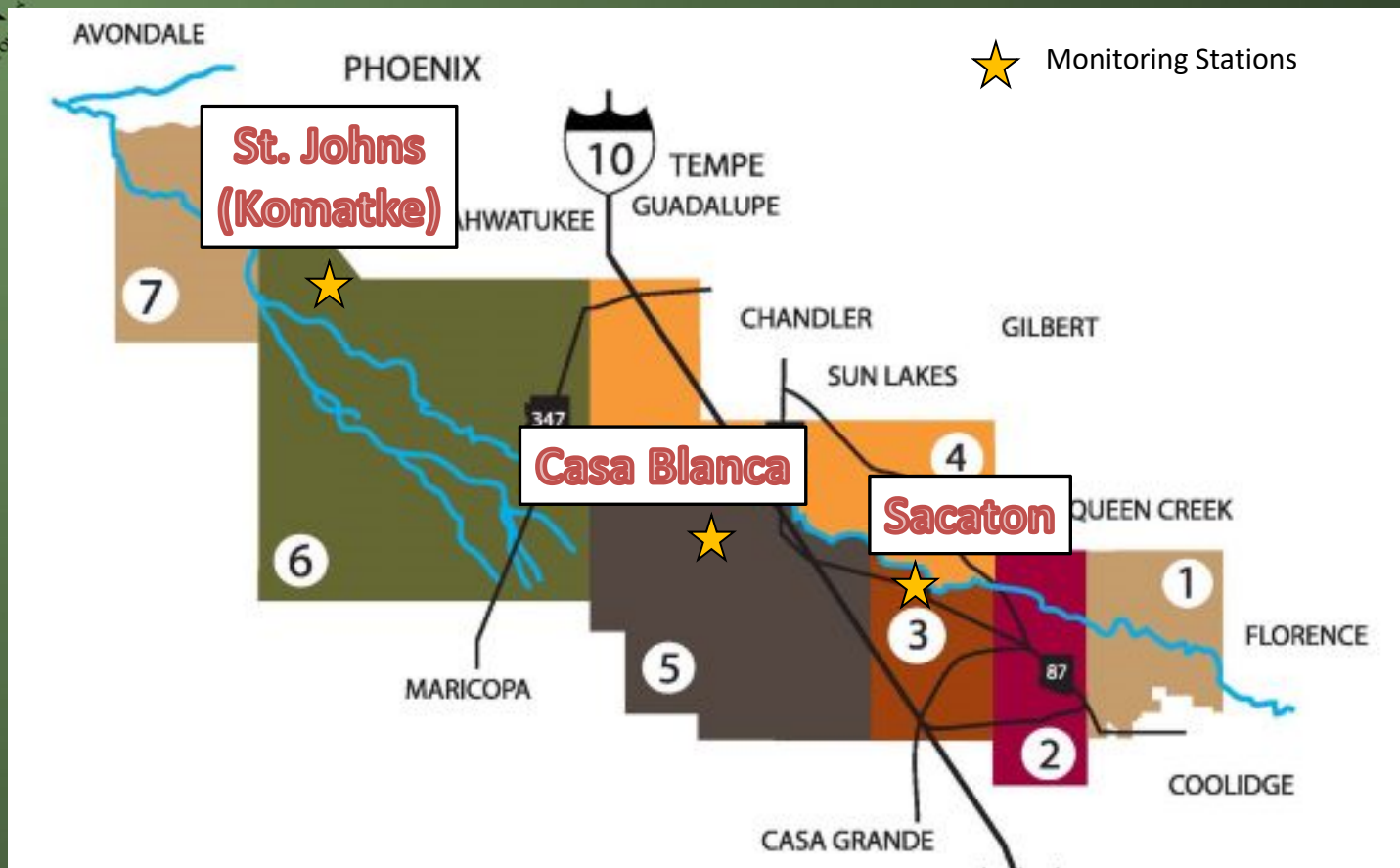


2023 GRIC Air Monitoring Network Review





GRIC Air Monitoring Network





Air Monitoring Network Plan

- Requirement for Regulatory Monitoring
- Includes
 - Description of Air Monitoring Network (AMN)
 - Review of 2023 Performance/Data/Changes
 - Recommendations for 2024 Network Changes
- Requires 30-Day Public Comment Period
- Plan due to US EPA by July 1, 2024



2023 Summary

- 97-100% Data Completeness (Valid Data)
- Seasonal Monitoring for Ozone
 - April – October
- Completed Upgrade of Met towers
- Data Management System and Equipment Upgrades



2024 Activities

- Continue Seasonal Ozone Monitoring
 - April – October
- Procure new monitoring equipment
- Training new staff



The Air Quality Index (AQI)

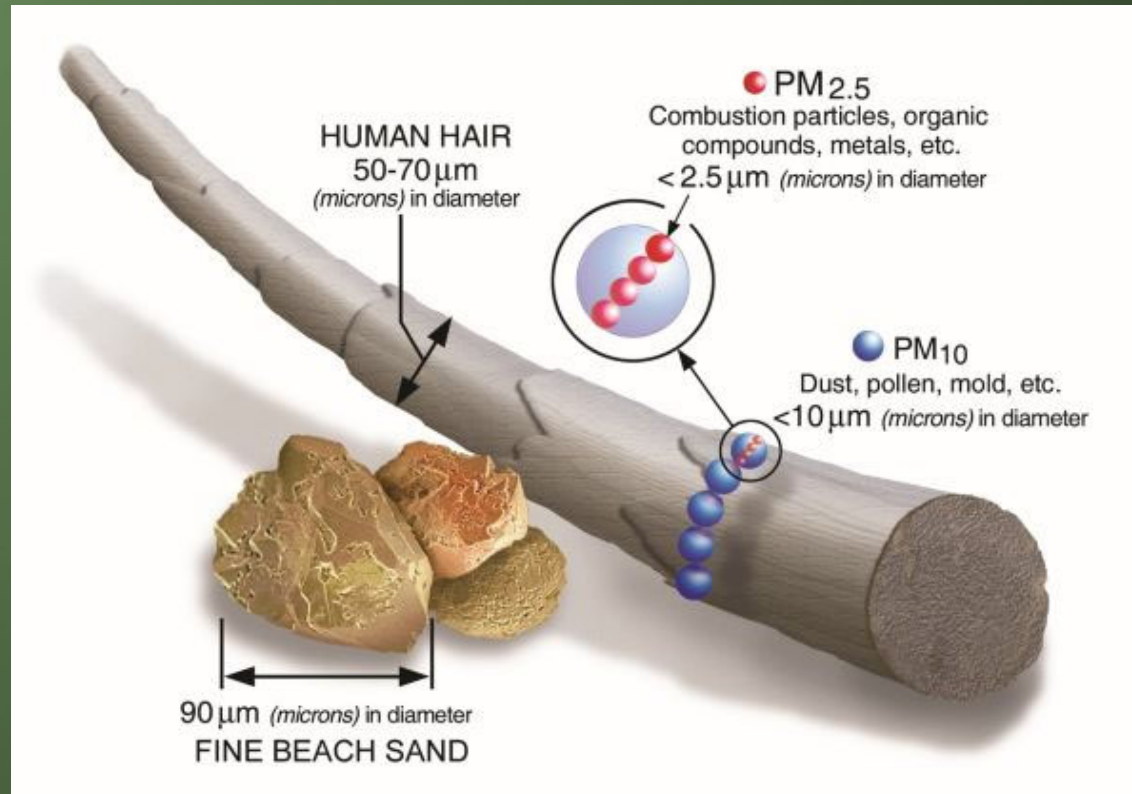
Air Quality Index (AQI) Values	Levels of Health Concern
0 to 50	Good
51-100	Moderate
101-150	Unhealthy for Sensitive Groups
151-200	Unhealthy
201-300	Very Unhealthy
301 to 500	Hazardous

