

Wildland Fire Communications

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wildlandfiresmoke.net



Air Resource Advisors

Smoke Outlook

Central Oregon Cedar Creek Fire

9/6 - 9/7

Issued: 2022-09-06 10:20 (PDT) U.S. Interagency Wildland Fire Air Quality Response Program
By: Dan Byrd, ARA (240) 778-5278

Special Statement

Red Flag Warning in effect for today for dry and very unstable conditions. 3 Day Smoke outlook available at: <https://outlooks.airfire.org/outlook/7f95b6c6?preview=true>

Fire

The Cedar Creek Fire in Central Oregon is 18,143 acres with 12% containment. The fire grew 518 acres yesterday. We are expecting active to very active fire activity today, with hot temperatures, lower relative humidity values and a very unstable atmosphere.

Smoke

Areas east of the Cedar Creek fire will continue to have the greatest smoke impacts today with La Pine, Sunriver and Bend in the moderate range. Oakridge will have an increase in smoke impacts today with USG to unhealthy this morning into the afternoon hours. Easterly flow may bring increasing smoke to Eugene/Springfield early on Wednesday. Expect moderate, possible USG conditions in the morning, improving to moderate to good in the afternoon.

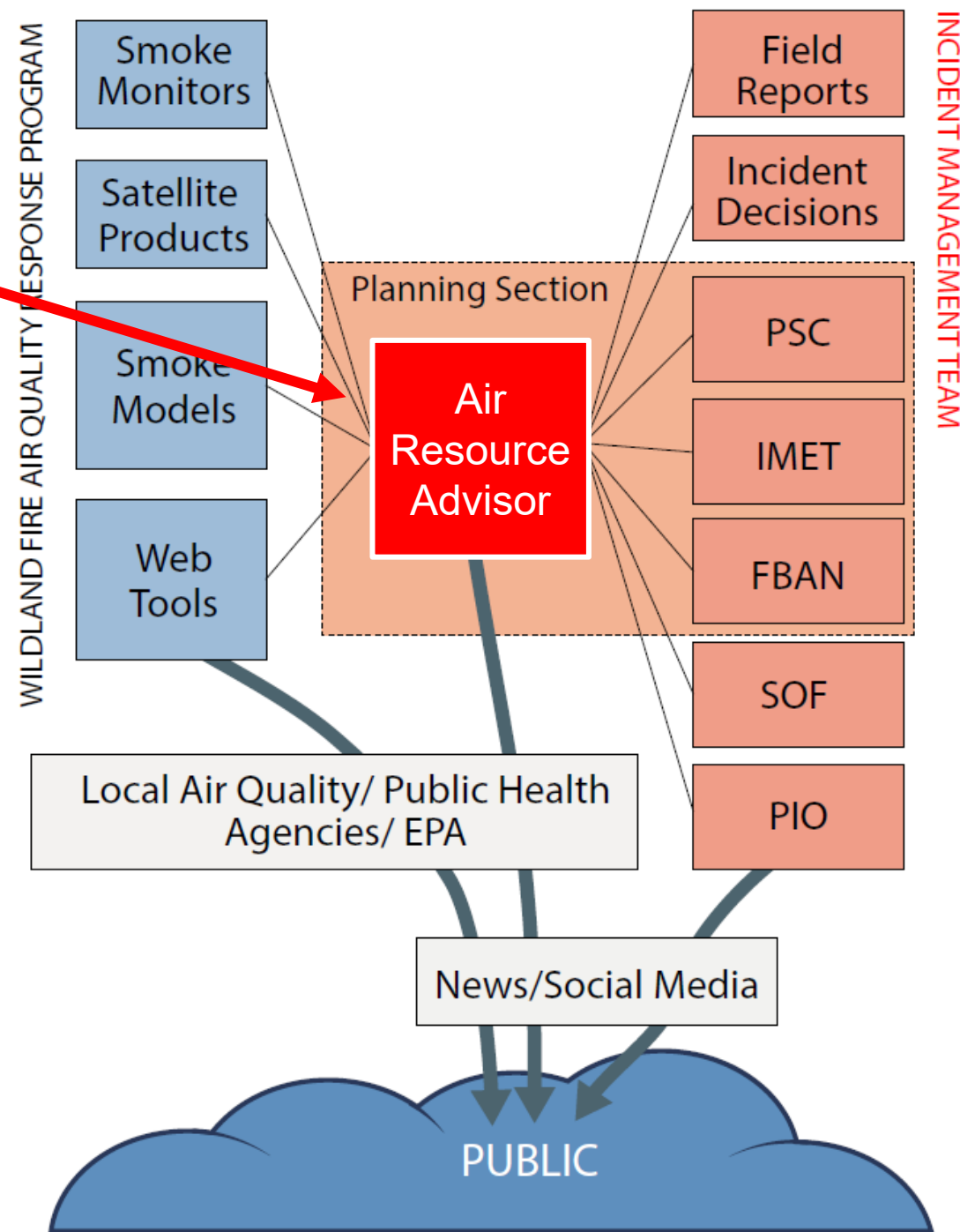
Health and Safety Message

Do you know how to check your local air quality? Try out the map at fire.airnow.gov for current conditions. For real time information see Fire.airnow.gov, oakridgeair.org, and LRAPA - Today's Current Air Quality.

Oakridge
Sunriver
Redmond
La Pine
Diamond Lake
Roseburg
East Waldo Lake
Eugene/Springfield

Crescent Lake
Crater Lake
Bend

Online Smoke Outlook is more detailed...





