

MANE-VU Technical Support Committee Update

OTC/MANE-VU Stakeholder Meeting: September 20, 2016

Hall of the States, Washington, DC

Overview

1. Rule/Guidance Comments
2. Action Plan & Schedule Updates
3. Monitoring Data
4. Inventory/Modeling
5. Contribution Analysis
6. 4-Factor Analysis

Regional Haze Rule Comments

- ▶ Submitted 13 specific comments
- ▶ Highlights from the comments:
 - ▶ States should have the option of submitting SIPs in 2018
 - ▶ Removing natural impairment is acceptable if the current methods for calculating impairment are also available
 - ▶ Progress reports should not be SIP submissions
 - ▶ Consultation should be strengthened
 - ▶ RAVI should be sunset

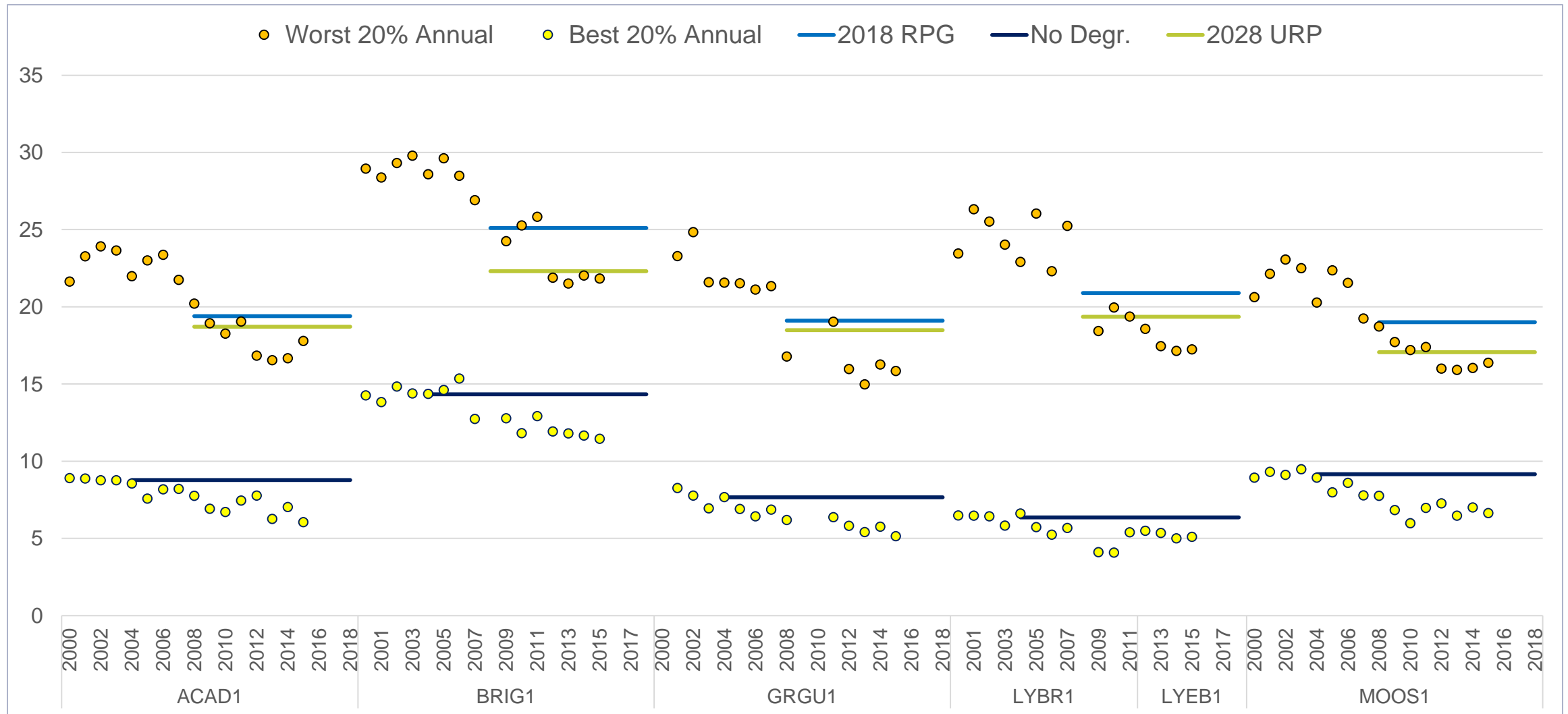
Guidance Comments

- ▶ Concerns with:
 - ▶ Use of deciviews in calculations (should use extinction)
 - ▶ Resources necessary to undertake EPA's recommended approaches
 - ▶ Single source CAMx runs
 - ▶ Look at 80% of impairment from each state
 - ▶ Use of 2028 projections for determining contribution
 - ▶ Lack of clarity with data handling methods

