

**Policy Assessment for the Review of the Secondary National Ambient Air Quality Standards for
Oxides of Nitrogen, Oxides of Sulfur and Particulate Matter**

[EPA-452/R-24-003]

Jan 2024

Errata – April 10, 2024, as amended October 21, 2024

1. Page 2-14 includes a typographical error in reference to U.S. EPA 2021a. It should be U.S. EPA 2023c. Additionally, in the reference section of Chapter 2, page 2-65, the year should be 2023c, not 2021a:

U.S. EPA (2023c). Overview of Nitrogen Dioxide (NO₂) Air Quality in the United States.

Available at: https://www.epa.gov/system/files/documents/2022-08/NO2_2021.pdf.

2. Page 2-15 includes a typographical error in reference to U.S. EPA 2021b. It should be U.S. EPA 2023d. Additionally, in the reference section of Chapter 2, page 2-65, the year should be 2023d, not 2021b:

U.S. EPA (2023d). Overview of Sulfur Dioxide (SO₂) Air Quality in the United States. Available

at: https://www.epa.gov/system/files/documents/2022-08/SO2_2021.pdf.

3. Page 2-16 includes a typographical error in reference to U.S. EPA 2021c. It should be U.S. EPA 2023e. Additionally, in the reference section of Chapter 2, page 2-65, the year should be 2023e, not 2021c:

U.S. EPA (2023e). Overview of Particulate Matter (PM) Air Quality in the United States.

Available at: https://www.epa.gov/system/files/documents/2022-08/PM_2021.pdf.

4. Page 2-39 and page xii, Figure 2-37 Title – The title of this figure should be corrected as follows, “Distributions of annual mean PM_{2.5} concentrations (µg/m³) at U.S. sites across the 2000-2021 period. The red line shows the number of sites included in each boxplot per year.”

5. Page 2-40 and page xii, Figure 2-38 Title – The title of this figure should be corrected as follows, “Distributions of the annual 98th percentile 24-hour PM_{2.5} concentrations (µg/m³) at U.S. sites across the 2000-2021 period. The red line shows the number of sites included in each boxplot per year.”

6. Page 5-42 – The 6th and 7th sentences include typographical errors in the number of critical loads for two case study areas. The line should read:

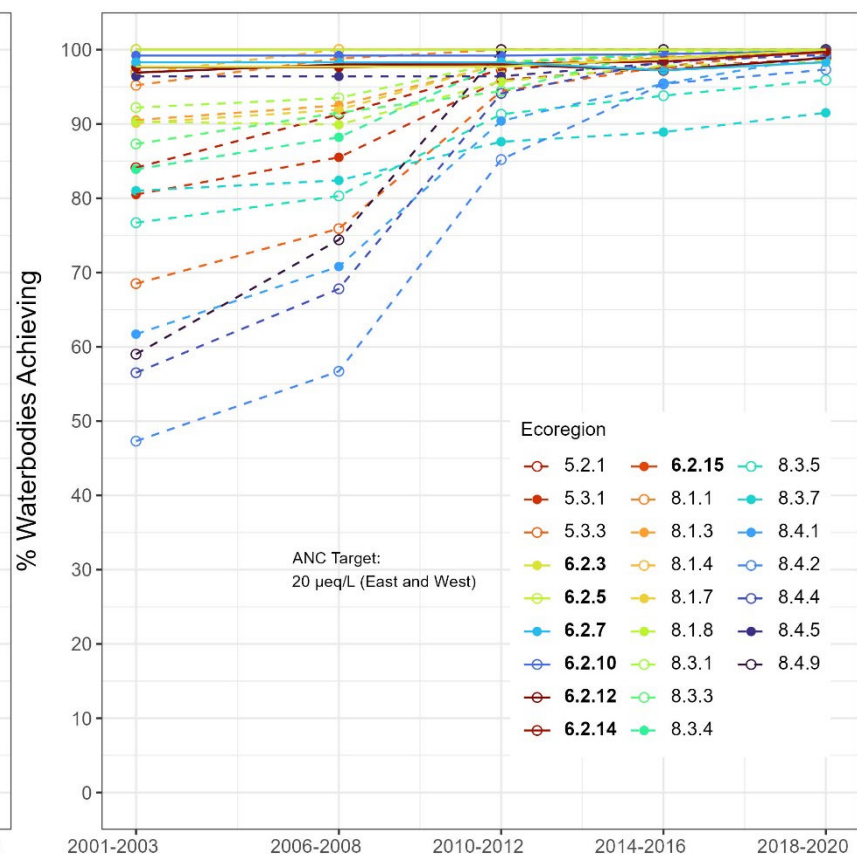
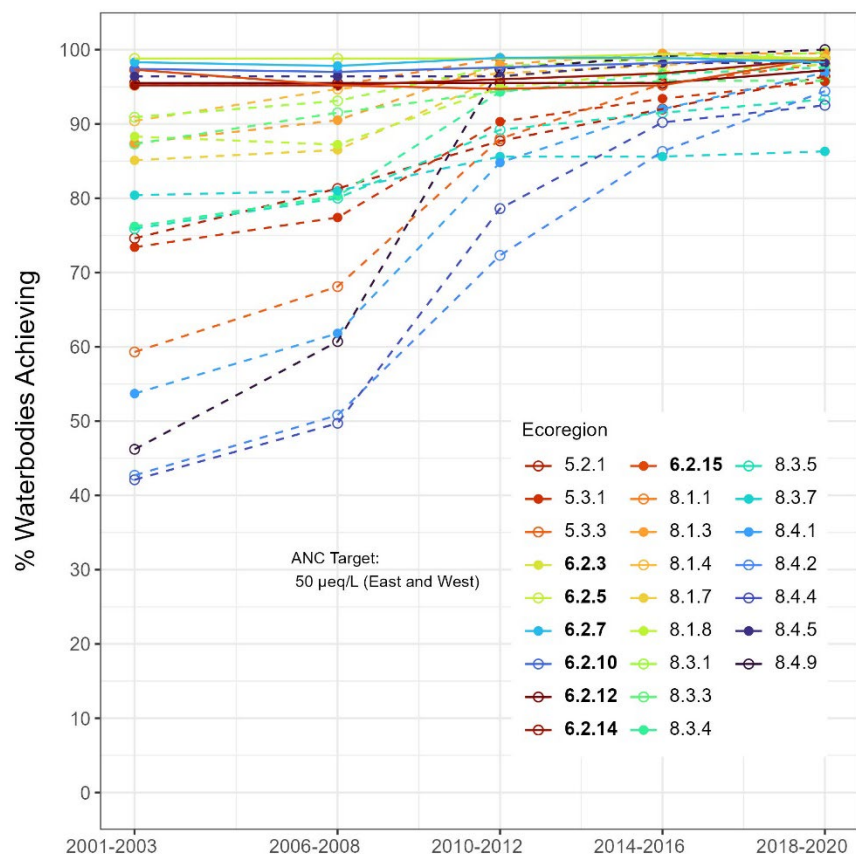
“A total of 515 CLs were identified in four of the five case study areas, while the SHVA case study had complete coverage, with 4977 CLs. The case studies, ROMO, SINE, NOMN, and WHMT, had 119, 139, 183, and 74 CLs, respectively.”