Note: Hazardous is extremely rare and not included in the Flag Program

- Indicator of how clean (or polluted) the air is
- Colors associated with health affects/action steps
- Orange ~ Exceedance of National Ambient Air Quality Standard (NAAQS)

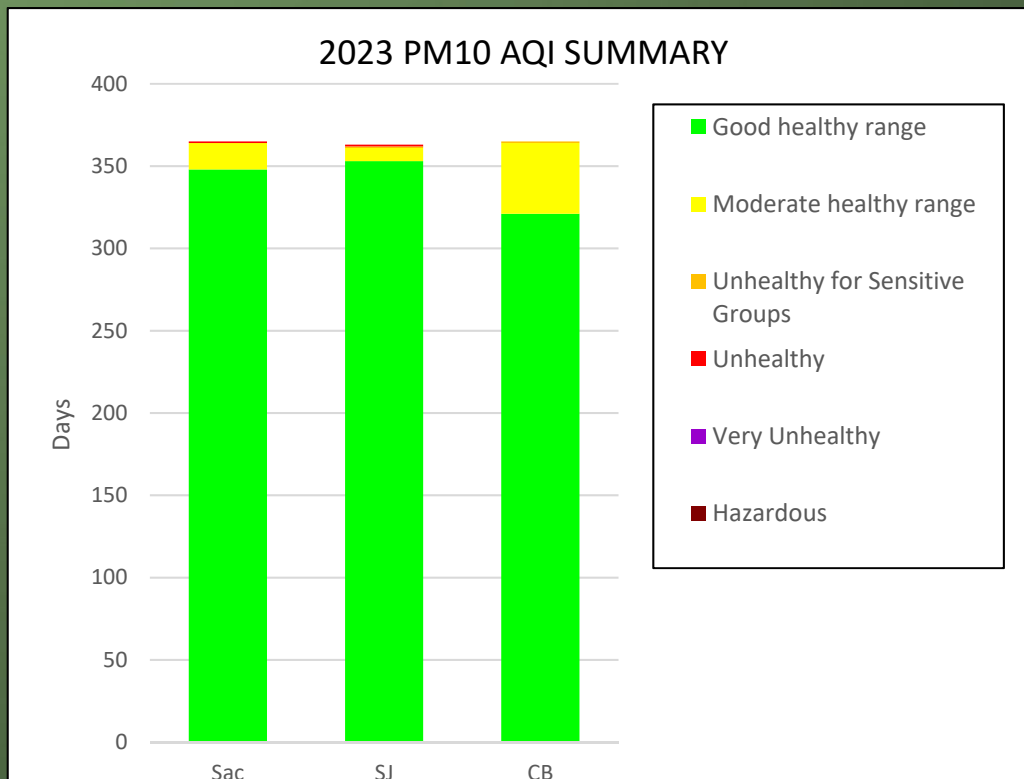


What Is PM10?





2023 PM10 Results



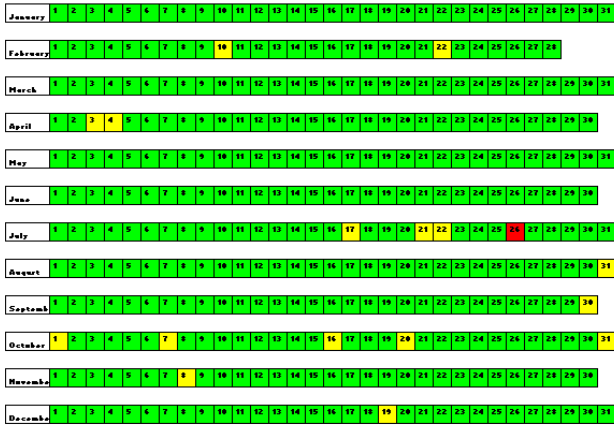
- Most days good/moderate
- CB has more moderate days



