Appendix A Interview Summary

Appendix A documents, at a high level, the information obtained through the stakeholder interviews conducted for the 2012-2017 RTO Strategic Plan Update. The information presented is organized around four sets of questions, each with a list of typical responses, followed by a synthesis of the feedback received. The synthesis section reflects the reviewers' interpretation of what was said and serves as documentation of the insights gained through the interviews.

The questions asked are organized around the following four topics:

- Part 1: Mission and desired outcomes
- Part 2: Strategies
- Part 3: Prioritization
- Part 4: Evaluation

Four meetings were held with specific groups for whom similar questions were asked, but because these groups were distinct from the other organizations interviewed their responses are reported separately. These include:

- Part 5: TMA Feedback
- Part 6: State Feedback
- Part 7: Business Feedback
- Part 8: University Feedback

Feedback and insights are summarized below.

PART 1: MISSION AND DESIRED OUTCOMES

The first set of questions relates to Metro's mission and the RTO program outcomes. These questions were designed to help the evaluators understand how people perceive the RTO program mission. and to ask whether the mission should be modified.

Questions and paraphrased responses:

What is the Metro RTO program mission?

- Reduce SOV trips and VMT
- To provide seed money to initiate strategies to support alternative modes of transportation, particularly regarding the softer side (not infrastructure)
- Promote alternative modes; increase non-SOV mode split in the region
- Public private partnerships
- Promote alternatives and choices for travelers that results in a more efficient transportation system
- RTO mission is very aligned with Metro's mission in the Portland area compact communities, travel options, etc.

¹ "Reviewers" refers to the authors of this memorandum.

What should be Metro's RTO program mission?

- Most interviewees noted that the RTO mission was the right mission
- TMAs were the only group that mentioned economic development as part of the RTO mission this is the only way they will get through to the business community, they said.
- TriMet would modify the mission slightly by saying that our mission is to manage and execute a program that has efficacy that we can track in terms of reducing SOV VMT and CO2. They view themselves as more outcomes focused.
- Suburban interviewees felt the RTO mission is less aligned with outlying areas because access to travel options is very different in these areas compared to a central-city location.

What are the historic outcomes of Metro's RTO program?

- VMT Reduction
- Increased use of non-SOV modes
- Increased utilization of bike lanes and trails
- Reduced transportation cost for households

What should be the outcomes of Metro's RTO program?

- Should not be so focused on VMT alone. Other outcomes are also important.
- Awareness
- How well does each program fit into other regional goals and programs?
- Shift in community culture
- Long-term relationship building with employers
- RTO needs to be more results driven
- Relationships
- Community support a TMA can't exist without broad community support

Part 1 Synthesis:

Interviewees generally understand the RTO mission and agree that it is the right mission. Some suburban participants felt the mission is Portland-centric and not well aligned with suburban areas where access to travel options is very different relative to Portland. However, some of the suburban interviewees were also less familiar with the RTO program, and therefore, were less specific in how they define Metro's mission. While one interviewee (a large regional organization) felt the mission needs more emphasis on evaluation, a majority of interviewees expressed an interest in seeing a softening of the RTO mission to include recognition of less measurable outcomes relating to awareness, relationship building and culture-change.

PART 2: STRATEGIES

The following set of questions was designed to generate input from interviewees on the kinds of strategies they feel should be pursued to achieve the desired outcomes. The feedback

encompassed a fairly broad discussion of barriers, ideas for improving the RTO program, and ideas for modifying the role played by the RTO program.

Questions and paraphrased responses:

What barriers do you face when pursuing important strategies?

- Metro is risk adverse; they aren't willing to fund the innovative programs
- Talking to employers is a challenge, especially when there is ample free parking: Employers simply see no value in the RTO program when there is no perceived transportation problem. Having something to sell to employers is essential why would they want to pay a TMA? TMA's need to provide a product that is valued by employers.
- Timeframe for individualized marketing program (one year) was too short for Gresham
- Funding for evaluation: Imbalance between staff availability in Portland vs. in smaller jurisdictions to produce the same reports
- Political leadership/will
- Public perception
- Eco rule is in effect, but cities aren't given the data from the survey in any useful manner
 there's a communication barrier
- Infrastructure (i.e. transit options, sidewalks along transit routes, etc).
- No last mile connectivity

What ideas do you have for improving the RTO program?

- Identify a specific strategic goal relating to smaller cities
 - Speak the local language
 - Suburban communities across the board felt that Metro was too Portland-centric
 - Tailor programs and grant opportunities to the suburbs so that they aren't competing with Portland and others.
- Funding flexibility (interviewees recognize this may be out of Metro's control)
 - Need for funding to pay for operations and infrastructure
 - Local match funding should not be subject to restrictions
- Communication to grant recipients: clearly define expectations for invoicing and evaluation; things seem to change every year
- RTO Subcommittee:
 - Funding and collaboration roles of subcommittee should be separate
 - Current RTO Subcommittee is useful for collaboration effort
 - Funding decisions should be a higher executive leadership level
 - All grant recipients should have to report on progress to a higher executive leadership level to improve accountability
- Program expectations
 - o Don't treat all of the programs the same

- Standards and evaluations requirements for programs just starting out should be different than already established programs
- Improve outreach to outlying areas:
 - RTO grants go to "people-in-the-know:" Several interviewees from outlying areas
 felt that the organizations that receive funding tend to be the ones with
 representation on the RTO sub-committee. There was a feeling that more could
 be done to reach out to organizations that typically don't apply for RTO funds.

What should Metro's role be?

Role	Description	Wholesale	Retail
Technical Expertise and Assistance	Provide umbrella public awareness campaign; TMAs will provide more focused support.	Х	
	Marketing support to TMAs		
	Mapping and GIS help to TMAs		
	Website development assistance		
	Provide templates for evaluation, surveys, and invoicing to ensure that expectations are clear and time is not wasted		
Funding	Provide funding for RTO program	Х	
Political backing	Make case for RTO programs to political leaders at the local level.	Х	
Program Development and Best Practices	Provide a leadership/mentorship role in training and educating local jurisdictions.	Х	
	Dedicate a Metro staff person to be the local representative so that people know who to turn to for help.		
	Convene regional RTO players to share best practices and learn from each other.		
	Build capacity at front end of projects to help the program tell its story in the local community.		
	Define what programs work in the suburbs vs. in Portland		
Define Regional Roles	Clearly define who is doing what to avoid duplication of efforts (example: employer outreach)	Х	
Be the Face of Metro	Opportunity to partner with TOD and other sustainability efforts at the business level	Х	
Policy Driver	Push policies that help people on the ground do their job (i.e. making connections to the land use planning dialogue, providing a regional parking policy, etc).	Х	

Part 2 Synthesis:

• Mentor vs. funder relationship: Some of the larger organizations (TriMet, Portland, Lloyd TMA) expressed a desire for Metro to step back and simply serve as an "investor" in their program. These organizations (representing less than a quarter of interviewees, but a large share of the Metro population) believe their programs serve in a leadership capacity and therefore should be supported with fewer strings attached. Other less established programs (tend to be more suburban in nature) expressed a desire for Metro

to help them build capacity within their organizations, provide technical support, and build political will in their communities. Other supportive functions requested include:

- Regional evaluation & surveying: Several interviewees felt Metro could play a larger role in conducting regional surveys. It was suggested that this would help improve the effectiveness of evaluation while also reducing the amount of time and percent of project budgets individual grant recipients spend on evaluation.
- Technical Support: Many organizations expressed an interest in Metro providing more technical assistance in GIS, Websites, information sharing & dissemination of best practices.
- Wholesale vs. retail: There was a nearly unanimous desire to see Metro perform these
 desired functions in a wholesale capacity. Meaning, essentially no one expressed an
 interest in seeing Metro directly delivering TDM programs.
- Distribution of functions between TMAs and Metro: There was disagreement regarding Metro's role relative to TMAs' roles in delivering RTO programs. One of Metro's staff questioned the TMA model, and suggested TDM be delivered through a similar mechanism as that used to deliver support for Transit Oriented Development at Metro. For its TOD program, Metro employs in-house staff with expertise that Metro then shares with the rest of the cities. This interviewee expressed an opinion that TMA's unnecessarily dilute the expertise of the RTO program staff and each other. Therefore, the suggestion was made that a centralized person at Metro might be more effective. Conversely, from the perspective of a TMA, the opposite opinion was expressed. TMA's expressed concern that Metro dilutes the value TMAs offer to employers by "giving free product." Functions such as employer outreach and assistance with surveys are viewed as one of the primary sources of value TMAs offer employers. TMAs expressed concern that these duplicative roles make it difficult for TMAs to demonstrate value and increase membership. Both perspectives point to the need for clarification regarding the distribution of roles among Metro staff and TMAs.
- Communication: There appears to be a need for more consistent communication about what projects are funded and what level of evaluation is expected for new projects relative to proven efforts. There also appears to be an opportunity for Metro to be more explicit in expectations for grantees, particularly relating to invoicing and reporting requirements.

PART 3: PRIORITIES

The following questions were designed to measure the level of agreement and disagreement regarding how funding should be prioritized.

Questions and paraphrased responses:

What programs are more important and should be preserved, or are less important and should be considered for elimination?

During each interview we asked interviewees if there were specific programs provided by Metro that are important and should therefore be preserved, or are less important and should therefore be considered for elimination. Not all of the interviewees were sufficiently familiar with the RTO program to confidently answer this question. The results are tabulated in Figure A-1 below.

Figure A-1 What programs should be preserved, eliminated?

	Important			Not Important			
	#	Туре	Notes	#	Туре	Notes	
Drive Less Save More	2	Large	Umbrella structure should be preserved.	2	Mixed	DL/SM shouldn't be the only brand. Billboards seem ineffective – we could do program work with that funding.	
Employer outreach	3	Mixed	Employer outreach is related to other RTO programs and helps strengthen RTO link with other Metro services Employer outreach has proven to work.	1	Large	Duplicate roles should be eliminated. Metro shouldn't be performing in this capacity - it is duplicative of TriMet and TMAs.	
Individualized marketing	1	Small	Direct, individualized marketing is proven to work.	1	Small	One-size fits all approach doesn't work; needs to be tailored.	
Last-mile connections (e.g., shuttles, sidewalks)	2	Mixed	Tualatin shuttle has been a success because it serves a specific need. Shuttles are needed to effectively link people with travel options in suburbs.	0	N/A		
Region-wide resources (e.g. Bike there!, Walk there!)	2	Large	Metro should provide more region- wide resources.	0	N/A		
RTO marketing committee	1	Small	Helps focus the group on specific campaigns.	1	Large	Metro should be the expert and provide leadership in defining how to communicate – there is no need for a sub-committee to do this.	
RTO subcommittee	1	Small	Forum for regional providers to get together, share information, etc.	2	Mixed	Subcommittee role needs to be reevaluated; funding decision making function seems to conflict with information sharing/collaboration function	
Small grant programs	2	Small	Where else would we go for this kind of funding? Allows jurisdictions to come up with creative short-term projects.	1	Large	These seem to be a waste of money. We should invest in places we know get a return on investment.	
Tabling at events (Metro RTO)	0	N/A		2	Mixed	Metro should leave this to RTO funding recipients. Depends on the event - needs to have an effect beyond publicity.	
TMA funding	2	Small	TMAs provide an appropriate level at which to engage businesses. Booster grants should be converted to regular funding to reflect the reality that all TMAs get this funding and it does not serve the "booster" function.	1	Large	Booster grants should be reduced by one to create competition. TMAs dilute efficient delivery of services - consider centralizing things under Metro similar to TOD program.	
Vanpool, carpool programs	2	Small	Drive Less Connect is exciting and promising - run it long enough to show success. Vanpool and carpool programs are important for suburban areas with fewer travel options.	3	Large	RidematchNW has not been effective. Portland doesn't have the right infrastructure to support this (e.g. HOV lanes, etc).	
Not sufficiently familiar with RTO programs to comment	6	Mixed	Mostly suburban organizations	8	Mixed	Mostly suburban organizations	

How should funding be prioritized?

- If it's going to be a regional program, then it needs to be equitable
- Set aside money to provide facilities/infrastructure where there are none
- Focus on the suburbs
- Flexibility in use of funds would be helpful
- Portland is having to train other jurisdictions on how to do Sunday Parkways, yet
 Portland didn't get money for Sunday Parkways this year
- If Metro RTO Committee stuck to the book of what they wanted to do (i.e. reduce VMT & SOV mode split), all the money would come to the City of Portland, Lloyd TMA and TriMet.
- Need a higher threshold of commitment in order to be eligible for funding
- TriMet just gets entitlement money there needs to be more reporting requirements to get this money
- Invest in corridors so that RTO mission is in line with TSMO plan
- Invest in bigger projects to get more bang for their buck
- Money should be based on expected outcome
- TriMet wants to start a residential program to complement outreach to employers program; but money would have to be taken away from somewhere else in the RTO program
- Dedicate 90% of money to programs you know work; 10% to experimental programs
- Projects should be allocated based on cost per result
- Focus more money on TMAs because of their link to the private sector

Part 3 Synthesis:

- Areas of Disagreement: The greatest level of disagreement surrounds DLSM and funding for vanpool and carpool programs.
 - Vanpool & Carpool Programs: Large organizations (Metro, TriMet and the City of Portland) tend to see less value in vanpool and carpool programs, while smaller suburban organizations (Cities, Counties and Suburban TMAs) see more value in these programs.
 - Drive Less Save More: Not all organizations agree on the value of the Drive Less Save More Campaign. Some organizations appreciate the umbrella structure while others find it difficult to translate a regional message locally.
 - Small Programs: funding for small programs was listed by at least two organizations as important while at least one organization suggested this is less important.
- Areas of Agreement: While not always unanimous, there are several areas where
 multiple organizations expressed the same or similar feelings about a single topic. These
 opinions relate to employer outreach, TMA booster funding, the RTO sub-committee and
 individualized marketing
 - Employer Outreach: Participants generally agree that employer outreach is
 effective. The organizations that expressed concern in this area felt there is

- duplication in how employer outreach is being performed, and that Metro shouldn't be serving in this capacity.
- TMA Booster Funding: Multiple organizations expressed concern that funding for TMAs is important but that booster funding needs to be eliminated. The motivations for eliminating booster funding are mixed. Nearly all organizations that expressed an opinion about TMA funding feel that the booster funding is a misnomer that its intended purpose of providing support for singular activities is a falsehood. One organization suggested dropping the number of booster grants by one so that there is competition for the funding. Other organizations recommend reclassifying the funds as recurring to reflect the actual function.
- RTO Subcommittee: While not all organizations expressed a strong opinion about the importance of the RTO subcommittee or lack of thereof, many of the organizations and individuals interviewed expressed concern that the RTO subcommittee is dysfunctional. This feeling largely stems from the fact the RTO subcommittee serves the dual roles of making funding decisions and serving as a collaborative forum. These functions appear to be at odds and point to an opportunity to revisit the RTO subcommittee structure.
- Individualized marketing: Organizations generally agreed that individualized
 marketing can and does work when it is appropriately tailored to the area. The one
 organization that expressed a lower priority for individualized marketing felt that
 Metro pressed for a one-size-fits-all model; their feeling was that a tailored approach
 would have been more effective.
- **Communication:** A large number of organizations (mostly suburban) indicated they are not sufficiently familiar with the RTO program to comment on what should be preserved or eliminated. These organizations tended to be the same organizations that were less familiar with the RTO mission. This lack of familiarity with the program in suburban communities points to an opportunity for Metro to do more to publicize the RTO program in outlying areas.

PART 4: EVALUATION

The following questions were designed to gauge what role evaluation should play in the RTO program.

Questions and Responses:

What role does evaluation currently play in Metro's RTO program?

- Interviewees noted that evaluation took the following amount of their budgets: 30%, 50%, 60%
- Inequity exists in the number of staff available to do evaluation at small jurisdictions vs. larger ones
 - RTO shouldn't hold everyone to same standard
- One interviewee said it wasn't worth applying for anything less than \$200k because the reporting requirements take so much of the budget

- If a strategy works, why do we have to prove it over and over again? Instead, focus on best practices – proof of concept by looking what other programs and places have had success with
- Multiple interviews used the term "micromanaged" when discussing Metro's evaluation process
 - No other programs get this type of scrutiny; if you build a highway you don't have to prove how many cars will be on the road
- Evaluation should be less based on outcomes look at other things more creatively
 especially in communities where infrastructure isn't even there yet
 - RTO is in the business of shifting culture but there is no way to measure that; need to have a realistic view of what we can and can't measure
 - Reports need to be valuable and tangible; but the problem is that the results are often very intangible
- How do you quantify VMT? This was a common question/comment in the interviews
- One grant applicant was denied because they couldn't prove anticipated VMT reduction they were applying for a feasibility study

What ideas do you have for improving the evaluation process?

- Link efforts to reasonable outcomes can't be sure bike map leads to direct increase in ridership, we have to assume
- General consensus was that only 10% of budget should be spent on evaluation; one interviewee said 20% but that it would depend on if the program was established or not
- Establish a financial threshold: under X amount should have no strings attached
- After proof of concept (individualized marketing for example), evaluation should be less stringent
- Evaluation criteria should be useful to the community, not just to please Metro

Synthesis:

- **Evaluation:** Larger more developed organizations (i.e. City of Portland and Tri-Met) indicated a preference for a more results driven process. Smaller organizations that are less developed (suburban constituents and smaller grant recipients) expressed a need for a program that allows for less rigorous or more flexible evaluation during early stages of development.
- Are we measuring the right things? Several organizations questioned whether Metro's evaluation framework is focused in the right areas. "Softer" outcomes such as relationships, and culture shift were suggested as important outcomes that should be measured. TMAs in particular suggested measures that link the RTO program to broader community goals including economic development.
- Proof of Concept Vs. Experimental Projects: Flexibility in evaluation was a common theme heard in the interviews. Particularly regarding the level of evaluation for project at varying phases of their life-cycle. Evaluation is important, but a one-size fits all approach may not be appropriate. There appears to be a need and opportunity to allow evaluation measures to be defined on a project-by-project basis.

PART 5: TMA RELATED FEEDBACK

The following notes are from meetings with closed TMA's and the TMA directors meeting.