Special Statement

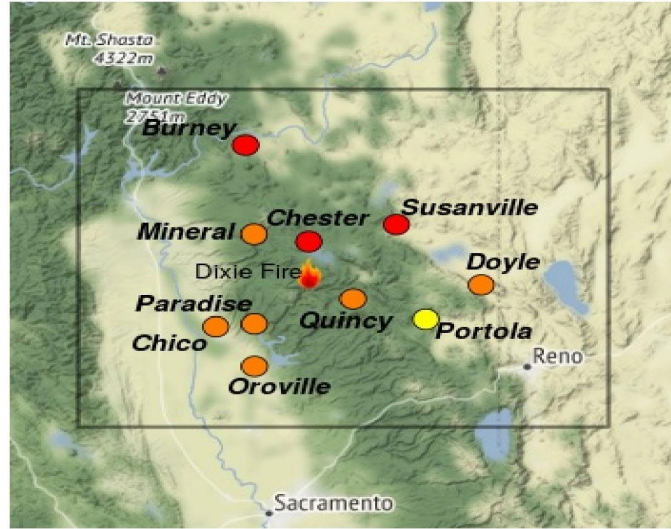
The National Weather Service has issued a Red Flag Warning beginning at 2pm today (Monday) lasting through 11pm tomorrow (Tuesday).

Fire

The Dixie Fire is 771,183 acres, an increase of 7,048 acres since yesterday, with 48% Containment. Active to extreme fire behavior is expected on the northern and southeastern perimeters of the fire. Additional information: [inciweb](https://www.inciweb.org/)

Smoke

Moderate to strong southwesterly winds over the region today will continue to lift and transport lingering heavy smoke, as well as new smoke, off to the northeast. Most communities in the forecast area (shown in the map to the right) should see air quality improve into the Moderate range this afternoon and evening; however, daily averages are expected to be near USG. The exception will be Susanville, downwind of active fire, where dense smoke is expected to persist. Additionally, smoke from other fires in NW California may drift into the northern end of the forecast zone and impact Burney, limiting their improvement. This trend will continue through tomorrow as generally improved air quality returns.



Daily AQI Forecast* for Aug 30, 2021

Station	Yesterday hourly			Sun 8/29	Comment for Today -- Mon, Aug 30	Forecast*	
	6a	noon	6p			Mon 8/30	Tue 8/31
Burney	No hourly data			●	Unhealthy conditions expected through the day, impacted by smoke from other fires.	●	●
Mineral	[Bar chart showing AQI levels]			●	Unhealthy conditions expected through midday, improving in the afternoon/evening.	●	●
Chester	[Bar chart showing AQI levels]			●	Very Unhealthy air quality through midday with improvement in the evening (daily average of Unhealthy).	●	●
Quincy	[Bar chart showing AQI levels]			●	Unhealthy for Sensitive Groups expected midday improving to Moderate in the afternoon/evening.	●	●
Paradise	[Bar chart showing AQI levels]			●	Unhealthy for Sensitive Groups through midday with improvement expected this afternoon/evening.	●	●
Chico	[Bar chart showing AQI levels]			●	Unhealthy for Sensitive Groups through midday with improvement expected this afternoon/evening.	●	●
Oroville	[Bar chart showing AQI levels]			●	Unhealthy for Sensitive Groups through midday with improvement expected this afternoon/evening.	●	●
Susanville	[Bar chart showing AQI levels]			●	Unhealthy air quality through midday with improving conditions this evening.	●	●
Doyle	[Bar chart showing AQI levels]			●	Unhealthy for Sensitive Groups expected through the day.	●	●
Portola	[Bar chart showing AQI levels]			●	Periods of Unhealthy air quality midday with improvement in the afternoon/evening.	●	●

Issued 2021-08-30 18:38 PDT by Wendy Wagner, ARA, wendy_wagner@firenet.gov

Air Quality Index (AQI)	Actions to Protect Yourself
● Good	None
● Moderate	Unusually sensitive individuals should consider limiting prolonged or heavy exertion.
● USG	People within Sensitive Groups* should reduce prolonged or heavy outdoor exertion.
● Unhealthy	People within Sensitive Groups* should avoid all physical outdoor activity.
● Very Unhealthy	Everyone should avoid prolonged or heavy exertion.
● Hazardous	Everyone should avoid any outdoor activity.

*Disclaimer: This forecast is based on fine particulates only; ozone is not included. Forecasts may be wrong; use at own risk. Use caution as conditions can change quickly. See your health professional as needed. Smoke sensitive groups should take appropriate precautions.

Providing information to assist living with the smoke from a wildland fire and reducing exposure:

- High and low smoke periods
- Duration
- Yesterday to next two-days
- Longer term outlook
- Further state. Tribal or local information sources (links)

- Video briefings
- One-page printed design for rural messaging through our PIO and unit network who post with fire information, at public venues, meetings, etc.

