U.S. Environmental Protection Agency Open Government Plan 5.0

















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Revision Log

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09/25/2018	0.05	Final Draft incorporating feedback from acting PDAA	J. Jacobson		



I. Executive Summary

Open Government is a crucial component in helping the Environmental Protection Agency (EPA) meet its mission of protecting human health and the environment. The better the Agency can inform the public and major stakeholders about the Agency's work, the better it can collaborate with its major partners, such as the states, tribes, other agencies, and the general public, to meet our common goals.

The *EPA Open Government Plan 5.0* updates Agency progress to implement the tenets of open government set forth in the *Open Government Directive* (M-10-06). It also presents the goals and implementation details for new areas of focus in the open government arena. The approach described supports the implementation of the *EPA 2018-2022 Strategic Plan*¹ and aligns with the goals and objectives laid out in the *FY2015-2018 EPA Information Resources Management Plan*².

Since the development of its initial Open Government Plan in April 2010, EPA has fostered a culture of transparency, participation, and collaboration. This includes developing new environmental information management approaches and employing advanced information and monitoring technologies to respond creatively, flexibly, and effectively to today's increasingly complex environmental problems. The Agency is modernizing its business practices to make its data development and management more transparent so it is more accessible and understandable. EPA is also pursuing advances in new tools and technologies to better serve the needs of the public.

The Agency has also expanded the conversation with a broad range of stakeholders on planning and implementing EPA mission activities by using multiple forms of outreach and collaboration. In keeping with its objective to strengthen partnerships, EPA emphasizes sharing information and working with its partners to develop innovative approaches that leverage all available resources to achieve its environmental and human health goals, as well as transparency and clarity in its communications. EPA strives for the fullest possible public participation in decision-making by remaining open and accessible to those representing all points of view and taking affirmative steps to solicit the views of those who will be affected by its decisions. Strengthening EPA's partnerships with states, tribes, local governments, and the global community through consultation, collaboration, and shared accountability are central to the success of the national environmental protection program.

The EPA Open Government Plan 5.0 addresses the requirements laid out in the 2016 Agency Open Government Plans Memorandum M-16-16³ issued on July 14, 2016. The Plan highlights the ongoing

¹ https://www.epa.gov/sites/production/files/2018-02/documents/fy-2018-2022-epa-strategic-plan.pdf

² https://www.epa.gov/sites/production/files/2015-08/documents/irmstrategicplan.pdf

³ https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2016/m-16-16.pdf



and planned programs, activities, and initiatives that illustrate EPA's overall approach to integrating the open government principles of transparency, participation, and collaboration into its core mission and how the Agency will continue to support this goal in the future. In developing this Plan, EPA reviewed major initiatives listed in preceding plans, and identified new initiatives that will further support open government principles.

Details on the specific open government initiatives selected for the Plan are described in sections III and IV of this plan. Not every open government effort underway at the Agency is included in this Plan, but those presented will enable EPA to continue to strengthen a culture where open government is part of its daily business.

Organization of this Plan

For clarity, this Plan is organized as closely as possible to the general framework provided in the July 15, 2016 OMB Memorandum M-16-16. For each component listed in the OMB memo, EPA's Plan describes what the agency is doing and highlights the ongoing activities and initiatives that address the component. The synopsis of each activity and initiative includes achievements, status, future steps, action items, and milestones, as well as links to existing public information wherever possible. In cases where EPA has fully complied with the stated objective, the synopsis for the government effort details how EPA continues to fulfill the open government requirements. For some of the components, the OMB guidance simply requires a short status report or linkages to a Web site versus the articulation of goals, objectives, and milestones traditionally associated with a plan. For 508 compliance and document readability, URLs are presented as footnotes throughout the document and in Appendix B.

The milestones listed at the end of each section reflect the action items planned for the three years following the last published EPA Open Government Plan in 2016 (i.e. 2018 - 2019). Planned activities and milestones for 2020 will be addressed in progress reports for this EPA Open Government Plan.

II. New and Expanded Open Government Reporting Requirements

A. Open Data

Data is central to implementing the Agency's mission. It is used in every facet of Agency operations including developing and enforcing regulations, conducting studies on environmental issues, and publishing information to inform the public about EPA activities. The Agency and its stakeholders recognize that EPA's information could meet other organizational and public needs beyond the original intent under which it is collected or produced, further increasing the value of the information. By providing releasable information in open and machine-readable formats, EPA enables the public and other organizations to better leverage the rich wealth of information available. With this Plan, EPA reaffirms its commitment to meeting the requirements set forth in the White House Open Data Policy – Managing



Information as an Asset Memorandum M-13-13⁴ and reaffirms its commitment to increase publicly accessible EPA data to support citizens' participation in government and promote transparency and accountability of Agency operations.

In response to the White House Open Data Policy, EPA has undertaken a broad range of activities and initiatives, guided by the Agency's Enterprise Information Management Policy (EIMP) and aligned with the central tenets of Open Data, which are:

- <u>Understanding</u> data to use data, the public must know where the data are collected, how they were collected, the definition of individual data elements and other aspects and dimensions of the data including context. Several EPA activities and initiatives help the public understand the Agency's data, including metadata standards and requirements and data registries. Metadata describes the data contained in a dataset. EPA's registries are datasets including the Agency's most critical information including substances and facilities.
- <u>Trusting</u> data the public should only use data that it can trust to be reliable. EPA's
 Quality Program establishes requirements and procedures that ensure that programs
 establish data quality standards according to the anticipated use of the data and that
 data collected from the field meet these standards.
- <u>Discovering</u> (finding) the data the public must be able to find data in order to use them. To be discoverable, there must way to search for data. Metadata provides a variety of search parameters the public can use to look for data. The Environmental Data Gateway (EDG) allows the public to search for datasets using their associated metadata. Registries can assist in the discovery process by enabling the public to cross reference data and find data across different contexts (e.g., environmental media and programs) and applications and models designed to analyze the data. EDG records are also harvested by Data.gov and can be discovered alongside other Federal data sets.
- Accessing the data the Environmental Data Gateway, mentioned above, is the Agency's central access point to EPA datasets. Data are directly available through EPA provided tools such as EnviroFacts, the Facilities Registry System and ChemView. Data can also be accessed through the registries. EPA provides most data in a variety of formats (e.g., comma separated values). EPA also provides data in machine readable format and is developing application program interfaces (API), a method for accessing

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https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2013/m-13-13.pdf



EPA data. Finally, the Controlled Unclassified Information (CUI) Program simplifies the patchwork of programs that restricts access to information, resulting in an increase in the amount of data available to the public by eliminating unnecessary restrictions on access.

 <u>Using</u> the data – EPA helps the public use data by developing and making available programs for analyzing the data and providing a platform of analytical tools appropriate for conducting more customized analyses. To promote development of applications that use EPA data by partners and stakeholders, the Agency created Developer Central and participated in external hackathon events.

Table 1, below, is a matrix that summarizes how the initiatives and activities identified in the bullets above align with each of the elements of open data. The plan then presents detailed descriptions of these initiatives and activities, including a table of upcoming milestones.

Activity/Initiative	Understand	Trust	Discover	Access	Use
EIMP	X	X	X	X	X
Quality Program		X			
Registries (e.g., substances, regulations, facilities)	X	X	X	X	
Environmental Data Gateway			X	X	
EnviroFacts				X	
ChemVlew				X	
Toxic Release Inventory				X	
API Strategy				X	
CUI Program				X	
Data Analytics					X
Developer Central					X

Table 1: Alignment of EPA Initiatives and Activities with Open Data Tenets



Enterprise Information Management Policy

EPA made a major step towards systematizing Open Data as a key tenet of the Agency's operating principles by issuing the **Enterprise Information Management Policy** (EIMP) (CIO Policy 2135⁵) in 2015. The EIMP enables the Agency to comply with key requirements of the Open Data Policy as shown in **Table 2**.

Management Practice	Open Data Policy	EIMP
Addresses all information types	In definitions only; all info addressed in Executive Order	Yes
Lifecycle management	Yes	Yes
Machine readable	Yes	Yes*
Open Formats as appropriate - documented and shared data dictionaries/schema	Yes	Yes**
Data standards	Yes	Yes
Common core and extensible metadata	Yes	Yes
Maintain internal and external data asset Inventory	Yes	Yes***
Internal and external needs considered throughout lifecycle, including potential uses not in the original design	Yes	Yes
Ensure Privacy and confidentiality are fully protected	Yes	Yes
Incorporate new interoperability and openness requirements into core Agency processes	Yes	Yes
Coordinate with the Records Management Officer	Yes	Yes

^{*} As appropriate/feasible

Table 2: Comparison of the Requirements for the Open Data Policy to the EPA Enterprise Information Management Policy (EIMP)

^{**} Requirement in a variety of data-related procedures and guidance

^{***} Requirement in the EIMP Cataloguing Information Procedure (March 2015)

⁵ https://www.epa.gov/sites/production/files/2015-05/documents/2135-p-01_0_eimp_catal_epa_info_proc_final_2015_03_25.pdf



The EIMP establishes a standard approach to manage information produced by, funded by, or received per regulated reporting and/or federal-wide requirements and subsequently held or cataloged in all types of Agency information management systems. The policy directs EPA organizations to ensure that information is easy to discover, understand, access, and reuse in a secure manner so it can be leveraged by a broad array of applications and analytics used to support EPA's mission and stakeholder needs. The EIMP and associated implementation procedures and standards provide the framework for achieving the Agency's goals to be transparent with information management, to share data to the greatest extent allowable under laws and regulations, and to be responsive to public requests as standard Agency practices. These procedures and standards include:

- The EIMP Cataloguing Information Procedure (2135-P-01.06) requires cataloguing for advancing the discovery, access, and sharing of information;
- The EIMP Minimum Metadata Standards (2135-S-01.07) defines a consistent set of required and recommended metadata elements for information and is extensible to accommodate the multiple information domains at the Agency;
- The EIMP Data Lifecycle Management Procedure provides a framework for EPA information providers to use to develop their domain specific technical reference specifications and guidelines. This will help ensure that the Agency is positioned to collect and assemble, store and find, analyze and release information quickly while maintaining data quality and legal defensibility. This will increase data discovery and access for stakeholders and the public. A high-level lifecycle management procedure will be issued in FY2017 that information providers can use as a framework

Over the next several years, EPA will continue to develop procedures and guidance required by the EIMP, align existing information management policies and guidance with the EIMP, and work with specific information domains to incorporate the principles of the EIMP into their program-specific guidance and operations.

Initiative and Related Milestones		FY2	2018		FY2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Develop EIMP roadmap and implementation plan						x		
Complete Lifecycle Management procedure								х

⁶ https://www.epa.gov/sites/production/files/2015-08/documents/cio-2135-p-01-0.pdf

⁷ https://www.epa.gov/sites/production/files/2015-08/documents/cio-2135-s-01-0.pdf



Quality Program

Meeting EPA Open Data goals depends upon having quality data that supports the business processes for which it is developed and documenting the data to enable potential secondary users to determine whether the data can be used for their purposes.

The goal of EPA's **Quality Program** is to ensure that EPA's decisions are supported by data of known and documented quality. It provides requirements and oversight for conducting quality management activities for all environmental data collection and environmental technology programs performed by or for EPA.

Historically, the Quality Program has relied on paper-based processes and cumbersome internal annual QA reporting processes. In FY2018, EPA plans to update both the Quality Policy and Quality Manual for Environmental Programs that will allow EPA to more effectively manage an optimal Quality Program and respond to emerging user requirements.

In FY 2019, EPA plans to launch a Quality Assurance Enterprise Management System (QAEMS) to streamline management of QA requirements and achieve consistency in reporting quality accomplishment across the Agency. In the spirit of Continuous Improvement, EPA will continue to refine its internal Quality System Assessment process to focus on key areas that pose the greatest risk to Agency decision-making.

Initiative and Related Milestones		FY2	.018		FY2019			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4
Develop national Quality Assurance (QA) training courses				X				
Launch Quality Assurance Enterprise Management System (QAEMS)				x				
Evaluate the results of the LEAN process of EPA's Quality Systems Assessment (QSA) process and develop recommendations to stream- line process for subsequent QSAs					х			
Update Quality Directives: CIO 2105 and 2106					х			

Registries

A registry is a database. In EPA's case, registries are authoritative sources of data (e.g., chemicals, facilities) that the public can directly access. In addition, registries may also be accessed by other agency and privately developed software to perform variety of functions such as automatically populating forms and quality checking data entered into forms (e.g., chemical names). The **System of**



Registries (SoR) is the umbrella of registries and related services. This section of the plan describes EPA's registries and their role in supporting Open Data.

