



Data Management Lightning Talks

Rebecca Harned & Tari Martin, NAPSG Foundation

Lorri Peltz-Lewis, USFS

Leigha Gooding, DOT

David LaBranche, DOD

Daniel Stoelb, NSGIC

JR MacDonald, FBI





2019 Symbology Review

Rebecca Harned & Tari Martin, NAPSG Foundation





Symbology Update StoryMap

Visit: [NAPSG Symbology StoryMap](#)





USFS Enterprise Data Warehouse and HIFLD

Lorri Peltz-Lewis

Enterprise Data Warehouse Program Manager

U.S. Forest Service





Enterprise Data Warehouse HIFLD & U.S. Forest Service

HIFLD FEEDBACK SESSION 10/28/2019





EDW Mission Statement

The mission of the EDW is to provide the right (current, accurate) data to the right users in the right format to meet their information needs.

[Bill Inmon](#) ([Forest Rim Technology](#)), the “Father of Data Warehousing,” defines a Data Warehouse as, “a subject-oriented, integrated, time-variant and non-volatile collection of **data in support of management’s decision making process.**”

Note – all links are provided in the references at the bottom of the presentation.



What is the EDW

- Forest Service Enterprise Data – [FSGeoData Clearinghouse](#)
- [Data.gov Open Data](#) – USFS Data
- [Map Services](#)
- [ArcGIS Open Data](#)

Forest Service Enterprise Data

A single point of access for data collected and managed by the Agency. You can use the Data Extract Tool to access data about individual forests or grasslands or about an area of interest that you specify on the national map. You can find and download datasets by topic area or theme or find and use map services published by the Agency.

Also, be sure to check out the latest **Enterprise Data Warehouse (EDW) Factsheet** which addresses such questions as: How is the EDW used? How do I get the data? How does the EDW operate? What are its priorities?

National Datasets

Nationwide datasets are available via **downloads**. The Forest Service collects many kinds of data as part of its mission to manage forests and grasslands. The data is used to produce maps and conduct resource planning, analysis and management.

Data Extract Tool

To access individual forest unit data files, or create a custom download file, visit our **Data Extract Tool**.

This tool allows users to download portions of a national FS dataset by forest or by a user specified area of interest. Output formats include file geodatabase (.gdb) or shapefile.

U.S. Forest Service - Geospatial Data Discovery

for the greatest good.

Search for Data

The U.S. Forest Service has configured this open data site to help our partners and the public discover geospatial data published by the Agency. Use it together with your data to create maps, apps and other information products.

- Lands & Realty
- Facilities & Infrastructure
- Administrative Boundaries
- Recreation
- Transportation
- Weather and Climate
- Fire & Aviation
- Forest Management
- Ecosystems
- Vegetation
- Hydrography

More Applications...



Enterprise Data Warehouse

EDW in brief - Factsheet

The U.S. Forest Service (USFS) is working to improve its ability to **manage and share authoritative agency data**. Approved data collected from local units that meets certain criteria is stored in the Enterprise Data Warehouse (EDW) and published via multiple services for use in many applications.

The EDW is a USFS repository of geospatial and tabular USFS data that is **current** (as the data is refreshed regularly), **trusted** (the data is drawn from authoritative data sources, also known as *systems of record*), and **standardized** (the data has been approved as a USFS or generally-accepted data standard, e.g., reference datasets for State, County, and Congressional Districts).

The EDW is also a technology platform that provides business intelligence tools for integrating data used for **analysis and reporting**, internal and external map services, and web services that make accessible, standard reference data that is consumed by agency applications. The EDW includes hundreds of datasets spanning dozens of dataset themes, as well as map services for authoritative agency data published and available to the public.

EXTERNAL RELEASE

U.S. FOREST SERVICE
Caring for the land and serving people

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How do I GET THE DATA?

- [USFS Open Data Portal & FSGeoData Clearinghouse](#)
- [USFS on Data.gov](#)
- [USFS on ArcGIS Online \(AGOL\)](#)
- Public data download capability on the [Enterprise Data Page](#) of the FS GeoData Clearinghouse
- [Map services](#)—Publicly-available map services with ability to consume and display map-based information in a variety of desktop, web, and mobile solutions
- [Data extract tool](#) to select data about a national forest or grassland or to specify a geographic area of interest

How is EDW used?

EDW data is used in a variety of other tools, such as:

- [USFS Interactive Visitor Map](#) – information about agency roads, trails, and recreation sites.
- [Tribal Lands](#) – illustrates relationship between USFS and Indian lands ceded to the US.
- [FS Trip Maps](#) – map products supporting your next adventure!
- [Fire Enterprise Geospatial Portal](#) – wildfire activities from response to planning.
- And [many more...](#)

Commercial Users of EDW include: [HERE \(formerly NavTech\)](#) – mapping & location data; [ESRI Street Map Premium](#); [Avenza Maps](#) – Forest Visitor Maps available for mobile devices; [GAIA GPS](#) – MVUM maps available to Premium Members; [Google Maps](#) – Base Map Partner Program – “authoritative data”; [Magellan GPS](#) – mobile applications consume EDW.

Personal Users – AGOL users, emergency responders, search & rescue teams, web map developers, app developers (iOS/Android/Windows), feedback from hunters, hikers, etc.

How does the EDW operate?

- Preferred & Trusted Sources
- Transparent Decision Making
- Suitable Use – Maximize Investment
- Accessible Repository
- Effectively Used
- Multiple Business Use Cases
- Business Intelligence

How does the EDW operate?

- Data Storage
- Warehousing
- Dissemination
- Enterprise Data Warehouse
- Applications
- Map Products
- Mobile Apps

How does the EDW operate?

- Supports Data Stewardship, Maintenance and Collection

How does the EDW operate?

- Videos – [EDW - Welcome \(2 min\)](#), + several additional videos about the EDW.

