

State of Oregon
Department of Environmental Quality

Memorandum

Date: July 7, 2022

To: Environmental Quality Commission

From: Richard Whitman, Director

Subject: Item D: Employee Commute Options Rulemaking (Informational)
July 21-22, 2022, EQC meeting

Purpose: DEQ will present an informational briefing for the commission on proposed updates to the Employee Commute Option program and proposed rules to expand employer-based commute options programming to certain areas of the state.

Background: DEQ initiated the Employee Commute Option (ECO) program in 1996 as a pollution reduction strategy in the Portland-Vancouver Ozone Air Quality Maintenance Plan. DEQ modified the program in 2006 to require employers in the Portland metropolitan area with more than 100 employees at a worksite to develop a plan to reduce their employees' drive-alone commute trips by 10 percent from a baseline. ECO rules allow a range of incentives that employers may choose to offer employees to meet that reduction, but do not require that employers offer specific incentives. Employers in the program most commonly offer subsidized transit passes, access to flexible scheduling and telecommuting, biker amenities and guaranteed rides home. DEQ considers employers who complete surveys, submit biannual reports and make good faith efforts to implement their commute reduction plans to be complying with ECO rules.

Regional data sources estimate that between a quarter and a third of passenger cars' weekday emissions in the Portland metropolitan region may come from people driving back and forth to work. DEQ calculations show that in 2019, ECO prevented 36,000 metric tons of CO₂ emissions, a greenhouse gas, due to reduced or eliminated single-occupant vehicle travel. From a model completed in 2018, DEQ estimated that the ECO program also prevents tens to hundreds of tons of toxic air contaminants and ozone precursor pollutants each year due to avoided emissions.

In 2020, Governor Brown directed DEQ and Oregon Departments of Transportation, Energy, and Land Conservation and Development to work collaboratively to reduce greenhouse gas emissions from transportation sources. The agencies developed a campaign under the title *Every Mile Counts* and a workplan of projects that could be accomplished under existing authorities and with existing resources. Developing employer-based commute option

programming outside of the Portland metropolitan region is one of the DEQ-led elements of the Every Mile Counts workplan.

Authorities: DEQ will propose updated ECO rules under the authority to implement ozone control strategies in the Portland Air Quality Maintenance Area. DEQ will develop new rules to establish employer-based commute option programming in other areas of the state using the agency's authority to regulate indirect sources of air pollution.

Strategy integration: Updated and new rules related to employer-based commute option programming will integrate the following directives and strategies:

Executive Order 20-04

Governor Brown's Executive Order 20-04 relates to reducing greenhouse gas emissions. The order includes the following directive to EQC, Oregon Transportation Commission, Land Conservation and Development Commission and Oregon Department of Energy, related to their work on the Statewide Transportation Strategy:

- (1) Establishment of GHG emissions reduction performance metrics; and
- (2) Amendments to the Transportation Planning Rule that direct changes to the transportation plans of metropolitan planning areas to meet GHG reduction goals.

Statewide Transportation Strategy and Every Mile Counts

One objective of Every Mile Counts is to reduce vehicle miles traveled per capita. As noted in the Every Mile Counts workplan, vehicle miles traveled (VMT) has increased in recent years but statewide per capita VMT has flattened. Strategies that help to reduce VMT will help to in-turn reduce GHG emissions. VMT can be reduced by strategies that reduce drive-alone trips and support people telecommuting, taking the bus, biking, walking, or similar modes of travel. Supportive land use efforts are needed to develop our urban and suburban communities so that homes, jobs, services and shopping are in close proximity and can therefore be easily accessed on foot, bike, or bus. Carpooling, transit, biking and walking all help reduce emissions by transitioning trips to higher capacity, lower emitting modes.

DEQ envisions that Portland-metro and statewide commute option programming will support and complement DLDC's recent Climate Friendly and Equitable Communities rulemaking and updates to the transportation planning and parking management rules.

Program updates DEQ is considering revisions to Employee Commute Options rules in the Portland metro area that may include:

- Modifying the employer requirement to survey 75 percent of employees
- Modifying the auto-trip reduction target

- Modifying the threshold of worksite employees that triggers ECO compliance
- Modifying the means to calculate number of worksite employees subject to ECO
- Establishing criteria that employer trip reduction plans must meet
- Requiring inclusion of one or more commute option incentives in trip reduction plans
- Updating list of commute options to reflect increased electric vehicle and micromobility use
- Charging a fee for review of employer plans

Program expansion

DEQ is considering revisions to the Employee Commute Options rules that would expand the program to additional areas of the state. These proposed revisions may include:

- Expansion of the geographic scope of the program to employers within metropolitan planning organization communities (there are ten MPO areas that are entirely or partially within Oregon including: (1) Portland Metro; (2) Longview-Kelso-Rainier, Walla Walla Valley, Salem-Keizer, Albany Area, Corvallis Area, Central Land, Bend, Middle Rogue, and Rogue Valley) (see attached map)).
- Employer applicability thresholds (e.g., greater than x number of employees)
- Requiring subject employers to survey employees, develop and implement trip reduction plans and report to DEQ
- Establishing criteria that employer trip reduction plans must meet
- Requiring inclusion of one or more commute option incentives in trip reduction plans
- Charging a fee for review of employer plans
- Establishing incentives for voluntary employer participation

Equity considerations

As with other programs that reduce greenhouse gas and air pollutants from transportation sources, DEQ expects pollution reductions from the proposed rules will benefit communities throughout Oregon, including low-income households and communities of color, that are more likely to reside or work near areas of concentrated traffic or those who bear disproportionate exposure to air pollutants.

DEQ also expects enhanced commute option programming may help workers get to their jobs safely and efficiently, potentially improve worker health and well-being, and in some cases provide financial benefits to workers.

Stakeholders and affected parties for this rulemaking are numerous and diverse. DEQ has convened a relatively large rulemaking advisory committee comprised

of representatives from employers, workers, local governments, transportation option organizations, metropolitan planning organizations, and community advocacy organizations. DEQ offered compensation to RAC members from organizations for whom committee participation would have presented a financial barrier.

Next steps

DEQ will continue to meet with the Rules Advisory Committee through September, and propose draft rules for public comment in October and November. Following the review of comments, DEQ intends to bring final proposed rules for commission consideration in the first half of 2023.

