
AGENDA

Rogue Valley Metropolitan Planning Organization Policy Committee



Date: Tuesday, March 25, 2014

Time: 2:00 p.m.

Location: Jefferson Conference Room, RVCOG 155 N. 1st Street, Central Point

Transit: served by RVTD Route #40

Phone : Sue Casavan, RVCOG, 541-423-1360

RVMPO website : www.rvmppo.org

1. **Call to Order/Introductions/Review Agenda** **Mike Quilty, Chair**
2. **Review/Approve Minutes** (Attachment #1)..... **Chair**
3. **Public Comment**, Items not on the Agenda **Chair**
(Comments on Agenda Items allowed during discussion of each item)

Action Items:

4. **Discretionary Funding Project Selection** **Jonathan David**

Background: The Policy Committee is asked to make tentative decisions on the allocations of \$7,931,397 in Congestion Mitigation and Air Quality (CMAQ) funds and \$2,824,560 in Surface Transportation Program (STP) funds available through 2018. Funding decisions will permit staff to proceed with drafting the 2015-2018 Metropolitan Transportation Improvement Program (MTIP) and amending the current MTIP as necessary. A public hearing at a later date will be held to make funding decisions final. Applications are online at the following link:
<http://www.rvmppo.org/Page.asp?NavID=98>

Attachment: #2 – Memo, Spreadsheet 1 (Tables 1-3), Spreadsheet 2, and CMAQ Analyses

Action Requested: Make tentative funding decisions among projects included in the memo.

5. **RVMPO Letter of Support** **Jonathan David**

Background: RVTD is requesting a letter of support for a grant submission to replace ten of the Compressed Natural Gas (CNG) buses through the Federal Transit Administration (FTA) 'Low or No Emissions' to replace ten of their Compressed Natural Gas (CNG) buses.

Attachment: Draft letter of support will be distributed at meeting.

Action Requested: Consider approval of RVTD MPO letter of support.

- 6. RVMPO Planning Update..... Jonathan David**
- 7. Public Comment.....Chair**
- 8. Other Business / Local BusinessChair**
Opportunity for RVMPO member jurisdictions to talk about transportation planning projects.
- 9. AdjournmentChair**

The next MPO Policy Committee meeting is scheduled for Tuesday, April 22 at 2:00 p.m. in the Jefferson Conference Room, RVCOG, Central Point.

- The next MPO PAC meeting is scheduled for Tuesday, May 20 at 5:30 p.m. in the Jefferson Conference Room, RVCOG, Central Point.
- The next MPO TAC meeting is scheduled for Wednesday, April 9 at 1:30 p.m. in the Jefferson Conference Room, RVCOG, Central Point.

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT SUE CASAVAN, 541-423-1360. REASONABLE ADVANCE NOTICE OF THE NEED FOR ACCOMMODATION PRIOR TO THE MEETING (48 HOURS ADVANCE NOTICE IS PREFERABLE) WILL ENABLE US TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

**SUMMARY MINUTES
ROGUE VALLEY MPO POLICY COMMITTEE
FEBRUARY 25, 2014**



The following attended:

NAME	REPRESENTING	PHONE
<u>MPO Policy Committee</u>		
Al Densmore	City of Medford	282-1415
Art Anderson	ODOT	774-6353
Bill Cecil	Talent	535-1566
Don Skundrick	Jackson County	774-6118
Bruce Sophie for Jeff Bellah	City of Phoenix	535-1634
Jim Lewis	City of Jacksonville	899-7023
Rich Rosenthal	City of Ashland	941-1494
Ruth Jenks	City of Eagle Point	941-8537

Staff

Jonathan David	RVCOG	423-1338
Dan Moore	RVCOG	423-1361
Andrea Napoli	RVCOG	423-1369
Bunny Lincoln	RVCOG	944-2446

Others Present

13 members of the public were present.

1. Call to Order / Introductions/ Review Agenda -

Vice Chairman Al Densmore called the meeting to order at 2:05 p.m. Committee began with introductions. Jonathan David was introduced as the new RVCOG Program Planning Manager, and Bunny Lincoln as the new Contract Recorder for both the Rogue Valley and Middle Rogue MPOs.

2. Review / Approve Minutes -

Vice Chairman Densmore asked if there were any additions or corrections to the January meeting minutes.

On a motion by Jim Lewis and seconded by Rich Rosenthal the minutes were unanimously approved as presented.

3. Public Comment -

None.

Action Items:

4. Elections – Chair & Vice Chair

On a motion by Jim Lewis and seconded by Ruth Jenks, the Committee unanimously elected Mike Quilty, Chairman for the coming year. On a motion John Vial and seconded by Bruce Sophie, the Committee unanimously elected Al Densmore, Vice Chairman.

5. Proposed MPO Dues/Review Draft work Plan 2014-15 -

Jonathan David presented an overview of the dues for the year, stipulating that they followed the same formula previously approved by the Committee.

On a motion by Ruth Jenks and seconded by Bruce Sophie, the Committee unanimously approved the dues.

Mr. David also shared that the TAC had approved the Draft Work Plan, and that it would come back to the Policy Committee after federal and State reviews are completed.

6. Discretionary Funding Application Review - 2016, 2017 & 2018

Prior to the project presentations, members discussed possible future monetary carryovers.

A projects spreadsheet was presented to the Committee outlining the thirteen (13) submitted applications:

- Paige Townsend spoke about the **RVTD Valley Feeder Program** and **Clean Fuel Fleet** project. The Feeder Program would allow the general public to utilize vacant seats on the existing Valley Lift program. Potential program mechanics, reservations, scheduling and fares were reviewed. The Clean Fuel Fleet project will replace six (6) outdated vehicles with more fuel efficient models. Four (4) would be NG, two (2) dual fuel for longer trips.
- Mike Faught presented Ashland's **Chip Seal** and **E. Nevada Extension** details. The chip seal (double) project will cover approximately five (5) miles of local gravel roads, thereby reducing adverse air quality effects. Design standards, with the need for an appropriate base, were briefly discussed. **NOTE:** Mention was made of a recent email submitted by Craig Anderson, JACO Planner and Ashland Transportation Commissioner. The email was critical of the proposed E. Nevada St. extension. Both Ashland and JACO stipulated that Mr. Anderson did not speak for their jurisdictions. The E. Nevada St. extension bike/pedestrian component will be an extension of the Bear Creek Greenway. The extension includes construction of a bridge, creating the higher cost (approx. \$5 million). Potential street design standards were presented. The project is also an important future transit route (part of Ashland's TSP), and a traffic bypass, not just a local benefit, that will alleviate traffic impacts on other City rights of way. Combined funding sources, including SDCs and local match, were briefly discussed.
- Central Point's **Beebe-Hamrick roundabout** specifics were presented by Tom Humphrey. He discussed the current, heavy traffic patterns in the area, including LOS impacts, and that it is now becoming more of a neighborhood environment with existing residential development, parks, transportation improvements, bike/ped. facilities, etc, as well as the creation of a TOD in the east side of Interstate 5. Roundabout advantages

