

### The US Geospatial Platform Initiative

Geospatial Policies and Programs Geobuiz Conference August 11, 2015

### 01 Geospatial Platform - History and Current Capabilities

- **02** Capabilities Coming Soon
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- **04** Discussion



Geospatial Platform – History and Current Capabilities

### **Geospatial Platform Value Proposition**

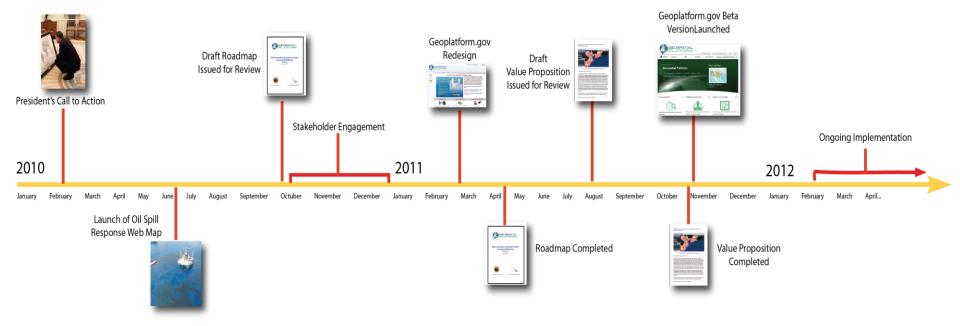
- The value of geospatial data and tools are now recognized across nearly all lines of government business.
- But major challenges remain:
  - Inconsistent success in discovering and accessing the right data at the right time
  - -Inability to surface our authoritative / key national data in search results
  - Incomplete and inconsistent portfolio of "nationally significant" geospatial data
  - -Slow rate of adoption for technological innovation
  - -Difficulty leveraging and re-using innovations (tools, analytical capabilities, etc.) developed elsewhere in government



- Budget Language, FY11 Direction to create the "Geospatial Platform"
- Deepwater Horizon and future multi-agency data publication / mapping requirements
- Desire to leverage partnerships developed in and funding supplied to FGDC for providing operational support
- Data.gov
- •OMB / Federal IT Shared Services
- Executive Order on Open Data
  - -White House Climate Data Initiative
  - -Departmental Open Data Initiatives



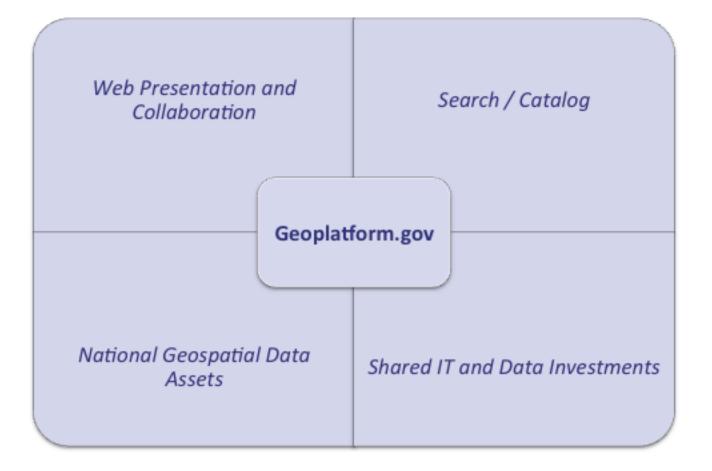
## **Timeline of Geospatial Platform Activity**



Most Recent Products of Note (see: http://www.fgdc.gov) National Spatial Data Infrastructure Strategic Plan (2014-2016) National Geospatial Data Asset Management Plan



