

OTC/MANE-VU
STAKEHOLDER
MEETING
APRIL 14, 2022

MANE-VU Technical Support Committee

Co-Chairs Sharon Davis, NJDEP and David Healy, NHDES

MANE-VU and Nearby Class I Areas



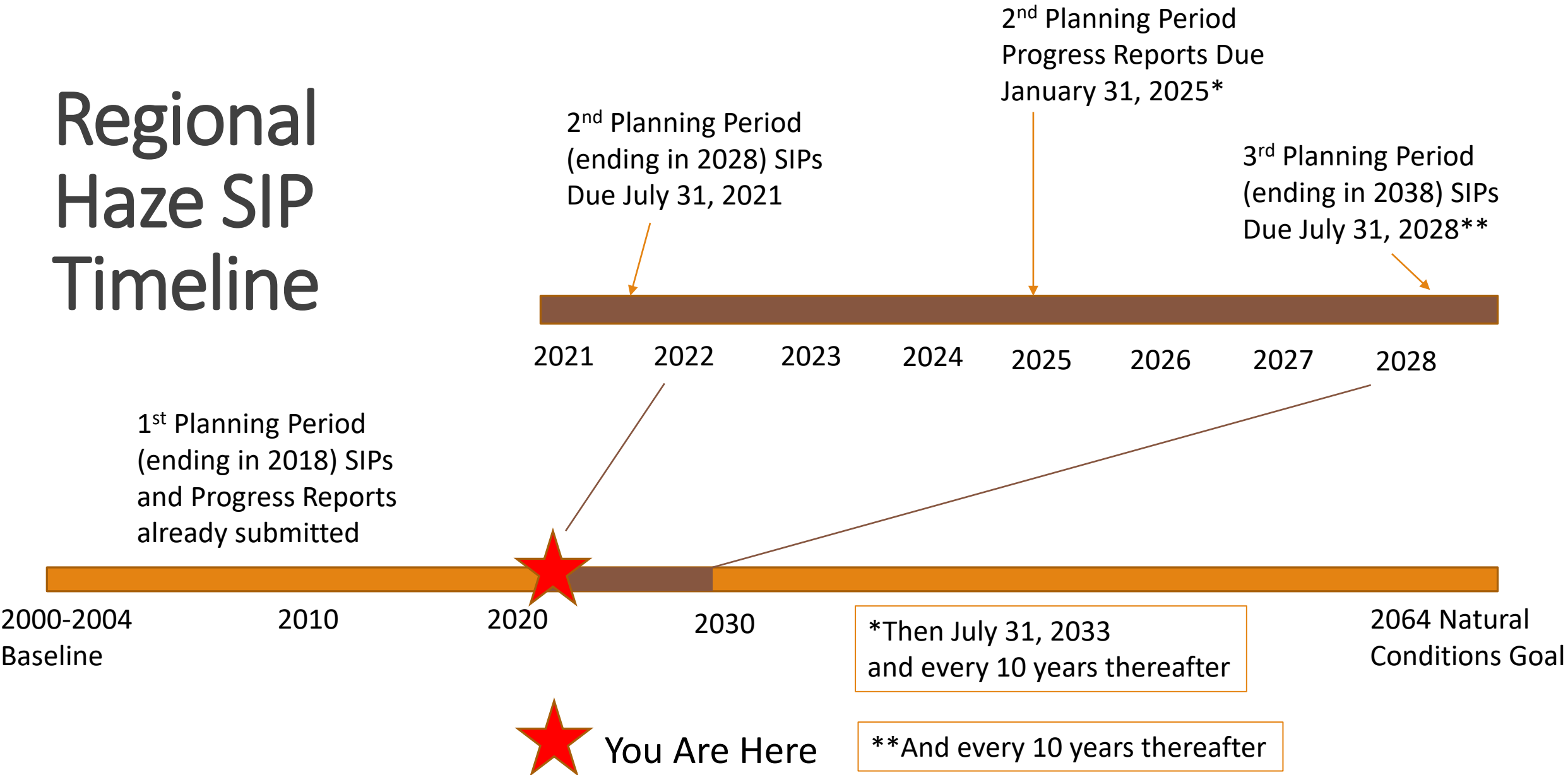
Presentation Overview

- Regional Haze SIP Timeline
- Updated Regional Haze Metrics
- TSC Activity
- Looking Ahead

