

Monitoring in Pima County



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Technical operations Manager

OZONE – THE NEW STANDARD ?

Will it be 0.060 PPM, 0.065 PPM or 0.070 PPM

And

What will the effect be on Pima County ?

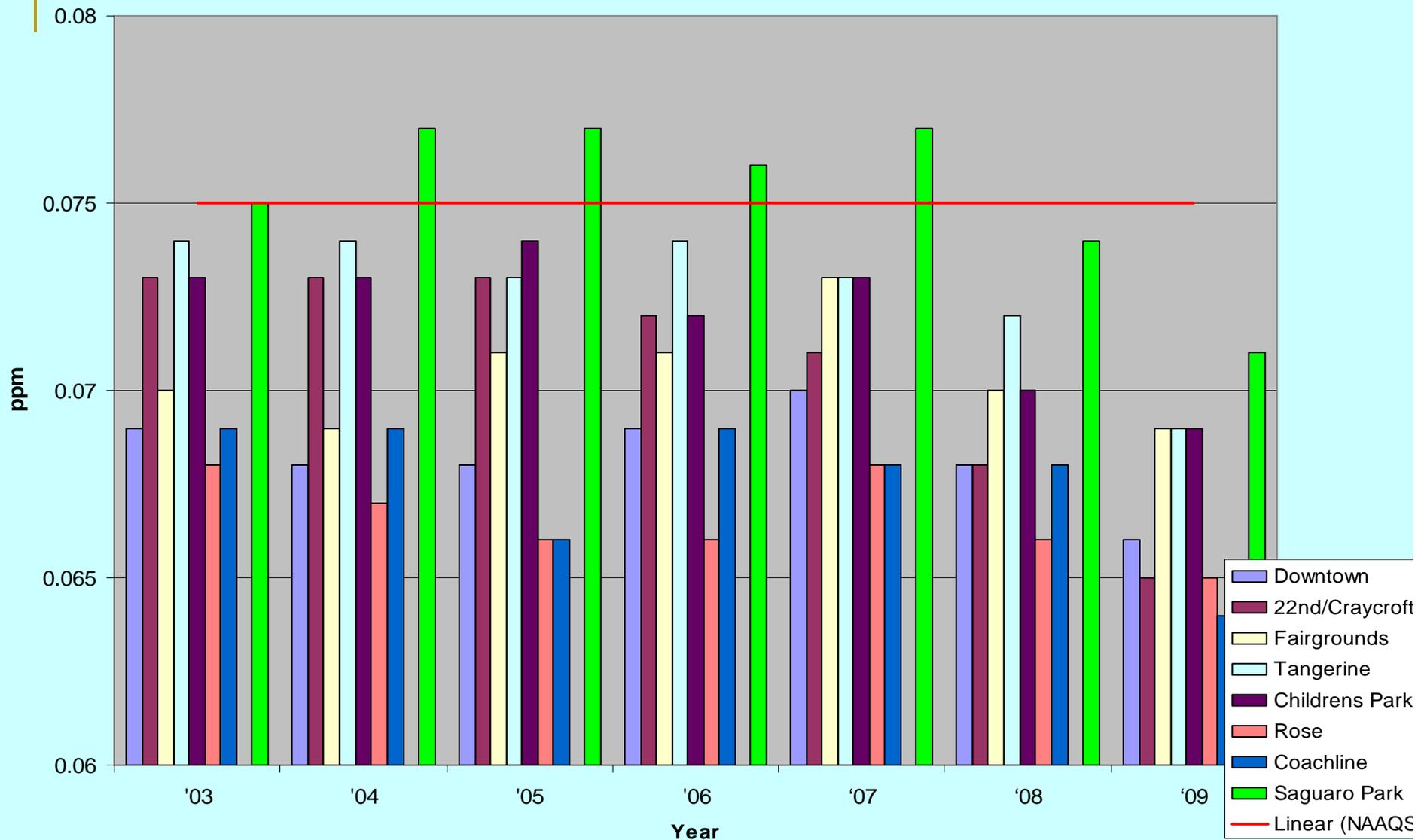


Ozone in Pima County

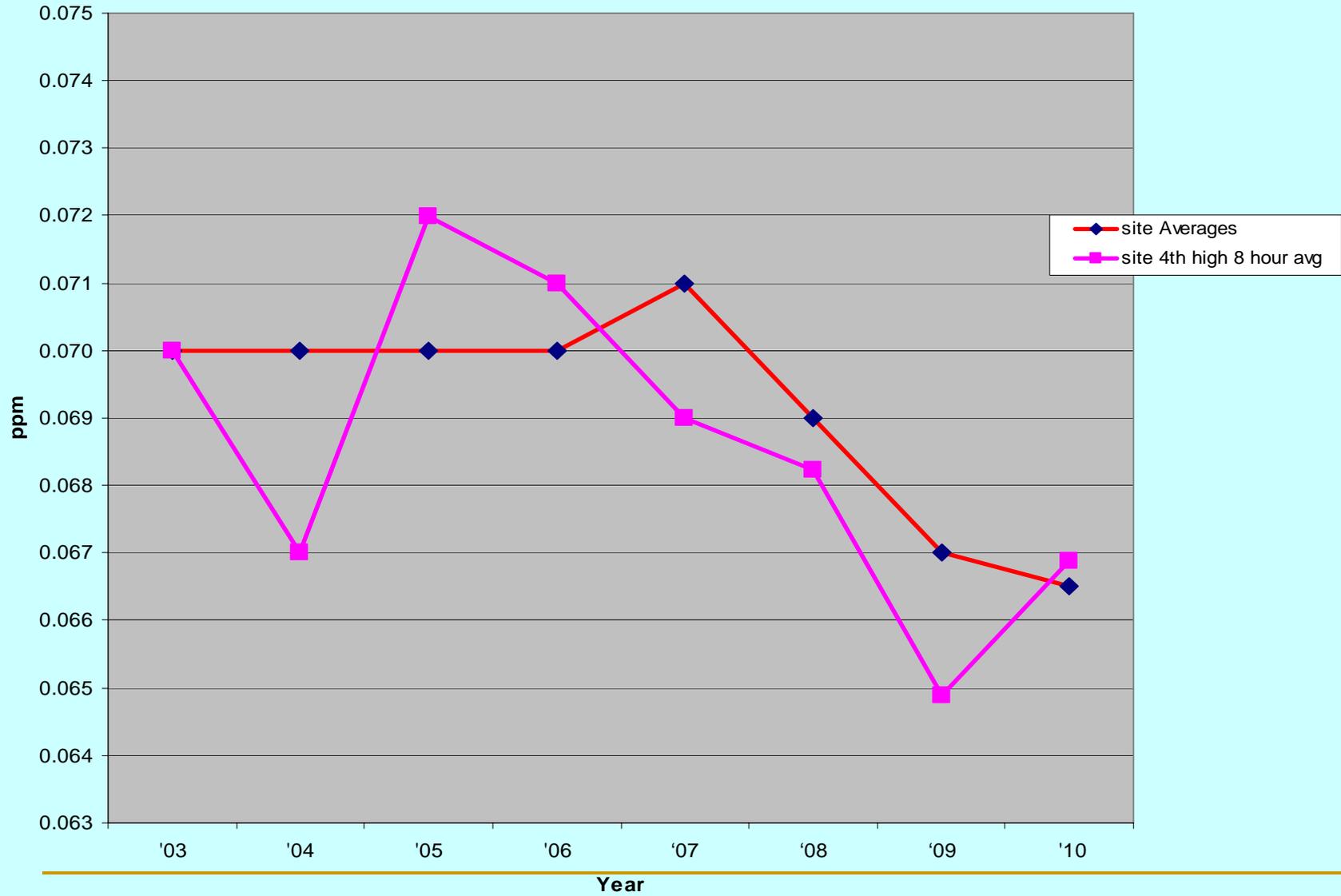
3 year average of the 4th high 8 hour average

