

# Montana Wildfire Season 2017

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*One for the record books or a sign of what lies ahead?*

David Klemp  
State of Montana

# Overview

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*Air Quality Impacts  
Communication Strategies  
Additional Considerations*



*Rice Ridge Fire Courtesy Inciweb*

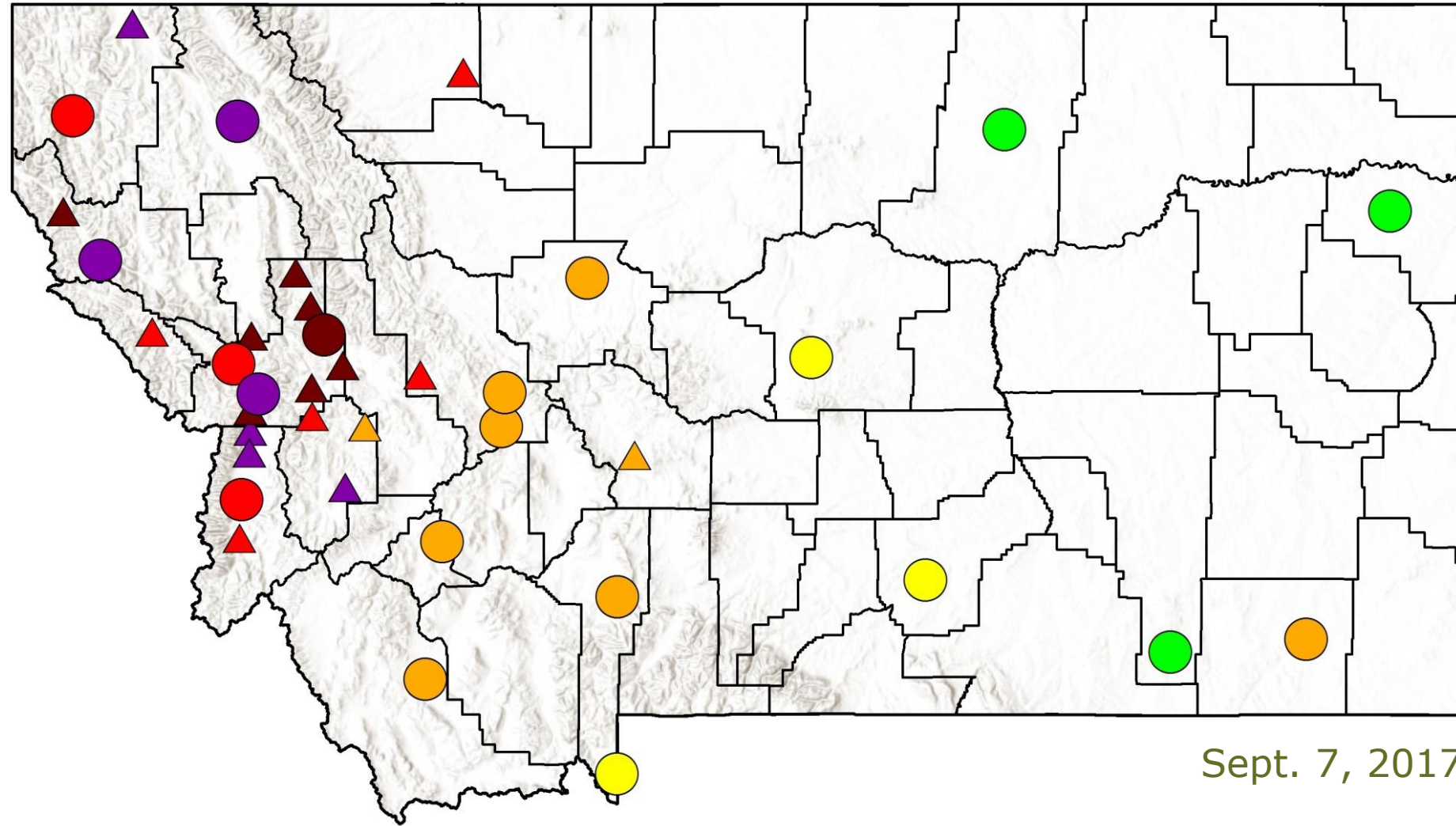
# Background

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- In Montana, dry hot weather kicked off fires in July
  - Little precipitation through mid-Sept, frequent red flag warnings
- Air Quality Alerts issued almost everyday from late July through mid-Sept
- As of Sept. 18, 2017
  - **1,750 fires** in Montana
  - Burning **1,299,612 acres**.
  - **45** large fires **remain active**

