

OCEAN COMMUNITY

IWG-OCM Technical Workshop
August 14, 2012

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Outline / Objectives

- Setting the stage - a brief history of national geospatial initiatives
- All you ever wanted to know about ocean.data.gov
- How can we better coordinate and integrate the work of the IWG-IOCM?

Recent History of Selected National Geospatial Coordination Efforts

■ 1990s

- [1990] Creation of the Federal Geographic Data Committee [FGDC]
- [1994] Executive Order on National Spatial Data Infrastructure [NSDI]

■ 2000s

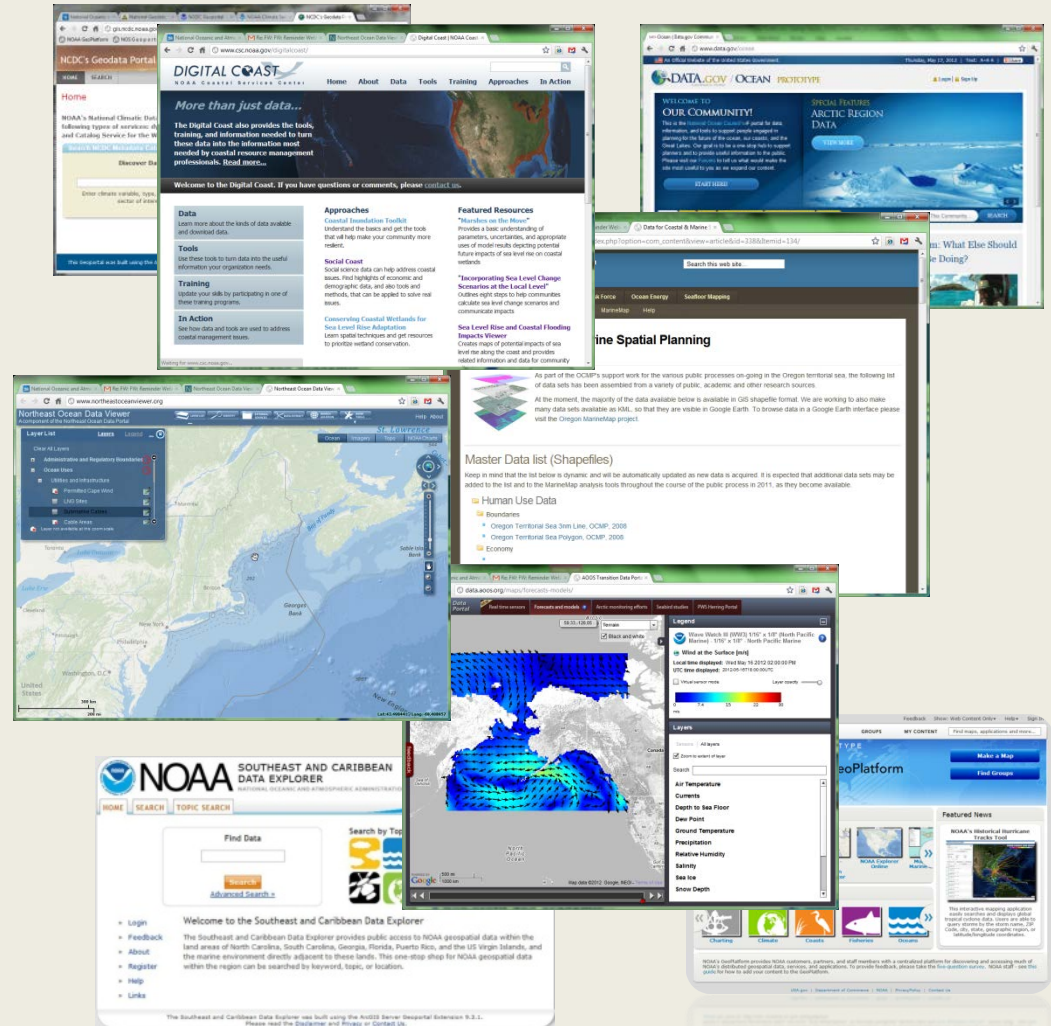
- [2005] E-government (Bush) → Geospatial One-Stop released
- [2009] Open Government (Obama) → data.gov released
- [2009] Integrated Coastal and Ocean Observation System Act

