U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W.
Washington, DC 20548

Comptroller General
of the United States

April 28, 2020

The Honorable Andrew Wheeler
Administrator of the Environmental Protection Agency
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 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 2019, 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 2015 is 71 percent. As of January 2020, EPA had 104 open recommendations. Fully implementing these open recommendations could significantly improve agency operations.

Since our April 2019 letter on the status of priority recommendations, EPA has implemented three of our 17 open priority recommendations. In doing so, officials in EPA's Office of Research and Development and Integrated Risk Information System (IRIS) Program took action to assess established time frames for each step in the IRIS process, publish current information about the chemicals being assessed, and post broad milestone dates for those chemicals on a routine basis. As a result, the agency enhanced understanding about the established time frames within the IRIS process and is routinely providing the public with some information on chemicals under assessment.

We ask for your continued attention to EPA's 14 recommendations remaining from those we identified in the 2019 letter. We are also adding seven new recommendations that we made in 2019 and 2020 as priorities. These new priority recommendations relate to managing climate change risks and ensuring cybersecurity at EPA. This brings the total number of priority recommendations to 21. (See the enclosure for the list of priority recommendations.)

The 21 priority recommendations fall into the following five areas:

---

[1]Priority 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.

[2]GAO, *Performance and Accountability Report: Fiscal Year 2019*, GAO-20-1SP (Washington, D.C.: Nov. 19, 2019).

Assessing and Controlling Toxic Chemicals. Four priority recommendations would enhance EPA's ability to ensure chemical safety under Toxic Substances Control Act (TSCA) and improve toxic chemical assessments for the IRIS Program. Related to TSCA, in March 2013, we recommended that EPA develop strategies to address challenges, such as identifying resources, which 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 our March 2013 recommendation. We reported in March 2019 that EPA had demonstrated progress implementing TSCA by responding to the law's statutory deadlines through the end of fiscal year 2018.[3] In its comments on that report, EPA said that it is charged with developing and implementing a new TSCA program while achieving extremely aggressive time frames. We plan to work with EPA to review its efforts but, as of March 2019, had concerns about EPA ensuring it identifies appropriate resources to implement TSCA.

Related to the IRIS Program, in reports issued in March 2008, December 2011, and May 2013, we made multiple priority recommendations, of which three remain open. These three recommendations outline steps EPA can take to periodically identify resources needed for the program to:

- Finalize the process for periodically assessing the level of resources that should be dedicated to 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.

Our March 2019 report provided a status update on the IRIS Program, reporting on the program's progress in addressing historical timeliness and transparency challenges in the assessment process.[4] However, we reported that the program faced delays as a result of senior leadership deliberations. While EPA has begun to address some of our priority recommendations, it needs to, among other things, establish an ongoing evaluation process assessing resource and user needs, including the program's need for people and other resources to successfully complete IRIS assessments and address related program issues.

Reducing Pollution in the Nation's Waters. Two priority 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 requiring Total Maximum Daily Loads to include key features. EPA has taken some actions to implement these recommendations but needs to finalize its efforts to capture the effectiveness of pollution

---

[3]GAO, *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).

[4]GAO-19-270

reduction efforts and issue regulations requiring Total Maximum Daily Loads to include key features.

Ensuring Cybersecurity at EPA. Three priority recommendations we made in reports from March 2019 and July 2019 would help EPA better manage its own cybersecurity risks. Specifically, we recommended that EPA take steps to (1) develop a cybersecurity risk management strategy that incorporates key practices; (2) establish a process for conducting an organization-wide cybersecurity risk assessment; and (3) ensure the proper assignment of codes to its positions performing information technology (IT), cybersecurity, or cyber-related functions. EPA has identified steps the agency is taking toward implementing these recommendations, such as reviewing agency strategic plans; establishing a process for updating policies; and reviewing positions performing IT, cybersecurity, and cyber-related functions. To fully address the recommendations, EPA needs to complete these steps and ensure that they result in a cybersecurity risk management strategy, a process for conducting cybersecurity risk assessment as laid out in our recommendations, and the proper assignment of codes for critical positions.

