goal statement

The RGFM Task Force developed the following goal statement after considerable deliberation:

> The Portland-Vancouver region is a globally competitive international gateway and domestic hub for commerce. The multimodal freight transportation system is a foundation for economic activities and we must strategically maintain, operate, and expand it in a timely manner to ensure a vital and healthy economy.

- We must use a systems approach to plan and manage our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.
- We must adequately fund and sustain investment in our multimodal freight transportation system to ensure that the region and its businesses stay economically competitive.
- We must create first-rate multimodal freight networks that reduce delay, increase reliability, improve safety, and provide choices.
- We must integrate freight mobility and access needs in land use decisions to ensure the efficient use of prime industrial lands, protection of critical freight corridors, and access for commercial delivery activities.
- We must ensure that our multimodal freight transportation system supports the health of the economy and the environment.
- We must enlighten our region's citizens and decision makers about the importance of freight movement on our daily lives and economic well-being.

2.2 Integration with the Metro planning process

The *Regional Freight Plan* is being developed along with broader Metro initiatives evaluating implementation of the regional growth concept (a set of activities under the umbrella of "Making the Greatest Place" or MGP, was developed earlier under the name "New Look") and the update of the region's overall transportation system plan (2035 RTP Update). This project has coordinated both its technical analysis and public participation elements with these other efforts to ensure a consistent and integrated planning approach.

The work program included a New Look (MGP)/RTP coordinated public involvement process that established desired outcomes specific to the regional freight transportation system. It has provided a common base of knowledge about the different elements of the system and has identified issues, needs, and deficiencies within the system. The project has also refined existing regional freight policies and updated the multimodal

freight network map. Infrastructure improvements for freight have been called out and prioritized. Implementation strategies for addressing environmental and community impacts, system management, economic development and financing have been reviewed and recommended. The project will also put forth recommendations for better incorporating truck movement into the *Creating Livable Streets Design Guide*.

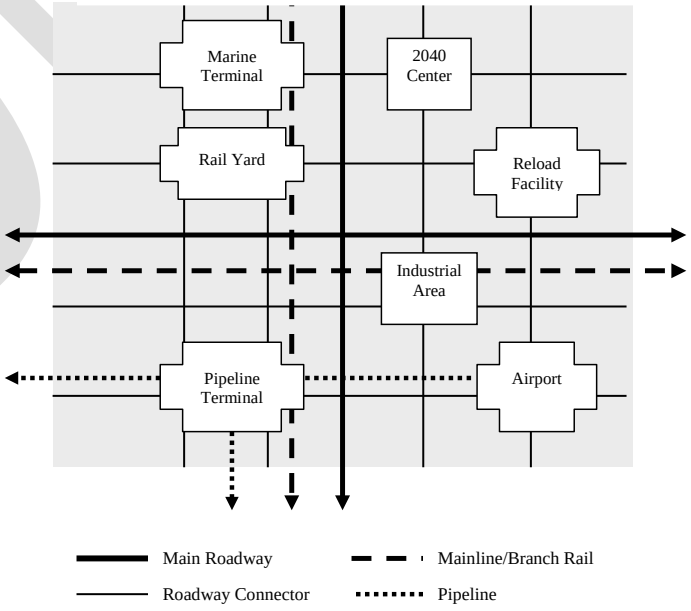
2035 Regional Transportation Plan

Metro periodically reviews and updates the Regional Transportation Plan (RTP) to keep it current with transportation challenges facing the region, and to incorporate new information, technologies and strategies. The updated plan provides a blueprint for building a sustainable transportation future that allows the region to compete in the global economy and preserve the unique qualities and natural beauty that define our region. An overarching aim of the RTP is to move the region closer to the vision of the region's long-range strategy for managing growth, the 2040 Growth Concept. Fundamentally, the RTP defines a framework for making choices about the future of the region – choices about where to allocate limited transportation resources and choices about the future we wish to see for our region and, by extension, the State of Oregon. The Regional Freight Plan for the Portland metro region is an element of the RTP. While the plan targets needs and issues specific to the freight transportation system, key policies and actions are incorporated into the comprehensive RTP.

2.3 RTP Freight Transportation System

The transport and distribution of freight occurs via the regional freight system, a combination of interconnected publicly and privately owned networks and terminal facilities. The concept in Figure 1 shows the components of the regional freight system and their relationships.

Figure 1. Regional Freight Concept

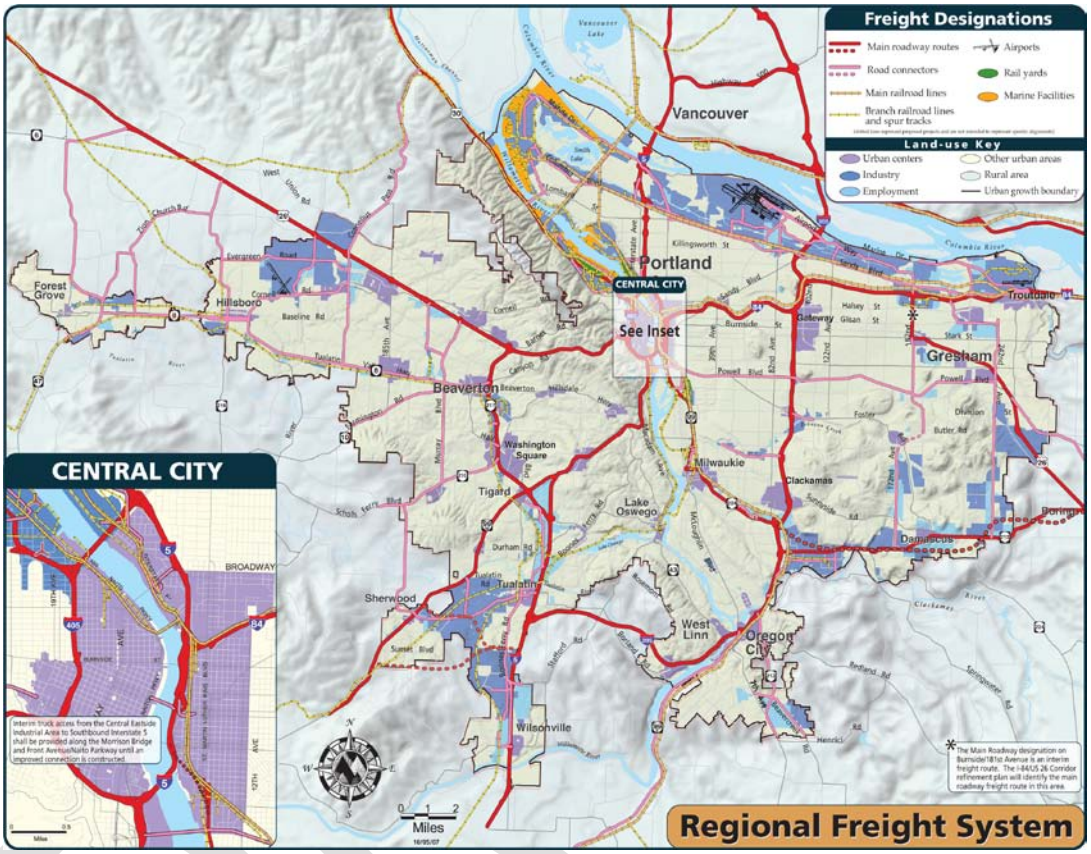


Rivers, mainline rail, pipeline, air routes, and arterial streets and throughways connect the region to international and domestic markets and suppliers beyond local boundaries. Inside the region, throughways and arterial streets distribute freight moved by truck to air, marine and pipeline terminal facilities, rail yards, industrial areas and commercial centers. Rail branch lines connect industrial

areas, marine terminals and pipeline terminals to rail yards. Pipelines transport petroleum products to and from terminal facilities.

The Regional Freight System Map, shown in Figure 2, applies the regional freight concept on the ground to identify the transportation networks and facilities that serve the region and state's freight mobility needs

Figure 2. Regional freight system [need to replace with revised map]



3 Key issues on the regional freight transportation system

Between April 2006 and February 2007, Metro staff interviewed nearly two dozen individuals and facilitated discussions at more than 35 meetings with regional stakeholders and analysts.[7] The result was more than 225 discrete comments reflecting desires and concerns regarding the state of the region's freight transportation system. With input for the Regional Freight and Goods Movement Task Force, the collection of comments was refined into a list of key issues that the plan should begin to address. Table 3.1, below, provides a summarized list of the key issues and needs. Appendix A contains transcribed comments from those interviewed.

Table 3.1. Priority issues for freight

Issue category	Key issues
Mobility and accessibility	• Road congestion on regional truck routes • Travel time reliability on regional truck routes • Accessibility between intermodal terminals, industrial areas, centers and interstate system • Class 1/short line rail – throughput and velocity, capacity constraints in rail yards, sidings • Improved rail access and service for regional shippers • Barriers: weight/vertical clearance issues on bridges; gaps in connectivity (new roads/bridges) • Safe barge navigation in I-5/BNSF bridges area • At-grade rail crossings – grade separation • River channel deepening
System management	• Preservation and efficient use of existing capacity • Intelligent Transportation System tools (signal timing, cameras) • Access management • Increase in truck crash rate • Faster response to roadway incidents (crashes) • Truck parking: hours of service limitations • Efficient loading/unloading operations in commercial centers • Advances in traveler information (road conditions, directional signage) • Workforce access to industrial and employment areas • Maintenance dredging and lock repair • Rail system management (directional running, grade crossing info) • Modal redundancy

[7] Ibid.

