Agenda Date: January 21, 2016
Agenda Placement: Regular
Estimated Time: 15 minutes
Continued Item: No

Board Agenda Item

TO: Air Pollution Control District Board

FROM: Dave Van Mullem, Air Pollution Control Officer

CONTACT: Joel Cordes, Monitoring and IT Supervisor (961-8816)

SUBJECT: Ambient Air Monitoring Network in Santa Barbara County and the Revision of the Ozone Standard

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RECOMMENDATION:

Receive presentation on the ambient air monitoring network in Santa Barbara County and an update on the strengthening of the national ozone standard from 75 to 70 parts per billion.

DISCUSSION:

The California Air Resources Board and the Santa Barbara Air Pollution Control District have been monitoring ambient air quality in Santa Barbara County since the mid-1970's, as required under the 1970 Federal Clean Air Act. The size of the network expanded in the 1980's in response to an expansion of oil and gas activity in the county. The size of these projects were large enough to require ambient air monitoring as a condition to the permits to construct and operate. As these projects matured, a number of these monitoring stations, which were required for pre-construction, were shut down resulting in the monitoring network shrinking to the current size of 18 ambient air and meteorological monitoring stations.

Our ambient air monitoring network is designed to meet the three main objectives that are specified in Chapter 40 part 58 of the Code of Federal regulations: (1) Provide air pollution data to the general public in a timely manner; (2) support compliance with ambient air quality standards and emissions strategy development; and, (3) to support air pollution research studies. The regulations also specify the number of stations, types of stations, and parameters monitored at each station. To comply with these regulations, our stations are setup to identify the pollutant concentrations, collect data in urban areas with the most population, monitor impacts from major industrial sources, measure background concentrations and quantify pollution transport.

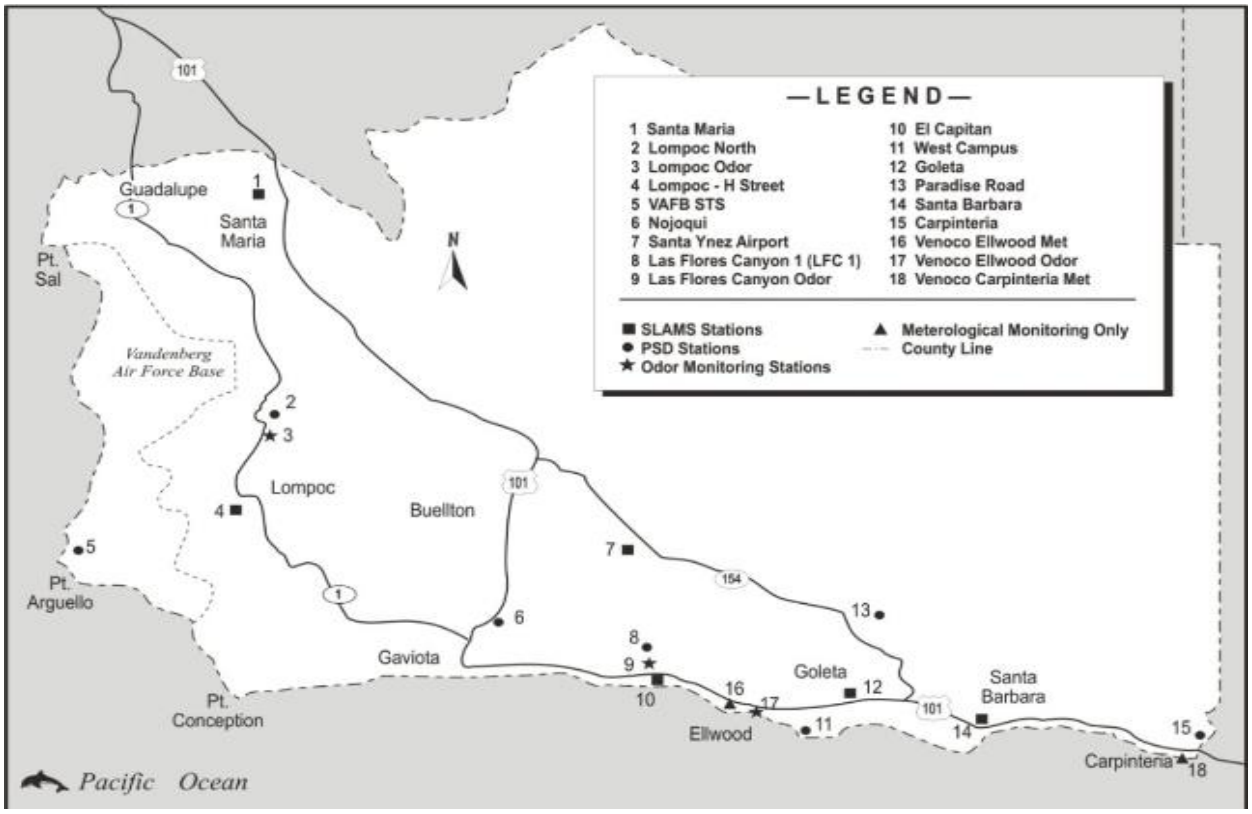
Not all of the stations in our network measure the same pollutants, but overall we monitor the criteria pollutants: ozone, oxides of nitrogen, sulfur dioxide, carbon monoxide, and particulate matter. At specific stations we monitor additional pollutants such as total hydrocarbons and hydrogen sulfide in response to the processing of fossil fuels. We also measure meteorological conditions at a majority of the stations to help model the impacts of air pollution.

