

Appendix I of the 2023 Annual Criteria Monitoring Network Plan.  
2023 Oregon Medford PM2.5 and PM10 Monitoring Site  
Relocation Plan



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# 1. Introduction

Oregon DEQ is proposing to move the [Medford Welch and Jackson](#) (MWJ) PM2.5 and PM10 monitoring site 0.7 kilometers east to [Jackson Elementary School](#). Medford SLAMS monitoring is for population exposure and the proposed Jackson Elementary School site is ideally suited for this purpose. Specifically, Jackson Elementary School is a school located in a residential neighborhood, which aligns with EPA and DEQ’s PM2.5 goal to monitor for air pollutants in areas where people, work, live and play.

The current Medford SLAMS monitoring site is MWJ. MWJ has been used by DEQ for PM10 since 1989 and off and on for PM2.5 since 1999. MWJ is located on private property in a commercial setting (See Figure 1 and 2). The MWJ property is for sale and the new owner may evict us, raise rent, or use the property for incompatible purposes. The uncertainty arising from MWJ sale has convinced us that the Medford SLAMS site should be moved.

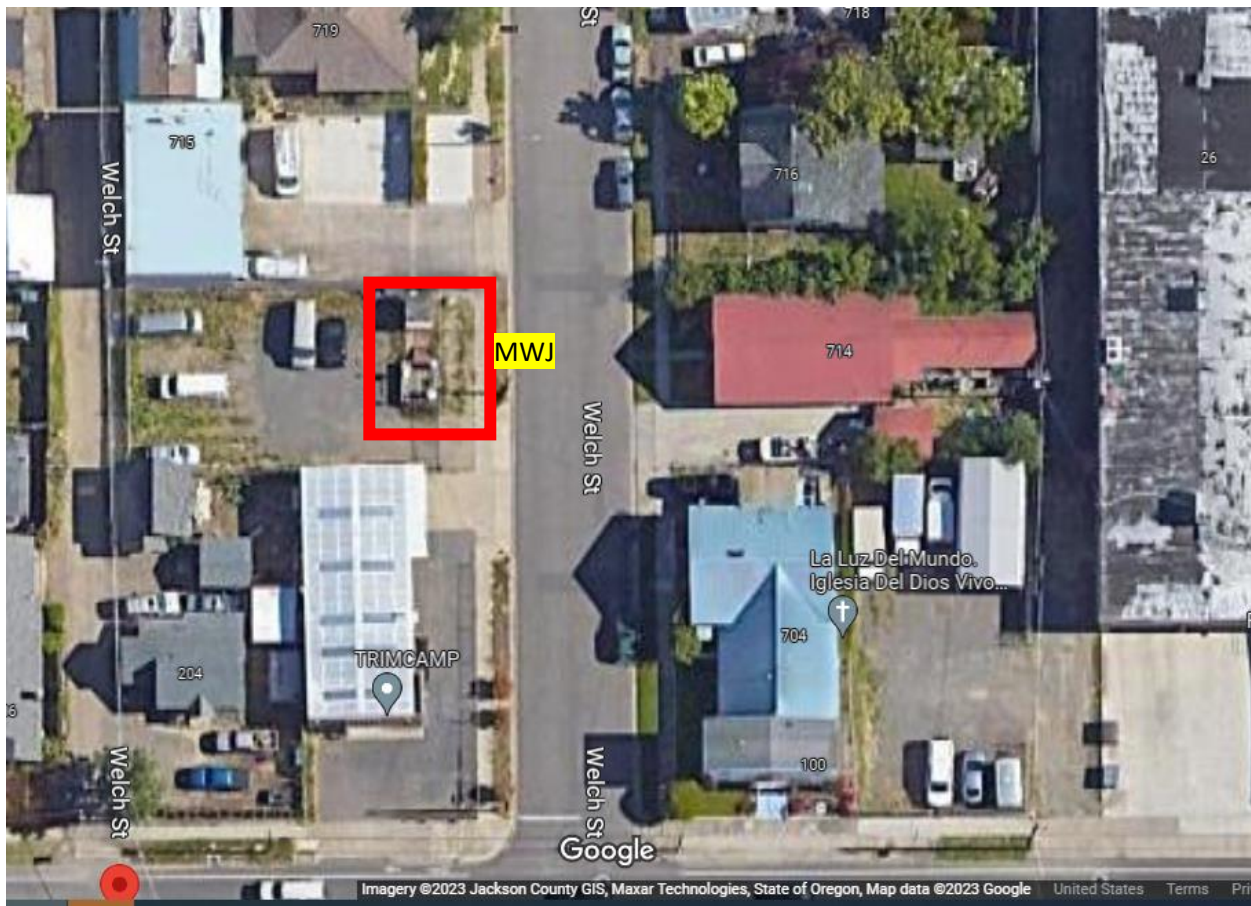


Figure 1. Aerial view of Medford Welch and Jackson St. monitoring site in commercial area.



Figure 2. View of MWJ adjacent to commercial businesses

This document provides details about MWJ and the proposed Jackson Elementary School sites. We describe the physical conditions, receptor populations, and environmental justice areas around the two sites. Specifically, we reviewed topography, meteorology, and emissions sources. We also considered receptor population, environmental justice areas, and populations at risk such as the young and old. This information is provided below.

## 2. Topography

Air pollutants can pool and become elevated in topographic low points during stable atmospheric conditions, weak mixing, and/or boundary layer inversions. Medford is located in the Rogue Valley and MWJ is situated at a low point in the valley. The valley is higher in the south, with hills on the east and west side. It drains towards the north (Figure 3). This topographic position makes Medford susceptible to elevated pollutant concentrations, especially during stable atmospheric conditions. The two sites are both located in the 1200ft elevation range. Google Earth shows MWJ at 411 meters and Jackson Elementary at 413 meters. Effectively, both sites are at the same elevation and will experience the same drainage during inversions.

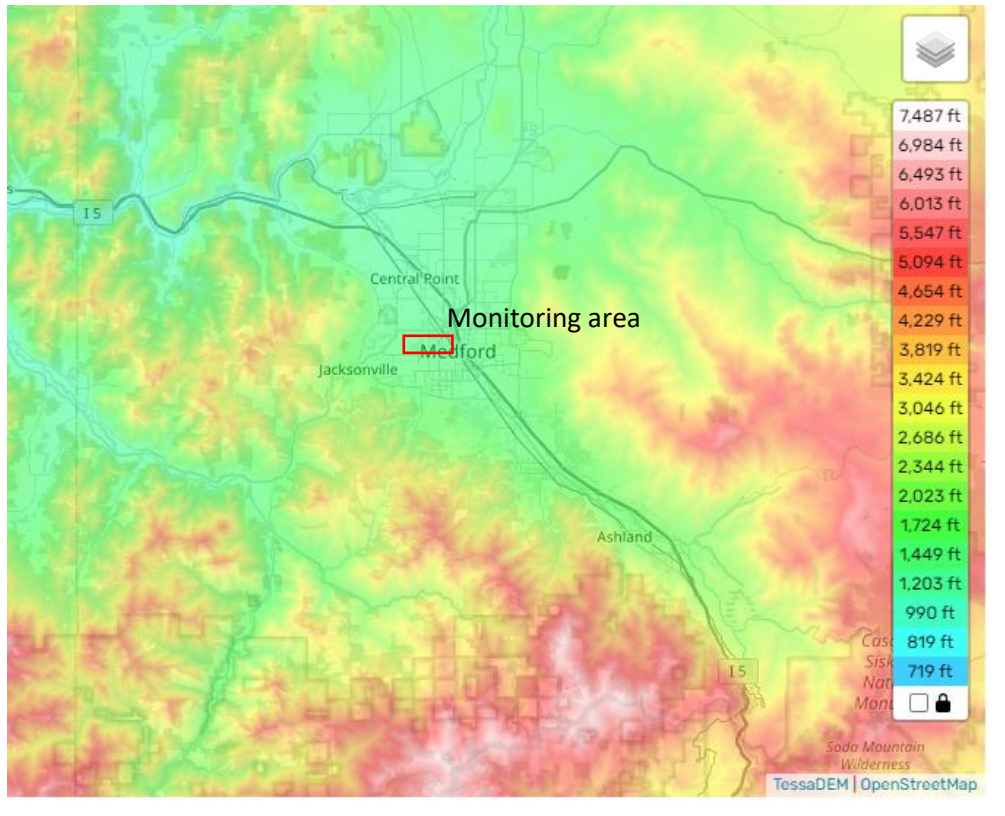


Figure 3. Medford topography.

### 3. Meteorology

#### Inversions

The Rogue Valley experiences frequent overnight inversions which can lead to elevated PM2.5 levels. DEQ operates a meteorological station in Medford (410291002) which collects temperature at 2 m and 10 m heights, wind speed, and wind direction. Temperature at the two levels is subtracted to get delta temperature ( $\Delta T$ ) at the two levels ( $T_{10m} - T_{2m}$ ), and the corresponding PM2.5 concentrations during a typical elevated PM2.5 episode.  $\Delta T$  is an indicator of an inversion because it shows whether the air is stable or unstable. If the 2 m air is colder than the 10 m air above it, and air is stable as hot air rises and cold air sinks. This happens during the evening as the ground cools and cold air slides down the hill sides. During the daytime, the ground heats up and the surface air becomes warmer than the air aloft. The hot air rises, causing unstable air conditions.

We combined these meteorological observations with PM2.5 data collected at MWJ and show them in Figure 4 below to show the diurnal patterns. The example in the figure shows how the PM2.5 levels go up in the evening and down during the day along with the temperature and opposite of the  $\Delta T$ . The wind speed is much harder to see because it is generally low throughout the day but it also goes up during the day and down at night.

