COMMITTEE ON
SCIENCE, SPACE AND TECHNOLOGY
CHAIRMAN FRANK LUCAS

FULL COMMITTEE
HEARING CHARTER

"Science and Technology at the EPA"

Wednesday, September 27, 2023
10:00 a.m.
2318 Rayburn House Office Building

Purpose

The purpose of this hearing is to discuss and review the science and technology activities at the Environmental Protection Agency (EPA) and the use of science in the Agency's regulatory decision-making processes.

Witness

- **The Honorable Michael Regan,** Administrator, Environmental Protection Agency

Overarching Questions

- What role does science and technology play at EPA?
- How does EPA consider statutorily mandated coordination with other agencies when it comes to the scientific decision-making process?
- How is scientific integrity and best available science kept consistent within EPA?

Background

The mission of the United States EPA is to protect human health and the environment.[1] The Agency is tasked with conducting ongoing research and scientific analysis to provide national guidance on environmental and human health risks.

The House Committee on Science, Space, and Technology has jurisdiction over all matters relating to environmental research and development.[2] EPA is required by several statutes to use science to support the Agency's decision-making process with the primary statute being the 1978 Environmental Research, Development, and Demonstration Authorization Act (ERDDAA)[3]. ERDDAA broadly authorized environmental research at EPA and established the non-regulatory

[1] *Our Mission and What We Do*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/our-mission-and-what-we-do.
[2] Rules of the House of the Representatives, Rule X, Clause 1 (p).
[3] Environmental research, development, and demonstration authorization act, H.R. 11302, 95th Cong. (1978).

Office of Research and Development (ORD) to house research programs. ERDDAA also directed the creation of the Science Advisory Board (SAB) at EPA. Among additional major environmental statutes that grant authority to EPA to conduct research and development activities are the Clean Air Act (CAA)[4], Safe Drinking Water Act (SDWA)[5], Clean Water Act (CWA)[6], and Toxic Substances Control Act (TSCA).[7]

Appropriations
The EPA's total enacted funding in Fiscal Year 2023 was $10,135,433,000, which is an increase of 25% from a decade ago. The FY 2024 budget request for the Agency's Science & Technology account is $968 million, which would amount to 8% of the EPA's total budget. In any given fiscal year, the Agency typically manages approximately 6,000 active grants totaling approximately $21 billion.

EPA Office of Research and Development
EPA's Office of Research and Development (ORD) is the Agency's scientific research arm tasked with informing the decision-making process and supporting the emerging needs of a wide variety of stakeholders, including the state, tribal, and local partners.[8] While the Committee on Science, Space, and Technology has primary jurisdiction over ORD, the committee also shares jurisdiction of many of the functions with the Committee on Energy and Commerce.

ORD's work is divided into six research programs: Air, Climate, and Energy; Chemical Safety for Sustainability; Health and Environmental Risk Assessment; Homeland Security; Safe and Sustainable Water Resources; and Sustainable and Healthy Communities.

ORD offices and centers are located in 10 facilities throughout the United States and ORD serves as the Agency's National Program Manager for Regional Laboratories to oversee the strategic direction, budgetary alignment, and overall performance of the laboratories associated with each of EPA's ten regional offices. ORD's Immediate Office of the Assistant Administrator coordinates with three other offices and four research centers. Internal support function divisions include the Office of Resource Management and the Office of Science Information Management.[9]

ORD's Office of Science Advisor, Policy, and Engagement
ORD's Office of Science Advisor, Policy, and Engagement (OSAPE) supports EPA's Science Advisor, coordinates, and integrates scientific findings across ORD and the Agency, with key external partners, and into the regulatory process.[10]

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[4] *Clean Air Act Text*, United States Environmental Protection Agency https://www.epa.gov/clean-air-act-overview/clean-air-act-text.
[5] The safe drinking water act, 42 U.S.C. § 300 (1974).
[6] The clean water act, 33 U.S.C. §1251 (1972).
[7] The toxic substances control act, 15 U.S.C. § 2601 (1974).
[8] *About the Office of Research and Development (ORD)*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/about-office-research-and-development-ord.
[9] *Organization Chart for the Office of Research and Development (ORD)*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/organization-chart-office-research-and-development-ord.
[10] *About the Office of Science Advisor, Policy and Engagement (OSAPE)*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/about-office-science-advisor-policy-and-engagement-osape.