(over a signalized intersection) were outlined, and it is the City Council's preferred alternative because of the expected development in the area. JACO and ODOT are involved in an analysis of potential traffic and freight impacts to adjoining rights of way as heavier traffic is shifted away from the Hamrick-Beebe location.

- Rob Miller went over Eagle Point's **East Main-Stevens Road** improvement plan focusing on area topography, dense residential development (present and future), serious bike/ped. deficiencies as they relate to the nearby locations of Hillside Elementary School, downtown, other local schools. He outlined available traffic counts and right of way conditions and proposed improvement design standards. Finally, he broke down a possible phasing scenario should requested funding now be available in this funding cycle.
- **Jackson County – Table Rock (Lone Pine to Biddle Road).** Mike Kuntz spoke of the multiple (1/3) jurisdictional project involvement (JACO, Medford, Central Point), current right of way deficiencies as related to the extremely heavy traffic impacts (21% trucks), and presented the project locational logistics, funding options, design standards, including bike/ped. facilities and a traffic signal at Airport Road.
- **Jackson County – Regional Active Transportation Plan .** Mike Kuntz went over the need for a regional plan, covering specifics of the Plan's vision to identify key destinations and origination points, current barriers, new routes, establishing a connecting network of pathways, and, most importantly, prioritizing a set of alternative mode improvement projects. The analysis would include individual area communities and regional, off Greenway connections to outlying jurisdictions. Funding sources, including some committed match participants, were briefly discussed. John Vial stated that this plan would eventually become the Bike/Ped. component of the RTP.
- Alex Georgevitch presented the four (4) Medford projects:
 - Barnett Road Adaptive Signal Timing** - on a regional basis, adaptive timing is anticipated to improve air quality and traffic through one of the most impacted areas in Medford (caused by the significant increase in medical facilities surrounding Barnett Road). Improved traffic flows would be a benefit to Medford. Transit is not expected to be negatively impacted.
 - Columbus Avenue Extension** - will connect to existing Sage Road upgrades and improve traffic flows in the area. Other, recent, development driven, ROW improvements have created a scenario where this project will fill in lacking spaces. Bike/Ped. connectivity to adjoining commercial/industrial employment centers will also be improved
 - Springbrook-Cedar Links Roundabout** - a high scoring (priority need) continuation of recent Springbrook improvement project. Part of the "Safe Routes to School" Program. Viewed as a significant improvement to N/S Medford connectivity, RVTD transit flows and Bike/Ped. route options. Project design standards were also presented.
 - Foothill Road Improvements** – a historic, unacknowledged regionally significant eastside commuter route. Five (5) section, major arterial design standards were presented, noting that the Foothills power stations present a significant challenge. Funding sources, including loan rates, were discussed. Foothill is Medford's highest priority, both for implementation timing and financing. A massive linear amount of sidewalks (currently non-existent) and bike paths are included in the plans. NO goal exceptions are required. Direct access will be allowed on a limited basis.

In response to a Committee question, Mr. Georgevitch stated that the preferred priority

ranking for Medford's four (4) projects would be:

1. Foothills
2. Springbrook
3. Columbus
4. Adaptive Timing

Mr. Densmore stressed the extreme importance of Foothills as a regional corridor, and that it is imperative that it be improved in the coming years.

Mike Kuntz shared that the Foothills/Highway 140 corridor connection is the County's next project after the Table Rock Road improvements are completed.

- **RVCOG – Hybrid Vehicle Purchase** – Andrea Napoli explained the dynamics of the Hybrid purchase as related to current Staff use of personal cars for MPO travel, and the proposed 50/50 funding split with the MRMPO. The TAC and MRMPO have already recommended approval for this.

On a motion by John Vail and seconded by Jim Lewis, the Committee unanimously approved pulling the hybrid purchase from the Discretionary Funding Projects List, instead using currently available CMAQ or STP funding, whichever is applicable.

7. RVMPO Planning Update -

Jonathan David said that he had been attending a number of statewide MPO funding meetings, where there have been ongoing discussions on how each MPO is handling the oversight required projects. He has also been attending Statewide Transportation meetings.

8. Public Comment

None received.

9. Other Business / Local Business

Mr. Sophie suggested the concept of the RVMPO and MRMPO meeting together occasionally to discuss mutual concerns and opportunities to improve regional transportation.

10. Adjournment

The meeting was adjourned at 4:30 p.m.



Rogue Valley Metropolitan Planning Organization

Regional Transportation Planning

Ashland • Central Point • Eagle Point • Jacksonville • Medford • Phoenix • Talent • White City
Jackson County • Rogue Valley Transportation District • Oregon Department of Transportation

DATE: March 19, 2014
TO: Policy Committee
FROM: Andrea Napoli
SUBJECT: Discretionary Funds, Project Selection

The Policy Committee is being asked to make a tentative decision (pending future public hearing) on allocation of federal transportation funds (Surface Transportation Program and Congestion Mitigation and Air Quality Program) among applicants identified in Table 1, below. Applicants presented all projects to the Policy Committee at their February 25th meeting.

