

# Welcome!

## Clean Air Act Advisory Committee

August 17, 2017

# Meeting Agenda

-- Bureau Updates --

Funding & Budget

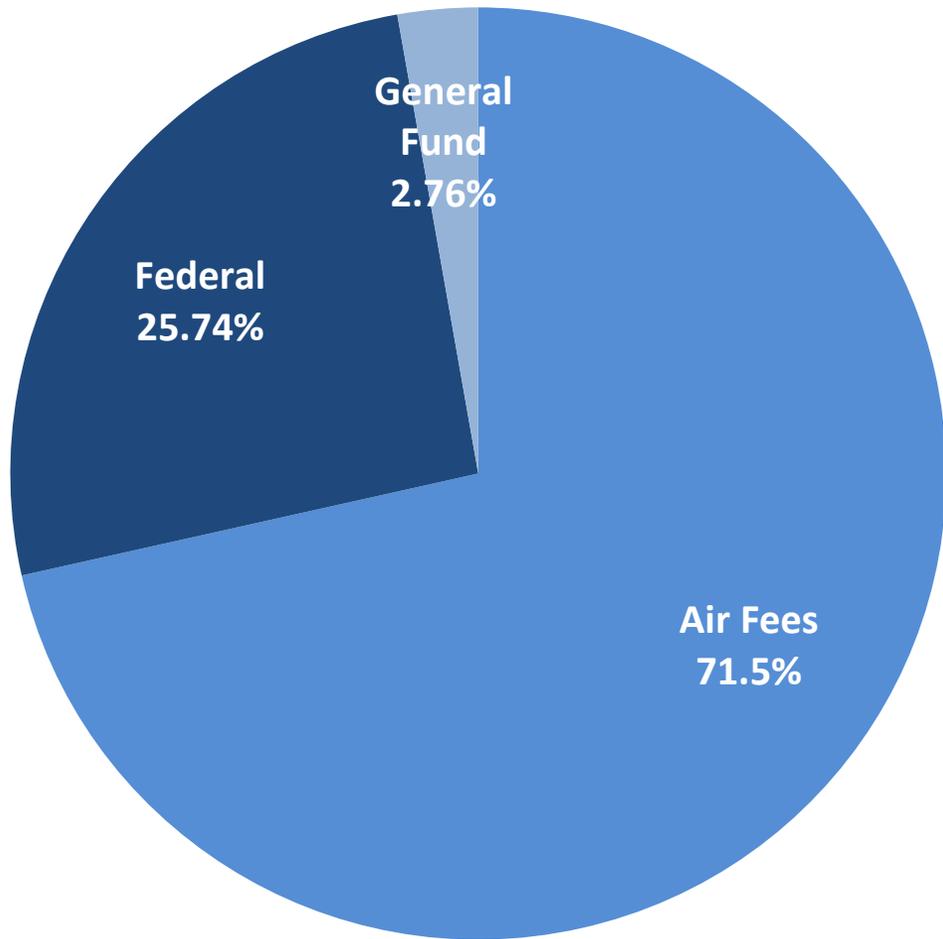
Board of Environmental Review (BER) Status & Meetings

Fire Season Notes

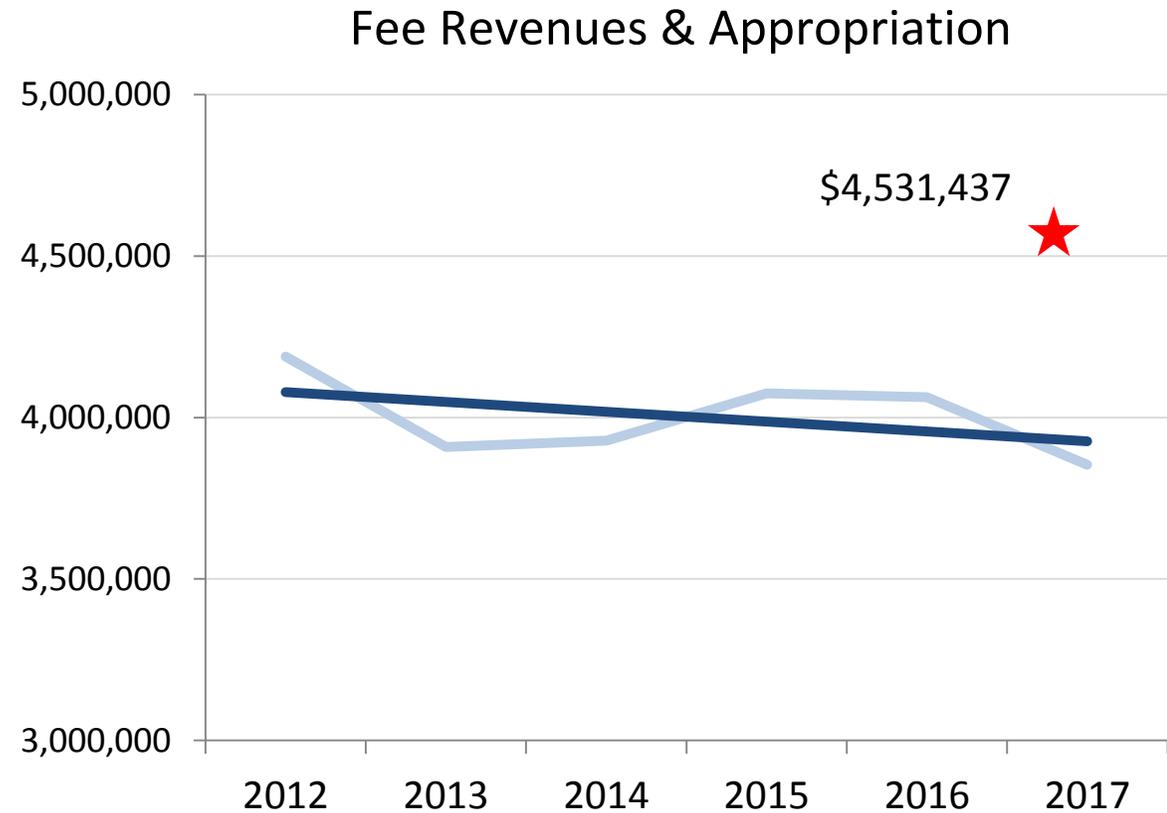
-- Regional Haze Update --

-- Questions/Feedback --

# AQB Funding & Budget



2018 Funding Sources



# Board of Environmental Review

## NEW MEMBERS

**Dexter Busby**, Great Falls

Qualification: experience or background in environmental science

**John DeArment**, Missoula

Qualification: experience or background in hydrology

**Christine Deveny**, Helena (Chair)

Qualification: expertise or background in local government planning

**John Felton**, Billings

Qualification: expertise or background as county health officer or as a medical doctor

**Hillary Hanson**, Kalispell

Qualification: public representative

**Chris Tweeten**, Missoula

Qualification: attorney

**Tim Warner**, Bozeman

Qualification: public representative

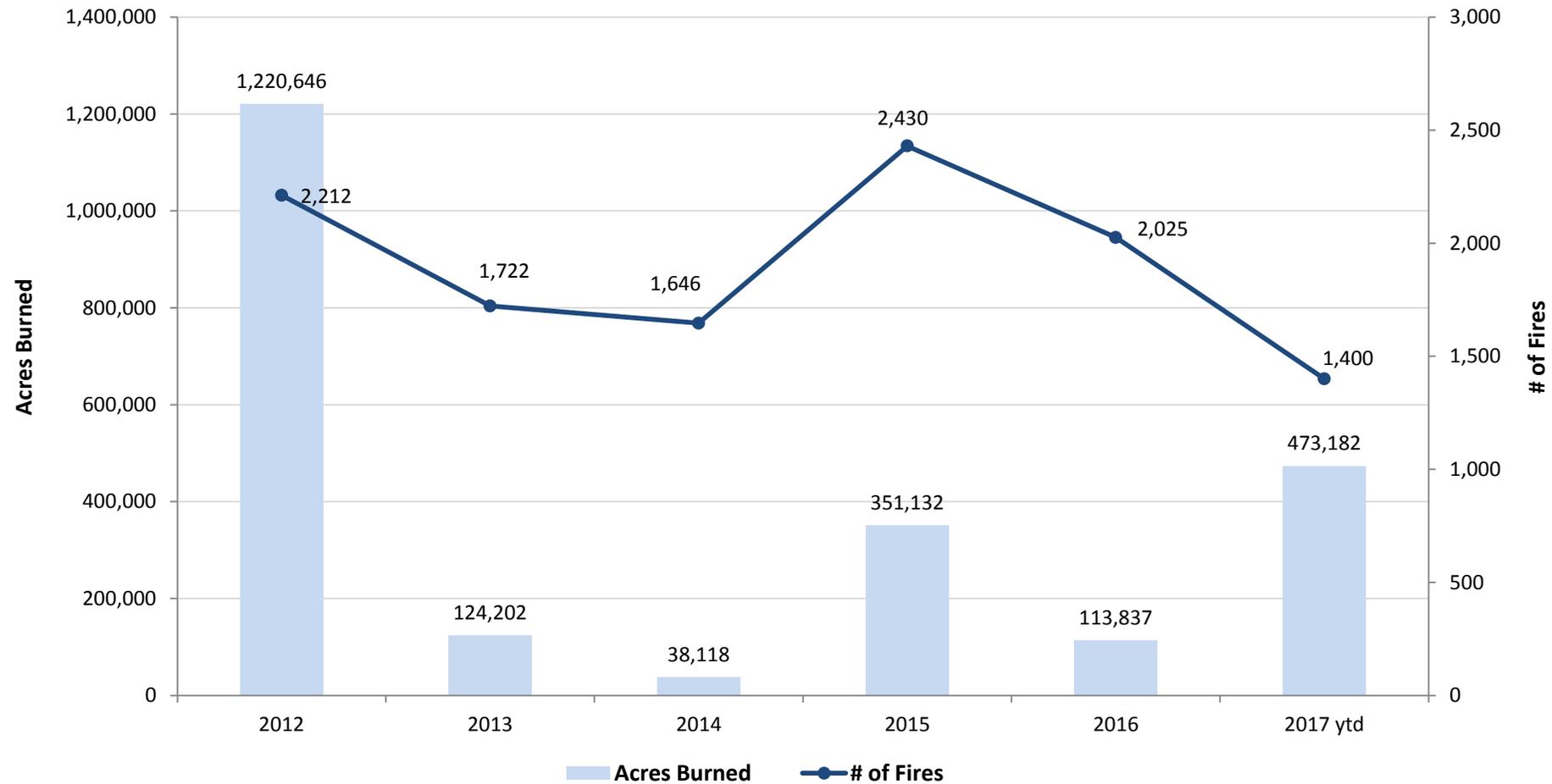
# Board of Environmental Review

## Updates:

- August 4<sup>th</sup> Meeting Cancelled
- September 29<sup>th</sup> Meeting Activity
  - 2016 Incorporation by Reference (IBR)
  - 2017 Quality Assurance Project Plan (QAPP)
  - Fee Update

# 2017 Fire Comparison

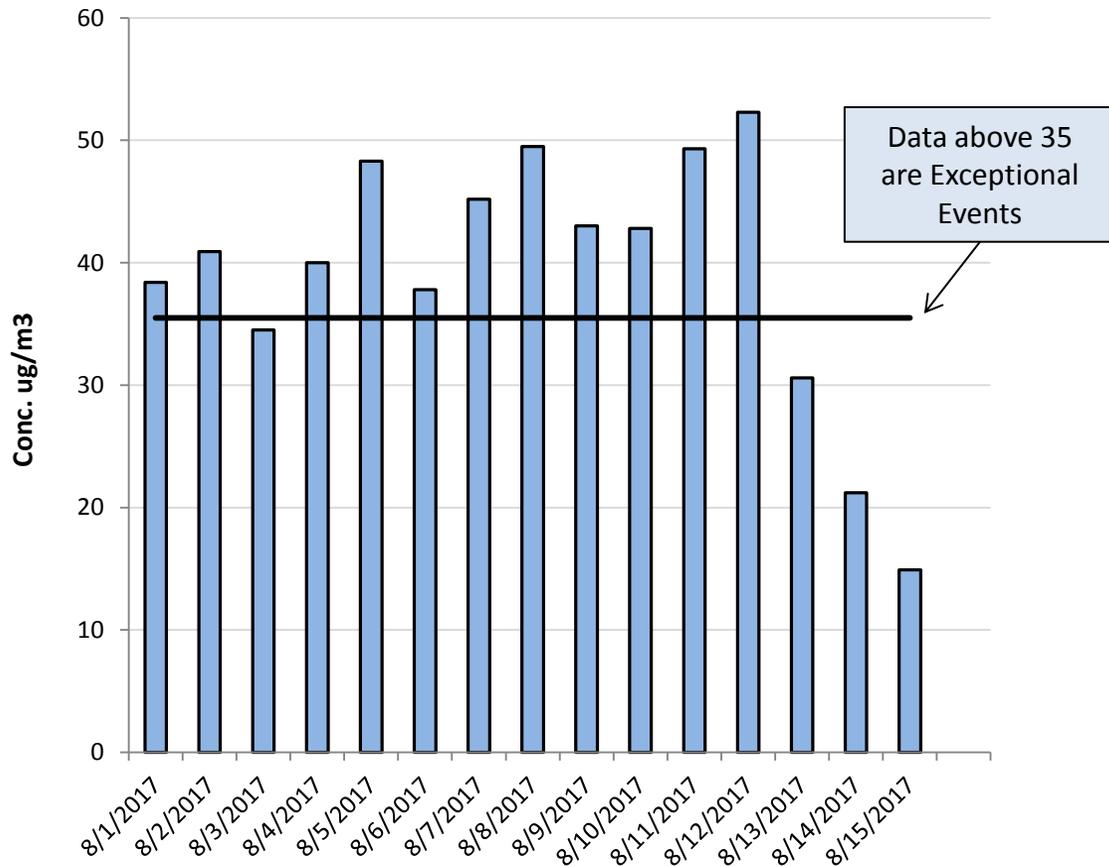
## Acres Burned and # of Fires in Montana 2012-2017



# Hamilton 2017

## Hamilton 24-Hour Avg. Concentration

August 1-15, 2017



- Exceptional Events are removed from the regulatory record
- Days still represent significant impact to the public and Air Quality Alerts are issued.