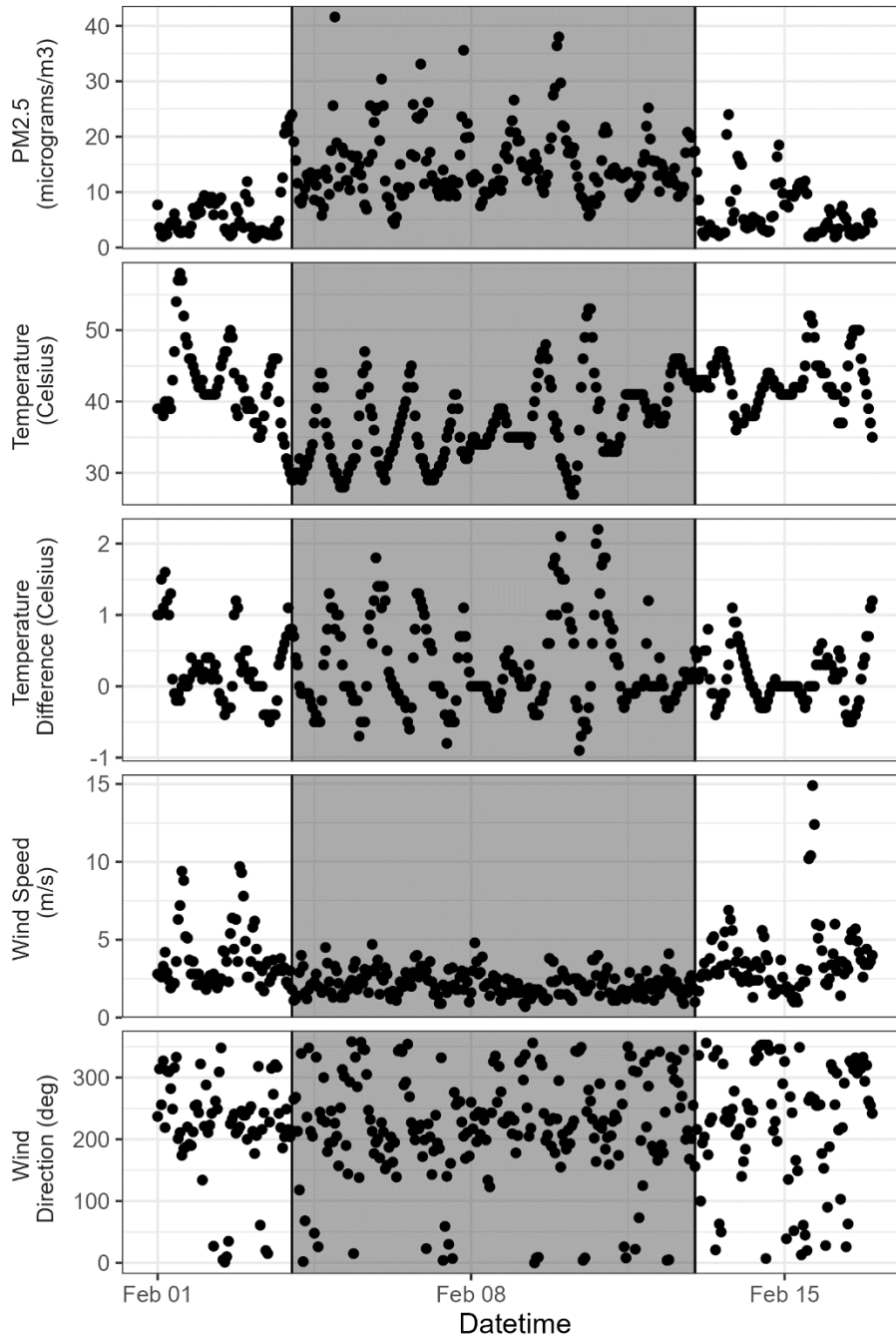


Figure 4. Example of Medford’s wind and temperature winter profile

Figure 5 shows the diurnal pattern of PM2.5, air temperature, and the difference ( $\Delta T$ ) at 2 and 10 meters ( $T_{10m} - T_{2m}$ ) during an elevated PM2.5 winter day the lowest PM2.5 levels are during daylight hours, but begin to increase around 5 pm (17:00). They peak at around 9 pm, and remain elevated during the evening. PM2.5 gradually begin to drop around 9am as the ground warms up. The temperature is low during the evening, increases during the day, and peaks ~3 pm.

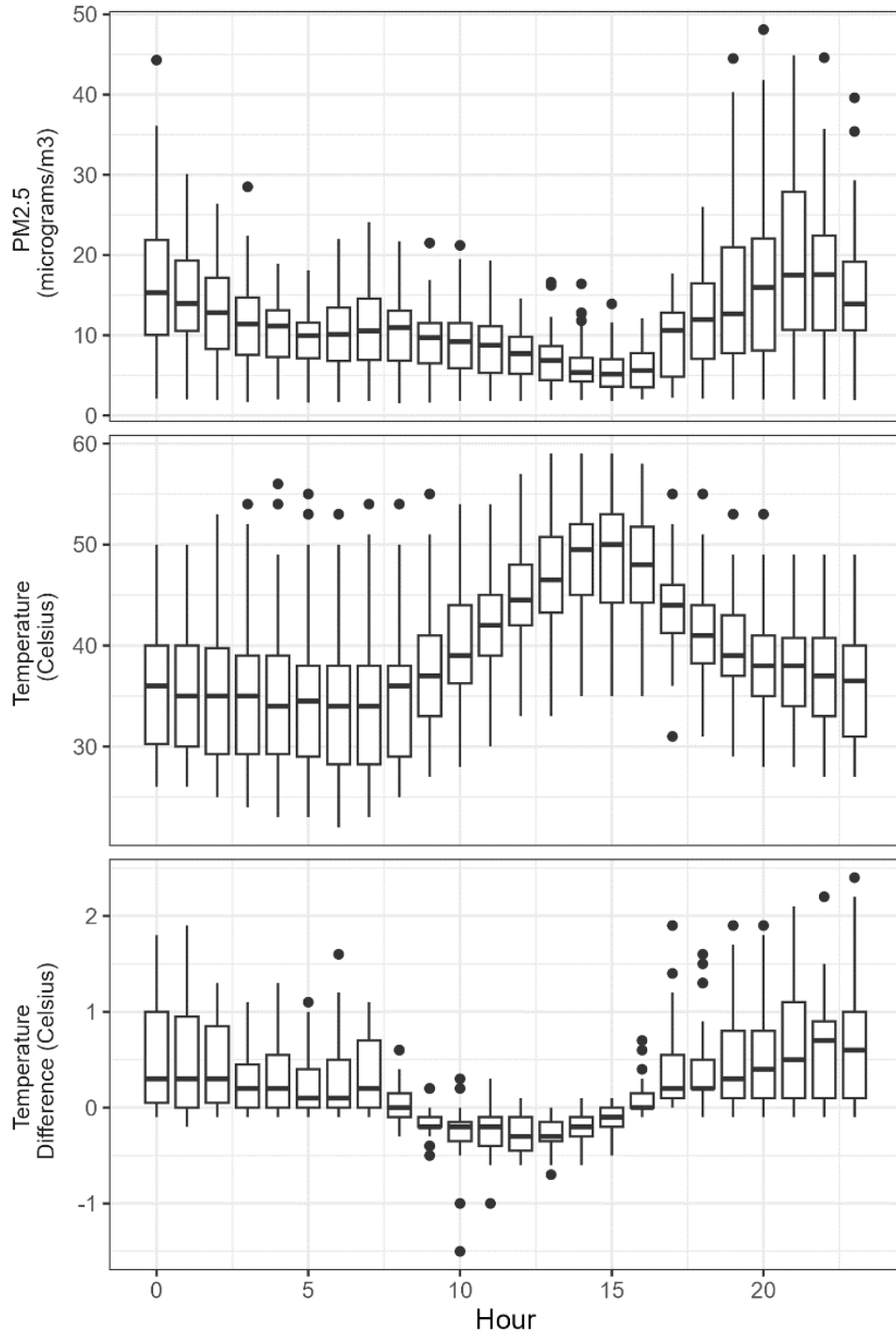
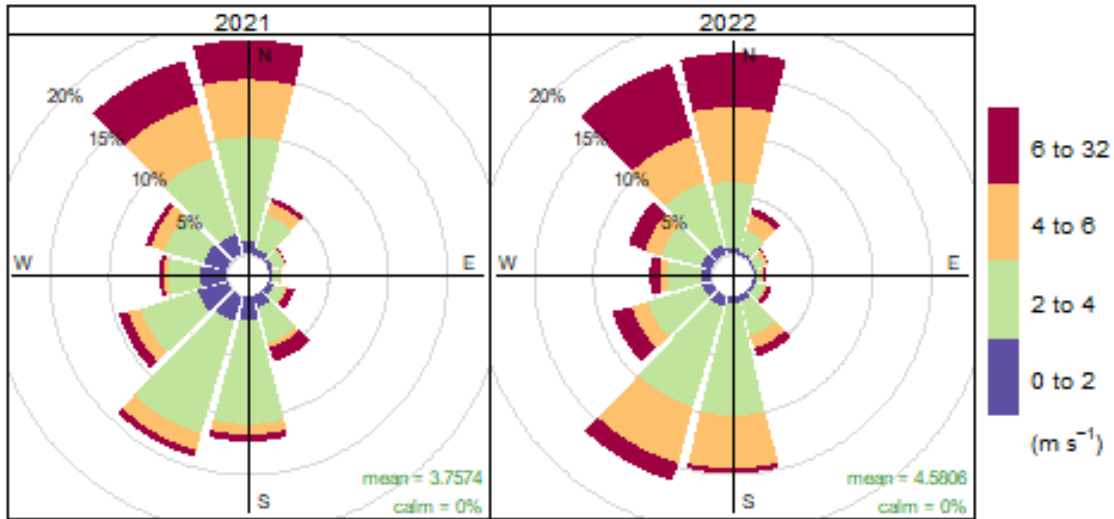


Figure 5. Medford PM2.5 graph demonstrating the diurnal pattern of an elevated winter episode

This data shows that overnight inversions are important in the Rogue Valley for PM2.5 measurements, and any monitoring site should be inside the inversion. As seen in the topography section, both sites are in the low spots of the Rogue Valley and inside the inversion.

### Wind speeds and directions

Medford wind rose plots show wind is mostly from the north or south in Medford (Figure 6,7). In 2021 and 2022, 84% of hourly wind speed observations were below 6 mph. Seasonal wind rose plots show wind is typically lighter and more often from the south during winter than in the summer. Winter wind speeds were light and below 6 mph 90% of the time. Figure 8 shows a wind rose during the elevated PM<sub>2.5</sub> event that occurred between Feb. 4 and Feb. 12, 2021. The wind was almost always below 4 m/s and commonly from the south - southwest.



**Frequency of counts by wind direction (%)**

Figure 6. Medford annual wind rose for 2021 and 2022.



