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# MEMORANDUM

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Date: March 4, 2016

To: The Honorable Chair and Members  
Pima County Board of Supervisors

From: C.H. Huckelberry  
County Administrator

A handwritten signature in black ink, appearing to be "CHH", is written over the printed name "C.H. Huckelberry".

Re: **Ozone Air Quality Attainment**

Attached please find two memoranda from the Environmental Quality Director regarding implications of nonattainment of the Federal Ozone Air Quality Standard (OAQS). As you can see in the memorandum dated February 26, 2016 (Attachment 1), Pima County is very near the lowered OAQS. A violation of the standard will trigger required development of a nonattainment plan with appropriate regulatory mechanisms to meet the OAQS.

The March 3, 2016 memorandum (Attachment 2) describes the type of requirements or controls that would be implemented, which are now being implemented in Maricopa County because of their nonattainment of the OAQS even before the standard was lowered by the US Environmental Protection Agency (EPA).

At this time, no action of the Board of Supervisors is required regarding this matter. However, the Board should be aware of the possible implications of OAQS violation and required nonattainment plan development. The last time the County was in nonattainment for either particulates or carbon monoxide, we were required to develop and implement a rather intensive nonattainment plan.

CHH/lab

#### Attachments

c: John Bernal, Deputy County Administrator for Administration  
Nanette Slusser, Assistant County Administrator for Policy, Public Works  
Ursula Nelson, Director, Environmental Quality

# ATTACHMENT 1



## MEMORANDUM

**DATE:** February 26, 2016

**TO:** C. H. Huckelberry  
Pima County Administrator

**FROM:** Ursula Nelson *UN*  
Director

**RE:** Ozone Air Quality Standard

Based on extensive scientific evidence about ozone's effects on public health and welfare, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standard (NAAQS) for ground-level ozone to 70 parts per billion (ppb) on October 1, 2015. The updated standard will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. They also will improve the health of trees, plants and ecosystems. The previous standard for ozone was 75 ppb.

Pima County DEQ measures air quality for several air pollutants including ozone at specific monitoring sites in eastern Pima County to ensure compliance with the NAAQS. At this time, Pima County is classified as "attainment" for all NAAQS. An attainment status indicates that our air quality is within the range accepted for public health protection. If monitored air quality indicates levels above an established NAAQS, an area would be reclassified by the EPA as "nonattainment."

Current air monitoring data for ozone levels in Pima County yields a value of 69 ppb (see attached chart). While this does demonstrate attainment, it is very close to the 70 ppb standard. Although we have a very effective monitoring network, we do not have the resources to conduct analyses that would help identify the sources and environmental chemistry that affect ozone formation in our area. Ozone is a very challenging pollutant to control since it is not emitted into the air directly, but is created through a chemical reaction between oxides of nitrogen and volatile organic compounds in the presence of heat and sunlight.

If Pima County were to exceed the 70 ppb ozone standard, a nonattainment designation would require development of a State Implementation Plan (SIP), a complex document including a detailed analysis of the sources of air pollution (an emissions inventory or EI), a photo-chemical model analyzing ozone formation, and the identification of control strategies that would be implemented to reduce levels of emissions to bring the area into attainment. Such controls could include restrictions on the emissions allowed from major industrial sources, including existing sources as well as any new sources locating to the nonattainment area.

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PDEQ is limited in our ability to analyze ozone due to resource restrictions. An essential first step would be the development of an emissions inventory. PDEQ estimates this would take two additional FTE's. This data would then be used in a photochemical model. Most air quality agencies around the country are using outside consultants for this work since it is highly specialized. We have discussed possible collaboration with the University of Arizona Atmospheric Sciences Department. In addition, PDEQ participates in national and western air agency networks (such as the National Association of Clean Air Agencies and the Western Regional Air Partnership) to share knowledge and resources to the greatest extent possible. Mobile sources contribute significantly to the creation of ground-level ozone and a robust community education program to encourage options to driving alone could be beneficial in reducing emissions from motor vehicles and keeping air quality at healthy levels.

Addressing these resource needs will likely be part of any future air quality fee increases, subject to stakeholder input and Board of Supervisors' approval.

We are available at your convenience to answer any questions or to discuss this issue further.