The data from these monitoring stations are collected by our computerized data acquisition system on a continuous basis. The collected data are used to report air quality information to the public through multiple web sites. The data are also used to determine compliance with ambient air quality standards, compliance with permit conditions, trending and air quality reports, and modeling.

The second part of this presentation provides an update to the new national ozone standard which became effective December 28, 2015. The standard was strengthened from 75 to 70 parts per billion to improve public health protection. By October 1, 2017, EPA will designate areas as attainment (meeting the standard) or non-attainment (not meeting the standard). They will most likely base the decision on data collected from 2014 - 2016. Based on air quality data collected from 2013 – 2015, Santa Barbara County will meet the new standard.

The Board presentation includes maps that show locations of the monitoring stations along with information about the different types of monitoring stations in our county. Charts also show Santa Barbara's air quality trend over the past years to help demonstrate our potential attainment classification in 2017.

MONITORING STATION LOCATION MAP:



MONITORING STATION PARAMETER LIST									
STATION	**LOCATION**	**O3**	**NO2**	**SO2**	**CO**	**THC**	**H2S**	**PM10**	**PM2.5**
Carpinteria	Gobernador Road	■	■						
Carpinteria Met	Carpinteria Gas Plant								
Nojoqui	Hwy 101 & Nojoqui Pass	■	■						
Lompoc North	2988 Harris Grade Rd	■	■	■		■			
Paradise Road	Paradise Rd, National Forest	■	■						
Lompoc Odor	2988 Harris Grade Rd						■		
Vandenberg South Base	South Base Vandenberg AFB	■	■	■	■	■		■	
Las Flores Canyon 1	Exxon Gas Plant LFC	■	■	■	■	■		■	
Las Flores Canyon Odor	Exxon Gas Plant LFC						■		
Venoco West Campus	Devereux slough near UCSB			■		■	■		
Venoco Ellwood Odor	7979 Hollister Ave						■		
Venoco Met	7979 Hollister Ave								
Lompoc H Street	128 S. H Street	■	■	■	■			■	■
El Capitan	El Capitan State Beach	■	■	■				■	
Santa Ynez	900 Airport Rd (Airport)	■							
Goleta	380 N. Fairview Ave	■	■		■			■	■
Santa Maria	906 S. Broadway	■	■		■			■	■
Santa Barbara	700 E. Canon Perdido	■	■		■			■	■

PM10 Particulate Matter <10 Micrometers in Diameter
PM2.5 Particulate Matter <2.5 Micrometers in Diameter
O3 Ozone
NO2 Nitrogen Dioxide
THC Total Hydrocarbons
H2S Hydrogen Sulfide
CO Carbon Monoxide
SO2 Sulfur Dioxide