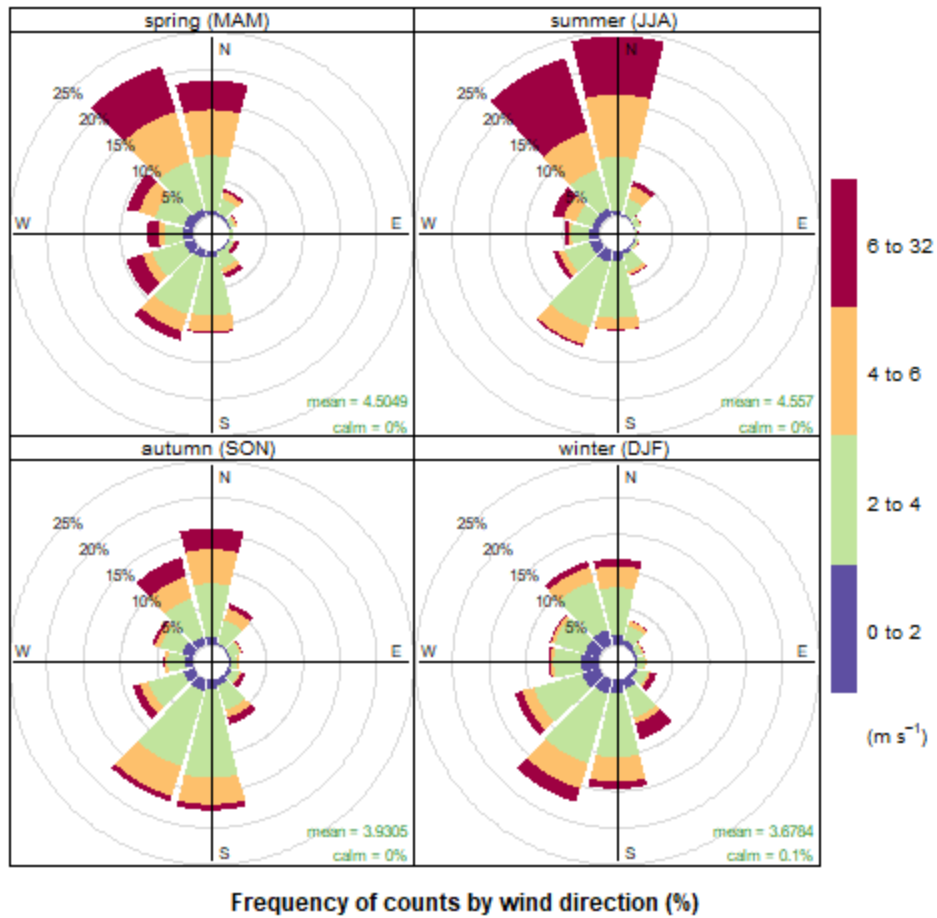


Figure 7. Medford wind rose by season: Spring (March-May), summer (June – August), autumn (September – November), and winter (December – February). The data includes hourly observations from 2021 and 2022.

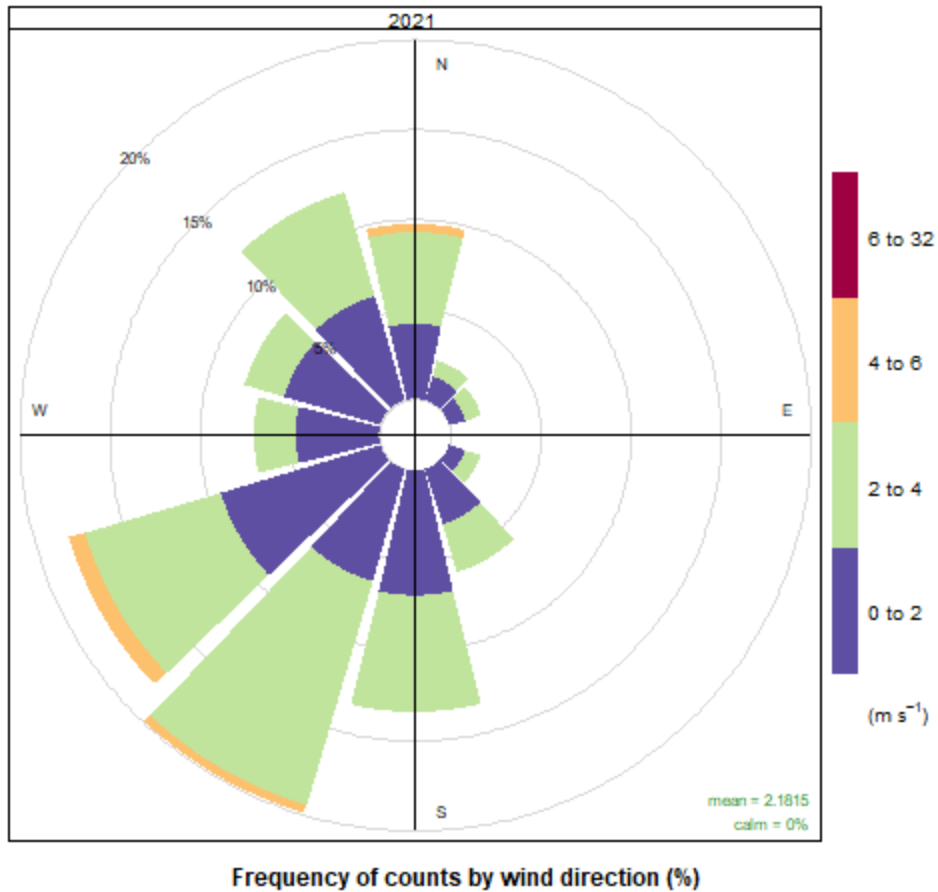


Figure 8. Medford wind rose during the elevated PM2.5 events. The wind rose is for Feb. 4 and Feb. 12, 2021.

These low wind speeds mean that the highest PM2.5 sources measured will not have traveled far and will likely be close to the monitor. The new site is 0.7kms from the old site so there should be similar values. The low windspeeds and the inversions indicate stable air conditions which contribute to elevated PM2.5 levels. Both sites are located in areas with these conditions.

## 4. Monitoring

### Trends

DEQ has been monitoring for PM2.5 at MWJ since 1999 when an FRM was set up. The PM2.5 trends are shown in the graph below and show concentrations above the standard due to wildfire smoke. The non-wildfire smoke trends show decreasing levels as actions are taken to address emission sources, like woodstove curtailment. The new location will measure similar wildfire smoke levels because wildfire smoke has traveled from some distance and will likely be homogenized in the vicinity of the old and new sites because they are only 0.7kms apart with no obstructions between them. Woodstove smoke should also be similar because the main source of PM2.5 after wildfires is residential wood combustion. Previous comparisons between the

Welch and Jackson and Grant and Belmont sites showed that the difference in PM2.5 between the sites was nominal, and those sites were further apart than MWJ and the new site.

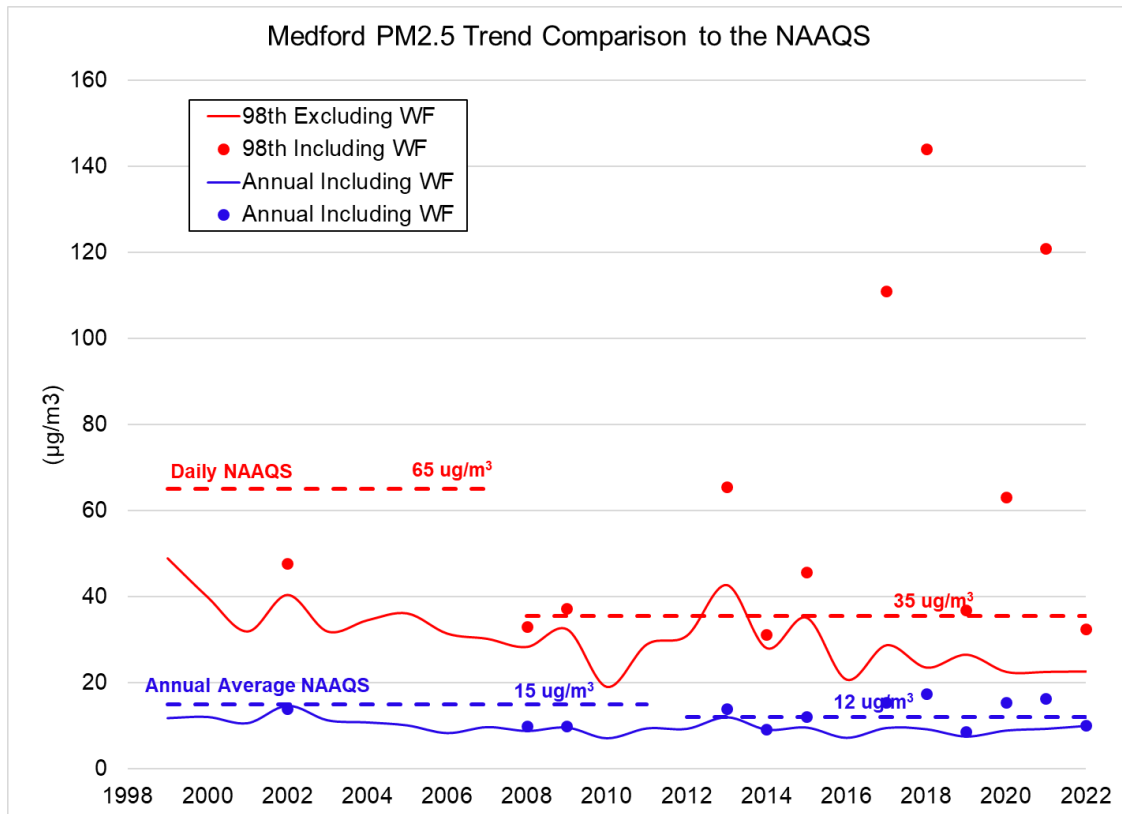


Figure 9. Medford PM2.5 trends

### Seasonal Patterns

The PM2.5 monitor shows that PM2.5 concentrations are highest in winter months, with the exception of wildfire smoke impacts. Annual wildfires smoke impacts are becoming more common in Medford because of its proximity to fires in Northern California, the Oregon Cascades, and the Kalmiopsis wilderness area. All other times of the year have relatively low PM2.5 levels. The figure below shows 2017 to 2022 daily PM2.5 concentrations are highest during the winter and wildfires. The wildfire smoke events are highlighted in the shaded areas. The data is calculated using the FRM data every third day and the nephelometer estimated PM2.5 for the other two days.

Both sites will measure the same wildfire and residential wood combustion and there should not be a substantial change in the overall trends from site relocation.

