Regional Haze Program

2nd Planning and Implementation Period Introduction and Overview

Air Quality

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November 15, 2019

Regional Haze – Policy Context

Regional Haze in Oregon

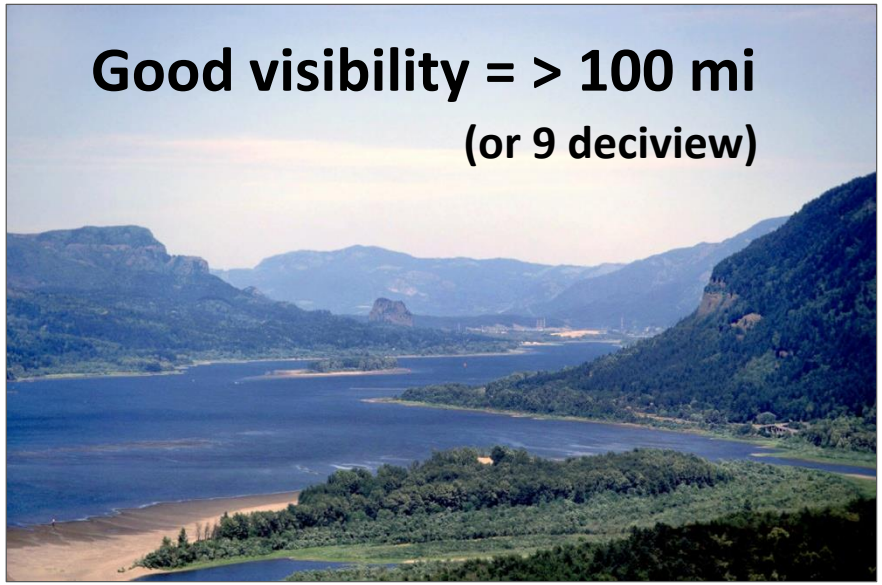
- Visibility & visibility impairment
- Sources of Visibility Impairment
- Definition of Class I Area
- Oregon's Class I Areas and the Columbia River Gorge NSA

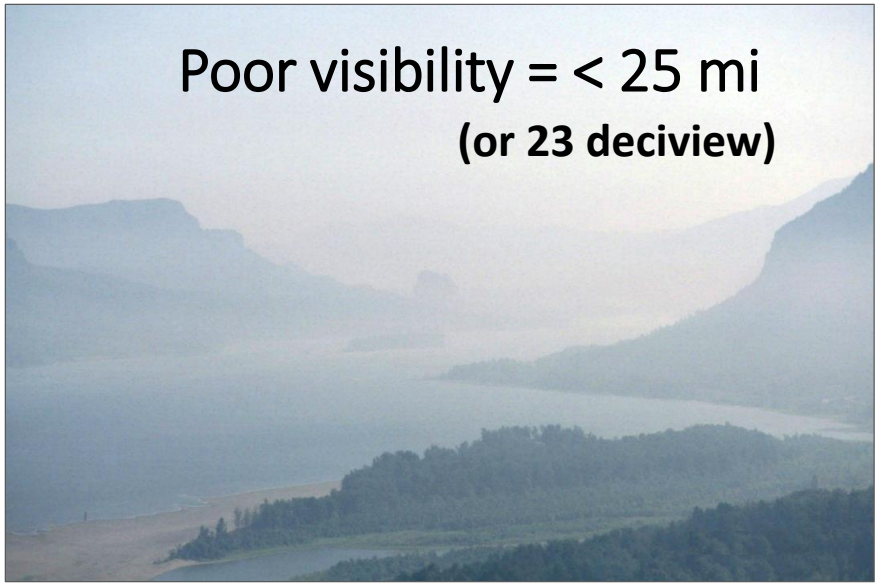
Haze and Visibility

- Air pollution that is transported long distances and reduces visibility in cities and scenic areas.
- Haze is caused when sunlight encounters tiny pollution particles in the air that scatters light and decreases visibility.
- **Small amounts of air pollution** (well below health standards) can have significant effect on visibility.

