

Regional Haze Rule

Missouri Department of Natural Resources
Air Pollution Control Program

Prepared for: Missouri Air Conservation Commission
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Outline

- Overview of Regional Haze Program
- Missouri's Federal Class I Areas
- Planning and SIP Development
- Current Status and Future Plans

Overview of the Regional Haze Program

- Regional Haze is the impairment of visibility due to air pollutants from anthropogenic sources (40 CFR 51.301)
- Stationary, mobile, and area emission sources, over a wide geographic area, contribute to visibility impairment
- Primary mechanism of visibility impairment is light extinction caused by particulate matter

Overview of the Regional Haze Program

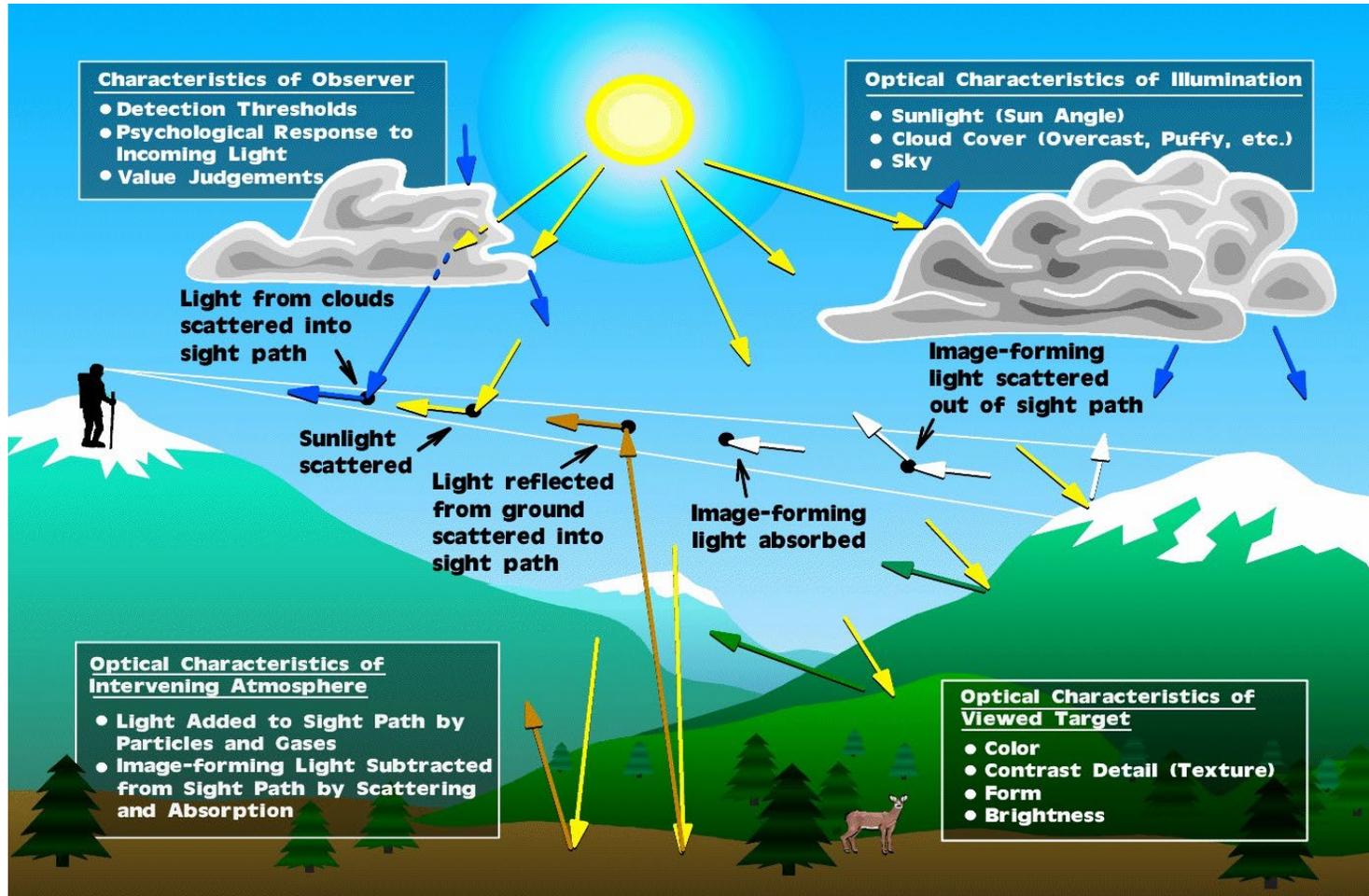


Hercules Glades Wilderness Area

Visibility Index: 11 dv vs. 35 dv

(Source: <http://vista.cira.colostate.edu/Improve/win haze/>)

Overview of the Regional Haze Program



Source: Malm W.(1999) An Introduction to Visibility. Cooperative Institute for Resources in the Atmosphere.

Overview of the Regional Haze Program

- Particulate matter contributing to visibility impairment can be broken down into six categories, or species
- The ambient air quality monitors at Class I areas measure the contribution from each of these particulate matter species

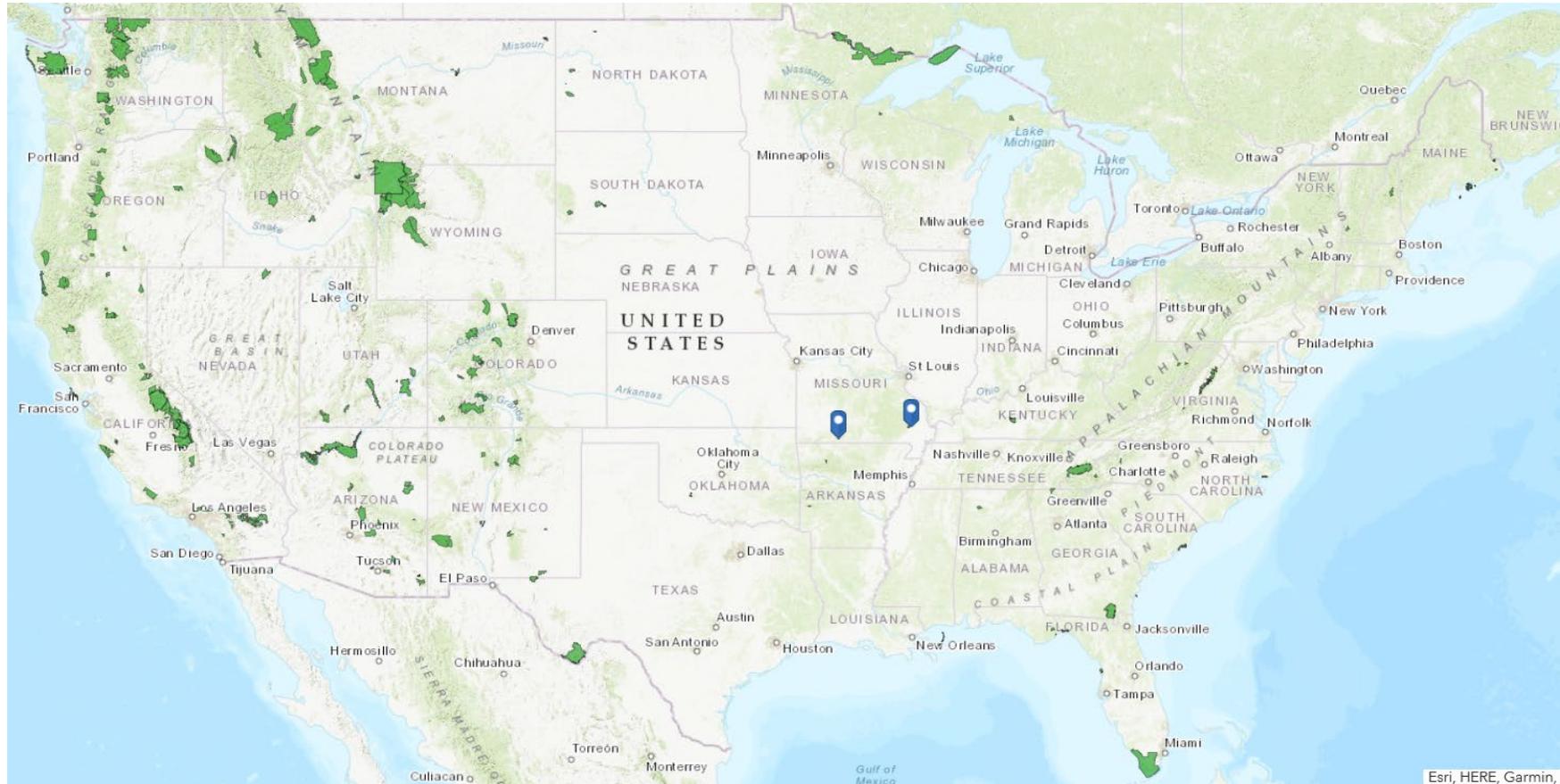
- Soil
- Organic Mass
- Elemental Carbon
- Coarse Mass
- Ammonium Sulfate
- Ammonium Nitrate

