

# Plan EJ 2014



## Information Tools Development



**Plan EJ 2014** is EPA's roadmap for integrating environmental justice into its programs and policies.



# INFORMATION TOOLS DEVELOPMENT

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## Implementation Plan

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**Led by**

Office of Policy and Office of Environmental Information

U.S. Environmental Protection Agency  
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## PLAN EJ 2014 AT A GLANCE

Plan EJ 2014 is the U.S. Environmental Protection Agency (EPA)'s roadmap to integrating environmental justice into its programs and policies. The year marks the 20<sup>th</sup> anniversary of the signing of Executive Order 12898 on environmental justice. Plan EJ 2014 seeks to:

- Protect the environment and health in overburdened communities.
- Empower communities to take action to improve their health and environment.
- Establish partnerships with local, state, tribal, and federal governments and organizations to achieve healthy and sustainable communities.

As the EPA's overarching environmental justice strategy, Plan EJ 2014 has three major sections: Cross-Agency Focus Areas, Tools Development Areas, and Program Initiatives.

### **The Cross-Agency Focus Areas are:**

- Incorporating Environmental Justice into Rulemaking.
- Considering Environmental Justice in Permitting.
- Advancing Environmental Justice through Compliance and Enforcement.
- Supporting Community-Based Action Programs.
- Fostering Administration-Wide Action on Environmental Justice.

### **The Tools Development Areas are:**

- Science.
- Law.
- Information.
- Resources.



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## Goal At-A-Glance

To develop a more integrated, comprehensive, efficient, and nationally consistent approach for collecting, maintaining, and using geospatial information relevant to overburdened communities.

## 1.0 INTRODUCTION

In 1994, Executive Order 12898 (EO 12898) mandated that each federal agency make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority, low-income, tribal, and indigenous<sup>1</sup> populations. In implementing EO 12898, EPA programs and regions have developed a variety of internal environmental justice screening tools and other Geographic Information Systems (GIS) applications. These applications, such as the Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT), EJView, and others, have played an important role as the Agency worked to integrate environmental justice into its programs, policies, and activities. Senior EPA leadership has been asked to focus on developing a nationally consistent environmental justice screening tool in order to better meet the Agency's responsibilities of protecting public health under EO 12898 and our goals under Plan EJ 2014.

In addition, EPA is developing a suite of tools, data, and services known as EPA's GeoPlatform that will help coordinate and consolidate mapping activities, applications, and data across the Agency. The GeoPlatform will support a wide variety of uses across the Agency, including components of the nationally consistent environmental justice screening tool, and other data and applications that may be of interest to environmental justice stakeholders.

### 1.1 Goal

The goal of this implementation plan is to develop a more integrated, comprehensive, efficient, and nationally consistent approach for collecting, maintaining, and using geospatial information relevant to overburdened communities<sup>2</sup>. EPA will accomplish this goal by: (1) developing a common Agency-wide mapping platform – the GeoPlatform, (2) creating a nationally consistent environmental justice screening tool, and (3) incorporating appropriate elements of the screening tool into the GeoPlatform.

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<sup>1</sup> When these terms are used in this document, they refer to entities and individuals in the United States only.

<sup>2</sup> In Plan EJ 2014, EPA uses the term "overburdened" to describe the minority, low-income, tribal, and indigenous populations or communities in the United States that potentially experience disproportionate environmental harms and risks as a result of greater vulnerability to environmental hazards. This increased vulnerability may be attributable to an accumulation of both negative and lack of positive environmental, health, economic, or social conditions within these populations or communities.



## 1.2 Organizational Structure

The Office of Environmental Information (OEI) has the lead on the GeoPlatform, and the Office of Policy (OP) has the lead on the nationally consistent screening tool.