- Assess community smartphone and internet utilization.
- Spanish and other languages
- On-line is not usually enough

Coordination

- State coordination calls
- Cooperator meetings

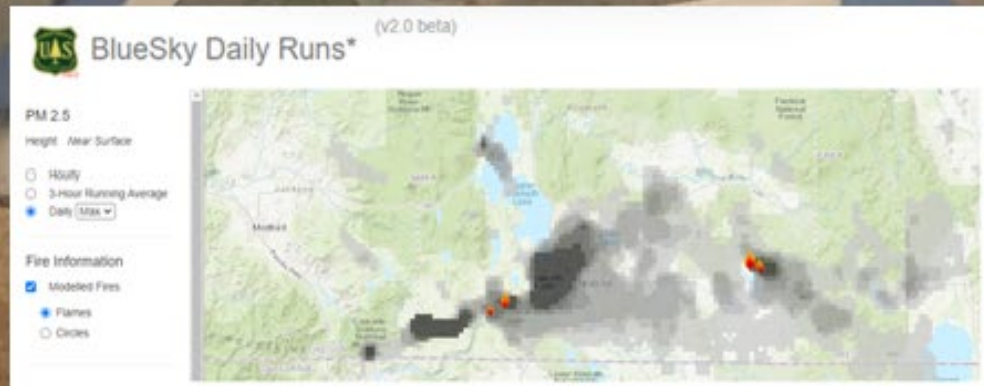
Contributions from ARA's



Monitoring



ARA Ali Kamal (EPA) on the Monument Fire



Modeling

Smoke Outlook for 8/30 - 8/31 Eastern Sierra - Dixie Fire
Issued at: 2021-08-30 18:38 PDT

Special Statement
The National Weather Service has issued a Red Flag Warning beginning at 2pm today (Monday) lasting through 2:00pm tomorrow (Tuesday).

Fire
The Dixie Fire is 771,183 acres, an increase of 7,045 acres since yesterday, with 48% Containment. Active to extreme fire behavior is expected on the northern and southeastern perimeters of the fire. Additional information: [Incidents](#)

Smoke
Moderate to strong westerly winds over the region today will continue to lift and transport lingering heavy smoke, as well as new smoke, off to the northeast. Most communities in the forecast area (shown in the map to the right) should see air quality improve into the Moderate range this afternoon and evening; however, daily averages are expected to be near USG. The exception will be Susanville, downwind of active fire, where dense smoke is expected to persist. Additionally, smoke from other fires in Northern California may drift into the northern end of the forecast zone and impact Burney, limiting their improvement. This trend will continue through tomorrow as generally improved air quality returns.

Daily AQI Forecast* for Aug 30, 2021

Station	Yesterday hourly	Sun 8/29	Forecast* Mon, Aug 30	Mon, Tue 8/30 8/31
Burney	No smoke	Unhealthy	Unhealthy conditions expected through the day, impacted by smoke from other fires.	Unhealthy
Mineral	Unhealthy	Unhealthy	Unhealthy conditions expected through midday, improving in the afternoon/evening.	Unhealthy
Chester	Very Unhealthy	Very Unhealthy	Very Unhealthy air quality through midday with improvement in the evening (daily average of Unhealthy).	Very Unhealthy
Quincy	Unhealthy	Unhealthy	Unhealthy for Sensitive Groups expected midday improving to Moderate in the afternoon/evening.	Unhealthy
Paradise	Unhealthy	Unhealthy	Unhealthy for Sensitive Groups through midday with improvement expected this afternoon/evening.	Unhealthy
Chico	Unhealthy	Unhealthy	Unhealthy for Sensitive Groups through midday with improvement expected this afternoon/evening.	Unhealthy
Croville	Unhealthy	Unhealthy	Unhealthy for Sensitive Groups through midday with improvement expected this afternoon/evening.	Unhealthy
Susanville	Unhealthy	Unhealthy	Unhealthy air quality through midday with improving conditions this evening.	Unhealthy
Doyle	Unhealthy	Unhealthy	Unhealthy for Sensitive Groups expected through the day.	Unhealthy
Portola	Unhealthy	Unhealthy	Periods of Unhealthy air quality midday with improvement in the afternoon/evening.	Unhealthy

Issued 2021-08-30 18:38 PDT by Wendy Wagner, ARA, wendy_wagner@firenet.gov

Air Quality Index (AQI)	Actions to Protect Yourself
Green	None
Yellow	Unusually sensitive individuals should consider limiting prolonged or heavy exertion.
Orange	People within Sensitive Groups should reduce prolonged or heavy outdoor exertion.
Red	People within Sensitive Groups should avoid all physical outdoor activity.
Very Unhealthy	Everyone should avoid prolonged or heavy exertion.
Hazardous	Everyone should avoid any outdoor activity.

*Disclaimer: This forecast is based on fire particulates only; smoke is not included. Forecasts may be wrong; use at own risk. Use caution as conditions can change quickly. See your health professional as needed. Smoke sensitive groups should take appropriate precautions.

Additional Links

Messaging

"Thanks so much for your work! It has been truly amazing to see the improvement in communication on these fires over the last decade."

Liz Walker, Director Clean Air Methow.



Protect Yourself From Wildfire Smoke

Wildfire smoke can be unhealthy to breathe, especially for people with existing heart or lung disease, children, older adults or pregnant women. Pay attention to how the smoke is making you feel and check with your doctor right away for help managing symptoms or any specific concerns.

No Cost Ways to Lower Smoke Exposure

1. Know your air quality. Smoke levels can change during the day so watch for periods of cleaner air to run errands, exercise or do outdoor chores. Look for opportunities to open windows and doors to let cleaner air into your home if smoke clears.

- ☞ Go online to track fires and smoke at: <https://fire.airnow.gov/>
- ☞ Have a smartphone? Download the **Smoke Sense App** from the App Store or Google Play.
- ☞ Learn the colors of the AQI (air quality index) and what they mean for actions you can take to protect your health. See the AQI table on this page.