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Regional Haze SIP Timeline

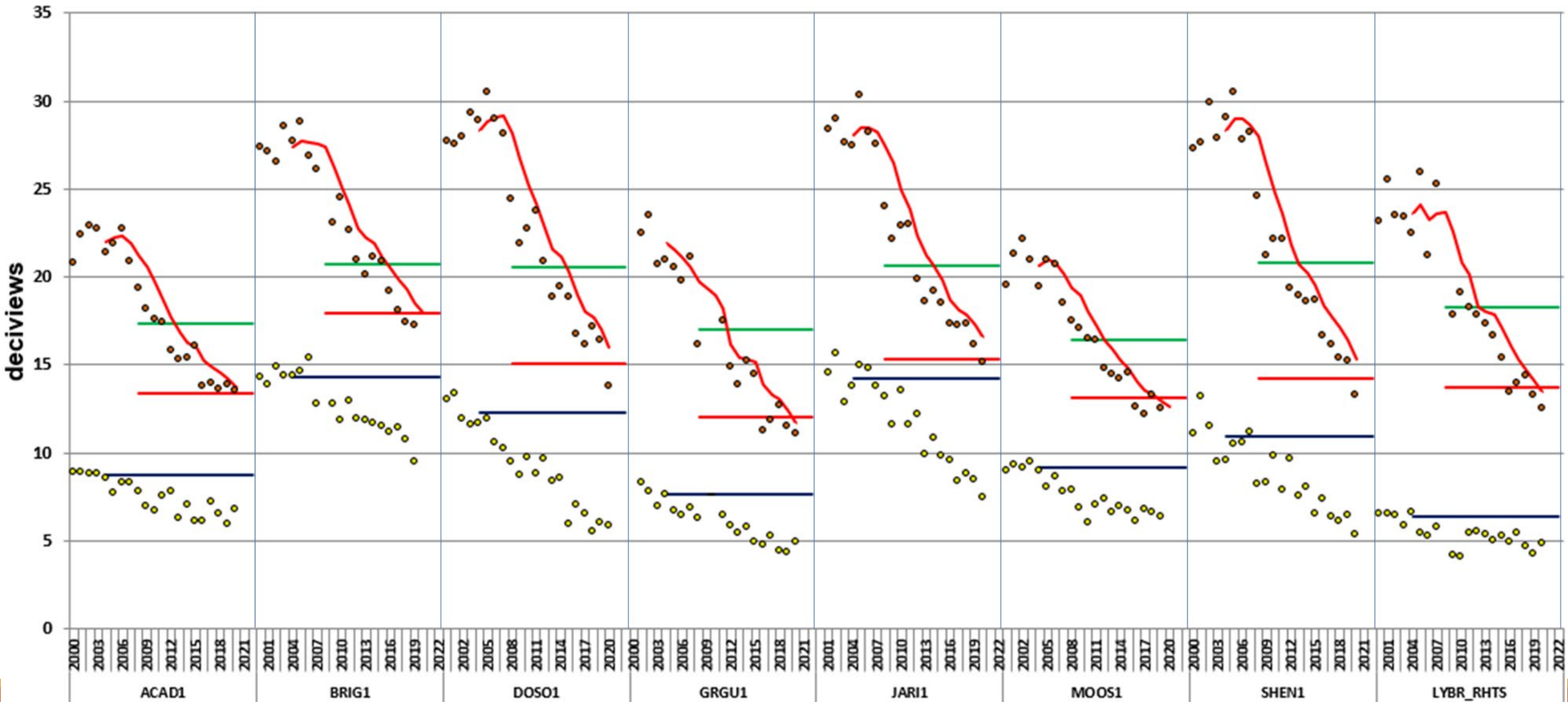


Presentation Overview

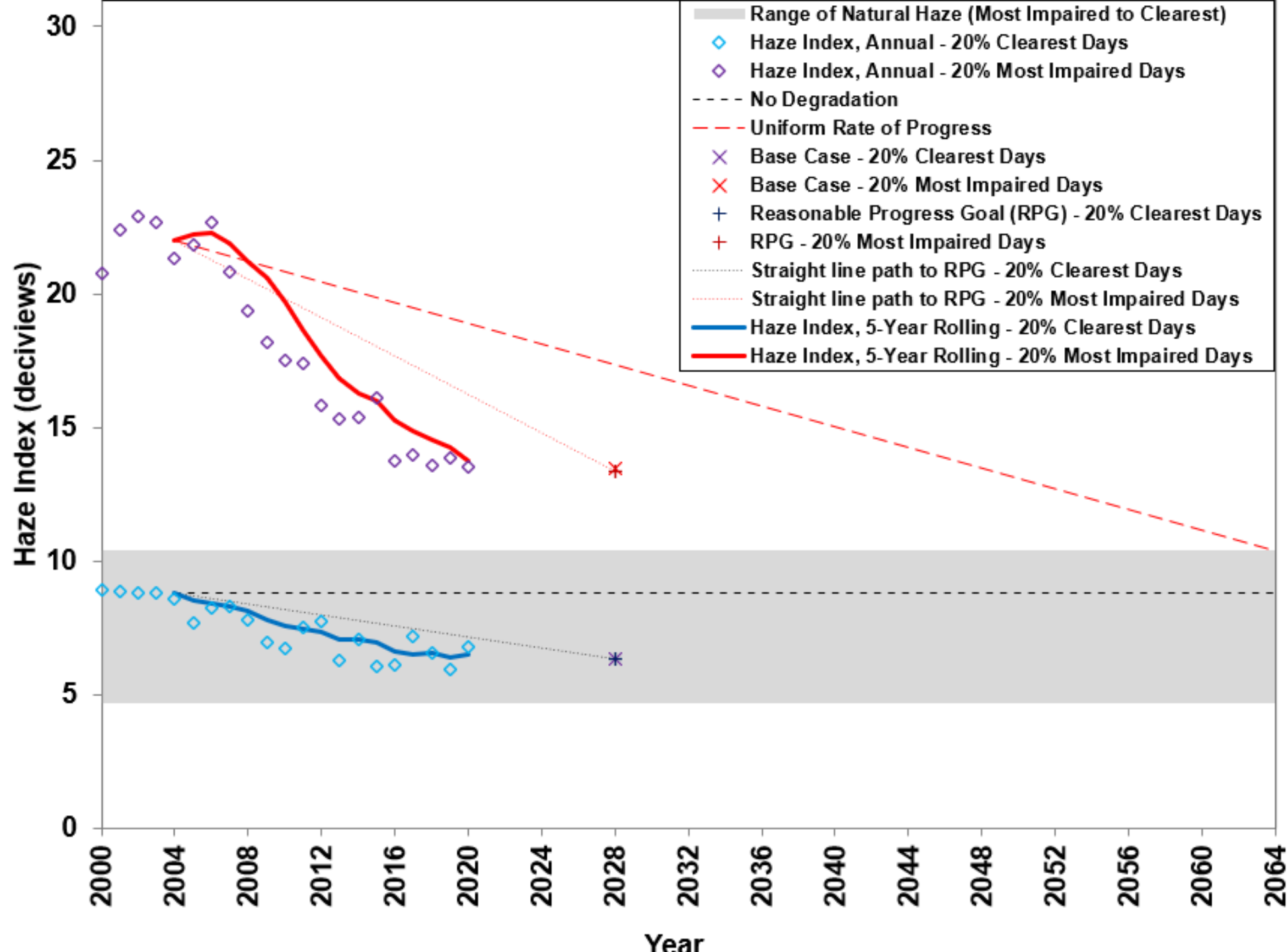
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20% MOST IMPAIRED DAYS METRICS / 20% CLEAREST DAYS METRICS