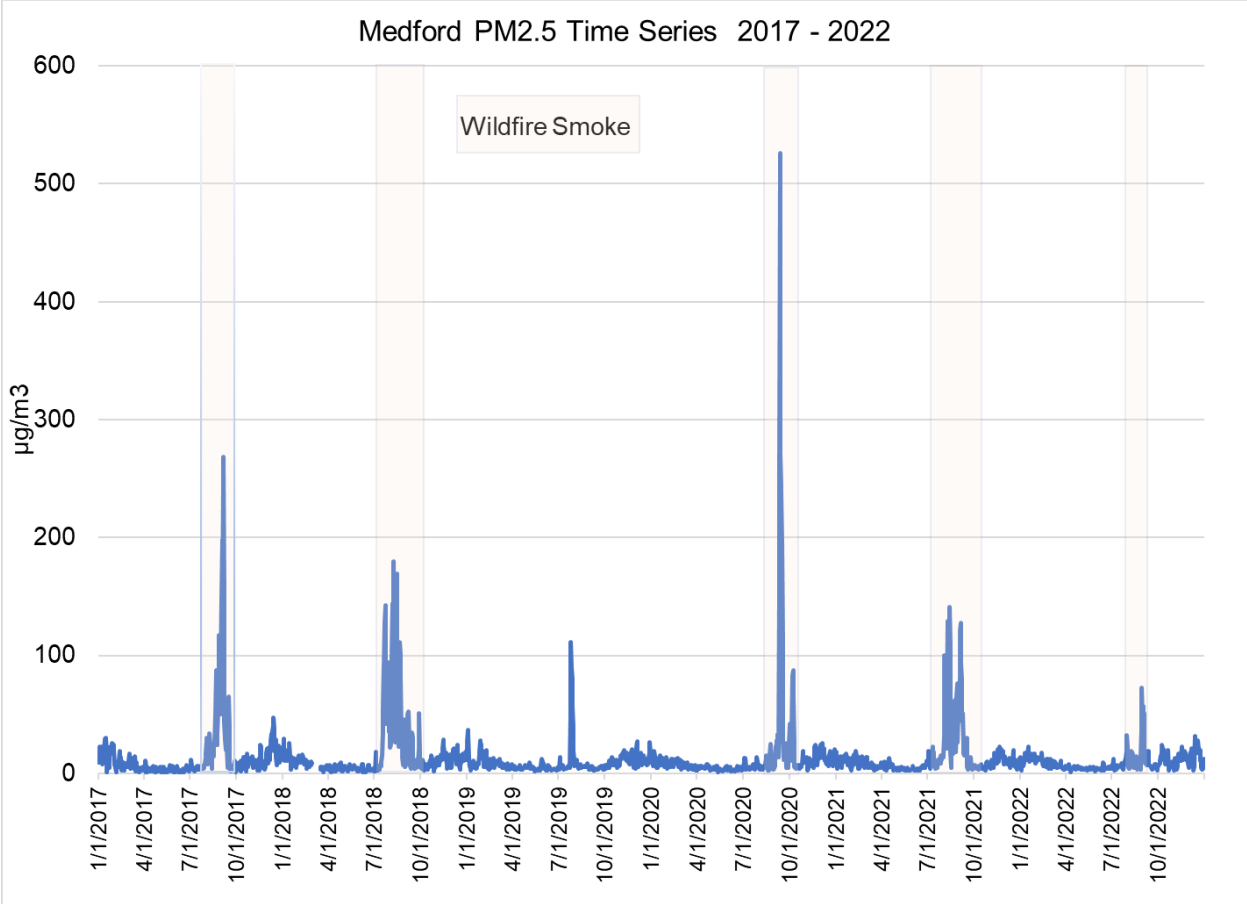


Figure 10. Medford PM2.5 daily concentrations from 2017 through 2021.

## PM2.5 speciation

DEQ operated a PM2.5 speciation sampler in Medford (Medford Grant and Belmont; 41-029-0133) from 2003 to 2009. The speciation sampler provided information about PM2.5 composition, which informs emission sources. For this site assessment, DEQ was unable to perform a rigorous analysis to determine likely emission sources. However, PM2.5 composition was consistent with smoke from residential wood combustion, including elevated organic carbon and low elemental, crustal, nitrate, and sulfate fractions ([https://gispub.epa.gov/air/trendsreport/2022/#pm2\\_5\\_composition](https://gispub.epa.gov/air/trendsreport/2022/#pm2_5_composition); Kotchenruther, 2016).

The following figures show the dominance of organic carbon by quarter and by year.

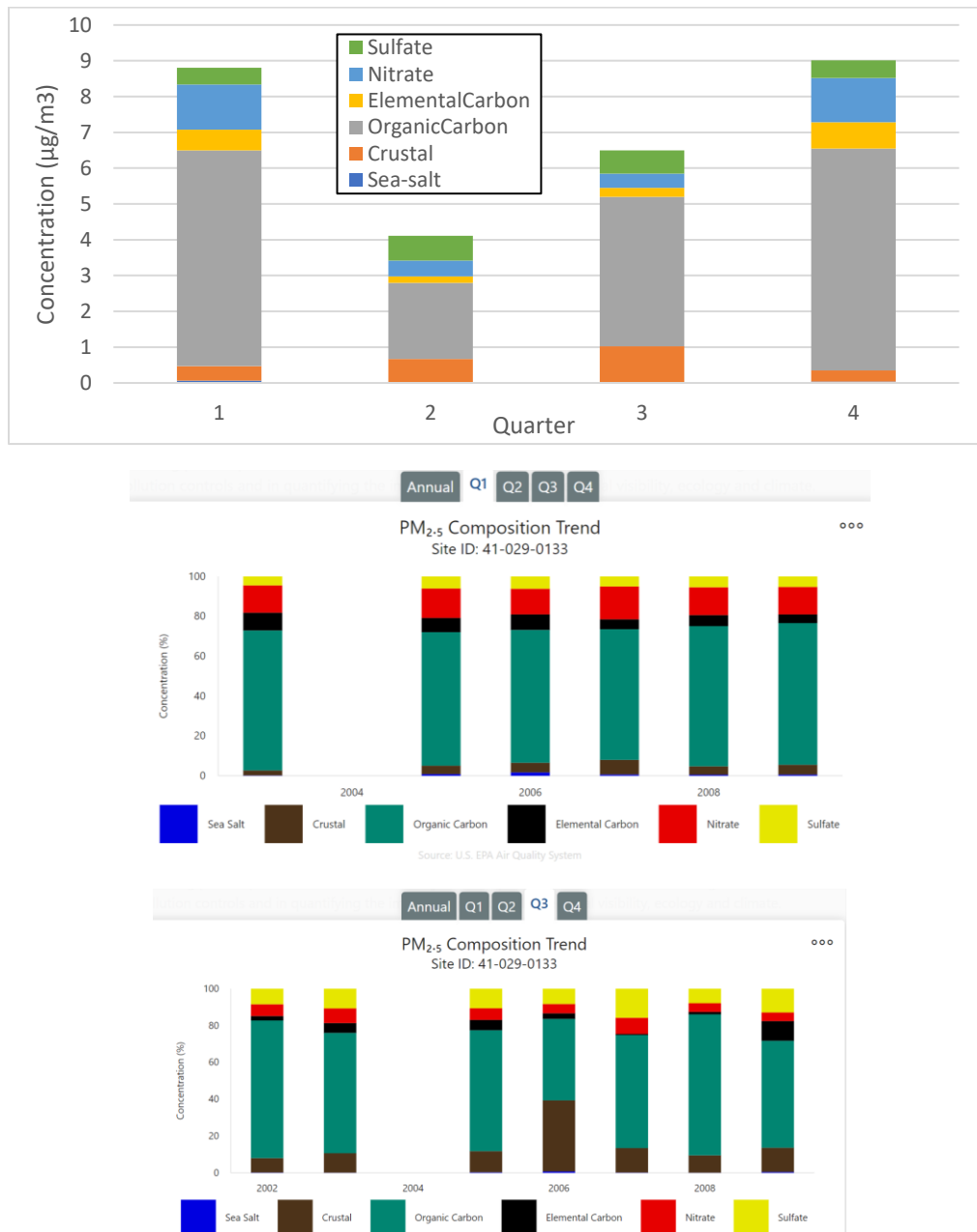


Figure 11. Medford PM2.5 speciation summary (2003-09).

## 5. Emission Inventory

The latest available national emission inventory (NEI) for Jackson County is from 2020 (Table 1). There is not an emission inventory for the city of Medford alone. The emission inventory shows a large amount of dust estimated. Medford's streets are mostly paved so the unpaved road dust would be outside of Medford in the rural areas of the large county. The second highest emission source for the county is residential wood fuel combustion. Below that are the mobile and point sources.

Table 1. Sector-based primary PM2.5 emissions for Jackson County from the 2020 NEI data set

Sector	Data category	Total Emissions (Ton)
Fires - Wildfires	NP	4480
Dust - Unpaved Road Dust*	NP	2156
Fires - Prescribed Fires	NP	1691
Fuel Comb - Residential - Wood	NP	746
Fuel Comb - Industrial Boilers, ICEs - Biomass	NP	238
Waste Disposal	NP	232
Dust - Paved Road Dust	NP	201
Commercial Cooking	NP	193
Agriculture - Crops & Livestock Dust	NP	115
Industrial Processes - Pulp & Paper	P	114
Dust - Construction Dust	NP	52
Mobile - On-Road Diesel Heavy Duty Vehicles	ON	43
Fuel Comb - Industrial Boilers, ICEs - Biomass	P	34
Industrial Processes - Mining	NP	29
Mobile - Non-Road Equipment - Gasoline	NR	26
Mobile - On-Road non-Diesel Light Duty Vehicles	ON	25
Mobile - Non-Road Equipment - Diesel	NR	20
Fuel Comb - Comm/Institutional - Biomass	NP	18
Mobile - On-Road Diesel Light Duty Vehicles	ON	13
Miscellaneous Non-Industrial NEC	NP	10
Waste Disposal	P	7
Mobile - Aircraft	P	4
Fires - Agricultural Field Burning	NP	4
Fuel Comb - Industrial Boilers, ICEs - Coal	NP	2
Industrial Processes - Storage and Transfer	P	2

Residential wood combustion is an important PM2.5 emission source in Medford. The 2020 NEI emission inventory shows that residential wood fuel combustion was the second highest emission source for Jackson county after excluding wildfires and prescribed fire. Emissions from mobile sources, point sources, commercial/industrial sources, and waste disposal were also important.

PM2.5 emissions in Medford are likely different from Jackson county as a whole. Medford's streets, for example, are mostly paved so the contribution of unpaved road dust would likely be small within Medford itself. If the activities that take place outside of Medford are removed from

the emission inventory, the remaining emission estimates indicate residential wood combustion, mobile sources, and dust are major contributors. The pie chart below shows an estimate of the important emissions for Medford using the 2020 NEI.