■ 2010s

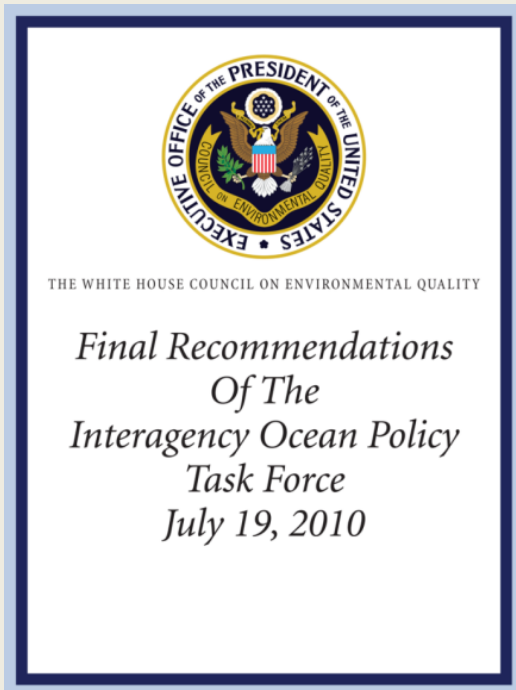
- [2011] Geospatial One-Stop migrated to new geo.data.gov
- [2011] Ocean.Data.Gov community released on data.gov

Geospatial Systems Explosion

- State atlases and portals
- Regional portals
- IOOS RAs data catalogs and portals
- Federal agency-owned applications and portals
- National systems and portals
- Non-profit and academic systems and DSTs
- ...and lots and lots of catalogs



National Ocean Policy



- National Ocean Policy - July 2010
- Called for a National Information Management System (NIMS)
- National Ocean Council Data Workgroup was formed to develop a plan for the NIMS
- Ocean.Data.Gov was established as the web presence for the NIMS
- Regional portals are being established in some regions and expanded in others
- Meeting was held at GeoTools 2011 to begin addressing CMSP Portal development

NIMS / Ocean.Data.Gov Objectives



THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY

*Final Recommendations
Of The
Interagency Ocean Policy
Task Force
July 19, 2010*

- *“A robust national information management system dedicated to coastal and marine scientific data and information products is required to meet the diverse data and application requirements of CMSP, and the varying technical capabilities of users.” [page 67]*
- **Guidance**
 - Compatible with existing Federal information resources
 - Has effective governance and accountability across agencies
 - Built upon existing national data systems and initiatives
 - Focus on end user; keep it simple
 - Deploy initial prototype in nine months

Ocean.Data.Gov Implementation

- National Ocean Council (NOC) created an Interagency Information Management System (IMS) and CMSP Data Portal Working Group
- Time constraints → requirements gathered from existing resources
- GSA via data.gov providing underlying IT infrastructure and website development support
- NOC Working Group providing content and subject matter expertise
- Ocean community 1 of 13 communities hosted on data.gov

The screenshot shows the 'OCEAN PROTOTYPE' page on DATA.GOV. The header includes the text 'An Official Web Site of the United States Government', the date 'Thursday, December 8, 2011', and a 'Text: A+A A' accessibility option. The main navigation bar contains links for 'Home', 'Data', 'Tools', 'Technical Guide', 'Regional Planning', and 'Forums', along with a search bar. The content area features a 'Welcome to Our Community!' section with a 'START HERE!' button, and a 'Special Features' section highlighting the 'Oregon Marine Map' with a 'VIEW MORE' button. Below this are three featured articles: 'Federal Data Resources' (with a photo of a boat), 'Regional Planning Efforts and Resources' (with a photo of a beach), and 'Forum: What Else Should We Be Doing?' (with a photo of a person in a hat). Each article includes a brief description and a 'Read More' button.

System Components – Spatial Data

User Requirements

States

NGO's

Regions

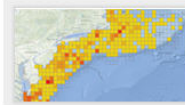
Industry

Ocean, Coast, and Great Lakes Planning Data

Explore, discover and access a variety of rich spatial and non-spatial data. We've identified a few data sources that we want to highlight. We've identified other data sources you may want to access in your search and we are providing a link to geo.data.gov where you can search all of the Federal geospatial data available through data.gov. We are just getting started, so if you can't find the data you are looking for, please tell us!