Issue category	Key issues
Land use	• General population growth and impacts to transportation system • Competition between industrial and other uses for interchange capacity • Adequate supply of industrial land served by transportation system (i.e., marine accessible) • Incompatible land uses along rail lines and major truck corridors • Accommodation of truck delivery in pedestrian-friendly areas and corridors (street design trade-offs)
Environment	• Air quality impacts from diesel engine emissions • Residential noise impacts from truck, rail and air cargo operations • Water quality
Investment strategies	• Link transportation investment decisions to regional, state, and national economy. • Expand types and amounts of funding for infrastructure and programs (i.e., gas tax indexing, user pays cost responsibility). • Use public-private partnerships to fund improvements. • Create a role for the public sector in funding private operations. • Use a building block approach to fix corridors (i.e., ITS first, then graduate to other solutions). • Incorporate lifecycle cost (maintenance) into project.
Coordination	• Create better coordination between freight system stakeholders in the region. • Educate decision makers and public about importance of region's freight transportation system. • Consider rail service needs for regional shippers. • Consider freight/goods movement needs in project development.
Research and data	• Freight system performance over time • Ongoing truck count program • Economic impact assessments of investments

4 Freight Generation in the Region

4.1 Manufacturing, Warehousing and Distribution

The Portland metro region is home to a number of traded sector firms engaged in a broad array of activities. These firms bring wealth from outside the local economy into the region, helping communities to prosper. All of these enterprises have unique goods movement needs, some local, others national or international.

Unlike many areas of the country which have witnessed a substantial decline in manufacturing/industrial employment, the region has experienced growth in the manufacturing sector of the economy during the last two decades. This has created a need to efficiently deliver the materials needed for production (domestically and internationally) and to cost effectively ship finished products. Manufacturers in the region assemble products from components delivered from around the globe and ship components for assembly internationally. The mobility needed to support commerce in the region is as diverse as the commerce itself.

Manufacturers and shippers from throughout Oregon and Southwest Washington depend on the Portland metro region's warehousing, distribution, logistics, customs and multimodal goods movement infrastructure to move raw materials, semi-finished and finished products. These activities create substantial quantities of regional jobs. Warehousing, distribution services, and related activities, are major employers within the Portland metro region, with at least 46,000 local jobs attributed to this sector.

These activities are spread throughout the region, with concentrations in the Rivergate, Columbia Corridor, Sunset Corridor, Swan Island, Clackamas-Milwaukee, Springwater-Damascus, inner Eastside, North Wilsonville-Tualatin-Sherwood, Beaverton-Tigard, Beavercreek and Northwest Portland industrial areas.

4.2 Port Activities

The ports of Portland and Vancouver host more than 1,000 ocean-going ships each year. These vessels transport 18 to 20 million short tons of cargo annually to and from public and private facilities located in the Portland-Vancouver Harbor. Another to 8 to 10 million tons of inland barge cargo also moves through these facilities. In total, $12 billion in foreign trade moved through Portland Harbor in 2007. Much of this cargo is transported beyond the Portland metropolitan area, through key truck and rail corridors.

In addition, the Port of Portland operates the largest international airport in Oregon. It is the hub for the vast majority of air freight activity in the Portland metro region, western Oregon, and Southwest Washington. Approximately 288,000 tons of domestic and international air freight shipped through Portland International during 2005.

5 Regional Goods Movement

5.1 Highway

Trucks will remain the predominant mode of freight transport for the foreseeable future, due to their flexibility, speed, adaptability and availability. West Coast truck traffic is expected to increase 200 percent by 2035*, placing increasing pressure on the interstate highway system and local freight corridors. As much as 52 percent of the total truck traffic in the region is through traffic.[8] This reflects the importance of our stewardship role for maintaining the through-put efficiency of the interstate freeway system for national freight movement.

Maintaining access to, and adequate capacity on, designated freight corridors, the National Network, and the National Highway System within the region will remain critical to efficient goods movement. Performance of NN and NHS roads within the region varies, but there are locations with regularly recurring chokepoints. It is not unusual for these chokepoint locations to experience frequent failures, particularly during peak weekday travel times, greatly reducing overall system efficiency and reliability.

Some key examples of ~~R~~recurring highway system chokepoint locations within the region identified by the RFGM Task Force as having broad impacts to goods movement include~~d~~:

- I-5/CRC (Columbia River Crossing) and Delta Park: North Marine Drive to Columbia Boulevard operates near or over capacity during all peaks.
- I-5/I-84 Interchange: Operates at or over capacity during the a.m., p.m. and mid-day peaks.
- I-5/I-405/US 26 Loop: Is congested through the central city area.
- I-5 Corridor, south of I-205 interchange: the South Metro I-5 Corridor and Boone Bridge is reaching capacity, and carries a larger percentage of trucks that the CRC.
- I-205/OR 224 Interchange: Operates near capacity during the mid-day and p.m. peak hour.
- I-205: I-84 to Northeast Marine Drive: Several interchanges connecting to and sections of I-84 and I-205 within these limits operate near or over capacity during the p.m. peak hour.

[8] *Portland and Vancouver International and Domestic Trade Capacity Analysis, (2006): WCCC Trade and Transportation Study, Cambridge Systematics (2008)*

- I-205: OR 212 to I-5: I-205, particularly south of the Oregon City I-205 bridge has long had capacity issues; enhanced merge lanes to I-205 are also needed.
- OR 217: Inadequate interchange spacing leads to merge/weave congestion chokepoints in the area of the Southwest Beaverton-Hillsdale Highway, Allen Boulevard and Hall Boulevard interchanges.
- I-205/Airport Way: Eastbound to northbound on-ramp is a bottleneck to providing access to and from Portland International Airport
- ~~US 26 through the Vista Ridge Tunnel~~
- Non-continuous or challenging parallel arterials and connections: Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased connectors) are needed.
- Last-mile chokepoints: Various locations experience congested last-mile local industry connectors (e.g., Columbia/Cascade River District Projects, including the I-84/257th Ave. Troutdale interchange)

Several of these highway segments and interchanges have also been identified as projects of statewide significance due, in part, to their negative impact on the statewide or national goods movement systems.

5.2 Rail

Class 1 rail lines[9] operating in the Portland metropolitan area (BNSF Railway and Union Pacific Railroad) have been capacity-constrained due to several long-standing and well documented historical factors. These constraints will worsen as freight volumes at the region's ports and intermodal facilities increase. Capacity chokepoints for the Class 1 railroads in the Portland metropolitan area have primarily centered on the Portland Triangle, located in the industrial/port areas of North Portland and Southwest Vancouver.

Issues in the Portland Triangle area include inadequate siding lengths (Class 1 railroads are now fielding up to 8,000 foot long unit trains), rail bridges with inadequate capacity and lowered sufficiency ratings, at-grade rail crossings, sidings and mainline track sections that are over capacity. Other Class 1 capacity constraints within the region include switch control at the Steel Bridge, and inadequate rail and intermodal yard capacity for current and future needs. Outside the region, railcar clearances and increasing weights will need to be addressed, as the Class 1 railroads look to longer trains and heavier carloads to increase their operating efficiency and revenues.

[9] Railroads are classified according to their revenue; following decades of decline and mergers, there are now seven Class 1 railroads—constituting largest companies--currently operating in the United States. Class II railroads are also known as regional railroads; Class III includes the short line railroads.

Short line rail operators have taken over many of the local and regional rail functions formerly performed by the Class 1 railroads. Rail car weights are a critical issue for short line railroads. The Class 1 railroads are now considering rail car weights above 286,000 pounds, which will exceed the carrying capacity of many short line tracks in the region. Assisting regional short line railroads with track upgrades could reduce the risk of derailments, a potential public safety issue and certainly a productivity issue for the railroads. It also keeps trucks off the road. The short lines are also having to make-up more trains in their yards, which have limited capacity, before delivering them to the Class 1 rail yards. Assisting short line railroads requires government to show a clear public benefit, since these facilities are privately owned and operated.

Government and the railroads have historically cooperated to implement rail crossing safety improvements. The Class 1 and short line railroads have multiple at-grade crossings of their lines in the region, limiting train speeds and increasing the risk of conflicts between trains, vehicles, pedestrians and bicycles. Improving, eliminating, or grade separating at grade crossings improves safety as the number and size of trains increase. Crossing improvements increase rail and road system productivity by helping longer trains clear crossings more quickly. Crossing improvements are the first step in applying for "quiet zone" status with the Federal Railroad Administration.

5.3 Aviation

Combined air cargo providers generally operate on a hub-and-spoke system, where freight is picked up at airports throughout the country in the early evening, flown back to a central destination to be sorted, and then reloaded and flown to its final destination in the early hours of the morning for next day delivery. In order for this system to work, schedules must be maintained. This generally places air freight carriers' trucks on the road during p.m. peak hour traffic.

While traffic flows on the roadways immediately adjacent to Portland International have improved within the last decade, trucks carrying air freight to the airport during the p.m. peak hour face increasing congestion on several area highways leading to the airport. I-205, I-84, I-5, I-405 and US26 all serve locations feeding generating air freight, but have failing p.m. peak hour level of service.

Several traded sector manufacturers within the region are heavy users of air freight. Frequent roadway congestion forces many of these users to move shipping deadlines up, causing firms to lose valuable production time and increasing their production costs. Many shippers in the region were disappointed when direct air freight connections to Asia were lost. They now have to truck their shipments to Sea-Tac or San Francisco International airports to make their desired connections.

Portland International began (May 2009) to implement a project to extend its north runway, as well as a complete overhaul of its south runway. With these improvements runway and taxiway capacity at the airport should be adequate to meet the needs of air

freight carriers through the next decade, based on recent statements by the Port of Portland.