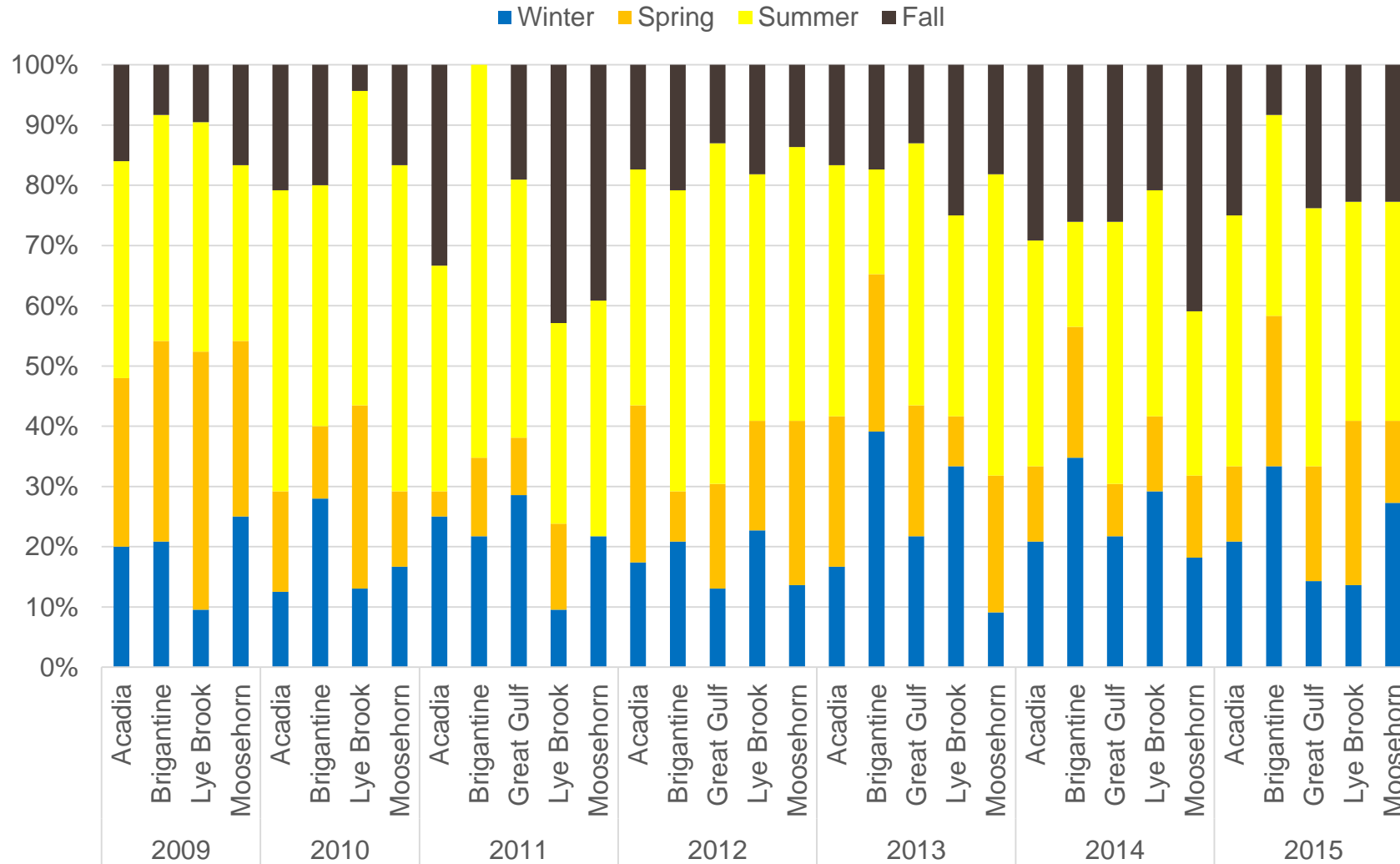
Regional Haze SIP Planning Schedule

IMPROVE Data Analysis	<ul style="list-style-type: none"> • Decisions on Methods • Calculations, QA, and TSD 	Complete Fall of 2016
Inventory Development & Analysis	<ul style="list-style-type: none"> • 2011/2028 Alpha 2 & TSD • SMOKE Processing • Emissions Trends Analysis 	Complete Complete As Needed
Modeling	<ul style="list-style-type: none"> • 2011 Base Case Modeling • 2028 Base Case Modeling • Scenario Modeling • Document Modeling Platform and Results 	Complete 2016 If Requested Fall 2016 (Except Scenarios)