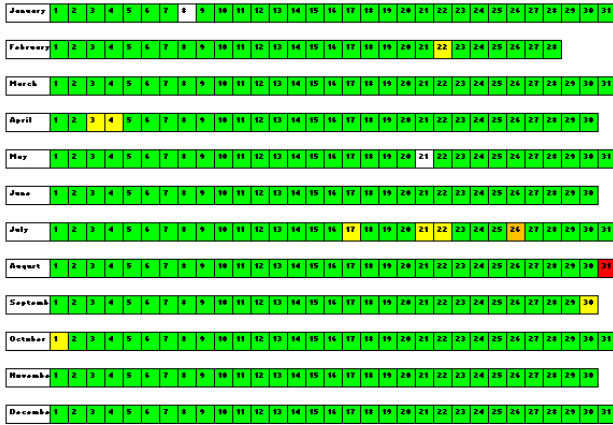
2023 PM10 Results

2023 PM10 AQI

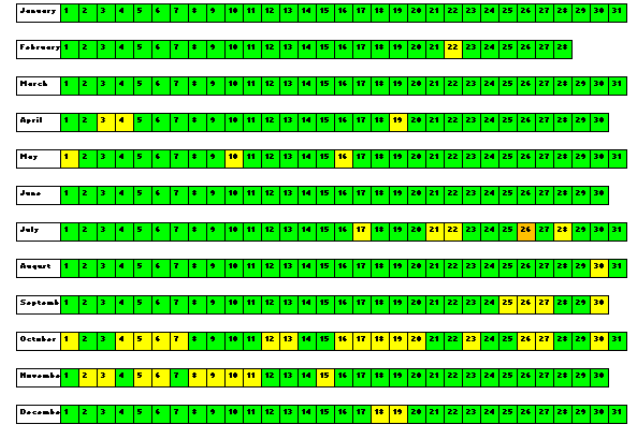
SACATON



ST. JOHNS



CASA BLANCA



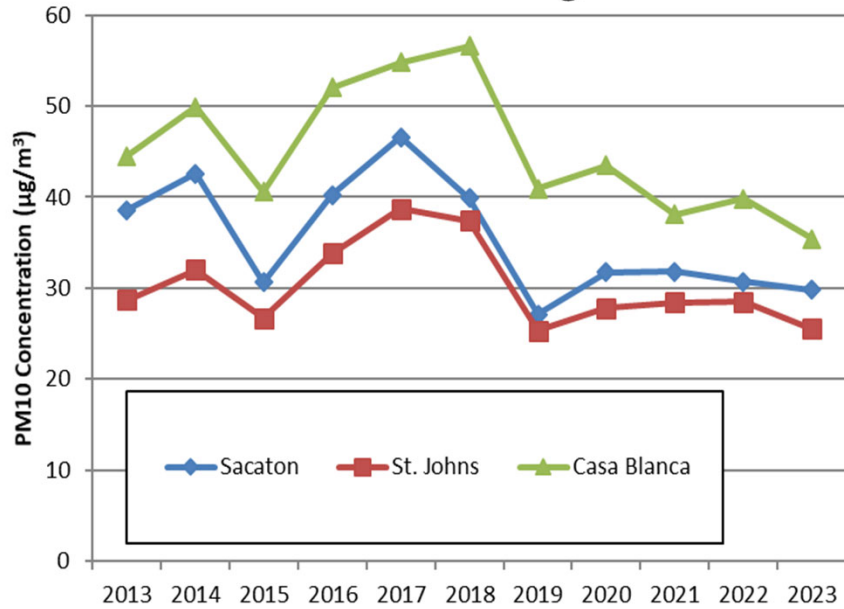
AQI Index	Concentration
Good healthy range	0-54 $\mu\text{g}/\text{m}^3$
Moderate healthy range	55-154 $\mu\text{g}/\text{m}^3$
Unhealthy for Sensitive Groups	155-254 $\mu\text{g}/\text{m}^3$
Unhealthy	255-354 $\mu\text{g}/\text{m}^3$
Very Unhealthy	355-424 $\mu\text{g}/\text{m}^3$
Hazardous	425-604 $\mu\text{g}/\text{m}^3$
0% data capture	

