

# Klamath Air Quality Advisory Committee

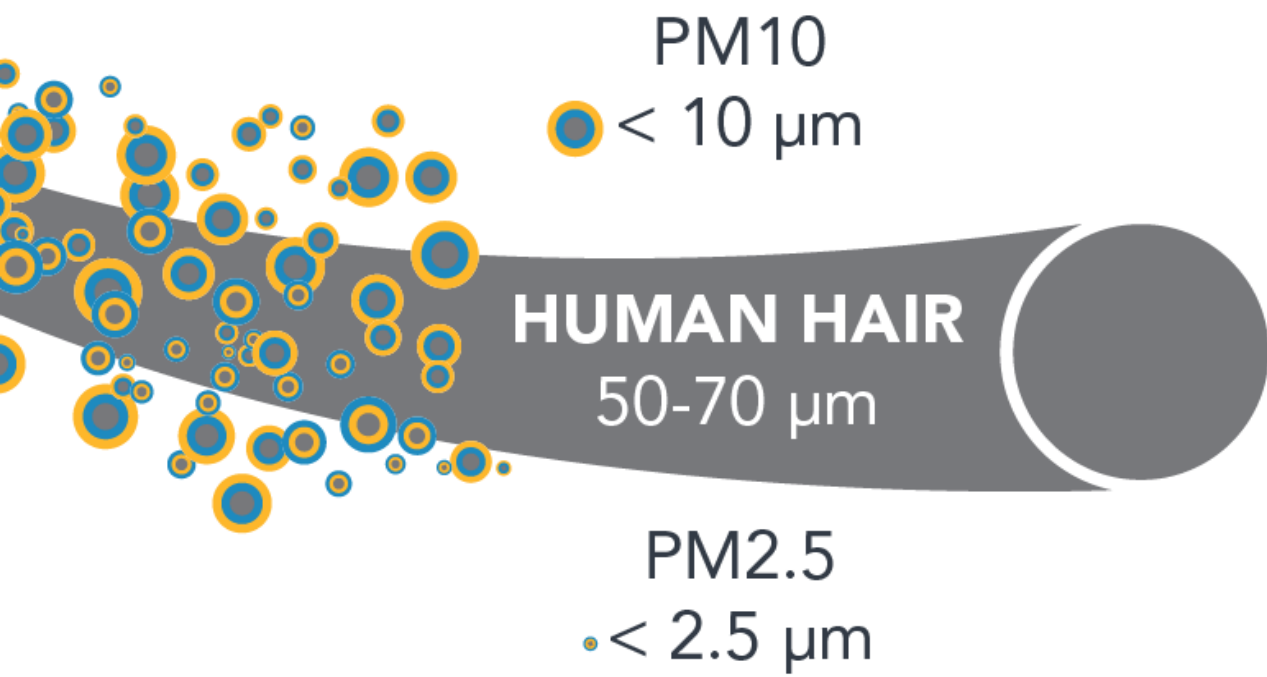
## Air Quality Planning

Nov. 22, 2021

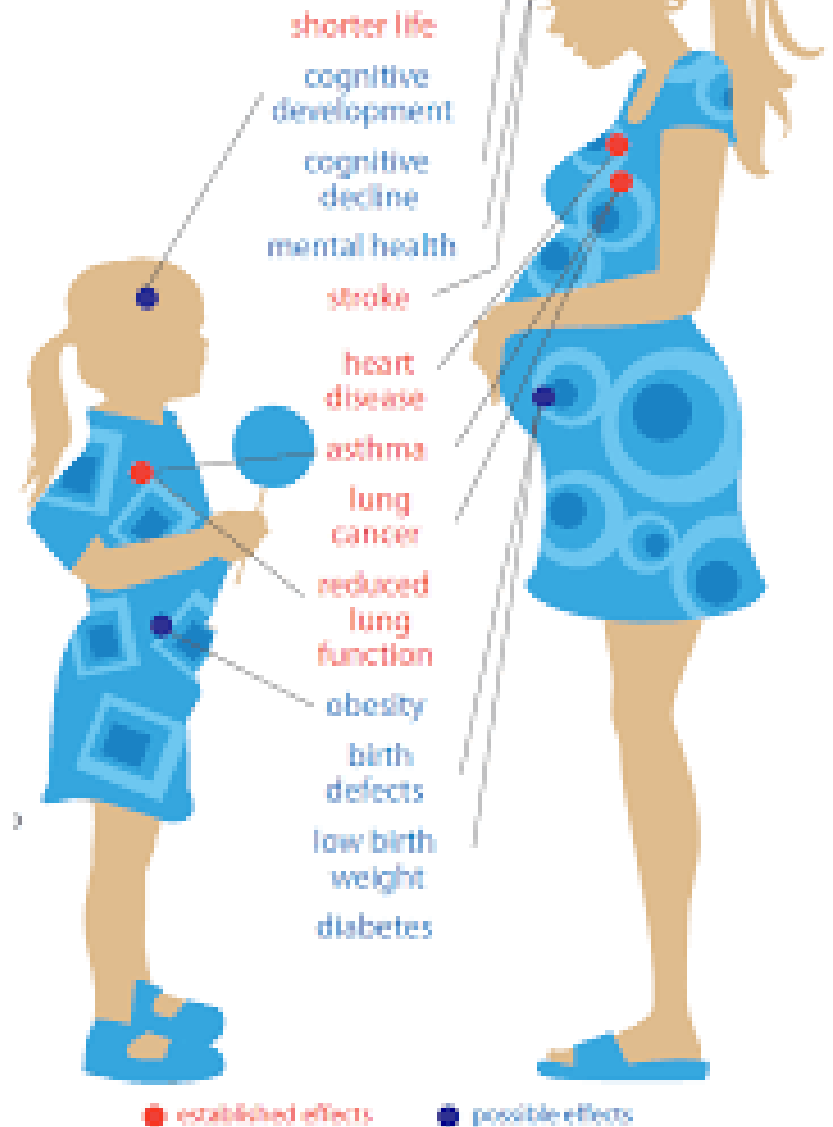
Remotely held

# Particulate Matter

## Particulate Size Comparison



health impacts  
of air pollution:



# Why are we here?

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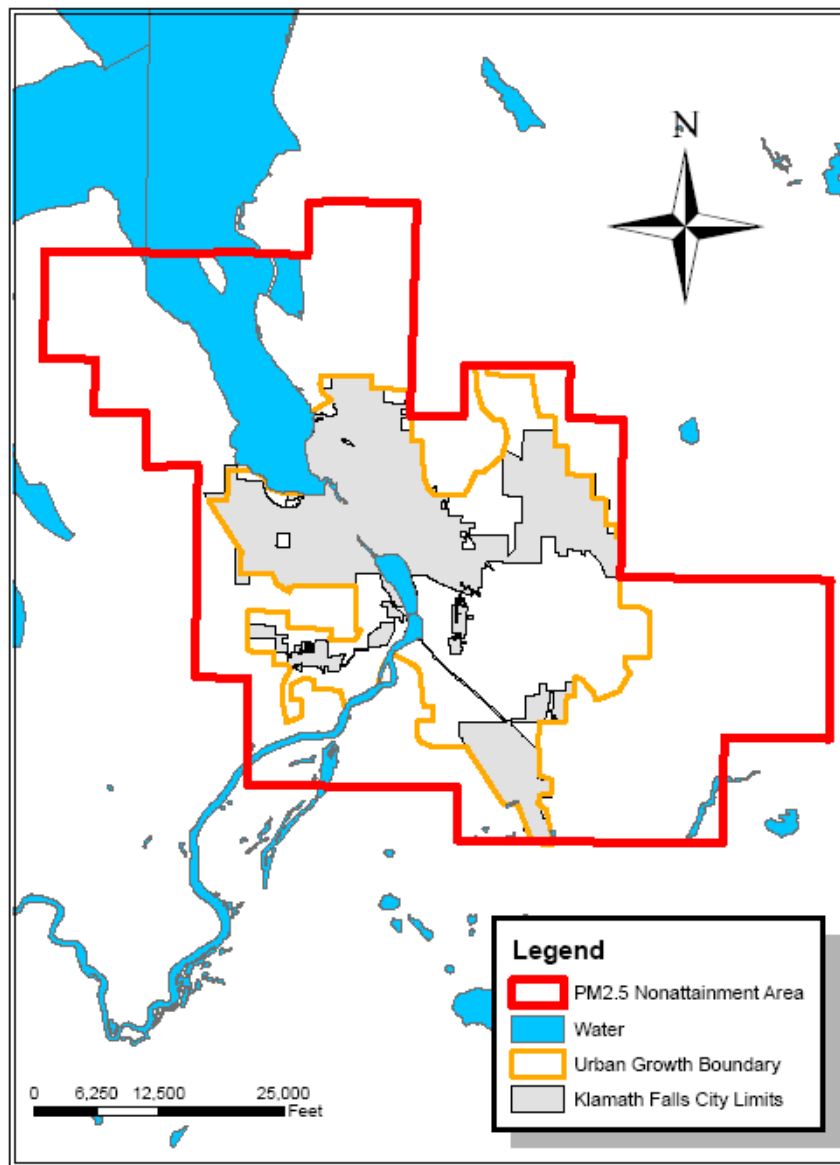
- U.S. EPA establishes health standards for specific air quality pollutants
- In 2006, EPA revised the particulate matter standard based on latest health data
  - Klamath Falls was violating the particulate matter standard
  - 2012: Attainment Plan
  - 2014: monitoring data confirmed compliance with standard
- Now, we need a Maintenance Plan to demonstrate how we will stay in compliance. This will allow us to be redesignated as “in attainment.”

