Additional FY 2018 Contributions to EPA's Portfolio of Evidence

Project in Brief	Purpose and Brief Description	List of Results and Conclusions	Significance
Office of the Administrator			
National Environmental Justice Advisory Council (NEJAC) Report on Financing for Water Infrastructure in Low-Income Communities Office of the Administrator (OA) Completed: August 2018	NEJAC finalized its report in August 2018 to answer the charge from the Office of Water to provide recommendations on ideas and improvements for the financing of water infrastructure projects in low-income communities which typically struggle to attain the resources, capacity and expertise to secure reliable clean sources of drinking water and wastewater systems.	NEJAC's Water Infrastructure Work Group provided research, community-based information, and examples about the most significant challenges experienced by many communities. NEJAC offered eight goals to enable all communities to achieve access to clean, affordable water and sanitation. Each goal corresponds to the charge questions: • Governments treat water as a human right. • Request Congress to allocate more funding to help communities with infrastructure building, oversight and public health protection. • Promote affordable water and wastewater rates. • Prioritize issues in EJ communities. • Involve EJ communities meaningfully in infrastructure decisions. • Build community capacity in water systems. • Support innovative technologies. • Be accountable and rebuild public confidence and trust in regulations.	EPA's Office of Water will work with the Office of Environmental Justice to assess the NEJAC recommendations and determine which of them can be pursued for integration or adoption within EPA water infrastructure business practices.

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Annual Update of EJSCREEN Office of the Administrator (OA) Completed: August 2018 www.epa.gov/ejscreen	EJSCREEN provides a nationally consistent GIS-based platform to screen for environmental justice issues and communities with environmental justice concerns by presenting an easy-to-use interface where users can access multiples indices on potential for environmental risk/impact, demographic factors, and the combination of the two. EJSCREEN is updated annually and is available publicly.	EJSCREEN continues to be improved with each annual update. Improvements are based upon the continuous feedback received by users internal and external to EPA. This past year this feedback was supplemented through the execution of user surveys and an analysis of user responses.	Based on this year's feedback, several changes were made to improve the user interface and one of the major indices was substantially changed and the dataset modified by working with OLEM to include Large Quantity Waste Generators (LQGs). The inclusion of LQGs significantly improves a user's ability to screen for vulnerable communities potentially impacted by hazardous waste.
Office of Administration and Resources Management			
Space Reduction Office of Administration and Resources Management (OARM) Completed: Initial internal study completed as the Real Property Efficiency Plan in FY 2016; ongoing annual reviews	The purpose of this study was to report on EPA's efforts to reduce EPA's owned and leased space footprint.	Between FY 2018 and FY 2022, EPA will have released over 850,000 square feet of space nationwide, resulting in a cumulative annual rent avoidance of nearly $28 million. In FY 2018, EPA released 149,278 square feet.	Ongoing reports on EPA's efforts to reduce the Agency's owned and leased space footprint are critical for senior management to remain engaged and conscious of the agency's progress on reducing space. To ensure continued success, senior managers must be willing to adapt the physical footprint of their organizations so EPA can reduce facility space and save on lease and operations and maintenance costs. With the information in this study, Agency senior managers remain committed to priorities outlined in the Agency's space reduction plan.

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Strategic Sourcing Office of Administration and Resources Management (OARM) Completed: Ongoing internal annual assessments	The purpose of this study was to assess EPA's annual buying patterns and report on information that will help EPA determine services and products most conducive to strategic sourcing, thereby improving the Agency's buying power.	In FY 2018, OARM identified $2.7 million avoided costs using data analysis tools to monitor specific, measurable data related to print services, cellular services, shipping, Microsoft software, voice services, office supplies, lab supplies, PCs, and furniture. EPA has achieved $14.5 million in cost avoidance from FY 2013 to FY 2018. EPA consistently assesses buying patterns annually to identify more efficient procurement solutions. While these trends inform strategic sourcing planning decisions, many services and products possess unique features that require nuanced approaches. EPA adopts uniform strategic sourcing when applicable.	OARM added two new categories, PCs and furniture, in the FY 2018 analysis. PCs were identified as an OMB-mandated category, under *Category Management Policy 15-1: Improving the Acquisition and Management of Common Information Technology: Laptops and Desktops*. Pursuant to this OMB policy, EPA began tracking savings for PC purchases using BIC contract solutions in FY 2016. In FY 2018, EPA began efforts to align PC purchasing with its Strategic Sourcing Program. Building on the Strategic Sourcing success, OARM plans to add new categories in FY 2019: PCs, Oracle services, Furniture, Administrative Support Services, Facility Operations Support Services, Education/Training Services, and Package Delivery Services.