7. Page 6-13, 1st paragraph - The reference to U.S. EPA, 2022 should be to U.S. EPA, 2022b.

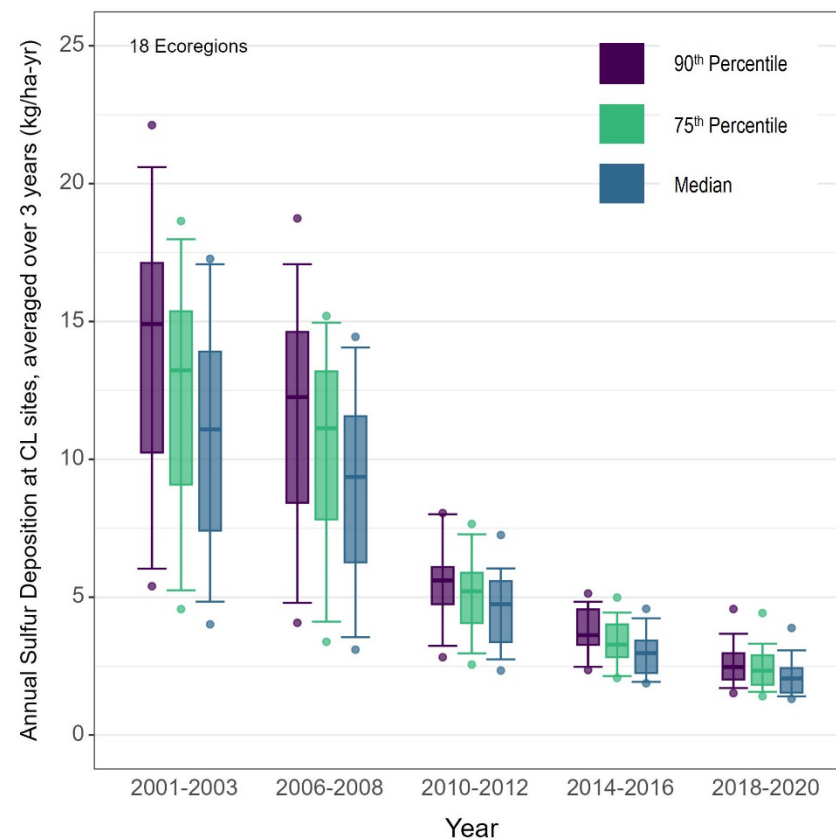
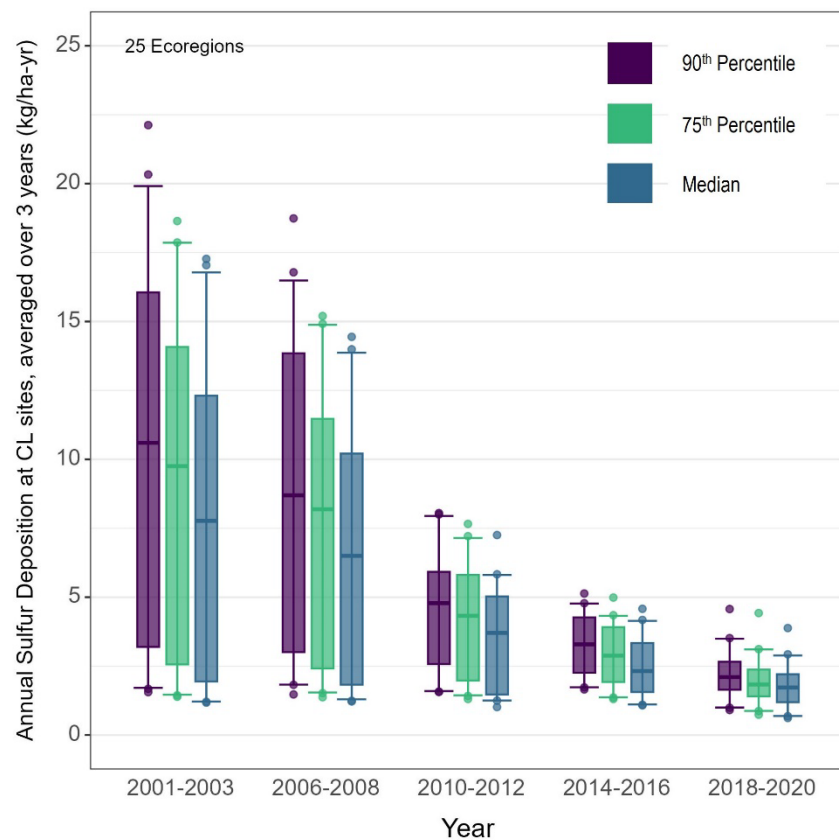
8. Page 6-65 -Footnote 12 includes a typographical error in reference to the TDep version and the capitalization of TDep. The correct text is shown below:

“In these analyses S and N deposition are ecoregion medians derived from grid-cell estimates based on TDep version: v2022.02, downloaded on September 7, 2022. These estimates are also presented in Figures 6-53 and 6-55.”