• Environmental Data Gateway (EDG). EDG is EPA's enterprise registry for metadata about EPA datasets and associated services as well as the Agency's tool for generating the Enterprise Data Inventory (EDI) required by Data.gov. It allows users to search metadata to find datasets of interest and provides users with a central access point to datasets and geospatial tools that have been created by EPA program offices, regions, and labs. The public datasets catalogued in the EDI allow the public, lawmakers, and other groups to analyze EPA data and better understand the effectiveness of environmental regulations and programs.

The EIMP Cataloguing Information Procedure requires all EPA organizations to register their datasets in EDG in response to Open Data requirements. This involves creating metadata for both public datasets and those that have restricted access. Where there is restricted access to datasets, the Agency employs a standard set of definitions from the National Archives and Records Administration (NARA) CUI Registry for use within its metadata so users know why a dataset is restricted. The EDG Team works with the Agency's Information Management Officers (IMOs), the EDG's Stewardship Network, and other key data owners to ensure that as many Agency datasets as possible are identified for registration.

Over the next several years the EDG program will be working with all Agency organizations to increase the number of their datasets with metadata registered in EDG. The EDG Team holds outreach sessions with IMOs and other key data owners to educate them on Open Data requirements and metadata best practices as well as to encourage them to continue cataloguing their datasets. Targeted outreach, based on new entries in READ are conducted to ensure that all datasets are listed in the EDI. This includes working with offices that have CUI, including Confidential Business

A key activity that is underway, and that will continue over the next several years, is the implementation of EPA's 2016 Plan to increase access to the results of EPA-Funded Scientific Research (see **Public Access Plan** below). The EDG will make dataset metadata associated with the results findings and conclusions of peer-reviewed journal articles available via the EDG.

Substance Registry Services. Much of EPA's work focuses on regulating, tracking, permitting, or monitoring substances at a facility. The Substance Registry Services (SRS) is the catalog of the chemicals, biological organisms, and other substances tracked or regulated by EPA or its partners. EPA created the SRS to centralize discovery of chemical data at EPA, enable integration of EPA data by substance, improve data quality of substance identity information, and promote standardization of substance names.

EPA programs are using SRS Web services to integrate SRS into their systems and into their online reporting forms. By using this shared service, EPA helps industry and other partners submit accurate chemical identification information. For example, ChemView (see section II.B)



has integrated SRS into its search function, using the synonyms in SRS to help users find the wealth of information available in the system. The user does not need to know a specific synonym, but can search using any synonyms to find the information about a chemical. Further integration of SRS into systems and online reporting forms is a priority for EPA and for the E-Enterprise initiative. By taking this step, EPA is improving the accuracy of the information that is available to the public.

Laws and Regulation Services (LRS). EPA is creating a new registry that will catalog
environmental statutes and regulations. The LRS will identify the statutes that are relevant to
EPA and the associated regulations that implement those laws. LRS will also identify the EPA
programs that manage those regulations and the URLs for further information about those
programs and regulations. EPA has worked with the General Printing Office (GPO) to
streamline the collection of the laws and regulations from two separate GPO systems.

Users will be able to search by the North American Industry Classification System code (NAICS Registry), industrial process, keyword (Controlled Vocabulary), or substance (SRS) to find potentially relevant regulations. For example, an industry representative would be able to enter "Benzene," discover those regulations that specifically regulate that chemical, and then find the URL to the program that manages that regulation. Similarly, an individual from the public would be able to search LRS by "Oil spill" and find related regulations and EPA Web sites.

• Facility Registry Service (FRS). FRS responds to the increasing demand for access to high quality information about facilities of environmental interest and the public need for a central source of comprehensive environmental information about a location. A core component of the System of Registries, FRS integrates data from over 90 EPA, state, tribal, local and other federal agency databases on facilities, sites, or places subject to environmental regulations or of environmental interest. Containing over four million records, the information in FRS is subjected to rigorous verification and data management QA procedures, and continuously reviewed and enhanced by a Regional Data Steward network and active state partners. FRS plays a critical role in the Agency's public access strategy by making comprehensive and up-to-date facility information available to the public through the delivery of integrated information services and QA validation tools to the many publicly available agency applications and services.

FRS is also a foundational shared service for the E-Enterprise initiative (see section III.I) that will provide integrated information on the identity and features of interest at all locations subject to environmental management, at all levels of government. The FRS components in the E-Enterprise Portal will provide additional services that assist with data collection, standardization, and quality validation and greatly facilitate access to EPA data by the regulated community, co-regulators and the public.

• Other registries and associated services not described above or elsewhere in this plan, include:



- Registry of EPA Applications, Models and Data Warehouses (READ). The Agency's authoritative inventory of software, models and data. There are over 1400 information resources with records in READ. The public can use READ to find those applications that contain information of interest.
- Data Element Registry Services (DERS). The repository for EPA's data dictionaries, data standards, and commonly used value lists that enables individuals working with EPA data to understand what precisely that data represents by ensuring field definitions use plain English to the greatest extent possible.
- Terminology Services. A suite of tools and services consisting of a repository of environmental terms, their relationships, definitions, and other relevant information; a tool to create and manage vocabulary resources; a platform for collaborative vocabulary development; and Web services to import/export vocabularies.
- North American Industry Classification System (NAICS) Service. A code set of industrial processes used in various EPA systems and regulations for information management.
- TRIBES Web Services. A standardized list of tribal entity information (federally recognized tribe names and codes) for use in EPA systems and partner data exchanges of tribe related information.
- Source Classification Code (SCC) Service. Used by facilities, states, and EPA to classify different types of emissions activities, and provide a way for EPA and state systems to maintain the current list of SCCs in a central location and ensure access to most up-to-date codes.

Initiative and Related Milestones		FY2	2018		FY2019				
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Increase the number and coverage of EPA datasets publicly available in real time through standard application programming interfaces	х	х	х	х	х	х	х	х	
Implementation of Phase II of EPA's Plan to Increase Access to Results of EPA-Funded Scientific Research in which data underlying peer-reviewed journal articles are made available to the public through metadata records in EDG.					х	х	х	х	
EPA's Plan to Increase Access to Results of EPA-Funded Scientific Research in which data underlying extramurally funded peer-reviewed journal articles are made available to the public through metadata records in the EDG.					х	х	х	х	
Increase number of chemicals from other federal agency programs into SRS	Ongoing								
Incorporate selected information from state Programs into SRS				х					



Initiative and Related Milestones		FY2	2018		FY2019					
		Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Model all of 40 CFR with EPA programs, keywords, and substance lists where possible in LRS					х					
Launch LRS								х		
Enhance FRS Facility Linkage Application to enable data management of components in expanded data model, including sub-facility components				х						
Enrich geospatial tools and algorithms in FRS to improve locational data quality						х				
Expand data model enhancements to accommodate additional National Program Offices' requirements	Ongoing									
Develop SCC Web service				х						
Launch DERS enhanced capabilities						х				
Integrate NAICS service into the E-Enterprise Portal							х			
Complete SCC Web service development				х						
Complete SCC search page development					х					
Conduct outreach to four Agency system owners to encourage use of the TRIBES Web Services for adopting the Tribal Identification Data Standard				х						
Conduct outreach to four additional Agency system owners to encourage use of the TRIBES Web Services for adopting the Tribal Identification Data Standard								х		

Public Access/Envirofacts

Envirofacts provides access to several different EPA databases containing information about environmental activities that might affect air, water, and land. Associated with Envirofacts are several EPA-public access tools to help the public retrieve information about environmental conditions, EPA regulated facilities, and other environmental factors in their neighborhoods. For example, Envirofacts provides access to the Toxics Release Inventory (TRI) database that contains information on toxic chemical releases and other waste management activities in the United States reported to EPA by industrial and federal facilities. Also associated with Envirofacts is the EnviroMapper for Envirofacts mapping tool, which allows users to map regulated entities and obtain specific data associated with those facilities. The MyEnvironment tool allows users to not only view regulated entities in their



neighborhoods but look at other environmental conditions with information provided from a variety of other sources such as the United States Geological Survey.

Initiative and Related Milestones		FY2	.018		FY2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Modernize Envirofacts to take advantage of emerging big data technologies	x	x	x	x				
Deliver new versions of EnviroMapper for Envirofacts and MyEnvironment	х	х	х	х				

Toxics Release Inventory (TRI)

The **Toxics Release Inventory** (TRI) tracks the management of certain toxic chemicals that might pose a threat to human health and the environment. U.S. facilities in different industry sectors must report annually on how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment. TRI plays a critical role in the Agency's public access strategy and supports informed environmental decision making by making comprehensive and up-to-date information on facilities and their management of toxic chemicals, including releases to the environment, available to industry, government, non-governmental organizations and the public.

TRI data access and analysis tools enable the public to evaluate potential risks to the health and the environment in their communities by identifying nearby industrial facilities that release toxic chemicals into the air, water, and land. By providing releasable information in open and machine-readable formats, information can be analyzed on a national scale or local scale, including information about facilities in Indian Country. The *TRI National Analysis* is EPA's annual interpretation of TRI data. It highlights how toxic chemical wastes were managed, where toxic chemicals were released, and how the data compares to data from previous years. TRI data access and analysis tools also enable the public and other organizations to conduct their own analysis of TRI data to determine:

- Which chemicals each facility releases and how much
- Pollution prevention (P2) activities that reduce toxic releases
- Which facilities are reducing toxic releases
- Potential health effects linked to the chemicals released

Application Program Interface (API) Strategy

An API is a method for exchanging information or data between software applications, website and/or data bases. EPA is committed to making APIs its default method for accessing agency data. The Agency supports efforts to promote and document API usage through the development of an Agencywide **API Strategy**. The proposed strategy is based on the General Services Administration's API standards and best practices and aims to standardize these best practices across the Agency. The



strategy advocates for the use of api.data.gov's API Management Platform to track all traffic to Agency APIs and provide API owners with tools to analyze API usage to help gauge their value. As part of the strategy, EPA is also improving its API documentation by using one of the common specification formats to describe the APIs it produces. Using a common specification format ensures that API documentation produced by EPA allows developers to understand the value that EPA's APIs deliver immediately, and go from learning to integration in as short of a timeframe as possible. As part of the proposed Agency-wide API strategy, EPA is exploring ways to make it easier to use API's that access agency data.

An Agency-wide communication plan is being developed in tandem with the API strategy. It will include Standard Operating Procedures (SOPs) that require API developers to register dataset APIs in EPA's EDG, which will allow these APIs to become part of EPA's EDI and Public Data Listing, greatly increasing their accessibility to the public.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Release Agency-wide API Strategy communication plan					x	x	x	х	
Test the use of General Service Administration's (GSA) API management tool by configuring the Source Classification Code API to be accessed through api.data.gov/epa/scc				х					
Accelerate the development of APIs by working with the Developers Guild to more effectively share data through services	Ongoing								
Release a pilot version of the SQL Builder/API Builder User Interface								х	

Data Analytics Program

EPA's **Data Analytics Program** focuses on providing the latest data analytics techniques and technologies for assessing health and environmental issues. The Data Analytics Platform is the core of this program. The Platform will make use of a cloud computing environment to improve computational performance for complex models while sharply reducing costs. By using what is known as elastic computing systems, where computational capacity expands and shrinks based on the demand for resources at any point in time, EPA pays for only the computing capacity it uses rather than the capacity needed to meet peak demand. This flexibility allows the Agency to respond to new analytical demands. Moreover, by increasing its ability to analyze high volumes of environmental health and administrative data, EPA will be better positioned to achieve its core mission and communicate more fully with stakeholders and the public.

In early FY 2018, EPA deployed the initial phase of the Data Analytics Platform – a self-service environment in which agency statisticians and scientists could design their own data analyses. For example, EPA staff used the platform to analyze fuel tanker data to identify companies that were



violating renewable fuel standards. This type of analysis formerly would have taken days to complete and have been prohibitively costly. With the Analytics Platform, staff can complete these analyses in minutes for a small fraction of the cost.

Over the next several years, the Agency is planning to expand the Platform, hosting some of EPA's most complex models and very large datasets. To the maximum extent possible, EPA will make these datasets available to the public, either through direct downloads or, more likely, through APIs given the size of these datasets. Models currently available to the public (e.g., downloadable applications) would be available on the platform for direct execution, with far superior performance. The Agency will evaluate and determine which additional applications it will make available on the Platform.