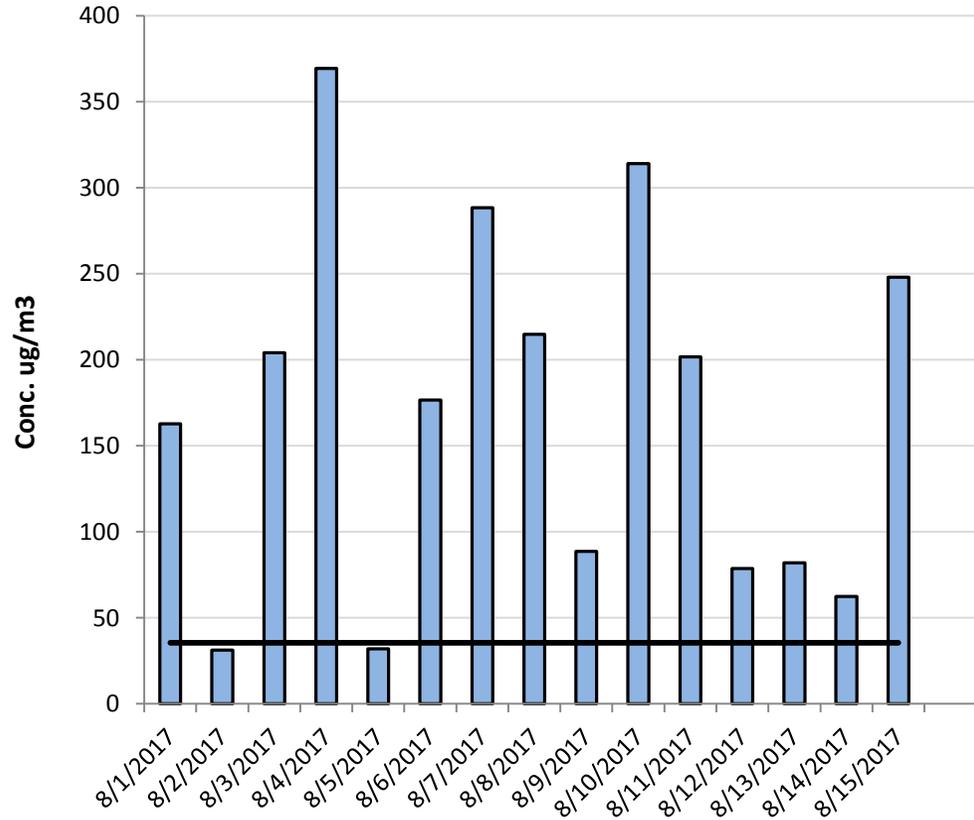


# Other Fires of Note

## Rice Ridge Fire

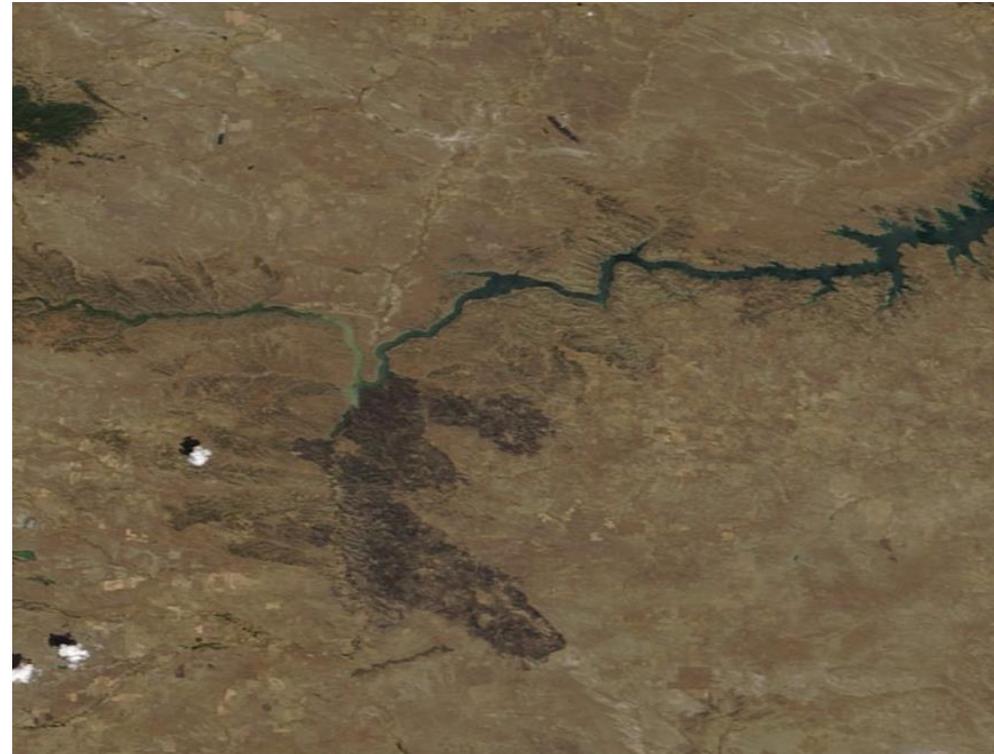
Seeley Lake 24-Hour Avg. Concentration

August 1-15, 2017



## Lodgepole Complex

270,723 acres burned



# Regional Haze Update

Clean Air Act Advisory Committee

August 17, 2017

# Outline

Review – What is Regional Haze?

Timeline – Where are we in the process?



Current Visibility Trends

# What is Haze?



Haze is visibility impairment, which means any humanly perceptible difference in visibility from what would naturally exist.

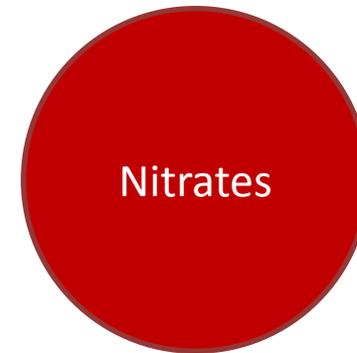
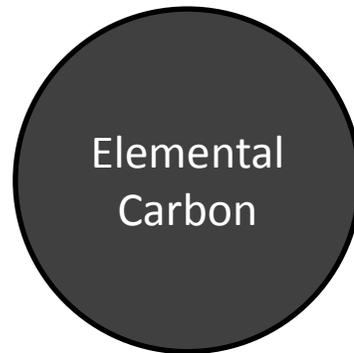
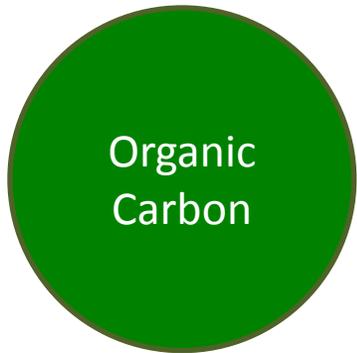
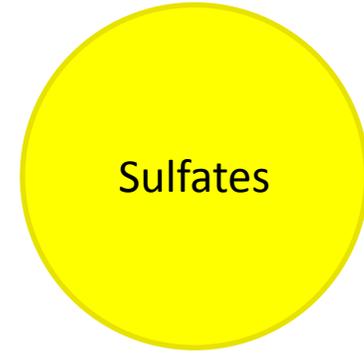
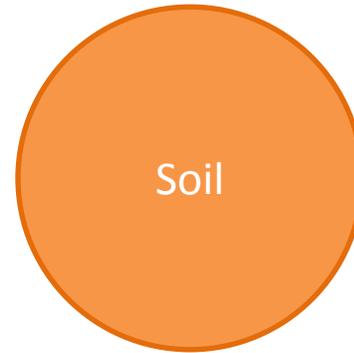
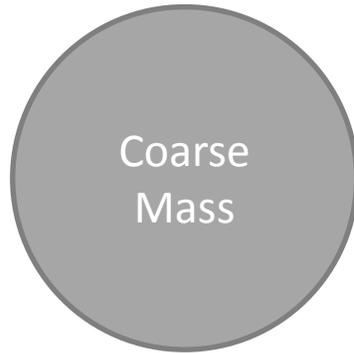


Haze is caused by tiny particles in the air affecting the way light reaches our eyes.

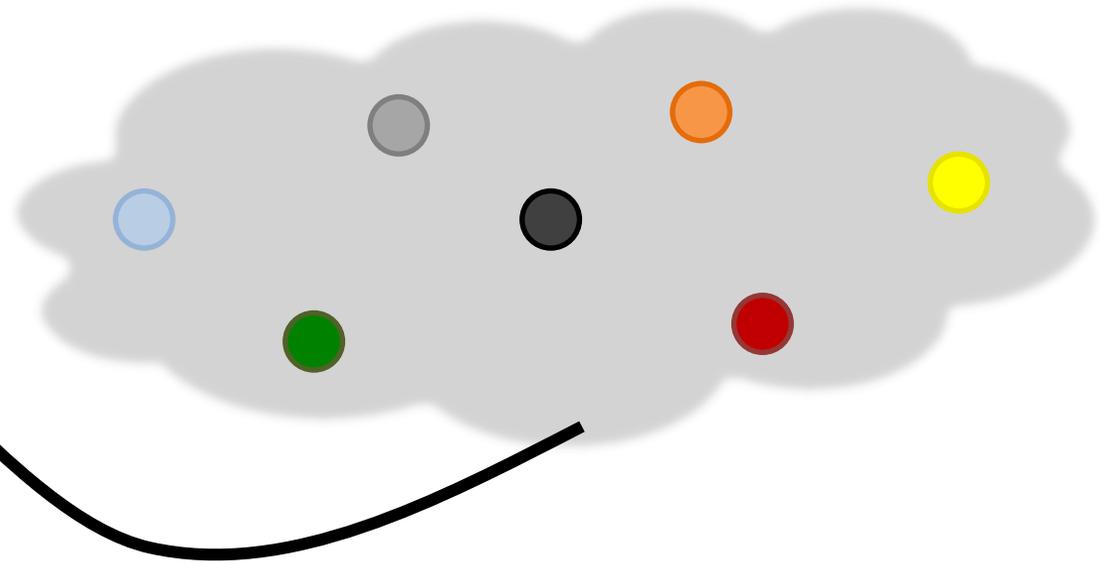


Haze-causing particles come from a variety of sources, including vehicle emissions, large and small stationary sources, wildfires and prescribed fires, and dust.

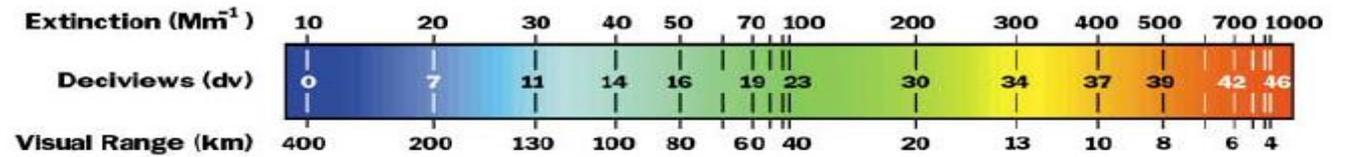
# Measuring Haze

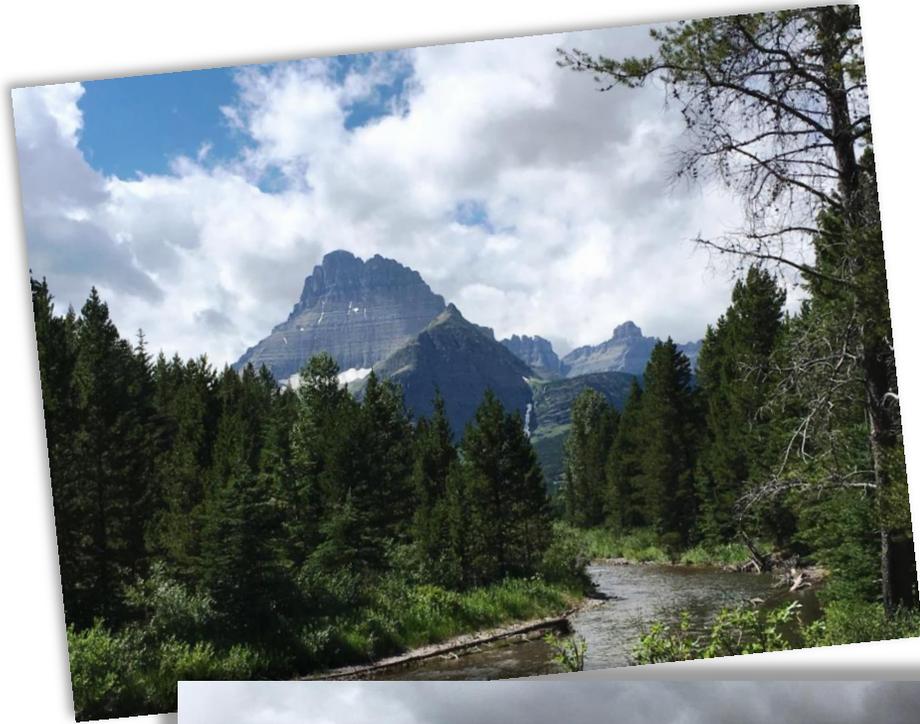


# Measuring Haze



*Light Extinction* is the amount of light lost as it travels over a distance.

