



Accessible Version

April 19, 2019

The Honorable Andrew Wheeler
Administrator

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Priority Open Recommendations: Environmental Protection Agency

Dear Administrator Wheeler:

The purpose of this letter is to provide an update on the overall status of the Environmental Protection Agency's (EPA) implementation of GAO's recommendations and to call attention to areas where open recommendations should be given high priority.¹ In November 2018, we reported that on a government-wide basis, 77 percent of our recommendations made 4 years ago were implemented.² EPA's implementation rate for recommendations we made in 2014 is 61 percent. As of January 2019, EPA had 101 open recommendations. Fully implementing these open recommendations could significantly improve agency operations.

Since our March 26, 2018, letter on the status of priority recommendations for EPA, EPA has implemented five of our 19 priority recommendations. In doing so, EPA:

- Obtained toxicity and exposure-related data that was submitted to the European Chemicals Agency for chemicals undergoing risk evaluation under the Toxic Substances Control Act (TSCA),
- Required chemical companies to report exposure-related data from processors,
- Developed new financial indicators to help oversee the agency's State Revolving Fund programs for drinking water and wastewater infrastructure,
- Provided its ten regional offices with guidance—such as a list of elements of successful projects—for reviewing states' plans for reducing nonpoint source pollution, and
- Obtained data to help determine whether states have implemented water pollution targets, known as Total Maximum Daily Loads.

As a result of these actions, EPA should be better able to: (1) assess whether a chemical presents an unreasonable risk of injury to health or the environment; (2) review exposure-

¹Priority recommendations are those that GAO believes warrant priority attention from heads of key departments or agencies. They are highlighted because, upon implementation, they may significantly improve government operations, for example, by realizing large dollar savings; eliminating mismanagement, fraud, and abuse; or making progress toward addressing a high risk or fragmentation, overlap, or duplication issue.

²GAO, *Performance and Accountability Report: Fiscal Year 2018*, [GAO-19-1SP](#) (Washington, D.C.: Nov. 15, 2018).

related data focused on the conditions of use that EPA has identified as subject to risk evaluation; (3) oversee the State Revolving Fund program by gauging the financial performance and growth of states' funds; (4) oversee implementation of the Clean Water Act's nonpoint source pollution control program; and (5) oversee and manage water quality.

We ask for your continued attention on the remaining 14 open priority recommendations identified in the March 2018 letter. In addition, we are adding three recommendations that we made in 2018 as priorities this year—two related to lead testing of school drinking water, and one related to adopting a framework for water infrastructure cybersecurity. This brings the total number of priority recommendations to 17. (See the enclosure for the list of these recommendations.)

The 17 priority recommendations fall into the following three areas:

Assessing and controlling toxic chemicals.

Seven recommendations would enhance EPA's ability to ensure chemical safety under TSCA and improve toxic chemical assessments for the Integrated Risk Information System (IRIS). Related to TSCA, in March 2013, we made one priority recommendation for EPA to develop strategies to address challenges that impede the agency's ability to meet its goal of ensuring chemical safety. Subsequently, in June 2016, the Frank R. Lautenberg Chemical Safety for the 21st Century Act reforming TSCA became law and granted EPA additional authorities that could facilitate implementing the March 2013 recommendation. In 2018, we began a review of EPA's efforts to begin implementing the new provisions of the law, among other areas, and reported in March 2019 that EPA demonstrated progress implementing TSCA by responding to the law's statutory deadlines through the end of fiscal year 2018.³ However, EPA continues to face key challenges in its ability to implement TSCA, such as ongoing litigation, ensuring appropriate resources, developing guidance documents to ensure consistency, and ensuring the new chemicals review process is efficient and predictable. To continue making progress, EPA will need to, for example, respond to provisions in the Lautenberg Act such as having 20 ongoing risk evaluations by December 2019, and making findings on the safety of all new chemicals.