Closed TMAs

- North Clackamas TMA:
 - Metro didn't agree to expand the TMA's boundaries
 - Metro shouldn't use regional centers as TMA criteria, they should use size of business population
- Clackamas TMA:
 - They could not show changes in Eco survey data TMA couldn't make the businesses fill out the Eco survey; they tried to do their own survey, but Metro seemed like it was the Eco survey or nothing; no flexibility in showing how their own programs were effective
 - TMA was geographically limited needed to include the Milwaukie Industrial
 District so that they could include the Eco-affected employers you can't make the
 employers fill out the survey

TMA Directors' Meeting

- Gresham TMA was created in the downtown region but majority of employers are in industrial area of town; Metro approved Gresham to expand to industrial area.
- A TMA is just a business association. We're not doing transportation to improve the air; we're doing transportation because it will save us money and make us profit.
- From a TMA perspective, transportation is just an avenue for economic development. We need to keep this in mind when discussing the objectives and outcomes of the RTO program.
- TMAs want a real product from Metro TMA's need to provide a service that is valued by employers. Without a valued service, it is very difficult to recruit new members. There is a feeling that Metro could do more to provide this "real product." However, TMA directors were not sure what the product is or should be. Suggestions included GIS mapping, and surveying/evaluation. TMA's should deliver the product, but Metro should help develop it.
- TMAs don't want to be part of DLSM or any regional brand; instead, Metro should leverage the individual brands of TMAs.
- Metro grants drive the product instead of the people on the ground and the market driving the product – it should be the other way around.
- TMAs feel they are being asked to spread Metro's brand (like rideshare, DLSM, etc) but don't get any more money to do this; giving a grant to a TMA is cheaper than hiring someone at Metro to do that job.
- Booster grants:
 - The Booster grant is a misnomer we all rely on it to operate so we play games to get
 it .
- Booster and regular grants were never intended to provide enough money to operate a program; private sector match was expected but doesn't happen.

- TMAs need to create something of value that isn't duplicative of something that TriMet or Metro is already providing (outreach to employers). TriMet and WTA both work with Nike, for example.
- TMAs should not be held to the same standards the built environment is so different for each TMA.
- Employers don't see value of RTO program.
- WA County needs to be split up into a few different TMAs how does one person cover this large territory?

Part 5 Synthesis:

- Duplicate functions: In theory, TMAs are expected to demonstrate sufficient value to the private sector such that after the three-year startup period the effective TMA will be adopted into the community as a valuable asset with no need for public subsidy. However, many TMAs believe they are not able to demonstrate sufficient value because many of the valuable services they offer are also offered for free by TriMet and Metro.
- TMA boundaries & geographic coverage: At least two TMAs reported being limited by Metro in their geographic coverage. They reported that the inability to reach out to larger employers outside their immediate district has hampered their ability to develop membership. Also, because many of the employers within their district tend to be small (and therefore not subject to ECO reporting requirements), it is difficult to report success using the ECO survey framework.
 - Conversely, another TMA feels their geographic area is too large to cover effectively. In order to maintain revenue, they must focus on current members, which makes it difficult to reach out to other areas in the county where efforts could be made to improve non-SOV mode splits.
- **Funding related issues:** Essentially all TMAs (as well as other non-TMA stakeholders) lamented the booster grant as a misnomer: The feeling is that the intent of the innovation booster grant approved in the 2002 Metro Council resolution is not being carried out and the booster grant is actually serving as a life-line for most of the TMAs. In addition, funding for TMAs moving forward is likely going to become increasingly difficult to secure and maintain. TMAs are going to be hard-pressed to sustain their membership as businesses scrutinize their resources and expenditures. From the public sector the funding situation is even more dire.
- Regional marketing: Not all TMAs are supportive of the Drive Less/Save More campaign. They feel it is important to be able to distinguish their brand from the regional brand. One TMA commented that the "Private sector doesn't see value in the RTO program" and suggested TMAs are needed to articulate the benefits of TDM efforts to the private sector. Another TMA suggested businesses especially in the outlying areas distrust Metro and feel "non-SOV modes" are a "Portland-thing." In these areas, TMAs report they have made inroads with the private sector by building relationships on a one-on-one basis in a way that Metro or TriMet wouldn't have been able to do. This issue of local areas expressing a desire to convey a local brand or message was echoed in other non-TMA meetings with suburban stakeholders.

PART 6: STATE FEEDBACK

The following notes are from a meeting with State of Oregon representatives.

State Meeting Summary

- In the next few years, cities in the region will be completing their TSPs. RTP requires them to look at capacity last; therefore jurisdictions will be looking to Metro to help them with the travel options piece.
- State reps noted that it was difficult to call out what Metro had accomplished vs. what PBOT had accomplished; lines between two agencies are blurry.
- RTO needs to be better integrated into other Metro programs.
 - RTO should be aligned with RTP align funding with corridor investments.
- As TMAs succeed, maybe they should get less money from Metro.
- RTO Subcommittee needs more rigor.
- Evaluation: need flexibility when evaluating different types of programs.

PART 7: BUSINESS FEEDBACK

The following notes are from meetings with businesses in the region. A total of eight businesses of varying size and geographic location were interviewed.

Business Meeting Summary

- Mode split
 - Predominantly SOV
 - Carpooling is popular choice, especially for those businesses with limited TriMet service
 - Transit is close by, but doesn't align with early morning or late shifts
- Barriers
 - Transit service
 - Does not align with early morning or late shifts (6 employers said this).
 - Too many transfers to make it efficient to use transit
 - Partnership between CTRAN and TriMet is crucial; employees used to bus in from Washington when the passes were the same; now it's too expensive (2 employers said this)
 - One employer also noted that the partnership between TriMet and SMART also needed to be improved; employees traveling to Wilsonville are unable to use the discounted TriMet pass because they are in the SMART zone
 - Parking
 - Free parking to employees does not give them much incentive to switch modes (2 employers said this)
 - One business noted that parking restraints onsite was prime motivator to push non SOV options
- RTO Mission

- Needs to better reflect the needs of the outlying areas, not just the core
- RTO is biased to Portland
- Washington County is growing to be the economic engine of the region needs more attention
- Mission should focus on education and convenience focus on the ease, not the outcome

What Businesses Need

- Make the business case: health care cost savings, motivation to reduce car congestion in order to move freight more efficiently
- Strategies that Businesses Use to Shift Modes
 - Give free parking, but incentivize people who don't drive by giving them iPods
 - Onsite showers and bike lockers
 - Subsidized TriMet passes
 - TMA put together a "welcome" kit for new employees to show how they can get to work using alternative modes
 - Monetary incentives
 - Commute Club
 - Carpooling
 - Metro's Guaranteed Ride Home program

What Metro Can Do

- Vanpool coordination (4 employers said this)
 - Hard to get off the ground without coordinating with other employers it's just not cost effective
 - Vanpooling needs more attention from Metro
- Shuttle managed by Metro that would link up to multiple employers
 - One employer mentioned that a shuttle from WES to industrial areas would be particularly helpful
- Don't offer free services that the TMAs are trying to get paid to do
- TMAs should be the sales force and actors of larger scale programs from Metro
 - Metro should be centralized service provider to enable the TMAs
- Better define who does what in the region the lines between Metro, TriMet, TMAs,
 PBOT are blurry (3 employers said this)
- Need diverse strategies for a diverse region
- Carsharing might be one solution (2 employers said this)

Other Comments:

- Metro is seen as Portland-centric entity
- There is a real dichotomy between the West-side and downtown: people want to live in Portland, but high-tech jobs are in Hillsboro and other outlying areas – RTO needs to help address this

Part 7: Synthesis

The biggest theme from the business interviews was the need for better transit service. In most cases, transit service is available, but it does not align with shift times. Vanpool coordination was also noted as a place for Metro to play a role. Metro could serve businesses by coordinating a vanpool or shuttle that would serve a cluster of businesses.

Businesses also noted how helpful it was to talk to each other during these interviews; Metro could work with TMAs to coordinate a "business roundtable" for businesses in close proximity to each other. There is an opportunity for businesses to team on carsharing and vanpooling activities, in addition to having a bigger impact and voice when approaching TriMet about needed services.

PART 8: COLLEGE/UNIVERSITY

The following notes are from a meeting with College and University representatives.

College/University Meeting Summary

- Barriers
 - People can't use the WES system because of night classes
- Familiar with RTO brands, such as Discover Wilsonville, but didn't know that these were RTO programs
- Didn't know who they would contact at Metro for help
- What Metro can do:
 - Help Universities put packets together for new students on how they can get to school
 - PCC: someone from Metro should serve on their transportation committee they need the regional perspective.
 - PCC should have one contact at Metro to help them

Metro should do an individualized marketing approach for PCC students.

Appendix B Landscape Scan

The landscape scan provides an overview of economic, environmental, and societal trends that have taken place since the 2008-2013 Strategic Plan Update. The key issues outlined in this section will help to inform funding prioritization and program development for the 2012-2017 Strategic Plan Update. Figure B-1 below outlines the key issues to be considered in the Strategic Plan Update and corresponding policy recommendations.

Figure B-1 Policy Recommendations based on the Landscape Scan

Landscape Scan Component	Recommended Policy
Economy	Pursue funding for TDM in all major regional transportation projects.
	Develop business case for RTO program by articulating the benefits of RTO in terms of a "green dividend" and also through more efficient development patterns.
Energy Costs	Position the RTO program as a cost-saving program by showing how non-SOV modes save people money
Traveler Information and Tools: technology & social media	Prioritize funding programs in the grant process that provide regional traveler information tools in real time.
Human Health	Partner with healthcare providers to emphasize the relationship between health and active transportation to regional partners.
	Develop health indicators to track transportation and health performance metrics.
Growing Minority Population	Use individualized marketing model to develop culturally-specific individualized marketing programs.

The Economy

The state of the economy is a key factor in the success of Metro's RTO program both from a funding and a program implementation standpoint. The RTO program is dependent on federal Congestion Mitigation and Air Quality (CMAQ) money to fund its efforts as well as state funds for the Drive Less/Save More campaign. Local jurisdictions also depend on ODOT transportation funding to implement local transportation projects. The future of these funding streams is uncertain. Furthermore, the Metro RTO program and its regional partners depend heavily on employers to participate in and help implement employer-based travel options programs. With depleting staff and limited private investment, businesses are less likely to commit staff and funding to such efforts.

ODOT/Federal Transportation Funding Outlook

The future of transportation funding is hard to predict, but significant funding challenges are ahead that relate to transportation infrastructure and program implementation.

Per an August 2011 Federal Funding Briefing Paper published by ODOT,¹ Oregon receives over half a billion in funding from the Federal Highway Trust each year. This money comes from the federal gas and diesel tax, as well as from fees on heavy trucks. This funding pot is facing uncertainty in the years ahead. Because the federal gas and diesel tax has not been raised since 1993, and Highway Trust Fund revenues have declined since 2007 due to the economic downturn (people are driving less), revenues were significantly below expenses by \$16 billion in fiscal year 2010. The transit program is in even worse shape. These revenue imbalances will likely lead to significant cuts in highway and transit programs.

Congressman John Mica, Chairman of the House Transportation and Infrastructure Committee, has proposed a transportation authorization bill that cuts the federal budget from \$51 billion in FY 2011 to \$34 billion in FY 2012. Under this proposal, ODOT estimates that Oregon's annual highway program funding would decrease by \$150-\$175 million. Funding for transit could be reduced by 40%.

Employer Participation

Oregon and the Portland MSA have historically higher unemployment rates than the U.S. average. In 2010, the national unemployment rate was 9.7%; Oregon was 10.8% statewide; the Portland MSA was 10.6%. The RTO program depends heavily on employers to help influence a shift in travel behavior in the region. Regional RTO partners — the TMAS, Wilsonville SMART, and TriMet in particular - depend on employers to participate in their employer outreach programs. The annual Employee Commute Options (ECO) survey is required of employers of 100+ employees; the Trimet survey is required of employers that offer the Universal Pass Program. These surveys provide critical mode split data used to report on the success and return on investment of the RTO program.

Regional partners working with employers are finding that limited staffing is making it more difficult for employers to commit to trip reduction plans and participate in the ECO or TriMet's Universal Pass Program. Businesses are more concerned with keeping their doors open. The RTO program should consider working collaboratively with other regional programs, such as Metro's employer-based recycling and composting programs and the Portland BEST Business Center, to help make the business case for the RTO program. This collaboration would allow Metro to save money on employer-based outreach and for employer-based programs to speak the same language to businesses: these programs are designed to save businesses money.

Conclusion

As employers in the region become increasingly strapped for cash and staff, the RTO program will need to position itself more than ever as a cost savings program. The stakeholder interviews — particularly the TMAs — emphasized the importance of the RTO program speaking to the bottom line: from a business perspective, how can helping employees switch to non-SOV modes save them money? Moreover, innovative funding opportunities will need to be explored to help sustain the RTO program in the limited funding environment.

¹ Oregon Department of Transportation. (2011). "Federal Funding Briefing Paper." August 29, 2011.

² Bureau of Labor Statistics. 2010. "Local Area Unemployment Statistics." and "Labor Force Statistics from the Current Population Survey."

Energy Costs

Since 2008, the average gas price in the U.S. has increased from \$3.08 per gallon to \$3.63 per gallon in September 2011. Similarly, the average price for the west coast has increased from \$3.14 to \$3.81 per gallon during the same time period.³ Although energy price forecasts are highly uncertain,⁴ the price of gas is expected to increase as global supply decreases.

Electric Vehicles

The electric vehicle (EV) industry is gaining momentum across the U.S. as communities look for innovative strategies to reduce their greenhouse gas emissions. Oregon has proven to be an early leader in the fast emerging electric vehicle industry. A new report from Pike Research reports that Oregon is slated to install 33,000 electric vehicle charging stations by 2017, ranking 14th highest in the nation.⁵

EV Efforts in Oregon

Oregon's electric vehicle plan, *Energize Oregon*, is led by the Transportation Electrification Executive Council. The plan outlines strategies to move Oregon towards the national goal of getting one million electric vehicles on the road by 2015. The plan is funded from a \$485,000 grant from the U.S. Department of Energy.

Drive Oregon has also been a leader in Oregon's electric vehicle industry. This initiative includes a coalition of companies and interest groups engaged in the electric vehicle industry and transportation electrification. Its mission is to support and ensure that the electric vehicle industry in Oregon maintains and develops its competitive advantage. Forty companies in Oregon are currently working on electric vehicle-related technologies from batteries, to motors, to charging stations to electric components. ⁶ The initiative is supported by the Governor and the Oregon Legislature and is funded in part by \$1.2 million granted by the Oregon Innovation Council.

The Portland region in particular is becoming a hub for electric vehicle testing and manufacturing. Toyota recently chose Portland to test its new plug-in hybrid Prius, which is expected to be launched in 2012. The local start-up Green Lite is also creating a plug-in hybrid prototype that gets 100 miles per gallon. A Wilsonville automotive supplier company, Eaton, also plans to build fast chargers to tap in to the electric vehicle supply chain.⁷

³ U.S. Energy Information Administration. (2011). "Weekly Gasoline and Diesel Prices." Web. Assessed 19 September 2011. http://www.eia.gov/dnav/pet/pet_pri_gnd_a_epmr_pte_dpgal_w.htm

⁴ U.S. Energy Information Administration. (2011). "Short-Term Energy Outlook." September 7, 2011. Web. Assessed 19 September 2011. http://205.254.135.24/steo/

⁵ Sustainable Business Oregon. (2011). "Research snapshot: Where the EV charges are." 2 September 2011. Web. Assessed 19 September 2011. http://www.sustainablebusinessoregon.com/articles/2011/09/research-snapshot-where-the-ev.html

⁶ Drive Oregon. (2011). "Initiatives." Web. Assessed 19 September 2011. http://driveoregon.org/about-us/initiatives/

⁷ Belson, Ken. (2011). "Portland Plans for Transit All Powered by Electricity." The New York Times. August 26, 2011. Web. Assessed 19 September 2011. http://www.nytimes.com/2011/08/28/automobiles/portland-plans-for-transit-all-powered-by-electricity.html?_r=1

EV and Travel Options

An important conversation is emerging in the clean vehicle discussion. Although clean vehicles support standard transportation demand management (TDM) goals of reducing greenhouse gas emissions, the goals are less aligned when addressing congestion, equity, and sprawl.

Arguably, TDM strategies can reduce traffic congestion, road and parking facility costs, crashes, urban sprawl and traffic noise, while clean vehicle strategies can increase these costs by making it less expensive to drive. With gas tax revenue predicted to decline with increasing use of clean electric vehicles, states will need to find new mechanisms to fund TDM and road maintenance. Mileage fees would take the place of gasoline taxes, which will decrease as more fuel-efficient and electric cars are introduced.

To address this, the Oregon House of Representatives is considering a new usage fee that would charge electric vehicle drivers on a per mile basis. The Road User Fee Task Force was formed to assess the viability of a per-mile charge system. House Bill 2328, Vehicle Road Usage Charge, was proposed to the House in January 2011. The Bill would require a vehicle usage fee of 0.6 cents per mile driven for electric or hybrid vehicles of the 2014 model year. The Oregon Innovative Partnerships Program would be responsible for collecting the tax. As of June 30, 2011, House Bill 2328 was being reviewed by the House of Representatives.⁹

EV & Equity

Electric vehicles also bring up equity concerns. According to the U.S. Department of Energy, electric cars are, on average \$3,500 more expensive than their non-electric vehicle equivalents. However, electric vehicles are expected to drop \$1,500 in price by 2015. 10

Traveler Information & Tools: Social Media & Information Technology

Social media, smartphones, and information technology provide opportunity for the RTO program to reach more people with up-to-date travel information. Over the next five years, the RTO program should capitalize on this growing trend to provide improved information that help people bike, walk, carpool, vanpool and take transit throughout the region.

A 2011 national market study reported that 35% of adults in the U.S. own a smartphone; ¹¹ while another study reported that 40% of mobile phone users own a smartphone. ¹² The use of smartphones is expected to continue to increase in the next five years.

While real-time travel technology already exists (transit tracker, TriMet Trip Planner, Google Maps, 238-RIDE, Smart Phone apps, and real-time information at transit stops), people want more real-time information at their fingertips. In June 2011, RTO hired DHM Research to

⁸ Victoria Transport Policy Institute. (2011). "Energy Conservation and Emission Reduction Strategies." TDM Encyclopedia. 9 June 2011.

⁹ OregonLive. (2011). "House Bill 2328 Measure Activity." Web. Assessed 18 October 2011. http://gov.oregonlive.com/bill/2011/HB2328/

¹⁰ U.S. Department of Energy. (2011). "Alternative and Advanced Vehicles: Benefits of Hybrid and Plug-In Electric Vehicles." Web. Assessed 22 September 2011. http://www.afdc.energy.gov/afdc/vehicles/electric_benefits.html

¹¹ Pew Research Center. (2011). "Smartphone Adoption & Usage." Pew Internet & American Life Project. July 11, 2011.