Initiative and Related Milestones		FY2	018			FY2	:019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Create a data analytics toolset (platform, analytics tools, metadata and API standards)	Х	Х	X	X	X			
Share the results of analyses that fit regional and programmatic business to demonstrate the power of data across EPA and with partners				x	x	x		
Deliver pilot and early adopter projects to demonstrate advanced data analytics techniques				Х	Х	Х		
Accelerate the inventory of datasets by identifying central EPA and partner data stores and bringing them into the analytics platform	х	x	x	х	х	х	x	х
Identify datasets and models/applications to be made available to the public					X	X	X	x
Public access beta testing							Х	х

Developer Central

Developer Central is a resource for developers who want to build applications using EPA data and Web services. EPA created this site as a mechanism to collaborate with universities and external developers on EPA-sponsored app ideas to actively promote the use of EPA Data and APIs. As part of Developer Central, EPA participates in various external hackathon events to encourage teams to work on EPA application ideas that use EPA Data and APIs. At the National Day of Civic Hacking on June 4, 2016 for example, the Developer Central team proposed a challenge to develop an application that allows citizen scientists to submit pollinator species sightings to EPA and state environmental agencies to help scientists better understand the health of honey bees and monarch butterflies on a large geographic scale.

The site was redesigned in 2017 with an updated user interface to improve the Web site's functionality and consolidates information to make it easier for developers to find the resources they need. For



example, Developer Central links to RCS for various reusable components, and highlights and provides access to the most frequently used datasets in EDG. The site now contains a public forum on which the Agency receives feedback from developers. The forum is also linked to EPA's Open Government Web pages and to the EDG Web page to provide expanded opportunities for the public to provide feedback on EPA open government activities and datasets. The focus for FY2018-2019 will be to increase public input to the site and continue to participate in externally facing events to promote EPA Data and APIs.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Expand public forum to enable comments on specific datasets in EDG via metadata pages			X						
Enhance Developer Central functionalities	Ongoing								

Controlled Unclassified Information (CUI) Program

Executive Order (EO) 13556 Controlled Unclassified Information⁸ established the Controlled Unclassified Information (CUI) program to standardize and simplify the way the Executive branch handles unclassified information that requires safeguarding or dissemination controls pursuant to and consistent with law, regulations, and Government-wide policies⁹. The program emphasizes the openness and uniformity of government-wide practices. Its purpose is to address the current inefficient and confusing patchwork that leads to inconsistent marking and safeguarding as well as restrictive dissemination policies that are often hidden from public view. The program promotes transparency by exposing the reason data is restricted, and makes data more available to the public.

The rule proposed by the NARA in May 2015 to establish policies for managing CUI was approved by OMB in August 2016. As the CUI Executive Agent, NARA is assisting affected departments and agencies to implement the new regulation by conducting courtesy assessments on preparedness. EPA asked NARA to conduct courtesy assessments in OEI, Office of Pollution Prevention and Toxics (OPPT), and Region 5, which will consist of document reviews, online surveys, and on-site interviews. EPA will also develop an enterprise-level CUI Management Procedure that reflects requirements outlined in the government-wide CUI regulation. EPA organizations will tie their more specific program guidance to this enterprise procedure.

⁸ https://www.gpo.gov/fdsys/pkg/FR-2010-11-09/pdf/2010-28360.pdf

⁹ CUI encompasses Sensitive but Unclassified (SBU), For Official Use Only (FOUO), Confidential Business Information (CBI) and Personally Identifiable Information (PII). NOTE: Under the forthcoming CUI rule, more of these terms will disappear.



Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Complete enterprise-level CUI Management Procedure				X					
Develop EPA Basic CUI Training						х			

B. Proactive Disclosures

EPA seeks to proactively make information of significant public interest available electronically before individual requests for it are made. These disclosures are an integral part of the Freedom of Information Act (FOIA)¹⁰. EPA operates under the premise that most information should be made publicly available and works to make proactive releases when appropriate. In keeping with this emphasis on disclosing information proactively, EPA has made a great deal of information available throughout the Agency's FOIA Web site, on individual organizational Web sites, and on Data.gov.

FOIAonline

EPA continues to serve as the managing partner of the **FOIAonline** application—a multi-agency Freedom of Information Act solution that allows the public to make and track a FOIA request, search other requests, and access responsive documents posted by participating agencies. The public can create a FOIA log for all requests that were received by EPA during any fiscal year through FOIAonline. FOIAonline contributed to the success of EPA's FOIA Program (see section III.D), by offering expanded workflow enhancements that resulted in improved access and quicker responses to public requests.

From EPA and its partner agencies, FOIAonline makes available approximately 620,000 requests for tracking purposes, and provides access to over 1,100,000 responsive records for discovery and access. FOIAonline also provides agencies with a means to meet their 508 accessibility requirements by applying a text layer to certain documents when this is lacking. EPA continues to actively work with agencies who are interested in joining the partnership to meet their FOIA needs.

Initiative and Related Milestones		FY2	018			F	Y2019	1
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Continue to work with agencies interested in joining the FOIAonline partnership	Ongoing							

¹⁰ https://www.foia.gov/



ChemView

EPA significantly expanded proactive disclosures by the release of **ChemView** in 2013. ChemView is an enterprise data system that makes health and safety chemical data received by EPA readily accessible to the public, as well as EPA's assessments and regulatory actions for specific chemicals under the Toxic Substances Control Act (TSCA). ChemView is part of an ongoing effort to provide and streamline public access to information on over 13,000 TSCA chemicals collected by OPPT and uses SRS Web services to improve quality.

OPPT developed a variety of enhancements and improved search capabilities intended to expand access to chemical health and safety information. The advanced search tab allows users to search by date range and company submitter name for multiple source documents. The additional filters allow the user to narrow their search to find exactly what they are looking for. EPA projects that search by case number such as 8EHQ-XX-XXXX and production volumes ranges will be available by early 2019.

Over the next two years, ChemView will continue to increase capacity to promote and protect public health by developing new templates for pre-manufacture notification determinations, profiles to show supporting documents and actions for chemicals going through new chemical review, existing chemical risk evaluations and risk management actions. The Agency will also release the ability to search keywords in over 33,000 documents stored in ChemView.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Develop and release risk evaluation, new chemical reviews, and chemicals under TSCA transparency templates								x	
Open Advanced Search capabilities for company/submitter search, date search, case number source, production volume search	х			х	х				
Develop and release new chemicals PMN determination and PMN profile templates			х	х					
Develop and release text search tab					х	х			

C. Privacy

EPA places stringent requirements on the collection, access, use, dissemination, and storage of personally identifiable information (PII) and Privacy Act¹¹ information to prevent unwarranted invasions

¹¹ http://www.gpo.gov/fdsys/pkg/USCODE-2013-title5/html/USCODE-2013-title5-partl-chap5-subchapII-sec552.htm



of personal privacy. EPA continually updates its privacy policies, procedures, practices, standards or guidance to address emerging issues resulting from the introduction of new technologies.

Privacy Program

EPA's **National Privacy Program** (NPP) provides the public with information regarding EPA's privacy program on EPA's Privacy Web site¹². Individuals wanting to know how EPA implements the Privacy Act, other governing statutes, and privacy regulations can access this resource from the Privacy Web site. The EPA Privacy Act systems of records and privacy impact assessments are also accessible on this page. Individuals can also file a PA request, as well as request access to and amend PA records from this location.

EPA prepares and submits all required compliance reports in support of privacy. Required reporting includes:

- Annual Federal Information Security Modernization Act (FISMA) of 2014 reports on implementation of Privacy Act.
- Federal Register notices for system of records as required by the Privacy Act.
- Biennial report on computer matching activities submitted to OMB.
- Annual FISMA reports on privacy data specified by OMB.
- Privacy Impact Assessments, as required by section 208 of the E-Government Act.
- Privacy Act On-site Reviews.
- Privacy Controls NTIS 800-53 Appendix J Revision 4.

D. Whistleblower Protection

Office of Special Counsel (OSC) Certification

The OSC established a "2302(c) Certification Program" to provide agencies and agency components with a process for meeting the statutory requirement that employees are informed of the rights and remedies available to them under the Civil Service Reform Act (CSRA), the Whistleblower Protection Act (WPA), the Whistleblower Protection Enhancement Act (WPEA) ¹³, and related laws. On March 2,

¹² www.epa.gov/privacy

¹³ https://www.congress.gov/112/bills/s743/BILLS-112s743enr.pdf



2016, the Agency submitted the OSC 2302 (c) Certification Program registration form. EPA is currently working to recertify for 2019.

Whistleblower Protection Program

The EPA Office of Inspector General has a whistleblower protection coordinator responsible for educating employees about whistleblower protections, rights and remedies.

E. Web Sites

Digital services transform the way EPA delivers partner and public facing technology and information. EPA's Digital Government Strategy seeks to deliver better digital services, including Web sites and data, to the public. EPA provides insight on how people are interacting with Agency Web sites through its participation in Analytics.USA.gov.

Web site Management

EPA provides the public with information on Open Government and Open Data initiatives through the Web sites prescribed by OMB. For example, the Agency's Open Initiative¹⁴ site is routinely updated with progress reports, spotlights of innovation, and the most current version of documents such as this Plan. EPA's Digital Strategy Milestones and implementation progress are posted on the Agency's Digital Strategy site¹⁵. Quarterly updates on EPA's progress in promoting data for public use by updating its dataset inventory and meeting other aspects of the Open Data Policy are posted on this site.

EPA invested significant time and energy to enhance its Web presence with an emphasis on improving the user's experience. The transformation of EPA's Web site to a topic-based site was undertaken to better meet the needs of Web site visitors. The Agency's Web site is managed within a Drupal-based Web Content Management System (WebCMS) and designed to facilitate a visitor's top tasks. EPA leverages quantitative Web analytics to focus resources on the most popular and frequently accessed pages. EPA.gov also uses site-wide standards to give visitors a more consistent user experience with a single point of Internet presence, centralized governance, and distributed content development. By mid-FY 2018, EPA transformed most of its content pages and published the information in formats designed around users' top tasks. The Agency also continues to enhance site search capabilities, as over half of its Web site access comes from query results from external search engines.

¹⁴ https://www.epa.gov/open

¹⁵ https://www.epa.gov/open/digital-strategy



The Agency fully participates in Analytics.USA.gov with 100% reporting on all eight domains registered to EPA. In addition to Google Analytics, EPA uses a range of Web analytics tools to understand visitor behavior and interest, evaluate site metrics, and receive customer feedback. EPA was the first federal agency to achieve full compliance with OMB's https directive to ensure secure access to the Agency's online resources. The Agency implemented https months ahead of OMB's 2016 deadline and scored an A+ SSL Labs grade. Additional information on EPA's progress towards integrating Web best practices is posted on https://pulse.cio.gov/.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Maintain content and information quality effectively using the WebCMS tools for link management, automated review cycles and adherence to EPA standards and One EPA guiding principles	Ongoing								
Leverage WebCMS capabilities, such as dynamic lists and additional content types, to integrate information across topical areas	Ongoing								

F. Open Innovation Methods

The Agency prides itself on its strategic use of open innovation, fueled by many open innovation projects and challenges, to improve its effectiveness and ability to accomplish its mission of environmental protection. EPA actively seeks open innovation and crowdsourcing solutions to find better ways to solve today's environmental challenges.

Crowdsourcing

The Agency leverages external partnerships across the federal government to drive innovative change. For example, EPA's Acting Chief Innovation Officer serves as co-chair of the Federal Community of Practice for Crowdsourcing and Citizen Science (CCS), a grassroots community of over 250 members representing 50 governmental organizations. As a leader in CCS, ORD played a significant role in the design and content development of the Federal Crowdsourcing and Citizen Science Toolkit, an effort led by jointly by the White House Office of Science and Technology Policy and CCS. Additionally, EPA supports the development of a government-wide catalog for federally supported citizen science and crowdsourcing projects. EPA coordinated the entry of over a dozen EPA-supported projects into this database.

Innovation Team

The **Innovation Team** leads EPA's citizen science and crowdsourcing efforts to build partnerships with other federal agencies, external organizations, and the general public. These efforts include:

• Implementing the generic ICR for EPA citizen science and crowdsourcing projects. The OMBapproved framework allows for a streamlined approval process for many citizen science and



crowdsourcing projects at EPA and provides a mechanism for ORD scientists to pursue flexible, innovative research methods that involve the public. EPA is developing an implementation plan that will allow any EPA organization to use this streamlined process for new citizen science projects.

- Continuing to convene an internal community of practice on citizen science (established in 2011) for staff in program and regional offices. The community of practice supports EPA capacity-building activities including: education for EPA staff on citizen science, including workshops, webinar speaker series and training on working with volunteers.
- The coordination of internal competitions for EPA researcher-led projects that incorporate citizen science tools. This process uses ideation platforms to allow applicants to share ideas with colleagues as a way to further idea development and identify potential collaborators. In 2015, the National Health and Environmental Effects Research Laboratory researchers were awarded for their project proposals for Show Me the Honey and CyanoScope. In 2016, EPA's National Exposure Research Laboratory researchers were awarded seed funding for three projects: Micro CSI-Urban Edition: A Microbial Citizen Science Initiative in Urban Watersheds, Social Values Assessment of Waters of the United States, and Community-led Air Sensor Evaluation. In 2017, National Risk Management Research Laboratory researchers were awarded funding for three projects: K-12 Crowdsourcing to Monitor Private Wells and Assess Contaminant Sources, Using Citizen Science to Improve Drinking Water Epidemiology Studies, and Community-led Air Sensor Evaluation.
- Continuing work with EPA Regional and Program offices to support new projects and increase understanding of how to use citizen science and crowdsourcing to support EPA's mission.

