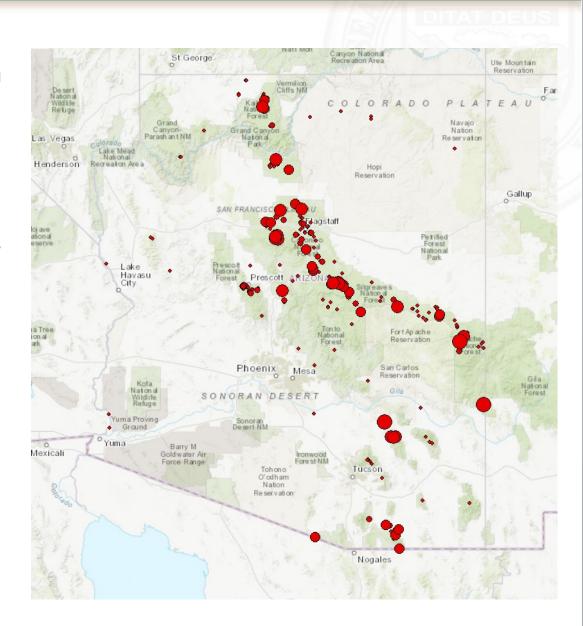


ADEQ Smoke Management



- Average: 500-700 burn requests per year
- Approve on average 150,000-225,000 acres per year
- Team of four meteorologists
 - Hourly AQI Forecasts
 - Exceptional Events
 - Support for the agency



Wildfire Smoke Forecasting Project



Problem Statement

Wildland fire smoke forecasts are only completed and distributed to the public by USFS Air Resource Advisors (ARA's) and are only available for some, not all, significant wildland fires. In 2019, 50% of significant wildfires in Arizona had ARA's assigned. Out of those, 75% had air quality impacts before the ARA arrived. <u>This means smoke impacts are not</u> <u>communicated to the public in a timely and effective way,</u> 87% of the time.



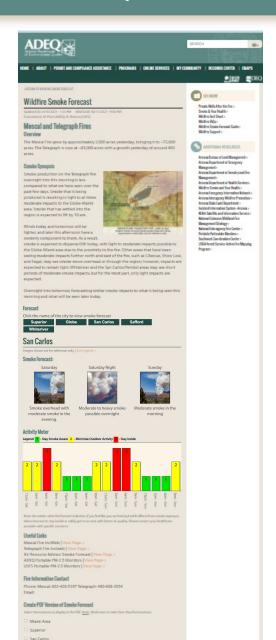
Wildfire Smoke Forecasting Project



THE KEY IS COMMUNICATING ACCURATE INFORMATION







Wildfire Smoke Forecast

Updated On: 6/10/2021 - 7:55 AM Valid Until: 06/11/2021 - 9:00 AM

Forecaster(s): M. Pace (ADEQ), R. Sherron (USFS)

Mescal and Telegraph Fires

The Mescal Fire grew by approximately 2,000 acres yesterday, bringing it to ~72,000 acres. The Telegraph is now at ~85,000 acres with a growth yesterday of around 400

Smoke Synopsis

Smoke production on the Telegraph fire overnight into this morning is less compared to what we have seen over the past few days. Smoke that is being produced is resulting in light to at times moderate impacts to the Globe-Maimi area. Smoke that has settled into the region is expected to lift by 10 am.

Winds today and tomorrow will be lighter, and later this afternoon have a westerly component to them. As a result,

smoke is expected to disperse ENE today, with light to mc the Globe-Miami area due to the proximity to the fire. Oth seeing moderate impacts further north and east of the fire and Eagar, may see smoke move overhead or through the expected to remain light. Whiteriver and the San Carlos/P periods of moderate smoke impacts, but for the most par expected.

Overnight into tomorrow, forecasting similar smoke impa morning and what will be seen later today.

Forecast

Click the name of the city to view smoke forecast

Whiteriver

Globe San Carlos

San Carlos

Images shown are for reference only. | See Legend >

Smoke Forecast:



Smoke overhead with moderate smoke in the evening.



Moderate to heavy smoke possible overnight

Sunday

Moderate smoke in the morning

Activity Meter



Useful Links

Mescal Fire InciWeb | View Page > Telegraph Fire Inciweb | View Page > Air Resource Advisor Smoke Forecast | View Page > ADEQ Portable PM-2.5 Monitors | View Page > USFS Portable PM-2.5 Monitors | View Page >

Fire Information Contact

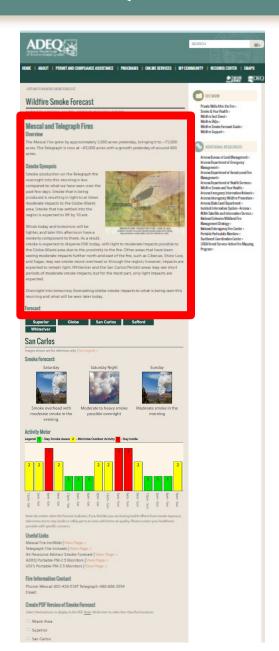
Phone: Mescal: 602-428-5397 Telegraph: 480-608-2054

Create PDF Version of Smoke Forecast

Select the locations to display in the PDF. Note: Works best to select less than five locations.

