Mid-Atlantic/Northeast Visibility Union
MANE-VU

Reducing Regional Haze for Improved Visibility and Health

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March 28, 2023

Mr. Michael Regan, Administrator
U.S Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OAR-2015-0072

RE: Reconsideration of the National Ambient Air Quality Standards for Particulate Matter

Dear Administrator Regan:

The Mid-Atlantic/Northeast Visibility Union (MANEVU) Technical Support Committee (TSC) appreciates the opportunity to comment on the United States Environmental Protection Agency's (EPA's) proposed action, *Reconsideration of the National Ambient Air Quality Standards for Particulate Matter* [88 Fed. Reg. 5558-5719 (January 27, 2023)] (hereinafter, the proposed action). MANEVU is the regional visibility planning organization of the air agencies in the Mid-Atlantic and Northeast and includes eleven states and the District of Columbia (the States), as well as two tribal nations. The MANEVU TSC provides technical resources for multi-pollutant air quality planning and coordinates regional haze planning activities to help the MANEVU members reduce visibility impairment at Class I areas in the MANEVU region in furtherance of achieving national visibility goals in EPA's Regional Haze Rule.

While MANEVU's mission focuses on the Regional Haze Rule, visibility improvement as a welfare value is not limited to the federally protected Class I areas of concern to the Regional Haze Rule. Improving visibility is a welfare value that goes beyond national parks and wilderness areas to encompass rural settings, towns and villages, and urban cityscapes across the country.

MANEVU recognizes EPA's proposed decision to lower the primary annual National Ambient Air Quality Standard (NAAQS) for particulate matter less than 2.5 microns ($PM_{2.5}$). However, MANEVU also notes EPA's proposed decision to retain the current primary 24-hour $PM_{2.5}$ standard and the secondary 24-hour and annual standards. To that end, MANEVU would like to direct you to its June 29, 2020 comment letter[1] that it submitted in response to EPA's

[1] Letter from MANEVU to EPA Administrator Andrew Wheeler (June 29, 2020) https://otcair.org/manevu/Upload/Publication/Correspondence/mane-vu-pm2.5-naaqs-comments-final-20200629.pdf.

original proposal[2] not to revise any of the particulate matter NAAQS. In that letter, MANEVU encouraged EPA to strongly consider the recommendations of the Independent Particulate Matter Review Panel (IPMRP). We refer you to that letter for a summary of how MANEVU considered IPMRP's recommendations in our comments.

In the June 29, 2020 letter, MANEVU also provided measured visibility data that called into question the adequacy of the existing secondary $PM_{2.5}$ NAAQS for providing the protection necessary to achieve visibility goals. The data provided in that letter showed that for the 20% Clearest Days, current visibility conditions were above the 2028 Reasonable Progress Goals (RPGs) for five of seven MANEVU Class I areas and for two of four Class I areas near the MANEVU region. For the 20% Most Impaired Days, current visibility conditions were above the 2028 RPGs for all the MANEVU and nearby Class I areas. Time-series plots were also provided that showed how long-term downward trends in visibility impairment have been leveling off at many of the MANEVU and nearby Class I areas. The data that was provided in the June 29, 2020 letter was current through calendar year 2018. MANEVU has now assembled data through calendar year 2021. This data is provided in Table 1 and in Figures 1 through 8 below.

Table 1 shows 2017-2021 5-year average haze indices (in deciviews, or dv) for Class I areas in and near MANEVU. As in our June 29, 2020 letter, these values are compared to the 2028 RPGs for the 20% Clearest Days and the 20% Most Impaired Days and the 2028 Uniform Rate of Progress (URP) for the 20% Most Impaired Days. For all the Class I areas listed in Table 1, the Current Conditions for the 20% Most Impaired Days remain below the corresponding 2028 URP levels. This continues to provide optimism that the MANEVU Class I areas (and those near MANEVU) are on track to meet the goal of Natural Conditions by 2064. However, Table 1 also shows the following less optimistic data:

- For the 20% Clearest Days, current conditions remain above the 2028 RPGs for two of the seven Class I areas in MANEVU.
- For the 20% Most Impaired Days, current conditions remain above the 2028 RPGs for one of the seven Class I areas in MANEVU and all four Class I areas near MANEVU.