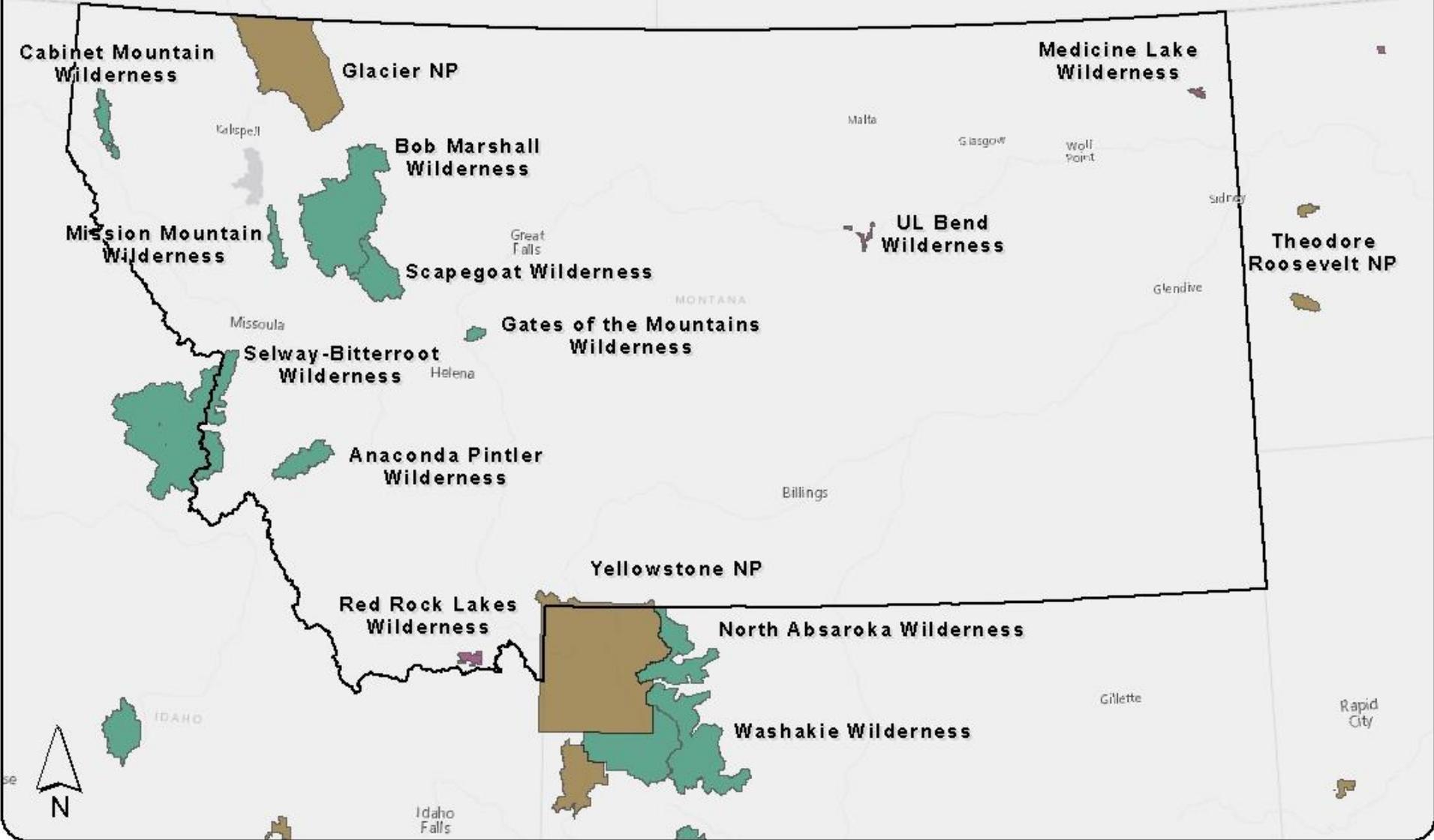




# Mandatory Federal Class I Areas

US Fish & Wildlife Service    US Forest Service    National Park Service

0 50 100 200 Miles



# Timeline

**1999**

Regional Haze Rule directed states to submit state implementation plans (SIPs) to improve visibility on the haziest days and maintain visibility on the clearest days.

# Timeline

**1999**

**2006**

Montana declined to submit a SIP for the first implementation period (2008-2018), triggering EPA to prepare a federal implementation plan, or FIP.

# Timeline

**2012**

**2006**

**1999**

Montana Regional Haze FIP published. FIP included emission limits for several large existing sources in Montana.

# Timeline

**2012**

**2016**

**2006**

**1999**

Governor Bullock published his blueprint for Montana's Energy Future, which included taking over the Regional Haze program. In response, DEQ formed a project team.

# Timeline

**2012**

**2016**

**2017**

**2006**

**1999**

EPA finalized revisions to the Regional Haze Rule. DEQ began working with stakeholders in preparation to take over the Regional Haze program.

# Timeline

**2012**

**2016**

**2021**

**2017**

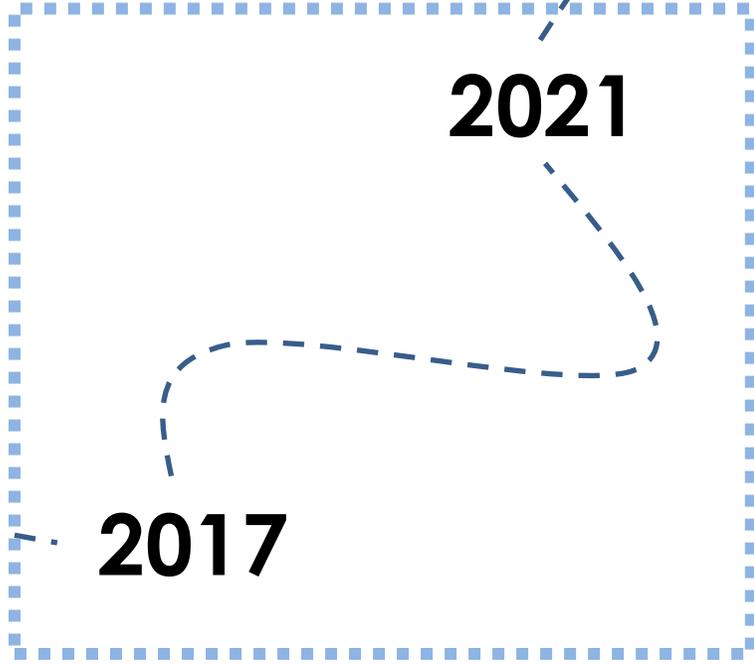
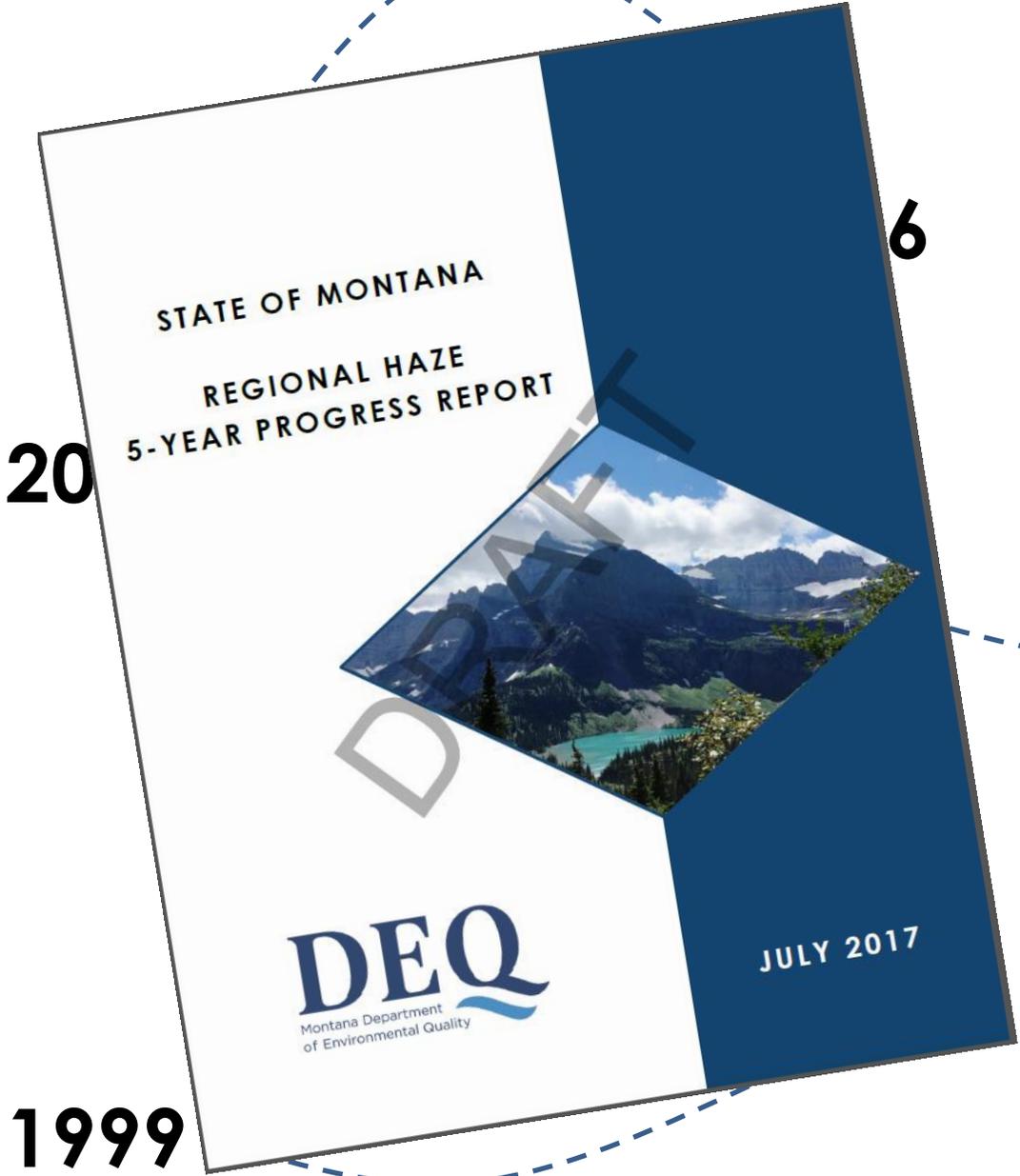
**2006**

**1999**

SIP for second ten-year implementation period (2018-2028) due to EPA.

Continue to implement Regional Haze program into the future, protecting Montana's scenic vistas, industries, and tourism economy.

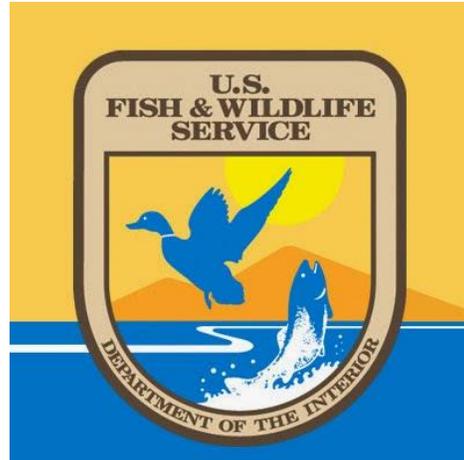
You are here



In preparation to submit a SIP by 2021, DEQ drafted a five-year progress report, which summarizes progress that has resulted from implementation of the 2012 FIP.

1999

# Current Status



Draft progress report is available for review at: <http://deq.mt.gov/Public/publiccomment>

Public comments will be accepted through Friday, September 22.

Draft progress report is also being reviewed by Federal Land Managers.

# Outline

Review – What is Regional Haze?

Timeline – Where are we in the process?

Current Visibility Trends

## Three Questions:

What is the current state of visibility in Montana?

Are we making progress?

What is contributing to haze in Montana?