Four-Factor Analysis/Contribution Assessment	<ul style="list-style-type: none"> • Qc/d • 2002 Scaling • CALPUFF Assessment • 4-Factors for Sectors (Adding Cement Kilns) • Calculate Emissions Reductions • Compile TSDs 	Complete Complete TBD Fall 2016 Winter 2016-17 Winter 2016-17
Updating RPGs	<ul style="list-style-type: none"> • Draft RPGs and Document 	Early 2017
Consultation	<ul style="list-style-type: none"> • Establish Consultation Process • Technical Consultation with FLMs, Contributing States, EPA • Policy Consultation 	Fall 2016 Winter 2016-17 Spring 2017
SIP Submission	<ul style="list-style-type: none"> • Rule Adoption • SIP Submission 	2017-2018 Summer 2018

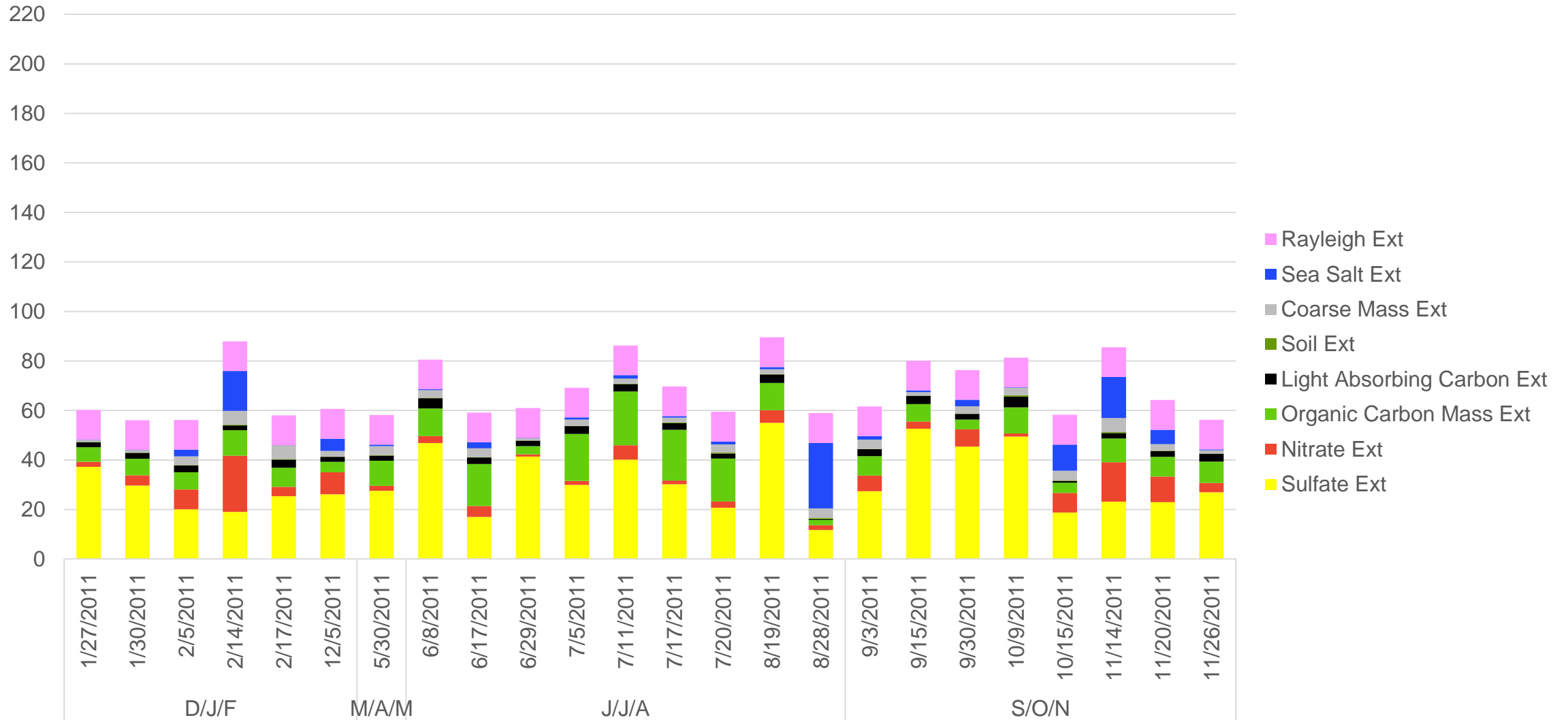
Progress at Monitored Class I States in MANE-VU using Current IMPROVE Algorithm