Attachments

- A. Every Mile Counts June 2020 – June 2022 Workplan
- B. Map of MPO Areas in Oregon

Prepared from Air Quality Division information



Every Mile Counts

Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Reduction



Multi-Agency Implementation Work Plan

June 2020 - June 2022

OREGON DEPARTMENT OF TRANSPORTATION, OREGON DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT, OREGON DEPARTMENT OF ENERGY, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

PURPOSE

This document represents a collaborative work plan to reduce greenhouse gas (GHG) emissions from transportation. Oregon Governor Kate Brown called for the agencies of Oregon Department of Transportation (ODOT), Department of Land Conservation and Development (DLCD), Department of Environmental Quality (DEQ), and Department of Energy (DOE) to identify implementation actions to reduce GHG emissions. The basis for the work plan is the *Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Reduction* (STS). The STS is Oregon's carbon reduction roadmap for transportation and includes strategies for substantially reducing GHG emissions. More information on the STS is provided in the Background section below.

This STS Multi-Agency Implementation Work Plan covers a two year period, from June 2020-June 2022. The four agencies are committed to undertaking the actions and tasks described herein in support of reducing statewide GHG emissions from transportation. The agencies will continue to meet regularly and will revisit the work plan as needed to address unforeseen opportunities and challenges and make necessary adjustments to this document. At the end of the two year period, the agencies will develop a new work plan which is likely to include a continuation of some of the actions but also new and additional actions to reduce transportation's carbon footprint and to demonstrate an ongoing and long-term commitment to addressing Oregon's climate crisis.

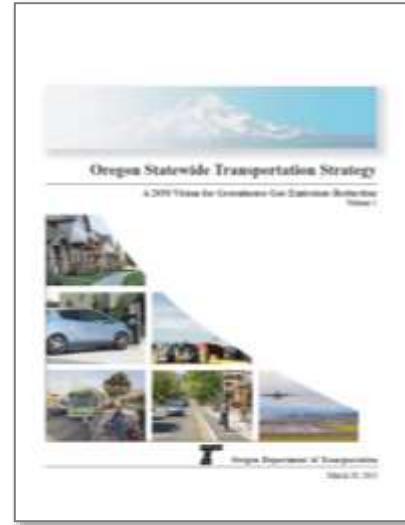
BACKGROUND

The *Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Reduction* was completed in 2013, following Legislative direction to identify ways to reduce transportation-related GHG emissions. It was developed over a three-year period with extensive stakeholder engagement and technical analysis. Throughout the development process, ODOT worked in close collaboration with sister agencies including: DLCD, DEQ, and DOE. This collaboration was essential to identifying actions that cross agency authorities. In addition, actions that fall under the authority of local jurisdictions, businesses, and the public to

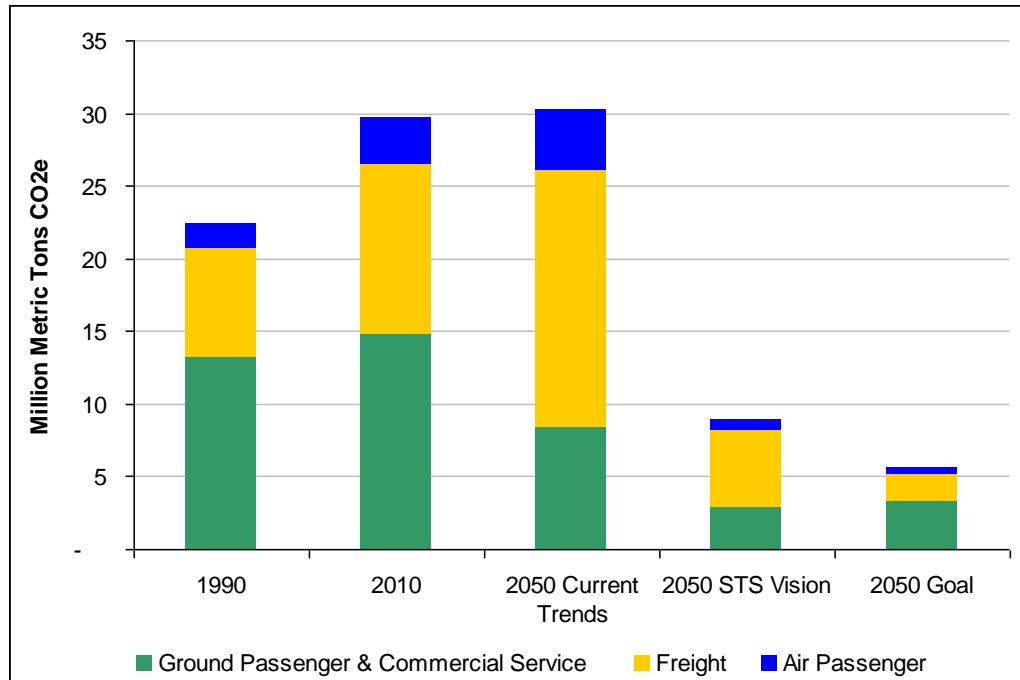
implement were identified and resulted in a comprehensive approach to GHG emission reduction for transportation.

Six categories of strategies and 133 elements were identified in the STS. The categories included:

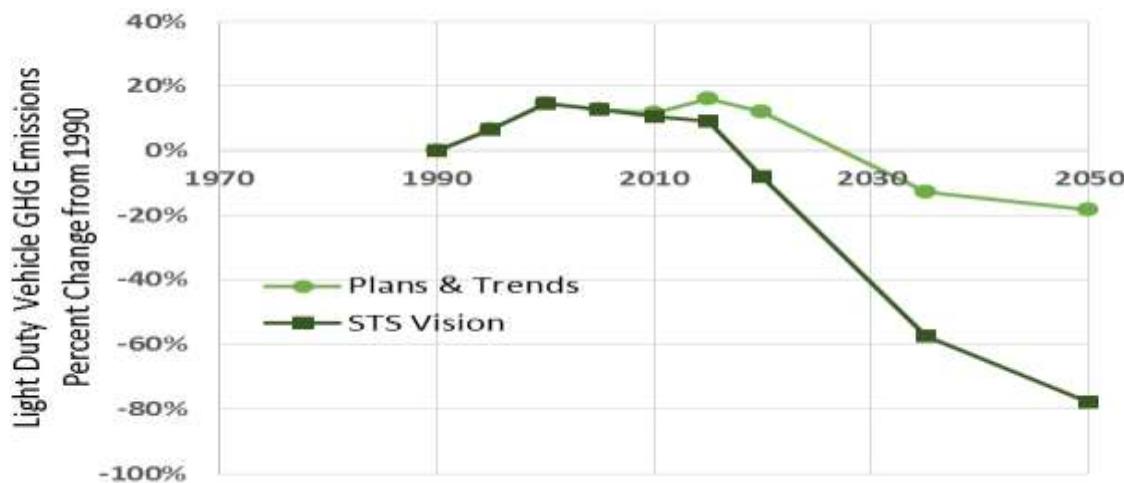
- **Vehicle and Engine Technology Advancements** – Strategies in this category focus on a transition to more fuel-efficient vehicles, improvements in engine technologies, and other technological advancements. Example elements include Zero Emission Vehicle (ZEV) programs, electric vehicle charging infrastructure, and fleet turnover to a greater share of electric or low carbon fuel vehicles.
- **Fuel Technology Advancements** – This category focuses on cleaner and less carbon-intensive fuels.
- **Systems and Operations Performance** – Strategies in this category focus on reducing stops, starts and idling through technology, infrastructure investment, and operations management. Example elements include in-car displays that notify the driver of their fuel efficiency as they travel, providing real time information on crashes and delays, promoting vehicle-to-vehicle communications, and supporting autonomous vehicles.
- **Transportation Options** – Strategies in this category focus on managing travel demand and encouraging a shift to transportation modes that produce fewer emissions and provide for the more efficient movement of people and goods. Example elements include providing park-and-ride facilities, promoting ride-matching services, adding biking and walking infrastructure, enhancing passenger rail services, and a significant growth in public transportation service.
- **Efficient Land Use** – Strategies in this category focus on infill and mixed-use development in urban areas to reduce demand for vehicle travel, expand non-auto travel mode choices for Oregonians, and enhance the effectiveness of public transportation and other modal options. Example elements include supporting mixed-use development, limited expansion of urban growth boundaries, and development of urban consolidation centers for freight.
- **Pricing Funding and Markets** – This category addresses the true financial, social, health, and environmental costs of using the transportation system and pricing mechanisms for incentivizing less travel or travel on more energy efficient modes. Example elements include transitioning to a user or mileage based fee, adding a carbon fee, promoting pay-as-you-drive insurance programs, and diversification of Oregon's economy.



Together, implementation of the strategies contained in the STS aid the state in achieving its GHG emission reduction goal. The state goal is to reduce overall emissions by 75 percent below 1990 levels by 2050. The STS vision achieves a 60 percent total reduction by 2050, which equates to around 80 percent per capita (Figure 1).

**Figure 1: Projected Statewide Transportation Sector GHG Emissions (STS 2013)**

Following completion of the STS, ODOT developed a Short-Term Implementation Plan (2014), detailing actions in the first five years that ODOT would undertake. In 2018 ODOT documented its progress in implementing the actions and in achieving the STS overall. Although progress was made on several of the actions, overall GHG emissions from transportation have increased in recent years. Longer term, emissions are expected to reduce but there is a significant gap between today's plans and trends and the STS vision in 2050. Thus Oregon is not on the right path to meet Oregon's goals for reducing GHG emissions and the STS vision (Figure 2).

**Figure 2: Projected Total GHG emissions of current plans and trends compared to the STS vision.**

Although the plans and trends of today do not meet the STS vision, some progress has been made and the gap is achievable. The 2018 STS Monitoring Report found that the STS strategies are still the right actions to help meet Oregon's GHG reduction goals but more work is needed. With continued strong land use policies as well as increased investments and supporting policies in pricing, transportation options, systems and operations, and fuels and vehicles, Oregon can close the gap to meet the STS vision. Figure 3 shows the relative gap for each strategy group. Vehicles and Fuels is around half of the solution, but many other actions are needed to get back on track with the STS vision.

While ODOT, other state agencies, local jurisdictions and more are individually looking at ways to enhance STS implementation efforts, the Governor asked the state agencies of ODOT, DLCD, DEQ, and DOE to identify collaborative STS implementation actions to help get the state back on track with the STS vision. In accordance the four state agencies met and identified actions requiring collaboration of two or more agencies. The actions selected were targeted at meeting the objectives listed below and that were thought to help move the GHG reduction needle, be cost-effective, and support equity and other state goals.

Some of the recommended actions are also included in Governor Brown's *Executive Order 20-04: Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions*. Also of note, the Executive Order increases the GHG emission reduction goal for 2050 from 75% to 80% below 1990 levels. It also establishes an interim goal of 45% below 1990 GHG emission levels by 2035. In general, the Executive Order covers agencies beyond ODOT, DLCD, DOE, and DEQ, and has actions in addition to those in the STS. Therefore, this document does not reference all requirements in the Executive Order but instead highlights any that relate to the STS and the collaborative work of the four agencies.

OBJECTIVES

The overall objective of the STS multi-agency implementation effort and this work program is for the four state agencies to support realization of the STS vision and to work together cooperatively to help reduce Oregon's GHG emissions from transportation. State agencies can only support a fraction of the work needed to realize the STS vision but can implement key enabling strategies that support broader electrification of vehicles in the state, transition to cleaner fuels, and transportation demand management, to name a few. Thus, the actions identified in this document will not significantly reduce emissions by themselves but are the foundational elements to moving in the right direction.