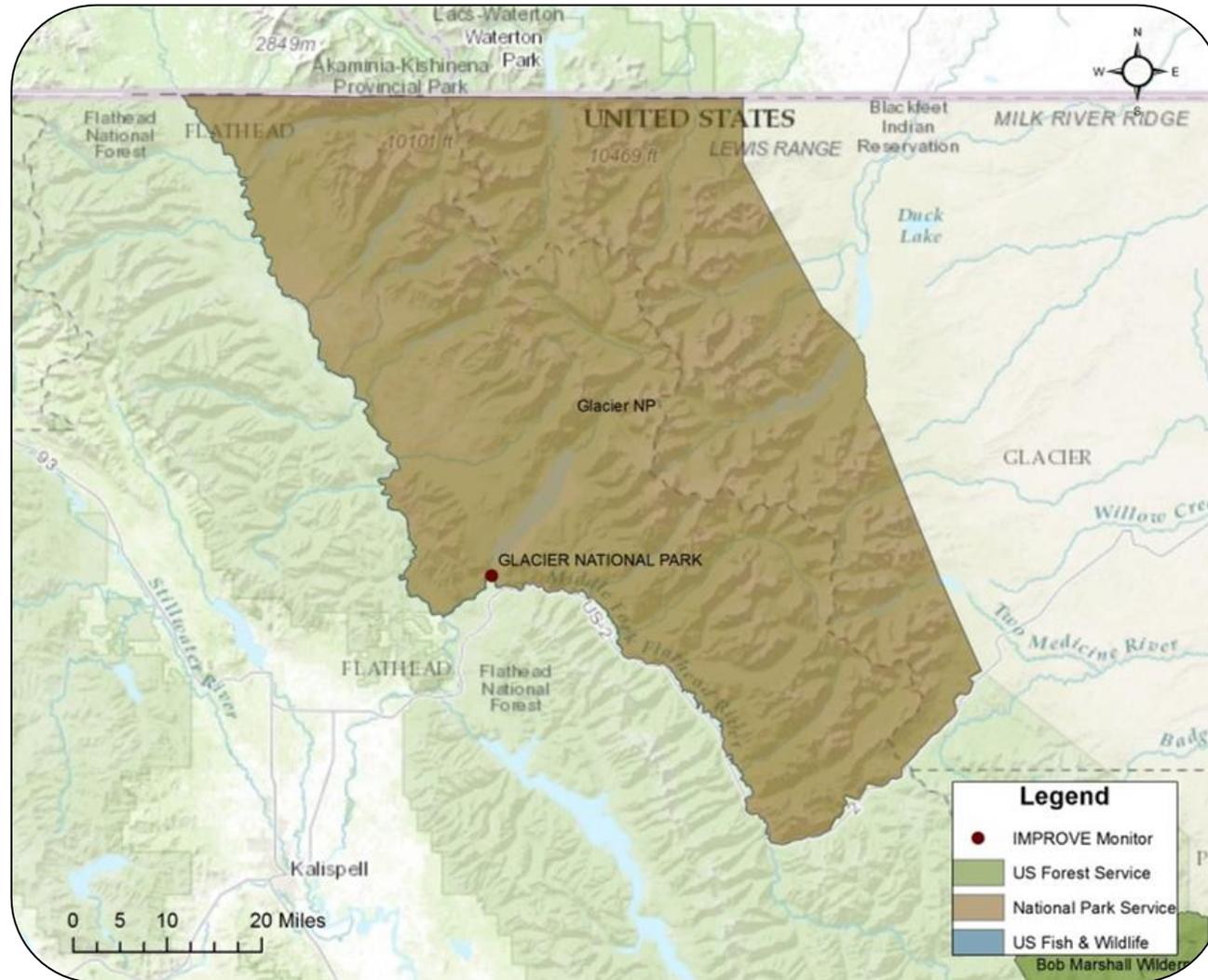
## Three Montana Examples:

Glacier National Park

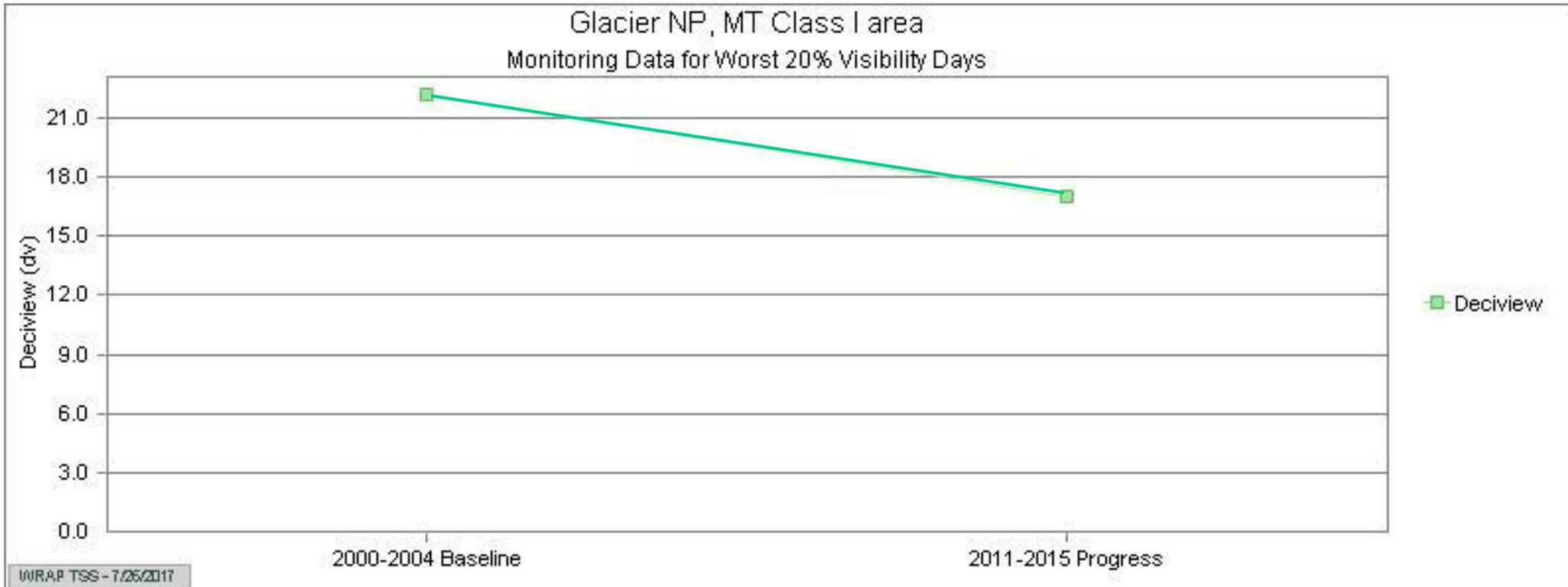
Bob Marshall Wilderness

Medicine Lake National Wildlife Refuge

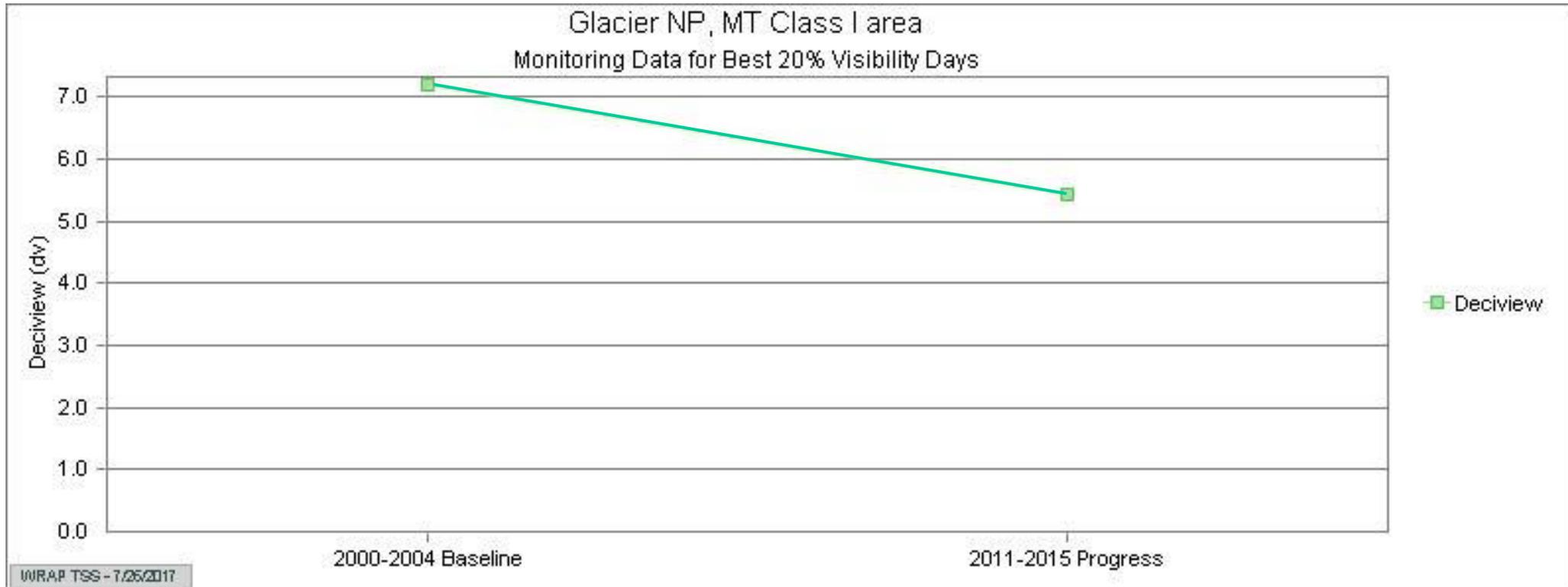
# Glacier National Park



# Glacier National Park



# Glacier National Park



# Glacier National Park

## Progress Made on the Haziest Days



Baseline (2000-2004)

Deciviews : 22 dv  
Visual Range : 27 miles



Current (2011-2015)

Deciviews : 17 dv  
Visual Range : 44 miles

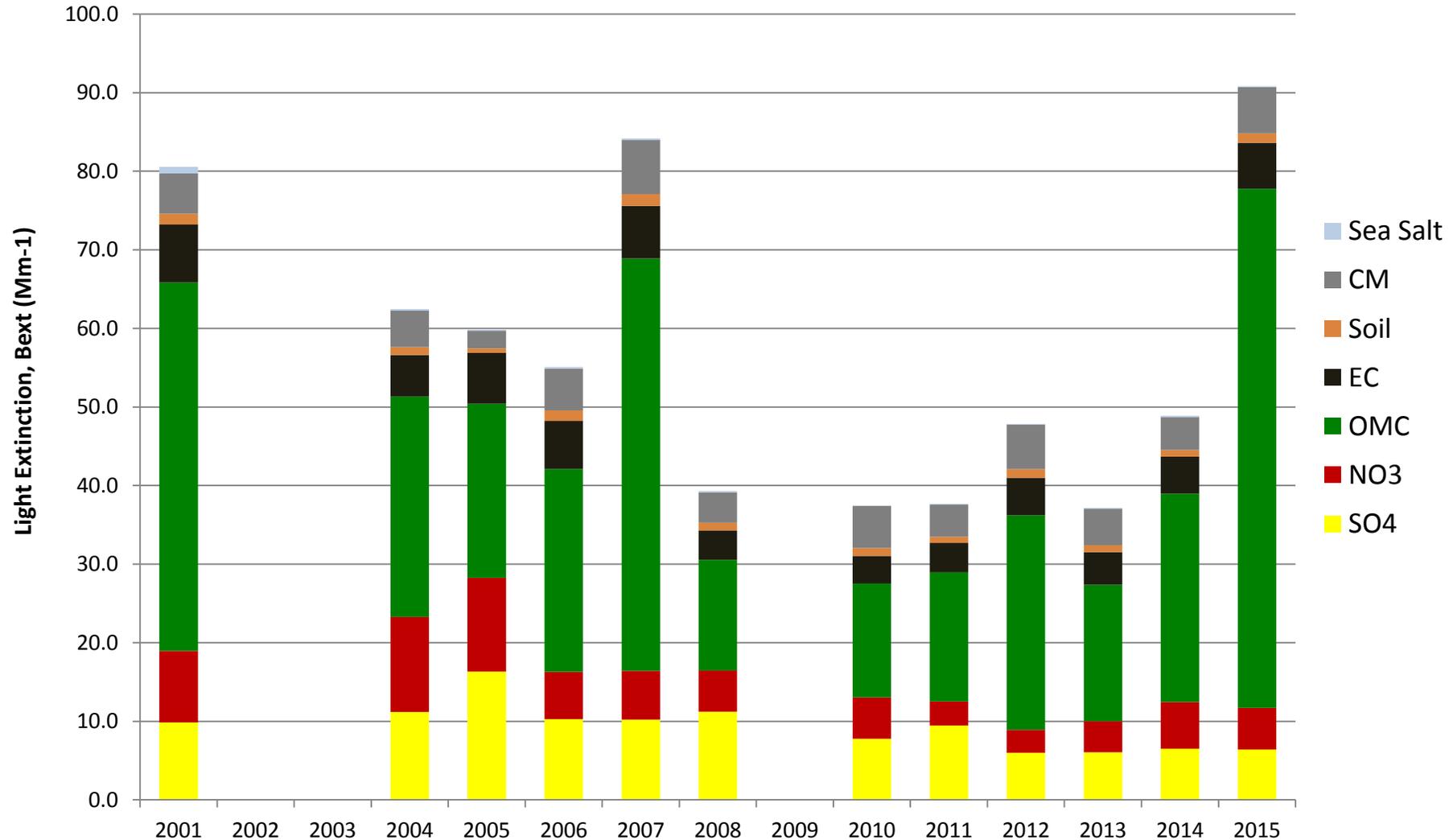


Natural Goal (2064)

