



Oregon Department of Environmental Quality

Dec. 11-12, 2013

**Oregon Environmental Quality Commission meeting
Rulemaking, Action item: I**

Portland Area Transportation Control Measure

DEQ recommendation to EQC

DEQ recommends that the Oregon Environmental Quality Commission:

Adopt the proposed PERMANENT rules in Attachment A as part of chapter 340 of the Oregon Administrative Rules. Approve incorporating these rule amendments into the Oregon Clean Air Act State Implementation Plan under OAR 340-200-0040.

Overview

Short summary

DEQ proposes modifications to a transportation control measure¹ that requires transit service in the Portland area to be expanded one percent per year. This proposal would revise the measure to be assessed as a cumulative average over the life of the Portland area's plan to improve air quality, instead of a five-year rolling average. This proposed change in the transit transportation control measure averaging approach is a revision to the State of Oregon Clean Air Act Implementation Plan that DEQ will submit to the Environmental Protection Agency. If the Environmental Quality Commission adopts, and EPA and Metro concur, the substitute transportation control measure would become, by operation of law under 42 USC § 7506(c)(8), part of the Oregon State Implementation Plan and would be federally enforceable. U.S. EPA would not conduct a separate public notice process

Brief history

The Portland Area Carbon Monoxide Maintenance Plan describes how the Portland area will continue to meet national ambient air quality health standards for carbon monoxide until 2017. Carbon monoxide levels in the Portland region are well below the federal health standards and the strategies in the air quality plan are meant to help maintain these low levels. Part of the plan requires area governments to increase regional transit service an average of one percent per year measured over a rolling five-year period. Increased transit use across the Portland region provides an air quality benefit to the Portland area overall, but is not intended to address specific localized carbon monoxide levels. The transportation control measure

¹ Provisions in an air quality plan designated "transportation control measures" are emission reduction measures in an air quality plan that are given special status under federal transportation conformity rules. Transportation control measures are subject to strict requirements to ensure to a high level of confidence that their intent will be achieved.

pertaining to transit in Portland's carbon monoxide plan increases regional transit, but does not specify or require any specific distribution of transit service within the region.

The current measure uses a five-year rolling average of transit service expansion to track success in meeting the transit transportation control measure, but does not anticipate unforeseen factors that may influence success in meeting the measure. For example, the recent recession caused TriMet's revenue to drop abruptly while fuel prices increased sharply. As a result transit service fell more than five percent in 2011. In future years, average annual transit service increases are expected to resume. A five-year averaging period does not adequately accommodate a large downward fluctuation in any single year. The large abnormal drop in 2011 transit service significantly affected the five-year average used for the transit transportation control measure. The result is the region is now unlikely to show the required average one percent growth. As a consequence, the region may not be able to demonstrate transportation conformity when it adopts a new transportation plan in 2014.

DEQ did not anticipate the recent economic recession when it first established a five-year rolling average as the metric for calculating compliance for the transit transportation control measure. Given this weakness in the rolling-averaging approach, DEQ determined a new metric is needed to reflect the region's past and future commitment to transit and measure progress in implementing the required transportation control measure. DEQ proposes to change the transportation control measure metric so compliance with the average one percent annual increase target is calculated over the cumulative life of the ten-year carbon monoxide maintenance plan. This metric addresses a longer period and is a better indicator of the region's ongoing commitment to expanding transit service.

Failing to adopt this modification could result in Metro being unable to demonstrate transportation conformity which would destabilize the local transportation planning process, seriously disrupt development and implementation of the 2014 Regional Transportation Plan and jeopardize state and federal funding for transportation projects.

Consistent with federal law and requirements in the Portland carbon monoxide maintenance plan, Metro analyzed the substitute measure using current planning assumptions, and the methodologies required by EPA. DEQ and the Metro Transportation Policy Alternatives Committee concluded that the new measure will achieve emission reductions that are at least equivalent to the current transportation control measure. DEQ also concluded that TriMet will have adequate funding to support implementation of the substitute measure.

Regulated parties

Metro, the Portland area's regional government, must demonstrate that transportation control measures are met each time it adopts a 20-year Regional Transportation Plan or two-year Transportation Improvement Program.

Statement of need

What problem is DEQ trying to solve?

The air quality plan for the Portland area includes a transportation control measure that requires transit service to be increased an average of one percent per year. The current five-year averaging period for determining compliance with this requirement does not adequately consider the abrupt drop in transit service caused by the recent recession. It is likely the region will be unable to demonstrate that it conforms with the transit transportation control measure in 2014 which could delay federal transportation funding.

How would the proposed rule solve the problem?

The proposed action would modify the metric used to track and assess the success of the transit transportation control measure. The required one percent increase in regional transit service would be assessed in the future over the cumulative life of the air quality plan. This would allow a longer assessment period which provides a more accurate measurement of the region's commitment to increasing transit service.

How will DEQ know the problem has been solved?

This action will succeed if the Portland area continues to increase transit an average of one percent per year through the end of the plan period in 2017.

Request for other options

During the public comment period, DEQ requested public comment on whether to consider other options for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.

Rules affected, authorities, supporting documents

Lead division	Program or activity
Air Quality Substitution	Portland Area Carbon Monoxide Maintenance Plan – TCM

Chapter 340

Amend	OAR 340-200-0040
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Note: For the purpose of Oregon rulemaking, this is an amendment of the State of Oregon Clean Air Act Implementation Plan. Once adopted, the substitute transportation control measure becomes, by operation of law, part of the State Implementation Plan and becomes federally enforceable. U.S. EPA will not conduct a separate public notice process. Comments on EPA's concurrence with this action must have been submitted during Oregon's comment period.