Table 1: 2016 – 2018 Project Application Summary

Project #	Agency	Project Name	Total Cost	Federal Funding Request							Local Funds	Other Funds
				FFY 2014 Fund Balance	FFY 2016		FFY 2017		FFY 2018			
					CMAQ	STP	CMAQ	STP	CMAQ	STP		
1	Ashland	Chip Seal	\$ 605,319	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 543,152	\$ 62,167	\$ -
2	Ashland	E. Nevada Street Extension	\$ 5,489,000	\$ -	\$ 1,961,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,527,400	\$ -
3	Central Point	Beebe/Hamrick Traffic Circle	\$ 1,584,304	\$ -	\$ -	\$ 1,346,701	\$ -	\$ -	\$ -	\$ -	\$ 237,603	\$ -
4	Eagle Point	E. Main St./Stevens Rd. Improvements	\$ 3,370,000	\$ -	\$ 117,000	\$ 197,000	\$ 1,000,000	\$ 1,681,000	\$ -	\$ -	\$ 375,000	\$ -
5	Jackson County	Regional Active Transportation Plan	\$ 200,000	\$ -	\$ 179,460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,540	\$ -
6	Jackson County	Table Rock Rd	\$ 7,995,000	\$ -	\$ -	\$ 589,526	\$ -	\$ -	\$ -	\$ 3,009,374	\$ 821,100	\$ 3,575,000
7	Medford	Barnett Road Adaptive Timing	\$ 375,000	\$ -	\$ -	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -
8	Medford	Columbus Ave Extension	\$ 5,520,000	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 4,520,000	\$ -
9	Medford	Foothill Rd. - Hillcrest to McAndrews	\$13,000,000	\$ -	\$ -	\$ 700,000	\$ -	\$ 2,300,000	\$ -	\$ -	\$ 10,000,000	\$ -
10	Medford	Springbrook - Cedar Links to Pheasant	\$ 4,400,000	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,400,000	\$ -
11	RVCOG	Hybrid Vehicle	\$ 12,957		\$ 12,957	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	RVTD	Clean Fuel Fleet	\$ 180,000	\$ -	\$ -	\$ 161,514	\$ -	\$ -	\$ -	\$ -	\$ 18,486	\$ -
13	RVTD	Valley Feeder Pilot Project	\$ 111,445	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 11,445	\$ -
		Total Funding Requests	\$ -	\$ -	\$ 2,271,017	\$ 5,369,741	\$ 1,000,000	\$ 3,981,000	\$ -	\$ 3,552,526		
		Funding Available	\$ 189,622	\$ 928,460	\$ 2,544,785	\$ 941,460	\$ 2,580,412	\$ 954,640	\$ 2,616,538			
		Funding Shortfall	\$189,622	(\$1,342,557)	(\$2,824,956)	(\$58,540)	(\$1,400,588)	\$954,640	(\$935,988)			

All applications and related meeting agendas and minutes have been posted on the RVMPO website (www.rvmopo.org). The CMAQ applications and evaluations have been reviewed by ODOT CMAQ program staff with eligibility recommendations having been received. Concurrence by FHWA is still pending, however.

TAC and PAC Recommendations

Spreadsheet 1, *RVMPO TAC 2016-2018 Project Ranking, Scoring, and Funding Recommendations*, contains three tables that summarize staff and TAC efforts over the past three months related to the established RVMPO project prioritization process. The spreadsheet contains three (3) tables:

- Table 1: Staff Criteria-Based Scoring – This is a summary of Spreadsheet 2, *RVMPO 2016 – 2018 Criteria-Based Evaluations, Staff Draft*.

- Table 2: TAC Final Project Ranking/Prioritization – This is the result of the TAC’s collective decision to individually rank all projects. Staff tallied all rankings and applied “High, Medium, Low” color-coded prioritization.
- Table 3: TAC Project Funding Recommendations – Project selection and funding strategy recommendations made by the TAC.

All projects, including all spreadsheets which show project prioritization work completed to-date, were presented to the PAC at their March 18th meeting. The PAC voted 6:1 in favor of the project ranking and funding recommendations as proposed by the TAC (Tables 2 & 3 of Spreadsheet 1). It should be noted that the dissenting PAC vote was made in opposition to the E. Nevada Street Extension project, as proposed. The subject PAC member expressed concern over the selection of funding the project over others and stated that he “cannot find an overwhelming argument for the project”. He went on to explain how needs described would be met by scaling the project down to include the installation of a bike/pedestrian bridge at a lesser cost.

Criteria-Based Scoring and CMAQ Analysis Summary

A brief summary of the criteria-based scoring conducted by staff is shown in Table 1 of Spreadsheet 1. The entire scoring sheet containing details of how projects scored against all criteria, including information on PM10 and CO benefits are included in Spreadsheet 2, *RVMPO 2016 – 2018 Criteria-Based Evaluations, Staff Draft*.

Remaining Available Funds Recommendation

The TAC recommendations include prioritization for funds that may remain from the allocation of 2016-2018 STP and CMAQ funds; specifically those that become available resultant of final project costs. As a result of a motion that was made by the TAC, Eagle Point will be owed \$2,028 in either STP or CMAQ funds. This amount is reflective of STP funds that Eagle Point volunteered to transfer to fund the RVMCOG Hybrid Vehicle project.

Next Steps

Project funding decisions made now will be tentative, pending public hearing, and drafting of the new 2015-2018 Metropolitan Transportation Improvement Program. Decisions made now enable staff to begin work on drafting the new MTIP.

1. Staff Criteria-Based Scoring

Agency	Project Name/Description	Project Evaluation Score (total from all four categories)
Medford	Springbrook - Cedar Links to Pheasant	37
Eagle Point	E. Main St./Stevens Rd. Improvements	34
Jackson County	Regional Active Transportation Plan	32
Medford	Foothill Rd. - Hillcrest to McAndrews	32
Jackson County	Table Rock Rd	30
Central Point	Beebe/Hamrick Traffic Circle	30
Ashland	E. Nevada Street Extension	23
RVTD	Valley Feeder Pilot Project	22
Medford	Barnett Road Adaptive Timing	21
Medford	Columbus Ave Extension	19
Ashland	Chip Seal	17
RVCOG	Hybrid Vehicle	12
RVTD	Clean Fuel Fleet	12