2. Stay inside with doors and windows closed. Use towels to block air flow if smoke is coming in through gaps in window or door frames, but don't overheat! Open doors and windows if you need to cool down.

3. Reduce indoor pollution. Reduce or eliminate any type of smoking, no vacuuming, no candles, incense or aerosol sprays. Reduce or eliminate use of gas, propane or woodburning stoves for heat. Do not fry/ broil foods.

4. Take it easy. Smoky air is not good for vigorous activities. Put off chopping wood, mowing the lawn or going for a run. Try to keep children and pets quiet too.

5. Set air to recirculate on the HVAC or window air conditioner. (Swamp coolers don't help. Don't use them unless need for cooling is urgent.)

6. Reduce smoke in your vehicle by closing the windows and vents and running the air conditioner on recirculate.

Air Quality Guide for Particle Pollution

Use the following guide to interpret the AQI (air quality index) colors on an air quality map such as this one: <https://fire.airnow.gov>

Air Quality Index	Who Needs to be Concerned?	What Should I do?
Good (0-150)		It's a great day to be active outside.
Moderate (51-100)	Some people who may be unusually sensitive to particle pollution.	Unusually sensitive people should consider reducing prolonged or heavy outdoor exertion.
Unhealthy for Sensitive Groups (101-150)	Sensitive groups include: People with heart or lung disease, Older adults, Children, and Teenagers.	Sensitive groups should avoid prolonged or heavy outdoor exertion. Everyone should limit prolonged or heavy outdoor exertion.
Unhealthy (151 to 200)	Everyone	Sensitive groups and people with respiratory disease should avoid all outdoor exertion. Everyone should avoid prolonged or heavy outdoor exertion.
Very Unhealthy (201-300)	Everyone	Sensitive groups and people with respiratory disease should avoid all outdoor exertion. Everyone should avoid all outdoor exertion.
Hazardous (301-500)	Everyone	Everyone should avoid all outdoor exertion.

Low Cost Ways to Lower Smoke Exposure

- Before smoke is in the air, if you or a family member have heart or lung disease, including asthma, check with your doctor and have a plan to manage your condition
- Upgrade your HVAC filters. If you have an HVAC system, upgrade the filters to a "MERV 13" or higher and run the system on recirculate. Filters will need to be changed more often when it's smoky. Consult the manufacturer's instructions or an HVAC system specialist
- Buy a HEPA portable air cleaner. For about \$100-\$300 you can purchase a HEPA portable air cleaner and use it to clean the air in a room in your home (often a bedroom). Some health departments or Tribes have filter devices to loan. Check around. More information available at: www.montanawildfiresmoke.org/hepa-filters.html
- Build a simple box fan filter. For about \$40-\$50 you can build an air filter by attaching a 20" x 20" furnace filter to a 20" box fan (don't run this unattended or at night). See instructions at: www.cct-enr.com/box-fan-filter
- Leave the smoky area for a few hours or a few days if you cannot keep the air in your home clean or cool. Check the www.airnow.gov page for conditions in your area to see if there's somewhere you can go to get a break from the smoke.

HELPFUL RESOURCES

Smoke Conditions Near You:

- fire.airnow.gov/
- www.wildlandfiresmoke.net/

Be Smoke Ready:

- www.lung.org/clean-air/emergencies-and-natural-disasters/wildfires
- www.epa.gov/smoke-ready-toolbox-wildfires
- www.cdc.gov/air/wildfire-smoke/
- wspehsu.ucsf.edu/projects/wildfires-and-childrens-health-2/
- www.montanawildfiresmoke.org/

Wildfire Info and Projections:

- inciweb.nwcg.gov
- www.predictiveservices.nifc.gov/outlooks/

Do-It-Yourself Filter Fan



*Box fan must be 2012 or newer MERV 13 or higher filter www.cct-enr.com/s/Box-Fan-Filter-A-DIY-Users-Guide-Colville-Tribes-Air-Quality-Program.pdf

Brochures and posters...

Are YOU Smoke Ready?

Wildland Fire Emergency Response Program

Low Cost - No Cost Options to Protect Your Family



Interagency Wildland Fire Air Quality Response Program- 2023

Season in Review-

Incident total: 44
(2022 had: 30)

Rx: 3 (2022 had: 2)
Wf: 40 (2022 had: 28)