OSAPE also includes EPA's Human Subjects Research Review Official and EPA's Scientific Integrity Official. The Human Subject Research Review Official provides Agency leadership regarding the approval of human research and oversight of relevant policies, practices, and regulations. The Scientific Integrity Official leads the implementation of the Agency's Scientific Integrity policy in collaboration with senior leadership within EPA.

Center for Computational Toxicology & Exposure
The Center for Computational Toxicology & Exposure (CCTE) is tasked with supporting Agency decisions by providing research to evaluate chemical exposure risks and ensure freshwater integrity.[11]

CCTE performs rapid chemical screening and evaluation that allows thousands of chemicals to be evaluated for potential risk in a very short amount of time. The data and tools produced by CCTE researchers can then be leveraged to help Region and Program Offices, states, tribes, and communities make decisions to sustain a healthy society and environment.

Center for Environmental Measurement and Modeling
The Center for Environmental Measurement and Modeling (CEMM) conducts research to advance the Agency's ability to measure and model contaminants for the purpose of implementing environmental statutes.[12]

Center for Environmental Solutions & Emergency Response
The Center for Environmental Solutions & Emergency Response (CESER) plans, coordinates and conducts applied national research and development focused on improving decision-making at all levels of government.[13]

CESER work focuses on effective and innovative approaches to safeguarding public water systems and remediating contaminated soil, sediments, urban areas, and groundwater. Contamination sources include those traditionally managed through environmental regulation and emerging environmental stressors, as well as potential threats from terrorism or natural disasters.

Center for Public Health and Environmental Assessment
The Center for Public Health and Environmental Assessment (CPHEA) provides science to support policy regarding human health and ecological integrity.[14]

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[11] *About the Center for Computational Toxicology and Exposure (CCTE),* United States Environmental Protection Agency https://www.epa.gov/aboutepa/about-center-computational-toxicology-and-exposure-ccte.
[12] *About the Center for Environmental Measurement and Modeling (CEMM)*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/about-center-environmental-measurement-and-modeling-cemm.
[13] *About the Center for Environmental Solutions and Emergency Response (CESER)*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/about-center-environmental-solutions-and-emergency-response-ceser.
[14] *About the Center for Public Health and Environmental Assessment (CPHEA)*, United States Environmental Protection Agency https://www.epa.gov/aboutepa/about-center-public-health-and-environmental-assessment-cphea.

CPHEA develops systems-informed scientific approaches and conducts research to address complex environmental problems, providing information and solutions that lead to improvements in environmental condition, ecosystem service production, and human health and well-being.

EPA Science Advisory Board

The Science Advisory Board (SAB) was established by the 1978 Environmental Research, Development, and Demonstration Authorization Act to provide scientific advice to the Administrator and to review the quality and relevance of the scientific and technical information being used by EPA. SAB is also responsible for reviewing EPA research plans and programs and providing broad scientific advice.

SAB is currently comprised of 46 individuals, most of whom are associated with various universities, and several from various companies or nonprofits.[15] The current SAB Standing Committees are as follows: the Agricultural Science Committee; Chemical Assessment Advisory Committee; Climate Science Committee; Drinking Water Committee; Economic Analysis Committee; Environmental Justice Science Committee; and Radiation Advisory Committee.[16] EPA's Science Advisory Board charter is renewed every two years in accordance with the provisions of the Federal Advisory Committee Act (FACA).