EDW PRIORITIES

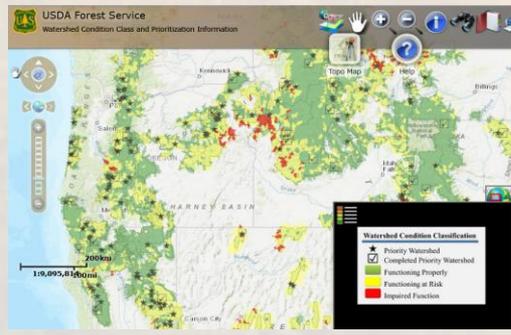
- Ensuring that the EDW content meets the priority information needs of agency programs
- Ensuring that the EDW content includes the core set of data required for data integration to support management decisions
- Fulfilling performance expectations with EDW tools
- Meeting the needs of the user community by ensuring that the EDW program has sufficient resources

Have a comment or question?
Contact us via: SM_FS_data@usda.gov

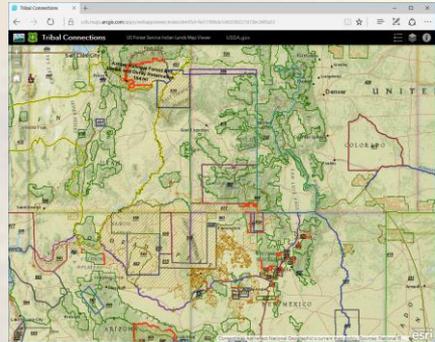
U.S. Forest Service Enterprise Data Warehouse JULY 2019
External Release



FS Data In Action – the value of available data – examples



WCATT – watershed condition



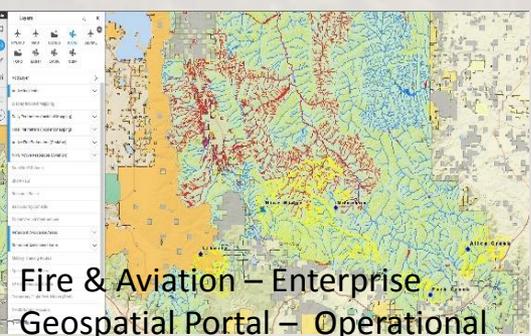
Tribal Lands – land decisions



Interactive Forest Visitor Map – recreation opportunities



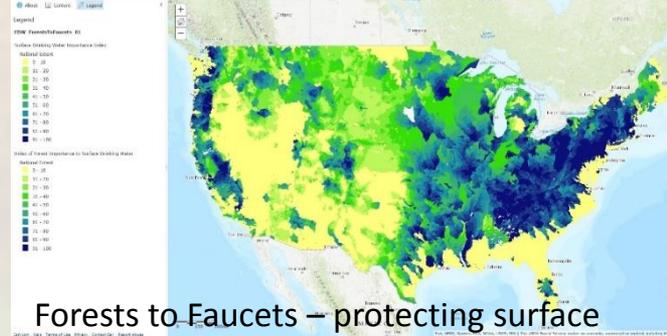
Forest Service Topographic Mapping – National Mapping



Fire & Aviation – Enterprise Geospatial Portal – Operational Awareness



Forests on the Edge – drinking water threats

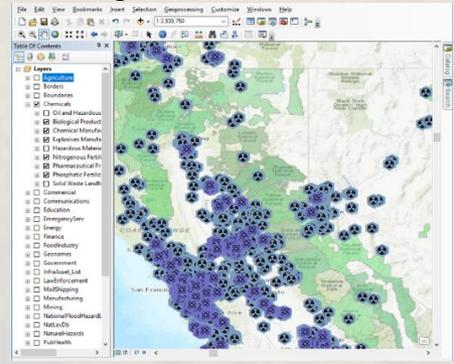


Forests to Faucets – protecting surface drinking water quality

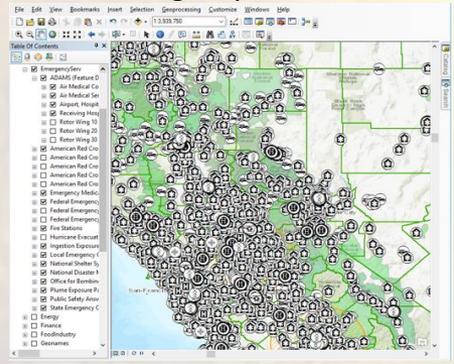


EDW consumes HIFLD data for Land Management:

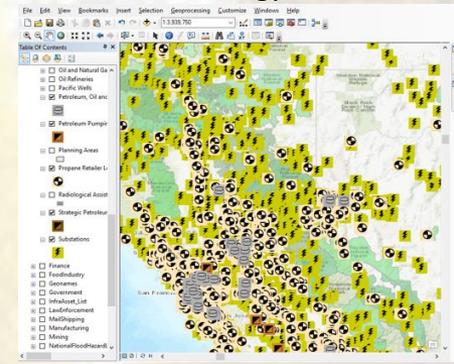
Agriculture/Chemical



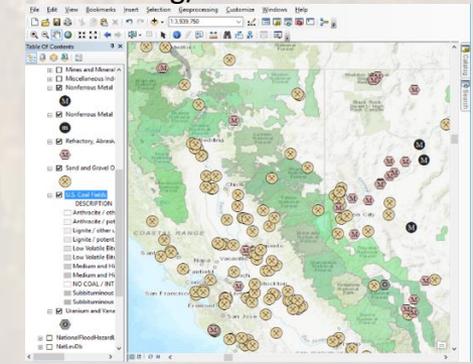
Emergency Services



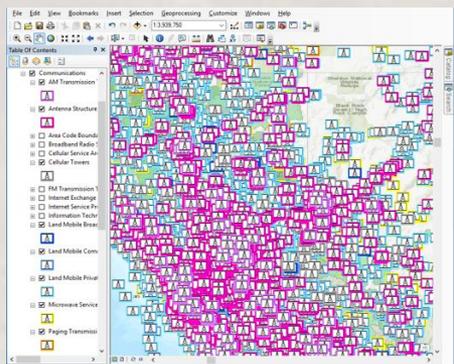
Energy



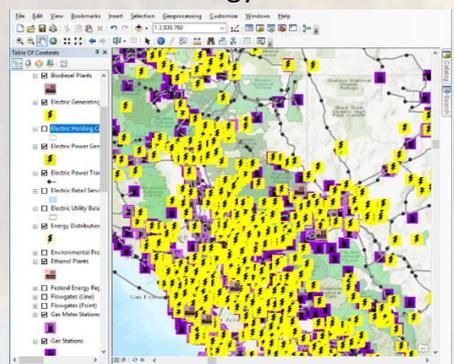
Mining/Natural Hazards



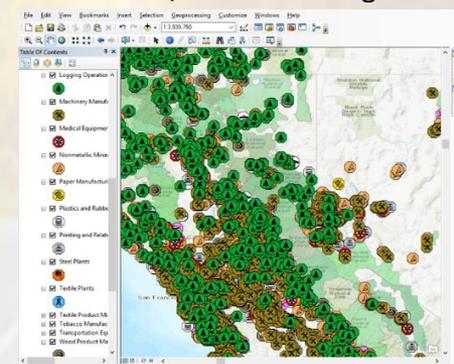
Communications



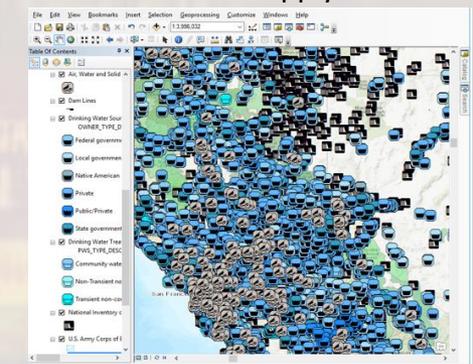
Energy



Food/Manufacturing



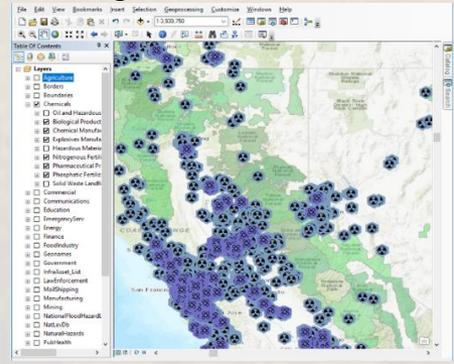
Water Supply



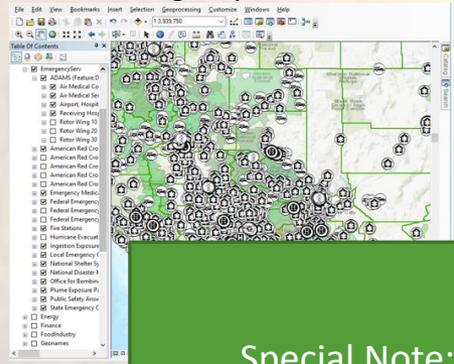


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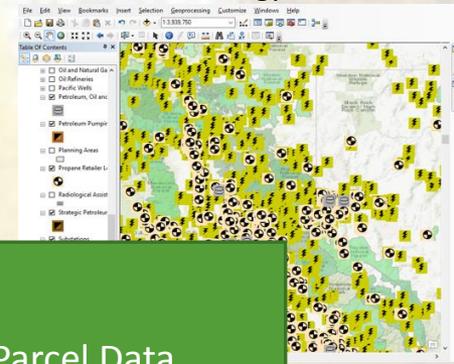
Agriculture/Chemical



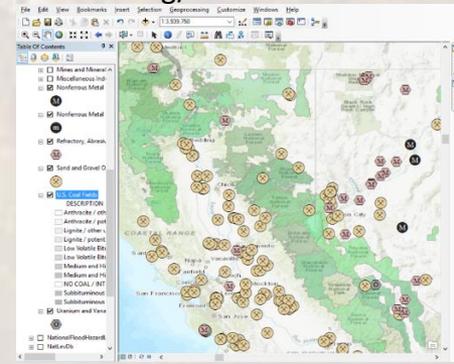
Emergency Services



Energy

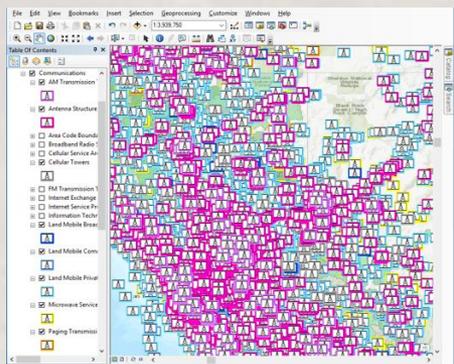


Mining/Natural Hazards

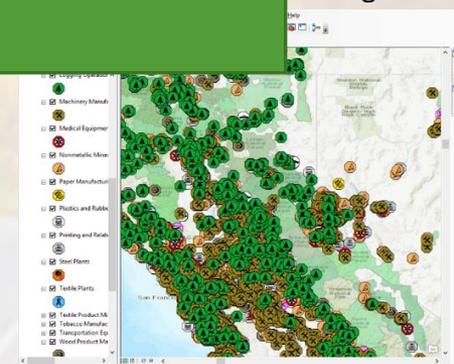


Special Note: Parcel Data

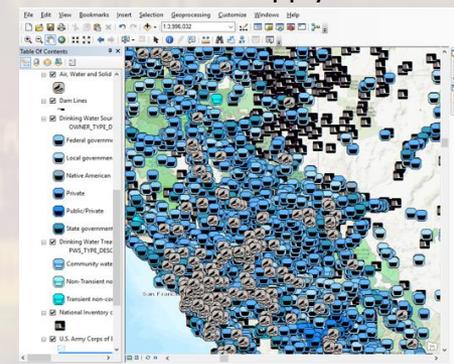
Communications



Manufacturing



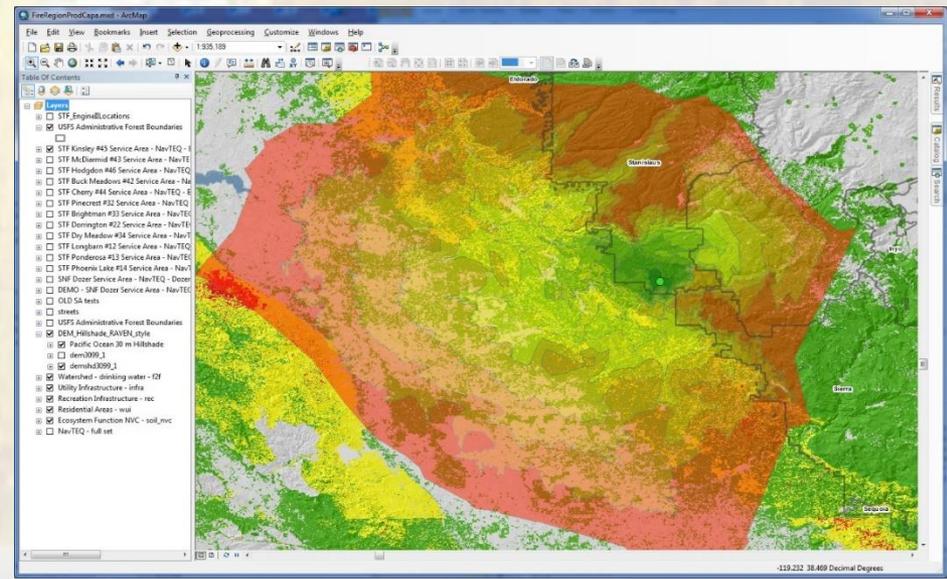
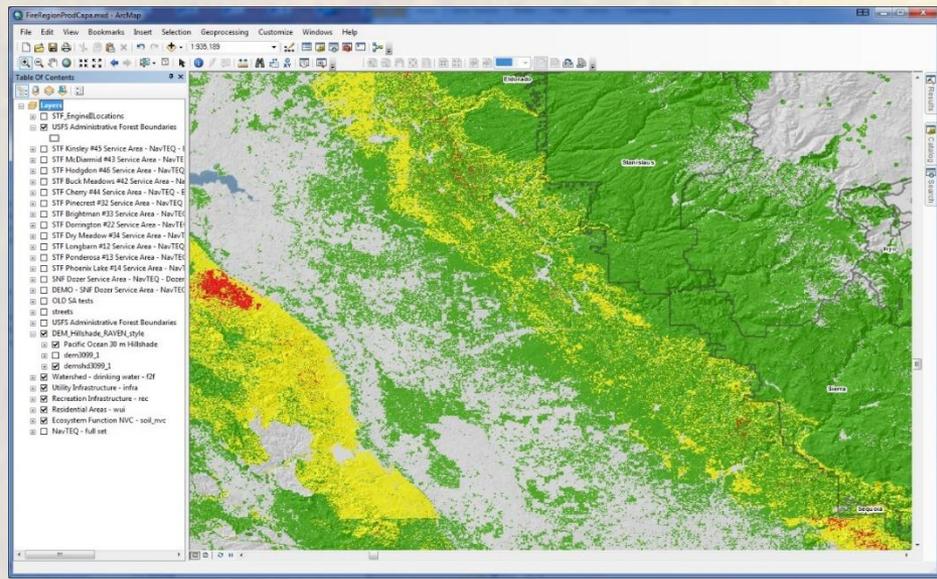
Water Supply





