# **Overview of Regional Haze**

Keith Rose EPA, Region 10 February 27, 2007

## **Regional Haze and Visibility**

#### Alpine Lakes Wilderness Area, WA

20% Worst Days, Current conditions (51 Mm<sup>-1</sup>)

2064 Goal, Natural Conditions (12Mm<sup>-1</sup>)



# What Causes Haze?

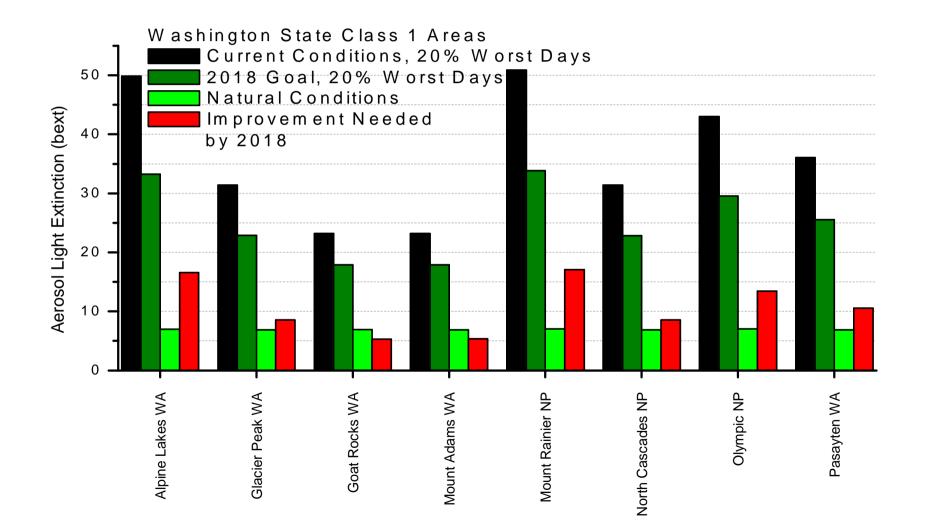
# n Fine particulates (PM<sub>2.5</sub>) that are composed of:

- $n SO_4$
- $n NO_3$
- **n** OC
- n EC
- n Soil

# **Regional Haze Rule**

- Provides protection of visibility in 156 mandatory
  Federal Class I areas
- The goal is to achieve natural background levels by 2064 in all Class I areas
- State Implementation Plans (SIPs) must be submitted to EPA by Dec. 17, 2007 showing progress to be made by 2018 towards natural conditions
- SIPs must include controls on BART sources and a long-term emission control strategy for all point, area and mobile sources impacting visibility in Class I areas

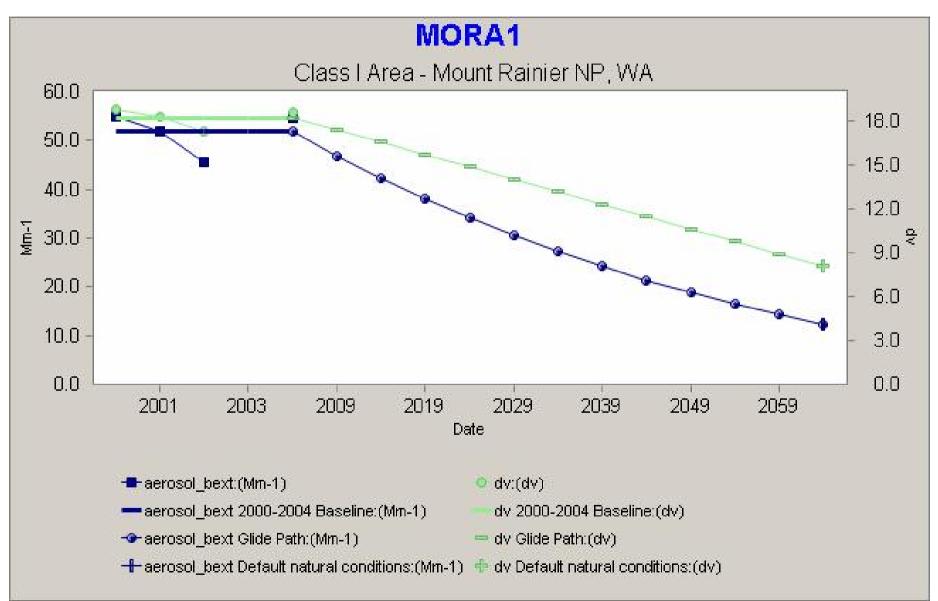
#### Visibility Goals - WA Class I Areas