Related to IRIS, we made six priority recommendations in three reports we issued in March 2008, December 2011, and May 2013. Our March 2019 report provided a status update on the IRIS Program, reporting on the program's progress addressing historical timeliness and transparency challenges in the assessment process. However, the program still faces delays from leadership deliberations. Our outstanding recommendations from the three reports outline steps EPA can take to periodically identify resources needed for the program to:

- Meet user needs and maintain a viable IRIS database;
- Address long-standing issues regarding the timeliness and availability of chemical information; and
- Establish priorities for IRIS toxicity assessments through a transparent process, and develop a strategy for addressing unmet needs when IRIS toxicity assessments are not available, applicable, or current.

To fully address these recommendations, EPA needs to, for example, establish an ongoing evaluation process assessing resource and user needs, including the program's need for people

³GAO, *Chemical Assessments: Status of EPA's Efforts to Produce Assessments and Implement the Toxic Substances Control Act*, [GAO-19-270](#) (Washington, D.C.: Mar. 4, 2019).

and other resources to successfully complete IRIS assessments and address related program issues.

Addressing data, funding, and cybersecurity issues for drinking water and wastewater infrastructure.

Eight recommendations, made in five reports issued from June 2011 to July 2018, would improve EPA's ability to:

- **Address data issues.** Six recommendations in three reports outline steps that EPA can take to help (1) provide more complete and accurate information on community drinking water systems' compliance with the Safe Drinking Water Act, (2) obtain additional data and conduct statistical analysis to enhance oversight of the Lead and Copper Rule, and (3) consider developing a health-based action level and provide guidance on schedules and costs for lead testing of school drinking water.
- **Address funding issues.** One recommendation would improve EPA's ability to fund water and wastewater infrastructure by increasing utilities' use of asset management to more efficiently manage their facilities and infrastructure funding.
- **Address cybersecurity issues.** Another recommendation would improve EPA's ability to protect against cybersecurity threats by developing methods for determining the adoption of a cybersecurity framework by entities across the water and wastewater sector.

EPA has begun to address some of these recommendations, but needs to ensure these efforts, such as implementing a new data system, are completed and implemented.

Reducing pollution in the nation's waters.

Two recommendations would improve EPA's ability to protect the quality of our nation's water resources and strengthen implementation of EPA's responsibilities under the Clean Water Act programs to control nonpoint source pollution. These recommendations, made in two reports from May 2012 and December 2013, outline steps EPA can take to (1) develop better measures of the effectiveness of states' projects to reduce nonpoint source water pollution, and (2) issue regulations that incorporate key features of Total Maximum Daily Loads. EPA has begun to implement these recommendations, but needs to complete its efforts to take these two steps.

-- -- -- -- --

In March 2019, we issued our biennial update to our high risk program, which identifies government operations with greater vulnerabilities to fraud, waste, abuse, and mismanagement, or in need of transformation to address economy, efficiency, or effectiveness challenges.⁴ Our high risk program has served to identify and help resolve serious weaknesses in areas that involve substantial resources and provide critical service to the public.

One of our high risk areas—transforming EPA's processes for assessing and controlling toxic chemicals—centers directly on EPA, and seven of our priority recommendations are related to this area. Several other government-wide high risk areas also have direct implications for EPA and its operation, including (1) ensuring cybersecurity of the nation, (2) improving management

⁴GAO, *High Risk Series: Substantial Efforts Needed to Achieve Progress on High Risk Areas*, [GAO-19-157SP](#) (Washington, D.C.: Mar. 6, 2019)

of IT acquisitions and operations, (3) strategic human capital management, (4) managing federal real property, (5) the government-wide security clearance process, and (6) limiting the federal government's fiscal exposure by better managing climate change risks. We urge your attention to the EPA and government-wide high risk issues as they relate to EPA. Progress on high risk issues has been possible through the concerted actions and efforts of Congress, the Office of Management and Budget, and the leadership and staff in agencies, including within EPA.