Visibility

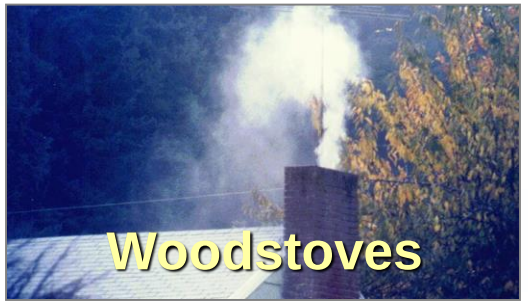
- Visibility is “how far” and “how well” you can see a distant object.
- Scientifically: *light scattering* + *light absorption* = *light extinction.*



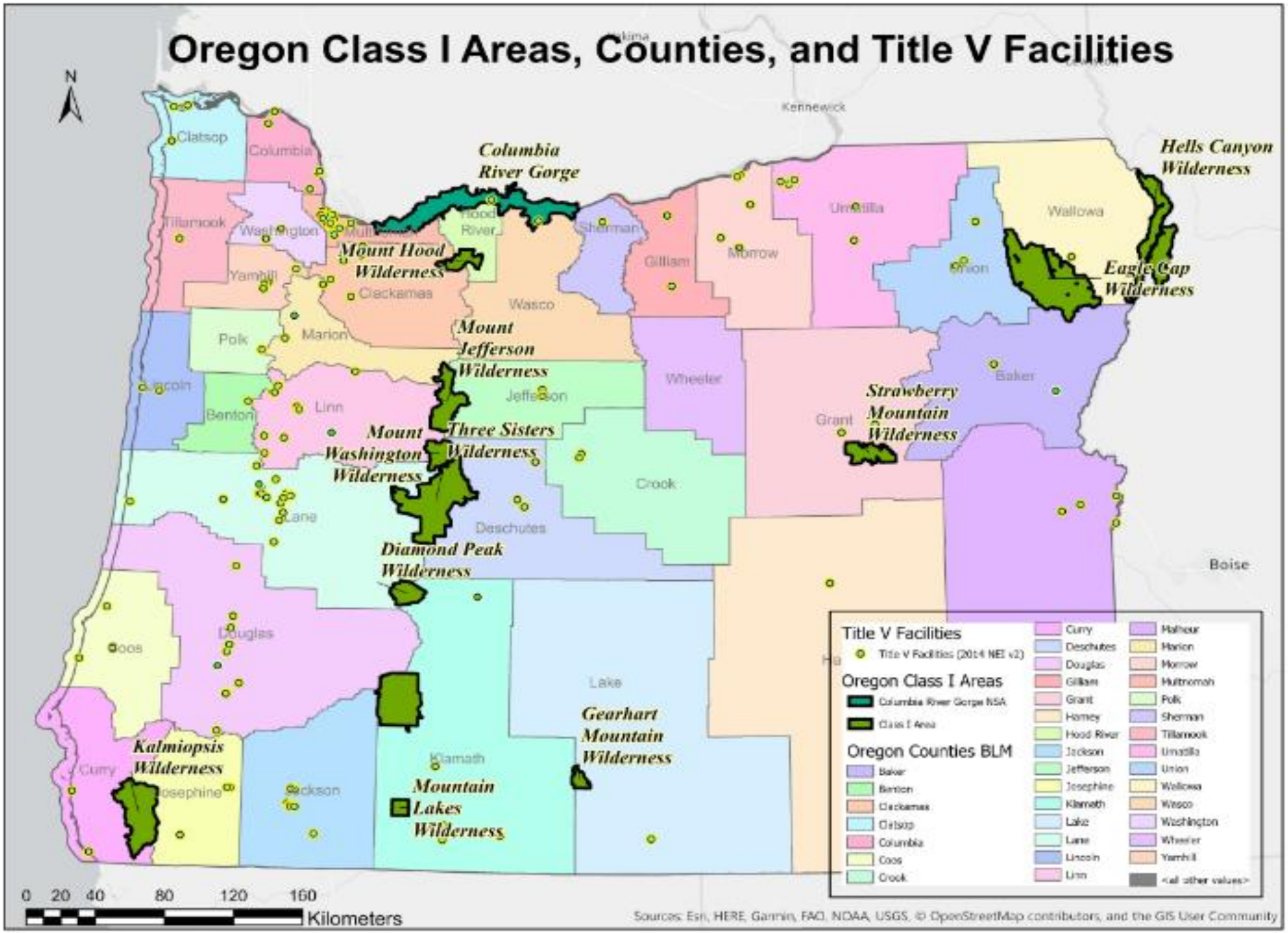


Looking East from Vista House

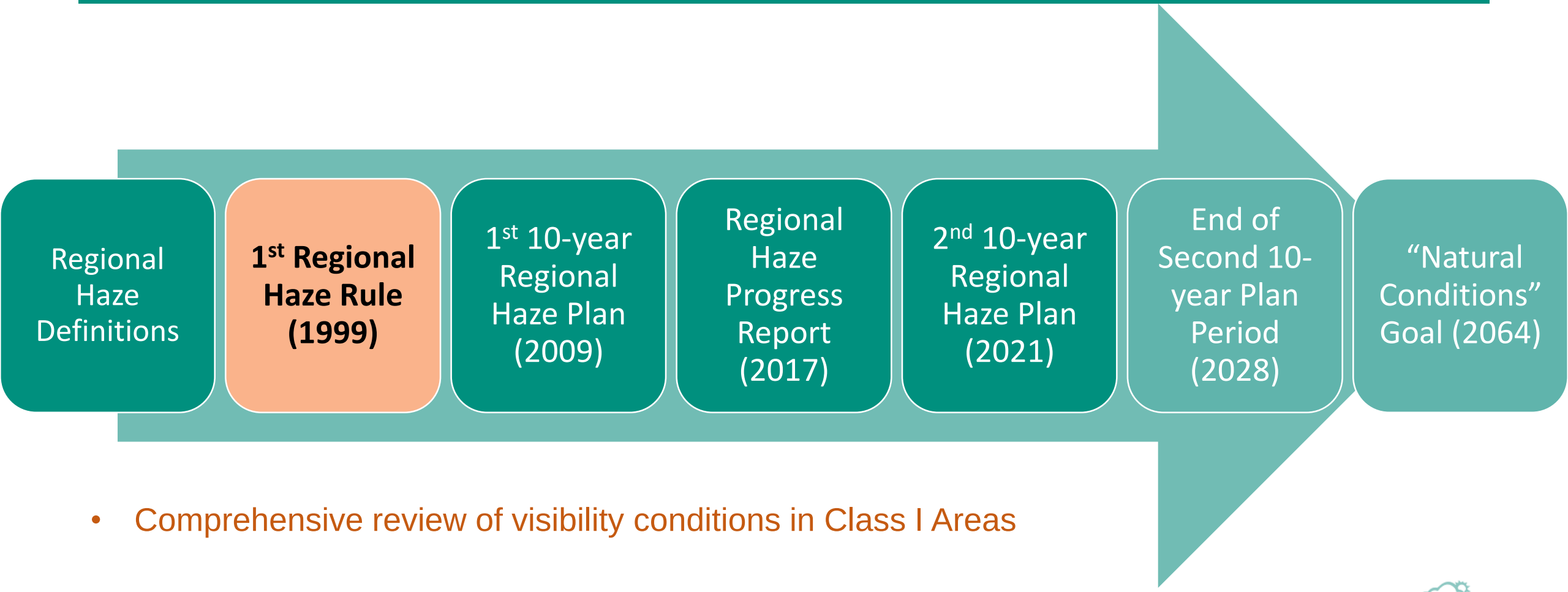
Sources of Visibility Impairment



What is a Class I Area?


Oregon Class I Areas, Counties, and Title V Facilities
N
Columbia River Gorge
Hells Canyon Wilderness
Mount Hood Wilderness
Eagle Cap Wilderness
Mount Jefferson Wilderness
Strawberry Mountain Wilderness
Three Sisters Wilderness
Mount Washington Wilderness
Diamond Peak Wilderness
Gearhart Mountain Wilderness
Kalmiopsis Wilderness
Mountain Lakes Wilderness
Clatsop
Columbia
Tillamook
Washington
Multnomah
Hood River
Sherman
Umatilla
Wallowa
Gilliam
Morrow
Union
Yamhill
Clackamas
Wasco
Polk
Marion
Lincoln
Benton
Linn
Jefferson
Wheeler
Baker
Grant
Crook
Lane
Deschutes
Douglas
Coos
Curry
Josephine
Jackson
Klamath
Lake
Kennewick
Boise
Title V Facilities
Title V Facilities (2014 NEI v2)
Oregon Class I Areas
Columbia River Gorge NSA
Class I Area
Oregon Counties BLM
Baker
Benton
Clackamas
Clatsop
Columbia
Coos
Crook
Curry
Deschutes
Douglas
Gilliam
Grant
Harney
Hood River
Jackson
Jefferson
Josephine
Klamath
Lake
Lane
Lincoln
Linn
Malheur
Marion
Morrow
Multnomah
Polk
Sherman
Tillamook
Umatilla
Union
Wallowa
Wasco
Washington
Wheeler
Yamhill
<all other values>
0 20 40 80 120 160
Kilometers
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