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OIG Report: EPA Paid $14.5 Million to Foreign Fellows that Could Have Funded Research by U.S. Citizens or Permanent Residents Office of the Inspector General (OIG) Office of Administration and Resources Management (OARM) Office of Research and Development (ORD) Completed: September 2018 https://www.epa.gov/sites/production/files/2018-09/documents/_epaoig_20180926-18-p-0288_glance.pdf	OIG conducted this audit to determine: (1) whether EPA's non-competitive awards to nonprofit organizations for fellowships are in the public's best interest and an effective use of taxpayer dollars; (2) whether EPA's execution of the fellowship program maximizes the environmental research results and meets EPA's mission; and (3) the accuracy and allowability of costs reported by nonprofit organizations from fellowship cooperative agreements.	OIG recommended that EPA stipulate in future applicable grants and cooperative agreements that fellowships can only be awarded to U.S. citizens or those holding a visa permitting permanent residence in the United States. OIG also recommended that EPA develop a policy for fellowships awarded under cooperative agreements. Further, OIG recommended that EPA perform advanced administrative monitoring reviews for the two audited cooperative agreement recipients that reported inaccurate expenses to ensure the recipients comply with cooperative agreement terms and conditions.	EPA agreed with the OIG recommendations and provided planned corrective actions and completion dates that are acceptable and meet the intent of the recommendations.
Office of Air and Radiation			
Our Nation's Air Office of Air and Radiation (OAR) Completed: July 2018 https://gispub.epa.gov/air/trendsreport/2018/	EPA is committed to protecting public health and the environment by improving air quality and reducing air pollution. This annual report presents the trends in the nation's air quality, and summarizes the detailed information found at EPA's Air Trends website.	Nationally, concentrations of the criteria air pollutants have dropped significantly since 1990. Between 1970 and 2017, the combined emissions of the six common pollutants ($PM_{2.5}$ and PM_{10}, SO_2, NO_x, VOCs, CO and Pb) dropped by 73%. This progress occurred while the U.S. economy continued to grow (262% growth in GDP), Americans drove more miles and population and energy use increased.	Annual emissions estimates are used as one indicator of the effectiveness of the air program. EPA and states track direct emissions of air pollutants and emissions that contribute to the formation of key pollutants, also known as precursor emissions. Emissions data are compiled from many different organizations, including industry and state, tribal and local agencies. Understanding emission sources helps EPA and states control air pollution.

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2014 National Air Toxics Assessment (NATA) Office of Air and Radiation (OAR) Completed: August 2018 https://www.epa.gov/national-air-toxics-assessment/2014-national-air-toxics-assessment	NATA helps assess which air toxics and emission source types may pose health risks. NATA also helps EPA and other agencies determine which places may need further study to better understand risks.	The 2014 version of NATA, released in August 2018 is based on emissions for the calendar year 2014. It includes estimates of exposure and risk for 180 air toxics that EPA regulates under the Clean Air Act. It also estimates exposure and risks for diesel particulate matter (noncancer effects only). Nationwide, total emissions of air toxics are declining, and air quality monitoring data show that concentrations of many toxics in the air, such as benzene, also are trending downward. The 2014 NATA estimates that the nationwide average cancer risk from air toxics exposure is 30 in 1 million. About half of that risk comes from the formation of formaldehyde – produced when other pollutants chemically react in the air. This is known as secondary formation, and comes from emissions from industries, mobile sources, and natural sources. The other half of the nationwide cancer risk comes from pollution that is directly emitted to the air. Despite improvements, some local areas still face challenges. The 2014 NATA results indicate that some census tracts (less than 1% of all tracts) may have elevated risks of cancer from air toxics exposure. Industrial emissions of three pollutants – ethylene oxide,	NATA is a screening tool, intended to help EPA and state, local and tribal air agencies determine if areas, pollutants or types of pollution sources need to be examined further to better understand risks to public health. EPA uses NATA results in many ways, including to: help communities design their own local assessments; improve emissions inventories; and learn where EPA can expand and improve the air toxics monitoring network. The 2014 NATA shows that several areas could have elevated cancer risks from long-term exposure to the chemical ethylene oxide. The elevated risks are largely driven by an EPA risk value that was updated in late 2016. Based on the NATA result, EPA is using its tools under the Clean Air Act to address emissions of ethylene oxide from certain types of industries.

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		chloroprene and coke oven emissions – contribute to most of the risk in these tracts.	
Lean Project: State Implementation Plans (SIPs) Review and Approval Process Improvement Project Office of Air and Radiation (OAR) Completed: February 2018 with ongoing implementation	OAR and the regions conducted a multi-office Lean event in February 2018, which included state and local officials to assess the SIP process.	Post-event implementation is focused on: improving efficiency of review and approval of newly submitted SIPs with an emphasis on early engagement with state/local air agencies; reducing the backlog of pending SIPs; and implementing visual management tools.	Process improvements along with a new electronic SIP submittal and tracking system are expected to result in strengthened collaboration across EPA and between EPA and state/local air agencies, more efficient review and approval of newly submitted SIPs, reduction in the number of pending SIPS, and better reporting data.
Lean Project: Process Improvement Project for Title V and New Source Review (NSR)/Prevention of Significant Deterioration (PSD) Permits Office of Air and Radiation (OAR) Completed: Spring 2018 with ongoing implementation	OAR and the regions conducted several Lean events in Spring 2018 to make the air permitting process more efficient and effective while fulfilling Clean Air Act statutory responsibilities.	Post-event implementation is underway focused on developing best practices and other tools and providing technical assistance before and during the permitting process.	Improvements are expected to streamline, and in some cases, accelerate the air permitting process.
Lean Project: Performance Evaluation Program (PEP) and National Performance Audit Program (NPAP) Process Re-Engineering Project Office of Air and Radiation (OAR) Completed: NPAP - February 2016; PEP - ongoing implementation	EPA began a multi-year Lean project in March 2015 to re-engineer two audit processes to make them more efficient and reduce/eliminate the manual steps in the process. The goal is to facilitate the timely (in weeks for NPAP, months for PEP) reporting of audit data by state, local, and tribal air pollution control agencies into the Air Quality System. The National	NPAP was addressed first, and the new process was successfully implemented in February 2016. EPA continues to work out the complex field and mainframe computing details needed to implement the new PEP process. Based on available programming resources, EPA projects a preliminary launch in early 2019. Full deployment is expected to take about a year to	This multi-year Lean project has led to the re-engineering of two audit processes resulting in significant efficiency improvements as well as streamlining manual steps in the audit process leading to improved processes for EPA and state, local, and tribal air pollution control agencies.