EDW HIFLD supporting data integration (example Roads):

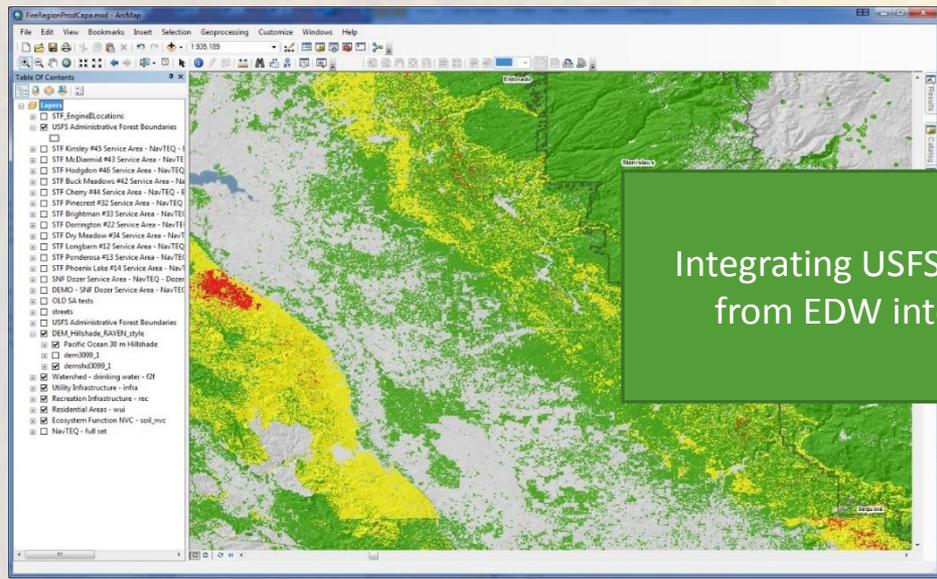
Fire Engine Service Areas & Risk Analysis:



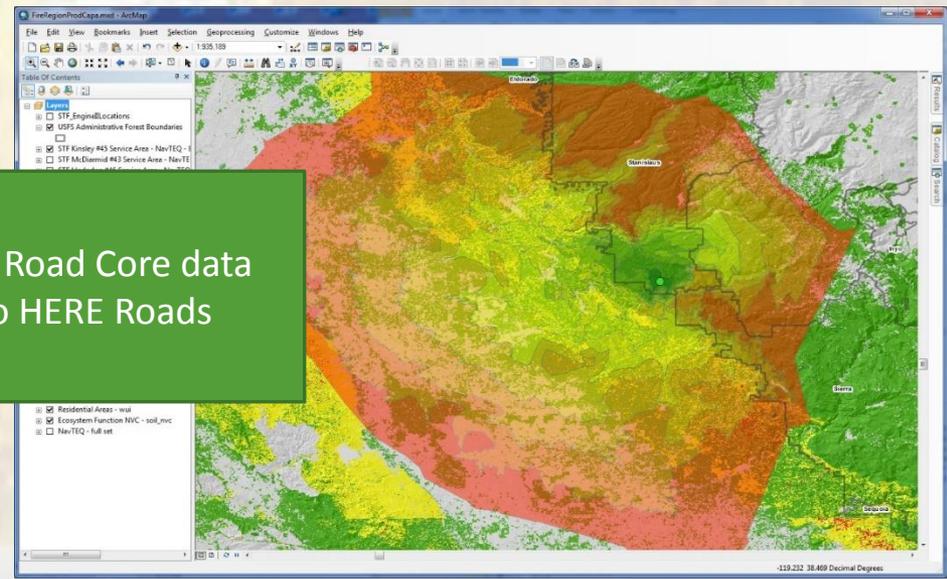


EDW HIFLD supporting data integration (example Roads):

Fire Engine Service Areas & Risk Analysis:



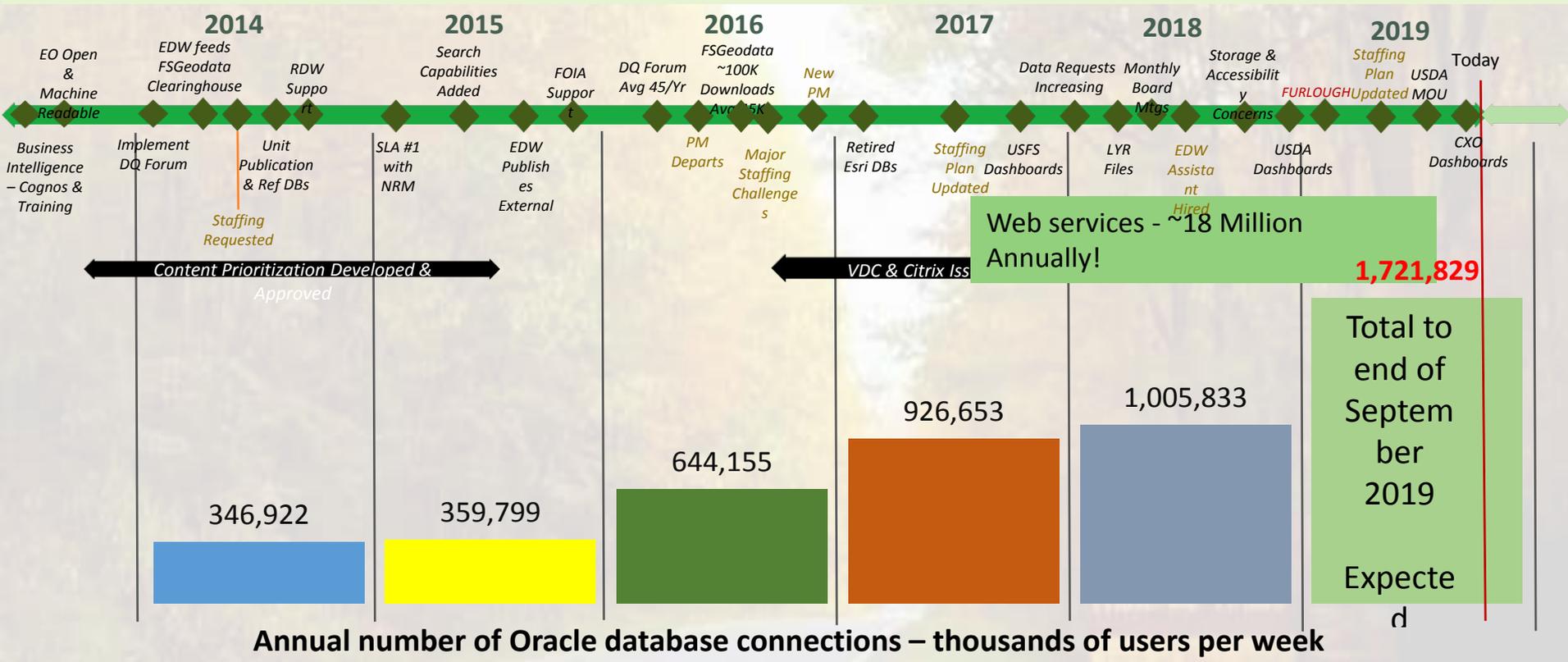
Integrating USFS Road Core data from EDW into HERE Roads





2013-2019 EDW Accomplishments Usage Metrics (Oracle/SDE)

Major Milestones





Questions?
Contact: Lorri.Peltz-Lewis@usda.gov



MONONGAHELA
National Forest



Data Management within NPMS

Leigha Gooding

GIS Manager, US DOT PHMSA

National Pipeline Mapping System

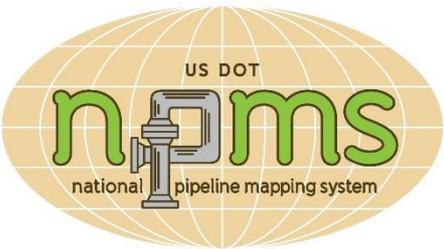




National Pipeline Mapping System

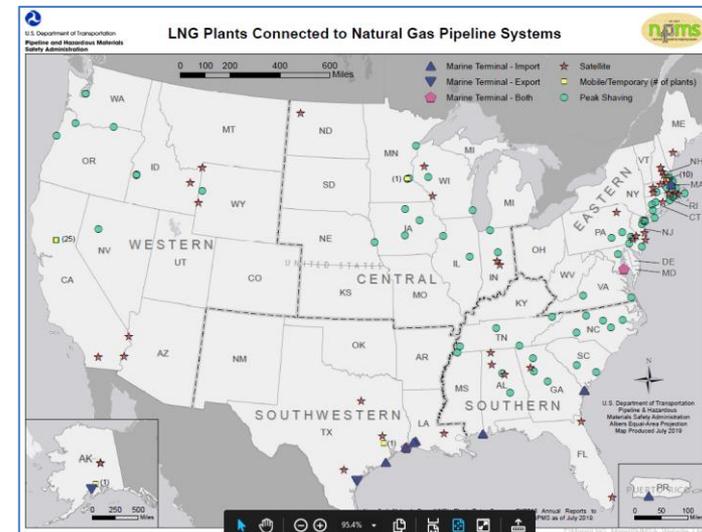
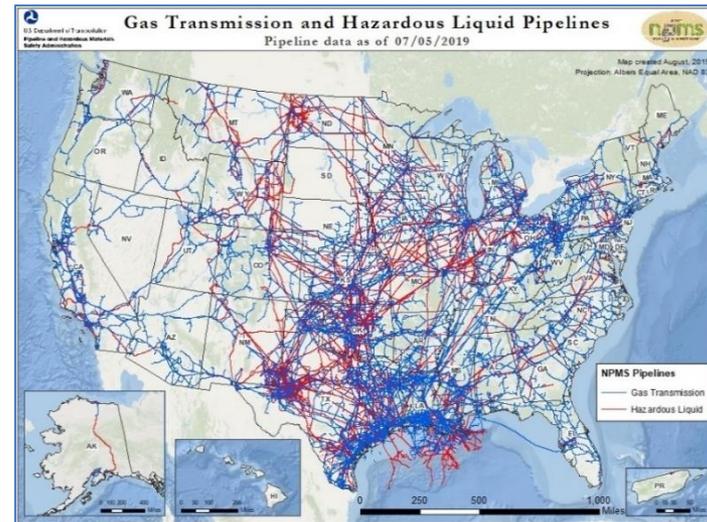
www.npms.phmsa.dot.gov

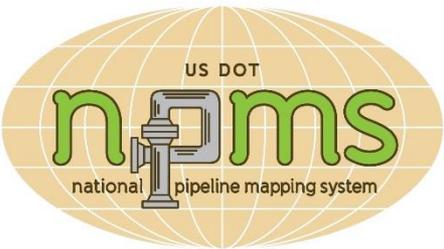
Leigha Gooding
GIS Manager, US DOT PHMSA



What is the NPMS?