Statutory authority

ORS 468.020

Statute implemented

ORS 468A.035

Legislation Not applicable

Documents relied on for rulemaking

- Portland Area Carbon Monoxide Maintenance Plan:
<http://www.deq.state.or.us/aq/planning/docs/pdxCOplan.pdf>
- Appendix D9-2 "Substitution of Transportation Control Measures"
- Appendix D9-3 "Carbon Monoxide Emission Reduction Benefits of Transportation Control Measures"
- "Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision" EPA-420-B-09-002, January 2009
- Description of transportation control measure and equivalency analysis: Attachment C to Metro memo to TPAC dated May 31, 2013; pages 19 to 25 at:
[http://rim.oregonmetro.gov/webdrawer/rec/254514/view/General%20Administrative%20Records%20\(GAR\)%20-%20A~ng%20Records%20-%20Transportation%20Policy%20Alternatives%20Committee%20\(TPAC\)%20Meeting%20Packet.PDF](http://rim.oregonmetro.gov/webdrawer/rec/254514/view/General%20Administrative%20Records%20(GAR)%20-%20A~ng%20Records%20-%20Transportation%20Policy%20Alternatives%20Committee%20(TPAC)%20Meeting%20Packet.PDF)
- Minutes of Transportation Policy Alternatives Committee meeting of May 31, 2013, pages 4 to 10 regarding TCM substitution:
[http://rim.oregonmetro.gov/webdrawer/rec/257269/view/General%20Administrative%20Records%20\(GAR\)%20-%20A~ee%20Meeting%20Records%20-%20Transportation%20Policy%20Alternatives%20Committee%20\(TPAC\)%20Packet.PDF](http://rim.oregonmetro.gov/webdrawer/rec/257269/view/General%20Administrative%20Records%20(GAR)%20-%20A~ee%20Meeting%20Records%20-%20Transportation%20Policy%20Alternatives%20Committee%20(TPAC)%20Packet.PDF)

These documents are also at Oregon DEQ's headquarters office, 811 SW Sixth Ave., Portland, Oregon. Please contact the Air Quality Division receptionist at 503-229-5359 to arrange a time for document review.

Fee Analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

[ORS 183.335 \(2\)\(b\)\(E\)](#)

Fiscal and Economic Impact

The Portland area is subject to a Carbon Monoxide Maintenance Plan under the Clean Air Act. When the Portland area adopts a new transportation plan, federal law requires the region to demonstrate that the transportation plan conforms to the region's air quality plan. An area that cannot make that demonstration may experience a conformity lapse. In the event of a conformity lapse, the flow of federal transportation funds to projects that increase highway capacity are likely to be diverted to projects that are exempt from the transportation conformity rules. Exempt projects are those that do not increase vehicle emissions such as safety projects, mass transit improvements or projects that improve bicycle and pedestrian facilities. If the reasons for a conformity lapse go uncorrected, federal transportation funding could be delayed until the situation is resolved. Such a delay of funding is an unusual but not impossible result of failing to demonstrate conformity.

The Portland Area Carbon Monoxide Maintenance Plan includes a transportation control measure that requires regional transit service to be increased an average of one percent per year. The recent recession caused an unanticipated and abrupt drop in transit service in 2011, (more than five percent), while for 2012 and beyond transit service increases are expected to return to anticipated levels of one percent or more. A five-year averaging period does not adequately consider a large fluctuation, and the abnormal drop in 2011 transit service means the region would likely fail to meet the required average one percent increase target, possibly causing a conformity lapse in 2014.

DEQ did not anticipate the magnitude of the recent economic recession when it first established a five-year rolling average as the metric for calculating compliance for the transit TCM. DEQ now believes a five-year averaging period is not the best way to demonstrate the region's on-going, long term commitment to transit. A new metric is needed to better reflect the region's past and future commitment to transit and measure progress in implementing the required transportation control measure. This proposed rulemaking will extend the assessment period to the cumulative average increase over the life of air quality plan.

Failing to make this adjustment could jeopardize the timely adoption of the Portland area's 2014 transportation plan and delay federal transportation funding. Therefore, adoption of this substitute transportation control measure may have positive economic effects by avoiding the disruption of scheduled transportation projects or even a delay of transportation funding.

Statement of Cost of Compliance

Impacts on general public

If the proposed transportation control measure revision or a similar substitute is adopted before the end of 2013, the revision will have a net positive fiscal impact relative to the result if no revision is adopted.

If the proposed transportation control measure substitution or similar measure is not adopted and the region fails to take corrective action, the Portland area could experience a conformity lapse. DEQ has insufficient data at this point to estimate potential cost impacts to the public of a conformity lapse. However, an actual lapse is unlikely and can be avoided if past obstacles to achieving a transportation control measure are overcome and if the transportation control measure is given “maximum priority.” In the event those findings could not be made, a conformity lapse is still subject to a one-year grace period. If the grace period expired without corrective action the most likely effect would be that Metro and local jurisdictions would redirect transportation funds to projects that are exempt from transportation conformity requirements. Exempt projects include those that do not increase highway capacity such as mass transit or safety improvements. Therefore, any funding delays would primarily affect highway projects in the preconstruction stages. Those delays could have a negative economic effect that would increase with the length of delay.