Additional key innovation projects include:

Air Sensor Toolbox for Citizen Scientists

The Air Sensor Toolbox for Citizen Scientists is a resource for citizens, researchers and developers containing information and guidance on how to effectively collect, analyze and communicate air quality data. The Toolbox includes a host of resources including an air sensor guidebook, sensor evaluation reports, and community air monitoring training videos among other high-demand information.

Next Generation Air Monitoring

Next Generation Air Monitoring technology is providing lower-cost, portable and easy to use monitors for the public to learn about local air quality. New technologies are being discovered and evaluated for performance characteristics. Emerging technologies are being applied in select studies to meet a wide range of stakeholder needs.

Village Green Project

The Village Green Project is a collaborative project including multiple EPA Offices (ORD, Office of Air and Radiation (OAR), Office of Enforcement and Compliance Assurance), EPA regional offices, state/local agencies, and community organizations to pilot test solar-powered air and weather monitoring stations in community outdoor areas. The station design incorporates research-grade monitors into a park bench and



prototypes are currently located in areas ranging from the National Zoo in Washington, D.C. to an elementary school in southeast Chicago. The data are shown to the public in real-time through a project Web site¹⁶.

The Challenging Nutrient Coalition

Challenging Nutrients, a collaboration of federal agencies, universities, and non-profit organizations, tackles the intractable issues preventing significant progress on nutrient pollution. The coalition recognizes that lack of available data was one of the major problems and launched an effort to develop a suite of effective and affordable sensors to measure nutrients in water and soil. These sensors are now on the market.

Real Time Geospatial Data Viewer (RETIGO)

The Real-Time Geospatial Data Viewer (RETIGO) is an interactive web-based application that overcomes technical barriers to exploring complex field datasets. Emerging measurement technologies are producing data that might vary with location and time, such as community groups adding air quality sensors to bicycles and measuring while biking. RETIGO allows users to upload their data and interactively explore the data over map and multiple graph interfaces. Tutorials and the Web tool are available at the Real Time Geospatial Data Viewer (RETIGO) site¹⁷.

Initiative and Related Milestones		FY2	018			FY2	019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Continue to convene an internal EPA community of practice on citizen science for staff in program and regional offices	Ongoing							

G. Access to Scientific Data and Publications

In 2013, the Office of Science and Technology Policy (OSTP) directed¹⁸ federal agencies that spend more than \$100 million per year on research and development (R&D) to develop plans for increasing public access to the results of the research they support, specifically scholarly publications and digital data. Making EPA R&D information publicly available expands opportunities for new scientific knowledge to be applied to environmental protection and to catalyze innovative breakthroughs that drive economic growth and prosperity.

Scientific Data Management Program

EPA's Office of Science and Information Management (OSIM) in the Office of Research and Development (ORD) is working to implement a framework for managing the large volumes of complex scientific data created and used by ORD. In the course of this work, OSIM established the **Scientific Data Management (SDM) Program**, through which OSIM created the Scientific Data Management

¹⁶ www.airnow.gov/villagegreen

¹⁷ www.epa.gov/retigo

¹⁸ https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp public access memo 2013.pdf



Policy, issued in February 2016, and procedural guidance for Scientific Data Management Plans (SDMP) for ORD intramural research projects, issued in August 2015. The Policy requires scientific data to be managed in a manner that recognizes scientific data as an asset, considers data value and costs, and is consistent across the organization. The SDMP requires researchers to describe information about their research data that serves as a guide to help users locate, understand, and use the data. The SDMP also collects the physical location of the data, how the research data will be managed and maintained, access restrictions for protected information, and any plans for sharing the research data. Such documentation is critical as EPA continues to open its data to secondary users and the public. Moreover, when scientific data is managed in this way, it becomes much more accessible to the research community and increases collaboration and re-use opportunities.

Initiative and Related Milestones		FY2	.018			FY2	2019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Implement Phase Two of SDM Policy (require a SDMP when QA project plan is written.				х				

Public Access Plan

On November 29, 2016, EPA completed its Plan to Increase Public Access to Results of EPA-funded Scientific Research per the February 22, 2013, the White House OSTP memorandum Increasing Access to the Results of Federally Funded Scientific Research. The plan is published on the Agency's Open Government Web page[2], linked to the EPA Open Government Plan 4.0, and implemented in phases.

In 2017, EPA established a Public Access Forum to develop procedures, guidelines and strategies to implement the plan. Prior to the establishment of the Forum, in 2016, EPA's Office of Research and Development (ORD) implemented Phase 1 of the Plan by posting peer-reviewed journal articles to PubMed Central (PMC). ORD began capturing information about datasets (metadata) associated with these peer-reviewed journal articles in ScienceHub, and passing that metadata to the Environmental Dataset Gateway (EDG). EPA is currently modifying ScienceHub to allow for capture of information about non-ORD intramural research efforts. As is the case with ORD research, associated dataset metadata will be shared with the EDG to enable public access. EPA is also working to enable capture of dataset metadata associated with extramural research. All data underlying a publication will be required to be posted publicly within 30 days of the article being posted to PubMed Central. This Plan requires all researchers to include Scientific Data Management Plans (SDMPs).

^[2] https://www.epa.gov/open



Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Data underlying non-ORD intramural peer-reviewed journal articles are captured in ScienceHub and made available to the public through metadata records in EDG.					x	x	x	х	
Data underlying extramural peer-reviewed journal articles are made available to the public through metadata records in the EDG.					Х	Х	х	х	

<u>Implementing the new requirements relating to confidential business information</u> under TSCA Section 14 of the amended Toxic Substances Control Act

Amendments to the Toxic Substances Control Act (TSCA) enacted in 2016 made significant changes to the handling of confidential business information (CBI) submitted to EPA under TSCA which are expected to result in more information relating to TSCA submissions being made accessible to the public. These changes include new requirements for industry submitters making CBI claims and new requirements for EPA to review and make determinations on these CBI claims.

For submitters, all CBI claims must be substantiated at the time the information claimed as CBI is submitted to EPA, except for those types of information listed as exempt in the statute. The law also requires that the submitter provide a statement concerning the need for the CBI claim and a certification that the statement of need is true and correct. There is also a requirement that when a specific chemical identity is claimed as CBI in a TSCA submission, a non-CBI structurally descriptive generic name be provided.

EPA must, with limited exceptions, review all CBI claims for chemical identity, as well as a representative sample of at least 25% of other claims in TSCA filings. These reviews must occur within 90 days of receipt. Other CBI claims can also be reviewed by the Agency based on specific events. For example, EPA may conduct a CBI review pursuant to a Freedom of Information Act (FOIA) request, when a substance is designated as a high priority or active substance under the statute, or when the Agency believes that disclosure would be important in implementation of TSCA section 6. Most CBI claims expire after 10 years unless the information submitter reasserts and re-substantiates the CBI claim. When EPA approves a CBI claim for chemical identity, the Agency must develop a unique identifier for the chemical to be used to identify information relevant to that chemical without revealing the confidential chemical identity.

Amended TSCA also included a provision which authorized TSCA CBI to be shared with non-federal authorities including states, subdivisions of states, tribes, emergency responders, and health care professionals if, certain requirements are met. For example, CBI may be shared with states if, among other things, the state has adequate authority to maintain the confidentiality of the information.



Health and Environmental Research Online (HERO) Web site

The Office of Research and Development also makes research information available to the public through its **Health and Environmental Research Online** (HERO) database. HERO supports the National Center for Environmental Assessment (NCEA) scientific users, stakeholders, and partners who develop and review assessments used in Agency regulatory decisions. Other programs leveraging HERO include IRIS Toxicological Reviews, Integrated Science Assessments (Clean Air Act), and Provisional Peer Reviewed Toxicity Values for Superfund.

The following improvements to existing HERO modules will make it even easier for the public to access scientific data:

- LitScreener: Analysis of individual scientific studies for appropriate and relevant use (citation) in a scientific assessment or EPA Report.
- LitExtractor: Facilitates collection of relevant scientific "facts" about the methods, results, and numerical data within a scientific study, via a user interface and future automatic tools.
- LitReporter: Reporting of the collected scientific data extracted from the scientific studies by both individual study and by aggregated data across similar studies.

Tox21

Toxicology in the 21st Century (**Tox21**) is a federal collaboration among EPA, the National Institutes of Health (including National Center for Advancing Translational Sciences and the National Toxicology Program at the National Institute of Environmental Health Sciences), and the Food and Drug Administration. Tox21 researchers are focused on developing better toxicity assessment methods to quickly and efficiently test whether certain chemical compounds have the potential to disrupt processes in the human body that might lead to adverse health effects. EPA's primary contributions to Tox21 are the chemical screening results from ToxCast, a data processing pipeline to process data and software to manage and disseminate the data via a series of publicly accessible Web sites (known as dashboards). EPA released the following outputs as Open Data:

 Tox21 screening results for the full Tox21 library, processed through EPA's open source data analysis pipeline, along with all of the assay results generated for EPA's ToxCast library. As a result all Tox21 assay results, along with ToxCast results, are available as Open Data and as data downloads¹⁹.

¹⁹ https://www.epa.gov/chemical-research/toxicity-forecaster-toxcasttm-data



 The Tox21-associated assay data (including ToxCast results) are available through Open Web sites (ToxCast Dashboard²⁰ and Endocrine Disruptor Screening Program (EDSP) dashboard²¹) for people to use, query and download. ToxCast data have been integrated to the new iCSS CompTox dashboard²² released in August 2016.

All Tox21 data are linked to registered DSSTox²³ chemical content (chemical IDs, structures, properties). These data are searchable and associated with computed chemical properties from within the CompTox Dashboard.

In support of both Open Data and reproducibility, scientific publications will include Open Data as Supplementary Data files. These data files will link to standardized EPA chemical identifiers that will link to the CompTox dashboard and through to other EPA dashboards. These files will be made available in a form that is consumable by third party software for the purpose of linking directly into our databases. Specifically, DSSTox chemical identifiers will be searchable via multiple EPA Web sites and provide linkages across datasets via the Open Web sites mentioned.

H. Open Source Software

Adopting open source practices and repositories for use in environmental management figures prominently in EPA's FY2016-2018 IRM Strategic Plan. From advanced data analytics to Web modernization, open source provides a cost-effective way to introduce innovation into the Agency. EPA also provides public access to its custom-developed software code by making it available to the public as open source software. Public access to custom code helps EPA improve its custom-developed projects by creating a collaborative environment that makes it easier to conduct software peer review and security testing, reuse existing solutions and share technical knowledge.

Digital Services Program

As part of the effort to ensure the requirements enacted by the Federal Information Technology Acquisition Reform Act (FITARA) are met in full, the Agency created a **Digital Services Strategy** and Architecture Roadmap that outlines how EPA will meet its IT goals and objectives under FITARA. Two central components of the roadmap are the creation of an open source code repository and the adoption of open source code and tools.

²⁰ http://actor.epa.gov/dashboard/

²¹ http://actor.epa.gov/edsp21/

²² https://comptox.epa.gov/dashboard

²³ https://www.epa.gov/chemical-research/distributed-structure-searchable-toxicity-dsstox-database



The Agency has started using GitHub as an open source code repository that reduces costs and paves the way to migrate efficiently to a cloud environment, where long-term capacity concerns would be easily accommodated. GitHub supports the Agency as it moves towards adopting open source practices, exemplified by projects such as Reusable Component Services and E-Manifest.

Reusable Component Services (RCS)

EPA's **Reusable Component Services** registers and catalogs many types of resources of interest to software developers, including software tools, programming code, data models, extensible markup language (XML) schema, Web services and APIs. RCS also serves as infrastructure for E-Enterprise's Service Catalog, Developer Central, the Exchange Network, and api.data.gov.

Over 70% of the resources catalogued in RCS are available for the public to access and download. EPA foresees a 200% increase per year in resources made available to the public through RCS over the next several years.

E-Manifest

E-Manifest is a national electronic manifest system EPA launched on June 30, 2018, that will enable the regulated community to electronically prepare, manage, and submit manifests for hazardous waste transport. By enabling the transition from a paper-intensive process to an electronic system, the EPA estimates e-Manifest will ultimately reduce the burden associated with preparing shipping manifests by between 300,000 and 700,000 hours, saving state and industry users \$75-\$90M annually. The application is available for any member of the public to download.