2. TAC Final Project Ranking/Prioritization

Agency	Project Name/Description	Total Cost	Amount Requested	Sum of Individual TAC Member Rankings *
Jackson County	Table Rock Rd	\$7,995,000	\$3,598,900	41
Jackson County	Regional Active Transportation Plan	\$200,000	\$179,460	37
Eagle Point	E. Main St./Stevens Rd. Improvements	\$3,370,000	\$2,995,000	36
Medford	Foothill Rd. - Hillcrest to McAndrews	\$13,000,000	\$3,000,000	36
RVCOG	Hybrid Vehicle	\$12,957	\$12,957	N/A per TAC
Ashland	E. Nevada Street Extension	\$5,489,000	\$1,961,600	35
Medford	Springbrook - Cedar Links to Pheasant	\$4,400,000	\$1,000,000	33
Central Point	Beebe/Hamrick Traffic Circle	\$1,584,304	\$1,346,701	32
RVTD	Valley Feeder Pilot Project	\$111,445	\$100,000	32
Medford	Barnett Road Adaptive Timing	\$375,000	\$275,000	30
Ashland	Chip Seal	\$605,319	\$543,152	26
RVTD	Clean Fuel Fleet	\$180,000	\$161,514	24
Medford	Columbus Ave Extension	\$5,520,000	\$1,000,000	22

3. TAC Project Funding Recommendations

Agency	Project Name/Description	Total Cost	Original Amount Requested	CMAQ Funding Recommendation	STP Funding Recommendation	Total Recommended for Funding	Difference (Funds Recommended minus Original Request)
Jackson County	Table Rock Rd	\$7,995,000	\$3,598,900	\$3,498,900		\$3,498,900	(\$100,000)
Jackson County	Regional Active Transportation Plan	\$200,000	\$179,460		\$179,460	\$179,460	\$0
Eagle Point **	E. Main St./Stevens Rd. Improvements	\$3,370,000	\$2,995,000	\$1,332,497	\$1,104,043	\$2,436,540	(\$558,460)
Medford	Foothill Rd. - Hillcrest to McAndrews	\$13,000,000	\$3,000,000	\$3,000,000		\$3,000,000	\$0
RVCOG	Hybrid Vehicle	\$12,957	\$12,957		\$12,957	\$12,957	\$0
Ashland **	E. Nevada Street Extension	\$5,489,000	\$1,961,600		\$1,528,100	\$1,528,100	(\$433,500)
RVTD	Valley Feeder Pilot Project	\$111,445	\$100,000	\$100,000		\$100,000	\$0
Total Funding Recommendation:				\$7,931,397	\$2,824,560	\$10,755,957	
Total Available:				\$7,931,397	\$2,824,560	\$10,755,957	
Balance:				\$0	\$0	\$0	

**A motion was made by the TAC (3/12/14) to refund EP and Ashland for \$12,957 they split in STP funds to fund the COG hybrid. On 3/13, a remaining \$10,929 in CMAQ was found. Of that, Ashland has been fully refunded (from EP STP) and EP had a net refund of \$4,450 and will continue to be owed \$2,028.

*Rankings tallied from the following RVMPO TAC Members:	
Harris (Ashland)	Kuntz (Jackson Co.)
Johnson (Ashland)	Horlacher (ODOT)
Humphrey (Central Point)	Sparkman (ODOT)
Samitore (Central Point)	Adam (Medford)
LeBombard (DLCD)	Georgevich (Medford)
Upston (Eagle Point)	Caldwell (Phoenix)
Miller (Eagle Point)	Sullivan (RVTD)
Madding (Jackson Co.)	Townsend (RVTD)
Note: No input from Jacksonville or Talent	

	High
	Medium
	Low

<p>No identifiable link to criteria</p>	<p>1. RVMPO TAZ Data: Population, employment w/in 1/2-mile of improvement</p>	<p>Note: If benefit is less than 1 kg, the cost over the lifespan is equal to the \$ amount requested</p>
<p>1 Low: Does little to fulfill criteria</p>	<p>2. Environmental Justice populations served based on <i>Environmental Justice & Title VI Plan</i>, and Title VI & EJ Maps.</p>	
<p>2 Medium: Contributes to criteria</p>	<p>Scoring based on project benefit to protected populations & mapped concentrations above RVMPO regional averages:</p>	
<p>3 High: Strongly supports criteria</p>	<p>1 = Minor population impact, one class served 2 = Moderate population impact, two classes served 3 = Significant population impact, three or more classes served</p>	
	<p>3. RVTD pop., employment from Land Use Conditions Summary, RVTD District Boundary Assessment, Spring 2011</p>	
	<p>4. Assumes one truck/day @ each station (21*365); Trucks stop for 10 hrs. rest</p>	
	<p>5. Air Quality --Benefit considers: Emission reductions beyond those identified in CMAQ analysis; Cost effectiveness of air quality improvement (based on VMT reduction and population served); and Overall results of CMAQ analysis</p>	
	<p>6. Greenhouse Gas Reduction -- Benefit considers: Support for efficient urban form (downtowns and activity centers, compact and mixed-use development, transportation options); Reduced combustion vehicle use; and Shift to lower-carbon fuel. Scoring as follows:</p>	
	<p>1 = Addresses one of three category criteria 2 = Addresses two of three category criteria 3 = Addresses all three category criteria</p>	
	<p>7. VMT reduction per TPR allowance of 10% VMT reduction for adding sidewalks and bike lanes in TODs, downtowns and recognized activity centers; assumed 5% VMT reduction in all other locations. Annual VMT Reduction = daily VMT reduction (Less ADT*TripDistance)*365.</p>	



CMAQ Project Analysis

Project Name: Chip Seal
Applicant: City of Ashland
Date of Analysis: January 29, 2014

Project Description

The project entails grading, prepping and chip sealing approximately 44,903 square yards of dirt road within the Ashland City limits on a number of sections of various residential roadways. The chip seal project proposed is a double shot chip seal with a fog seal. The base course will be 1/2" and the top course will be 3/8". The project will also involve geotechnical analysis of the road sections to determine if drainage is appropriate. In addition roads that serve truck traffic will include an additional 6" of base material added for structural support. Total lineal feet of project is approximately 27,793 feet.