These costs would depend on the length of time conformity is delayed, the nature of corrective measures taken by Metro, TriMet and others, the nature and timing of actions taken by EPA, state and federal Departments of Transportation, and many other variables. DEQ has highlighted here the general nature of economic risk that can occur under a conformity lapse.

Impact on other government entities other than DEQ

- a. Local governments In addition to the general effects above, if a conformity lapse were to delay transportation funding, local and regional governments would experience increased project administration cost. Those costs cannot be quantified but would be associated with the need to reschedule anticipated projects and make other necessary adjustments. In addition, if transportation funding is delayed, potentially some transportation projects important to local government interests could be delayed.
- b. State agencies In the unlikely event that transportation funding is delayed by inaction on this issue, the Oregon Department of Transportation would be affected in the same manner as local governments, above. ODOT would need to dedicate some staff resources to working with DEQ, EPA, and others to develop a solution to the conformity lapse. A delay in transportation funding could potentially affect ODOT projects in the Portland metro area.

Costs associated with (a) and (b) above cannot be estimated at this time and would depend on the length of time conformity is delayed, the nature of corrective measures taken by Metro, TriMet and others, the nature and timing of actions taken by EPA, state and federal Departments of Transportation, and many other variables. DEQ has highlighted here the general nature of economic risk that can occur under a conformity lapse.

Impact on DEQ [ORS 183.335](#)

Apart from time spent on the development of potential substitute TCMs subsequent rule adoption activities, DEQ will have no fiscal or economic effects.

Impact on large businesses (all businesses that are not small businesses below)

As described in the sections above it is unlikely but possible that a failure to adopt the proposed transportation control measure or similar measure could cause a delay of transportation funding. In addition, any delay would be temporary but could disrupt the normal stream of public project bidding and contracting. The fiscal effects cannot be calculated but would increase with the duration of delay.

Potential cost impacts would depend on the length of time conformity is delayed, the nature of corrective measures taken by Metro, TriMet and others, the nature and timing of actions taken by EPA, state and federal Departments of Transportation, and many other variables.

Impact on small businesses (those with 50 or fewer employees) [ORS 183.336](#)

Potential effects on small businesses would be the same as large businesses. It is possible, although unlikely, that a failure to adopt a substitute transportation control measure could cause a temporary delay of funding for projects that are not exempt from transportation conformity requirements. Delay of funding could disrupt normal project bidding and contracting processes to a degree that cannot be quantified.

a) Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

None

b) Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

None

c) Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

None

d) Describe how DEQ involved small businesses in developing this proposed rule.

DEQ did not engage small businesses in developing this rule amendment as they are unlikely to be affected.

Documents relied on for fiscal and economic impact

Document title	Document location
Portland Area Carbon Monoxide Maintenance Plan:	http://www.deq.state.or.us/eqplanning/docs/pdxCOplan.pdf
Appendix D9-2 “Substitution of Transportation Control Measures”	As above.
Appendix D9-3 “Carbon Monoxide Emission Reduction Benefits of Transportation Control Measures”	As above.
“Guidance for Implementing the Clean Air Act Section 176(c)(8) Transportation Control Measure Substitution and Addition Provision” EPA-420-B-09-002, January 2009	http://nepis.epa.gov/Exe/ZyNET.exe/P1002W66.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2006+Thru+2010&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C06thru10%5CTxt%5C000000006%5CP1002W66.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL
Description of transportation control measure and equivalency analysis: Attachment C to Metro memo to TPAC dated May 31, 2013; pages 19 to 25 at:	http://rim.oregonmetro.gov/webdrawer/rec/254514/view/General%20Administrative%20Records%20(GAR)%20-%20A~ng%20Records%20-%20Transportation%20Policy%20Alternatives%20Committee%20(TPAC)%20Meeting%20Packet.PDF
Minutes of Transportation Policy Alternatives Committee meeting of May 31, 2013, pages four to 10 regarding TCM substitution:	http://rim.oregonmetro.gov/webdrawer/rec/257269/view/General%20Administrative%20Records%20(GAR)%20-%20A~ee%20Meeting%20Records%20-%20Transportation%20Policy%20Alternatives%20Committee%20(TPAC)%20Packet.PDF

Advisory committee

The Transportation Policy Alternatives Committee—a standing committee staffed by Metro—was consulted for the development of the proposed substitute transportation control measure. The committee did not address economic or fiscal considerations.

Housing cost

To comply with [ORS 183.534](#), DEQ determined the proposed rules would have no effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. The proposed rule amendment has a very narrow focus that applies to the way the increase of transit service in the Portland Metropolitan area is measured.

Federal relationship

"It is the policy of this state that agencies shall seek to retain and promote the unique identity of Oregon by considering local conditions when an agency adopts policies and rules. However, since there are many federal laws and regulations that apply to activities that are also regulated by the state, it is also the policy of this state that agencies attempt to adopt rules that correspond with equivalent federal laws and rules..."

Relationship to federal requirements

The proposed rule amendment does not impose requirements different from, or in addition to, any applicable federal requirements. The proposed rule amendment modifies an existing transportation control measure that is a feature of the federally approved Portland Area Carbon Monoxide Maintenance Plan. The proposed substitute transportation control measure achieves an emission reduction that is equivalent to the original. Therefore, this proposal is the same as the existing federal requirement.

What alternatives did DEQ consider if any?