Copies of this report are being sent to the Director of the Office of Management and Budget and appropriate congressional committees; the Committees on Appropriations, Budget, and Homeland Security and Governmental Affairs, United States Senate; and the Committees on Appropriations, Budget, and Oversight Reform, House of Representatives. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

I appreciate EPA's continued commitment to these important issues. If you have any questions or would like to discuss any of the issues outlined in this letter, please do not hesitate to contact me or Mark Gaffigan, Managing Director, Natural Resources and Environment, at gaffiganm@gao.gov or 202-512-3841. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Our teams will continue to coordinate with your staff on all of the 101 open recommendations, including those recommendations in the high risk areas for which EPA has a leading role. Thank you for your attention to these matters.

Sincerely yours,

A handwritten signature in black ink that reads "Gene L. Dodaro". The signature is fluid and cursive, with a large, stylized "D" at the end.

Gene L. Dodaro
Comptroller General
of the United States
Enclosure

cc: Susan Bodine, Assistant Administrator, Office of Enforcement and Compliance Assurance
Dave Ross, Assistant Administrator, Office of Water
Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, Office of
Research and Development

Enclosure -- EPA Open Priority Recommendations

Assessing and Controlling Toxic Chemicals

Toxic Substances: EPA Has Increased Efforts to Assess and Control Chemicals but Could Strengthen Its Approach. GAO-13-249. Washington, D.C.: March 22, 2013.

Recommendation: To better position EPA to collect chemical toxicity and exposure-related data and ensure chemical safety under existing TSCA authority, while balancing its workload, and to better position EPA to ensure chemical safety under existing TSCA authority, the Administrator of EPA should direct the appropriate offices to develop strategies for addressing challenges that impede the agency's ability to meet its goal of ensuring chemical safety. At a minimum, the strategies should address challenges associated with: (1) obtaining toxicity and exposure data needed to conduct ongoing and future TSCA Work Plan risk assessments, (2) gaining access to toxicity and exposure data provided to the European Chemicals Agency, (3) working with processors and processor associations to obtain exposure-related data, (4) banning or limiting the use of chemicals under section 6 of TSCA and planned actions for overcoming these challenges—including a description of other actions the agency plans to pursue in lieu of banning or limiting the use of chemicals, and (5) identifying the resources needed to conduct risk assessments and implement risk management decisions in order to meet its goal of ensuring chemical safety.

Action Needed: The Frank R. Lautenberg Chemical Safety for the 21st Century Act may facilitate EPA's ability to address our open recommendation depending on the agency's implementation of the act. This authority may help EPA to gather new information, as necessary, to evaluate hazard and exposure risks. TSCA reform legislation offers promise for EPA implementation of our recommendation and bringing the agency closer to achieving its goal of ensuring the safety of chemicals. Our March 2019 report, GAO-19-270, provided a status update reflecting EPA's progress to date in implementing the law. We intend to continue to review the agency's efforts in addressing issues related to our recommendation.

High Risk Area: Transforming EPA's processes for assessing and controlling toxic chemicals.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Chemical Assessments: Low Productivity and New Interagency Review Process Limit the Usefulness and Credibility of EPA's Integrated Risk Information System. GAO-08-440. Washington, D.C.: March 7, 2008.

Recommendation: To develop timely chemical risk information that EPA needs to effectively conduct its mission, the Administrator of EPA should require the Office of Research and Development to re-evaluate its draft proposed changes to the Integrated Risk Information System (IRIS) assessment process in light of the issues raised in the report and ensure that any revised process periodically assesses the level of resources that should be dedicated to this significant program to meet user needs and maintain a viable IRIS database.

