

Air Quality Conformity Determination



2045 ***Regional Transportation Plan***

Adopted **December 2, 2021**

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 (PM₁₀).

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 (PM₁₀)**. In 2013, the Eugene-Springfield area was re-designated by the Environmental Protection Agency (US-EPA) to attainment for PM₁₀ 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 PM₁₀. A 20-year maintenance period then began to ensure that no backsliding occurs and that the PM₁₀ standard continues to be met. Although transportation was found not to be a significant contributor of PM₁₀ 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. PM₁₀ 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 μm in size (PM_{10}). The Eugene and Springfield urban growth boundaries (Map 1) constitute the air quality maintenance area for 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 PM_{10} non-attainment area due to measured violations of the 24-hour 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 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 PM_{10} but that project level conformity requirements continued to apply (Appendix A).

In January 2012, LRAPA submitted a revision to the Oregon 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:

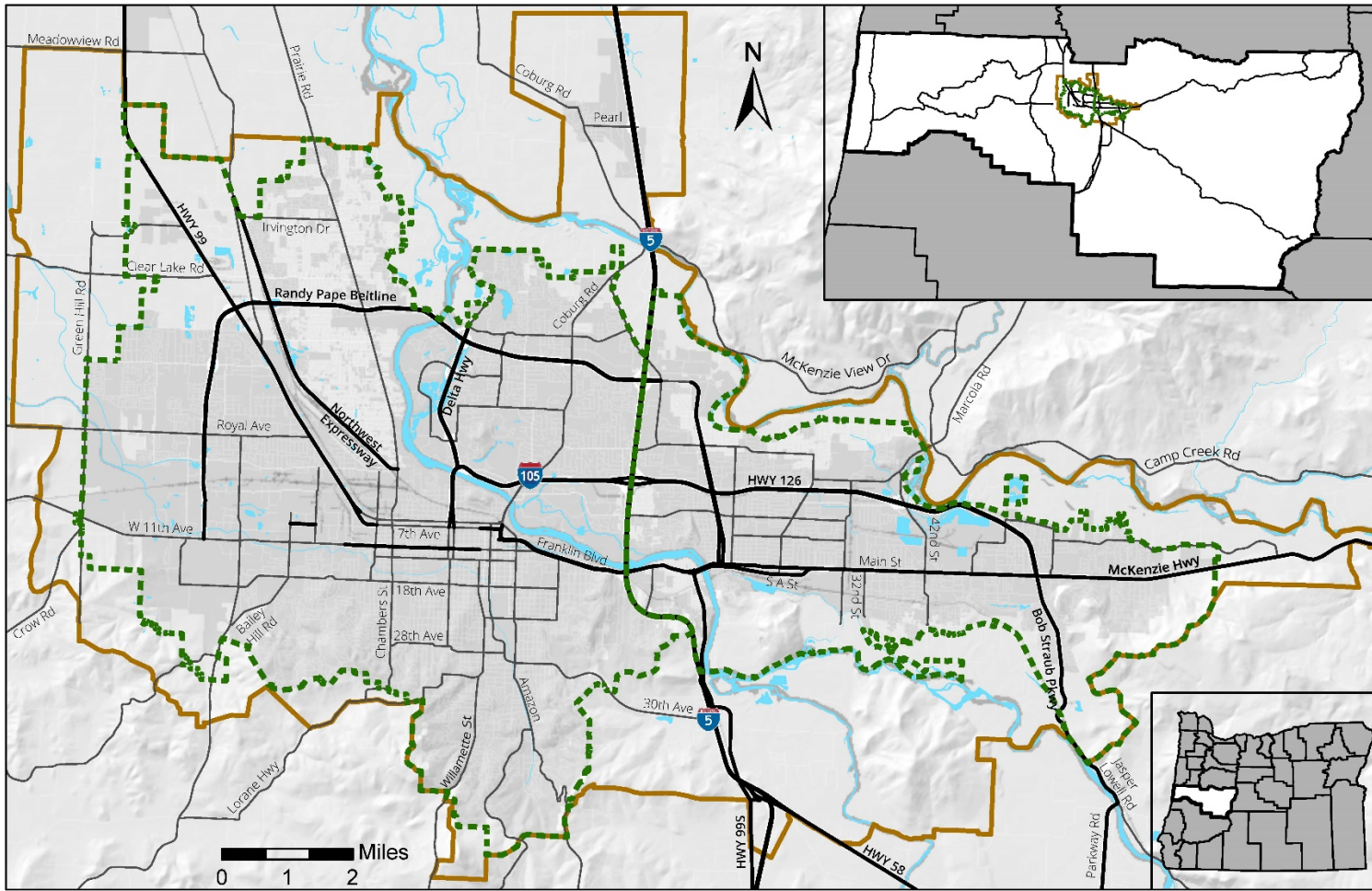
1. The area should attain the NAAQS.
2. The average 24-hour PM_{10} design value for the area based upon recent 5 years of data should not exceed 98 $\mu\text{g}/\text{m}^3$ (micrograms per cubic meter) and the annual design value should not exceed 40 $\mu\text{g}/\text{m}^3$. (The annual PM_{10} NAAQS was revoked by the EPA on December 18, 2006.)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

The LMP identified that the area's 24-hour 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 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 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).

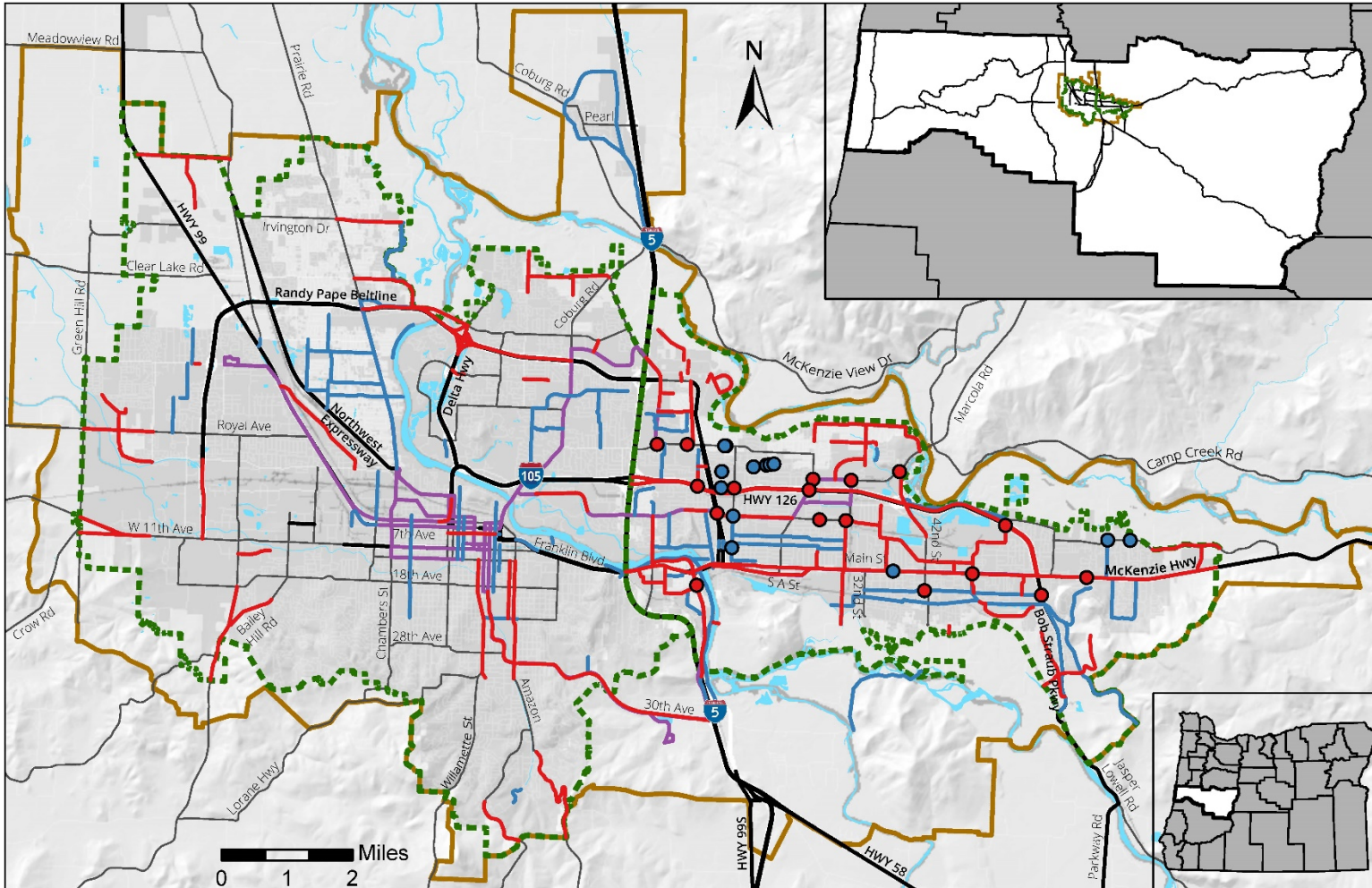
Map of Eugene-Springfield Air Quality Maintenance Area



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



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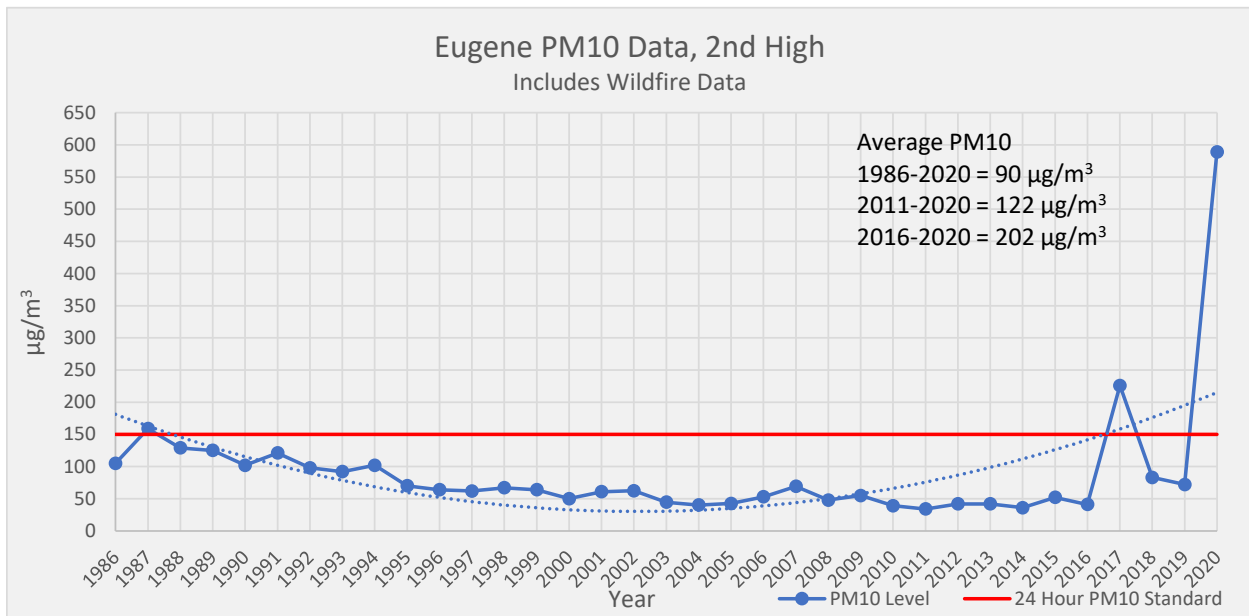