Analysis

Implementation of this project will impact PM₁₀ emissions based on paving of existing dirt roads. The analysis will examine reductions in PM₁₀. PM₁₀ emission factors for paved roadways are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 123 (*based on median of available information provided by City of Ashland*)
2. Project Length (miles) = 5.26
3. VMT (ADT * Project Length) = (123*5.26) = 646.98
4. Paved Road PM₁₀ Production Rate = 0.001544 kg/mile (RVMPO AQCD, Lo ADT)
5. Unpaved Road PM₁₀ Production Rate = 0.52163 kg/mile (RVMPO AQCD)
6. Days of use = 365
7. 1000 kg = 1 metric ton

PM₁₀ Analysis

Daily Unpaved PM₁₀ Production = (VMT*0.52163) = 337.48418 kg

Daily Paved PM₁₀ Production = (VMT*0.001544) = .9963492 kg

PM₁₀ Daily Reduction = (337.48418 kg – .9963492 kg) = 336 kg/day

PM₁₀ Annual Reduction = (336 kg*365 days) = 122,640 kg



CMAQ Project Analysis

Project Name: E. Nevada Street Extension
Applicant: City of Ashland
Date of Analysis: January 31, 2014

Project Description

The E. Nevada St. extension project involves construction of a new 0.12 mile paved roadway, including a bridge, which links the existing terminus of E. Nevada St. and N. Mountain Ave., providing balance and mobility to the transportation system. Nevada St. is classified as an avenue in the City's Transportation System Plan. The project provides an additional route for local and regional multimodal east-west travel. The new project will include bicycle lanes, sidewalks, parkrow, providing connectivity to the Bear Creek Greenway and allow for a future transit route.

Analysis

Implementation of this project will impact PM₁₀ emissions based on assuming a trip distance reduction and a mode shift. The analysis will examine reductions in PM₁₀. PM₁₀ emission factors for paved roadways are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 2,977 (based on 10/16/2013 TPAU analysis, predicted Peak Volume = 13% of ADT)
2. Trip Distance Reduction (miles) = 1.5 (estimated trip distance reduced: N. Mountain Avenue, E. Nevada Street to Siskiyou Boulevard)
3. Project Length (miles) = .12
4. Trip Length (miles) = 5.4 (average vehicle trip length in RVMPO)
5. Paved Road PM₁₀ Production Rate = 0.00069 kg/mile (RVMPO AQCD, Hi ADT)
6. Days of use = 365

PM₁₀ Analysis

Daily Paved Road PM₁₀ Production = (Project Length*0.00069*ADT) = .2465 kg

VMT Reduction #1 = (ADT*Trip Distance Reduction) = (2,977 x 1.5) = 4,465.5

VMT Reduction #2 = (ADT*5% bike/ped mode shift reduction*Trip Length) = 148.85

Daily PM₁₀ Reduction = ((VMT Reduction #1 + #2)*0.00069 kg) = 3.1839 kg

Daily Benefit Reduction Less Production = (3.1839 kg - .2465 kg) = 2.9374 kg

PM₁₀ Annual Reduction = (2.9374 kg/day*365 days) = 1,072.15 kg



CMAQ Project Analysis

Project Name: Beebe/Hamrick Traffic Circle
Applicant: City of Central Point
Date of Analysis: January 31, 2014

Project Description

This project entails the construction of a new traffic circle and associated bike lanes and sidewalks at the intersection of Beebe and Hamrick Roads. The project will involve the acquisition of 4,000 s.f. of real property. The goals of the project are to create an acceptable level of service for the intersection and to accommodate the future development within the remaining UGB, while providing a safe and effective intersection for bicycles and pedestrians.

Analysis

Implementation of this project will impact PM_{10} and CO emissions based on assuming a delay reduction and a mode shift. However, the analysis will examine only reductions in PM_{10} as the project is not located within a CO maintenance area. PM_{10} emission factors for paved roadways are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in PM_{10} analysis:

1. Volume (ADT) = 1,380 (10% reduction (bike/ped shift in TOD) of 13,800 ADT)
2. Trip Length (miles) = 5.4 (average vehicle trip length in RVMPO)
3. Less VMT (ADT*Trip Length) = 7,452
4. Paved Road PM_{10} Production Rate = .00069 kg/mile (RVMPO AQCD, Hi ADT)
5. Days of use = 365

PM_{10} Analysis

Daily Paved PM_{10} Reduction = (Less VMT*0.00069 kg) = 5.1419 kg

PM_{10} Annual Reduction = (5.1419 kg*365 days) = 1,876.79 kg



CMAQ Project Analysis

Project Name: East Main Street/Stevens Road Improvements
Applicant: City of Eagle Point
Date of Analysis: January 31, 2014

Project Description

The proposed project will add 5-ft bike lanes and 6-ft sidewalks to both sides of East Main Street and Stevens Road, from Robert Trent Jones to the new Hillside Elementary School. The pavement will be widened to accommodate standard lanes and left turn movements into existing and future driveways/intersections on Stevens Road. Existing pavement will be overlaid to preserve the life, and lighting will be added for safety and to promote usage.

Analysis

Implementation of this project will impact PM_{10} emissions based on assuming a mode shift. The analysis will examine reductions in PM_{10} . PM_{10} emission factors for paved roadways are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 175 (based on 5% reduction of 3,500 ADT for Stevens/E. Main)
2. Trip Length (miles) = 5.4 (average trip length in RVMPO)
3. Less VMT (ADT * Trip Length) = 945
4. Paved Road PM_{10} Production Rate = 0.001544 kg/mile (RVMPO AQCD, Lo ADT)
5. Days of use = 365

PM_{10} Analysis

Daily Paved PM_{10} Reduction = (Less VMT*0.001544 kg) = 1.45908 kg

PM_{10} Annual Reduction = (1.45908 kg*365 days) = 532.6 kg



CMAQ Project Analysis

Project Name: Table Rock Road, I-5 to Biddle
Applicant: Jackson County
Date of Analysis: January 29, 2014

Project Description

This project consists of two sections. Section One will widen the existing two-lane roadway from Airport Road to Biddle Road (3000 feet) to include two travel lanes in each direction, a continuous center turn lane, bike lanes and sidewalks on each side of the roadway, curb, gutter and underground storm water system. This typical section will match the existing section to the north of the project area which was completed in 2005. Section Two will widen the existing two-lane roadway from the Interstate 5 overcrossing to Airport Road (2000 feet) to include a travel lane in each direction, a center turn lane, bike lanes and sidewalks on each side of the roadway, curb, gutter and underground storm water system. The project also includes a new traffic signal at Airport Road and a transit passenger facility on Biddle Road just west of Table Rock Road.