The development of EPA's GeoPlatform is being led by OEI, with oversight from the Agency's GIS Workgroup Steering Committee (comprised of representation from six regions), the Office of Research and Development (ORD), the Office of Chemical Safety and Pollution Prevention (OCSPP), the Office of Water (OW), and the EPA Quality and Information Council (QIC). The QIC is the Agency's decision-making body for addressing enterprise-wide technology issues and developing policies to guide EPA decision makers in the area of information technology and information management within the framework of OEI. The QIC is comprised of Senior Executive Service-level managers from Agency program and regional offices, and is chaired by the Agency's Chief Information Officer (CIO).

Development of the nationally consistent environmental justice screening tool is led by OP and is overseen by a steering committee comprised of Assistant Administrators or their designees from OP, the Office of Environmental Justice (OEJ), ORD, OEI, and Regions 7, 8, and 9. In addition, a staff level workgroup meets regularly and has participation from nearly every program office and region across EPA.

## 2.0 IMPLEMENTATION

### 2.1 Strategies

The following three major strategies have been identified as critical components of the Information Tools Development Implementation Plan:

- Develop EPA's GeoPlatform.
- Develop a nationally consistent environmental justice screening tool.
- Incorporate appropriate elements of the screening tool into the GeoPlatform

### 2.2 Activities

#### ***Strategy 1: Develop EPA's GeoPlatform***

##### **Tools to Identify Overburdened Populations During the BP Oil Spill Response**

The dynamic nature of the BP oil spill has been a challenge for a range of communities along the Gulf – from hotel operators to fishermen to local community leaders. During cleanup activities, EPA and other agencies used a variety of Geographic Information Systems (GIS) tools to collect information, including EJView and GeoPlatform.gov/gulfresponse. EPA developed EJView, a public mapping tool, to get a snapshot of environmental, health, and other social factors that were affecting local communities. GeoPlatform.gov/gulfresponse, an online tool developed by the National Oceanic and Atmospheric Administration, EPA, the U.S. Coast Guard, and the U.S. Department of Interior, was used to gather close to real time information about the response effort. These tools were used to identify locations of overburdened communities in comparison to areas of waste disposal, pinpoint locations where oil had reached the shore, and identify locations of community centers where people could get assistance.