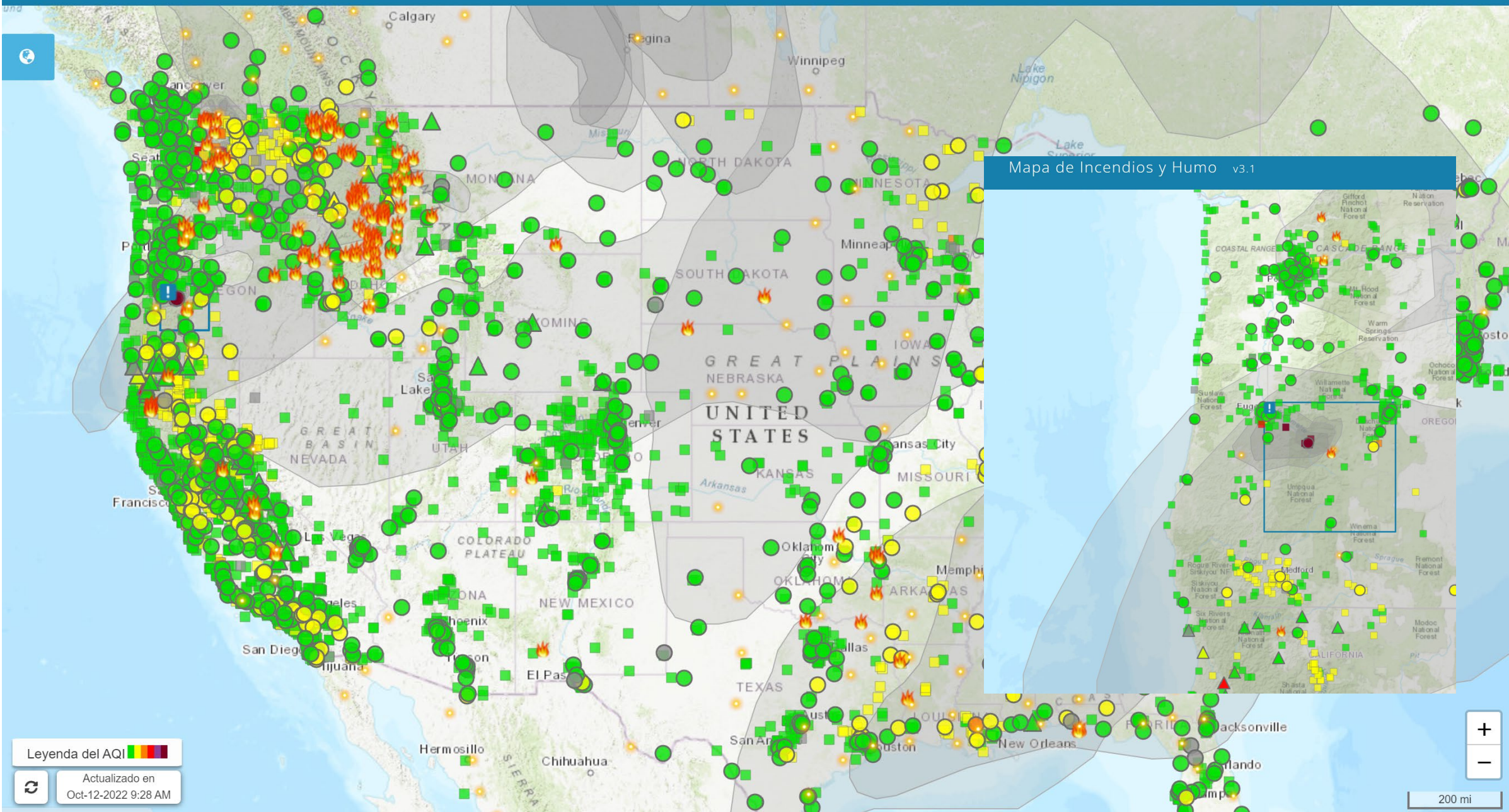
Total ARAs deployed: 84 (2022 had: 70)

Remote ARA: 1
Canceled: 3
On site ARA: 80

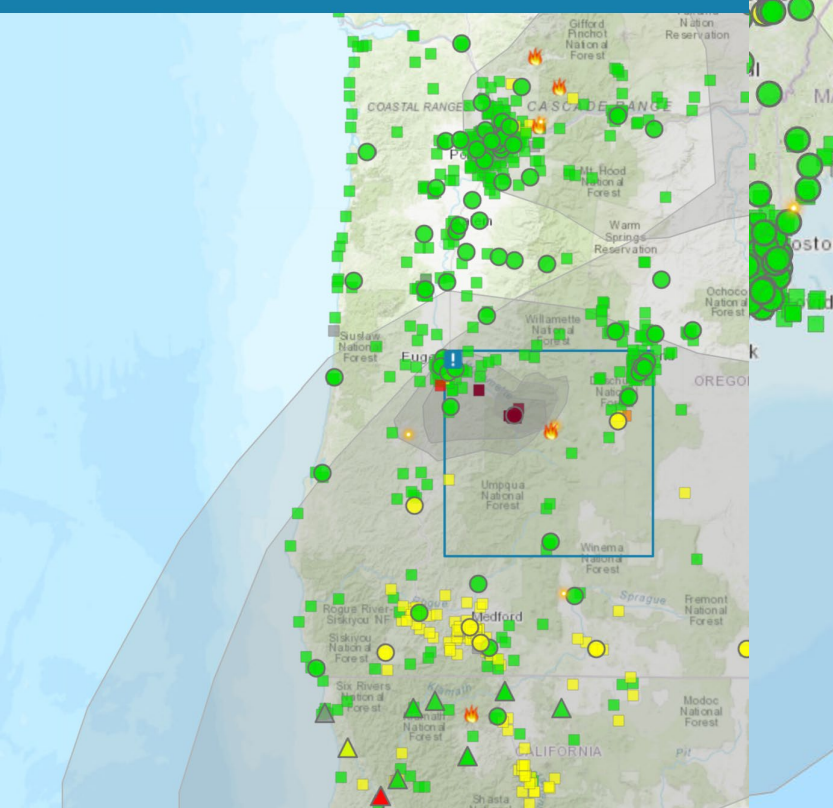
Total Daily Outlooks: 584
Total Translated to Spanish: 578


Other languages...Let us know!