- Fiscally Constrained Roadway Projects
- Fiscally Constrained Bike/Pedestrian Projects
- Fiscally Constrained Roadway Projects
- Fiscally Constrained Bike/Pedestrian Projects
- Fiscally Constrained Transit Projects
- - - Air Quality Maintenance Area
- Highway Centerlines
- General Arterial Road Centerlines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

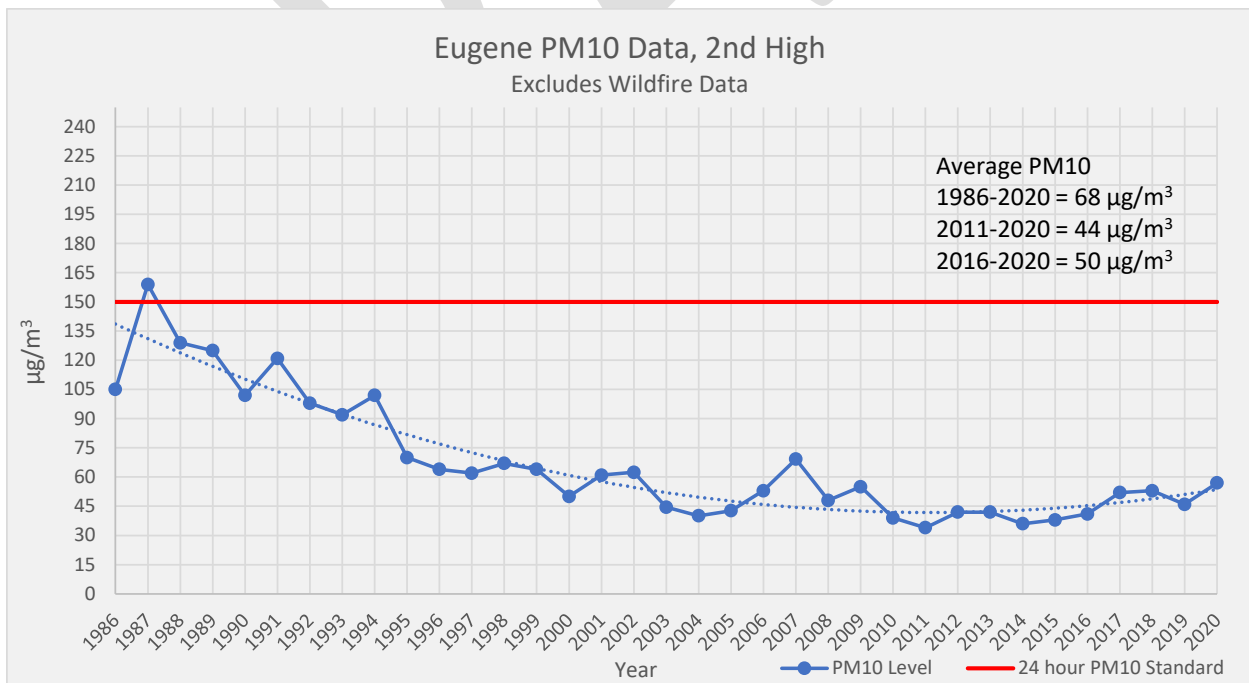


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The annual PM₁₀ standard, which was revoked by US-EPA in 2006, has never been exceeded in this area. LRAPA provided the figures below showing the PM₁₀ measurements taken by the approved monitor.¹ The top figure reflects PM₁₀ measurements including 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 1987.² The latest data from 2020 shows a 24-hour (5-year) design value of 50 µg/m³, well below the standard of 150 µg/m³. 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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¹ Site #41-039-0058-881102-1: Highway 99/Key Bank, Eugene-Springfield area.

² 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](#).

PM₁₀ 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 PM₁₀ 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 |
| 11/18/2021 | TPC reviews public comments to date; MPO addresses IAC comments |
| 11/25/2021 | MPO responds to TPC comments (7 days prior to adoption) |
| 12/2/2021 | 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ State Implementation Plan.

40 CFR 93.123(b) ***Procedures for determining localized PM₁₀ 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 PM₁₀ 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 (SR-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 | Non-exempt | \$50,000,000 | 2030-2034 | \$65,810,925 | \$74,358,848 | 0 | 27 | Other Freeways and Expressways |
| Eugene-Springfield Highway (SR-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; 52nd Street is one travel lane in each direction with a turn lane; intersection lacks sidewalks, pedestrian/ADA accessibility) | ODOT | Non-exempt | \$40,000,000 | 2025-2029 | \$45,195,444 | \$51,065,703 | 0 | 30 | Other Freeways and Expressways |
| Project Category Subtotal | | | | | \$208,800,000 | | \$245,236,836 | \$277,089,688 | | | |

*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 | Non-exempt | \$28,100,000 | 2030-2034 | \$36,985,740 | \$41,789,673 | 1.1 | 312 | Other Principal Arterial |
| Delta/Beltline Interchange | | Interim/safety improvements; replace/revise existing ramps; widen Delta Highway bridge to five lanes | ODOT | Non-exempt | \$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 | Non-exempt | \$2,000,000 | 2030-2034 | \$2,632,437 | \$2,974,354 | 0.68 | 821 | Other Freeways and Expressways |
| Project Category Subtotal | | | | | \$50,100,000 | | \$59,016,819 | \$66,682,283 | | | |

*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/48th Street | Intersection of Main Street and 48th Street | Construct traffic control improvements | Springfield | Exempt 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 | Exempt 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 nd Street and Marcola Road | Construct roundabout ³ | Springfield | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 th Street | Intersection of Q Street and 5 th Street | Intersection improvements - Construct right turns to the eastbound and northbound approaches or a roundabout. | Springfield | Exempt 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 th Street | Intersection of Centennial Boulevard and 28 th Street | Construct roundabout | Springfield | Exempt 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 st Street | Intersection of Centennial Boulevard and 21 st Street | Construct traffic control improvements | Springfield | Exempt 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 nd Street/Daisy Street | Intersection of South 42 nd Street and Daisy Street | Traffic control improvements - Construct a traffic signal or a roundabout | Springfield | Exempt 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 | Non-exempt | \$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 | Non-exempt | \$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 | Springfield | Exempt 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 | I-5 to RR Tracks south of Franklin Blvd/McVay Hwy | Multimodal urban standards and intersection control improvements | Springfield | Exempt 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 |

³ 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 |
| McVay Hwy/East 19 th Avenue | Intersection of McVay Hwy and East 19th Ave | Construct a new 2 lane roundabout (currently this intersection does not have traffic controls) | Springfield | Exempt 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 |
| McVay Hwy | 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 | Non-exempt | \$47,000,000 | 2030-2034 | \$61,862,269 | \$69,897,317 | 1.34 | 899 | Minor Arterial |
| Marcola Road/19 th Street | Intersection of Marcola Road and 19th Street | Construct right-turn lane on westbound approach or a roundabout | Springfield | Exempt 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 th Street and Marcola Road | Construct a roundabout (intersection is currently signalized) | Springfield | Exempt 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 | Non-exempt 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 ⁴ on Martin Luther King Jr. Blvd. (currently a 4 lane cross section between Leo Harris Parkway West and Centennial Loop) | Eugene | Exempt 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 | Non-exempt | \$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 | Non-exempt | \$43,500,000 | 2025-2029 | \$49,150,045 | \$55,533,952 | 1 | 119 | Other Principal Arterial |
| Project Category Subtotal | | | | | \$192,920,000 | | \$223,883,875 | \$253,075,520 | | | |

*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: 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 |

⁴ 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 |
| 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 | 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 | New 2 to 3-lane collector | 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 | New 2-3 lane collector | 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 | Construct new 2-lane collector | 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 |
| 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 |

| 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 |
| 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 |
| | | | | | Project Category Subtotal | \$238,800,000 | \$297,967,461 | \$338,291,190 | | | |

*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 sidewalks and bicycle facilities) | 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 sidewalks and bicycle facilities) | 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 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 |
| 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 |

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 |
|----------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------|---------------------------------|----------------------|--------|-------|--------------------------|
| 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) | Springfield | 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 |
| Project Category Subtotal | | | | | \$135,618,000 | | \$153,440,774 | \$174,078,131 | | | |

*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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 st Street | Study of multimodal improvements from on Main Street/South A Street from Mill Street to 21 st Street | Springfield | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 40 CFR 93.126, Other – Planning and technical studies | \$1,000,000 | In progress | \$912,481 | \$1,031,000 | 2.23 | 917 |
| South 28 th Street to South 32 nd Street East/west connectivity study | Between South 28 th Street and South 32 nd Street (South of Main Street) | Study opportunities for east/west connectivity between South 28th Street and South 32nd street (south of Main Street) | Springfield | Exempt 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 | Exempt 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 | Exempt 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 Goshen Regional Employment Area Transitioner connectivity to and from Goshen to the north. | Lane County | Exempt 40 CFR 93.126, Other – Planning and technical studies | \$415,000 | 2025-2029 | \$468,903 | \$529,807 | NA | TBD** |
| Project Category Subtotal | | | | | \$9,565,000 | | \$10,078,573 | \$11,690,910 | | |
| <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 | | |
| Project Category Subtotal | | | | | \$6,200,000 | | \$6,013,580 | \$6,794,660 | | |
| <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> | | | | | | | | | | |

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 |
| Project Category Subtotal | | | | | \$264,250,000 | | \$367,301,799 | \$415,009,193 | | |