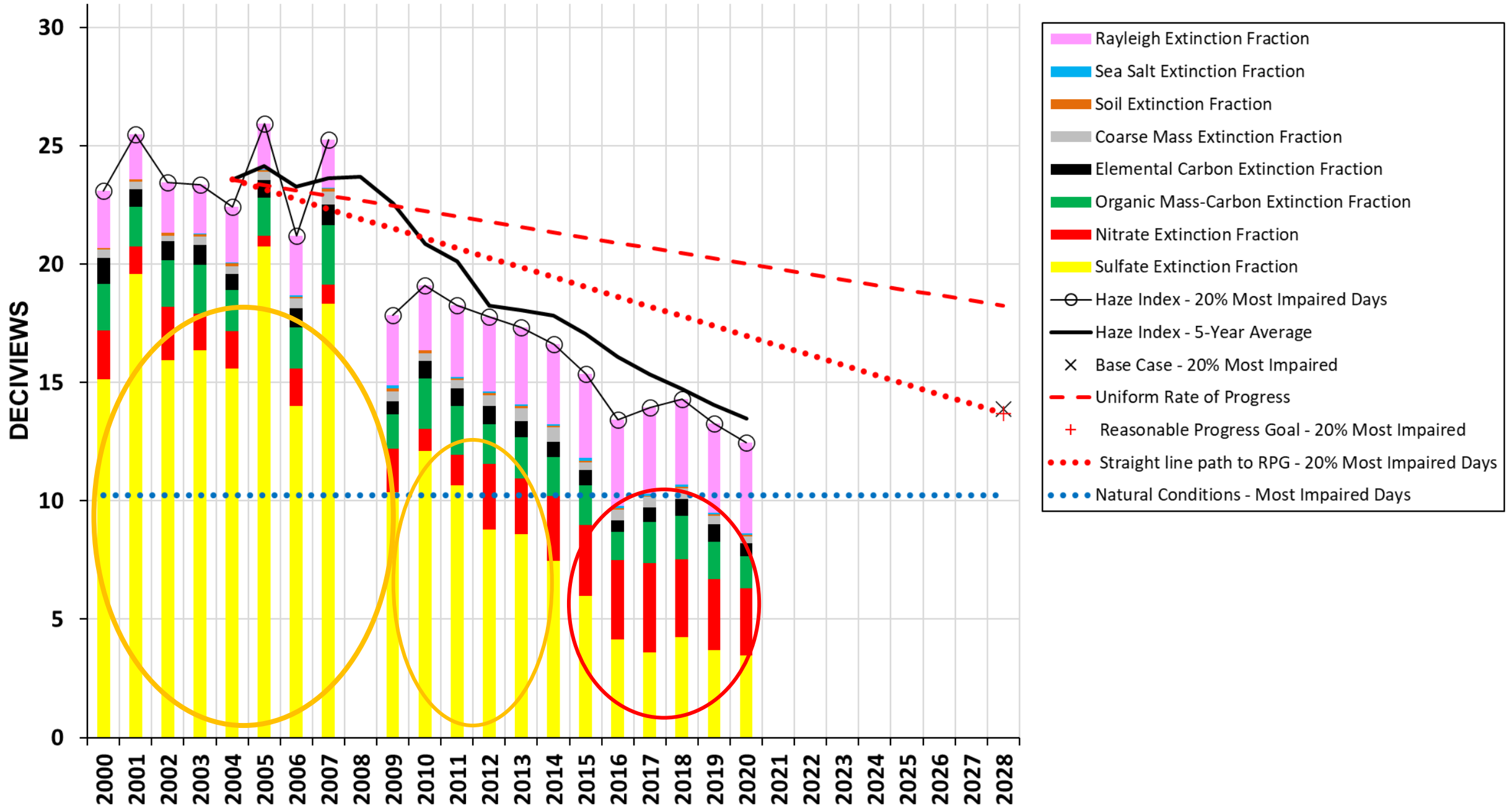
● 20% Most Impaired Days
 — No Deg.
 — 2028 URP
 — 2028 RPG
 ● 20% Clearest Days
 — Haze Index 5-Year