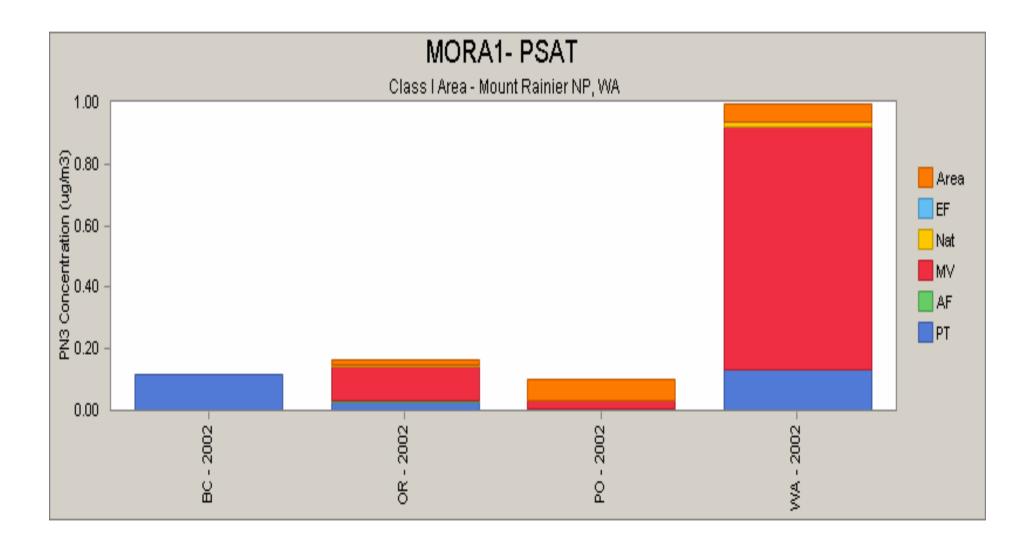
### **Uniform Rate of Visibility Improvement**

- n Calculate baseline conditions for 20% worst visibility days in each Class I Area based on 2000-04 monitoring data
- **n** Determine natural visibility conditions
- The uniform rate of visibility improvement (glide path) is the slope from the baseline conditions to natural conditions in 2064

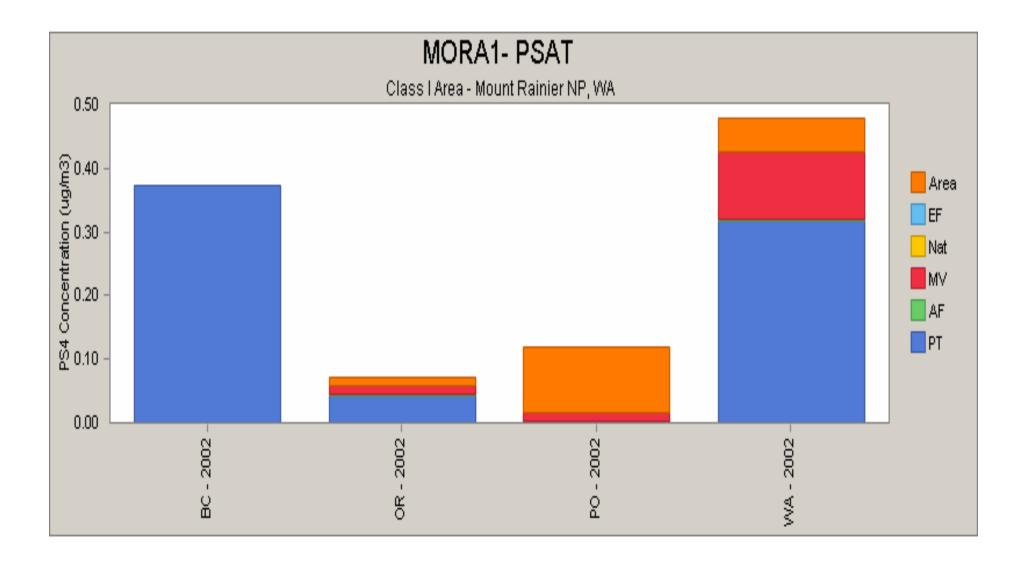
## Mt. Rainier NP Glide Path



#### Mt. Rainier NO<sub>3</sub> Sources in 2002



#### Mt. Rainier SO<sub>4</sub> Sources in 2002



# **BART Overview**

 Definition of a BART-eligible source:

 250 tpy emissions of SO<sub>2</sub>, NOx, or PM
 One of 26 specific source categories
 Built or reconstructed between 1962-1977

 Sources that 'cause' (1.0 dv) or 'contribute' (0.5 dv) to visibility impairment in any Class I area are 'subject' to BART

# **BART Determination**

n A BART determination results in an enforceable emission limit established for each subject emission unit at each source and for each pollutant subject to BART.

# WA BART Process

- Ecology and R10 issued a letter on Oct. 4
  requesting that WA BART-eligible sources
  begin their BART analysis
- n Sources can elect to conduct CALPUFF exemption modeling prior to BART analysis to determine if they are 'subject' to BART
- Sources 'subject' to BART must conduct the 5-step BART analysis and submit results to Ecology for BART determination

# **Overview of RH SIP Process**

- n Determine BART for BART-eligible sources
- Develop a long-term control strategy for stationary, mobile and area sources in WA
- Determine Reasonable Progress Goals for
  Class I areas and compare to the 2018 target
- Consult with other States and FLMs
- Receive public comments on proposed SIP
- n Submit SIP to EPA for approval