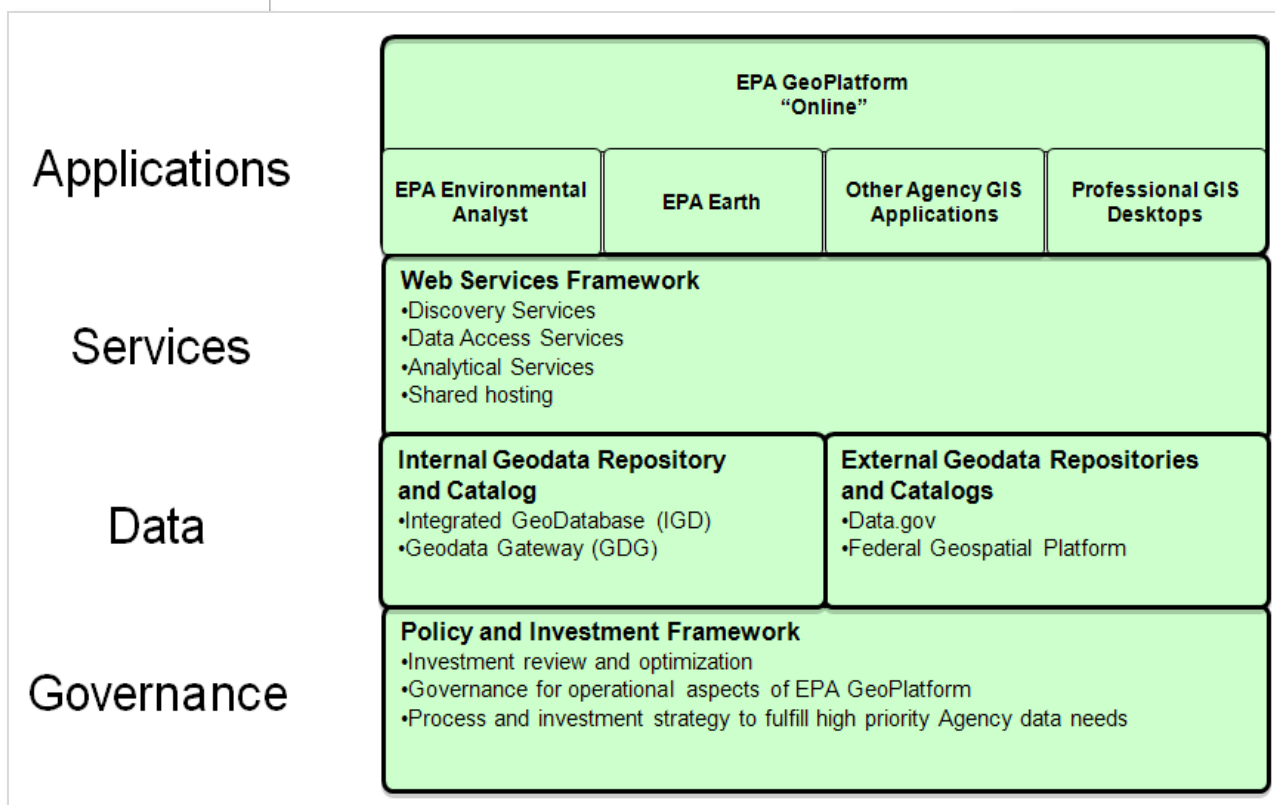
EPA's GeoPlatform consists of a suite of tools, data and services that will support a wide variety of uses across the Agency. The GeoPlatform is an Agency initiative that will serve environmental justice, but also other important areas such as enforcement and community-based work. The GeoPlatform will eventually be applied for additional uses, and will provide access to a wide range of EPA and stakeholder data pertaining to environmental exposure and risk, ecological condition, public health, demographic data, and boundary/administrative information, as needed by EPA programs.

The next several paragraphs describe the GeoPlatform. An understanding of the structure and philosophy behind the platform is important to seeing how it will serve environmental justice practitioners. EPA's GeoPlatform project strives to coordinate activities, applications, and data

across the Agency. We seek to ensure that the opportunity for re-use is maintained and that data and information is documented and available across the Agency, to states and tribes, and to our other stakeholder communities. Our vision is that ultimately everyone has the ability to conduct relevant geospatial analysis in their area of interest using common data, tools, and techniques.

The GeoPlatform concept consists of three primary tiers – Applications, Services, and Data – plus a governance tier (see Figure 1 for the EPA GeoPlatform conceptual architecture). Details on each tier are provided below:

Figure 1: Conceptual Architecture for the EPA GeoPlatform



*Data Tier:* The Data components of the EPA GeoPlatform include a wide range of geospatial data needed for EPA programmatic purposes. Some of this data is originated and maintained by the Agency, but most of the data needed is sourced from other public or private sector organizations. Data components already identified as core sources to be integrated into the GeoPlatform are the Integrated Geospatial Database (IGD), currently managed by the OEI/the Office of Information Analysis and Access (OIAA); the Facility Registry System (FRS), currently managed by OEI/OIC; program specific databases such as the Toxics Release Inventory (TRI) and Brownfields, currently managed by the individual program offices; and externally held geospatial data services, such as for transportation networks, land use, land cover, and Census data, which come from a variety of public and private sources. The key to organizing data assets spread across these different offerings lies in metadata management. The Agency's "Geospatial Data Gateway" (GDG, <http://geogateway.epa.gov>) application will continue to be used for metadata management.