5.4 Marine

Modern commercial navigation of the Columbia River began in 1877, when Congress approved dredging a navigation channel between the Portland-Vancouver area and the mouth of the river in Astoria. Currently, more than 1,000 ocean-going vessels call on the Portland-Vancouver Harbor each year. Navigation channel depth on the Columbia River continues to be the limiting factor on the size, and therefore the number, of ships that call on the Portland-Vancouver Harbor. Channel deepening has been pursued for several decades, balanced by the need to protect various fish stocks migrating on the river.

The ports of Portland and Vancouver, as well as the other ports located along the lower Columbia River, lead the nation in the shipment of grain. They also ship large quantities of other bulk agricultural commodities from Oregon, Idaho and Washington to the rest of the world. The region's ports will still manage to grow by moving a wide range of marine cargoes, such as energy and transportation project related materials, manufactured goods, automobiles, agricultural and mining related products, and fuel. The ability of the ports of Portland and Vancouver to serve as major ports will be hampered by the size of ships that can traverse the Columbia River channel, since ocean carriers try to reduce per slot vessel (docking) cost by using larger ships.

The ports generate significant volumes of truck and rail traffic in the West Vancouver and Rivergate areas. Congestion during peak commute hours adversely impacts these truck movements. Intermittent congestion also impacts the Class 1 and shortline railroads serving the area.

Barge operators on the Columbia/Snake River system use equipment specifically constructed to operate in the locks on those rivers, adding significantly to their capital costs. In 2004, these barge operators moved 16,262 TEU's[10] and 9,779,000 tons of containers, bulk (wet and dry) and break bulk cargoes on the Columbia/Snake River system. Barges are also used to transport grain, fuel, steel and aggregate related products on the lower Willamette River. It should be noted, however, that most import and export shippers prefer to use truck and rail for any higher value products moving through the ports.

The primary limiting factors to barge movement in the region are the BNSF rail and I-5 bridges crossing the Columbia River and the maintenance of navigable locks on the Columbia and Snake rivers.

5.5 Pipelines

The Olympic Petroleum pipeline transports 65 percent of the petroleum products that Oregon uses. The pipeline delivers the equivalent of 750 tanker trucks of fuel between

[10] Standard container measurements, known as twenty-foot equivalent units.

the Puget Sound and the Portland tank farm located in the Northwest Portland industrial area every day. The product in the petroleum pipeline generally moves at approximately 4 to 5 miles per hour. The pipeline is privately owned and is regulated by the federal government. [11]

Regional distribution occurs from the tank farm through a Chevron owned pipeline to Portland International Airport and through the Kinder-Morgan pipelines to users and distributors throughout the region. Maintaining good quality access to the tank farm facility is critical, particularly in light of a recent at-grade rail crossing closure on an access road to the tank farm.

The Williams Northwest Pipeline transports natural gas products to northwestern Oregon and Southwest Washington. Northwest Natural Gas operates a private natural gas network that connects to the Williams Northwest Pipeline and radiates through and beyond the Portland metro region. This pipeline network delivers gas directly to end users within and beyond the Portland metropolitan area.

[11] http://www.phmsa.dot.gov/index.html

6 Goods Movement and Land Use

While the success of the region's economy is directly tied to its ability to efficiently move freight, it is true that freight movement and operations can potentially produce adverse impacts on local communities in the form of:

- Increased emissions, noise and vibration, lighting and safety concerns
- Impacts to land uses, community access, and bicycle and pedestrian movements
- Competition for highway and parking capacity
- A perceived (though less often real) reduction in land values
- Impediments to visual quality and redevelopment efforts

These concerns are likely to increase over time as freight volumes increase. Many of the typical complaints voiced regarding truck and rail operations could be minimized or avoided with thoughtful and appropriate land use planning, which, like a good fence, makes better neighbors. It's important to note that these types of impacts are not the exclusive domain of freight operations – highways, transit and other transportation systems and services—even hospitals and schools— can engender comparable concerns over impacts to nearby residents.

And, on the other side, freight carriers and shippers can themselves be impacted when communities seek to restrict access by trucks on certain streets, limit night-time operations[12], reduce the number of truck loading zones, increase water recreation activities and public access within working waterfront areas, or when communities seek to use a freight railroad's track for passenger rail service. As shippers' supply chain logistics continue to evolve, the definition of "state of the art" warehousing and distribution centers changes as well. Larger, increasingly truck-biased facilities are becoming the new standard. In addition, higher fuel costs could lead to decentralization of regional distribution centers nationally, with the Portland metro region well positioned to take advantage of this opportunity.[13]

Certain key regional intermodal rail to truck transfer facilities are quickly reaching their capacity and are constrained by the physical dimensions of their facilities. A regional discussion regarding retaining or restoring rail access into industrial areas should occur between the warehousing, manufacturing and distribution sectors, and the short line rail operators.

[12] The cost of congestion within a spreading peak period has pushed some shippers and businesses toward night-time operations, which often elicits its own push back from neighbors objecting to nocturnal disturbances.

[13] **CSCMP Explores, Vol. 5, Spring 2008*

There has been a demand, at times, for conversion of industrial property to mixed-use residential. This is often incompatible with surrounding industrial operations and freight movement. New residential development along truck and rail corridors, and adjacent to industrial sanctuary areas should be discouraged, with land uses that provide a buffer for freight related uses being preferred in these areas. From the viewpoint of freight carriers and shippers, allowing new, incompatible land uses into industrial areas impedes business operations and access, resulting in higher operating costs, reduced safety and efficiency.

There is often fierce competition for land, a finite resource. Siting,protecting and redeveloping industrial areas for industrial uses is in keeping with the goal of creating and preserving industrial sanctuaries in the Region 2040 plan, but managing and balancing competing land uses will continue to be difficult as the region grows. Maintaining reliable multi-modal transport options to our industrial areas is critical, particularly truck and rail connections. Providing rail service is becoming particularly difficult as rail operating practices continue to change rapidly.

7 Technology and planning for sustainable freight transport

7.1 Going Green

There are two variables that every commercial carrier must come to grips with: fuel cost and fuel use. The former frequently dictates the lengths to which a carrier will go to conserve fuel, while the later directly impacts the production of greenhouse gases and PM 2.5[14] emissions. The goods movement industry is responding to the prospect of sustained higher fuel costs and tightening emissions standards. Tools being used to improve powertrain operating efficiency and reduce stationary idling of truck diesel engines include:

- Clean diesel technologies, more efficient powertrains and improved aerodynamics
- Low sulfur and bio-diesel fuels
- On board auxiliary power units
- Parking area power and HVAC hook-ups for trucks
- Ongoing and innovative operational changes that reduce the carbon footprint of freight.

Every operator of commercial vehicles, be they aircraft, marine, rail or truck, has grown increasingly sophisticated at load, route, operator and vehicle optimization in an effort to minimize equipment downtime and maximize profit. Recent increases in the cost of fuel have only intensified efforts to increase operational efficiencies. Still, there is little evidence of a shift to alternative modes due to fuel costs.

The public sector needs to complement these efforts by optimizing their own facilities and strategies to gain maximum through-put capacity and efficiency where it matters most. This effort needs to include multi-jurisdictional coordination and ongoing participation from the private sector goods movement community. The challenge of increasing the capacity of the goods movement system while remaining environmentally sustainable will require close coordination and cooperation between the private and public sectors.

7.2 Transportation System Management

Several tools are available for transportation system management on the corridor level. These tools include variable message signs, traveler information systems, incident management and response, traffic signal progression, ramp metering and demand (traffic volume) responsive signal timing. Truck signal priority might also be considered in certain situations.

The public sector needs to manage its roadway infrastructure with the same degree of efficiency that the private sector manages their assets. Managing roadway performance

[14] Particulate matter smaller than 2.5 microns have been shown to affect human health.

through congestion pricing means charging road users on a sliding scale, based on the actual demand for roadway capacity throughout the day, with higher prices occurring during periods of peak travel demand.

Weigh-in-motion scales have been in use for several years, allowing trucks to bypass conventional truck scales, saving time, fuel and wear. Weigh-in-motion systems could be improved through the use of a single, common transponder system for commercial vehicles operating throughout several western states.

Some industrial areas within the Portland metro region have freed up roadway capacity by forming transportation management associations. These associations can facilitate and promote enhanced pedestrian, transit, carpooling and bicycle alternatives to the daily commute. These associations also work with employees to tailor transit services to their work shifts and with employers to facilitate staggered shifts, compressed work weeks and work-from-home programs. These efforts can reduce single occupant vehicle travel within industrial areas during critical peak travel times.

7.3 Freight Data Collection and Analysis

Portland State University's Intelligent Transportation Systems lab has begun a project to produce truck travel time estimates using the transponder information from ODOT's Green Light weigh-in motion-system. The system can supplement Tripcheck's traveler information system as well as help calculate key freight measurements by linking the other data collected by the weigh stations to the travel time estimates. The ITS lab at PSU houses and maintains the Portland Oregon Regional Transportation Archive Listing. PORTAL collects data from all of the in-bed loop detection sensors in the Portland area as well as free floating dynamic sensors that can be placed in TriMet buses or other vehicles. The archive also collects weather and incident reports, all of which can be accessed in a variety of methods to help monitor and evaluate traffic improvements and patterns.