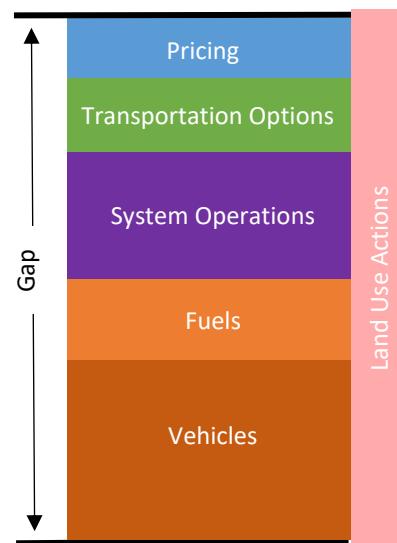


Figure 3: Needed Policies and Investments to Close the Gap between Plans and Trends and the STS Vision

To move in the right direction of the STS vision, actions should be responsive to achieving the following sub-objectives:

- **Reduce Vehicle Miles Traveled Per Capita**



The predominant mode of transportation in Oregon, like elsewhere in the United States, is driving a vehicle. Vehicle miles traveled (VMT) has increased in recent years with more people moving to the state, but statewide per capita VMT has flattened. This trend varies by geographic area. The current mix of vehicles on Oregon's roadways is fairly dirty, making the emission profile of VMT a significant factor. Strategies that help to reduce VMT will help to in-turn reduce GHG emission, especially in the short-term. VMT can be reduced by strategies that reduce drive-alone trips and support people telecommuting, taking the bus, biking, walking, or similar modes of travel. Supportive land use efforts are needed to develop our urban and suburban communities so that homes, jobs, services and shopping are in close proximity and can therefore be easily accessed on foot, bike, or bus. Carpooling, transit, biking and walking all help reduce emissions by transitioning trips to higher capacity, lower emitting modes.

- **Support Use of Cleaner Vehicles and Fuels**



Even as per capita VMT has flattened out, it should be recognized that those trips need to be made in cleaner vehicles using cleaner fuels. Thus strategies that target lower emissions of vehicles and fuels are essential. This fact is evidenced by the 2018 STS Monitoring Report, which found that over half of the effort needed to achieve the STS vision is under vehicles and fuels. A holistic de-carbonization approach will not be a one-size-fits-all, but rather a combination of a greater proliferation of electric vehicles, hybrids, and low-carbon fuels across all modes of transportation.

- **Consider GHG Emissions in Decision-Making**



The Governor's Executive Order directs State Agencies to consider and integrate climate change impacts and GHG emissions reduction goals into their planning, budgets, investments, and policy making decisions. Accordingly, the four agencies will strive to consider GHG in their decision-making, and strategies selected for the multi-agency STS implementation effort should support efforts that result in more informed decision-making and solidified actions that help to reduce GHG emissions. This extends to supporting GHG in decisions that the agencies influence as well, such as DLCD and ODOT over local planning and implementation.

All of these sub-objectives will need to be balanced with other goals such as economic development and equity. Some in fact promote these goals, such as increased multi-modal options for all Oregonians, which has particular benefit to the one-third of Oregonians who are too young, old, infirmed, disabled or cannot

afford to drive a car. Many of the actions identified in this document will have co-benefits far beyond GHG emission reduction, such as improved health, and reduced traffic congestion.

As the work plan is implemented and future actions are identified, concerted efforts will be made to identify, address, and integrate diversity, and climate justice and equity throughout Every Mile Counts efforts.

Equity

- Climate Justice: the agencies recognize that the communities least responsible for climate change – such as black, indigenous, communities of color, low-income individuals, and people living with disabilities – are likely the most impacted by climate change. These frontline communities are disproportionately affected.
- The four agencies shall conduct priority community engagement to and collaborate with these frontline communities when implementing the individual climate actions identified in this Work Plan.

The intent of engagement is to learn about the impacts of climate on frontline communities, and tailor implementation actions to address the disparities, barriers, issues, and opportunities these communities face.

PRIORITY EFFORTS

All six categories of the STS were reviewed by the four state agencies when identifying actions. Categories requiring cross-agency collaboration were identified and were further narrowed based on the objectives described above, effectiveness in reducing emissions, and ability to implement within two years. Actions were also identified to demonstrate state agency leadership on issues and “walk our talk.” Based on these factors and agency’s abilities to influence, the following four priority efforts were identified:

- **Transportation Electrification**
To help achieve the *Support Use of Clean Vehicles and Fuels* objective, transportation electrification was chosen as a focus area for the multi-agency work. Special attention will be placed on electrifying rural areas and increasing access for frontline communities and others. Each of the four agencies have a part in supporting electric vehicle (EV) implementation. DOE has been charged with EV tracking and actions to enable electrification; DEQ implements the Zero Emission Vehicle (ZEV) program and the Clean Vehicle Rebate program that support EV adoption; ODOT manages and leads state conversations around electrification, designates EV corridors, and upgrades the West Coast Electric Highway; and DLCD supports transportation electrification through land use provisions and model code on charging infrastructure. Combining and aligning efforts should help to better focus implementation and achieve additional results. Three actions are recommended under this category including: expanding EV incentive programs, developing an interagency ZEV action plan, and developing a transportation electrification infrastructure needs analysis. The latter of the three actions (needs analysis) is now a requirement according to the Governors Executive Order.

- **Cleaner Fuels**

Also furthering the objective of *Support Use of Clean Vehicles and Fuels*, the agencies are looking at additional de-carbonization strategies that support increased use of lower-carbon fuels across urban and rural areas in the state. The Clean Fuels program and most actions fall primarily within the organizational responsibility of DEQ. DOE has definite supporting roles, and ODOT and DLCD can provide ancillary support to most actions. The actions recommended for cleaner fuels include: expanding the Clean Fuels program, developing an alternative fuels roadmap for state agencies, alignment of state agency policies to promote alternative fuels, truck alternative fuels study, and emission standards and requirements for medium- and heavy-duty trucks. Adjustments to the Clean Fuels Program is now a requirement according to the Governor's Executive Order.

- **Transportation Options**

To directly *Reduce Vehicle Miles Traveled Per Capita* and promote alternative modes, transportation option strategies, also known as Transportation Demand Management strategies were selected. Although there are many potential demand management strategies, the four agencies narrowed in on two that require cross-agency collaboration. The first is a statewide trip reduction ordinance. This would require collaboration mostly between DEQ and ODOT, with support from the other two agencies. The other action encapsulates a body of work around parking management, primarily led by DLCD through integration in the Transportation Planning Rules (TPR), housing-related rules, and through guidance, with support from ODOT and some engagement by DOE and DEQ. Additional demand management strategies are being explored by ODOT and with other state agencies to increase telecommuting post COVID 19.

- **Local GHG Reduction Planning**

While agencies need to *Consider GHG Emissions in Decision-Making*, it is also important for others to do so as well. Accordingly, the Governor's Executive Order explicitly directs DLCD to amend the Transportation Planning Rules (TPR) to require local governments and metropolitan areas to meet GHG reduction targets in their plans. The Executive Order also specifies that ODOT and DLCD must identify and provide technical and financial support.