Figures 1 through 8 show annual haze indices, in dv, for the 20% Most Impaired Days at the Class I areas in and near MANEVU. For all those Class I areas, a distinct downward trend in haze indices (i.e., improvement in visibility) is evident for the years between approximately 2005 to 2015. However, in more recent years (e.g., 2016 to 2021), this trend has leveled off for all the MANEVU Class I areas and has shown a rise at virtually all the MANEVU and nearby Class I areas. Also shown on each figure is the level of the 2064 Natural Conditions goal for the 20% Most Impaired Days for that Class I area. The Natural Conditions goal year of 2064 is a very long planning horizon, but nevertheless, downward trends in annual haze indices must be maintained if these goals are to be met.

As is well-documented in EPA's Proposed Action and supporting materials, $PM_{2.5}$ in the atmosphere is efficient at light scattering, and therefore an important contributor to regional haze and visibility impairment. Measurement of current conditions above the 2028 20% Most Impaired Day RPGs for several of the Class I areas in and near MANEVU and the trends in

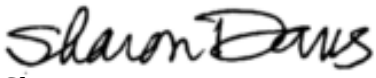
[2] 85 Fed. Reg. 24094-24144 (April 30, 2020) https://www.govinfo.gov/app/details/FR-2020-04-30/2020-08143.

annual haze indices that have leveled off, or have even gone up, at many of these Class I areas call into question the adequacy of the existing secondary $PM_{2.5}$ NAAQS for providing the protection necessary to achieve visibility goals.

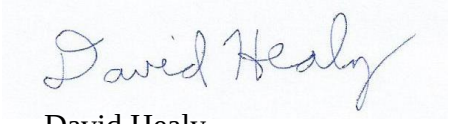
MANEVU also notes that a secondary standard of a different form from the primary may be a more relevant indicator for visibility as a welfare value. For example, CASAC has previously stated a sub-daily secondary standard based on daylight hours better reflects visibility impairment.[3] MANEVU supports the more recent CASAC majority's recommendation that EPA develop a Federal Reference Method (FRM) to directly measure light extinction. The ongoing transition to continuous $PM_{2.5}$ measurements can support a sub-daily secondary $PM_{2.5}$ NAAQS to address visibility impairment until methods to more directly measure light extinction are established.[4]

In conclusion, MANEVU respectfully reaffirms its request that EPA set the annual secondary $PM_{2.5}$ NAAQS to a level at least as stringent as the annual primary NAAQS. MANEVU also requests that EPA reevaluate both the 24-hour and annual secondary NAAQS to determine whether a different form of the NAAQS is a better indicator for fulfilling the Agency's statutory mandate to protect public welfare. Adoption of a secondary $PM_{2.5}$ NAAQS of the appropriate form and level will help ensure that incremental progress is made towards meeting the 2028 RPGs and the required 2064 goal of natural conditions at MANEVU's Class I areas, as well as improve visibility across the country as a whole.

Sincerely,



Sharon Davis
New Jersey Department of Environmental Protection and Co-Chair of MANE-VU Technical Support Committee



David Healy
New Hampshire Department of Environmental Services and Co-Chair of MANE-VU Technical Support Committee

cc: MANEVU Air Directors
MANEVU TSC

[3] CASAC Peer Review of EPA's *Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information* (Second Draft PM Staff Paper, January 2005); and *Particulate Matter Health Risk Assessment for Selected Urban Areas: Second Draft Report* (Second Draft PM Risk Assessment, January 2005), EPA-SAB-CASAC-05-007 (June 6, 2005).

[4] CASAC Review of the EPA's *Policy Assessment for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (External Review Draft – October 2021)*, EPA-SAB-CASAC-22-002 (March 18, 2022), appended CASAC Particulate Matter Review Panel (2021) Consensus Responses to Charge Questions, p. 22, https://casac.epa.gov/ords/sab/f?p=113:0:11370657452080:APPLICATION_PROCESS=REPORT_DOC:::REPORT_ID:1094.