7.4 Planning, Coordination, and Education

The RFGM Task Force requested that freight coordination continue at the regional level. Metro staff would like to honor the Task Force's efforts and contributions, but recommends sunsetting this particular advisory group. However, in recognition of the importance to maintain and improve Metro's relationship with the commerce, freight and goods movement community, staff recommends that an ad-hoc bench, with an expanded membership, be established (see Section 10 of this report.) In addition, a wide variety of ongoing coordination, planning and data collection efforts would allow Metro to be more responsive to requests from the goods movement community.

The RFGM Task Force also recommended that efforts to educate the public on the importance of goods movement, and the critical role it plays in the economy, continue on an ongoing basis.

8 Regional Freight Plan Findings

The following findings were developed or compiled by Metro staff, but are based on RFGM Task Force input, as well as data collected as part of this project.

8.1 Trade and the Portland Economy

- Trade volumes in the Portland/Vancouver region will double by 2035.
- Continued trade growth will create economic opportunities for the region and state that are dependent on adequate transportation infrastructure.
- The goods movement needs of the Portland-Vancouver region, and the markets it serves, require access to a broad range of modal options and service providers.
- The ability to transport goods into, out of, through and within the region in an efficient, timely and reliable manner is critically important to the economic health of the region and the state as well as West Coast trade.
- Maintaining an efficient, accessible, multimodal goods movement system is essential to attracting and retaining traded sector companies. These firms require access to the global marketplace comparable or superior to any firm they might compete against.

8.2 Industrial Land Supply

- There will be an increased need for industrial waterfront lands to support growth in maritime trade. Industrial land uses are frequently incompatible with, and pressured by, residential development. Extra care must also be taken when placing industrial land uses in close proximity to recreational or environmental resources.
- Industrial sanctuaries should continue to be considered a unique and protected land use. Preserving the region's existing industrial sanctuaries is essential to maintaining economic growth. As industrial land in the region becomes increasingly scarce, active protection of the region's industrial sanctuaries will become critical.
- Protection of industrial sanctuaries should include modernization of existing sites as needed, as long as the industrial nature of the land use is maintained.
- Industrial land users consider residential development incompatible with their operations, while residential property owners take issue with aspects of industrial development. Similarly, locating housing adjacent to primary truck routes or rail lines is also viewed as undesirable by carriers and residential property owners alike.
- Maintaining and improving multimodal freight access to the 2040 industrial sanctuaries is critically important to ensuring long-term viability of industry in the region.

8.3 Freight Rail

- Rail service characteristics are changing. Class 1 railroads, and even certain short line railroads, are moving towards a "hook (up) and haul" business model, where the railroad focuses on pulling assembled trains long distances between cities.
- Class 1 railroads are currently struggling to meet existing freight demand. They are facing shortages in rolling stock, siding and yard capacity, and track capacity. They are attempting to address these deficiencies in a timely manner, but are struggling to do so.
- In response to projected increases in rail freight volumes, Class 1 railroads intend to haul heavier per car loads and employ longer trains. The former will require upgrading tracks throughout their systems, and the later will likely increase the need to grade separate more intersections over time.
- The current Class 1 railroad business model focuses on delivering service to railheads with intermodal yards or directly to port facilities. The Class 1 railroad intermodal yards in the region are operating near capacity now, and they will need to be expanded. These intermodal yards are predominantly dependent on trucks to move freight to and from their facilities. This may require use of scarce lands within certain Industrial Sanctuaries.
- Short line railroads have generally taken over the role of distributing rail cars throughout the region on their rail networks to end users requiring direct local rail service. Lack of space in Class 1 rail yards means short line railroads need additional marshalling yards on their own properties to make up trains. Identifying locations for these yards is challenging, as it often requires the acquisition of scarce lands within certain industrial sanctuaries.
- Short line railroads and certain private operators are also operating intermodal facilities, frequently offering additional logistics services to shippers. Maintaining and improving both truck and rail access to these satellite intermodal locations is critical.

8.4 Trucking

- Trucks will continue to be the dominant mode of transport in the freight transportation system, with West Coast truck volumes expected to increase over 250 percent by 2035. Even though the use of other modes will expand, trucks will maintain their preeminent status as the first and last links in delivering goods to the end user due to their flexibility.
- A trend toward lighter weight, higher value, increasingly time sensitive, producer to retailer shipments is expected to continue, again reinforcing the role of trucking in the freight transportation system hierarchy.
- Truck access between port facilities, industrial sanctuaries and the National Highway System is critically important to shippers, carriers and distributors of freight. These connections are commonly referred to as "first mile/last mile" connections.

- Motor carriers identified correcting regional bottlenecks on the principal NHS roads as their first priority. Motor carriers are also supportive of active Transportation System Management, to include incident management.
- Transportation service providers identified the Columbia River Crossing, I-5 through Delta Park, the I-84/I-5 interchange area, I-205 from OR 224 to I-5, and the Sunrise Corridor projects, as well as improved access to the North Wilsonville-Tualatin-Sherwood and Clackamas industrial areas as their highest regional road improvement priorities.

8.5 Air Cargo

Air cargo continues to require efficient access. Area industries producing goods shipped via air freight have had to adjust their production schedules repeatedly due to roadway congestion in order to meet air freight departure deadlines. This has led, in turn, to higher production costs and reduced productivity.

8.6 General Concerns and Observations

- The rail, truck, marine, pipeline and air cargo carriers all invest in their own equipment and infrastructure and are privately owned for-profit businesses. This complicates public sector investment in safety, access, reliability or capacity improvements for these modes.
- Every privately owned carrier, of whatever mode, relies on publicly owned infrastructure for at least a portion of their activities.
- Firms relying on the goods movement system monitor the efficiency, reliability and speed of the existing transportation system and use these measures to evaluate system performance. The vast majority of this information is considered proprietary and is used by shippers to gain an advantage over competitors. Much of this data is also derived from proprietary systems that generate unique data outputs focused on parameters specific to that firm. This can make even anonymous data sharing very difficult.
- The goods movement industry provides over 46,000 family wage jobs within the region.
- Maintaining the Portland metro region's historic preeminence as a goods movement and industrial hub should remain a regional priority.
- Long-term under investment in transportation infrastructure within the region, for both maintenance and capacity improvements, has led to congestion, weight limits and frequent system breakdown.
- Transportation revenues to fund maintenance and capacity enhancements are at an historical low on the federal, state and local levels.

- An ongoing regional freight data collection effort needs to be undertaken and sustained over time. One of the better efforts to date is PORTAL, operated by PSU, but several other efforts under development also show promise.
- A component of regional freight data collection efforts needs to include interviewing shippers directly on ongoing basis, to capture current supply chain dynamics.
- The importance of freight transportation to the regional economy needs to be reinforced through an ongoing public education effort.

8.7 The Transportation Funding Challenge

Funding Background

Change is needed: federal and state fuel tax revenues have been in decline for several years. Funding for transportation projects has historically come from several federal, state, regional and local funding sources, as reflected in the following lists. There are several programs funded under the current federal transportation act, the Safe, Accountable, Flexible, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), that can be directed towards freight. The next federal transportation act is expected to specifically address freight movement. Funding for transportation was taken up by the Oregon Legislature during its recently concluded session.

The Consequences of Long-Stagnant State Transportation Funding

Public sector funding for transportation infrastructure, particularly targeting freight movement, has diminished over time. Even with recent federal recovery efforts and state legislation, competition for available funds will increase, and most (road) funds are likely to be funneled into critical safety projects. The region's funding dilemma is real: until the July 2009 HB 2001 hikes, the state of Oregon hadn't had a gas tax increase since 1993[15] and the federal Highway Trust Fund is teetering on insolvency. For most of the first decade of this century, the cost of construction materials has risen significantly on the global market, greatly increasing the cost to construct infrastructure improvements. Simply put, costs to construct improvements having been trending upward rapidly, while available revenues to pay for them have been declining. Deferred maintenance and delayed projects have cost individuals and businesses in terms of lost time and opportunities, increased vehicle wear and tear, and threatened or lost jobs. The successful implementation of any programs or projects in these times requires coordination at all levels of government with the business community to address the immediate and long term freight transportation funding needs.

HB 2001 Provides New State Transportation Resources

On July 30, 2009, Oregon Governor Ted Kulongoski signed House Bill 2001 (HB 2001) into law. The bill provides for a gas tax increase of 6 cents, from 24 cents per gallon to

[15] However, Oregon's Weight-Mile Tax levied on trucks over 26,000 pounds (GCW) has increased since that date.

30 cents per gallon, as well as increasing vehicle license plates from $54 to $86 every two years. Vehicle title fees will rise from $23 to $78. All told, the changes will make approximately $300 million per year available for transportation projects, of which $136 million will be directed into the state highway program. Counties will receive $82 million; cities will receive $55 million. The remaining $24 million will fund non-road alternative transportation projects.

Uncertainty at the Federal Level

Nationally, funding for transportation projects has become scarce. The need to replace aging transportation infrastructure and expand facilities in areas of the country experiencing growth has exploded. And this need comes at a time when infrastructure project costs have increased significantly during the last several years. Federal Reauthorization of the multi-year omnibus transportation bill is now expected to be delayed 18 months past the expiration of the current bill, SAFETEA-LU, in September. The private sector portion of the goods movement community has been making great strides in adopting sustainable technologies and wringing efficiencies out of their respective portions of the goods movement system. The public sector must also effectively weigh policies, programs and investments to achieve the maximum benefit for the goods movement system, particularly during a time of uncertain funding for transportation.

Funding Sources

The following funding sources are currently available to the region.