3year avg 4th high 8hr avg	'03	'04	'05	'06	'07	'08	'09	'10
Downtown	0.069	0.068	0.068	0.069	0.07	0.068	0.066	
22 nd St. and Craycroft	0.073	0.073	0.073	0.072	0.071	0.068	0.066	0.065
Saguaro Park East	0.075	0.077	0.077	0.076	0.077	0.074	0.071	0.069
Fairgrounds	0.07	0.069	0.071	0.071	0.073	0.07	0.069	0.068
Tangerine	0.074	0.074	0.073	0.074	0.073	0.072	0.069	0.069
Children's Park	0.073	0.073	0.074	0.072	0.073	0.071	0.069	0.067
Green Valley		0.07	0.068	0.068	0.068	0.066	0.065	0.065
Rose Elementary	0.068	0.067	0.066	0.066	0.068	0.067	0.065	0.065
Coachline	0.069	0.069	0.066	0.069	0.068	0.068	0.065	0.064
Average	0.07	0.07	0.07	0.07	0.071	0.069	0.067	0.067

3year average of 4th high 8 hour average



3 year average of 4th high 8 hour average Ozone
Average of 4th high 8 hour averages



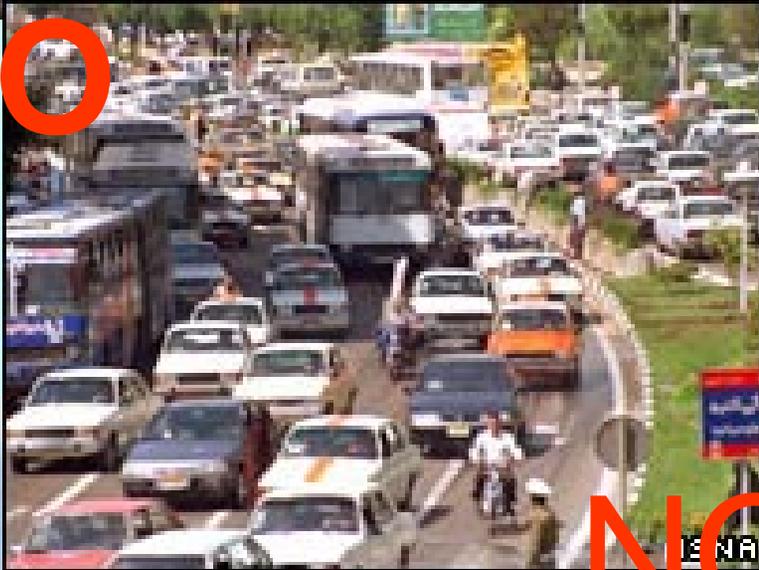
The EPA is currently suggesting a secondary annual standard for Ozone which uses a weighted average and is in the area of 7 to 15 ppm-hours. They call this system the W126 weighted average for Ozone.

No decision has been made yet on either the method or level.



PM

CO



NOX



SO2

PHOTOVAULT PHOTOVAULT PHOTOVAULT PHOTOVAULT PHOTOVAULT

Carbon Monoxide

NAAQS 1 hour Average 35ppm, 8 hour Average 9ppm

Not to be exceeded more than once per year

Over all very clean with a continuing downward trend.

1 hour Average Max for 2009 2.3ppm

8 hour Average Max for 2009 1.3ppm

Nitrogen Dioxide, NO₂

Annual NAAQS .053ppm

Not to be exceeded more than once per year

Very much a downward trend over the years

Max annual mean 2009 .012ppm

Sulfur Dioxide, SO₂

NAAQS Annual 0.03ppm, 24 hour 0.14ppm

Not to be exceeded more than once per year

The highest 24 hour reading in the past 10 years was 0.008ppm in 2000.