*Services Tier:* Standardizing our geospatial data management at the Agency is of critical importance, however, we must also consider the mechanisms through which we provide Agency staff and other stakeholders access to different datasets housed in this enterprise. From a technical perspective, the most effective and re-usable way to broker this access is through open standards compliant web services. One of the most important components of the EPA GeoPlatform, then, will be a comprehensive web services tier that will help ensure that all relevant geospatial data and analytical components are as widely accessible as possible throughout the enterprise. Geospatial data access and some geoanalytical services (e.g., buffer and proximity searches) are being developed to leverage our internal data stores. Additionally, through catalog services and our application tier (Environmental Analyst, EPA Portal, etc.), we will be able to leverage services offered by external public and private providers.

*Applications Tier:* As part of the EPA GeoPlatform “Release 1” offering, three central applications will be developed and made available for Agency-wide use: Environmental Analyst, the EPA Geospatial Portal, and EPA Earth. Environmental Analyst will be the primary tool initially intended for environmental justice practitioners. Environmental Analyst is an EPA custom version of the forthcoming ESRI commercial web application Community Analyst (<http://communityanalyst.esri.com>). Environmental Analyst will feature an interface designed for EPA staff to easily access and leverage a wide range of geospatial data to carry out their specific tasks. This represents a major opportunity to consolidate a number of different internal Program and regional geospatial web applications into a single one, and a significant portion of the GeoPlatform effort will be dedicated to outreach and development of opportunities for organizations to have their data, analytical and reporting requirements integrated into this central application.

- Activity 1.1: Prototype of EPA Environmental Analyst for review.
- Activity 1.2: Production release of the EPA Environmental Analyst.
- Activity 1.3: Production release of the EPA GeoPlatform (including initial data services) for use by Environmental Analyst and other GeoPlatform components.

***Strategy 2: Develop the nationally consistent environmental justice screening tool.***

EPA is now taking the next step in creating a nationally consistent environmental justice screening tool to help identify communities living with the greatest potential for negative environmental and health effects. The purpose of the screening tool will be to provide, for locations across the United States, a comprehensive and nationally consistent tool for presenting available environmental and demographic data.

The tool will aid decision makers in assessing policy and actions to be taken by EPA, in accordance with, and pursuant to, applicable law. The

tool will serve as a national baseline screening tool, which can then be supplemented with additional information and on-the-ground experience to help identify overburdened communities that may warrant additional investigation by EPA to help reduce risk and improve public health. OP is leading a cross-Agency team to identify relevant data and develop appropriate methods that would serve as the basis of the nationally consistent screening tool. As a result of this effort, increased consistency of data and methods will be brought to environmental justice screening work across EPA.

- Activity 2.1: Hold regular staff workgroup and project steering committee meetings.
- Activity 2.2: Develop a set of options to present to Senior Agency Officials.
- Activity 2.3: Create a working prototype of screening tool.
- Activity 2.4: Update the National Environmental Justice Advisory Council on progress.
- Activity 2.5: Obtain peer review and public comment on a prototype tool.
- Activity 2.6: Revise the tool based on comments.

***Strategy 3: Incorporate appropriate elements of the screening tool into the GeoPlatform.***

The development of the GeoPlatform and the concurrent creation of a nationally consistent environmental justice screening tool provide an opportunity for the two efforts to reinforce and enhance each other. As both projects continue to evolve, EPA will be watching for opportunities for them to work together. Making consistent data and screening methods available to users of the GeoPlatform would go a long way towards furthering the Agency's work in environmental justice.

- Activity 3.1: Review screening tool data, methods, and requirements to determine which portions may be appropriate to include in the GeoPlatform.
- Activity 3.2: Incorporate appropriate elements of the prototype screening tool into the GeoPlatform.
- Activity 3.3: Revise GeoPlatform elements of the tool to be consistent with changes made to the prototype tool in response to peer review and public comments on screening tool.

## 2.3 Adjustments

Adjustments to the environmental justice screening approach may be made after public comment, after peer review, and in response to feedback from early users. Any required adjustments to the EPA GeoPlatform datasets or the Environmental Analyst application will also be made to support changes made to the environmental justice screening approach.

