



**DATE:** March 22, 2017

**TO:** Waste Management Authority Board

**FROM:** Wendy Sommer, Executive Director

**BY:** Brian Mathews, Senior Program Manager

**SUBJECT:** Memorandum of Agreement Renewal with the Bay Area Air Quality Management District

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#### **SUMMARY**

On March 9, 2017, the Programs and Administration Committee recommended that the Authority Board authorize the Executive Director to execute the renewal of the Memorandum of Agreement between the Authority and the Bay Area Air Quality Management District to continue their air monitoring activities on the Authority's property, specifically Parcel 6 on Patterson Pass Road. The staff report discussing this item can be found at [ACWMA-Property--MOA-BAAQMD.pdf](#).

#### **COMMITTEE ACTION**

The P&A Committee recommended advancement of the MOA renewal by a vote of 8 -0 (Arreguin, Carson, Kalb, and Lamnin, absent). Committee member Hannon also requested a copy of one of BAAQMD's reports as it pertains to the Authority property, which is attached.

#### **RECOMMENDATION**

The Programs and Administration Committee recommends that the WMA Board authorize the Executive Director to execute the renewal of the MOA with the BAAQMD.

Attachment: BAAQMD Report – Bay Area Air Pollution Summary-2015

## BAY AREA AIR POLLUTION SUMMARY - 2015

MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE				SULFUR DIOXIDE				PM <sub>10</sub>				PM <sub>2.5</sub>					
	Max 1-Hr	Cal 1-Hr	Max 8-Hr	Nat 8-Hr	Cal 8-Hr	3-Yr Avg	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat 1-Hr	Cal 1-Hr	Max 1-Hr	Max 24-Hr	Nat 1-Hr	Cal 24-Hr	Ann Avg	Max 24-Hr	Nat 24-Hr	Cal 24-Hr	Max 24-Hr	Nat 24-Hr	3-yr Avg	Ann Avg	3-yr Avg	
	(ppb)		(ppb)				(ppm)			(ppb)				(ppb)				(µg/m <sup>3</sup> )				(µg/m <sup>3</sup> )			(µg/m <sup>3</sup> )		
<b>North Counties</b>																											
Napa	79	0	69	0	0	61	3.3	1.6	0	43	8	0	0	-	-	-	-	18.6	50	0	0	38.2	1	27	10.6	11.4	
San Rafael	81	0	70	0	0	61	1.4	0.9	0	44	11	0	0	-	-	-	-	16.1	42	0	0	36.3	2	26	8.6	10.0	
Sebastopol*	68	0	62	0	0	*	1.3	0.9	0	37	5	0	0	-	-	-	-	-	-	-	-	29.9	0	*	6.8	*	
Vallejo	85	0	70	0	1	61	2.4	1.9	0	44	8	0	0	5.0	1.7	0	0	-	-	-	-	41.4	3	29	9.6	9.8	
<b>Coast &amp; Central Bay</b>																											
Laney College Freeway*	-	-	-	-	-	-	2.7	1.6	0	106	18	1	0	-	-	-	-	-	-	-	-	37.2	1	*	10.0	*	
Oakland	94	0	74	2	2	52	2.4	1.4	0	48	11	0	0	-	-	-	-	-	-	-	-	44.7	1	25	8.3	9.1	
Oakland-West	91	0	64	0	0	49	4.7	2.6	0	57	14	0	0	21.6	3.9	0	0	-	-	-	-	38.7	3	29	10.2	10.8	
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	-	12.0	2.8	0	0	-	-	-	-	-	-	-	-	-	
San Francisco	85	0	67	0	0	48	1.8	1.3	0	71	12	0	0	-	-	-	-	19.2	47	0	0	35.4	0	25	7.6	8.4	
San Pablo	84	0	62	0	0	55	2.0	1.1	0	46	9	0	0	10.7	2.4	0	0	18.6	43	0	0	33.2	0	27	8.9	10.5	
<b>Eastern District</b>																											
Bethel Island	80	0	72	1	2	66	1.1	0.9	0	29	5	0	0	8.8	1.9	0	0	13.6	33	0	0	-	-	-	-	-	
Concord	88	0	73	2	4	64	1.4	1.3	0	33	7	0	0	6.7	2.0	0	0	13.1	24	0	0	31.0	0	23	8.8	7.7	
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	20.5	3.7	0	0	-	-	-	-	-	-	-	-	-	
Fairfield	84	0	72	1	1	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Livermore	105	1	81	7	7	73	-	-	-	50	10	0	0	-	-	-	-	-	-	-	-	31.1	0	28	8.8	8.2	
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	14.7	4.8	0	0	-	-	-	-	-	-	-	-	-	
Patterson Pass*	99	4	82	5	6	*	-	-	-	19	3	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Ramon	106	1	84	6	6	70	-	-	-	37	6	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>South Central Bay</b>																											
Hayward	103	2	84	2	2	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Redwood City	86	0	71	1	1	59	3.4	1.6	0	48	11	0	0	-	-	-	-	-	-	-	-	34.6	0	24	5.7	7.8	
<b>Santa Clara Valley</b>																											
Gilroy	95	1	78	3	3	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42.2	2	18	7.2	7.5	
Los Gatos	100	1	84	4	5	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Jose	94	0	81	2	2	63	2.4	1.8	0	49	13	0	0	3.1	1.1	0	0	22.0	58	0	1	49.4	2	30	10.0	10.2	
San Jose Freeway*	-	-	-	-	-	-	2.7	2.0	0	61	18	0	0	-	-	-	-	-	-	-	-	46.9	1	*	8.4	*	
San Martin	98	1	83	4	4	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total Bay Area</b>		7		12	12				0		1	0			0	0				0	1		9				
<b>Days over Standard</b>																											

\*See NOTES on second page.