The NAAQS for PM10 is 150 $\mu\text{g}/\text{m}^3$

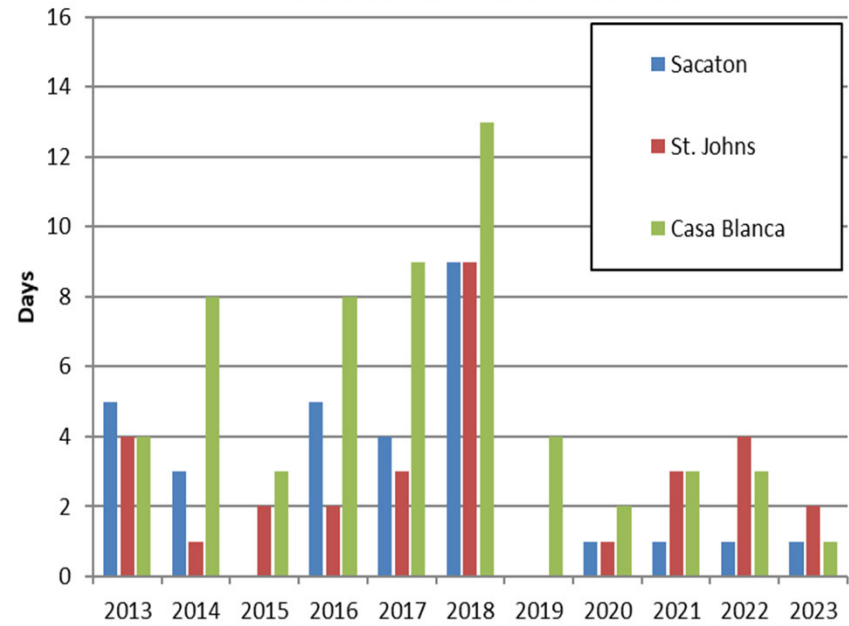


PM10 Trends

PM10 Annual Averages



PM10 Annual Exceedances

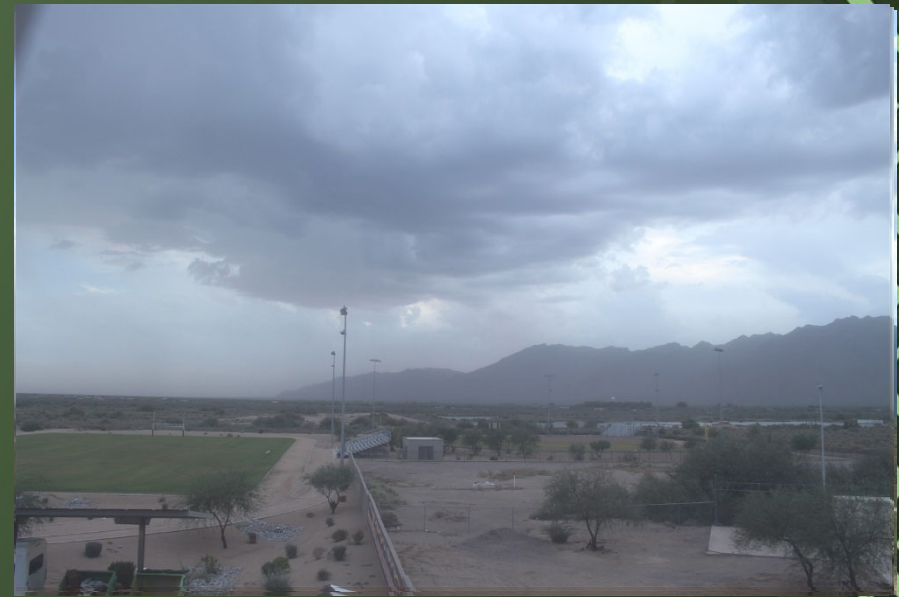




Normal vs. Exceedance Day

Normal Day (SJ) – 10/4/22

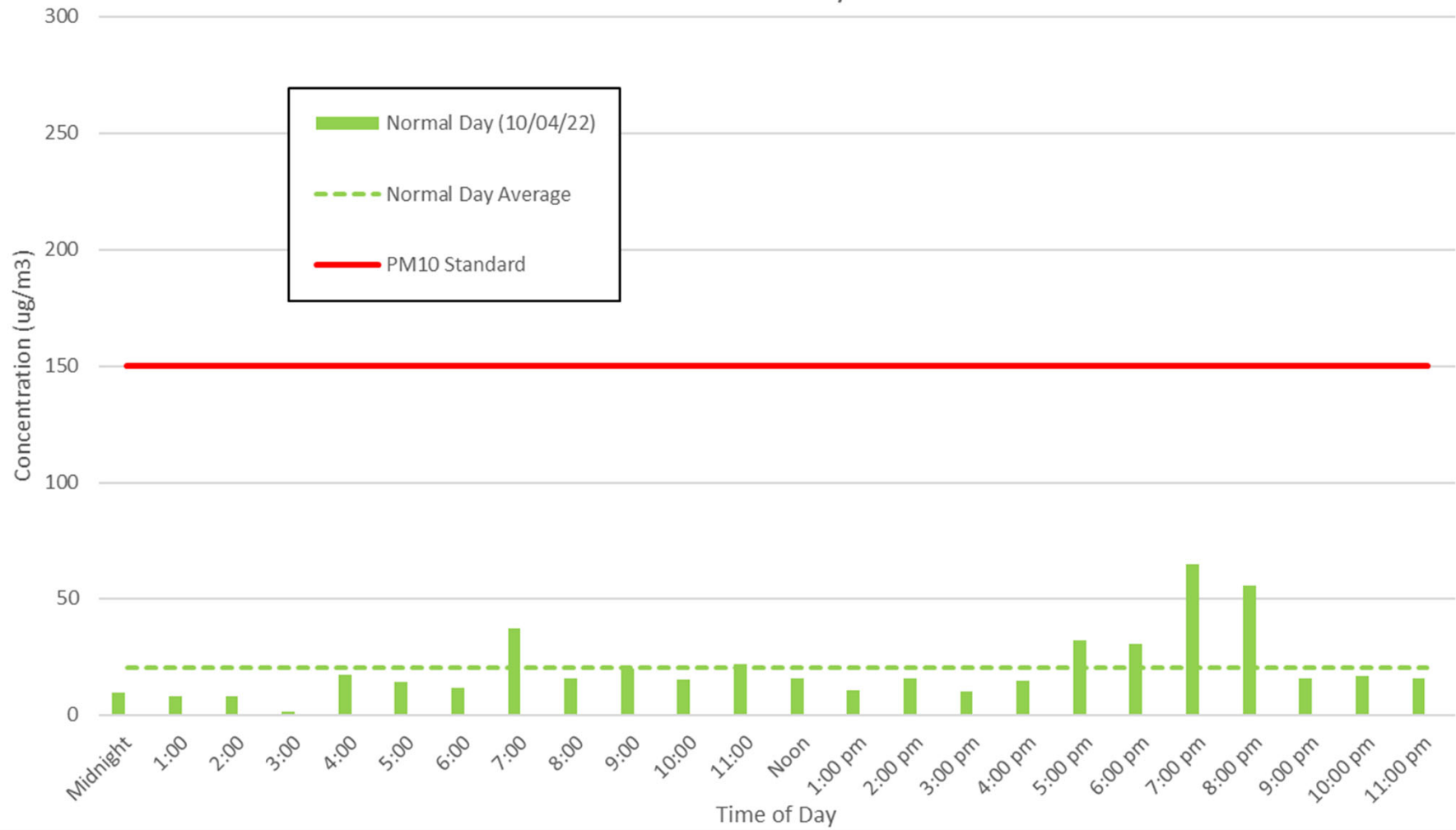
Exceedance Day (SJ) – 10/3/22



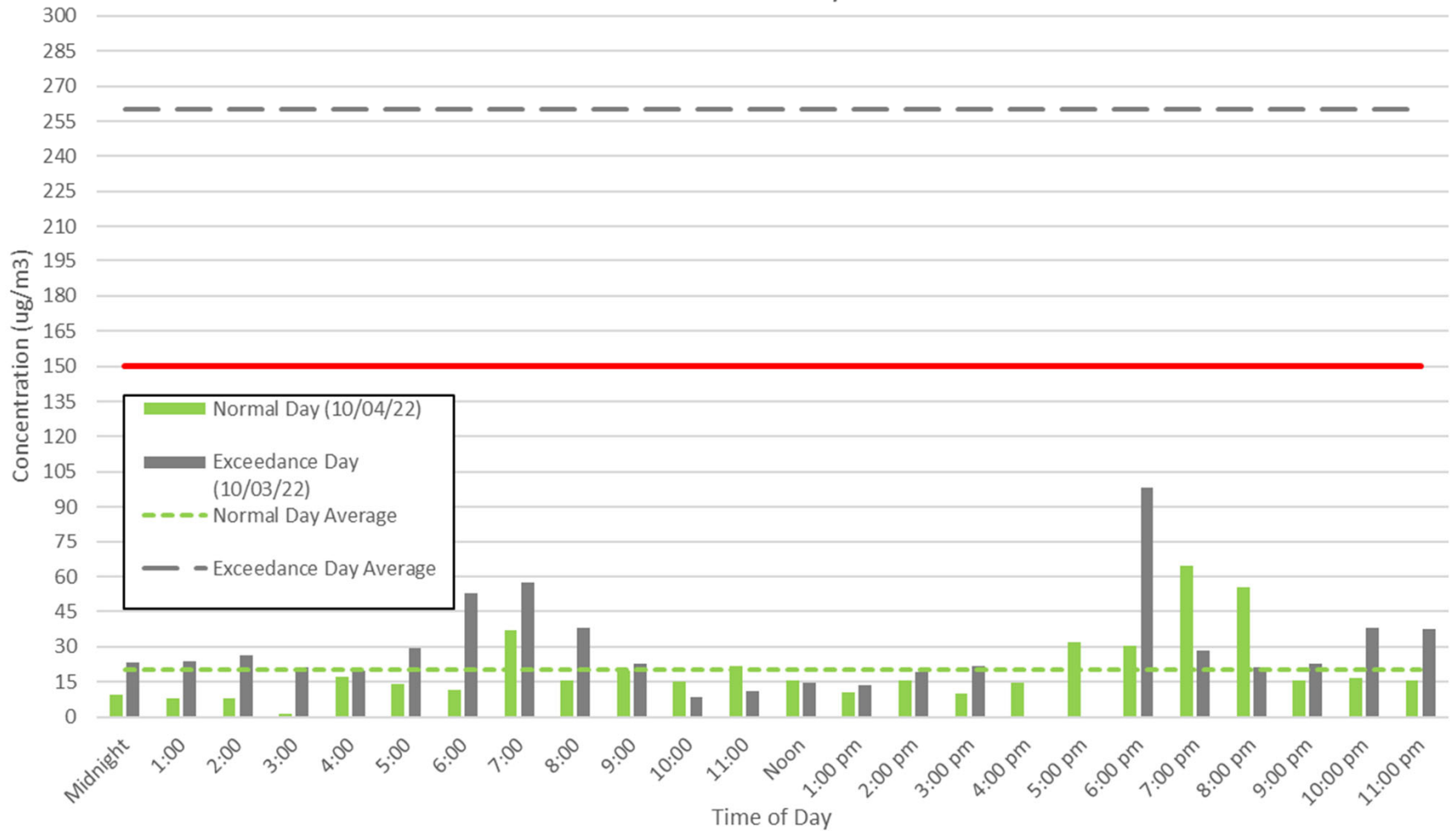