BROWSE ALL DATASETS

Featured Data



Atlantic Offshore Seabird Dataset Catalog

U.S. Geological Survey
The U.S. Geological Survey (USGS), in partnership with U.S. Fish and Wildlife Service and the Bureau of Ocean Energy Management, Resources, and...
(View full metadata)



Endangered Species Act Critical Habitat

Critical habitat (CH) is designated for the survival and recovery of species listed as threatened or endangered under the Endangered Species Act (ESA...
(View full metadata)



EPA Office of Water (OW): 303(d) Listed Impaired Waters NHD Indexed Dataset

U.S. Environmental Protection Agency
The 303(d) Listed Impaired Waters program system provides impaired water data and impaired water features reflecting river segments, lakes, and...
(View full metadata)



Essential Fish Habitat (EFH) Areas Protected From Fishing

Designated Essential Fish Habitat (EFH) areas where fishing or the use of fishing gears has been restricted or modified in order to minimize the...
(View full metadata)



Estuarine Bathymetric Digital Elevation Models (30 meter and 3 arc second resolution) Derived From Source Hydrographic Survey Soundings Collected by NOAA

NOAA's Ocean Service, Special Projects (SP)
These Bathymetric Digital Elevation Models (DEM) were generated from original point soundings collected during hydrographic surveys conducted by the...
(View full metadata)



Habitat Areas of Particular Concern

The purpose of HAPCs is to focus conservation, management, and research efforts on subsets of EFH that are vulnerable to degradation or are...
(View full metadata)



Maritime Limits and Boundaries of United States of America

NOAA's Ocean Service, Office of Coast Survey (OCS)
NOAA is responsible for depicting on its nautical charts the limits of the 12 nautical mile Territorial Sea, 24 nautical mile Contiguous Zone, and...
(View full metadata)

Quick Search

- Administrative and Regulatory
- Biology and Habitats
- Ecological Functions, Processes, and Impacts
- Elevation and Bathymetry
- Energy and Mineral Resources
- Human Use
- Physical and Oceanographic

Other Data Sources

GEO.DATA.GOV

Harvested by data.gov

Community Catalogs

Upload Metadata

Data Stewards

Regional/State Portals & Technical Community of Practice

DATA.GOV / OCEAN PROTOTYPE

Home Data Tools Technical Guide Regional Planning Forums

Search This Community SEARCH

Data.gov > All Communities > Ocean

Regional Planning Efforts



Planning Regions

- > Alaska/Arctic
- > Caribbean
- > Great Lakes
- > Gulf of Mexico
- > Mid-Atlantic
- > Northeast
- > Pacific Islands
- > South Atlantic
- > West Coast

West Coast Region

When you click on these resources, you will be leaving Data.gov.

State / Regional Coastal Atlas'

- > California Human Uses Atlas
- > Oregon Coastal Atlas
- > Washington Coastal Atlas

IOOS Regional Association

- > Southern California Coastal Ocean Observing System (SCCOOS)
- > Central & Northern California Ocean Observing System (CeNCOOS)
- > Northwest Association of Networked Ocean Observing Systems (NANOOS)



California, Oregon,
Washington

Regional Ocean Partnership

West Coast Governors'
Agreement on Ocean Health

Regional Data Portal

To be developed

DATA.GOV / OCEAN PROTOTYPE

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Search This Community SEARCH

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Technical Community of Practice

Welcome to the Technical Community of Practice. This Community, through a variety of web resources and a network of practitioners, is intended to provide the guidance and support necessary to develop a robust information management system to support coastal and marine spatial planning.

This Community is envisioned to be the support network for GIS analysts, data developers and managers, IT staff, and researchers charged with establishing regional information systems for their respective regional planning bodies and developing and sharing data for the coastal and marine spatial planning process.

To achieve interoperability across the information management system, to promote the use of data standards and best practices, this Community serves as the access point for following:

- Data Publishing and Exchange
- Data Quality and Documentation
- Communication Forum



To begin exploring these resources, click on one of the categories below.

Data Publishing and Exchange



Common mapping service and data encoding standards, data publishing considerations, and relevant data access and exchange ontologies and semantics.