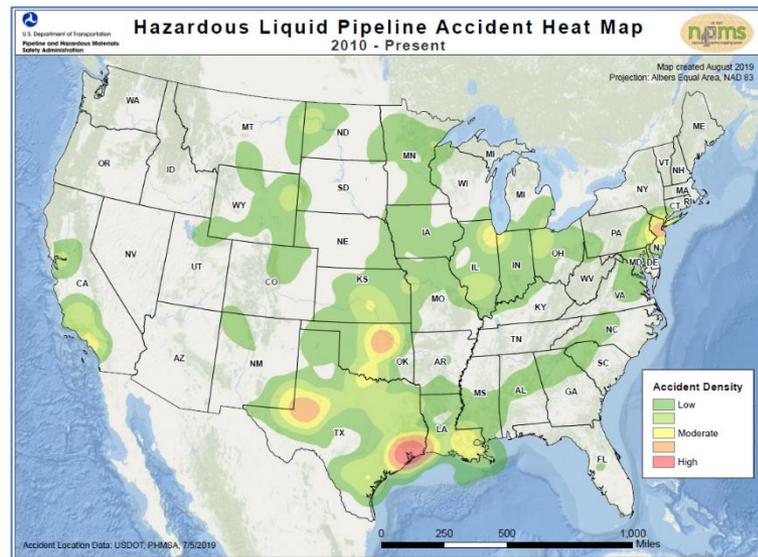
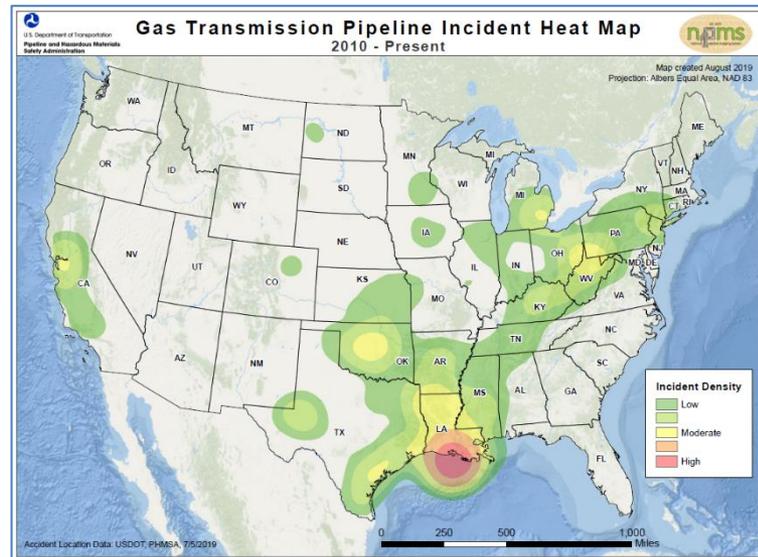
- GIS data collected from over 1,500 different pipeline operating companies
- Operators regulated by PHMSA are required to submit for gas transmission and hazardous liquid pipelines and LNG plants annually; breakout tank submission is currently optional. (CFR 49)
 - Nearly 1 million pipeline records, over 520,000 miles
- SBU, mark products FOUO
- PHMSA also maps:
 - Pipeline history
 - Underground storage
 - Accident mapped and associated to pipelines to track asset history
 - Inspection boundaries and records
 - Sensitive areas for integrity management

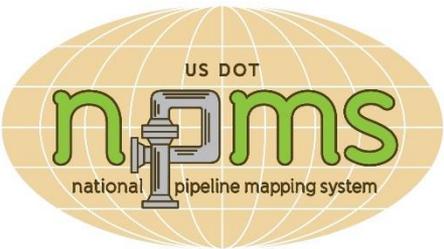




What isn't the NPMS?

- Gas gathering or gas distribution pipelines
- Facilities not subject to PHMSA regulations
- Every abandoned pipeline
 - Optional submission to NPMS
- Planned pipelines or facilities under construction
 - If it's in the NPMS then it's in/on the ground
 - Regulations require operator submissions reflect previous year's operations
 - See Revision Date
- Static data
- A huge data processing or help center
 - 3 full time GIS analysts (npms@dot.gov)





How can I access the NPMS?

- Public Map Viewer
- Public Map Viewer iPhone App
- Search Operator directory by state, county or ZIP where they operate pipelines
- Download national pipeline map or lists of pipeline mileage by county and offshore area



GOVERNMENT OFFICIAL



PIPELINE OPERATOR



GENERAL PUBLIC

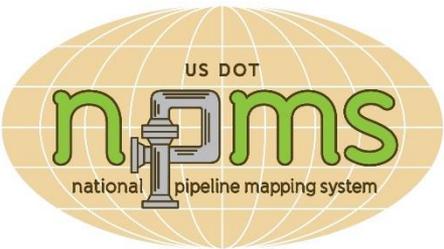


FIRST-TIME VISITOR

- Pipeline Information Management Mapping Application (PIMMA)
- PIMMA iPhone App
- GIS Data Request

www.npms.phmsa.dot.gov

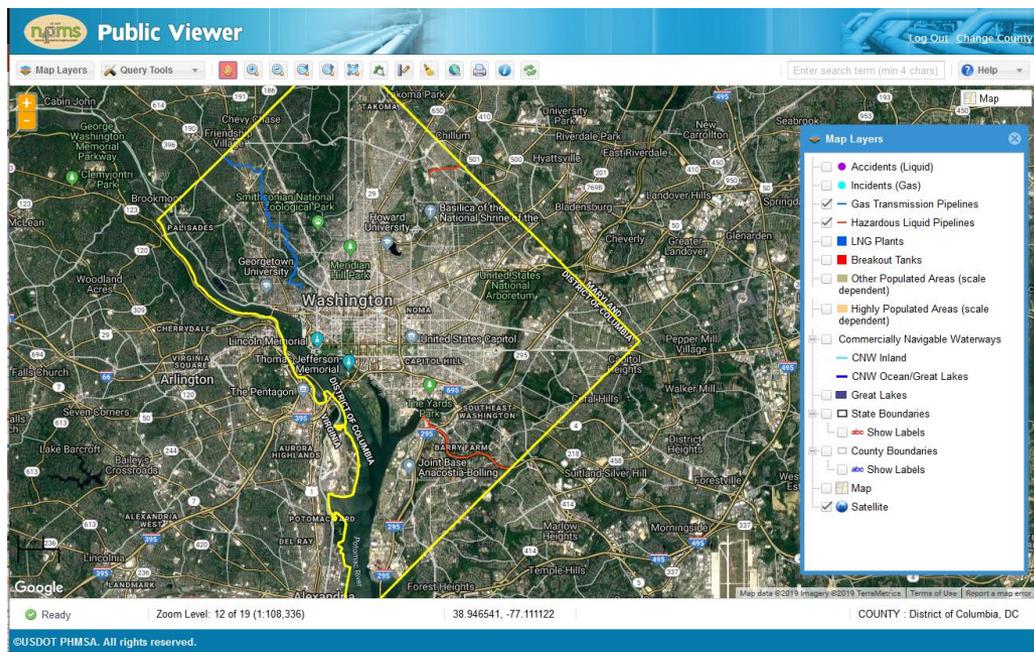




What NPMS data can I see?