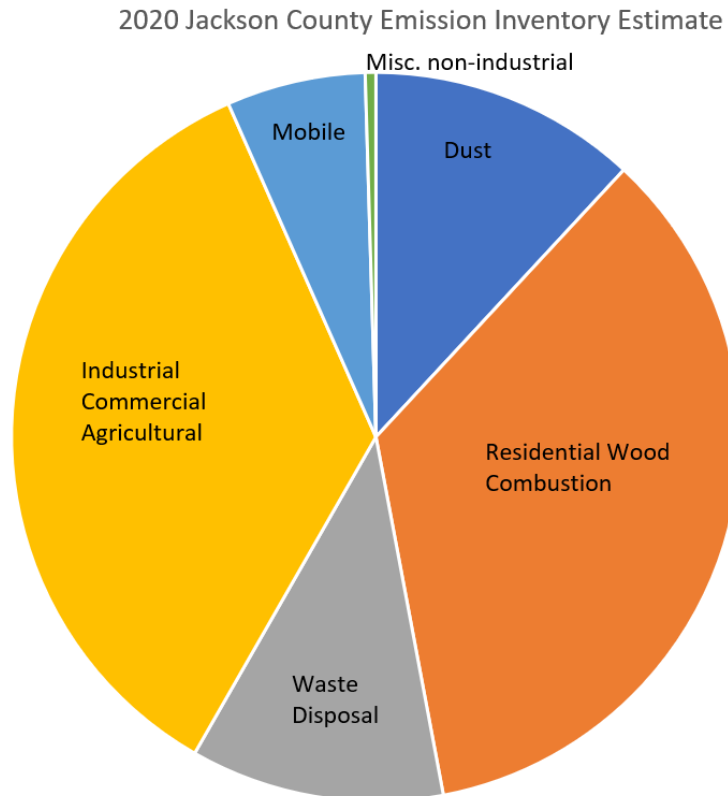


Figure 12. Jackson County national emission inventory estimates for sources in Medford. Note: Wildfire smoke, prescribed burning, and unpaved dust emissions were removed because the location of the monitor should not have an impact on the concentration of these emissions that come from outside the Medford area.

## 6. Demographics

Medford has 85,556 people according to the US census (<https://www.census.gov/quickfacts/fact/table/medfordcityoregon/PST045222>; Population Estimate, July 1, 2022 (V2022); obtained on 5/21/2023). Persons under 5 account for 6.2% of the population and persons 65 years and over account for 18 percent of the population.

DEQ considers environmental justice (EJ) in its work and it strives to protect the most vulnerable people from air pollution, which includes old and young populations. We therefore mapped EJ and demographic factors in Medford to understand population distributions around MWJ and the proposed site.

We used EPA's EJ Screen to map EJ and demographic factors (<https://ejscreen.epa.gov/mapper/>). EJ Screen provides census block demographic data, pollutant information, and several EJ indices. Importantly, EJ Screen is a screening tool and

can have uncertainty, especially at small spatial scales. Please see EPA’s EJ Screen for additional details.

We compiled information for the blockgroup containing MWJ and the proposed Jackson Elementary School site. Air monitoring sites are expected to serve a larger area than the blockgroup. We therefore compile additional information for a 2.25 km ring surrounding the monitoring sites. The figures and table below show demographic information, income, age, and a combined indicator obtained from EJ Screen.

### People of color:

Twenty-two percent of the people in the blockgroup containing Jackson Elementary School are people of color. This is the 55<sup>th</sup> percentile in the state and the 41<sup>st</sup> percentile in the United States. The estimated 2.25 km monitoring ring surrounding Jackson Elementary School site includes a broader population, of which 29 percent are people of color. This falls into the 69<sup>th</sup> percentile in the state (Table 2).

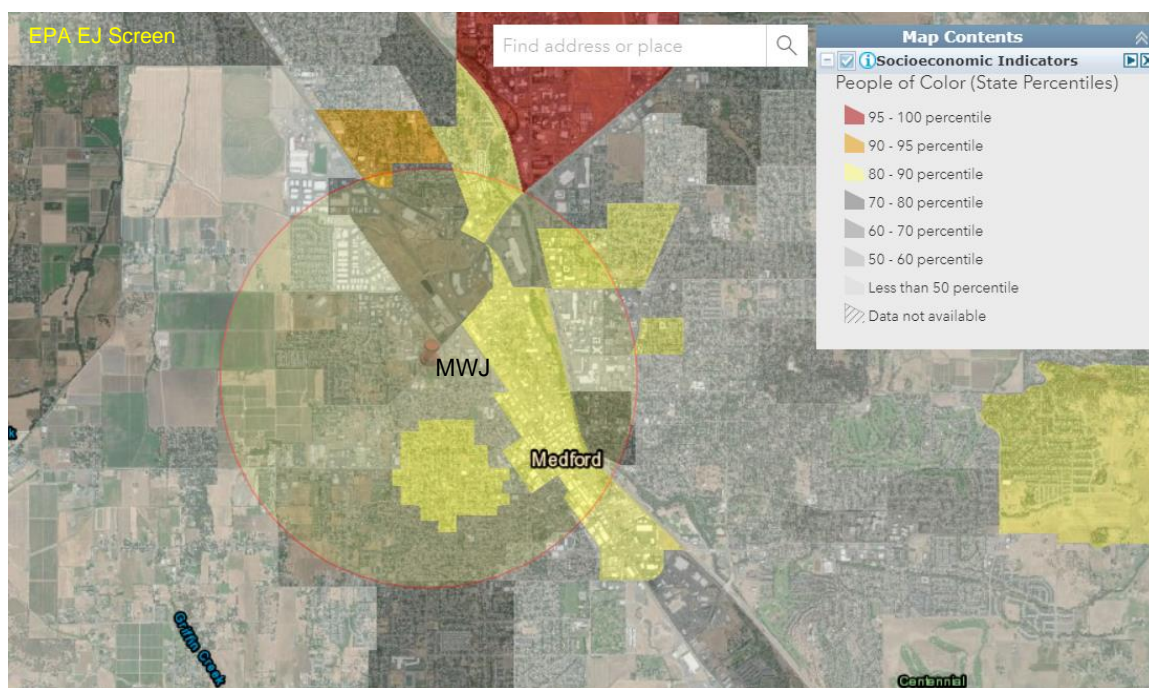


Figure 13. EJ Screen Medford people of color EJ areas  
(<https://ejscreen.epa.gov/mapper/> obtained on May 12, 2023)

### Low Income

Fifty-four percent in the blockgroup containing Jackson Elementary School have low income, falling into the 89<sup>th</sup> percentile in the state. EJ Screen indicates that 50% of the people located within the broader 2.25 km monitoring ring surrounding Jackson Elementary School site are low income, which is in the state’s 86<sup>th</sup> percentile.



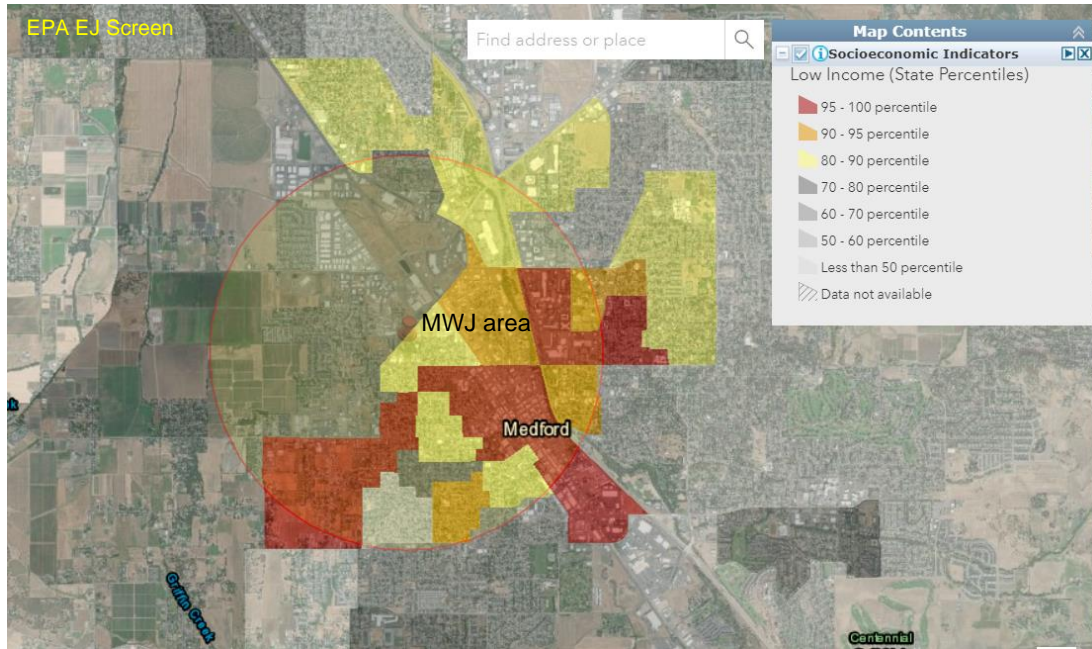


Figure 14. Medford lower income EJ areas.

Vulnerable populations

Five percent of the people in the blockgroup containing Jackson Elementary School were under 5 years old. This fell into the 54<sup>th</sup> percentile in the state. EJ Screen indicated that 7% of the people located within the broader 2.25 km monitoring ring surrounding Jackson Elementary School site were under 5, which was the 70<sup>th</sup> percentile in the state.

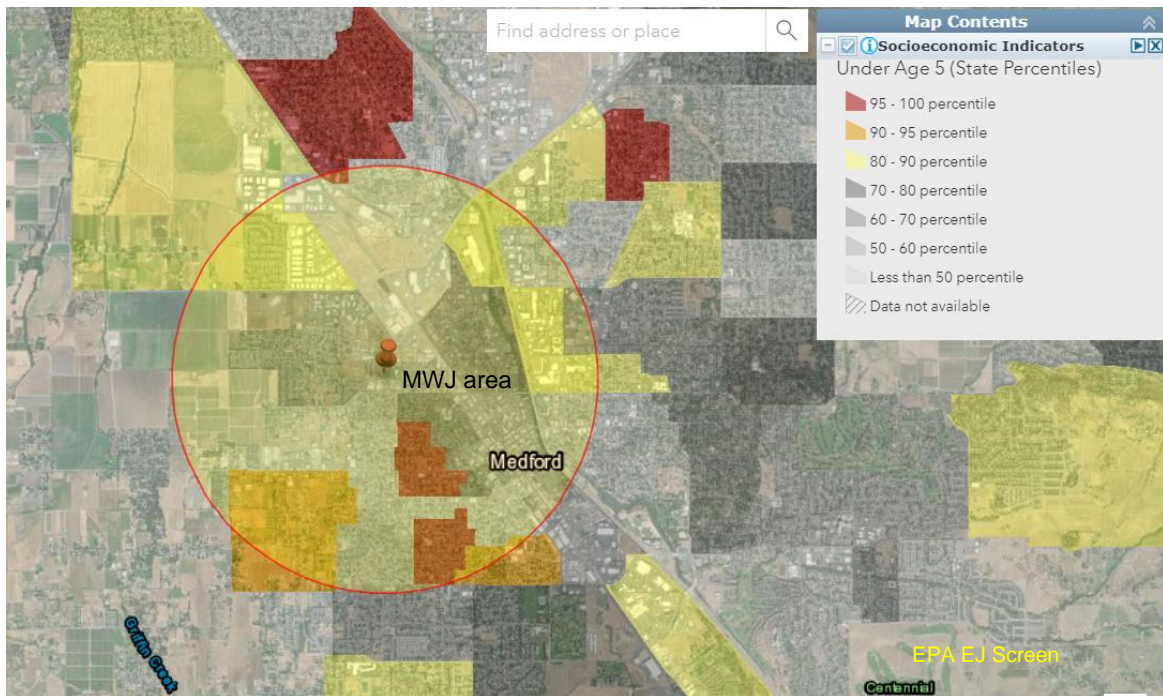


Figure 15. Medford population under five years old.

