PINAL • COUNTY

AQI AIR QUALITY INDEX

FORECAST

GOOD (0-50)	MODERATE (51-100)	UNHEALTHY FOR SENSITIVE GROUPS (101-150)	UNHEALTHY (151-200)	VERY UNHEALTHY (201-300)	HAZARDOUS (301-500)

AIR QUALITY FORECAST FOR SATURDAY-TUESDAY, JANUARY 14-17, 2017

This forecast is updated by 1:00 p.m. Monday through Friday and as needed
(AQI Forecast on Twitter – see tables below for location specific Twitters)
Valid for areas within Pinal County Arizona

	Highest AQI value/Site in Pinal County	Highest AQI forecasted value (see tables below for forecasts by monitoring location)				
	YESTERDAY THU 1/12/17	TODAY FRI 1/13/17	TOMORROW SAT 1/14/17	EXTENDED SUN 1/15/17	EXTENDED MON 1/16/17	EXTENDED TUE 1/17/17
OZONE	34 PINAL AIR PARK	33 GOOD	32 GOOD	31 GOOD	32 GOOD	34 GOOD
$PM_{2.5}$	35 CASA GRANDE	41 GOOD	40 GOOD	24 GOOD	26 GOOD	30 GOOD
PM_{10}	40 STANFIELD	40 GOOD	35 GOOD	25 GOOD	27 GOOD	32 GOOD
HEALTH WATCH/ ADVISORY	NONE	NONE	NONE	NONE	NONE	NONE

PM_{10} = Particles 10 microns and smaller; $PM_{2.5}$ = Particles 2.5 microns and smaller

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

"$PM_{2.5}$ and/or PM_{10} Health Watch" means that the highest concentration of $PM_{2.5}$ and/or PM_{10} may approach the federal health standard.

"High Pollution Advisory" (HPA) means that the highest concentration of OZONE, $PM_{2.5}$ or PM_{10} may exceed the federal health standard.

"DUST" means that short periods of high PM_{10} concentrations caused by outflow from thunderstorms are possible.

Health message for Friday-Tuesday, January 13-17, 2017: No health impacts expected.

Discussion

Updated Friday, January 13, 2017

A couple of upper level low pressure systems will impact the area this weekend into early next week. Cloud cover and showers will stabilize ground surfaces and result in low PM_{10} concentrations. Additionally the $PM_{2.5}$ levels will be low the next several days along with ozone. The long range forecast models are hinting at strong winds late next week. We'll have to keep tabs on the developing system and see what impacts blowing dust may have on PM_{10} levels. Stay tuned. Forecaster: S. DiBiase

HOURLY MONITORING DATA (Draft, preliminary data - subject to change)
MONITORING NETWORK MAP YESTERDAY'S AQI LEVELS

AIR QUALITY FORECAST FOR

$PM_{2.5}$ (PARTICLES)

SITE NAME	TODAY AQI FORECAST FRI 1/13/17	TOMORROW AQI FORECAST SAT 1/14/17	EXTENDED AQI FORECAST SUN 1/15/17	EXTENDED AQI FORECAST MON 1/16/17	EXTENDED AQI FORECAST TUE 1/17/17
Casa Grande (Twitter: CG_AQI)	41	40	24	26	30
Hidden Valley (Twitter: HV_AQI)	39	38	22	23	27

AIR QUALITY FORECAST BY LOCATION FOR

PM_{10} (PARTICLES)

SITE NAME	TODAY AQI FORECAST FRI 1/13/17	TOMORROW AQI FORECAST SAT 1/14/17	EXTENDED AQI FORECAST SUN 1/15/17	EXTENDED AQI FORECAST MON 1/16/17	EXTENDED AQI FORECAST TUE 1/17/17
Apache Junction (Twitter: AJ_AQI)	11	10	7	8	10
Casa Grande (Twitter: CG_AQI)	30	29	20	22	26
Eleven Mile Corner (Twitter: PC_Housing_AQI)	28	27	22	23	26
Hidden Valley (Twitter: HV_AQI)	38	35	24	26	31
Maricopa (Twitter: Maricopa City_AQ)	33	32	25	27	32
Pinal Air Park (Twitter: PAP_AQI)	22	21	15	16	18
San Tan Valley Twitter: Santan_AQI)	30	27	21	23	26
Stanfield (Twitter: Stanfield_AQI)	40	35	24	27	32

AIR QUALITY FORECAST BY LOCATION FOR
OZONE

SITE NAME	TODAY AQI FORECAST FRI 1/13/17	TOMORROW AQI FORECAST SAT 1/14/17	EXTENDED AQI FORECAST SUN 1/15/17	EXTENDED AQI FORECAST MON 1/16/17	EXTENDED AQI FORECAST TUE 1/17/17
Apache Junction (Twitter: AJ_AQI)	33	32	31	32	34
Casa Grande (Twitter: CG_AQI)	31	30	29	29	31
Pinal Air Park (Twitter: PAP_AQI)	31	29	28	29	33

AIR POLLUTANTS IN DETAIL

PM_{10} & $PM_{2.5}$ (PARTICLES):

Description – The term "particulate matter" (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Particles less than 10 micrometers in diameter tend to pose the greatest health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter are referred to as "fine" particles and are responsible for many visibility degradations such as the "Valley Brown Cloud" (see http://www.phoenixvis.net/). Particles with diameters between 2.5 and 10 micrometers are referred to as "coarse".

Sources – Fine = All types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Coarse = crushing or grinding operations and dust from paved or unpaved roads.

Potential health impacts – PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

Units of measurement – Micrograms per cubic meter (ug/m^3)

Averaging interval – 24 hours (midnight to midnight).

Reduction tips – Stabilize loose soils, slow down on dirt roads and carpool.

O_3 OZONE:

Description – This is a secondary pollutant that is formed by the reaction of other primary pollutants (precursors) such as VOCs (volatile organic compounds) and NOx (Nitrogen Oxides) in the presence of heat and sunlight. The ozone "season" generally occurs during the spring and summer months (April-October) when high temperatures and extended daylight hours create the conditions most conducive to ozone formation.

Sources – VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NOx is emitted from motor vehicles, power plants, and other sources of combustion.

Potential health impacts – Exposure to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other effects include decrease in lung function, chest pain, and cough.

Unit of measurement – Parts per billion (ppb).

Averaging interval – Highest eight-hour period within a 24-hour period (midnight to midnight).
Reduction tips – Curtail daytime driving, refuel cars and use gasoline-powered equipment as late in the day as possible.