Read More

Data Quality and Documentation



Suggested metadata standards and requirements as well as community-supported content standards.

Read More

Communication Forum



Provide your thoughts and feedback and engage in an open forum for discussion.

Read More

Decision Support Tool Catalog

Selecting the Appropriate DST

DSTs that enable practitioners to make well-informed decisions at each marine spatial planning process step must possess certain critical functional elements. Tool functions can be divided into six categories, including:

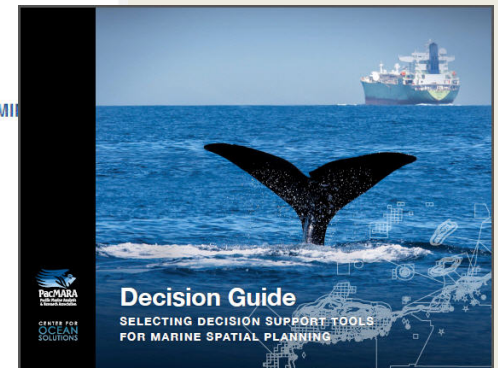
- **Data management** refers to tools that improve efficiency of data gathering and management and help to *Gather Data & Define Current Conditions*. ([more](#))
- **Mapping and visualization** functionality is important throughout the process from *Defining Current Conditions to Refining Goals and Objectives*. ([more](#))
- **Alternative scenario development and analysis** is a major function provided by DSTs that can aid in *Identifying Issues, Constraints, and Future Conditions; Developing Alternative Management Measures; and Evaluating Alternative Management Measures*. ([more](#))
- **Management measure option proposal** is an important tool function that can aid in *Developing Alternative Management Measures and Evaluating Alternative Management Measures*. ([more](#))
- **Stakeholder participation and collaboration, and community outreach and engagement** are important throughout all steps of the planning process. ([more](#))
- DSTs that incorporate **adaptive management and assessment of achieving objectives** functionality into their tools are important for *Evaluating Alternative Management Measures, Monitoring and Evaluating Management Measures, and Refining Goals and Objectives*. ([more](#))

Applicable Tools

Click on each tool to learn more about its purpose, how it works, and applications.

- [Artificial Intelligence for Ecosystem Services \(ARIES\)](#)
- [Atlantis Ecosystem Model](#)
- [Coastal Resilience](#)
- [Cumulative Impacts](#)
- [Digital Coast](#)
- [Ecosystem-Based Management Tools Network](#)
- [EPA Metadata Editor](#)
- [Marine Integrated Decision Analysis System \(MIDAS\)](#)
- [Marine InVEST \(Integrated Valuation of Ecosystem Services and Tradeoffs\)](#)
- [MarineMap](#)
- [Marxan with Zones](#)
- [Multi-scale Integrated Models of Ecosystem Services \(MI\)](#)
- [Multipurpose Marine Cadastre \(MMC\)](#)

 **NOMINATE AND DISCUSS
OTHER TOOLS**



Outreach to Regional Users: Regional Data Manager Workshop

- June 27-28 at the NOAA Coastal Services Center in Charleston, South Carolina
- Approximately 20 participants -- regional data managers, nongovernmental organizations, and federal agencies
- Three RAs represented: AOOS, SECOORA, PACIOOS
- Objectives
 - Develop a strategy to link national and regional information management approaches in the ocean and coastal planning community
 - Identify common standards and procedures to be adopted by regional ocean governance groups
 - Establish a practitioner's network of data and tool developers and contributors to ocean.data.gov and the larger network of data portals

Considerations for Ocean.Data.Gov

- Participation on NOC Working Group is now limited to a small number of agencies (BOEM, EPA, GSA, Navy, NOAA, USGS)
- Agencies are determining what data gets incorporated into ocean.data.gov
- Phase 2 focus areas:
 - Data inclusion at state/regional levels
 - Integration with other national systems
 - Enhanced Decision Support Toolkit
 - Outreach and engagement
- Uncertain out-year funding for data.gov IT infrastructure [potential for cost recovery]
- Key Issue: Need to develop approach for incorporating non-federal data into oceans.data.gov [OMB policy limitations]