4:20pm

4:20pm 4:30pm 4:40pm 4:50pm 5:00pm
5:10pm 5:20pm 5:30pm 5:40pm

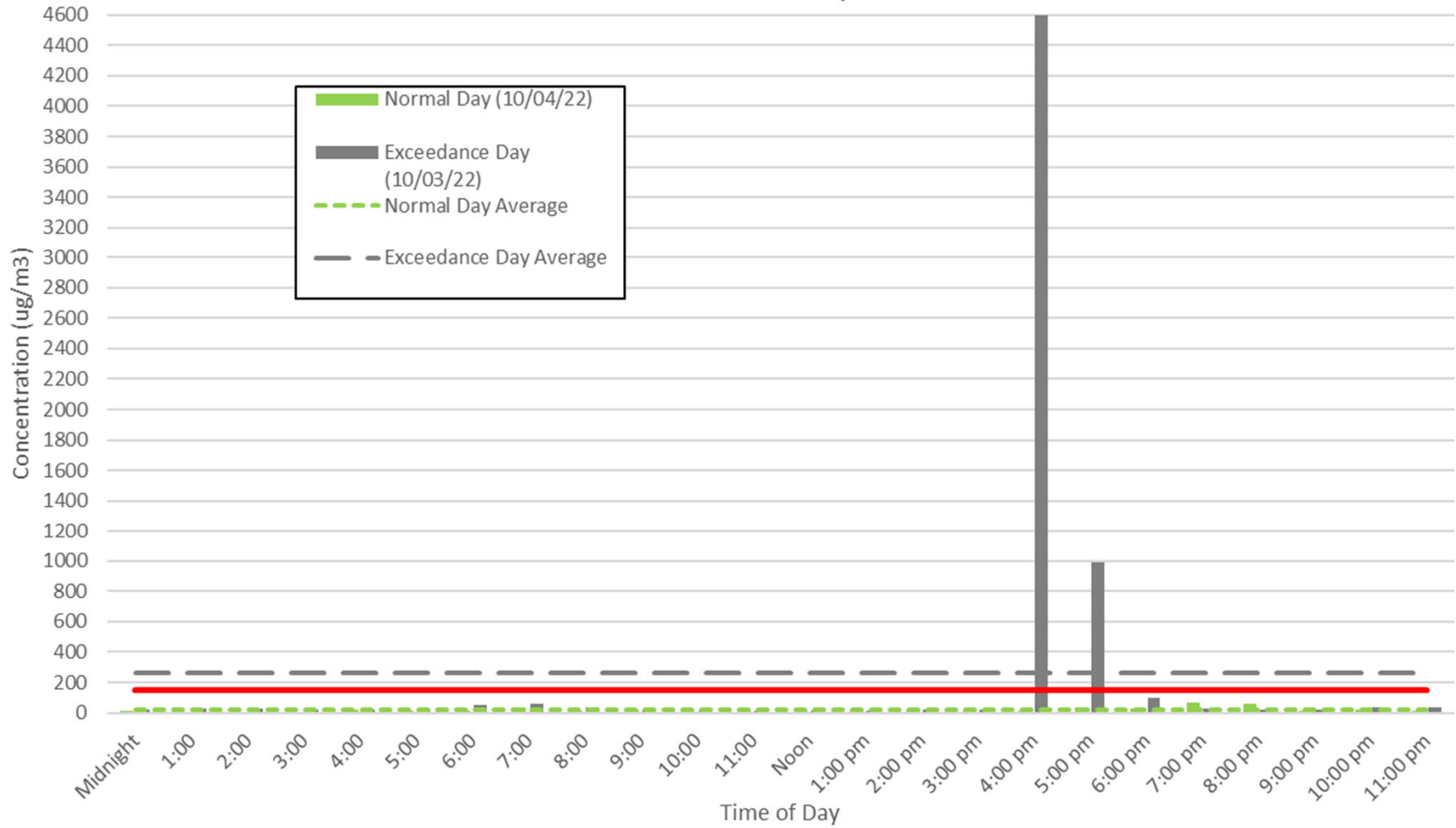
Normal vs. Exceedance Day at St Johns



Normal vs. Exceedance Day at St Johns

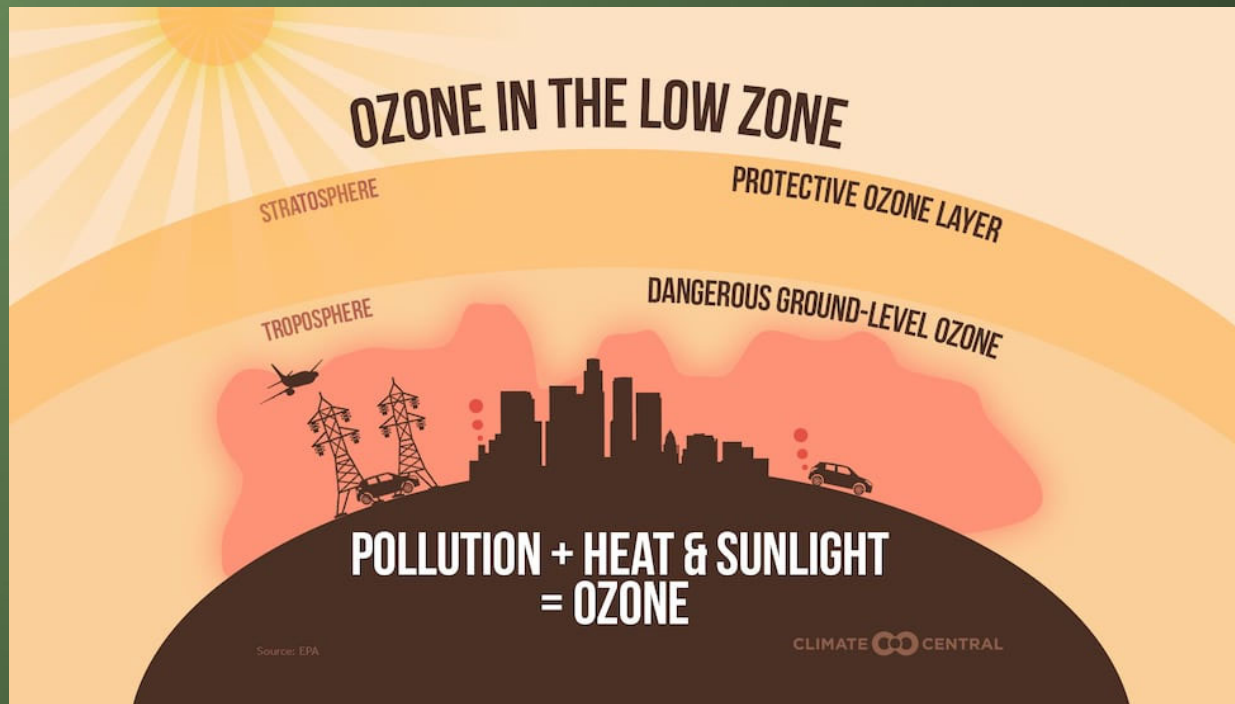


Normal vs. Exceedance Day at St Johns





What Is Ozone? (Example 1)





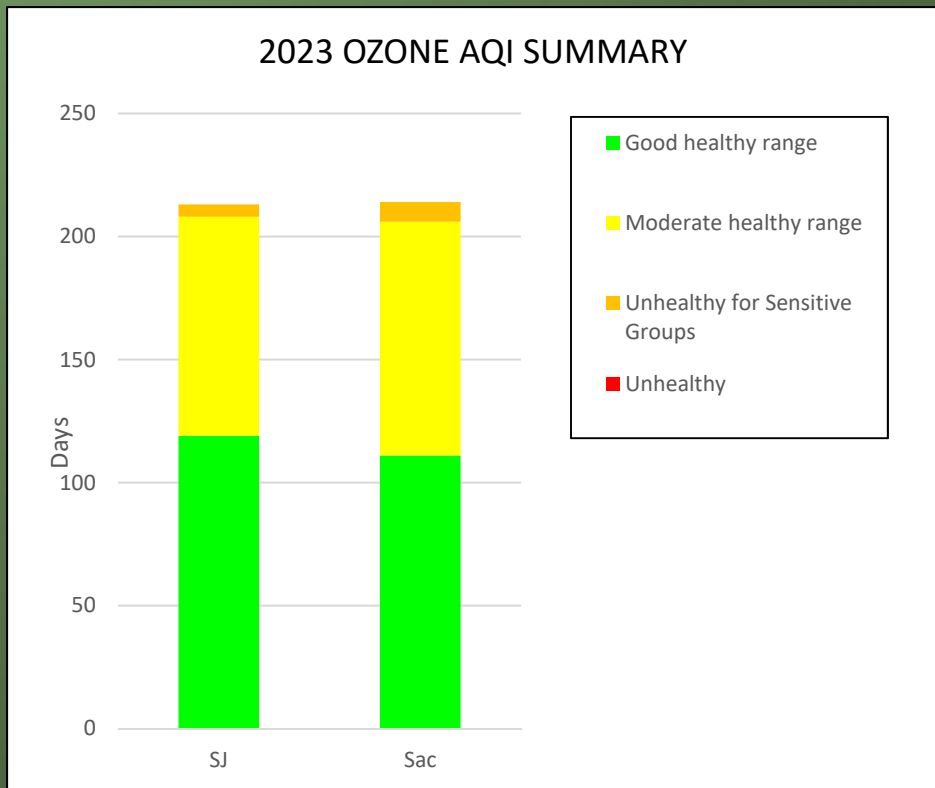
What Is Ozone? (Example 2)

NOx + VOC + Heat & Sunlight = Ozone
Ground-level or "bad" ozone is not emitted directly into the air, but is created by chemical reactions between NOx and VOCs in the presence of heat & sunlight.

Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of oxides of nitrogen (NOx) and volatile organic compounds (VOC).