# What's a Maintenance Plan?

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- Redesignation Request
- Maintenance Plan
  - Emissions Inventory
  - Review of monitoring data to demonstrate compliance
  - Control Measures
  - Contingency Measures

# Klamath Falls PM2.5 Nonattainment Area



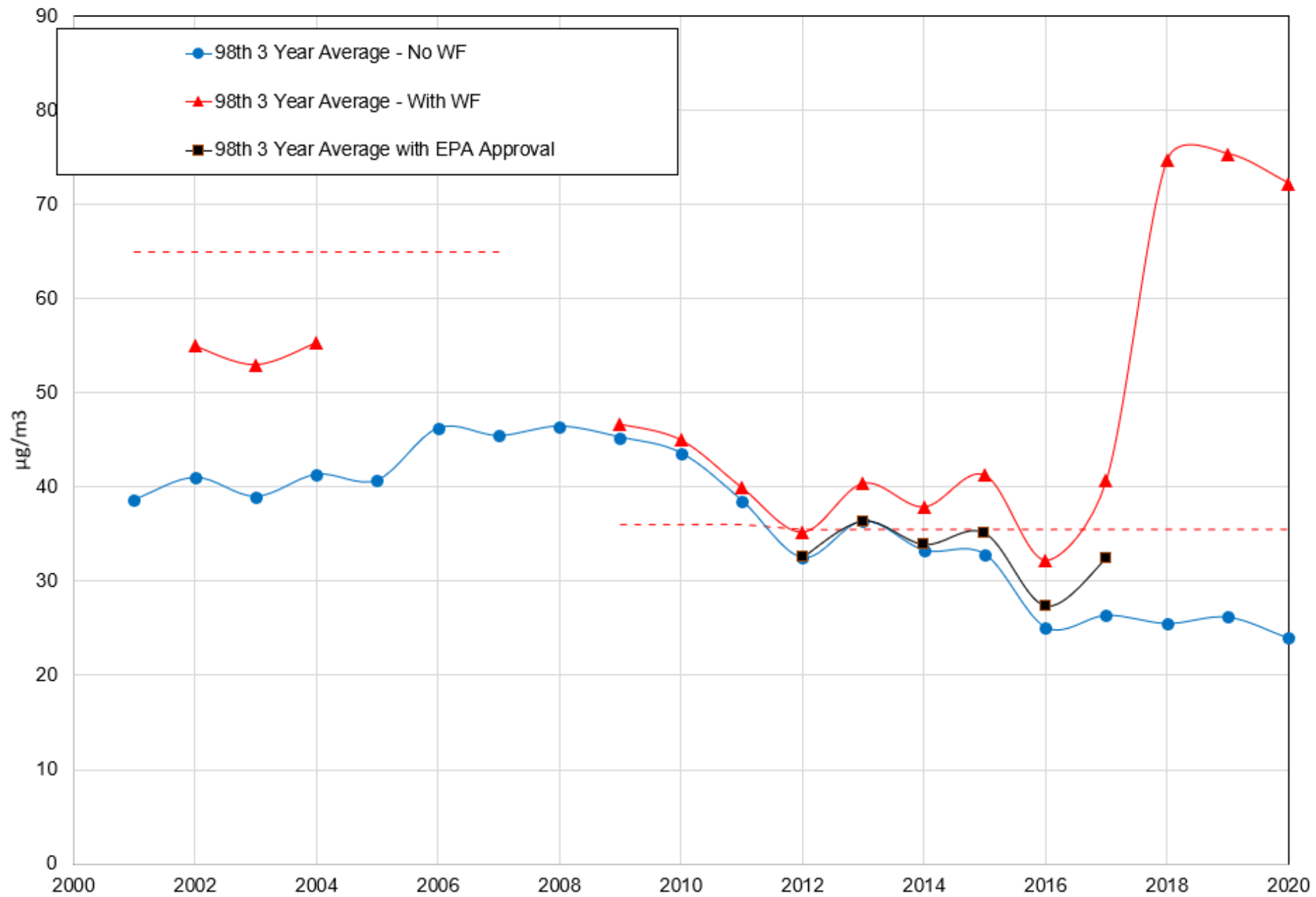
Klamath Falls Nonattainment Area Boundary Set by EPA on December 18, 2008  
Klamath Falls Urban Growth Boundary and City Limits based on Oregon's Land Use Planning Laws.