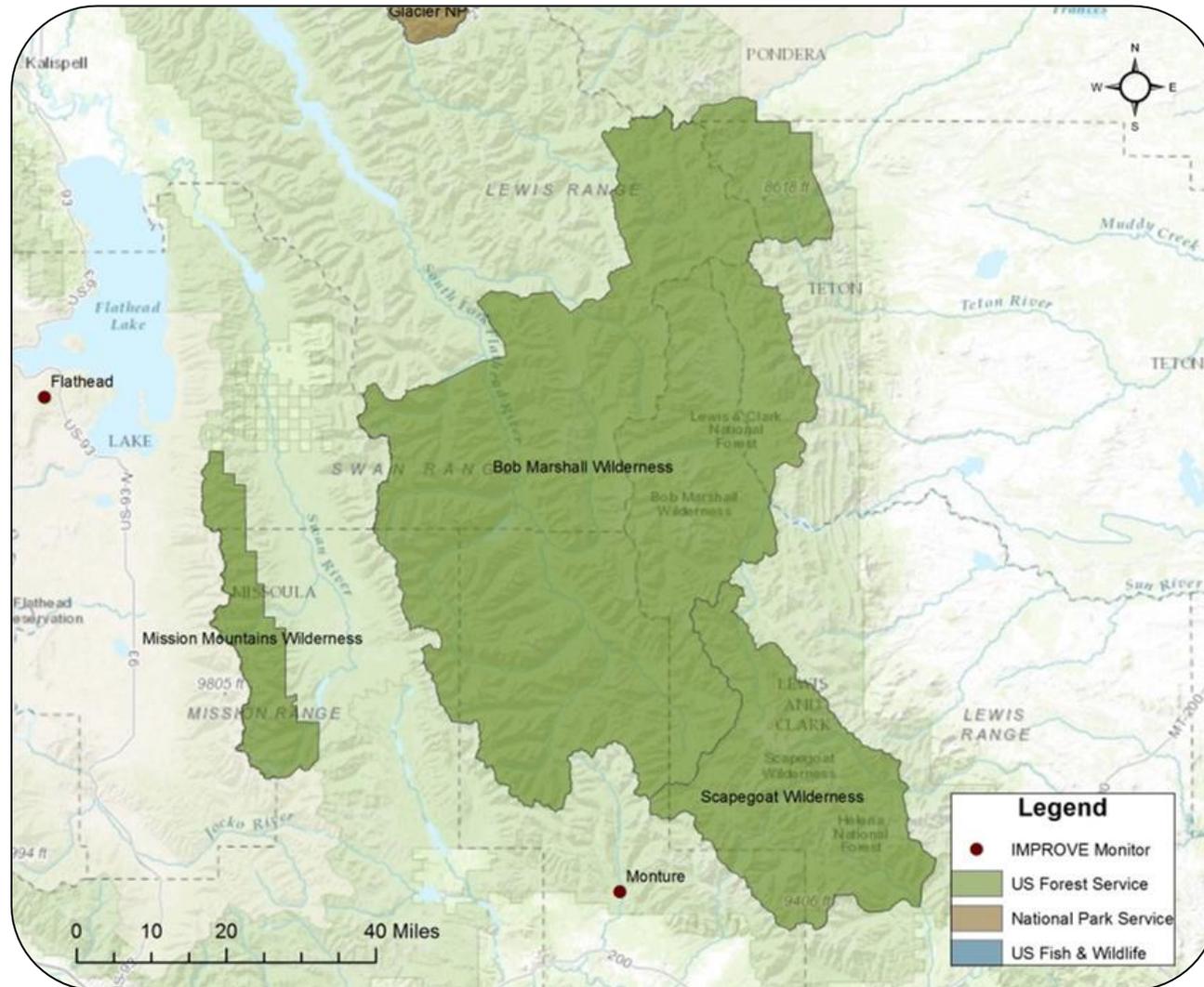
Deciviews : 9 dv  
Visual Range : 99 miles

# Glacier National Park

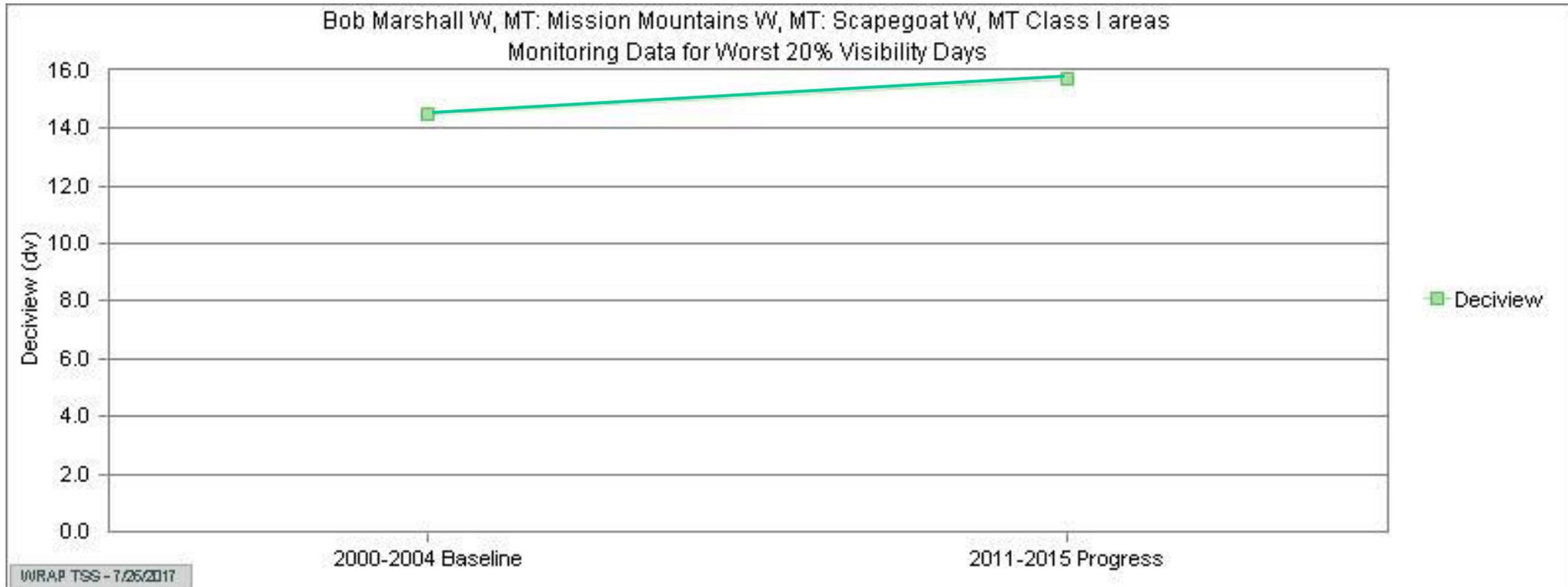
Monitoring Data for 20% Haziest Days



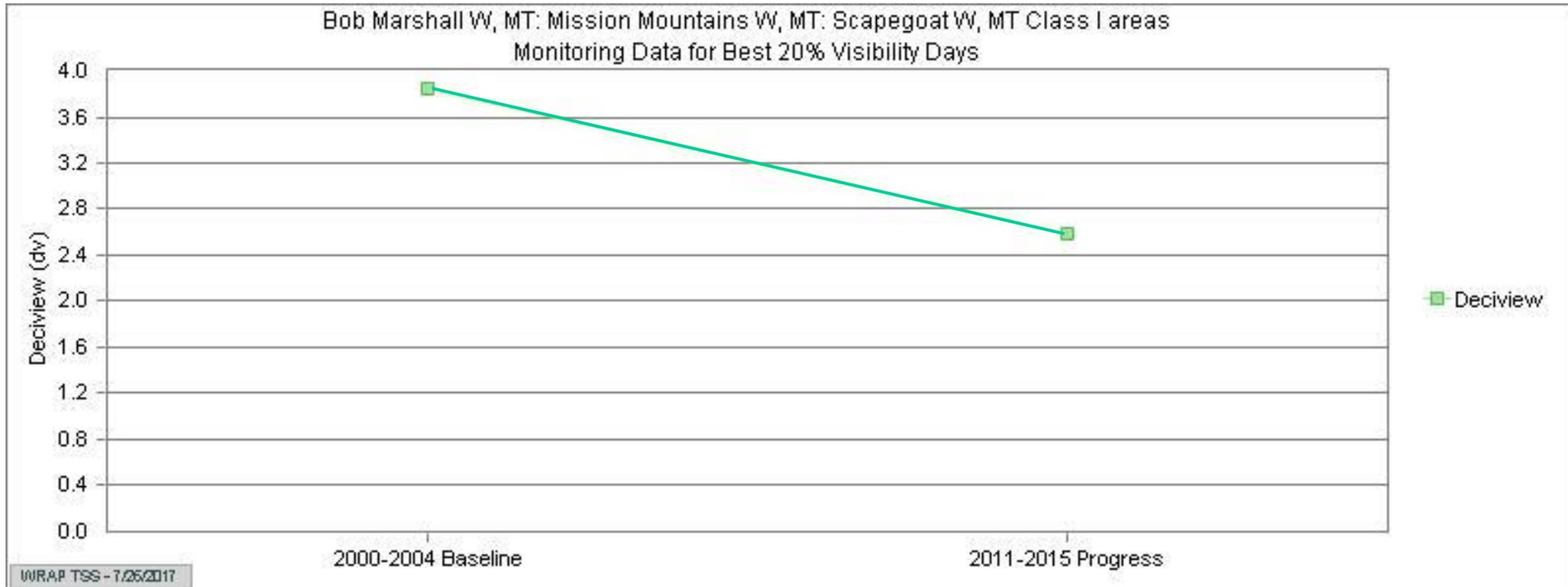
# Bob Marshall Wilderness



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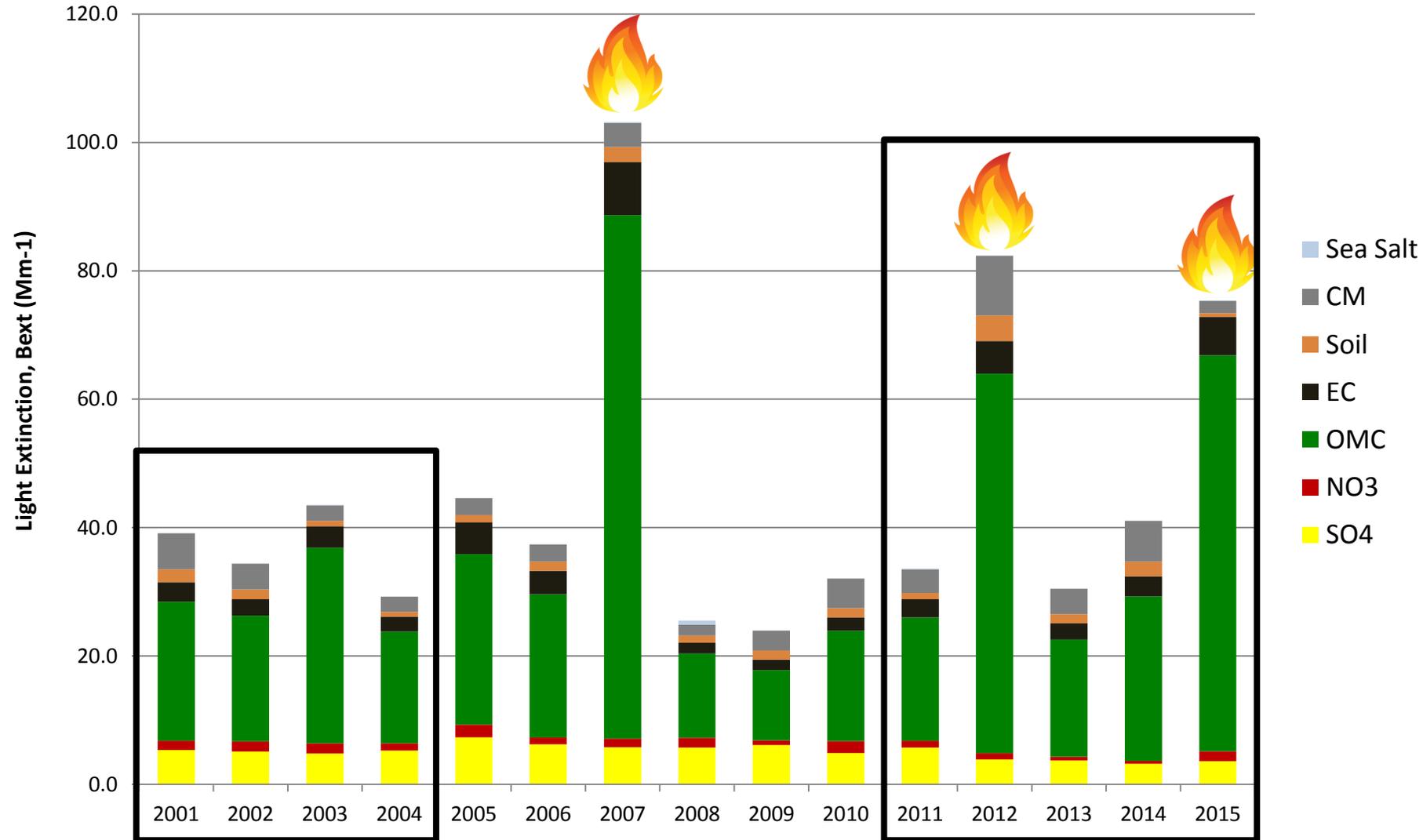