To ensure this work is effective over time in achieving GHG reductions and the objectives described in this document, **performance measures** will also need to be developed.

WORK PROGRAM

Staff developed a work program to detail the actions within each priority effort, including scope, timing, and roles and responsibilities. The work program covers a two-year period, from June 2020 to June 2022. More details on each action can be found in Appendix A.

The work program includes actions above and beyond work underway or planned by the agencies and represents a substantial effort toward reducing GHG emissions from transportation. Staff and financial resources will be redirected as needed to prioritize implementation actions herein. Any funding or staffing needs above and beyond what can reasonably be made available are described later in this document.

The actions identified were selected cooperatively among ODOT, DLCD, DEQ, and DOE and the agencies agree that the work program is achievable.

ACTIONS

Each of the actions identified further the objectives set by the group and are thus organized under the primary objective they serve. More information on each action, including more detailed scopes, task descriptions, roles and responsibilities, level of effort, and timing can be found in Appendix A.

Objective: Reduce Vehicle Miles Traveled Per Capita

Although actions that further consideration of GHG emissions in decision-making are also likely to result in reduced VMT, two actions have been identified under “*Transportation Options*” that directly target people to driving alone less.

Transportation Options

Action: Statewide Trip Reduction Policy

A state trip reduction policy would require certain-sized businesses in certain geographic areas of the state (medium to large metropolitan areas) to plan for and implement techniques to reduce employees' vehicle miles traveled. Techniques may include telecommuting, flexible work schedules (to shift travel out of peak hours), free transit passes, parking cash-out programs, encouraging bike and pedestrian options, etc. These strategies work where transportation options are available and continued investment in bicycle and pedestrian infrastructure and public transportation is needed. Development of a Statewide Trip Reduction Policy would be led by DEQ, who would amend their Employee Commute Options (ECO) Rule. The rule currently only applies to Portland Metro and would need to be expanded to other areas and strengthened. In order to develop a Statewide Trip Reduction Policy, the following tasks are needed: research similar programs in other states and jurisdictions, engage stakeholders, and conduct a rulemaking process. The rulemaking effort is likely to be time and staff intensive, and is likely to be controversial. Once the rule is completed and a program developed, there would be a need for ongoing resources to implement the statewide trip reduction program including DEQ program management personnel, and funding for ODOT to provide technical support directly and through local transportation option providers.

Phase / Tasks	Timeline	Cost	Role	Staff
Background, Communications, Rulemaking	12-18 months	N/A	DEQ - Lead	1.00 FTE
			ODOT - Support	0.25 FTE
Implementation	Ongoing	\$200,000 annually*	DEQ - Compliance	0.75 FTE*
			ODOT – Tech Support	0.50 FTE*

* Costs and Staff FTE are above and beyond current resources, thus requiring additional funding.

Action: Parking Management

Parking management is a multi-faceted action that supports limiting the growth of parking spaces, more pay-to-park locations, higher parking rates, and other strategies that incentivize people not to drive to their destinations. It also provides important co-benefits such as reducing the number of mandated parking spaces allowing for building more units on the same amount of land. This action will be primarily led by DLCD, with support from ODOT and DEQ, and engagement of other entities as needed. The most direct implementation mechanism for parking management is through the update of the Transportation Planning Rules (TPR), as part of the Climate-Friendly and Equitable Communities (CFEC) action. An update for the TPR is required by the Governor for regulating GHG emissions in local planning (described below). The other mechanisms for implementation include the development of guidance and information. ODOT and DLCD will create informational materials and work with locals on parking management programs. This will primarily be done through the Transportation Growth Management (TGM) program. Because the TPR amendment process can be leveraged and the TGM program is already set up to support creation and dissemination of guidance materials, the overall level of effort for this action is projected as low. Based on TPR rule revisions, DEQ will explore updates to their air quality rules for indirect source emissions and parking restrictions as well as look into parking cash out elements as part of the Eco Rule.



Phase / Tasks	Timeline	Cost	Role	Staff
TPR Rulemaking – adding parking	18 months	\$100,000	DLCD - Lead	Included in CFEC Action
			ODOT - Support	
Outreach and Guidance	24 months		DEQ - Compliance	1.00 FTE
			ODOT – Tech Support	0.25 FTE
Indirect Source Rulemaking – adding parking	12 months	Included in DEQ rulemaking	DEQ - Lead	Included in DEQ rulemaking

Objective: Support Use of Cleaner Vehicles and Fuels

Two of the priority efforts, “Transportation Electrification” and “Cleaner Fuels,” are designed to achieve a mix of cleaner vehicles and fuels on Oregon’s roads. Most of these efforts involve better understanding barriers and opportunities to converting the fleet through research and studies. These will help agencies identify and pursue the most effective actions. Some rulemaking and legislative support is also required.

Transportation Electrification

Action: Interagency Zero Emission Vehicle (ZEV) Action Plan

This action has been started by the Zero Emission Vehicle Interagency Working Group (ZEVIWG) and supports transportation electrification in Oregon by developing a statewide interagency Zero Emission Vehicle (ZEV) Action Plan. The intent of the Action Plan is to create a roadmap for efforts that will increase Oregonian’s awareness of and access to ZEVs (such as expanding DEQ’s EV incentive program), increasing access to charging infrastructure (including ODOTs task of

developing transportation electrification infrastructure needs analysis – described below), and increasing use of ZEVs at state agencies. The Action Plan will be developed by DOE in partnership with ZEVWG, and implementation will be led by ODOT in close collaboration with DOE and others. Level of effort is anticipated to be low, although subsequent actions identified in the Plan will be require a more substantial level of effort.