Twelve percent of the people in the blockgroup containing Jackson Elementary School were over 64 years old. This fell into the 31<sup>th</sup> percentile in the state. EJ Screen indicated 13% of the people located within the broader 2.25 km monitoring ring surrounding Jackson Elementary School site were over 64, which was the 36<sup>th</sup> percentile in the state.

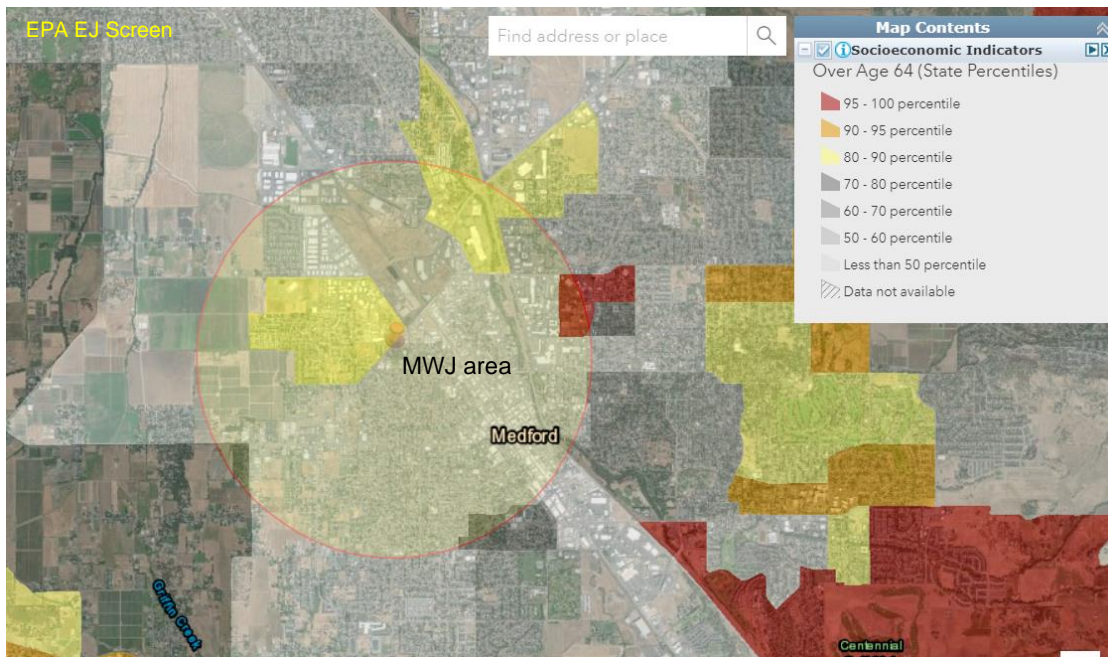


Figure 16. Medford population over 64 years old.

#### EJ Index - Particulate Matter 2.5 (State Percentile)

MWJ and Jackson Elementary School are located in the 95-100 percentile for the Particulate Matter 2.5 EJ Index when compared to other parts of Oregon (Figure 18). The estimated 2.25 km ring surrounding the Jackson Elementary School site is at the 96<sup>th</sup> percentile according to EJ Screen (Table 2).

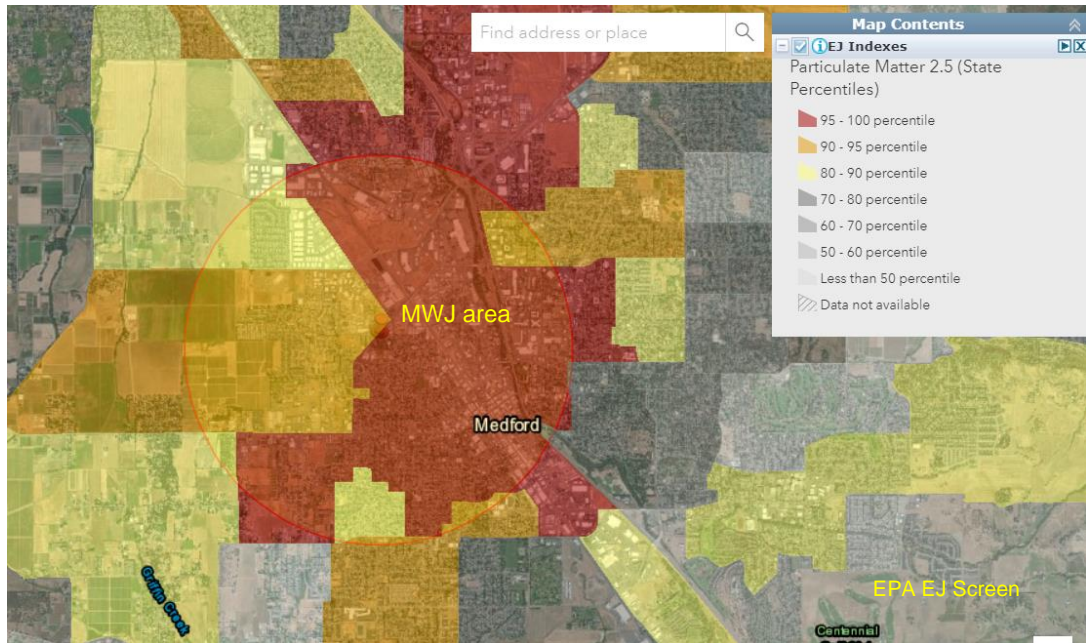


Figure 17. EJ Index - Particulate Matter 2.5 (State Percentile) for Medford

EJ Screen indicated that MWJ and Jackson Elementary School are similar, with nearly identical values for all variables with the Environmental, Demographic, and Index categories (Table 2). This close proximity led to the agreement.

Table 2. EJ Screen reports for MWJ and the proposed Jackson Elementary School sites

Category	Selected Variables	State Avg.	Jackson Elementary		MWJ	
			Value	%ile in State	Value	%ile in State
EJ Index	Particulate Matter 2.5 EJ Index			96		96
EJ Index	Ozone EJ Index			95		95
EJ Index	Diesel Particulate Matter EJ Index			84		84
EJ Index	Air Toxics Cancer Risk EJ Index			91		90
EJ Index	Air Toxics Respiratory HI EJ Index			93		93
EJ Index	Traffic Proximity EJ Index			76		77
Environmental	Particulate Matter (PM 2.5 in ug/m3)	8.69	12.2	99	12.2	99
Environmental	Ozone (ppb)	37	44.9	94	45	94
Environmental	Diesel PM (ug/m3)	0.337	0.429	63	0.442	66
Environmental	Air Toxics Cancer Risk (risk per MM)	32	40	97	40	97
Environmental	Air Toxics Respiratory Hazard Index	0.47	0.67	98	0.68	98
Environmental	Traffic Proximity and Volume (daily traffic count/distance to road)	660	490	68	520	69
Demographic	Demographic Index	27%	40%	82	39%	82
Demographic	Supplemental Demographic Index	13%	19%	85	19%	86
Demographic	People of Color	25%	29%	69	28%	67
Demographic	Low Income	29%	50%	86	50%	86
Demographic	Unemployment Rate	5%	6%	63	6%	64
Demographic	Limited English Speaking	2%	3%	79	2%	74
Demographic	Population with Less Than High School Education	9%	15%	81	15%	82
Demographic	Population under Age 5	5%	7%	70	6%	68
Demographic	Population over Age 64	18%	13%	36	15%	44
Demographic	Low Life Expectancy	19%	22%	87	23%	91
Supplemental Index	Particulate Matter 2.5 Supplemental Index			96		96
Supplemental Index	Ozone Supplemental Index			95		96
Supplemental Index	Diesel Particulate Matter Supplemental Index			88		89
Supplemental Index	Air Toxics Cancer Risk Supplemental Index			94		94
Supplemental Index	Air Toxics Respiratory HI Supplemental Index			95		95
Supplemental Index	Traffic Proximity Supplemental Index			79		80

NOTE: Jackson Elementary (2.25 kilometers Ring Centered at 42.332388,-122.889113, OREGON, EPA Region 10 (Population: 23,842)); MWJ (2.25 kilometers Ring Centered at 42.331551,-122.880299, OREGON, EPA Region 10 (Population: 27,416)); Data obtained from EJ Screen (<https://ejscreen.epa.gov/mapper/>) on May 10, 2023

## 7. Proposed location

The proposed monitoring site is located at Jackson Elementary School in Medford. The [latitude is 42.332432](#), the [longitude is -122.8886](#) (Figure 18-20). The site is near residential neighborhoods, with larger populations to the south, west, and northeast. The site is located ~1.5 km north north-east of Medford's downtown core and is ~1.5 km to the west of Interstate I-5, a major north-south interstate in the region. Jackson Elementary is 0.7 kms from the current Welch and Jackson site. The shelter would be on the school's sport fields.