9. Page 7-21, Figure 7-1 –The left panel includes data points for the last time period that are not aligned with the 2018-2020 vertical line, and the right panel includes extraneous datapoints in the space between the 2006-2008 and 2010-2012 vertical lines. The corrected panels are shown below.



10. Page 7-22, Figure 7-2 – In both panels of this figure, the boxes and whiskers for the ecoregion median values are incorrect. The corrected panels are shown below. We note that a correct black and white version of this figure was also presented in the proposed decision notice, [89 FR 26666, April 15, 2024]).



11. Page 5A-140 – The first two sentences of section 5A.2.3.3.1 include typographical errors in the number of critical loads for some case study areas. Sentences should read:

“A total of 519 CLs were found in the 5 case study areas, excluding SHVA which had complete coverage (4977 CLs in total, with 704 CLs in sensitive sites, 464 of which are within the Shenandoah National Park and used for the SHVA statistics in Tables 5A-50 and 5A-51). The ROMO, SINE, NOMN, and WHMT areas had 119, 139, 183, and 74 CLs respectively (Figure 5A-67).”

12. Page 5A-141 includes a typographical error in the third full sentence. This sentence should read:

“Average S only CL values for an ANC threshold of 50 $\mu\text{eq/L}$ range from 6.6 to 9.8 kg S/ha-yr or 41.2 to 61.0 $\text{meq/m}^2\text{-yr}$.”

13. Page 5A-141 - Table 5A-51 has a typographical error in the value of the average CL for an ANC of 30 $\mu\text{eq/L}$ for the ROMO study area. The value should be 53.0, not 5.3. The corrected table is shown below:

	ANC of 20 $\mu\text{eq/L}$			ANC of 30 $\mu\text{eq/L}$			ANC of 50 $\mu\text{eq/L}$		
	Ave.	30th	10th	Ave.	30th	10th	Ave.	30th	10th
Sulfur (S) only CLs ($\text{meq/m}^2\text{-yr}$)									
ROMO	59.1	34.0	22.6	53.0	28.4	16.1	41.2	16.7	3.4
SINE	75.0	25.4	11.0	68.7	17.3	2.9	58.4	3.5	0.1
NOMN	67.4	34.5	26.0	65.3	32.4	29.1	61.0	29.3	20.1
WHMT	66.3	43.4	27.8	59.7	38.3	20.8	46.3	25.6	4.4
SHVA	77.4	58.9	44.6	71.3	52.4	39.1	59	39.5	25.8
10 th and 30 th percentiles refer to the 10 th and 30 th percentile lowest CL values.									

14. Page 5A-156, section 5A.3.3.2 – The 1st sentence of the 2nd paragraph includes a typographical error in the citation to Sullivan et al., 2014. This should be Sullivan et al., 2012a. The correct sentence should be:

“Across CLs for all sites in the three regions, the Regional Regression (Sullivan et al., 2012a) CL estimates were strongly correlated with those from the SSWC F-Factor model, with $R^2=0.9815$ and a bias towards higher values for the Regional Regression approach (Figure 5A-70a).”

15. Page 5A-158, the y-axis labels on both plots (a and b) in Figure 5A-70 contain a typographical error. The y-axis label should reference Sullivan et al., 2012a instead of Sullivan et al., 2014.
16. Page 5A-158 and page 5A-xii, Figure 5A-70 – The title should reference Sullivan et al., 2012a instead of Sullivan et al., 2014.