

# Air Quality Conformity Determination



## **2045** ***Regional Transportation Plan***

Adopted **January 6, 2022**

This report was financed in part by the Oregon Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration.



<<Insert Governor Approval>>

<<Insert USDOT Approval>>



<<Insert MPC Resolution>>

## Synopsis

An air quality conformity determination (AQCD) for a transportation plan or program is a finding that proposed transportation activities will not impede this area from continuing to meet air quality standards and will not cause or contribute to new air quality violations. The report is required in areas that have previously been determined to have violated standards for at least one of six pollutants identified by US-EPA. In the Eugene-Springfield area, that pollutant is coarse particulate matter (PM<sub>10</sub>).

### Why are we producing this document?

In December 2021, the Central Lane Metropolitan Planning Organization (CLMPO) (composed of the local transportation agencies of Eugene, Springfield, Coburg, and Lane County, Lane Transit District, and Oregon Department of Transportation (ODOT)) is scheduled to begin implementation of a new Regional Transportation Plan (RTP) upon its adoption at the December 2, 2021 Metropolitan Planning Committee (MPC) meeting. Within this program are projects that generally have regional significance and/or are anticipated to use federal funds.

In areas that have been designated as nonattainment for National Ambient Air Quality Standards (NAAQS), including those that were redesignated to attainment in the past 20 years (“maintenance areas”), an AQCD is required whenever the Metropolitan Transportation Improvement Program (MTIP) or MPO’s Metropolitan Plan (RTP) is updated, or every 4 years, whichever comes first. The conformity determination must be adopted as part of the approval process. US Department of Transportation (USDOT) must make the conformity determination before the plan or program can become operative.

Within the Eugene-Springfield area, the only air pollutant with a current air quality maintenance plan is that of **coarse particulate matter (PM<sub>10</sub>)**. In 2013, the Eugene-Springfield area was re-designated by the Environmental Protection Agency (US-EPA) to attainment for PM<sub>10</sub> with an approved 10-year Limited Maintenance Plan (LMP). This means that previously poor air quality has improved to the point where it now meets the Clean Air Act NAAQS for PM<sub>10</sub>. A 20-year maintenance period then began to ensure that no backsliding occurs and that the PM<sub>10</sub> standard continues to be met. Although transportation was found not to be a significant contributor of PM<sub>10</sub> pollution (home wood heating and industrial sources were the major contributors), analysis is required of certain transportation projects in order to ascertain that localized impacts (such as at intersections) do not occur. This analysis takes place at the time the project is scoped during design in preparation for construction and is the responsibility of the project sponsor. The AQCD ensures that projects that potentially need to carry out this analysis are identified.

### Who takes action?

This report has been prepared by the CLMPO in coordination with the interagency consultation group (IAC) consisting of representatives from several state and federal agencies, including Department of Environmental Quality (DEQ), Department of Transportation (DOT), Environmental Protection Agency (US-EPA), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Lane Regional Air Protection Agency (LRAPA), and ODOT. The MPC, as the policy board for the CLMPO, must formally adopt the findings described in this report. USDOT must then confer with US-EPA and, if the analysis is acceptable, they will issue a positive ruling. The 2045 RTP may become effective only upon confirmation of this positive ruling.

### Findings

The CLMPO area currently meets all federal clean air standards. PM<sub>10</sub> levels remain low, below the LMP threshold. Of the other criteria pollutants that are monitored, carbon monoxide levels are extremely low

and show no sign of rebounding. The area is in compliance with the standards for ozone and particle pollution 2.5 microns and smaller, though vigilance is needed to ensure that this remains so.

Pursuant to [40 CFR Section 93](#) this conformity determination for the CLMPO 2045 RTP meets all the requirements under the conformity rule.

### **Purpose**

This transportation conformity analysis is being carried out in conjunction with the development of the 2045 RTP of the CLMPO, located in Eugene, OR.

### **Air Quality Status**

Transportation conformity is only required for projects within the boundaries of the designated air quality maintenance area for particulate matter air pollution with an aerodynamic diameter less than or equal to 10  $\mu\text{m}$  in size ( $\text{PM}_{10}$ ). The Eugene and Springfield urban growth boundaries (Map 1) constitute the air quality maintenance area for  $\text{PM}_{10}$ . The area is approximately 77 square miles in size and is completely contained within the CLMPO boundaries but excludes certain areas within the MPO, such as the City of Coburg and the Eugene Airport.

In August 1987, the Eugene-Springfield area was designated by US-EPA as a  $\text{PM}_{10}$  non-attainment area due to measured violations of the 24-hour  $\text{PM}_{10}$  standard (52 FR 29383). In August 1994, US-EPA approved the attainment plan (State Implementation Plan (SIP)) classifying the area as 'moderate' (59 FR 43483 August 24, 1994). Smoke from residential wood heating was determined to be the major contributor. The establishment of a mandatory home wood heating curtailment program was identified as a remedy to reduce wood burning emissions during stagnant air episodes in winter. Continued enforcement of existing controls on local industrial sources was also mandated. The EPA also approved  $\text{PM}_{10}$  control strategies in the SIP as Reasonably Available Control Technology and Reasonably Available Control Measures (RACT/RACM). No transportation control measures (TCM) were identified, and no transportation emissions budget was determined. US-EPA determined the area was exempted from regional emissions analysis for  $\text{PM}_{10}$  but that project level conformity requirements continued to apply (Appendix A).

In January 2012, LRAPA submitted a revision to the Oregon  $\text{PM}_{10}$  SIP demonstrating attainment and describing a 10-year LMP. US-EPA approved the plan, and the area was re-designated as in attainment effective June 10, 2013 (78 FR 21547). The final LMP is included as Appendix F. Per the final LMP, the Eugene-Springfield area met the following EPA criteria to qualify for an LMP:

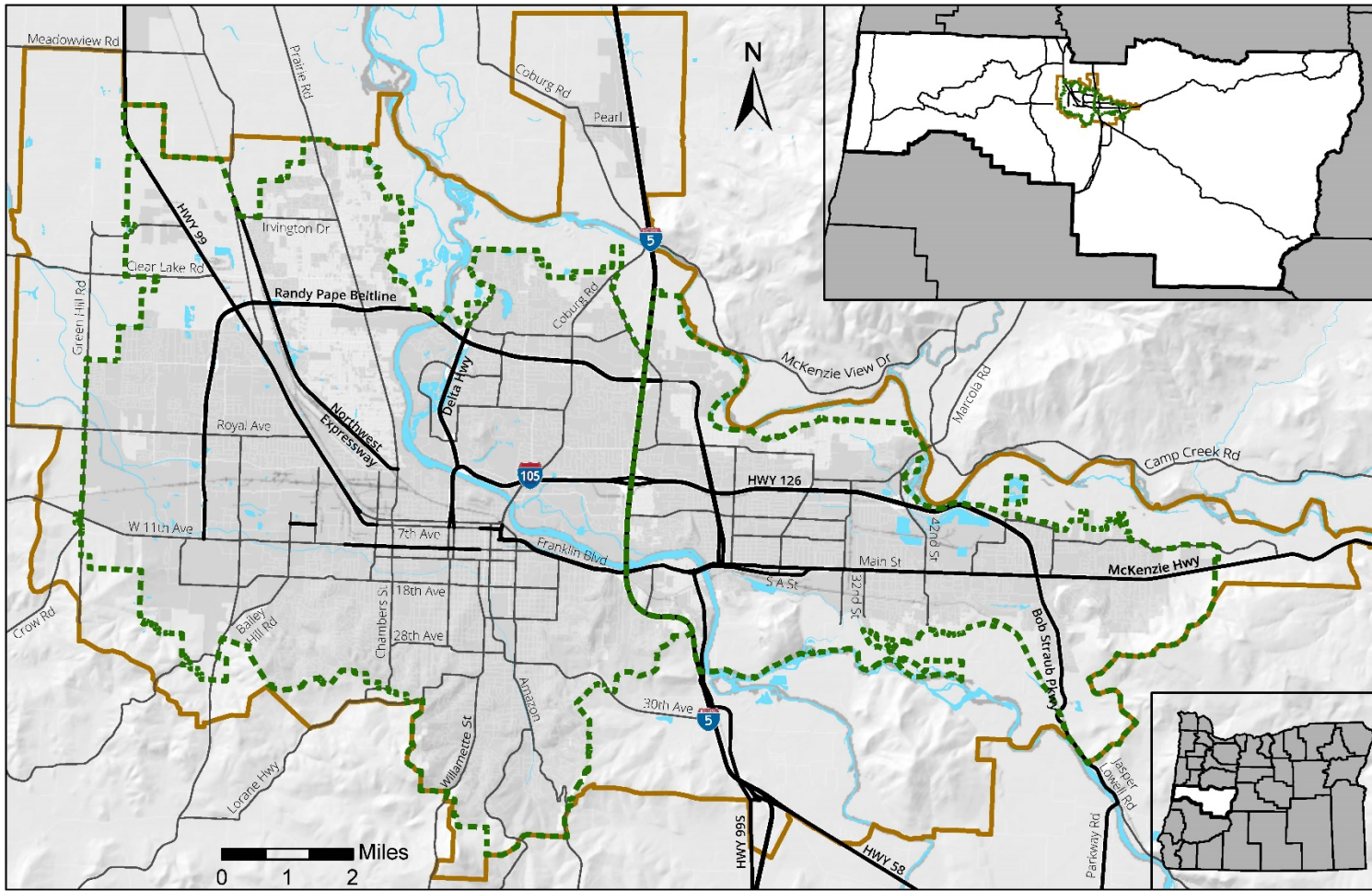
1. The area should attain the NAAQS.
2. The average 24-hour  $\text{PM}_{10}$  design value for the area based upon recent 5 years of data should not exceed 98  $\mu\text{g}/\text{m}^3$  (micrograms per cubic meter) and the annual design value should not exceed 40  $\mu\text{g}/\text{m}^3$ . (The annual  $\text{PM}_{10}$  NAAQS was revoked by the EPA on December 18, 2006.)
3. The area should expect only limited growth in on-road motor vehicle  $\text{PM}_{10}$  emissions.

The LMP identified that the area's 24-hour  $\text{PM}_{10}$  design value of 66  $\mu\text{g}/\text{m}^3$  (2006-2008) was well below the LMP qualifying critical design value of 98  $\mu\text{g}/\text{m}^3$ . The inventory analysis also demonstrated that only limited growth in  $\text{PM}_{10}$  emissions from motor vehicles was expected and that these emissions were unlikely to cause a future violation. No TCMs were identified, and no transportation budget was established. There are no contingency measures that involve transportation sources.

With the approval of the LMP, the area continues to be exempt from performing a regional emissions analysis for  $\text{PM}_{10}$  and there is no 'budget' test. The area, however, must meet project level conformity

analyses and must also respond to transportation conformity criteria as specified in 78 FR 21547 and, in particular, in 40 CFR 93.109(e).

# Map of Eugene-Springfield Air Quality Maintenance Area

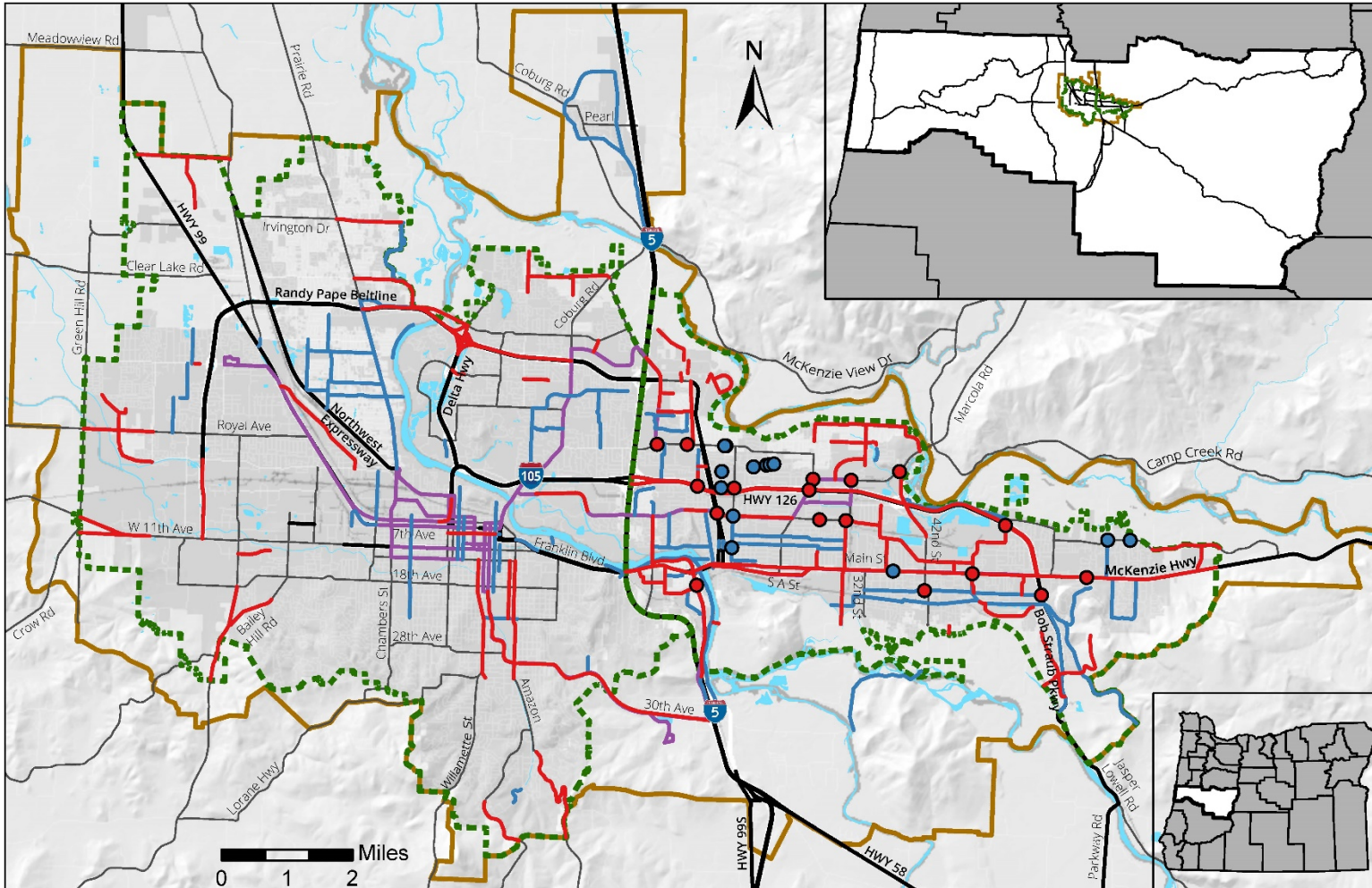


- - - Air Quality Maintenance Area
- MPO Area Boundary
- Water Area
- General Arterial Road Centerlines
- Highway Centerlines



## 2045 Regional Transportation Plan



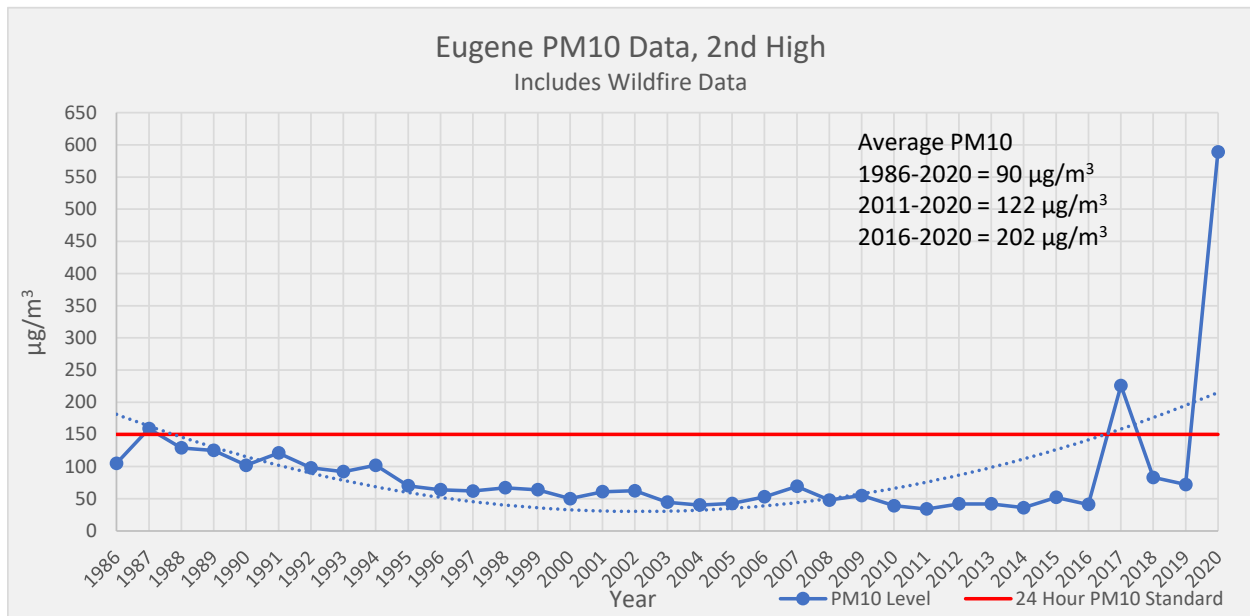


- Fiscally Constrained Roadway Projects
- Fiscally Constrained Bike/Pedestrian Projects
- Fiscally Constrained Roadway Projects
- Fiscally Constrained Bike/Pedestrian Projects
- Fiscally Constrained Transit Projects
- - - Air Quality Maintenance Area
- Highway Centerlines
- General Arterial Road Centerlines
- MPO Area Boundary
- Water Area

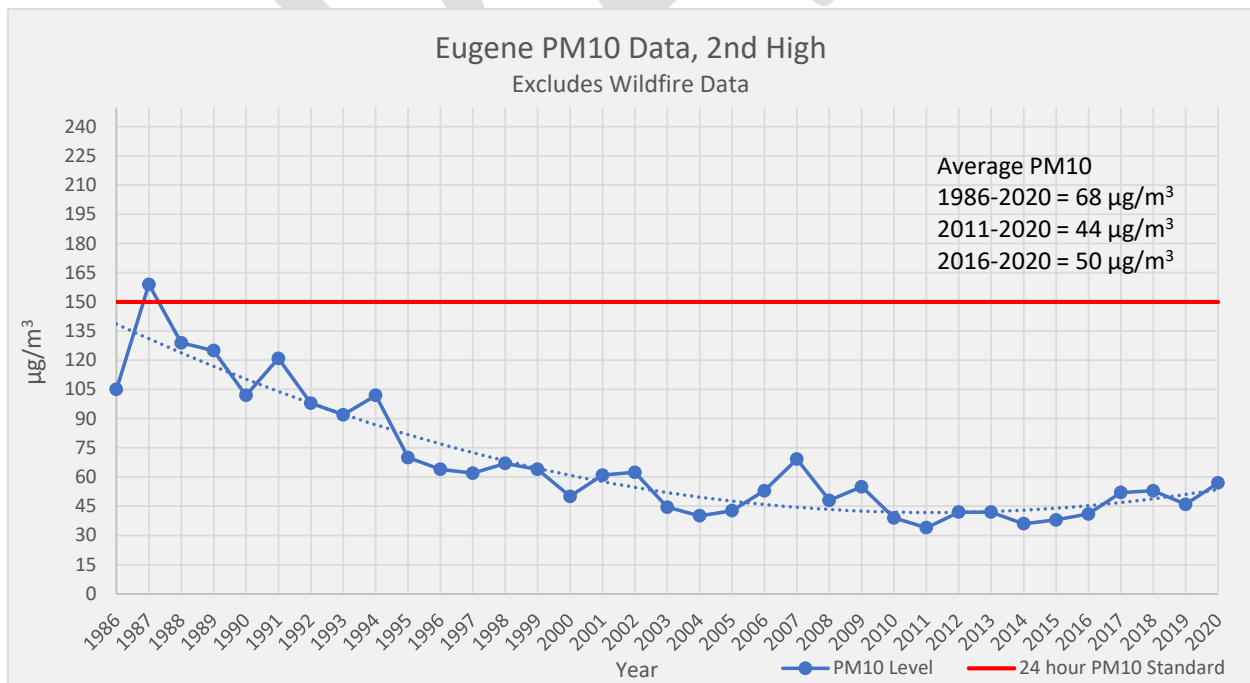


## 2045 Regional Transportation Plan

The annual PM<sub>10</sub> standard, which was revoked by US-EPA in 2006, has never been exceeded in this area. LRAPA provided the figures below showing the PM<sub>10</sub> measurements taken by the approved monitor.<sup>1</sup> The top figure reflects PM<sub>10</sub> measurements including the anomalous wildfire events of 2017 and 2020, while the bottom figure excludes those events. Dismissing the 2017 and 2020 wildfire events, the 24-hour level continues to remain well below the standard, and there have been no exceedances since 1987.<sup>2</sup> The latest data from 2020 shows a 24-hour (5-year) design value of 50 µg/m<sup>3</sup>, well below the standard of 150 µg/m<sup>3</sup>. These data show that this eligibility is maintained, and that there continues to be very low probability that the region will violate the standard within the period of the maintenance plan.



Source: LRAPA, Site #41-039-0058-881102-1: Highway 99/Key Bank, Eugene-Springfield area.



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<sup>1</sup> Site #41-039-0058-881102-1: Highway 99/Key Bank, Eugene-Springfield area.

<sup>2</sup> The US-EPA allows for the removal of wildfire-influenced data to show compliance with a maintenance plan. See Section E.13 of [2016 Revisions to the Exceptional Events Rule: Update to Frequently Asked Questions](#).

## **PM<sub>10</sub> Limited Maintenance Plan Conformity Criteria**

On June 10, 2013, US-EPA approved a 10-year LMP for the Eugene-Springfield area. This LMP has a 2023 horizon year. Because of the approved LMP, the CLMPO no longer has to complete a regional emissions analysis for the Eugene-Springfield area for PM<sub>10</sub> pursuant to 40 CFR 93.109(e). However, other transportation conformity requirements referred to in Table 1 of §93.109(b) continue to apply. Additionally, the approval of the LMP (78 FR 21547) also directs accordance with §93.104, §93.105, §93.108, §93.123 and §93.125.

### **40 CFR 93.104 *Frequency of conformity determinations.***

*Conformity of transportation plans and TIPS must be determined no less frequently than every four years. Conformity of plan and TIP amendments, except for those that add or delete exempt projects, must be demonstrated prior to approval of the action. All FHWA/FTA projects must be found to conform or must be re-conformed following any significant status or scope change, before they are adopted, accepted, approved or funded.*

The 2021-2024 MTIP conformity was confirmed by USDOT on September 30, 2020, and the 2018-2021 MTIP conformity was confirmed September 29, 2017 (Appendix C).

### **40 CFR 93.105 *Consultation***

*Interagency consultation procedures must be carried out in accord with OAR 340-252-0060 and the MPO's public involvement policies developed under 23 CFR Part 450.*

A draft of this document along with the project lists was circulated by the MPO to ODOT, US-EPA, Oregon DEQ, LRAPA, and US-DOT (FHWA and FTA) for interagency consultation. The air quality implications of each project are noted to determine which projects are considered exempt with no requirement for hot spot analysis; which are non-exempt but are not of local air quality concern and therefore require qualitative hot spot analysis; and which are non-exempt that have the potential for being projects of local concern, thus requiring quantitative hot spot analysis. In some cases, projects are lacking sufficient detail to make a certain determination now as to their air quality status. As such, the 2045 RTP relies upon the interagency consultation process to ensure ongoing conformity as these planned projects continue to develop.

A public hearing was held at the November 4 MPC meeting. The 30-day public comment period required by the MPO's Public Participation Plan began November 1 and public notice was provided on the MPO's web site and through emails to interested parties in the region.

Members of the Transportation Planning Committee (TPC), the standing committee for interagency coordination and consultation, participated in the development of the project lists, discussed the project list development during TPC meetings throughout January 2021 to May 2021, and reviewed the drafts throughout the development process. TPC reviewed the results of the public comment period and the interagency consultation. Any comments received at the public hearing or submitted during the public comment period are provided as an attachment to this document. Pertinent dates are listed below.



1/2021–9/2021	Coordination with partners to develop/update project list
9/14/2021–10/14/2021	IAC review period
9/30/2021	IAC meeting
11/1/2021–11/30/2021	Public comment period
11/4/2021	Public hearing at MPO policy board meeting
12/16/2021	TPC reviews public comments to date; MPO addresses IAC comments
1/06/2022	MPC adopts RTP and AQCD

The **project sponsor** is responsible for assuring the conformity of FHWA/FTA projects and regionally significant projects in the RTP for which hot spot analysis [project level conformity] is required. The project sponsor is also responsible for distributing draft and final project environmental documents prepared by the project sponsor to other agencies. It is the responsibility of the project sponsor to consult with the affected transportation and air quality agencies prior to making a project level conformity determination. These activities occur during the project design planning phase.

40 CFR 93.106 ***Content of transportation plans and timeframe of conformity determinations.***

It has been the past practice of the MPO to include only the forecast year of the RTP. The Plan quantifies the population and employment projected for 2045. The modifications and additions to the highway and transit system are listed including geographical extents along with the high-level descriptions of the planned projects. Multimodal policies are described. Upon federal approval, conformity of the 2045 RTP will expire after four years, anticipated to be Fall or Winter 2025-2026. The next RTP will be completed before that expiration date.

Conformity of the 2021-2024 TIP was approved federally on September 30, 2020, and will expire September 30, 2024, however it is anticipated that a new conformity determination will be in place in 2023 for the 2024-2027 TIP before the current conformity expires.

40 CFR 93.108 ***Transportation plans and TIPs must be fiscally constrained.***

Fiscal constraint is described and affirmed in Chapter 4 of the 2045 RTP. Fiscal constraint is confirmed as well on page 22 in the current 2021-2024 TIP.

40 CFR 93.109 ***Criteria and procedures for determining conformity of transportation plans, programs and projects: General***

(e) This area has an approved limited maintenance plan and as such is not required to satisfy regional emissions analysis for §93.118 and/or §93.119. Other applicable criteria in Table 1 of §93.109(b) are still required including hot spot requirements for certain projects in this PM<sub>10</sub> area.

40 CFR 93.110 ***The conformity determination must be based on the latest planning assumptions.***

The 2045 RTP was developed using the latest planning assumptions of population, employment, land use, travel and congestion (see Chapters 3 and 6 in the RTP). Service levels of transit are expected to increase over the next few years while fares remain constant with inflation. Transit ridership is expected to increase. No tolls are expected. No TCMs are in effect or are required. Background concentrations of PM<sub>10</sub> are expected to remain low, based on monitoring trends.

40 CFR 93.111 ***Conformity determination must be based on the latest emission estimation model available.***

Under the LMP, regional emissions modeling is not required for the conformity determination. However, for project level conformity, the CLMPO works with project sponsors and ODOT to determine conformity using the latest emission estimation model published and recommended by USDOT.

40 CFR 93.112 ***Conformity must be determined according to the consultation procedures in this subpart and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR Part 450.***

See §93.105 above. This process is conducted in accord with that laid out in the MPO's public participation plan.

40 CFR 93.113 ***The transportation plan, TIP, or any FWHA/FTA project which is not from a conforming plan or TIP must provide for the timely implementation of TCMs from the applicable implementation plan.***

There are no TCMs specified in the Eugene-Springfield PM<sub>10</sub> State Implementation Plan.