Overview of the Regional Haze Program

- 1999 - EPA adopted the Regional Haze Rule to protect Federal Class I areas from visibility impairment
 - Requires states to develop Regional Haze SIPs and revise them every 10 years
- 2012 - EPA approved Missouri's first Regional Haze SIP
- 2017 - EPA revised the Regional Haze Rule - the 2nd SIP revision deadline was extended from 2018 to 2021

Overview of the Regional Haze Program

Federal Class I Areas



Source: <https://floridadep.gov/air/>

Missouri's Federal Class I Areas

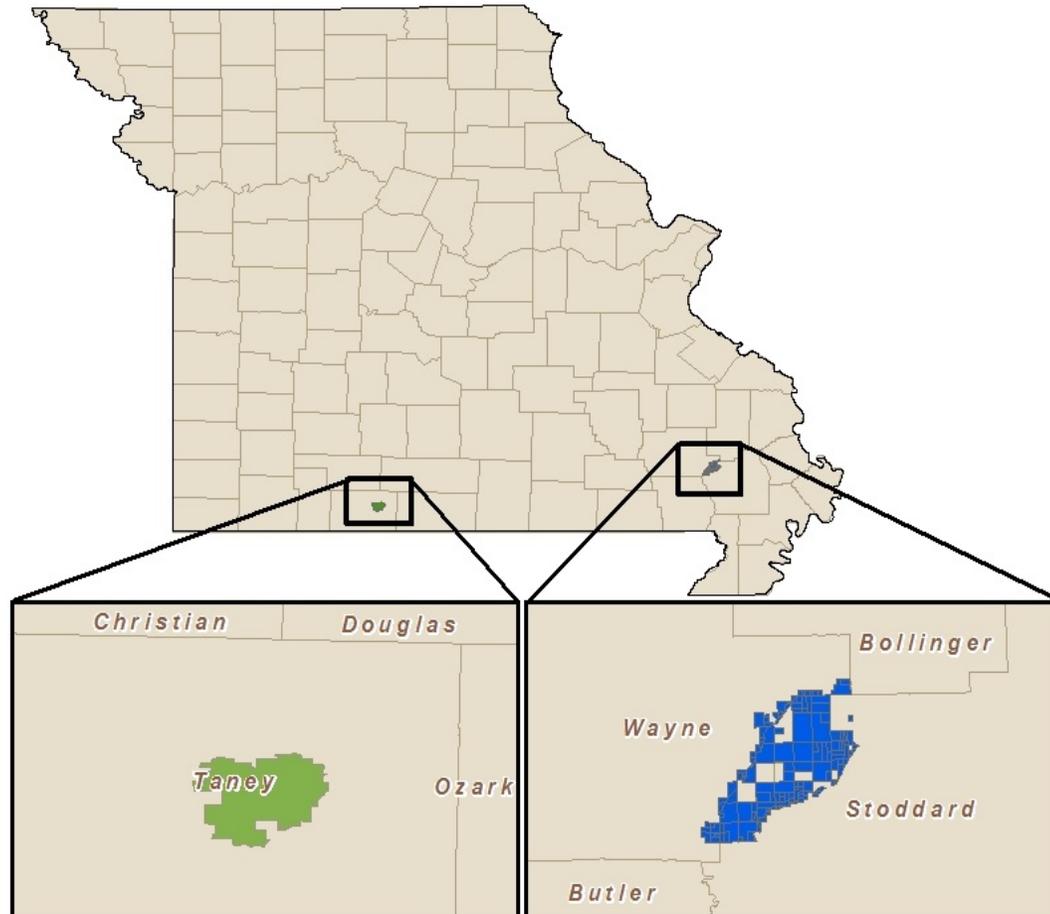


Hercules Glades
Wilderness Area

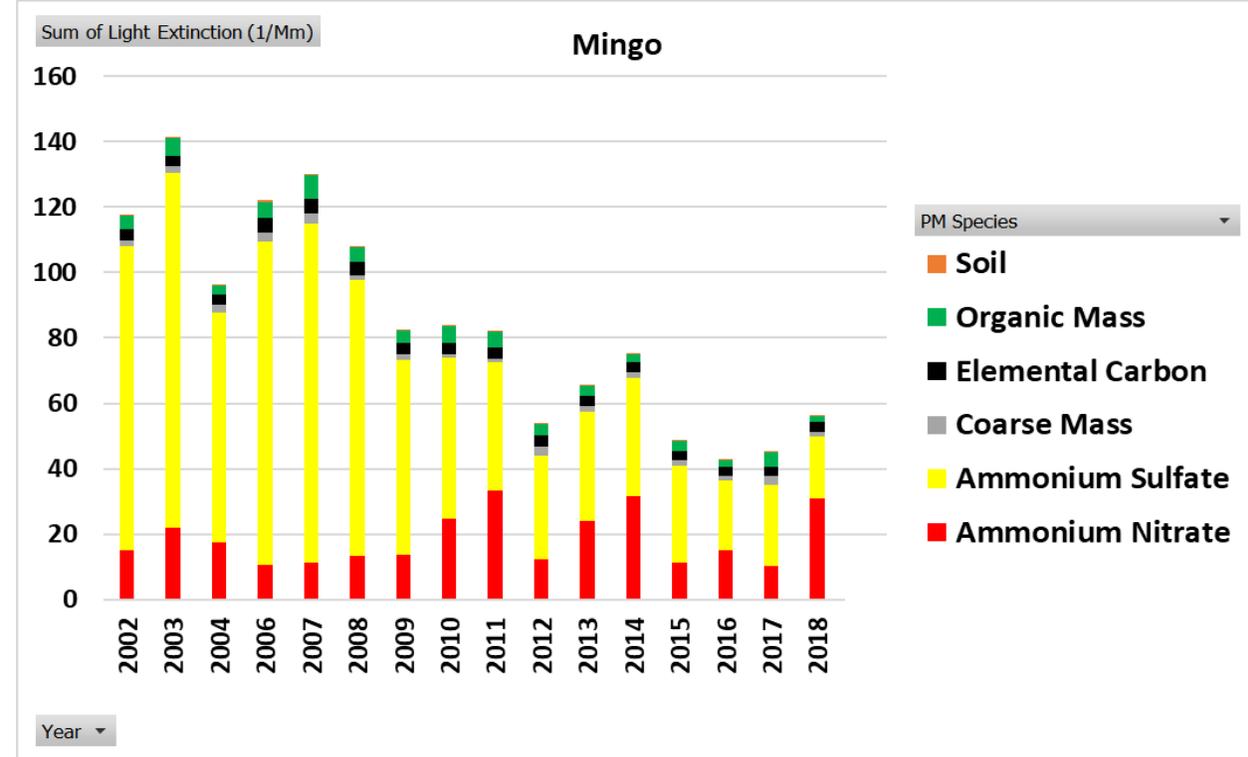
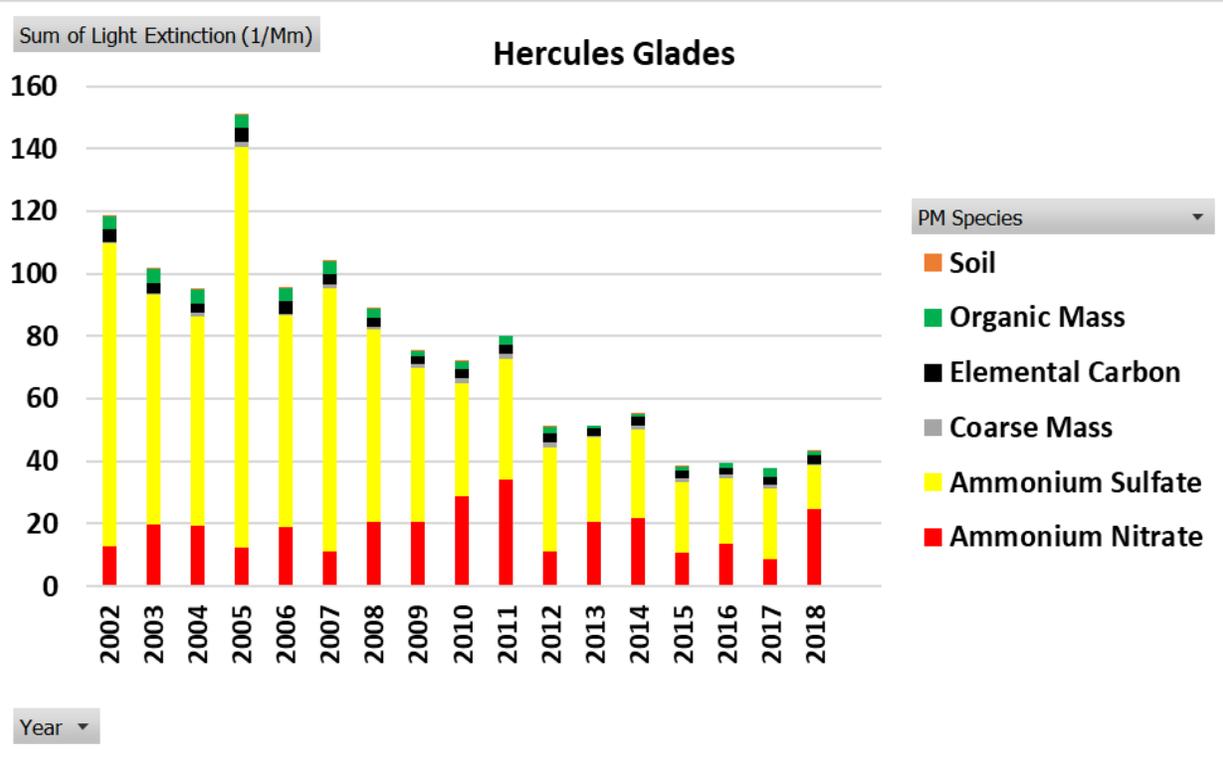