*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 | TBD - see study corridors map for identified potential corridors | 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 | TBD - see study corridors map for identified potential corridors | 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 | TBD - see study corridors map for identified potential corridors | 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 | TBD - see study corridors map for identified potential corridors | 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) | TBD - see study corridors map for identified potential corridors | 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) | TBD - see study corridors map for identified potential corridors | 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) | TBD - see study corridors map for identified potential corridors | 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) | TBD - see study corridors map for identified potential corridors | 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 |
| Project Category Subtotal | | | | | \$360,000,000 | | \$459,247,044 | \$518,896,845 | | |

*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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 |
| Project Category Subtotal | | | | | \$83,075,000 | | \$112,627,871 | \$127,256,665 | | |

*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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 | Exempt 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 Steet 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** | |
| Project Category Subtotal | | | | | \$70,094,825 | | \$77,357,420 | \$87,543,378 | | | |

*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 | ... |
| Project Category Subtotal | | | | | \$9,300,000 | | \$9,020,369 | \$10,191,989 | | | |

*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 |
| | | | | | Project Category Subtotal | NA (part of larger project) | NA (part of larger project) | NA (part of larger project) | | | |

*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 | Stripe bicycle lanes on the roadway | 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 |

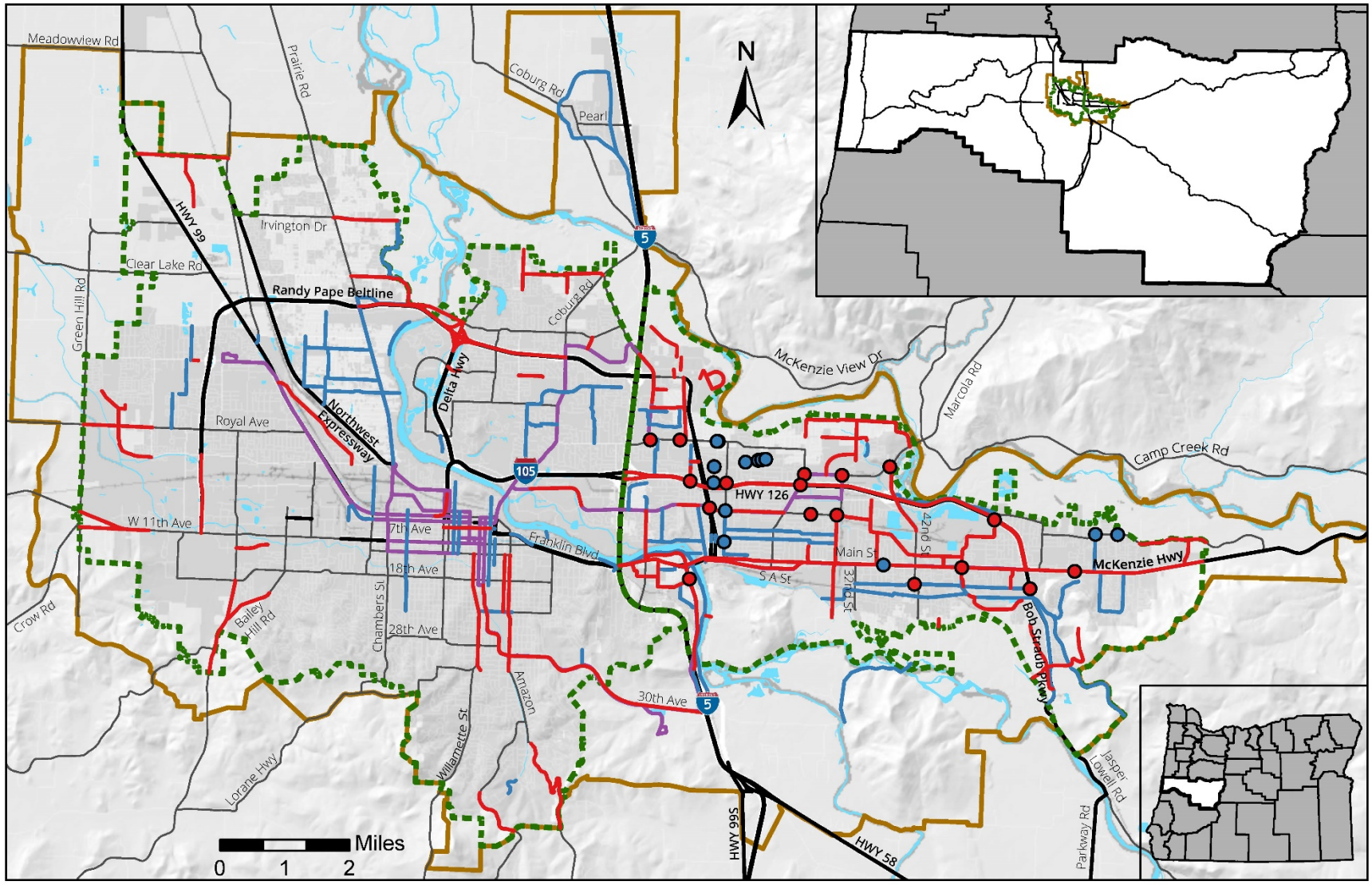
PROJECT CATEGORY: ON-STREET LANES OR ROUTES WITHOUT ROAD PROJECT

| 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 |
| Project Category Subtotal | | | | | \$29,797,500 | | \$30,115,814 | \$33,922,791 | | | |

*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.