Addressing Data, Funding, and Cybersecurity Issues for Drinking Water and Wastewater Infrastructure. Eight priority recommendations we made in five reports issued from June 2011 through July 2018 would improve EPA's ability to address water infrastructure issues in the following categories:

- **Data***.* 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 to enhance oversight of the Lead and Copper Rule, and (3) consider developing a benchmark for follow-up actions that is protective of public health and considers exposure to vulnerable populations and provide guidance on schedules and costs for lead testing of school drinking water.

- **Funding***.* 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*.*

- **Cybersecurity***.* One recommendation would improve EPA's ability to determine the success of efforts to protect infrastructure from cyber risks or where to focus limited resources for cyber risk mitigation by developing methods for determining the level and type of cybersecurity framework adoption by entities across the water and wastewater systems sector.

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

Managing Climate Change Risks. Since February 2013, GAO has included *Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks* on its list of federal program high-risk areas.[5] Four priority recommendations that we made in two reports from October 2019 and January 2020 would help EPA manage climate change risks for Superfund National Priorities List (NPL) sites and water utilities. These recommendations

---

[5]GAO, *High Risk Series: An Update*, GAO-13-283 (Washington, D.C.: Feb. 14, 2013).

involve: (1) aligning EPA's actions to manage climate change risks at nonfederal NPL sites with the agency's current goals and objectives, (2) providing direction for integrating information on potential climate change effects into risk assessments at nonfederal NPL sites, (3) providing direction for integrating information on potential impacts of climate change effects into risk response decisions at nonfederal NPL sites, and (4) identifying and integrating technical assistance providers to help water utilities incorporate climate resilience into infrastructure projects.

EPA disagreed with the three recommendations related to managing climate change risks at nonfederal NPL sites, noting in its comments on our October 2019 report that the Superfund program's existing processes and resources adequately ensure that risks and any effects of severe weather events are woven into risk assessments and that the risk management process aligns with agency goals and objectives. However, the program processes do not address all of the concerns we raised in the report and we believe that our recommendations are still warranted. EPA neither agreed nor disagreed with our recommendation related to managing climate change risks for water utilities. EPA has not yet provided information on actions it has taken to address these four recommendations.

-- -- -- -- --

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.[6] 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 four of our priority recommendations are related to this area. Several other government-wide high-risk areas also have direct implications for EPA and its operations, including (1) ensuring cybersecurity of the nation, (2) improving management 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.[7] 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 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

---

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

[7]GAO-19-157SP. See pages 204-209 for Transforming EPA's Process for Assessing and Controlling Toxic Chemicals, pages 178-184 for Ensuring the Cybersecurity of the Nation, pages 123-127 for Improving the Management of IT Acquisitions and Operations, pages 75-77 for Strategic Human Capital Management, pages 78-85 for Managing Federal Real Property, pages 170-177 for Government-wide Personnel Security Clearance Process, and pages 110-122 for Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks.

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 104 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,

Gene L. Dodaro
Comptroller General of the United States

Enclosure – 1

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

Enclosure

Priority Open Recommendations to the Environmental Protection Agency

The actions needed to implement the recommendations described below are based on information the Environmental Protection Agency (EPA) has provided GAO in semiannual updates on open recommendations and associated requests for additional information. As of April 17, 2020, EPA had not published its Good Accounting Obligation in Government Act report on the status of recommendations GAO made to EPA.[8]

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 Toxic Substances Control Act (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: According to EPA, the Frank R. Lautenberg Chemical Safety for the 21st Century Act provided EPA with additional authorities to implement some aspects of our recommendation. While many aspects of the recommendation are superseded by the Lautenberg Act, questions remain about whether the Office of Chemical Safety and Pollution Prevention, which oversees implementation of this law, has identified the resources necessary to conduct risk assessments and implement risk management decisions. Our March 2019 report provided a status update reflecting EPA's progress through 2018 in implementing the law.[9] In its comments on that report, EPA said it is charged with developing and implementing a new TSCA program while achieving extremely aggressive time frames. We plan to work with EPA to review