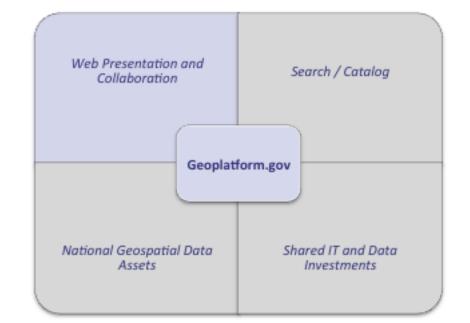
## **Geospatial Platform Components**





## **Geospatial Platform - Website**

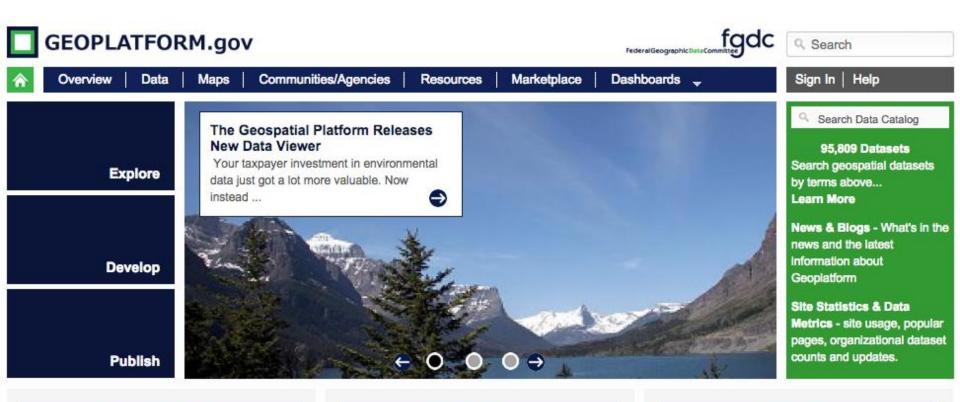
- Home page features topical maps, data & stories
- Website presents content in "Communities"
  - Data Themes of National
    Spatial Data Infrastructure
  - -Interagency Communities
- Growing content within existing communities and considering new ones for launch in coming months











#### **Featured Applications**

GEOPLATFORM.gov	fgde
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Search Climate Data	Clouds Mage

#### GeoPlatform - Climate Resources

Find data and tools related to climate change

#### **Trending Data**

#### **U.S. Hourly Precipitation Data**

Hourly Precipitation Data (HPD) is digital data set DSI-3240, archived at the National Climatic Data Center (NCDC). The primary source of data for this file is approximately 5,500 US Nationa...

#### Great Chile Earthquake of May 22, 1960 -Anniversary Edition

On May 22, 1960 (19:11 UTC), a Mw 9.5 earthquake occurred in southern Chile (39.5 S, 74.5 W). This was the largest earthquake ever instrumentally recorded. (It was not the largest in terms o...

### Military Installations, Ranges, and Training Areas

#### **Featured Maps**

#### Sea Level Rise Planning Tool - New Jersey and New York State



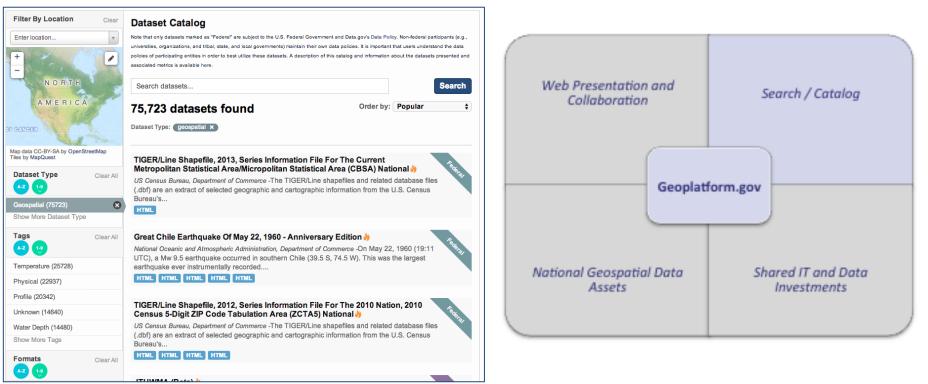
NOAA, in partnership with FEMA, USACE, USGCRP, and CEQ has created a set of map services and related tools to help communities, residents, and other stakeholders consider risks...