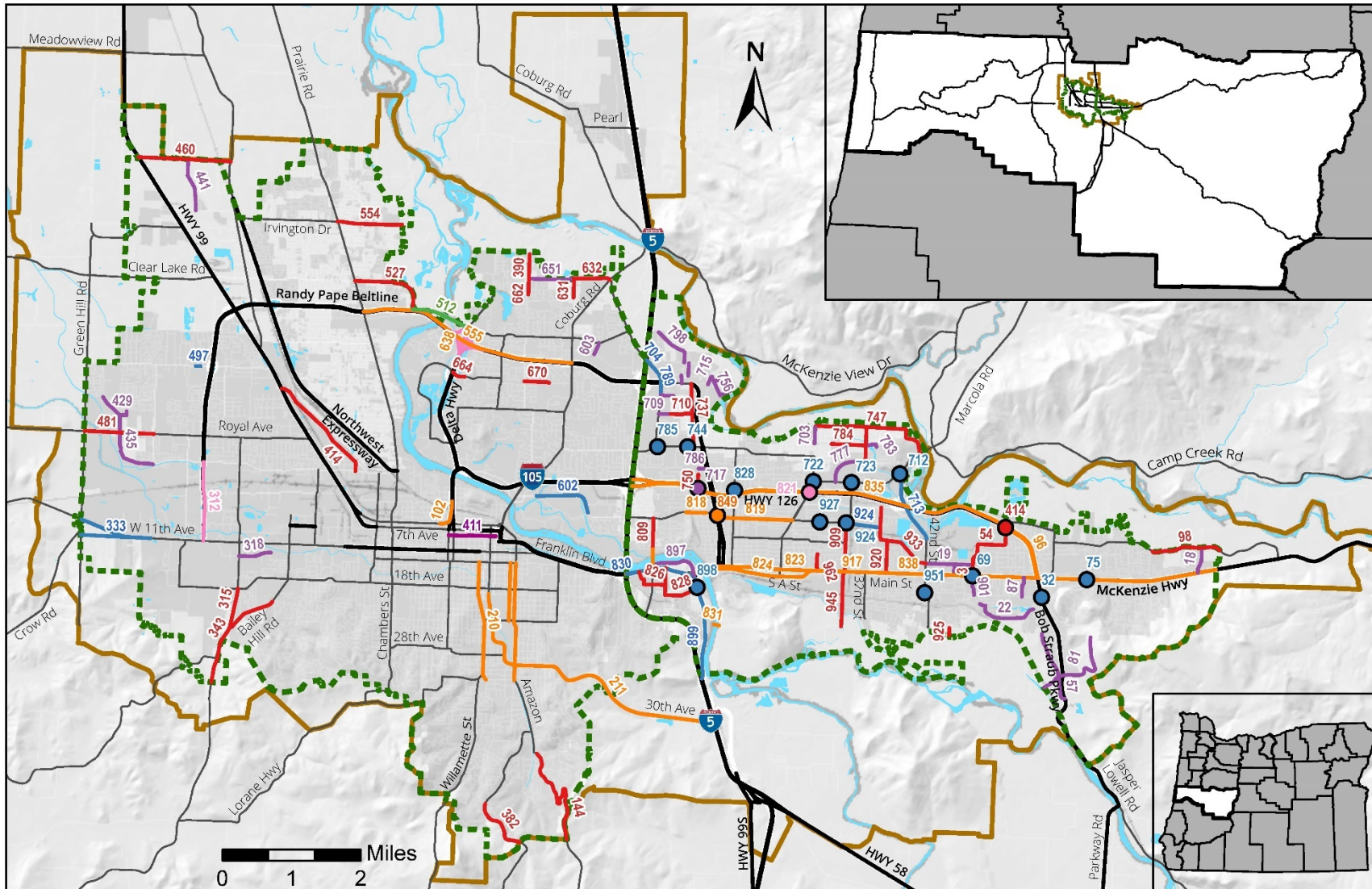
DRAFT



- 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

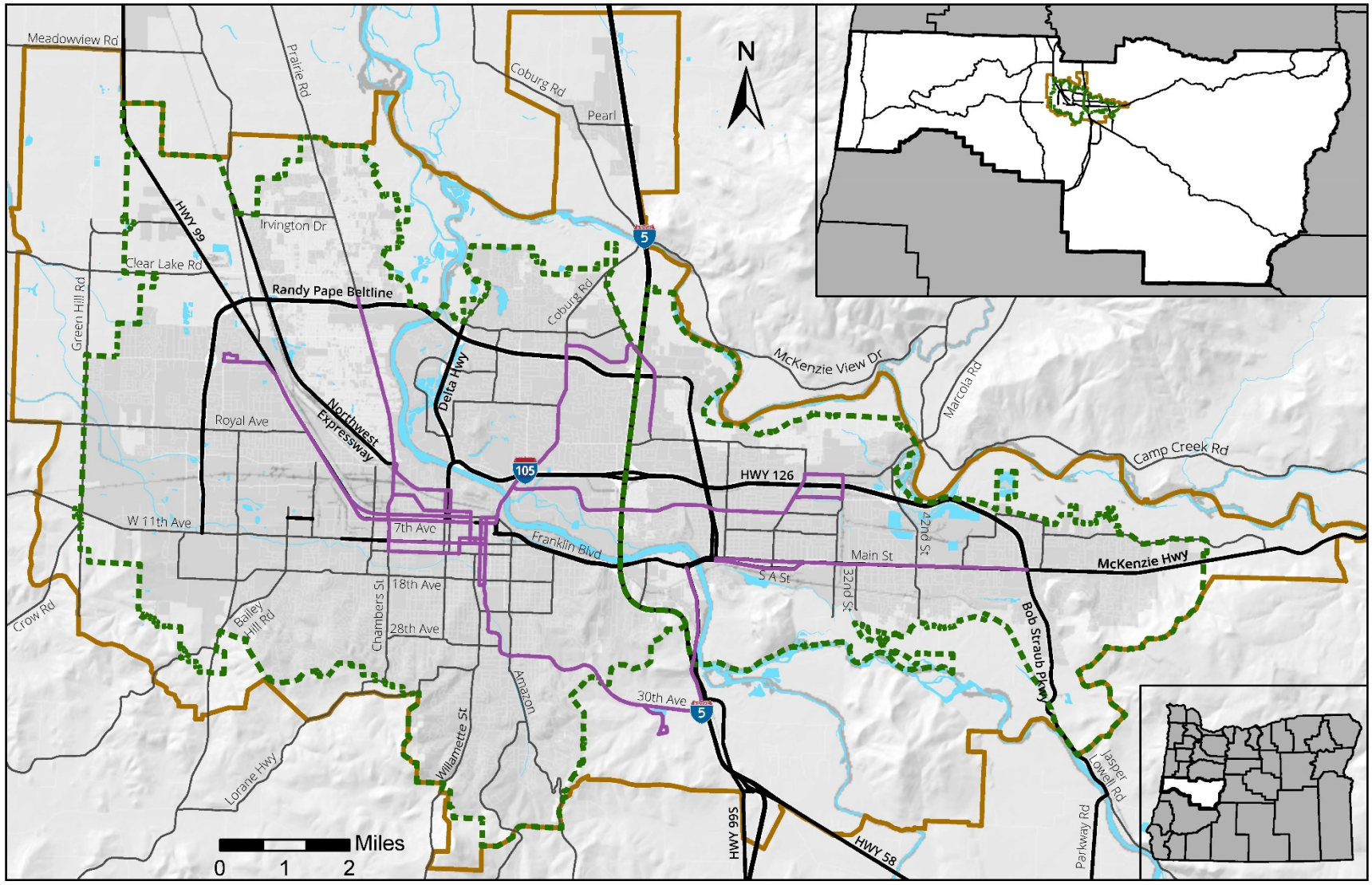
- Added Freeway Lanes or Major Interchange Improvements
- Arterial Capacity Improvements
- New Collectors
- Study
- Urban Standards

- 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

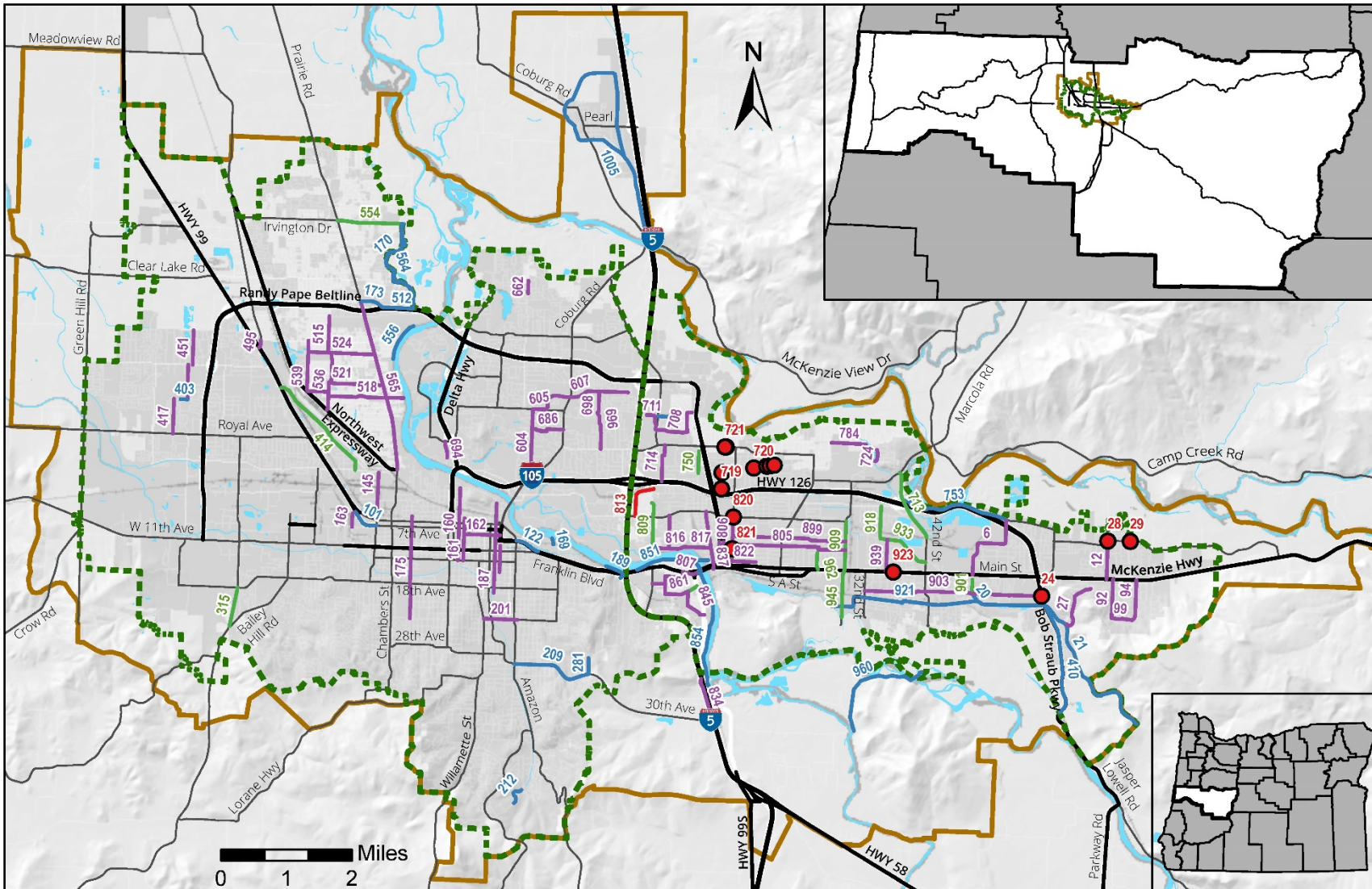


2045 Regional Transportation Plan



- 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 PM₁₀ conformity criteria and therefore, I concur with your conclusion that the conformity determination is not required to satisfy the PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ standards. There has not been an exceedance of the PM₁₀ 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 PM₁₀. On the basis of these facts, we conclude that conformity determinations for PM₁₀ are not required by federal regulation.

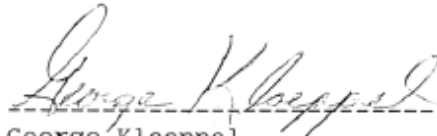
Effective February 4, 1994, the Eugene-Springfield area was redesignated to attainment status for CO. As noted in the December 6, 1993, Federal Register notice of Approval and Promulgation of Redesignation, a study performed by LRAPA during 1985 concluded that there were two hot spot locations near downtown 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 PM₁₀ 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 Kloeppel
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 (PM₁₀), 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
DITZLER
Date: 2020.09.30 17:39:16
+0700

Phillip A. Ditzler
Division Administrator
Federal Highway Administration

LINDA M
GEHRKE

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Date: 2020.09.30 13:51:03
-0700

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
Alice Bibler, Program & Funding Service Manager
Jeff Flowers, Statewide Investment Management Section Manager
Marsha Hoskins, Public Transit Manager
Lisa Nell, Planning & Development Manager Region 2
- CLMPO Dan Callister, Associate Transportation Planner
- LRAPA Merlyn Hough, Director



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 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 (PM₁₀), 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.

APPENDIX D

Notes on Project Conformity⁵ – Localized PM₁₀ 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 PM₁₀ 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 example⁶:

- 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;

⁵ Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ 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.

⁶ Project Level Conformity Hot-Spot Analysis (Highways), FHWA Resource Center, 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_{2.5} or PM₁₀ 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 November 1 through November 30. 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.

APPENDIX F

**LANE REGIONAL AIR PROTECTION AGENCY
REQUEST FOR REDESIGNATION TO ATTAINMENT
AND MAINTENANCE PLAN FOR
EUGENE/SPRINGFIELD PM₁₀
(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 PM₁₀ National Ambient Air Quality Standard (NAAQS) and the existing State Implementation Plan (SIP) would require revision in order to protect the PM₁₀

NAAQS. Group I Areas were those having a 95% certainty of violating the PM₁₀ NAAQS. Group II Areas were those having a 20 % to 95% probability of violating the PM₁₀ 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).