Federal funding sources or programs (FHWA programs, unless otherwise noted):

- Modernization (freight chokepoints, capacity enhancements, dimensional issues on NN/NHS freight routes)
- Preservation (road and bridge maintenance)
- Surface Transportation Program
- National Corridor Infrastructure Improvement Program
- Congestion Management and Air Quality Improvement Program
- Transportation Infrastructure Finance and Innovation Act of 1998 – allowed the creation of state infrastructure banks through a federal credit, generally fund state infrastructure banks (Funds are expected to be repaid.)
- Truck Parking Facilities
- Freight Intermodal Distribution Pilot Grant Program
- Transportation, Community, and System Preservation Program
- Elimination of Hazards and Installation of Protective Devices at Rail-Highway Crossing
- High Risk Rural Roads (e.g., Cornelius Pass)

- Intelligent Transportation Systems Research
- FTA dollars for TDM measures on truck corridors and in industrial areas
- MARAD: provides funding for harbor and channel maintenance
- FAA: various programs for providing airside, landside and runway protection zone funding

State funding sources:

The following list of funding sources is generally administered through ODOT

- Oregon Gas Tax/Vehicle Registration Fees: With passage of HB 2001, an additional $300 million annually will be raised for transportation purposes, statewide.
- Oregon Weight Mile Tax: Charged to trucks weighing over 26,000 pounds, the tax is the primary source of tax revenue raised by trucks in the state. Weight Mile Tax receipts are primarily directed at roadway maintenance and system preservation efforts throughout Oregon, with a smaller amount allocated to administering the program.
- Oregon Energy Income Tax Credit: The Oregon Department of Energy offers a tax credit for businesses that invest in reducing energy consumption. Under this program transportation projects that reduce the number of single-occupancy vehicle trips are eligible for the credit. The credit covers up to 35 percent of eligible project costs.
- Connect Oregon I & II: Funded through lottery proceeds, this effort has focused on projects that enhance intermodal connections and improve freight mobility for several modes, to include aviation, marine, and freight rail. It was allocated a total of $200 million for both phases.
- OTIA: The various OTIA funding programs relied on bond proceeds to raise funding for critical statewide infrastructure needs. While this program was a success, these bonds now need to be paid off.

The Connect Oregon and OTIA programs have shown that government and the private sector can collaborate successfully. These programs have delivered tangible benefits to freight movement within the Portland metro region and the state. The Connect Oregon program should be continued. The program has proven particularly useful in funding much needed projects for off-highway modes. Dedicating the loan revenues from the Connect Oregon program into a revolving fund could help the program be more self sustaining.

Regional funding sources:

- Congestion pricing/use-based toll: Set up a regional congestion pricing program, starting with CRC (both bridges). Enforce through WMT transponders or cell phones. Dedicate revenues generated by trucks to truck oriented projects.
- Vehicle registration fee: Apply a uniform vehicle registration fee to all vehicles.
- Regional funding initiative: Regional transportation improvement districts have experienced success in the Northwest. These packages use increments of vehicle registration fees, fuel taxes, and/or property taxes to fund a specific list of infrastructure improvements. A regional transportation improvement fee is under development for consideration.
- Value capture: Certain transportation projects generate greater tax revenues for a community during their construction and throughout their active lifespan. Projecting this value and using it to help bond the project is another way to help fund certain capital projects, such as shortline railroad intermodal facilities.
- Freight innovation initiative: A fund for innovative, freight-oriented technological and operational efforts using commercial vehicle congestion pricing tolls. Revenues could fund freight-oriented TSM, ITS, fuel consumption reduction or alternative fuel efforts, and technology proof of concepts/trials/ demonstration projects. A small percentage of these funds could also support a regional freight database and associated freight movement research.

Local transportation funding efforts in other regions and states have illustrated that the public is willing to pay for infrastructure under certain conditions. The public needs to see a demonstrable need for the project and how the proposed project will meet that need; it has to feel confident in the cost estimate and projected schedule and also in the constructing agency's ability to deliver a project within that cost and schedule.

9 Developing a freight strategy tool kit

9.1 Linking Freight Plan Goals and Issues to Targeted Solutions

The RFGM Task Force identified specific issues associated with the RTP goals for freight movement. These issues, summarized in the table below, require an ongoing, creative and collaborative approach to problems that are sometimes systemic, sometimes localized, and usually complex. The Task Force recognized that freight problems occur on a multimodal system, and that even when problems appear to be localized bottlenecks or network barriers, there are often multiple underlying causes that extend far beyond the apparent "problem". The interdependent nature of our transportation system, economy and environment all demand that a rigorous analysis of potential solutions be performed, in order to avoid downstream impacts or unintended consequences.

The tables are structured around the *Regional Freight Plan* goals developed by the Task Force and found in section 2.0 of this document. These goals have been combined under one of the following categories:

System planning for efficient freight mobility and access

This category of issues and solutions speaks to Metro's mission as the Metropolitan Planning Organization for the Portland metro area. It seeks to provide better freight and goods movement data, to analyze that date with freight considerations in mind, and to implement a multimodal plan that facilitates freight movements required for a vibrant regional and state economy.

System management to increase network efficiency

This category comprises the "first step" to improved freight and goods movement operations on the existing system, and includes preservation, maintenance and operations-focused projects and associated planning and coordinating activities.

Public understanding of freight issues

To gain public support for projects and funding of freight initiatives, and to help the public and elected officials make wiser land use decisions, a program of public education is required.

Sustainable freight transportation system

This category of issues and solutions deals with traditional nuisance and hot spot issues associated with "smokestack and tailpipe" problems, but it also recognizes the many current contributions and new opportunities for the evolving green freight community to be part of the larger environmental and economic solution set required in these times, including greenhouse gas curtailments.

Freight-sensitive land use planning

This category targets land use planning and design issues that can affect the ability of freight, goods movement and industrial uses to live harmoniously with their neighbors.

Freight-sensitive land use planning includes everything from long-range aspirations for freight and industrial lands to short-term and smaller scale design and access issues.

Strategic transportation investments

This category of solutions focuses on planning and building capital projects and developing the funding sources, partnerships, and coordination to implement them. It includes the list of regional freight project priorities attached as Appendix B to this report, identifying a wide range of projects from preservation and maintenance to major facility construction.

Freight-oriented preservation, management and investment priorities should focus on:

- Core throughway system bottlenecks to improve truck mobility in and through the region – hotspots of note include the Columbia River Crossing influence area, the I-5/I-405/US 26 loop, ~~the US 26 Vista Ridge Tunnel,~~ and the I-5 corridor south to Wilsonville~~of I-205~~.
- Improving and protecting the throughway interchanges that provide access to major industrial areas, particularly: I-5/Marine Drive and I-5/Columbia Blvd serving the Columbia Corridor and Rivergate industrial areas; I-205/Hwy 212 serving the Clackamas and Milwaukie industrial areas; and I-205/Airport Way serving Portland International Airport and east Columbia Corridor industrial areas.
- Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased improvements recommended by the Sunrise Project Policy Committee and *last mile* local industry connectors, e.g., Columbia/Cascade River District Projects, including the I-84/257th Ave. Troutdale interchange)
- Providing or maintaining alternatives for safe transport of hazardous loads (e.g., Cornelius Pass))
- Looking beyond the roadway network to address critical marine and freight rail transportation needs such as completing the Columbia River channel deepening and upgrading main line and rail yard infrastructure.

Several issues raised by the stakeholders are difficult to resolve, primarily because the improvements suggested involve infrastructure that is under private ownership. In these instances, identified public benefits must be rigorously quantified to demonstrate net benefits associated with public investment. In addition, qualitative benefits must be logically articulated and assessed.

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
System planning for efficient freight mobility and access;. *We must use a systems approach to **plan** and manage our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.*	• Inability to track freight system performance over time • Inability to measure economic impact of investments • Inability to account for land use needs generated by non-truck (rail, air, pipeline) commodity flows • Accessibility between intermodal terminals, industrial areas, commercial centers and the interstate system • Improved rail access and service for regional shippers • Consideration of freight and goods movement needs in project development • Protection of modal redundancy	**Data, Research, Modeling and Analysis** • Improve Metro's truck module within the regional travel forecast model • Explore methods of linking non-highway commodity flows and land use needs • Investigate predictive risk analysis, economic models and/or manual estimates of monetary benefits based on predicted travel time savings, incident clearance, enforcement, etc. • Submit proposals for relevant regional, state and national freight-related research or pilot project opportunities (e.g., Transportation Research Board projects) • Continue and expand work with Portland State University faculty and research staff to improve tools for freight analysis (e.g., truck counts) **Planning and Coordination** • Maintain Regional Freight Technical Advisory Committee meetings (monthly) and hold twice-yearly Task Force meetings (or as needed to provide timely input) • Periodic development, refinement, and ongoing advocacy for RTP freight projects list • Coordinate with and through Portland Freight Committee, ODOT, Oregon Freight Advisory Committee (OFAC), and Southwest Washington Regional Transportation Council/Clark County/WSDOT on statewide and regional freight, port and rail planning to ensure regional issues are addressed • Monitor freight innovations across the country and globally to mine for Portland metro application • Ensure that freight needs are included in all Metro planning efforts, such as corridor refinement plans, transit and land use planning