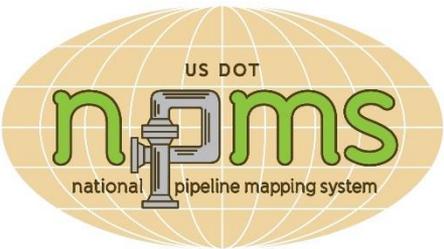
Data limited to your jurisdiction

- **General public**
 - Only publicly available tools. Same pipelines as other users, with limitations.
- **Pipeline operators**
 - Only the data for facilities they operate.
- **Local government officials**
 - includes emergency responders and tribal governments
 - All NPMS facilities in their county.
- **State government officials.**
 - All NPMS facilities in their state.
- **Federal government officials.**
 - All NPMS facilities.



** Government officials can share NPMS information with their contract staff, but only to support agency needs and with a confidentiality agreement in place. You are responsible for protecting your NPMS data.*

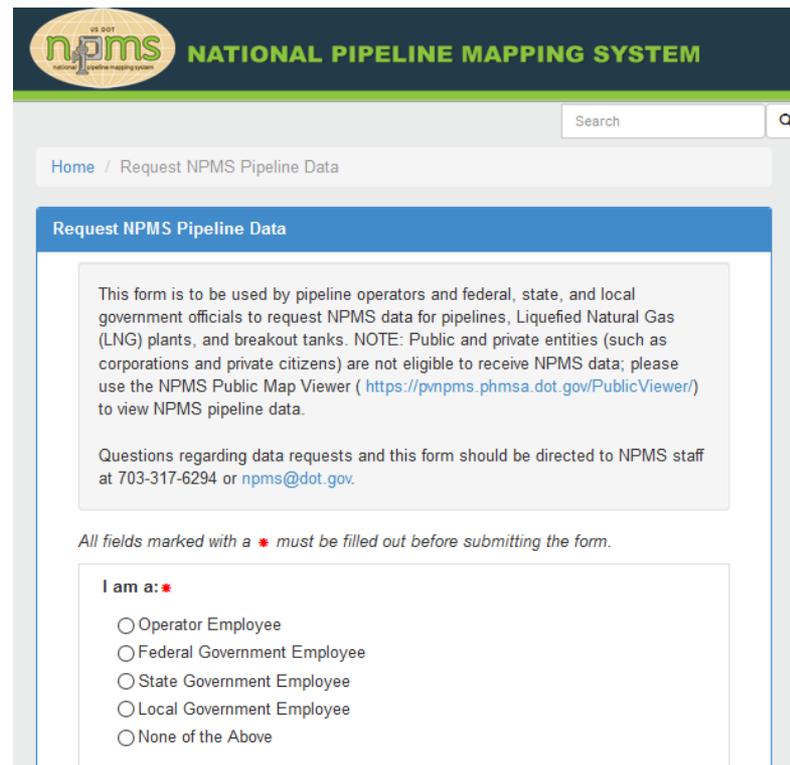




How can I access NPMS GIS data?

Complete the GIS Data Request form on the NPMS website

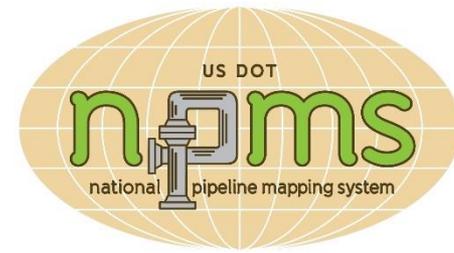
- After employment verification your supervisor must sign a formal request and data agreement letter.
- ESRI Shapefile or Geodatabase Feature Class
- All NPMS data in your jurisdiction
- **NEVER** redistribute GIS data
- **ONLY** share a map showing NPMS data if it adheres to all Public Map Viewer restrictions
 - (<1 county, 1:24,000 max scale, no diameter or spatial quality indicator)
- **ALWAYS** mark non-public information FOUO
- **MUST** request permission prior to using NPMS data on a web mapping application



THINK SPATIALLY



GEOGRAPHIC INFORMATION SYSTEMS (GIS)
DEPARTMENT OF TRANSPORTATION



NPMS Questions?

Leigha Gooding
PHMSA GIS Manager

Leigha.Gooding@dot.gov

www.npms.phmsa.dot.gov

npms@dot.gov





DoD Infrastructure Data – HIFLD Secure

**David LaBranche, P.E.
Geospatial Information Officer
ODASD (Infrastructure)**





DoD Infrastructure Data in HIFLD Secure

ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT

- POC: Defense Installations Spatial Data Infrastructure (DISDI) Program, OASD(Sustainment)
 - [E-mail: osd.pentagon.ousd-atl.mbx.disdi-help-desk@mail.mil](mailto:osd.pentagon.ousd-atl.mbx.disdi-help-desk@mail.mil)
- DoD data covers United States and Territories only (no Foreign sites)
 - US Armed Forces Recruiting Centers (since 2012)
 - Dept of Defense (DoD) Site Boundaries (since 2008)
 - Dept of Defense (DoD) Site Building Footprints (since 2012)
 - Dept of Defense (DoD) Site Locations (since 2008)
 - Dept of Defense (DoD) Site Roads (since 2012)
- Intent: ensure emergency responders, National Guard have authoritative, validated foundational GIS layers of DoD infrastructure (Active/Guard/Reserve sites)
 - Source data from Army/Marines/Navy/Air Force is compiled and validated prior to submission to HIFLD
 - Building features are screened for sensitivity or OPSEC concerns prior to submitting to HIFLD
- Annual updates; FY18 datasets submitted to HIFLD on 13 Sep 2019



Sensitivity of DoD Data and Maps

ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT

- Increasing precision of GIS data has increased its sensitivity in this high threat environment
 - Raw, highly detailed installation GIS data poses greatest sensitivity and risk
 - Releasing large GIS datasets (aggregating multiple installations or large geographic regions) also poses higher security risks
- Some sensitive installation GIS data is shared for official uses, but protected
 - US Census Bureau for decennial census
 - Homeland security community for emergency response
- Basic installation GIS data and installation maps publicly released after security review



Useful Links

ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT

- DoDI 8130.01, Installation Geospatial Information and Services (IGI&S) (download on DoD Issuances site <http://www.dtic.mil/whs/directives/>)
- http://www.acq.osd.mil/eie/BSI/BEI_DISDI.html DISDI Program public page with links to the DoD Components' IGI&S Program web pages are here
- <http://sdsfieonline.org> Public registry of IGI&S data standards and related documents (registration required)
- http://www.acq.osd.mil/eie/Downloads/DISDI/installations_ranges.zip Downloadable data set for Military Installations, Ranges, and Training Areas (shapefile)