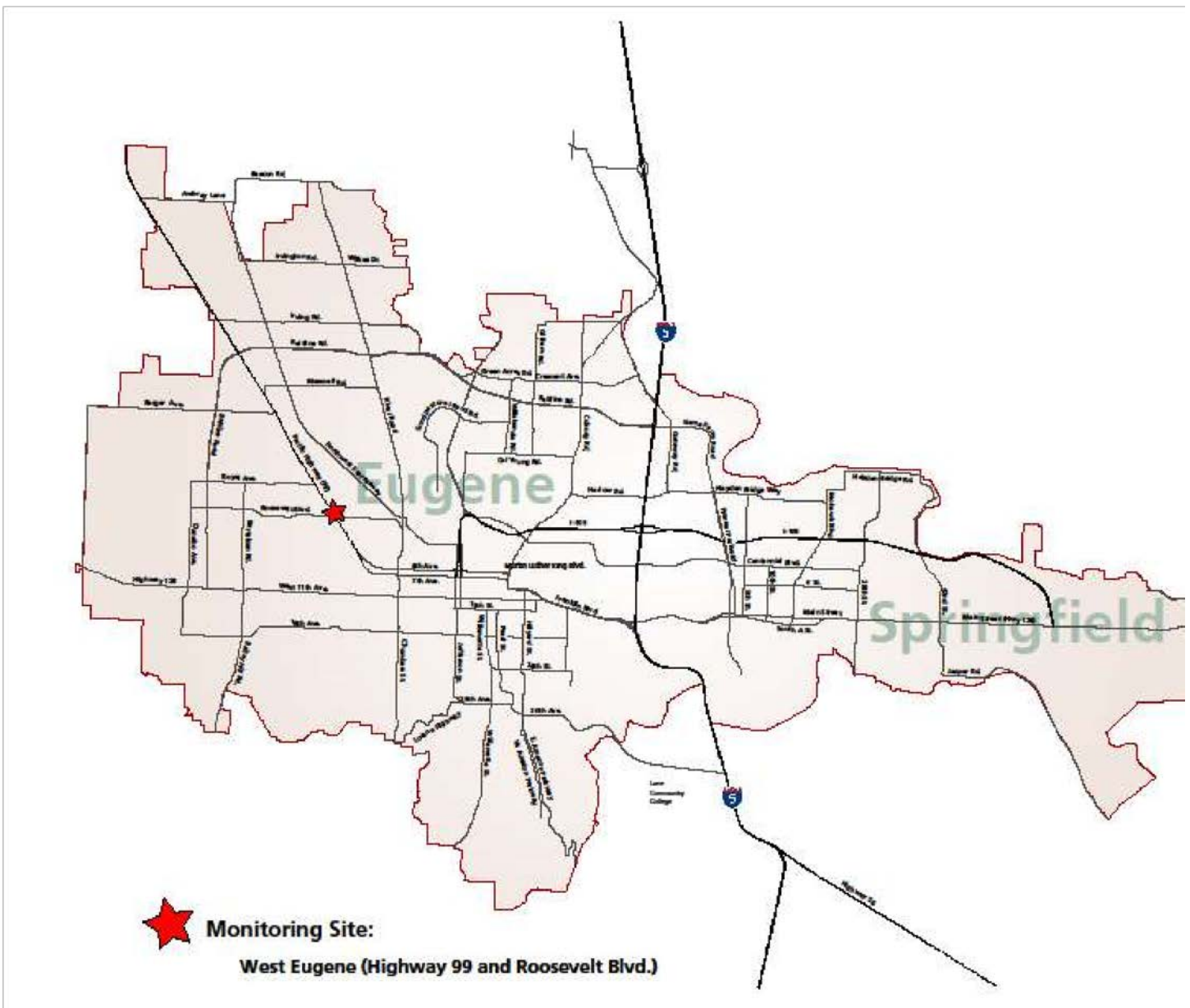
In response to this action, Lane Regional Air Protection Agency (LRAPA) adopted a SIP amendment in 1990 and an addendum in 1991 to address the new requirements of the federal Clean Air Act Amendments of 1990. These were subsequently adopted by the Oregon Environmental Quality Commission (EQC) and were submitted as an attainment plan to the EPA in November 1991 (see 59 FR 434870). This plan demonstrated attainment of the PM₁₀ NAAQS by December 31, 1992, and demonstrated maintenance of the PM₁₀ 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 PM₁₀ 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 PM₁₀ NAAQS since 1987. The annual PM₁₀ 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 PM₁₀ 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 PM₁₀.

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 PM₁₀ design value for the area based upon recent 5 years of data should not exceed 98 ug/m³ (micrograms per cubic meter) and the annual design value should not exceed 40 ug/m³. (The annual PM₁₀ NAAQS was revoked by the EPA on December 18, 2006.)
3. The area should expect only limited growth in on-road motor vehicle PM₁₀ 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 PM₁₀ emissions in this area, a regional analysis of on-road motor vehicle PM₁₀ 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 PM₁₀ to demonstrate attainment with the PM₁₀ NAAQS, provide a maintenance plan to assure continued attainment, and formally request redesignation of the UGB to attainment for the PM₁₀ 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 (PM₁₀). The primary and secondary NAAQS for PM₁₀ are as follows:

24 hour Standard: The NAAQS for PM₁₀ is 150 ug/m³ 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 PM₁₀ is 50 ug/m³ for an annual arithmetic mean. The standard is attained when the expected

annual arithmetic mean concentration is less than or equal to 50 ug/m³, as determined in accordance with 40 CFR 50.
(This standard was revoked on December 18, 2006)

Since PM₁₀ 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 PM₁₀ standard .

The original PM₁₀ 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. PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ NAAQS of 150ug/m³.

Table 1
HWY 99 Site # 410390058
24 Hour PM₁₀ Concentration (ug/m³)

| <u>Year</u> | annual high | annual 2 nd high | 3 yr 2 nd 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 PM₁₀ NAAQS of 50 ug/m³.

Table 2

Hwy 99 Site # 410390058
Annual Mean (ug/m³)

| <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 PM₁₀ 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 PM₁₀ standard. Areas qualifying for the LMP must meet the following criteria:

1. The area should attain the NAAQS
2. The average 24 hour PM₁₀ design value for the area based upon 5 years of data should not exceed 98 ug/m³, and the annual design value should not exceed 40 ug/m³.
3. The area should expect only limited growth in on-road motor vehicle PM₁₀ 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/m³ is well below the criteria level of 98 ug/m³ and the annual design

value of 17ug/m³ is well below the criteria level of 40 ug/m³. 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 PM₁₀ 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 PM₁₀ on winter days, while point sources dominate the annual emissions.

Table 3

2008 Estimated PM₁₀ 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 PM₁₀ were emitted while in the 2008 annual E.I. only 2,754 tons were emitted. There has been a 61% reduction in annual PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 PM₁₀ emissions in this area and therefore regional PM₁₀ 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 PM₁₀ emissions in this area.

Although industrial sources are not the significant contributor to PM₁₀ 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_{2.5} standard would be violated well before the PM₁₀ standard was reached. A violation of the PM_{2.5} standard would trigger SIP action for that pollutant which would also provide additional controls for PM₁₀ emissions. Although monitoring for PM_{2.5} would technically be adequate to demonstrate compliance with the PM₁₀ NAAQS, as resources allow, LRAPA will continue to monitor for PM₁₀.

Appendix A

Eugene-Springfield PM₁₀ 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 PM₁₀ design value for the area based upon recent 5 years of data should not exceed 98 ug/m³ and the annual design value should not exceed 40 ug/m³.
3. The area should expect only limited growth in on-road motor vehicle PM₁₀ 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 PM₁₀ concentrations within the non-attainment area. Recent data from this site demonstrates that this area clearly attains the NAAQS of 150 ug/m³ for the 24 hour standard and the former 50 ug/m³ annual standard.

Eugene-Springfield UGB
 PM₁₀ Concentrations (ug/m³)
 Hwy 99 Site # 410390058

| Year | Annual Highest 24 hour Concentration (ug/m ³) | Annual Mean (ug/m ³) |
|------|-----------------------------------------------------------------|-------------------------------------|
| 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/m³ which is well below the guidance level of 98 ug/m³.

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

X₉₀ = 90th percentile concentration

U₉₀ = mean of the upper 10% of samples

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

$$X_{90} = 35 \text{ ug/m}^3$$

$$U_{90} = 42 \text{ ug/m}^3$$

$$DV = 35 \text{ ug/m}^3 + 3.61(42 \text{ ug/m}^3 - 35.0 \text{ ug/m}^3) = 60 \text{ ug/m}^3$$

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

$$X_{90} = 34 \text{ ug/m}^3$$

$$U_{90} = 43 \text{ ug/m}^3$$

$$DV = 34 \text{ ug/m}^3 + 3.61(43 \text{ ug/m}^3 - 34 \text{ ug/m}^3) = 66 \text{ ug/m}^3$$

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

$$X_{90} = 33 \text{ ug/m}^3$$

$$U_{90} = 44 \text{ ug/m}^3$$

$$DV = 33 \text{ ug/m}^3 + 3.61(44 \text{ ug/m}^3 - 33 \text{ ug/m}^3) = 73 \text{ ug/m}^3$$

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/m³ which is well below the guidance level of 40 ug/m³.

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/m³)</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 PM₁₀ 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 PM₁₀ standard: 98 ug/m³ for 24 hour
standard and 40 ug/m³ 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

$$\% \text{ mv} = 8.5$$

$$\text{DV} = 66 \text{ ug/m}^3$$

$$\text{VMTpi} = 0.143$$

$$\text{DVmv} = 5.61 \text{ ug/m}^3$$

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

annual analysis:

From 2008 base year EI

total annual emissions = 2,753.8 tons

total motor vehicle annual emissions = 401.5 tons

$$\% \text{ mv} = 14.58$$

$$\text{DV} = 17 \text{ ug/m}^3$$

$$\text{VMTpi} = 0.143$$

$$\text{DVmv} = 2.48 \text{ ug/m}^3$$

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

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

6-17 12/28/2007

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 PM₁₀ to the airshed on Winter days when historically this area has exceeded the 24 hour standard.

Table C1

2008 estimated PM₁₀ 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, brake and tire wear | 120.3 | 0.4 |
| Total | 2,753.8 | 14.1 |

Point Sources:

Although the EPA definition of a point source for PM₁₀ in moderate non-attainment areas is one having emissions ≥ 100 tons/year, for the purposes of this emissions inventory sources ≥ 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 PM₁₀ emissions ≥ 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 ₁₀ (t/y) |
|----------|---------------------------|-------------------------------|
| 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 ₁₀ (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 ₁₀ (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 PM10 Emissions Estimates Eugene-Springfield UGB

| Wood Burning Device | # of households using device ¹ | 2008 total fuel burned ² (tons) | PM ₁₀ emission factor ³ (lbs/ton) | 2008 Emission ⁴ (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 PM₁₀ Emissions from RWC = 728.2 tons

The Worst Case Winter Day PM₁₀ Emissions from RWC = 8.5 tons⁵

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/ft³ (EPA AP42 Appendix A)

the volume of a cord of wood is approximately 80 ft³ (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

$(0.83 \text{ cords}) (1.28 \text{ tons/cord}) = 1.06 \text{ tons per device per year}$

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

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

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

3. PM10 emission factors:

EPA AP 42 tables 1.9-1 and 1.10-1

4. 2008 emissions calculation:

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

5. 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_{10} 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/m²

> 10,000 ADT = 0.03 g/m²

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/m² $W =$

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 = 4.19×10^6
annual VMT = 1.42×10^9

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_{10} emission factor for exhaust, brake, and tire wear = 0.078 g/mi