Initiative and Related Milestones		FY2	018			FY2	019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Begin deployment of e-Manifest in the e-Enterprise Portal			х					

I. Spending Information

Making information on its federal expenditures more easily accessible and transparent via USASpending.gov Web site will improve the public's ability to track and understand how EPA is spending its tax dollars. Full and easy access to information on government spending promotes accountability by allowing detailed tracking and analysis of the deployment of government resources. Such tracking and analysis allow both the public and public officials to gauge the effectiveness of expenditures and to modify spending patterns as necessary to achieve the best possible results.

Digital Accountability and Data Act (DATA) Act Implementation

As required by the OMB Memorandum M-15-12 *Increasing Transparency in Federal Spending by Making Federal Spending Data Accessible, Searchable, and Reliable,* the Agency submitted an



implementation plan in September 2015 and an updated plan in August 2016. The plan outlines how EPA will execute the OMB and Treasury's 8-step **DATA Act implementation** strategy. As an initiative to increase financial transparency and improve access to spending data, EPA's implementation of the DATA Act and its efforts to foster a culture of openness at the Agency are one in the same. By improving and standardizing access to spending information across the federal government, EPA will provide the public with a more consistent and transparent view of the Agency financial operations that will increase public confidence in the Agency as an integral piece of an open American government.

The volumes of financial, performance, and programmatic data that will be made available to the public through the DATA Act implementation are used daily to inform executive level decisions. For instance, EPA's financial data track nine appropriations (plus additional funding from settlements, special accounts, and fees) and over 100 program projects. In addition, Superfund expenses must be tracked with precise detail to enable recapturing of these costs in future settlements, and EPA must identify, report and track all IT spending. All six major national programs (air, water, land, toxics, enforcement, and research) track and analyze detailed performance metrics and reporting, and EPA works with states to maintain extensive air, water, and other environmental monitoring data nationwide networks.

III. Ongoing Open Government Reporting Requirements

A. Participation in Transparency Initiatives

The Open Government Directive identified transparency as a cornerstone of an open government. Transparency promotes accountability by providing the public with information about what the Government is doing. EPA continues to actively support and participate in federal-wide transparency initiatives.

Data.gov

EPA's EDG (see section II.A) is the mechanism by which the Agency creates its OMB-required EDI and provides information to the **Data.gov** site²⁴. This information in EDG is updated daily. The EDG Team works with a data steward network from across the Agency to increase the number of EPA datasets registered in the EDG and build data collections, maintain links in EPA metadata records, incorporate OMB-required licensing information, and include documented data APIs for all datasets. In addition, the Agency's Public Data Forum, a two-way public feedback mechanism, allows the public to comment on EPA datasets. These activities improve the information about EPA datasets and collections on Data.gov.

²⁴ https://www.data.gov/



eRulemaking Program / Regulations.gov

The **eRulemaking** Initiative provides a one-stop shop for the federal rulemaking process, allowing departments and agencies to work together to provide the public with greater access to comments on proposed rulemakings and notices on Regulations.gov²⁵. The eRulemaking Program Management Office (PMO) under EPA manages and maintains the eRulemaking program and serves nearly 150 federal departments, agencies, commissions, and sub agencies²⁶. The vision of the eRulemaking Program is to enable the public ease of access to participate in a high quality, efficient, and open rulemaking process.

Analytics are regularly reported to stakeholders via submissions to the analytics.gov Web to increase program transparency. These analytics are essential to examining how effectively Regulations.gov provides information to the public. In addition, the PMO is creating an API widget to introduce another way for the public to access and comment on proposed regulations.

IT Dashboard

The OMB **IT Dashboard** provides federal agencies and the public with an online window into the effectiveness of government IT programs. Through the IT Dashboard, users can access details of federal IT investments and track the progress of investments over time. EPA provides monthly updates to the IT Dashboard with the CIO's assessment of risk for each of EPA's major IT investments. The CIO requires monthly narratives from the investment owners to substantiate his ratings, and where needed, meets with the investment owners to ensure completeness and accuracy of the narratives.

Grants.gov

EPA provides the public with lists of all open EPA grant opportunities on **Grants.gov**, as well as on the Agency grants Web site.

Catalog of Federal Domestic Assistance (CFDA.gov)/Assisted Listings at Sam.gov

The Agency now lists over 100 programs with their associated objectives, eligibility requirements, application and award processes, and financial information on the Sam.gov Assisted Listings Web site.

²⁵ https://www.regulations.gov/

²⁶ https://www.fdms.gov/fdms-web-agency/component/loginInfo?page=fag#2



FSRS.gov

In 2014, EPA participated in a government-wide focus group for the Federal Funding Accountability and Transparency Act (FFATA) Subaward Reporting System (**FSRS**) to better understand current user issues and goals for the system. The focus group proposed a complete system redesign that will facilitate increasing subaward stakeholder engagement. EPA's comments will help GSA create a roadmap for developing the modernized FSRS, which will incorporate public feedback as part of the system's future design.

USAspending.gov

EPA submits agency obligation data to usaspending.gov, including details on procurements over the micro-purchase threshold.

Notice of Intent to Sue EPA

Many of the environmental statutes that govern EPA actions contain provisions that allow citizens to sue EPA when EPA fails to perform an act or duty required by the statute. These citizen suit provisions usually require a potential plaintiff to first provide EPA with **notice of intent to sue** (NOI) in advance of filing the lawsuit. To maximize transparency, EPA maintains a list of all intent to sue notices received by EPA's Office of General Counsel on or after January 1st, 2013 on the Agency's NOI Web site²⁷. The Web site is updated with newly received notices on an ongoing basis.

B. Public Notice

The Agency actively works to notify citizens of its actions and to seek input through many avenues. The public can find information on EPA's Web site for a program or geographic location, as well as subscribe to targeted newsfeeds or alerts from EPA's Newsroom. EPA continually shares information with and updates the public about its work through the Agency's digital and social media platforms. In addition, EPA provides information on upcoming and highlighted opportunities to participate and collaborate with the Agency in its Open Government progress reports, which have been posted quarterly or bi-annually since the Open Government program was launched. Examples include public meetings, webinars, congressional appearances, and stakeholder meetings.

²⁷ https://www.epa.gov/noi



C. Records Management

EPA has established policies and procedures for the management and security of records, files, data and information systems and technology. Records serve a number of purposes including: planning for administrative and program needs, providing evidence of EPA activities, protecting legal and financial rights, enabling oversight by Congress and other authorized agencies, documenting the Agency's history, and continuing key functions and activities in the event of an emergency or disaster. Records capture the Agency's institutional memory and preserve the historical record; they are of critical importance in ensuring that the organization continues to function effectively and efficiently.

Records Program

EPA's **National Records Management Program** (NRMP) provides guidance to all EPA staff on records management requirements via its intranet pages²⁸. It also supports and provides training to Records Liaison Officers (RLOs) and records contacts assigned to each headquarters program and region. Additionally, the NRMP provides information on records management policies and final records retention schedules to the public via the NRMP's Internet pages²⁹.

The Agency's vision is to provide staff with seamless electronic access to the records and information needed to protect human health and the natural environment by reducing records management burdens on employees through automated approaches and other means, which will make it easier for employees to identify, save, find and use their records as part of their everyday business.

To meet the Managing Government Records Directive Goal 1.2, which states, by December 31, 2016, federal agencies must manage email records in an electronic format, EPA developed the EZ Email Records tool to identify Microsoft Outlook and Lotus Notes e-mails for transfer to the Agency's enterprise records management repository. EPA is planning to implement NARA's Capstone role-based approach to ensure the Agency saves email records of the top level senior officials (Capstone Officials) for permanent retention.

To ensure EPA meets the Managing Government Records Directive Goal 1.1, to manage all permanent electronic records in an electronic format by December 31, 2019,^[3] the Agency has developed a Records/Digitization Consolidation Workgroup, lead by EPA Region 6, tasked with making recommendations for centralizing hard-copy (paper) records management and digitization of those

²⁸ http://intranet.epa.gov/records/

²⁹ https://www.epa.gov/records

^[3] Managing Government Records Directive (M-12-18), https://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-18.pdf



records across the Agency. The Workgroup's goal is to enable electronic access to those records, while also reducing physical document storage needs. The Agency has commissioned a Records Management Technology (RMT) workgroup charged with recommending short- and long-term enhancements for records management tools and services.

In addition, a workgroup has been developed to evaluate the Agency's "As Is" state and make recommendations for the "To Be" state to meet NARA's Strategic Plan Goal, which states by December 31, 2022, NARA will, to the fullest extent possible, no longer accept transfers of permanent or temporary records in analog, including paper, formats and will accept records only in electronic format and with appropriate metadata.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Develop a plan for implementing an automated role-based and/or content-based e-mail records management approach				x					
Develop recommendations for centralizing hard-copy (paper) records management and digitization of those records across the Agency.							x		
Evaluate and recommend short- and long-term enhancements for records management tools and services.								X	

D. Freedom of Information Act (FOIA) Requests

FOIA gives the public the right to make a request for federal agency records. Like all federal agencies, EPA is responsible for answering FOIA requests. EPA and regional offices receive approximately 10,000 FOIA requests annually. EPA provides the public with tools to electronically submit and track FOIA requests, and is investigating new tools and technologies to help improve the timeliness of its responses to FOIA requests and reduce its FOIA backlog. EPA reduced its FOIA request backlog by approximately 20% between FY2014 and FY2015. In FY2014, EPA's FOIA request backlog contained 1,688 requests which was reduced in FY2015 to 1,355 backlogged FOIA requests. EPA anticipates reducing the number of backlogged requests at least another 10% by the end of FY2016.

FOIA Program

The Center for Effective Government's recent assessment of FOIA programs at the 15 federal agencies that receive the most FOIA requests³⁰ commended EPA for the quality of its FOIA Web site³¹ and for having the second highest rate of fully granted FOIA requests of any government department or

³⁰ http://www.foreffectivegov.org/access-to-information-scorecard-2015

³¹ https://www.epa.gov/foia



agency. EPA also continues to serve as a founding partner of the FOIAonline application, described in more detail in the proactive disclosures section above, which serves as the cornerstone of the Agency's **FOIA program**. By allowing the public to make and track FOIA requests electronically, FOIAonline has enhanced the speed of Agency FOIA workflows resulting in quicker response times and increased information sharing with the public. The public can also create a FOIA log for all requests that were received by EPA during any fiscal year through FOIAonline. The same is true for any other agency using the FOIAonline application.

Though the Agency's FOIA program has made progress, EPA strives to strengthen its response processes and reduce its FOIA backlog through several improvements to its MyProperty tool³². MyProperty allows real estate agents, mortgage banks, engineering and environmental consulting firms and the public to determine if EPA databases have records on a specific property without filing a FOIA request. The results of the search are identical to the information the user would receive by filing a FOIA request with EPA for the same records. As site-specific FOIA requests related to real estate transactions comprise 40% of all FOIA requests received by the Agency, EPA estimates that FOIA requests will be reduced significantly as a result of the upgrade.

In addition to reducing the volume of incoming requests, the Agency plans to reduce its backlog by:

- Providing EPA program and regional offices with access to electronic tools and services to help identify documents that are responsive to FOIA requests.
- Working with program and regional offices to improve the processing time of complex and highprofile FOIA requests.

EPA has also undertaken, or will initiate, the following actions to implement the FOIA Improvement Act of 2016:

- Develop a direct final rule that is consistent with the FOIA Improvement Act of 2016.
- Update the Agency's appeal language to extend the appeal deadline to 90 days and provide contact information for EPA's FOIA Public Liaisons to NARA's Office of Government Information Services, as required by the Act.
- Mandatory FY17 FOIA training for all employees.

Initiative and Related Milestones		FY2	2016		FY2017				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Develop new FOIA regulations, consistent with the FOIA Improvement Act of 2016					х				

³² https://www3.epa.gov/enviro/html/fii/myproperty/index.html



Initiative and Related Milestones		FY2	2016		FY2017				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Provide Mandatory FOIA training for all employees				x	x				
Develop MyProperty 2.0	x	х	х						
Release MyProperty 2.0				х					
Provide EPA program and regional offices with access to electronic tools to identify documents responsive to FOIA requests	х	х	х	х	х	х	х	х	
Work with program and regional offices to improve processing time of complex and high-profile FOIA requests	х	х	х	х	х	х	х	х	
Implement an intake process to identify similarities across requests, reduce search duplication and streamline the collection and processing of information					х	х	х	х	
Provide responses through FOIAonline to give the public access to all records released though FOIA				Ong	oing				

E. Congressional Requests

In addition to FOIA requests, EPA is responsible for answering congressional inquiries and requests for information. Since the beginning of 2017, Congress sent EPA over 1,250 letters seeking a response, including over 150 separate document requests, and received back more than 25,000 pages of documents.