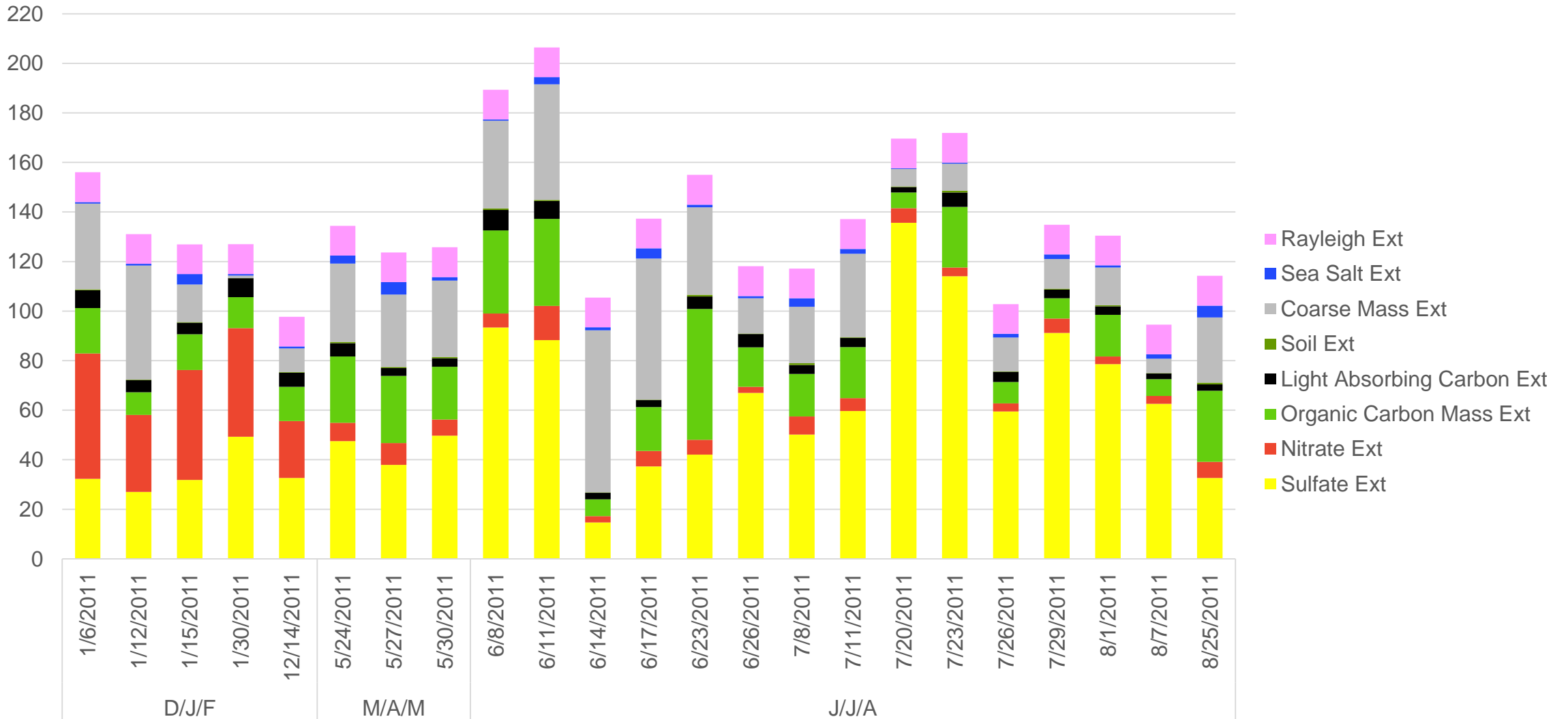
Percentage of 20% Most Impaired Days by Season (current method)