Table and Figures

Table 1: Baseline Conditions, Current Conditions, Uniform Rate of Progress (URP), and Reasonable Progress Goals (RPG) for Class I Areas in and near MANEVU (in deciviews)

Class I Area	State	20% Clearest Days			20% Most Impaired Days			
		Base Line (2000-04)	Current (2017-21)	RPG (2028)	Baseline (2000-04)	Current (2017-21)	URP (2028)	RPG (2028)
Acadia	ME	8.78	6.54	6.33	22.01	13.78	17.36	13.35
Moosehorn	ME	9.16	6.39	6.45	20.65	12.67	16.38	13.12
Roosevelt-Campobello	ME/NB							
Great Gulf	NH	7.65	4.67	5.06	21.88	11.90	17.04	12.00
Presidential Range-Dry River	NH							
Lye Brook	VT	6.37	4.62	3.86	23.57	13.46	18.23	13.68
Brigantine	NJ	14.33	10.40	10.47	27.43	17.40	20.74	17.97
Dolly Sods	WV	12.28	6.10	7.27	28.29	15.77	20.54	15.09
Otter Creek	WV							
James River Face	VA	14.21	8.47	9.36	28.08	16.47	20.64	15.31
Shenandoah	VA	10.96	6.30	6.83	28.32	14.74	20.80	14.25

Notes:

1) Source of data: *Mid-Atlantic/Northeast U.S. Visibility Data (2nd RH SIP Metrics)*, MANEVU Technical Support Committee, January 30, 2023 Draft.
2) NB = New Brunswick, Canada
3) Because of physical proximity, the following Class I area pairs share an IMPROVE monitor: Moosehorn/Roosevelt-Campobello, Great Gulf/Presidential Range-Dry River, and Dolly Sods/Otter Creek.