2023 Ozone Results



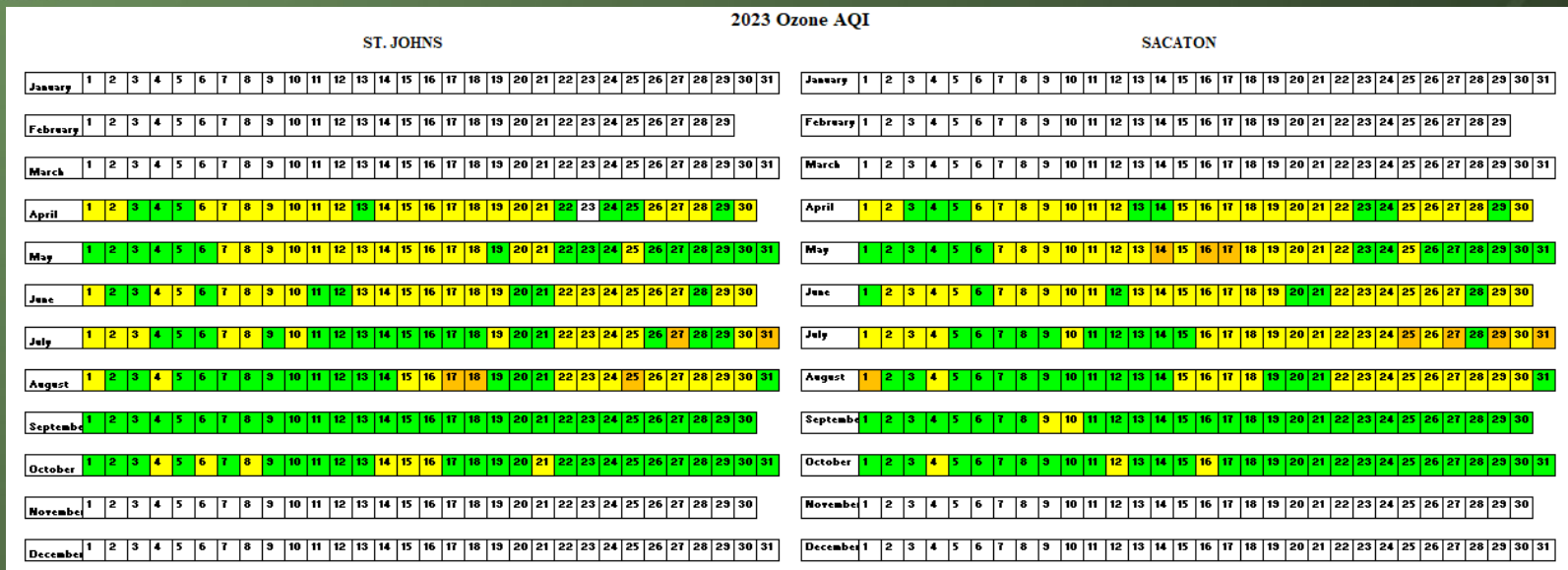
- Most days good/moderate
- Ozone not historically a problem for Community

BUT...

- GRIC borders Phoenix Metro Area



2023 Ozone Results

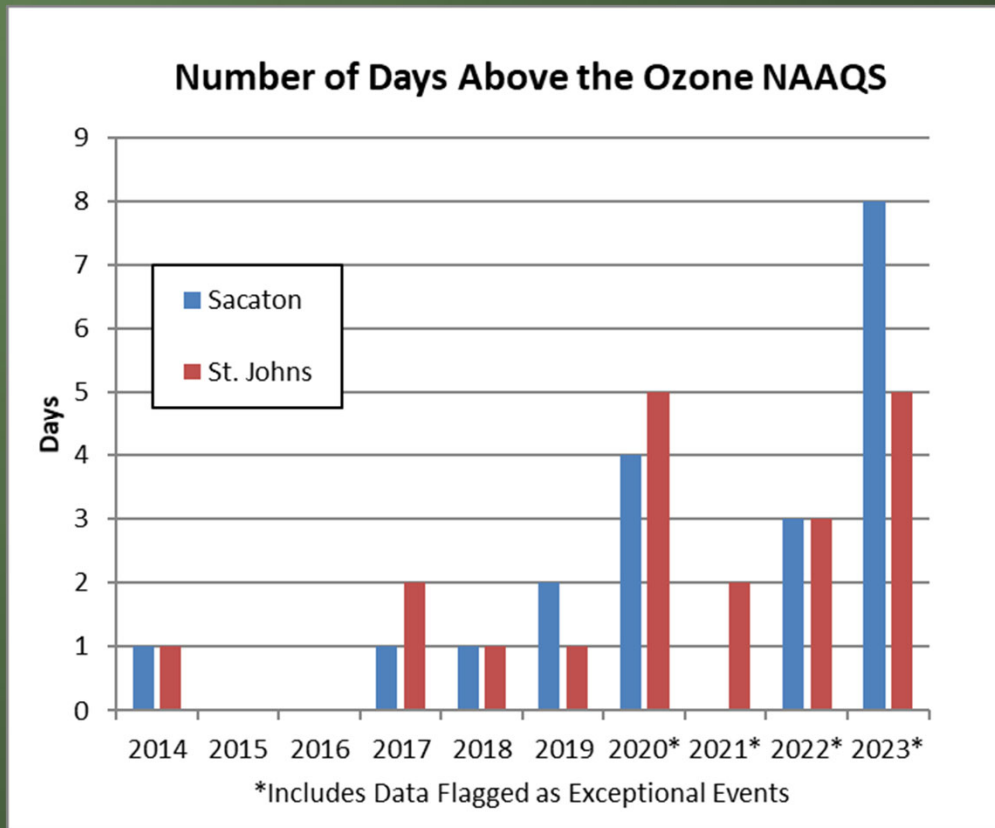


AQI Index	Concentration
Good healthy range	0 - 0.054 ppm
Moderate healthy range	0.055 - 0.070 ppm
Unhealthy for Sensitive Groups	0.071 - 0.085 ppm
Unhealthy	0.086 - 0.105 ppm
0% data capture	