Mingo
Wilderness Area

-  Hercules Glades
-  Mingo
-  County Boundaries

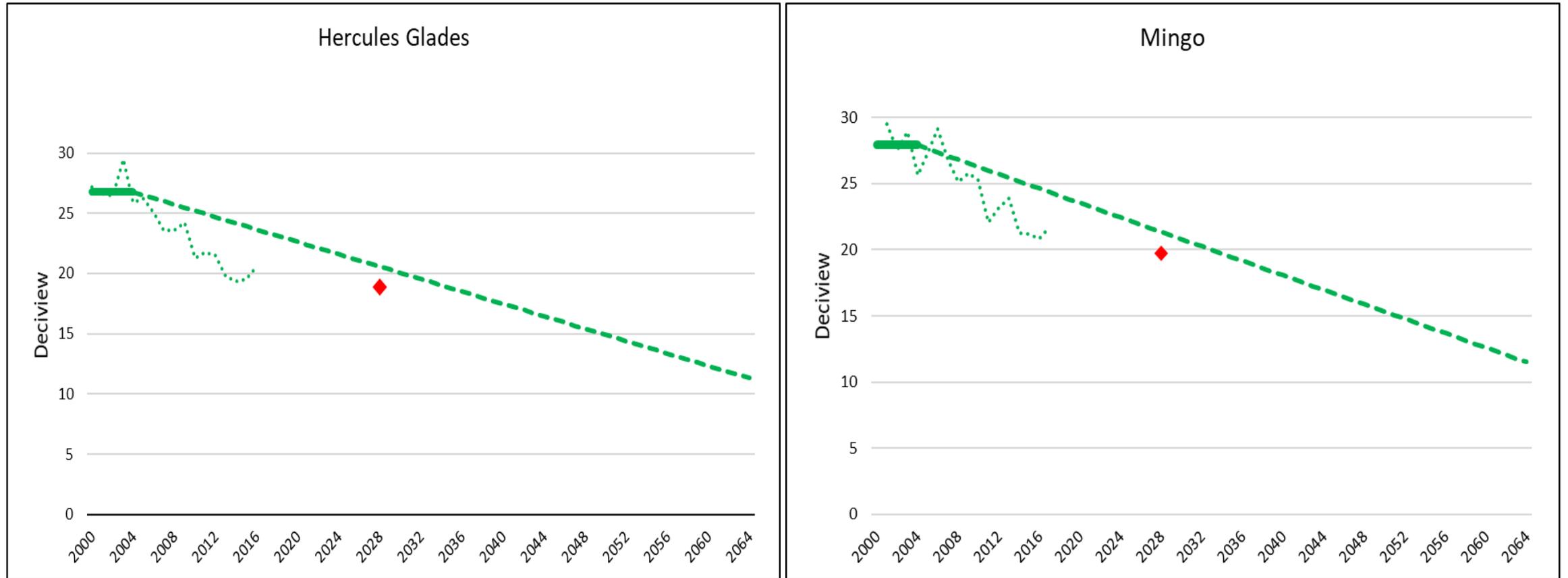


Missouri's Federal Class I Areas



Source: WRAP Technical Support System (<http://views.cira.colostate.edu/tssv2/>)

Missouri's Federal Class I Areas



--- Glidepath
 2004-2018
 ——— 2000-2004 Baseline
 ◆ 2028 EPA's Modeling Result

Planning and SIP Development

- Ultimate goal: Attain natural visibility conditions in all Federal Class I areas by 2064
- States required to develop ten-year plans to achieve the goal with a Uniform Rate of Progress
- EPA approved Missouri's 1st Regional Haze SIP in 2012 and Missouri's first Regional Haze progress report in 2016

Planning and SIP Development

- States must revise and submit their regional haze implementation plan **revisions** to EPA by July 31, 2021, July 31, 2028, and every 10 years thereafter
- States must submit Regional Haze progress reports to EPA every five years
- States must address all Class I areas located within their state and those located outside the state that may be affected by emissions from within the state

Current Status and Future Plans

- August 20, 2019 - EPA released guidance for development of Regional Haze SIPs for the second implementation period
- The guidance proposes an eight-step SIP development framework

Current Status and Future Plans

Step 1: Ambient data analysis (completed)

Step 2: Determination of affected Class I areas in other states

Step 3: Selection of sources for four-factor analyses

- costs of compliance,
- the time necessary for compliance,
- the energy and non-air quality environmental impacts of compliance, and
- remaining useful life

Step 4: Characterization of factors for control measures

Current Status and Future Plans

Step 5: Decisions on necessary control measures for reasonable progress goals

Step 6: Modeling of long term strategy

Step 7: Uniform Rate of Progress glide path check

Step 8: Consultation with other parties (FLMs, other states)

Current Status and Future Plans – Tentative Timeline

Analysis, SIP Development, and Consultation: 2017 – 2021

Public Comment Period: Spring 2021

Public Hearing: Spring/Summer 2021

MACC Adoption: Summer 2021

EPA Submittal Deadline: July 2021

Questions?

Air Pollution Control Program

Air Quality Planning Section

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