*Air Quality Impacts*

# Monitoring



- Permanent Monitor
- ▲ Temporary Monitor

- Hazardous
- Very Unhealthy
- Unhealthy
- Unhealthy for Sensitive Groups
- Moderate
- Good

*Air Quality Impacts*



# Smoke Impacts

August 18, 2017



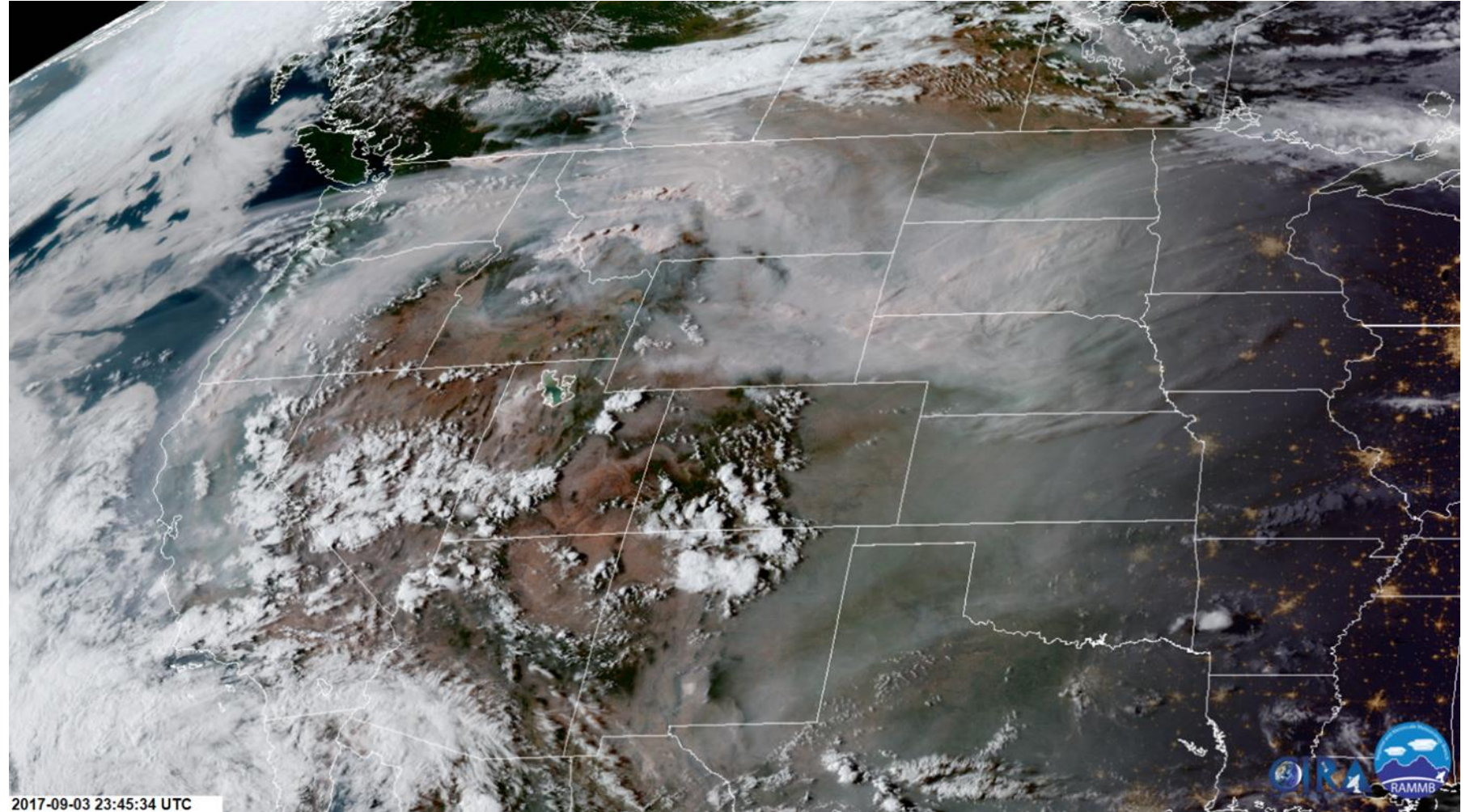
*Source: CIRA and NOAA. Disclaimer - These data are preliminary and not operational*