40 CFR 93.123(b) ***Procedures for determining localized PM<sub>10</sub> concentrations (hot spot analysis)***

The LMP does not identify any locations, areas or categories of sites of violation or possible violation.

Prior to release of the funding or approval of permits for a project, the regulatory agency will identify projects that must undergo hot spot analysis (see Appendix D for a summary of guiding criteria).

The ***project sponsor*** (the agency responsible for implementing the project) is responsible for assuring the conformity at this time. Refer to the 2045 RTP Project Lists and Map of RTP Projects (both included later in this document) for identification of projects that are deemed at this time as exempt from this requirement, based on §93.126 and §93.127.

40 CFR 93.125 ***No emissions reductions credits can be applied if the control measure is not included in the transportation plan or the TIP or does not require regulatory action unless there are written commitment to implement those control measures.*** (OAR 340-252-0230)

No control measures have been identified.

### **Regionally Significant Projects**

Any projects determined to be of regional significance (regardless of funding source) were included in this review as well. In the CLMPO, the TPC, as the standing committee for air quality under the Oregon Conformity Rulings, has determined regionally significant projects to be:

A transportation project, other than an exempt project, that is on a facility which serves regional transportation needs, such as access to and from the area outside the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves, and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum:

- All fixed guideway transit facilities that offer an alternative to regional highway travel;
- Projects on facilities classified as arterial level and above;

- Projects on multi-lane facilities that impact speed and/or capacity; and
- Construction of new roadways classified as arterial level and above.

The CLMPO definition is consistent with the FHWA and ODOT definition. FHWA uses the federal code definition. Per 23 CFR § 450.104, “regionally significant project” means a transportation project (other than projects that may be grouped in the TIP and/or STIP or exempt projects as defined in EPA's transportation conformity regulations (40 CFR part 93, subpart A)) that is on a facility that serves regional transportation needs (such as access to and from the area outside the region; major activity centers in the region; major planned developments such as new retail malls, sports complexes, or employment centers; or transportation terminals) and would normally be included in the modeling of the metropolitan area's transportation network. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

ODOT relies on the FHWA definition of “regionally significant project,” which is an administrative interpretation of the statutory definition (23 CFR § 450.104): “Federal regulation requires that all federally funded transportation projects and all Regionally Significant transportation projects are identified in the STIP. Regionally significant refers to projects with air quality impacts, such as adding more lanes, building a bypass, or installing a new signal. Regionally significant also refers to projects that are of significant interest to the local community.”

### **Summary**

Current PM<sub>10</sub> levels are shown to be well under the NAAQS 24-hour standard, and trends indicate a stable situation.

All requirements for the Transportation Air Quality Conformity Determination have been met and the 2045 RTP of the Central Lane Metropolitan Planning Organization is in conformity.

**CONSTRAINED PROJECTS: AUTO**

PROJECT CATEGORY: NEW ARTERIAL LINK OR INTERCHANGE											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Beltline Local Arterial Bridge	Beaver Street to Delta Highway	Construct new 2-lane arterial bridge over the Willamette River connecting Green Acres Road with Division Ave. Include modifications to Beltline/Delta ramps consistent with the Beltline Highway Facility Plan	ODOT, Lane County, City of Eugene	ODOT has conducted project hot spot analysis and during IAC meeting December 2020 found this project was not a project of local air quality concern.	\$118,800,000	2025-2029	\$134,230,467	\$151,665,137	0.95	512	Minor arterial
Eugene-Springfield Highway (also referred to as SR-126 and OR 126)	at Main Street	Construct interchange (intersection improvements needed to calm traffic and integrate multi-modal access at the intersection of two five-lane roadways – SR-126 is currently two travel lanes in each direction with left turn lanes onto Main Street; Main Street is two lanes in each direction with turn lanes onto SR-126 and Bob Straub Parkway.)	ODOT	<b>Non-exempt</b>	\$50,000,000	2030-2034	\$65,810,925	\$74,358,848	0	27	Other Freeways and Expressways
Eugene-Springfield Highway (also referred to as SR-126 and OR 126)	at 52nd Street	Construct interchange (intersection improvements needed to calm traffic and integrate multimodal access – SR-126 is currently two travel lanes in each direction with a center median and turn lane; 52 <sup>nd</sup> Street is one travel lane in each direction with a turn lane; intersection lacks sidewalks, pedestrian/ADA accessibility)	ODOT	<b>Non-exempt</b>	\$40,000,000	2025-2029	\$45,195,444	\$51,065,703	0	30	Other Freeways and Expressways
<b>Project Category Subtotal</b>					<b>\$208,800,000</b>		<b>\$245,236,836</b>	<b>\$277,089,688</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: ADDED FREEWAY LANES OR MAJOR INTERCHANGE IMPROVEMENTS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Randy Pape Beltline Highway	Roosevelt Boulevard to W. 11th Avenue	Add lanes on Beltline Highway and provide intersection improvements at the W. 11th Avenue and Roosevelt Boulevard intersections.	ODOT, Eugene	<b>Non-exempt</b>	\$28,100,000	2030-2034	\$36,985,740	\$41,789,673	1.1	312	Other Principal Arterial
Delta/Beltline Interchange	Delta at Beltline	Interim/safety improvements; replace/revise existing ramps; widen Delta Highway bridge to five lanes	ODOT	<b>Non-exempt</b>	\$20,000,000	2020-2024	\$19,398,642	\$21,918,256	0.25	638	Other Freeways and Expressways
Eugene-Springfield Highway (OR 126)	@ Mohawk Boulevard Interchange	Add lanes on ramps	ODOT	<b>Non-exempt</b>	\$2,000,000	2030-2034	\$2,632,437	\$2,974,354	0.68	821	Other Freeways and Expressways
<b>Project Category Subtotal</b>					<b>\$50,100,000</b>		<b>\$59,016,819</b>	<b>\$66,682,283</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: ARTERIAL CAPACITY IMPROVEMENTS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Main Street/48 <sup>th</sup> Street	Intersection of Main Street and 48th Street	Construct traffic control improvements	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$300,000	2025-2029	\$338,966	\$382,993	0	69	Other Principal Arterial
Main Street/Mountaingate Drive	Intersection of Main Street and Mountaingate Drive	Construct traffic control improvements	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$900,000	2025-2029	\$1,016,897	\$1,148,978	0	75	Other Principal Arterial

PROJECT CATEGORY: ARTERIAL CAPACITY IMPROVEMENTS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
42nd Street/Marcola Road	Intersection of 42 <sup>nd</sup> Street and Marcola Road	Construct roundabout <sup>3</sup>	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$2,800,000	2020-2024	\$2,715,810	\$3,068,556	0	712	Minor Arterial
Harlow Road/Pheasant Boulevard	Intersection of Harlow Road and Pheasant Boulevard	Construct traffic control improvements	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$500,000	2030-2034	\$658,109	\$743,588	0	744	Minor Arterial
Gateway Street/Harlow Road	Intersection of Gateway Street and Harlow Road	Construct traffic control improvements	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$2,910,000	2030-2034	\$3,830,196	\$4,327,685	0.5	785	Minor Arterial
Gateway/Beltline Road	International Way to Postal Way	Improve intersections and realign Gateway	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$20,000,000	2025-2029	\$22,597,722	\$25,532,851	0.9	789	Other Freeways and Expressways
Q Street/5 <sup>th</sup> Street	Intersection of Q Street and 5 <sup>th</sup> Street	Intersection improvements - Construct right turns to the eastbound and northbound approaches or a roundabout.	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$550,000	2030-2034	\$723,920	\$817,947	0.5	828	Minor Arterial
Centennial Boulevard/28 <sup>th</sup> Street	Intersection of Centennial Boulevard and 28 <sup>th</sup> Street	Construct roundabout	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$1,800,000	2035-2040	\$2,759,903	\$3,215,046	0	924	Minor Arterial
Centennial Boulevard/21 <sup>st</sup> Street	Intersection of Centennial Boulevard and 21 <sup>st</sup> Street	Construct traffic control improvements	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$290,000	2035-2040	\$444,651	\$517,980	0	927	Minor Arterial
South 42 <sup>nd</sup> Street/Daisy Street	Intersection of South 42 <sup>nd</sup> Street and Daisy Street	Traffic control improvements - Construct a traffic signal or a roundabout	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$1,800,000	2020-2024	\$1,745,878	\$1,972,643	0	951	Minor Arterial
Gateway Street	International Way to UGB	Construct 5 lane cross section (currently 3 lane cross section)	Springfield	<b>Non-exempt</b>	\$950,000	2025-2029	\$1,073,392	\$1,212,810	0.63	704	Minor Arterial
42nd Street	Marcola Road to RR Tracks	Modify to 3 lane cross section with stripped bicycle lanes and traffic controls at Marcola Rd and the OR126 westbound ramps	Springfield	<b>Non-exempt</b>	\$6,000,000	2020-2024	\$5,819,593	\$6,575,477	1.05	713	Minor Arterial
Daisy Street/Bob Straub Parkway	Intersection of Daisy Street and Bob Straub Parkway	Traffic control improvements or undercrossing of Bob Straub Parkway	Lane County	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$3,000,000	2030-2034	\$3,948,655	\$4,461,531	0	32	Minor Arterial
Franklin Boulevard (OR 126)	I-5 to RR Tracks south of Franklin Blvd/McVay Hwy	Multimodal urban standards and intersection control improvements	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature	\$35,000,000	2020-2024	\$33,947,624	\$38,356,948	1.29	830	Other Principal Arterial

<sup>3</sup> Per the RTP, a roundabout is defined as a circular intersection with yield control on all approaches, islands to separate flows of traffic from each other and pedestrians, and geometric features to slow down traffic. Roundabouts have many benefits over stop-controlled and signalized intersections. They have proven safety benefits, often have lower delays, can lead to less congestion, can reduce the need for widening, reduce speeds in and around the roundabout, and as a result can benefit the surrounding community.

PROJECT CATEGORY: ARTERIAL CAPACITY IMPROVEMENTS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Franklin Boulevard (OR 225)/East 19 <sup>th</sup> Avenue	Intersection of McVay Hwy and East 19th Ave	Construct a new 2 lane roundabout (currently this intersection does not have traffic controls)	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$2,500,000	2025-2029	\$2,824,715	\$3,191,606	0	898	Minor Arterial
Franklin Boulevard (OR 225)	East 19th Avenue to I-5	Construct 2 or 3 lane cross-section as needed with sidewalks, bicycle facilities and transit facilities consistent with Main Street/McVay Hwy Transit Feasibility Study and Springfield TSP project T-3.	Springfield	<b>Non-exempt</b>	\$47,000,000	2030-2034	\$61,862,269	\$69,897,317	1.34	899	Minor Arterial
Marcola Road/19 <sup>th</sup> Street	Intersection of Marcola Road and 19th Street	Construct right-turn lane on westbound approach or a roundabout	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$320,000	2020-2024	\$310,378	\$350,692	0	722	Minor Arterial
28th Street/Marcola Road	Intersection of 28 <sup>th</sup> Street and Marcola Road	Construct a roundabout (intersection is currently signalized)	Springfield	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$1,900,000	2030-2034	\$2,500,815	\$2,825,636	0	723	Minor Arterial
W. 11th Avenue	Green Hill Road to Terry Street	Upgrade to 5-lane urban facility with 2 lanes in each direction, a center lane, sidewalk, and shared use path (currently a 2 lane roadway)	ODOT, Eugene	<b>Non-exempt</b> Determined not a project of local air quality concern per IAC meeting July 2021	\$12,300,000	2030-2034	\$16,189,487	\$18,292,277	1	333	Other Principal Arterial
Martin Luther King Jr. Blvd.	Leo Harris Parkway West to Centennial Loop	Add center turn lane <sup>4</sup> on Martin Luther King Jr. Blvd. (currently a 4 lane cross section between Leo Harris Parkway West and Centennial Loop)	Eugene	<b>Exempt</b> 40 CFR 93.126, Safety – Projects that correct, improve, or eliminate a hazardous location or feature; Traffic control devices and operating assistance other than signalization projects	\$6,700,000	2024-2028	\$7,342,616	\$8,296,319	0.21	602	Minor Arterial
Barger Drive	West of Primrose Street to where the street widens to two lanes in each direction west of Randy Papé Beltline Highway	Widen Barger Drive to provide a second through lane in each direction	Eugene	<b>Non-exempt</b>	\$1,900,000	2024-2028	\$2,082,234	\$2,352,688	0.14	497	Minor Arterial
Franklin Blvd.	Alder Street to Walnut Street	4 travel lanes, central planter strip and bus lanes, roundabouts, and shared use paths on both sides.	Eugene	<b>Non-exempt</b>	\$43,500,000	2025-2029	\$49,150,045	\$55,533,952	1	119	Other Principal Arterial
<b>Project Category Subtotal</b>					<b>\$192,920,000</b>		<b>\$223,883,875</b>	<b>\$253,075,520</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

<sup>4</sup> Per the RTP, a center turn lane, or center two-way left-turn lane (TWLTL) is defined as a lane in the middle of a two-way street that provides left turn access to and from adjacent properties and roadways, while minimizing impacts of left turning vehicles on through traffic. Center TWLTL pavement markings consist of a normal broken yellow line and a normal solid yellow line to delineate the edges of a lane that can be used by traffic in either direction as part of a left-turn maneuver. A TWLTL is followed by a single direction left turn lane(s) or traversable median or non-traversable median on the approach to a signalized intersection. TWLTLs have been used to reduce rear-end, head-on, and turning-related crashes occurring on two-lane roads.

PROJECT CATEGORY: NEW COLLECTORS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Riverbend Drive	Extend to International Way	Construct 3-lane cross section with sidewalks and bike lanes	Springfield	Non-exempt	\$1,600,000	2020-2024	\$1,551,891	\$1,753,460	0.19	715	Major Collector
Improvements to serve Riverbend Area	Baldy View Lane, McKenzie-Gateway Loop and Off-Street Path Connections	Improve Baldy View Lane, construct a McKenzie-Gateway Loop connector/new collector and construct off-street path connections. See Springfield 2035 TSP Figure 6.	Springfield	Non-exempt	\$10,200,000	2030-2034	\$13,425,429	\$15,169,205	0.86	756	Collector
79th Street	Thurston Road to Main Street	New 2 lane collector	Springfield	Non-exempt	\$8,200,000	2035-2040	\$12,572,891	\$14,646,319	0.37	18	Minor Collector
Improvements within Jasper-Natron Area	Jasper-Natron Area between Bob Straub Parkway, Jasper Road and Mt. Vernon Road	Construct multiple roadways to serve planned development. See Springfield 2035 TSP Figure 6.	Springfield	Non-exempt	\$67,000,000	2030-2034	\$88,186,639	\$99,640,856	1.35	33,36,39,42,45,48,51,57	Collector
New Collector	Bob Straub Parkway to Mountaingate Drive and Future Local	Construct a new collector with a three-lane cross-section with sidewalks and bicycle facilities	Springfield	Non-exempt	\$4,300,000	2020-2024	\$4,170,708	\$4,712,425	1.03	81	Major Collector
19th Street	Hayden Bridge Road to Yolanda Avenue	Extend existing street as 2-lane collector with sidewalks and bicycle facilities	Springfield	Non-exempt	\$2,400,000	2030-2034	\$3,158,924	\$3,569,225	0.33	703	Minor Collector
V Street	31st Street to Marcola Road	Construct a new collector with a three-lane cross-section with sidewalks and bicycle facilities	Springfield	Non-exempt	\$9,000,000	2020-2024	\$8,729,389	\$9,863,215	0.65	777	Collector
Yolanda Avenue	31st Street to 35th Street	Construct Yolanda Avenue from 31st Street to 33rd Street with sidewalks and bicycle facilities, add sidewalks and bicycle facilities from 33rd Street to 35th Street	Springfield	Non-exempt	\$9,900,000	2030-2034	\$13,030,563	\$14,723,052	0.2	783	Minor Collector
North Gateway Collector	Maple Island Road/ Royal Caribbean Way to International	Construct a new collector with a three-lane cross-section with sidewalks and bicycle facilities.	Springfield	Non-exempt	\$4,300,000	2025-2029	\$4,858,510	\$5,489,563	0.63	798	Collector
Franklin Riverfront Collector	Franklin Blvd/McVay to west portion of Franklin riverfront	Collector to serve Glenwood redevelopment area along riverfront north of Franklin Blvd.	Springfield	Non-exempt	\$7,700,000	2020-2024	\$7,468,477	\$8,438,528	0.7	897	Collector
48th Street	Aster Street to Daisy Street	Extend South 48th Street with a two-lane cross-section with a parallel multi-use 12-foot wide path and roundabout intersection treatment at Daisy Street and South 48th Street	Springfield	Non-exempt	\$3,600,000	2025-2029	\$4,067,590	\$4,595,913	0.3	901	Major Collector
New Collector	Game Farm Road East to International Way	Construct new 3- lane collector with sidewalks and bicycle facilities	Springfield	Non-exempt	\$6,300,000	2030-2034	\$8,292,176	\$9,369,215	0.18	707	Major Collector
Maple Island Road	Game Farm Road/Deadmond Ferry Road to Beltline Road	Extend Maple Island Road with a 2-lane cross-section with sidewalk, bicycle facilities, intersection at Beltline	Springfield	Non-exempt	\$3,100,000	2020-2024	\$3,006,790	\$3,397,330	0.11	706	Minor Collector
New Collector	Laura Street - Pioneer Parkway	Construct new 3-lane collector with sidewalks and bicycle facilities in or near the EWEB powerline corridor with a right-in/right-out intersection at Pioneer Parkway; In the Springfield TSP, PB-7 is required to serve as sidewalk and bikeway	Springfield	Non-exempt	\$3,300,000	2030-2034	\$4,343,521	\$4,907,684	0.12	786	Collector
Centennial Boulevard/ Industrial Avenue	28th Street to 35th Street	Extend with a 3-lane cross-section	Springfield	Non-exempt	\$9,500,000	2030-2034	\$12,504,076	\$14,128,181	0.5	924	Major Collector
Commercial Avenue	Extend between 42nd Street and 48th Street and a north/south extension to serve development to the north between 42nd and 48th (see TSP map)	Extend with a 3-lane cross-section	Springfield	Non-exempt	\$19,000,000	2035-2040	\$29,132,309	\$33,936,593	0.84	19	Major Collector
New Collector	Holly Street - South 48th Street to South 57th Street	Construct new collector with 2-lane cross-section with sidewalks and bicycle facilities	Springfield	Non-exempt	\$5,300,000	2025-2029	\$5,988,396	\$6,766,206	0.94	22	Minor Collector
Mallard Avenue	Gateway Street to Oriole Street	Change Mallard Avenue to a two-lane cross-section with sidewalks and bicycle facilities and extend Mallard Avenue to Gateway Street with a two-lane cross-section with sidewalks and bicycle facilities	Springfield	Non-exempt	\$3,000,000	2035-2040	\$4,599,838	\$5,358,409	0.18	709	Minor Collector
Q Street	@ Laura Street	Construct traffic controls, extend the second westbound through-lane through the Laura Street intersection, and construct a westbound right-turn lane	ODOT, Springfield	Non-exempt	\$1,600,000	2025-2029	\$1,807,818	\$2,042,628	0	717	Major Collector
W. 13th Avenue	Bertelsen Road to Dani Street	New major collector	Eugene	Non-exempt	\$3,600,000	2020-2024	\$3,491,756	\$3,945,286	1	318	Major collector
Colton Way Extension	Royal Avenue to Legacy Extension	New major collector	Eugene	Non-exempt	\$3,700,000	2025-2029	\$4,180,579	\$4,723,578	0.7	429	Major collector
Legacy Extension	Adelman Loop to Roosevelt Blvd	New major collector	Eugene	Non-exempt	\$17,500,000	2025-2029	\$19,773,007	\$22,341,245	1.4	435	Major collector
Awbrey to Enid Connector	Awbrey Lane to Enid Road	New major collector	Eugene	Non-exempt	\$7,400,000	2030-2034	\$9,740,017	\$11,005,110	0.8	441	Major collector



PROJECT CATEGORY: NEW COLLECTORS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Gilham-County Farm Connection	Gilham to County Farm Road	New neighborhood collector	Eugene	Non-exempt	\$2,800,000	2020-2024	\$2,715,810	\$3,068,556	0.7	651	Minor Collector
Shadowview Road	Shadowview Road to Coburg Road via Spectrum Avenue	Extend neighborhood collector with two travel lanes and sidewalks on both sides	Eugene	Non-exempt	\$3,200,000	2020-2024	\$3,103,783	\$3,506,921	0.3	603	Minor Collector
Crow Road/West 11th Avenue/Pitchford area	Crow Road/West 11th Avenue/Pitchford area	Construct collectors and other facilities within Crow Road/West 11th Avenue/Pitchford area needed to serve future development	Eugene	Non-exempt	\$21,300,000	2025-2029	\$24,066,574	\$27,192,487	1.3	333	Collectors
					<b>Project Category Subtotal</b>	<b>\$238,800,000</b>	<b>\$297,967,461</b>	<b>\$338,291,190</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: URBAN STANDARDS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Game Farm Road South	Mallard Road to Harlow Road	Upgrade to 2-lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$4,100,000	2030-2034	\$5,396,496	\$6,097,426	0.93	737	Local
Hayden Bridge Road / 23rd St	19th Street to Marcola Rd	Upgrade to 2-lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$12,000,000	2030-2034	\$15,794,622	\$17,846,124	1.78	747	Minor Collector
31st Street	Hayden Bridge Road to U Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$3,800,000	2030-2034	\$5,001,630	\$5,651,272	0.58	765	Minor Collector
Laura Street	Old Laura Street to Scotts Glen Drive	Upgrade to 3-lane urban facility (currently a 3-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$1,575,000	2020-2024	\$1,527,643	\$1,726,063	0.4	750	Major Collector
Aspen Street	Centennial Boulevard to West D Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$2,800,000	2030-2034	\$3,685,412	\$4,164,095	0.44	809	Minor Collector
48th Street	Main Street to G Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include a multi-use path on one side of street)	Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$600,000	2025-2029	\$677,932	\$765,986	0.48	3	Major Collector
52nd Street	OR 126E to G Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include a multi-use path on one side of street)	Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$250,000	2020-2024	\$242,483	\$273,978	0.2	6	Major Collector
G Street	48th Street to 52nd Street	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to include a multi-use path on one side of street sidewalks and bicycle facilities)	Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$370,000	2020-2024	\$358,875	\$405,488	0.31	54	Major Collector
Thurston Road	Weaver Road to UGB	Upgrade to 3 lane urban facility (currently a 2-lane roadway; modify to include sidewalks and bicycle facilities)	Springfield	Non-Exempt	\$4,800,000	2035-2040	\$7,359,741	\$8,573,455	0.61	98	Minor Collector
28th Street	Centennial Boulevard to Main Street	Upgrade to 3 lane urban facility (currently a 3-lane roadway with narrow sidewalk and no bicycle facilities; modify to include standard sidewalks and bicycle facilities); provide intersection and signal improvements at Main Street	Springfield	Non-exempt	\$4,300,000	2030-2034	\$5,659,740	\$6,394,861	0.7	909	Major Collector
35th Street	Olympic Street to Commercial Avenue	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$3,600,000	2020-2024	\$3,491,756	\$3,945,286	0.46	918	Major Collector
Commercial Avenue	35th Street to 42nd Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$4,500,000	2025-2029	\$5,084,487	\$5,744,892	0.81	933	Major Collector
S. 28th Street	Main Street to South F Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$6,000,000	2020-2024	\$5,819,593	\$6,575,477	0.67	945	Major Collector



PROJECT CATEGORY: URBAN STANDARDS											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
21st Street	D Street to Main Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway with on-street parking and sidewalks; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$2,300,000	2030-2035	\$3,027,303	\$3,526,543	0.2	962	Minor Collector
36th Street	Commercial Avenue to Main Street	Upgrade to 3-lane urban facility (currently a 2-lane roadway with on-street parking and sidewalks; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$3,000,000	2035-2040	\$4,599,838	\$5,358,409	0.47	920	Minor Collector
Clearwater Lane	South of Jasper Road within the Springfield UGB	Upgrade to 2 lane urban facility (currently a 2-lane roadway; modify to 2 lanes with sidewalks and bicycle facilities)	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$470,000	2025-2029	\$531,046	\$600,022	0.11	925	Local
Mallard Avenue	Oriole St. to Game Farm Road	Upgrade to 2 lane urban facility (currently a 2-lane roadway with on-street parking; modify to 2 lanes with sidewalks and bicycle facilities). And extend Mallard Avenue to Gateway Street with a 2-lane cross-section with sidewalks and bicycle facilities.	Springfield	Non-exempt	\$4,530,000	2020-2024	\$1,454,898	\$1,643,869	0.31	710	Local (current)
East 17th Avenue	Glenwood Blvd. to Henderson Ave.	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$1,900,000	2030-2034	\$2,500,815	\$2,825,636	0.52	826	Minor Collector
Henderson Avenue	Franklin Boulevard to East 19th Avenue	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield, Lane County	Non-exempt	\$3,400,000	2035-2040	\$5,213,150	\$6,072,864	0.39	827	Local (current)
East 19th Avenue	Henderson Avenue to McVay Hwy	Upgrade to 3-lane urban facility (currently a 2-lane roadway; modify to 3 lanes with sidewalks and bicycle facilities)	Springfield	Non-exempt	\$3,500,000	2030-2034	\$4,606,765	\$5,205,119	0.49	828	Minor Collector
Yolanda Avenue	23rd Street to 31st Street	Upgrade to 2-lane urban facility (currently a 2-lane roadway; modify with sidewalks and bicycle facilities)	Lane County	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$460,000	2025-2029	\$519,748	\$587,256	0.8	784	Minor Collector
Bertelsen Road	18th Avenue to Bailey Hill Road	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	Non-exempt	\$3,900,000	2025-2029	\$3,782,735	\$4,274,060	0.6	315	Minor Arterial
Bailey Hill Road	Warren St to Eugene UGB	Construct to Eugene's minor arterial standards, including two travel lanes, center turn lane, and bike lanes, planter strip, and sidewalks on both sides (currently a 2-lane roadway)	Eugene, Lane County	Non-exempt	\$9,200,000	2020-2024	\$8,923,375	\$10,082,398	1.6	343	Minor Arterial
Bethel Drive	Highway 99 to Roosevelt Blvd	Upgrade to 2-lane urban facility (currently a 2-lane roadway without sidewalks; modify to include sidewalks and bike lanes)	Eugene	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$11,800,000	2025-2029	\$13,332,656	\$15,064,382	1.68	414	Minor Collector
Royal Avenue	Green Hill Road to Terry Street	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	Non-exempt	\$11,200,000	2020-2024	\$10,863,240	\$12,274,223	1.01	481	Minor Arterial
Hunsaker Lane / Beaver Street	River Road to Division Avenue	Upgrade to major collector standards with two travel lanes, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Lane County, Eugene	Non-exempt	\$9,300,000	2020-2024	\$9,020,369	\$10,191,989	1.14	527	Major Collector
Wilkes Drive	River Road to River Loop 1	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Lane County, Eugene	Non-exempt	\$7,000,000	2025-2029	\$7,909,203	\$8,936,498	0.93	554	Major Collector
North Gilham Road	Ayres Road to Ashbury Drive	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene, Lane County	Non-exempt	\$1,500,000	2020-2024	\$1,454,898	\$1,643,869	0.3	662	Minor Collector
County Farm Road	North-to-South Section	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Lane County, Eugene	Non-exempt	\$4,400,000	2025-2029	\$4,267,701	\$4,822,016	0.62	631	Major Collector
County Farm Road	West-to-East Section	Upgrade to major collector standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	Non-exempt	\$3,200,000	2025-2029	\$3,615,635	\$4,085,256	0.53	632	Major Collector
Goodpasture Island Road	Delta Highway to Happy Lane	Upgrade to minor arterial standards with two travel lanes, center turn lane, bike lanes, sidewalks on both sides, and planting strips (currently a 2-lane roadway)	Eugene	Non-exempt	\$163,000	2030-2034	\$214,544	\$242,410	0.19	664	Minor Arterial
Fox Hollow Road	Donald Street to the UGB	Upgrade Fox Hollow Rd consistent with major collector standards	Eugene, Lane County	Exempt 40 CFR 93.126, Safety – Widen lanes/resurfacing; Air Quality – Bike and ped facilities	\$5,700,000	2030-2034	\$7,502,445	\$8,476,909	0.9	382	Major Collector
<b>Project Category Subtotal</b>					<b>\$135,618,000</b>		<b>\$153,440,774</b>	<b>\$174,078,131</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: STUDY

Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #
Interchange Area Management Plan at OR126E (Expressway) and Main St	Interchange of OR 126E at Main Street in Springfield	The Interchange Area Management Plan (IAMP) will establish an agreement between the City of Springfield and ODOT regarding transportation solutions and/or land use/policy actions needed at this interchange area and how to best balance and manage transportation and land use issues over time. The IAMP is a tool in protecting the function and operations of the state highway interchanges and the supporting local street network.	ODOT, Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$250,000	2025-2029	\$282,472	\$319,161	1.5	96
OR126 Expressway Management Plan	I-5 to Main Street in Springfield	The facility plan will establish an agreement between the City of Springfield and ODOT for managing access on OR 126 Expressway between I-5 and Main Street in Springfield.	ODOT, Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$750,000	2030-2034	\$987,164	\$1,115,383	6.5	835
Main Street/Highway 126	I-5 east to Springfield UGB	The facility plan will establish an agreement between the City of Springfield and ODOT for managing access on Main Street/Highway 126 between I-5 and the Springfield UGB.	Springfield, ODOT	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$150,000	2020-2024	\$145,490	\$164,387	6	838
Study to assess multimodal improvements at Beltline Highway and Gateway	Gateway Street between International Way and Gateway Loop	Assess, evaluate, and identify multimodal improvements for Gateway Street at Beltline Highway.	Springfield, ODOT	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$800,000	2020-2024	\$775,946	\$876,730	0.36	608
Circulation study at Pioneer Parkway/Q Street/Laura Street	Pioneer Parkway/Q Street/Laura Street	Circulation study to improve safety, access, and capacity at Pioneer Parkway/Q Street/Laura Street	Springfield, ODOT	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies)	\$300,000	2025-2029	\$338,966	\$382,993	0.35	718
Main Street (OR126B) crossing study	OR 126 between 5th Street and 15th Street	Study a new crossing of OR 126 between 5th Street and 15th Street	Springfield, ODOT	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$200,000	2035-2040	\$306,656	\$357,227	0.79	823
Centennial Boulevard operational improvements study	Centennial Boulevard from Prescott Lane to Mill Street	Operational improvements study of Centennial Boulevard between Prescott Lane and Mill Street	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2030-2034	\$131,622	\$148,718	0.29	818
Pioneer Parkway at Centennial Boulevard Intersection Study	Pioneer Parkway at Centennial Boulevard	Intersection study to improve pedestrian safety at the intersection of Pioneer Parkway and Centennial Boulevard	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$75,000	2020-2024	\$72,745	\$82,193	0	849
Centennial Boulevard operational improvements study	Centennial Boulevard from Mohawk Boulevard to Pioneer Parkway	Operational improvements study of Centennial Boulevard between Mohawk Boulevard and Pioneer Parkway	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$75,000	2020-2024	\$72,745	\$82,193	1.08	819
Mohawk Boulevard/Olympic Street/18th Street/Centennial Triangle study of safety and operational improvements	Mohawk Boulevard/Olympic Street/18th Street/Centennial triangle	Study of safety and operational improvements at the Mohawk Boulevard/Olympic Street/18th Street/Centennial triangle	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2020-2024	\$96,993	\$109,591	0.9	916
Bridge Study at the Walnut Road/West D Street to Glenwood Boulevard/Franklin Boulevard intersection	Intersection of Walnut Road/West D Street to Glenwood Boulevard/Franklin Boulevard	Study of a new bridge at the Walnut Road/West D Street to Glenwood Boulevard/Franklin Boulevard intersection	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$750,000	2035-2040	\$1,149,960	\$1,339,602	0.28	815
Main Street/South A Street Study	Main Street/South A from Mill Street to 21 <sup>st</sup> Street	Study of multimodal improvements from on Main Street/South A Street from Mill Street to 21 <sup>st</sup> Street	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$150,000	2020-2024	\$145,490	\$164,387	2.98	824
Glenwood Industrial Area Refinement Study	Glenwood industrial area	Refinement study specific to the Glenwood Industrial Area	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$150,000	2030-2034	\$197,433	\$223,077	0.82	829
Glenwood – Dorris Ranch pedestrian and bicycle bridge study	Across the Willamette River between Glenwood and Dorris Ranch	Study a new pedestrian bicycle bridge crossing the Willamette River and connecting Glenwood and Dorris Ranch	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$750,000	2035-2040	\$1,149,960	\$1,339,602	0.08	831
Main Street (OR126B)	Facility Plan	20th St to 72nd St	Springfield, ODOT	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$1,000,000	In progress	\$912,481	\$1,031,000	2.23	917
South 28 <sup>th</sup> Street to South 32 <sup>nd</sup> Street East/west connectivity study	Between South 28 <sup>th</sup> Street and South 32 <sup>nd</sup> Street (South of Main Street)	Study opportunities for east/west connectivity between South 28th Street and South 32nd street (south of Main Street)	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2025-2029	\$112,989	\$127,664	0.33	918
Study crossing of OR 126 near Thurston	OR 126 near Thurston High School	Study a new crossing of OR 126 Near Thurston High School	Springfield, ODOT	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$200,000	2025-2029	\$225,977	\$255,329	0.32	26
Connectivity Study south of OR 126 and Jessica Street	South of OR 126 and adjacent to Springfield's eastern UGB (see Springfield TSP, Figure 8: Transit and Study Projects, Project S-16)	Study connectivity options for the area of Springfield south of OR 126 and along the eastern UGB	Springfield	<b>Exempt</b> 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2030-2034	\$131,622	\$148,718	1.89	31

River Crossings	Along the Willamette River	Study ways to increase capacity over the Willamette River to address bridge crossing congestion issues including improvements to an aging Ferry Street Bridge structure and investigation of transit route options for access into downtown via or around the Ferry Street Bridge in conjunction with either Martin Luther King Jr. Boulevard or Coburg Road transit improvements.	Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2025-2029	\$112,989	\$127,664	...	TBD**
Improvements to North-South travel and circulation south of downtown Eugene	Downtown Eugene to South Eugene	Evaluate north/south circulation options on the Oak/Pearl and Hilyard/Patterson Streets couplets.	Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2025-2029	\$112,989	\$127,664	5.49	210
I-105 off-ramp study	I-105 at 6th Avenue	Analyze options to address weaving, operational and safety considerations at the I-105 southbound off-ramp onto 6th Avenue	ODOT, Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2025-2029	\$112,989	\$127,664	0.44	102
Northwest Expressway study of safety and functionality	Northwest Expressway at the Randy Pape Beltline Highway Ramp termini and other locations	Study opportunities to improve the safety and functionality of Northwest Expressway as a major arterial street including by making intersection improvements at the Randy Pape Beltline Highway ramp termini and other locations, by improving signage, and by making other changes to the street	ODOT, Eugene, Lane County	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$100,000	2025-2029	\$112,989	\$127,664	0.35	557
Green Hill Road design study	Entire length of Greenhill Road	Study to determine preferred design solution for the entire corridor	Lane County, Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$500,000	2025-2029	\$564,943	\$638,321	4.27	485, 454
Beltline Highway environmental study	River Road to Delta Highway	Environmental Study	ODOT	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$2,000,000	2018-2021	\$1,824,963	\$2,000,000	3.46	555
Coburg Freight Connector Study	North of the city of Coburg between Coburg Road and I-5	Study to determine alignment for a new east-west freight route connection between Coburg Rd and I-5, north of the city of Coburg	Lane County, Coburg, ODOT	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$250,000	2020-2024	\$242,483	\$273,978	NA	TBD**
Goshen North Connector Study	McVay Highway to Goshen limits	Implement a study to identify the location of a road that provides local walking, bicycling, and transit use as an alternative of I-5.	Lane County	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$415,000	2025-2029	\$468,903	\$529,807	NA	TBD**
Autzen-UO Campus Gondola/Aerial Tram Study	UO Campus to Autzen Stadium Complex	Study the feasibility of a gondola or aerial tram to connect the University of Oregon to the Autzen Stadium area.	University of Oregon, Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$150,000	2020-2024	\$145,490	\$164,387	1	TBD**
Ferry Street Bridge Circulation Study	Ferry Street Bridge to Broadway	Evaluate ending the Ferry Street Bridge Viaduct at 6 <sup>th</sup> Avenue to better connect with the downtown street grid	Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$200,000	2025-2029	\$225,977	\$255,329	NA	TBD**
Lower Coburg Road Traffic Flow Study	Oakway Road to Ferry Street Bridge	Study to develop design concepts for making traffic flow better for all modes on lower Coburg Road	Eugene	Exempt 40 CFR 93.126, Other – Planning and technical studies	\$200,000	2020-2024	\$193,986	\$219,183	NA	TBD**
<b>Project Category Subtotal</b>					<b>\$10,115,000</b>		<b>\$10,644,026</b>	<b>\$12,329,808</b>		
<p><i>*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.</i></p> <p><i>**Note: These projects were added after the maps and the analysis were complete. However, these projects will be included in future mapping and analysis.</i></p>										

PROJECT CATEGORY: TRANSIT ORIENTED DEVELOPMENT IMPLEMENTATION									
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		
Planning	Various Locations	Planning for implementation of Key Corridor/Mixed Use development	Eugene	Exempt 40 CFR 93.126, Other – Planning activities conducted pursuant to titles 23 and 49 U.S.C.	\$3,100,000	2020-2024	\$3,006,790	\$3,397,330	
Planning	Various Locations	Planning for implementation of Key Corridor/Mixed Use development	Springfield	Exempt 40 CFR 93.126, Other – Planning activities conducted pursuant to titles 23 and 49 U.S.C.	\$3,100,000	2020-2024	\$3,006,790	\$3,397,330	
<b>Project Category Subtotal</b>					<b>\$6,200,000</b>		<b>\$6,013,580</b>	<b>\$6,794,660</b>	

*\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.*

**CONSTRAINED PROJECTS: TRANSIT**

PROJECT CATEGORY: BUSES AND BUS MAINTENANCE										
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	Exempt 40 CFR 93.126, Mass Transit – Purchase of new buses	\$67,790,000	2021-2025	\$67,790,000	\$76,594,978	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	Exempt 40 CFR 93.126, Mass Transit – Purchase of new buses	\$31,460,000	2026-2030	\$36,648,149	\$41,408,234	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	Exempt 40 CFR 93.126, Mass Transit – Purchase of new buses	\$55,000,000	2031-2035	\$74,636,170	\$84,330,370	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	Exempt 40 CFR 93.126, Mass Transit – Purchase of new buses	\$55,000,000	2036-2040	\$86,944,611	\$98,237,506	-	1110
Bus Purchases	N/A	Purchase of new buses for fleet expansion and for bus replacement buses	Lane Transit District	Exempt 40 CFR 93.126, Mass Transit – Purchase of new buses	\$55,000,000	2041-2045	\$101,282,869	\$114,438,105	-	1110
<b>Project Category Subtotal</b>					<b>\$264,250,000</b>		<b>\$367,301,799</b>	<b>\$415,009,193</b>		

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: FREQUENT TRANSIT NETWORK										
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #
Enhanced Corridor	Study corridors include: Highway 99, River Road, Coburg Road, Martin Luther King Jr. Boulevard/Centennial Boulevard, 30th Avenue/Lane Community College, Main Street - McVay Highway, Valley River Center	LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	Non-Exempt	\$25,000,000	2021-2025	\$25,000,000	\$28,247,152	-	1117
Enhanced Corridor		LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	Non-Exempt	\$25,000,000	2026-2030	\$29,122,814	\$32,905,462	-	1117
Enhanced Corridor		LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	Non-Exempt	\$25,000,000	2031-2035	\$33,925,532	\$38,331,986	-	1117
Enhanced Corridor		LTD system improvements to safety, addressing operational issues related to travel time and improvements to passenger amenities	Lane Transit District	Non-Exempt	\$25,000,000	2036-2040	\$39,520,278	\$44,653,412	-	1117
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	Non-Exempt	\$65,000,000	2021-2025	\$65,000,000	\$73,442,596	-	1115
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	Non-Exempt	\$65,000,000	2026-2030	\$75,719,316	\$85,554,202	-	1115
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	Non-Exempt	\$65,000,000	2031-2035	\$88,206,382	\$99,663,164	-	1115
Bus Rapid Transit (EmX)		EmX system improvements to safety, addressing operational issues related to travel time and improvements to EmX passenger amenities	Lane Transit District	Non-Exempt	\$65,000,000	2036-2040	\$102,752,722	\$116,098,871	-	1115
<b>Project Category Subtotal</b>					<b>\$360,000,000</b>		<b>\$459,247,044</b>	<b>\$518,896,845</b>		

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: GENERAL STOPS AND STATIONS

Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	<b>Exempt</b> 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	22,975,000	2021-2025	\$22,975,000	\$25,959,133	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	<b>Exempt</b> 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	\$14,000,000	2026-2030	\$16,308,776	\$18,427,059	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	<b>Exempt</b> 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	\$12,700,000	2031-2035	\$17,234,170	\$19,472,649	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	<b>Exempt</b> 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	\$20,700,000	2036-2040	\$32,722,790	\$36,973,025	-	1130
Passenger Boarding Improvements	Various	Ongoing effort to maintain and/or improve the passenger boarding experience. Improvements include additions or replacements of pads, benches, and shelters	Lane Transit District	<b>Exempt</b> 40 CFR 93.126, Mass Transit – Construction of small passenger shelters and information kiosks. Other – Transportation enhancement activities	\$12,700,000	2041-2045	\$23,387,135	\$26,424,799	-	1130
<b>Project Category Subtotal</b>					<b>\$83,075,000</b>		<b>\$112,627,871</b>	<b>\$127,256,665</b>		

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.



**CONSTRAINED PROJECTS: BIKE/PED**

PROJECT CATEGORY: MULTI-USE PATHS WITHOUT ROAD PROJECT											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Coburg Loop Phase IV	Starts from the "bend" in segment 2; north along the west side of North Coburg Industrial Way; connecting to the Trails End Park	Construct a new multi-Use Path	Coburg	Outside PM10 air quality maintenance area	\$800,000	2020-2024	\$775,946	\$876,730	475	1005	...
McKenzie River Path	42nd Street to 52nd Street	Construct a new multi-use 12 foot wide path from the existing McKenzie Levee path at 42nd St to 52nd St	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$3,700,000	2025-2029	\$4,180,579	\$4,723,578	1.55	753	Other urban Freeways and Expressways
McKenzie Gateway Path	Extend existing Path to Maple Island Road	Construct a new multi-use 12-foot wide path from the end of the existing Riverbend Hospital path to Maple Island Road	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$3,000,000	2030-2034	\$3,948,655	\$4,461,531	1.3	759	...
Booth Kelly Road	South 28th Street to South 49th Place	Construct a new multi-use 12-foot wide path from South 28th St to South 49th St	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$2,817,000	2020-2024	\$2,732,299	\$3,087,186	2.14	921	...
Glenwood Area Willamette River Path (A)	From end of existing path, east of I-5, to Willamette River bridges	Construct a new multi-use 12-foot wide path from the end of the existing path, east of I-5 to Willamette River bridges	Springfield, Willamalane	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$2,500,000	2020-2024	\$2,424,830	\$2,739,782	1.22	851	...
Springfield - Mt. Pisgah Connector	Middle Fork Path to Buford Park Road	Construct a new multi-Use Path and bridge across the Willamette River	Willamalane, Lane County, Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$4,423,000	2030-2034	\$5,821,634	\$6,577,784	2.78	960	...
New multi-use path	Flamingo Avenue to Gateway Street south of Game Bird Park	Construct a new 12-foot wide multi-use path	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$70,000	2025-2029	\$79,092	\$89,365	0.23	711	...
Wayside Loop	Manor Drive to Riverbend Path	Construct a new multi-use 12-foot wide path from Wayside Lane/Ann Court to the existing Sacred Heart Medical Center-Riverbend path	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$80,000	2025-2029	\$90,391	\$102,131	0.1	759	...
Anderson Lane	By-Gully path to Centennial Blvd.	Add signing and striping on Anderson St and West Quinalt St for bicycle facilities and construct 12-foot wide multi-use path between Anderson Lane and Quinalt St	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$90,000	2030-2034	\$118,460	\$133,846	0.59	813	...
Glenwood Bicycle / Pedestrian Bridge	Downtown Springfield and Glenwood	Build bridge between Downtown Springfield and Glenwood or modify existing Willamette River Bridges	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$10,300,000	2020-2024	\$9,990,301	\$11,287,902	0.22	804	...
Haul Road	Daisy Street to Booth Kelly Road	Construct a new multi-use 12-foot-wide path in the Haul Road right-of-way	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$326,000	2020-2024	\$316,198	\$357,268	0.14	20	...
Haul Road Path	South 49th Place to UGB	Construct a new multi-use 12-foot-wide path	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$3,600,000	2030-2034	\$4,738,387	\$5,353,837	3.32	21	...
Glenwood Area Willamette River Path (B)	Springfield Bridges to Seavey Loop Road	Construct a new multi-use path	Springfield	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$2,900,000	2025-2029	\$3,276,670	\$3,702,263	1.59	854	...
Fern Ridge West Connector	Royal Street to Fern Ridge Path	Construct a new multi-use path	Eugene, Lane County	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$125,000	2020-2024	\$121,242	\$136,989	0.8	426	...
Spring Boulevard Connector	Central Boulevard to Spring Boulevard	Construct a new shared use path	Eugene	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$554,000	2025-2029	\$625,957	\$707,260	0.22	281	...
Avalon Street	Candlelight Drive to N Danebo	Construct a new multi-use path	Eugene	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$87,000	2030-2034	\$114,511	\$129,384	0.36	403	...
West Bank Path Completion	Formac to Owosso Bridge	Construct new concrete multi-use path for Riverbank trail system	Eugene	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$900,000	2036-2040	\$872,939	\$986,322	0.59	556	...
South Bank Path	Autzen Connector to Rail underpass	Construct a new multi-use path	Eugene	<b>Exempt</b> 40 CFR 93.126, Air Quality – Bike and ped facilities	\$5,770,000	2036-2040	\$5,596,508	\$6,323,417	0.51	169	...

PROJECT CATEGORY: MULTI-USE PATHS WITHOUT ROAD PROJECT											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
E. 30th Avenue Path	Hilyard to Spring	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$2,749,000	2025-2029	\$3,106,057	\$3,509,490	1.16	209	Minor Arterial
W. 7th Avenue Path	W. 5th Avenue to Garfield Street	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$951,000	2025-2029	\$1,074,522	\$1,214,087	0.4	101	Other urban Freeways and Expressways
I-5 Off-Ramp Path	South Bank Path to Riverview Street	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$639,000	2025-2029	\$721,997	\$815,775	0.32	189	Other urban Freeways and Expressways
W. Amazon Drive Path	Martin Street to southern section of W. Amazon Drive	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$709,000	2030-2034	\$687,682	\$777,002	0.36	212	...
Division Avenue Sidewalk Path	Lone Oak Ave. to Beaver Street	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$701,000	2025-2029	\$792,050	\$894,926	0.54	512	Other urban Freeways and Expressways
Franklin Boulevard Sidewalk Path	Alder Street to Millrace Park Path	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$273,000	2025-2029	\$308,459	\$348,523	0.18	122	Other Urban Principal Arterial
West Bank Path Extension	Division Avenue (at Beaver Street) to Wilkes Drive	Construct new concrete multi-use path to extend Riverbank path system	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$3,209,000	2025-2029	\$3,112,512	\$3,516,784	1.62	564	Urban Collector
Beaver-Wilkes Multi-Use Path	Beaver Street to Wilkes Drive along Eugene's UGB	Construct a separated multi-use path facility	Lane County	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$2,700,000	2025-2029	\$3,050,692	\$3,446,935	2	170	...
Bob Straub Parkway	57th Street to Jasper Road	Construct multi-use path on both sides of Bob Straub Parkway	Lane County	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$3,000,000	2030-2035	\$3,948,655	\$4,599,838	1.6	410	Minor Arterial
Berkley Park Path	Wilson Street to Fern Ridge Path	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$521,825	2025-2029	\$589,603	\$666,184	0.13	TBD**	...
River Road/Santa Clara Pedestrian & Bicycle Bridge	Grove Street to Ruby Avenue	Construct a new pedestrian and bicycle bridge	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$12,000,000	2025-2029	\$13,558,633	\$15,319,711	0.20	TBD**	...
North Delta Path	East side of north Delta Road from Stapp Drive to Ayres Road	Construct a new multi-use path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$600,000	2020-2024	\$581,959	\$657,548	0.44	TBD**	...
<b>Project Category Subtotal</b>					<b>\$70,094,825</b>		<b>\$77,357,420</b>	<b>\$87,543,378</b>			

*\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.*

*\*\*Note: These projects were added after the maps and the analysis were complete. However, these projects will be included in future mapping and analysis.*

PROJECT CATEGORY: MULTI-USE PATHS WITH ROAD PROJECT											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status *	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Beaver Street –Hunsaker Lane	Division Ave to River Road	Construct consistent with Beaver-Hunsaker Corridor Study recommendations	Lane County, Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$9,300,000	2020-2024	\$9,020,369	\$10,191,989	1.5	173	...
<b>Project Category Subtotal</b>					<b>\$9,300,000</b>		<b>\$9,020,369</b>	<b>\$10,191,989</b>			

*\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.*

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITH ROAD PROJECT*											
Name	Geographic Limits	Description: Lane or Route Component of Road Project	Primary Jurisdiction	Air Quality Status*	Est. Cost for Entire Project (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #*	Federal Functional Class
Aspen Street	Menlo Loop to West D Street	Stripe bicycle lanes on the roadway	Lane County, Springfield				See project 809		0.58	809	Minor Collector
42nd Street	Marcola Road to Railroad Tracks	Striped bicycle lane on the roadway	Springfield				See project 713		1.1	713	Minor Arterial
Extend South 48th St to Daisy St	Daisy St and South 48th St	Extend S. 48th St with a two-lane cross-section with a parallel multi-use 12-foot wide path and roundabout intersection treatment at Daisy St and 48th St	Springfield				See project 901		0.3	901	...
28th Street	Centennial Boulevard to Main Street	Stripe bicycle lanes on the roadway	Springfield				See project 909		0.7	909	Urban Collector
35th Street	Olympic Street to Commercial Avenue	Stripe bicycle lanes on the roadway	Springfield				See project 918		0.57	918	Urban Collector
Commercial Street	35th Street to 42nd Street	Stripe bicycle lanes on the roadway	Springfield				See project 933		0.7	933	Urban Collector
S. 28th Street	Main St to South F St	Stripe bicycle lanes on the roadway	Springfield				See project 945		0.51	945	Urban Collector
21st Street	D Street to Main Street	Stripe bicycle lanes on the roadway	Springfield				See project 962		0.2	962	Minor Collector
Green Hill Road	Barger Drive to West 11th Avenue	Stripe bicycle lanes on the roadway	Lane County, Eugene				See project 454		2.27	454	Minor Arterial
					<b>Project Category Subtotal</b>	<b>NA (part of larger project)</b>	<b>NA (part of larger project)</b>	<b>NA (part of larger project)</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT											
Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
66th Street	Thurston Road to Main Street	Stripe bicycle lanes on the roadway	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$25,000	2020-2024	\$24,248	\$27,398	0.55	12	Minor Collector
S. 67th Street	Ivy Street to Main Street	Add shared-use signing and striping and construct sidewalks to fill gaps	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$160,000	2025-2029	\$180,782	\$204,263	0.3	92	Minor Collector
S. 70th Street	Main Street to Ivy Street	Add shared-use signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$50,000	2025-2029	\$56,494	\$63,832	0.6	94	Minor Collector
Ivy Street	S. 67th Street to S. 70th Street	Add shared-use signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$20,000	2030-2034	\$26,324	\$29,744	0.3	99	Minor Collector
Yolanda Avenue	23rd Street to 31st Street	Stripe bicycle lanes on the roadway	Springfield, Lane County	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$20,000	2016-2019	\$17,169	\$18,815	0.8	784	Minor Collector
5th Street	Centennial Boulevard to A Street	Add bicycle facility signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$50,000	2020-2024	\$48,497	\$54,796	0.35	806	Urban Collector
Mill Street	Centennial Boulevard to Main Street	Restripe for bicycle facilities with signing	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$90,000	2020-2024	\$87,294	\$98,632	0.99	837	Urban Collector
Nugget, 15th, 17th, 19th in Glenwood	Glenwood	Stripe bicycle lanes on the roadway	Lane County	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$160,000	2020-2024	\$155,189	\$175,346	1.58	845	Minor Collector
Rainbow Drive	Centennial Boulevard to West D Street	Restripe for bicycle facilities with signing	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$60,000	2020-2024	\$58,196	\$65,755	0.55	848	Minor Collector
G Street	5th Street to 28th Street	Stripe bicycle lanes on the roadway	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$75,000	2020-2024	\$72,745	\$82,193	1.6	899	Major Collector
36th Street	Commercial Street to Main Street	Stripe bicycle lanes on the roadway	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$3,000,000	2020-2024	\$2,909,796	\$3,287,738	0.3	939	Minor Collector
48th/G/52nd	High Banks Road to Aster Street	Construct a new multi-use 12-foot wide path from High Banks Road to Aster St.	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$1,600,000	2025-2029	\$1,807,818	\$2,042,628	1.2	6	Urban Collector



PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT

Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Virginia Ave / Daisy Street	South 32nd St to Bob Straub Parkway	Add bicycle facility signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$130,000	2020-2024	\$126,091	\$142,469	2.58	903	Major Collector
Pioneer Parkway	Pioneer Parkway at D, E, and F Streets	Add crosswalks on Pioneer Parkway with signage	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$80,000	2020-2024	\$77,595	\$87,673	...	299	Major Collector
D, E, or F Streets	5th Street to 28th Street	Add bicycle facility signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$190,000	2020-2024	\$184,287	\$208,223	2.52	805	Major Collector
Hartman Lane/Don Street	South of Harlow Road to OR 126	Add signing and striping for bicycle facilities and construct sidewalks to fill gaps	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$180,000	2020-2024	\$174,588	\$197,264	0.55	714	...
Oakdale Street/Pheasant Street/et al.	Game Farm Road to Gateway Road	Add signing and striping for bicycle facilities	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$80,000	2016-2019	\$68,675	\$75,261	1.14	708	Minor Arterial
West D	Mill Street to D Street Path	Add bicycle facility signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$10,000	2020-2024	\$9,699	\$10,959	0.36	817	Minor Collector
West D	Aspen Street to D Street Path	Add bicycle facility signing and striping; construct sidewalks to fill gaps	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$190,000	2025-2029	\$214,678	\$242,562	0.49	816	Minor Collector
A Street	5th Street to 10th Street	Restripe for bicycle facilities with signing	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$40,000	2020-2024	\$38,797	\$43,837	0.35	822	Major Collector
33rd Street	V Street to EWEB Path	Add shared-use signing and striping	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$10,000	2025-2029	\$11,299	\$12,766	0.18	724	...
Mountaingate Drive	Mountaingate Entrance to Dogwood Street	Add shared-use signing and striping, construct sidewalks and drainage improvements to fill gaps	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$260,000	2030-2024	\$342,217	\$284,937	0.77	27	Minor Collector
Hayden Bridge Way/Grovedale Drive	Hayden Bridge Way/3rd Street, Hayden Bridge	Add a crosswalk and RRFB	Lane County	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$260,000	2025-2029	\$293,770	\$331,927	0.01	721	Major Collector
EWEB Path	Path crossings of 2nd Street, 9th Street, 11th Street, Rose Blossom Drive, Debra Street, 15th Street, 33rd Street and 35th Street	Improve path crossings to emphasize path priority and improve safety	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$50,000	2020-2024	\$48,497	\$54,796	0.76	720	...
2nd Street/Q Street	2nd Street/Q Street	Add a crosswalk with RRFB	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$90,000	2020-2024	\$87,294	\$98,632	0	719	Urban Collector
5th Street	At Centennial Boulevard	Add bicycle facilities through the intersection	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$560,000	2020-2024	\$543,162	\$613,711	0	820	Major Collector
5th Street	@ D Street	Add bicycle facility signing and striping to improve visibility	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$10,000	2025-2029	\$11,299	\$12,766	0	821	Major Collector
Main Street	@ 38th Street	Add a mid-block crosswalk with a RRFB	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$90,000	2030-2034	\$118,460	\$133,846	0	923	Other Urban Fwys & Expressways
Bob Straub Parkway	@ Daisy Street	Add a pedestrian/bicycle signal and crossing, coordinate with Springfield TSP's R-44	Lane County, Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$90,000	2020-2024	\$87,294	\$98,632	0	24	Minor Arterial

PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT

Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
Thurston Road	@ 66th Street	Add crosswalk with RRFB	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$90,000	2025-2029	\$101,690	\$114,898	0	28	Urban Collector
Thurston Road	69th Street	Add crosswalk with RRFB	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$90,000	2025-2029	\$101,690	\$114,898	0	29	Urban Collector
Citywide	Citywide	Install mid-block crossings City-wide with RRFBs	Springfield	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$4,400,000	2025-2029	\$4,971,499	\$5,617,227	0	TBD**	...
Oakway Road	Coburg Road to Cal Young Road	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$2,184,000	2025-2029	\$2,118,332	\$2,393,474	0.96	604	Minor Arterial
Cal Young Road	Willakenzie Road to Oakway Road	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$508,000	2025-2029	\$492,726	\$556,724	0.22	605	Minor Arterial
Willakenzie Road	I-5 Path to Cal Young Road	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$3,141,000	2025-2029	\$3,046,557	\$3,442,262	1.38	607	Urban Collector
River Road	Division Avenue to Northwest Expressway	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$4,441,000	2025-2029	\$4,307,468	\$4,866,949	2.49	565	Urban Principal Arterial
Garfield Street	Roosevelt Boulevard to W. 6th Avenue	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$93,000	2020-2024	\$90,204	\$101,920	0.68	145	Urban Collector
Lincoln Street	W 5th Ave to W 13th Ave	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$1,419,000	2020-2024	\$1,376,334	\$1,555,100	0.61	161	...
McKinley Street	5th Avenue to 7th Avenue	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$26,000	2020-2024	\$25,218	\$28,494	0.19	163	Urban Collector
Mill Street	10th Avenue to 15th Avenue	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$91,000	2020-2024	\$88,264	\$99,728	0.76	166	...
Polk Street	5th Avenue to 18th Avenue	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$250,000	2020-2024	\$242,483	\$273,978	1.0	175	Urban Collector
High Street	E 6th Avenue to E 19th Avenue	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$2,267,000	2020-2024	\$2,198,836	\$2,484,434	0.99	187	Minor Arterial
High Street	E 4th Avenue to E 6th Avenue	Bike Lane	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$16,500	2020-2024	\$16,004	\$18,083	0.15	186	Minor Arterial
8th Avenue	Lincoln St to E Broadway	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$1,221,000	2020-2024	\$1,184,287	\$1,338,110	0.53	162	Urban Collector

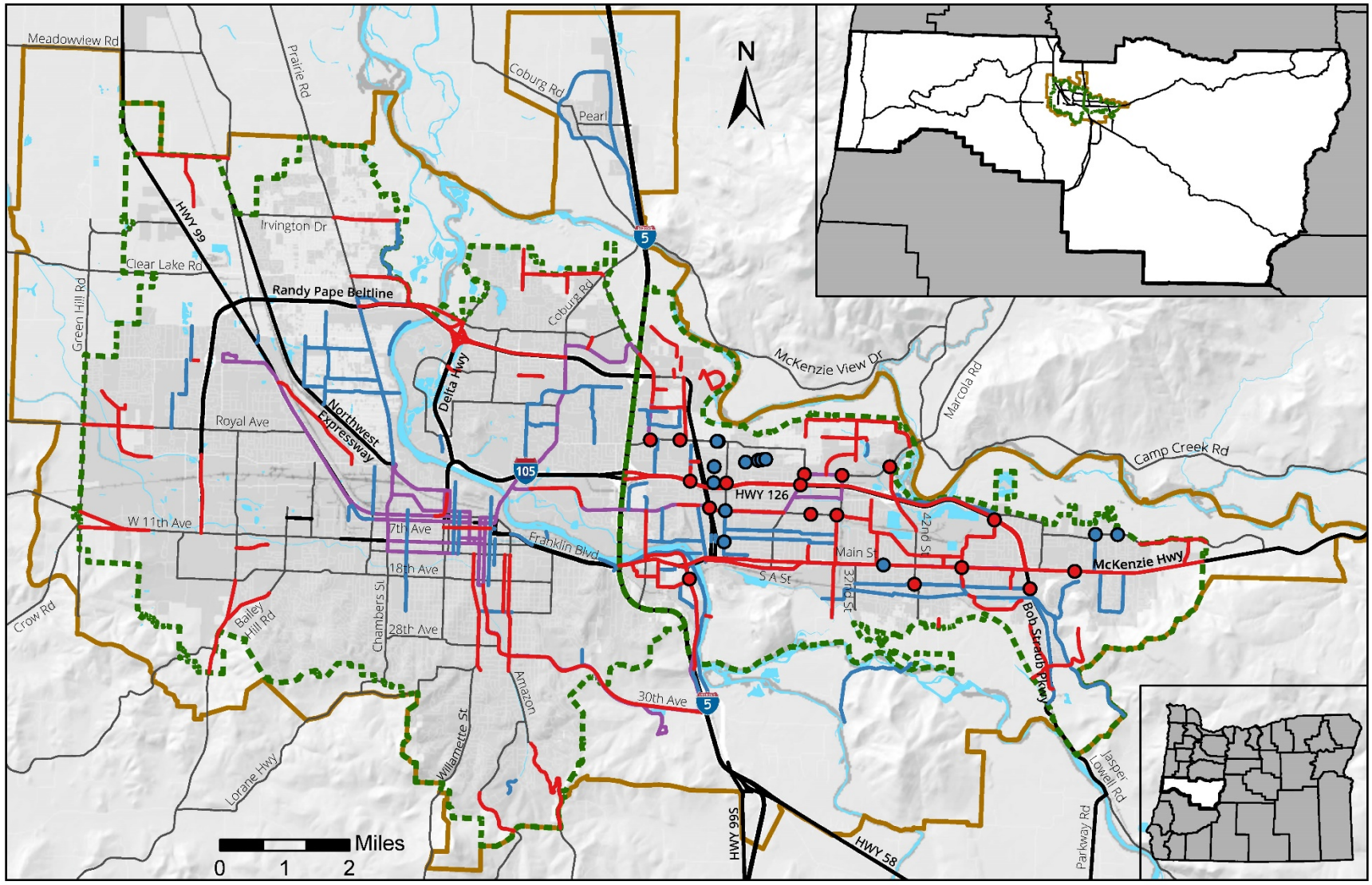
PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT

Name	Geographic Limits	Description	Primary Jurisdiction	Air Quality Status*	Est. Cost (2021)	Est. Year of Construction (4-Year Window)	Year of Construction Cost Range		Length	RTP #	Federal Functional Class
E 24th Avenue	Willamette Street to Alder Street	Protected Bike Lane	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$1,189,000	2020-2024	\$1,153,249	\$1,303,040	0.52	201	Minor Arterial
Prairie Road	Maxwell Road to Highway 99	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$19,000	2020-2024	\$18,429	\$20,822	0.15	495	Minor Arterial
Gilham Road	Ashbury to Ayers Road	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Safety – Pavement marking; Air Quality – Bike and ped facilities	\$83,000	2020-2024	\$80,504	\$90,961	0.61	662	Minor Collector
Valley River Way (A)	Valley River Drive to Valley River Connector	Sidewalk Path	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$465,000	2025-2029	\$451,018	\$509,599	0.23	694	Urban Collector
Franklin Blvd.	Brooklyn to Willamette River	Stripe bicycle lanes on the roadway	Springfield	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$34,000	2020-2024	\$32,978	\$37,261	0.25	807	Other Urban Principal Arterial
McVay Highway (OR99)	I-5 to 30th Ave	Stripe bicycle lanes on the roadway	ODOT	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$96,000	2020-2024	\$93,113	\$105,208	0.71	834	Urban Minor Arterial
Highway 99	Prairie Rd to Barger Dr	Stripe bicycle lanes on the roadway	Eugene	Exempt 40 CFR 93.126, Air Quality – Bike and ped facilities	\$44,000	2020-2024	\$42,677	\$48,220	0.33	TBD**	Other Freeways and Expressways
<b>Project Category Subtotal</b>					<b>\$31,797,500</b>		<b>\$32,055,678</b>	<b>\$33,922,791</b>			

\*Note: Air quality status is based on planning level project description available from lead agencies and the project site's existing conditions. IAC will review all projects at the time of project development, scoping, and design for determination of project level conformity and hot spot analysis.

\*\*Note: These projects were added after the maps and the analysis were complete. However, these projects will be included in future mapping and analysis.

DRAFT

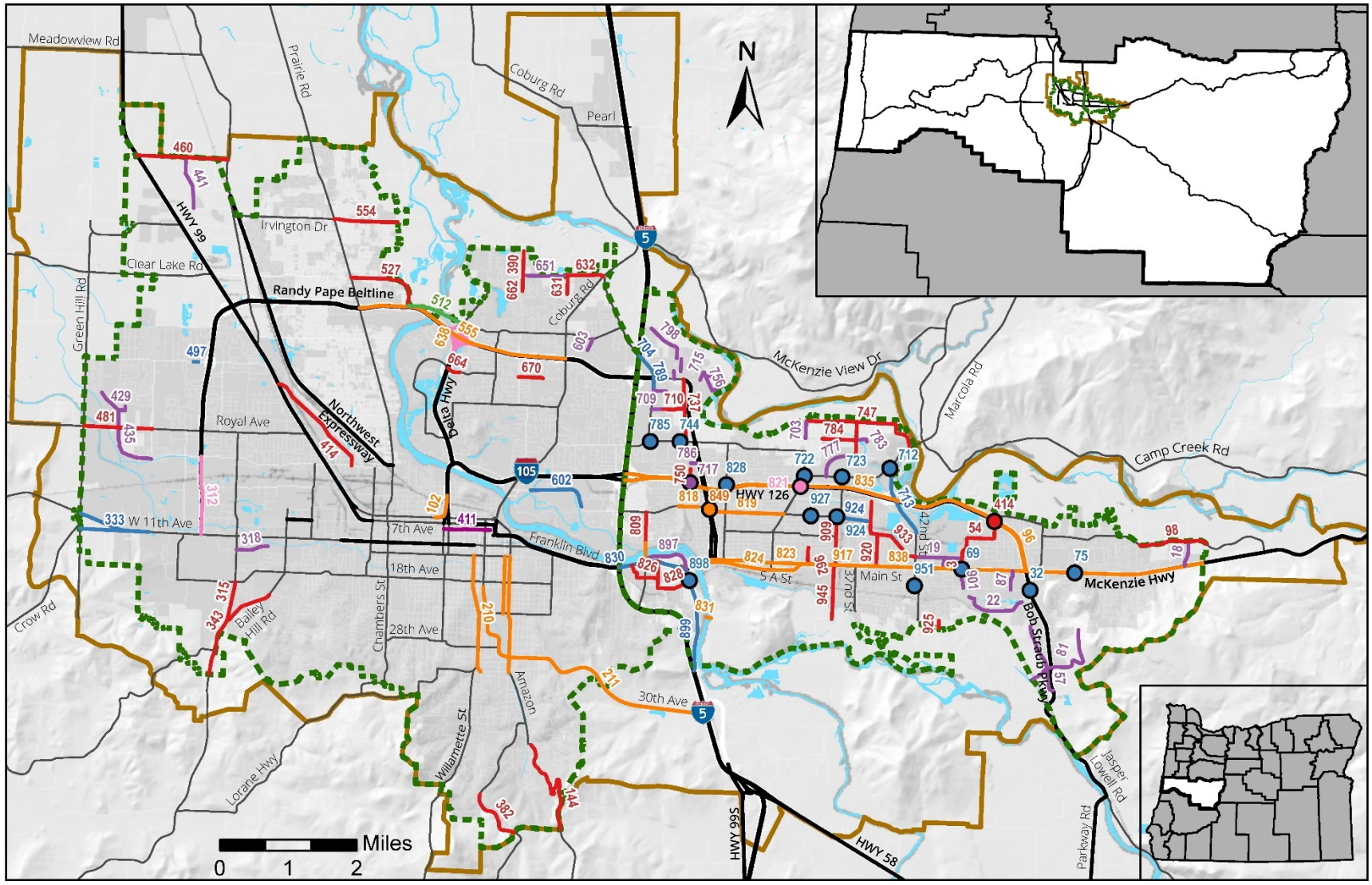


- Fiscally Constrained Roadway Projects
- Fiscally Constrained Bike/Pedestrian Projects
- Fiscally Constrained Roadway Projects
- Fiscally Constrained Bike/Pedestrian Projects
- Fiscally Constrained Transit Projects
- Air Quality Maintenance Area
- Highway Centerlines
- General Arterial Road Centerlines
- MPO Area Boundary
- Water Area



2045 Regional Transportation Plan





**Roadway Projects**

- Added Freeway Lanes or Major Interchange Improvements
- Arterial Capacity Improvements
- New Collectors
- Study
- Urban Standards

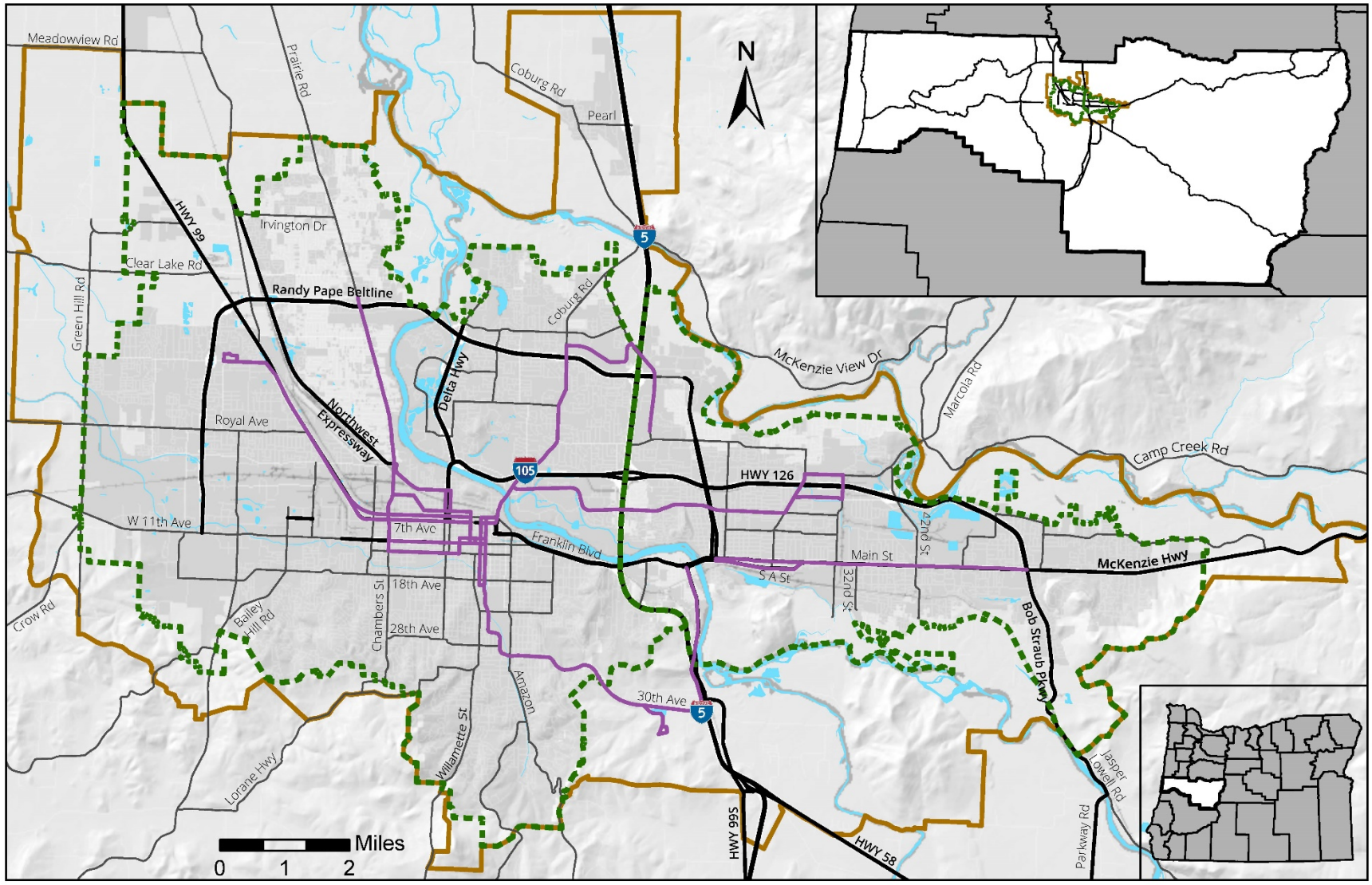
- Added Freeway Lanes or Major Interchange Improvements
- Arterial Capacity Improvements
- New Arterial Link or Interchange
- New Collectors
- Study
- Transit Oriented Development Implementation
- Urban Standards

- Air Quality Maintenance Area
- Highway Centerlines
- General Arterial Road Centerlines
- MPO Area Boundary
- Water Area



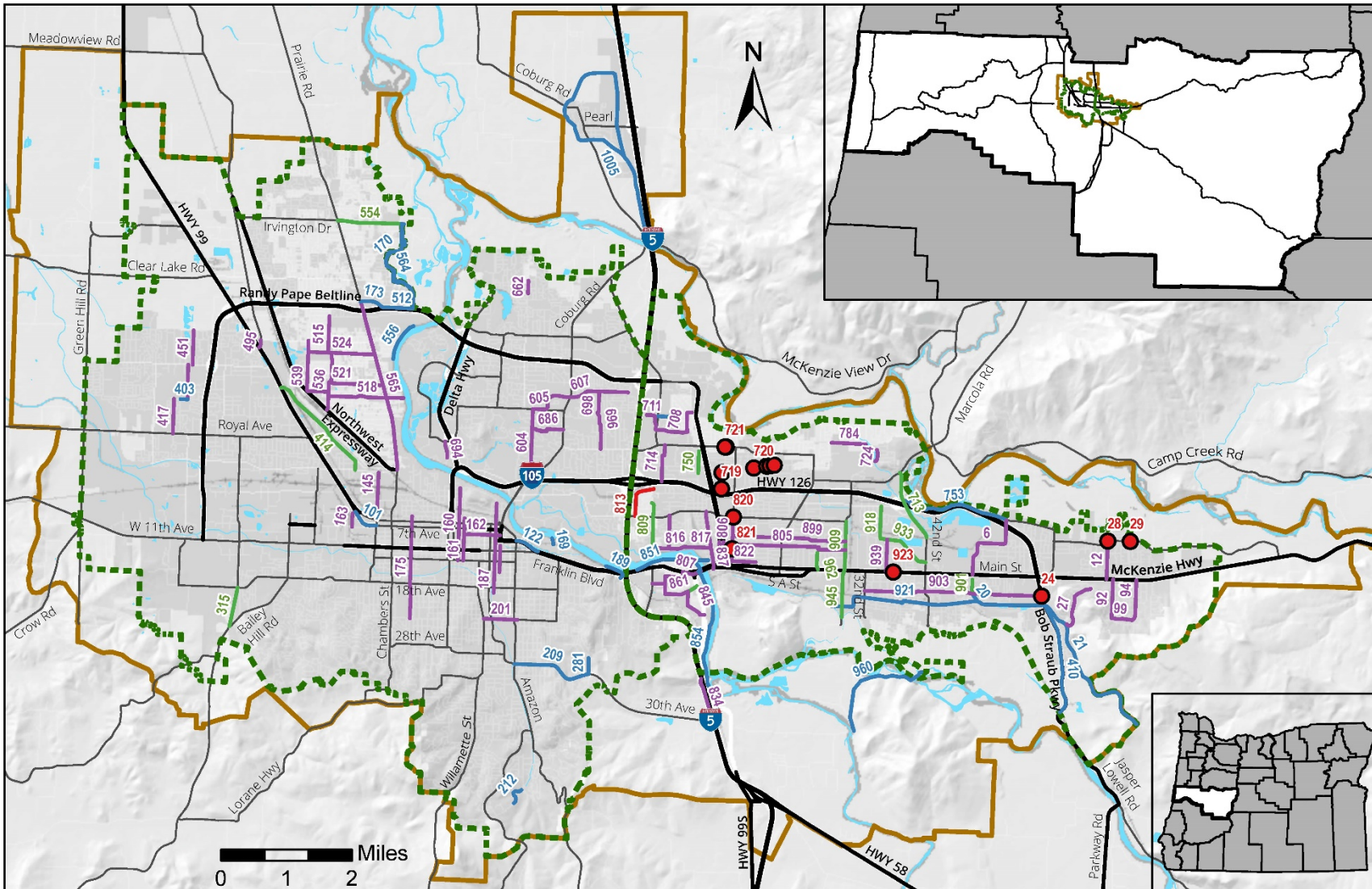
**2045 Regional Transportation Plan**





- Fiscally Constrained Transit Projects
- - - Air Quality Maintenance Area
- Highway Centerlines
- General Arterial Road Centerlines
- MPO Area Boundary
- Water Area





**Bike/Pedestrian Projects**

- On-Street Lanes or Routes Without Road
- Multi-Use Paths With Road
- Multi-Use Paths Without Road
- On-Street Lanes or Routes With Road
- On-Street Lanes or Routes Without Road
- Air Quality Maintenance Area
- Highway Centerlines
- General Arterial Road Centerlines
- MPO Area Boundary
- Water Area





## APPENDIX A

### Exemption from Regional Emissions Analysis



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, Washington 98101



Reply To  
Attn Of: AT-082

OCT 03 1994

Mr. Don Arkell, Director  
Lane Regional Air Pollution Authority  
225 North 5th, Suite 501  
Springfield, OR 97477-4671

Dear Mr. Arkell:

This is in response to your letter to Chuck Clarke regarding the "Memorandum of Understanding - Transportation Conformity Analysis for the Eugene-Springfield MPO", dated September 9, 1994. The letter was also signed by George Kloeppe, the LCOG Executive Director.

The final federal conformity rule does allow for exempting areas from the regional emissions analysis of the conformity rule if certain criteria are met. I believe your letter demonstrates that the Eugene-Springfield area meets the PM<sub>10</sub> conformity criteria and therefore, I concur with your conclusion that the conformity determination is not required to satisfy the PM<sub>10</sub> criteria for regional emissions analysis. The preamble for the federal rule, however, does not allow for relief from project level analysis. The projects within the PM<sub>10</sub> nonattainment area must comply with the project level conformity requirements as specified in the federal conformity regulation.

I also concur with your findings regarding analysis for conformity findings with regard to meeting the carbon monoxide criteria. Regional emission test will apply only in the Central Area Transportation Study (CATS) boundary, consistent with the approved redesignation. Regional emission analysis will not apply outside the CATS boundary. Again, project level conformity requirements are not affected by this finding and continue to apply throughout the nonattainment area, consistent with the federal regulation.

Thank you for requesting our concurrence with this conformity proposal. Questions regarding our concurrence can be directed to Mike Lidgard at (206)553-4233.

Sincerely,

A handwritten signature in cursive that reads "Jim McCormick".

Jim McCormick, Director  
Air and Toxics Division

cc: George Kloeppe, LCOG



## APPENDIX B

### Letter from US-EPA to LRAPA

LANE REGIONAL

AIR POLLUTION AUTHORITY



(503) 726-2514 • FAX (503) 726-1205  
225 North 5th, Suite 501  
Springfield, OR 97477-4671

Donald R. Arkell, Director

September 9, 1994

Mr. Chuck Clarke  
Region 10 Administrator  
Environmental Protection Agency  
1200 6th Avenue  
Seattle, WA 98101

Re: Memorandum of Understanding - Transportation Conformity  
Analysis for the Eugene-Springfield MPO

Dear Mr. Clarke:

The preamble for the final Federal Conformity Rule states:

..in some nonattainment and maintenance areas, the SIP may demonstrate that highway and transit vehicle emissions are an insignificant contributor to the nonattainment problem, for example, CO or PM<sub>10</sub> violations near industrial sources. For areas with control strategy SIPs which have already been submitted and which demonstrate that motor vehicle emissions (including exhaust, evaporative, and reentrained dust emissions) are insignificant and reductions are not necessary for attainment, the conformity determination is not required to satisfy the criteria for regional emissions analysis of that pollutant. 58 Fed. Reg. 62194 (November 24, 1993).

The Eugene-Springfield PM<sub>10</sub> SIP, which has been submitted to EPA for approval, establishes that emissions from motor vehicles is not significant and concludes that control of emissions from motor vehicles is not necessary to demonstrate attainment with the PM<sub>10</sub> standards. There has not been an exceedance of the PM<sub>10</sub> standards in this area since 1987. Currently, the Lane Regional Air Pollution Authority (LRAPA) is developing a maintenance plan as part of a request for redesignation to attainment status for PM<sub>10</sub>. On the basis of these facts, we conclude that conformity determinations for PM<sub>10</sub> are not required by federal regulation.