Action Needed: As of September 2018, EPA officials indicated that the IRIS program had drafted and sent for agency review a "Handbook for Developing IRIS Assessments," intended to guide staff through the sequential stages of the IRIS assessment process. In November 2018, IRIS officials told us the agency had almost completed internal review of the handbook. However, EPA needs to finalize this handbook and provide documentation demonstrating a

stable IRIS process that periodically assesses the level of resources that should be dedicated to the program to meet user needs and maintain a viable IRIS database.

High Risk Area: Transforming EPA’s processes for assessing and controlling toxic chemicals.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Chemical Assessments: Challenges Remain with EPA’s Integrated Risk Information System Program. GAO-12-42. Washington, D.C.: December 9, 2011.

Recommendations: To better ensure the credibility of IRIS assessments by enhancing their timeliness and certainty, the Administrator of EPA should require the Office of Research and Development to:

- (1) Assess the feasibility and appropriateness of the established time frames for each step in the IRIS assessment process and determine whether different time frames should be established, based on complexity or other criteria, for different types of IRIS assessments; and
- (2) Should different time frames be necessary, establish a written policy that clearly describes the applicability of the time frames for each type of IRIS assessment and ensures that the time frames are realistic and provide greater predictability to stakeholders.

In addition, to ensure that current and accurate information on chemicals that EPA plans to assess through IRIS is available to IRIS users—including stakeholders such as EPA program and regional offices, other federal agencies, and the public—the Administrator of EPA should direct the Office of Research and Development to:

- (3) Indicate in published IRIS agendas which chemicals EPA is actively assessing and when EPA plans to start assessments of the other listed chemicals; and
- (4) Update the IRIS Substance Assessment Tracking System to display all current information on the status of assessments of chemicals on the IRIS agenda—including projected and actual start dates—and projected and actual dates for completion of steps in the IRIS process, and keep this information current.

Action Needed: EPA agreed with our recommendations and has taken some actions to implement them, according to EPA officials. However, EPA needs to (1) provide documentation outlining timeframes in its new “fit for purpose” chemical assessments and other information on assessments’ progress and the ability to adjust assessment timeframes as necessary, (2) provide documentation identifying how timelines are decided for each assessment, (3) demonstrate that the agency is communicating to the public current and accurate information on the chemicals being actively assessed and when assessments of other listed chemicals will begin, and (4) demonstrate that routine and timely updates are made to the IRIS website that provides information on current assessments.

High Risk Area: Transforming EPA’s processes for assessing and controlling toxic chemicals.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Chemical Assessments: An Agencywide Strategy May Help EPA Address Unmet Needs for Integrated Risk Information System Assessments. GAO-13-369. Washington, D.C.: May 10, 2013.

Recommendation: To ensure that EPA maximizes its limited resources and addresses the statutory, regulatory, and programmatic needs of EPA program offices and regions when IRIS toxicity assessments are not available, and once demand for the IRIS program is determined, the Administrator of EPA should direct the Deputy Administrator, in coordination with EPA's Science Advisor, to develop an agency-wide strategy to address the unmet needs of EPA program offices and regions that includes, at a minimum: (1) coordination across EPA offices and with other federal research agencies to help identify and fill data gaps that preclude the agency from conducting IRIS toxicity assessments, and (2) guidance that describes alternative sources of toxicity information and when it would be appropriate to use them when IRIS values are not available, applicable, or current.

Action Needed: As of September 2018, IRIS program officials said they are working with program and regional offices to build capacity for applying systematic review in toxicity and risk assessments. However, EPA leadership needs to provide documentation showing an agency-wide strategy that includes identifying data gaps and guidance on alternative sources of toxicity information when IRIS values are not available, applicable, or current.

High Risk Area: Transforming EPA's processes for assessing and controlling toxic chemicals.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Addressing Data, Funding, and Cybersecurity Issues for Drinking Water and Wastewater Infrastructure

Drinking Water: Unreliable State Data Limit EPA's Ability to Target Enforcement Priorities and Communicate Water Systems' Performance. GAO-11-381. Washington, D.C.: June 17, 2011.