# Air Quality Impacts



# Smoke Impacts

September 3, 2017



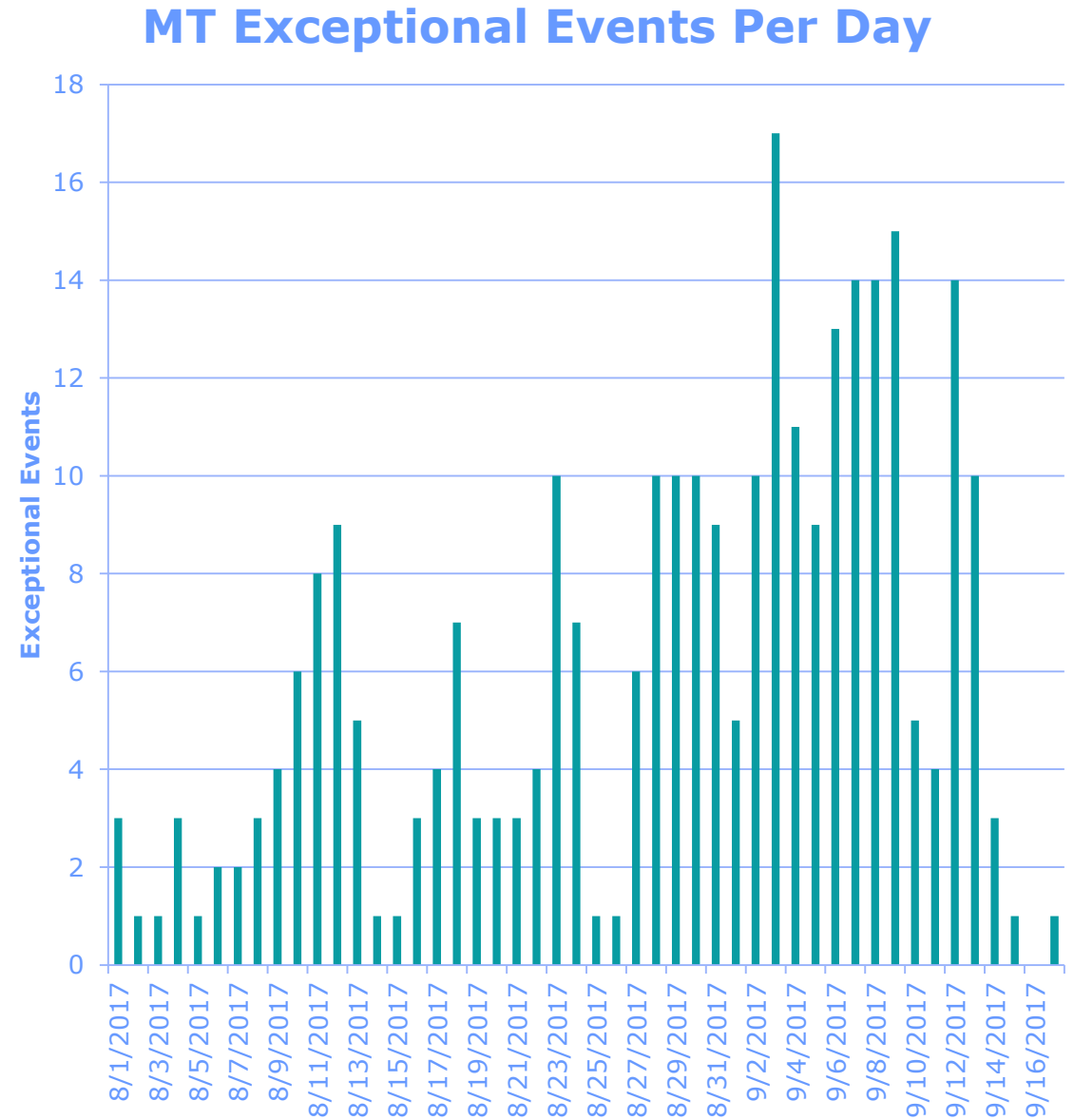
2017-09-03 23:45:34 UTC

Source: CIRA and NOAA. Disclaimer - These data are preliminary and not operational