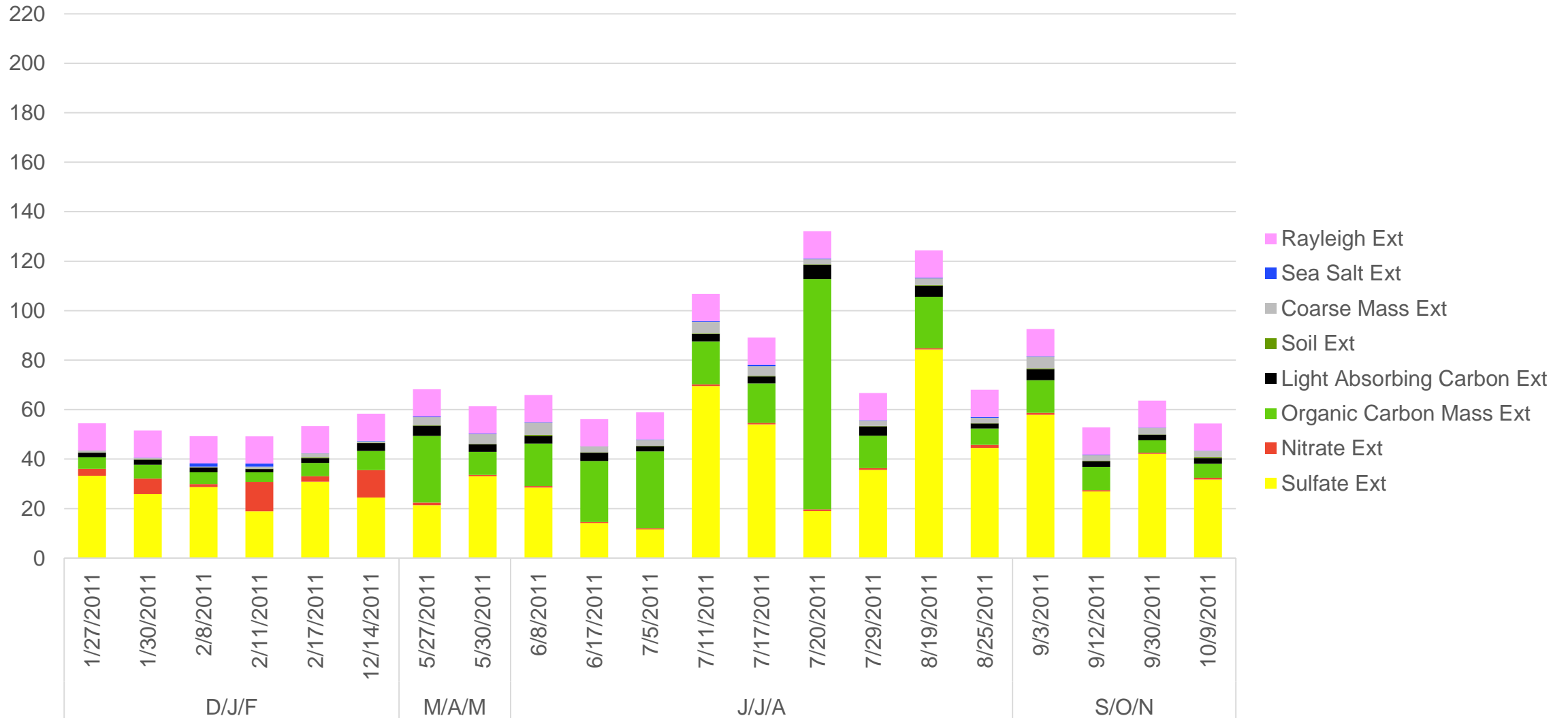
Acadia: Light Extinction (Mm^{-1}) on 20% Most Impaired Days in 2011 (current method)