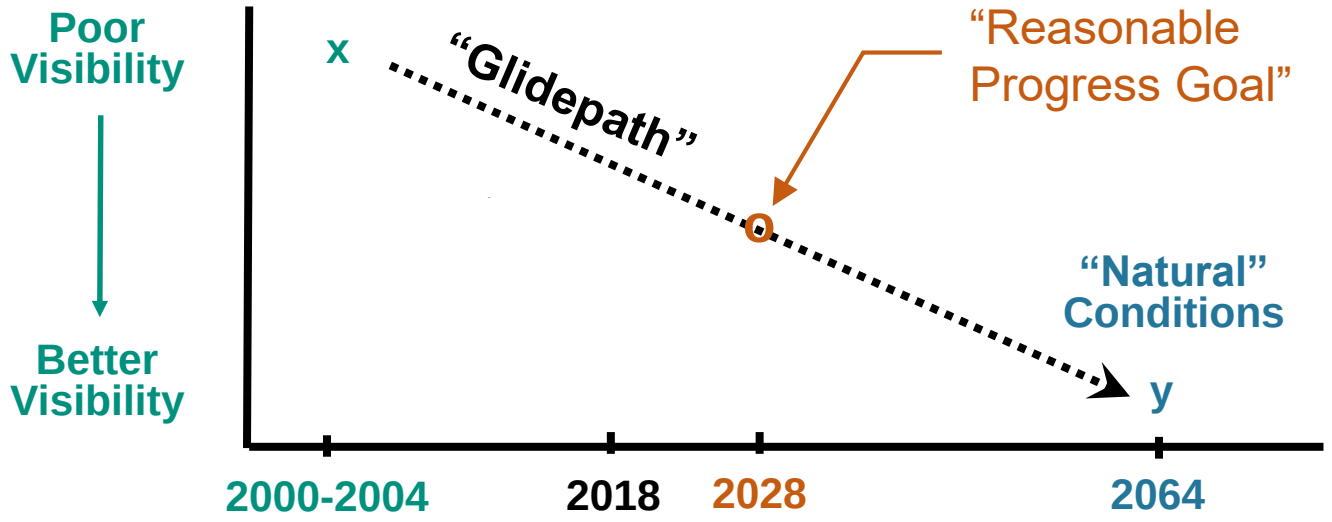
Regional Haze in Oregon



- Comprehensive review of visibility conditions in Class I Areas

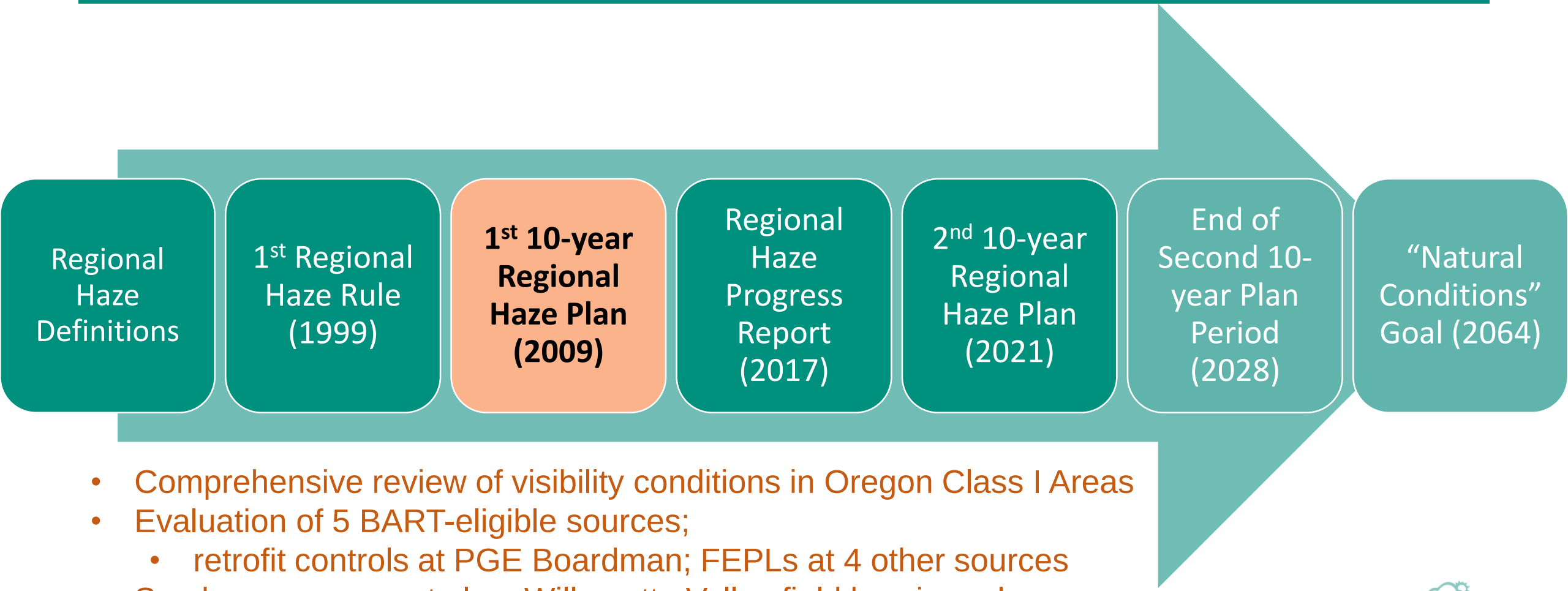
EPA's Regional Haze Rule (1999)

- Requires improvement of the 20% WORST days and