Figure 1: Annual 20% Most Impaired Day Haze Indices for Acadia, 2000-2021

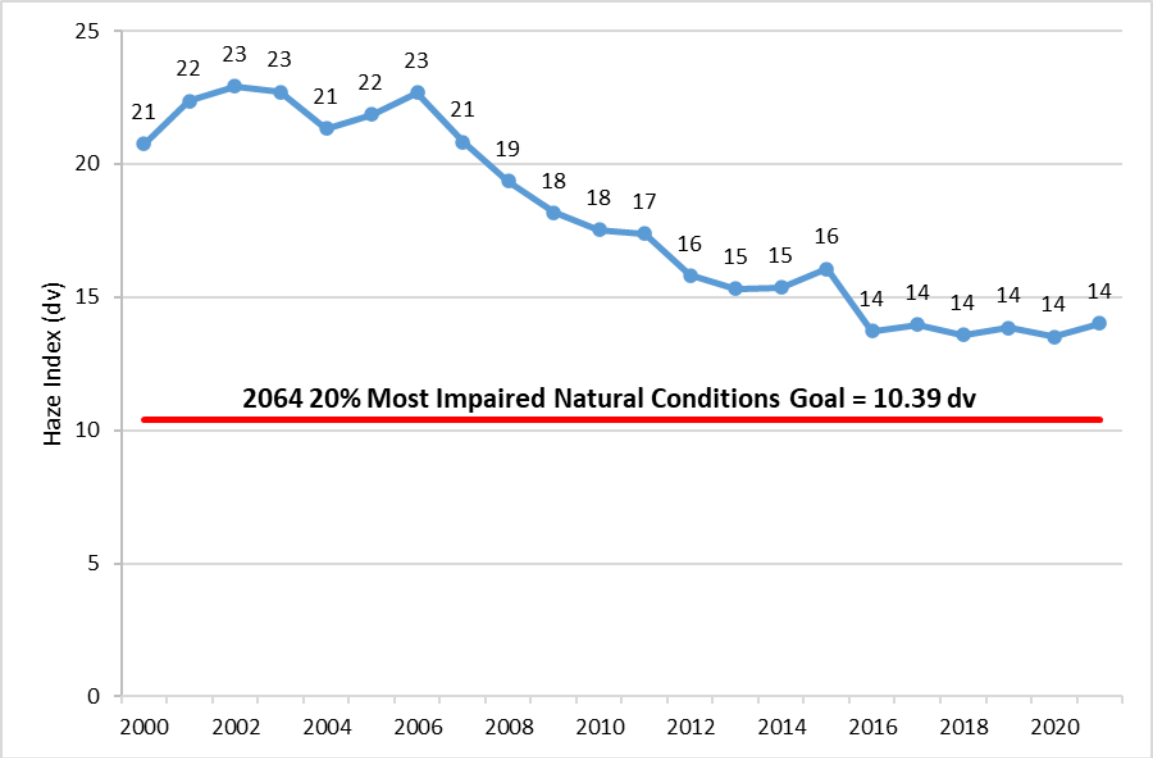


Figure 2: Annual 20% Most Impaired Day Haze Indices for Moosehorn/Roosevelt-Campobello, 2000-2021

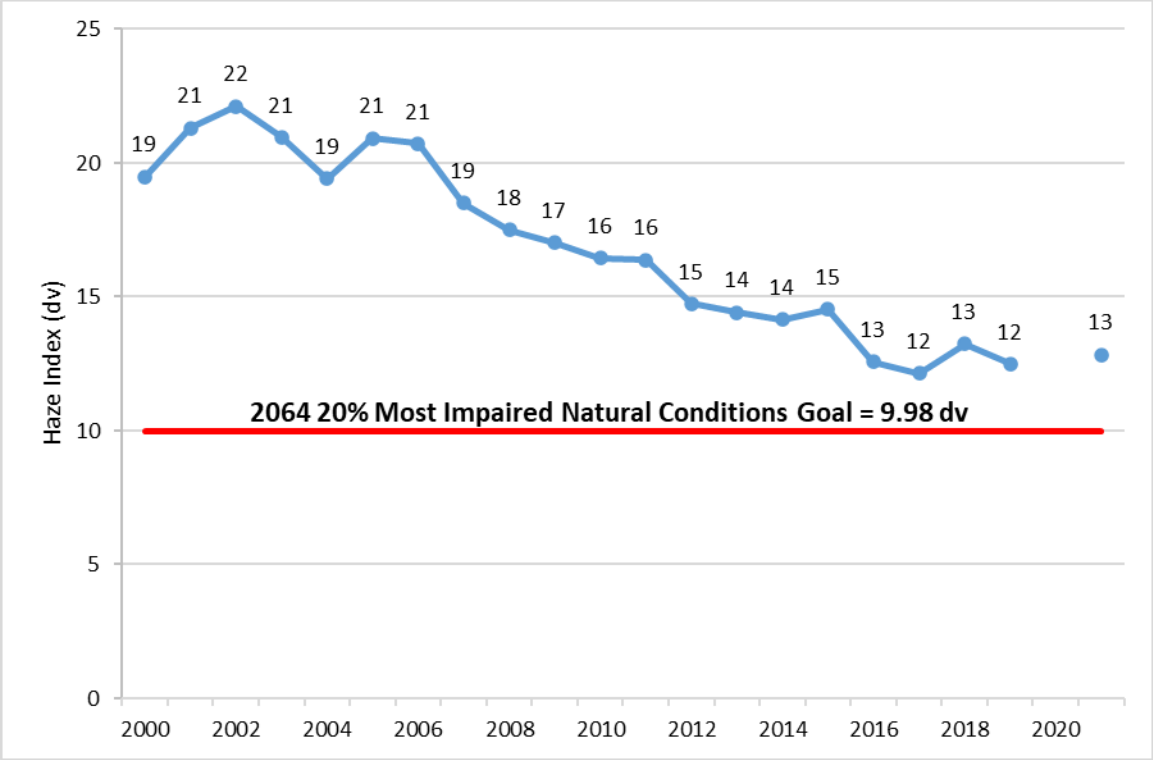


Figure 3: Annual 20% Most Impaired Day Haze Indices for Great Gulf/Presidential Range-Dry River, 2001-2021