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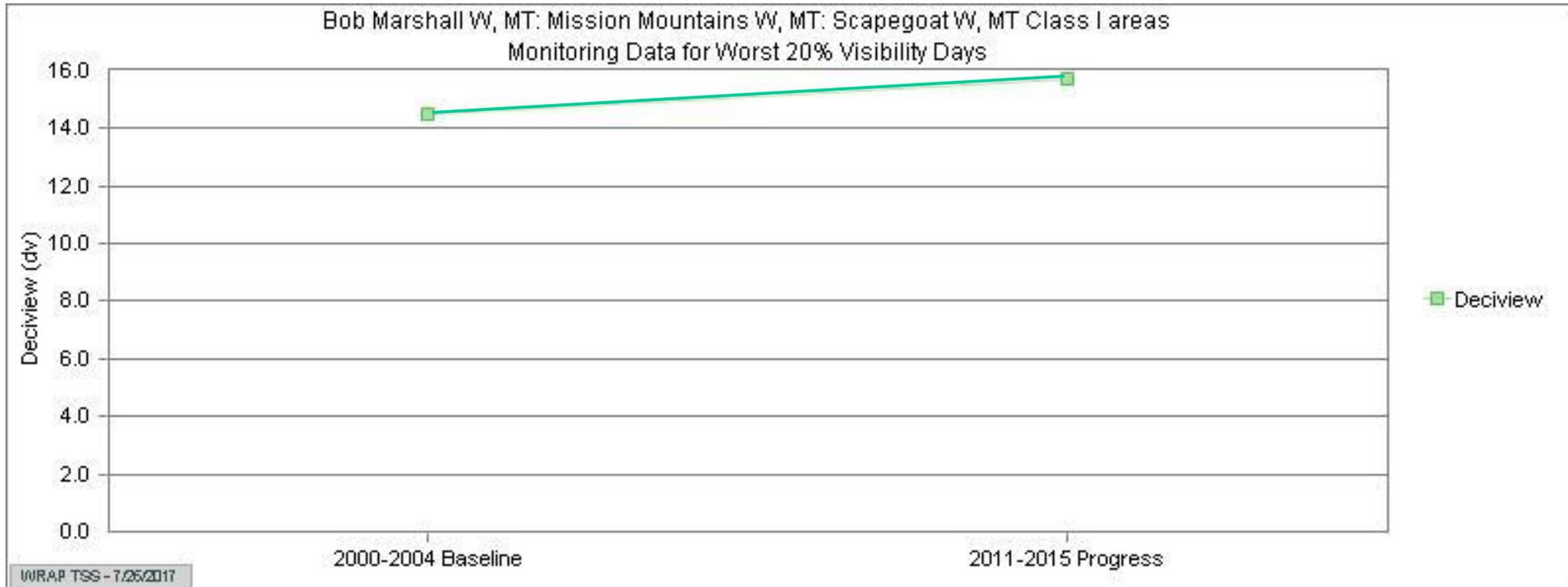


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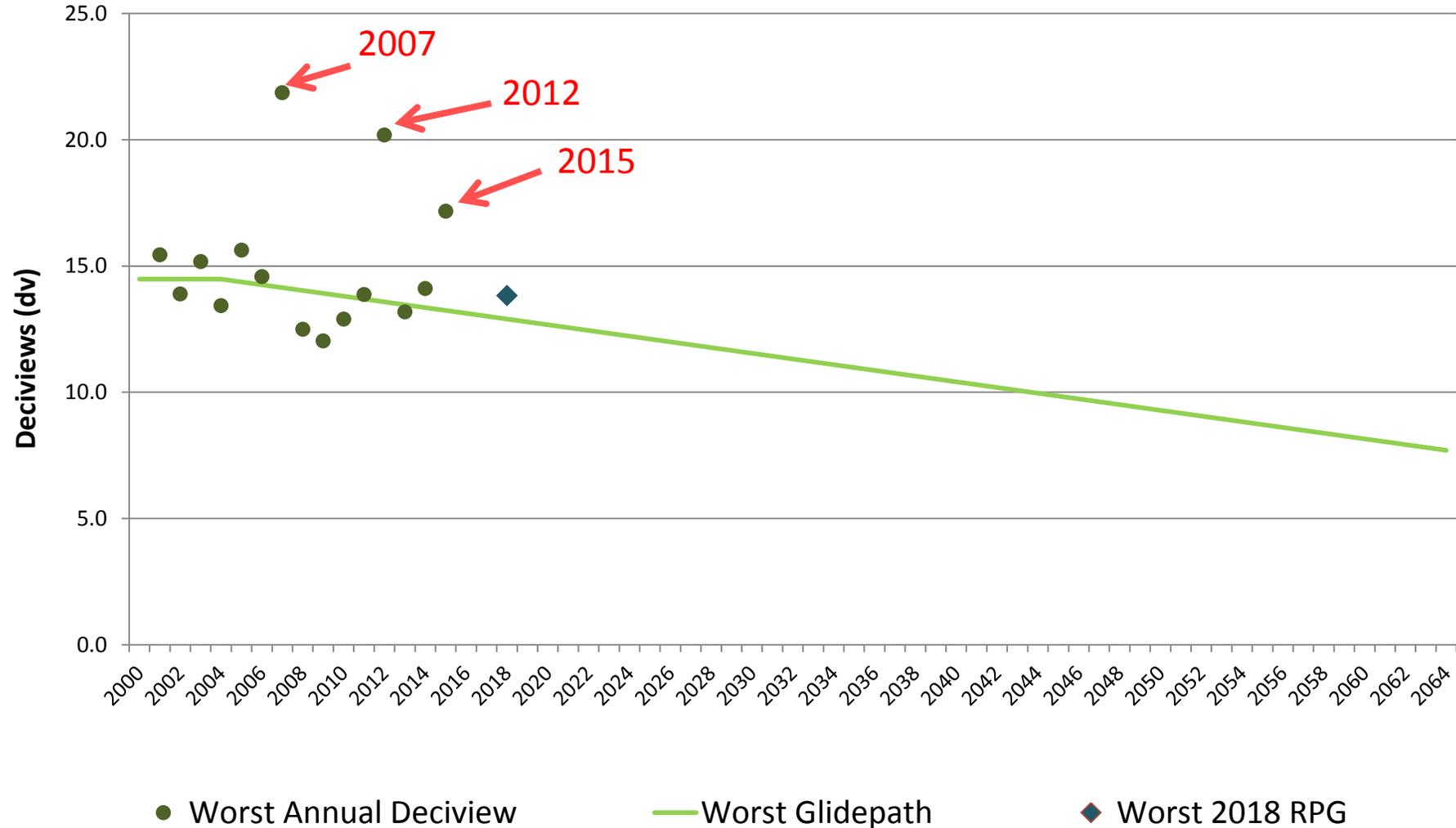
Monitoring Data for 20% Hazeiest Days



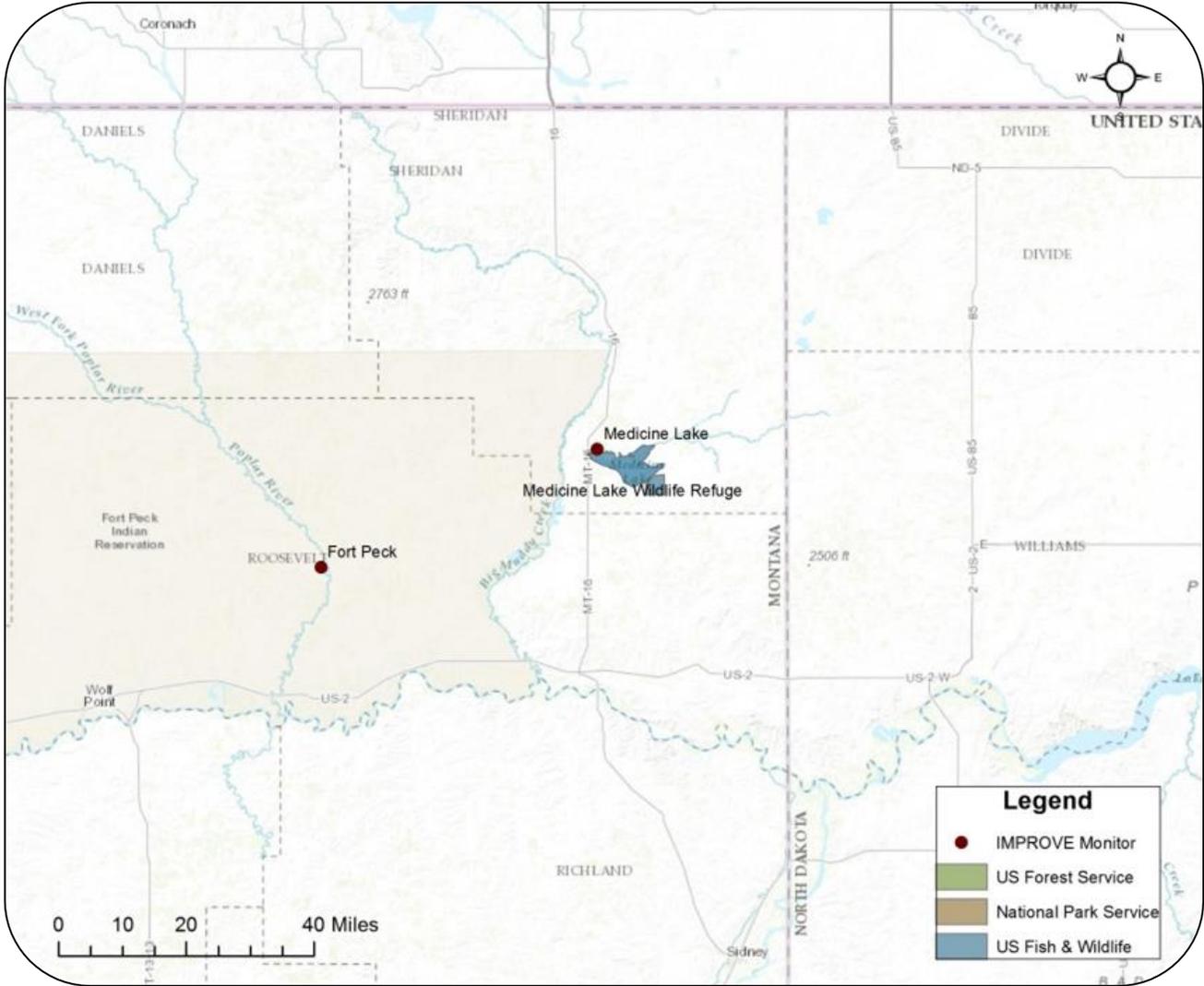
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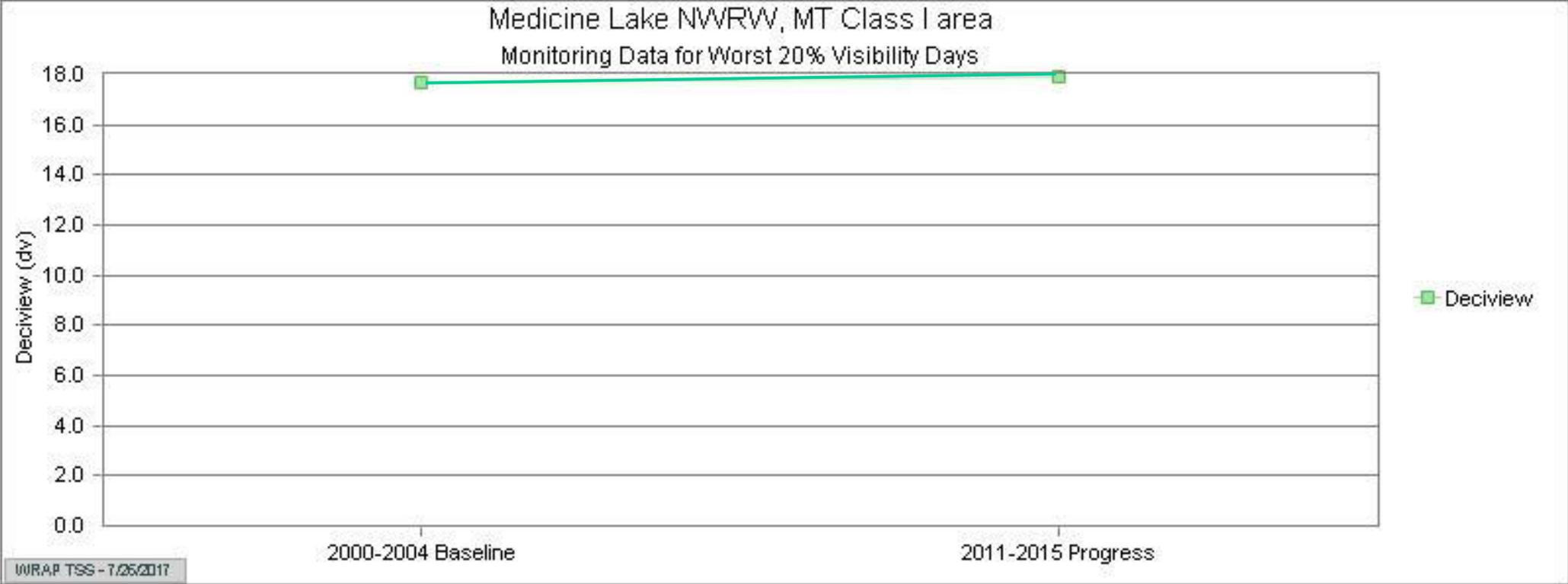
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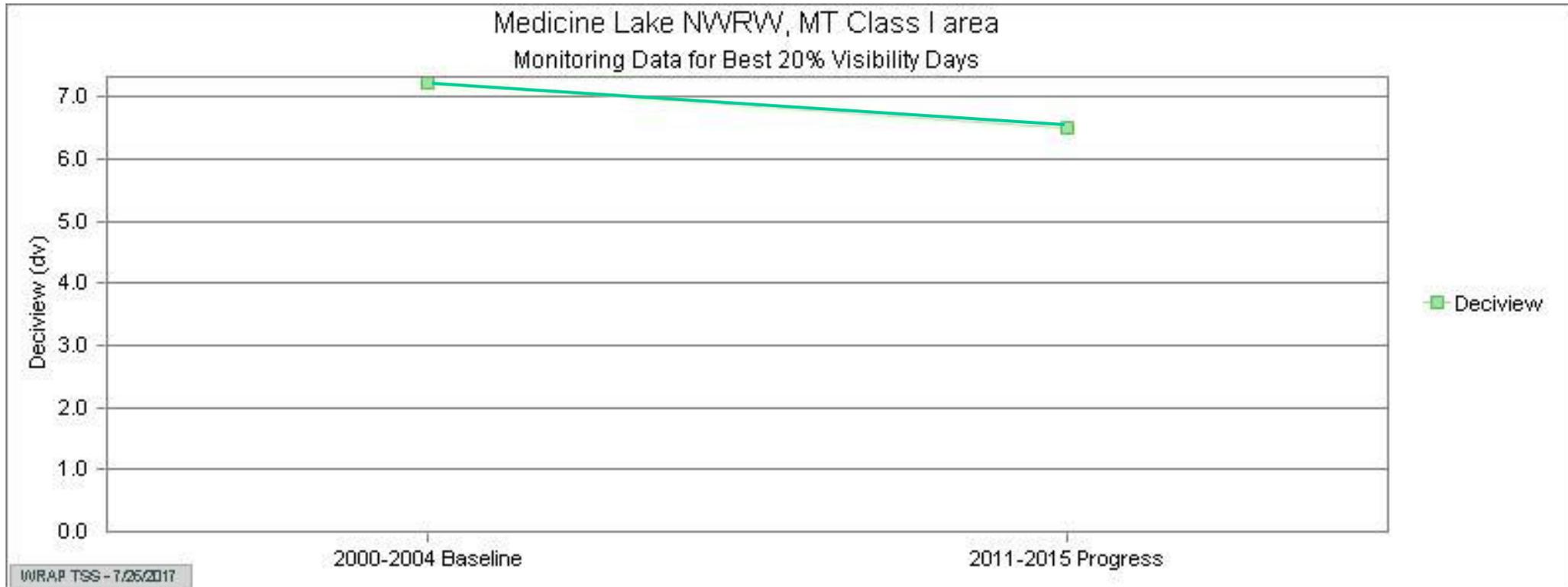
# Medicine Lake National Wildlife Refuge