¹² Nielsen. (2011). "40 percent of U.S. Mobile Users Own Smartphones; 40 percent are Android." September 1, 2011.

conduct a telephone survey and focus groups to assess the travel patterns and awareness of travel choices among residents living in the Portland-Metro region. The study concluded that users were frustrated by having to use multiple information sources to plan their trip. Focus group participants noted the need for the following: (1) smartphone applications that allow users to plan trips with real time information; (2) a Google Maps function combined with Transit Tracker; and (3) text messaging capabilities to communicate with transit agencies.

Health

The increasingly poor health conditions in the United States provide motivation for active transportation on two fronts: a dire need to improve the health of the nation; and an impetus for businesses to support and encourage active transportation as a motivation to reduce cost (health care cost and improved employee productivity, happiness, and performance).

According to the Surgeon General, two-thirds of adults and one-third of children are overweight or obese in the United States. Between 1980 and 2008, the prevalence of obesity in the U.S. has nearly doubled in adults (from 15%-34%) and has nearly tripled in children (from 5% to 17%). ¹³ Obesity is a contributing cause of many other health problems, including heart disease, stroke, diabetes, and some types of cancer. The aggressive growth in obesity rates in the U.S. is adding significantly to the nation's health care costs. Obesity-related health care costs were estimated at \$147 billion per year, according to a report released by the National Center for Chronic Disease Prevention and Health Promotion in 2010.

Metro's employment outreach and collaborative marketing efforts include research on health and active transportation for employees. The current focus is to look at how businesses can improve their bottom lines by promoting active commuting and incentivizing transportation options. Metro also received a TGM Grant for Active Transportation in the summer of 2011. This project will work to improve the region's active transportation network for bicycling and walking.

Additional health and transportation efforts are happening at the State and Metro level. In July 2011, ODOT stated that it would formalize a new Active Transportation section at ODOT, however there is no evidence that this restructuring has taken place. The restructuring was intended to formalize and better integrate a statewide multimodal transportation program.¹⁴

Growing Minority Population

Latinos and Hispanics make up the fastest growing minority population in Oregon. As of 2010, the Latino/Hispanic population was at 11.7% in Oregon, compared to 16.3% in the U.S.¹⁵ Between 1980 and 1990, the Hispanic population in Oregon increased by 71%; between 1990 and 2000, the population increased by a marked 144%.¹⁶

¹³ U.S. Surgeon General. (2011). "The Surgeon General's Vision for a Healthy and Fit Nation Fact Sheet." Web. Assessed 10 October 2011. http://www.surgeongeneral.gov/library/obesityvision/obesityvision_factsheet.html

¹⁴ OregonLive. (2011). "New 'Active Transportation' section to be created within ODOT." July 13, 2011.

 $^{^{15}}$ U.S. Census. (2010). "State and County Quick Facts: Oregon." Web. Assessed 10 October 2011. http://quickfacts.census.gov/qfd/states/41000.html

¹⁶ State of Oregon. (2010). "Oregon's Demographic Trends." Office of Economic Analysis, Department of Administrative Services. February 2010. Web. Assessed 10 October 2011. http://www.oregon.gov/DAS/OEA/docs/demographic/OR_pop_trend2010.pdf

As the Latino/Hispanic population continues to grow in the Portland Metro region, the RTO program will need to develop programs that address language and cultural barriers. Culturally-specific individualized marketing programs are one way that the RTO program can address the needs of these growing populations.

Infrastructure

Major infrastructure improvements are planned for the next 5+ years that will improve the region's access to biking, pedestrian, and transit options. The projects outlined in this section provide an opportunity for the RTO program to align investments with infrastructure projects in the region.

Portland Street Car Loop

The Portland Street Car Loop project will extend the current streetcar from downtown Portland to the Lloyd District, Central Eastside and OMSI. The line will eventually cross over the new Willamette River bridge proposed as part of the Portland-Milwaukie Light Rail project.

Lake Oswego to Portland

The proposed Lake Oswego to Portland Transit Project would connect the South Waterfront neighborhood to Lake Oswego by streetcar. As of October, 2011, the project was still in the planning phase. The Locally Preferred Alternative recommendation has been submitted to project partner jurisdictions for review. The Locally Preferred Alternative was approved by the City of Portland, the City of Lake Oswego, and TriMet in 2010. However, as of October 2011, additional analysis is being done to build a wider base of consensus before a final decision is made.

Milwaukie Light Rail

TriMet's Milwaukie MAX line will connect Brooklyn, Sellwood and Milwaukie neighborhoods to downtown Portland via OMSI, the new Portland-Milwaukie Light Rail bridge that began construction in July 2011, and South Waterfront. MAX service on the new alignment is scheduled to begin in 2015. There will be approximately 22,000 households and 85,000 employees within walking distance of Portland-Milwaukie light rail stations. By 2030, the new light rail line is expected to carry up to an average of 22,765 to 25,500 weekday riders.

Appendix C - Summary of Think Tank Proceedings

This section documents the information obtained from the Think Tank Meeting held in the Metro Council Chambers on October 6, 2011, for the 2012 - 2017 RTO Strategic Plan Update.

The purpose of the Think Tank was to bring together regional community leaders to gather their -houghts and guidance on which strategies should be used to improve travel options in the region over the next five years. The Think Tank discussion was organized around the following three presentations:

Part 1: Project Overview & Key Issues

Presenter: Thomas Brennan, Nelson\Nygaard

Part 2: Integrating TDM and Regional Transportation Plans

Presenter: Eric Schreffler, ESTC

Part 3: Regional Organizational Models

- Presenter: Peter Valk, Transportation Management Services

The information presented in this memorandum is organized around the three presentations listed above. Participant comments are categorized where appropriate and then synthesized at the end of each section.

MEETING PARTICIPANTS

The following participants attended the Think Tank meeting:

Organization	Name	Title
Metro	Carlotta Collette	Metro Councilor
	Ted Leybold	MTIP project manager
City of Portland	Tom Miller	Director of Transportation
Washington County	Greg Malinowski	County Commissioner
TriMet	Drew Blevins	Director of Marketing
Kaiser Permanente	Phil Wu	Pediatrician
Oregon Environmental Council	Chris Hagerbaumer	Deputy Director
Portland Planning & Sustainability	Chris Smith	Commissioner
Ride Connection	Julie Wilcke	Chief Operation Officer
Clackamas County	Jamie Damon	County Commissioner

PART 1: PROJECT OVERVIEW & KEY ISSUES

The Think Tank meeting began with Ted Leybold providing an overview of the Metro RTO program and the purpose of today's meeting. He then asked the group the following question: "what is most important to you when you make a decision about how you make your trips?" The

group expressed the following key decision-making factors: reliability, ease of travel, cost, health, safety, effectiveness, practicality, social interaction, fresh air, and stress relief.

Tom Brennan from Nelson Nygaard proceeded to give an overview of the Strategic Plan Update, the RTO program, and key issues that have been identified to date from the stakeholder interviews, the landscape scan, and the preliminary evaluation. Questions asked of the group are listed below, followed by participant responses and a synthesis of what was heard.

What should be the Considerations for the Next Five Years?

The RTO Strategic Plan will include a "Landscape Scan" section that will highlight trends and policy drivers for RTO to consider for the next five year strategic plan. The Think Tank participants emphasized the follow important factors to consider in the landscape scan:

Social Media

- Consider the smartphone apps that will be needed to help the region use travel options
 - Traveler information tools will need to be a funding priority
- The balance of technical and physical information is important because not everybody has a smartphone

Social Equity

- Consider the fast growing minority population in Oregon
 - Attend to differentiation of values and culture, language barriers
 - Use symbols instead of words
 - Social equity & environmental justice
 - Use SmartTrips model to reach out to minority population: culturally-specific individualized marketing program instead of neighborhood-specific
- Health is a component of equity

Economy

 Focus on the economy – cash is tight and therefore focusing on return on investment is important

Quality of Life

 Focus on quality of local life – the food you eat, the places you visit; quality of life is huge driver for the way people think about transportation

Equal Access

- ADA compliance ensure that all people have equal access to transportation options in the region.
- Start to plan for the aging baby boomer population.

Question #1 Synthesis

Think Tank participants discussed the importance of emerging technologies and the potential to make travel options more convenient and more widely used. However, the Strategic Plan should also focus on growing elderly and minority populations in the region and ensure that these populations are both marketed to and planned for.

Question #2: What should the Key Outcomes of the RTO Program Be?

Think Tank participants were then asked what the key outcomes should be of the RTO program in the next five years. The following outcomes were discussed:

Diverse Community Needs

- Create travel options that meet diverse community goals
 - Metro should play a coordination role
- Develop a balance of investments that are reflective of program goals
 - Define optimal level for highest ROI for each type of investment
- Outcomes could be different for different communities
 - Create messaging that shows how different communities benefit from RTO and transportation options

Health

- Focus on health health for people, for community, for the planet
 - Develop performance metrics that tie to health
 - VMT is a correlate with health
- GHG reduction is ultimate goal, but less driving has so many other benefits

Convenience

- Convenience and choice are key outcomes
 - Travel options should provide the same level of convenience that SOVs currently have
 - Investing in travel options helps improve convenience factor
- Redundancy in travel options is a good thing = resiliency

Awareness

- Awareness needs to be a key goal of the program
- Invest in information technology that helps people make transportation choices; train users to use these resources
- Avoid talking about travel "alternatives," because this implies that it is a lesser choice.
 Deliver RTO as a pallet of choices, including options for when it is ideal to drive

Cost Savings

Cost savings should be a key message: trip training makes sense, for example

Question #2 Synthesis

Think Tank participants generally discussed health, convenience, awareness, and cost savings as crucial outcomes of the RTO program. Interesting discussion emerged around the importance of defining outcomes differently for different types of communities. Depending on the level of involvement, political support, and infrastructure, travel options programs might aim for very different outcomes.

PART II: INTEGRATING TDM & REGIONAL TRANSPORTATION PLANS

Eric Schreffler from ESTC provided a presentation on the important link between Transportation Demand Management (TDM) and regional transportation planning.

Question #3: How can the RTO program be more effective by partnering with regional agencies and planning efforts?

Program Flexibility

- Flexibility in how RTO money is spent would help address regional differences and priorities
- Avoid a one-size-fits-all approach; consider a hierarchy of programs

Systems Thinking

- Systems thinking is important
 - Will require integration of roles and multiple organizations collaborating together
- Clarify roles: define which organizations do retail level delivery and then set them up for success
- Build-in transportation options as part of SW Corridor Plan
- Add filter/feedback for RTO as part of MTIP development
- Include a TDM component into each of the planning studies; institutionalize it into the planning process
- Use variable message signs more effectively
- Raise a sense of personal responsibility for travel choices as part of designing the system

Question #3 Synthesis

Think Tank participants discussed the possibility of linking future RTO investments more closely with corridor and other transportation planning efforts. Participants generally agreed with this idea, but emphasized that the RTO program would need a heightened level of collaboration and definition of roles between organizations in the region.

PART III: REGIONAL ORGANIZATIONAL MODELS

Peter Valk presented three regional organizational models as they relate to program development, program delivery, and program evaluation: the centralized model, the partnership model, and the decentralized model.

Question #4: What role should Metro RTO play in program development, delivery, and evaluation of programs?

Participant Responses

- Is the region ready for true regionalism within the RTO program? Consider the recent discussion surrounding bridges. The question of what role Metro should play in the RTO program is related to a bigger question about the role metro should play in the region.
- Metro should be higher level thinker and developer and then work with local partners on delivery
- Who delivers programs on the ground should be based on who has the capacity and interest to do so
- Prioritization and expectations should be proportionate
- Prioritization can be determined by level of interest and capability

Question#4 Synthesis

Think Tank participants discussed the role that Metro should play in delivering RTO services in the region. Participants expressed the need for Metro to play a high level program development role. Moreover, the Metro RTO program should provide services that help local partners succeed. However, it would be important for Metro to confirm that local partners had the capacity and interest to implement those services at a local level.

Appendix D Evaluation Report

The Metro Regional Travel Options (RTO) program works to improve travel options in the region with the goal of decreasing the reliance on single occupancy vehicles as the primary mode of travel, therefore decreasing the number of vehicle miles traveled (VMT). The RTO program is the region's Transportation Demand Management strategy and is central to the region's efforts to comply with federal air quality and congestion management requirements. RTO supports the goals outlined in the 2040 Growth Concept Regional Transportation Plan to reduce reliance on the automobile by focusing growth in centers and along major transportation corridors.

The program brings a wide-range of benefits to the region, including decreased green house gas emissions, improved health by promoting active transportation such as biking and walking, and improved livability by creating travel options that move people and goods efficiently, safely, and affordably.

In partnership with regional jurisdictions, non-profits, and public private partnerships, the RTO program achieves its mission through the following programs: (1) collaborative marketing, (2) commuter services, (3) traveler information tools, (4) transportation management associations, and (5) the travel options grant program. The RTO program is also responsible for measuring and evaluating its programs and providing policy and funding that supports TDM policies in the region.

The RTO program is guided by a five-year strategic plan. The last strategic plan was written in 2008 and covers the 2008-2013 period. The following goals were identified in the 2008-2013 Strategic Plan:

- **Goal 1** Continue a regional collaborative marketing campaign to increase awareness and use of travel options and reduce drive-alone car trips.
- **Goal 2** Support employers and commuters to increase the use of travel options for commute trips.
- Goal 3 Provide information and services to support increased use of travel options for all trips.
- Goal 4 Promote and provide services that support increased use of travel options in local downtowns and centers.
- **Goal 5** Report progress to aid decision-making and encourage innovation.
- Goal 6 Follow a collaborative decision-making structure that provides program oversight and advances the goals and objectives of the Regional Transportation Plan (RTP).

Based on past performance and expected revenues, the 2008-2013 strategic plan estimated that the RTO program would reduce approximately 86,600,000 vehicle miles of travel (VMT) per year.

To measure the success of the RTO program and assess if the 86 million VMT reduction was met, a biennial evaluation was conducted. This evaluation covers the period of January 2009 – June

Metro RTO

2011.¹ The evaluation was completed in conjunction with the 2012-2017 Strategic Plan Update; lessons learned were used to inform recommendations in the Strategic Plan.

KEY ACCOMPLISHMENTS

In the 2009-2010 evaluation period, the Metro RTO program invested nearly \$5.4 million in improving travel options around the region. Funding was dispersed to a wide range of geographies and programs in the region, from the City of Portland, to Washington County, to the City of Gresham.

The 2009-2010 evaluation period yielded many important accomplishments:

- The non-SOV mode split for employers working with the TriMet Employer Outreach program increased from 27.1% in 2009 to 38.5% in 2011.
- In its fifth year, the Drive Less Save More campaign helped 222,000 people to reduce their car trips.
- 51% of adults in the region recalled seeing, reading, or hearing a message about reducing car trips.
- The TMAs worked with over 70,000 employees, 40,000 of their commute patterns are captured by ECO survey data.
- Transportation programs were in place at over 1,400 worksites, up 27% from the last evaluation period.
- In 2011, the Metro RTO program conducted its first RTO Travel and Awareness survey based on a recommendation in the 2007-2008 evaluation. The regional survey will be conducted on a biennial basis.
- The 2011 RTO awareness survey and focus groups reported the following:
 - 59% of residents have heard of TriMet Trip Planner, and 43% have used it
 - 34% of residents are aware of the Drive Less/Save More campaign
- Over 50,000 Bike There! maps sold or distributed for free since 2007; 54,000 Walk
 There! guidebooks sold or distributed for free since 2008
- As of June 30, 2011, over 12,000 people were registered in the CarpoolMatchNW database. This indicates a 50% increase in carpool registrants since the 2008-2009 evaluation.
- Between January 2009 and June 2011, Metro coordinated, on average, 19 vanpools and 147 riders per month. During the evaluation period, the regional vanpool program saved a total of 3.8 million VMT at an average cost of \$.08 per VMR.
- Metro RTO funded its first two suburban Individualized Marketing campaigns.²
- As a result of 2009-2011 Metro RTO investments, an estimated 83-123 million vehicle miles were reduced.³

¹ This evaluation will be referred to as the 2009-2010 evaluation from this point forward.

² However, data is not yet available for these programs: Discover Wilsonville and Gresham Civic Drive individualized marketing campaigns.

³ A low and high vehicle miles reduced (VMR) estimate is provided because change in mode split cannot be 100% attributed to RTO efforts. Therefore, the low estimate assumes that RTO efforts were responsible for 40% of VMR; the high estimate assumes 60%.

PROGRAMS EVALUATED

During the evaluation period, the Metro RTO program funded and managed 33 programs across the region. A portion of Metro RTO funding was also used to manage and evaluate the RTO program, including grant administration, RTO Subcommittee management, and TMA management.

Figure 1 below outlines the programs evaluated for the fiscal years '09/'10 and '10/'11 evaluation period, including total RTO funds, the percent of total RTO funds, and local matching funds where applicable. Metro core programs accounted for 51% of total RTO funds, Drive Less Save More funds accounted for 17%, TMAs for 12%, individualized marketing for 12%, and travel options grants for 9%.