Summer PM_{10} emission factor for exhaust, brake and tire wear = 0.0757g/mi

Composite annual emission factor = 0.0769 g/mi

Average weekday VMT = 4.19×10^6

Annual VMT = 1.42×10^9

Annual PM_{10} Emission Estimate = 120.3 tons/year

Winter Day PM_{10} Emission Estimate = 0.4 tons/day

Appendix D

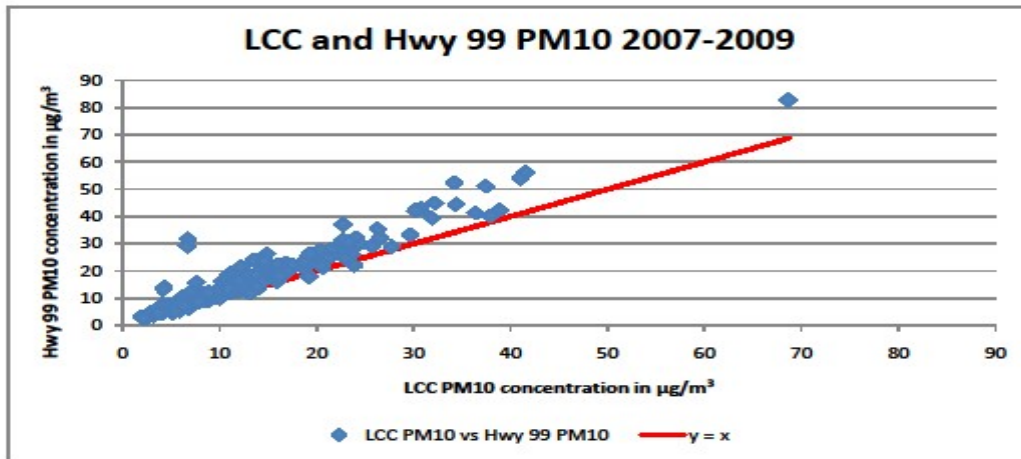
PM₁₀ / PM_{2.5} Relationship

In order to describe the relationship between PM₁₀ and PM_{2.5} in the Eugene/Springfield area, a brief analysis is summarized here. It is LRAPA's assertion that PM₁₀ monitoring is unnecessary in this air shed because the ratio of PM_{2.5} to PM₁₀ is high enough to ensure that the 24-hr PM_{2.5} standard would be violated before the PM₁₀ standard was reached.

There are two existing PM₁₀ 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_{2.5} since 2007. A third site, AQS number 410390060 (AMZ), has previously monitored PM₁₀ and currently monitors PM₁₀ as a toxic metals method, funded through a temporary HAP project.

The most important fact regarding PM levels in Eugene/Springfield is that neither PM₁₀ nor PM_{10c} (coarse) are pollutants of concern here. There has not been an exceedance of the 24-hr PM₁₀ standard since 1987. The 2007-2009 design values are 60 µg/m³ and 50 µg/m³ 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_{10c} value measured was 42 µg/m³. This is 57% of the 2006 proposed standard of 70 µg/m³.

Figure 1



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

Figure 2

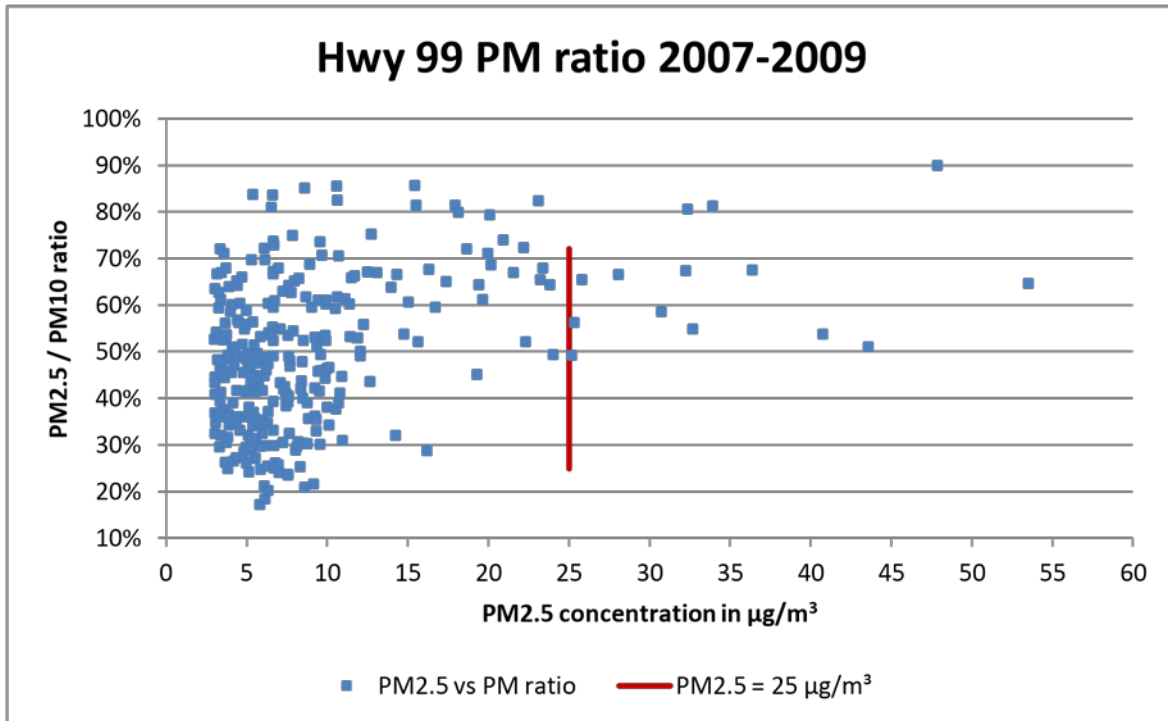
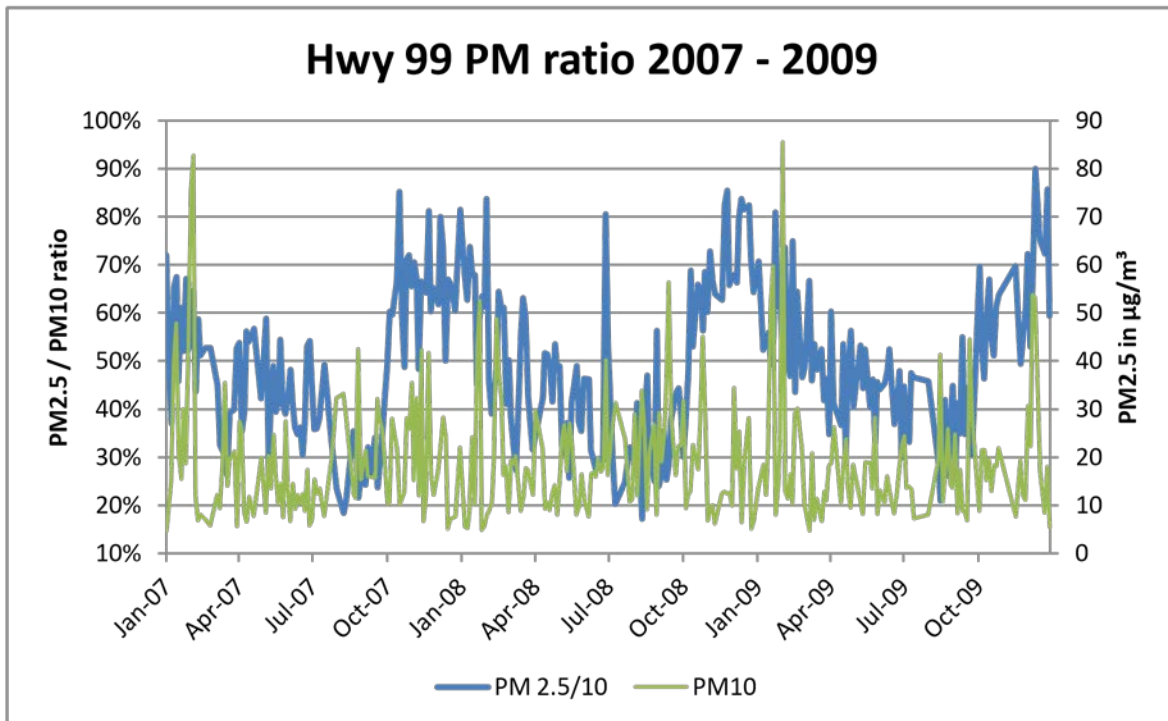
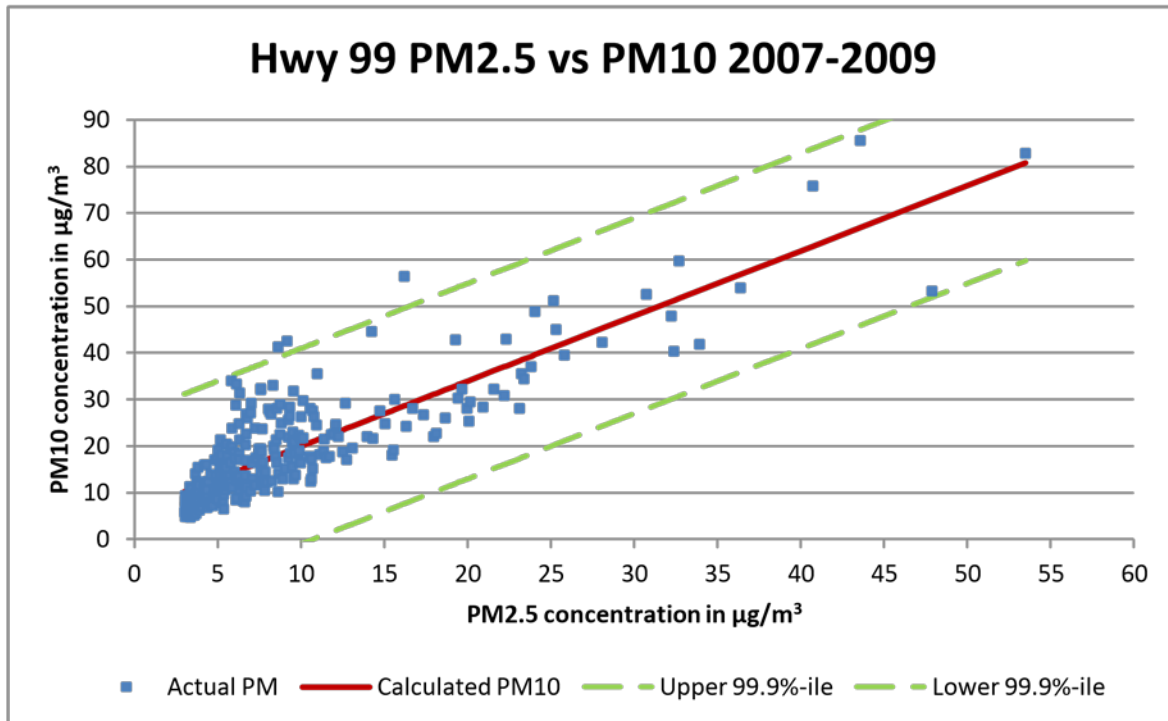


Figure 3



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 PM_{10} . This regression line predicts a 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, PM_{10} levels remain at 50% of the 24 hr PM_{10} standard.