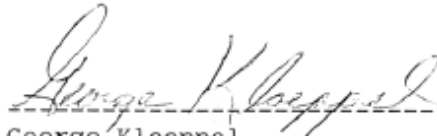
Effective February 4, 1994, the Eugene-Springfield area was redesignated to attainment status for CO. As noted in the December 6, 1993, Federal Register notice of Approval and Promulgation of Redesignation, a study performed by LRAPA during 1985 concluded that there were two hot spot locations near downtown Eugene which were isolated microscale problem areas. The Federal Register notice states the following (page 64163):

Due to the nature of Eugene's CO violations, (i.e., hot spots only) LRAPA's emission inventory contains only on-road mobile and home wood heating emissions within the Central Area Transportation Study boundary. All point sources within the Eugene AQMA are located at a sufficient distance away as to not contribute significantly to the violations.

Since the approved SIP and redesignation only contains an emissions budget for the Central Area Transportation Study (CATS) boundary, we conclude that except for projects within the CATS boundary, regional emissions tests do not apply for purposes of conformity. As specified in the final rule on conformity, regionally significant projects within the Eugene-Springfield AQMA boundary and outside of the CATS boundary would be subject to project-level conformity analysis. Following guidance contained in the final rule, we would, at a minimum, conduct project level analysis for facilities that serve regional needs and are normally accounted for in our modeling.

These findings and conclusions will be jointly reviewed and reaffirmed or modified no less frequently than five-year intervals. This review will occur as necessary when pollutant concentrations of either CO, Ozone or PM<sub>10</sub> approach NAAQS and motor vehicle emissions are a significant cause.

We are requesting your concurrence with the findings and conclusions stated above. Questions regarding this proposal can be directed to Tom Schwetz (LCOG) at (503) 687-4044 or Ralph Johnston (LRAPA) at (503) 726-2514. It is our intention to use this memo as the basis for our conformity determination of the region's recently adopted TIP. This determination must be established in time for FHWA to make its conformity determination for Oregon's STIP (October 1). Your quick reply on this matter would be greatly appreciated.



George Kloeppe  
LCOG Executive Director



Don Arkell  
LRAPA Director

cc: ODOT Environmental Services Section  
ODOT Region 2  
DEQ  
FHWA  
FTA

**APPENDIX C:**  
AQCD For 21-24 MTIP



U.S. DEPARTMENT OF TRANSPORTATION

Federal Highway Administration  
Oregon Division  
530 Center Street, Suite 420  
Salem, Oregon 97301  
503-399-5749

Federal Transit Administration  
Region 10  
915 Second Avenue, Room 3142  
Seattle, Washington 98174-1002  
206-220-7954

September 30, 2020

Reply to: HDA-OR/  
FTA-TRO-10  
File Code:  
724.420

Mr. Paul Thompson  
Transportation Program Manager  
Central Lane Metropolitan Planning Organization  
859 Willamette Street, Suite 500  
Eugene, OR 97401

Subject: Air Quality Conformity Determination for the CLMPO 2021-2024 Metropolitan  
Transportation Improvement Program (TIP)

Dear Mr. Thompson:

The Clean Air Act Amendments of 1990 (CAAA) require that transportation plans, programs, and projects cannot create new National Ambient Air Quality Standards (NAAQS) violations, increase the frequency or severity of existing NAAQS violations or delay the attainment of the NAAQS. The Federal Highway Administration and Federal Transit Administration is required to make a transportation conformity determination in nonattainment and maintenance areas as outlined in 40 CFR 93.104 and 23 CFR Part 450. The CAAA requires States and Metropolitan Planning Organizations (MPOs) to demonstrate, through the conformity process, that the transportation program is consistent with the State Implementation Plan (SIP). Transportation conformity ensures the Federal funding and approval are given to those transportation activities that are consistent with air quality goals and do not worsen air quality or interfere with the purpose of the SIP.

The United States Environmental Protection Agency (EPA) approved the Eugene-Springfield limited maintenance plan (LMP) for particulate matter of less than 10 microns (PM<sub>10</sub>), effective June 10, 2013 (78 FR 21547). With the approved LMP, the CLMPO is not required to complete regional emissions analysis, however all other transportation conformity requirements still apply (40 CFR 93.109(b)).

FHWA and FTA have completed a review of the Central Lane Metropolitan Planning Organization (CLMPO) conformity determination for the 2021-2024 MTIP, adopted by the Metropolitan Policy Committee (MPC) on May 7, 2020. Based on our review of the CLMPO conformity determination and documentation e-mailed on August 11, 2020, we find that the 2021-2024 MTIP conforms to the SIP in accordance with the Transportation Conformity Rule and the Oregon Conformity SIP. This federal conformity determination was made after interagency consultation with EPA Region 10, Oregon Department of Environmental Quality (ODEQ), Lane Regional Air Protection Agency

(LRAPA), and the Oregon Department of Transportation (ODOT), pursuant to the Transportation Conformity Rule.

If you have any questions, please contact Ms. Jasmine Harris of FHWA at (503) 316-2561 or Mr. Jeremy Borrego of FTA at (206) 220-7956.

Sincerely,

PHILLIP A  
DITZLER

Digitally signed by PHILLIP A  
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Phillip A. Ditzler  
Division Administrator  
Federal Highway Administration

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GEHRKE

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Linda M. Gehrke  
Regional Administrator  
Federal Transit Administration

cc:

- EPA Karl Pepple, Environmental Protection Specialist  
Adam Clark, Environmental Protection Specialist
- ODEQ Rachel Sakata, Senior Air Quality Planner
- ODOT Natalie Liljenwall, Environmental Engineer  
Bill Johnston, Region 3 Planning Manager  
Erik Havig, Planning Section Manager  
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Jeff Flowers, Statewide Investment Management Section Manager  
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- CLMPO Dan Callister, Associate Transportation Planner
- LRAPA Merlyn Hough, Director



U.S. DEPARTMENT OF TRANSPORTATION

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Salem, Oregon 97301  
503-399-5749

Federal Transit Administration  
Region 10  
915 Second Avenue, Room 3142  
Seattle, Washington 98174-1002  
206-220-7954

September 29, 2017

In Reply Refer To:  
HAD-OR/ FTA-TRO-10

Mr. Paul Thompson  
Transportation Program Manager  
Central Lane Metropolitan Planning Organization  
859 Willamette Street, Suite 500  
Eugene, OR 97401

Dear Mr. Thompson:

The Clean Air Act Amendments of 1990 (CAAA) require that transportation plans, programs, and projects cannot create new National Ambient Air Quality Standards (NAAQS) violations, increase the frequency or severity of existing NAAQS violations or delay the attainment of the NAAQS. The U.S. Department of Transportation (FHWA and FTA) is required to make a transportation conformity determination in non-attainment and maintenance areas as outlined in 40 CFR 93.104 (Frequency of Conformity Determinations) and 23 CFR Part 450 (FHWA and FTA Planning Rule). The CAAA requires States and Metropolitan Planning Organizations (MPOs) to demonstrate, through the conformity process, that the transportation program as a whole is consistent with the State Implementation Plan (SIP). Transportation conformity ensures that Federal funding and approval are given to those transportation activities that are consistent with air quality goals and do not worsen air quality or interfere with the purpose of the SIP.

The United States Environmental Protection Agency (EPA) approved the Eugene-Springfield limited maintenance plan (LMP) for particulate matter of less than 10 microns (PM<sub>10</sub>), effective June 10, 2013 (78 FR 21547; April 11, 2013). With the approved LMP, the Central Lane Metropolitan Planning Organization (CLMPO) is not required to complete regional emissions analysis; however, all other transportation conformity requirements still apply (40 CFR 93.109(b)).

FHWA and FTA have completed a review of the CLMPO conformity determination for the 2018-2021 MTIP, adopted by the CLMPO Policy Committee on May 4, 2017. Based on our review of the CLMPO conformity determination and documentation submitted to our offices on June 12, 2017, we find that the 2018-2021 MTIP conforms to the SIP in accordance with the Transportation Conformity Rule and the Oregon Conformity SIP. This Federal conformity determination was made after interagency consultation with EPA Region 10, Oregon Department of Environmental Quality, and Oregon Department of Transportation, pursuant to the Transportation Conformity Rule.

Please contact Ms. Rachael Tupica of FHWA at (503) 316-2549 or Mr. Jeremy Borrego of FTA at (206) 220-7956 if you have any questions.

Sincerely,

PHILLIP A  
DITZLER

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Linda M. Gehrke  
Regional Administrator  
Federal Transit Administration

cc:

FHWA Rachael Tupica, Senior Transportation Planner  
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ODOT Natalie Liljenwal, Environmental Engineer  
Terry Cole, Region 2 Planning Manager  
Erik Havig, Planning Section Manager  
Jeff Flowers, Program and Funding Services Manager  
LRAPA Merlyn Hough, Director





## APPENDIX D

### Notes on Project Conformity<sup>5</sup> – Localized PM<sub>10</sub> hot spot violations, 40 CFR 93.116

The *Project Sponsor* is designated as the agency responsible for implementing the project. The agency is lead for developing the hot spot analysis, meeting interagency consultation and public participation requirements, and documenting the project-level conformity determination.

PM hot spot analyses are generally included in documents prepared to meet NEPA requirements. However, if the scope of a project is substantially changed after NEPA has been completed, another project-level conformity determination may be needed.

The design concept and scope of the project must be consistent with that included in the conforming transportation plan and transportation improvement program (40 CFR93.114).

The MPO should be consulted for the latest planning assumptions. PM hot-spot analyses must be based on these assumptions in place when the analysis begins (40 CFR 93.110).

Projects fall into three categories: *exempt* under 40 CFR 93.126 and 93.128; *of local air quality concern* under 40 CFR 93.123(b)(1); and *non-exempt and not of local air quality concern*.

**Projects of local air quality concern** are defined in 93.123(b)(1) and require PM<sub>10</sub> hot spot analysis. These are

(i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;

For example<sup>6</sup>:

- new highways with an AADT of greater than 125,000, and an 8% or more share of AADT is diesel trucks.
- new exit ramps or other improvements to connect a highway or expressway to a major freight, bus or intermodal terminal.

(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;

---

<sup>5</sup> Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas. US Environmental Protection Agency. EPA-420-B-13-053. November 2013. <https://nepis.epa.gov> (search for document 420B13053), December 2016.

<sup>6</sup> Project Level Conformity Hot-Spot Analysis (Highways), FHWA Resource Center, [https://www.fhwa.dot.gov/resourcecenter/teams/airquality/plc\\_hotspotanalysis.cfm](https://www.fhwa.dot.gov/resourcecenter/teams/airquality/plc_hotspotanalysis.cfm); December 2016.



(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;

(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location;

- For example, an existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses increases by 50% or more, as measured by bus arrivals.

(v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM<sub>2.5</sub> or PM<sub>10</sub> applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation. [Note: none are identified in the Eugene-Springfield implementation plan.]

[Note: in the criteria above, 'significant' is subject to interagency consultation]

For **non-exempt projects that are not of local air quality concern**, state and local project sponsors should document in their project-level conformity determinations that the requirements of 40 CFR 93.116 are met without hot-spot analysis. These categorizations are subject to interagency consultation.

40 CFR 93.105 also requires a proactive public involvement process for public review and comment. NEPA public involvement typically satisfies this requirement.

## **APPENDIX E**

### **Public Comments Received**

A public hearing was held November 4, 2021 at the meeting of the Metropolitan Policy Committee, held remotely via Zoom.

A public comment period was open October 29 through December 10. Comments were solicited via the MPO's website and social media.

Comments received from public as well as from local, State, and Federal agency staff have been incorporated into this document, as well as staff comments received through the interagency consultation process regarding project air quality conformity.

DRAFT

**APPENDIX F**

**LANE REGIONAL AIR PROTECTION AGENCY  
REQUEST FOR REDESIGNATION TO ATTAINMENT  
AND MAINTENANCE PLAN FOR  
EUGENE/SPRINGFIELD PM<sub>10</sub>  
(December, 2011)**

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## Introduction:

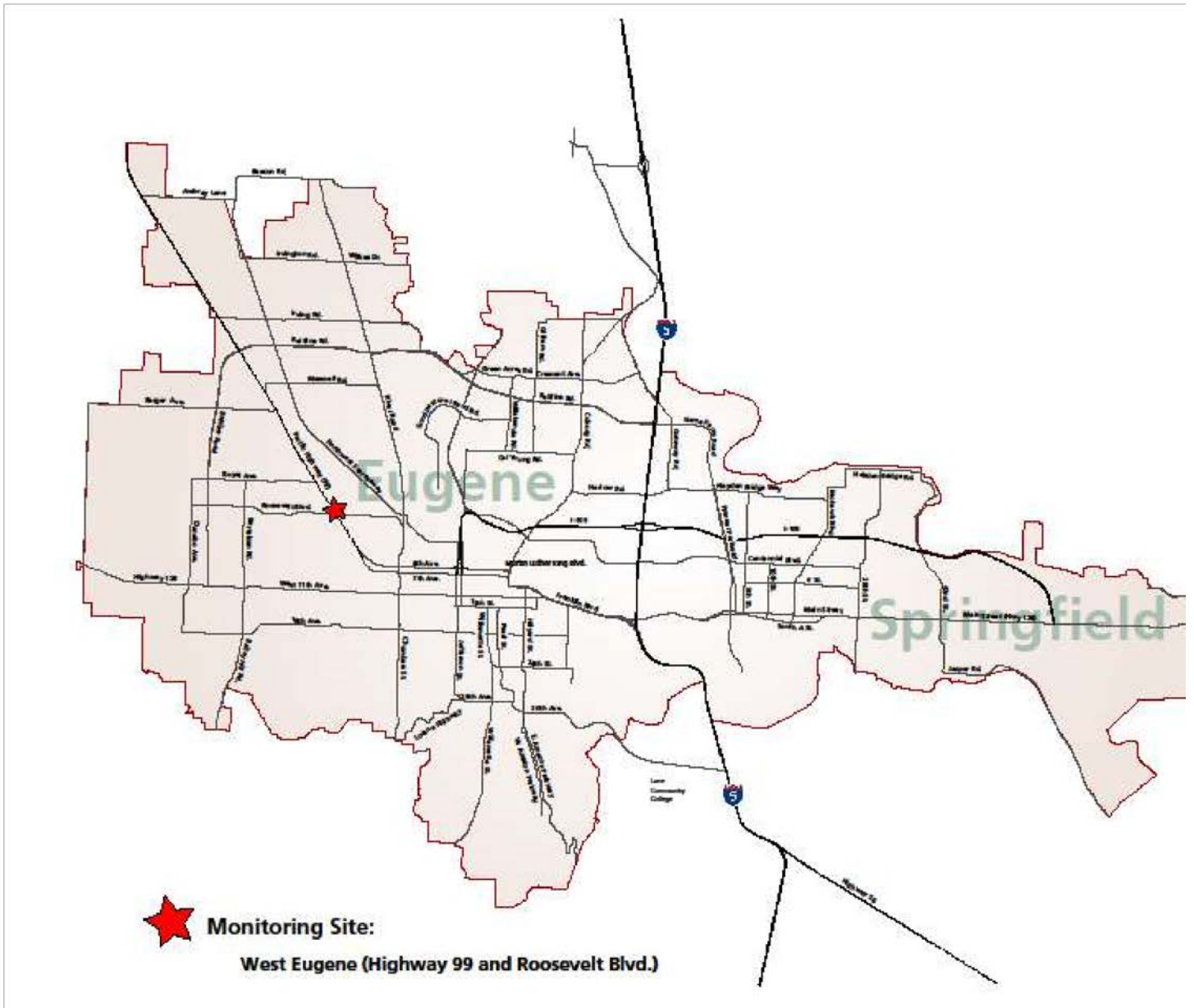
On August 7, 1987, the federal Environmental Protection Agency (EPA) categorized areas of the Nation into three groups based upon the likelihood that the area would violate the PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS) and the existing State Implementation Plan (SIP) would require revision in order to protect the PM<sub>10</sub> NAAQS. Group I Areas were those having a 95% certainty of violating the PM<sub>10</sub> NAAQS. Group II Areas were those having a 20 % to 95% probability of violating the PM<sub>10</sub> NAAQS. The remaining areas below 20% probability were classed as Group III. Based upon the available ambient data, the area within the Eugene-Springfield Urban Growth Boundary (UGB) was classified by the EPA as a Group I Area. This area is defined in Oregon Administrative Rules 340-204-0010 (see Figure 1).

In response to this action, Lane Regional Air Protection Agency (LRAPA) adopted a SIP amendment in 1990 and an addendum in 1991 to address the new requirements of the federal Clean Air Act Amendments of 1990. These were subsequently adopted by the Oregon Environmental Quality Commission (EQC) and were submitted as an attainment plan to the EPA in November 1991 (see 59 FR 434870). This plan demonstrated attainment of the PM<sub>10</sub> NAAQS by December 31, 1992, and demonstrated maintenance of the PM<sub>10</sub> NAAQS through the year 2000. This plan was approved by the EPA in August 1994 (see 59 FR 434870 August 24, 1994). EPA also approved PM<sub>10</sub> control strategies in the SIP as Reasonably Available Control Technology and Reasonably Available Control Measures (RACT/RACM).

LRAPA has continued to implement the control strategies defined in the SIP and the UGB has not exceeded the 24 hour PM<sub>10</sub> NAAQS since 1987. The annual PM<sub>10</sub> NAAQS has never been exceeded. Based upon the monitoring data and the intent to maintain the current control strategies, it has been LRAPA's intent to officially request redesignation of this area to attainment. For this to occur, the federal Clean Air Act requires LRAPA to develop a maintenance plan for which EPA requires dispersion modeling and projections of emissions 10 years into the future. This effort would place an excessive burden on LRAPA's limited resources. In addition, the NAAQS have undergone significant changes over the years with new particulate standards being added and subsequent lawsuits. This process was not finally resolved until 2006. As a result, LRAPA has delayed formally requesting redesignation.

Figure 1

Eugene/Springfield Urban Growth Boundary



The EPA has also issued guidance to streamline the process to redesignate an area from Non-attainment@ to Attainment@ for PM<sub>10</sub> NAAQS. This new option was termed a Limited Maintenance Plan (LMP). It will allow areas which clearly meet the standards to effectively redesignate without using dispersion modeling and without projecting future emissions. LRAPA has chosen to use this option to prepare a maintenance plan and request redesignation for the Eugene-Springfield UGB to attainment for PM<sub>10</sub>.

According to EPA guidance, to qualify for the LMP option an area should meet the following criteria:



1. The area should attain the NAAQS.
2. The average 24 hour PM<sub>10</sub> design value for the area based upon recent 5 years of data should not exceed 98 ug/m<sup>3</sup> (micrograms per cubic meter) and the annual design value should not exceed 40 ug/m<sup>3</sup>. (The annual PM<sub>10</sub> NAAQS was revoked by the EPA on December 18, 2006.)
3. The area should expect only limited growth in on-road motor vehicle PM<sub>10</sub> emissions.

As detailed in Appendix A, this area clearly attains the NAAQS, and the design values are well below the defined limits. In addition, although the existing SIP for this area (confirmed by October 3, 1994, correspondence from EPA Region 10 ) demonstrates that motor vehicles are not a significant contributor to PM<sub>10</sub> emissions in this area, a regional analysis of on-road motor vehicle PM<sub>10</sub> emission was performed (see Appendix A) and demonstrated only limited growth in emissions. As a result, this area qualifies for the LMP option.

LRAPA has prepared this LMP for PM<sub>10</sub> to demonstrate attainment with the PM<sub>10</sub> NAAQS, provide a maintenance plan to assure continued attainment, and formally request redesignation of the UGB to attainment for the PM<sub>10</sub> NAAQS.

#### Demonstration of Attainment:

On July 1, 1987, the EPA revised Title 40, Part 50 of the Code of Federal Regulations (40 CFR 50), which changed the particulate matter NAAQS from total suspended particulate to particulate matter less than or equal to 10 microns in size (PM<sub>10</sub>). The primary and secondary NAAQS for PM<sub>10</sub> are as follows:

24 hour Standard: The NAAQS for PM<sub>10</sub> is 150 ug/m<sup>3</sup> for a 24 hour average concentration. The standard is not to be exceeded more than once per year on average over 3 years, as determined in accordance with 40 CFR 50.

Annual Standard: The annual NAAQS for PM<sub>10</sub> is 50 ug/m<sup>3</sup> for an annual arithmetic mean. The standard is attained when the expected annual arithmetic mean concentration is less than or equal to 50 ug/m<sup>3</sup>, as determined in accordance with 40 CFR 50.

(This standard was revoked on December 18, 2006)

Since PM<sub>10</sub> monitoring began in 1984, the UGB has exceeded the 24 hour NAAQS on 15 occasions, 12 of which occurred during an extensive period of cold temperatures and poor ventilation in December of 1985. The last exceedance of the 24 hour standard occurred in January of 1987. The 24 hour standard exceedances have all occurred during the Winter months. The annual standard has never been exceeded. Based upon the historical ambient monitoring data, the UGB was found to be in violation of only the 24 hour PM<sub>10</sub> standard .

The original PM<sub>10</sub> attainment plan was adopted by LRAPA in March 1990. Since adoption was prior to the CAA amendments of 1990, an addendum to the plan incorporating a contingency plan (as required by the 1990 CAA amendments) was adopted by LRAPA in October 1991. The amended plan was submitted to EPA in November, 1991. The EPA approved the plan in October 1994.

The analysis used to develop the plan indicated that on a worst case winter day (when exceedances were likely to occur) residential wood combustion emissions contributed 68% of the total local emissions into the airshed. The dispersion modeling analysis used to develop the plan demonstrated that on those poor air quality days, residential wood combustion emissions contributed over 90% of the ambient impact. As a result, it was determined that the mandatory curtailment of residential wood combustion emissions would be necessary and sufficient to achieve attainment. PM<sub>10</sub> emission reductions from other sources were not needed. Preceded by a voluntary program that began in 1986, the mandatory curtailment plan began in November, 1991. Each of the jurisdictions within the UGB enacted ordinances prohibiting the use of solid - fuel space heating devices under certain conditions (see Appendix B). Enforcement of the ordinances has been delegated by Lane County, the City of Eugene, and the City of Springfield to LRAPA. The program consists of a multi-stage advisory issued daily each winter from November 1 through the end of February. The daily determination of which stage to initiate is based upon forecast meteorology and air quality. During good air quality conditions, a Green@ advisory which allows residential wood combustion is issued. If conditions are deteriorating, a yellow advisory which requests voluntary curtailment of the practice is issued. If PM<sub>10</sub> levels are forecast to be near or exceed the standard, a red advisory prohibiting the practice (with an exemption for economic need) is issued. Since the mandatory program began, it has not been necessary to issue a red advisory and the PM<sub>10</sub> standard has not been exceeded. The mandatory home wood heating curtailment program is considered to be RACM and is permanent and enforceable (see 59 FR 163 8/24/94).

LRAPA currently maintains a PM<sub>10</sub> monitoring network which includes one site within the UGB (see Figure 1). This site meets the federal monitoring requirements contained in 40 CFR 58. As demonstrated by the historical monitoring data, and confirmed by a saturation monitoring study conducted by LRAPA in 1989, the HWY 99 site (# 410390058) measures the highest PM<sub>10</sub> concentrations within the UGB. As depicted in the following table, the 24 hour concentrations at this site over a recent 9 year period remain well below the PM<sub>10</sub> NAAQS of 150ug/m<sup>3</sup>.

Table 1  
 HWY 99 Site # 410390058  
 24 Hour PM<sub>10</sub> Concentration (ug/m<sup>3</sup>)

<u>Year</u>	annual high	annual 2 <sup>nd</sup> high	3 yr 2 <sup>nd</sup> high
2000	73	50	---
2001	65	61	---
2002	66	62	66
2003	45	44	65
2004	59	40	62
2005	50	43	50
2006	68	53	59
2007	78	69	69
2008	56	48	69

The annual levels are also well below the former PM<sub>10</sub> NAAQS of 50 ug/m<sup>3</sup>.

Table 2

Hwy 99 Site # 410390058  
Annual Mean (ug/m<sup>3</sup>)

<u>Year</u>	<u>Annual Mean</u>
2000	19
2001	19
2002	19
2003	19
2004	17
2005	17
2006	19
2007	16
2008	17

The monitoring data clearly demonstrates attainment with the PM<sub>10</sub> NAAQS in accordance with 40 CFR 50.

Maintenance Plan:

EPA's Limited Maintenance Plan Option (LMP) permits states to submit streamlined maintenance plans for areas that meet qualifying criteria. This option is specifically designed to redesignate areas that are at little risk of violating the PM<sub>10</sub> standard. Areas qualifying for the LMP must meet the following criteria:

1. The area should attain the NAAQS
2. The average 24 hour PM<sub>10</sub> design value for the area based upon 5 years of data should not exceed 98 ug/m<sup>3</sup>, and the annual design value should not exceed 40 ug/m<sup>3</sup>.
3. The area should expect only limited growth in on-road motor vehicle PM<sub>10</sub> emissions.

The detailed analysis of the LMP criteria is contained in Appendix A. This analysis clearly demonstrates attainment with the NAAQS. The 24 hour design value of 66 ug/m<sup>3</sup> is well below the criteria level of 98 ug/m<sup>3</sup> and the annual design value of 17ug/m<sup>3</sup> is well below the criteria level of 40 ug/m<sup>3</sup>. In addition, the motor vehicle emission analysis demonstrates only a minimal increase in emissions. As a result, this area is qualified to submit an LMP.

Annual and 24 hour PM<sub>10</sub> emission inventories of significant sources were developed for the 2008 attainment year. As required in the LMP option, 2008 is within the five most recent years of monitoring data used to determine whether or not the area meets LMP option qualifying criteria. The methodology used and the details of the calculations for each source category are found in Appendix C. In each case,

EPA approved methods were used. As summarized in Table 3, residential wood combustion remains the primary source of PM<sub>10</sub> on winter days, while point sources dominate the annual emissions.

Table 3

2008 Estimated PM<sub>10</sub> Emissions for the Eugene/Springfield UGB

<u>Source</u>	<u>Annual (tons/year)</u>	<u>Winter Day (tons/day)</u>
Point Sources	1,624.1	4.4
Residential wood combustion	728.2	8.5
Road Dust	281.2	0.8
Motor vehicle exhaust, brake and tire wear	120.3	0.4
Total	2,753.8	14.1

In the 1985 base year emission inventory developed for the 1990 SIP 7,051 tons of PM<sub>10</sub> were emitted while in the 2008 annual E.I. only 2,754 tons were emitted.

There has been a 61% reduction in annual PM<sub>10</sub> emissions since 1985. In 1985 the 24 hour Winter day emissions were estimated at 31.4 tons, while in 2008 this estimate was only 14.1 tons, a 55% decrease in PM<sub>10</sub> emissions. Although a quantitative explanation for all of the decline is not available, it is readily apparent that the precipitous decline in the wood products industry has drastically reduced the point source emissions. The lack of logging activity has also reduced the availability of cord wood. In addition, some older uncertified woodstoves and inserts have been replaced with cleaner burning more efficient certified woodstoves and inserts. Public awareness of the daily woodburning advisories has also resulted in less wood burning. As a result, residential wood combustion has been drastically reduced. In 1985, 85,325 tons of cord wood were burned in the UGB while in 2008 the estimate is 50,609 tons, a 41% reduction.