View Details

#### Exploring Ocean Wind Energy



## Geospatial Platform – Search / Catalog

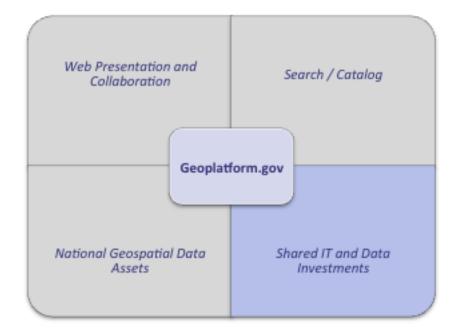


- One stop shopping for government geospatial data & tools: ~85,000 datasets, tools, maps and applications
- Close partnership w/ Data.gov team & White House Offices
- Planning major redevelopment of discovery capabilities



## Geospatial Platform – Shared Investments

- Common data / application hosting infrastructure to enable agencies to save time and money
  - -Leveraging ArcGIS Online
  - Using commercial cloud computing services to build out additional shared hosting infrastructure for the benefit of FGDC partners

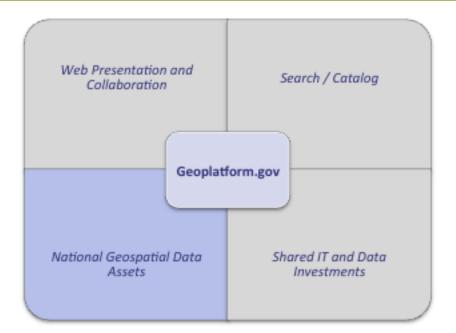


Developing shared IT security documentation for the common hosting environment – leveraging DOI Foundational Cloud Hosting Contract and existing relationship with Esri



## Geospatial Platform – NGDAs

- In developing Supplemental Guidance for Circular A-16, FGDC established concept of "National Geospatial Data Assets"
  - Roughly 170 data layers of the highest importance to agencies and external stakeholders
- FGDC has established Management Plan for improving management and publication
- Geospatial Platform provides hosting and collaboration support
- 100% of NGDAs now registered on Geoplatform.gov!



Components of the Department of the Interior have "Theme Lead" or co-lead responsibilities for 11 out of 16 NGDA Themes that have been established by the FGDC



## Capabilities Coming Soon

## Near Term and Planned New Features

- A complete redesign and redeployment of Geoplatform.gov and its underlying capabilities
- Hosted in a commercial cloud environment (Amazon Web Services)
- Greatly increased capabilities and performance

### Summer 2015 "Preview" Release

- -New home page / web design
- -New Web Map Viewer with integrated service quality measures
- -Improved capabilities for map gallery creation and sharing
- -Expanded performance and portfolio measurement tools



#### Welcome to GeoPlatform.gov

The GeoPlatform provides shared and trusted geospatial data, services, and applications for use by the public and by government agencies and partners to meet their mission needs.

#### GeoPlatform users have access to

- A one-stop shop to deliver trusted, consistent data & services
- Authoritative data to support informed decision making
- Reusable applications and services for Federal govt and non-govt use
- A shared infrastructure to host data and applications
- A focal point where governmental, academic, private, and public data can be visualized together to inform and address national and regional issues

Sign up!

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#### Featured: GeoPlatform Release Preview

#### WHAT'S NEW



Featured App: Web Map Viewer Browse thousands of WMS and ESRIhosted map layers, construct maps, and more with the new and improved Web Map Viewer!

Launch WMV



#### Map Collaboration

Learn how to compose and share maps using open services with GeoPlatform.

Learn more



#### AGOL Map Harvester

Quickly and easily integrate existing ArcGIS Online maps into your GeoPlatform pages using the Map Harvester service!