Dash (-) indicates pollutant is not monitored at the site.

## 2015 NOTES

The annual Bay Area Air Pollution Summary summarizes pollutant concentrations for comparison to the national and California air pollution standards.

**\*Station Information (see asterisks on front page)**

Air monitoring at Sebastopol began in January 2014. Therefore, 3-year average statistics for ozone and PM<sub>2.5</sub> are not available. The Sebastopol site replaced the Santa Rosa site which closed on December 13, 2013.

Ozone monitoring using the federally accepted method began at Patterson Pass on April 1, 2015. Therefore, 3-year average ozone statistics are not available.

Near-road air monitoring at Laney College Freeway began in February 2014. Therefore, 3-year average PM<sub>2.5</sub> statistics are not available.

Near-road air monitoring at San Jose Freeway began in September 2014. Therefore, 3-year average PM<sub>2.5</sub> statistics are not available.

## Explanation of Terms

State and national exceedances occur when pollutant concentrations exceed the indicated standards. For comparison, values in ppb must be converted to ppm and rounded to the same number of decimal places as the original standard.

### MAX HR / MAX 8-HR / MAX 24-HR

The highest average pollutant concentration over a one-hour period, an eight-hour period (on any given day), or a 24-hour period (from midnight to midnight).

### ANN AVG

The yearly average (arithmetic mean) of the readings taken at a given monitoring station.

### NAT DAYS

The number of days during the year for which the monitoring station recorded pollutant concentrations exceeding the national standard.

### CAL DAYS

The number of days during the year for which the station recorded pollutant concentrations exceeding the California standard.

### TOTAL BAY AREA DAYS OVER STANDARD

is not a sum of exceedances at individual stations, but rather the number of days where at least one site recorded an exceedance.

### 3-YR AVG (Nat. 8-hr ozone standard)

The 3-year average of the fourth highest 8-hour average ozone concentrations for each monitoring station. A 3-year average greater than 70 ppb at any monitoring station means that the region does not meet the standard and may be designated non-attainment by the EPA.

### PM<sub>10</sub>

Particulate matter ten microns or smaller in size. PM<sub>10</sub> is sampled every third day at San Jose and every sixth or twelfth day at all other sites.

### PM<sub>2.5</sub>

Particulate matter 2.5 microns or smaller in size. PM<sub>2.5</sub> is a sub-category of PM<sub>10</sub>.

### PM<sub>10</sub> ANN AVG and MAX 24-HR

This table shows PM<sub>10</sub> data reported at local temperature and pressure conditions, according to the California standards. National PM<sub>10</sub> data are converted to standard temperature and pressure conditions, which generally results in slightly lower readings.

### 3-YR AVG (PM<sub>2.5</sub> 24-hour standard)

The 3-year average of the annual 98<sup>th</sup> percentiles of the individual 24-hour concentrations of PM<sub>2.5</sub>. A 3-year average greater than 35 µg/m<sup>3</sup> at any monitoring station means that the region does not meet the standard and may be designated non-attainment by the EPA.

### 3-YR AVG (PM<sub>2.5</sub> annual standard)

The 3-year average of the quarterly averages of PM<sub>2.5</sub>. A 3-year average greater than 12.0 µg/m<sup>3</sup> at any monitoring station means that the region does not meet the standard and may be designated non-attainment by the EPA.

## HEALTH-BASED AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Std	National Std
<b>Ozone*</b>	1 Hour	0.09 ppm	—
	8 Hour	0.070 ppm	0.070 ppm
<b>Carbon Monoxide</b>	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
<b>Nitrogen Dioxide</b>	1 Hour	0.18 ppm	0.100 ppm
	Annual	0.030 ppm	0.053 ppm
<b>Sulfur Dioxide</b>	1 Hour	—	0.075 ppm
	24 Hour	0.04 ppm	—
<b>Particulates ≤ 10 microns</b>	24 Hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual	20 µg/m <sup>3</sup>	—
<b>Particulates ≤ 2.5 microns</b>	24 Hour	—	35 µg/m <sup>3</sup>
	Annual	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>

\* In October 2015, the U.S. EPA implemented a new 8-hour ozone standard of 70 ppb. Exceedances are based on this standard (note that national and state numbers can differ due to data-handling conventions)

### Concentrations

#### ppm

parts per million

#### ppb

parts per billion

#### µg/m<sup>3</sup>

micrograms per cubic meter

## TEN-YEAR BAY AREA AIR QUALITY SUMMARY

### DAYS OVER CURRENT STANDARDS

YEAR	OZONE			CARBON MONOXIDE		NITROGEN DIOXIDE		SULFUR DIOXIDE		PM <sub>10</sub>		PM <sub>2.5</sub>	
	8-Hr	1-Hr	8-Hr	1-Hr	8-Hr	1-Hr	1-Hr	24-Hr	24-Hr	24-Hr	24-Hr		
	Nat	Cal		Nat	Cal	Nat	Cal	Nat	Cal	Nat	Cal	Nat	
2006	20	18	22	0	0	0	0	1	0	0	0	15	10
2007	8	4	9	0	0	0	0	0	0	0	0	4	14
2008	19	9	20	0	0	0	0	0	0	2	0	5	12
2009	11	11	13	0	0	0	0	0	0	0	0	1	11
2010	11	8	11	0	0	0	0	0	0	0	0	2	6
2011	9	5	10	0	0	0	0	0	0	0	0	3	8
2012	8	3	8	0	0	0	0	1	0	0	0	2	3
2013	3	3	3	0	0	0	0	0	0	0	0	6	13
2014	9	3	10	0	0	0	0	0	0	0	0	2	3
2015	12	7	12	0	0	0	0	1	0	0	0	1	9