



Guidance for Evaluating Air Quality In Natural Resource Conditions Assessments

This document is intended to assist parks in assessing air quality conditions for Natural Resource Condition Assessments (NRCA). It is not meant to be prescriptive, and the Air Resources Division (ARD) recognizes that parks may choose to analyze air quality data and information differently to meet their particular needs.

To assess basic air quality conditions:

1. Look up the most recent park-specific air quality conditions and trends for ozone visibility, and deposition at the “Air Quality Conditions & Trends by Park” ARD website: <http://www.nature.nps.gov/air/data/products/parks/index.cfm>
2. Refer to the draft 2015 methods document “DRAFT National Park Service Air Quality Analysis Methods” at <http://www.nature.nps.gov/air/data/products/methods.cfm> for a description of methods used to determine park condition (“significant concern”, “moderate”, or “good”) and trends for air quality indicators. We encourage parks to use site-specific reference conditions when available (e.g., critical loads for deposition).
3. In addition to this basic air quality condition assessment, an NRCA may choose to address current or potential effects to air quality sensitive resources (e.g., vegetation, lakes and streams, soils, wildlife, and visibility), particularly if air quality condition for any of the parameters is rated “moderate” or “significant concern.” Information on air quality sensitive resources may be available from the following sources:
 - a. For ozone, refer to the Ozone Risk Assessments at <http://www.nature.nps.gov/air/permits/aris/networks/ozonerisk.cfm> to determine what level of risk may exist for ozone injury to vegetation in the Park. Park lists of ozone-sensitive plant species are available at <https://irma.nps.gov/NPSpecies/Reports/Systemwide/Ozone-Sensitive%20Species%20in%20a%20Park>
 - b. For visibility, if the park is a Class I area, a specific discussion of the national regional haze goals for the park should be included. If completed, the regional haze State Implementation Plan (SIP) aimed at achieving the national visibility goal for the park could be discussed. If you do not have a copy of this information at your park, contact the ARD.
 - c. For deposition of sulfur or nitrogen compounds, information on sensitive soils, lakes, streams, or vegetation may be available from <http://www.nature.nps.gov/air/permits/aris/index.cfm>. I&M network based risk assessments for sulfur and nitrogen deposition are available at <http://nctest/air/permits/aris/networks/index.cfm>. In addition, park data can be used to assess potential sensitivity of lakes, streams, and soils to acidification

- from sulfur and nitrogen compounds (e.g., acid-neutralizing capacity, ANC, less than 100 microequivalents per liter). Are there issues with invasive plant species in the park that could be exacerbated by nitrogen deposition?
- d. Nitrogen critical loads (the amount of deposition below which resources are not likely to be harmed) and estimated exceedances for most NPS unit are available at <http://www.nature.nps.gov/air/studies/criticalLoads/Ecoregions/index.cfm>. If critical loads have been calculated for ecosystems in the park, the critical loads can be used for reference conditions. Has there been other research in the park to evaluate effects from deposition or determine critical loads?
4. In addition to these basic air quality issues, parks may have concerns about other air pollutants, including mercury and other toxics.
- a. Refer to the draft 2015 methods document “DRAFT National Park Service Air Quality Analysis Methods” at <http://www.nature.nps.gov/air/data/products/methods.cfm> for a description of methods used to determine park condition and trends for mercury/toxics deposition.
 - b. Contact ARD for the park predicted surface water methylmercury concentration value for use in the ARD mercury status assessment matrix.
 - c. Monitoring information for mercury is at <http://nadp.sws.uiuc.edu/mdn/> and <http://views.cira.colostate.edu/fed/SiteBrowser/Default.aspx?sskeyse=10001&smkeys=10&smmkeyssiw=1>.
 - d. Park and I&M network-specific information may be available at <http://www.nature.nps.gov/air/permits/aris/index.cfm>. Information on mercury impacts to park resources is available at <http://www.nature.nps.gov/air/AQBasics/mercury.cfm>.