For the year 2009 the highest 24 hour reading was 0.002ppm, less than 2% of the NAAQS.

The annual reading in 2009 was 0.0010ppm far below the NAAQS of 0.03ppm.

Particulate Matter 10 microns, PM10

24 hour NAAQS 150ug/m³

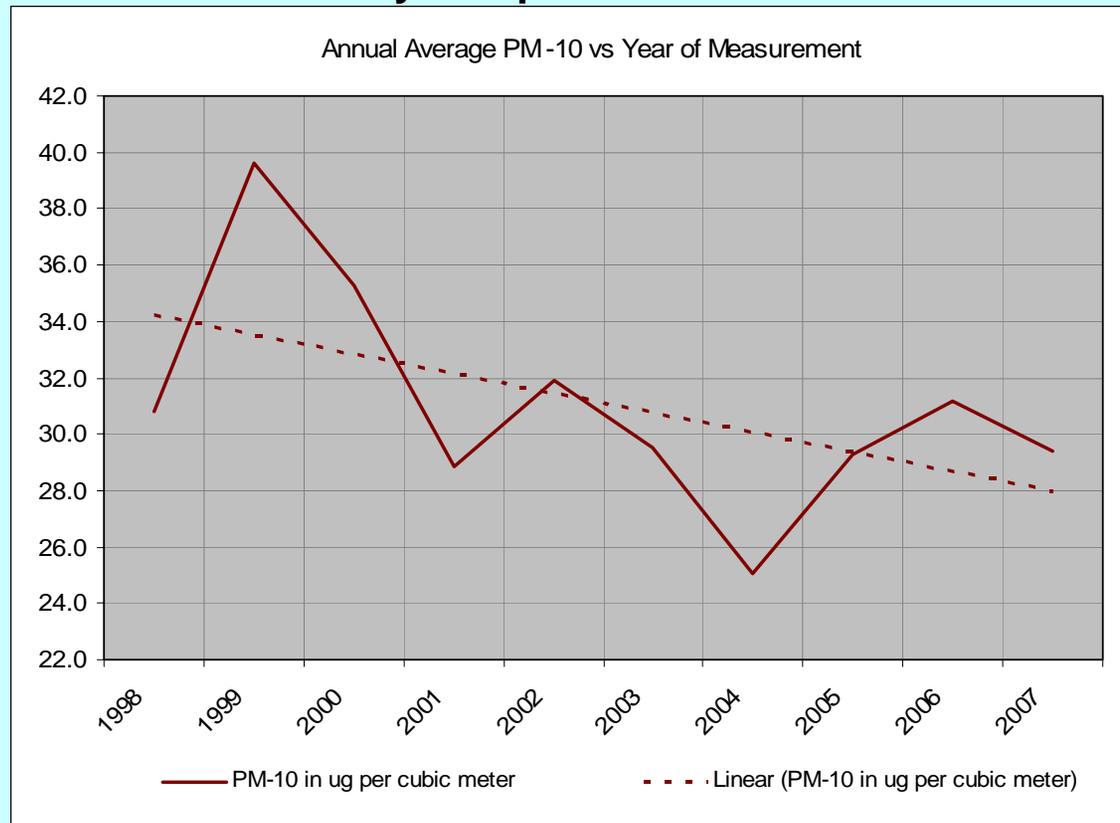
Not to be exceeded more than once per year on average over 3 years.

2009 Max 24 hour PM10 101ug/m³

There was a single day event which caused a maximum 24 hour PM10 reading of 270ug/m³ on July 22, 2009. This event was flagged pending EPA approval as an exceptional event and will, if approved, not count as an exceedance.