no degradation of the 20% BEST days to 2064.



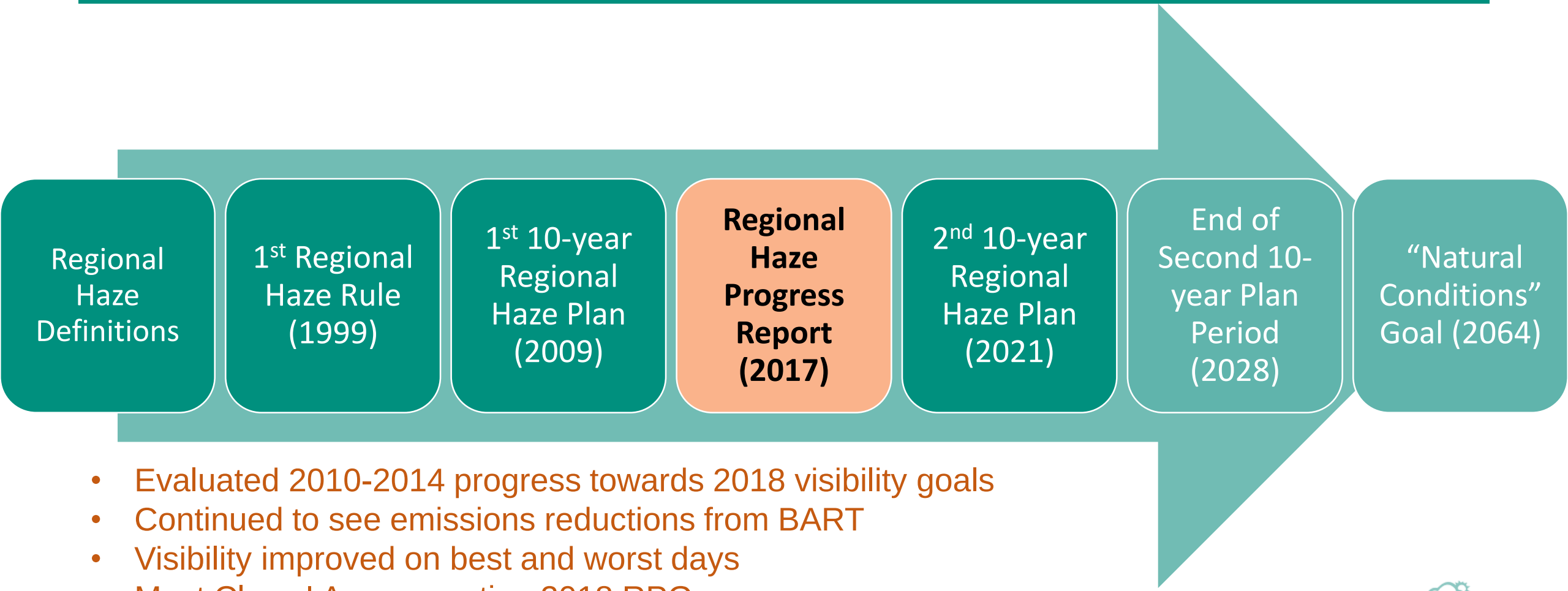
- States must adopt comprehensive strategies.
- Must show "reasonable progress" in improving visibility goal (by 2018 first planning period, by 2028 for the second).