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	Ambient Monitoring Program uses two audit processes to ensure the stability and reliability of the national ambient air monitoring network. Both processes, the PEP and the NPAP, were manual in nature and required considerable quality assurance to ensure accuracy.	complete. Tools required to support the new process were developed in-house and will be maintained by EPA.	
Office of Chemical Safety and Pollution Prevention			
OIG Report: EPA's June 2018 Issuance of the Delayed Notice of Availability of Farm Worker Protection Training Materials Will Reduce Risks of Injury and Illness Office of Inspector General (OIG) Office of Chemical Safety and Pollution Prevention (OCSPP) Completed: August 2018 https://www.epa.gov/office-inspector-general/report-epas-june-2018-issuance-delayed-notice-availability-farm-worker	OIG conducted this audit to determine how the lack of a Notice of Availability (NOA) of required Agricultural Worker Protection Standard (WPS) training materials affected implementation of the revised rule. EPA established the WPS in 1974, expanded it in 1992, and revised it in 2015. Compliance with most of the 2015 revisions was required by January 2, 2017; compliance with all other 2015 revisions—including expanded training—was required by January 1, 2018. Per the 2015 rule, EPA was to publish a NOA in the Federal Register to inform stakeholders when expanded training materials were available. Employers were then to include this material in their WPS training programs within 180 days of the NOA's publication. EPA's Office of Pesticide Programs is responsible for regulatory activities associated with the Agricultural WPS.	EPA did not publish a NOA when expanded training materials for the 2015 revised Agricultural WPS were available. As a result, although there were expanded training materials available, EPA allowed employers to continue to use the "old" pesticide safety training materials. These "old" training materials did not include the revised 2015 WPS requirements, which were designed to reduce the risk of injury and illness from pesticide exposure. In addition, in a notice of proposed rulemaking published December 21, 2017, the Agency announced its intention to further revise the WPS. In this notice, EPA said it would not issue a NOA for the expanded training materials until the additional rulemaking process was completed. However, EPA also said that the original compliance dates for the revised standard would remain in effect.	After the start of this audit, EPA published an NOA on June 22, 2018, notifying its stakeholders through the Federal Register that the expanded WPS training materials were available. By publishing the NOA, EPA is advancing its mission to provide agricultural workers, handlers and employers with the most recent training materials to help mitigate the risk of pesticide exposure.

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OIG Report: EPA's Chemical Data Reporting Rule Largely Implemented as Intended, but Opportunities for Improvement Exist Office of Inspector General (OIG) Office of Chemical Safety and Pollution Prevention (OCSPP) Completed: July 2018 https://www.epa.gov/office-inspector-general/report-epas-chemical-data-reporting-rule-largely-implemented-intended	OIG conducted this audit to determine: (1) how EPA is ensuring that companies are compliant with Chemical Data Reporting (CDR) Rule requirements under the Toxic Substances Control Act (TSCA); and (2) whether EPA is using CDR data to prioritize chemicals for the purpose of identifying their potential risks to human health and the environment. Under the CDR Rule, EPA collects information about the types, quantities and uses of chemical substances produced domestically and imported into the United States. EPA uses this information, which manufacturers and importers are required to submit every four years, to screen and prioritize chemicals for the purpose of identifying potential human health risks and environmental effects, per the methodology outlined in the Agency's TSCA Work Plan.	As required by TSCA, EPA is using CDR data to help assess the risks of chemicals in U.S. commerce. OIG determined that EPA is implementing the risk evaluation process as outlined in its TSCA Work Plan to assess chemicals for human health and environmental risks (in 2016, TSCA was amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, providing a new framework for chemical risk evaluation and management). In addition, EPA uses tools such as on-site inspections to monitor companies' compliance with the CDR Rule, and the Agency takes enforcement action when violations are identified. However, OIG noted that while EPA conducts data quality checks of the chemical information submitted by companies every four years, the Agency lacks documented policies and procedures that specify how to select and conduct these data quality checks.	EPA developed a standard operating procedure document that describes roles and responsibilities and the process to ensure that quality CDR information is received and used by the Agency. This document was completed on October 25, 2018.
OIG Report: EPA Can Better Manage State Pesticide Cooperative Agreements to More Effectively Use Funds and Reduce Risk of Pesticide Misuse Office of Inspector General (OIG)	OIG conducted this review to determine whether EPA's negotiations, review and approval of state work plans for compliance inspections—which are required as part of FIFRA cooperative agreements—support the achievement of Agency goals and requirements. Under FIFRA, EPA has the authority to regulate how pesticides	EPA cannot ensure that its FIFRA cooperative agreement funding achieves Agency goals and reduces risks to human health and the environment from pesticide misuse. OIG identified weaknesses in the processes that underlie the development and monitoring of FIFRA compliance	In order to further improve program performance and oversight, EPA is developing an electronic database to streamline work plan submission and enhancing the communication and collaboration between EPA and grantees