Recommendation: To improve EPA's ability to oversee the states' implementation of the Safe Drinking Water Act and provide Congress and the public with more complete and accurate information on compliance, the Administrator of EPA should resume data verification audits to routinely evaluate the quality of selected drinking water data on health-based and monitoring violations that the states provide to EPA. These audits should also evaluate the quality of data on the enforcement actions that states and other primacy agencies have taken to correct violations.

Action needed: EPA has stated that it is implementing a new data system called the Safe Drinking Water Information System (SDWIS) Prime. In the interim, it needs to resume data verification audits until the next generation of SDWIS is fully operational.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Water Infrastructure: EPA and USDA Are Helping Small Utilities with Asset Management; Opportunities Exist to Better Track Results. GAO-16-237. Washington, D.C.: January 27, 2016.

Recommendation: To continue to consider ways to track and promote water utilities' implementation of asset management, the Administrator of EPA should direct the Office of

Groundwater and Drinking Water and Office of Wastewater Management to continue to include questions on water utilities' use of asset management in the clean water needs assessment and consider including questions about water utilities' use of asset management in future drinking water infrastructure needs assessment surveys.

Action Needed: According to EPA, its Office of Water will design the 2019 survey and will work with industry and states to include questions on asset management. EPA should ensure that the survey identifies and implements a way to track the use of asset management, particularly by small utilities and those that have taken EPA training on sustainable utility management, to determine if they are using asset management.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Drinking Water: Additional Data and Statistical Analysis May Enhance EPA's Oversight of the Lead and Copper Rule. GAO-17-424. Washington, D.C.: September 1, 2017.

Recommendations:

- (1) The Assistant Administrator for Water of EPA's Office of Water should require states to report available information about lead pipes to EPA's SDWIS/Fed (or a future redesign such as SDWIS Prime) database, in its upcoming revision of the Lead and Copper Rule.
- (2) The Assistant Administrator for Water of EPA's Office of Water should require states to report all 90th percentile sample results for small water systems to EPA's SDWIS/Fed (or a future redesign such as SDWIS Prime) database, in its upcoming revision of the Lead and Copper Rule.
- (3) The Assistant Administrator for Water of EPA's Office of Water and the Assistant Administrator of EPA's Office of Enforcement and Compliance Assurance should develop a statistical analysis that incorporates multiple factors—including those currently in SDWIS/Fed and others such as the presence of lead pipes and the use of corrosion control—to identify water systems that might pose a higher likelihood for violating the Lead and Copper Rule once complete violations data are obtained, such as through SDWIS Prime.

Action Needed: According to EPA officials, the agency agreed with our recommendations and will consider our first two recommendations as it continues to support the development of the proposed Lead and Copper Rule. According to the Fall 2018 Unified Regulatory Agenda, EPA expected to issue a proposed rule in February 2019, but it did not do so, and it has not announced an anticipated date for issuance of a final rule. In addition, EPA officials said that the agency will continue to work with states to develop SDWIS Prime, which will increase data accuracy and completeness. EPA will need to begin to develop an additional analysis to identify high risk systems for Lead and Copper Rule violations for use when SDWIS Prime is released.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

K-12 Education: Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance. GAO-18-382. Washington, D.C.: July 5, 2018.

Recommendations:

- (1) The Assistant Administrator for Water of EPA's Office of Water should, following the agency's revisions to the Lead and Copper Rule (LCR), consider whether to develop a health-based level, to include in its guidance for school districts that incorporates available scientific modeling regarding vulnerable population exposures and is consistent with the LCR.
- (2) The Assistant Administrator for Water of EPA's Office of Water should provide information to states and school districts concerning schedules for testing school drinking water for lead, actions to take if lead is found in the drinking water, and costs of testing and remediation.