Contact Information

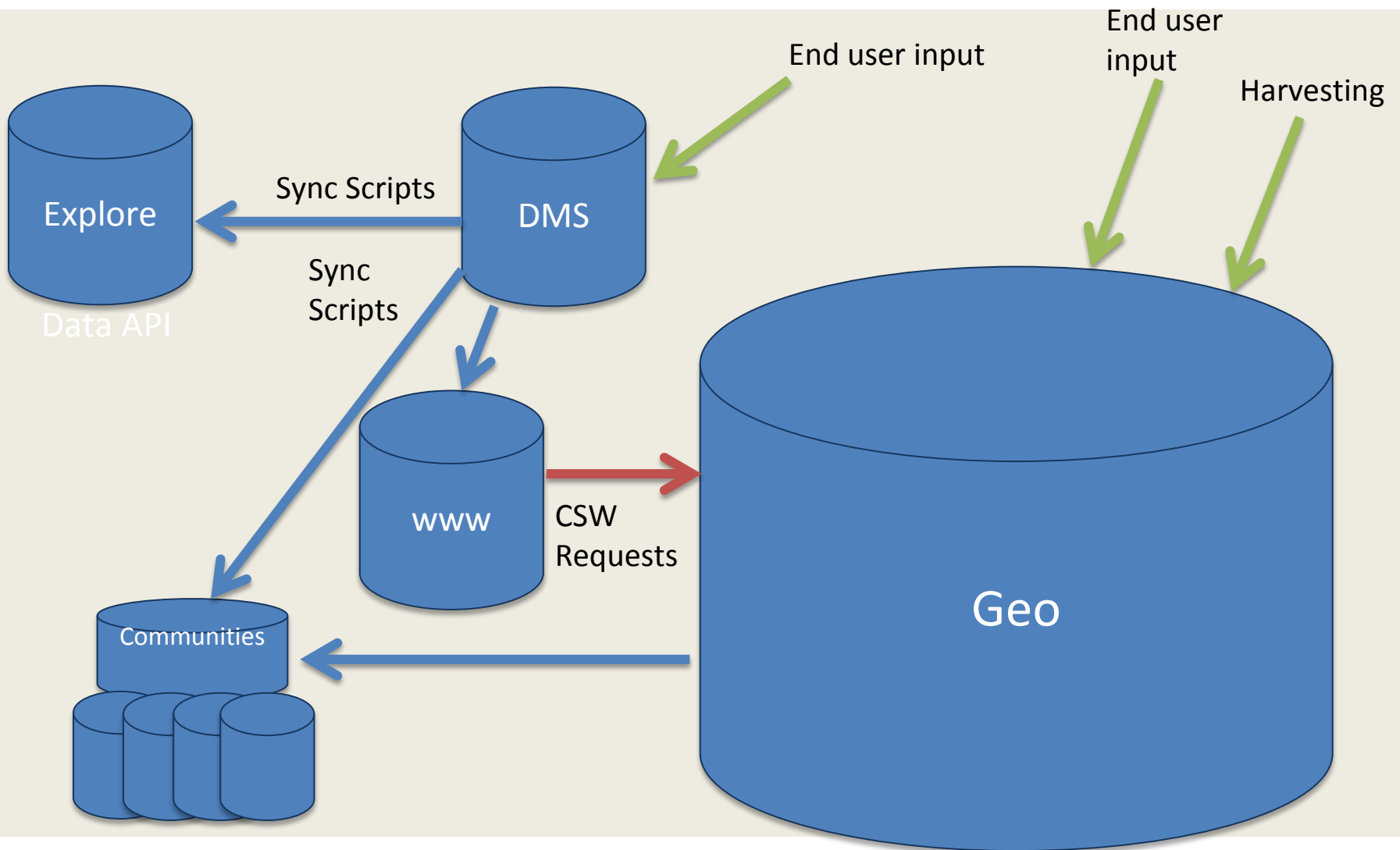