Analysis

Implementation of this project will impact PM_{10} and CO emissions based on assuming a mode shift. The analysis will examine reductions in PM_{10} and CO. PM_{10} emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 650 (based on 5% reduction (bike/ped mode shift) of 13,000 ADT)
2. Trip Length (miles) = 5.4 (average vehicle trip length in RVMPO)
3. Less VMT (ADT*Trip Length) = 3,510
4. Paved Road PM_{10} Production Rate = 0.00069 kg/mile (RVMPO AQCD, Hi ADT)
5. CO Emission Factor = 4.4 grams (RVMPO AQCD)
6. Days of use = 365
7. 907134.7 = grams/ton

PM_{10} Analysis

Daily Paved PM_{10} Reduction = (Less VMT*0.00069 kg) = 2.4219 kg

PM_{10} Annual Reduction = (2.4219 kg*365 days) = 883.99 kg

CO Analysis

CO Annual Reduction = ((CO Emission Factor*Less VMT)*365)/907184.7 = 6.2138 tons

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

CO Annual Reduction = ((6.2138/0.907)*1000) = 6,850.93 kg



ROGUE VALLEY METROPOLITAN PLANNING ORGANIZATION REGIONAL TRANSPORTATION PLANNING

Ashland • Central Point • Eagle Point • Jacksonville • Medford • Phoenix • Talent • White City
Jackson County • Rogue Valley Transportation District • Oregon Department of Transportation

CMAQ Project Analysis

Project Name: Barnett Road Adaptive Timing
Applicant: City of Medford
Date of Analysis: January 31, 2014

Project Description

This project proposes to install adaptive timing hardware/software at up to eleven (11) signalized intersections from Riverside to North Phoenix Road.

Analysis

Implementation of this project will impact PM_{10} and CO emissions based on assuming delay reduction. The analysis will examine reductions in PM_{10} and CO using emission factors derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 40,300
2. Project Area Length (miles) = 2.5
3. VMT (ADT * Project Area Length) = $(40,300 * 2.5) = 100,750$
4. CO Emission Factor = 4.4 grams/mile (RVMPO AQCD)
5. Est. Synchronization Benefit = 15% (CalTrans/Air Resources Board)
6. PM_{10} Tailpipe Emission Factor = 0.034 grams/mile (RVMPO AQCD)
7. Days of use = 365
8. 907134.7 = grams/ton

CO Analysis

CO Annual Production = $((\text{CO Emission Factor} * \text{VMT}) * 365) / 907134.7 = 178.3589 \text{ tons}$

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

CO Annual Reduction = $((178.3589 \text{ tons} * 15\%) * 1000 \text{ kg}) = 26,750 \text{ kg}$

PM_{10} Analysis

Daily Tailpipe PM_{10} Reduction = $(\text{VMT} * 0.034 \text{ gm}) = 3,425.5 \text{ grams}$

PM_{10} Annual Reduction = $(3,425.5 \text{ grams} * 365 \text{ days}) / 907134.7 = 1.39 \text{ tons} * 1000 \text{ kg} = 1,390 \text{ kg}$



ROGUE VALLEY METROPOLITAN PLANNING ORGANIZATION REGIONAL TRANSPORTATION PLANNING

Ashland • Central Point • Eagle Point • Jacksonville • Medford • Phoenix • Talent • White City
Jackson County • Rogue Valley Transportation District • Oregon Department of Transportation

CMAQ Project Analysis

Project Name: Columbus Avenue Extension
Applicant: City of Medford
Date of Analysis: February 4, 2014

Project Description

The project extends Columbus Avenue from McAndrews north to tie into Sage Road south of Highway 238. Columbus Road is a major arterial and will include center turn lanes, two travel lanes in each direction, bike lanes and sidewalks.

Analysis

Implementation of this project will impact PM₁₀ and CO emissions based on assuming a mode shift and a trip distance reduction. The analysis will examine reductions in PM₁₀ and CO. PM₁₀ emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 16,000
2. Volume (ADT) = 800 (based on 5% reduction (bike/ped mode shift) of 16,000 ADT)
3. Trip Length (miles) = 5.4 (average vehicle trip length in RVMPO)
4. Less VMT (ADT*Trip Length) = (800*5.4) = 4,320
5. VMT (new connection) = (16,000*0.64 mile (3,400 LF)) = 10,303
6. Paved Road PM₁₀ Production Rate = 0.00069 kg/mile (RVMPO AQCD, Hi ADT)
7. PM₁₀ tailpipe emissions factor = 0.034 grams/mile (RVMPO AQCD)
8. CO Emission Factor = 4.4 grams/mile (RVMPO AQCD)
9. Days of use = 365
10. 907134.7 = grams/ton

PM₁₀ Analysis

Daily Paved PM₁₀ Reduction (5% mode share shift) = (VMT*0.00069 kg) = 3 kg

PM₁₀ Annual Mode Share Reduction = (3 kg*365 days) = 1,088 kg

Daily Paved PM₁₀ Production (new connection) = VMT (16,000 ADT*0.64 mile) =
10,240 VMT*0.00069 = 7.0656 kg

PM₁₀ Annual Increase (new connection) = (7.0656 kg*365 days) = 2,578.94 kg

Annual Reduction = project will reduce 0.1 miles for people going to Highway 238.