In consultation with the Transportation Policy Alternatives Committee staffed by Metro, DEQ considered combining the three original TCMs (expansion of transit, bike paths and sidewalks) into a single measure that achieves a CO emission reduction equivalent to total of the originals. However, EPA pointed out that such a bundled transportation control measure would reduce the connections between specific actions and agencies able to achieve those actions. Also, that approach could still produce a future conformity lapse. Therefore, DEQ and the Transportation Policy Alternatives Committee agreed the best approach would be to modify the measurement metric of the transit TCM. This is a simpler solution that still ensures the new measure will achieve emissions reductions at least equivalent to the current measure when using consistent and current assessment methodologies.

Land use

“It is the Commission's policy to coordinate the Department's programs, rules and actions that affect land use with local acknowledged plans to the fullest degree possible.”

OAR 340-018-0010

Land-use considerations

To determine whether the proposed rules involve programs or actions that are considered a *land-use action*, DEQ considered:

- Statewide planning goals for specific references. Section III, subsection 2 of the DEQ State Agency Coordination Program document identifies the following statewide goal relating to DEQ's authority:

Goal	Title
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5	Open Spaces, Scenic and Historic Areas, and Natural Resources
6	Air, Water and Land Resources Quality
11	Public Facilities and Services
12	Transportation
16	Estuarial resources
19	Ocean Resources

- [OAR 340-018-0030](#) for EQC rules on land-use coordination. Division 18 requires DEQ to determine whether proposed rules will significantly affect land use. If yes, how will DEQ:
 - Comply with statewide land-use goals, and
 - Ensure compatibility with acknowledged comprehensive plans, which DEQ most commonly achieves by requiring a [Land Use Compatibility Statement](#).
- DEQ's mandate to protect public health and safety and the environment.
- Whether DEQ is the primary authority that is responsible for land-use programs or actions in the proposed rules.
- Present or future land uses identified in acknowledged comprehensive plans.

Determination

This TCM substitution affects Goal 6, (air, water and land resources quality), Goal 11 (public facilities and services) and Goal 12 (transportation). DEQ will ensure compliance with statewide land-use goals and ensure compatibility with comprehensive plans by participating with Metro as the area's metropolitan planning organization, Tri-Met and other local governments.

Stakeholder and public involvement

Advisory committee

Under the substitution process specified in the Portland Area Carbon Monoxide Maintenance Plan, seen in Appendix D9-2, Metro is responsible for convening a committee to identify and evaluate possible substitute measures. The existing Transportation Policy Advisory Committee met the relevant criteria and was used for this role. This group includes DEQ, all affected jurisdictions and transportation agencies as well as several citizen representatives. The committee considered the issue of a substitute measure for increasing transit service at its meetings of Jan. 4, Jan. 25, April 26 and May 31, 2013. This proposal incorporates the committee's final recommendation.

EQC prior involvement

DEQ shares general rulemaking information with EQC through the annual DEQ Rulemaking Plan review and monthly status reports. DEQ did not present additional information specific to this proposed rule revision beyond the annual rulemaking plan and the monthly rulemaking report.

Public notice

The August 2013 *[Oregon Bulletin](#)* published the Notice of Proposed Rulemaking with Hearing. DEQ also:

- Posted notice July 15, 2013, on DEQ's webpage:
<http://www.oregon.gov/deq/RulesandRegulations/Pages/2013/RulemakingActivities.aspx>
- E-mailed notice July 15, 2013, to:
 - Approximately 5,600 interested parties through GovDelivery
 - The following key legislators required under ORS 183.335:
 - Senator Jackie Dingfelder, Chair, Senate Environment and Natural Resources Committee
 - Representative Jules Bailey, Chair, House Energy and Environment Committee
 - Senator Lee Beyer, Chair, Senate Business and Transportation Committee
 - Representative Tobias Read, Chair, House Transportation and Economic Development Committee
- Provided ongoing notices to EPA beginning Dec. 20, 2012.
- Sent email notifications July 15, 2013 to:
 - Southwest Washington Clean Air Agency
 - Washington State Department of Ecology
 - Oregon Department of Transportation
- Published notice in *The Oregonian* July 15, 2013

Public hearings and comment

DEQ held one public hearing. Before taking public comment and according to [Oregon Administrative Rule 137-001-0030](#), the staff presenter summarized the content of the notice given under [Oregon Revised Statute 183.335](#) and responded to questions about the rulemaking.

The comment period closed Monday, Aug. 19, 2013, at 5 p.m. DEQ received six public comments. The summary of comments and DEQ responses section below addresses each public comment. The commenter section below lists all people who commented on this proposal.

Presiding Officer's Record

The presiding officer summarized procedures for the hearing including notification that DEQ was recording the hearing. The presiding officer asked people who wanted to present verbal comments to complete, sign and submit a registration form.

According to [Oregon Administrative Rule 137-001-0030](#), the staff presenter summarized the content of the notice given under [Oregon Revised Statute 183.335](#) and answered questions about the rulemaking.

DEQ added all names, addresses and affiliations provided on the registration form and attendee list to DEQ's interested parties list for this rule. Commenters' names were listed in the section below together with numbers referring to individual comments. DEQ added the agency's response to each comment as shown below.

Summary of comments and DEQ responses

Hearing	
Date	August 15, 2013
Time convened	7 p.m.
Time adjourned	8:15 p.m.
Address	DEQ Headquarters 811 SW Sixth Avenue EQC Room A, Floor 10
City	Portland, OR 97204
Presiding officer	Colin McConnaha, DEQ
Staff presenter	David Nordberg, Transportation Specialist, Air Quality Planning
Attendees in person	9
Attendees through iLinc	0
Oral comments	3
Written comments	3

The following table organizes comments received within the comment period into 24 categories with cross references to the commenter number. DEQ's response follows the summary. Original comments are on file with DEQ.