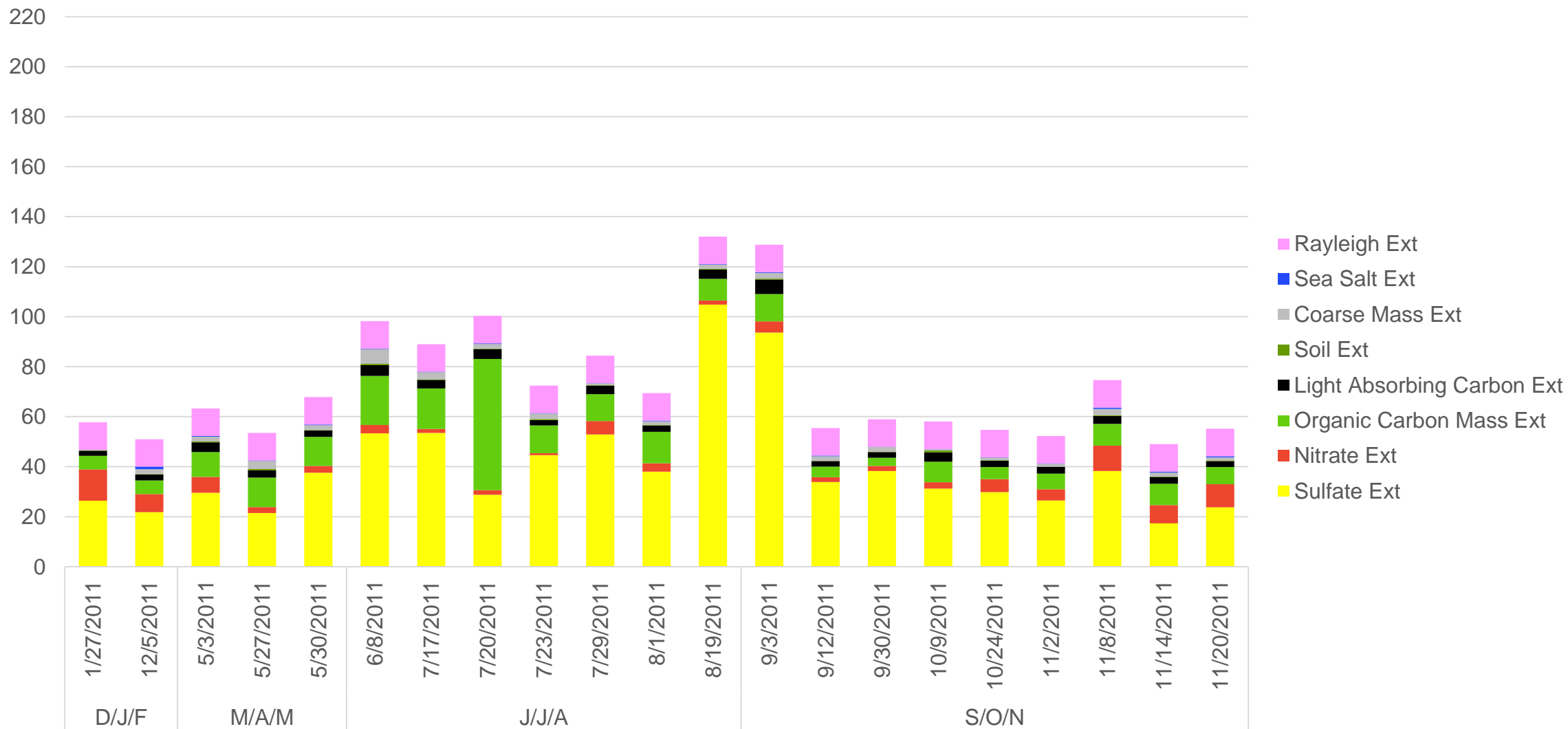
Brigantine: Light Extinction (Mm^{-1}) on 20% Most Impaired Days in 2011 (current method)