Most of SAB's preliminary work is done by the subcommittees or panels which are chaired by their members. Recommendations of subcommittees and panels are transmitted to SAB for discussion and deliberation and are forwarded to EPA only if SAB determines it appropriate.[17]

Clean Air Act

Under the Clean Air Act (CAA), science is required for setting health-based air quality standards for certain industries, including for motor vehicles and industrial facilities, many of which are further dictated by state laws. Per the CAA, EPA is tasked with reviewing scientific data on pollutants, air quality, and emissions, which is largely carried out through modeling, risk assessments, and cost-benefit analyses.[18]

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) aims to regulate waters actually or potentially used for drinking, including above and underground sources. SDWA authorizes EPA to establish minimum standards to protect such water and requires all owners or operators of public water systems to comply with the health-related standards. SDWA also requires that EPA consider a

[15] *Science Advisory Board (SAB)*, United States Environmental Protection Agencyhttps://sab.epa.gov/ords/sab/r/sab_apex/sab/tier-1-members.
[16] *Current Committees and Panel,* United States Environmental Protection Agency https://sab.epa.gov/ords/sab/r/sab_apex/sab/ccandpanels.
[17] About the Science Advisory Board. United States Environmental Protection Agency https://sab.epa.gov/ords/sab/r/sab_apex/sab/aboutthesab.
[18] *The Clean Air Act: Solving Air Pollution Problems with Science and Technology*, United States Environmental Protection Agency https://www.epa.gov/clean-air-act-overview/clean-air-act-solving-air-pollution-problems-science-and-technology.

detailed risk and cost assessment, and best available peer-reviewed science, when developing standards.[19]

Clean Water Act

The Clean Water Act (CWA) establishes the basic regulatory structure for discharges of pollutants into the waters of the United States and for regulating quality standards for surface waters. The CWA requires EPA to develop surface water quality criteria that reflects the latest science on water pollutants for human health and the environment.[20]

Toxic Substances Control Act

Under the Toxic Substances Control Act (TSCA), EPA evaluates the risks that new and current chemicals may pose to human health and the environment. EPA is required to meet the scientific standards under the Act for best available science.[21] EPA is required to use a documented weight-of-scientific-evidence approach when conducting risk evaluations and open scientific reviews for public comment.[22]

EPA Rulemakings

From January 2021 to September 15, 2023, EPA has promulgated 1,083 rules under the purview of the Agency. Close to 400 of these rules are related to air plan approvals, air quality, and clean air plans. There have been over 600 rulemakings related to chemical and pesticide tolerances.[23]

EPA is in the process of rulemaking on several new rules on the following matters: a phasedown of hydrofluorocarbons (HFCs)[24]; new air quality standard (NAAQS) for fine particle pollution[25]; new regulations for the six types of PFAS[26]; new motor and heavy-duty vehicle emissions standards[27]; a new Cross-State Air Pollution Rule (CSAPR) on ozone air pollution.[28]

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[19] The safe drinking water act, 42 U.S.C. § 300 (1974).

[20] *Summary of the Clean Water Act*, United States Environmental Protection Agency https://www.epa.gov/laws-regulations/summary-clean-water-act.

[21] *How EPA Evaluates the Safety of Existing Chemicals*, United States Environmental Protection Agency https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/how-epa-evaluates-safety-existing-chemicals.

[22] *Risk Evaluations for Existing Chemicals under TSCA*, United States Environmental Protection Agency https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-evaluations-existing-chemicals-under-tsca.

[23] *Document Search*, Federal Register (Sept. 14, 2023), https://www.federalregister.gov/documents/search?conditions%5Bagencies%5D%5B%5D=environmental-protection-agency&conditions%5Bpublication_date%5D%5Bgte%5D=01%2F20%2F2021&conditions%5Bpublication_date%5D%5Blte%5D=09%2F14%2F2023&conditions%5Btype%5D%5B%5D=RULE.

[24] *Phasedown of Hydrofluorocarbons: Allowance Allocation Methodology for 2024 and Later Years* 87 Fed. Reg. 66372 (proposed Nov. 3, 2022),

[25] *Particulate Matter (PM) Standards - Federal Register Notices from Current Review*, United States Environmental Protection Agency https://www.epa.gov/naaqs/particulate-matter-pm-standards-federal-register-notices-current-review.

[26] *PFAS National Primary Drinking Water Regulation Rulemaking* 88 Fed. Reg. 18638 (proposed March 29, 2023).

[27] *Control of Air Pollution From New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards* 87 Fed. Reg. 17414 (proposed March 28, 2023).

[28] *Revised Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS* 86 Fed. Reg. 23054 (proposed April 30, 2023).