Office of Congressional Affairs

Since early 2015, the **Office of Congressional and Intergovernmental Relations** (OCIR) has used the Lean methodology to design more effective and sustainable procedures for handling congressional and gubernatorial correspondence. Using this methodology, OCIR identified and began eliminating redundant and wasteful correspondence processes that impeded timely responses.

In May 2015, the OCIR Lean Team conducted a three-day Lean event, to analyze the current correspondence process and identify opportunities for substantive improvements. The event included mapping the current process, staff engagement through questionnaires/meetings, and consultations with the program offices. Beginning with the Office of Air and Radiation (OAR) and the Office of Water (OW), the OCIR Lean Team then introduced each of the National Program Offices to the effort. National Program Office staff were instrumental to OCIR's Lean development, providing insight and recommendations that were implemented in OCIR's correspondence process. Additional information



about OCIR's staffing and organizational structure can be found on the program's website,³³ as required by the Open Government Directive.

Implementation of the new process continues with several components successfully executed:

- Standardized Topic Areas in the Correspondence Management System for easier and more accurate search results by OCIR portfolio managers.
- ocirmail@epa.gov³⁴ An e-mail box has been placed on OCIR's Web site for use by congressional staff and the staff of governors that eliminates the use of a fax machine for sending correspondence.

Staff will continue to look for opportunities to expand the updated process for congressional correspondence.

F. Declassification

To expand health and safety information available to the public, EPA has undertaken efforts to limit and reduce Confidential Business Information (CBI)³⁵ claims associated with the data it collects. As of December 2014, EPA has declassified a total of 643 chemical identities, increased the number of publicly available health and safety studies, and completed reviews of just under 24,000 declassification cases.

TSCA Voluntary Declassification Challenge Program

While the Agency rarely manages classified information, it oversees the daily collection of a type "controlled unclassified information" known as CBI. Under a number of laws EPA administers, companies may claim information as CBI that then limits public distribution of this material except as authorized by applicable statutes and implementing regulations.

The Agency has received a significant number of CBI claims in filings made pursuant to the requirements of the Toxic Substances Control Act (TSCA). Some of these claims are viewed as overbroad, inconsistent with the requirements of TSCA, or as a result of time or other factors, no longer necessary.

³³ https://www.epa.gov/aboutepa/about-office-congressional-and-intergovernmental-relations-ocir

³⁴ ocirmail@epa.gov

³⁵ Under the forthcoming CUI rule, CBI is expected to change to PBI.



Since 2010, the Agency has engaged in outreach to major industry trade associations and their membership to reduce prospectively CBI claims in TSCA filings and to review old filings and declassify materials. This engagement, the **TSCA Voluntary Declassification Challenge** challenges industry to reconsider existing CBI claims and limit future CBI claims whenever possible.

The TSCA Declassification Challenge has been one of the most significant contributing factors to date for declassifications that have vastly increased the public availability of health and safety study data. This data can be easily accessed by the public through EPA's ChemView search tool (see section II.B). The public can also visit EPA's TSCA CBI site³⁶ for up to date information on EPA's TSCA declassification efforts.

G. Public Participation

Citizen participation in public affairs builds trust and helps the Government develop better policy and implementation decisions, and achieving desired outcomes. Public participation is a process and involves informing the public as well as obtaining input from them. When conducting meaningful public participation, an agency will gather input from a wide spectrum of stakeholder interests, resulting in a wide range of views and concerns. EPA uses multiple tools to effectively reach all audiences about opportunities for public participation. For example, the Agency utilizes the Environmental Justice Screening and Mapping Tool (EJSCREEN), an enterprise tool that contains demographic and environmental information, to scan for geographical areas that might be candidates for additional outreach as the Agency develops programs, policies.

Public Participation Opportunities Promoted via the Public Affairs Office

EPA continually provides the public with many avenues to learn about, participate in, and collaborate with the Agency on realizing its EPA's mission, including public meetings, webinars and conferences. The Agency shares information on opportunities for public participation through EPA's social and digital media tools. These include the electronic Newsroom, Developer Central, Agency social media accounts, and regional and program-specific Web pages.

EPA's Public Participation Guide

EPA endeavored to become a world leader in public participation with the creation of the **Public Participation Guide**. The guide is an online toolkit that provides means for public participation and public outreach in environmental decision-making. It is designed with government agencies in mind, to

³⁶ https://www.epa.gov/tsca-cbi



help decision-makers design and implement an effective and meaningful public participation process. The Guide is translated into English, Spanish, French, Arabic, and Simplified and Traditional Chinese.

The Agency also works in collaboration with the international government community to encourage public participation as part of their environmental decision-making efforts. The Agency delivers Public Participation workshops in many areas of the world. These workshops include expert presentations, interactive discussions, small group break-out sessions on best practices and case studies, and group deliberations on various public participation strategies and tools. The objectives of these workshops are to:

- Share the key features and foundations of EPA's Public Participation Guide.
- Share best practices, challenges, and strategies in engaging the public.
- Discuss different tools and techniques used throughout the country/region.
- Build a network of people to help strengthen public participation by creating a community of support and practice.

EPA developed additional resources to enhance the international workshops including an online Public Participation study guide like the one used at the international on-site training. This enables the Agency using limited funds to reach more audiences and train hundreds of people around the globe. The online training will:

- Enable a self-study that can be done in groups throughout the world where EPA cannot travel.
- Serve as an online refresher course for individuals who have already taken the in-classroom training, which will establish a corps of facilitators around the world that can help guide people through the materials.
- Encourage the establishment of a corps of facilitators around the world that can help guide people through the materials.

Components of the online training include video instruction, workbooks, exercises and discussions, a Facilitator guide, and webinars, as well as incorporating Environmental Justice tools and best practices and conflict resolution concepts.

Initiative and Related Milestones		FY2	018			FY2	019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Continuing to deliver EPA's Public Participation in-classroom training to other government agencies and non-governmental organizations, domestically and internationally				Ong	oing			

H. Collaboration

Collaborating and coordinating across the Agency and with external partners is central to accomplishing EPA's mission to protect human health and the environment. EPA works closely with states, tribes, local partners, federal agencies, and industry leaders to more effectively address



increasingly complex environmental challenges. Examples of some key collaboration tools and efforts are summarized below. Information on additional collaboration initiatives at EPA is available on the Agency's collaboration Web site³⁷.

National Environmental Information Exchange Network

The National Environmental Information Exchange Network (Exchange Network) is a communication, data, and services platform for sharing environmental information managed under the collaborative leadership of EPA, states, territories, and tribes. The Exchange Network facilitates data-sharing by enabling automated data exchanges, providing real-time access to data through the Internet, standardizing data structures and formats, automated QA checks, and offering guidance, software, and tools for implementing Exchange Network solutions. Network partners exchange data from nearly every major environmental program administered or delegated by EPA. By making data more accessible, the Exchange Network is building the foundation for better environmental decision-making.

Recently, E-Enterprise for the Environment adopted the Exchange Network's joint governance model of federal, state, territorial, and tribal partners working together, and on December 1, 2015, the Exchange Network Governance became part of E-Enterprise. In order for external trading partners to maintain autonomy and meet their individual data needs and requirements, the common practice in developing and sustaining the Network since its inception has been based on a service-oriented architecture (SOA) and open standards for performing machine-to-machine and human-to-machine data exchanges. Exchange Network technology is foundational to the E-Enterprise, and current plans envision that these principles and practices will be even more robust and widespread throughout the Agency and among its partners through more standardization and leveraging EPA and other data registries and services.

EPA's Central Data Exchange (CDX) is that Agency's point of presence on the Exchange Network and additionally the gateway through which environmental data is submitted/reported from industry directly to the Agency. Much like the Exchange Network, CDX reporting services are primarily implemented using SOA principles that have broken down stovepipe systems, resulting in reduced cost for development and operations as well as increasing speed to making data publicly available. EPA intends to leverage both CDX and Exchange Network services for an E-Enterprise Portal that will ultimately enable EPA customers to report and access data and conduct all business with the Agency through a single interface.

³⁷ https://www.epa.gov/innovation/ways-collaborate-epa



EPA GeoPlatform

EPA's Geospatial Platform (GeoPlatform) is a suite of geospatial tools, data, and services that increases collaboration among individuals both within and outside the Agency. It consolidates and coordinates mapping activities, geospatial applications development, and geospatial data management as a mature, shared service across the Agency. As of June 2018, the platform integrated 3,154 Web maps, 1,125 applications, and 3,243 services shared publicly and across the EPA (this excludes content and applications from private groups in the agency). The GeoPlatform seeks to foster collaboration by:

As the GeoPlatform expands it seeks to foster collaboration by:

- Utilizing tools that will help developers share knowledge and code, including GitHub, EPA's RCS, and EPA's Developer Central Web site.
- Working with developers to analyze areas where geospatial applications enable entirely new capabilities, such as real-time tracking of emergency responders deployed to a hot zone.

Supporting Agency and public access through interactive mapping capabilities and standard maps templates.

Initiative and Related Milestones		FY2	2018			FY2	019	
militative and Related Milestones	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Examine open source tools that will help developers share knowledge and code				Ong	oing			
Increase the number of shareable maps, geo-data services and applications available for use by 25% over the previous fiscal year.				Ong	oing			
Deploy application enhancements and data updates to EPA's GeoPlaform based EJSCREEN.				х				х
Improve integration of GeoPlatform capabilities into EPA's other collaboration tools and platforms.	Ongoing							
Coordinate with EPA's emergency response team to develop storymap templates to be used to quickly communicate EPA's work to the public during a response.	х	х	х	х				
Coordinate with EPA's Superfund Task Force Initiative to develop storymap templates for over 30 sites slated for redevelopment.		х	х	х	х	х		
Coordinate with the ongoing development of EPA's Data Visualization Platform to integrate geospatial data and analysis into a broader analytic and visualization capability to support EPA's mission				Ong	oing			
Coordinate with the National GeoPlatform effort managed by the Department of Interior to prototype one or more community/thematic sub-sites (e.g., a place-based focus area like Chesapeake Bay, or an interagency resource for Environmental Justice)				х	х	х	х	



Environmental Data Platform (EDP)

EPA's **Environmental Data Platform** (EDP) provides a central infrastructure for storing, managing, and accessing EPA databases (structured data) and documents, Web sites, and publications (unstructured data). The EDP allows users to access data from a single location to gain better insights and understanding through visualization and analytics and provides intelligent search capabilities using Natural Language Processing and machine learning. EPA has developed a working prototype of the EDP utilizing open-source software. Although currently an internal application, in the future this platform will be an important component of the Agency's open and public access strategies.

Initiative and Related Milestones		FY2	018			FY2	019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Continued development of the EDP along with analytic pilot projects				Ong	oing			

Facility Identification Integrated Project Team

Through the IPT, a component of E-Enterprise, EPA collaborates with state, local, and tribal agencies to enable streamlined data collection and reporting requirements, bridging disparate sources of facility data managed by co-regulators. The Facility Integration project envisions a shared approach to managing facility data based on real-time interaction, a flexible information model, and shared business rules. The project seeks to balance the ability to leverage shared facility services with the need to support the flexibility and independence of EPA and co-regulator implementation. Facility information integration will allow agencies to more quickly assemble the multi-media environmental data they need for consolidated reports, permits, and inspections and lead to improved facility data quality by accommodating data correction as it is being reported to environmental regulators. EPA and its co-regulators have jointly developed and are testing initial facility web services with other partners to ensure broad applicability. A facility data governance framework will be proposed to support E-Enterprise facility integration.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Pilot facility web services with state, local and tribal agencies				Х	X	X	x		
Propose a facility governance framework for E-Enterprise							x		
Support facility integration analysis for Combined Air Emissions Reporting (CAER) project				Х	Х	Х			



Inter-Governmental Data Partnerships

EPA is more of a data consumer than a data developer. Thus, it participates in many data partnerships to fill data gaps, develop critical datasets, and improve data consistency necessary for both partner and public data sharing. Since environmental data is often organized by geographic location in many EPA applications and tools (e.g., MyProperty, Envirofacts), the Agency actively participates in and leads domestic and international efforts to build a spatial data infrastructure. The OMB Circular A-16, Coordination of Geographic Information and Related Spatial Data Activities, calls for coordination in the development and use of spatial data. Much of this work is accomplished through the Federal Geographic Data Coordination Committee (FGDC).