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Office of Chemical Safety and Pollution Prevention (OCSPP) Completed: February 2018 https://www.epa.gov/office-inspector-general/report-epa-can-better-manage-state-pesticide-cooperative-agreements-more	are registered, distributed and sold, and whether they are used appropriately. Through cooperative agreements, EPA's pesticides compliance monitoring program awards states approximately $19 million annually. As part of the cooperative agreements, grantees must submit annual work plans that commit to performing a certain number of inspections.	inspection work plans. Specifically: • EPA FIFRA Project Officers did not consistently assess whether the funding requested by states for compliance inspections was reasonable. OIG found that EPA funding per planned inspection can vary significantly among state cooperative agreements. Moreover, EPA guidance for assessing whether the funding requested is reasonable was not well defined. • EPA did not use the performance of completed state pesticide enforcement work plans to improve successive work plans or to demonstrate whether compliance inspections achieved Agency goals and requirements.	throughout the process by November 30, 2019.
Office of Enforcement and Compliance Assurance			
Lean Project: Civil Inspector Credential Process Office of Enforcement and Compliance Assurance (OECA) Completed: July 2018	In July of 2018, EPA conducted a Lean event to streamline the inspector credentialing process, which when implemented, will ensure greater integrity in the inspector credentialing process while increasing efficiency. The goals of the event were to: (1) shorten the amount of time for credentials to be processed; (2) establish and maintain integrity in the process; and, (3) minimize	The event found that there was great variation among the regions and HQ in the inspector credentialing process, and that processing time varied from 26-127 days depending on the request. The event identified nine common steps in the current process which could be streamlined, and also found that many of those steps involved paper records which could be digitized.	EPA used the findings to develop a new, paperless electronic credentialing process, which, when launched, will reduce the credentialing process time by 81% to a maximum of 25 days. This will be achieved by reducing the number of steps in the credentialing process from nine to six and reducing the number of people involved from as

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	vulnerabilities and reduce risk.		many as 38, to a maximum of seven persons (82% reduction).
Office of International and Tribal Affairs			
General Assistance Program (GAP) Guidance Evaluation Office of International and Tribal Affairs (OITA) Completed: Ongoing throughout 2018	EPA is evaluating implementation of GAP under the current GAP guidance to identify improvements.	EPA is consulting with and reaching to tribes across the country for comments. The Agency began evaluating comments in September 2018. The GAP Guidance Evaluation is a process (not a single report) initiated by OITA to assess the GAP program as implemented under the current GAP guidance. OITA worked out a process with national tribal caucus representatives for conducting the evaluation. OITA's desired outcomes of the evaluation are: (1) to build improved shared understanding with tribes of the purpose of GAP program, its implementation mechanisms, and associated guidance; and (2) to enable OITA to make decisions about improving the GAP Guidance and implementation of the Guidance that are informed by the full range of tribal and EPA perspectives.	EPA will use the results of the GAP Guidance Evaluation to improve the current guidance and its implementation. EPA anticipates releasing a draft revised GAP guidance for tribal review in Summer 2019. A new version of GAP Online is customizable for better reports and should prepare the office to input data into a performance management system.
Office of Land and Emergency Management			
Property Value Study of High-Profile Underground Storage Tank (UST) Release Sites Office of Land and Emergency Management (OLEM)	The purpose of the study was to determine the impact of high-profile UST releases on housing prices.	The study found that high profile UST releases decrease nearby property values 2% – 6%. Once a cleanup is completed, nearby property values rebound by a similar margin.	The findings will be used to help EPA demonstrate the value of preventing releases (to avoid decreases in property value, as well to clean up any releases that do exist).

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Completed: March 2018 https://doi.org/10.1016/j.jeem.2017.12.003			
Lean Project: Backlog of Open Work Packages in the Assessment Cleanup and Redevelopment Exchange System (ACRES) Office of Land and Emergency Management (OLEM) Completed: February 2018	The purpose of the weeklong Lean event in February 2018 was to reduce the backlog of open work packages in ACRES. The Brownfields Program provides grant funding to support assessment and cleanup activities and needs effective grant reporting to learn when sites are made Ready for Anticipated Use. The Lean event focused on reporting data into ACRES, how to improve "work package" review when a grantee initiates a work package, and how to encourage grantees to report after the EPA grant has closed out.	The event resulted in the recommendation that the Office of Brownfields Land and Revitalization (OBLR) will begin tracking progress on closing ACRES work packages that have been open more than 90 days. The event also resulted in EPA establishing targets to reduce the backlog by 50% by December 31, 2018, and 100% by June 30, 2019.	OBLR started tracking progress on closing ACRES work packages in May 2018. By December 2018, OBLR developed standard operation procedures for closing out work packages that have been open greater than 90 days.
OIG Report: EPA Needs to Finish Prioritization and Resource Allocation Methodologies for Abandoned Uranium Mine Sites on or Near Navajo Lands Office of the Inspector General (OIG) Office of the Land and Emergency Management (OLEM) Completed: August 2018 https://www.epa.gov/sites/production/files/2018-08/documents/_epaoi	OIG conducted this audit from December 2017 to June 2018 to determine whether EPA had a method for prioritizing cleanup of the approximately 50 abandoned uranium mine (AUM) sites on or near Navajo Nation lands covered under a special account established in 2015 totaling approximately $1 billion; and whether EPA has a resource allocation methodology for the special account funds that accounts for estimated cleanup cost, timeframe for cleanup, and scope of cleanup for the 50 sites.	EPA has taken steps to develop a prioritization methodology for cleaning up AUM sites on or near Navajo Nation lands that are part of a 2015 settlement with a chemical company, Tronox Incorporated. In conjunction with Tronox AUM cleanup stakeholders, EPA has developed a system for identifying immediate risks and has taken the removal actions needed. EPA follows the National Contingency Plan for assigning risk to the sites and is gathering the data needed to complete prioritization for all Tronox AUM sites covered by the settlement. EPA is tracking the estimated cleanup costs,	Regions 6 and 9 have agreed on a timeline to complete the key activities necessary to finalize their prioritization methodology by December 31, 2020. Also, by the end of calendar year 2021, EPA agreed to complete development and implementation of the resource allocation methodology following the cost analysis of the preferred remedies. The regions' efforts will help result in the effective use of the Tronox special account and will help provide continued