LRAPA has relied upon a mandatory residential wood combustion curtailment program to attain and maintain compliance with the PM<sub>10</sub> NAAQS. This program has been successfully implemented within the UGB. It is the intent of LRAPA to continue to implement this program to ensure continued attainment with the ambient standards. Since this area qualifies for the LMP option, maintenance of the ambient standard is presumed to be satisfied.

LRAPA has recently implemented the following additional control measures to ensure that this area continues to meet the PM<sub>10</sub> NAAQS (see Appendix B for details of the local ordinances).

1. Solid fuel space heating devices shall be prohibited from burning plastics, petroleum by-products, petroleum treated materials, rubber products, animal remains, animal or vegetable matter resulting from the handling, preparation, cooking, or service of food, or of any other material which normally emits dense smoke or noxious odors.
2. During a Green or Yellow advisory the discharge of emissions from a solid fuel space heating device shall be limited to a maximum opacity of 40%. There will be a 10 minute exemption during every 4 hour period for the building of a new fire.

In addition, the State of Oregon has recently adopted the “Heat Smart” law. This law requires the removal and decommissioning of any uncertified woodstove or fireplace insert from a home when it is sold.

As depicted in the existing SIP for this area, and confirmed by October 3, 1994, correspondence from EPA Region 10 (see Appendix E), motor vehicles are not a significant contributor to PM<sub>10</sub> emissions in this area and therefore regional PM<sub>10</sub> conformity determinations are not required. Hot spot conformity analysis for projects meeting federal criteria will continue to be required. This current analysis reaffirms the status of motor vehicles as an insignificant contributor to PM<sub>10</sub> emissions in this area.

Although industrial sources are not the significant contributor to PM<sub>10</sub> exceedances, industrial emissions growth will be controlled through New Source Review regulations. The Lowest Achievable Emission Rate (LAER) requirement for non-attainment areas will be replaced by Best Available Control Technology (BACT) for maintenance areas. Offsets and net air quality benefit will also be required.

As described in Appendix D, the 24 hour PM<sub>2.5</sub> standard would be violated well before the PM<sub>10</sub> standard was reached. A violation of the PM<sub>2.5</sub> standard would trigger SIP action for that pollutant which would also provide additional controls for PM<sub>10</sub> emissions. Although monitoring for PM<sub>2.5</sub> would technically be adequate to demonstrate compliance with the PM<sub>10</sub> NAAQS, as resources allow, LRAPA will continue to monitor for PM<sub>10</sub>.

## Appendix A

### Eugene-Springfield PM<sub>10</sub> Non-Attainment Area Limited Maintenance Plan Qualification Analysis

According to EPA guidance, to qualify for the LMP option an area should meet the following applicable criteria:

1. The area should attain the NAAQS.
2. The average 24 hour PM<sub>10</sub> design value for the area based upon recent 5 years of data should not exceed 98 ug/m<sup>3</sup> and the annual design value should not exceed 40 ug/m<sup>3</sup>.
3. The area should expect only limited growth in on-road motor vehicle PM<sub>10</sub> emissions.

Attainment with NAAQS:

As demonstrated by the historical monitoring data and confirmed by a saturation monitoring study conducted by LRAPA in 1989, the Hwy 99 Site (# 410390058) measures the highest PM<sub>10</sub> concentrations within the non-attainment area. Recent data from this site demonstrates that this area clearly attains the NAAQS of 150 ug/m<sup>3</sup> for the 24 hour standard and the former 50 ug/m<sup>3</sup> annual standard.

#### Eugene-Springfield UGB PM<sub>10</sub> Concentrations (ug/m<sup>3</sup>) Hwy 99 Site # 410390058

Year	Annual Highest 24 hour Concentration (ug/m <sup>3</sup> )	Annual Mean (ug/m <sup>3</sup> )
2000	73	19
2001	65	19
2002	66	19
2003	45	19
2004	59	17
2005	50	17
2006	68	19
2007	78	16
2008	56	17



## 24 Hour Design Value:

As recommended in EPA guidance, the Upper 10% Tail Exponential Distribution Method was used to calculate the 24 hour design value. Data from the Hwy 99 Site was used for the calculation. As depicted in the following, this area's 24 hour design value is 66 ug/m<sup>3</sup> which is well below the guidance level of 98 ug/m<sup>3</sup>.

Calculate the average of the rolling 3 year design values for the 5 year period using the Upper 10% Tail Exponential Distribution:

equation:  $DV = X_{90} + 3.61 (U_{90} - X_{90})$

where: DV = design value  
X<sub>90</sub> = 90<sup>th</sup> percentile concentration  
U<sub>90</sub> = mean of the upper 10% of samples

For the period 2004 - 2006 there were 359 samples (no data was flagged):

$$\begin{aligned} X_{90} &= 35 \text{ ug/m}^3 \\ U_{90} &= 42 \text{ ug/m}^3 \\ DV &= 35 \text{ ug/m}^3 + 3.61(42 \text{ ug/m}^3 - 35.0 \text{ ug/m}^3) = 60 \text{ ug/m}^3 \end{aligned}$$

For the period 2005 - 2007 there were 359 samples (no data was flagged):

$$\begin{aligned} X_{90} &= 34 \text{ ug/m}^3 \\ U_{90} &= 43 \text{ ug/m}^3 \\ DV &= 34 \text{ ug/m}^3 + 3.61(43 \text{ ug/m}^3 - 34 \text{ ug/m}^3) = 66 \text{ ug/m}^3 \end{aligned}$$

For the period 2006 - 2008 there were 360 samples (no data was flagged):

$$\begin{aligned} X_{90} &= 33 \text{ ug/m}^3 \\ U_{90} &= 44 \text{ ug/m}^3 \\ DV &= 33 \text{ ug/m}^3 + 3.61(44 \text{ ug/m}^3 - 33 \text{ ug/m}^3) = 73 \text{ ug/m}^3 \end{aligned}$$

Average 24 Hour Design Value:

$$(60 \text{ ug/m}^3 + 66 \text{ ug/m}^3 + 73 \text{ ug/m}^3)/3 = \mathbf{66 \text{ ug/m}^3}$$

## Annual Design Value:

The annual design value is 17 ug/m<sup>3</sup> which is well below the guidance level of 40 ug/m<sup>3</sup>.

Calculate the average of the rolling 3 year design value for the 5 year period using the annual means of the 4 quarters:

<u>Year</u>	<u>Quarterly Annual Mean (ug/m<sup>3</sup>)</u>
2008	17
2007	16
2006	19
2005	17
2004	17

For the period 2004 - 2006:

$$\text{Annual DV} = (17 \text{ ug/m}^3 + 17 \text{ ug/m}^3 + 19 \text{ ug/m}^3)/3 = 17.67 \text{ ug/m}^3$$

For the period 2005 - 2007:

$$\text{Annual DV} = (17 \text{ ug/m}^3 + 19 \text{ ug/m}^3 + 16 \text{ ug/m}^3)/3 = 17.33 \text{ ug/m}^3$$

For the period 2006 - 2008:

$$\text{Annual DV} = (19 \text{ ug/m}^3 + 16 \text{ ug/m}^3 + 17 \text{ ug/m}^3)/3 = 17.33 \text{ ug/m}^3$$

$$\text{Average Annual DV} = (17.67 \text{ ug/m}^3 + 17.33 \text{ ug/m}^3 + 17.33 \text{ ug/m}^3)/3 = 17 \text{ ug/m}^3$$

Motor Vehicle Regional Analysis:

Using the method recommended in EPA Guidance, an on-road motor vehicle regional analysis was performed. As depicted in the following, there will be only limited growth in on-road motor vehicle PM<sub>10</sub> emissions.

EPA Guidance Equation:

$$\text{DV} + (\text{VMTpi} * \text{DVmv}) \leq \text{MOS}$$

where: DV = area design value

VMTpi = projected % increase in vmt 10 years from base year (projected increase in VMT from 2008 - 2018 is 14.3% - from local MPO transportation modeling estimate)

DVmv = motor vehicle design value based upon on-road portion of base year EI

MOS = margin of safety for PM<sub>10</sub> standard: 98 ug/m<sup>3</sup> for 24 hour standard and 40 ug/m<sup>3</sup> for annual standard

24 hour analysis:

From 2008 attainment year winter day EI

total winter day emissions = 14.1 tons  
total motor vehicle winter day emissions = 1.2 tons

% mv = 8.5

DV = 66 ug/m<sup>3</sup>

VMTpi = 0.143

DVmv = 5.61 ug/m<sup>3</sup>

$66 \text{ ug/m}^3 + (0.143 * 5.61 \text{ ug/m}^3) = 67 \text{ ug/m}^3$

annual analysis:

From 2008 base year EI

total annual emissions = 2,753.8 tons

total motor vehicle annual emissions = 401.5 tons

% mv = 14.58

DV = 17 ug/m<sup>3</sup>

VMTpi = 0.143

DVmv = 2.48 ug/m<sup>3</sup>

$17 \text{ ug/m}^3 + (0.143 * 2.48 \text{ ug/m}^3) = 17 \text{ ug/m}^3$

## Appendix B

### Local Home Wood Heating Ordinances

#### Eugene Code

6-16 12/28/2007

#### **Solid Fuel Space Heating Devices**

**6.250 Solid Fuel Space Heating Devices - Definitions.** As used in sections 6.255 to 6.265, the following words and phrases mean:

**City manager.** City manager or designee, including, if the city manager so designates, LRAPA.

**Green advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be less than 100 micrograms per cubic meter and PM2.5 levels are forecast to be less than 25 micrograms per cubic meter. **LRAPA.** Lane Regional Air Pollution Authority, a regional air quality control authority established under the provisions of, and with authority and powers derived from, Oregon Revised Statutes 468.500 et seq.

**Opacity.** The degree to which an emission reduces transmission of light or obscures the view of an object in the background.

**Pellet stove.** An enclosed solid fuel space heating device designed and operated to burn manufactured solid fuel and having an air-to-fuel ratio greater than 35-to-1 as determined by the federal test method described in 40 CFR Part 60.534.

**Person.** Any individual, partnership, corporation, association, governmental subdivision or public or private organization of any character.

**Person in charge of property.** An agent, occupant, lessee, tenant, contract purchaser, or other person having possession or control of property. **PM2.5.** Solid or liquid particulate matter (excluding uncombined water) with an aerodynamic diameter less than or equal to 2.5 micrometers. **PM10.** Solid or liquid particulate matter (excluding uncombined water) with an aerodynamic diameter less than or equal to 10 micrometers. Eugene Code

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**Sole source of heat.** A solid fuel space heating device which constitutes the only source of heating in a private residence. A solid fuel space heating device shall not be considered to be the sole source of heat if the private residence is equipped with any permanently installed furnace or heating system utilizing oil, natural gas, electricity or propane.

**Solid fuel space heating device.** Any device designed or operated to burn solid fuel for the heating of the interior of a building, including, but not limited to, solid fuel burning stoves, fireplaces or wood stoves of any nature, combination fuel furnaces or boilers used for space heating which can burn solid fuel, and solid fuel burning cooking stoves. "Solid fuel space heating device" does not include natural gas fired artificial fireplaces.

**Stage I red advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be greater than or equal to 125 micrograms per cubic meter but less than 150 micrograms per cubic meter, or when PM2.5 levels are forecast by LRAPA to be greater than or equal to 30 micrograms per cubic meter but less than 35 micrograms per cubic meter, within the Eugene-Springfield Metropolitan Area General Plan Urban Growth Boundary.

**Stage II red advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be greater than or equal to 150 micrograms per cubic meter, or when PM2.5 levels are forecast by LRAPA to be greater than or equal to 35 micrograms per cubic meter, within the Eugene-Springfield Metropolitan Area General Plan Urban Growth Boundary.

**Visible emissions.** The reduction in transmission of light or the obscuring of the view of an object in the background caused by the air pollutants emitted by the heating device. This does not include the visual distortion caused by the heated air emitted by the heating device.

**Yellow advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be greater than or equal to 100 micrograms per cubic meter but less than 125 micrograms per cubic meter, or when PM2.5 levels are forecast to be greater than or equal to 25 micrograms per cubic meter but less than 30 micrograms per cubic meter.

*(Section 6.250 added by Ordinance No. 19731, enacted November 5, 1990, effective January*

*1, 1991; amended by Ordinance No. 19815, enacted December 2, 1991; Ordinance No. 20261,*

*enacted July 22, 2002, effective August 22, 2002; and Ordinance No. 20399, enacted November 26, 2007, effective December 28, 2007.)*

### **6.255 Solid Fuel Space Heating Devices - Prohibitions.**

**(1)** No person in charge of property during a Stage I Red Advisory shall operate or allow to be operated a solid fuel space heating device which emits visible emissions into the air outside of the building housing the Eugene Code 6-18 12/28/2007 device, unless the person has been granted an exemption to use the device by the city manager.

**(2)** No person in charge of property during a Stage II Red Advisory shall operate or allow to be operated a solid fuel space heating device unless:

(a) The person has been granted an exemption to use the device by the city manager; or

(b) The person is operating a pellet stove which emits no visible emissions into the air outside of the building housing the device.

**(3)** No person in charge of property shall at any time allow to be initiated or maintained in a solid-fuel space-heating device the burning of any plastics, wire insulation, petroleum by-products (with the exception of natural-gas-fueled log lighters), petroleum-treated materials, rubber products, animal remains, or animal or vegetable matter resulting from the handling, preparation, cooking, or service of food, or of any other

material which normally emits dense smoke, noxious odors, or hazardous air contaminants.

**(4)** During a green or yellow advisory, no person in charge of property shall operate or allow to be operated a solid-fuel space-heating device which discharges emissions that are of an opacity greater than 40 percent.

This provision does not apply to the emissions during the building of a new fire, for a period or periods aggregating no more than ten minutes in any four-hour period.

*(Section 6.255 added by Ordinance No. 19731, enacted November 5, 1990, effective January 1,*

*1991; amended by Ordinance No. 19815, enacted December 2, 1991; and Ordinance No.*

*20261, enacted July 22, 2002, effective August 22, 2002.)*

**6.260 Solid Fuel Space Heating Devices - Exemptions.** Notwithstanding section 6.255 of this code, a person in charge of property may operate a solid fuel space heating device during a Stage I or Stage II Red Advisory if that person has previously obtained one of the following exemptions from the city manager:

**(a)** Sole source of heat exemption. A person in charge of property who signs a sworn statement that their solid fuel space heating device is the sole source of heat for their residence. This exemption shall expire on July 1 of each year and must be renewed annually. This exemption shall not be issued after June 30, 1996.

**(b)** Economic need exemption. Persons in charge of property who satisfy criteria established under the Low Income Energy Assistance Program as administered by the Lane County Housing Authority and as established by the United States Department of Energy. This exemption shall expire on July 1 of each year and must be renewed annually thereafter.

*(Section 6.260 added by Ordinance No. 19731, enacted November 5, 1990, effective January 1,*

*1991.)*

Eugene Code

6-19 12/28/2007

**6.265 Solid Fuel Space Heating Devices - Enforcement.** In addition to, and not in lieu of any other enforcement mechanism authorized by this code, upon a determination that a person has violated section 6.255 of this code, the city manager may impose upon the violator and any other person in charge of the property, an administrative penalty not greater than \$500, as provided by section 2.018 of this code. The city manager also is authorized to designate LRAPA to enforce and administer the provisions of sections 2.655 to 2.670 of this code, including LRAPA's use of administrative and hearing procedures adopted by LRAPA in its duly promulgated regulations.

*(Section 6.265 added by Ordinance No. 19731, enacted November 5, 1990, effective January 1,*

*1991.)*



Lane Code

**RESTRICTION ON USE OF SOLID FUEL SPACE HEATING DEVICES**

9.120 Purpose and Findings.

9.125 Definitions.

9.130 Area of Applicability.

9.135 Prohibitions.

9.140 Exemption for Economic Need.

9.145 Enforcement.

9.150 Penalties.

**RESTRICTION ON USE OF SOLID FUEL SPACE HEATING DEVICES**

**9.120 Purpose and Findings.**

(1) The health, safety and welfare of the citizens of Lane County are adversely affected by the degradation of air quality. Violations of federal ambient air quality standards, as measured by the Lane Regional Air Pollution Authority (LRAPA), occur periodically in Lane County.

(2) Wood and other solid fuel combustion for space heating produces particulate matter and other emissions which are physically harmful and aesthetically unpleasant, and which contribute to the degradation of air quality and the violation of federal ambient air quality standards.

(3) Periodic restriction of the use of solid fuel space heating devices will improve air quality. LRAPA has the expertise to determine when such air quality is at such a level that such restriction is necessary to preserve the health, safety and welfare of the citizens of Lane County.

(4) It is the intent of Lane County that the penalty section of this ordinance not take effect until November 1, 1991. *(Revised by Ordinance No. 9-90, Effective 1.18.91)* **9.125**

**Definitions.**

As used herein, the following words and phrases shall mean:

**Green Advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be less than 100 micrograms per cubic meter and PM2.5 levels are forecast to be less than 41 micrograms per cubic meter, within the Eugene/Springfield Metropolitan Area General Plan Urban Growth Boundary.

**Lane Regional Air Pollution Authority.** A regional air quality control authority established under the provisions of and with the authority and powers derived from ORS 468.500 et seq.

**Opacity.** The degree to which an emission reduces transmission of light or obscures the view of an object in the background.

**Pellet Stove.** An enclosed solid fuel space heating device designed and operated to burn manufactured solid fuel and having an air-to-fuel ratio greater than 35-to-1 as determined by the federal test method described in 40 CFR Part 60.534 **Person.** Any individual, partnership, corporation, association, governmental subdivision or public or private organization of any character.

**Person in Charge of Property.** An agent, occupant, lessee, tenant, contract purchaser, or other person having possession or control of property.

**PM2.5.** Solid or liquid particulate matter (excluding uncombined water) with an aerodynamic diameter less than or equal to 2.5 micrometers.

**PM10.** Solid or liquid particulate matter (excluding uncombined water) with an aerodynamic diameter less than or equal to 10 micrometers.

**Sole Source of Heat.** A solid fuel space heating device which constitutes the only source of heating in a private residence. A solid fuel space heating device shall not be

considered to be the sole source of heat if the private residence is equipped with any permanently-installed furnace or heating system utilizing oil, natural gas, electricity or propane.

**Solid Fuel Space Heating Device.** Any device designed or operated to burn solid fuel for the heating of the interior of a building, including, but not limited to, solid fuel burning stoves, fireplaces or wood stoves of any nature, combination fuel furnaces or boilers used for space heating which can burn solid fuel, and solid fuel burning cooking stoves. "Solid fuel space heating device" does not include natural gas-fired artificial fireplaces.

**Stage I Red Advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be greater than or equal to 125 micrograms per cubic

9.130 Lane Code 9.140

9-10 LC9 meter but less than 150 micrograms per cubic meter, or when PM2.5 levels are forecast by LRAPA to be greater than or equal to 55 micrograms per cubic meter but less than 65 micrograms per cubic meter, within the Eugene/Springfield Metropolitan Area General Plan Urban Growth Boundary.

**Stage II Red Advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be greater than or equal to 150 micrograms per cubic meter, or when PM2.5 levels are forecast by LRAPA to be greater than or equal to 65 micrograms per cubic meter, within the Eugene/Springfield Metropolitan Area General Plan Urban Growth Boundary.

**Visible Emissions.** The reduction in transmission light or the obscuring of the view of an object in the background caused by the air pollutants emitted by the heating device. This does not include the visual distortion caused by the heated air emitted by the heating device.

**Yellow Advisory.** A 24-hour period beginning at 4:00 p.m. when PM10 levels are forecast by LRAPA to be greater than or equal to 100 micrograms per cubic meter but less than 125 micrograms per cubic meter, or when PM2.5 levels are forecast to be greater than or equal to 41 micrograms per cubic meter but less than 55 micrograms per cubic meter, within the Eugene/Springfield Metropolitan Area General Plan Urban Growth Boundary.

*(Revised by Ordinance No. 9-90, Effective 1.18.91; 1-00, 4.12.00; 13-03, 10.23.03)* **9.130 Area of Applicability.**

The Metropolitan Area General Plan Urban Growth Boundary adopted in 1982 as amended through June 2003, excluding the area within the city limits of Eugene and Springfield. *(Revised by Ordinance No. 9-90, Effective 1.18.91; 13-03, 10.23.03)*

### **9.135 Prohibitions.**

- (1) Stage I Red Advisory. No person in charge of property during a Stage I Red Advisory shall operate or allow to be operated a solid fuel space heating device which emits visible emissions into the air outside of the building housing the device unless the person in charge of the property has been granted an exemption to use the device by LRAPA.
- (2) Stage II Red Advisory. No person in charge of property during a Stage II Red Advisory shall operate or allow to be operated a solid fuel space heating device unless the person in charge of the property has been granted an exemption to use the device by LRAPA or unless the person is operating a pellet stove which emits no visible emissions into the air outside of the building housing the device.
- (3) Green or Yellow Advisory. No person in charge of property during a green or yellow advisory shall operate or allow to be operated a solid fuel space heating device which discharges emissions that are of an opacity greater than forty (40) percent. This provision does not apply to the emissions during the building of a new fire, for a period or periods aggregating no more than ten (10) minutes in any four (4) hour period.

(4) Prohibited Materials. No person in charge of property shall at any time allow to be initiated or maintained in a solid fuel space heating device the burning of any plastics, wire insulation, petroleum by-products (with the exception of natural-gas-fueled log lighters), petroleum treated materials, rubber products, animal remains, or animal or vegetable matter resulting from the handling, preparation, cooking, or service of food, or of any other material which normally emits dense smoke, noxious odors, or hazardous air contaminants. *(Revised by Ordinance No. 9-90, Effective 1.18.91; 1-00, 4.12.00; 13-03, 10.23.03)*

**9.140 Exemption for Economic Need.**

Exemption from LC 9.135 above for Stage II and/or Stage I Red Advisories may be obtained from LRAPA for economic need. Persons in charge of property who satisfy criteria established under the Low Income Energy Assistance Program as administered by 9.145 Lane Code 9.215

9-11 LC9 the Lane County Housing Authority and as established by the United States Department of Energy are exempt from LC 9.135 above for both Stage I and Stage II Red Advisories. Individual exemptions shall expire on July 1 of each year and must be renewed annually.

*(Revised by Ordinance No. 9-90, Effective 1.18.91; 1-00, 4.12.00)*

**9.145 Enforcement.**

The Board of County Commissioners designates LRAPA to enforce the prohibitions contained herein. The investigation, initiations of proceedings, adjudication of a failure to comply and appeal of such shall be regulated by the adopted administrative and hearing procedures of LRAPA set forth in its Rules and Regulations.

The County shall also retain the right to investigate and enforce the terms of this ordinance. Existing citation, complaint, violation, or failure to comply procedures applicable to the County may be utilized to prosecute such failures to comply. *(Revised by Ordinance No. 9-90, Effective 1.18.91; 1-00, 4.12.00)*

**9.150 Penalties.**

Failure to comply with LC 9.135 above shall be subject to administrative enforcement pursuant to LC Chapter 5, including a monetary penalty of a minimum of \$50 to a maximum of \$500 for each day in which such failure to comply occurs. This remedy is cumulative and is in addition to any and all other remedies available to Lane County.

*(Revised by Ordinance No. 9-90, Effective 1.18.91; 1-00, 4.12.00)*

## Springfield Code

### AIR POLLUTION

#### 4.500 Lane Regional Air Protection Agency.

The Lane Regional Air Protection Agency (LRAPA) is the primary authority responsible for the control and/or abatement of air pollution in the city. As part of its duties LRAPA is responsible under its rules and regulations and Oregon Administrative Rules, for administering the most current Oregon Revised Statutes which concern air quality. [Section 4.500 amended by Ordinance No. 6216, enacted February 22, 2008.]

#### 4.502 City Responsibilities.

On any matters pertaining to air quality that are not administered by LRAPA, the city will comply with the most current Oregon Revised Statutes which concern air quality and the adopted state implementation plan for the Eugene-Springfield Area.

#### 4.504 Abatement.

Nothing in sections 4.500 to 4.512 shall restrict the right of the city to abate a nuisance in any matter otherwise.

#### Solid Fuel Space Heating Devices.

##### 4.508 Prohibitions.

- (1) Stage I Red Advisory. No person in charge of property during a Stage I Red Advisory shall operate or allow to be operated a solid fuel space heating device which emits visible emissions into the air outside of the building housing the device unless the person in charge of the property has been granted an exemption to use the device by LRAPA.
- (2) Stage II Red Advisory. No person in charge of property during a Stage II Red Advisory shall operate or allow to be operated a solid fuel space heating device unless the person in charge of the property has been granted an exemption to use the device by LRAPA or unless the person is operating a pellet stove which emits no visible emissions into the air outside of the building housing the device.
- (3) No person in charge of property shall at any time allow to be initiated or maintained in a solid-fuel space-heating device the burning of any plastics, wire insulation, petroleum by-products, petroleum-treated materials, rubber products, animal remains, or animal or vegetable matter resulting from the handling, preparation, cooking or service of food, or of any other material which normally emits dense smoke, noxious odors, or hazardous air contaminants. This section does not prohibit use of natural gas fuels to light solid fuels.

(4) During a green or yellow advisory, no person in charge of property shall operate or allow to be operated a solid-fuel space-heating device which discharges emissions that are of an opacity greater than 40 percent. This provision does not apply to the emissions during the building of a new fire, for a period or periods aggregating no more than 10 minutes in any four-hour period. [Section 4.508 amended by Ordinance No. 6026, enacted December 2, 2002.]

#### 4.510 Exemptions.

A person in charge of property may operate a solid fuel space heating device during a Stage I or Stage II Red Advisory if that person has previously obtained one of the following exemptions from LRAPA.

(1) Sole Source of Heat: A person in charge of property who signs a sworn statement that the solid fuel space heating device is the sole source of heat for that persons residence is exempt from section 2 above. Individual exemptions shall expire on July 1 of each year and must be renewed annually. This exemption shall not be issued by LRAPA after June 30, 1996.

(2) Economic Need: Persons in charge of property who satisfy criteria established under

the Low Income Energy Assistance Program as administered by the Springfield Utility Board and as established by the United States Department of Energy are exempt from the prohibitions established herein. Individual exemptions shall expire on July 1 of each year and must be renewed annually.

#### 4.512 Enforcement.

(1) LRAPA is hereby authorized and designated to enforce and administer the process of sections 4.508 through 4.512 of the code in accordance with the adopted administrative and hearing procedures of LRAPA set forth in its rules and regulations adopted November 10, 1992.

(2) Violations. Penalties shall be in accordance with applicable state laws and LRAPA "Rules of Practice and Procedures" adopted February 13, 1990.

## Appendix C

### 2008 Attainment Year Emission Inventory for the Eugene-Springfield UGB

An annual and a Winter day emission inventory have been developed for the Eugene-Springfield UGB. The methodology used for developing the emission inventory for each source category is discussed. In each case, EPA approved methods were used.

The results of this analysis are summarized in Table C1. As the data depicts, residential wood combustion is the primary contributor of PM<sub>10</sub> to the airshed on Winter days when historically this area has exceeded the 24 hour standard.