Commenter: Topic	Comment	DEQ Response to Comment
1: Support for proposal	The Portland area easily met the transit TCM until a combination of the recent "Great Recession" and high fuel prices caused a reduction in transit service. The proposed substitute TCM is a better measure of the region's long term commitment to increased transit service than the original TCM because it addresses the broader trend. The proposed TCM will support Metro's Climate Smart Communities project and the region's 2040 plan.	DEQ acknowledges Metro's support for the proposed Transportation Control Measure changes.
Opposition to proposal		
A. Proposed measure violates environmental justice principles		
2: Consider all effects of actions	DEQ is required to consider Environmental Justice effects of its actions, both direct and indirect.	DEQ has considered possible effects of this proposed substitute measure on EJ communities and has determined that changing the calculation metric for determining compliance with the transit TCM will not affect

		<p>environmental justice populations. The transit strategy in the Portland carbon monoxide maintenance plan calls for a sustained growth in regional level transit over the life of the maintenance plan as a way of reducing vehicle miles traveled and thereby reducing carbon monoxide generally. Changing the regional averaging period from five years to as many as 10 years will not affect the distribution of transit service, such as bus route selection, service frequency and fare structures. In addition, carbon monoxide levels have been reduced drastically over the past several decades and carbon monoxide pollution from transportation no longer poses a public health risk in EJ communities or the Portland metro area population as a whole.</p>
2: Carbon monoxide hot spots may have increased	<p>While regional carbon monoxide emissions are decreasing, congestion and idling in Portland are increasing suggesting that carbon monoxide hot spots have increased.</p>	<p>Carbon monoxide pollution from transportation no longer poses a public health risk for anyone in the Portland metro area, including areas of congestion. Carbon monoxide emissions from motor vehicles are effectively controlled by modern technology including catalytic converters, oxygen sensors and computerized engine controls. DEQ's ambient carbon monoxide monitoring network was designed to measure carbon monoxide levels at worst-case ("hot-spot") locations. The last measured exceedance of the federal carbon monoxide health standard in the Portland area occurred in 1991. Since then, carbon monoxide levels have steadily dropped and today are less than half the health standard. In addition, computer modeling of carbon monoxide hot spots performed by the Oregon Department of Transportation also indicates the worst case exposures in Oregon are less than half the carbon monoxide health standard. DEQ has no evidence or reason to conclude that any Portland area populations are disproportionately at risk from unhealthy carbon monoxide levels.</p>
2: EJ groups have higher exposures	<p>Low income and communities of color tend to live closer to high traffic highways and experience disproportionate health risks from carbon monoxide and toxic air pollutants.</p>	<p>DEQ has monitored carbon monoxide for decades at locations chosen to represent worst case exposures. Dramatically improved vehicle emission technology led to steadily falling carbon monoxide concentrations and the removal of most monitors due to reduced health risk. See Portland area carbon monoxide monitoring results from DEQ Air Quality Data Summaries attached as Appendix 1C. While DEQ has no evidence of disproportionate impacts from carbon monoxide on EJ communities, DEQ has identified potential disproportionate impacts from air toxics. These air toxics impacts are not addressed by the TCM in the carbon monoxide maintenance plan and would not be affected by changes to the TCM because the requirement is for region-wide transit growth and not corridor specific transit. However, DEQ has other programs,</p>

		such as the Portland Air Toxics Solutions project and the Clean Diesel initiative that are more suited to address impacts in specific corridors.
2: EJ groups have health effects that can be caused by CO	EJ communities are more likely than others to live in low quality housing with poor indoor air quality. Young, old, low income and communities of color have high risk of health conditions which can be caused by high carbon monoxide.	DEQ has no indication or evidence that Portland area residents in any communities are exposed to unhealthy levels of carbon monoxide in ambient air. DEQ does not monitor indoor air quality.
3: Don't change the TCM	DEQ shouldn't change the current TCM just because parties aren't meeting the specified requirements.	Concern about showing conformity with the TCM arose because of an unanticipated short-term drop in 2011 transit service. Regional transit growth has since resumed. The proposed new TCM calculation method will be less sensitive to unanticipated short-term fluctuations and better reflect the region's long-term progress and commitment to regional transit growth. The TCM substitution is needed by Metro to avoid the uncertainty and disruption that would be caused by a conformity lapse. Failing to meet a TCM could result in Metro being unable to demonstrate transportation conformity which would destabilize the local transportation planning process and seriously disrupt development of the 2014 Regional Transportation Plan. Ultimately, this disruption could adversely affect state and federal funding for transportation projects as well as many different citizen and stakeholder groups across the Metro region. DEQ finds the proposed TCM to be equivalent in emission reduction to the original TCM in the Portland carbon monoxide maintenance plan when evaluated by the required EPA methodology.
2: Communities of color have higher exposure to hotspots	DEQ has data to suggest communities of color are disproportionately affected by carbon monoxide /on-road mobile hot spots.	DEQ's data shows that carbon monoxide pollution from transportation no longer poses a public health risk for anyone in the Portland metro area, including communities of color. Carbon monoxide emissions from motor vehicles are effectively controlled by modern technology. This includes catalytic converters, oxygen sensors and computerized engine controls.
4: Use data from CO monitors to determine actions.	DEQ should use actual data from carbon monoxide monitors to inform regulatory actions.	Actual monitoring data shows that ambient carbon monoxide concentrations in the Portland area are well below health standards. See Appendix 1C. DEQ evaluated this data in determining that the substitute TCM measure will continue to protect public health.
B. The substitute measure does not reduce carbon monoxide emissions as much as the existing measure		