# Air Quality Impacts

# Monitoring

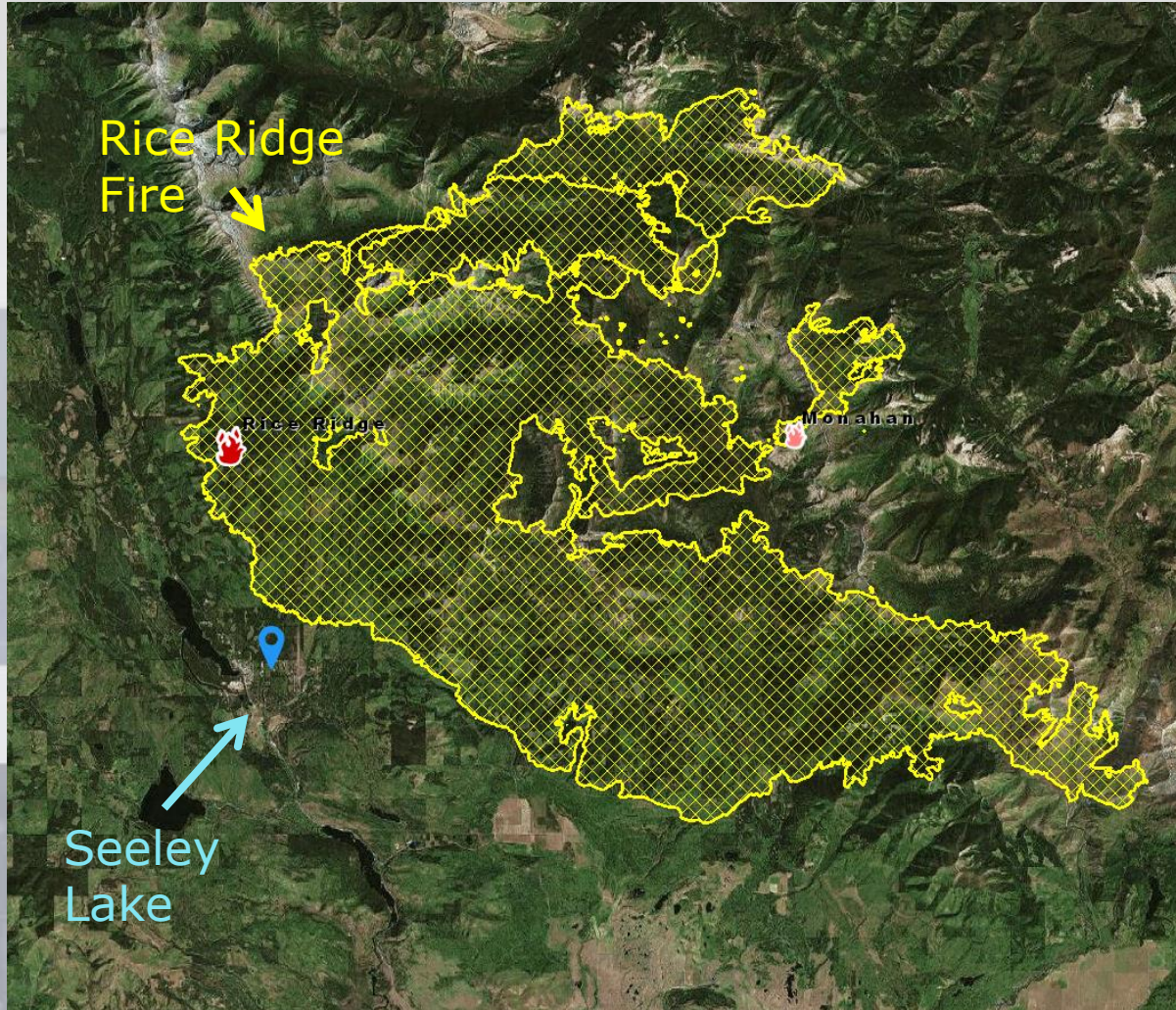
- 296 Exceptional Events
  - 43 in Seeley Lake
- 17 monitored locations above NAAQS on Sept. 3rd)
- Highest Values:
  - 1-hr: 994.6  $\mu\text{g}/\text{m}^3$  (max range of monitor!)
  - 24-hr: 671  $\mu\text{g}/\text{m}^3$



*Air Quality Impacts*



# Seeley Lake



- 18 days where 24-hr average **Hazardous**
- 17 days where 24-hr average **Very Unhealthy**
- 35 consecutive days 24-hr average **>= Unhealthy**