Figure 4

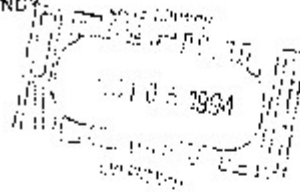


Appendix E

EPA determination of Transportation Conformity for PM10



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1709 Sixth Avenue
Seattle, Washington 98101



Reply To
Attn Of: AM-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 MFC", dated September 9, 1994. The letter was also signed by George Kloeppel, 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)853-4237.

Sincerely,

Jim McCormick, Director
Air and Toxics Division

cc: George Kloeppel, 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

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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.

**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.

DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE (Q20-24)

| Gender | <u>2009</u> | <u>2001</u> |
|--------------------|--------------------|--------------------|
| Male | 50% | 47% |
| Female | 50 | 53 |
| Age | | |
| 18-24 | 3% | 8% |
| 25-34 | 7 | 16 |
| 35-44 | 21 | 20 |
| 45-54 | 20 | 16 |
| 55-64 | 27 | 20 |
| 65+ | 21 | 18 |
| Residence | | |
| Eugene | 67% | 78% |
| Springfield | 33 | 22 |
| Own or Rent | | |
| 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% |
| 200 | | | | 10% | | 9% | 9% | 9% | 8% | 8% | 8% |
| 250 | | | | | | 9% | 8% | 8% | 8% | 8% | 7% |
| 300 | | | | | | | 8% | 8% | 7% | 7% | 7% |
| 350 | | | | | | | | 7% | 7% | 7% | 6% |
| 400 | | | | | | | | | 7% | 7% | 6% |
| 450 | | | | | | | | | | 7% | 6% |
| 500 | | | | | | | | | | | 6% |
| 600 | | | | | | | | | | | |

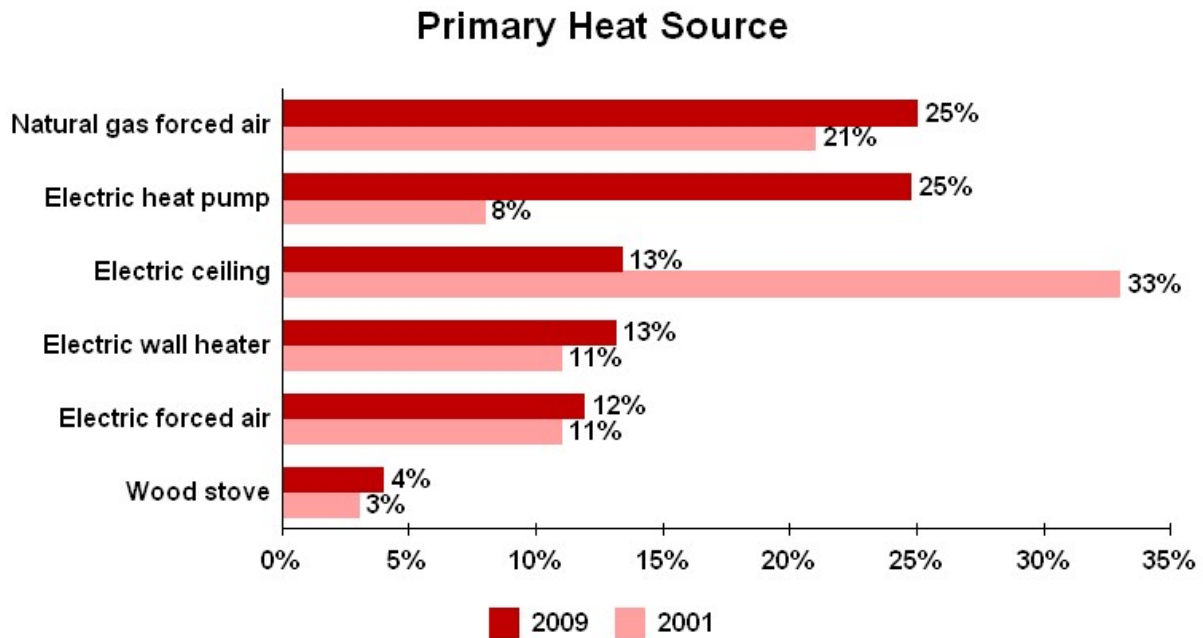
Minimums are for reported percentages near 50%. When much smaller or much larger percentages are reported, a slightly smaller minimum is required.

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.



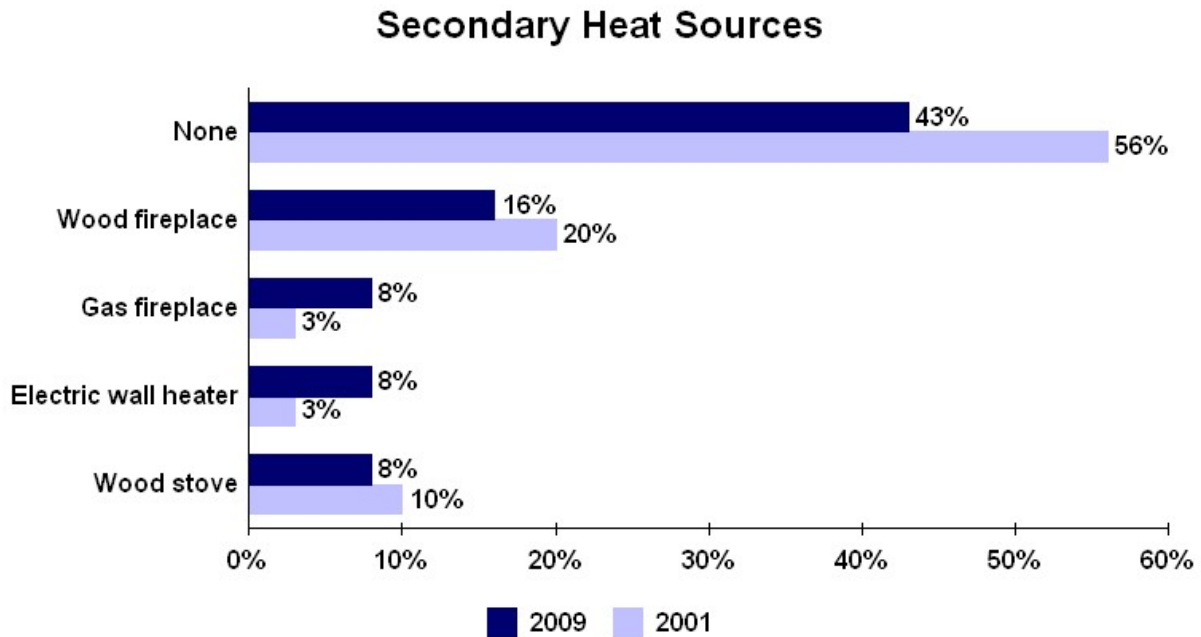
Prepared by Advanced Marketing Research, Inc.

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.

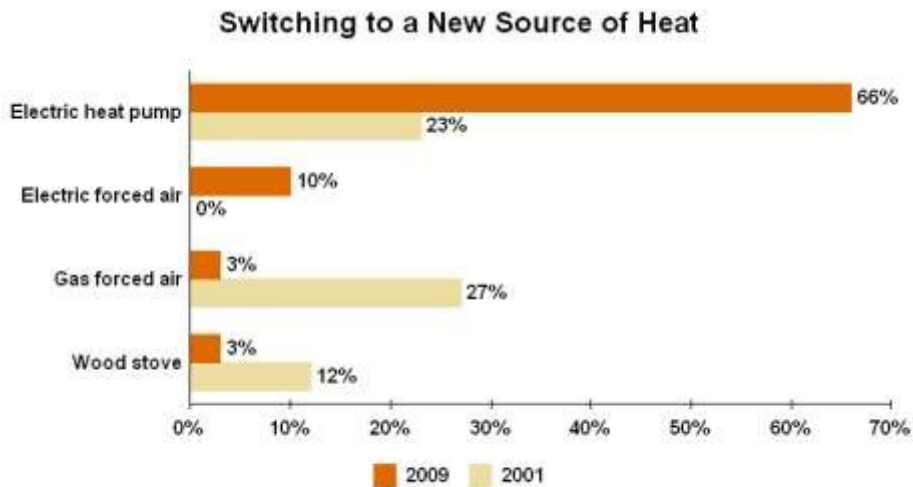
Demographic Differences

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.

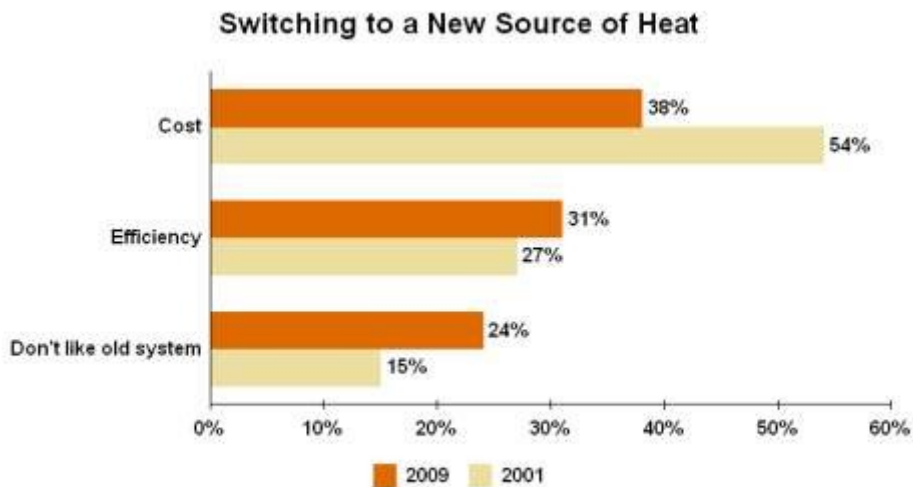
CHANGES IN PRIMARY HEAT SOURCE (Q7-10)

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)