Figure 1 Metro RTO expenses, Fiscal Years 2009/2010 and 2010/2011

Organization/Program	Total RTO Funds (FY 09/10 & 10/11)	Percent of RTO Funds	Local Matching Funds (FY 09/10 & 10/11)	Total Expenditures (FY 09/10 & 10/11)
RTO Core Program	\$2,738,768	50.7%	\$223,192	\$2,961,959
Metro - Collaborative Marketing - Bike There! map	\$111,169	2.1%	\$4,095	\$115,265
Metro - Collaborative Marketing - Walk There! guidebook	\$65,201	1.2%	\$5,497	\$70,698
Metro - Collaborative Marketing and Information tools	\$14,733	0.3%	\$1,686	\$16,419
Metro - Collaborative Marketing General	\$218,663	4.0%	\$4,472	\$223,136
Metro - Commuter Services	\$12,181	0.2%	\$1,394	\$13,576
Metro - General Administration	\$61,666	1.1%	\$7,058	\$68,724
Metro - Individualized Marketing (residential outreach)	\$56,588	1.0%	\$6,477	\$63,064
Metro - Regional Evaluation and Measurement	\$155,715	2.9%	\$17,822	\$173,537
Metro - Rideshare - CarpoolMatchNW Employer Outreach	\$363,937	6.7%	\$0	\$363,937
Metro - Rideshare - Regional Vanpool program	\$341,270	6.3%	\$24,215	\$365,485
Metro - RTO Grant Program Administration	\$151,246	2.8%	\$17,311	\$168,556
Metro - RTO Subcommittee Administration	\$76,656	1.4%	\$8,774	\$85,430
Metro - Sponsorships	\$43,000	0.8%	\$4,922	\$47,922
Metro - TMA Administration	\$115,479	2.1%	\$13,217	\$128,696
Metro - Vámonos!	\$42,768	0.8%	\$2,270	\$45,037
SMART/Wilsonville Employer Outreach Program	\$126,499	2.3%	\$14,478	\$140,977
TriMet Employer Outreach Program	\$781,997	14.5%	\$89,503	\$871,500
Drive Less Save More (ODOT funds)	\$912,811	16.9%	\$1,118,200	\$2,031,011

Organization/Program	Total RTO Funds (FY 09/10 & 10/11)	Percent of RTO Funds	Local Matching Funds (FY 09/10 & 10/11)	Total Expenditures (FY 09/10 & 10/11)
Downtowns and centers	\$529,626	9.8%	\$314,969	\$844,595
Clackamas TMA	\$99,786	1.8%	\$57,009	\$156,795
Gresham Regional Center TMA	\$94,776	1.8%	\$54,345	\$149,121
Lloyd TMA	\$76,515	1.4%	\$55,145	\$131,660
South Waterfront TMA	\$53,501	1.0%	\$28,409	\$81,910
Swan Island TMA	\$101,733	1.9%	\$61,021	\$162,754
WTA TMA	\$103,315	1.9%	\$59,039	\$162,355
Individualized Marketing	\$786,003	13.5%	\$782,803	\$1,514,445
Gresham Civic Drive Station	\$100,000	1.9%	\$30,000	\$130,000
Individualized marketing training	\$18,749	0.3%	\$2,146	\$20,895
Portland Green Line SmartTrips	\$300,000	5.6%	\$451,539	\$751,539
Portland SmartTrips N/NE (in progress)	\$6,0401	0.1%	\$283	\$6,323
Portland SmartTrips N/NW	\$200,000	3.7%	\$307,405	\$507,405
Wilsonville, Discover Wilsonville	\$106,853	2.0%	\$21,430	\$128,283
Travel Options Grants	\$490,224	9.1%	\$396,610	\$886,833
BTA Bike Commute Challenge	\$25,000	0.5%	\$57,625	\$82,625
City of Gresham way-finding signage	\$50,000	0.9%	\$18,099	\$68,099
City of Portland Sunday Parkways	\$30,000	0.6%	\$3,434	\$33,434
City of Tigard bike map	\$16,568	0.3%	\$16,568	\$33,136
Community Cycling Center barriers to bicycling	\$78,625	1.5%	\$22,151	\$100,776
Gresham bike helmet and bike racks (07/08 grant)	\$0		\$0	\$0

Metro RTO

Organization/Program	Total RTO Funds (FY 09/10 & 10/11)	Percent of RTO Funds	Local Matching Funds (FY 09/10 & 10/11)	Total Expenditures (FY 09/10 & 10/11)
Lloyd TMA Lloyd Links	\$41,445	0.8%	\$41,445	\$82,890
PSU bike parking	\$50,000	0.9%	\$5,722	\$55,722
Swan Island TMA Trip Not Taken	\$24,130	0.4%	\$20,772	\$44,902
TriMet bike parking at Beaverton Transit Center	\$2,244	0.0%	\$673	\$2,917
TriMet multi-modal trip planner open-source programming	\$69,107	1.3%	\$88,867	\$157,974
Wilsonville SMART bike/pedestrian coordinator	\$50,105	0.9%	\$61,829	\$111,934
WTA bike rack installation	\$15,000	0.3%	\$1,800	\$16,800
WTA Carefree Commuter Challenge	\$38,000	0.7%	\$57,625	\$95,624
TOTAL	\$5,457,432	100.0%	\$2,865,772	\$8,268,843

Source: Budget information provided by Metro RTO staff

¹ City of Portland SmartTrips N/NE program budget is \$171,520; only \$6,040 was paid out during the evaluation period, matched by \$283. The total budget \$171,520 budget is used from this point forward.

EVALUATION METHODOLOGY

The current evaluation is being conducted alongside the 2012-2017 Strategic Plan Update. As such, the approach to the evaluation has changed from previous evaluations. In years past, RTO evaluations have used a structured framework in which all RTO programs were evaluated strictly on their outputs and outcomes. In discussions with Dr. Jennifer Dill who conducted the two previous evaluations, the following challenges were identified with the structured approach:

- Data needed to evaluate outcome-based performance indicators was often incomplete, incomparable and inconsistent;
- Acquiring needed data often required far more contact and follow-up than anticipated;
 and
- It was often difficult to separate out the unique outcomes of various projects and programs given the overlap between regional and localized programs.

The evaluation outlined in this report assesses the RTO program in a more streamlined manner. The intention is not only to evaluate the effectiveness of each RTO program, but to evaluate the evaluation process itself. The result is an overview of the accomplishments and challenges of each program, and a detailed assessment of how evaluation can be structured in the future. This allowed for a higher level assessment of the overall evaluation framework employed by Metro and an analysis of how the framework might be improved or modified to better meet the strategic direction set forth in the other elements of this project. Lessons learned from this evaluation will be used to inform prioritization of funding and evaluation requirements in the 2012-2017 Strategic Plan Update.

Thirty-three RTO programs were evaluated using the following steps:

- At a basic level, the first step assessed if each RTO program met its contracted requirements. Each program was listed in a matrix (see Figure 2 below) that included the program investment amount, and an assessment of whether or not contracted goals were met. Based on the stakeholder interview process, annual reports, and other data provided by Metro, each programs' accomplishments were then assessed against the goals outlined in the contract.
- 2. Three programs were evaluated in detail. These programs were selected based on the quality of data available and the level of investment. With input from Metro RTO staff, data quality for each program was rated. Programs with a combination of high investment and high quality data were considered for detailed evaluation.
- 3. Based on the level of investment and quality of data, three programs were thoroughly analyzed to show return on investment (ROI) by comparing Metro's investment to the program's reduction in vehicle miles traveled (VMT). These programs include: (1) the TriMet Employer Outreach program; (2) TMAs; and (3) Individualized Marketing programs.
- 4. Lessons learned from the evaluation process, including reporting, contracting, and evaluation requirements, were synthesized and recommendations were made to inform recommendations in the Strategic Plan Update.

EVALUATION SUMMARY

As described above, this evaluation provides a top level assessment of all RTO funded programs from January 2009 – June 2011. At a basic level, the evaluation looks at whether the program achieved the goals outlined in the contract. Three priority programs with both high investment and high quality data were then analyzed in further detail to calculate an estimated VMR and Metro's return on investment. To be consistent with prior evaluations, the ECO survey data is used to calculate VMR for employers working with TMAs, SMART, and TriMet. However, the ECO survey VMR calculation relies on the change in mode-split in an employers' baseline and follow-up survey. In most cases, baseline surveys were taken in years prior to this investment period (i.e. prior to January 2009). Therefore, the return on investment in the current investment period is being compared to a change in mode split over a period – in many cases – that is much longer than the investment period. In future evaluations we recommend separating VMR accrued during the investment periods.

Evaluation Matrix

Figure 2 provides a high level evaluation of the Metro RTO programs funded during the 2009-2011 period. Programs with a "green" dot have achieved their program outcomes and outputs as outlined in their contract; those with a "yellow" dot, in most cases, have achieved their program outputs but have failed to report on mode split or VMR data as outlined in the contract; those with a "red" dot did not achieve their program outputs or outcomes as outlined in their contract. Projects with a "TBD" have not been completed yet and therefore we were unable to determine if contract goals were met.

Figure 2 Evaluation Matrix of Metro RTO Funded Programs, FY '09/10-'10/'11

Organization/Program	Total RTO Funds (FY 09/10 & 10/11)	Percent of RTO Funds	Did Program Meet Contract Goals?	2Year Investment Period VMR (Low Estimate) ¹	2 Year Investment Period VMR (High Estimate) ²	Cost per VMR (Metro Investment Only)
RTO Core Program	\$ 2,738,768	50.7%				
Metro - Collaborative Marketing - Bike There! map	\$111,169	2.1%	n/a	n/a	n/a	n/a
Metro - Collaborative Marketing - Walk There! guidebook	\$65,201	1.2%	n/a	n/a	n/a	n/a
Metro - Collaborative Marketing and Information tools	\$14,733	0.3%	n/a	n/a	n/a	n/a
Metro - Collaborative Marketing General	\$218,663	4.0%	n/a	n/a	n/a	n/a
				n/a		n/a
Metro - Commuter Services	\$12,181	0.2%	n/a		n/a	
Metro - General Administration	\$61,666	1.1%	n/a	n/a	n/a	n/a
Metro - Individualized Marketing (residential outreach)	\$56,588	1.0%	n/a	n/a	n/a	n/a
Metro - Regional Evaluation and Measurement	\$155,715	2.9%	n/a	n/a	n/a	n/a
Metro - Rideshare - CarpoolMatchNW Employer Outreach	\$363,937	6.7%	n/a	13,043,506	19,565,260	n/a
Metro - Rideshare - Regional Vanpool program	\$341,270	6.3%	n/a	3,804,3073	3,804,3074	\$0.09
Metro - RTO Grant Program Administration	\$151,246	2.8%	n/a	n/a	n/a	n/a
Metro - RTO Subcommittee Administration	\$76,656	1.4%	n/a	n/a	n/a	n/a
Metro - Sponsorships	\$43,000	0.8%	n/a	n/a	n/a	n/a
Metro - TMA Administration	\$115,479	2.1%	n/a	n/a	n/a	n/a
Metro - Vámonos!	\$42,768	0.8%	n/a	n/a	n/a	n/a
SMART/Wilsonville Employer Outreach Program	\$126,499	2.3%	•	863,918	1,295,877	\$0.10-\$0.15

Metro RTO

Organization/Program	Total RTO Funds (FY 09/10 & 10/11)	Percent of RTO Funds	Did Program Meet Contract Goals?	2Year Investment Period VMR (Low Estimate) ¹	2 Year Investment Period VMR (High Estimate) ²	Cost per VMR (Metro Investment Only)
				34,385,606	51,578,409	\$0.01-\$0.02
TriMet Employer Outreach Program	\$781,997	14.5%				
Drive Less/Save More outreach (ODOT funds)	\$912,811	16.9%				
Downtowns and centers	\$529,626	9.8%				
Clackamas TMA	\$99,786	1.8%		n/a	n/a	n/a
Gresham Regional Center TMA	\$94,776	1.8%	•	600,822	901,232	\$0.11-\$0.16
Lloyd TMA	\$76,515	1.4%		3,075,416	4,613,123	\$0.01-\$0.02
South Waterfront TMA	\$53,501	1.0%		n/a	n/a	n/a
Swan Island TMA	\$101,733	1.9%	_	n/a	n/a	n/a
WTA TMA	\$103,315	1.9%	•	4,280,155	6,420,232	\$0.01-\$0.02
Individualized Marketing	\$ 731,642	13.5%				
Gresham Civic Drive Station	\$100,000	1.9%	TBD	TBD	TBD	TBD
Individualized marketing training	\$18,749	0.3%	n/a	n/a	n/a	n/a
Portland Green Line SmartTrips	\$300,000	5.6%	•	15,713,667	23,570,500	\$0.01-\$0.02
Portland N/NE SmartTrips	\$6,040	0.1%	TBD	TBD	TBD	TBD
Portland SmartTrips N/NW	\$200,000	3.7%		6,605,992	9,908,882	\$0.02-\$0.03

Metro RTO

Organization/Program	Total RTO Funds (FY 09/10 & 10/11)	Percent of RTO Funds	Did Program Meet Contract Goals?	2Year Investment Period VMR (Low Estimate) ¹	2 Year Investment Period VMR (High Estimate) ²	Cost per VMR (Metro Investment Only)
	4400000	2.20/				
Wilsonville, Discover Wilsonville	\$106,853	2.0%	TBD	TBD	TBD	TBD
Travel Options Grants	\$ 490,224	9.1%				
BTA Bike Commute Challenge	\$25,000	0.5%		847,265	847,265	\$0.03
City of Gresham way-finding signage	\$50,000	0.9%		n/a	n/a	n/a
City of Portland Sunday Parkways	\$30,000	0.6%		n/a	n/a	n/a
City of Tigard bike map	\$16,568	0.3%	TBD	n/a	n/a	n/a
Community Cycling Center barriers to bicycling	\$78,625	1.5%		n/a	n/a	n/a
Gresham bike helmet and bike racks (07/08 grant)	\$0	0%	<u> </u>	n/a	n/a	n/a
Lloyd TMA Lloyd Links	\$41,445	0.8%		n/a	n/a	n/a
PSU bike parking	\$50,000	0.9%		n/a	n/a	n/a
Swan Island TMA Trip Not Taken	\$24,130	0.4%	_	n/a	n/a	n/a
TriMet bike parking at Beaverton Transit Center	\$2,244	0.0%	_	n/a	n/a	n/a
TriMet multi-modal trip planner open-source programming	\$69,107	1.3%	-	n/a	n/a	n/a
Wilsonville SMART bike/pedestrian coordinator	\$50,105	0.9%	TBD	n/a	n/a	n/a
WTA bike rack installation	\$15,000	0.3%		n/a	n/a	n/a
WTA Carefree Commuter Challenge	\$38,000	0.7%		n/a	n/a	n/a
TOTAL	\$ 5,403,071	100.0%		83,220,654	122,505,087	

^{1.2} A low and high VMR estimate is provided because change in mode split cannot be 100% attributed to RTO efforts. Therefore, the low estimate assumes that RTO efforts were responsible for 40% of VMR; the high estimate assumes 60%.

^{3,4} Vehicles miles reduced by vanpools was estimated from vanpool rider data including the distance of vanpool trips. Some vanpoolers likely commute to employments sites that also conduct ECO surveys. Since ECO surveys are the basis for the other VMR estimates, some double counting may occur.

It is important to note that the Metro RTO investment outlined in the far right column above is only a portion of the dollars invested in each program. All Metro RTO grants require a percent local match, as shown in Figure 1 on page D-4. Travel Options and Individualized Marketing grants require a 10.27% local match. Per Metro Resolution No. 02-3183, TMA funding is phased over three years with the idea that TMAs will become more financially stable and invested in the community over time: year 1 requires 19% local match; year 2 requires 25% local match; year 3 requires 31% local match.

Detailed Evaluation for High-Investment Programs

Vehicle Miles Reduced (VMR) is a key performance measure for the RTO program. Estimated VMR, however, is only available for some programs. This section outlines three high investment programs with quality VMR data: the TriMet Employer Outreach program, the TMAs, and two of the five individualized marketing programs (post-marketing survey data is not yet available for Gresham Civic Drive, Discover Wilsonville, and City of Portland SmartTrips N/NE). The VMR and return on investment for all programs shows a "high" and a "low" estimate, assuming that only between 40% and 60% of VMR reduced can be attributed to RTO program investment. Presumably, change in gas prices, the economy, increased awareness of climate change, transportation system improvements, and other factors, also contribute to mode shift.

Figure 3 below outlines the Metro investment for these programs, estimated VMR, and estimated return on investment (cost per VMR).

Figure 3 Conservative Estimate of Overall Annual Reduction in Vehicle Miles Traveled for High Investment Programs

Program Name	% of Metro RTO Budget	Metro Investment	2 Year Investment Period VMR (Low Estimate)	2 Year Investment Period VMR (High Estimate)	Cost per VMR
TriMet Employer Outreach	15%	\$781,997	34,385,606	51,578,409	\$0.01-\$0.02
Clackamas Regional Center TMA		\$99,786	n/a	n/a	n/a
Gresham Regional Center TMA		\$94,776	600,822	901,232	\$0\$0.16
Lloyd TMA	9%	\$76,515	3,075,416	4,613,123	\$0.01-\$0.02
South Waterfront		\$53,501	n/a	n/a	n/a
Swan Island TMA		\$101,733	n/a	n/a	n/a
WTA		\$103,315	4,280,155	6,420,232	\$0.01-\$0.02

Program Name	% of Metro RTO Budget	Metro Investment	2 Year Investment Period VMR (Low Estimate)	2 Year Investment Period VMR (High Estimate)	Cost per VMR
City of Gresham Civic Drive		\$100,000	TBD	TBD	TBD
City of Portland Green Line		\$300,000	15,713,667	23,570,500	\$0.01-\$0.02
City of Portland SmartTrips NNW	14%	\$200,000	6,605,922	9,908,882	\$0.02-\$0.03
City of Portland SmartTrips N/NE		\$171,520	TBD	TBD	TBD
Wilsonville Discover Wilsonville		\$222,480	TBD	TBD	TBD

Source: Budget numbers provided by Metro RTO staff; VMR calculations for TMAs and TriMet are taken from ECO survey data provided by Metro RTO staff; VMR calculations for Individualized Marketing programs provided by the City of Portland.

The TriMet Employer Outreach program accounts for 15% of the Metro RTO program. These funds are granted on a formula basis, meaning they are granted outside of the competitive grant process. The TriMet Employer Outreach program is a cost effective program, yielding between 34 and 52 million VMR annually with a very low cost of \$0.01-\$0.02 per VMR.

The TMA performance, on the other hand, is variable. At one end of the spectrum, Lloyd TMA and the WTA are high performing programs at a similar low cost per VMR (\$0.01-\$0.02 per VMR). However, the Clackamas Regional Center TMA was closed in 2011 because it could not meet its mode split targets; the Gresham TMA achieved 300,411 to 450,616 VMR annually at a cost between \$0.08-\$0.14 per VMR; employers surveyed as part of the Swan Island TMA actually increased in VMT.⁴

Individualized marketing programs account for 14% of the RTO program budget and have proven to be cost-effective programs over the last two evaluations. Although complete analysis is not yet done for three of the five individualized marketing programs funded in this evaluation period, the City of Portland Green Line and N/NW projects yielded substantial VMR for a low cost of \$0.01-\$0.04 per VMR.

TriMet Employer Outreach

The TriMet Employer Outreach program has worked with over 1,400 employers as of June 2011. Of these, 728 employers with over 150,000 employees completed an ECO survey. The TriMet Outreach program serves organizations of all sizes throughout the region with transportation program assistance, transit pass programs and surveying for Oregon DEQ ECO compliance.

⁴ The Swan Island increase in VMT is minimal. It could be attributed to the following factors: (1) Select weekday trips for the 85 bus line to Swan Island were cut due to low ridership in May 2010; (2) Of the 12 worksites surveyed, 5 sites increased their drive alone rate, and one site continued to have 100% drive alone rate since the base line year. Further investigation as to why these 5 sites increased their drive alone rates is needed.

TriMet staff promotes all non-SOV commute options including transit, carpooling, vanpooling, biking, walking, compressed workweeks, telecommuting and incentives. Programs and activities include education programs such as assistance with transportation program plans, individual consultations, presentations, transportation fairs, and individual training for transportation coordinators. TriMet also offers transportation surveys, an emergency ride home incentive program, travel options materials, comprehensive website content and formalized fare programs, and carpool maps (geocoding).