### 3.0 DELIVERABLES

| ACTIVITIES                                                                                      | DELIVERABLES                                                                                                                                                       | MILESTONE                                      |
|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Strategy 1: Develop the EPA's GeoPlatform.</b>                                               |                                                                                                                                                                    |                                                |
| Activity 1.1                                                                                    | Prototype of EPA Environmental Analyst for review.                                                                                                                 | Fiscal Year (FY) 2011 Q4                       |
| Activity 1.2                                                                                    | Production release of EPA Environmental Analyst.                                                                                                                   | FY 2012 Q1                                     |
| Activity 1.3                                                                                    | Production release of EPA GeoPlatform (including initial data services) for use by Environmental Analyst and other GeoPlatform components.                         | FY 2012 Q1                                     |
| <b>Strategy 2: Develop the nationally consistent environmental justice screening tool.</b>      |                                                                                                                                                                    |                                                |
| Activity 2.1                                                                                    | Hold regular staff workgroup and project steering committee meetings.                                                                                              | Ongoing                                        |
| Activity 2.2                                                                                    | Develop a set of options to present to Senior Agency Officials.                                                                                                    | FY 2011 Q3                                     |
| Activity 2.3                                                                                    | Create a working prototype of screening tool.                                                                                                                      | FY 2012 Q2                                     |
| Activity 2.4                                                                                    | Update the National Environmental Justice Advisory Council on progress.                                                                                            | TBD                                            |
| Activity 2.5                                                                                    | Obtain peer review and public comment on a prototype tool.                                                                                                         | TBD                                            |
| Activity 2.6                                                                                    | Revise the tool based on comments.                                                                                                                                 | TBD                                            |
| <b>Strategy 3: Incorporate appropriate elements of the screening tool into the GeoPlatform.</b> |                                                                                                                                                                    |                                                |
| Activity 3.1                                                                                    | Review screening tool data, methods, and requirements to determine which portions may be appropriate to include in the GeoPlatform.                                | Begin FY 2011 Q4 & continue on a monthly basis |
| Activity 3.2                                                                                    | Incorporate appropriate elements of the prototype screening tool into the GeoPlatform.                                                                             | TBD                                            |
| Activity 3.3                                                                                    | Revise GeoPlatform elements of the tool to be consistent with changes made to the prototype tool in response to peer review and public comments on screening tool. | TBD                                            |



## 4.0 REPORTING

**Progress reports on this implementation plan will be made annually.**

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## ACRONYMS

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| <b>CIO</b>      | Chief Information Officer                                   |
| <b>EJ SEAT</b>  | Environmental Justice Strategic Enforcement Assessment Tool |
| <b>EO 12898</b> | Executive Order 12898                                       |
| <b>EPA</b>      | U.S. Environmental Protection Agency                        |
| <b>FRS</b>      | Facility Registry System                                    |
| <b>FY</b>       | Fiscal Year                                                 |
| <b>GDG</b>      | Geospatial Data Gateway                                     |
| <b>GIS</b>      | Geographic Information System                               |
| <b>IGD</b>      | Integrated Geospatial Database                              |
| <b>OCSP</b>     | Office of Chemical Safety and Pollution Prevention          |
| <b>OEI</b>      | Office of Environmental Information                         |
| <b>OEJ</b>      | Office of Environmental Justice                             |
| <b>OIAA</b>     | Office of Information Analysis and Access                   |
| <b>OP</b>       | Office of Policy                                            |
| <b>ORD</b>      | Office of Research and Development                          |
| <b>OW</b>       | Office of Water                                             |
| <b>QIC</b>      | Quality and Information Council                             |
| <b>TBD</b>      | To be determined                                            |
| <b>TRI</b>      | Toxics Release Inventory                                    |

**For more information on Plan EJ 2014, visit the U.S. Environmental Protection Agency's Office of Environmental Justice website at: <http://www.epa.gov/environmentaljustice/plan-ej/>**