EPA is a leader within FGDC to develop the A-16 National Geospatial Digital Asset (NGDA) Portfolio Management process that expedites the coordination of federal geospatial data assets and investments to efficiently support national priorities and government missions. As a result of EPA's leadership role, there are now 177 nationally significant geospatial datasets, known as National Geospatial Data Assets (NGDAs), registered in Data.gov. Additionally, for all NGDAs, there is a standard lifecycle management procedure approved by OMB, a NGDA maturity assessment process and metrics in place, and a dashboard that provides the public with the maturity of each NGDA on the National Geospatial Platform. Strategic planning is now under way by FGDC and its partners for expanding the development and management transparency and public access to these critical geospatial datasets.

EPA intends to continue its leadership role in this and other data collaboration partnerships in the support of Open Data and government in the coming years.

I. Flagship Initiative

The four flagship initiatives featured increase access to and use of EPA information to better meet the business needs of stakeholders, the regulated community, and the public. All four incorporate extensive stakeholder interaction to identify needs and adequately address those needs in project and technology design. The use of cutting-edge development and management practices by these initiatives allows EPA to simultaneously improve its operational efficiency and provide the public with quicker access to more environmental information.

AirNow-Domestic and International Expansion

EPA's **AirNow** program provides the public real-time air quality data and forecasts – actionable information citizens can use to protect their health. Collecting data from state, local, tribal, and federal agencies, AirNow is the only national repository of real time air quality data and forecasts. The system contains ambient measurements from thousands of monitoring stations around the United States, Canada, and Mexico, as well as forecasts from over 400 U.S. cities. AirNow engages the public by offering real-time air quality data and forecasts with health messages so the public can make choices to



reduce exposure. The site also has a very active Frequently Asked Questions (FAQ) system with constant public input.

Since 2014, the scope of the AirNow program expanded to include air quality data and forecasts for the international community. In 2015, the United States Department of State (DoS) signed an agreement with EPA to work together to install air quality monitors at DoS posts around the world, with AirNow as the public interface. In August 2015, AirNow's "Embassies and Consulates" page went live with five sites in India, expanding to 13 by April 2016. AirNow's sustainability depends upon strong partnerships and collaboration with air quality agencies. Over the next two years, the emphasis will be on expanding the domestic and international community of partners that share air quality data. The domestic program is built upon the efforts of more than 130 state, local, tribal, and federal agencies, and the international program leverages the DoS and foreign environmental agencies, such as EPA-Taiwan.

AirNow will also move towards a cloud-based infrastructure, allowing partners to adopt AirNow without purchasing hardware and software beforehand. This configuration will present a much lower barrier to entry for developing countries and therefore dramatically increase the level of publicly shared air quality data and public health information available to the global public. Development of this cloud-based Data Management System component is already underway with several sub-modules available for beta testing.

The AirNow program has several metrics to measure success and indirectly determine public interest. The AirNow API measures how much AirNow data is flowing into other applications and Web sites by tracking users and data flow. Using Google Analytics on the airnow.gov site allows an in-depth analysis of user demographics, showing what aspects of the site get the most usage and what kinds of users visit the site, informing future program and system directions.

Initiative and Related Milestones		FY2	018		FY2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Expand AirNow monitoring stations to 35 locations around the world			Х	Х	X	Х			
Deploy cloud-based Data Management System		Х	Х	х					
Release new airnow.gov website	х								

Enforcement and Compliance History Online

The **Enforcement and Compliance History Online** (ECHO) System is well established as a groundbreaking initiative to increase public access to information about environmental inspections, violations, and enforcement actions for more than 800,000 EPA-regulated facilities. Building on ECHO's early successes, the following efforts expanded the scope of the project:



- 1. Release Integrated Air Toxics Monitoring, Emissions, and Compliance Data: These analytic tools integrate data from seven separate data systems, including four public EPA emissions inventories, air toxics monitoring stations, weather data, and compliance/enforcement data. The tool will allow the public to identify nearby permitted pollution sources and identify compliance activities.
- 2. Release Water Quality Indicators Map: The interactive interface offers users the ability to identify where water pollutants (phosphorus and nitrogen) are being monitored in lakes, rivers, and streams. The data can be sorted based on high or low readings, can identify trends in water quality readings, and provide mapping of upstream Clean Water Act NPDES permittees correlating to compliance data.
- 3. Expand Chemical/Violation Searching: ECHO will provide additional searching to comport with Agency priorities including lead contamination/violations and PFAS-related releases. EPA will also improve ECHO's ability to select and sort various types of serious CWA, CAA, and RCRA violations that are longstanding and ongoing.
- 4. Adding Violation Alerts and Enforcement Documents: ECHO will provide a new service allowing users to subscribe to violation alerts via email. With the current system, ECHO users must log in weekly to find new violations. In the updated system, users could subscribe to email alerts when nearby violations are identified. EPA will also add more access to document links (enforcement orders, notices of violation, etc) building on a small number of successful state pilots in this area.
- 5. **ECHO Open Source Code:** EPA will develop open sourcing of ECHO code to meet Federal Source Code Policy including sharing that information on code.gov. This policy requires the code for custom-built software to be broadly available for Federal Government-wide reuse in a consistent manner. Additionally, at least 20 percent of new custom-developed code should be released to the public as Open Source Software.

EPA engages interested stakeholders and the public in dialogs about ECHO tools through its online feedback forms and trainings on its user-friendly Web site. EPA's response to its users' requests for higher transparency in environmental regulatory compliance and enforcement data can been measured by the increased number of ECHO tools and enhancements, available data, and Web site visits.

EPA regularly measures public access via Google Analytics Premium usage statistics, as well as assessment of user feedback, to ensure continued usefulness and improvement. The feedback form provides useful feedback from citizens regarding what does and does not meet their needs.

Initiative and Related Milestones		FY2	018		FY2019			
initiative and Related Willestones	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Air Monitoring Stations						x		
Water Quality Indicators				х				



Initiative and Related Milestones		FY2018				FY2019			
Shamical A lighting Course in a	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Chemical/Violation Searching							x		
Violation Alerts and Enforcement Docs								х	
ECHO Open Source Code								х	

E-Enterprise for the Environment

E-Enterprise for the Environment puts into practice cooperative federalism for environmental coregulators. Through a shared governance model, environmental leaders at EPA, States, and Tribes use E-Enterprise to deliver better results, often with lower costs and less burden, for the benefit of the public, the regulated community and government agencies.

E-Enterprise has three goals:

Modernize Business Processes: Improve regulations by streamlining and updating the implementation of environmental programs.

Enhance Services to Users: Reduce transaction costs and burdens for the regulated community by leveraging technologies, such as promoting electronic reporting and permitting, online portals and business practices, training and assistance, and other tools.

Advance Shared Governance among U.S EPA, States and Tribes: Transform the way environmental programs are implemented through collaboration and shared governance

More than 45 years after the creation of the EPA and the Agency's authorization of states, tribes and territories to implement a broad set of federal environmental protection statutes within their jurisdictions, the various levels of government have developed complementary areas of expertise. By recognizing the advances that these co-regulators have made in the implementation of environmental programs, E-Enterprise seeks to capture and combine the best of all the capabilities and resources. These include the capacity for shared governance necessary to provide streamlined processes, trusted information, and enhanced productivity for the national environmental enterprise.

At the heart of E-Enterprise is a commitment by the state and federal co-regulators in the national enterprise for environmental protection to operate this partnership as a transformative model for joint governance. EPA is committed to the principle of early engagement and collaboration among EPA, state, and tribal partners; working together to streamline, modernize and integrate our shared business processes and management approaches. The E-Enterprise Leadership Council (EELC), a council of ten senior EPA executives and ten state commissioners and ten tribal representatives, leads and manages the E-Enterprise initiative:



Listed below are some of the featured E-Enterprise projects:

- Combined Air Emissions Reporting Integrating and streamlining air emissions reporting The Combined Air Emissions Reporting (CAER) project seeks to streamline multiple emissions reporting processes and to establish a single, authoritative data repository. Currently, air emissions information is collected by EPA and state or local air agencies through numerous separate regulations, in a variety of formats, according to different reporting schedules, and using multiple routes of data transfer. The partnership expects that, in the to-be state, streamlined reporting will reduce the cost to industry and government for providing and managing important environmental data and improve decision-making capacity through more timely availability of data.
- Smart Tools for Inspectors Improving field inspection processes through mobile tools

 The Smart Tools for Inspectors project seeks to streamline environmental inspection processes and develop software solutions that will enable EPA and state inspectors to efficiently prepare for, conduct, and report on field inspections. Currently, inspectors must rely on time consuming and labor-intensive methods to collect background and field information and to generate inspection reports. Moreover, data points, such as potential violations, are often not in a consistent or easily-interpretable format and must be manually entered into the systems of record. Smart tools software will enable inspectors to electronically enter data during an inspection, enable the use of a standard checklist to ensure consistent inspections, pre-populate facility and other data, capture inspector and facility signatures, and transmit data to national and state systems in a standard format, among other features. Overall the software will reduce the time spent per each inspection, allow inspectors to target a larger universe of facilities, and increase the quality of decision-making based on better data.
- Assistance Gateway
 – Helping local governments, tribes, and regulated entities gain easy access
 to decision-making tools and resources
 - The Assistance Gateway is intended to allow any E-Enterprise partners (State, Tribe, Territory or EPA program) to provide one or more user communities with streamlined, customized access to tools and resources that aim to address environmental compliance and infrastructure planning needs. Phase I focused on providing resources for local governments. Phase II will extend the breadth of resources and the intended user community to regulated entities.
- The E-Enterprise for the Environment Portal
 - The E-Enterprise for the Environment Portal is a Web platform that modernizes the way the public, the regulated community, and environmental co-regulators find and exchange important information and conduct two-way environmental transactions. The E-Enterprise Portal provides an important means by which users can customize the types of information presented to them, find and select tools and other resources that might be of value, and in some cases, report information and conduct transactions with EPA. Recent additions to the portal include:
 - Be Well Informed that includes information for private well owners in participating states to evaluate well water quality and, if advisable, water treatment options.
 - U.S. EPA's Multi-Sector and Construction General Permits search tool.

EPA has established the following criteria to measure the success of E-Enterprise:

Support development and implementation of shared services.



Introduce additional functionality to the E-Enterprise Portal with the integration of tools and services

		FY2	010			EV2	2019	
Initiative and Related Milestones		F 1 2	.010			F12	.019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
E-Enterprise for the Environment								
Effectively manage integrated project teams through shared governance with states, tribes and other partners				Ong	oing			
Prioritize and deliver shared services and capabilities to support E- Enterprise priorities in collaboration with EPA program offices, states and tribes			х	х		х		х
Participate in and implement the results of the Identity Management Shared Service to produce a framework for EPA and co-regulators to collaboratively manage identity management		х		х		х		х
Evaluate opportunities for E-Reporting efficiencies across EPA programs		х			х	х		
E-Enterprise Portal								
Link different EPA reporting systems to the E-Enterprise Portal to enable easier reporting for the regulated community				х				х
Link different EPA permitting systems and "E Enterprise (EE)" solutions that benefit environmental permitting agencies nationally to the E-Enterprise Portal to reduce time for permit approvals and provide more transparency and simplicity to permit applicants and reviewers.		х				х		
Collaborate with states, tribes, and other partners to enhance the capability of the Portal				Ong	oing			



IV. Appendix A: List of Terms

Acronym	Name
AAPCO	Association of American Pesticide Control Officials
API	Application Program Interface
CAER	Combined Air Emissions Reporting
СВІ	Confidential Business Information
ccs	Crowdsourcing and Citizen Science
CDAT	Chemical Data Access Tool
CDX	Central Data Exchange
CEDRI	Compliance and Emissions Data Reporting Interface
CFDA	Catalog of Federal Domestic Assistance
CORS	Cross-origin resource sharing
CRWU	Climate Ready Water Utilities
CSRA	Civil Service Reform Act
CUI	Controlled Unclassified Information
DATA	Digital Accountability and Transparency Act
DERS	Data Element Registry Services
DoS	Department of State
ECHO	Enforcement Compliance History Online
EELC	E-Enterprise Leadership Council
EDG	Environmental Dataset Gateway
EDI	Enterprise Data Inventory
EDP	Environmental Data Platform
EDSP	Endocrine Disruptor Screening Program
EIMP	Enterprise Information Management Policy
EJSCREEN	Environmental Justice Screening and Mapping Tool



Acronym	Name		
EPA	Environmental Protection Agency		
FAQ	Frequently Asked Questions		
FFATA	Federal Funding Accountability and Transparency Act		
FGDC	Federal Geographic Data Coordination Committee		
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act		
FISMA	Federal Information Security Modernization Act		
FITARA	Federal Information Technology Acquisition Reform Act		
FOIA	Freedom of Information Act		
FRS	Facility Registry Service		
FSRS	FFATA Subaward Reporting System		
FY	Fiscal Year		
GPO	General Printing Office		
GSA	General Services Administration		
HERO	Health and Environmental Research Online		
HPVIS	High Production Volume Information System		
IMO	Information Management Officer		
ICR	Information Collection Request		
IPT	Integrated Project Team		
IT	Information Technology		
LOD	Linked Open Data		
LRS	Laws and Regulation Services		
NAICS	North American Industry Classification System		
NARA	National Archives and Records Administration		
NEIEN	National Environmental Information Exchange Network		
NGDA	National Geospatial Digital Archive		
NOI	Notice of Intent to Sue		