Table C1

2008 estimated PM<sub>10</sub> emissions for the Eugene/Springfield UGB

Source	Annual (tons/year)	Winter Day (tons/day)
Point Sources	1,624.1	4.4
Residential wood combustion	728.2	8.5
Road Dust	281.2	0.8
Motor vehicle exhaust, and tire wear	120.3	0.4
Total	2,753.8	14.1

**Point Sources:**

Although the EPA definition of a point source for PM<sub>10</sub> in moderate non-attainment areas is one having emissions  $\geq 100$  tons/year, for the purposes of this emissions inventory sources  $\geq 10$  tons/year will be included. This more complete listing of sources creates a more accurate estimate of the impact of point sources in this area. Within the UGB there are 10 sources which have Federal Title V Operating Permits, 3 sources with Synthetic Minor Operating Permits, and 9 sources with LRAPA Air Contaminant Discharge Permits (ACDP), which have annual PM<sub>10</sub> emissions  $\geq 10$  tons/year. The permitted Plant Site Emission Limits were used to estimate emissions for 2008, since actual emissions are not available. All of these sources operate with a fairly consistent production rate year-round. The estimate of daily emissions is a direct fraction of the annual emissions.

**Title V Sources:**

Permit #	Name	Annual PM <sub>10</sub> (t/y)
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203129	G.P. Resins	12.4
203102	Murphy	64.0
204402	Kingsford mfg.	194.0
207510	Mckenzie Forrest Products	219.8
207050	Rosboro	213.0
208866	Sierra Pine	214.9
208256	Trus Joist Eugene	61.4
208850	International Paper	305.0
200529	Flakeboard America MDF	70.0
208864	Pacific States Plywood	34.0

Synthetic Minor Sources:

Permit #	Name	Annual PM <sub>10</sub> (t/y)
202805	Forrest Paint	17.0
208557	University of Oregon Boiler	24.6
208894	Whittier Wood Products	23.7

ACDP Sources:

Permit #	Name	Annual PM <sub>10</sub> (t/y)
201270	Cafeto Custom Roasting	14.0
206122	Caffe Pacori	14.0
202528	Emerald Forest Products #1	49.0
203103	Georgia Pacific Irving	15.7
208250	Mckenzie Forest Products	10.6
202108	Northwest Hardwoods	11.0
207488	Ridgeline	15.0
207075	Rexius Forest Byproducts	14.0
207459	Seneca Sawmill	27.0

Total Point Source Annual Emissions = 1,624.1 tons/year

Point Source Daily Emission Estimate = 4.4 tons/day

## Area Sources:

### Residential Wood Combustion:

Emissions were developed from the estimated use of wood stoves, pellet stoves, and fireplaces within the UGB. Estimates of usage were made using the results of the most recent survey; a 2009 study performed by Advanced Marketing Research Inc. (see Appendix F). The emission factors used were from EPA AP42 tables 1.9-1 and 1.10-1. The daily usage was estimated using Heating Degree Days for the worst case winter day in 2008.

### 2008 Residential Wood Combustion PM<sub>10</sub> Emissions Estimates Eugene-Springfield UGB

Wood Burning Device	# of households using device <sup>1</sup>	2008 total fuel burned <sup>2</sup> (tons)	PM <sub>10</sub> emission factor <sup>3</sup> (lbs/ton)	2008 Emission <sup>4</sup> (tons)
fireplace	18,233	19,327	34.6	334.4
woodstove and fireplace insert uncertified	8,104	15,641	30.6	239.3
phase II certified catalytic Wood stove and insert	8,104	15,641	16.2	126.7
Pellet stove	7,091	6,311	8.8	27.8

Total Annual PM<sub>10</sub> Emissions from RWC = 728.2 tons

The Worst Case Winter Day PM<sub>10</sub> Emissions from RWC = 8.5 tons<sup>5</sup>

#### 1. Household Calculations:

The Lane Council of Governments (the local Metropolitan Planning Organization) estimates a total of 101,296 households within the Eugene-Springfield UGB during 2008.

The 2009 survey provides estimates of the percentage of households using a particular type of wood burning device as follows:

fireplace w/o insert and other misc. devices = 18%  
conventional woodstoves and fireplace inserts = 8% phase  
II certified woodstoves = 8% pellet stoves = 7%

(total households) (fraction using device) = number of households using device

## 2. Total Fuel Burned Calculations:

Based upon discussions with local firewood retailers and with federal agencies that provide firewood cutting permits, the primary species used for firewood in this area is Douglas Fir.

the density of Douglas Fir is 32 lbs/ft<sup>3</sup> (EPA AP42 Appendix A)

the volume of a cord of wood is approximately 80 ft<sup>3</sup> (EPA vol III chapter 2 EIIP RWC Jan 2001)

therefore, one cord of Douglas Fir weighs 1.28 tons

Based upon previous local surveys, the heating season for the Eugene/Springfield UGB is defined as October through March.

The most recent formal survey was conducted in 2009 with fuel usage estimates for 2008.

The 2009 survey provides estimates of the amount of wood burned by each type of wood burning device as follows:

fireplace w/o insert - an average of 0.83 cords per device per year  
(0.83 cords) (1.28 tons/cord) = 1.06 tons per device per year

conventional woodstoves and fireplace inserts - an average of 1.51 cords per device per year  
(1.51 cords) (1.28 tons/cord) = 1.93 tons per device per year

phase II certified woodstoves - an average of 1.51 cords per device per year  
(1.51 cords)(1.28 tons/cord) = 1.93 tons per device per year

pellet stoves - burned an average of 0.89 tons of pellets per year

PM10 emission factors:

EPA AP 42 tables 1.9-1 and 1.10-1

3. 2008 emissions calculation:

$(2008 \text{ total fuel burned (tons)}) (PM_{10} \text{ emission factor (lbs/ton)}) (1/2000 \text{ lbs/ton}) = 2008$   
 $PM_{10} \text{ emissions (tons)}$

4. Worst Case Day Emissions:

For the worst case day emissions estimate, it was assumed that the amount of wood burned is directly proportional to the Heating Degree Days (HDD). As defined by the National Weather Service, a HDD is calculated by averaging the daily maximum and minimum temperatures and for each degree that number is below 65 degrees, it is one degree day. Therefore, if the maximum and minimum temperatures average to 63 degrees, that is 2 degree days.

The peak HDD date in 2008 was 12/16/08 with 46 HDD. To compute the daily emissions estimate multiply the ratio of the peak day HDD to the total season HDD with the season total emission estimate. The season total HDD for 2008 was 3,927.

$(46/3,927) (728.2 \text{ tons}) = 8.5 \text{ tons}$

## On Road Mobile Sources:

### Road Dust:

Emissions estimates for Road Dust were developed using EPA AP42 emission factors and VMT estimates from the Lane Council of Governments (the local MPO) as follows:

equation 1 in AP42 section 13.2.1

$$E = k(sL/2)^{0.65} * (W/3)^{1.5} - C$$

where:

E = PM<sub>10</sub> emission factor (lbs/VMT)

k = particle size multiplier = 0.016 lbs/VMT (AP42 table 13.2-1.1) sL = silt loading using AP42 table 13.2.1-3

5,000 - 10,000 ADT = 0.06 g/m<sup>2</sup> >

10,000 ADT = 0.03 g/m<sup>2</sup>

from LCOG (personal communication) 76% of VMT in the

UGB is on roads > 10,000 ADT

sL = (0.76)(0.03) + (0.24)(0.06) = 0.037 g/m<sup>2</sup> W = average

weight of vehicles = 2.5 tons (ODOT personal communication)

C = emission factor for fleet exhaust, brake wear, and tire wear

= 0.00047 lbs/VMT (AP42 table 13.2.1-2)

$$E = 0.000439 \text{ lbs/VMT}$$

Annual Adjustment:

equation 2 in AP42 section 13.2.1

$$E_{\text{ann}} = E (1 - P/4N)$$

where:

P = number of wet days in 2008 = 143

N = number of days in the year = 366

$$E_{\text{ann}} = 0.000396 \text{ lbs/VMT}$$

VMT estimates:

LCOG (personal communication) provided VMT estimates

average weekday VMT =  $4.19 \times 10^6$

annual VMT =  $1.42 \times 10^9$

Annual emission estimate = 281.2 tons/year

Daily emission estimate = 0.83 tons/day

Motor Vehicle Exhaust, Brake Wear, and Tire Wear:

The emissions were estimated using emission factors from EPA Mobile 6.2.

The VMT estimates were from the Lane Council of Governments (the local MPO).

Winter PM<sub>10</sub> emission factor for exhaust, brake, and tire wear = 0.078 g/mi

Summer PM<sub>10</sub> emission factor for exhaust, brake and tire wear = 0.0757g/mi

Composite annual emission factor = 0.0769 g/mi

Average weekday VMT =  $4.19 \times 10^6$

Annual VMT =  $1.42 \times 10^9$

Annual PM<sub>10</sub> Emission Estimate = 120.3 tons/year

Winter Day PM<sub>10</sub> Emission Estimate = 0.4 tons/day



## Appendix D

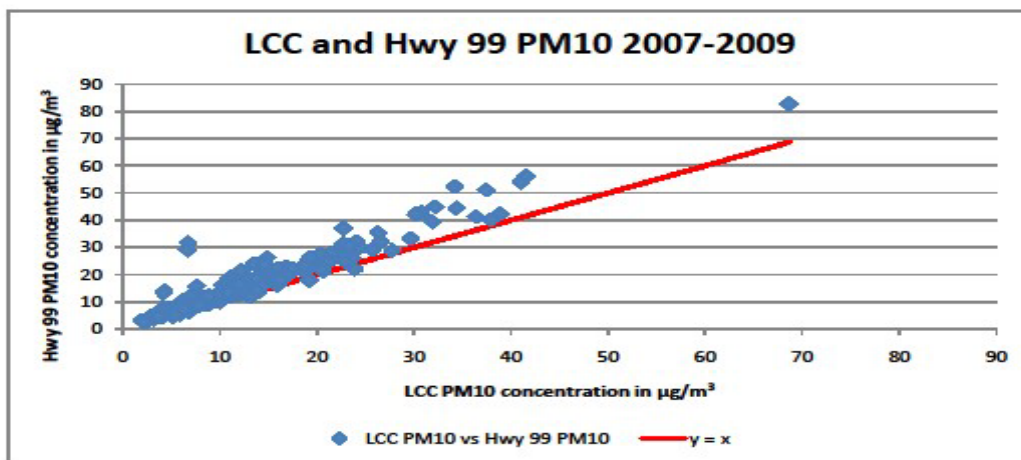
### PM<sub>10</sub> / PM<sub>2.5</sub> Relationship

In order to describe the relationship between PM<sub>10</sub> and PM<sub>2.5</sub> in the Eugene/Springfield area, a brief analysis is summarized here. It is LRAPA's assertion that PM<sub>10</sub> monitoring is unnecessary in this air shed because the ratio of PM<sub>2.5</sub> to PM<sub>10</sub> is high enough to ensure that the 24-hr PM<sub>2.5</sub> standard would be violated before the PM<sub>10</sub> standard was reached.

There are two existing PM<sub>10</sub> monitoring sites in this area that were established in 1985, AQS number 410390013 (LCC) and AQS number 410390058 (Hwy 99). The Hwy 99 site has also monitored PM<sub>2.5</sub> since 2007. A third site, AQS number 410390060 (AMZ), has previously monitored PM<sub>10</sub> and currently monitors PM<sub>10</sub> as a toxic metals method, funded through a temporary HAP project.

The most important fact regarding PM levels in Eugene/Springfield is that neither PM<sub>10</sub> nor PM<sub>10c</sub> (coarse) are pollutants of concern here. There has not been an exceedance of the 24-hr PM<sub>10</sub> standard since 1987. The 2007-2009 design values are 60 µg/m<sup>3</sup> and 50 µg/m<sup>3</sup> for Hwy 99 and LCC, respectively. Figure 1 shows that the Hwy 99 site is clearly the higher of the two sites. During the 2007-2009 period, the highest 24-hr PM<sub>10c</sub> value measured was 42 µg/m<sup>3</sup>. This is 57% of the 2006 proposed standard of 70 µg/m<sup>3</sup>.

Figure 1



The collocated PM<sub>10</sub> and PM<sub>2.5</sub> data for 2007-2009 from Hwy 99 was used to examine the PM<sub>2.5</sub>/PM<sub>10</sub> ratio. Figure 2 shows that as the PM<sub>2.5</sub> concentration approaches 25 µg/m<sup>3</sup>, the ratio is equal to or greater than 50%. It follows that at or above 25 µg/m<sup>3</sup> of PM<sub>2.5</sub>, the PM<sub>10</sub> concentrations would be equal to, or less than, twice the PM<sub>2.5</sub> concentration. Figure 3 displays another way to view the PM ratio. The coarse fraction only rises (that is, the ratio decreases) as the PM<sub>10</sub> concentration reduces to insignificant values.

Figure 2

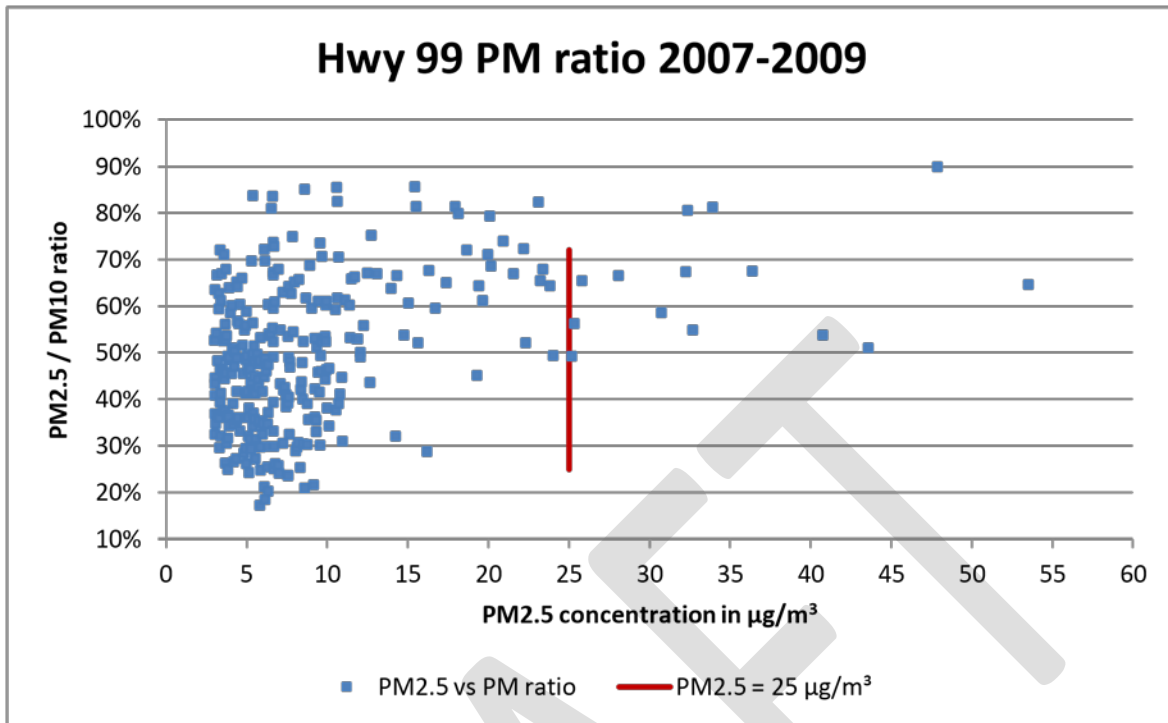
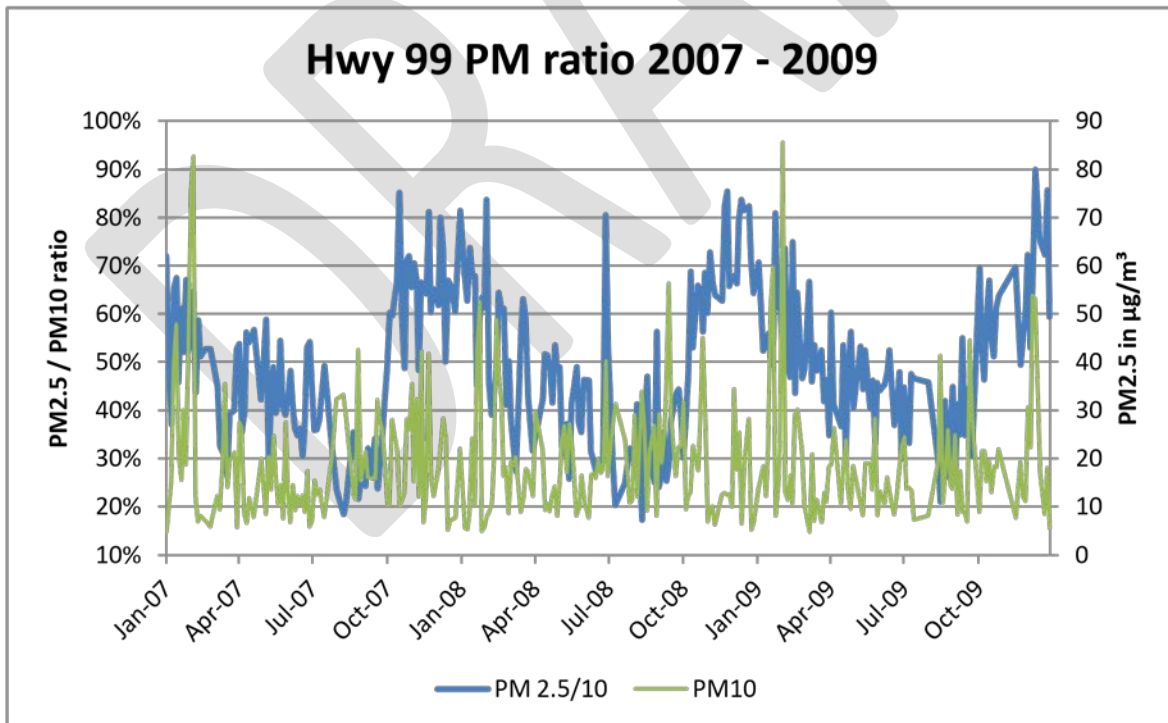
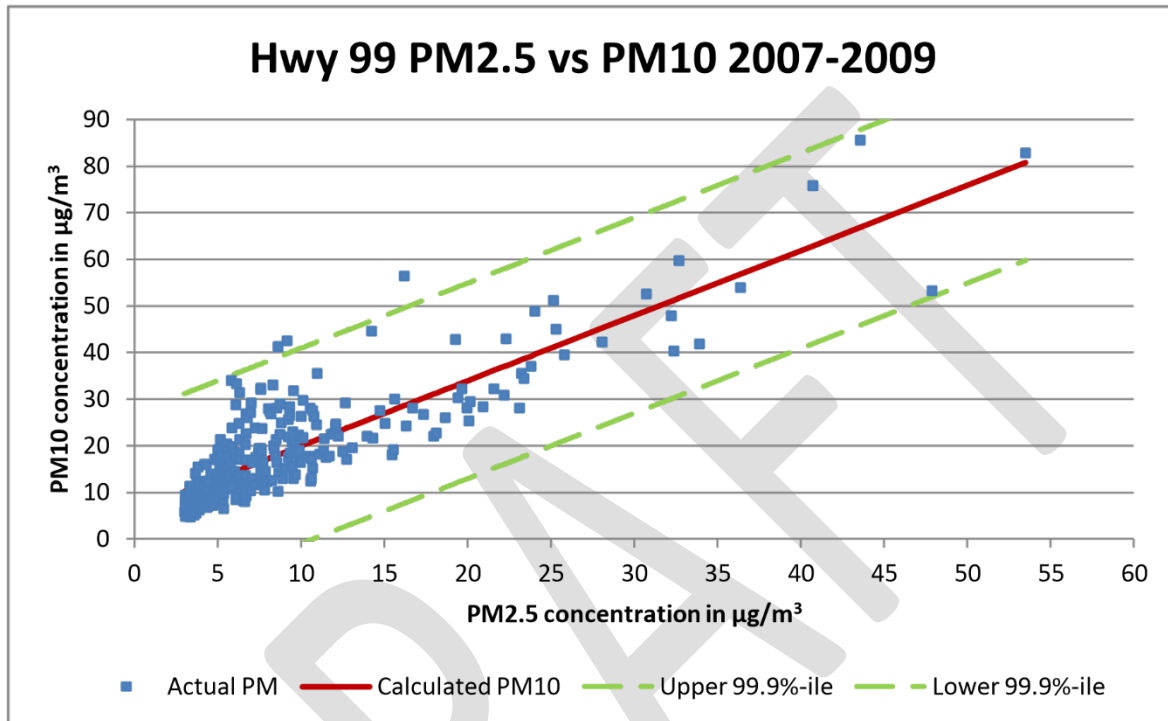


Figure 3



Finally, results of a regression analysis lead to the same conclusion. A simple linear regression was performed on 291 pairs of collocated observations ( $\geq 3 \mu\text{g}/\text{m}^3$ ) of  $\text{PM}_{2.5}$  and  $\text{PM}_{10}$ . This regression line predicts a  $\text{PM}_{10}$  concentration ( $\text{PM}_{10} = 1.397 * \text{PM}_{2.5} + 6.005$ ) from an observed  $\text{PM}_{2.5}$  concentration with a good deal of certainty ( $r^2 = 0.708$ ). Using a conservative limit of 99.9%, upper and lower confidence intervals are  $\pm 21 \mu\text{g}/\text{m}^3$ . Figure 4 shows that at the point of a 24-hr  $\text{PM}_{2.5}$  exceedance,  $\text{PM}_{10}$  levels remain at 50% of the 24 hr  $\text{PM}_{10}$  standard.

Figure 4



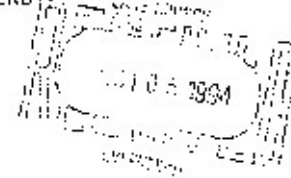
## **Appendix E**

EPA determination of Transportation Conformity for PM10

DRAFT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1209 Sixth Avenue  
Seattle, Washington 98101



Reply To  
Attn Of: AT-082

OCT 03 1994

Mr. Don Arkell, Director  
Lane Regional Air Pollution Authority  
225 North 5th, Suite 501  
Springfield, OR 97477-4671

Dear Mr. Arkell:

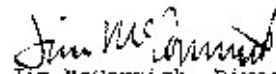
This is in response to your letter to Chuck Clarke regarding the "Memorandum of Understanding - Transportation Conformity Analysis for the Eugene-Springfield MPO", dated September 9, 1994. The letter was also signed by George Kloppel, the LCOG Executive Director.

The final federal conformity rule does allow for exempting areas from the regional emissions analysis of the conformity rule if certain criteria are met. I believe your letter demonstrates that the Eugene-Springfield area meets the  $PM_{10}$  conformity criteria and therefore, I concur with your conclusion that the conformity determination is not required to satisfy the  $PM_{10}$  criteria for regional emissions analysis. The preamble for the federal rule, however, does not allow for relief from project level analysis. The projects within the  $PM_{10}$  nonattainment area must comply with the project level conformity requirements as specified in the federal conformity regulation.

I also concur with your findings regarding analysis for conformity findings with regard to meeting the carbon monoxide criteria. Regional emission test will apply only in the Central Area Transportation Study (CATS) boundary, consistent with the approved redesignation. Regional emission analysis will not apply outside the CATS boundary. Again, project level conformity requirements are not affected by this finding and continue to apply throughout the nonattainment area, consistent with the Federal regulation.

Thank you for requesting our concurrence with this conformity proposal. Questions regarding our concurrence can be directed to Mike Lidgard at (206)553-4237.

Sincerely,

  
Jim McCormick, Director  
Air and Toxics Division

cc: George Kloppel, LCOG

**Appendix F**

**FUEL USE SURVEY  
CONDUCTED FOR  
LANE REGIONAL AIR PROTECTION AGENCY**

October, 2009



**ADVANCED MARKETING  
RESEARCH INC.**

P.O. Box 5244 · Eugene, OR 97405 · Phone/Fax 541-345-6600 · [www.advancedmarketingresearch.com](http://www.advancedmarketingresearch.com)

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# EXECUTIVE SUMMARY

## **Primary Heat Source (Q3-4)**

Natural gas forced air heaters and electric heat pumps top the list as primary sources of heat for Eugene/Springfield area residents, with 25% each. Electric ceiling heat and electric wall heaters are each the primary source of heat for 13%, and electric forced air is the source of heat for 12%.

The electric heat pump has moved up from 8% in 2001 to 25% currently, while electric ceiling heat has gone from 33% and first place in 2001, down to 13% currently.

## **Secondary Heat Sources (Q5-6)**

43% of residents do not have a secondary source of heat, down from 56% in 2001. 16% use a wood fireplace as a secondary source of heat, 8% use a gas fireplace, 8% use electric wall heaters, and 8% use wood stoves.

## **Changes in Primary Heat Source (Q7-10)**

7% are considering a change in their primary heat source, consistent with 6% in 2001. Of those considering a change (n=29), 66% are planning to switch to an electric heat pump (up from 23% in 2001), 10% are planning to get electric forced air, and 3% are planning to get gas forced air (down from 27% in 2001).

For those considering a switch (n=29), cost is the reason for 38%, efficiency is the reason for 31%, and 24% don't like their current system. (See Table 10V for verbatim responses.)

## **Current Use of Wood Stoves (Q11-13)**

18% of residents currently have a wood stove, consistent with 15% in 2001. 44% of the wood stoves are over fifteen years old. 11% are eleven to fifteen years old, 25% are five to ten years old, and 11% are less than five years old. 8% of the wood stoves are of unknown age.

Of those with wood stoves (n=72), 10% do not use them at all. 42% burn less than one cord per year, 22% burn one to two cords per year, and 22% burn three or more cords each year. 4% are unsure how much wood they burn.

## **Current Use of Pellet Stoves (Q14-16)**

7% of residents currently have a pellet stove, consistent with 3% in 2001. 27% of the pellet stoves are under five years old, down from 55% in 2001. 43% are five to ten years old, 13% are eleven to fifteen years old, and 13% are over fifteen years old. 3% of the pellet stoves are of unknown age.

Of those with pellet stoves (n=30), 7% do not use them at all. 23% burn 1 to 25 bags of pellets per year. 37% burn 26 to 50 bags per year. 20% burn 51 to 75 bags per year. 14% burn over 75 bags each year.

**Current Use of Wood-Burning Fireplaces (Q17-18)**

31% of residents currently have a wood-burning fireplace, consistent with 37% in 2001.

Of those with wood-burning fireplaces (n=125), 42% do not use them at all, up from 29% in 2001. 47% burn less than one cord per year, 7% burn one to two cords per year, and 3% burn three or more cords each year. 1% are unsure how much wood they burn.

**Awareness of LRAPA (Q19)**

70% have heard of the Lane Regional Air Protection Agency, consistent with 70% in 2001 but up from 55% in 1997. 27% have not heard of the agency. 1% are unsure.

DRAFT

**FUEL USE SURVEY FOR LANE REGIONAL AIR PROTECTION  
AGENCY  
October, 2009**

**PURPOSE OF THE STUDY**

The purpose of this study is to assist LRAPA in determining patterns of fuel usage.

**METHODOLOGY**

Advanced Marketing Research was hired to conduct the research project in order to obtain unbiased and statistically valid results.

Using questions proposed by LRAPA, Advanced Marketing Research designed a questionnaire instrument to be administered by telephone. Using a random list of Eugene/Springfield area residents as a sampling frame, 404 interviews were completed. Telephone interviews were conducted between October 9 and October 18, 2009.

Proper data analysis techniques were employed by Advanced Marketing Research to avoid introducing unnecessary error and bias into the study.