Assumptions: 70% of the vehicles are heading north equates to (16,000 x 0.7 x 0.1 x 365) = 408,800 annual VMT = (VMT*0.00069) = 282 kg annual reduction

Truck Idle Time Reduction = annual truck VMT (81,760); 20% idle time reduction VMT (16,352); PM₁₀ tailpipe emissions factor (0.034 grams/mile)

Annual PM₁₀ Idle Time Reduction = 16,352*0.034 grams = 0.6 kg

PM₁₀ Annual Emissions Benefits = (1,088+282+0.6)-2,578.94 = (1,208.34 kg) increase

CO Analysis

CO Annual Reduction (5% mode share shift) = ((CO Emission Factor*VMT)*365)/907184.7 = 7.65 tons

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

CO Annual Mode Share Shift Reduction = ((7.65/0.907)*1000) = **8,432 kg**

CO New Connection = ((CO Emission Factor*VMT)*365)/907184.7 = 18 tons
((18/0.907)*1000) = **20,110 kg (increase)**

CO trip reduction benefits: 2 tons; tons to kg = **2,186 kg**

CO idle time reduction = Annual savings = **72 kg**

CO Annual Emissions Benefits = (8,432+2,186+72) -20,110 = (9,420 kg) increase



CMAQ Project Analysis

Project Name: Foothill Road, Hillcrest to McAndrews
Applicant: City of Medford
Date of Analysis: February 3, 2014

Project Description

The project will widen Foothill Road between Hillcrest Road (major collector) and McAndrews Road (major arterial) to major arterial standards which include bike lanes, sidewalks, medians, and planter strips. The total project length is approximately 5,100 LF and will provide approximately 10,000 LF of bike lanes and 11,000 LF of sidewalks.

Analysis

Implementation of this project will impact PM₁₀ and CO emissions based on assuming a mode shift. The analysis will examine reductions in PM₁₀ and CO. PM₁₀ emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 560 (based on 5% reduction (bike/pedestrian shift) of 11,200 Foothill Road ADT)
2. Trip Length (miles) = 5.4 (average vehicle trip length in RVMPO)
3. Less VMT (ADT*Trip Length) = (560*5.4) = 3,024
4. Paved Road PM₁₀ Production Rate = 0.00069 kg/mile (RVMPO AQCD, Hi ADT)
5. CO Emission Factor = 4.4 grams/mile (RVMPO AQCD)
6. Days of use = 365
7. 907134.7 = grams/ton

PM₁₀ Analysis

Daily Paved PM₁₀ Reduction = (Less VMT*0.00069 kg) = 2.08656 kg

PM₁₀ Annual Reduction = (2.08656 kg*365 days) = 761.59 kg

CO Analysis

CO Annual Reduction = ((CO Emission Factor*Less VMT)*365)/907184.7 = 5.3534 tons

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

CO Annual Reduction = ((5.3534/0.907)*1000) = 5,902.32 kg



CMAQ Project Analysis

Project Name: Springbrook Road, Cedar Links to Pheasant
Applicant: City of Medford
Date of Analysis: February 3, 2014

Project Description

This project proposes to construct Springbrook Road from Cedar Links to Pheasant to a major collector standard which includes two (2) travel lanes, a center turn lane, bike lanes and sidewalks. A round-a-bout will also be pursued at the intersection of Cedar Links and Springbrook to help with congestion and air quality by reducing the number of vehicle stops.

Analysis

Implementation of this project will impact PM₁₀ and CO emissions based on assuming a traffic delay reduction and a mode shift. The analysis will examine reductions in PM₁₀ and CO. PM₁₀ emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Volume (ADT) = 475 (based on 5% reduction (bike/pedestrian shift) of 9,500 Springbrook Road ADT)
2. Trip Length (miles) = 5.4 (average vehicle trip length in RVMPO)
3. Less VMT (ADT * Trip Length) = (475*5.4) = 2,565
4. Paved Road PM₁₀ Production Rate = 0.00069 kg/mile (RVMPO AQCD, Hi ADT)
5. CO Emission Factor = 4.4 grams/mile (RVMPO AQCD)
6. Traffic Delay Reduction = 30% (per City of Medford)
7. Days of use = 365
8. 907134.7 = grams/ton

PM₁₀ Analysis

Daily Paved PM₁₀ Reduction = (Less VMT*0.00069 kg) = 1.76985 kg

PM₁₀ Annual Reduction = (1.76985 kg*365 days) = 646 kg

CO Analysis

CO Annual Reduction = ((CO Emission Factor*VMT)*365)/907184.7 = 4.54 tons

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

Mode Shift CO Annual Reduction = ((4.54/0.907)*1000) = 5,005.5127 kg

Delay CO Annual Reduction = ADT*Project Length = VMT (9,500 ADT*.455 Miles) = 4,322 VMT = 7.6 tons = 8,436 kg * 30% = 2,530 kg

CO Annual Reduction (mode shift & traffic delay reduction) = 7,536 kg



CMAQ Project Analysis

Project Name: Hybrid Vehicle
Applicant: RVCOG
Date of Analysis: February 4, 2014

Project Description

The COG is proposing the purchase of one (1) new hybrid vehicle to serve as the single MPO vehicle for staff transportation. Currently the COG does not have a staff vehicle. On a regular basis staff is required to travel within the Rogue Valley MPO and the Middle Rogue MPO, Eugene, Salem, occasionally to Portland and to other MPO's. Current practice is to rent a gas vehicle or pay staff for the use of their personal vehicle on a per mile basis. By owning a hybrid staff vehicle, the COG would be reducing emissions and save money by not renting a vehicle or paying for mileage.

Analysis

Implementation of this project will impact PM_{10} and CO emissions by utilization of a hybrid vehicle as opposed to a gas vehicle. The analysis will examine reductions in PM_{10} and CO. PM_{10} emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Yearly Vehicle Estimated VMT = 1,872 (within RVMPO area)
2. Daily VMT = 5.12
3. PM_{10} Tailpipe Production Rate = 0.034 grams (RVMPO AQCD)
4. CO Emission Factor = 4.4 grams/mile (RVMPO AQCD)
5. Percent VMT within CO Area = 32% (600 VMT)
6. Days of use = 365
7. 907134.7 = grams/ton
8. Hybrid Vehicle CO reduction = 34% (DOE, Alternative Fuels Data Center)
9. Hybrid Vehicle PM_{10} reduction = 34%

PM_{10} Analysis

Daily PM_{10} Tailpipe Reduction = $(VMT * 0.034 \text{ grams}) / 1000 = 0.0002 \text{ kg}$
 PM_{10} Annual Tailpipe Reduction = $(0.0002 \text{ kg} * 365 \text{ days}) = 0.07 \text{ kg} * 34\% = 0.025 \text{ kg}$

CO Analysis

CO Annual Reduction = $((CO \text{ Emission Factor} * VMT * 32\%) * 365) / 907134.7 * 34\% = 0.001 \text{ tons}$

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

CO Annual Reduction = $((0.001 / 0.907) * 1000) = 1.1 \text{ kg}$



CMAQ Project Analysis

Project Name: Clean Fuel Fleet Car Replacement
Applicant: RVTB
Date of Analysis: February 5, 2014

Project Description

RVTB has a fleet of 6 staff vehicles that are eligible for replacement. The staff cars are used for driver transportation to and from Front Street Station, field supervision and for administrative staff travel. RVTB will replace 4 fleet cars with a CNG fuel source and 2 fleet cars with a dual CNG/gasoline fuel source. Replacement vehicles are estimated to cost \$30,000 each.