Acronym	Name		
NPP	National Privacy Program		
NRMP	National Records Management Program		
OAR	Office of Air and Radiation		
OARM	Office of Administration and Resources Management		
OCIR	Office of Congressional and Intergovernmental Relations		
OEI	Office of Environmental Information		
ОМВ	Office of Management and Budget		
ОРРТ	Office of Pollution Prevention Toxics		
ORD	Office of Research and Development		
osc	Office of Special Counsel		
OSHA	Occupational Safety and Health Administration		
OSIM	Office of Science and Information Management		
OSTP	Office of Science and Technology Policy		
OW	Office of Water		
PII	Personally Identifiable Information		
PMO	Program Management Office		
PPDC	Pesticide Program Dialogue Committee		
PPP	Prohibited Personnel Practice		
QA	Quality Assurance		
R&D	Research and Development		
RCS	Reusable Component Services		
READ	Registry of EPA Applications and Databases		
REST	Representational State Transfer		
RETIGO	Real Time Geospatial Data Viewer		
RLO	Records Liaison Officer		
SCC	Source Classification Code		



Acronym	Name	
SDM	Scientific Data Management	
SDMP	Scientific Data Management Plans	
SFIRREG	State FIFRA Issues Research and Evaluation Group	
SOA	Service Oriented Architecture	
SOP	Standard Operating Procedures	
SoR	System of Registries	
SRS	Substance Registry Services	
TRI	Toxics Release Inventory	
TSCA	Toxic Substances Control Act	
TSCAT	Toxic Substance Control Act Test Submissions	
URL	Uniform Resource Locator	
WebCMS	Web Content Management System	
WPA	Whistleblower Protection Act	
WPEA	Whistleblower Protection Enhancement Act	
XML	Extensible Markup Language	



V. Appendix B: List of Resource URLs

Related Project/Activity	Web site/Document Name	Resource URL	
		Executive Summary	
N/A	EPA 2018-2022 Strategic Plan	https://www.epa.gov/sites/production/files/2018-02/documents/fy-2018-2022-epa-strategic-plan.pdf	
N/A	FY2015-2018 EPA Information Resources Management Plan	https://www.epa.gov/sites/production/files/2015- 08/documents/irmstrategicplan.pdf	
N/A	2016 Agency Open Government Plans Memorandum M-16-16	https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2016/m-16-16.pdf	
	Open Data		
N/A	Open Data Policy – Managing Information as an Asset Memorandum M-13-13	https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2013/m-13-13.pdf	
	EIMP	https://www.epa.gov/sites/production/files/2015-05/documents/2135-p-01 0 eimp catal epa info proc final 2015 03 25.pdf	
Enterprise Information Management Policy (EIMP)	EIMP Cataloguing Information Procedure (2135-P-01.0)	https://www.epa.gov/sites/production/files/2015-08/documents/cio-2135-p-01- 0.pdf	
	EIMP Minimum Metadata Standards (2135-S-01.0)	https://www.epa.gov/sites/production/files/2015-08/documents/cio-2135-s-01- 0.pdf	
Quality Program	EPA Quality Program	https://www.epa.gov/quality	
Scientific Data Management Program	EPA Scientific Data Management Program	no publicly available link	
	SoR	https://ofmpub.epa.gov/sor_internet/registry/sysofreg/home/overview/home.do	
System of Registries	EPA Data Standards Web Site	https://www.epa.gov/data-standards	
(SoR)	Registry of EPA Applications, Models and Data Warehouses (READ)	https://ofmpub.epa.gov/sor_internet/registry/systmreg/home/overview/home.do	



Related Project/Activity	Web site/Document Name	Resource URL
	Data Element Registry Services (DERS)	https://iaspub.epa.gov/sor_internet/registry/datareg/home/overview/home.do
	Terminology Services	https://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/home.do
	North American Industry Classification System (NAICS) Service	https://iaspub.epa.gov/sor_internet/registry/datastds/findadatastandard/epaap proved/sicnaics/
	TRIBES Web Services	http://www.exchangenetwork.net/data-exchange/epa-tribal-identification-tribes/
	Source Classification Code (SCC) Service	https://ofmpub.epa.gov/sccwebservices/
Environmental Dataset	EDG	https://edg.epa.gov/metadata/catalog/main/home.page
Gateway (EDG)	Public Data Forum	http://developer.epa.gov/forums/forum/dataset-qa/
Substance Registry Services (SRS)	SRS	https://iaspub.epa.gov/sor_internet/registry/substreg/searchandretrieve/substancesearch/search.do
Laws and Regulation Services (LRS)	LRS	no response from contact yet
API Strategy	API Strategy	https://www.epa.gov/open/digital-strategy
Public Access/Envirofacts	Envirofacts	https://www3.epa.gov/enviro/
Facility Registry Service (FRS)	FRS	https://www.epa.gov/enviro/facility-registry-service-frs
Toxics Release Inventory (TRI)	TRI	https://www.epa.gov/toxics-release-inventory-tri-program
Developer Central	Developer Central	https://developer.epa.gov/
Controlled Unclassified	CUI Program	https://www.archives.gov/cui/
Information (CUI) Program	Executive Order (EO) 13556 "Controlled Unclassified Information	https://www.gpo.gov/fdsys/pkg/FR-2010-11-09/pdf/2010-28360.pdf
Data Analytics Program	Data Analytics Program	only intranet pages
Proactive Disclosures		



Related Project/Activity	Web site/Document Name	Resource URL	
FOIAonline	Freedom of Information Act (FOIA)	https://www.foia.gov/	
T On Chilling	FOIAonline	https://foiaonline.regulations.gov/foia/action/public/home	
ChemView	ChemView	https://chemview.epa.gov/chemview	
		Privacy	
Privacy Program	5 U.S.C. §552	http://www.gpo.gov/fdsys/pkg/USCODE-2013-title5/html/USCODE-2013-title5-partl-chap5-subchapII-sec552.htm	
Tillady Flogram	National Privacy Program (NPP)	www.epa.gov/privacy	
		Whistleblower Protection	
	Whistleblower Protection Act (WPA)	https://www.congress.gov/112/bills/s743/BILLS-112s743enr.pdf	
Office of Special Counsel (OSC) Certification	EPA OIG - Whistleblower Protection	https://www.epa.gov/office-inspector-general/epa-oig-hotline#protection	
	EPA Whistleblower Intranet Web page	http://workplace.epa.gov/whistleblowerprotection.html	
		Web sites	
	Open Initiative	https://www.epa.gov/open	
Web site Management	Digital Strategy	https://www.epa.gov/open/digital-strategy	
	Analytics.USA.gov	https://pulse.cio.gov/.	
	Open Innovation Methods		
GreenSpark Program	GreenSpark	intranet only	
	Innovation Team Web page	https://www.epa.gov/innovation	
Innovation Team	Citizen Science Intranet Web page	www.epa.gov/citizenscience	
	The Village Green Project	www.airnow.gov/villagegreen	



Related Project/Activity	Web site/Document Name	Resource URL	
	The Challenging Nutrient Coalition	https://www.epa.gov/sites/production/files/2015-08/documents/shaw.pdf	
	Real Time Geospatial Data Viewer (RETIGO)	www.epa.gov/retigo	
	Access t	o Scientific Data and Publications	
N/A	Office of Science and Technology Policy (OSTP) Public Access Memorandum	https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_acc_ess_memo_2013.pdf	
Public Access Plan	EPA Open Government Web page	https://www.epa.gov/open	
Health and Environmental Research Online (HERO)	HERO	https://hero.epa.gov/hero/	
	Tox21	https://www.epa.gov/chemical-research/toxicology-testing-21st-century-tox21	
	Toxicity ForeCaster (ToxCast) Data	https://www.epa.gov/chemical-research/toxicity-forecaster-toxcasttm-data	
	ToxCast Dashboard	http://actor.epa.gov/dashboard/	
Tox21	EDSP Dashboard	http://actor.epa.gov/edsp21/	
	iCSS CompTox Dashboard	https://comptox.epa.gov/dashboard	
	DSSTox	https://www.epa.gov/chemical-research/distributed-structure-searchable-toxicity-dsstox-database	
	Open Source Software		
Digital Services Program	Digital Strategy Web page	https://www.epa.gov/open/digital-strategy	
Reusable Component Services (RCS)	RCS	https://ofmpub.epa.gov/sor_internet/registry2/reusereg/searchandretrieve/	
E-Manifest	E-Manifest	https://www.epa.gov/hwgenerators/hazardous-waste-electronic-manifest-system-e-manifest	



Related Project/Activity	Web site/Document Name	Resource URL
		Spending Information
DATA Act Implementation	DATA Act Implementation	https://www.epa.gov/office-inspector-general/notification-epas-data-act-implementation-efforts
	Particip	pation in Transparency Initiatives
Data.gov	Data.gov	https://www.data.gov/
eRulemaking	Regulations.gov	https://www.regulations.gov/
Program/Regulations.go v	FDMS.gov	https://www.fdms.gov
IT Dashboard	IT Dashboard	https://www.itdashboard.gov/
Grants.gov	Grants.gov	http://www.grants.gov/
Catalog of Federal Domestic Assistance (CFDA) Now Sam.gov Assisted Listings	Sam.gov Assisted Listings	https://www.beta.sam.gov
Federal Subaward Reporting System	FSRS	https://www.fsrs.gov/
USAspending.gov	USAspending.gov	https://www.usaspending.gov
Notice of Intent to Sue EPA	Notice of Intent to Sue EPA	https://www.epa.gov/noi
		Public Notice
Public Notice	EPA Newsroom	https://www.epa.gov/newsroom
Records Management		
	National Records Management Program (NRMP)	https://www.epa.gov/records
Records Program	NRMP Intranet Web page	http://intranet.epa.gov/records/
	Managing Government Records Directive (M-12- 18)	https://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-18.pdf



Related Project/Activity	Web site/Document Name	Resource URL	
	FOIA Requests		
	Center for Effective Government's Access to Information Scorecard	http://www.foreffectivegov.org/access-to-information-scorecard-2015	
FOIA Program	EPA's FOIA Web page	https://www.epa.gov/foia	
	MyProperty Tool	https://www3.epa.gov/enviro/html/fii/myproperty/index.html	
		Congressional Requests	
	"Hundreds of Congressional Inquiries Flood EPA"	http://www.bna.com/hundreds-congressional-inquiries-n57982069896/	
Congressional Requests	Office of Congressional and Intergovernmental Relations (OCIR)	https://www.epa.gov/aboutepa/about-office-congressional-and-intergovernmental-relations-ocir	
	OCIR Mail Box	ocirmail@epa.gov	
		Declassification	
Toxic Substances Control Act (TSCA) Voluntary	TSCA Voluntary Declassification Challenge Program	https://www.epa.gov/tsca-cbi/voluntary-challenge-declassify-confidential-business-information-cbi	
Declassification Challenge Program	Confidential Business Information under TSCA	https://www.epa.gov/tsca-cbi	
		Public Participation	
Public Participation Opportunities Promoted via the Public Affairs Office	Office of Public Affairs (OPA)	https://www.epa.gov/aboutepa/about-office-public-affairs-opa	
EPA's Public Participation Guide	Public Participation Guide	https://www.epa.gov/international-cooperation/public-participation-guide	
Collaboration			
N/A	Ways to Collaborate with EPA	https://www.epa.gov/innovation/ways-collaborate-epa	
National Environmental Information Exchange Network (NEIEN)	NEIEN	https://www.epa.gov/exchangenetwork	



Related Project/Activity	Web site/Document Name	Resource URL
EPA GeoPlatform	GeoPlatform	https://www.epa.gov/geospatial
Environmental Data Platform	Environmental Data Platform	intranet sites only
Facility Identification Integrated Project Team	Facility Identification Integrated Project Team	http://www.exchangenetwork.net/facility-data-ipt/
Inter-Governmental Data Partnerships	Federal Geographic Data Coordination Committee (FGCD)	https://www.fgdc.gov/
Flagship Initiatives		
AirNow	AirNow	https://www.airnow.gov/
Enforcement and Compliance History Online (ECHO)	ЕСНО	https://echo.epa.gov/
E-Enterprise for the Environment	E-Enterprise	https://www.epa.gov/e-enterprise
	E-Enterprise Projects Spotlight	https://www.epa.gov/e-enterprise/e-enterprise-projects-spotlight