Figure 4 below shows the non-SOV mode split for worksites participating in the TriMet Employer Outreach Program between 1996 and 2011. During this evaluation period (January 2009-June 2011), the non-SOV mode split increased considerably from 27.1% in 2009 to 38.5% in 2011. Transit has accounted for a large portion of the non-SOV mode split increase (11.7% to 19.0%).

40% 35.5% 35% Non-SOV Total 30.99 30% 26.2% 25% % of commute trips 18.6% 19.0% 15% 11.1% 10% 4.5% 5% Bike/Walk 2.8% 2 2% Compressed Workweek 0% 0.8% 1.8% 1.5% 1.6% 0.3% 0.9% 2005 1996

Figure 4 1996-2011 Non-SOV Commute Trips at worksites participating in TriMet Employer Outreach Program

Source: 1996-2008 figures are from TriMet and were included previous RTO Evaluation Reports; 2009-2011 figures calculated using original employer survey data from TriMet.

By comparison, non-SOV mode-split on the national scale changed very little between 2006 and 2010. The analysis in Figure 5 below uses the 2006-2008 and 2010 American Community Surveys to calculate the change in mode split nationally and in the Portland MSA between 2006 and 2010. While the RTO analysis in Figure 4 above notes a 4.9% decrease in non-SOV mode split for worksites participating in the TriMet Employer Outreach program between 2006 and 2010, the American Community Survey shows that the Portland MSA mode-split did not change during the same period. The dip in all modes in 2009 may be attributable to economic fluctuations, gas prices, transit fares and a variety of other factors. Nationally, the non-SOV mode split decreased by 1%.

Figure 5 U.S. and Portland MSA Mode Split, 2006-2010

U.S.	2006- 2008 Estimate	2010 Estimate	% Change	Portland MSA	2006-2008 Estimate	2010 Estimate	% Chang
Non SOV	24.00%	23.00%	-1.00%	Non SOV	28.00%	28.00%	0.00%
Public Transit	4.90%	4.90%	0.00%	Public Transit	6.10%	6.00%	-0.10%
Carpool	11.00%	10.00%	-1.00%	Carpool	11.00%	9.00%	-2.00%
Bike	0.50%	0.50%	0.00%	Bike	3.10%	3.00%	-0.10%
Walk	2.80%	2.30%	-0.50%	Walk	2.70%	3.00%	0.30%

Source: 2006-2008 American Community Survey 3-year estimate; 2010 American Community Survey 1-year estimate

Transportation Management Associations

Transportation Management Associations (TMAs) are non-profit and often member-supported organizations that provide transportation services to a particular geographic area. The TMAs in the Metro region provide an array of transportation services to businesses, including ECO survey assistance, individualized trip reduction planning, and advocacy work for improved transit service. TMAs are funded in part from Metro RTO's TMA grant program. As of June 2011, the Metro RTO program funded five TMAs, including the Lloyd TMA, Westside Transportation Alliance, Gresham Downtown Regional TMA, Swan Island TMA, and the recently formed South Waterfront TMA. Total TMA funding accounted for just 9% of total Metro RTO funding.

As of June 2011, Metro-funded TMAs worked with over 70,000 employees including 127 ECO-surveyed worksites included in this analysis, reflecting the commute pattern of more than 35,000 employees.⁵ Each TMA faced its own set of challenges depending on its geographic location, local funding support, and level of staff expertise. These challenges can generally be categorized as follows: (1) availability of free parking; (2) limited private sector support; (3) difficulty demonstrating value to the private sector due to overlap of services provided by Metro, SMART, and TriMet; and (4) lack of bike and transit infrastructure.

TMAs are expected to maintain 1 million VMR (minimum for performance-based funds) and reduce another 500,000 VMR over the course of the year for booster funds.

Figure 6 below compares the staff, local funding support, and number of employers and employees worked with compared to Metro's average annual investment and estimated annual VMR.6 Number of worksites and ECO-eligible employees is taken from the bi-annual ECO survey; VMR is estimated by comparing each company's mode split from their baseline survey to the mode split reported in their most recent survey. In some cases, baseline surveys were taken as far back as the late 1990s when the ECO Rules were instituted in Oregon.

⁵ South Waterfront TMA did not have an identified employer list at the time of the evaluation. Number of worksites and employers is calculated from the ECO Survey Data.

⁶ Note: Annual VMR estimates are listed in Figure 6 instead of "2.5 year investment period" VMR numbers as shown in Figures 2 and 3 that calculated the VMR during the entire investment period. Annual numbers are listed here to assess whether or not the TMAs met their goal of either 1 million or 1.5 million VMR based on the grants they received.

Metro RTO

Figure 6 TMA Detailed Evaluation, Annual Performance

TMA	# of Staff (FTE) ¹	Local Funding Support ²	# of Surveyed Worksites	# of Worksite s also in Contact w/ TriMet	# Employees at Surveyed Worksites	Average Annual Metro Invest- ment ³	Annual VMR (Low Estimate)	Annual VMR (High Estimate)	Cost per VMR 4
Gresham	1.5	Low	7	7	1,537	\$47,388	300,411	450,616	\$0.11 - \$0.16
Lloyd	5	High	68	8	12,017	\$38,258	1,537,708	2,306,561	\$0.01 - \$0.02
South Waterfront	2	Medium	n/a	n/a	n/a	\$42,883	n/a	n/a	n/a
Swan Island	1.5	Medium	12	8	2,334	\$50,867	n/a	n/a	n/a
WTA	1.5	Medium	40	23	19,573	\$51,658	2,140,077	3,210,116	\$0.01 - \$0.02

¹ The total number of FTE at each site does not necessarily work on RTO-related strategies. Lloyd staff work on additional commute options assistance programs with private funds (non-RTO); South Waterfront staff contribute to time spent on community relations; Gresham staff help run the Downtown Development Association. However, the total FTE does offer additional organizational capacity that is worth noting.

Medium = Metro RTO funds account for 26% - 49% of operating budget

Figure 6 above emphasizes the importance of ample staff and local funding support to sustain a successful TMA. Those TMAs with multiple staff members and medium-high local support show a higher level of VMR. Moreover, those TMAs, particularly Lloyd and the WTA, are the only two TMAs who achieved the annual 1.5 million VMR goal as outlined in their contract.

Figure 6 also highlights where TMAs and TriMet are working collaboratively but may also indicate areas of overlap and opportunities for efficiency. For example, 100% of employers working with the Gresham TMA were also in contact with TriMet. Those TMAs with the highest percentage of collaboration or overlap with TriMet were also the most expensive per VMR (Gresham and Swan Island). While other factors influence cost per VMR, potentially overlapping roles and the variable performance of TMAs were addressed in the 2012-2017 Strategic Plan Update.

² High = Metro RTO funds account for 0% - 25% of operating budget

Low = Metro RTO funds account for 50% - 100% of operating budget

³ Average = RTO's average annual TMA investment for the '09/'10 and '10/'11 investment period.

⁴Cost per VMR is based on the Metro RTO investment only; it does not take into account other local funding streams.

Individualized Marketing

Individualized marketing (IM) has proven to be a success in the Metro region since 2002 when the City of Portland launched the Multnomah/Hillsdale pilot project. Since then, Metro has supported a number of individualized marketing programs around the region due to their proven success and cost effectiveness. IM projects identify people within a specific geographic area, oftentimes who are in proximity to new light rail service, who have a desire to change the way they travel. The projects use personal, individualized marketing material to motivate change in travel behavior. IM projects first survey the population in the study area, then distribute individualized marketing materials to those who have expressed interest, and then do a follow-up survey to document if and how the information and one-on-one contact resulted in a change in travel behavior.

In the 2009-2010 evaluation period, Metro funded five IM programs, accounting for over 14% of the total Metro RTO budget: (1) Gresham Civic Drive; (2) Portland SmartTrips Green Line; (3) Portland SmartTrips NNW; (4) Portland N/NE; and (5) Discover Wilsonville.

Figure 7 below provides an overview of Metro's IM investment, an estimated number of households and residents reached, vehicle miles reduced as a result of the effort, and cost per VMR. At the time of this evaluation, Gresham Civic Drive, Portland SmartTrips N/NE, and Discover Wilsonville had not completed their "after" surveys and therefore no VMR or cost per VMR analysis is available.

Figure 7 Individualized Marketing Return on Investment, 2009-2011

Program	Metro Investment	Households	Residents ¹	VMR (Low)	VMR (High)	Cost per VMR
Gresham Civic Drive	\$100,000	3,000	7,470	TBD	TBD	TBD
Portland SmartTrips Green Line	\$300,000	27,684	68,933	15,713,667	23,570,500	\$0.01-\$0.02
Portland SmartTrips NNW	\$200,000	31,000	771,790	6,605,922	9,908,882	\$0.02-\$0.03
Portland SmartTrips N/NE	\$171,520	23,000	57,270	TBD	TBD	TBD
Discover Wilsonville	\$22,480	7,185	17,891	TBD	TBD	TBD
Total	\$794,000	91,869	923,354	22,319,589	33,479,382	

Note: Number of residents estimated using the Census "persons per household, 2005-2009" estimate for Oregon of 2.49.

During the evaluation period, individualized marketing programs reached over 90,000 households, 923,000 residents and accounted for between 22 and 33 million VMR. These programs are very cost effective, at between \$0.01 and \$0.05 per VMR.

PROGRAM EVALUATION

This section provides a description and assessment of each program funded by the RTO program between January 2009 and June 2011. The assessment is based on the requirements outlined in the Metro contract compared to the accomplishments listed in the grant recipients' annual reports, quarterly invoices, and progress reports. This section concludes with an overview of lessons learned from the program evaluation process.

RTO Core Programs

RTO Core Programs are programs either managed by Metro RTO staff or by its regional partners. Programs listed in this section are funded outside of the competitive RTO grant process. It should be noted that the program goals for Metro-led programs are not articulated with the same level of detail as other grant-funded programs in the following section.

Bike There!

Metro's RTO program produces the regional Bike There! map. The map includes bike routes and other resources to help people bike around the region. The Bike There! map is distributed through other regional programs, such as the Bike Commute Challenge, Drive Less Save More, Sunday Parkways, and area TMAs. In 2010, Metro printed 25,000 Bike There! maps for retail and 5,000 free maps. Bike There! accomplished the following:

Bike There! map updated in 2010.

Metro RTO

- 2 brown bag lunches at Metro to promote new maps; 3 additional Bike There! events
- Distributed Bike There! maps to TMA participants.
- Bike There! Map was promoted through other regional programs, such as Bike Commute Challenge, Drive Less Save More, Sunday Parkways, and area TMAs.
- Free copies of the Bike There! map were distributed to low-income and youth audiences through community organizations, such as Community Cycling Center and Safer Routes to Schools.
- Bike There! map is available for viewing on Metro's website.
- Free English and Spanish Bike There! Quick Guides (maps zoomed in on local areas) were distributed at events. Bike There! web pages translated into Spanish.
- Over 50,000 Bike There! maps sold or distributed for free since 2007.

Walk There! Guide

Metro's RTO program produces the regional Walk There! guidebook. The popular guidebook was revised in 2009. Kaiser Permanente continued to support the program by contributing \$13,000 to support walking events and distribute the Walk There! guidebooks for free. In 2009, the guidebook received the Special Achievement Award from the Oregon Chapter of the American Planning Association.

The Walk There! Guide program accomplished the following:

- 25 community walking events, including 770 participants Program Evaluation 2010-2011
- Event participants were surveyed: 66% of participants reported finding a walking and biking trail previously unknown to them; 40% say they walk more after the Walk There! event
- 54,000 Walk There! guidebooks were sold or distributed for free since 2008.
- Walk There! walks and web pages translated into Spanish.
- Walk There! books distributed to free for low-income audiences through Centro Cultural and Adelante Mujeres.
- Walking advertising campaign ran in Spanish during summer 2011.

Drive Less. Save More.

In 2005, the Oregon Legislature called for a public awareness campaign to increase awareness of travel options in the region. Drive Less Save More. (DLSM) is a social marketing campaign adopted by the Oregon Legislature to help change personal travel behavior in the state of Oregon. The program includes a mix of advertising, earned media, public outreach, and social networking to raise public awareness and prompt people to reduce SOV trips.

Drive Less Save More has leveraged the Oregon Legislature's investment with the following to date:

- Built 1/3 awareness of the campaign in the Portland Metro area.
- Generated print and broadcast news stories valued at more than \$1.8 million
- Donated print, television and radio advertising valued at more than \$1.7 million
- Private and public sector contributions totaled more than \$650,000

 Nearly 19% of the Portland population has reduced their car trips as a result of the Drive Less/Save More Campaign – more than 222,000 individuals

Regional Vanpool Program

Metro's Regional Vanpool program coordinates vanpool services for commuters who travel into or within the Portland, Oregon metropolitan region for work or school.

Program Evaluation

In January 2009, Metro coordinated 27 vanpools. This included 14 vanpools that originated in SW Washington for south-bound commutes into Portland (these vanpools were subsidized from a grant from C-TRAN). In May 2009, the 14 SW Washington vanpools were taken over by C-TRAN, leaving Metro with 14 vanpools. Since May 2009, Metro has steadily added to its vanpool program. As of June 2011, Metro coordinated 19 vanpools with a total of 151 riders. Between January 2009 and June 2011, Metro has coordinated, on average, 19 vanpools and 147 riders per month. In total, the regional vanpool program has saved a total of 3.8 million VMT at an average cost of \$.08 per VMR.

A 2010 survey reported that 99% of vanpool riders were satisfied with the quality of the vanpool program; 94% were satisfied with the cost of the vanpool; and 100% were satisfied with the organization of the vanpool. One limitation of vanpool programs in the Metro region is the lack of high occupancy vehicle (HOV) lanes. However, the 2010 survey reports that the largest group of riders (34%) chose to join a vanpool to save money on gas, while only 6% reported joining to save time.

CarpoolMatchNW

CarpoolMatchNW.org is an online tool that connects carpool drivers with carpool riders. The program enables registered users to enter in information regarding their commute trip needs; users are then matched up with riders and/or drivers with similar needs. RTO staff administer the regional rideshare program by assisting callers with inquiries and updating the database. As of June 2011, the online ridesharing system had approximately 12,000 members. In June 2011, CarpoolMatchNW.org transitioned to DriveLessConnect.com powered by DriveLessSaveMore.com.

RTO Employer Outreach

The RTO Employer Outreach program generally works with employers at the request of TriMet or the TMAs. Employers that work directly with Metro sometimes require vanpool and carpool services, are often outside of good transit service areas, or have shift workers who arrive or leave when transit service is unavailable.

Key accomplishments during the evaluation period include:

- Development of shared contact management database.
- Updated DriveLessSaveMore.com to include information related to employer programs.
- Between January 2009 and June 2011, Metro RTO staff worked with 67 surveyed employers with close to 35,000 employees to develop active commute, rideshare, and transit programs. These employers show an average non-SOV mode split of 36%, up 12%

from the average baseline survey, however the carpool mode split decreased from 11% to 9% (see Figure 8).

Figure 8 2009-2011 Commute Trip Mode Share for Metro RTO Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	76%	64%	-12
Transit	9%	16%	7
Bike	4%	7%	3
Carpool	11%	9%	-2
Comp Work Week	1%	2%	1
Telecommute	1%	2%	1

Worksites = 67

Eco Eligible Employees = 34,855

VMR (2 years) = 13,043,506 - 19,565,260

TriMet Employer Outreach Program

TriMet has been working with employers since the 1980s to increase the number of commute trips made by transit. The program was started in 1996 when the State adopted its Employee Commute Options (ECO) Rules which require employers with more than 100 employees to provide commute options for employees. Employers are expected to survey employees every two years for ECO Rules or other reasons. The TriMet employer outreach program serves organizations of all sizes throughout the region with transportation program assistance, transit pass programs and surveying for DEQ compliance. The TriMet employer outreach program includes the following components:

- **Emergency Ride Home (ERH):** TriMet offers the emergency ride home program to incentivize employers in the region to provide non-commute subsidy programs to employees. ERH provides free cab rides to employees taking alternative transportation in the event of an emergency. These rides are offered to employers subsidizing any commute mode by at least \$10 per employee per month.
- **New Employee Kits:** New Employee Kits are offered to all employers who request them. These kits contain information on all transportation options and are branded with the regional campaign message, Drive Less Save More.
- ECO Surveys: Employee Commute Option surveys are processed for any employer free
 of charge. TriMet reviews the results of the surveys with the employer to help them
 understand the data.
- Direct Outreach: TriMet reaches out to employers in the area to develop and maintain
 a multi-modal transportation program. Topics covered include ECO plans and surveys,
 transit, carpooling, vanpooling, biking, walking, telecommuting, compressed workweek
 and flextime.
- TriMet Vanpool Shuttle Program: TriMet covers the lease expense for three employer- operated vans that provide a "last mile" connection to nearby MAX light rail stations.

Newsletter for Transportation Coordinators: TriMet provides a newsletter
designed for transportation coordinators at employers' worksites. The newsletter includes
TDM topics such as transportation program resources and a TMA calendar of events.

Program Evaluation

Between January 2009 and June 2011, the number of employers participating in the TriMet employer outreach program increased by 20% (from 1,210 to 1,454). Figure 9 below shows the mode share for employers working with TriMet, based on the DEQ ECO or TriMet ECO survey data.

Figure 9 2009-2011 Commute Trip Mode Share for TriMet Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	73%	67%	-6
Transit	12%	16%	4
Bike	4%	6%	2
Carpool	9%	8%	-1
Comp Work Week	1%	2%	1
Telecommute	0%	2%	2

Worksites = 728

Eco Eligible Employees = 151,963

VMR (2 years) = 34,385,606-51,578,409

Source: TriMet & ECO Survey Data

Wilsonville SMART Outreach Program

The Wilsonville SMART Options program includes five components: (1) employer outreach; (2) community outreach; (3) SMART Transit support; (4) Walk SMART; and (5) Bike SMART. These programs are based on a workplan received during Metro's budget process. An important component of the program is to promote and encourage ridership on SMART buses and WES commuter rail.

The primary goals of the SMART Options program are to:

- Increase awareness and use of transportation options available in Wilsonville and the region
- Reduce drive alone trips
- Strengthen communication between SMART, the City of Wilsonville, Chamber of Commerce, local businesses, schools, and community organizations as a means of leveraging outreach efforts

The Wilsonville SMART Option program achieves its goals by reaching out to the community through walking and biking tours, brown bag lunches at City hall, distributing new resident welcome kits, and publishing media stories in the local newspaper. The Wilsonville SMART Options program also works with employers by assisting them with the ECO survey and developing trip reduction plans.