2: Calculation doesn't reflect higher rate of bus boardings	The method used to calculate benefits of transit TCMs overestimates carbon monoxide emission reductions. Bus service decreased 11.4% from 2003 to 2012 while light rail transit (weighted by capacity) increased 49.9%. Because buses have more boardings per hour than light rail, the increased proportion of rail service gives an inflated estimate of emission reductions.	While buses generally have more boardings per hour than light rail, light rail riders generally have longer transit trips. A key factor in the analysis is how many vehicle miles traveled by car are displaced by bus or other transit service. When an air quality plan is adopted, DEQ must specify how anticipated emission reductions from a TCM are calculated. If a substitute TCM is proposed, EPA requires that it achieve an equivalent or greater emission reduction using the same calculation method. When the designated calculation method is applied to the proposed substitute TCM it achieves an emission reduction identical to the original. DEQ used the method required by EPA to calculate and evaluate the substitute TCM.
2 and 6: Weighting by capacity is incorrect	<p>"Weighting by capacity" introduces an intrinsic error in the calculation of transit emission reductions that is demonstrated by the opening of the Green Line in 2009. The assumption that a two unit light rail set has the capacity of five buses is inappropriate because the calculated capacity increased 15.6% while ridership decreased 2.3%.</p> <p>Weighting by capacity also undermines investment along bus lines by reducing confidence that bus service will grow.</p>	DEQ has determined that the use of capacity weighting is appropriate for estimating the potential reduction in vehicle miles travelled from a TCM. For example, a light rail train set carries 5 times more riders than a bus, and it is appropriate to consider this in estimating the effectiveness of a transit system. The example cited by the commenter is for an atypical period at the start of a recent deep recession. In addition, capacity weighting was used in the calculation of the existing transit TCM and the TCM substitution methodology requires that the identical method be used in calculating the acceptability of a substitute TCM to ensure an apples-to-apples comparison. DEQ has determined the calculation used to evaluate the substitute is adequate and meets EPA requirements.
2: TriMet has funds to meet the TCM	The region does not comply with the existing TCM because TriMet has not applied available funding from fiscal years 2012 and 2013 that could increase transit service to achieve the TCM requirement.	<p>TriMet has reported to DEQ that it is unable to meet the TCM commitment as calculated in the CO maintenance plan due to the recent "great recession." However, TriMet indicates that it can meet the commitment with its available budget when calculated over the life of the maintenance plan."</p> <p>DEQ does not have a role in the budget decisions of TriMet or other agencies. The objective of the transit TCM in the CO maintenance plan is to achieve sustained regional growth in transit, which the proposed substitute TCM provides.</p>
2: 2008 is arbitrary and capricious	Designating 2008 as the first year to apply the substitute	The proposed substitute transit TCM is a feature of the second Portland Area Carbon Monoxide Maintenance Plan

	TCM is arbitrary and capricious.	which is in effect from Oct. 2, 2007, until Oct. 2, 2017. The proposed substitute TCM would apply to the cumulative life of that plan. 2008 is the fiscal year that most closely corresponds to the start of that maintenance plan, which is why DEQ proposes to use the 2008 to 2017 carbon monoxide maintenance planning timeframe in this TCM substitution analysis.
2: EJ groups have lower transit access and associated health benefits	EJ communities have less access to transit due to lack of infrastructure, lack of service or rising cost. A Metro health assessment found that increasing transit is key to achieving better health outcomes.	DEQ acknowledges Metro's health study findings claiming that EJ communities have lower transit access and that increased transit achieves better health outcomes. The transit TCM adopted under the Portland carbon monoxide maintenance plan is intended to increase the average level of regional scale transit and reduce the regional scale carbon monoxide levels over the life of the CO maintenance plan. Specific operational details of Metro area transit service, such as the number of light-rail trains, buses, individual routes and areas served, and service frequency, etc. are determined by TriMet and are outside the scope of the carbon monoxide plan and TCM analysis.
2: TPAC doesn't reflect EJ issues	Using the Transportation Policy Alternatives Committee to form this proposal did not ensure EJ communities were involved in a meaningful way.	<p>DEQ and Metro sought and obtained concurrence for the proposed TCM substitution from Metro's Transportation Policy Alternatives Committee before beginning rulemaking.</p> <p>http://www.oregonmetro.gov/index.cfm/go/by.web/id=419</p> <p>Metro's TPAC membership includes "citizens at large" and has standard procedures for stakeholder outreach to a wide variety of interest groups including environmental justice communities. DEQ relies on this process when working with Metro or Trimet on transportation strategies being led by these agencies. DEQ also received input directly from the EJ community through DEQ's public comment process and has carefully considered those comments. DEQ fully supports Metro and Trimet efforts to enhance their stakeholder outreach work even more, including additional outreach to the environmental justice communities about local transit issues.</p>
C. The proposed measure may violate Title VI of the Civil Rights Act		
2: Justify discriminatory action	Given the inference that communities of color have a high rate of exposure to hot spots, DEQ should examine its justification for discriminatory action.	The proposed TCM substitution does not discriminate against any community or group. Monitored carbon monoxide levels in the Portland area are less than half the national ambient air quality health standard, and DEQ has no evidence that communities of color are exposed to unhealthy levels of carbon monoxide. These findings are consistent with the national trend.