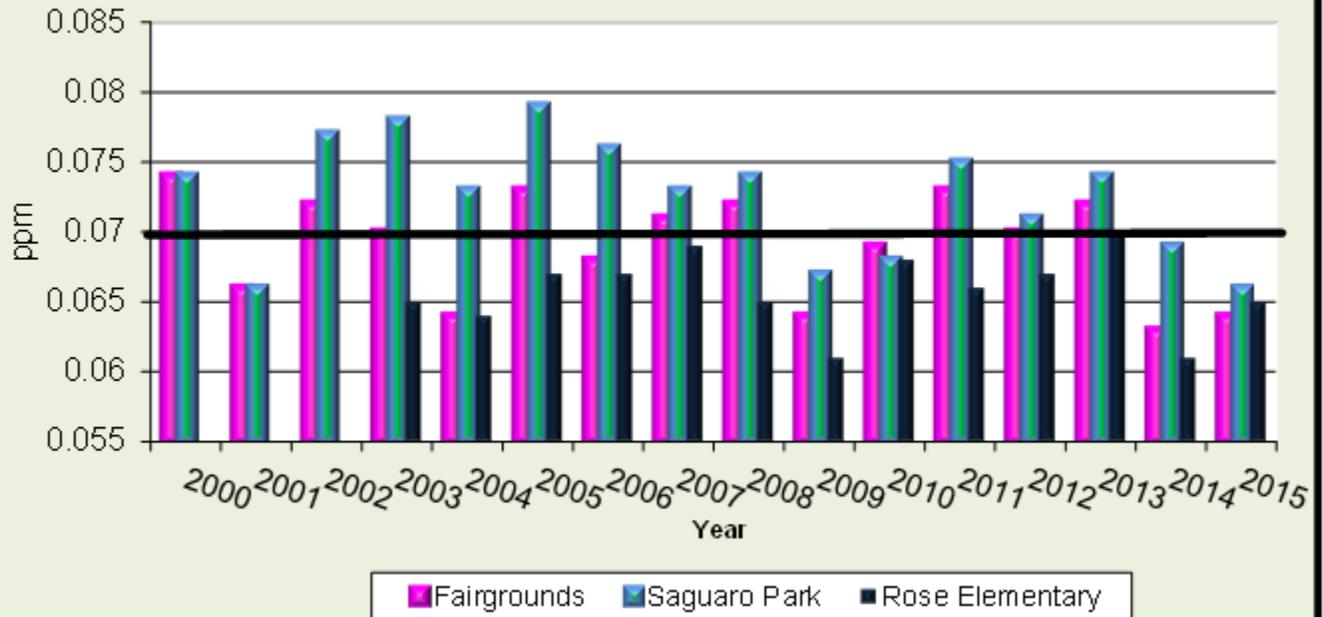
UKN/vb

Attachment: Ozone Chart

cc: John M. Bernal, Deputy County Administrator for PW  
Dr. Francisco Garcia, Health Department Director and Chief Medical Officer  
Nanette Slusser, Assistant County Administrator for PW Policy

# Ozone 2000 - 2015

4th Highest 8-Hour Average Concentration



# ATTACHMENT 2



## MEMORANDUM

**DATE:** March 3, 2016

**TO:** C. H. Huckelberry  
Pima County Administrator

**FROM:** Ursula Nelson *UN*  
Director

**RE:** Ozone Air Quality Standard: Pima and Maricopa Counties

This memorandum is in response to your March 1 correspondence requesting information about the status of Maricopa County with respect to the ozone standard. Maricopa County has been nonattainment for ozone for many years, although they are making progress and improving.

The U.S. EPA has established different ozone standards through the years depending on the most recent health impact information. This periodic health review resulted in the October 2015 revision of the standard to make it more protective of public health. However, once an area is designated as nonattainment for a standard, it must come into attainment even if the standard is later modified.

Maricopa County has not attained the 2008, 8-hour ozone standard, and they will be bumped up from marginal to moderate nonattainment for that standard shortly. They will likely be nonattainment for the new 2015 ozone standard. Because of their nonattainment status, Maricopa County has more stringent and expensive air quality controls for their stationary sources, mostly focused on volatile organic compounds (VOCs). They also have controls for oxides of nitrogen (NO<sub>x</sub>). Both VOCs and NO<sub>x</sub> are precursors for ozone formation. For mobile sources, Maricopa County relies on federal measures that are established nationally but they do have a more stringent vehicle emissions inspection program than Pima County, a more restrictive Travel Reduction Program for businesses, and they also have more expensive cleaner burning gasoline. Nonattainment areas such as Maricopa County have more stringent regulations and a nonattainment permitting process for air quality permits. The sources would also need to "offset" their emissions. This means that increases for specific air pollutant emissions must be "offset" by a greater decrease in that same air pollutant within the air district. The biggest issue that has arisen in Maricopa County as a result of nonattainment is the lack of VOC and NO<sub>x</sub> offsets. This has caused challenges for new industry sources wishing to relocate within the area as well as expansions at existing sources.

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Given the current air quality data, Pima County will likely be classified as attainment of the 2015 ozone standard of 70 parts per billion (ppb). This means we will not be required to implement additional air quality controls. However, since our current ozone levels are 69 ppb, just barely below the standard, and the 2016 ozone season hasn't begun, it is possible that our air quality could go nonattainment this year. We do not have the resources to conduct an emissions inventory or air quality modeling to perform analyses to provide a basis for predicting future air quality levels and determining best control strategies. If future ozone levels rise, Pima County would be reclassified as nonattainment and be required to implement additional air quality controls.

We are available to address any additional questions.

UKN/RG/vb

cc: John M. Bernal, Deputy County Administrator for PW  
Dr. Francisco Garcia, Health Department Director and Chief Medical Officer  
Nanette Slusser, Assistant County Administrator for PW Policy