- Miami Area
- Superior
- ☐ San Carlos
- □ Safford
- Whiteriver □ Cibecue
- □ Show Low
- □ Eagar
- Create PDF Forecast





Wildfire Smoke Forecast

Updated On: 6/10/2021 - 7:55 AM Valid Until: 06/11/2021 - 9:00 AM Forecaster(s): M. Pace (ADEQ), R. Sherron (USFS)

Mescal and Telegraph Fires Overview

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Smoke production on the Telegraph fire overnight into this morning is less compared to what we have seen over the past few days. Smoke that is being produced is resulting in light to at times moderate impacts to the Globe-Maimi area. Smoke that has settled into the region is expected to lift by 10 am.

Winds today and tomorrow will be lighter, and later this afternoon have a westerly component to them. As a result,

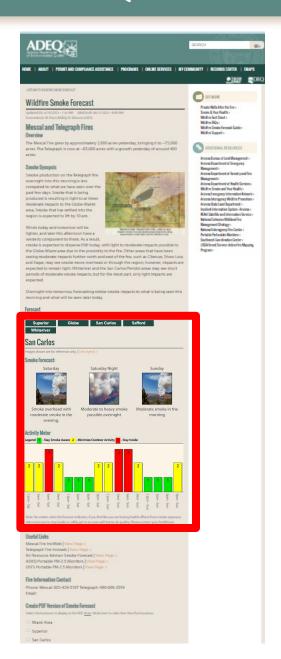


SMOKE PLUME TRAJECTORY FOR: JUNE 10, 2021 Graphic shows forecast smoke plume trajectory using experimental model data. Use for reference only.

smoke is expected to disperse ENE today, with light to moderate impacts possible to the Globe-Miami area due to the proximity to the fire. Other areas that have been seeing moderate impacts further north and east of the fire, such as Cibecue, Show Low, and Eagar, may see smoke move overhead or through the region; however, impacts are expected to remain light. Whiteriver and the San Carlos/Peridot areas may see short periods of moderate smoke impacts, but for the most part, only light impacts are expected.

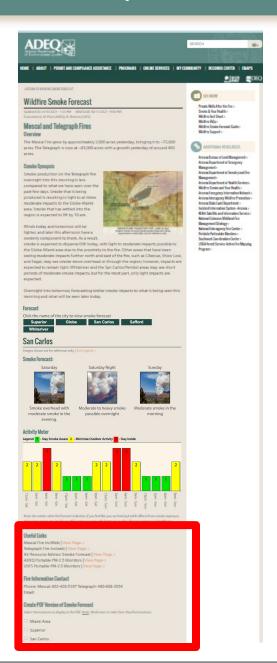
Overnight into tomorrow, forecasting similar smoke impacts to what is being seen this morning and what will be seen later today.





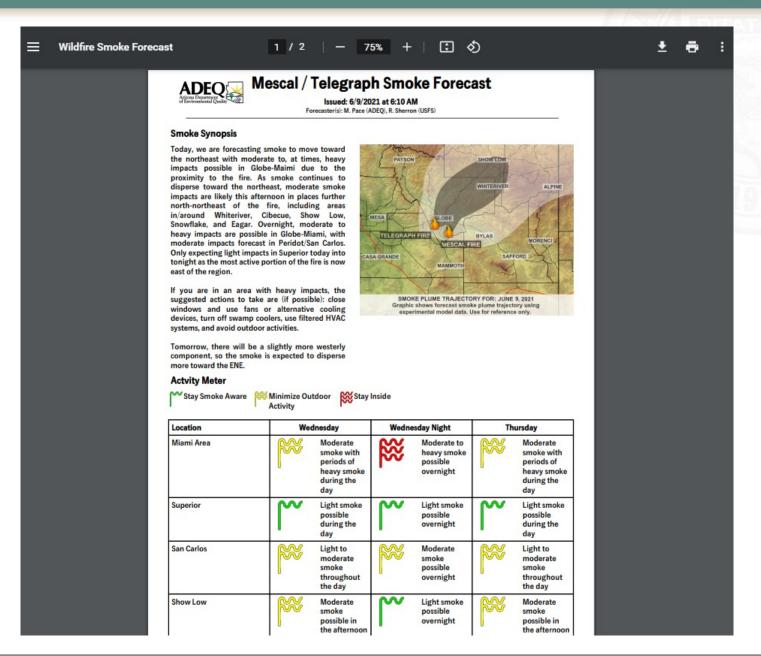
Forecast Click the name of the city to view smoke forecast Globe San Carlos Superior Safford Whiteriver San Carlos Images shown are for reference only. | See Legend > **Smoke Forecast:** Saturday Night Saturday Sunday Moderate to heavy smoke Smoke overhead with Moderate smoke in the moderate smoke in the possible overnight morning evening. **Activity Meter** Legend: 1 - Stay Smoke Aware 2 - Minimize Outdoor Activity 3 - Stay Inside