Fiscal year 2010-2011 programs include SMART Transit, Walk SMART, and Bike SMART.

Employer Outreach

As part of its program, Wilsonville works with employers in the region to comply with the ECO Rules. To calculate mode split, employers are surveyed in a baseline year and then surveyed again a year or more later to show the change in model split.

The employer survey database included 17 Wilsonville worksites with survey data for the 2010-2011 evaluation period

Figure 10 below). Drive alone trips were reduced 3 percentage points due to an increase in transit, compressed work week schedules, and telecommuting. In addition, carpooling decreased by 2 percentage points and biking remained constant.

Figure 10 2009-2011 Commute Trip Mode Share for Wilsonville Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	84%	81%	-3
Transit	1%	3%	2
Bike	1%	1%	0
Carpool	12%	10%	-2
Comp Work Week	1%	2%	1
Telecommute	1%	3%	2

Worksites = 17

Eco Eligible Employees = 4,493

VMR (2 years) = 863,918 - 1,295,877

Source: TriMet & ECO Data

SMART Transit

The success of the SMART Options program was also evaluated based on the change in SMART transit ridership over time. Between January 2009 and July 2011, ridership on SMART transit increased considerably (see Figure 11 below). Monthly average ridership increased from 23,644 riders in 2009 to 24,862 monthly average riders in 2010 to 28,876 monthly average riders 2011 (as of July). This represents a 22% increase in average monthly ridership between 2009 and 2011. Although this data shows a positive trend during the evaluation timeframe, the change in ridership cannot be linked directly to Wilsonville SMART RTO-related outreach efforts. However, it is supporting data to show that travel behavior in the Wilsonville region is changing to alternative transportation modes.

32,000 30,000 28,000 26,000 24,000 22,000 20,000 Sept '09 00' voN Average Feb '10 April '10 June '10 Aug'10 Oct '10 Dec '10 Jan '11 May '11 March '11

Figure 11 SMART Transit Ridership, January 2009 - November 2011

Source: Wilsonville SMART

Bike SMART/Walk SMART

In an effort to improve the pedestrian and biking experience in Wilsonville, SMART launched its Bike SMART and Walk SMART programs. These programs provide promotional material and services to help people take more biking and walking trips.

The City of Wilsonville's SMART Options program was able to expand by hiring the Bicycle and Pedestrian Coordinator to implement priorities set forth in the City of Wilsonville's Bicycle/Pedestrian and Transit Master Plan. This staff person supports the Bike SMART and Walk SMART programs that develop tools such as maps and brochures to help people take more biking and walking trips.

A large component of the Bike/Walk SMART programs is to increase awareness of biking and walking facilities. The program developed a Wilsonville Bike and Walk Map. As of July 2011, Wilsonville SMART had distributed 4,242 bike and walk maps. Wilsonville SMART also conducted bike and pedestrian counts at 13 locations in September 2010. This is the first time that Wilsonville has conducted bike and pedestrian counts. In 2012, counts will be conducted again in the same location to help make conclusions about behavior change.

Transportation Management Associations (TMAs)

This section evaluates the six active TMAs at the time of the evaluation period.

Clackamas County TMA

The Clackamas County was managed by the North Clackamas County Chamber of Commerce. It worked with employers in the Clackamas Town Center Regional Mall, Clackamas Industrial Park, Kaiser Sunnyside Hospital Campus, Omark Industrial Park, Johnson Creek Industrial Area, Sunnyside Road east to 172nd Ave. and Harmony Road to Railroad Avenue and west to Highway

224 to decrease the demand on the regional transportation system by facilitating non-SOV transportation options.

Program Evaluation

The RTO Subcommittee recommended basic level funding (\$16,391) for the Clackamas TMA, rather than the performance-based funding and booster grant requested. The North Clackamas County Chamber of Commerce decided to close the Clackamas County TMA in June 2011. Stakeholder interviews revealed the following reasons for the closing:

- The TMA did not have enough education on the types of programs that could be implemented in a suburban setting.
- The TMA struggled to get employers to fill out the ECO survey; employers in the TMA geographic boundary either did not fall under ECO requirements, chose to ignore ECO requirements, or did not demonstrate a change in mode split. Therefore, the TMA could not demonstrate their success.
- The geographic area of the TMA was limited; Metro RTO staff did not permit them to expand their geographic boundary a second time.
- The TMA was linked too closely to the Chamber of Commerce; as such, the Board of Directors was pulled between Chamber and TMA responsibilities.

Gresham Regional Center TMA

The Gresham Regional Center Transportation Management Association (GRCTMA) works with businesses, public agencies, and citizens to improve access options and enhance the local economy. The GRCTMA is managed by the Gresham Downtown Development Association and helps employees travel to work and to other destinations safely and easily using alternative modes of transportation.

The GRCTMA provides tailored transportation options support to employers, event planners, and residents.

Program Evaluation

As of 2011, the GRCTMA worked with 7 employers with a total of 1,537 employees who participated in the ECO or TriMet Employer Pass program survey. Twenty-three percent of employees commute to these worksites using non-SOV modes, 11 percentage points higher than the baseline survey (see Figure 12 below). Also of note is the stark increase in carpooling (a 6 percentage point increase between the baseline and current survey).

Figure 12 2009-2011 Commute Trip Mode Share for Gresham TMA Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	88%	77%	-11
Transit	5%	6%	1
Bike	2%	4%	2
Carpool	4%	10%	6
Comp Work Week	1%	2%	1

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline			
Telecommute	0%	1%	1			
# Worksites = 7						
# Eco Eligible Employees = 1,537						
VMR (2 years) = 600,822-901,232						

Source: TriMet & ECO Data

Figure 13 and Figure 14 below outline the contract goals and compare them to the actual accomplishments, as described in the GRCTMA progress reports. In 2010 and 2011, the GRCTMA reported on outputs (i.e. # of events attended and # of surveys completed) but did not provide a calculation to reflect their efforts in relation VMT reduction (as outlined in their contract).

Figure 13 Gresham Regional Center TMA Evaluation, 2010

Contract Goals	Actual Accomplishments
Community outreach: DLSM, bike rack survey, website update, bike safety fair, downtown event participation, "Try" marketing campaign	Launched new website; held transportation fair – 1,000 people participated; bike rack survey completed; "Try" campaign ads published
Employer outreach: survey 80 new GRC employers – facilitate 40 new GRCTMA members	Survey distributed to 408 Gresham Station employers; 87 surveys were returned (not noted if these were new GRC employers)
Assist TMA members to fill out ECO survey, join CarpoolMatchNW, facilitate vanpools	28 employers receive newsletter; made contact with 36 new employers; had formal meetings with 4 new employers who agreed to participate in TMA activities "to some degree"
Distribute Welcome packets to new employees	n/a
Get 10 new employment sites to participate in Bike Commute Challenge	Participated in challenges, but no note of how many new employment sites were achieved
Measure the trip activity of 1,500 employees, 100 Carefree Commuter Challenge participants, and 1,500 event attendees	Event survey: surveyed 103 event attendees;
Measure the usage of 630 bike racks and 7,374 parking stalls	Bike rack counts were done
Have GRCTMA-sponsored transportation options information in over 45,000 copies of various publications/printed material this year	n/a
Goal: 1,500,000 VMT reduction	n/a

Figure 14 Gresham Regional Center TMA Evaluation, FY20117

Contract Goals	Actual Accomplishments
Community outreach (DLSM, bike rack survey, website update, bike safety fair, downtown event participation, "Try" marketing campaign)	Launched new website; held transportation fair – 1,000 people participated; held walking tours (attendance was low); 300+ people attended the transportation safety fair
Employer outreach: add 15 new employers GRCTMA employer outreach program	n/a
Assist TMA members to fill out Eco survey, join CarpoolMatchNW, facilitate vanpools	No mention of ECO survey in evaluation report
Develop individualized marketing program to employees using the Portland SmartTrips model	More than half of the pledgers who completed the survey were already making as many non-SOV trips as possible before they took the pledge; no quantitative data is provided from the before and after surveys
Measure the trip activity of 1,000 employees, 100 Carefree Commuter Challenge participants and 20 summer event participants, 100 customers, 100 transit riders, and 1,000 attendees	Event survey: surveyed 62 event attendees; there is a report for transportation options for employees, but it does not mention how many surveys were distributed or what the results were
Measure the usage of 630 bike racks and 7,374 parking stalls	Bike rack counts were done
Engage 500 employees to participate in the Carefree Commuter Challenge; 500 to participate in the Bike Commute Challenge	132 people participated in the CCC; reached 667 for the BCC
Have GRCTMA-sponsored transportation options information in over 5,000 copies of various publications/printed material this year	n/a
Goal: 1,515,130 VMT reduction	n/a

Lloyd TMA

The Lloyd TMA (LTMA) continues to provide strong support to businesses in the Lloyd District. The LTMA's success over the years is attributed in part to its Pedestrian, Bike, and Transportation committees that all help to promote their respective travel modes through communications and special events. The LTMA has also developed an innovative funding stream in which revenues come from the Lloyd Business Improvement District; parking meters in the district; commissions from TriMet transit pass sales; and the Metro RTO program. This additional revenue should be taken into account when analyzing Metro's return on investment for this program.

The LTMA also operates the Lloyd District Commuter Connections store, which sells TriMet and C-TRAN passes, and provides other resources for biking, walking, and taking transit to work.

⁷ The Gresham TMA started working with more work sites in July 2011; this evaluation only goes through June 2011.

Program Evaluation

As of 2011, the Lloyd TMA had 80 member businesses. Of those, 68 businesses were surveyed as part of the ECO survey or TriMet Employer Pass program. Forty-four percent of employees commute to the Lloyd District using non-SOV modes (see Figure 15 below).

Figure 15 2009-2011 Commute Trip Mode Share for Lloyd TMA Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	62%	56%	-6
Transit	19%	25%	6
Bike	4%	5%	1
Carpool	13%	9%	-4
Comp Work Week	1%	3%	2
Telecommute	1%	2%	1

Worksites = 68

Employees = 12,017

VMR (2 years) = 3,075,416 - 4,613,123

Source: TriMet & ECO Data

Figure 16 and Figure 17 below outline the contracted goals for the Lloyd TMA in comparison to the actual accomplishments as outlined in the LTMA 2010 and 2011 annual reports. In 2010, although VMT reduction goals were exceeded, transit use dropped 0.3% and increased walking goals were not met by 0.5%. The carpool/vanpool mode-split also decreased from 10.3% to 10%.

Figure 16 Lloyd TMA Evaluation, 2010

Contract Goals	Actual Accomplishments
Measure the trip activity of nearly 6,000 employees each year	Completed
Maintain and/or exceed 4,236,578 VMT reduced	Actual VMT reduced: 4,296,918 (Source: TMA Annual Report)
Increase employee use of transit from 39% to 42% of all commute trips	Transit use dropped by 0.3%
Increase employee bicyclist trips to the Lloyd District from 4.8% to 5% of all commute trips	Bicycle mode split increased to 5.9%
Increase the number of pedestrian commuters to the Lloyd District from 2.4% to 3.0% of all commute trips	Walking increased to 2.5%
Maintain existing level of employee use of car/vanpooling as a commute option (10% commute mode split)	Carpool/vanpool dropped from 10.3% to 10%
Continue efforts to fund pedestrian safety and amenity improvements throughout Lloyd District	Completed
Increase employee and employer awareness of Lloyd District transportation options through staff outreach, communications and events	Completed

Contract Goals	Actual Accomplishments
Continue to develop an organization that effectively supports and advocates the long-term economic vitality and livability of the Lloyd District	Completed

In 2011, the Lloyd TMA exceeded its VMT reduction goals by 158,669 VMT. Transit use increased slightly to 39.3%. Of note, bicycling trips to the Lloyd District decreased from 5.9% to 4.8% and walking decreased from 2.5% to 1.7%.

Figure 17 Lloyd TMA Evaluation, 2011

Contract Goals	Actual Accomplishments
Measure the trip activity of nearly 6,000 employees each year	Completed
Maintain and/or exceed 4,296,918 VMT reduced	Actual VMT reduced: 4,455,587 (Source: TMA Annual Report)
Increase employee use of transit from 39% to 42% of all commute trips	Transit increased to 39.3%
Increase employee bicyclist trips to the Lloyd District from 5.9% to 6.1% of all commute trips	Bicycle mode split decreased to 4.8%
Increase the number of pedestrian commuters to the Lloyd District from 2.5% to 2.9% of all commute trips	Walking decreased to 1.7%
Maintain existing level of employee use of car/vanpooling as a commute option (10% commute mode split)	Carpool/vanpool rates decreased to 9.1%
Continue efforts to fund pedestrian safety and amenity improvements throughout Lloyd District	Completed; established a pedestrian committee to address pedestrian concerns
Increase employee and employer awareness of Lloyd District transportation options through staff outreach, communications and events	Completed
Continue to develop an organization that effectively supports and advocates the long-term economic vitality and livability of the Lloyd District	Completed

Swan Island TMA

The Swan Island Transportation Management Association brings together area employers and regional agencies to expand transit service, improve pedestrian and bicycle access, and increase rideshare opportunities for employees in an effort to reduce traffic on the Island.

Program Evaluation

As of 2011, Swan Island worked with 12 employers with a total of 2,334 employees who participated in the ECO or TriMet Employer Pass program survey (note that a few employers the TMA works with are exempt from surveying under the ECO Rules totaling more than 3,000 employees whose commutes are not accounted for in the mode share). The non-SOV mode split for Swan Island employers actually decreased between the baseline and recent surveys by two percentage points. Twenty percent of employees commute to these worksites using non-SOV

modes, a 2 percentage point decrease since the baseline survey was taken (see Figure 18 below). Transit ridership and comp work week schedules remained the same, carpooling decreased 4 percentage points, and biking increased one percentage point. The decrease in the non-SOV mode split could be attributed to the following factors: (1) select weekday trips for the 85 bus line to Swan Island were cut due to low ridership in May 2010; (2) of the 12 worksites surveyed, 5 sites increased their drive alone rate, and one site continued to have 100% drive alone rate since the base line year. Further investigation as to why these 5 sites increased their drive alone rates is needed.

Despite a small increase in VMT, Swan Island accomplished notable progress during the evaluation period, including:

- Worked with hundreds of employees through the ongoing individualized marketing effort, "Going to the Island"
- Worked with two major employers to initiate transit pass programs
- Oversaw the completion of the seismic retrofit of the Going Street bridge to include wider bike and pedestrian facilities

Figure 18 2009-2011 Commute Trip Mode Share for Swan Island TMA Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	78%	80%	2
Transit	7%	7%	0
Bike	2%	3%	1
Carpool	12%	8%	-4
Comp Work Week	1%	1%	0
Telecommute	0%	1%	1

Worksites = 12

Eco Eligible Employees = 2,334

VMR = VMT Increased 25,631 - 38,4478

Source: TriMet & ECO Data

Figure 19 and Figure 20 outline the contract goals for the Swan Island TMA in 2010 and 2011. The performance of the Swan Island TMA is difficult to conduct because no annual report was submitted in 2010. Some accomplishments can be gleaned from the quarterly invoices; however, actual outcomes in terms of VMR reduced could not be calculated with the information provided.

⁸ The Swan Island increase in VMT is minimal. It could be attributed to the following factors: (1) Select weekday trips for the 85 bus line to Swan Island were cut due to low ridership in May 2010; (2) Of the 12 worksites surveyed, 5 sites increased their drive alone rate, and one site continued to have 100% drive alone rate since the base line year. Further investigation as to why these 5 sites increased their drive alone rates is needed in addition to estimates for the more than 3,000 employees assisted by the TMA but not surveyed.

Metro RTO

Figure 19 Swan Island TMA Evaluation, 2009-2010

Contract Goals	Actual Accomplishments
Increase transit ridership by 50% (85 Swan Island from 500 to 750 rides per day; Swan Island Evening Shuttle from 60 to 90 rides per day)	
Reduce 630,000 vehicle miles of travel for trips to, from and within the Swan Island TMA service area annually (150 new transit riders x 16.8 miles round trip x 250 workdays per year)	n/a
Increase employment sites participating in a transportation program from 9 to 15	
Increase non-SOV mode split from 20% to 25% among participating employment sites	n/a
25 additional bike commuters and 25 van or carpool riders reducing an additional 210,000 vehicle miles of travel	
The TMA expects to maintain vehicle miles of travel reductions at 9 employment sites that have subsidy programs and conduct surveys. Previous ECO survey results show approximately 665,000 VMR annually	No VMT reduction or ridership information was provided in the annual report.
Grand total vehicle miles reduced goal for all tasks is 1,505,000 VMR annually	n/a
Distribute New Employee Kits to 500 new or relocating employees at TMA member businesses	Distributed 150 new employee kits
Partner with C-TRAN to establish three new Clark County vanpools	Completed.
Facilitate 5 new employment sites with 1,000 employees to compete in the BTA Bike Commute Challenge in September 2009	n/a
Facilitate 12 TMA members with 8,000 employees to participate in the July 2009 Carefree Commuter Challenge	n/a

Figure 20 Swan Island TMA Evaluation, 2010-2011

Contract Goals	Actual Accomplishments
Restore transit ridership on TriMet 85 Swan Island to 450 trips per day. Increase Swan Island Evening Shuttle 100 rides per day.	n/a
Reduce 1,500,000 vehicle miles of travel for trips to, from and within the Swan Island TMA service area annually	n/a
Increase employment sites participating in a transportation program to 12	Worked with two major employers to initiate transit pass programs
Increase non-SOV mode split from 20% to 25% among participating employment sites	n/a

Contract Goals	Actual Accomplishments
50 additional year round bike commuters and 100 van or carpool riders = 750,000 VMT reduction	n/a
Swan Island individualized marketing campaign (Booster grant) based on City of Portland's SmartTrips expected to shift an additional 100 commutes to non-drive alone modes, reducing 500,000 VMT	n/a
Grand total vehicle miles reduced goal for all tasks is 1,500,000 VMR annually	No VMT reduction or ridership information was provided in the annual report.
Manage Emergency Ride Home program for members	Completed
Provide Eco survey support to 6 employers	n/a
Host transportation fairs	Completed
Distribute new employer kits	Completed
Promote bike/ped facilities and engage employees in bike commute challenges	Completed
Launch "Going to the Island" marketing campaign	Completed; reached 1,500 employees

South Waterfront TMA

The South Waterfront TMA was established in July of 2010 in response to the new and growing South Waterfront neighborhood. The TMA is part of a greater community development effort in the neighborhood working to create a vital neighborhood, particularly working to bridge the gap between the hardscape and the softscape.