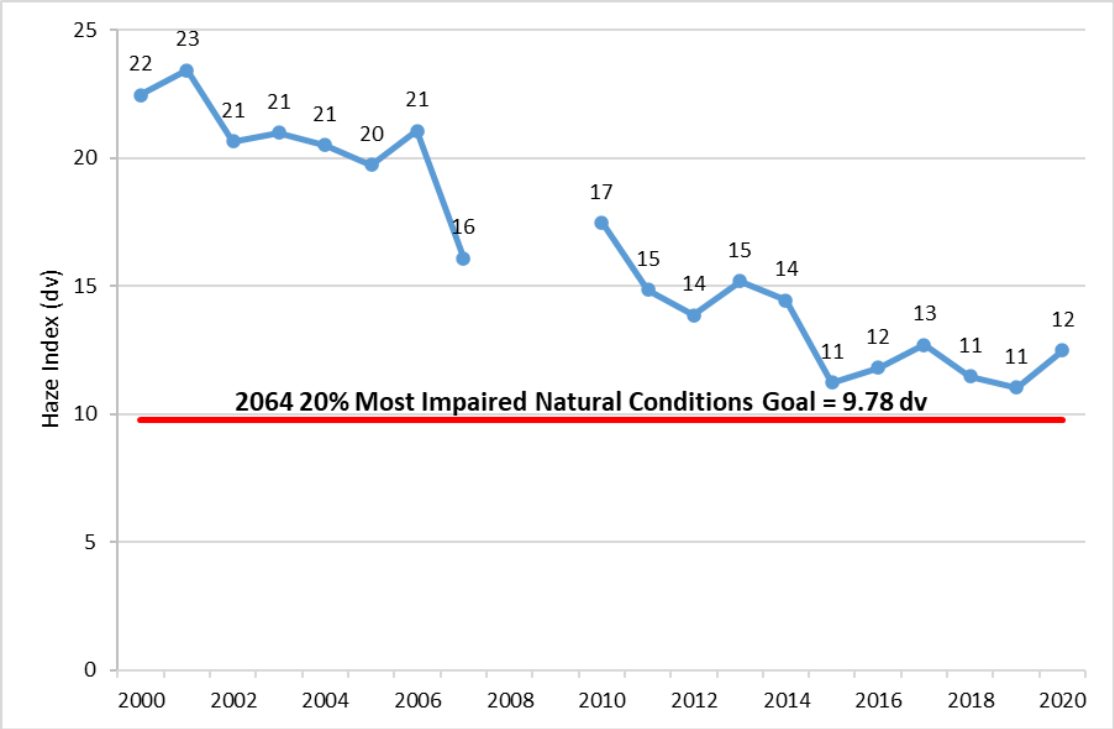


Figure 4: Annual 20% Most Impaired Day Haze Indices for Lye Brook, 2000-2021

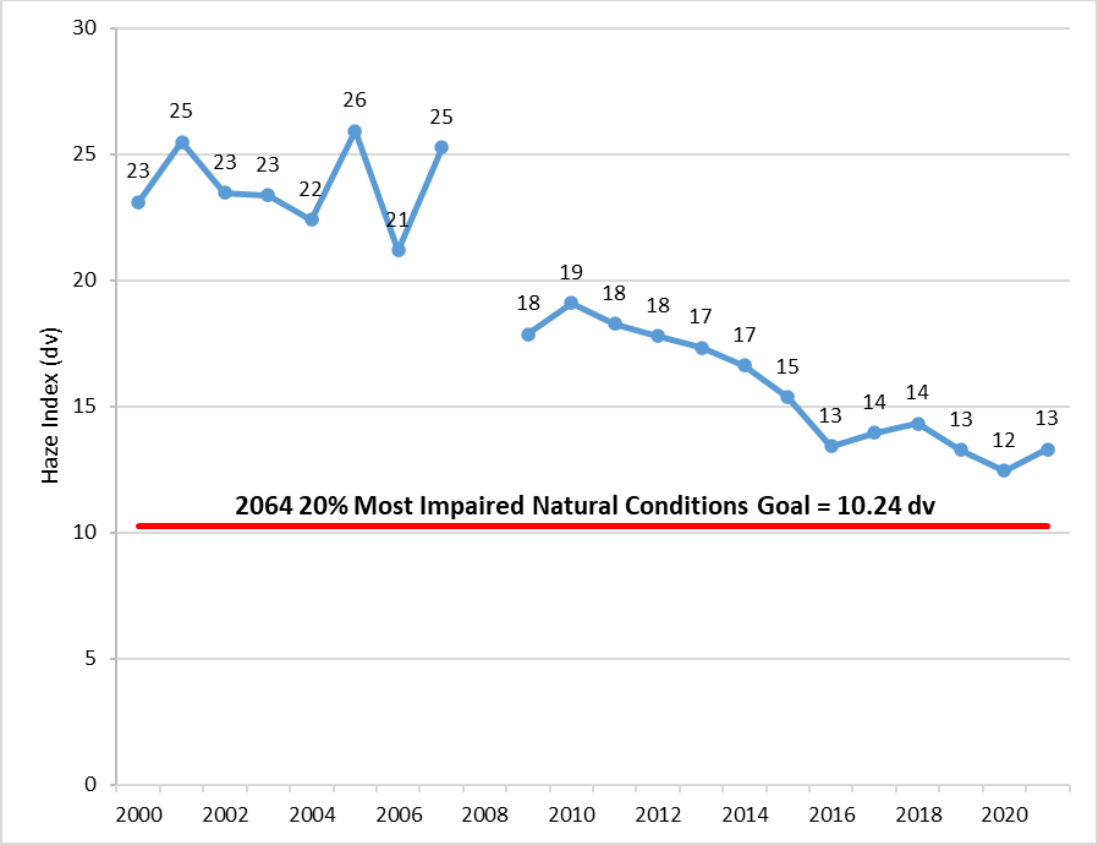


Figure 5: Annual 20% Most