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g_20180822-18-p-0233.pdf		timeframe for cleanup, and scope of cleanup for some of the Tronox AUM sites where work has already been conducted.	protection of human health and the environment.
Office of Research and Development			
Lean Project: Onboarding/Deprovisioning Non-Federal Employees Office of Research and Development (ORD) Completed: December 2017	The purpose of this Lean event was to improve the onboarding and deprovisioning of ORD non-federal employees.	The Lean event identified a number of countermeasures including the establishment of an ORD deprovisioning (dPROV) policy, standardizing the ORD out-processing checklist, developing training on the new policy and procedures, and developing a dPROV dashboard.	Process improvements will result in a reduction to Working Capital Fund cost due to timely account cancellations. The ongoing effort identifies approximately five Working Capital Fund user registrations per month that should be cancelled, avoiding about $3,000 per month of unnecessary costs.
Lean Project: Unliquidated Obligation (ULO) Management Office of Research and Development (ORD) Completed: May 2018	The purpose of this Lean event was to improve the tracking, monitoring, and accountability of expiring ULOs and improve planning to ensure that contracts and grants are not overfunded and that obligated funds can be expended quickly and efficiently.	The Lean event identified a number of countermeasures including development of budget/extramural planning forums to be held with each Lab, Center, or Office (LCO), creation of standard reporting and tracking requirements for all extramural vehicles, and development of COR training focused on monitoring and managing ULOs.	Process improvements will create a framework for enhanced fiscal accountability and a significant reduction in dollars lost in expired appropriations.
OIG Report: EPA Needs a Comprehensive Vision and Strategy for Citizen Science that Aligns with Its Strategic Objectives on Public Participation Office of the Inspector General (OIG) Office of Research and Development (ORD) Completed: September 2018	OIG conducted this audit to determine whether EPA has developed controls to manage the use of citizen science results to meet the Agency's mission.	OIG recommended that EPA 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, OIG recommended that ORD finalize a draft handbook for citizen science and build the capacity for managing the use of citizen science.	EPA is convening an agency-wide workgroup to oversee the implementation of OIG recommendations on improvements to the citizen science program. EPA is on track to fulfill these recommendations by December 31, 2020.

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https://www.epa.gov/sites/production/files/2018-09/documents/_epaoig_20180905-18-p-0240_glance.pdf			
Office of Water			
Great Lakes Restoration Initiative (GLRI): FY 2017 Report to Congress and the President Office of Water (OW) Completed: December 2018	The EPA Administrator is required by Clean Water Act Section 118 (c)(7)H)(iii) to provide this report to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate. The report is provided annually and includes a detailed description of the progress of the Initiative and amounts transferred to participating Federal departments and agencies. The report also satisfies the Action Plan II Measure of Progress for issuance of annual GLRI reports to Congress and the President. The document reports on actions the program has taken, provides an overview of progress, and includes a program evaluation by means of a chart summarizing progress under the 34 measures of progress and explanations of results under those measures.	The GLRI, led by EPA, has been a catalyst for unparalleled federal agency coordination. This coordination has produced unprecedented results. GLRI resources have supplemented agency base budgets, and together these resources have funded over 4,000 projects that improve water quality, protect and restore native habitats and species, prevent and control invasive species, and address other additional Great Lakes environmental problems. The report provides an overview of progress during FY 2017 for each Focus Area under GLRI Action Plan II. The results and conclusions include: - Highlights of achievements under each of the GLRI Action Plan focus areas. - Financial progress in obligating funds. - Quantitative or qualitative results achieved for each of the 34 measures of progress under the GLRI Action Plan. - Agencies met or exceeded targets for 9 of the 10 measures with targets.	EPA is using results to influence outyear planning and funding decisions. Results are also informing measures and targets for a new GLRI Action Plan.