Regional Haze in Oregon



- Comprehensive review of visibility conditions in Oregon Class I Areas
- Evaluation of 5 BART-eligible sources;
  - retrofit controls at PGE Boardman; FEPLs at 4 other sources
- Smoke management plan; Willamette Valley field burning rule

Regional Haze in Oregon



- Evaluated 2010-2014 progress towards 2018 visibility goals
- Continued to see emissions reductions from BART
- Visibility improved on best and worst days
- Most Class I Areas meeting 2018 RPGs

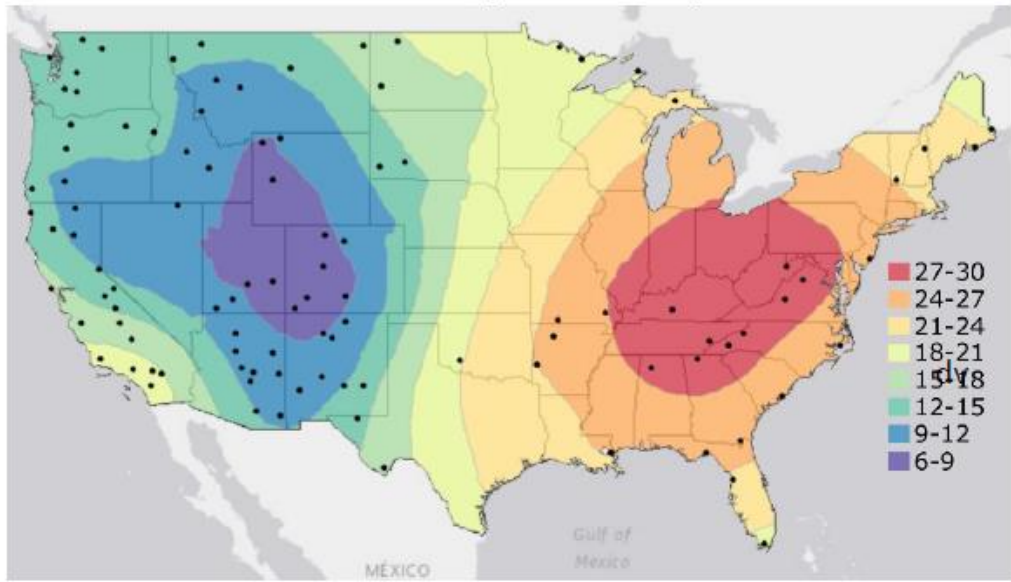
DEQ

Regional Haze in Oregon

- Regional Haze Rule Update (2017) + Guidance (2019)
- Calculations of visibility conditions in each of Oregon's Class I Areas: focus on anthropogenic impacts
- Long Term Strategy for regional haze
- Reasonable Progress Goals

First Planning Period: Visibility is Improving

2000-2004
Visibility (dv) on 20% most impaired days



2013-2017
Visibility (dv) on 20% most impaired days

The National Park Service estimates that as of mid-2014, emission controls established under the first planning period led to approximately 500,000 tons/year of SO_2 and 300,000 tons/year of NOx reductions. EPA estimates that visibility has improved significantly with the average visual range increased by 20 – 30 miles in Class I areas.

The Path to July 31, 2021

	2019			2020				2021	
Activity	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**
Data Analysis & Modeling									
Source contribution analysis									
Consultations									
Rulemaking									
EQC									
Final SIP Submittal to EPA									

Thank you!