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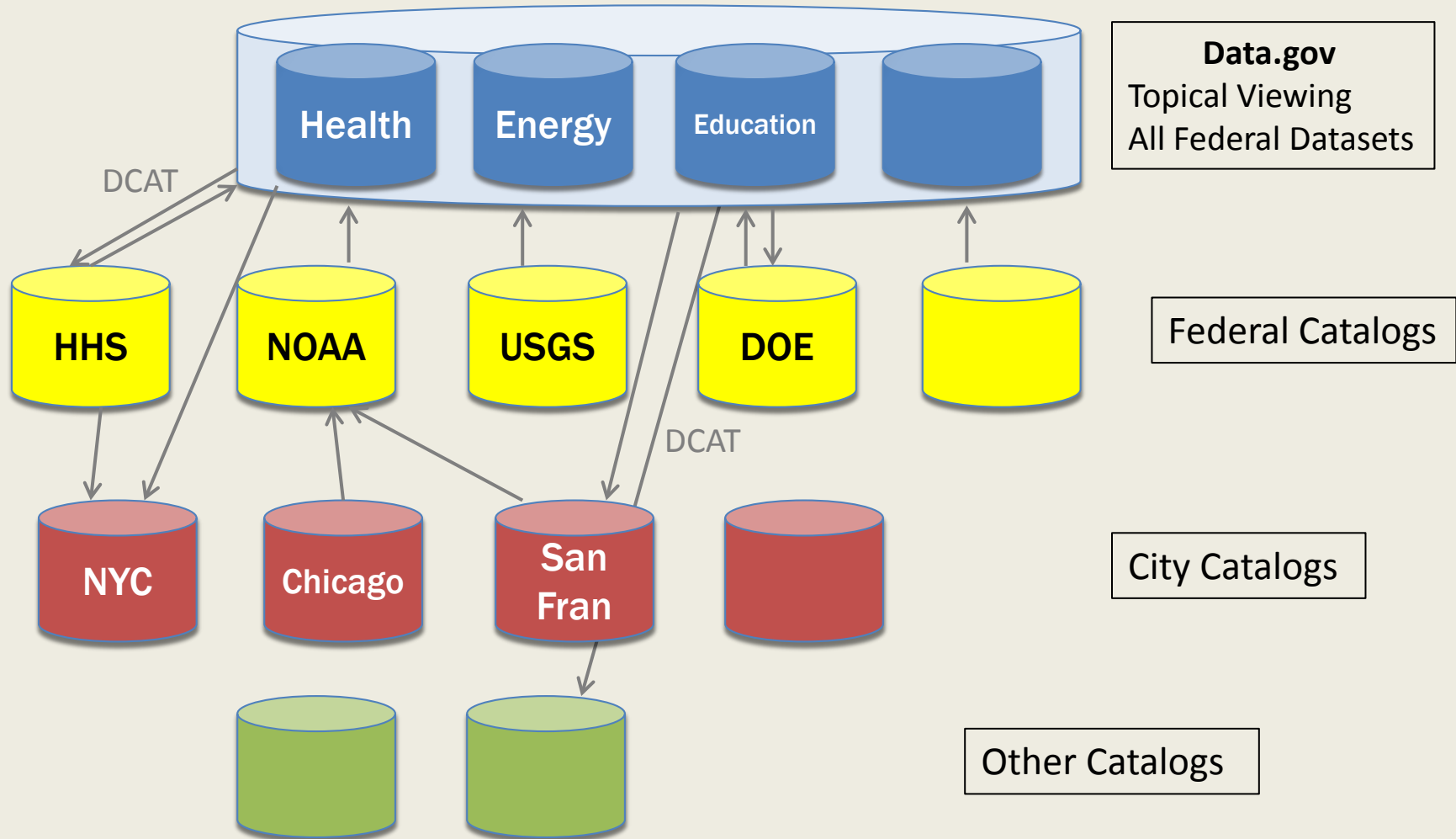
843-740-1265