---

[8]The Good Accounting Obligation in Government Act requires agencies to submit reports on outstanding GAO recommendations in its annual budget justification submitted to Congress. In EPA's Fiscal Year 2021 budget justification, which was published in February 2020, EPA stated that the agency needed additional time to complete a listing of the status of GAO recommendations and would publish an addendum when the listing was finalized. See Environmental Protection Agency, *Fiscal Year 2021: Justification of Appropriation Estimates for the Committee on Appropriations,* EPA-190-S-20-001 (Washington, D.C.: February 2020).

[9]GAO, *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).

its efforts but, as of March 2019, had concerns about EPA ensuring it identifies appropriate resources to implement TSCA.

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 February 2020, EPA officials indicated that the IRIS Program had almost completed its internal review of a "Handbook for Developing IRIS Assessments," intended to guide staff through the sequential stages of the IRIS assessment process. EPA needs to finalize this handbook and show that the IRIS Program is using it. As we reported in March 2019, the program has made strides utilizing project management software and project management techniques that enable the program to better plan assessment schedules and utilize staff. However, we also reported in March 2019 that proposed budget cuts caused IRIS staff concern. Specifically, the President's budget requests in fiscal years 2018 and 2019 requested cuts to the budget for the Health and Environmental Risk Assessment (HERA) area, of which IRIS is a part, by approximately 40 percent; these cuts were not enacted by Congress. The President's fiscal year 2021 budget request cuts the HERA program by 34 percent, or approximately $12.7 million dollars. These cuts could have an impact on the IRIS Program's ability to meet EPA program and regional office needs if enacted by Congress.

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.

Recommendation: 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 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.

Action Needed: As of March 2020, we have not seen formal written documentation from the IRIS program for the public describing the applicability of the time frames for each type of IRIS assessment or how timelines for assessments are influenced by various criteria. While IRIS Program staff have discussed this issue, no written guidance has been created to provide greater predictability to stakeholders.

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 February 2020, IRIS Program officials said they were working with program and regional offices to build capacity for applying systematic review in toxicity and risk assessments. We reported in March 2019 that staff from the IRIS program were communicating more frequently with EPA program and regional offices about program and regional office needs and the IRIS Program's ability to meet those needs. 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. While the Office of Research and Development's survey process helps identify some of the highest-priority needs for program and regional offices, program and regional officials told us, as we reported in March 2019, that they still need far more chemical assessments than the IRIS Program currently produces, and they do not have EPA-wide guidance on what sources to use when IRIS assessments are not available. One program office has developed its own prioritized list of sources for chemical assessments when IRIS assessments are not available, and other offices follow similar guidelines, though none officially.

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

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 2020, EPA officials stated that they were continuing to work on efforts to capture water quality successes using updated metrics, including by updating the nonpoint source grants reporting system. EPA is developing a compendium to inform states' efforts to protect high-quality waters, using 14 states. To strengthen implementation of the nonpoint source pollution control program, EPA needs to finalize and report on its efforts to capture 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. EPA officials have stated 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, and 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

Ensuring Cybersecurity at EPA

Cybersecurity: Agencies Need to Fully Establish Risk Management Programs and Address Challenges. GAO-19-384. Washington, D.C.: July 25, 2019.

Recommendations:

   (1) The Administrator of EPA should fully develop a cybersecurity risk management strategy that includes the key elements identified in this report.

   (2) The Administrator of EPA should establish a process for conducting an organization-wide cybersecurity risk assessment.