**QUOTAS OBSERVED**

The residential population was sampled using the following quotas:

Males	45% to 55%
Females	45% to 55%
Age 65+	Not to exceed 25%

# RESPONSE RATE

Of the 492 qualified respondents reached by telephone, 404 interviews were completed, for a response rate of 82%. The overall breakdown of numbers dialed is as follows:

Refusals	88
Disconnects	46
Wrong Numbers	5
Language Barrier	4
Spanish Language Barrier	6
Business Numbers	16
Fax	17
No Answer	65
Answering Machine	498
Busy Signal	14
Call Backs	13
Respondent Not Available	6
Completed Interviews	<u>404</u>
Total Numbers Dialed	1,182

# TESTS FOR DIFFERENCES BETWEEN PROPORTIONS

When looking at the data tables, differences between percentage amounts can be misleading, and statistical tests must be conducted to determine if the differences are statistically significant. The computer makes these calculations for us, and the results are occasional plus or minus signs at the bottom of certain cells. These indicate that those answers are more different from everybody else's answers than could be expected due to chance, given the sample sizes involved. Plus signs are used if the group picks that answer *more* often than everyone else; minus signs if it is *less* than everyone else. The number of plus or minus signs indicates the level of statistical significance. One means the 90% level, two the 95% level, and three the 99% level. For example, two plus signs would mean that you can be 95% sure that the people represented by that group really would pick that answer more often than the people represented by the rest of the sample. It should be noted that this test can only be done for banner columns that contain at least 30 people. Because of this requirement, it is possible that the test will be done for some banner columns on a table and not for others.

# NOTES ON CHI SQUARE

The chi square value and its associated probability are printed beneath the first column in each banner heading. The probability ( $p=.xxx$ ) indicates the probability that the heading and row variables are *not* related is .xxx. For example, a .05 probability of not being related means a 95 percent chance of being related.

DRAFT

# DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE (Q20-24)

	<u>2009</u>	<u>2001</u>
<b>Gender</b>		
Male	50%	47%
Female	50	53
<b>Age</b>		
18-24	3%	8%
25-34	7	16
35-44	21	20
45-54	20	16
55-64	27	20
65+	21	18
<b>Residence</b>		
Eugene	67%	78%
Springfield	33	22
<b>Own or Rent</b>		
Own	91%	76%
Rent	9	24

# BOUND ON ERROR

SEX <u>Confidence Level</u>	SAMPLE SIZE		Bound on Error at <u>95%</u>
	<u>Frequency</u>	<u>Percent</u>	
Male	200	50%	6.4%
Female	204	50%	6.3%
AGE			
18-24	14	3%	--
25-34	27	7%	--
35-44	85	21%	9.7%
45-54	79	20%	10.1%
55-64	108	27%	8.6%
65+	86	21%	9.7%
RESIDENCE			
Eugene	272	67%	5.5%
Springfield	132	33%	7.8%
OWN/RENT			
Own	366	91%	4.7%
Rent	38	9%	14.6%
TOTAL	404	100%	4.5%*

\* What this means is that we are 95% certain that the mean response of the entire population of Eugene/Springfield area residents lies within (plus or minus) 4.5% of the survey response.



**MINIMUM DIFFERENCE IN PERCENTAGE POINTS REQUIRED FOR  
STATISTICAL SIGNIFICANCE IN COMPARISON OF REPORTED  
PERCENTAGES FOR SUBGROUPS WITH 95% CONFIDENCE**

<u>Subsample</u>	<u>50</u>	<u>100</u>	<u>150</u>	<u>200</u>	<u>250</u>	<u>300</u>	<u>350</u>	<u>400</u>	<u>450</u>	<u>500</u>	<u>600</u>
50	20%	17%	16%	15%	15%	15%	15%	15%	15%	15%	15%
100		14%	13%	12%	12%	11%	11%	11%	11%	11%	11%
150			11%	11%	10%	10%	10%	9%	9%	9%	9%
200				10%	9%	9%	9%	8%	8%	8%	8%
250					9%	8%	8%	8%	8%	8%	7%
300						8%	8%	7%	7%	7%	7%
350							7%	7%	7%	7%	6%
400								7%	7%	7%	6%
450									7%	6%	6%
500										6%	6%
600											6%

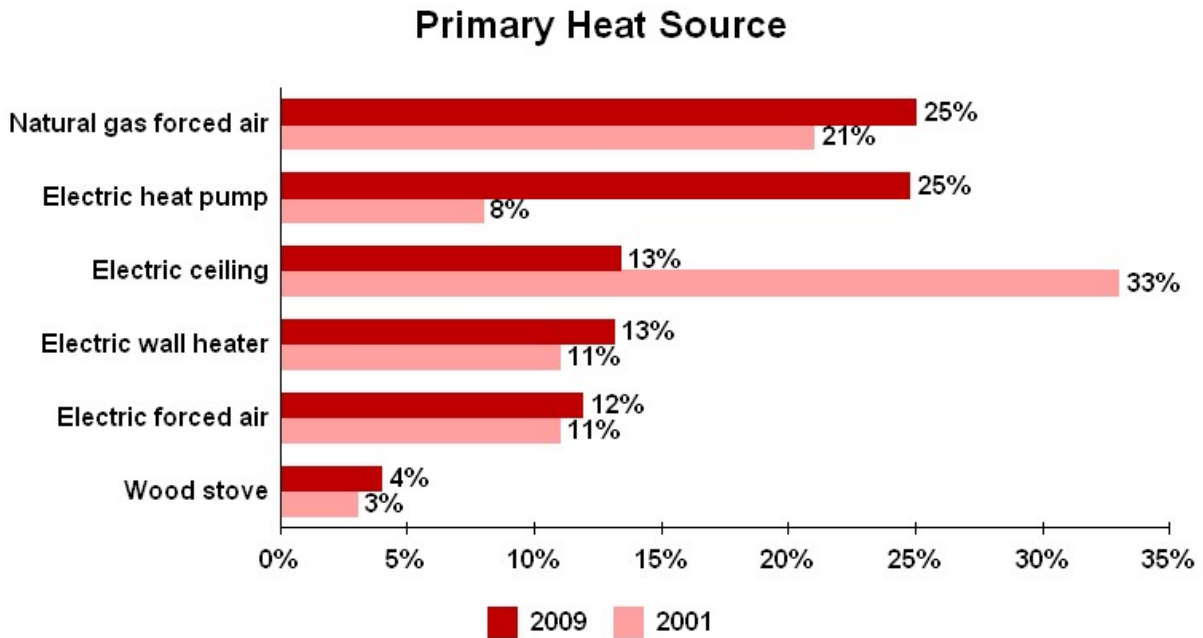
Minimums are for reported percentages near 50%. When much smaller or much larger percentages are reported, a slightly smaller minimum is required.

# ANALYSIS OF DATA

## PRIMARY HEAT SOURCE (Q3-4)

Natural gas forced air heaters and electric heat pumps top the list as primary sources of heat for Eugene/Springfield area residents, with 25% each. Electric ceiling heat and electric wall heaters are each the primary source of heat for 13%, and electric forced air is the source of heat for 12%.

The electric heat pump has moved up from 8% in 2001 to 25% currently, while electric ceiling heat has gone from 33% and first place in 2001, down to 13% currently.



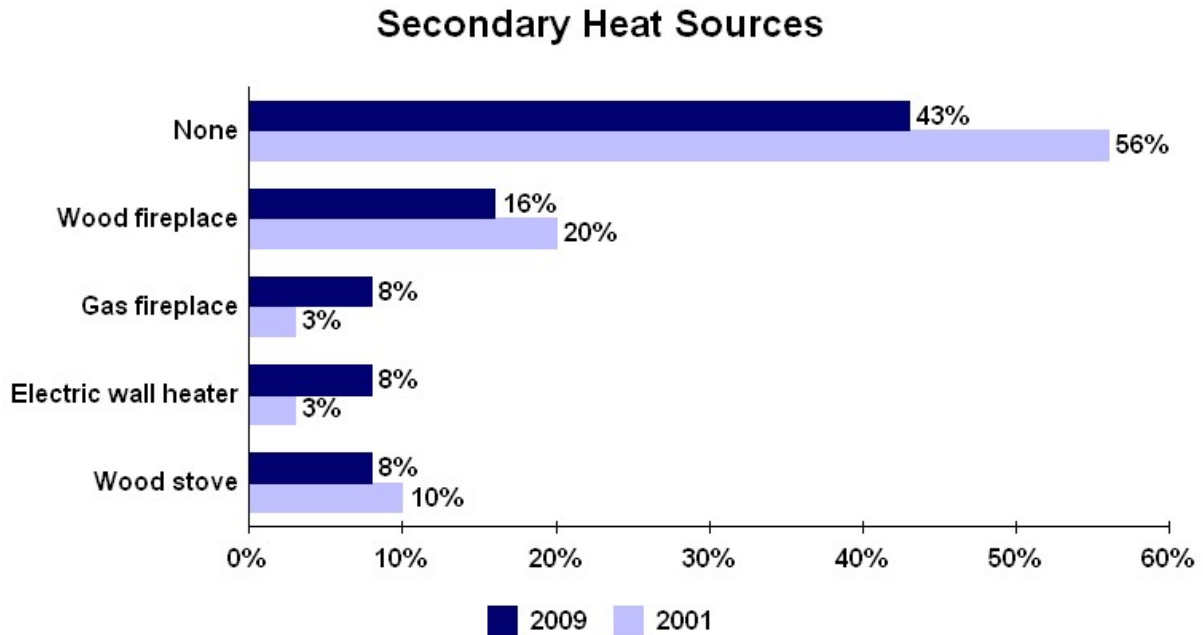
Prepared by Advanced Marketing Research, Inc.

## Demographic Differences

Homeowners and Eugene residents are more likely than others to have natural gas forced air as their primary source of heat. Homeowners are more likely than renters to have an electric heat pump. Renters are more likely than owners to have electric ceiling heat or electric wall heaters as their primary sources of heat.

## SECONDARY HEAT SOURCES (Q5-6)

43% of residents do not have a secondary source of heat, down from 56% in 2001. 16% use a wood fireplace as a secondary source of heat, 8% use a gas fireplace, 8% use electric wall heaters, and 8% use wood stoves.



Prepared by Advanced Marketing Research, Inc.

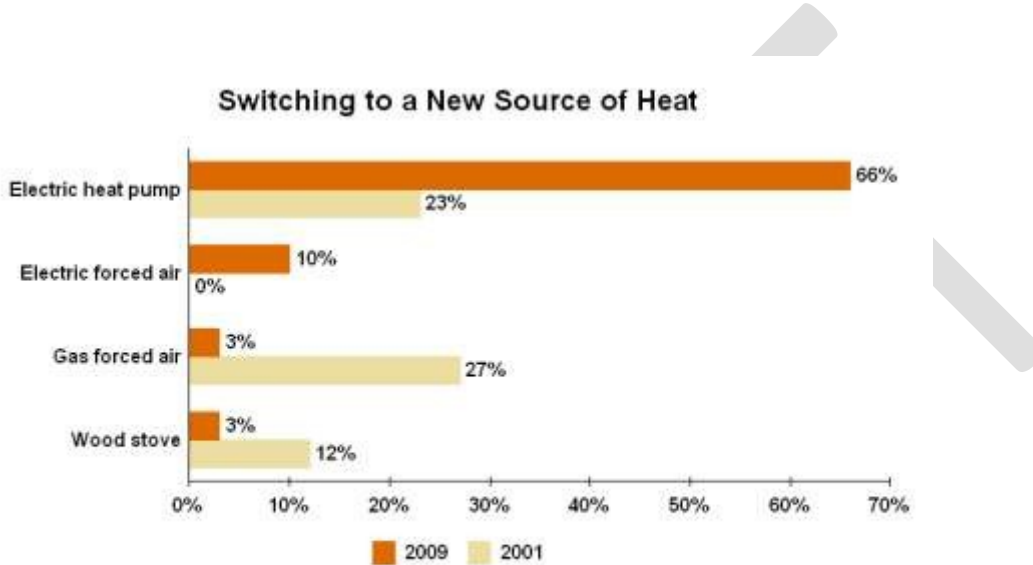
### *Demographic Differences*

35 to 44 year-olds and renters are more likely than others to not have a secondary source of heat in their household. 55 to 64 year-olds are more likely than others to use a wood fireplace as a secondary source of heat. Eugene residents are more likely than Springfield residents to use a gas fireplace or an electric wall heater as a secondary source of heat. Males are more likely than females to use a wood stove as a secondary source of heat.

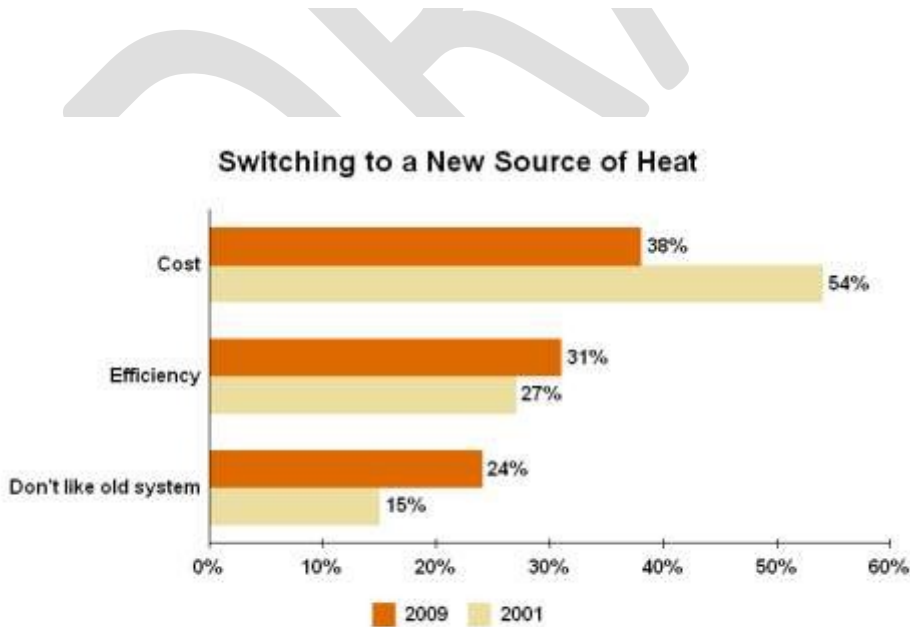
## CHANGES IN PRIMARY HEAT SOURCE (Q7-10)

7% are considering a change in their primary heat source, consistent with 6% in 2001. Of those considering a change (n=29), 66% are planning to switch to an electric heat pump (up from 23% in 2001), 10% are planning to get electric forced air, and 3% are planning to get gas forced air (down from 27% in 2001).

For those considering a switch (n=29), cost is the reason for 38%, efficiency is the reason for 31%, and 24% don't like their current system. (See Table 10V for verbatim responses.)



Based on those considering a change (n<30)

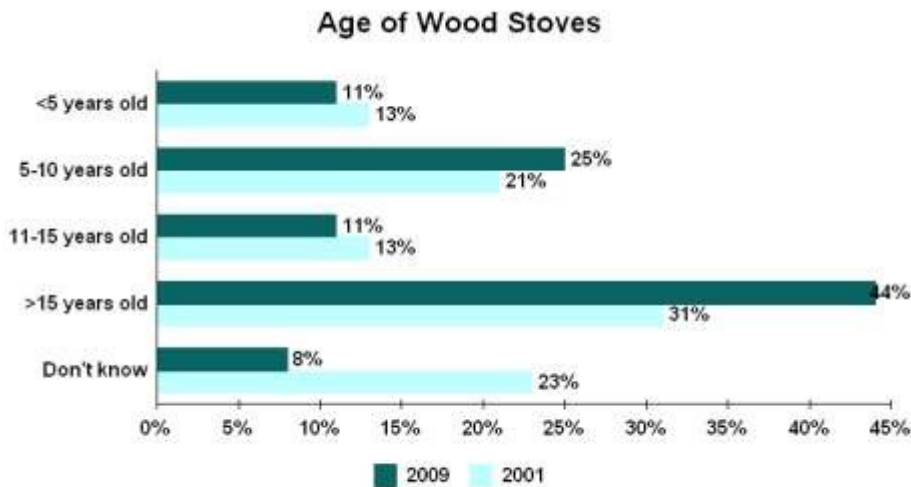


Based on those considering a change (n<30)

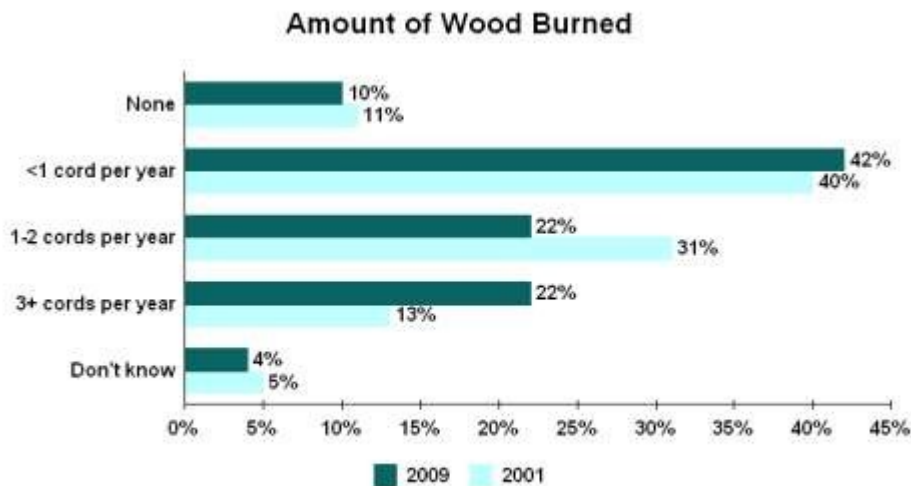
## CURRENT USE OF WOOD STOVES (Q11-13)

18% of residents currently have a wood stove, consistent with 15% in 2001. 44% of the wood stoves are over fifteen years old. 11% are eleven to fifteen years old, 25% are five to ten years old, 11% are less than five years old, and 11% are less than five years old. 8% of the wood stoves are of unknown age.

Of those with wood stoves (n=72), 10% do not use them at all. 42% burn less than one cord per year, 22% burn one to two cords per year, and 22% burn three or more cords each year. 4% are unsure how much wood they burn.



Based on those with wood stoves (n<75)



Based on those with wood stoves (n<75)

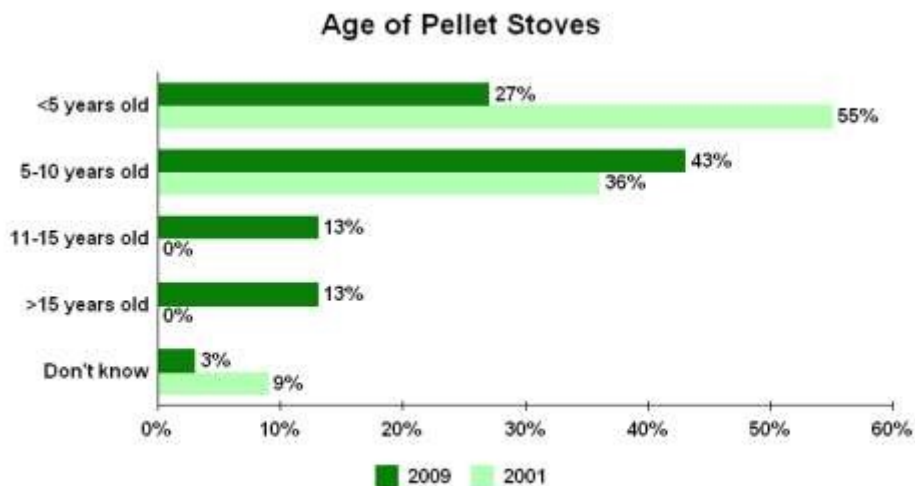
## Demographic Differences

55 to 64 year-olds are more likely than others to have a wood stove.

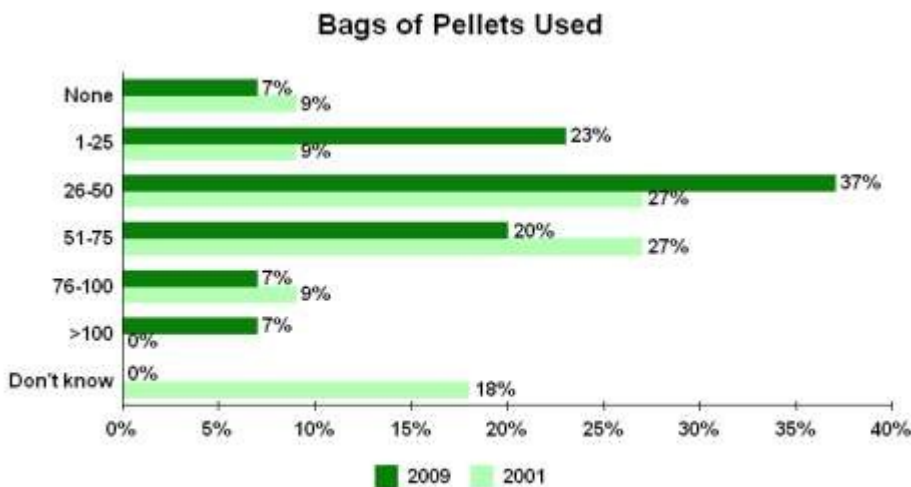
### CURRENT USE OF PELLET STOVES (Q14-16)

7% of residents currently have a pellet stove, consistent with 3% in 2001. 27% of the pellet stoves are under five years old, down from 55% in 2001. 43% are five to ten years old, 13% are eleven to fifteen years old, and 13% are over fifteen years old. 3% of the pellet stoves are of unknown age.

Of those with pellet stoves (n=30), 7% do not use them at all. 23% burn 1 to 25 bags of pellets per year. 37% burn 26 to 50 bags per year. 20% burn 51 to 75 bags per year. 14% burn over 75 bags each year.



Based on those with pellet stoves (n<35)

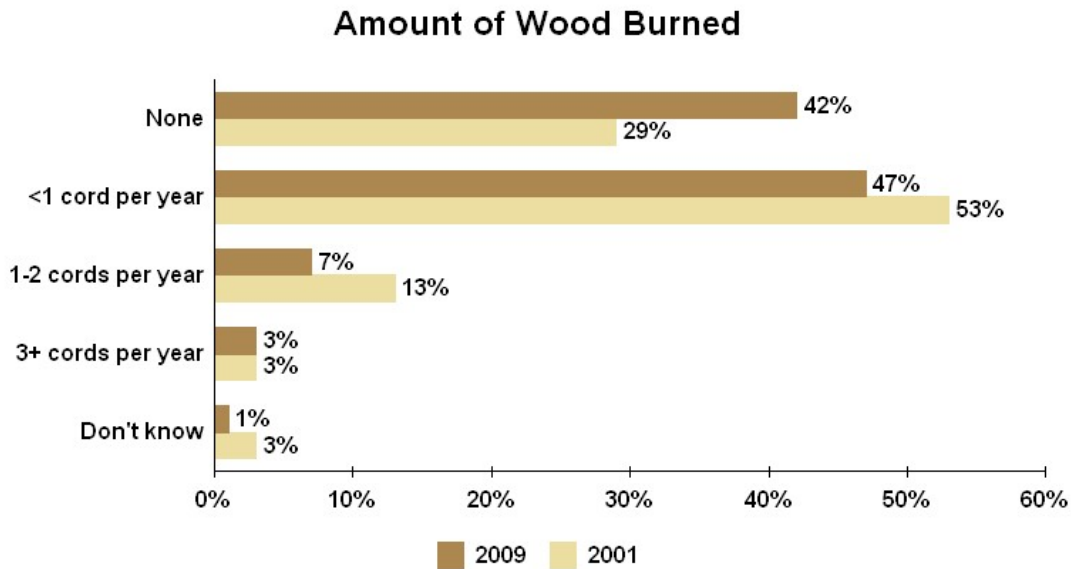


Based on those with pellet stoves (n<35)

## CURRENT USE OF WOOD-BURNING FIREPLACES (Q17-18)

31% of residents currently have a wood-burning fireplace, consistent with 37% in 2001.

Of those with wood-burning fireplaces (n=125), 42% do not use them at all, up from 29% in 2001. 47% burn less than one cord per year, 7% burn one to two cords per year, and 3% burn three or more cords each year. 1% are unsure how much wood they burn.



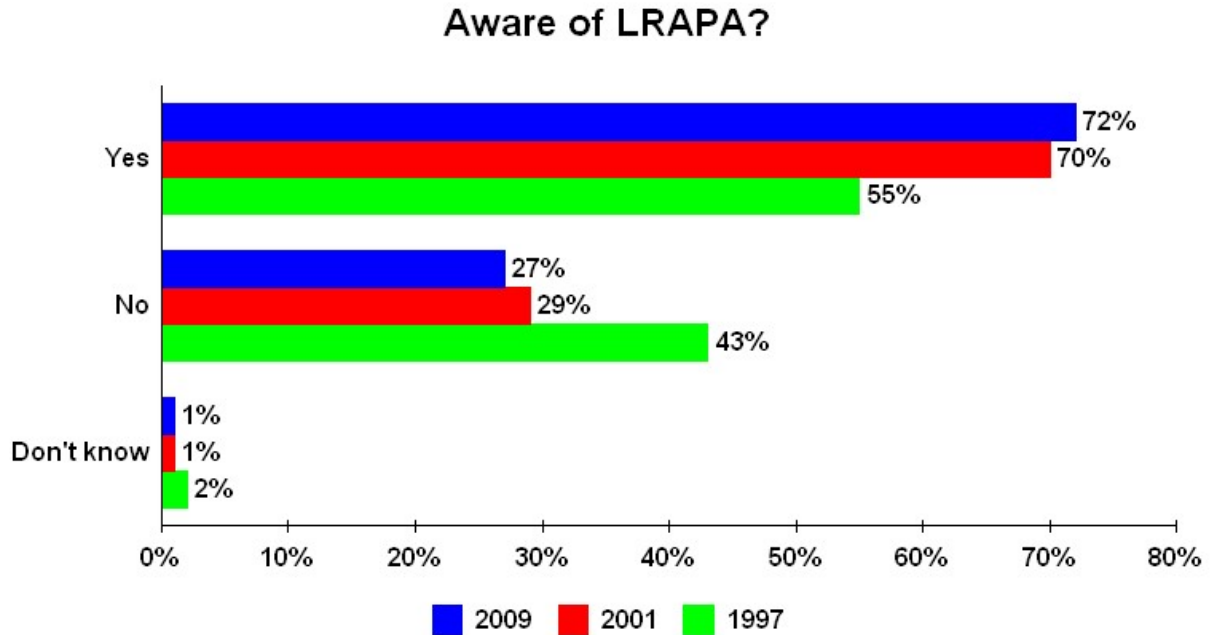
Based on those with wood-burning fireplaces (n<150)

### *Demographic Differences*

35 to 44 year-olds are less likely than others to have a wood-burning fireplace. Females are more likely than males to say they never use their wood-burning fireplace.

## AWARENESS OF LRAPA (Q19)

72% have heard of the Lane Regional Air Protection Agency, consistent with 70% in 2001 but up from 55% in 1997. 27% have not heard of the agency. 1% are unsure.



Prepared by Advanced Marketing Research, Inc.

### *Demographic Differences*

55 to 64 year-olds are more likely than others to say they have heard of LRAPA. 18 to 34 year-olds are less likely than others to say they are familiar with the agency.