

US EPA ARCHIVE DOCUMENT

Air Quality Flag Program



- Why did Arizona start a Flag Program?
- How does the program work?

Background

- 2006 – ADEQ received an EPA grant to conduct a PM-10 study in Maricopa County
- 2007 – The Maricopa County Asthma Coalition pushed for a Flag Program
- 2007 – ADEQ negotiated a \$25k SEP-settlement that paid for flags, administration and implementation in 8 elementary school districts in Maricopa County

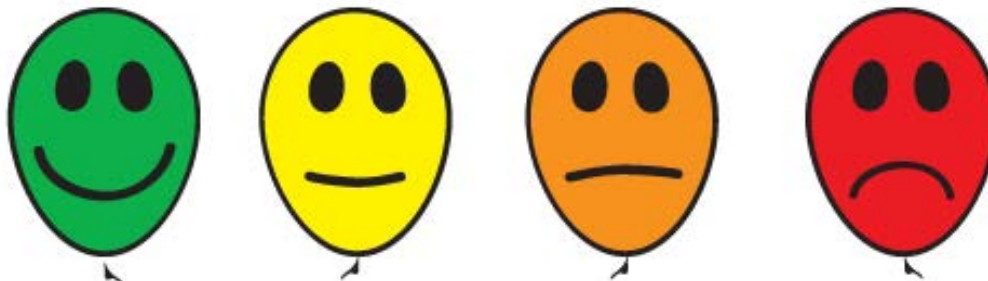
Background

- 2007 – As part of the exchange grant, flags were purchased by ADEQ to distribute to PM 10 and Ozone non-attainment areas
- 2007 – ADEQ flags were distributed and Flag Programs were developed in Pinal and Yuma Counties as part of their SIPs to educate the public on air quality conditions
- 2012 – ADEQ announced new Air Quality Monitoring and AQI forecast, and distributed air quality flags to Santa Cruz County for the Nogales and Rio Rico Schools

Air Quality Flag Program is...

- Nautical style flags to notify public of air quality conditions
- AQI warning level dictates color of flag
- Warning level also indicates health risk

Ollie Balloons



Why?

- Create public awareness of air quality conditions
- Protect kids' health
- Protect other sensitive populations from adverse effects of poor air quality (babies, teens, outdoor athletes, elderly, people with heart or airway disease)

How it works

- ADEQ issues forecasts for the next day
Sunday – Friday
- Forecast is sent to participants/stakeholders who join ADEQ's Flag Program
 - Interested parties may subscribe via email and can register at
 - <https://public.govdelivery.com/accounts/AZDEQ/subscriber/new>

How it works

- School participant/recipient raises flag that correlates to the predicted air pollution level
- Public is aware of air conditions and plan outdoor activities/events accordingly

Sample of Forecast

AIR QUALITY FORECAST FOR TUESDAY, APRIL 09, 2013

This report is updated by 1:00 p.m. Sunday thru Friday and is valid
for areas within and bordering Maricopa County in Arizona

FORECAST DATE	YESTERDAY SUN 04/07/2013	TODAY MON 04/08/2013	TOMORROW TUE 04/09/2013	EXTENDED WED 04/10/2013
NOTICES (*SEE BELOW FOR DETAILS)	NONE	PM-10 HIGH POLLUTION ADVISORY NWS WIND ADVISORY NWS BLOWING DUST ADVISORY	PM-10 HEALTH WATCH	NONE
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)			
O3*	64 BLUE POINT & TONTONAT'L MON	58 MODERATE	45 GOOD	48 GOOD
CO*	09 PHOENIX SUPERSITE	06 GOOD	07 GOOD	07 GOOD
PM-10*	38 CENTRAL PHOENIX	142 UNHEALTHY FOR SENSITIVE GROUPS	90 MODERATE	53 MODERATE
PM-2.5*	34 DURANGO	74 MODERATE	52 MODERATE	37 GOOD

* O3 = Ozone CO = Carbon Monoxide PM-10 = Particles 10 microns & smaller PM-2.5 = Particles smaller than 2.5 microns

**"Ozone Health Watch" means that the highest concentration of OZONE may approach the federal health standard.

"PM-10 or PM-2.5 Health Watch" means that the highest concentration of PM-10 or PM-2.5 may approach the federal health standard.

"High Pollution Advisory" means that the highest concentration of OZONE, PM-10, or PM-2.5 may exceed the federal health standard.

"DUST" means that short periods of high PM-10 concentrations caused by outflow from thunderstorms are possible.

Flag Programs

- **Maricopa County Flag Program**
- **Pinal County Flag Program**
- **Yuma Flag Program**
- **Santa Cruz County Flag Program**

- Website pages, fact sheets and FAQ's
- Press releases & press conferences
- Social Media
- Contact lists of school PIO's

Tips for Building Relationships

- Outreach and offer Air Quality Presentations to schools
- Seek partnership with county and city public education departments
- Seek partnerships with State Education Departments

Tips for Building Relationships

- Host booths at annual school conferences
- Contact existing environmental education organizations or state universities seeking partnership

Flag Program Challenges

- School Administration Resistance
- Athletic Director, P.E. & Coach Resistance
- Lack of knowledge in general about the science around air pollution
- Once a school agrees to participate, now what?
 - Verifying on-going participation & implementation
 - Sustainability

AQD Challenges

- Numerous forecast products
- Different geography throughout Arizona
- Local vs. Transported pollution
- Time constraints when issuing HPAs/Health Watches for more than one location
- Adapting forecasting to stricter health standards
- Human activities impacting air quality

Media Challenges

- Lack of knowledge by media in the general science of air pollution
- Maintaining interest on the part of the media in the AQI because of the relative sameness of forecasts.
- Preparing a cable-channel ready product understandable to viewers



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ADEQ Air Quality Flag Program Website

<http://www.azdeq.gov/ceh/flag.html>

- ❖ <http://www.azdeq.gov/envIRON/air/ozone/ensemble.pdf>
- ❖ <http://www.azdeq.gov/envIRON/air/ozone/yumef.pdf>
- ❖ <http://www.azdeq.gov/envIRON/air/ozone/nogales.pdf>