Acadia NP Class 1 Area - Glide Path Analysis



Lye Brook, VT Regional Haze 20% Most Impaired Days Trends

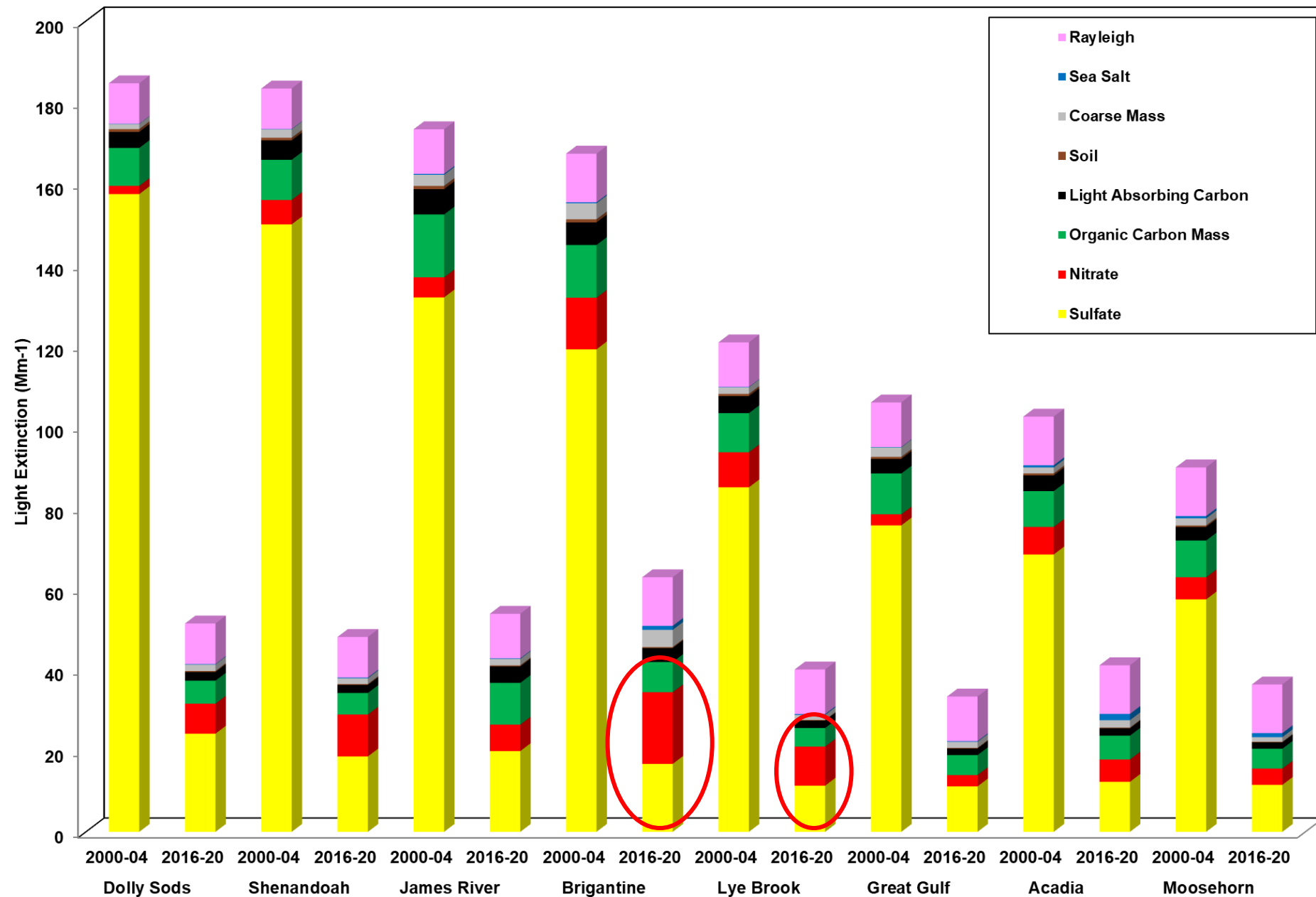


20% Most Impaired Day Analysis:

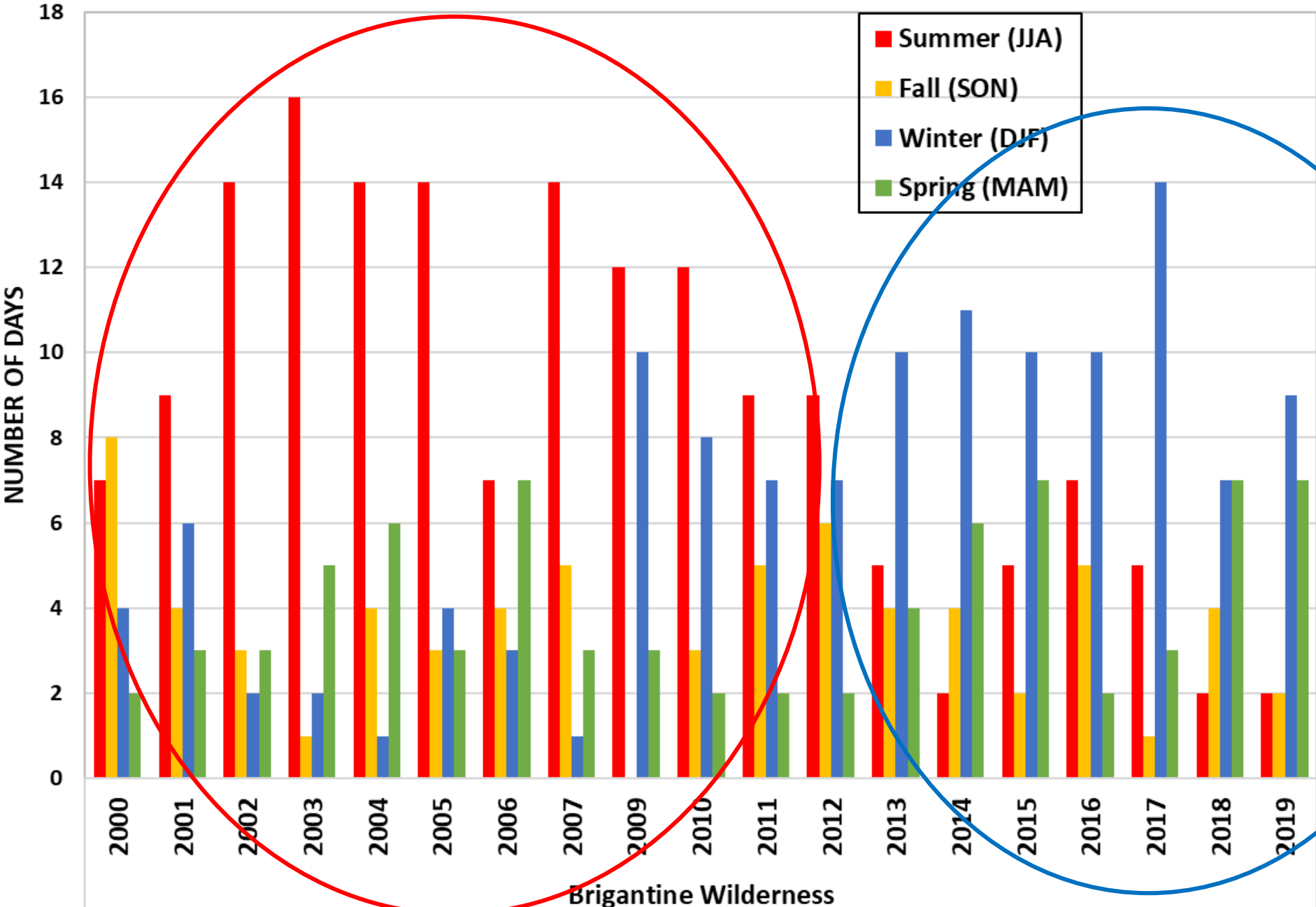
Base Year (2000-2004)