To start, the South Waterfront TMA conducted an annual survey to document a baseline mode split and develop a qualitative understanding about what people value and need in the community. Because this TMA is still in the early stages of development, it was not reviewed in further detail during this evaluation period.

Westside Transportation Alliance

The Westside Transportation Alliance (WTA) provides programs and services to employers to help them reduce single occupancy vehicle (SOV) trips and greenhouse gas emissions, foster economic vitality, and improve health. The WTA services employers in Washington County, Beaverton, Hillsboro, Tigard, and Tualatin to decrease demand on the regional transportation system by increasing awareness of transportation options. Services provided to employers include ECO survey guidance and individualized auto trip reduction plans.

Program Evaluation

As of 2011, the WTA worked with 40 employers with a total of 19,573 employees who participated in the ECO or TriMet Employer Pass program survey. Twenty-three percent of employees commute to these worksites using non-SOV modes, five percentage points higher than the baseline survey (see Figure 21 below). Transit increased 3 percentage points, while carpooling decreased 3 percentage points between the baseline and current survey.

Figure 21 2009-2011 Commute Trip Mode Share for WTA Worksites

Mode	Baseline Survey	Recent Survey	% Point Change Over Baseline
SOV	82%	77%	-5
Transit	5%	8%	3
Bike	3%	4%	1
Carpool	9%	6%	-3
Comp Work Week	1%	2%	1
Telecommute	0%	3%	3

Worksites = 40

Eco Eligible Employees = 19,573

VMR (2 years) = 4,280,155 - 6,420,232

Source: TriMet & ECO Data

Figure 21 and Figure 22 below outline the WTA contract goals and compare them to the actual accomplishments during the evaluation period.

Figure 22 WTA Evaluation, 2009-2010

Contract Goals	Actual Accomplishments
Reduce 4,000,000 vehicle miles of travel for trips to, from and within the TMA service area annually.	No VMT reduction numbers are reported in the annual report, but their 2010-2011 contract reported that the 2008-2009 evaluation showed a 3.4 million VMT reduction.
Increase employment sites participating in a transportation program from 32 to 47. This includes 32 current sites and 15 new sites.	Accomplished. WTA continued to work with 32 current employment sites and added 19 new sites.
Increase non-SOV mode split from 18% to 20% among participating employment sites.	No mode split numbers are reported in the annual report.
1 driver and 7 passengers willing to form a vanpool originating at least 10 miles away.	Vanpool outreach was done, but the WTA reported no new drivers.
Facilitate 25 new CarpoolMatchNW registrants as measured by entries in the CarpoolMatchNW database.	Four registrants were recorded in the first three quarters. The WTA also developed a Carpool Board where employees place tags from origination cites in an area designated for their shift. Pacific Natural Foods is using the prototype. Although the WTA observed the board was being used, they could not confirm any matches.
Assist 12 employers in sending employee home location data to Metro for rideshare potential geocoding. Use map created by Metro to help employees form carpools.	Although they promoted the geo-coded maps in all of their presentations and the order form is part of their work plan binder and on CD, they did not record any orders for maps this year.
Facilitate 10 new employers to join TriMet's Universal, Select or Direct pass programs.	2 new employers joined TriMet's Universal, Select or Direct pass program.
Promote the WTA online incentive program, Westside Commuter Club, using the DriveLessSaveMore.com trip	There is little interest by employers in offering employee incentives in this difficult economic scenario. In addition,

Metro RTO

Contract Goals	Actual Accomplishments
diary tool to track trips and deliver incentives provided by employers.	the WTA reported that tallying trips may be too intense, and the motivation of counting carbon is not as compelling they thought.
Promote the benefit of sharing and celebrating ECO results with employees. Offer 10 PowerPoint presentations tailored to each company's ECO report and include cost savings realized by the company transit benefit, or pre-tax deduction, and site specific facilities for bike parking.	Completed.

Figure 23 WTA Evaluation, 2010-2011

Contract Goals	Actual Accomplishments
Reduce 500,000 vehicle miles of travel for trips to, from and within the TMA service area annually.	No VMT reduction numbers are reported in the annual report.
Increase employment sites participating in a transportation program 47 to 62 (15 new sites).	Worked with 52 employers (5 new sites).
Improve WTA website.	Completed.
Participate in 6 employer transportation fairs.	Completed. Attended 10 employer transportation fairs.
Promote the September 2010 BTA Bike Commute Challenge.	Completed.
Community outreach to elected officials.	Participated in the following committees: Washington County Active Transportation Forum, Hillsboro 2020 Vision Implementation Committee, Transportation Options Group of Oregon, Westside Economic Alliance Transportation Committee.
Develop customer service satisfaction survey to cities and businesses using WTA services.	Completed.
Start outreach to fourth city, Tualatin.	Not mentioned in annual report or workplan.
Promote the benefit of sharing and celebrating ECO results with employees. Offer 10 PowerPoint presentations tailored to each company's ECO report and include cost savings realized by the company transit benefit, or pre-tax deduction, and site specific facilities for bike parking.	Completed.

Travel Options Grants

This section evaluates the RTO Travel Options grants. Travel Options grants are distributed by the Metro RTO program and include programs that focus on travel options awareness, wayfinding and soft infrastructure projects (such as bike rack installations), and bike commute competitions.

BTA Bike Commute Challenge

The Bicycle Transportation Alliance (BTA) Bike Commute Challenge is an annual marketing campaign and challenge to increase the number of people biking to work in the region. The

month-long event makes bike commuting a supported and fun workplace activity each September. The Challenge is a statewide event that also includes participants in SW Washington, but historically more than 85% of participants have been in the Portland Metro area. This program reduces SOV use and traffic congestion and improves air quality by encouraging people to try bike commuting.

Program Evaluation

Figure 24 outlines the goals outlined in the contract, compared to the actual accomplishments of the Bike Commute Challenge.

Figure 24 Bike Commute Challenge Evaluation, 2009-2011

Contract Goals	Actual Accomplishments
Teach 10 commute workshops in Clackamas County	Scheduled 12 workshops in Washington and Clackamas Counties in 2009 and 2010, but had to cancel three of them due to lack of RSVPs.
Increase miles replaced by 5% to 177,389 by 2010	1,020,898 bike miles logged; 2010 total miles biked by new and "drive alone" bike commuters = 847,265 miles
	2009 post-program ODOT survey shows a 0.5% increase in transit use, carpooling, and biking following the September challenge.
Increase the number of workshops in schools to 10 over two years.	Taught 16 workshops.
Increase the total number commute workshops to 150 over 2 years.	The BTA taught 154 workshops over two years reaching more than 2,000 individuals with our program to increase confidence, safety, and comfort bike commuting.
Improve year-round marketing materials.	The BTA worked with in-kind partner Grapheon Design to promotional poster and website design with different themes for each year's program.
Increase participation in all challenge categories by at least 5% over 2007 numbers.	The BTA increased participation of workplaces by 45% and participation of individuals by 14% over 2007 numbers. Increased participating employers to 1,240 in 2009; to 1,283 in 2010.

City of Gresham Bike/Ped Wayfinding

The goal of the Gresham Wayfinding project was to increase the number of bicycling, and walking trips taken by residents and employees of the City of Gresham by providing pedestrian and bicycle signage with directions and distances to major destinations. Other goals included encouraging a reduction in single occupant vehicle trips, reducing the vehicle miles driven by area residents, increasing the awareness and raising acceptability of all modes of travel, and increasing neighborhood mobility and livability. The directional signs included information that pointed pedestrians and bicyclists to food, transit, and shopping areas.

Program Evaluation

Figure 25 below outlines the goals outlined in the contract, compared to the actual accomplishments of the City of Gresham Bike/Ped Wayfinding signs.

Figure 25 City of Gresham Bike/Ped Wayfinding Evaluation

Contract Goals	Actual Accomplishments
Reduce auto trips by 2 percent	This information was not calculated in the annual report.
Increase bicycling 5 percent, walking 5 percent, and transit 2 percent	This information was not calculated in the annual report. However, the survey reports that the bicycle guide has caused 52% of respondents to increase their number of bicycle trips.
A minimum return of 15 percent of the surveys distributed	The survey spreadsheet does not include a total number of surveys distributed; it does note that roughly 100 people answered the survey.
Place two media stories in area papers, newsletters, radio and television outlets	A total of three media stories ran in the <i>Gresham Outlook</i> and <i>OregonLive.com</i> . Events were also publicized in Gresham's <i>Neighborhood Connections</i> newsletter.
Increase awareness of the "Drive Less. Save More" marketing campaign	DLSM was promoted through the Bicycle Guide, including the DLSM logo and website.
Increase awareness of existing pedestrian, bicycle, and transit facilities	City held "Way to Go Fair," Bike to Work Day, 103 way- finding signs were installed by the end of June 2010, the Gresham Bicycle Guide was designed and delivered to 10,000 people.

City of Tigard Bike Map

The Tigard Bike Routes map was intended to increase the number of bicycling trips taken by residents while decreasing the number of drive-alone trips. The project aimed to reach approximately 4,000 households in the City of Tigard.

Program Evaluation

Figure 26 below outlines the program accomplishments compared to the goals as outlined in the Metro RTO contract.

Figure 26 City of Tigard Bike Map

Contract Goals	Actual Accomplishments
Place three media stories in area newspapers and in the Cityscape Newsletter mailed to 22,800 addresses within the Tigard area	Unknown.
Get 500 hits on the city webpage version of the bike map	Of the 12,000 maps distributed, 1,242 maps have been requested online and were mailed out.
Distribute 4,000 maps to the city population	12,000 maps were requested by, picked up by, or distributed to people in the community

Community Cycling Center Understanding Barriers to Bicycling

The Understanding Barriers to Bicycling project was intended to increase the awareness and acceptability of bicycling as a transportation option among minority and low-income participants

in North and Northeast Portland by creating a culturally-specific program designed to meet the unique needs of the community. The project goal was to reach 250 people through ten community organizations by developing and implementing a culturally-appropriate needs assessment process that ranged from surveys to focus groups. The results of the needs assessment were to be used to inform a pilot program targeted to minority and low-income residents to promote the "Drive Less, Save More" campaign in order to increase bicycling trips and reduce car trips. This effort was part of the City of Portland Bicycle Master Plan for 2030.

Program Evaluation

Figure 27 below outlines the goals outlined in the contract, compared to the actual accomplishments of the Community Cycling Center Barriers to Biking program.

Figure 27 Community Cycling Center Understanding Barriers to Bicycling Evaluation

Contract Goals	Actual Accomplishments
Identify barriers and opportunities for bicycling in NE/N Portland who are women, African American, Latino/Hispanic or low-income through culturally specific assessment sessions	Surveyed over 150 community members and gathered indepth feedback from over 50 residents of affordable housing communities to learn about their interest in and concerns about bicycling
Design a pilot program that addresses culturally specific barriers	Taught 350 adults bike safety and maintenance skills
Develop relationships with diverse community members	Held 75 meetings with leaders within communities of color

Gresham Bicycle Safety Equipment and Bicycle Rack Project

The Gresham Bicycle Safety Equipment and Bicycle Rack project consisted of three primary tasks: (1) a bicycle helmet and safety equipment giveaway at a public event; (2) a bike rack installation in downtown Gresham; and (3) a final report documenting the project outcomes.

Program Evaluation

Figure 28 below outlines the contracted program goals compared to the actual accomplishments.

Figure 28 Gresham Bicycle Safety Equipment and Bicycle Rack Project

Contract Goals	Actual Accomplishments
A bicycle helmet and safety equipment giveaway at a public event	Completed
A bike rack installation in downtown Gresham	Completed
A final report documenting the project outcomes	No final report was submitted

Lloyd TMA Lloyd Links

Lloyd Links was the Lloyd TMA's individualized marketing program that targeted Lloyd employees who expressed an interest in changing their travel mode from drive alone to transit, biking, walking and/or rideshare. The program focused on linking Lloyd employees from their residential neighborhoods to their Lloyd work sites via personal contact and direct one-on-one assistance.

Program Evaluation

Figure 29 below outlines the goals outlined in the contract, compared to the actual accomplishments of the Lloyd Links program.

Figure 29 Lloyd Links Program Evaluation

Contract Goals	Actual Accomplishments
Conduct two surveys (one before program and one after)	Completed
Increase employee use of transit from 39% to 42% of all employee commute trips	See Lloyd TMA evaluation (pages D-30 to D-33)
Increase employee bicyclist trips to the Lloyd District from 4.6% to 5% of all commute trips (LTMA member businesses)	See Lloyd TMA evaluation above (pages D-30 to D-33)
Maintain existing level of employee use of car/vanpooling as a commute option (10% commute mode split).	See Lloyd TMA evaluation above (pages D-30 to D-33)
Per the contract, The Lloyd Links program will be integrated into the overall mode split and VMT goals of the LTMA	See Lloyd TMA evaluation above (pages D-30 to D-33)
Attend transportation fairs.	Attended 8 transportation fairs
Reach all members at least 7 times; exchange information at least once with interested parties	Completed
Connect with 1,125 individuals each year	Completed
Increase awareness of all Lloyd TMA programs as well as DLSM	Completed

PSU Long-Term Bike Parking

Portland State University (PSU) faculty, students, and staff indentified a lack of secure and covered parking on campus. In an effort to promote more bicycling, this project developed a long-term bicycle parking structure that would hold a minimum of 75 bikes, would be ADA compliant, and would be a secure, 24-hour key-card access facility.

Program Evaluation

Figure 30 below outlines the program accomplishments compared to the goals as outlined in the Metro RTO contract.

Figure 30 PSU Long-Term Bike Parking Evaluation

Contract Goals	Actual Accomplishments
Install bike facility with a minimum of 75 bikes	Installed 71 bike parking stalls in the covered facility; 6 covered bike racks outside of the facility
	At the end of Spring term 2011, there were a total of 46 bike garage users (users are required to have a permit)

City of Portland Sunday Parkways

Portland Sunday Parkways promotes healthy active living through a series of free events that opens the city's streets for walkers, bikers, and roller skaters. The goal of this project was to significantly increase the community's awareness of the role of transportation with respect to air quality and climate change.

Program Evaluation

Figure 31 and Figure 32 below outlines the program accomplishments compared to the goals as outlined in the Metro RTO contract.

Figure 31 Sunday Parkways Evaluation, 2009-2010

Contract Goals	Actual Accomplishments
Use media campaign to reach over 50,000 households	Completed.
Hold 3 Sunday Parkways events	Held 3 events: North Portland, Northeast Portland, Southeast Portland.
Engage over 15,000 residents to participate in each Sunday Parkways event	North Portland: 15,000 participants; Northeast Portland: 22,000 participants; Southeast: 25,000 participants.

Figure 32 Sunday Parkways Evaluation, 2010-2011

Contract Outcomes	Actual Outcomes
Reach all area residents within two blocks of a designated route at least seven times with Sunday Parkways messages.	Completed.
Hold 5 Sunday Parkways events	Held 5 events: Northeast Portland, North Portland, East Portland, Southeast Portland and Northwest Portland
Involve 200 neighborhood associations or other community organizations to help plan the events.	Involved 250 organizations.
Recruit 100,000 participants to walk, bike and participate in the 5 events (total)	91,000 participants in 5 events total.

Swan Island TMA Trip Not Taken

The purpose of the Swan Island Trip Not Taken program was to reduce VMT by helping people live closer to where they work. The project had two objectives: (1) to help Swan Island employees discover North/Northeast Portland by providing information on home ownership, shopping, and other amenities; and (2) to help area residents discover Swan Island as a place to work by providing information about job opportunities.

Program Evaluation

Figure 33 below outlines the program accomplishments compared to the goals as outlined in the Metro RTO contract.

Figure 33 Swan Island TMA Trip Not Taken Evaluation

Contract Goals	Actual Accomplishments
Program will be measured by an increase in employees of Swan Island employers who have home zip codes within the project area	Michael Andersen of Portland Affoot analyzed zip code data for Swan Island, Rivergate and Columbia Corridor offered evidence that a trend to longer commutes was significantly muted on Swan Island in comparison to the other two nearby employment areas
Gather baseline data	Completed
Develop employment collateral	Completed
Develop home ownership collateral	Completed
Swan Island will reach out to all Swan Island TMA members; plus 6 more in 2007; plus 20 more in 2008	Completed
Attend 4 job fairs	Completed
Conduct independent evaluation of program – analyze #85 bus line ridership, ECO data, and other employment and housing trends	Not completed

TriMet Beaverton Transit Center Electronic Bike Lockers

This project installed sixteen bike lockers at the Beaverton Transit Center. After the bike lockers were installed, their effectiveness was evaluated as a strategy to encourage biking to transit.

Program Evaluation

The project goal in the contract for this project reads as follows: "electronic bike lockers have the potential to shift 64,000 auto trips to bicycling and transit within the two-year life of the grant and shift 228,000 trips over a 10-year period (well within the lifespan of the lockers)."

The bike lockers were installed in July 2011. The Bike & Ride facility has a capacity of 100 bikes. In September 2011, the facility averaged 24 bikes per day. No data has been collected to date to show how many auto trips have actually been shifted based on these bike racks. Moreover, due to the recent installation of these bike racks, the assessment of the use of these bike lockers is most likely premature.

TriMet Open Source Trip Planner

This project will test the usability of an Open Source Multi-Modal Trip Planner System (OS MMTPS) for a public transit agency. As designed, the test system should increase the number of biking, walking, and transit trips taken by Portland Metro area residents while decreasing the number of drive-alone trips. The system will be in beta in the Fall of 2011. Complete evaluation of this program will be conducted in the next biannual evaluation report.

WTA Bike Rack Program

The Bike Rack Grant program installed a total of 35 bike racks available to businesses that participate in the Westside Commuter Club (WCC), a component of the Westside Transportation Alliance (WTA). The new bike racks were marketed to businesses along the Westside Express Service (WES) commuter rail corridor as part of the auto trip reduction services offered by the

WTA. When only one employer expressed interest in the program, the project scope was expanded to include retail locations in downtown Tigard.

Program Evaluation

Figure 34 below outlines the program accomplishments compared to the goals as outlined in the Metro RTO contract.

Figure 34 WTA Bike Rack Program Evaluation

Contract Goals	Actual Accomplishments
Install 35 bike racks in front of interested employment sites; provide \$100 to cover permit fees	Installed 25 bike racks
An online survey will be conducted at the beginning and at the end of the project at each employer location	Of the riders surveyed, 86% of respondents reported that the bike racks encouraged them to ride their bikes to downtown Tigard; of the businesses surveyed, 61% of participating businesses reported that the racks were used more than once a week, while 54% of them said that the racks were good for business

WTA Carefree Commuter Challenge

The goal of the Westside Transportation Alliance Carefree Commuter Challenge (CCC) project was to increase the number of bicycling, walking, transit, and carpool trips taken by employees in the Metro region while decreasing the number of drive-alone trips. The non-SOV trips were tallied by employees using the DLSM online trip diary. WTA staff analyzed the data at the close of the Challenge.