Phase / Tasks	Timeline	Cost	Role	Staff
Interagency ZEV Action Plan	3 months	N/A	DOE - Lead	0.30 FTE
			ODOT – Support DEQ – Support	0.20 FTE
Implementation	Ongoing	TBD	ODOT – Lead	TBD
			DOE – Support DEQ - Support	TBD

Action: Transportation Electrification Infrastructure Needs Analysis

The Interagency ZEV Action Plan will help inform the direction of the Transportation Electrification Infrastructure Needs Analysis, which is called for in Governor's Executive Order. The Executive Order specifies that ODOT must complete a statewide transportation electrification infrastructure needs analysis by June 2021. The study must give consideration to rural needs, equity issues, and focus on helping to meet the goals for light-duty Zero Emission Vehicles set in SB 1044 (2019). While the focus is on light vehicles, the analysis will look at electrification across modes including micro-mobility (scooters and bikes), public transportation, and freight vehicles. The study will be led by ODOT with consultant support and in close consultation with DOE. Given the tight timeframes, complexity of data and information, and large number of interested parties and stakeholders, the level of effort on this action will be large, although over a fairly short timeframe. Other agencies beyond ODOT and DOE will need to participate in this effort, in addition to public utilities and others, whose role will be less significant.

Phase / Tasks	Timeline	Cost	Role	Staff
Transportation Electrification Needs Analysis	12-18 months	\$250,000*	ODOT - Lead	1.00 FTE
			DOE - Support	0.50 FTE

* Costs are above and beyond current resources, thus requiring additional funding.

Cleaner Fuels

Action: Expand the Clean Fuels Program

DEQ will enter into a rulemaking process for the Clean Fuels Program, implementing the direction of Governor Brown's Executive Order. The Clean Fuels Program will be extended and the requirements enhanced. Dedicated staff time will be needed for a few years to complete the rulemaking process. Concerted efforts will also be focused on making state agencies aware of the Clean Fuels Program, broaden engagement, and support overall use of lower carbon fuels across state agencies. This work will be led by DEQ with support from DOE.

Phase / Tasks	Timeline	Cost	Role	Staff
Amend Low Carbon Fuel Standards	27-33 months	\$200,000	DEQ - Lead	1.00 FTE
State Agency Fuel Use	24 months	TBD	DEQ – Lead	0.25 FTE
			DOE - Support	0.25 FTE



Action: Truck Alternative Fuels Study and Implementation

The freight market has a large GHG emission profile and actions are needed to support reduced emissions. Accordingly, this action will focus on the potential for freight trucks to be powered by electricity, hydrogen, or other lower carbon fuels. Specifically, the study will identify fueling and infrastructure needs and associated approaches agencies may take to enable transition to alternative fuels. Work will be led by DEQ, with ODOT providing technical data and connections to the freight industry. Part of the work will rely on market data, while additional information will be needed from the freight industry directly. The goal of the effort is to support the freight sector, not to regulate fuels and technology. It is recommended that, given other priority efforts in this work plan, this Action not start until mid- to late- 2021.

Phase / Tasks	Timeline	Cost	Role	Staff
Truck Alternative Fuels Study	9 months	N/A	DEQ - Lead	0.25 FTE
			ODOT – Support	0.25 FTE
			DOE – Support	0.10 FTE
Implementation	Ongoing	N/A	DEQ – Lead	0.25 FTE
			ODOT - Support	0.25 FTE

Action: Adopt New Emissions Standards and ZEV Requirements for Medium- and Heavy-Duty Trucks

This action will propose that the Environmental Quality Commission consider adopting California's emission standards for new medium- and heavy-duty trucks and requirements for manufacturers to make zero emission medium- and heavy-duty vehicles available for sale in Oregon. Executive Order 17-21 directs DEQ to maintain consistency with California's zero emission vehicle regulation, including efforts to ramp up regulatory requirements. California recently adopted ZEV mandates and transition plans for medium- and heavy-duty trucks, and remains on track to adopt new emissions standards for diesel-fueled medium- and heavy-duty trucks. DEQ would need to work with partner agencies to adopt regulations quickly and

maintain parity with model years being developed by manufacturers to meet California's standards.

Phase / Tasks	Timeline	Cost	Role	Staff
Support California's Development of New Regulations	8 months	N/A	DEQ- Lead	0.20 FTE
Adopt New Regulations	12 months	N/A	DEQ – Lead	0.33 FTE
			ODOE- Support	0.25 FTE
			ODOT- Support	0.25 FTE

Objective: Consider GHG in Decision-Making

There are several overarching actions that support multiple objectives, but that are foundational to making decisions considerate of GHG emissions. The bulk of that work focuses on "Local GHG Reduction Planning." In addition, an action item is included for "Performance Measures." Performance measures will be needed for all other actions in this document to ensure accountability and overall progress towards the objectives.

Local GHG Reduction Planning

Action: Climate Friendly and Equitable Communities (CFEC)

The Climate-Friendly and Equitable Communities action will include a set of rulemaking activities to integrate climate and equity outcomes into a number of land use and transportation planning administrative rules. The rulemaking effort will include Tribal consultation and broad community engagement. Rules that are likely to be amended include rule updates for Division 12 (Transportation Planning Rules), Division 44 (Metropolitan Greenhouse Gas Reduction Targets), Division 7 (Metropolitan Housing Rules), Division 8 (Interpretation of Goal 10, Housing) and Division 46 (implementing Housing Bill 2001).

One of the largest rulemaking efforts will be the update of the Transportation Planning Rules (TPR). Overall the TPR directs most cities and counties in Oregon to have coordinated land use and transportation plans. Rule amendments will require local governments to plan for transportation systems and land uses to reduce GHG emissions, including requiring transportation plans within metropolitan areas to meet GHG reduction goals. Strengthened requirements will include encouraging more housing mixed-use development in centers and along transit corridors; enhancing planning for pedestrian, bicycle, and transit networks; limiting how motor vehicle capacity-based performance standards may be used in planning; and adjusting how projects are prioritized and selected in transportation plans. Staff have also identified the opportunity to strengthen parking management regulations within the TPR, which is described above under the "Parking Management" action. There may also be opportunities within the TPR and in rules to ensure consideration of local electric vehicle charging needs and to address the state's housing crisis by increasing residential units in priority investment areas. This work item is anticipated to take a significant level of effort, requiring several DLCD staff and support from ODOT. DLCD will need to continue and perhaps intensify efforts to monitor and enforce local plans. In addition

ODOT and DLCD will examine changes needed to state plans, policies, and investments in order to enable implementation.

