

EPA's GeoData Gateway (GDG)

A Central Access Point for Geospatial Resources

February 18, 2010



Agenda

- **Background**
- **GeoData Gateway (GDG) Features**
- **How to Find and Access EPA's Geospatial Resources**
 - Simple Search
 - REST Outputs
 - Searching as a logged-in user
 - Refining Search
 - The GDG Search Widget
 - Additional GDG Access Points
 - Connections to External Catalogs
- **Next Steps**



Background



- EPA is a large organization with many distributed offices
- Deployed the GDG in 2006 (GPT 2.1)
- Upgraded and enhanced in 2007 (GPT 3.1)
- Recent upgrade completed Jan. 15, 2010 (GPT 9.3.1)
 - *New streamlined design, enhanced metadata access capabilities, more....*
 - *Initially released internally; plan to release publicly this spring*



Before



After



GeoData Gateway (GDG) Features

- The GDG provides users with the ability to easily:

- Search for and access resources
- Preview geospatial resources
- Reuse GDG catalog components
- Access EPA metadata from external catalogs
- Publish metadata
- Manage metadata



- *We're going to focus on the first four features in this presentation*

How to Find EPA's Geospatial Resources



- Demonstration



Demo Back-up Slides



The next few slides are back-up in case the demo is not available

How to Find EPA's Geospatial Resources



- Simple Search

The image displays two screenshots of the EPA GeoData Gateway website, illustrating the 'Simple Search' process.

Left Screenshot (Home Page):

- The header shows the EPA logo and 'GeoData Gateway' with the tagline 'Connecting EPA's Geospatial Resources'.
- Navigation tabs include 'HOME' and 'SEARCH'.
- The 'Home' section welcomes users and provides a link to 'Get help on logging in'.
- A section titled 'Access EPA's Geospatial Resources' features a search bar with the text 'TRI' and a 'Search' button.
- Below the search bar, there are links for 'Other Ways to Find EPA's Data', 'Advanced Search', and 'Browse EPA Records'.

Right Screenshot (Search Results Page):

- The header is identical to the home page.
- The 'SEARCH' tab is active.
- The search bar contains 'TRI' and a 'Search' button.
- Below the search bar, there are links for 'Search In: This Site', 'Additional Options', 'Clear', and 'Using Lucene Search Syntax'.
- A map of the United States is displayed, showing the search results area.
- The results section shows 'Results 1-6 of 6 record(s)' and lists several items, including 'EPA Region 1 Toxics Release Inventory (TRI) Facilities' and 'U.S. EPA Image Service for Toxics Release Inventory (TRI) Sites (Public Version)'.
- At the bottom, there are links for 'Expand results', 'Zoom To Results', 'Zoom To Searched Area', and 'See results through REST API: GEORSS HTML FRAGMENT KML View EPA REST Examples'.

A blue arrow labeled 'Simple Search' points from the search bar on the left screenshot to the search bar on the right screenshot.



How to Find EPA's Geospatial Resources

- Simple Search (cont'd)





How to Find EPA's Geospatial Resources

- REST Outputs

The screenshot displays the EPA GeoData Gateway website. The header includes the EPA logo and the text 'GeoData Gateway Connecting EPA's Geospatial Resources'. Below the header are 'HOME' and 'SEARCH' tabs. The 'SEARCH' tab is active, showing a search bar with 'TRI' entered and a 'Search' button. To the left of the search bar are links for 'Search In : This Site', 'Additional Options', 'Clear', and 'Using Lucene Search Syntax'. Below the search bar is a 'WHERE' section with a map of the United States and a 'Find' button. The search results are displayed on the right, showing 'Results 1-6 of 6 record(s)'. The results list includes 'EPA Region 1 Toxics Release Inventory', 'U.S. EPA Image Service for Toxics Release Inventory (Public Version)', 'U.S. EPA Web Feature Service for Toxics Release Inventory (TRI) Sites (Public Version)', 'U.S. EPA's Geospatial Data Access Project', 'EPA Region 2 Regulated Facility Data', and 'Enviromapper for Water'. A blue arrow points from the 'EPA Region 2 Regulated Facility Data' result to a detailed view of that resource. The detailed view shows the title 'EPA Region 2 Regulated Facility Data', a description, and a 'Subscribe to this feed' button. To the right of the detailed view is a sidebar with 'Displaying 8/8', a '+ All' button, 'Sort by' options (Date, Title), and a 'Filter by category' section with a table:

Category	Count
application	1
downloadableData	2
liveData	2



How to Find EPA's Geospatial Resources

- Advanced Search Features

The screenshot displays the EPA GeoData Gateway search page. The header includes the EPA logo and the title 'GeoData Gateway' with the tagline 'Connecting EPA's Geospatial Resources'. Navigation tabs for 'HOME' and 'SEARCH' are present. The main search area features a text input field containing 'title ecoregions', a 'Search' button, and a results count 'Results 1-25 of 27 record(s)'. Below the search bar, there are links for 'Search In : This Site', 'Additional Options', and 'Clear'. A section titled 'Using Lucene Search Syntax' is visible. A map of the United States is shown with a red rectangular search area over the western region. At the bottom of the map, there are radio buttons for 'Anywhere', 'Intersecting', and 'Fully within'. To the right of the map, a list of search results is displayed, including 'Level III and IV Ecoregions of Utah', 'Level III and IV Ecoregions of Wisconsin', 'Level III and IV Ecoregions of Tennessee', 'Level III and IV Ecoregions of Oregon', 'Level III and IV Ecoregions of Nevada', 'Level III and IV Ecoregions of Wyoming', 'Level III and IV Ecoregions of Texas', 'Level III and IV Ecoregions of Oklahoma', 'Level III and IV Ecoregions of Montana', 'Level III and IV Ecoregions of Mississippi', 'Level III and IV Ecoregions of Louisiana', and 'Level III and IV Ecoregions of Kentucky'. An 'Additional Options' dialog box is open on the right side of the screen. This dialog box contains sections for 'CONTENT TYPE' (with a dropdown set to 'Downloadable data'), 'DATA CATEGORY' (with a list of categories and checkboxes), 'MODIFIED DATE' (with 'Start date' and 'End date' fields), and 'SORT BY' (with a dropdown set to 'Relevance'). 'OK' and 'Cancel' buttons are at the bottom of the dialog box. Two blue arrows point to specific features: one points to the 'Using Lucene Search Syntax' link, and the other points to the 'Additional Options' dialog box.