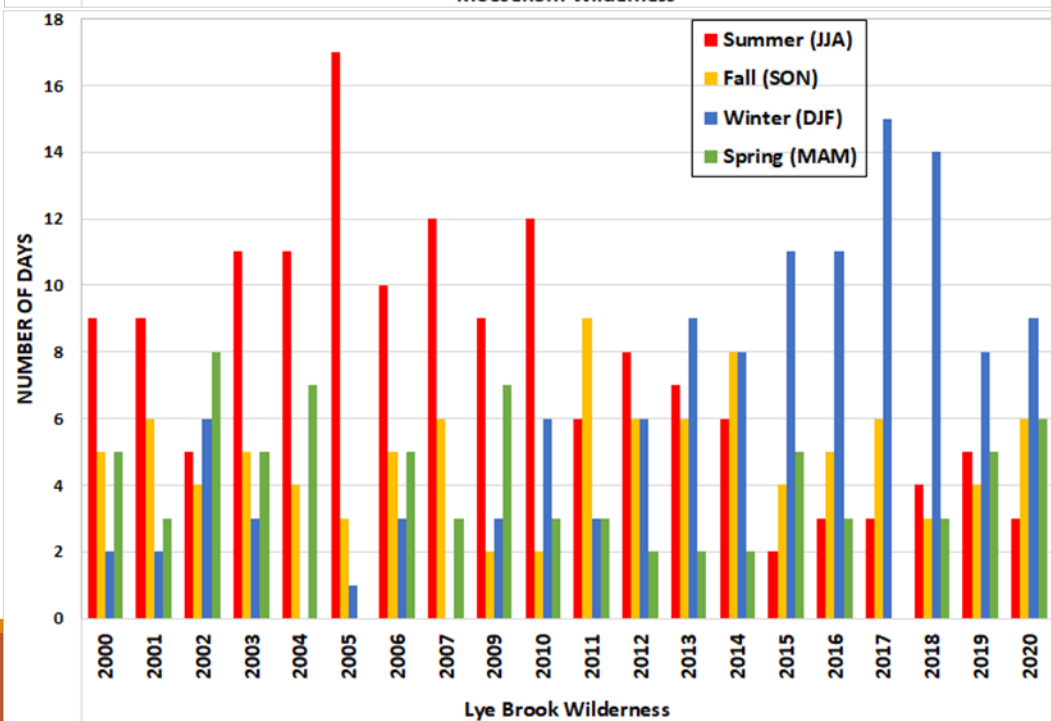
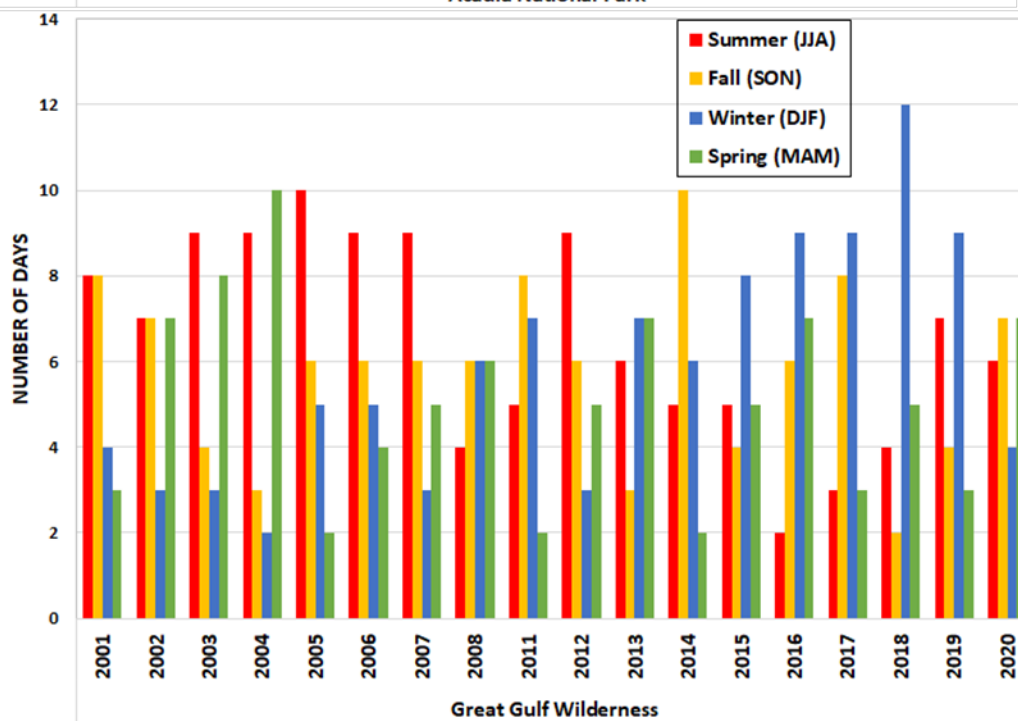