Mapa de Incendios y Humo v3.1



Leyenda del AQI 
Actualizado en
Oct-12-2022 9:28 AM

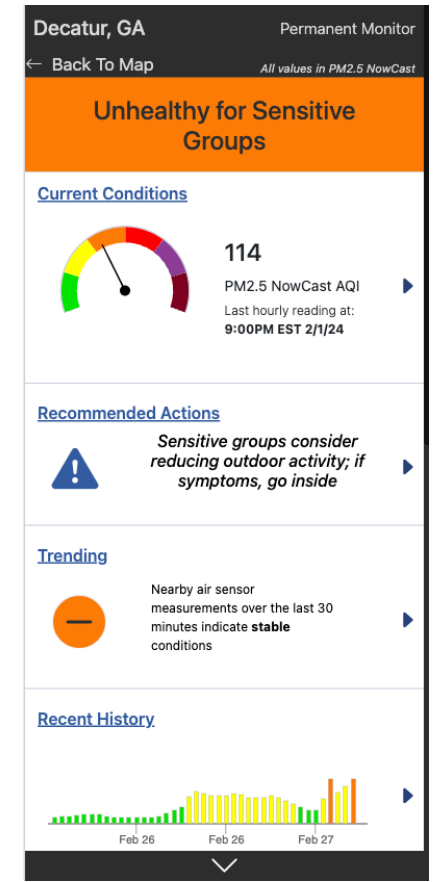
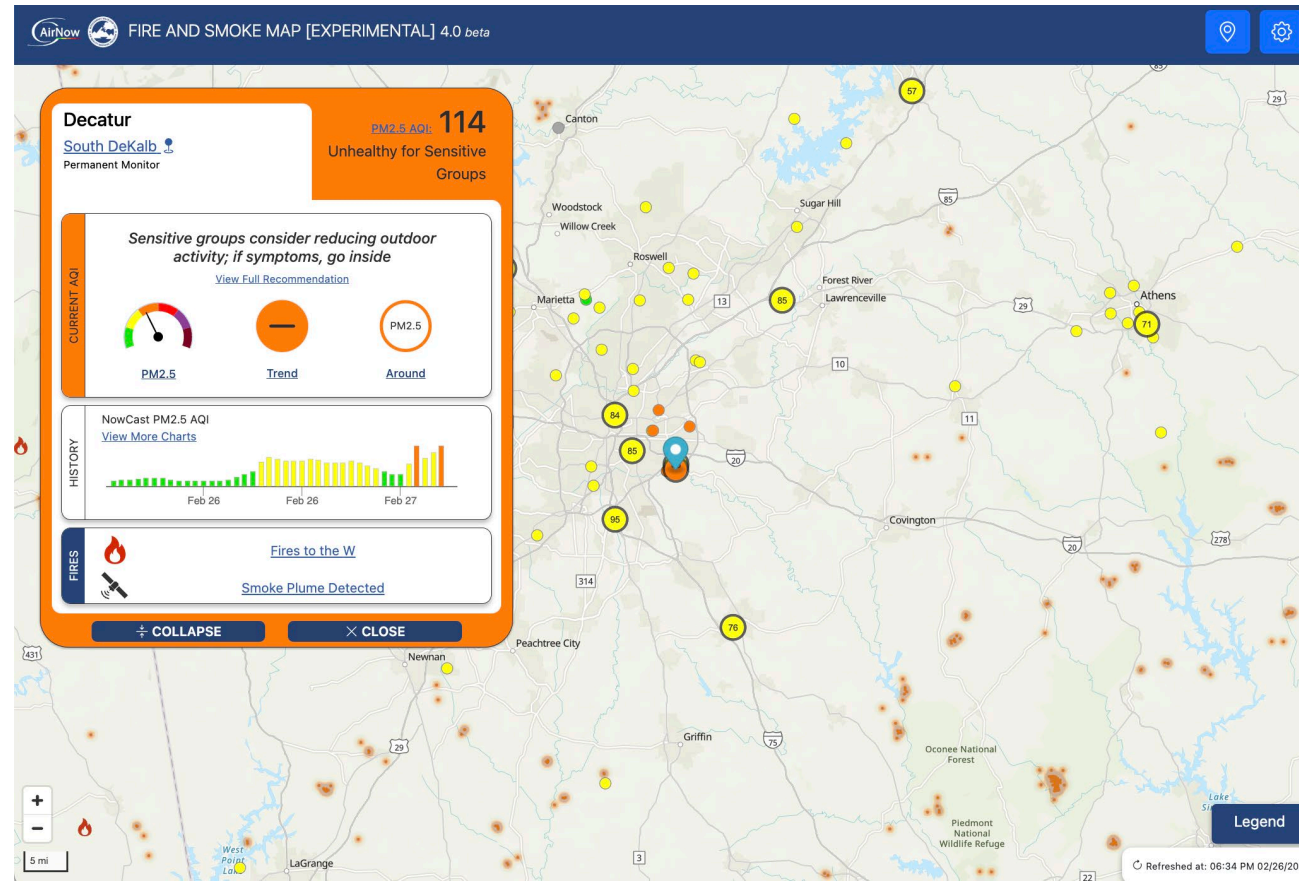
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USFS-EPA joint AirNow Fire and Smoke Map

<https://fire.airnow.gov>

- Version 4 launching this spring
- Much faster data access
- New mapping technologies
- Tailored mobile friendly UI





Monitoring...

- Community engagement
- Placement choice
 - Coordinated with state/Tribe/local air quality and/or health agencies
 - Some limitations
- Schools are a common site
 - Opportunity for students to learn about air quality and fire
 - Finding and Interpretation of data
 - Smoke Ready messaging



Smoke Ready Ideas



Identify important community infrastructure (schools, community centers, senior centers, low socio-economic services, etc.) where upgrades to air handling and air filtration can help protect at risk individuals during smoke events. Promote the value of, and methods for achieving clean air upgrades.