Annual PM10

While there is no longer an annual NAAQS, the Average annual PM10 concentrations decreased approximately 18% over the ten years prior to 2008



Particulate Matter 2.5 microns, PM2.5

Another simple standard from the EPA

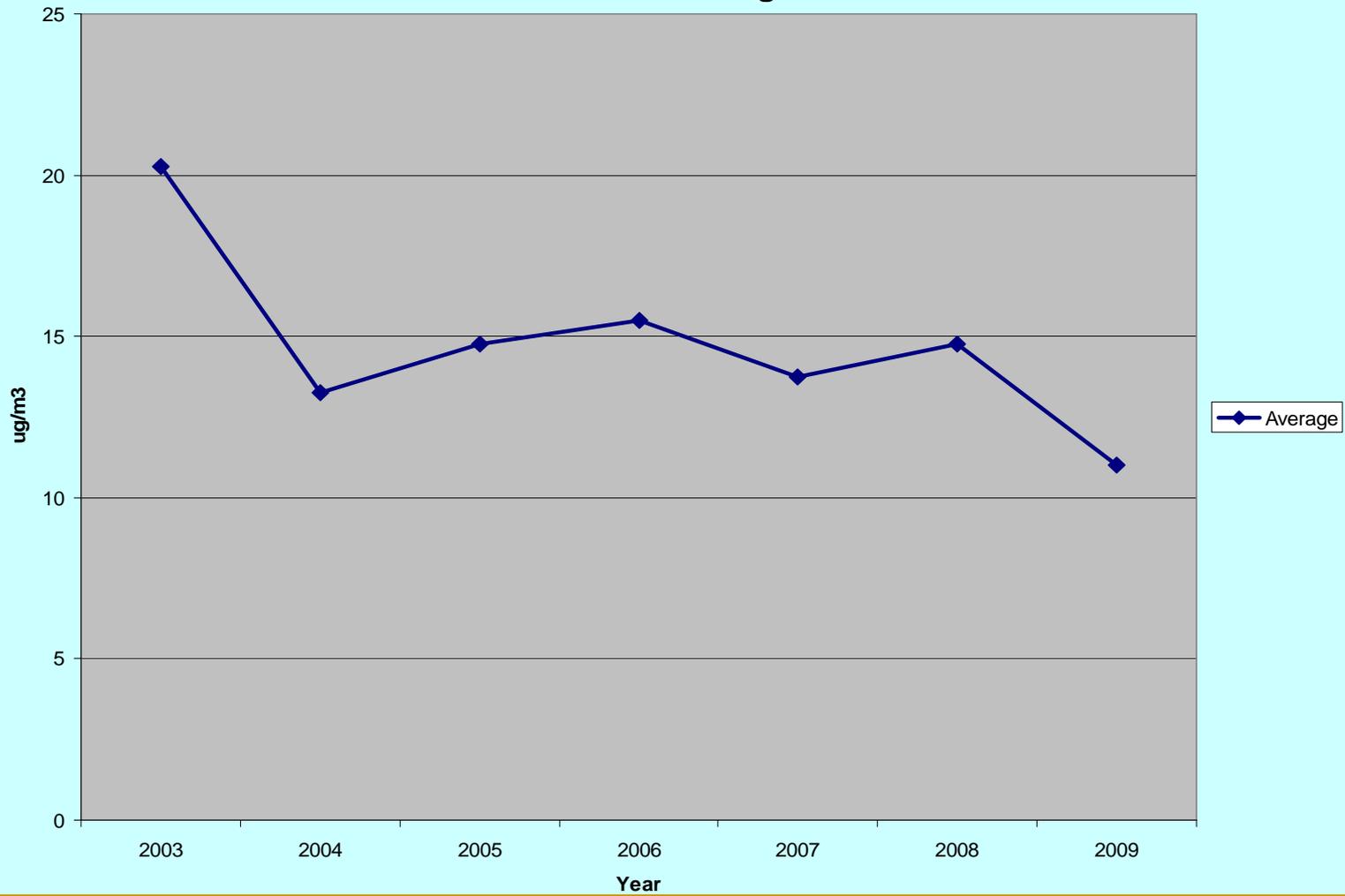
NAAQS Annual 15ug/m³

To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³

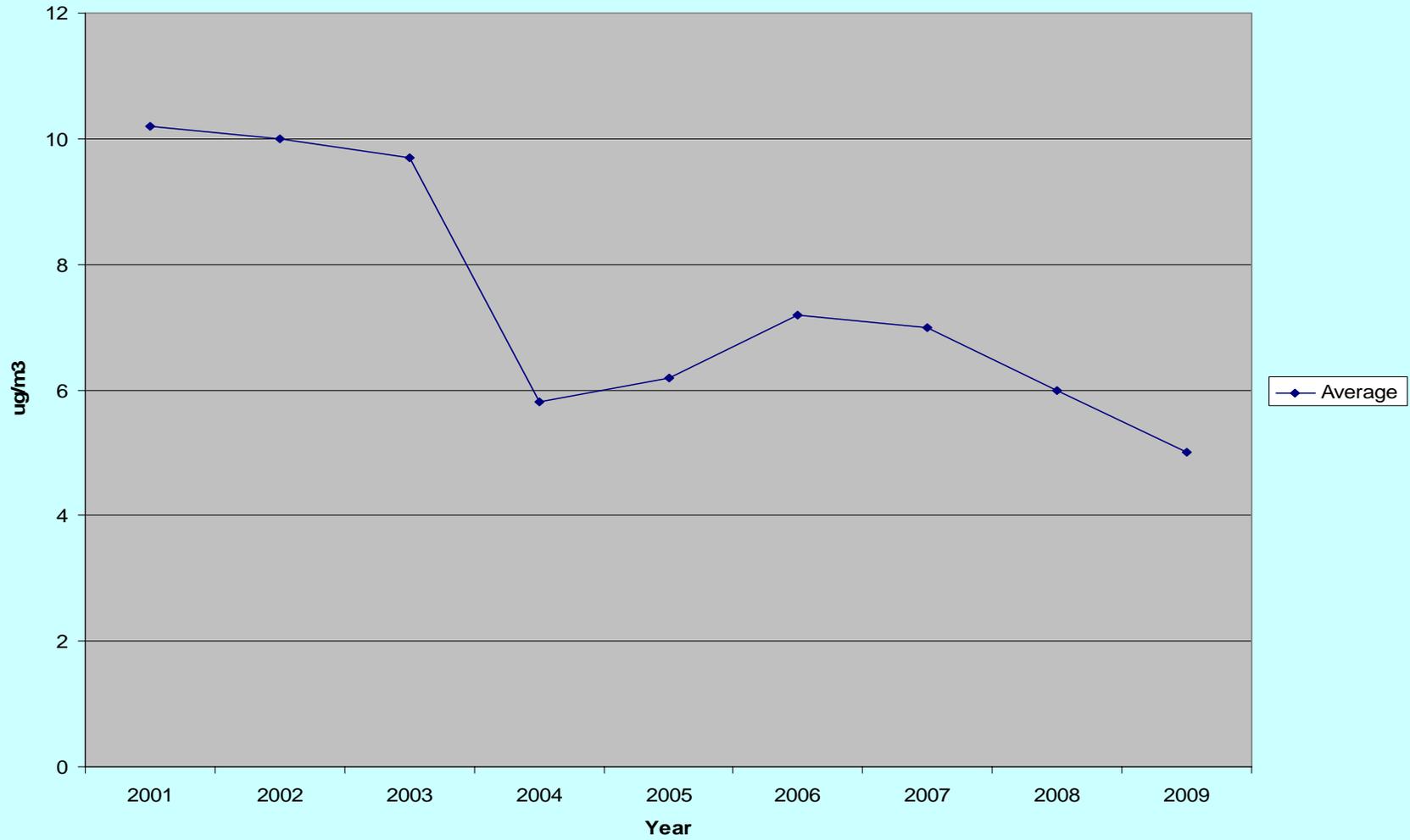
NAAQS 24 hr 35ug/m³

To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³

PM2.5 98th percentile value
Average of all sites
NAAQS 24 hour 35ug/m3



**PM2.5 Average of all sites
NAAQS Annual Mean 15ug/m3**



Monitoring Sites in Pima County

Pima County DEQ currently has 18 NAAQS monitoring sites in operation. We had 19 sites up until this month when we closed our Broadway Swan site due to losing our roof space at the site location.