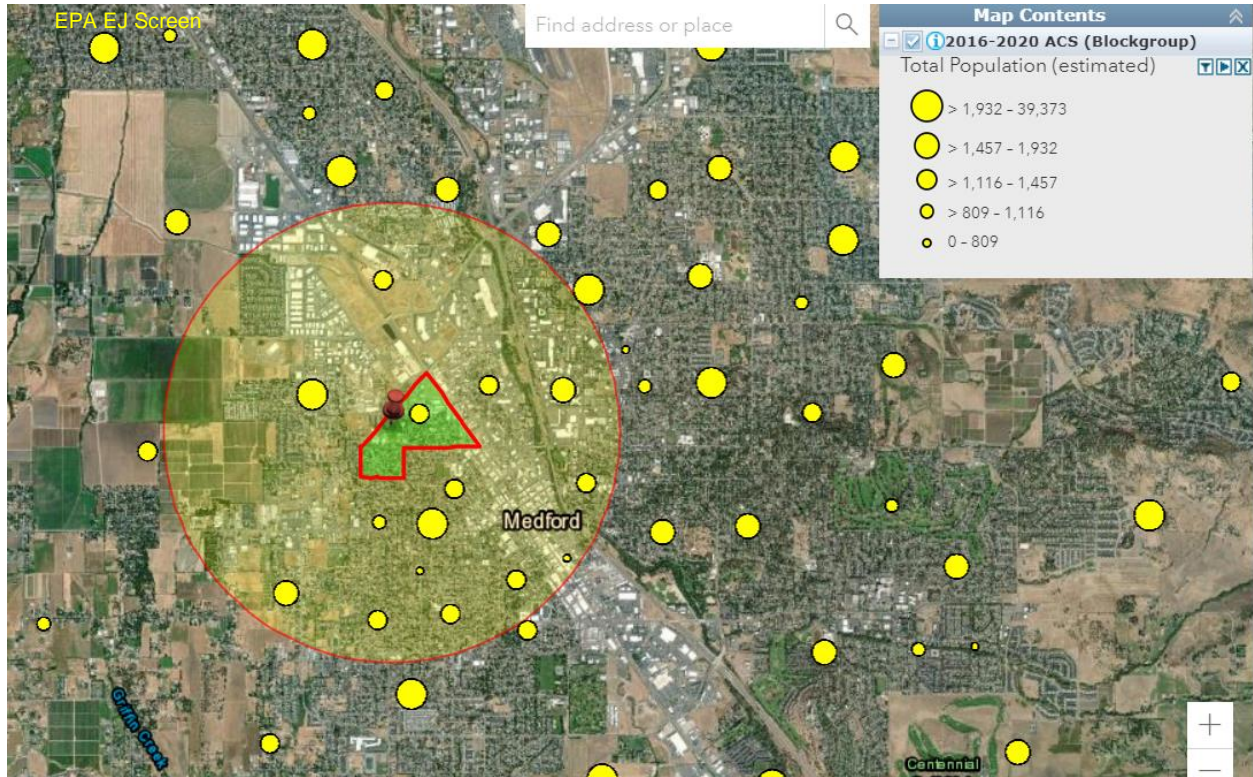


Figure 18. Total population near the proposed Jackson Elementary School site

[\(https://ejscreen.epa.gov/mapper/\)](https://ejscreen.epa.gov/mapper/).

A closer view of the relocation shown in Figure 19, illustrates how the site is moving within the same type of community and just to the WNW.



Figure 19. Direction and distance from old site to new site

Google Maps

The new site is in an open field and is 25 meters from a single tree and 73 meters from a bank of trees. In addition, the trees are deciduous so they will have no leaves during winter which has the highest anthropogenic PM2.5 levels. See Figures 20-25 to see the site and directional photos. This site will have no major obstructions.



Figure 20. New site dominant wind direction - looking south-southwest.



Figure 21. Google Earth view of the proposed site include a sketch of the site

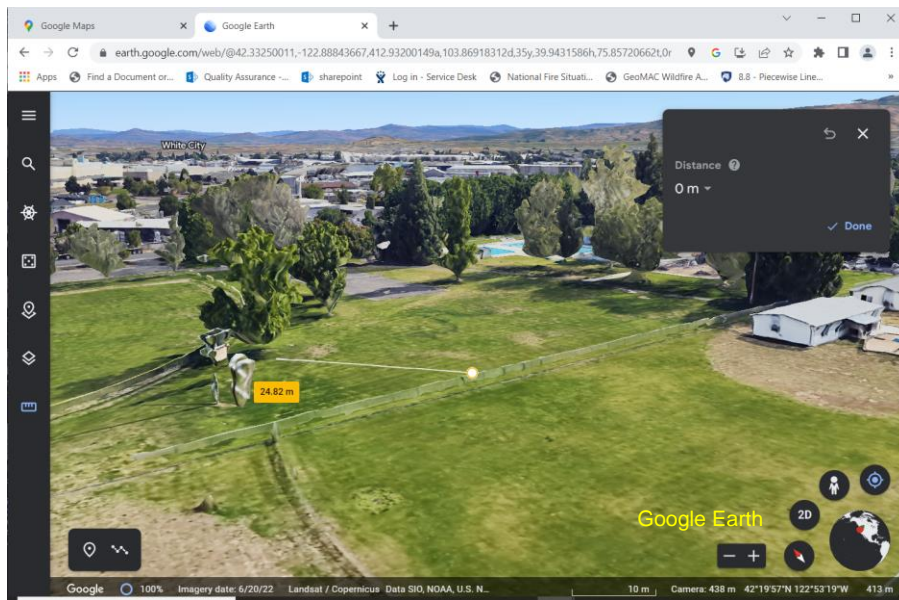


Figure 22. Google Earth view of the proposed site

The image is looking toward the northeast and identifies the few possible minor site obstructions, include a tree that is 24.8 m or ~80 feet from the proposed site.



Figure 23. Aerial view of the proposed site.



Figure 24 Looking north from Priddy St. toward the proposed site





Figure 25. South from W. McAndrews Rd. toward Jackson Elementary School

## 8. Comparison of the PM<sub>2.5</sub> data between sites

Oregon DEQ was unable to monitor for PM<sub>2.5</sub> or PM<sub>10</sub> at MWJ and the proposed site simultaneously, limiting a direct comparison between pollutant concentrations at the two sites. We therefore examined spatially gridded patterns of PM<sub>2.5</sub> and PM<sub>10</sub> around Medford using maps provided by the state of Idaho (<https://idahodeq.maps.arcgis.com/apps/MapSeries/index.html?appid=0c8a006e11fe4ec5939804b873098dfe>). These maps were determined from models and observations and provide background PM<sub>2.5</sub> and PM<sub>10</sub> for a period between 2014 and 2017. Importantly, these maps provide gridded pollutant concentrations at ~4km and cannot show differences between MWJ and Jackson Elementary School. However, the maps show patterns of PM<sub>2.5</sub> that vary across the Rogue Valley.

The PM<sub>2.5</sub> and PM<sub>10</sub> maps show elevated concentrations near Medford's downtown core, with decreasing pollutant concentrations outside of valley. According to these maps, MWJ and the proposed site are situated in a region with some of the highest PM<sub>2.5</sub> and PM<sub>10</sub> in the Rogue Valley and serve as a good monitoring location to protect populations from these pollutants.

