Smoke Management – past and present

- Administrative/ Policy/ Operations History
- Burning and Intrusion History
- Recent Smoke Intrusion Analysis
• **1969/72 – Voluntary then Regulatory Program**
  - Restricted Area (RA) mainly west of Cascades
  - Seven Designated Areas (DAs) for intrusions
  - Intrusion definition – smoke below 2 – 3000 ft. over DA
  - Burn data limited and manually collected
  - Forecasts/advisories very general for Coast Range and Cascades

• **1975 – Computerized Smoke Management data system**

• **1978 – 1st Review**
  - More detailed intrusion reporting and detailed advisories (Fire Weather Zones)
  - Public meetings to explain program

• **1985 – Advisories become instructions (mandatory compliance)**
• **1986 – 2\textsuperscript{nd} Review**
  - Four additional DAs – Newport, Lincoln City, Astoria, Bend
  - Visibility Protection Plan for Cascade Class I Areas - summer
  - Intrusion definition – changed to ground level smoke in DA
  - Comprehensive data collection for fuels, weather, and emissions
  - Audit program initiated

• **1989 – Advisory committee established by Legislature**

• **1990 – Northern Spotted Owl listed as threatened and endangered**

• **1991 – 3\textsuperscript{rd} Review**
  - Special Protection Zones (SPZs) developed for non-attainment and maintenance areas
  - Voluntary program developed for South Central Oregon
  - Fees instituted for RA burning
1994 – Voluntary program developed for NE Oregon federal forests
  - Forecast/Instruction model initiated - detailed and extended forecasts

1995 – 4\textsuperscript{th} Review (minor)
  - Added Lakeview SPZ and removed Eugene and Grants Pass SPZ

1997 – EPA adopts new particulate emission standard - PM10 to PM2.5

1999 – Regional Haze Rule adopted – Class I visibility protection year-round

  - Virtually all forestland becomes regulated under SMP – Level 1 & 2 land
  - Federal forests pay prescribed burn fees statewide
  - DAs change to SSRAs and increase from 11 to 23
  - Fee structure changes – landing units pay, minimum fee
  - Limited use of polyethylene (PE) to cover piles
• **2012/13 – 6th Review**
  - Protect Class I Areas year-round – Crater Lake, Kalmiopsis Wilderness focus
  - Analyze/report burn alternatives and emission reduction techniques
  - Schedule periodic review every five years
  - Large tonnage burning (2000+ tons) must be monitored
  - La Grande SPZ removed, Medford SPZ altered

• **2014 – Federal restoration burning focus intensifies**

• **2015 – PE study demonstrates improved emission reductions**

• **2016 - Field Coordinator hired**

• **2017 – 7th Review initiated: Policy of prescribed burning in Oregon**
Burning and Intrusion History

Statewide reporting - 1987
Burning and Intrusion History

Statewide reporting - 1987
Statewide reporting – 1987; Tonnage reporting increases - 1987
Burning and Intrusion History

Intrusion definition changes to ground level – 1987; SSRAs increase to 11 – 1987, increase to 23 - 2008
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Number of Smoke Intrusions by Magnitude
2011 - 2017
Recent Smoke Intrusion Analysis
2011 - 2017

Number of Smoke Intrusions by 24-hour AQI
2011-2017

- Good: 27
- Moderate: 21
- USG: 2
- N/A: 6
Recent Smoke Intrusion Analysis
2011 - 2017

Number of Smoke Intrusions by % of NAAQS
2011 - 2017

- >50%: 34
- >50 <75%: 10
- >75 <100: 4
- >= 100%: 2
- N/A: 6
Number and Magnitude of Smoke Intrusions by SSRA (2011-2017)
Recent Smoke Intrusion Analysis
2011 - 2017

Number of Daytime vs Nighttime Smoke Entrance

- 10 pm - 6 am
- 7 am - 9 pm

Locations:
- Ashland
- Baker City
- Bend
- Central Point/North Bend
- Coos Bay and North Bend
- Cottage Grove
- Eagle Point/North Rogue
- Enterprise
- John Day
- Klamath Falls
- Lakeview
- Medford
- Roseburg
- South Eugene and
- South Rogue Valley
- Talent/Phoenix
Smoke Management – past and present

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