We also have 6 Beryllium sites operating around the Brush Wellman facility.

We are currently setting up a new particulate monitoring site in Green Valley in conjunction with the GVCC and FREEPORT-MCMORAN.

Childrens Park will become our NCore site.



Pima County Monitoring Sites



- 2 - 22nd / Craycroft
- 3 - 22nd / Alvernon
- 4 - Geronimo
- 5 - South Tucson
- 6 - Prince Road
- 7 - Broadway / Swan
- 8 - Corona de Tucson
- 9 - Santa Clara
- 10 - Green Valley
- 11 - Children's Park
- 12 - Orange Grove
- 13 - Tangerine
- 14 - Rose Elementary
- 15 - Coachline
- 16 - Cherry / Glenn
- 17 - Fairgrounds
- 18 - Saguaro National Park East
- 23 - Golf Links / Kolb

-  Monitoring Sites
-  Major Streets

Revised: April 2010

Comments

All information is provided as is, with all faults, and without warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.



Prepared By
Pima County Department
of
Environmental Quality

Table 5

Site Map #	Site Name	Address	Pollutant
1	Downtown **	190 W. Pennington	CO, O ₃
2	22 nd & Craycroft	1237 S. Beverly	CO, O ₃ , SO ₂ , NO ₂
3	22 nd & Alvernon	3895 E. 22 nd	CO
4	Geronimo	2498 N. Geronimo	PM _{2.5} , PM ₁₀
5	South Tucson	1601 S. 6 th Ave.	PM ₁₀
6	Prince Road	1016 W. Prince Rd.	PM ₁₀
7	Broadway & Swan	4625 E. Broadway	PM ₁₀
8	Corona de Tucson	22000 S. Houghton Rd.	PM ₁₀
9	Santa Clara School	6910 S. Santa Clara Ave.	PM ₁₀
10	Green Valley	601 N. La Canada Dr.	O ₃ , PM ₁₀ , PM _{2.5}
11	Children's Park	400 W. River Rd.	CO, O ₃ , NO ₂ , PM _{2.5}
12	Orange Grove	3401 W. Orange Grove Rd.	PM ₁₀ , PM _{2.5}
13	Tangerine	12101 N. Camino de Oeste	O ₃ , PM ₁₀
14	Rose Elementary	710 W. Michigan Street	O ₃ , PM _{2.5}
15	Coachline	9597 N. Coachline Blvd.	O ₃ , PM _{2.5}
16	Cherry & Glenn	2745 N. Cherry	CO
17	Fairgrounds	11330 S. Houghton Rd.	O ₃
18	Saguaro National Park, East	3905 S. Old Spanish Tr.	O ₃
23	Golf Links & Kolb	2601 S. Kolb Rd.	CO

** Downtown site closed on 08/13/2009

Brush Ceramics Facility & Monitoring Sites

-  Brush Ceramics Facility
-  Major Streets
-  SCHOOLHIVOLS

- 1 Transportation Department
- 2 Los Ninos Elementary School
- 3 Los Amigos Elementary School
- 4 Ocotillo Elementary School (co-locate)
- 5 Sunnyside High School
- 6 Chaparral Middle School