# Medicine Lake National Wildlife Refuge

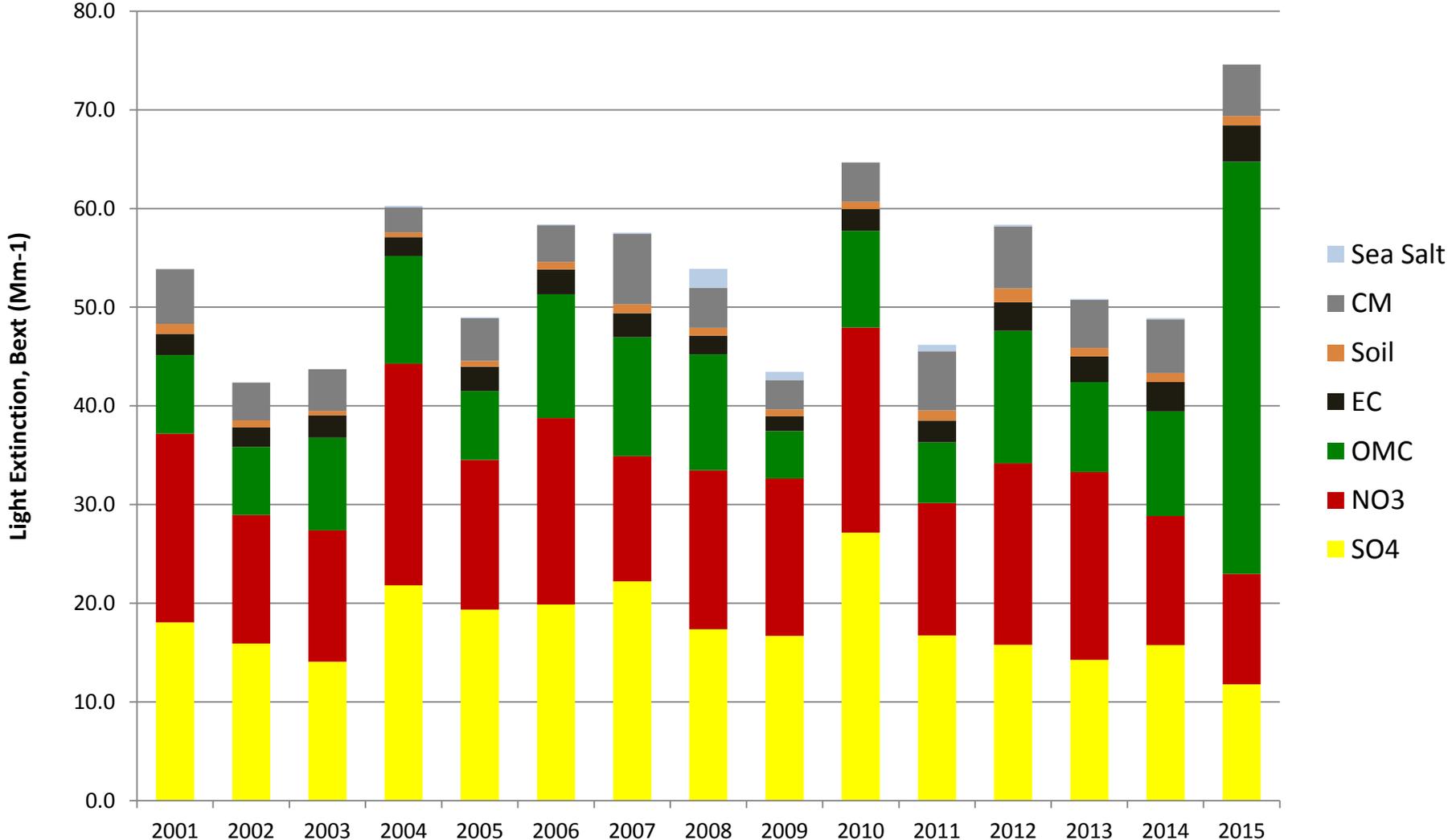


# Medicine Lake National Wildlife Refuge

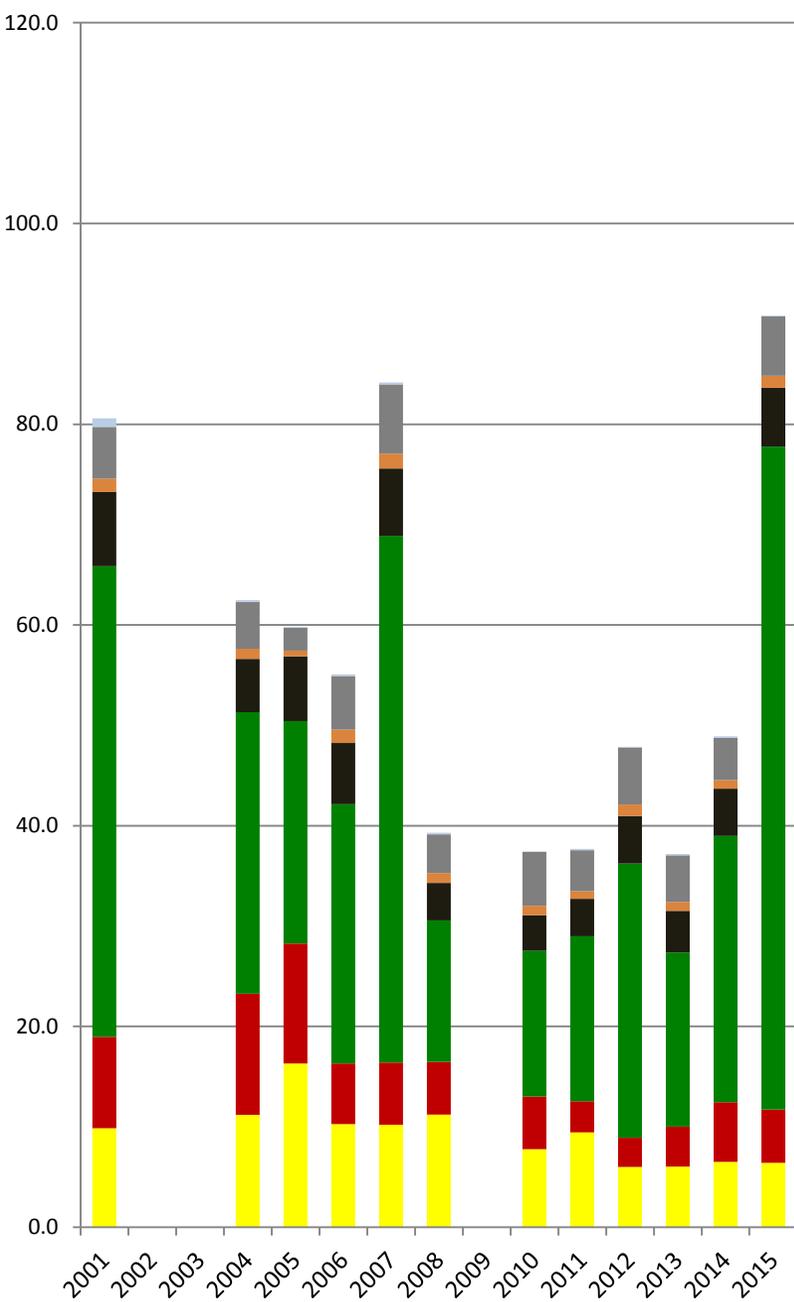


# Medicine Lake National Wildlife Refuge

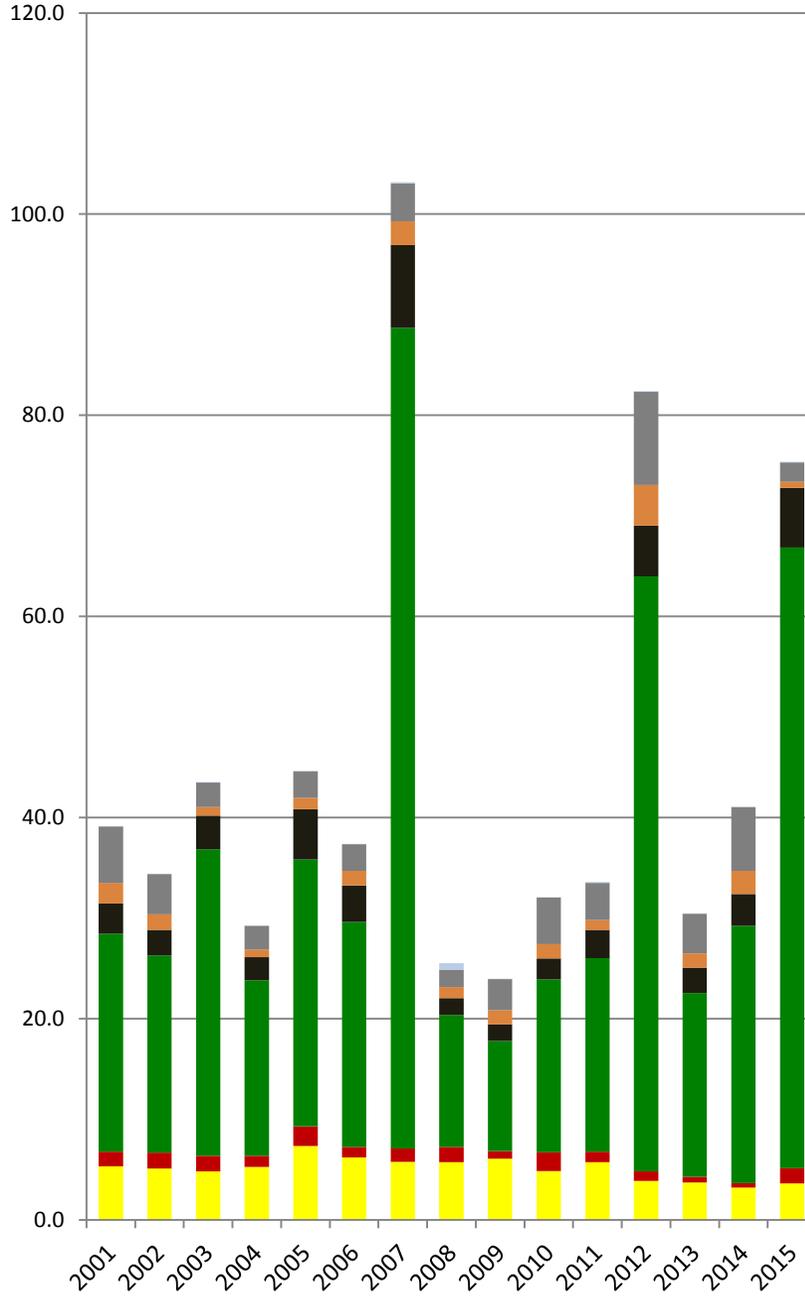
Monitoring Data for 20% Hazeiest Days



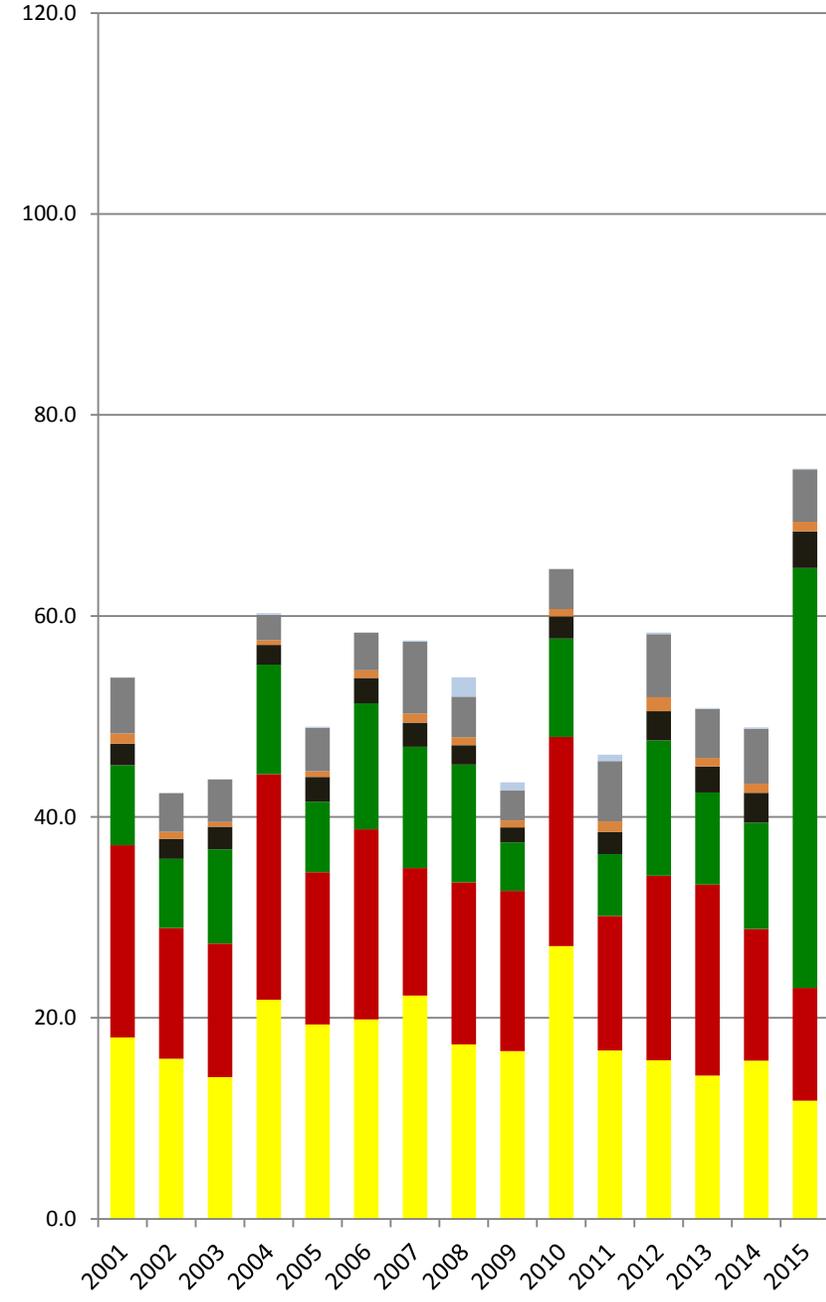
### Glacier National Park



### Bob Marshall Wilderness

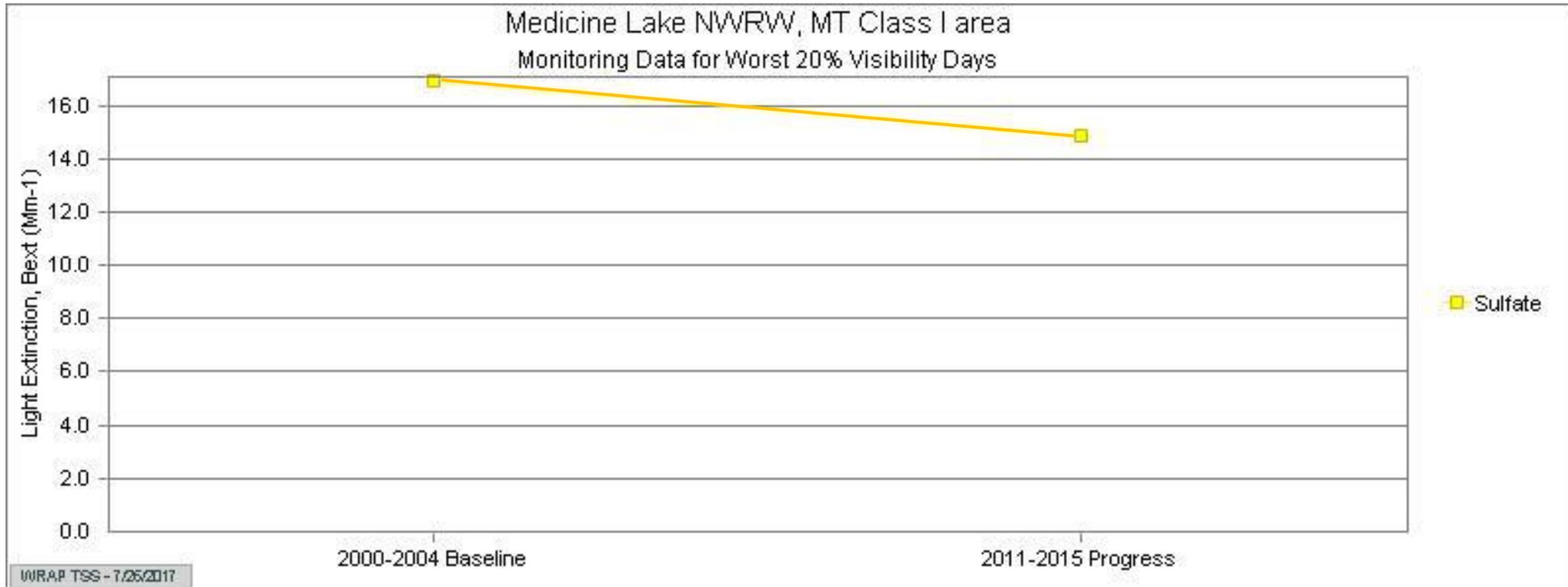


### Medicine Lake



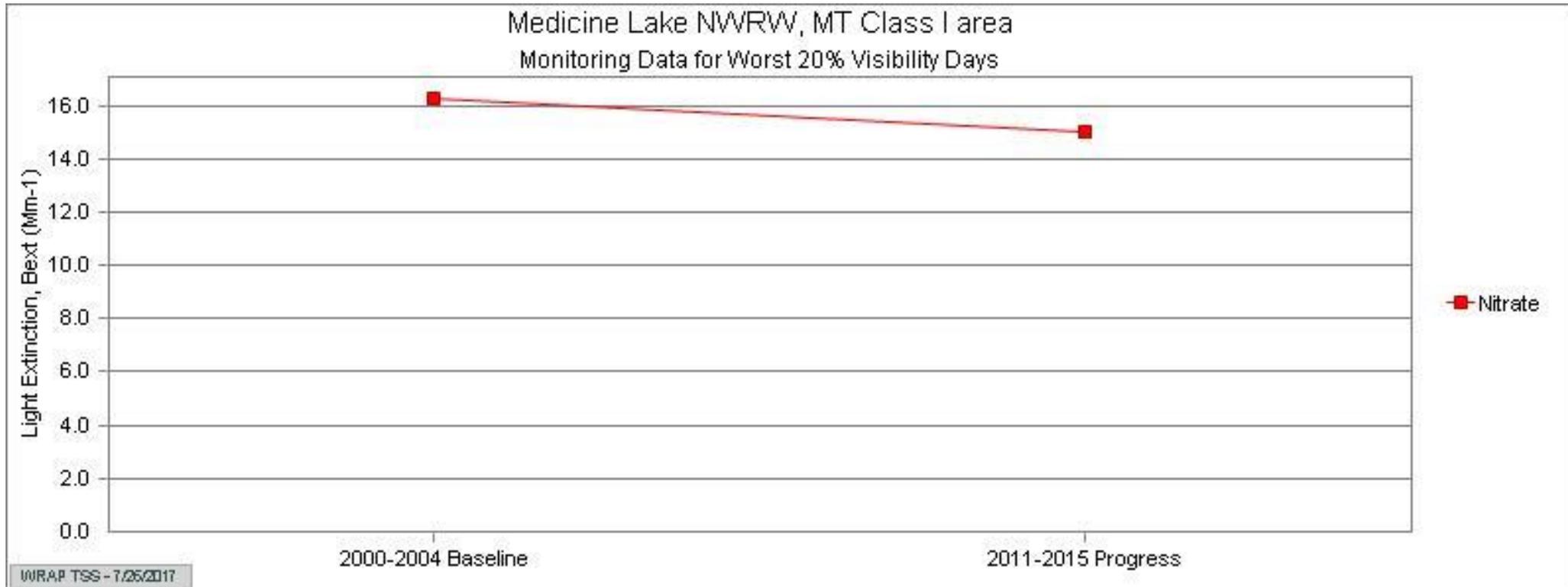
# Medicine Lake National Wildlife Refuge

## Reduction in Sulfate Contribution



# Medicine Lake National Wildlife Refuge

## Reduction in Nitrate Contribution



# Summary of Progress

## Have we made progress?

- Improved visibility on the clearest days across Montana.
- Reduced anthropogenic contributions at nearly all sites.
- Have not yet met 2018 visibility goals on haziest days.
  - Except at Glacier National Park and UL Bend National Wildlife Refuge

# Summary of Progress

Have we made progress?

- Why not?