Useful Links	
Mescal Fire InciWeb View Page >	
Telegraph Fire Inciweb View Page >	
Air Resource Advisor Smoke Forecast View Page > ADEQ Portable PM-2.5 Monitors View Page >	
USFS Portable PM-2.5 Monitors View Page >	
F 1-6	
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Phone: Mescal: 602-428-5397 Telegraph: 480-608-2054	
Email:	
Create PDF Version of Smoke Forecast	
Select the locations to display in the PDF. <u>Note</u> : Works best to select less than five	locations.
□ Miami Area	
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□ Whiteriver	B
□ Cibecue	
□ Show Low	
□ Eagar	
Create PDF Forecast	







Launched June 17, 2020

- Before June 17, 2020:
 - ADEQ never issued a public facing wildfire smoke forecast
- On/After June 17, 2020:
 - ADEQ has issued 155 wildfire smoke forecasts!
 - * 72 in 2020
 - * 52 in 2021
 - * 31 in 2022
- azdeq.gov/WildfireSmokeForecast

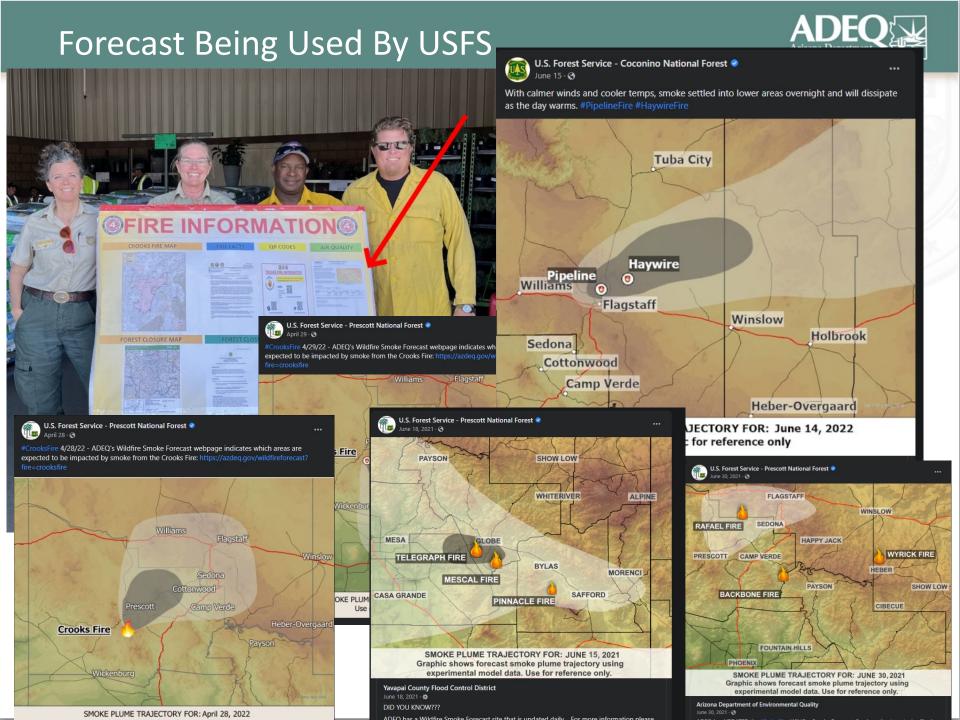




- Now tied directly into the fire providing valuable information to partners and the public!
- Example from the Tussock Fire: No Air Resource Advisor on the fire but smoke information is getting to the public because of the ADEQ Smoke Forecast!



Public is using it!





- Won the 2022 Special Award from the American Meteorological Society
 - "For critical ground-breaking work creating and fielding a platform providing for the health and safety of Arizona residents with early and ongoing wildfire smoke forecasts."





 Won the 2022 National Association of Environmental Professionals Environmental Excellence Award

 Won for Public Involvement and Education from the National Association of Environmental Professionals for the First-of-its-Kind in the Nation State Wildfire Smoke Forecast



Questions?



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– Czecholinski.Daniel@azdeq.gov