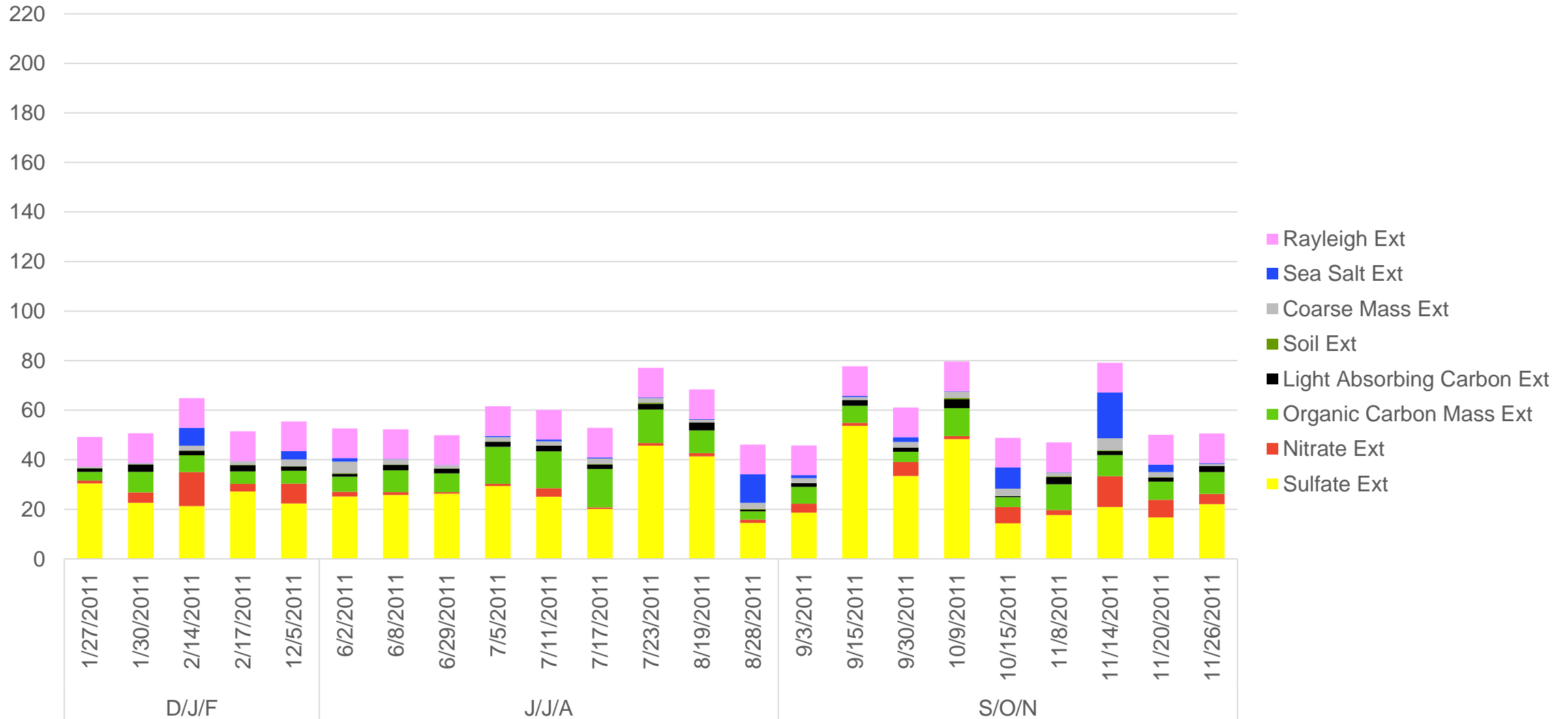
Great Gulf: Light Extinction (Mm^{-1}) on 20% Most Impaired Days in 2011 (current method)



Lye Brook: Light Extinction (Mm^{-1}) on 20% Most Impaired Days in 2011 (current method)



Moosehorn: Light Extinction (Mm^{-1}) on 20% Most Impaired Days in 2011 (current method)



RPG Modeling 2028

- ▶ Alpha 2 inventories complete and processed through SMOKE
- ▶ Annual 2028 base case modeling is expected to begin shortly
 - ▶ Goal is to have results for Fall Meeting
- ▶ Modeling Platform TSD being written through the OTC Modeling Committee:
 - ▶ Comments due 10/21/16

Contribution Assessment

- ▶ Compiling the Results in a TSD
- ▶ Steps to be Completed
 - ✓ Met Adjusted Emissions/distance ($Q \cdot c/d$)
 - ✓ 2011 All Emissions based on State Centroid
 - ✓ 2011 Point Source based on Location
 - ✓ 2018 Point Sources based on Location
 - ✓ 2002 SO₂ Ratio Scaling to 2011 & 2014
 - CALPUFF Modeling
 - IMPROVE Data Analysis
 - Considering
 - Examining back trajectories during 20% worst days
 - Looking at daily inventories during visibility “events”