Action Needed: EPA agreed with our recommendations and noted a number of actions it was taking or planned to take to implement them, including holding regular meetings with regional offices and other EPA offices to obtain input on improving guidance and developing additional outreach to and resources for schools. EPA issued updated tools for implementing voluntary lead in drinking water testing programs in October 2018 but needs to provide documentation of its other actions that demonstrate implementation of the recommendations.

Directors: Jacqueline Nowicki, Education, Workforce, and Income Security Issues; Alfredo Gómez, Natural Resources and Environment

Contact information: nowickij@gao.gov, 617-788-0580; gomezj@gao.gov, 202-512-3841

Critical Infrastructure Protection: Additional Actions Are Essential for Assessing Cybersecurity Framework Adoption. GAO-18-211. Washington, D.C.: February 15, 2018.

Recommendation: The Administrator of EPA should take steps to consult with respective sector partner(s), such as the sector coordinating council, Department of Homeland Security and National Institute of Standards and Technology, as appropriate, to develop methods for determining the level and type of framework adoption by entities across their respective sector.

Action Needed: EPA has stated that it will continue to work with the Water Sector Coordinating Council (SCC) and other sector partners to promote and facilitate adoption of the cybersecurity framework. In May 2018, EPA stated that it will work with the Water SCC, the Department of Homeland Security, the National Institute of Standards and Technology, and the other sector-specific agencies to develop a methodology that all critical infrastructure sectors can apply to assess framework adoption. Once a cross-sector assessment methodology for framework usage is developed and adopted by the Department of Homeland Security and the other sector-specific agencies, EPA will work with the Water SCC to carry out the assessment for the water sector. EPA needs to provide evidence of actions taken to implement this recommendation.

High Risk Area: Ensuring the cybersecurity of the nation.

Director: Nick Marinos, Information Technology

Contact information: marinosn@gao.gov, 202- 512-9342

Reducing Pollution in the Nation's Waters

Nonpoint Source Water Pollution: Greater Oversight and Additional Data Needed for Key EPA Water Program. GAO-12-335. Washington, D.C.: May 31, 2012.

Recommendation: To help protect the quality of our nation's water resources, and to strengthen EPA's implementation of its responsibilities under the Clean Water Act's section 319 nonpoint source pollution control program, the Administrator of EPA should, in revising section 319 guidelines to states, and in addition to existing statutorily required reporting measures, emphasize measures that (1) more accurately reflect the overall health of targeted water bodies (e.g., the number, kind, and condition of living organisms) and (2) demonstrate states' focus on protecting high-quality water bodies, where appropriate.

Action needed: EPA agreed with our recommendation and has taken some actions to implement it. In January 2018, EPA officials stated that senior management is reviewing EPA program measures and, in September 2018, officials stated that EPA wants to significantly reduce the number of measures. To strengthen implementation of the nonpoint source pollution control program, EPA needs to improve its measures of program effectiveness.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

Clean Water Act: Changes Needed If Key EPA Program Is to Help Fulfill the Nation's Water Quality Goals. GAO-14-80. Washington, D.C.: December 5, 2013.

Recommendation: To enhance the likelihood that Total Maximum Daily Loads (TMDLs) support the nation's waters' attainment of water quality standards and to strengthen water quality management, the Administrator of EPA should develop and issue new regulations requiring that TMDLs include additional elements—and consider requiring the elements that are now optional—specifically, elements reflecting key features identified by the National Research Council as necessary for attaining water quality standards, such as comprehensive identification of impairment and plans to monitor water bodies to verify that water quality is improving.

Action needed: EPA agreed with our findings related to this recommendation, but did not agree to take the recommended action. As of October 2018, EPA officials said that the agency has taken steps to develop and implement a new vision for the TMDL program, with a focus on effective implementation of TMDLS. However, it does not plan to take action to develop new regulations. We continue to believe that requiring specific elements of a TMDL beyond those included in existing regulations would help improve water quality.

Director: Alfredo Gómez, Natural Resources and Environment

Contact information: gomezj@gao.gov, 202-512-3841

(103223)