Lucene Search Syntax

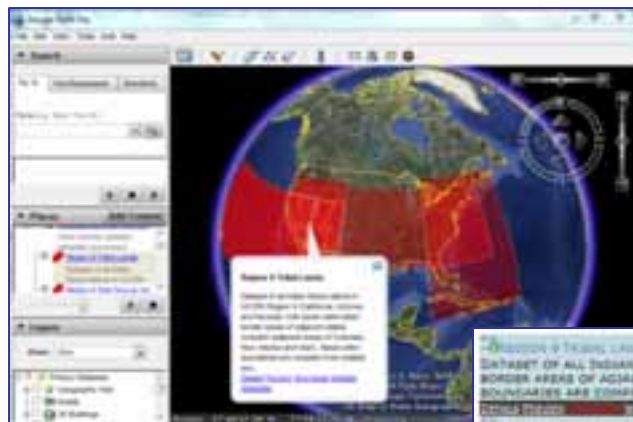
Advanced Search Features



How to Find EPA's Geospatial Resources

- **REST Interface**

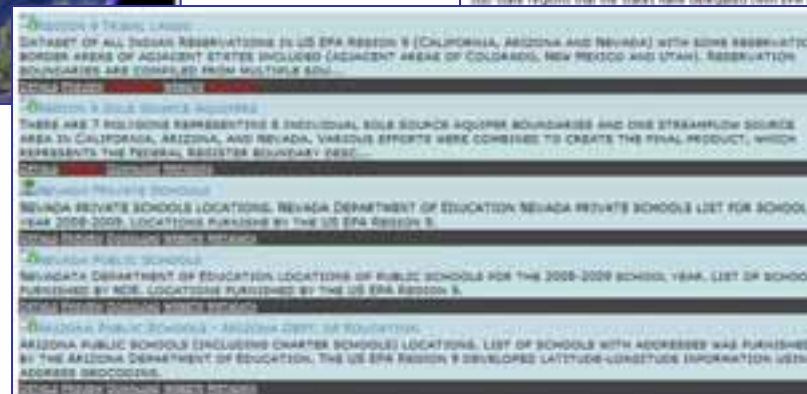
- **Base URL:** <http://geogateway.epa.gov/geoportal/rest/find/document?>
- **Parameters**
 - **searchText** , **contentType**, **style**, **f**, **max**, **xsl**
 - **bbox** , **spatialRel** , **contains**, **after**, **before** , **orderBy**, **geometryType**, **dataCategory**



KML



GeoRSS



HTML



How to Find EPA's Geospatial Resources

- **GDG Search Widget**
 - Search Plug-in for web pages/applications
 - **JavaScript API:** <http://serverapi.arcgisonline.com/jsapi/arcgis/?v=1.3>
 - **URL:** <http://geogateway.epa.gov/geoportal/widgets/searchjs.jsp>





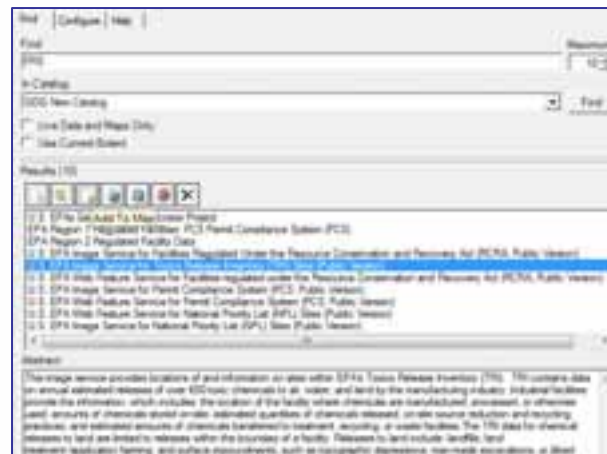
How to Find EPA's Geospatial Resources

- **Additional GDG Access Points:**

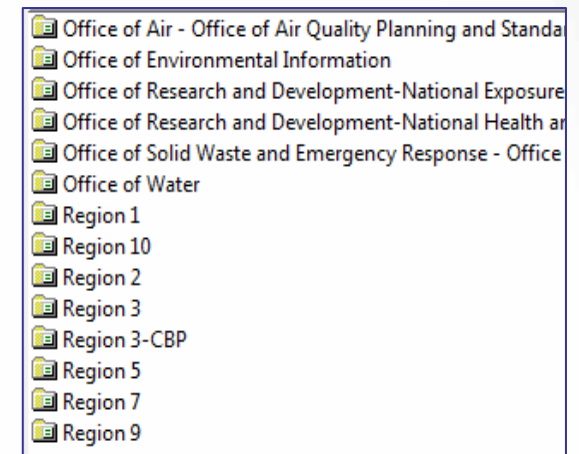
- **Custom Web Accessible Folder (WAF):** Browse a list of EPA metadata
 - <http://geogateway.epa.gov/geoportal/waf>
 - **2 options:** public metadata (unrestricted) or all metadata (restricted and unrestricted)
- **GDG CS-W Interface:** Query the GDG using the CS-W 2.0.2 specification
 - <http://geogateway.epa.gov/geoportal/csw202/discovery?request=GetCapabilities&service=CSW&version=2.0.2>
 - ESRI's CSW client tool can be used as an ArcGIS plug-in
- **Metadata Service:** Browse metadata records using ArcGIS desktop tools
 - Add ArcIMS Server
 - <https://geogateway.epa.gov/geoportal>



GDG WAF Pages



CS-W Client Tool



GDG Metadata Service



How to Find EPA's Geospatial Resources

- **Connections to External Catalogs**

- Geospatial One-Stop
- Data.gov



Next Steps for the GDG



- The GDG will be going public
 - General public will be able to access the GDG web application and related components
 - Release planned for spring 2010



For More Information



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