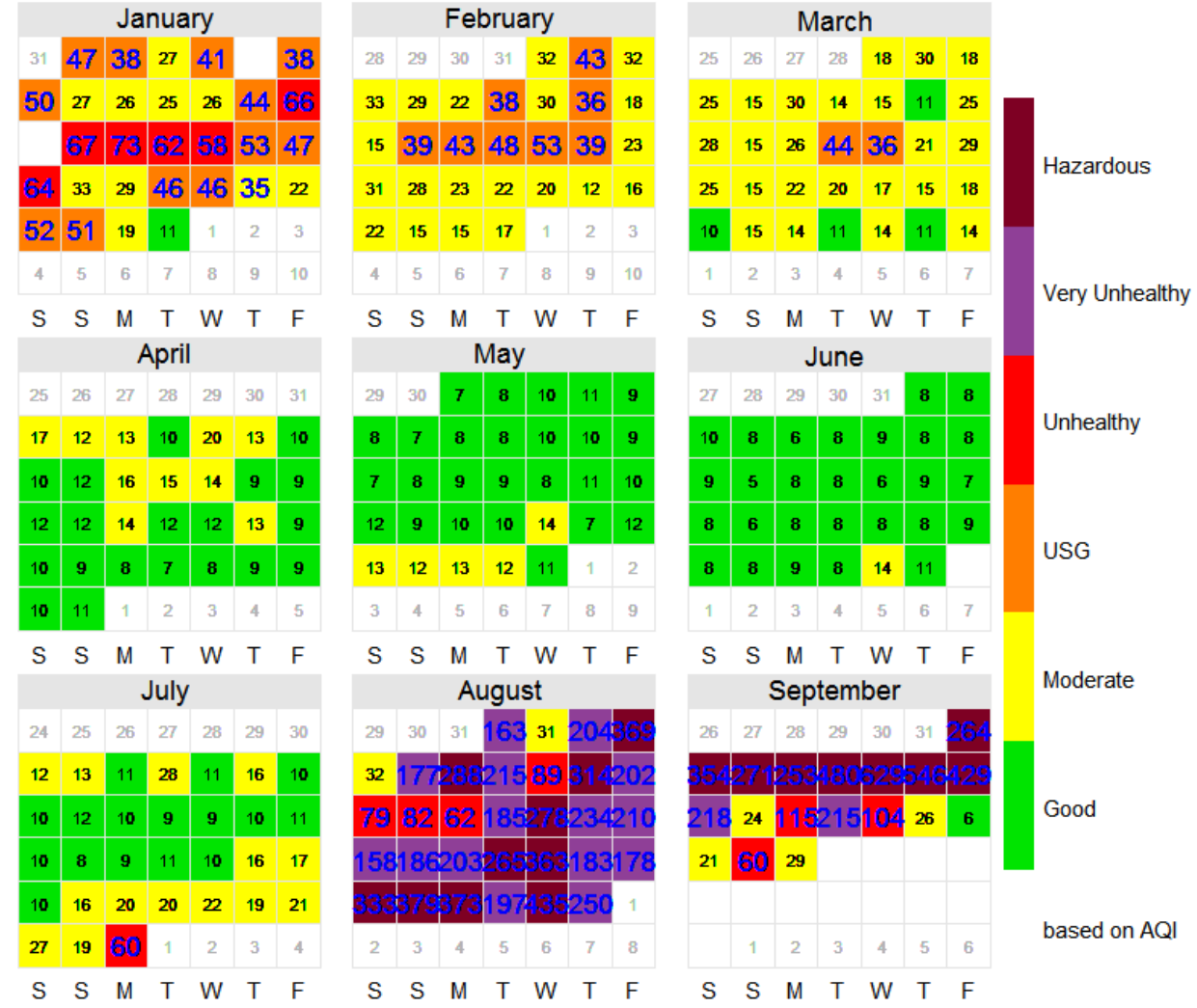
*Air Quality Impacts*



# Seeley Lake

- A community experiencing chronic exposure to smoke

Seeley - Elementary School - 2017



Daily PM<sub>2.5</sub> averages (µg m<sup>-3</sup>)

# Air Quality Impacts

Air Quality Meteorologist Led Collaborative Effort

Multiple Agencies (federal, state, & local)

Daily Smoke Forecasts

Featured Regularly in Media



**Communication Strategy**



# Mid-Season Adjustment

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- Air Quality issue became public health issue
- Message was not being heard
  - Air Quality stepped back
  - Health Department stepped up
  - Message transitioned to “health impacts/recommendations” not air quality

*Communication Strategy*



# Valuable Lessons

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Smoke Forecasting is NOT Smoke Management

Recognize when media/others become focused on the news instead of the message

If AQB fills the space there is no room for others

What about communication with other states?

There is NEVER enough communication

*Additional Considerations*

# The Human Element

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Cause of fire is mismanagement  
of public lands

Other regulatory programs  
attacked (wood-stoves, carbon)

We have a short memory

*Additional Considerations*



# Questions?

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