Analysis

Implementation of this project will impact PM₁₀ and CO emissions by utilization of cleaner vehicles. The analysis will examine reductions in PM₁₀ and CO. PM₁₀ emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. Yearly Vehicle Estimated VMT = 60,670 (6 vehicles)
2. CNG Yearly Vehicle Estimated VMT = 40,446 (average Yearly VMT of 4 CNG vehicles)
3. Daily CNG VMT = 132 (40,446/306 days of use)
4. Hybrid Yearly Vehicle Estimated VMT = 20,233 (average Yearly VMT of 2 Hybrid vehicles)
5. Daily Hybrid Vehicle VMT = 66 (20,233/306 days of use)
6. PM₁₀ Tailpipe Production Rate = 0.034 grams (RVMPO AQCD)
7. CO Emission Factor = 4.4 gm (RVMPO AQCD)
8. Percent RVTB District within Medford UGB = 18% (RVTB 100,350 acres: Medford UGB 18,070 acres)
9. Days of use = 306
10. 907134.7 = grams/ton
11. CNG Vehicle CO reduction = 75%¹
12. CNG Vehicle PM₁₀ reduction = 95%²
13. Hybrid Vehicle Emissions Reductions = 34%^{**}

¹ Source: TIAX Report – Full Fuel Cycle Assessment: Well-To-Wheels Energy Inputs, Emissions, and Water Impacts California Energy Commission. Source: U.S. Department of Energy – Argonne National Laboratory Report: A full Fuel-Cycle Analysis of Energy and Emissions Transportation Fuels Produced from Natural Gas 12/1999. ** USDOE

² Source: TIAX Report – Full Fuel Cycle Assessment: Well-To-Wheels Energy Inputs, Emissions, and Water Impacts California Energy Commission. Source: U.S. Department of Energy – Argonne National Laboratory Report: A full Fuel-Cycle Analysis of Energy and Emissions Transportation Fuels Produced from Natural Gas 12/1999.

PM₁₀ Analysis

CNG Daily PM₁₀ Tailpipe Reduction = (VMT*0.034 grams*0.95) = grams/1000 = 0.0043 kg

CNG PM₁₀ Tailpipe Annual Reduction = (0.0043 kg*306 days) = 1.3 kg

Hybrid Daily PM₁₀ Tailpipe Reduction = (VMT*0.034 grams*0.34) = 0.76 grams/1000 = 0.0008 kg

Hybrid PM₁₀ Tailpipe Annual Reduction = (0.0008 kg*306 days) = 0.24 kg

Total PM₁₀ Tailpipe Annual Reduction = 1.5 kg

CO Analysis

CNG CO Annual Reduction = ((CO Emission Factor*VMT*75%)*306)/907184.7*18% = 0.026 tons

Tons → kg

1 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

CNG CO Annual Reduction = ((0.026/0.907)*1000) = 29 kg

Hybrid CO Annual Reduction = ((CO Emission Factor*VMT*34%)*306)/907184.7*18% = 0.006 tons

Tons → kg

2 English short ton = 0.907 metric ton

1 metric ton = 1000 kg

Hybrid CO Annual Reduction = ((0.006/0.907)*1000) = 6.6 kg

Total CO Annual Reduction = 36 kg



CMAQ Project Analysis

Project Name: Valley Feeder Pilot Project
Applicant: RVTB
Date of Analysis: February 4, 2014

Project Description

RVTB will implement a demand-response service available to all citizens with this funding. There is high potential for a Valley feeder service to establish ridership demand before regular fixed-route service is implemented and to provide service in areas that are not conducive for a fixed-route. The service will begin by using the available capacity in the Valley lift vehicles. RVTB serves an area on $\frac{3}{4}$ mile on either side of its fixed-routes with paratransit services, known as Valley Lift. Currently the service is limited to eligible clients who are older adults or disabled persons. FTA allows transit providers to fill available capacity in paratransit vehicles with persons from the general public. RVTB is seeking funds to pilot a service called "Valley Feeder" that will enable general public to schedule trips on the Valley Lift vehicles.

Analysis

Implementation of this project will impact PM_{10} and CO emissions by assuming a reduction in vehicle trips. The analysis will examine reductions in PM_{10} and CO. PM_{10} emission factors for paved roadways and CO are derived from the RVMPO Air Quality Conformity Determination (AQCD) for the 2013 – 2038 RTP.

Assumptions used in this analysis:

1. New Daily Transit Trips = $7.5/\text{day} \times 2 \text{ trips} = 15 \text{ trips}$
2. Transit Trip Length (miles) = 7.1 (average RVTB length)
3. Percent of Transit Riders drive alone factor = 34.4%
4. Less VMT (New Transit Trips*Trip Length) = $(15 \times 7.1) = 106.5 \times 34.4\% = 36.6$
5. Paved Road PM_{10} Production Rate = 0.00069 kg (RVMPO AQCD)
6. CO Emission Factor = 4.4 grams (RVMPO AQCD)
7. Percent RVTB District within Medford UGB = 18% (RVTB 100,350 acres: Medford UGB 18,070 acres)
8. Days of use = 306

PM₁₀ Analysis

Daily Paved PM_{10} Reduction = (Less VMT*0.00069 kg) = 0.0253 kg/day
PM₁₀ Annual Reduction = (0.0253 kg*306 days) = 7.7 kg

CO Analysis

CO Annual Reduction = ((CO Emission Factor*Less VMT)*306)*18% = 8,870 grams
g → kg
CO Annual Reduction = 8,870 g = 8.9 kg