Impaired Day Haze Indices for Brigantine, 2000-2021

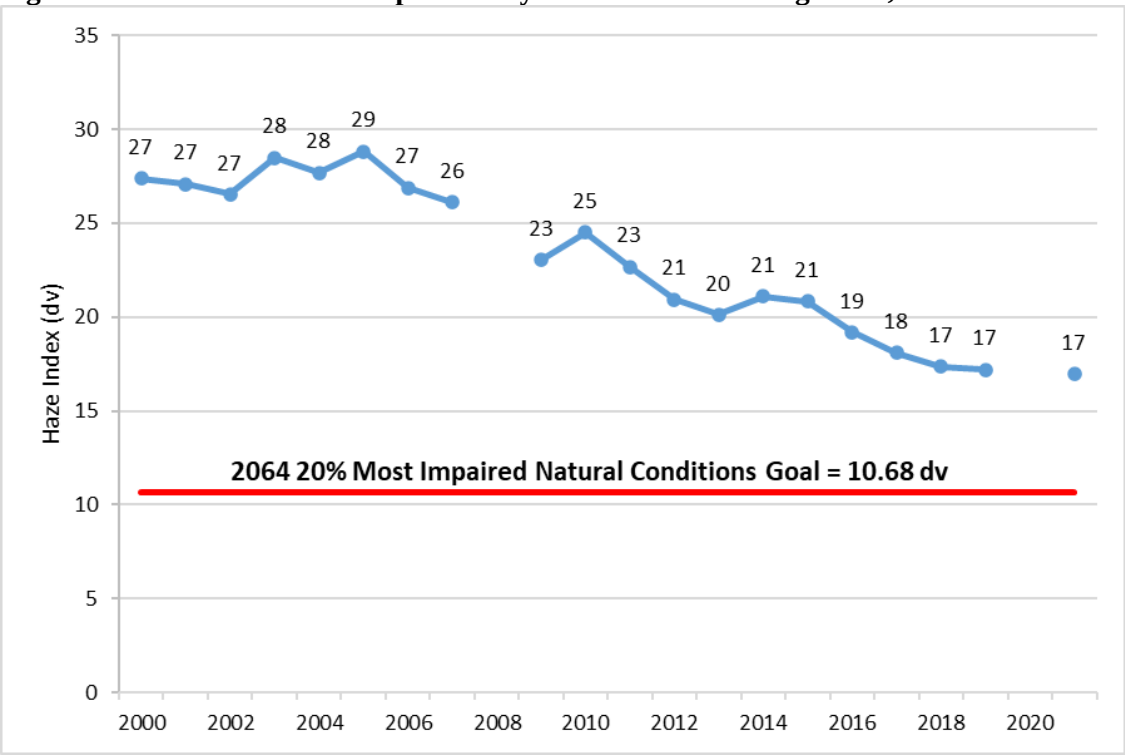


Figure 6: Annual 20% Most Impaired Day Haze Indices for Dolly Sods/Otter Creek, 2000-2021