# PM 2.5 Standards

- National Ambient Air Quality Standards (NAAQS)
  - PM (10 & 2.5)
  - carbon monoxide
  - nitrogen oxides
  - sulfur dioxide
  - lead
- Attainment status

PM	Primary/Secondary	Averaging Time	Level
PM <sub>2.5</sub>	Primary	1 year	12.0 µg/m <sup>3</sup>
	Secondary	1 year	15.0 µg/m <sup>3</sup>
	Primary and Secondary	24 hours	35 µg/m <sup>3</sup>
PM <sub>10</sub>	Primary and Secondary	24 hours	150 µg/m <sup>3</sup>

### Klamath Falls PM2.5 - Three Year Average of the 98th Percentile Trend



# How are NAAQS Standards Set?

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- Public process every 5 years
- PM 2.5 Standard last strengthened in 2012
- Current standard reviewed and retained in 2020
- EPA currently reconsidering that decision



# New PM 2.5 Standards Coming Soon

- June 2021: EPA announced reconsideration of current standards
- Slated for proposal in summer 2022; will go into effect in summer 2023

Type	Current Standards	Possible New Standards*
Daily	35 µg/m <sup>3</sup>	30 µg/m <sup>3</sup>
Annual	12 µg/m <sup>3</sup>	10-8 µg/m <sup>3</sup>

\*not finalized; could still change

# Committee Charge

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The Advisory Committee is charged with evaluating emission contributions and effectiveness of reductions from all emission source categories, including residential wood heating, residential open burning, motor vehicles, major industry, and other sources.

The Committee will evaluate the effectiveness of such measures against compliance with the PM 2.5 National Ambient Air Quality Standard with a margin of safety accounting for the likelihood of future lower standards.

# Committee Charge

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To that end, we will:

1. Determine whether existing control measures are sufficient to maintain National Ambient Air Quality Standards (NAAQS) compliance with a margin of safety to account for likely future reductions to the standard;
2. Review strategies to maintain and continue to reduce PM 2.5 emissions and maintain the Klamath airshed's compliance with the PM 2.5 standard;
3. Review the effectiveness of contingency measures, determine whether updates are necessary, and develop implementation strategies for contingency measures.

# Committee Charge

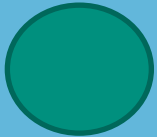
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- The Advisory Committee may also want to investigate developing strategies not necessary to reach attainment with the PM2.5 standard, but which are beneficial to protect overall public health and welfare in Klamath Falls.
- The product of this Advisory Committee will be a report to DEQ and the Klamath County Board of Commissioners that provides recommended strategies to bring Klamath Falls into attainment. DEQ staff will draft the report in collaboration with the Advisory Committee and the Advisory Committee members will review it for completeness.