Program Evaluation

Figure 35 below outlines the program accomplishments compared to goals as outlined in the Metro RTO contract.

Figure 35 WTA Carefree Commuter Challenge Evaluation

Contract Goals	Actual Accomplishments
Invite 2,500 employers to participate in the CCC	Completed
Participating companies will increase by 50% from 209 to 314	Participating companies decreased to 202
Participating employees will increase by 25% from 4,548 to 5,685	Participation goals were not met. 2,200 employees participated
Vehicle miles saved will increase by 20% to 1,517,982 in 2009	Total Miles: 41,584 1-way trips
Reach all TCs at least 15 times with transportation options messages by e-mail	Completed
Place 2 media stories in area papers, and 2 newsletters	Completed
Increase awareness of the "Drive Less. Save More." marketing campaign by using the logo on web site and printed material and by pointing people to the trip diary	Completed

Individualized Marketing

City of Gresham Civic Drive

The Gresham Civic Drive Station project is an individualized marketing program to increase the number of bicycling, walking, transit, and carpool trips taken by residents in the vicinity of the new Civic Drive MAX station. In partnership with the Gresham Regional Transportation Management Association (TMA), the project originally targeted close to 3,000 households near the new Gresham Civic Drive MAX station but the City of Gresham added resources to expand to 8,100 households. As of October, 2011, the post-marketing survey had not been completed; therefore, only the program "outputs" were evaluated during this process. Program outcomes will be evaluated upon completion of the post survey.

Program Evaluation

Figure 36 below outlines the program accomplishments of the Gresham Civic Drive program compared to goals as outlined in the Metro RTO contract.

Figure 36 City of Gresham Civic Drive

Contract Goals	Actual Accomplishments
Decrease drive alone trips by 4%	The post-survey for this project has not been completed; therefore mode-split changes are not yet available.
Involve 12% of the population at least once	n/a
Reach all residents at least 5 times; interested residents 10 times	n/a
Involve 12% of target population in one program or project	27% of the target population ordered materials or participated in one of the SmartTrips outreach events.
Place 10 media stories in local media	n/a
Increase awareness of "Drive Less. Save More. marketing campaign	n/a

City of Portland SmartTrips Green Line

The Portland SmartTrips Green Line project was launched in 2009 to reach 27,684 households in Portland neighborhoods within one-half mile of the new MAX Green Line or west of 112th, east of 72nd, north to the Gateway area and south to city boundary. Businesses in these areas could choose to participate in the program through the "SmartTrips Business" program. The primary goal of the project was to get more residents in the identified neighborhoods to use the new MAX line, thereby reducing drive alone trips and VMTs. The program was also intended to increase the awareness of other modes, such as biking, walking and ridesharing.

Program Evaluation

Figure 37 below outlines the program accomplishments compared to the program goals as outlined in the Metro RTO contract.

Figure 37 City of Portland Green Line SmartTrips Evaluation

Contract Goals	Actual Accomplishments
Decrease drive alone trips by 8%	Residents reduced their drive-alone trips by 18.4%
Reduce VMT by 8%	Average daily per capita vehicle miles (drive alone only) were reduced by 2.95 miles per person per day; saved over 39 million VMT (Source: City of Portland Green Line report)
Increase bicycling 20%, walking 10%, transit 20%, and carpooling 3%	Residents increased their environmentally-friendly modes by 30.4%; bicycling increased 9.5% in 17 east Portland locations; transit increased 15%; carpooling doubled
Reach all residents at least 5 times; interested residents 10 times	All residents in the target area were contacted at least 5 times
Involve 35% of target population in one program or project	Approximately 25% of those in target area (8,200 households) either ordered material or participated in an event
Place 5 media stories in local media	Placed media stories in local media – number not specified
Increase awareness of CarpoolMatchNW.org and increase the number of residents who log on to the site	Smart Trips Green Line mailer included information on CarpoolMatchNW.org
Increase awareness of "Drive Less. Save More. marketing campaign	Not included in annual report

City of Portland SmartTrips North-Northwest

The Portland SmartTrips North-Northwest project was launched in 2009 to reach 31,000 households in North and Northwest Portland neighborhoods. In North Portland, the project outreach was bounded by Peninsular on the East, the Willamette River on the South and West, and N Columbia Boulevard on the North. In Northwest Portland, the project outreach was bounded by Willamette River on the East, W Burnside Street on the South, NW Skyline Road on the West and NW Germantown Road on the North. These neighborhoods were selected for two primary reasons: (1) a partnership opportunity with Kaiser Permanente who agreed to sponsor the reprint of the North Portland Walking Map and the development and printing of the new Northwest Portland Walking Map; and (2) a high level of economic revitalization occurring in Northwest, North Portland, and the St. John's area.

The project brought individualized marketing to residents and businesses in growing neighborhoods that were part of the identified neighborhoods. The primary goal of the project was to get more residents in the identified neighborhoods to use transit, thereby reducing drive alone trips and VMTs. The program was also intended to increase the awareness of other modes, such as biking, walking and ridesharing.

Program Evaluation

Figure 38 below outlines the program accomplishments compared to the program goals as outlined in the Metro RTO contract.

Figure 38 City of Portland SmartTrips N/NW Evaluation

Contract Goals	Actual Accomplishments
Decrease drive alone trips by 8%	Residents reduced their drive-alone trips by 9.3%
Reduce VMT by 8%	SmartTrips North/Northwest saved over 16 million VMT in 2009, which is equivalent to shifting just over one trip per week, per person in the target area, from driving alone to another, more environmentally-friendly mode such as walking, bicycling, or transit (or a net reduction of 1.01 VMT per person, per day, in the study area) (Source: City of Portland report)
Increase bicycling 20%, walking 10%, transit 20%, and carpooling 3%	A 10.5% increase in environmentally friendly trips; transit increased from 3% to 7% of mode split; bicycling, walking and carpooling mode splits were not reported on specifically
Reach all residents at least 5 times; interested residents 10 times	All residents in the target area were contacted at least 5 times
Involve 35% of target population in one program or project	Of the 29,500 households in the target area, a total of 3,656 households ordered materials for a return rate of 12.6%.
Place 5 media stories in local media	Placed media stories in local media – number not specified
Increase awareness of CarpoolMatchNW.org and increase the number of residents who log on to the site	Smart Trips Green Line mailer included information on CarpoolMatchNW.org
Increase awareness of "Drive Less. Save More. marketing campaign	Not included in annual report

City of Portland SmartTrips N/NE

The Portland SmartTrips North-Northeast project was launched in 2010 to reach 23,000 households in north and northeast Portland. The project brought individualized marketing to residents and businesses in growing neighborhoods that are part of the identified neighborhoods outlined in the contract. The primary goal of the project was to get more residents in the identified neighborhoods to use transit, thereby reducing drive alone trips and VMTs. The program was also intended to increase the awareness of other modes, such as biking, walking and ridesharing.

Program Evaluation

Figure 39 below outlines the program accomplishments compared to the program goals as outlined in the Metro RTO contract.

Figure 39 City of Portland SmartTrips N/NE Evaluation

Contract Goals	Actual Accomplishments
Decrease drive alone trips by 8%	This project is not yet complete; report will be done late 2011.
Reduce VMT by 8%	
Increase mode split for bicycling 20%, walking 10%, transit 20%, and carpooling 3%	
Reach all residents at least 5 times; interested residents 10 times	
Involve 35% of target population in one program or project	
Place 5 media stories in local media	
Increase awareness of CarpoolMatchNW.org and increase the number of residents who log on to the site	
Increase awareness of "Drive Less. Save More. marketing campaign	

Discover Wilsonville

Discover Wilsonville was an individualized marketing project to maximize awareness and use of the many travel options in and around the residential areas of Wilsonville. The goal was to increase bicycling, walking, and transit for short trips and to connect residential areas with Town Center and the regional travel options offered at SMART Central Station. The project also sought to benefit from the synergy of existing programs, including SMART Options, Walk Smart, and Bike Smart.

This project targeted 16,000 residents in 6,500 households in Wilsonville who live north of the Willamette River. This project worked alongside continuing development of Town Center commercial land and the infill of densely developed residential areas that aligns well with creating a transit and pedestrian friendly environment.

Program Evaluation

Figure 40 below outlines the program accomplishments compared to the program goals as outlined in the Metro RTO contract.

Figure 40 Discover Wilsonville Evaluation

Contract Outcomes	Actual Outcomes
Decrease drive alone trips by 4%	No data available; post-survey was being completed as of November 2011. Final report will be completed by February 2012.
Increase mode share for biking, walking, public transportation, and carpool trips	n/a
Reach all residents at least 5 times; interested residents 10 times	n/a
Involve 12% of target population in one program or project	1,763 residents participated in 28 outreach events; 1,739

Contract Outcomes	Actual Outcomes			
	kits were delivered			
Place 10 media stories in local media	n/a			
Increase awareness of "Drive Less. Save More. marketing campaign	n/a			

EVALUATION: LESSONS LEARNED

The evaluation process revealed opportunities for the Metro RTO program to improve its contracting, reporting, and evaluation processes. Lessons learned outlined in this section will help RTO to prioritize funding, communicate expectations to grantees, and evaluate its programs in an efficient and effective manner.

Contract Requirements

Metro RTO contracts are used to document the expectations of grantees. Each contract includes a description of the project, the project amount, and the contract dates. The contracts have varying levels of detail included in them. Some contracts include a detailed workplan by task to clearly identify dollar amount per deliverable. Other contracts include a narrative with project goals. While it is understood that some programs require more details than others, the Metro RTO program should consider standardizing the contracting language for similar programs, at the least. For example, individualized marketing projects did not include similar goals in the contracts. Discover Wilsonville's contract required them to generally reduce drive alone trips by 4%, while Portland SmartTrips programs included specific VMT reduction goals and mode split targets.

Reporting & Invoicing

Reporting and invoicing are important components of the RTO program; they are necessary to evaluate the success and needed outcomes of the program. This evaluation process revealed a number of opportunities for the RTO program to streamline the invoicing and reporting processes to improve efficiency and effectiveness.

Invoicing

Each grantee is expected to submit invoices with progress reports on a quarterly basis and a summarized report at the end of the program. In the stakeholder interviews, grantees expressed concern about the time spent on the invoicing process, noting that a lack of clarity in invoicing expectations contributed to the inefficiency of the process.

Annual & Biannual Reporting

During the evaluation process, it became apparent that program reporting requirements lacked clarity as well. Some grant recipients provided only the quarterly invoices with a progress report, while others submitted detailed annual reports. Some annual reports were very useful in the evaluation process because they spoke directly to goals outlined in the contract; other annual reports appeared to be more for marketing purposes and did not specifically speak to expectations outlined in the contract. Lack of consistent reporting made it very difficult to evaluate and compare the success of each program.

Reporting expectations also varied significantly. For example, the TriMet Employer Outreach program that receives nearly 15% of the RTO budget reported only on outputs (number of employees contacted, number of employer pass programs initiated, number of vanpool miles driven, etc.), but they do pool the ECO data that is used in the biennial evaluation. For the level of investment, the expectation could be greater to keep track of the ECO data progress on a yearly basis. Conversely, the City of Gresham was required to conduct a before and after survey to document the success of its wayfinding signs. The WTA Bike Rack Installation project (for \$15,000) was also required to conduct a before and after survey to show the affect of the new bike racks on travel behavior. The level of detailed reporting did not align with the program amount invested.

Reporting on VMT

Vehicle miles reduced (VMR) is an important performance measure for the RTO program. To comply with CMAQ requirements, the RTO program must prove its contribution to VMR in the region. However, the current evaluation process revealed a discrepancy in the number of programs required to report on VMR and the number of programs actually reporting on VMR. Moreover, a significant amount of money (roughly \$2.3 million of the 2009-2011 budget) disbursed by the RTO program did not expect VMR to be measured as an outcome. Of the 13 programs that were expected to report on VMR, only 7 programs actually reported on it.

Conclusion

Lessons learned outlined in this evaluation will be used to craft recommendations for the evaluation process in the 2012-2017 Strategic Plan process.

APPENDIX E MATRIX OF PRECURSOR METRICS

	Colors represent which tools could be used for data collection:	Funding recipient tracking	Region-wide survey	Employee survey	Online	Other survey/independent analysis
General RTO program areas	Examples	Services / activity provided	Awareness	Participation	Satisfaction	Action: Utilization of alternative modes/ Behavior change
Rideshare program	Online rideshare matching tool	live website; attended phone line and email (quarterly report)	%commuters aware (annual tracking survey)	Increased # of registrants (online database) and % matched (online survey)	rating (online survey)	# leaving car at home (online survey)
Rideshare program	Vanpool subsidy program	program for arranging vanpools, incentive program	%commuters aware (annual tracking survey)	vans & riders increase (vanpool logs)	study of satisfaction of/with driver, van, vanpoolers, origin, destination, traffic (mail-in or online survey)	# leaving car at home (registration and rider survey)
Employer outreach	Technical assistance to ECO affected employers	Marketing to, and contact with employers; Partners (TMAs, SMART, etc) coordinating work with employers (quarterly report)	% employers aware of help (employer outreach question during first contact); # of contacts (quarterly report); # of materials distributed (inventory)	# employers/employees helped (tracking programs and incentives offered by employers); # employers complying with ECO (Employee survey)	% employers satisfied that technical assistance has been provided.	NA
Employer outreach	Transportation coordinator training	Training offered	% employers aware of training offering	# attendees	Satisfaction score from training feedback form	NA
Employer outreach	Transportation fairs	outreach person at booth	% contacts of total attendees; % of employees aware	# contacts	Satisfaction that questions were answered (feedback form)	NA

General RTO program areas	Examples	Services / activity provided	Awareness	Participation	Satisfaction	Action: Utilization of alternative modes/ Behavior change
Incentive program, long-term	Emergency/guaranteed ride home	vouchers distributed	% commuters aware (Employee survey or annual tracking survey)	# employers who have implemented program	% satisfied that program is easy for employer, employee, and service provider	NA
Incentive program, long-term	Transit pass incentive/subsidy program	annual pass incentive is available	% aware of incentive	# with pass incentives	% satisfied with incentive program; % preferring incentive over other options	# of trips made on transit that leave car behind or choose to not have a car.
Incentive program, short-term	Month-long commuter challenge	A structure is in place that includes sending out emails, hosting a website, partnering (e.g., DLSM) and identifying champions (quarterly report)	increase in # employers & employees registered (tracking database); engaged employer with champion(s) (independent survey); media coverage (media tracking)	# new participants (tracking database); # new bikers (registration question); # days biked on average (tracking database); year-round participation (tracking database)	complaints/commendations (comment cards/email); Does the method work for employers? (independent survey)	# trips biked & left car at home & distance (registration question)
End-of-trip facilities	Bike parking	# bike parking stalls	% aware of bike parking	bike parking occupied most days	% who state preference for bike parking over sign pole, tree, etc.	NA
End-of-trip facilities	Reserved carpool parking spaces	# parking spaces for rideshare vehicles	% aware of rideshare spaces	rideshare parking occupied most days	those who rideshare agree the incentive has value to them	NA

General RTO program areas	Examples	Services / activity provided	Awareness	Participation	Satisfaction	Action: Utilization of alternative modes/ Behavior change
Location efficient living	Promote housing to nearby workers (Employer Assisted Housing)	Market concept to employer area; connect concept to new housing; (quarterly report)	% employers aware of concept (employer outreach question during first contact)	Employers offer incentive (partnership tracking)	increased satisfaction with commute, increased quality of life & saved money	Reduce VMT with all trips per household, especially when located in good land use areas such as centers.
Location efficient living	Promote work opportunities to nearby residents	local job fair or announcements	% residents aware of nearby industries	% local applications increase	% satisfied that local industries have made efforts for local outreach	NA (follow-up with household can show reduced VMT).
Marketing, community-based	Neighborhood outreach	speakers bureau; booth at event (event tracking database)	% aware (oversample in community during regional awareness survey; community-based survey)	# events; # materials distributed; size of event; contacts; signed commitment cards; coupons used; # people at event; returned forms (event tracking database and coupon collection)	feedback (feedback evaluation form); % aware (regional awareness survey; community based survey)	NA - can't isolate but indicated by overall mode splits
Marketing, individualized	Neighborhood outreach	1-on-1 contact; mailing/emailings	pre&post survey	# households; # participants; participation rate; # materials distributed	in-depth interview; customer comments	survey showing behavior change
Marketing, mass	Ad campaign	TV ad; radio; billboards; bus sides; channel cards; earned media; newspaper; print	pre&post awareness survey; message awareness	reach & frequency; commitment cards signed; website traffic	satisfaction that valuable/actionable information was provided by campaign elements	can't isolate; post survey could estimate based on awareness and stated actions after seeing/hearing ads and other campaign elements; comparisons could be made between pre & post mode splits; regional VMT reduced might relate to some campaign elements
						,
Traveler information tool	Printed bike map	# maps printed	feedback/comments (negative/positive); regional awareness survey	# distributed; who buys them; # people who buy them (retail sales)	feedback from customers (positive/negative); repeat buyers (retention)	NA

General RTO program areas	Examples	Services / activity provided	Awareness	Participation	Satisfaction	Action: Utilization of alternative modes/ Behavior change
Traveler information tool	Online tool: trip planner; transit tracker	available on web	attitudes, awareness survey; web survey	# bookmarked; # visits; # completed trip plans	attitudes, awareness survey; web survey	NA
Traveler information tool	Walking guide: "How to Ride"; transit schedules	# printed	awareness survey	# distributed	if aware, ask satisfaction on region-wide survey; feedback from customers (positive/negative)	NA
Walk program	Leading walks	# events; event marketing; walks; coupon books	regional awareness survey; community-based survey	# participants; miles walked; list of names	participant surveys	participant survey; exercise vs. recreation
Bike program	Helmet fitting and giveaway	# helmets distributed	how did participants find out about event using event-participant survey; regional or community survey	# of people at events; # fittings; pledge cards signed	event-participant survey	NA - indirect
Carshare program	Flexcar introduced to a regional center	Car available to be borrowed at least some hours most days.	% of local population aware of car	# of members within X miles; # who have used Flexcar at least once	member satisfaction	# uses by those owning one less car
Parking management	Parking regulation introduced to a regional center	Signage and enforcement	% of population aware of regulation.	% cars obeying regulation	satisfaction with signage, lower-hassle parking	Reducing congestion by reducing car mileage driven to hunt spaces for areas where parking is filled to 100% capacity to 85% (thought to be optimal capacity).

Source: Portland State University