Gather materials for public education and outreach to increase awareness in the community about the health risks from smoke and actions people can take to protect themselves and others. Gather, create, and customize outreach materials and methods for distribution before and during a smoke event.



Consider where additional air quality monitoring could benefit the community by increasing resolution when smoke impacts occurs. Consider range of approaches to filling the gaps in consultation with clean air agencies and public health specialists. Plan for access to, and use of, available emergency monitors or sensors.



Assemble a smoke ready team to design and implement a full plan for making a community smoke ready.

Basics of Smoke Ready Community Planning



➤ ASSEMBLE A TEAM

- Include wildland fire managers, fire scientists, public health officials, air quality agencies, governments, Tribes, emergency response, medical community, business groups, and concerned citizens.

➤ ASSESS SMOKE RISK TO THE COMMUNITY

- Use past wildland fire and smoke events, predictions of future prescribed fire and wildfire, expected frequency and severity of smoke impacts to gage the magnitude and frequency of smoke as a community issue.

➤ IDENTIFY COMMUNITY VULNERABILITIES TO SMOKE

- Identify those in the community most at-risk from smoke including at-risk populations, schools, outdoor workers, outdoor venues, outdoor activities.

➤ PREPARE RESPONSE PLANS FOR GROUPS AND VENUES

- Assemble public communication and educational materials (may need language translation).
- Provide recommendations for at risk individuals, schools, outdoor workers, outdoor venues, outdoor activities.

➤ ASSESS THE NEED AND MEANS FOR PROVIDING CLEAN AIR IN HOMES AND SPACES

- Consider individual and vulnerable group needs and responses.
- Community infrastructure preparation - provide resources for community entities interested in upgrading filtration systems, purchase and plan for distribution of loaner air filters, identify community clean air shelter opportunities.

➤ ASSESS LOCAL AIR QUALITY KNOWLEDGE AND MONITORING

- Monitoring networks may have gaps especially in rural areas, assess sensor networks - but use with caution, identify emergency monitoring options and potential locations to fill in gaps.
- Determine how to access and interpret air monitoring and air quality information including messages to the community.

➤ RESPONDING TO FIRE AND SMOKE

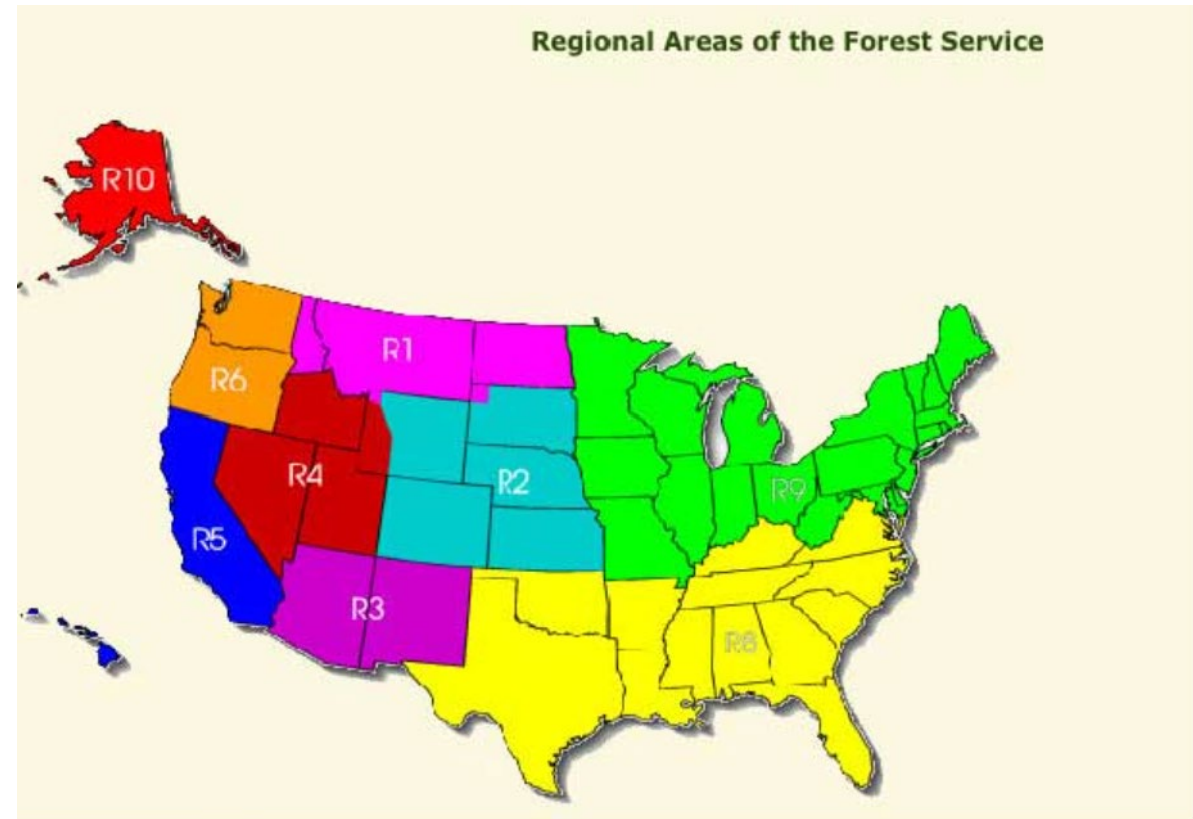
- Track when fire activity is likely (wildfire or prescribed fire).
- Execute the plan with roles & responsibilities during an event, rapid communication and outreach methods.
- Coordinate with local information sources including Air Resource Advisors assigned to wildfire response teams.