Phase / Tasks	Timeline	Cost	Role	Staff
Update Rules	18 months	\$275,000*	DLCD – Lead	4.00 FTE 0.50 FTE
			ODOT – Support	1.00 FTE
Monitor and Enforce Program	6 months	N/A	DLCD – Lead	4.00 FTE
Enable Implementation	6 months	N/A	ODOT – Lead	1.00 FTE
			DLCD – Support	0.50 FTE

Action: Scenario and GHG Reduction Planning

In order to proceed with any further mandates for scenario and GHG reduction planning, studies will be needed to identify the best approaches for local GHG reduction planning and for associated costs and technical support needs. ODOT and DLCD will engage stakeholders to understand their needs and constraints and rely on lessons learned from the last ten years of scenario planning to complete this work. These efforts will be done prior to or in the early stages of rulemaking in order to appropriately scope the effort and identify policy options that can reasonably be implemented. Once the rulemaking is complete, ODOT and DLCD will need to provide technical and financial support to metropolitan areas in support of their planning. ODOT and DLCD could potentially support scenario planning for up to one metropolitan area at a time within existing resources. However, each effort may take around two years to complete and there are seven metropolitan areas in the state that will require new work. Thus the demand will likely exceed capacity and additional staff FTE and funding is critical. For the plans to be effective overtime, they will need to be implemented. The agencies will explore accountability mechanisms and how to fund climate-friendly projects and programs in local plans.

Phase / Tasks	Timeline	Cost	Role	Staff
Scenario and GHG Reduction Planning Feasibility Report	6 months	Included in CFEC Action	DLCD – Lead	Included in CFEC Action
			ODOT – Support	0.50 FTE
Scenario and GHG Reduction Planning Technical Assistance	Ongoing	\$0.5M-\$2M annually*	ODOT – Lead	2 FTE*
			DLCD – Support	1 FTE*

* Costs and Staff FTE are above and beyond current resources, thus requiring additional funding.



Performance Measures

Action: GHG Reduction Performance Measures

To ensure that the state agencies and local governments are on track to meet GHG reduction goals and to effectively steer resources towards this effort, the agencies will develop GHG reduction performance measures. Progress will be measured in three ways. First, performance measures and targets will be developed using the trajectory of actions in the STS. Second, local performance measures for GHG reductions actions will be developed, monitored, and enforced. Thirdly, programmatic performance measures will be developed to demonstrate progress towards meeting the goals specific to each action outlined in this work plan. Overall performance tracked by metrics in the STS are unlikely to show large statewide GHG reduction differences in the short term. Performance measures at the local level will help to track small changes in different categories of approaches that will help determine where more effort might be needed to further overall GHG reduction goals. Programmatic performance measures specific to each of the work actions will demonstrate progress and allow agencies to course correct when necessary.

Phase / Tasks	Timeline	Cost	Role	Staff
Performance Measure Development	12 months	N/A	ODOT – Lead	0.50 FTE
			DLCD – Support	0.25 FTE
			DEQ – Support	0.25 FTE
			DOE – Support	0.25 FTE
Reporting	Ongoing	N/A	ODOT – Lead	0.50 FTE
			DLCD – Support	0.10 FTE
			DEQ – Support	0.10 FTE
			DOE – Support	0.10 FTE

TIMING

The actions described above will be sequenced over the next five years. Most actions will start in the next six months, while some of the work (e.g. Truck Alternative Fuels Study) is set to start in about a year. The general sequencing of the actions is shown in Figure 4 below.

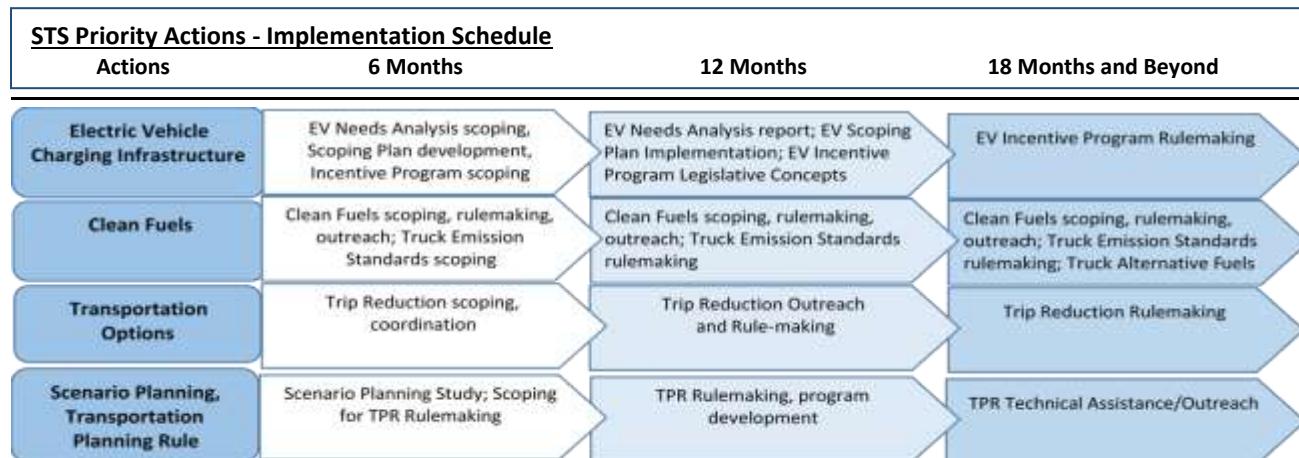


Figure 4: Timeline and Sequencing of STS Multi-Agency Implementation Actions

RESOURCE NEEDS

As shown in the timeline (Figure 4), much of the work is front loaded in the first two years. Such efforts will require at least 1-2 dedicated staff per agency over this time period. This demonstrates a significant commitment across state agencies towards helping to achieve the STS vision and GHG reductions from transportation.

Timelines may need to adjust as unforeseen circumstances arise or as opportunities or challenges present themselves. The timelines are also contingent of available resources. Some of the actions described above will require additional resources above and beyond what can be made available today. Specifically additional resource needs include:

- *Trip Reduction Ordinance*
Additional staff are needed at DEQ (0.75 FTE) to implement and enforce the program once it is created and at ODOT (0.50 FTE) to provide statewide technical assistance to businesses. In addition about \$200K annually is needed to pass through ODOT to local transportation options providers to provide location-specific and hands-on technical support.
- *Transportation Electrification Infrastructure Needs Analysis*
To complete the required elements of the Executive Order, ODOT will need to hire a consultant and funding is needed (\$250,000).
- *Climate-Friendly and Equitable Communities*
Given other high profile rulemaking efforts and limited agency capacity, DLCD will need additional staffing support (for administrative tasks) for the CFEC rulemaking (0.50 FTE). In addition, \$275,000 will be needed to support the rulemaking process and equity outcomes.
- *Implementation of Scenario and GHG Reduction Planning*
To support more than one local GHG reduction planning at a time, staffing to ODOT (2 FTE) and DLCD (1 FTE) is needed as well as additional funding to pass through ODOT (\$0.5M-\$2M annually) to local areas doing the planning work.