Figure 7: Annual 20% Most Impaired Day Haze Indices for James River Face, 2001-2021

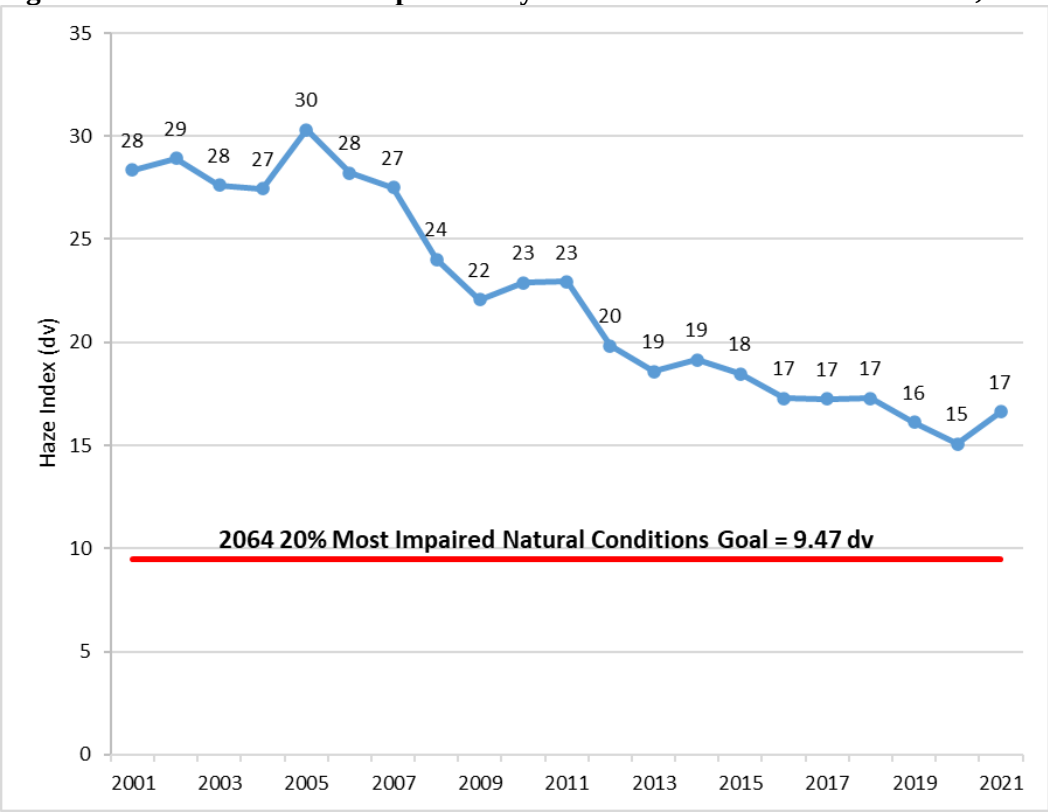


Figure 8: Annual 20% Most Impaired Day Haze Indices for Shenandoah, 2000-2021