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Lean Project: National Aquatic Resource Surveys (NARS) Office of Water (OW) Completed: Throughout 2018	EPA's state and tribal partners, as well the public, value accuracy, integrity and quality of the data and information provided by the NARS program. EPA conducted a Lean event to identify improvements in the time it takes to QA/QC data and analyze results that will enable the Agency to provide information to partners and other customers more timely.	Through the Lean exercise, EPA identified several areas where processes could be improved or streamlined including distributing Task Order Contracting Officer's Representative (TOCOR) responsibilities from managing laboratory data deliverables among more staff to eliminate backlog in reviewing data, providing feedback to labs within two weeks, enforcing data templates for labs, consolidating Standard Operating Plans (SOPS) for data review and developing Quality Assurance (QA) guides for preparation of final datasets.	EPA is now implementing recommendations from the Lean event. The TOCORs have weekly huddles, spending 15-30 minutes updating data status and identifying corrective actions. The Data Lead updated the data review SOPs and the QA SOPs.
Lean Project: New Jersey Department of the Environment Lean Event Office of Water (OW) Completed: February 2018	In February 2018, the New Jersey Department of the Environmental Protection (NJ DEP), with the support of EPA, conducted a Lean event to identify improvements to the 303(d)/305(b) Integrated Reporting process.	Using Lean methodologies, NJ DEP identified several areas of improvement, including modifying their data solicitation process, streamlining the development of listing of impaired waterbodies methodologies, automating the assessment process and incorporating Water Quality Assessment and Total Maximum Daily Loads Information into their reporting, and streamlining their report.	EPA and NJ are developing an implementation plan and there will be opportunities for other states to learn from NJ's progress in reducing waters not meeting standards.

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Lean Project: Issuing National Pollutant Discharge Elimination System (NPDES) Permits More Quickly Office of Water (OW) Completed: January 2018	The Agency conducted a Lean event in January 2018 and a pilot study of visual management tools in July 2018 to identify opportunities to improve the timeliness of EPA issuance of individual NPDES permits to meet the goal of issuing permits within six months.	EPA's FY 2018-2022 Strategic Plan includes a Strategic Measure stating the goal: "By September 30, 2022, reach all permitting-related decisions within six months." Decisions on permit applications for new EPA-issued individual NPDES permits often take longer than six months. Data from the past three years indicate that it took an average of 1,072 days from permit application submission to permit issuance/denial. EPA needs to reduce the time for issuing new permits to six months.	The NPDES Kaizen team has identified and begun to implement countermeasures that will streamline the permit issuance process. Countermeasures include modifying public notice and permit application regulations, modifying existing permit applications and streamlining consultation processes.
Biennial Strategy Review System Office of Water (OW) Completed: November 2018 www.chesapeakeprogress.com.	The Chesapeake Bay Program's (CBP) Biennial Strategy Review System is the adaptive management-based review process by which the Partnership seeks to meet the Chesapeake Bay Watershed Agreement commitment of biennially evaluating and updating strategies to address changing environmental and economic conditions. The System establishes a consistent method for evaluating progress towards the 31 Outcomes of the Agreement based on the adaptive management logic of the Partnership's Decision Framework. Groups evaluate progress on actions intended to fill gaps in managing factors, and whether those actions are having an effect and/or still warranted.	The Program's Management Board held quarterly reviews with groups of interconnected Outcomes to encourage cross-program collaboration and tie discussion to release of recent indicator data for decision-making. Progress meetings focus on overcoming barriers using the collective knowledge and experience of the Management Board. All 31 outcomes have now gone through the first cycle of this review process and a two-day meeting will be held in March 2019 to review what has been learned and apply it to the second cycle of this process.	Discussions and action items informed the next iteration of Management Strategies and Work Plans, and thus the next two years of work. Progress toward Outcomes can be assessed in the interim using indicator data. Many, but not all, of the program's indicators are updated on an annual basis.

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2017 Progress Run Using Phase 5.3.2 of the Watershed Model Office of Water (OW) Completed: July 2018 http://www.chesapeakeprogress.com/clean-water/water-quality/watershed-implementation-plans	Each annual progress run uses reported wastewater data, air deposition data for Nitrogen Oxide (Nox) and best management practice (BMP) implementation data, incorporated into a calibrated model, to estimate the percentage of the reduction goal (Bay TMDL) met for each jurisdiction for nitrogen, phosphorus and sediment.	As of 2017, pollution-reducing practices are in place to achieve 40% of nitrogen reductions, 87% of phosphorus reductions and 67% of sediment reductions necessary to attain applicable water quality standards as compared to 2009, the year before EPA established the Bay TMDL. The Chesapeake Bay TMDL and the 2014 Chesapeake Bay Watershed Agreement call for practices to be in place to reduce both nutrient and sediment loads by 60% by 2017 and 100% by 2025. Therefore, the nitrogen reductions missed the target, but the phosphorus and sediment reductions have exceeded their respective targets for this midpoint (2017).	Under the accountability framework, EPA committed to conduct oversight of Bay jurisdictions' programs to ensure they are on track to meet the goals of their Watershed Implementation Plans (WIPs) and two-year milestones.
The Chesapeake Bay Total Maximum Daily Load (TMDL) Midpoint Assessment Office of Water (OW) Completed: July 2018 https://mpa.chesapeakebay.net/	Recognizing that change is inevitable over a 15-year period in a dynamic environment like the Bay, the 2017 midpoint assessment has three primary objectives: • Gather input from the partnership on issues and priorities to be addressed in order to help meet the goal of all practices in place by 2025 to meet water quality standards. • Based on these priorities, review the latest science, data, tools and BMPs, incorporate as appropriate into the decision-support tools that guide	As part of the midpoint assessment toward Water Quality goals, the CBP partnership has incorporated additional/more recent local land use data, refined information on the transport of loads through the Bay watershed, and better predicted future impacts of population growth and climate change in the Bay watershed for incorporation into the modeling tools to improve implementation planning in Phase III.	The Phase 6 suite of decision support tools has been refined in many ways, including the addition of simulation years, monitoring stations and updated BMP efficiencies. This Phase 6 suite of models is being used by the CBP partnership to set reduction targets for each of the seven jurisdictions and to help the jurisdictions set local area goals. This information will inform the development of the Phase III WIPS and two-