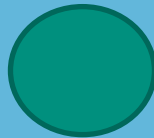
# Timeline

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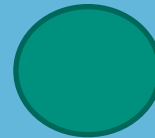
Advisory Committee (Nov '21 –  
Feb '22)



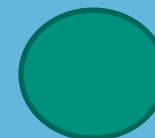
Maintenance Plan Draft to EPA  
(Spring '22)



Public Hearing (Summer '22)



Propose Final Plan Adoption to  
EQC & Submission to EPA  
(Fall '22)



Any questions?

# Control Measures

## Residential Wood Combustion (RWC)

- County Clean Air Ordinance
- Woodstove Changeout Program
- Heat Smart
- ASTM Fireplace Standard: New Construction
- Public Education

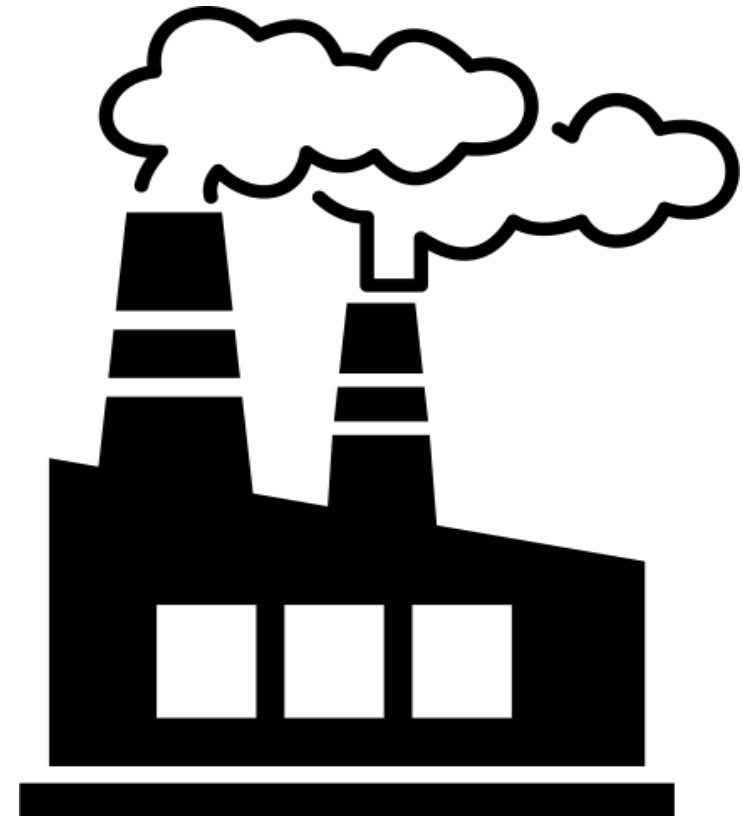


# Control Measures

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## Industrial Source Requirements

- Reasonably Available Control Technology (RACT)
- Maximum Achievable Control Technology (MACT) for particleboard/hardboard facilities
- Offset requirements





# Control Measures

## Mobile/Area Sources

- State LEV Program
- Fuel Economy
- Diesel Retrofits
- Road Paving
- Highway Road Sanding Practices



# Contingency Measures

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- Prohibit use of non-ASTM certified fireplaces in Klamath
- Reduce grain loading standard for industrial sources from 0.2 to 0.1 grains/cubic foot
- Require installation & use of continuous emissions monitoring device for wood-fired boilers

Any questions?

# Future Meetings

Item	Date
<b>Advisory Committee Meeting</b> <ul style="list-style-type: none"><li>- Review of Charge</li><li>- Background on Clean Air Act, Regulatory Process</li><li>- Review of Control Measures</li></ul>	November 22, 2021
<b>Advisory Committee Meeting</b> <ul style="list-style-type: none"><li>- Emissions Inventory (DEQ)</li><li>- Monitoring Data: Then &amp; Now (DEQ)</li></ul>	December 2021
<b>Advisory Committee Meeting</b> <ul style="list-style-type: none"><li>- Clean Air Ordinance: Proposed Updates (Klamath Public Health)</li></ul>	January 2022
<b>Advisory Committee Meeting</b> <ul style="list-style-type: none"><li>- Discussion: Changes to Control &amp; Contingency Measures</li></ul>	February 2022
<b>Final Report to DEQ and Klamath County Board of Commissioners</b>	March 2022