1. Not all prescribed emission reductions have been realized.

2. Oil and gas activity has changed significantly.

3. International emissions are impacting sites northern sites.

# What's Next?

## 2018-2028 State Implementation Plan



Assess whether reasonable controls exist to reduce visibility impacts



Identify sources or source categories impacting visibility



Perform regional modeling and source apportionment

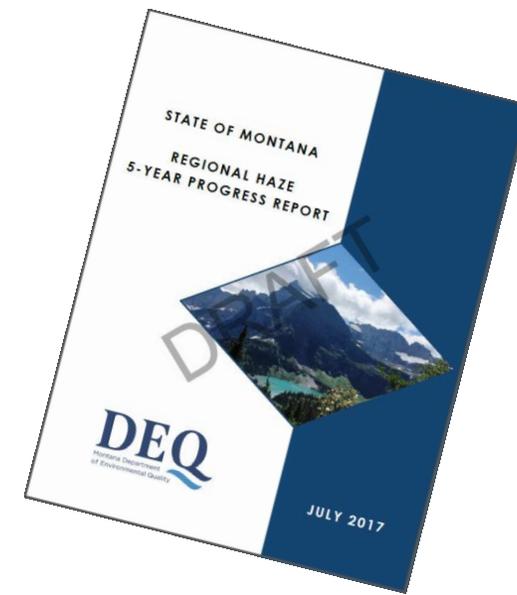


Collect and provide emission inventory data

# Questions?

The draft progress report is available for review at:

<http://deq.mt.gov/Public/publiccomment>



A public hearing is scheduled for Monday, Sept. 11, at 1:00 p.m. The hearing will be preceded by an informal question and answer session beginning at 12:00 p.m.

Public comments will be accepted through Friday, September 22.

## Contact

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Regional Haze Project Manager  
406-444-1472  
[rhabbage@mt.gov](mailto:rhabbage@mt.gov)

# Thank You

Next Meeting: November 16, 2017