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	implementation, and consider lessons learned. • Help jurisdictions prepare Phase III WIPs, which will guide milestones and implementation from 2018 to 2025.		year milestones and will help EPA perform its oversight role to ensure progress toward meeting the 2025 goal of having practices in place to achieve the necessary nutrient and sediment reductions necessary to meet tidal Bay water quality standards. This information was also used to inform EPA's expectations of the states and federal facilities in the development of the Phase III WIPs.
Water Quality Standards Attainment Indicator: Annual Update Office of Water (OW) Completed: October 2018 http://www.chesapeakeprogress.com/clean-water/water-quality/water-quality	Each year the Chesapeake Bay Program uses available monitoring information from the 92 segments of the Chesapeake Bay to estimate whether each segment is attaining certain criteria for one or more of its designated uses.	Results of the 2014 to 2016 assessment period indicate that 40% of the Chesapeake Bay and its tidal tributaries met water quality standards for Dissolved Oxygen, clarity/Submerged Aquatic Vegetation (SAV), and Chlorophyll a during this time. These results mark a 3% increase from the previous assessment period, during which 37% of the Bay and its tidal tributaries met water quality standards.	EPA, and its other federal, state and academic partners are using this information to explain progress toward meeting water quality standards and the Bay TMDL. This includes assessing changes in nutrients and sediment in the Bay watershed and analyzing water quality trends in the estuary and tidal tributaries. Further incorporation and use of monitoring information to assess progress is critical to better understanding how on-the-ground actions have an impact toward meeting the 2017 and 2025 WIP outcomes, particularly since monitoring assessments will ultimately

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			determine when the jurisdictions' water quality standards are achieved.
OIG Report: Management Weaknesses Delayed Response to Flint Water Crisis Office of the Inspector General (OIG) Office of Water (OW) Completed: July 2018 https://www.epa.gov/office-inspector-general/report-management-weaknesses-delayed-response-flint-water-crisis	OIG conducted an investigation of the circumstances and response to Flint's drinking water contamination.	EPA should strengthen its oversight of state drinking water programs to improve the efficiency and effectiveness of the Agency's response to drinking water contamination emergencies. OIG made several recommendations that the Office of Water is working to implement, including: • EPA headquarters and EPA Region 5 should use lessons learned from Flint to improve oversight of Safe Drinking Water Act compliance. • EPA headquarters should revise the Lead and Copper Rule (LCR) to improve the effectiveness of monitoring requirements.	EPA Region 5 issued a memo to GAO in December of 2019, confirming that all the recommendations they had the lead on have been completed. EPA is currently working on the Long-Term Revisions to the LCR. EPA expects to publish proposed revisions in 2019.
GAO Report: Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects Government Accountability Office (GAO) Office of Water (OW) Completed: May 2018 https://www.gao.gov/assets/700/691757.pdf	This May 2018 report examines the extent to which selected federal agencies: (1) identified tribes' drinking water and wastewater infrastructure needs; and (2) funded tribal water infrastructure projects, including tribes' most severe sanitation deficiencies.	GAO's recommendations in the report are for EPA, along with other members of the tribal infrastructure task force, to review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level; and should direct EPA regional offices to identify and pursue additional mechanisms to increase their collaboration.	To help increase the tribal infrastructure task force's collaboration on a national level, EPA is developing a matrix of past, ongoing and proposed activities of the five task force member agencies related to the 2011 task force report. The infrastructure task force has discussed ways to improve regional interagency coordination and agreed to formally communicate with the

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			regions, areas or states (as appropriate) on this issue in the near future.
GAO Report: Columbia River Basin: Additional Federal Actions Would Benefit Restoration Efforts Government Accountability Office (GAO) Office of Water (OW) Completed: August 2018 https://www.gao.gov/assets/700/694084.pdf	The August 2018 GAO report provided a synthesis of a review of restoration efforts in the Columbia River Basin that focused on an examination of: (1) efforts to improve water quality in the Basin from FY 2010-2016; (2) approaches to collaboration that entities have used for selected efforts; (3) sources of funding and federal funding expenditures; and (4) the extent to which EPA and the Office of Management and Budget have implemented Clean Water Act Section 123.	In the report, GAO makes recommendations for the EPA Administrator to develop a program management plan that includes a schedule of the actions EPA will take and the resources and funding it needs to establish and implement the Columbia River Basin Restoration Program, including formation of the associated Columbia River Basin Restoration Working Group and submission of a plan to the appropriate Congressional authorizing committees as a part of the FY 2020 budget process.	EPA convened the Columbia River Toxics Reduction Working Group on October 30, 2018, to kick off implementing Clean Water Act Section 123, the Columbia River Basin Restoration Act. Action items which came out of the meeting include: (1) convene the Working Group under the Act requirements; and (2) develop a program management plan as requested by GAO in August 2018. Two additional action items coming out of the meeting include: • An EPA led effort to develop a report card on the implementation of the 61 actions identified in the 2010 Columbia River Basin Toxics Reduction Action Plan; • A re-examination of the 2007 contaminants of concern developed for the State of the River Report, led by U.S. Geological Survey (USGS).