2: Consider more options	Metro and TriMet have not exhausted the range of options to determine if there is a less impactful alternative. Options include increasing transit service, changing the way transit service is computed and restructuring the methodology to capture projected gains from bus service increases.	DEQ considered several alternate TCM substitutions as documented in the TPAC meeting materials of May 31, 2013 and agrees with the committee that the proposed change in calculating TCM effectiveness is an appropriate and approvable substitute to the existing TCM.
2: Restart the TCM substitution process	DEQ should exercise its discretion to modify the proposed TCM, to ensure anticipated emission reductions, facilitate a negotiated rulemaking or remand the rule to Metro and TriMet for inclusive engagement and deliberation.	<p>DEQ has concluded the proposed TCM is equivalent in emission reductions to the original TCM when evaluated by the required methodology. DEQ has also considered the possible effect of this proposed substitute TCM on EJ communities and has determined that changing the calculation metric for determining compliance with the transit TCM will not affect environmental justice populations. Therefore, DEQ concludes there is no need to initiate a new rulemaking process or remand the rule to Metro and TriMet for further work.</p> <p>The process for developing a substitute TCM is specified by Appendix D9-2 of the Portland Area CO Maintenance Plan. The process indicates Metro will manage development and evaluation of possible substitute measures. If DEQ concurs that the proposed TCM provides equivalent emission reduction, DEQ will propose the new TCM through a public rulemaking process, with ultimate adoption required by the Environmental Quality Commission.</p>
3: Service cuts not caused by recession	The drop in transit service was not abrupt. Revenue miles and revenue hours have declined since 2006 and 2008, respectively. TriMet's all-funds budget increased 125% since 2005.	DEQ is obligated to assess the transit TCM by the amount of transit service provided as weighted by capacity. DEQ is not allowed to assess the transit TCM using revenue hours or revenue miles, and an "all funds budget" provides a misleading picture of available resources as it includes funds for large capital projects that cannot be used for operations. DEQ used the required methodology to calculate and evaluate the substitute TCM.
3: Use TriMet data not survey data	The estimate of emissions reductions produced by the proposed TCM is based on average trip length determined by the Oregon Household Activity survey rather than TriMet's data.	To estimate the effect of a substitute TCM, EPA requires use of the original methodology updated to reflect the latest planning assumptions. Therefore, the original trip length determined by the previous household survey was updated to the 6.0 miles found by the most recent household survey. DEQ has determined that Metro's emission estimates were calculated appropriately.

3: Don't base TCM on TriMet's letter of 5-2013	In considering the proposed action, DEQ should focus on the amount of transit service provided over the past five years, not speculative statements about future transit service.	The new TCM emission forecast used in the emissions equivalency analysis as required by the EPA process is based on TriMet's current projection of regional transit increases. TriMet must meet these projections or risk violating the new TCM.
4: Transit service decreased but ridership increased	The rulemaking documents claim the economic downturn forced cuts to transit service after years of high growth. Nonetheless, ridership and therefore diverted auto trips increased even during the recession. This claim doesn't make sense.	What this passage attempts to convey is that even while transit service (adjusted by vehicle size) decreased, transit ridership increased. The increase in ridership was cited in the rulemaking documents to indicate the amount of CO reduced by the transit TCM was probably more than the five-year average indicated--even when transit service, weighted by capacity, fell sharply. However, transit ridership is subject to a high degree of personal choice and is beyond the direct control of a transit agency. Therefore, the amount of transit service delivered, weighted by capacity, was selected as the official way to assess the transit TCM specifically because it can be directly controlled by the responsible agencies.
4: More transit service would increase CO	Increases in transit service would actually increase CO emissions.	An increase in transit service could only produce a net increase in carbon monoxide emissions if the new service is by bus and actual ridership on that new bus was extremely low. In this scenario, carbon monoxide emissions from a new (low ridership) bus would not offset trips by car, thus theoretically resulting in a net carbon monoxide increase along that bus route. However, Portland area transit is well used and additional transit service provides a significant reduction in net vehicle emissions.
5: Cutting bus service increases auto pollution and harmful health effects	Decreased bus service in SE Portland causes increased air pollution from higher traffic. The higher levels of auto emissions have dramatic negative consequences for the commenter and others like her that have serious breathing problems or asthma. DEQ must consider the effect of its actions on humans.	<p>The proposed transit TCM adopted under the Portland carbon monoxide maintenance plan is intended to increase the overall level of regional transit and reduce regional scale carbon monoxide levels over the life of the carbon monoxide maintenance plan. Neither the original TCM or the substitute TCM have any effect on the distribution of transit service within the metro area.</p> <p>DEQ has other initiatives to address air pollution from transportation in the region, including the Portland Air Toxics Solutions project and the Clean Diesel initiative; however, those programs and issues are outside the scope of this rulemaking and the Portland carbon monoxide maintenance plan.</p>
6: Fluctuating bus services undermines local	Reliability of mass transit is a driver of local economies. Light	DEQ acknowledges the principle that predictable transit service promotes business investment. The agency supports

investment	<p>rail lines attract business investment because their location is fixed. Similarly, consistent bus service also attracts investment, but reduced bus service lowers confidence that businesses can rely on bus-riding customers.</p>	<p>“frequent service” bus lines and the concept of bringing fixed-route High Capacity Transit to the SW/Barbur Blvd. and Powell Blvd. corridors. However, the transit TCM in the carbon monoxide maintenance plan only affects the total regional level of transit service, not the reliability or consistency of service to specific business districts.</p>
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Commenters

Comments received by close of public comment period

The table below lists six people and organizations that submitted comments on the proposed rules by the deadline for submitting public comment. Original comments are on file with DEQ.