The NAAQS for Ozone is 0.070 ppm



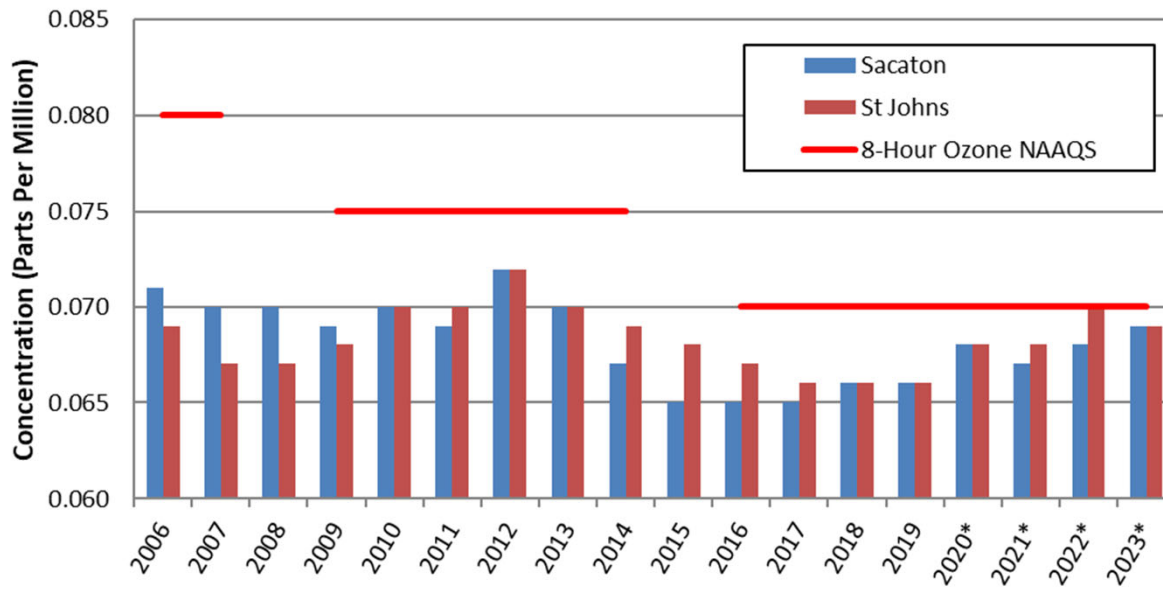
Ozone Trends





Ozone Design Value – Does GRIC violate the standard?

GRIC Air Monitoring Network's Ozone Design Values, 2006-2023



*Includes Data Flagged as Exceptional Events

www.gricdeq.org

GILA RIVER INDIAN COMMUNITY
DEPARTMENT OF ENVIRONMENTAL QUALITY

ABOUT GRIC DEQ | EVENT CALENDAR

EDUCATION & OUTREACH | AIR QUALITY PROGRAM | PESTICIDE PROGRAM | WASTE PROGRAM | WATER QUALITY PROGRAM | WILDLIFE PROGRAM

NEW LEGISLATION GR-004-22, PESTICIDE CODE | NEW DEQ APP SIGN-UP FOR AERIAL APPLICATION NOTIFICATIONS | EARTH DAY 2023 SAVE THE DATE

WHAT IS THAT RED LIQUID? | PUBLIC NOTICE | YOUTH COUNCIL CLEAN UP DISTRICT 7

EDUCATION & OUTREACH

EDUCATION > PUBLIC NOTICES

PUBLIC NOTICES

PESTICIDE

NEW Legislation: GR-004-22, Pesticide Code

2022 Pesticide Ordinance White Paper

WATER QUALITY PROGRAM

Public Meeting Announcement:
None scheduled at this time

AIR QUALITY PROGRAM

Pursuant to 40 Code of Federal Regulations (CFR) 598.10 Gila River Indian Community (GRIC) Department of Environmental Quality (DEQ) Air Quality Program (AQP) will make its annual monitoring network plan available for public inspection prior to submission to the United States Environmental Protection Agency. The Annual Ambient Monitoring Network Review and Data Summary present changes to and data collected from the air quality monitoring network during calendar year 2021. This document will be available for review at the GRIC DEQ office located at 168 Skill Center Dr., Sacaton, AZ 85147, and on the AQP website at www.gricdeq.org under Public Notices.

2021 Ambient Air Monitoring Network Review
2021 Ambient Air Monitoring Network Review Fact Sheet
2021 Ambient Air Monitoring Network Presentation

GILA RIVER INTERPRETIVE TRAIL
AIR QUALITY FLAG PROGRAM
WINTER BIRD COUNT
EARTH DAY
COMPOSTING
CAUTION COYOTE
WATER QUALITY OUTREACH
PUBLIC NOTICES



2021 Ambient Air Monitoring Network Review
2021 Ambient Air Monitoring Network Review Fact Sheet
2021 Ambient Air Monitoring Network Presentation



Realtime Air Quality Info

www.gricdeg.org → Air → Ambient Air Monitoring OR



OR www.arsgric.com/index2.html

[Back To Main Map](#)
[View Sacaton](#)
[View St Johns](#)
[View Casa Blanca](#)

	St. Johns	Casa Blanca	Sacaton
Temperature	81 °F	82 °F	84 °F
Humidity	26 %	24 %	19 %
Precipitation	0 in	0 in	0 in
Wind Speed	7 mph	2 mph	4 mph
Wind Direction	NNE	S	NNE
PM ₁₀ (AQI)	31	33	42
Ozone (AQI)	31		33

Map | Satellite

[Back To Main Map](#)
[View Sacaton](#)
[View St Johns](#)
[View Casa Blanca](#)

Sacaton

April 12, 2024 4:20 PM View to the Northeast

April 12, 2024 4:20 PM View to the Southwest

Current Conditions Display units in: Standard Metric

04/12/2024 4:25 PM

Temperature	90 °F
Humidity	11 %
Barometric Pressure	28.4 inHg
Precipitation (1 hr)	0 in
Precipitation (Last 24 hrs)	0 in
Wind Speed (5 min)	13 mph
Wind Speed (1 hr)	13 mph
Wind Direction (5 min)	S
Wind Direction (1 hr)	SSW
PM ₁₀ (5 min)	16.2 µg/m ³
PM ₁₀ (1 hr)	28.1 µg/m ³
PM ₁₀ (24 hr Estimate)	31.5 µg/m ³
Ozone (1 hr)	0.002 ppm
Ozone (8 hr Estimate)	0.054 ppm

Previous 3 Wind Changes (5 min)

NowCast AQI

Particulate Matter PM₁₀

Ozone



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AirNow Air Quality Notifications

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Format
 HTML Text Only Short

Receive Action Day Notifications:

Receive Forecasts: Forecasts are unavailable for this city.

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Need help signing up? Contact:

Tison Gill
 Education/Outreach Specialist
Tison.Gill.DEQ@gric.nsn.us
 520-610-9950



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