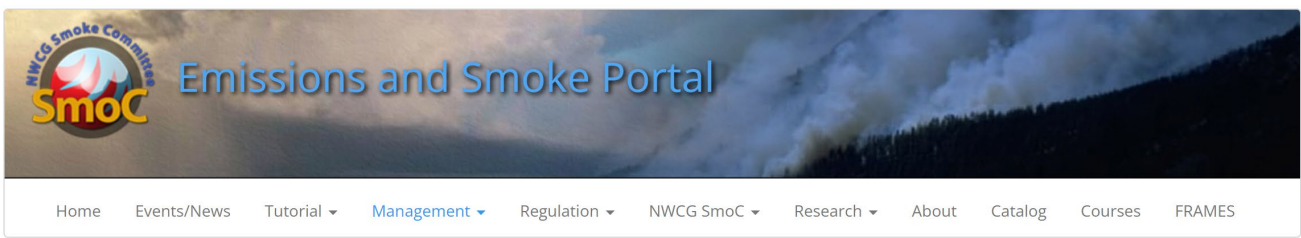


- Resources:

- USFS increasing smoke resources with new regional Fire Program smoke coordinator positions being developed
- R1 – Seth Morphis and Jill Webster
- R2 – Amber Ortega
- R3 – Ron Sherron
- R4 – Paul Corrigan
- R5 – Ricardo Cisneros
- R6/10 - detailer Trevor Miller and Rick Graw
- R8 - Kelly Cagle and Melanie Pitrolo
- R9 – Trent Wickman
- and some state level smoke specialists (AZ, NM, UT, ID, MT)

- BLM – Jason Simmons / Bret Anderson
- NPS- Mark Fitch
- FWS – Lou Ballard

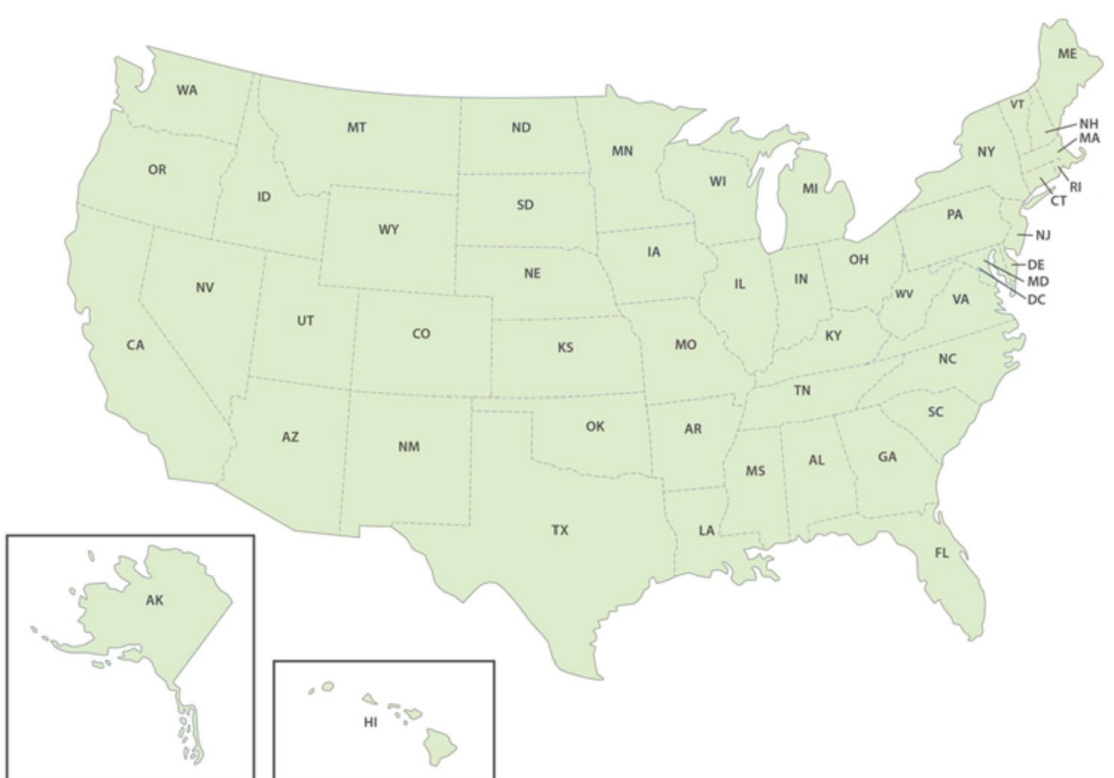




Wildland Fire Smoke Contacts

Use the drop-downs to view a map, and click on a map region to see the information for that region. Need to correct or add contacts, use the following link to submit a request: [Wildland Fire Smoke Contacts Update Request Form](#).
[Last Updated 03-24-2023]

- ▾ National Smoke Contacts by Agency
 - ▾ Federal, State, Tribe, and Local Contacts by State
- Click on a state to navigate to the list of federal, state, tribe, and local contacts for that state.



National Wildfire Coordinating Group - Smoke Committee

- Training Materials
- Creating the Communication Network
 - Smoke contact and Regulations Map

• [Wildland Fire Smoke Contacts | Management | Emissions & Smoke Portal \(frames.gov\)](#)

Questions and Information

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Need an ARA? (661)GET-1ARA

