



Researchers are invited to attend an introductory meeting on January 12, 2022, 2:00 – 3:00 pm with representatives from the NC Department of Environmental Quality, NC Office of Strategic Partnerships, and others. Email partnerships@osbm.nc.gov for the invite.

Research Partnership Opportunity North Carolina Department of Environmental Quality - Division of Air Quality

December 2021

Purpose: The North Carolina Department of Environmental Quality (DEQ) Division of Air Quality (DAQ), in 2020-21, conducted an internal staffing and operational needs analysis for the purposes of developing a long-term funding needs plan. The DAQ now seeks a second analysis and recommendations.

The second analysis – intended to strengthen and improve DAQ’s internal analysis – will focus on staffing and operational needs, primarily related to equipment replacements and workload, associated with a transition to a new information system. The second analysis will also consist of interviews with Division leadership and managers, and identifying recommendations to improve, streamline, or automate operations, should any become apparent.

The Division of Air Quality has 203 positions and works with the state’s residents to protect and improve outdoor, or ambient, air quality in North Carolina for the health, benefit, and economic well-being of all. The DAQ operates a statewide air quality monitoring network to measure the level of pollutants in the outdoor air, develops and implements plans to meet future air quality initiatives, ensures compliance with air quality rules, and educates, informs, and assists the public about air quality issues.

The Division of Air Quality is requesting a second analysis and recommendations which would consist of the five tasks below. (DEQ will provide researchers with the data sets necessary to complete the analyses outlined in tasks 1 – 3.)

Task 1: Review, strengthen, and improve Central Office and Regional Office Staffing Analysis

The Division of Air Quality initiated an in-depth and granular analysis of specific tasks required to be completed by law, rule, and to advance the DAQ’s mission. Quantities of specific tasks (e.g., inspections, complaint investigations, review of permitted facility submitted reports, enforcement actions), and associated time requirements have been summarized based on a large data set of the most recent five years of DAQ activity.

Over the next two to six years, significant numbers of DAQ employees will be eligible to retire, which greatly impacts the workplace since many of these employees are in leadership/management roles. Succession planning approaches are being implemented currently, but an additional evaluation of those approaches and overall capacity of the program is requested.

Task 2: Assess operational needs related to Ambient Monitoring equipment

A foundational part of the Division of Air Quality’s program is the [ambient monitoring program](#). This program operates a network of air quality monitors across the state that includes 75 monitors operated at 38 sites. There is a significant inventory of support equipment, replacement pieces and parts, and logistical considerations to keep this network at optimal performance. The minimum monitoring requirements, as well as the data quality and completeness measures, are established by federal regulations, and the United States Environmental Protection Agency (EPA) provides oversight of those quality metrics. Information regarding current and future needs for equipment replacements will need to be gathered from the Supervisors of the Ambient Monitoring Section.

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Task 3: Assess workload associated with a transition to a new information system

The Division of Air Quality's information system was created in the early 2000's and is actively used, maintained, and enhanced for tracking much of the Division's business and regulatory processes. As DEQ moves to new and different technology, a significant amount of staff time will be necessary to migrate to the new system, which takes away time from staff's core duties. Migration to the new system could take between 1 – 3 calendar years of development and testing for the Division's many and most complex processes and datasets (as DEQ, DAQ, and information technology priorities and resources allow).

Task 4: Identify any recommendations to improve, streamline, or automate operations**Task 5: Develop final recommendation report, ideally by June 30, 2022.**

Expertise Needed May Include: Staffing, organizational capacity, and succession planning.

Commitment Needed: The Division of Air Quality seeks a final recommendation report, ideally by June 30, 2022.

Funding: Some projects may require funding. This will depend on the scope of the project, level of expertise needed, and other factors. Research partners, agency officials, and the Office of Strategic Partnerships can discuss funding details, including needs and potential sources, on a case-by-case basis.

Publication Policy: We are committed to open science best practices, including sharing results and distributing materials needed to replicate. This includes academic and practitioner publishing and may also include interactive online materials, community forums, podcasts, and beyond as best fit for the relevant audiences.

Context: The North Carolina Department of Environmental Quality is a Cabinet agency of NC state government, which serves over 10 million residents across policy and programmatic domains. The NC Office of Strategic Partnerships is organizationally part of the NC Office of State Budget and Management (OSBM), which includes data-driven and evidence-based decision making among its priorities.

How to Express Your Interest: Interested researchers are invited to attend an introductory meeting on **January 12, 2022, 2:00 – 3:00 pm** with representatives from the NC Department of Environmental Quality, NC Office of Strategic Partnerships, and others. Email partnerships@osbm.nc.gov for the meeting invitation or with any questions.