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GAO Report: Approaches for Identifying Lead Service Lines Should be Shared with All States Government Accountability Office (GAO) Office of Water (OW) Completed: September 2018 https://www.gao.gov/products/GAO-18-620	In this September 2018 report, GAO examined: (1) what is known about the number of existing lead service lines among states and water systems; and (2) states' responses to EPA's February 2016 request to work with water systems to publicize inventories of lead service lines and any steps EPA has taken to follow up on these responses. GAO reviewed existing studies of lead service lines, reviewed the websites of the 100 largest water systems, and interviewed EPA officials in headquarters and its 10 regional offices.	GAO recommends that EPA share information about the successful approaches states and water systems use to identify and publicize locations of lead service lines with all states. GAO also recommends for EPA to encourage states to be more transparent to the public and support the Agency's objectives for safe drinking water.	EPA agreed with GAO's recommendations and they are now part of our workplan. The Office of Water recently developed a website (https://epa.maps.arcgis.com/apps/Cascade/index.html?appid=989f006a15f14256ad8bdfd837016453) that showcases leading efforts by states, public water systems, and communities to identify and replace lead service lines. The interactive map allows states and public water systems to explore communities across the country and learn about programs to identify and replace lead service lines. EPA will continue to ensure states and public water systems are aware of this resource. EPA also will work to create additional opportunities for raising national awareness of the approaches states and public water systems are using to successfully identify and publicize information on lead service lines. The Agency will work to develop material that can be used across multiple outreach venues (e.g., workshops, webinars, and conferences), and that

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			will showcase approaches that have proven to be successful for states and public water systems, explain the challenges those approaches posed, and describe how states and public water systems addressed those challenges. To supplement the webinar, EPA will also develop a factsheet that highlights the key messages. The webinar will be hosted in Winter/Spring 2019.
GAO Report: Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance Government Accountability Office (GAO) Office of Water (OW) Completed: July 2018 https://www.gao.gov/products/GAO-18-382	In this July 2018 report, GAO examined the extent to which: (1) school districts are testing for, finding, and remediating lead in drinking water; (2) states are supporting these efforts; and (3) federal agencies are supporting state and school district efforts. GAO administered a web-based survey to a stratified, random sample of 549 school districts, the results of which are generalizable to all school districts. GAO visited or interviewed officials with 17 school districts with experience in lead testing, spread among five states, selected for geographic variation. GAO also interviewed federal and state officials and reviewed relevant laws and documents.	GAO recommends EPA update its guidance on how schools should determine lead levels requiring action and that EPA and Department of Education collaborate to further disseminate guidance and encourage testing for lead.	EPA agreed with GAO's recommendations and they are now part of our workplan. EPA is also collaborating with the Department of Education, Centers for Disease Control and Prevention, Department of Agriculture, Department of Health and Human Services (Administration for Children and Families, Indian Health Service) and other non-federal partners to renew the existing memorandum of understanding (MOU) to reaffirm the partnership and add new partners to the MOU to reach child care programs and tribes. The Office of Water continues to work with the Office of Children's Health Protection

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			(OCHP) to incorporate additional case studies and lead in drinking water prevention information for schools and child care programs to be available online. OW and OCHP host collaborative conference calls with regional water and OCHP Healthy Schools Coordinators to discuss new lead in drinking water activities and opportunities for coordination.
GAO Report: Puget Sound Restoration: Additional Actions Could Improve Assessments of Progress Government Accountability Office (GAO) Office of Water (OW) Completed: July 2018 https://www.gao.gov/products/GAO-18-453	Puget Sound is the nation's second-largest estuary and serves as an important economic engine in Washington State. GAO was asked to review efforts to restore Puget Sound. This July 2018 report examined: (1) Puget Sound restoration efforts related to expenditures for FYs 2012-2016; (2) how federal and nonfederal entities coordinated their restoration efforts; and (3) the framework for assessing progress toward Puget Sound restoration.	GAO made two recommendations in the report. The first is for EPA to work with the management conference to help ensure that measurable targets are developed, where possible, for the highest priority indicators currently lacking such targets; and the second is for EPA to work with the federal partners to better connect the Puget Sound Federal Task Force Action Plan to the Comprehensive Conservation Management Program (CCMP).	EPA agreed with GAO's recommendations and highlighted steps the Agency has begun taking and plans to take to address the recommendations. EPA has been actively working with Washington State's Puget Sound Partnership to develop and include in their updated CCMP a process for evaluating and improving indicators and targets that will begin winter of 2019. EPA, with the Puget Sound Federal Task Force, has begun connecting federal actions to the new Puget Sound CCMP and will complete that crosswalk in spring of 2019.