October 2006

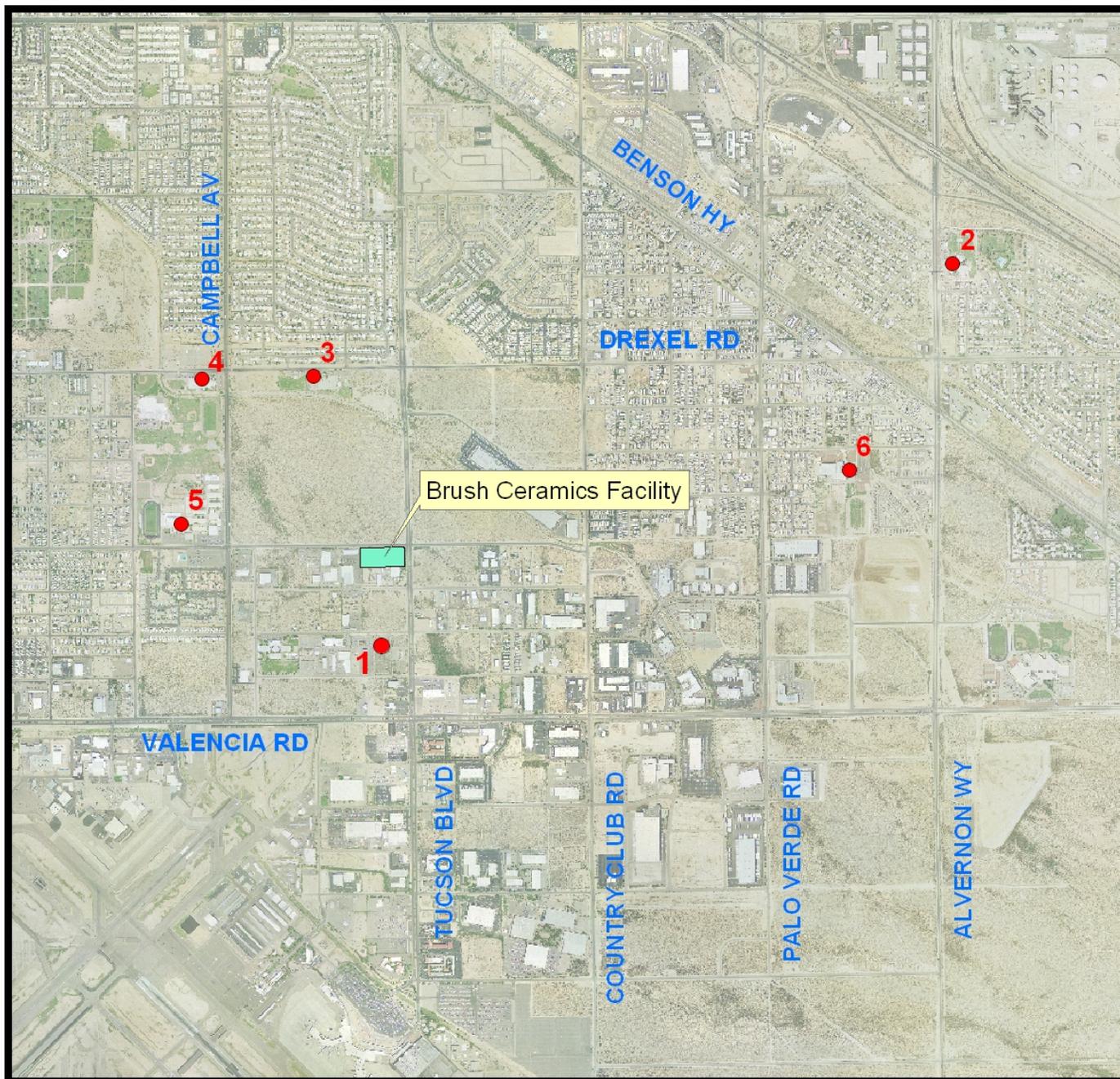
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0 360 720 1,440 2,160 2,880 3,600
Feet



In summation,

Pima Counties air quality looks very good.

The only real concern at present is Ozone.

Particulates can cause some problems if we have a bad year.



Questions ?

www.deq.pima.gov
www.airinfonow.org