Adam.Bode@noaa.gov

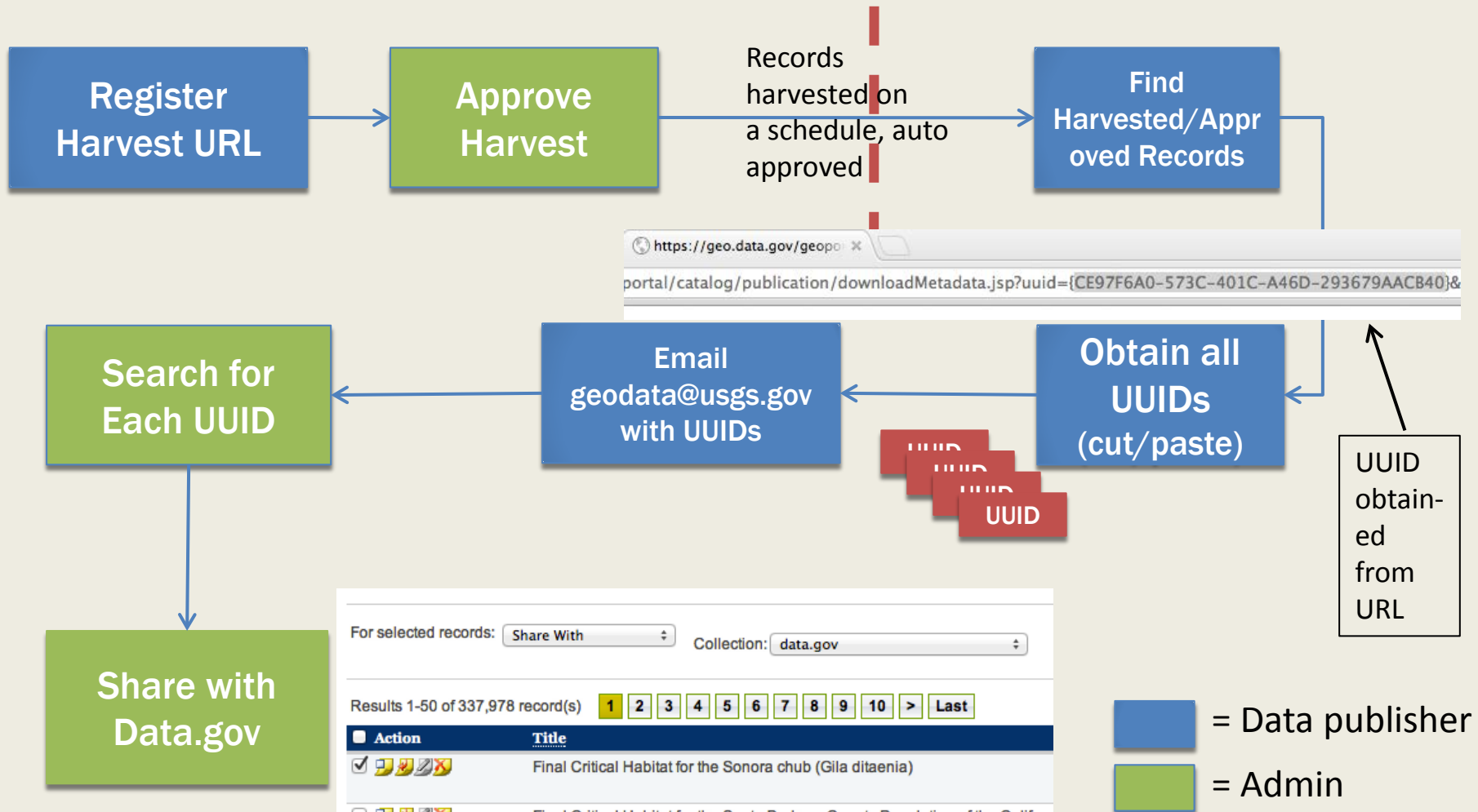
Current Catalogs



Future of Data.gov – Data Hubs



Workflow – Harvested Records



Current Policy Issues – Geo Since the Sep 2011 Migration

- **Competing Policies of Scope**

- EO 12906, 1994: Share geospatial info across Fed, state, and local boundaries
- Data.gov definition: Federal only

- **Workflow has changed since GOS**

- OIRA's approved process for Federal data stewards: implementation of "flag feature" at a *data record level* only
- State and local partners still use geo.data.gov workflow as they did in GOS

- **Architecture**

- Data.gov not approved for federation – however, geo federation remains

Future Capabilities

- **Workflow**

- Make it more user friendly
- More like a set of queues with notifications
- Community leaders can “tag” datasets for inclusion into their communities

- **Metadata**

- FGDC -> ISO 19115-2
- Data.gov template -> Schema.org/DCAT

- **Map Visualizations**

- Create a map visualization within your community on the fly using an existing map service