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
System management to increase network efficiency *We must use a systems approach to plan and **manage** our multimodal freight transportation infrastructure, recognizing and coordinating both regional and local decisions to maintain seamless flow and access for freight movement that benefits all of us.*	• Travel time reliability on regional truck routes • Efficient use of existing capacity • ~~Increasing~~ Continuing to reduce state and regional truck crash rate • Need for faster response to roadway incidents • Improved traveler information – road conditions, directional signage • Maintenance dredging and lock repair •	**Data Collection, Analysis and Planning** • Regional Transportation System Management Plan • Monitor/comment on ODOT statewide freight planning studies (Statewide Freight Plan, related studies for ports and rail at the state level) • Continued support for use and expansion of tools such as the PORTAL program of real-time traffic delay, etc. • Periodic surveys/interviews with shippers about the services provided by the region's carriers in the multimodal system ***Projects (Operations, Build Options)*** • Access management • Improved incident management • VMS/GPS active (in cab) truck route management • Truck-only lanes, ramp meter bypass lanes, next generation ITS infrastructure for commercial vehicles • Road pricing, congestion pricing, managed lanes studies, pilots or deployment if appropriate • Rail track/yard improvements and at-grade rail/highway projects to eliminate rail/highway conflicts and increase rail functional capacity • Facilitate multiple shippers' combined shipments to meet railroad's operating plans • Increase enforcement of traffic/carrier regulations • Expand rest areas/better utilization of rest areas for extended truck rest areas, including smart truck parking • To improve workforce access to jobs, support Regional Transportation Options program, Transportation Management Associations, expanded transit service/vanpools, bicycle and pedestrian facility improvements in industrial/employment areas

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
Better public understanding of freight issues *We must enlighten our region's citizens and decision-makers about the importance of freight movement on our daily lives and economic well-being.*	• Better coordination between freight system stakeholders in region • Education of decision makers and public about importance of region's freight transportation system, including the economic relationship between freight and community sustainability	**Education and Coordination** • Improve information exchange between public and private stakeholders via existing state, regional and local freight advisory groups • Improve analysis and communication of freight impacts on regional economy • Quarterly regional freight transportation system stakeholder roundtable • Annual state of regional freight report
Sustainable freight transportation system *We must ensure that our multimodal freight transportation system supports the health of the economy and the environment.*	• Regional air quality impacts from diesel emissions, which, if not addressed, will grow as freight volumes increase • Marine freight movement impact on water quality and habitat (e.g., invasive species introduced through ballast water)	**Air Quality** • Promotion of existing programs such as diesel retrofit technologies, idle reduction regulations, transportation system management tools **Water Quality** • Support of regulations that address environmental quality in riparian areas **Other Environmental** • Aggressively implement clean, green and smart best practices, as appropriate • Legislation to regulate and enforce ballast water release • Reduction of light sources and/or filtering or redirecting lighting • Proactive public outreach strategies • Performance monitoring and review following public and regulatory processes such as environmental justice mitigation, where appropriate

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
Freight-sensitive land use planning *We must integrate freight mobility and access needs in land use decisions to ensure the efficient use of prime industrial lands, protection of critical freight corridors, and access for commercial delivery activities.*	• Inadequate supply of industrial land well served by transportation infrastructure • Incompatible land uses along rail lines and major truck corridors • Incompatible land uses often adjacent to one another resulting in complaints about, and adverse impacts to, freight movement • Inadequate areas for trucks to conduct off and on-street loading and unloading • Competition between industrial and other uses for system capacity • Truck deliveries to local commercial and neighborhood districts that are difficult due to narrow lanes/turning radii • Growing noise impacts from truck, rail and air cargo operations in residential areas • Limited truck parking to meet needs of drivers (hours of service limitations) • Workforce access to industrial areas	**Planning and Coordination** • Coordinate with land use planning efforts to ensure that current and future freight/industrial needs are addressed • Expand regional Brownfields programs to allow return of industrial land to industrial uses • Take advantage of Regional Freight Task Force experts to inform Metro planning activities, e.g., in creating better linkages between commodity flow data and employment projections in determining long-term land use and freight routes • Consider revising "regionally significant industrial land" designation to protect high value industrial areas • Use interchange management plans to protect capacity at key industrial areas • Support affordable housing with access to employment/industrial centers • Advocate for full disclosure to property buyers adjacent to freight/industrial uses • Explore strategies where businesses co-locate in order to share resources (e.g. the local "resourceful use pilot") to conserve resources and use transportation system efficiently **Design and Projects** • Prioritize infrastructure investment to support existing industrial areas • Develop good neighborhood agreements between facilities and residential neighborhoods • Create "Quiet Zones" for rail corridors. • Updating livable streets design guide to better incorporate truck movement and operations. • New strategies to buffer residential and commercial land uses near industrial areas and along major truck, rail, airport and pipeline corridors

Freight plan goal	Key issues identified by stakeholders	Potential solutions/strategies
Strategic transportation investments *We must create first-rate multimodal freight networks that reduce delay, increase reliability, improve safety, and provide choices.* *We must adequately fund and sustain investment in our multimodal freight transportation system to ensure that the region and its businesses stay economically competitive.*	• Network barrier deficiencies such as weight and vertical clearance issues on bridges, at-grade rail crossings • Existing capacity constraints in rail yards and sidings • Road congestion on regional truck routes • Main line rail congestion • Expand types and amounts of funding for freight transportation infrastructure and programs • Role of public sector in funding private operations • Need for public-private partnerships to fund improvements • Transportation investment decisions linked to economy • Concerns about safe barge navigation in I-5/BNSF bridge area	**Project Development and Implementation (not all-inclusive)** • Implement RTP freight projects with focus on identified Task Force priorities, (see Appendix B). • Fill in gaps in truck route alternatives to interstate (e.g., parallel arterials for emergency detours) **Funding Policy and Partnering** • Expanded use of public-private partnerships to fund transportation system expansion • Expanded ability to invest public dollars in private facilities when improvements in those facilities result in public benefits • When funds aren't available for major system improvements, make incremental improvements to those facilities through Intelligent Transportation System and traffic demand strategies, access management and less-costly strategies • Common ground and linkages in the needs of different funding sources, and the opportunities presented by them • Expanded types of programs and amounts of funding for freight transportation infrastructure (e.g., MTIP, STIP, gas tax indexing, user fee~~pay cost responsibility~~strategies) • Appropriate coordination with planning, political and advocacy groups, including Oregon delegation, OFAC, West Coast Corridor Coalition, etc., to ensure adequate funding for freight priorities • Regional Freight TAC/RFGM Task Force participation in any regional road pricing pilots or planning studies • Support regional ConnectOregon freight and goods movement projects

10 Going Forward—From Freight Goals to Implementation

Section 9 of this *Regional Freight Plan* includes a "tool kit" of freight strategies that respond to a broad range of needs and issues clustered around the six goals articulated by the RFGM Task Force. This section constitutes the action plan. Its elements have primarily been pulled from the tool kit and elaborated.

The action items described below are the result of review with the Regional Freight and Goods Movement Task Force, the Regional Freight Technical Advisory Committee (TAC). Many of the actions described are foundational activities that constitute the glue holding the regional freight action plan together—planning, coordinating, research and policy-making that take place on both an ongoing and cyclic basis. Some of the action items below are quite well developed; others will require elaboration during Fall 2009, for inclusion in the Spring 2010 RTP adoption process. The list of efforts will need to find staff, time and funding resources, whether that includes Metro, members of the freight, goods movement and economic development community, or other agencies or organizations.

In 2008, the RFGM Task Force developed a long list of prioritized freight projects submitted for consideration as part of the July/August 2009 RTP project solicitation process. These are included in an appendix to this plan, and are also included by reference as part of Action F1.

In addition, a handful of important, achievable near-term items are included and recommended for implementation within this RTP cycle of 2009-2013, to support the approved regional freight and goods movement goals. Although circumstances and regional priorities may shift, the Task Force believes that a four year period is short enough to be relevant to the freight community, yet long enough for activities to be programmed, refined and deployed, as described in this section.

Between September and December 2009, this section will be winnowed into a smaller selection of important, achievable near-term actions. It will be refined to identify who does what, and to include a timeframe for implementation. Although circumstances and regional priorities may shift, the Task Force believes that a four year period is short enough to be relevant to the freight community, yet long enough for activities to be programmed, refined and deployed. In this way, longer term public planning cycles and shorter term business planning needs can be reconciled.

Of the nearest-term actions that eventually are adopted by the Task Force and Metro Council, and which also fall within Metro's purview will be incorporated, as appropriate, into Metro's Unified Planning Work Program (UPWP) for FY 2010-2011.

Goal A. Multimodal system planning for efficient freight mobility and access

This goal, as well as its related actions, speaks to Metro's mission as the Metropolitan Planning Organization for the Portland metro area. Actions described below will give us

better freight and goods movement data, and will guide planning efforts to ensure that freight considerations in mind, and to implement a multimodal plan that facilitates freight movements required for a vibrant regional and state economy.

A1: Maintain private sector cooperation with Metro planning by forming a "Sustainable Freight, Jobs and Economic Development Bench"

The current Regional Freight and Goods Movement Task Force has been a great asset in preparing the *Regional Freight Plan*. Its mission now accomplished, the Task Force will sunset.