Action Needed: EPA did not provide comments on the draft report. As of January 2020, EPA officials stated that the agency intends to review all strategic plans beginning in the fourth quarter of fiscal year 2020 and that it was establishing a process for reviewing and updating policies. However, EPA needs to fully establish a cybersecurity risk management strategy that addresses such elements as risk tolerance and how the agency intends to assess, respond to, and monitor cyber risks, as well as a process for an organization-wide cybersecurity risk assessment.

High-Risk Area: Ensuring the cybersecurity of the nation.

Director: Nick Marinos, Information Technology and Cybersecurity
Contact information: marinosn@gao.gov, 202-512-9342

Cybersecurity Workforce: Agencies Need to Accurately Categorize Positions to Effectively Identify Critical Staffing Needs. GAO-19-144. Washington, D.C.: March 12, 2019.

Recommendation: The Administrator of EPA should take steps to review the assignment of the "000" code to any positions at EPA in the 2210 information technology (IT) management occupational series, assign the appropriate National Initiative for Cybersecurity Education (NICE) framework work role codes, and assess the accuracy of position descriptions.

Action Needed: EPA concurred with our recommendation and stated that it would complete a review of the assignment of the "000" code to its positions in the 2210 IT management occupational series, assign the appropriate NICE framework work role codes, and assess the accuracy of position descriptions. As of January 2020, EPA had not yet provided sufficient evidence to demonstrate that it has implemented this recommendation. To fully implement this recommendation, EPA will need to provide evidence that it has assigned appropriate NICE framework work role codes to its positions in the 2210 IT management occupational series and assessed the accuracy of position descriptions.

High-Risk Area: Ensuring the cybersecurity of the nation.

Director: Carol Harris, Information Technology and Cybersecurity
Contact information: hariscc@gao.gov, 202-512-4456

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: As of February 2020, EPA indicated that it is implementing a new data system called the Safe Drinking Water Information System (SDWIS) Prime that will not be fully released until mid-2020. We are conducting additional follow-up efforts as of April 2020 to update the status of this release. In the interim, EPA 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 officials, EPA will implement the drinking water infrastructure needs survey in 2020. In April 2020, EPA officials said that EPA was continuing to plan for the clean water needs survey. EPA should ensure that the surveys identify and implement 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: In November 2019, EPA issued a proposed rule to revise the Lead and Copper Rule and, as of April 2020, EPA is considering the public comments it received on the proposed rule. If finalized, the revisions could address two of the three recommendations. Specifically, EPA is proposing that all systems prepare lead service line inventories within 3 years of the rule's finalization, that systems update the inventory annually, and that states report to EPA on the number of lead services lines in each public water system's distribution system. EPA is also proposing that states report to EPA the 90th percentile lead values for all public water systems, regardless of size. It is too soon to know whether or when the proposed revisions will be finalized.

EPA needs to finalize its SDWIS Prime or other relevant database to identify violations data associated with water systems that might pose a higher likelihood for violating the Lead and Copper Rule. EPA told us it is also working to develop an internal resource that will consider a range of data inputs such as historical occurrence of action level exceedances, the number of lead service lines known to be present in a given water system, the proportion of a system's service connections that are served by lead service lines, and other capacity challenges. As of April 2020, we are conducting additional follow-up with EPA staff to receive an update on the status of these efforts.

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: In November 2019, EPA issued a proposed rule to revise the Lead and Copper Rule and, as of April 2020, EPA is considering the public comments it received on the proposed rule. The proposed revisions would, if finalized, require public water systems to test for lead in drinking water at each school and child care facility served by the system, and provide information about the actions the school or facility can take to reduce lead in drinking water. However, the proposed rule does not address whether the agency would develop a health-based level as guidance. EPA published new guidance in October 2018 that provides information on voluntary actions to consider taking to address elevated lead in drinking water in schools, but EPA needs to provide documentation on costs and schedules to better inform states and school districts. As of April 2020, we are conducting additional follow-up with EPA staff to receive an update on the status of these efforts.