Some of the needs described above are immediate, like the Transportation Electrification Infrastructure Needs Analysis, while others are longer term and support long-term implementation, such as the Trip Reduction Ordinance, Climate Friendly and Equitable Communities, and GHG Reduction Planning efforts.

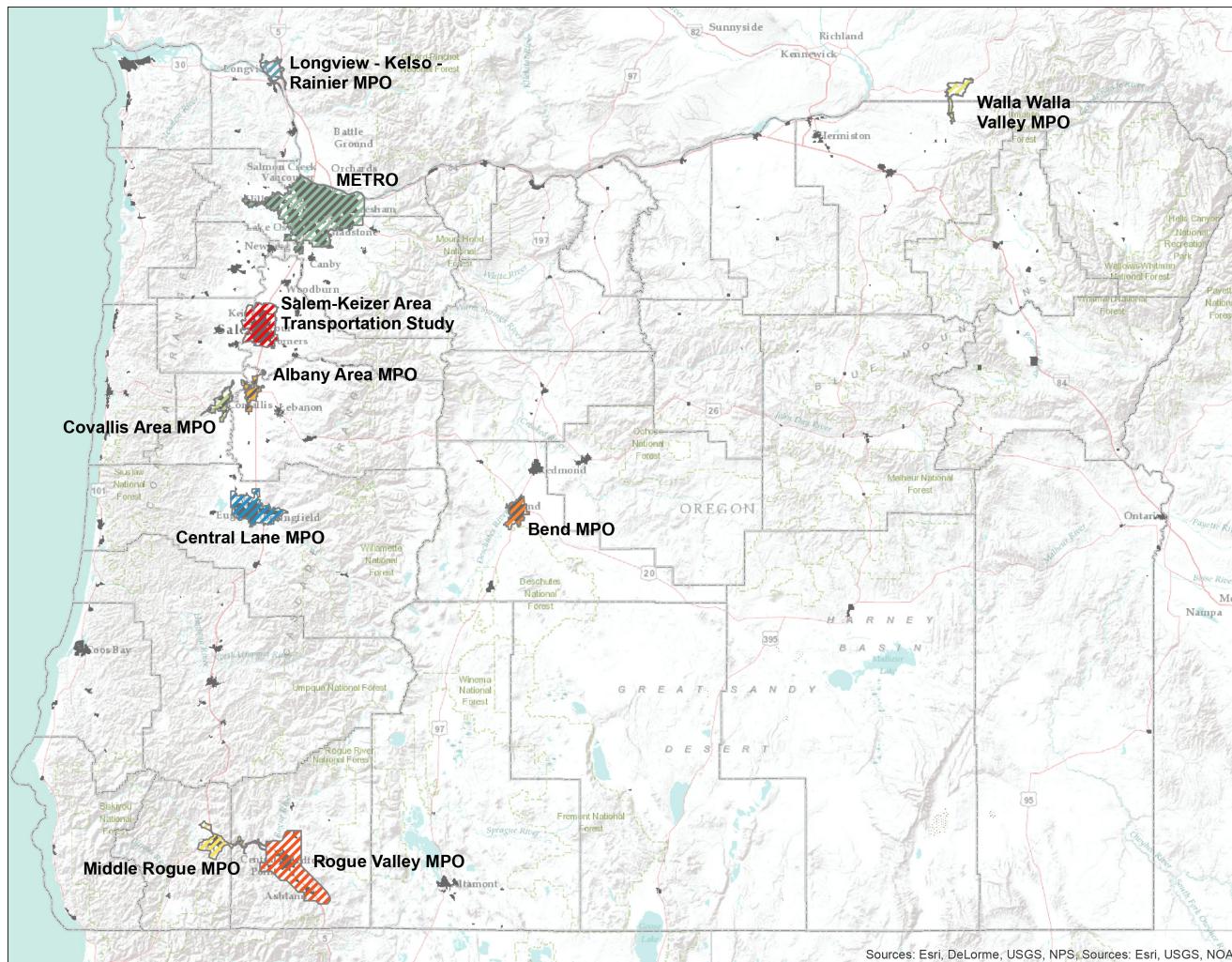
SUMMARY

The ten actions identified in this work plan reflect efforts that require cooperation by two or more of the agencies, support STS implementation, and can help to achieve a cleaner Oregon. There are many additional actions needed, which will be the focus of future joint work plans that ODOT, DOE, DLCD, and DEQ are committed to developing every two years. In addition, individual agencies are pursuing or identifying climate actions which fall primarily under their implementation authority alone. For example, ODOT has established a Climate Office and is developing an ODOT-focused STS implementation plan that will identify actions the agency will undertake to support low carbon modes like biking, walking, and transit, increased telecommuting statewide, as well as transitioning to a vehicle miles traveled fee, and establishing other pricing programs, among other activities. DOE has many clean energy initiatives and has several efforts that support transportation electrification. DLCD is leading state climate adaptation

efforts, is pursuing integration of transportation and land use to shorten trip distances, and is working several efforts related to building codes and housing. DEQ established a climate group and is pursuing additional clean fuels and electrification efforts, in addition to setting up a new Cap and Reduce program.

The actions chosen for this first STS Multi-Agency Implementation Work Plan will be leveraged with and complement the other individual agency work described above. Efforts will also needed by local jurisdictions, the private sector, and the public in order to see significant GHG emission reductions. The state agencies are working to enable a cleaner future and support market transitions. Progress will be tracked over time and adjustments made to focus on the most effective actions and those that best address frontline community disparities.

The four agencies have finalized their formal commitment to this work through the development of a Memorandum of Understanding (MOU). The MOU, this Work Plan, and more information about the multi-agency STS implementation efforts can be found on the Every Mile Counts website at: <https://www.oregon.gov/odot/Programs/Pages/Every-Mile-Counts.aspx>.



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