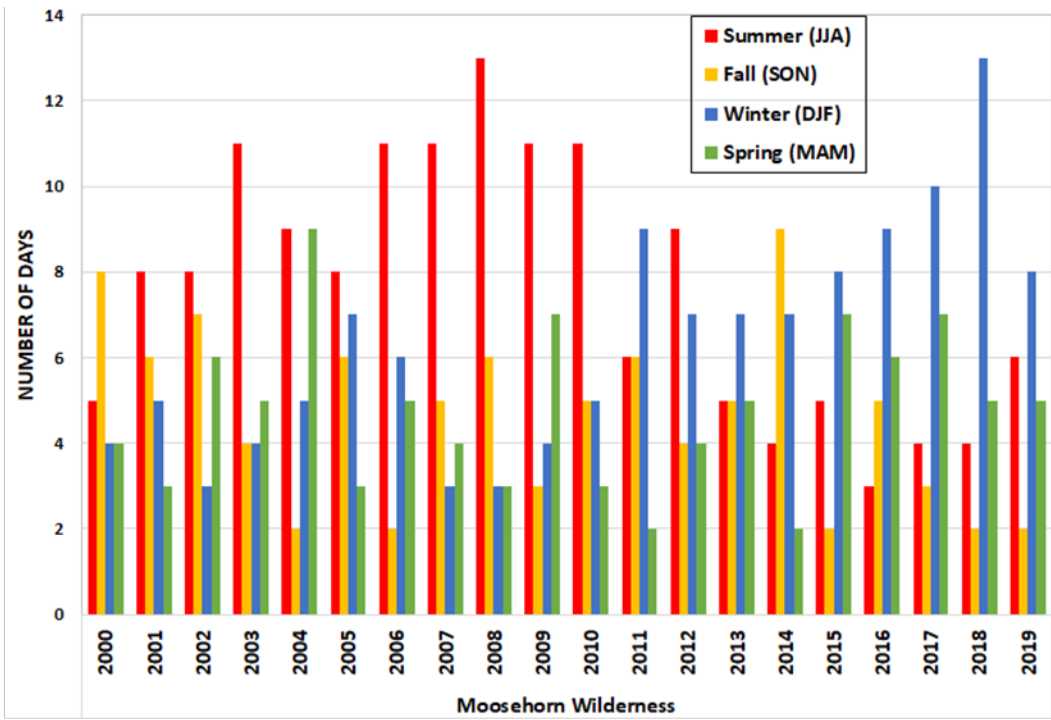
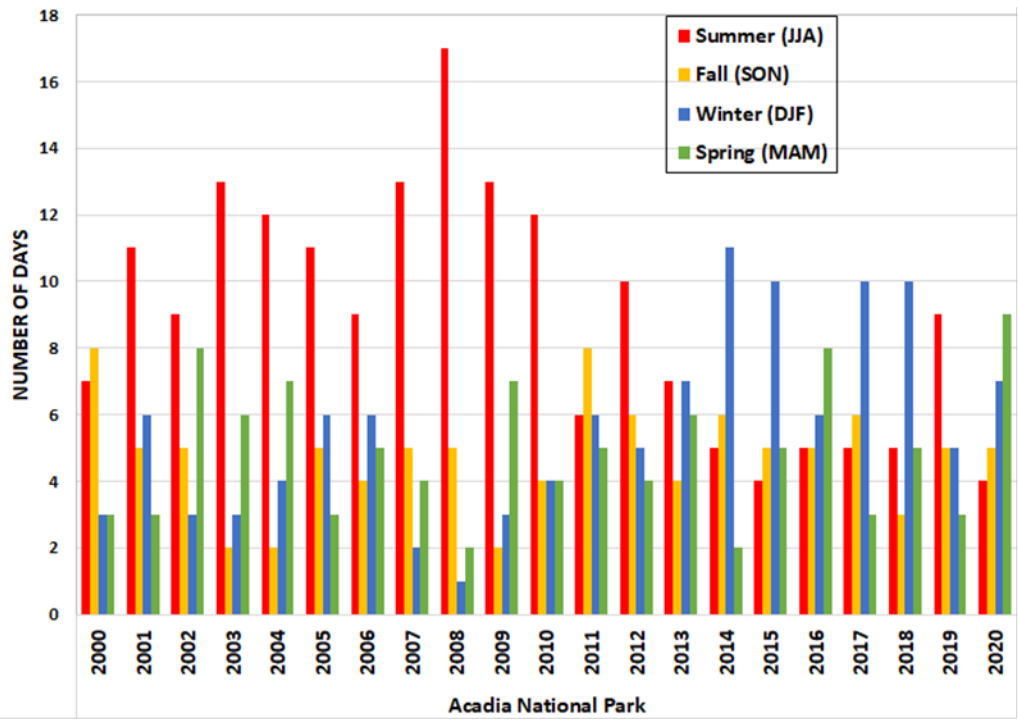
vs.

