



At a Glance

Why We Did This Project

We conducted this audit to determine whether the U.S. Environmental Protection Agency (EPA) has developed controls to manage the use of citizen science results to meet the agency's mission.

Citizen science is a form of open collaboration in which individuals or organizations participate voluntarily in the scientific process in various ways, including collecting and analyzing data. Citizen science provides a way for members of the public to participate and support EPA programs.

On September 30, 2015, the White House Office of Science and Technology Policy recommended actions to build citizen science capacity and directed agencies to take specific steps to advance application of citizen science. Within the EPA, a team in the Office of Research and Development facilitates citizen science projects implemented throughout the agency's program and regional offices.

This report addresses the following:

- *Improving EPA research programs.*

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EPA Needs a Comprehensive Vision and Strategy for Citizen Science that Aligns with Its Strategic Objectives on Public Participation

What We Found

Although citizen science is carried out throughout the EPA, the agency has not developed controls necessary to manage citizen science agencywide, including a clear vision and objectives for using results. Absent this, the EPA cannot undertake a systematic effort to analyze the risks and opportunities that citizen science presents.

Without uniform guidance and direction, the EPA will be unable to fully use citizen science data that could contribute to the agency's mission.

EPA staff identified barriers to effectively using citizen science results—including lack of a comprehensive vision and support/resources from senior management, and lack of understanding and buy-in for citizen science—that exist because EPA leadership has not developed a strategy for citizen science. Citizen science is evolving as advancements in technology provide greater access to the public, and as public involvement grows it will place pressure on the EPA to understand and determine how to use the data collected and provided to the agency.

Recommendations and Planned Agency Corrective Actions

We recommend that the EPA Deputy Administrator establish a strategic vision and objectives for citizen science, and direct completion of an assessment to identify the data management requirements for using citizen science data and an action plan. Further, we recommend that the Office of Research and Development finalize a draft handbook for citizen science and build the capacity for managing the use of citizen science. The agency concurred with our recommendations and indicated that it plans to convene an agencywide workgroup to oversee implementation of our recommendations, and it plans to complete corrective actions by December 31, 2020.

Noteworthy Achievements

Prior to the start of our audit, the EPA had begun to develop a checklist of administrative and legal considerations for citizen science projects. The EPA had also drafted an outreach tool that highlights a representative distribution of citizen science projects at the EPA. Additionally, the EPA has taken the lead among federal agencies in addressing a barrier related to the Paperwork Reduction Act by obtaining approval for an Information Collection Request (generic clearance for citizen science) for projects contributing to EPA research.