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: In written comments, EPA did not explicitly state whether it agreed with our recommendation but said that several factors constrain the agency from implementing the recommendation. EPA also said it agrees that a comprehensive assessment of framework adoption within the water sector would assist with evaluating and tailoring efforts to promote its use. Further, the agency stated that it will continue to work with the Water Sector Coordinating Council and sector partners to promote and facilitate adoption of the cybersecurity framework. The agency also suggested options related to developing cross-sector metrics and survey methods and stated that it would collect available data that may be characterized as cybersecurity framework "awareness," such as downloads of guidance materials and

participation in classroom trainings and webinars. However, as of January 2020, EPA had yet to develop methods to determine the level and type of framework adoption. Officials identified steps the department is taking to facilitate framework use. Specifically, EPA officials told us that the agency would coordinate with its Sector Coordinating Council to identify appropriate means to collect and report information, including a survey, to determine the level and type of framework adoption. They explained that, in the past, the water sector expressed concerns with sharing sensitive cybersecurity information and in developing metrics to evaluate cybersecurity practices. However, EPA officials stated that they have conducted training, webcasts, and outreach related to cybersecurity, including using the framework and tailoring its efforts to sector needs. According to EPA officials, the agency's goal in doing so was to ensure that sector organizations understood the importance of the framework.

While the agency has some ongoing initiatives, implementing our recommendation to gain a more comprehensive understanding of the framework's use by its critical infrastructure sector is essential to the success of protection efforts.

High Risk Area: Ensuring the cybersecurity of the nation.

Director: Vijay D'Souza, Information Technology and Cybersecurity
Contact information: dsouzav@gao.gov, 202-512-6240

Managing Climate Change Risks

Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change. GAO-20-73. Washington, D.C.: October 18, 2019.

Recommendations:

(1) The Administrator of EPA should clarify how EPA's actions to manage risks to human health and the environment from the potential impacts of climate change effects at nonfederal NPL sites align with the agency's current goals and objectives.

(2) The Director of the Office of Superfund Remediation and Technology Innovation should provide direction on how to integrate information on the potential impacts of climate change effects into risk assessments at nonfederal NPL sites.

(3) The Director of the Office of Superfund Remediation and Technology Innovation should provide direction on how to integrate information on the potential impacts of climate change effects into risk response decisions at nonfederal NPL sites.

Action Needed: EPA disagreed with our recommendations, noting that managing risks from exposure to environmental contaminants is integral to EPA's current strategic goal 1.3, Revitalize Land and Prevent Contamination, and that the Superfund program's existing processes adequately ensure that climate change risks are woven into risk assessments and risk response decisions. However, strategic goal 1.3 does not include any measures related to climate change or discuss strategies for addressing the impacts of climate change effects. In addition, EPA's direction on risk assessments and risk response decisions does not address all types of cleanup actions or climate change effects. Consequently, we believe that our recommendations are still warranted.

High-Risk Area: Limiting the federal government's fiscal exposure by better managing climate change risks.

Director: Alfredo Gómez, Natural Resources and Environment
Contact information: gomezj@gao.gov, 202-512-3841

Water Infrastructure: Technical Assistance and Climate Resilience Planning Could Help Utilities Prepare for Potential Climate Change Impacts. GAO-20-24. Washington, D.C.: January 16, 2020.

Recommendation: The Director of Water Security of EPA, as Chair of the Water Sector Government Coordinating Council, should work with the council to identify existing technical assistance providers and engage these providers in a network to help drinking water and wastewater utilities incorporate climate resilience into their projects and planning on an ongoing basis.

Action Needed: EPA neither agreed nor disagreed with our recommendation, but said that its current efforts working with federal agencies and the water sector will help it carry out the recommendation. However, EPA did not indicate how it would work with agencies, states, and the water sector to organize a network of technical assistance, as we recommended.

High-Risk Area: Limiting the federal government's fiscal exposure by better managing climate change risks.

Director: Alfredo Gómez, Natural Resources and Environment
Contact information: gomezj@gao.gov, 202-512-3841

(103940)