However, Task Force members find that continued private sector input in some form to Metro would be valuable, and recommend that Metro hold periodic meetings to maintain engagement with private sector representatives. They also believe that, going forward, the group could be broadened across a more diverse regional cross section that would include multimodal carriers, shippers, producers and business, members of the economic development community and facility operators. Metro freight staff suggests that subsets of members drawn from the "Bench" could be formed based on changing circumstances and regional issues, on an ad-hoc or a more formal basis as needed, to focus on specific projects, corridors or topics that involve freight within the region. The Bench may be thought of more broadly as a think tank, a speakers' bureau, a listening post and a sounding board. In short, this wider group of stakeholders constitutes a deep bench of regional freight and business acumen that will serve Metro well to keep handy. Areas where members of the proposed "Bench" could provide value to Metro include:

Implementation of the Regional Freight Plan

- Review, assist, comment, contribute and/or lead various elements of the Action Plan
- Contribute to future freight plan refinements and updates

Regional Planning Efforts

- System planning, modeling and analysis
- Freight access/industrial land aspects of land use planning
- Input into selecting and carrying out regional corridor refinement plans
- Metropolitan Transportation Improvement Program (MTIP) funding and project selection processes
- Provide input into *Connect*Oregon criteria and selection
- Development of analytical tools, data bases, performance measures and policies
- Prioritization of investments and projects with a freight and economic development perspective
- Assisting localities with transportation system plan (TSP) freight components

Freight and Goods Movement, Jobs and Economic Development

- Develop policy and business support for transportation funding initiatives, including possible fees or pricing strategies
- Define economic development context and goals for freight and goods movement policies and investments
- Planning for prosperity and environmental justice

Sustainability

- Greening freight and industry while promoting sustainable jobs and economic growth
- GHG and other environmental impact reduction strategy development

Public Education and Stakeholder Engagement

- Participate in a Speakers' Bureau on freight, goods movement and economic development for use by local and regional groups

A2: Continue baseline freight and goods movement policy and technical coordination

In addition to maintaining Metro's monthly meetings with the Regional Freight Advisory Committee, Metro's freight program staff will participate on effective local, state and national freight-relevant organizations, such as the Portland Freight Committee, the Columbia Corridor Association, the Columbia River Crossing freight working group, ODOT's statewide freight planning committees, the Oregon Freight Advisory Committee, the West Coast Corridor Coalition and the Bi-State Coordinating Committee.

A3: Continue baseline freight and goods movement data collection and reporting activities

Keeping current in an environment that is volatile, in an era which is increasingly unpredictable, is as challenging as it is essential. This recommended action ensures needed support for ongoing data collection, and necessary or desired expansions to existing efforts, such as PORTAL, ensuring updates to the commodity flow matrix, continuing to seek more detailed freight and goods movement flow data at the regional level, etc. Freight and business stakeholder interviews should be held periodically, to provide updates to the "cost of congestion" data, and to provide early detection of problems and opportunities affecting the flow of goods and our regional economy. Collecting data sufficient to support other tasks, including Action C3, will mean the region will be able to assess a wide variety of outcomes, including jobs creation, value/tons moved, economic impacts, cost of delays, emissions, energy use, neighborhood impacts and others associated with freight movement. In addition, new goals and programs for greenhouse gas reduction, and possibly a regional congestion pricing pilot program may add to or change regional data needs.

A4: Ensure that freight needs are included in ~~Metro~~local and regional planning efforts

Metro freight staff and the Bench members will be responsible to deliver the freight and goods movement and economic sustainability perspective during development and refinement of corridor plans, transit and land use planning, etc. This effort could include development of a comprehensive freight "check-off" list for use in planning or project development.

A5: Develop and conduct freight and goods movement research program

In general, freight is a less well understood component of the regional transportation system; many regions are struggling to improve and integrate such tools as basic freight data, performance measures and analytic and modeling tools. The Regional Freight Plan distinguishes between the specialized needs for moving industrial/agricultural commodities through and beyond the region, and the day-to-day needs of urban goods movement within and between 2040 centers. Yet this distinction requires the use of analytical tools which can shed light on those two categories of goods movement within our region. It also requires close coordination between Metro and ODOT to ensure that the statewide model addresses regional needs.

In order to develop and/or refine freight-relevant analytical tools that can help Metro and its partners better predict, manage and invest for freight and goods movement, the Task Force recommends that Metro develop and nominate a program of applied research. To accomplish that, Metro will coordinate a research agenda between in-house research/modeling units and OTREC, PSU or other appropriate research institutions, and Metro's freight partners. Possible elements of a research program could include:

- Convening a Regional Freight Analysis Improvement Symposium to share best freight modeling practices and ideas for improving Metro's model at a reasonable cost, with the least intensive data requirements;
- Developing explicit linkages between improvements to freight components of Metro's regional model and the Oregon statewide mode, focusing on taking intercity flows to enhance the regional distribution component;
- More fully incorporating freight trip time reliability performance measures into Metro's transportation and land use planning and project prioritization criteria, no later than for the 2013 RTP cycle;
- Pursuing Transportation Research Board research programs, such as *C15: Integrating Freight Considerations into Collaborative Decision Making for Additions to Highway Capacity;*
- Investigating predictive risk analysis, economic models and/or manual estimates of monetary benefits based on predicted travel time savings, incident clearance, enforcement, etc.

- Finding and evaluating solutions for reliability and economic impacts for next RTP; and
- Seeking funding for desired elements of a research program through existing and new programs, as appropriate.

A6: Coordinate research, modeling and planning with Oregon Department of Transportation (ODOT)

Coordination with ODOT is sufficiently important to be called out specifically. All efforts in recommendation A4 should include ODOT as a partner. Metro staff will work with ODOT's Freight Mobility Manager to consult and coordinate with respect to the statewide freight plan, as well as regionally recommended changes to the National Highway System/National Network freight designations.

Goal B. System management to increase network efficiency

This category comprises the "first step" to improved freight and goods movement operations on the existing system, and includes preservation, maintenance and operations-focused projects and associated planning and coordinating activities. It focuses on using the system we have more effectively.

B1: Better define, preserve and enhance freight function of existing system

In order to fill gaps and preserve functionality of existing freight system, including needed parallel truck routes, the Task Force recommends that Metro further examine and clarify functions of essential truck route alternatives to the interstate system. In addition to normal access functions, freight route alternatives are needed for emergencies, construction or congestion, and system flexibility and redundancy for future mobility patterns. The role, use and need for parallel arterials must be better understood as part of a wider and more effective system management effort.

B2: Assess need to develop and fund better incident management and traveler information

Real-time travel information (focused on truckers) to avoid incidents and find detours is increasingly important. Incident clearing resources and regionally coordinated efforts to manage incidents must be sufficiently funded. This action item would direct attention on deficiencies to be addressed, if they exist.

B3: Continue support for use and expansion of ITS system management tools

Begin to address need for 24/7 congestion mapping for the multimodal freight system, among other needs. Support PORTAL's program of real-time traffic delay; provide VMS/GPS active (in cab) truck route management, electronic routing and signage.

B4: Support workforce access to the region's industrial jobs through Metro RTO/TDM programs

The Task Force recognizes the need for Metro's transportation demand management programs and supports non-auto mobility choices for workers to get to their jobs. If

options are limited in certain industrial areas, deficiencies will be highlighted for the region to address.

Goal C. Public understanding of freight and goods movement issues

To gain public support for projects and funding of freight initiatives, and to help the public and elected officials make wiser land use decisions, a program of public education is required.

C1: Establish stakeholder outreach program

Make use of an ongoing relationship with the freight community to provide topical and informative briefings to Metro's various audiences. This could be led by members of the expanded Bench, and include a speakers' bureau service to groups within the region.

C2: Provide support for topical fact-based fact sheets, white papers, guest columns and editorials

Apart from any advocacy, Metro's freight staff would coordinate with technical resources within and outside Metro to help improve the analysis and communication of freight impacts on the regional economy and environment. Coherent, logically argued and factually based analysis of freight and goods movement problems, or investments under consideration within the region, are key to gaining public understanding. Creating stories that can carry technical messages to a lay audience is also necessary. The Task Force recommends using Metro's analytic capability in support of appropriate, balanced responses to news and editorials, in order to clarify and highlight freight, goods movement and economic development issues. A key topic to articulate better is the link between freight and goods movement investments and environmental justice (reducing hot spot congestion and pollutants) and economic equity (good, family wage jobs in one of the few sectors that do not always require higher education).

C3: Create "State of Freight" report for the region

Metro staff will coordinate with its stakeholders to develop an outcomes-based report that summarizes the most salient freight, goods movement and economic development issues in terms of regionally vetted benchmarks and performance measures. This could be a piece that is updated on a regular basis, and which could be used to improve public and policy-maker awareness of regional freight issues. The report would highlight traditional and emerging industries' mobility and access needs during a challenging and volatile economic period.

C4: Coordinate with and include the economic development community

As part of expanding the current Task Force into a broader "Sustainable Freight, Jobs and Economic Development Bench" Metro will reach out to the economic development community, including the Portland Business Alliance, Project Greenlight, the Columbia Corridor Association, the East Side Economic Alliance, West Side Economic Alliance and others. Metro staff will work with these partners to support development of an economic development strategy for the region that is coordinated with infrastructure investment.

C5: Host Operation Lifesaver training session

This action involves sponsoring a "train the trainer" session to disseminate Operation Lifesaver's latest information and techniques to teach the public, especially young people, about how to be safe around trains (both freight and passenger).

Goal D. Sustainable freight transportation system

This category of issues and solutions deals with traditional nuisance and hot spot issues associated with "smokestack and tailpipe" problems, but it also recognizes the many current contributions and new opportunities for the evolving green freight community to be part of the larger environmental and economic solution set required in these times, including greenhouse gas curtailments.

D1: Provide useful "green freight" links from Metro's freight program webpage

This would be a simple web resource that could direct our regional stakeholders to useful local, state and national programs and resources.

