**Agency of Natural Resources**
Department of Environmental Conservation
Air Quality and Climate Division
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# MEMORANDUM

**To:** House Committee on Natural Resources, Fish, and Wildlife

**From:** Heidi Hales, Director
Air Quality and Climate Division

**Date:** January 13, 2017

**Subject:** **Brief background of the Regional Haze Rule and monitoring visibility through the IMPROVE network at the Lye Brook Wilderness Area**

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The goal of the federal Regional Haze Rule is to restore natural visibility conditions by 2064 to each of the 156 Class I areas (i.e. national parks and wilderness areas) identified in the 1977 Clean Air Act Amendments. The only Class I area within the borders of Vermont is the Lye Brook Wilderness Area, east of Manchester Center in the Green Mountain National Forest.

National parks and wilderness areas are highly valued for their spectacular vistas which are sometimes obscured by haze consisting of fine particles and gaseous air pollution in the atmosphere. While some haze can be caused by natural sources such as wildfires and dust, it is primarily caused by air pollution from anthropogenic sources. Haze not only impacts how far we can see, but also the quality of colors, forms, and textures in a scenic vista.

Progress in improving visibility is measured via the IMPROVE monitoring network. A coalition composed of the National Park Service, the Fish and Wildlife Service, the Bureau of Land Management, the Forest Service, and the EPA established the Interagency Monitoring of Protected Visual Environments (IMPROVE) program. This monitoring network has collected speciated fine aerosol and related visibility data near the Lye Brook Wilderness Area since 1991.

Visibility is indirectly measured by calculating light extinction based on measurements of various air pollutants. There are definite downward trends in overall haze levels at the Class I areas in the northeast. The trends are mainly driven by large reductions in sulfate light extinction (mostly from power plant sulfur emissions in upwind states). In addition, many state measures have helped to reduce local emissions that impact visibility such as adopting a regional low-sulfur fuel oil strategy.

While easily overlooked, protecting visibility is an important conservation objective, and pollution reductions that benefit Class I areas also benefit visibility and health in other areas, both urban and rural.

For more information, see:
IMPROVE website: http://vista.cira.colostate.edu/Improve/
Photo archive of Lye Brook Wilderness Area:
http://vista.cira.colostate.edu/Datawarehouse/IMPROVE/Data/Photos/LYBR/start.htm
EPA Regional Haze Storymap: http://arcg.is/29tAbS3