Commenter	Affiliation	Submittal Method
1. Tom Hughes and Carlotta Collette	Metro President and Chair of Joint Policy Advisory Committee on Transportation	Letter
2. Jon Ostar	OPAL Executive Director	Verbal at hearing plus letter
3. John Charles	Cascade Policy Institute	Written (email)
4. Dan Radonski		Written (email)
5. Teresa Kieshi Soto	Resident	Verbal at hearing
6. John Krallman	Neighbors for Clean Air	Verbal at hearing

Implementation

Notification

If adopted, the proposed rules would become effective following filing with the Secretary of State and upon the written concurrence of EPA and Metro. DEQ estimates concurrence is likely to occur within two weeks of EQC action. DEQ, EPA and Metro will notify each other of official actions by letter.

Compliance and enforcement

- Affected parties – As the Metropolitan Planning Organization for the Portland Area, Metro is responsible for demonstrating compliance with the Portland Area Carbon Monoxide Maintenance Plan and its transportation control measures. This demonstration is done as part of regular transportation planning processes. These processes are overseen by the Federal Highway Administration which is responsible for enforcing transportation conformity requirements including transportation control measures.
- DEQ staff – DEQ has no in role enforcing transportation conformity requirements aside from consulting with transportation planning agencies.

Five-year review

Requirement ORS 183.405

The state Administrative Procedures Act requires DEQ to review **new** rules within five years of the date the EQC adopts the proposed rules. Though the review will align with any changes to the law in the intervening years, DEQ based its analysis on current law.

Exempt from five-year rule review

The Administrative Procedures Act exempts this proposed rule from the five-year rule review because it is an amendment to an existing rule rather than a rule adoption. ORS 183.405 (4)

APPENDIX 1C
Carbon Monoxide Summary (ppm)

STATION LOCATION AND NUMBER	YEAR	Oct-Apr Average	1-HOUR AVERAGES		TIMES** >9ppm	8-HOUR AVERAGES	
			MAXIMUM	2ND HIGH		MAXIMUM (date)	2 ND HIGHEST (date)
Portland	2002	0.68	6.1	4.4	0	3.1 (11/15)	2.9 (11/14)
SE Lafayette (SEL)	2003	0.65	3.7	3.6	0	3.4 (03/30)	3.1 (03/02)
5824 SE Lafayette	2004	0.64	4.9	4.7	0	4.0 (11/08)	3.7 (11/06)
DEQ # 10139 EPA # 410510080	2005	0.60	3.2	3.1	0	2.6 (11/08)	2.5 (03/08)
	2006	0.47	3.8	3.4	0	2.9 (02/16)	2.7 (02/20)
	2007	0.46	4.1	3.5	0	3.1 (01/25)	2.7 (02/03)
	2008	0.44	3.4	3.3	0	3.1 (12/06)	2.4 (11/18)
	2009	0.39	3.2	3.1	0	2.5 (11/26)	2.3 (11/03)
	2010	0.32	2.8	2.7	0	2.4 (11/11)	2.4 (11/24)
	2011	0.42	3.4	3.0	0	2.6 (01/23)	2.4 (02/10)
Old Postal Bldg (PPB)	2002	1.09	7.1	5.1	0	3.4 (10/17)	3.1 (10/27)
510 SW 3rd	2003	1.10	5.1	5.0	0	3.4 (12/05)	3.3 (09/03)
DEQ # 10141 EPA # 410510087	2004	0.97	14.4	8.6	0	3.8 (03/17)	3.2 (03/08)
	2005	0.82	4.5	4.1	0	2.7 (02/03)	2.3 (12/21)
	2006	0.85	10.6	9.4	0	3.6 (10/11)	3.4 (07/10)
	2007	0.82	4.1	3.7	0	2.9 (08/29)	2.5 (01/23)
	2008	0.62	7.2	2.9	0	2.2 (12/06)	2.0 (11/17)
	2009	0.65	4.4	4.1	0	3.0 (02/02)	2.0 (11/26)
82nd & Division (PED)	2002	1.20	7.1	5.4	0	4.5 (11/15)	4.5 (11/14)
DEQ# 10142 EPA# 410510243	2003	1.10	5.9	5.2	0	4.0 (02/04)	4.0 (03/29)
	2004	1.02	5.3	5.1	0	4.5 (11/08)	3.9 (11/06)
	2005	0.97	4.5	4.5	0	3.2 (02/03)	3.1 (03/09)
Salem							
Market & Lancaster (SML)	2002	1.18	7.6	7.3	0	5.6 (11/26)	5.2 (11/03)
1685 Lancaster NE	2003	0.94	7.1	6.9	0	5.2 (01/07)	4.9 (01/07)*
DEQ# 10131 EPA# 410470039	2004	1.00	5.6	5.4	0	4.2 (11/06)	3.8 (11/05)
*AM and PM on same day but not same 8 hr average.	2005	0.97	7.5	6.1	0	4.9 (11/06)	3.7 (11/23)

*Parts per million

**Non-overlapping 8-hour averages which exceed
9 ppm when rounded to nearest whole ppm.

Carbon Monoxide 1C