#### First Time Here?

GeoPlatform.gov was created to enhance geospatial resource sharing across the U.S. Government and the world, and to allow users like you to participate in an online geospatial services experience. Whether you want to discover and use up-to-date National Geospatial Data Assets, make a shared Open Map Gallery for your website, integrate quality National data into your own web application, or more, GeoPlatform.gov in a place to stay connected to a fast evolving geospatial service ecosystem.



#### Create an Account

With an account, you can access thousands of datasets uploaded by others and contribute your

#### Collaborate with Others

Share your expertise or find experts to help with your geospatial data needs, join one of



Register your data in Data.gov and we'll add it to GeoPlatform.gov so others can

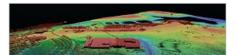
#### L My Account

Already have an account? Go ahead and login! Don't have an account? Sign up now. It's quick and free!

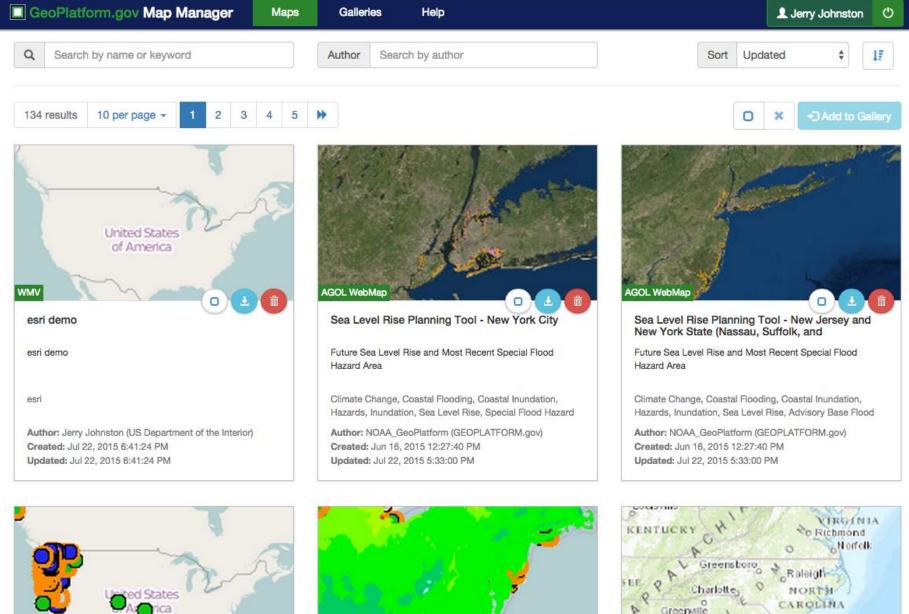


#### Create an Account

#### ★ Featured Communities



#### FGDC.GOV Geospatial Platform Map Viewer **Browse Layers** O Apply Search Layers Available Layers Preview Select layers below to view them on the preview map at right. Search for layers by name + 10 per page -3 Q Search layers 11568 results 2 5 ₩ 1 to 25999 Sort Layers NGA GeoNames Scaled WMS Name ٥ Ascending \$ 10-digit HU USGS TNM National Hydrography Dataset, NGDA 10-digit HU Layer Sources USGS TNM National Hydrography Dataset, hydrography, NHD, water, drainage, river, strea... Ø AssistedHousing 10-digit HU USGS TNM National Hydrography Dataset, hydrography, NHD, water, drainage, river, strea... Mexicanos BISON 5309 10-diait HU Biology WMS Layers from the National 1454 USGS TNM National Hydrography Dataset, hydrography, NHD, water, drainage, river, strea... Atlas of the United States 10-diait HU Leaflet | Map data (c) OpenStreetMap contributors Climate WMS Layers from the National 93 USGS TNM National Hydrography Dataset, hydrography, NHD, water, drainage, river, strea... B Please be patient, some layers may take several seconds to appear. Atlas of the United States Constrain the list of layers using geographic extents G or named places 1000000 to 7000000 NGA GeoNames Scaled WMS $\otimes$ ß Specify a named location Layer Types **113th Congressional Districts** NGDA, NTAD 388 All Amphibians (Amphibia) ŵ Previewed Layers 12-digit HU 244 All Gymnosperms (Gymnospermae) USGS TNM National Hydrography Dataset, NGDA Layers listed below are shown in the preview map above. Click 'Apply' at the top of this panel to add them all to the current map. All Mammals (Mammilia) 800 12-digit HU USGS TNM National Hydrography Dataset, hydrography, NHD, water, drainage, river, strea... 113th Congressional Districts A All Mustards (Brassicaceae) 761 10-digit HU 167 All Oaks (Quercus)