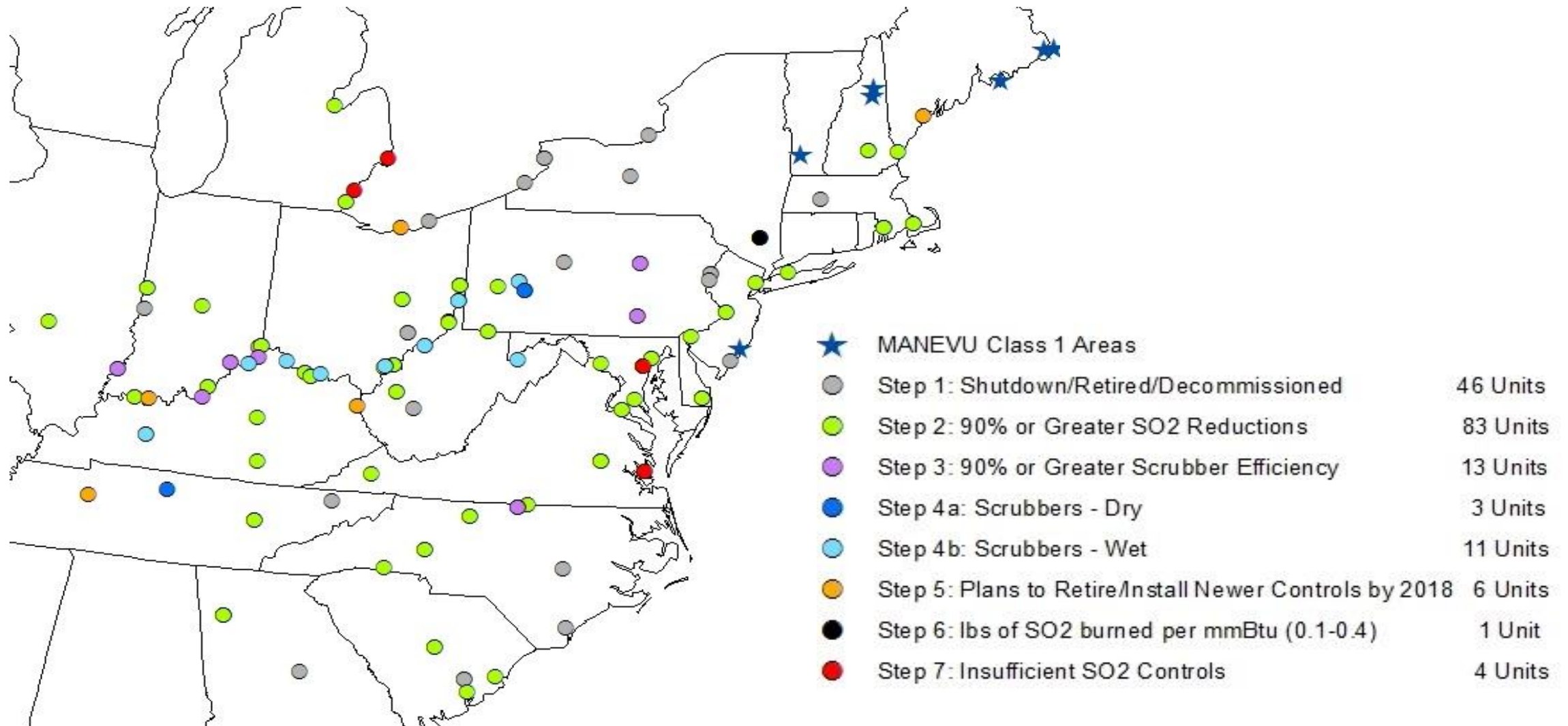
167 Stack Analysis

- ▶ MANE-VU “Ask” was to reduce SO₂ at 167 stacks by 90%
 - ▶ Based on 2008 Contribution Assessment found the 100 EGU stacks that most affected Monitored Class I Areas
- ▶ Reviewed the status of the 167 stacks using 6 criteria
- ▶ Included changes based on stakeholder comments from Spring Meetings
- ▶ Final document posted on MANE-VU website



<http://otcair.org/MANEVU/Upload/Publication/Reports/Status%20of%20the%20Top%20167%20Stacks%20from%20the%202008%20MANE-VU%20Ask.pdf>

167 Stacks: Units



4-Factor Source Sector

- ▶ Collected data needed to conduct 4-factor analyses for the following sectors:
 - ▶ EGUs
 - ▶ ICI Boilers
 - ▶ Heating Oil
 - ▶ Residential Wood Combustion
 - ▶ Outdoor Wood Fired Boilers
- ▶ SO₂ and NO_x controls were considered
- ▶ Next step is to add a section on Cement Kilns

4-Factor Industrial Sources

- ▶ Used facility data from 2011 Q/d point source work to choose sources
- ▶ Collecting data on sources that impact each Monitored Class I Area
- ▶ Data collected:
 - ▶ 2011 & 2014 SO₂ Emissions
 - ▶ Installed/Planned Controls
 - ▶ Permit Limits/Consent Decrees
 - ▶ Number and Size of Boilers
- ▶ Accepting comments on a second review until 10/21/16

Questions?

Liberty Point – Roosevelt Campobello International Park