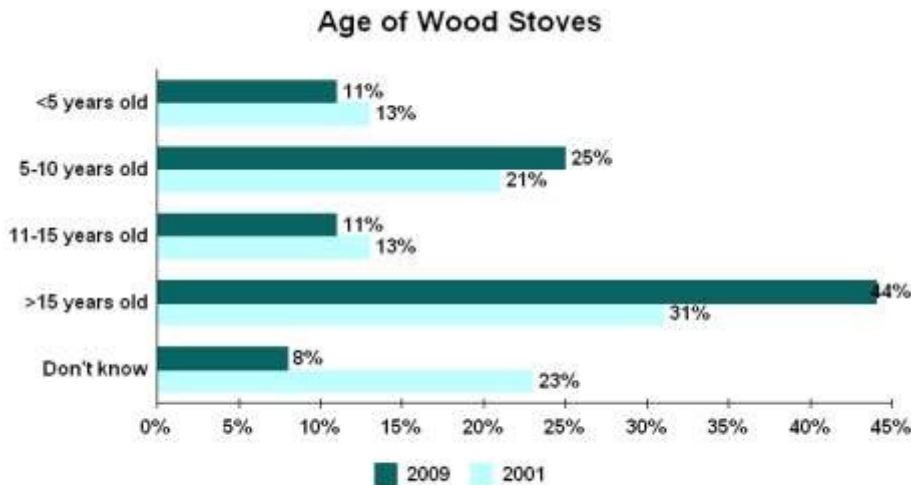


Based on those considering a change (n<30)

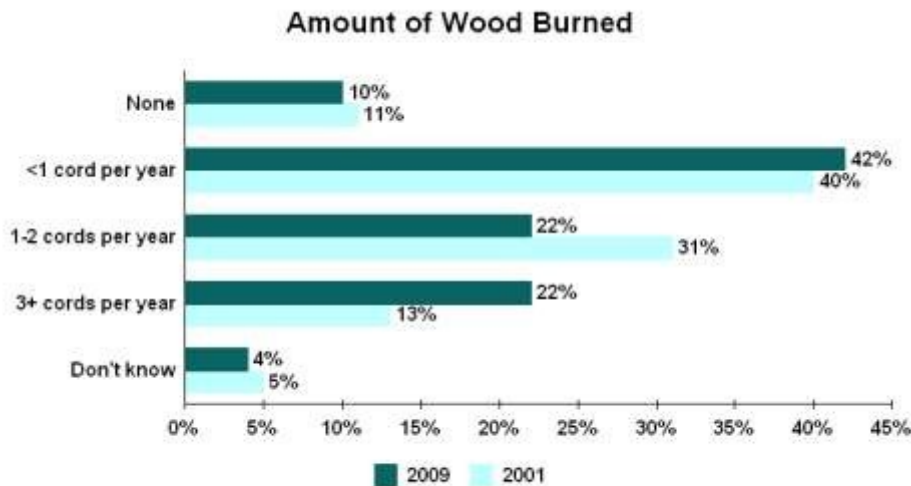
CURRENT USE OF WOOD STOVES (Q11-13)

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)

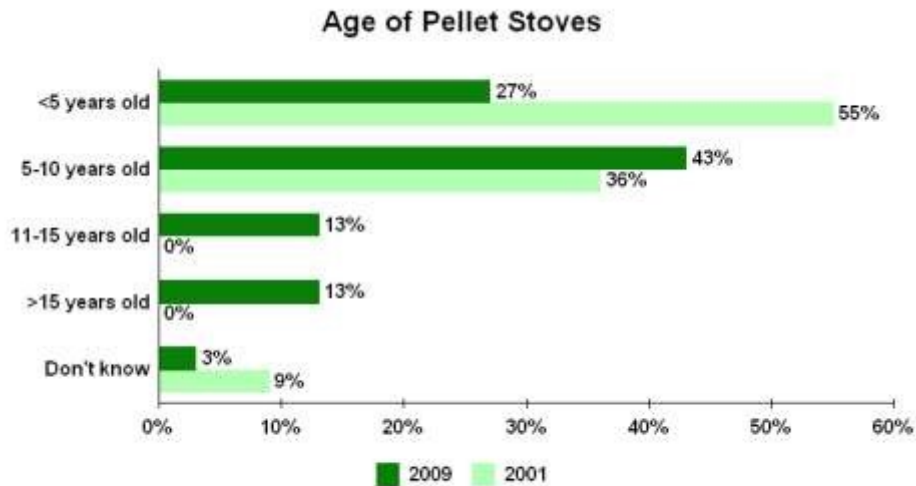
Demographic Differences

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

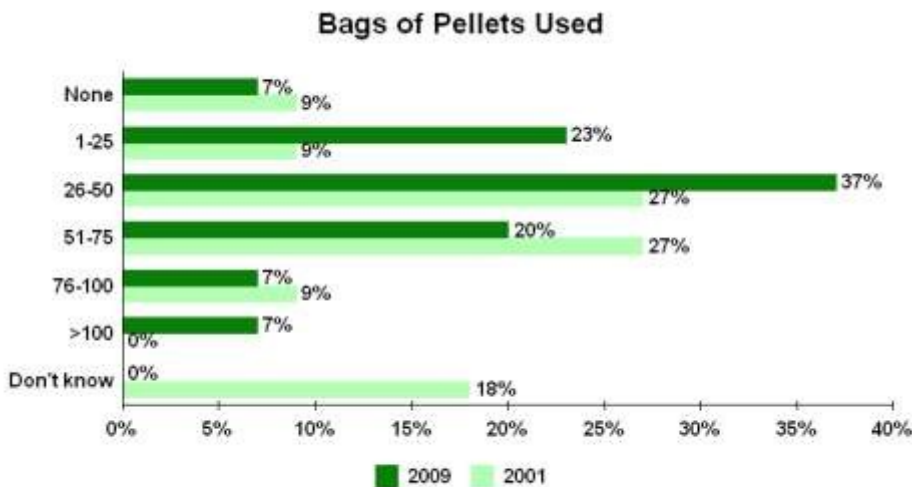
CURRENT USE OF PELLET STOVES (Q14-16)

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)

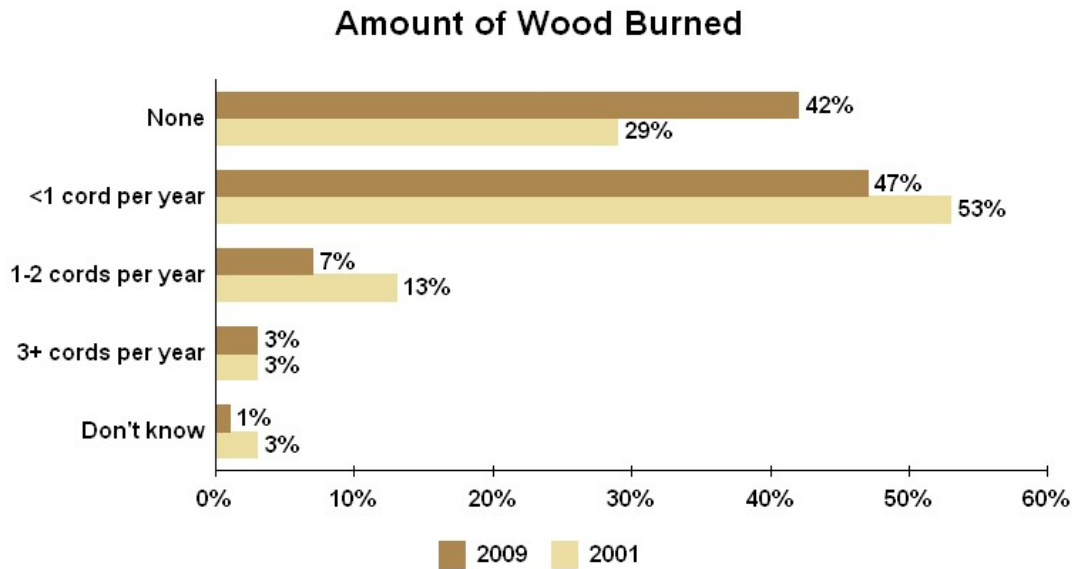


Based on those with pellet stoves (n<35)

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.



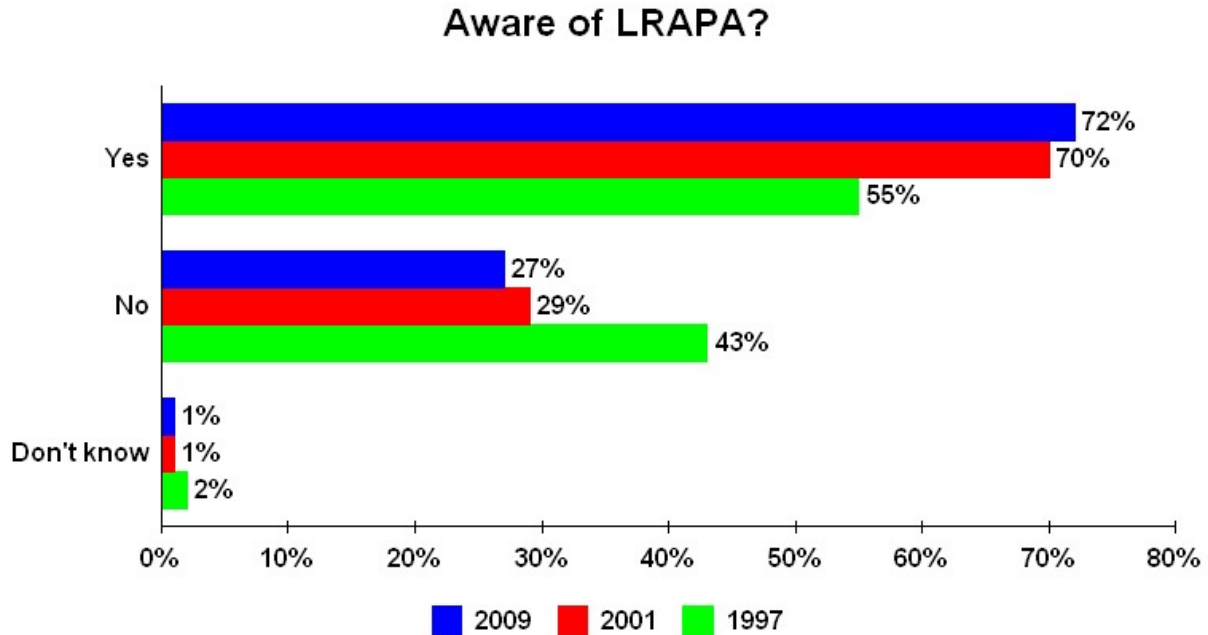
Based on those with wood-burning fireplaces (n<150)

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.