Current (2016 - 2020)



Brigantine Wilderness 20% Most Impaired Days





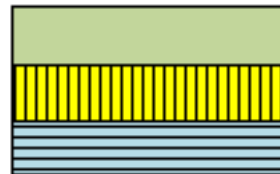
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MANE-VU Agency Regional Haze SIP Progress Chart

	IMPROVE Data Analysis	Inventory Development & Analysis	Modeling	Consultation with contributing states	State 4-factor analyses completed	Response to MANE-VU Ask Developed	Long-term strategy developed	Initial draft of SIP developed	State rules drafted (as appropriate)	FLM/EPA consultation	Draft SIP Submittal 60-day Clock Started	Public Hearing/Comment	Final SIP Submittal	At EPA	SIP Approved	
CT																In-Progress
DC																Complete
DE													Waiting			Waiting
MA																In-Progress
MD																Waiting
ME																Waiting
NH												In-Progress				Waiting
NJ																In-Progress
NY																In-Progress
PA					In-Progress											Waiting
RI																Waiting
VT					In-Progress			In-Progress								Waiting

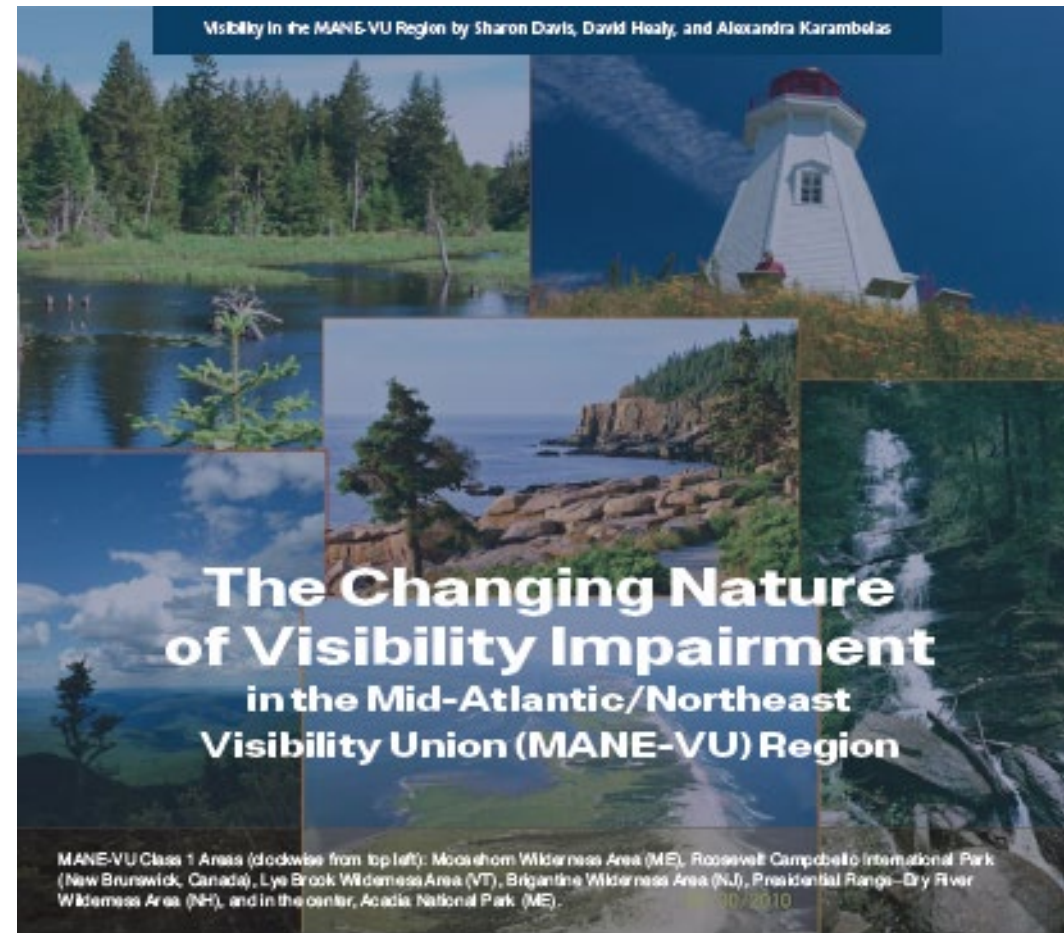
Complete
In-Progress
Waiting



MANE-VU Comment Letters on Upwind Contributing States' Regional Haze SIPs

<u>RPO</u>	<u>State</u>	<u>Draft Available for Review?</u>	<u>Comments Status</u>
LADCO	Illinois	No	
	Indiana	Yes	Comments submitted 11/6/21
	Michigan	Yes	Comments submitted 6/28/21
	Ohio	Yes	Comments submitted 6/28/21
SESARM	Alabama	No	
	Florida	Yes	Comments were due 7/9/21
	Kentucky	No	
	N. Carolina	Yes	Comments submitted 10/12/21
	Tennessee	Yes	Comments submitted 12/1/21
	Virginia	No	
	W. Virginia	Yes	Comments submitted 1/10/22
CENSARA	Louisiana	Yes	Comments were due 7/12/21
	Missouri	Yes	Comments submitted 9/28/21
	Texas	Yes	Comments submitted 1/6/21

MANE-VU TSC - Journal Article



by Sharon Davis, David Healy, and Alexandra Karambelas

Assessing the progress made in improving visibility at federally protected Class I areas located in MANE-VU states, the changing nature of regional haze in the Northeast, and the steps needed to continue progress in visibility improvement across the MANE-VU region.



Journal Article Highlights

- Emissions Trends
 - SO₂ and NO_x have declined considerably over time
 - NO_x decreases not as steep as SO₂
- Measured Sulfate and Nitrate Trends
 - Measured sulfates and nitrates have declined over time
 - Nitrates trends have levelled off at some MANE-VU sites
 - Measured sulfates and nitrates have not declined as sharply as their precursor emissions
- Regional Haze Metrics
 - Seasonal shift in 20% Most Impaired days due to increased importance of nitrates
 - 5-yr avg haze indices not yet at or below reasonable progress goals
- Conclusions
 - Nitrates have become more important contributors to haze in recent years
 - Achieving visibility improvement is no longer a single-pollutant issue
 - MANE-VU agencies are including year-round NO_x controls in their SIPs

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Proposed and Anticipated Future Work Areas

1. Monitor visibility trends, including those needed for 5-year progress reports (due in 2025)
2. Provide regional haze and SIP development training to MANE-VU agency staff and other interested parties
3. Assess impacts of changing atmospheric chemistry on effectiveness of future haze measures
4. Examine winter wood combustion contributions to haze
5. Cooperatively leverage resources and activities with OTC to:
 - a. support efforts to reduce emissions of NO_x from on-road trucks
 - b. provide multi-pollutant perspective of co-benefits from regional haze measures
6. Develop Progress Report Template to facilitate consistency in MANE-VU progress report submittals
7. Develop SIP Template to facilitate consistency in MANE-VU SIP submittals for the 3rd planning period

Moosehorn, ME



Roosevelt Campobello International Park, NB



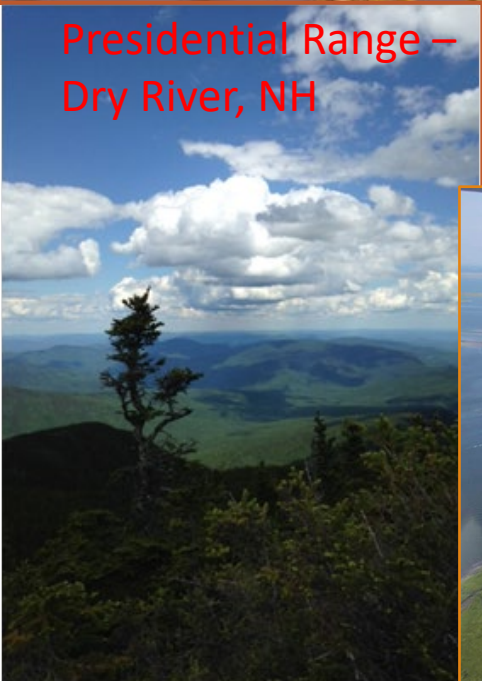
Acadia, ME



Lye Brook Wilderness, VT



Presidential Range – Dry River, NH



Brigantine NJ



Questions? Thank You!

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