WMV



Atlanta

AGOL WebMap

SOUTH CAROLINA

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#### Lifecycle Maturity

Select a NGDA Dataset Lifecycle Maturity Assessment survey from the drop-down below. Surveys are added quarterly, and include in the title their Fiscal Year and Quarter. You may choose to filter by Theme or Agency using the Selection Type and Selection drop-downs. For more details, click on a rating box (cell) or hover over column headings.

Survey: EX 2015 4th Quarter

Selection Type: By Theme

#### ▲ Selection: Biota

▲ Export as: PDF

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Tip: Hover over a column name to view the questions associated with it. Click the chart icon within a cell to view its visualized graph.

Survey: Fr 2015, 4th Quarter						as: PDF	₹ ♦	J		
Dataset	General	Define	Inventory Evaluation	Obtain	Access	Maintain	Use Evaluation	Archive	Överall	Agency
Theme Rollup	3/5	3/5	1/5	2/5	4/5	3/5	4/5	3/5	3/5	
Bailey's Ecoregions And Subregions Of The United States, Puerto Rico, And The U.S. Virgin Islands - Direct Download	2/5	4/5	5/5	3/5	1/5	5/5	1/5	3/5	3/5	USDA- USFS
Environmental Sensitivity Index (ESI) Data Viewer and REST Services for Atlases	3/5	4/5	0/5	2/5	4/5	4/5	5/5	2/5	3/5	DOC-NOAA
FWS Critical Habitat for Threatened and Endangered Species Dataset	3/5	2/5	5/5	1/5	4/5	4/5	3/5	3/5	3/5	DOI-FWS
Omernik's Level III Ecoregions Of The Conterminous United States	3/5	3/5	0/5	2/5	4/5	4/5	5/5	2/5	3/5	USEPA
Terrestrial Ecosystems of the Conterminous United States	4/5	3/5	0/5	3/5	4/5	1/5	3/5	5/5	3/5	DOI-USGS
U.S. Geological Survey Gap Analysis Program Species Distribution Models	3/5	1/5	0/5	4/5	5/5	1/5	5/5	3/5	3/5	DOI-USGS
U.S. Geological Survey Gap Analysis Program Species Ranges	4/5	3/5	0/5	3/5	4/5	1/5	3/5	5/5	3/5	DOI-USGS

**1** Jerry Johnston ம

Legend

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### How Does This Advance the US NSDI?

## Advancing the NSDI – By Lifecycle Component

### Geospatial Platform Supports Multiple Aspects of the Geospatial Data Lifecycle

### Inventory

-Metadata catalog in partnership with Data.gov

### Obtain

-Geospatial Platform Marketplace allows partners to forge partnerships for acquisition and development

### Access

-Web services access via open standards is facilitated by shared infrastructure

### Maintain

-Quality of service indicators provided to users and to NSDI dataset maintainers

### • Use

-Allow for development and sharing of maps as social objects

-Developer guidance and support for use of open APIs



### Advancing the NSDI – Other Examples?

# What ideas from other NSDI efforts might we be able to learn from and implement as a part of our work in the United States?



### Discussion