D2: Establish a regional "Green Freight, Goods and Jobs" roundtable series

To help identify what emission and greenhouse gas reductions can be expected from regional freight and goods movement activities, and to improve the effectiveness and reduce business impacts of such reductions, Metro will hold one or more "Green Freight, Goods and Jobs" symposia or roundtables. These will be designed to share best practices and discuss funding for effective freight-related environmental programs. Include PDC clusters in our thinking, for example, the electric vehicle cluster. Examine small business strategies for sharing space, industrial processes, using waste streams, etc. This venue would also provide a conduit for technology transfer, the sharing of research or practical experience and so on.

D3: Pursue greenhouse gas and other pollutant reduction policies and strategies for freight

Coming out of item D2, and drawing from other initiatives within and beyond the Metro region, staff will explore and define potential environmental benefits in the following areas:

- Procedures for identifying GHG impacts of freight, and evaluating the net GHG impact of freight projects;
- Programs, policies and projects for cost-effective net reduction of GHG and other pollutants, such as industrial symbiosis (businesses sharing resources, and possibly using neighbors' waste products in their processes); and
- Leveraging and possibly expanding diesel retrofit programs, promote idle reduction regulations, etc.

Goal E. Freight-sensitive land use planning

This category targets land use planning and design issues that can affect the ability of freight, goods movement and industrial uses to live harmoniously with their neighbors. Freight-sensitive land use planning includes everything from long-range aspirations for freight and industrial lands to short-term and smaller scale design and access issues.

E1: Provide freight perspective to revision of Metro's livable street design guide

The devil is truly in the details of neighborhood provisioning (delivering to retailers and restaurants), designing for utility and street access for oversize construction equipment, and providing needed arterial redundancy for freight and goods movement, all of which can impact local streets and communities. However, all these things are also critical for the very vitality we value in our region. As Metro updates its 2002 edition of *Creating livable streets: Street design guidelines for 2040,* Metro's freight program staff will coordinate with regional stakeholders to ensure that previously recommended freight considerations are kept in mind and incorporated into any revisions. This update will begin in Fall 2009. Metro freight staff will provide direction on appropriate freight and goods movement representation on the technical advisory committee that will oversee the revision of the guidelines, and will develop "lessons learned" based on recent regional case studies. ~~-~~This action will also require coordination with local jurisdictions to integrate finer grain land use issues.

E2: Explore and develop regional industrial sustainability and co-location strategies

This action item (which also supports Goal D, above) directs Metro staff to assist its freight/goods movement and agency partners in exploring co-location of business to share resources (heat, energy, transportation, infrastructure) and use the transportation system efficiently. Metro could consider partnering with the Zero Waste Alliance and the Pollution Prevention Resource Center to further their existing efforts in this area. Further exploration of "freight villages" could be included. One of the semi-annual Bench meetings could be devoted to national and international best practices in this important emerging area.

E3: Develop strategies to protect high-value industrial land

Staff will identify lessons learned from previous efforts in the region, and look at the most effective ways to protect high-value industrial land, and prioritize and protect the value of freight investments to serve such areas. This action will also focus on the economic impacts of *failing* to preserve and serve industrial lands. It would be tied in with action C4, above.

E4: Use Interchange Area Management Plans to protect capacity at key industrial highway interchanges

Metro staff will work with ODOT as needed to implement this recommendation.

Goal F. Strategic transportation investments

This category of solutions focuses on planning and building capital projects and developing the funding sources, partnerships, and coordination to implement them. It includes the list of regional *freight project priorities attached as Appendix B to this report, identifying a wide range of projects from preservation and maintenance to major facility construction.*

F1: Work toward implementation of the RTP freight priority projects

Bench members will continue to advocate for the prioritized list of regional freight projects within the approved RTP project list. This will include supporting funding needs and initiatives to build desired projects. In general, consistent with the message presented throughout this action plan, major investments for freight-oriented preservation, management and "build" projects should focus on:

- More carefully evaluating *what, where and when* the freight problems occur (noting, e.g., that they do not always coincide with the commute peaks)
- Core throughway system bottlenecks to improve truck mobility in and through the region – hotspots of note include the Columbia River Crossing influence area, the I-5/I-405/US 26 loop, ~~US 26 Vista Ridge Tunnel,~~ and the I-5 corridor south ~~of I-205~~to Wilsonville.
- Improving and protecting the throughway interchanges that provide access to major industrial areas, particularly: I-5/Marine Drive and I-5/Columbia Blvd serving the Columbia Corridor and Rivergate industrial areas; I-205/Hwy 212 serving the Clackamas and Milwaukie industrial areas; and I-205/Airport Way serving Portland International Airport and east Columbia Corridor industrial areas.
- Improving arterial connections to current and emerging industrial areas (e.g., Sunrise Corridor phased improvements recommended by the Sunrise Project Policy Committee and *last mile* local industry connectors, e.g., Columbia/Cascade River District Projects, including the I-84/257th Ave. Troutdale interchange)
- Providing or maintaining alternatives for safe transport of hazardous loads (e.g., Cornelius Pass)).
- Looking beyond the roadway network to address critical marine and freight rail transportation needs such as completing the Columbia River channel deepening and upgrading main line and rail yard infrastructure.

F2: Strengthen the tie between project prioritization and the framework for freight performance

This action item relies in part on improving the understanding and rigor of freight-related performance measures within Metro's modeling protocols: are we measuring what is relevant to know about freight? In addition, this action depends on technical staff and the freight/jobs/economic development community's ability to articulate fact-based net benefits of strategic goods movement and business-friendly investments and to compete effectively for regional dollars and attention within the decision-making structure of their respective local jurisdictions.

F3: When appropriate, focus regional funds on large capital projects

Based on solid performance measures and other indicators of need and effectiveness fully vetted through regional planning processes, it makes sense in some cases for the region to focus its funding on one large project. In such cases, freight staff and the Bench would work to identify funding sources for identified projects.

F4: Make strategic incremental improvements when large capital projects are unfunded

When funds are not available for major system improvements, make incremental improvements to those facilities through less costly strategies using tools such as intelligent transportation system and demand management.

F5: Ensure that unfunded freight projects are on an aspirational or illustrative RTP project list

In order to ensure that unfunded projects could at least be considered if unusual, one-time, or new funding sources became available (e.g., American Recovery and Reinvestment Act of 2009)

F6: Develop policy and evaluation tools to guide public investment in private freight infrastructure (~~especially~~ notably rail~~/roadway grade separations~~projects)

More clearly define private and public sector roles, including incorporation of the identified state role in freight infrastructure planning and investment that is emerging from the statewide freight planning effort. This planning and analytical effort would answer the question "what are we trying to do with our investments?" And it would yield practical and usable performance measures and investment guidelines for public development of freight assets or services, when they are wholly or partially private. It would also help to correctly phase developments, based on public benefits, and identify equitable funding strategies. Rail/roadway grade separation projects and a shortline investment strategy ~~w~~could be ~~a key~~ focus areas for ~~of~~ such policy development.

Public investment could be appropriate, for example, when it:

- Leverages private investment
- "But for this relatively modest investment" a needed project would not occur
- Involves a facility's yard or terminal, but has regional impacts
- Pays for intermodal links
- Creates new passenger capacity by solving freight bottlenecks
- Preserves or creates jobs, generates wealth and taxes
- Allows for more competition, modes or choices to shippers, businesses or consumers
- Increases overall benefits more than it improves any single mode or facility

F7: Develop regional freight/passenger rail comingling policy

The I-5 Trade and Capacity studies indicated that there was adequate capacity for the existing level of passenger train frequency along the north/south corridor. However, that capacity would be at the expense of freight train operations for both UP and BNSF region-wide, create hot spot congestion, minimize the possibility of growing freight rail commerce and degrade freight rail service throughout the Pacific Northwest, resulting in more trucks on the region's highways. The Portland metropolitan region is committed to a variety of passenger rail modes, and must reckon with the interactions with the freight rail system. Development of this policy could include evaluation of public ownership and control of current or potential future passenger rail routes within the region or state.

11 Conclusion

The Portland metropolitan region has a vibrant and flourishing economy that is more diversified than ever before. Industry has historically located in the region to take advantage of regional and global connections via pipeline, rail, marine, aviation and highway infrastructure. Today, the region is both an international gateway for trade and a hub for distribution and warehousing activities.

Policies and programs designed to take advantage of the opportunities hidden in the current economic downturn should begin to be refined and implemented, to ensure that the Portland metro region is flexibly and securely positioned for the future of freight and goods movement. However, in addition to regional policy and program development and implementation, concrete freight-related projects ranging from modest system management fixes to multi-year construction projects must be built when they are needed, to ensure that the goals of the Regional Freight Plan are met.

The private sector portion of the goods movement community has been making great strides in adopting sustainable technologies and wringing efficiencies out of ~~their~~ its portion~~s~~ of the goods movement system. The public sector must also find ways to determine the effectiveness of ~~effectively weigh~~ a variety of freight-related policy~~channel policies~~,policies (e.g., river channel policies), programs and investments to achieve the maximum benefit for the goods movement ~~system~~network, particularly during a time of uncertain funding for transportation.

Maintaining the Portland region's historic preeminence as a goods movement and industrial hub must remain a regional priority; our economic future depends on it. Investment in smart, strategic and green freight system improvements now can help Portland secure not only its economic future by increasing its share of family-wage jobs, but also support development of a green economy that is the Portland area's trademark.

The region's goods movement system must improve and adapt if the region is to maintain its economic competiveness in the global economy and its status as an international freight gateway. Immediate action is required to meet the economic opportunities of the 21st century. This *Regional Freight Plan* highlights the key issues for the regional freight transportation system and suggests policies and investments to address them.

Appendix A: Stakeholder Interviews—Needs & Issues

Appendix B: Regional Transportation Plan Freight Priorities Project List