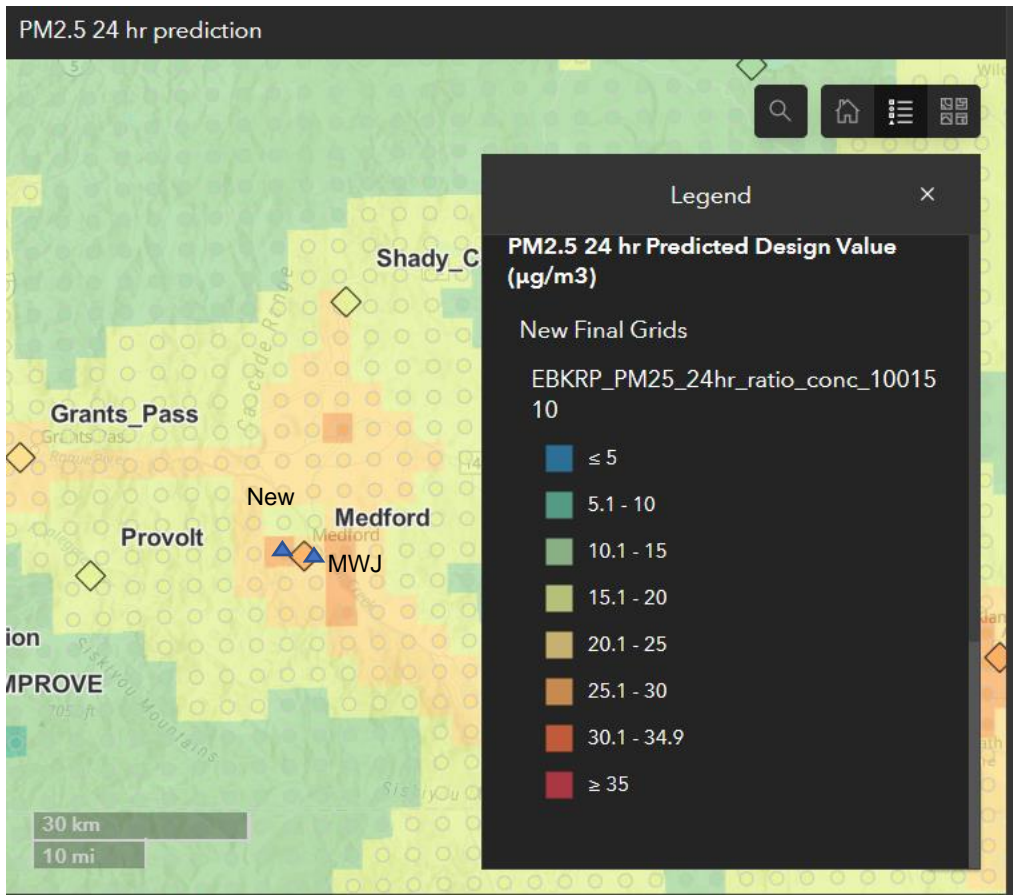


Figure 26. 24-hr PM2.5 prediction across the Rogue Valley

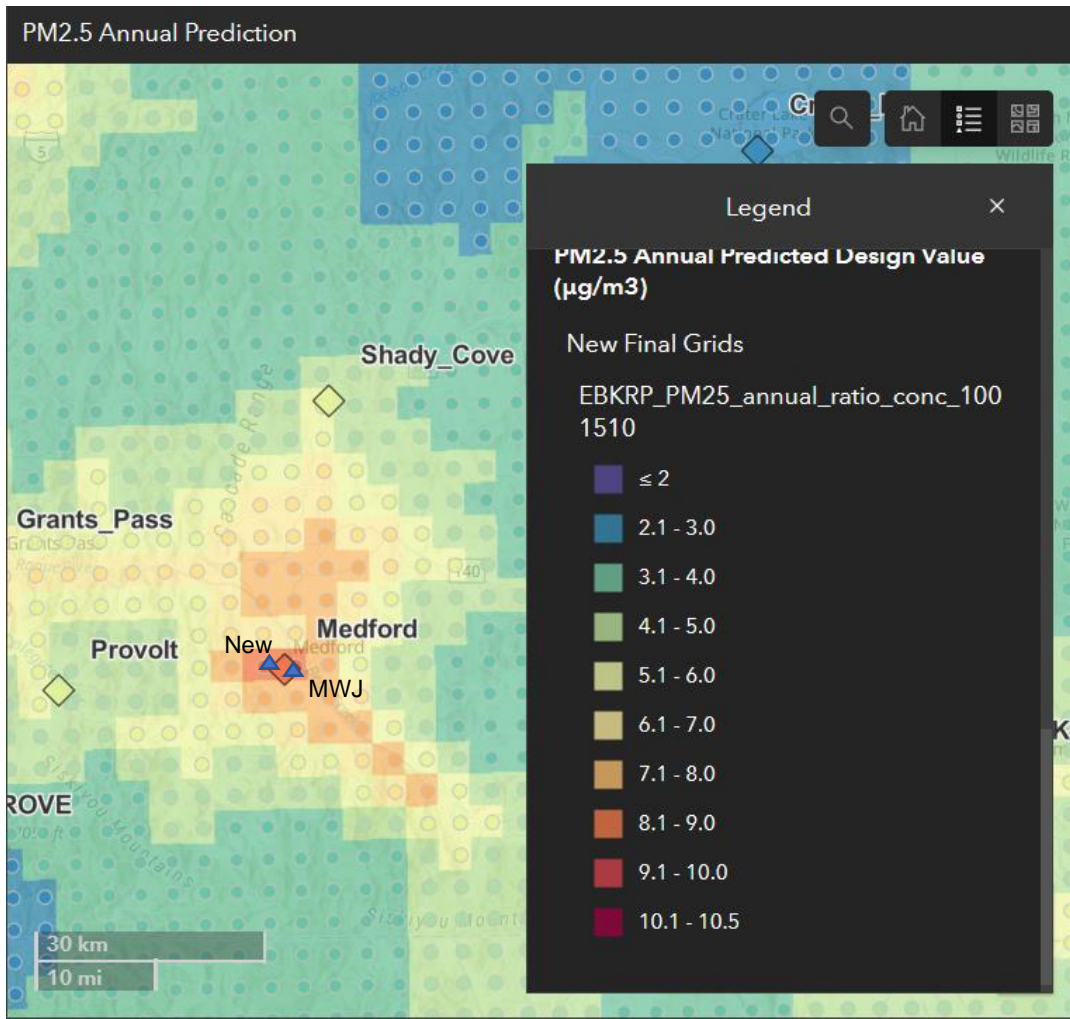


Figure 27. Annual PM2.5 prediction across the Rogue Valley

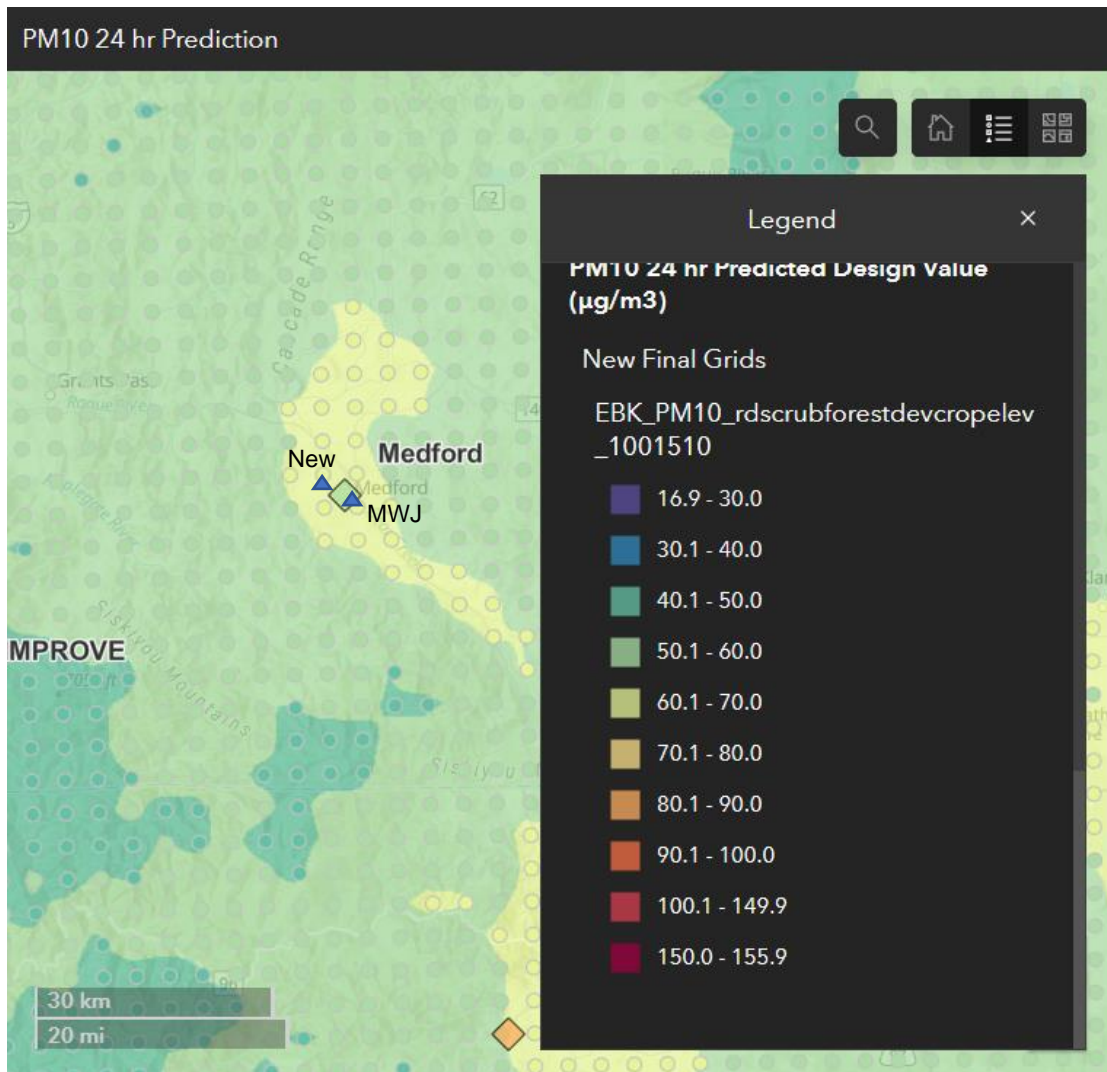


Figure 28. 24-hr PM10 prediction across the Rogue Valley

## 9. Monitoring methods

The new location will operate with the same PM2.5 and PM10 methods. The instruments will just be relocated to the new site from MWJ. The PM2.5 will be collected with a BAM1022 (method 209). The PM10 method will be the Tisch HV Plus or R&P Partasol 2025 with a bypass downtube for the SCC (method 141 or 127). DEQ already operates the local meteorology site at a separate location and this will not change. DEQ will continue to operate a Radiance nephelometer M903 for the Air Quality Index until we determined that the BAM1022 can serve this purpose. A table with FEM site and monitoring parameters is given below.

Table 3. Jackson Elementary SLAMs monitor specifications

Local Site Name	<b>Medford, Jackson Elementary</b>	
AQS ID	41-029-xxxx	
GPS Coordinates	42.332432, -122.8886	
Street address	713 Summit Ave, Medford, OR	
County	Jackson	
Distance from roadways (meters)	147 meters to W McAndrew Rd.	
Traffic count (AADT, yr)	<a href="#">AADT 6891 (N-S Str. North Columbus, E-W Str. West McAndrews. 8/26/2021</a>	
Groundcover (e.g. asphalt, dirt, grass)	Grass	
Representative statistical area name (CBSA, MSA)	Medford	
Pollutant	<b>PM2.5</b>	<b>PM10</b>
Parameter code, POC	88101,1	81102,7
MSA, CBSA, CSA or area represented	0000	0000
Monitor purpose	Population	
Monitoring Objective	NAAQS, AQI	NAAQS
Spatial scale of Representativeness	Neighborhood	
Monitoring types	SLAMS	SLAMS
Instrument type and model	Beta Attenuation BAM 1022w/VSCC	Gravimetric Tisch HV PM10+
Instrument parameter occurrence code	<b>Primary</b>	<b>Primary</b>
Method number	209	141
FRM/FEM/FRM/other	FEM	FRM
Collecting agency	ODEQ	ODEQ
Analytical lab	ODEQ	ODEQ
Reporting agency	ODEQ	ODEQ
Monitoring start date	1/1/2024	1/1/2024
Current sampling frequency	1/1	1/6
Sampling season	Annual	Annual
Probe height (meters)	3	3
Distance from collocated monitor (meters)	NA	NA
Distance from supporting structure (meters)	6	6
Distance from obstructions on roof (meters)	No obstructions	No obstructions
Distance from obstructions not on roof (meters)	No obstructions	No obstructions
Distance from trees (meters)	25	25
Distance from to furnace or incinerator flue (meters)	86	86
Unrestricted airflow (degrees)	360°	360°
Probe material for reactive gases	Aluminum	Aluminum
Residence time for reactive gases (seconds)	NA	NA
Will there be changes with the next 18 months?	Yes, new site	Yes, new site
Is it suitable for comparison against the standard?	Yes	Yes

## 10. Discussion

DEQ feels it is necessary to move the MWJ site because of the uncertainty of future land use on the current privately own property. DEQ considers this an opportunity to site the monitor at a playground, in an environmental justice neighborhood where people live, work, and play. DEQ considered the topography, meteorology, monitoring data, and sources, the emission inventory, and EJ information to find the most suitable location.

Medford has not exceeded the PM2.5 standard in several years when wildfire smoke data is used because of efforts made by Jackson County and local cities to curtail residential wood combustion. The Rogue Valley is prone to strong overnight inversions during the winter and very low wind speeds. The inversions are measured by the delta temperature sensors DEQ operates and confirmed by the diurnal pattern of PM2.5 concentrations which start to rise at sunset at around 5 pm, level off at midnight, and start to drop at sunrise when an overnight inversion would break. The inversion causes a more homogenous dispersion of PM2.5 across town.

The PM2.5 speciation done in the past show that the winter PM2.5 to be over mostly wood smoke. This is confirmed by the 2020 NEI which shows that residential wood heating is the primary in town estimated emission source. All this confirms that we should be looking for a monitoring location in a neighborhood with residential wood heating. The area around the new site is low income, residential, and will have plenty of residential wood heating.

We also want to be where people at risk are living and playing. Older people are at risk from COPD, younger people are at risk from asthma, and low-income people burn more for heat, and may not have as good of filtration in the home. The proposed site at Jackson Elementary is in an area that has young people exercising, and low-income people.

Finally, the proposed location is only 0.7 km from the MWJ site, and this should not make a big difference as far as emission sources. The emissions are primarily from wood combustion and spread out across town.

## 11. Conclusion

DEQ requests that EPA R10s give their approval for the relocation of the Medford Welch and Jackson St. site (41-029-2129) to the west by 0.7kms to Jackson Elementary. The new location will be on a sports field in a low-income area and will be more representative of where people work, live, and play. It is in an open area and won't be impacted by very near emission sources like the current site. It will still measure the main source of PM2.5 emissions in the area, which is residential wood burning.