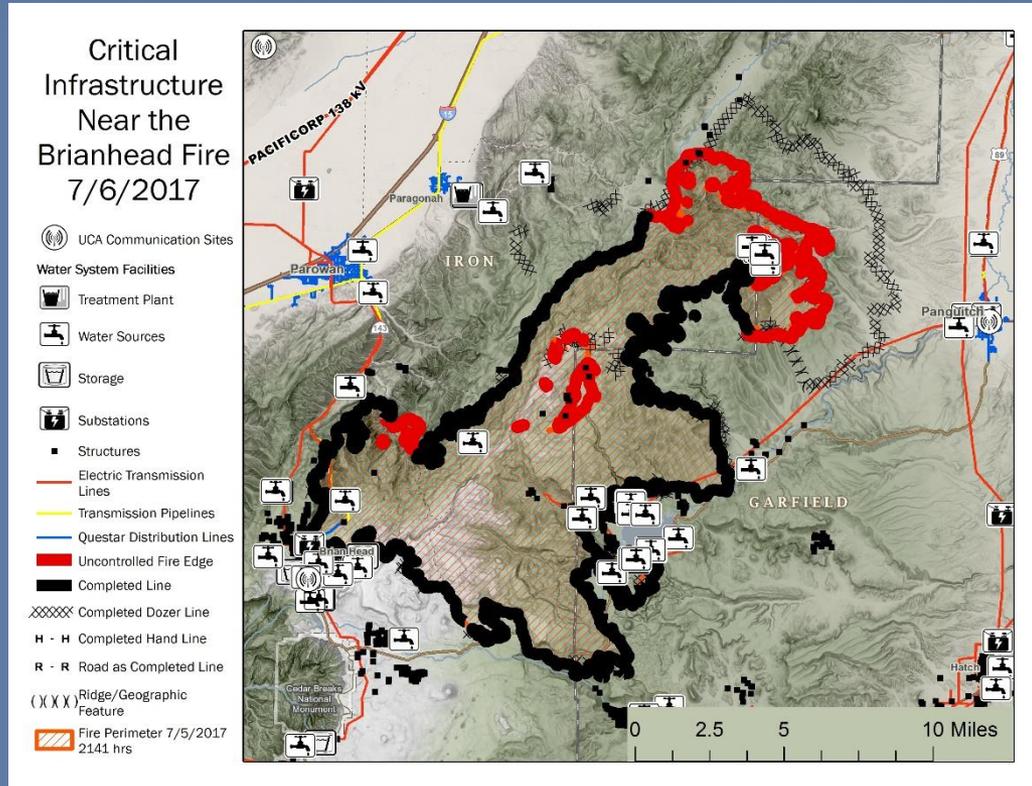
NSGIC's Geospatial Preparedness Committee

Daniel Stoelb

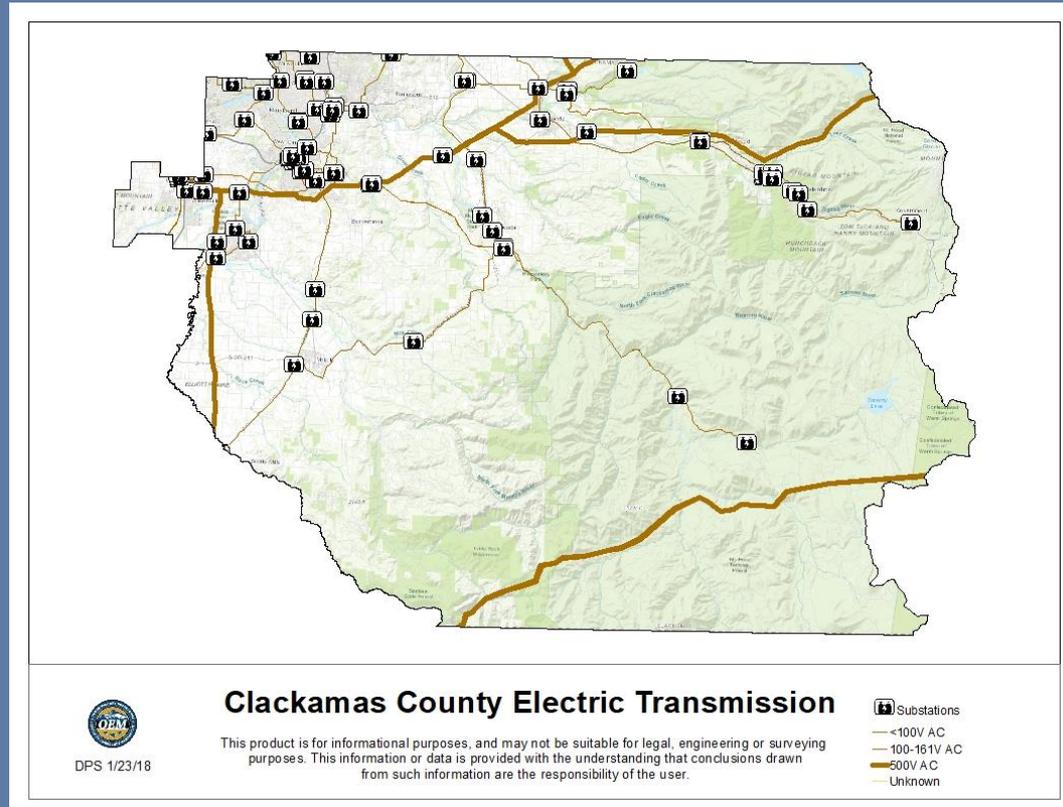
**GIS Program Coordinator,
Oregon Office of Emergency Management,
NCGIC – GIS Preparedness Committee**



Creation of Critical Infrastructure and Key Resources Maps during fire season



Creation of Jurisdiction Profiles, which provide reference data ahead of incidents to inform local/tribal/state stakeholders of key datasets and organized by Emergency Support Function (ESF)





Geospatial Preparedness Committee

Survey with State partners to determine if key datasets continue to be maintained at the state level

- **Major State Government Buildings**
- **Governors Mansions**
- Fortune 500 Corporate Headquarters
- All Places of Worship
- Area Code Boundaries
- FedEx Facilities
- UPS Facilities
- DHL Facilities
- Truck Driving Schools
- Dam Lines
- Government Financial Processing Centers
- Private Non-Retail Shipping Facilities
- Ferry Locations
- Ferry Routes
- Aeronautical Navigational Aids (NAVAID) Facilities
- Gold Bullion Repositories
- Cruise Line Terminals
- Anchor and Mooring Locations
- Breakwater Lines
- Breakwater Locations
- Channels
- General Manufacturing Facilities
- Information Technology (IT) Location Portals
- Internet Exchange Points
- Internet Service Providers
- Propane Retailer Locations



GIS Data Management within FBI

JR MacDonald
Geospatial Data Manager
Federal Bureau of Investigation





Geospatial Data Management

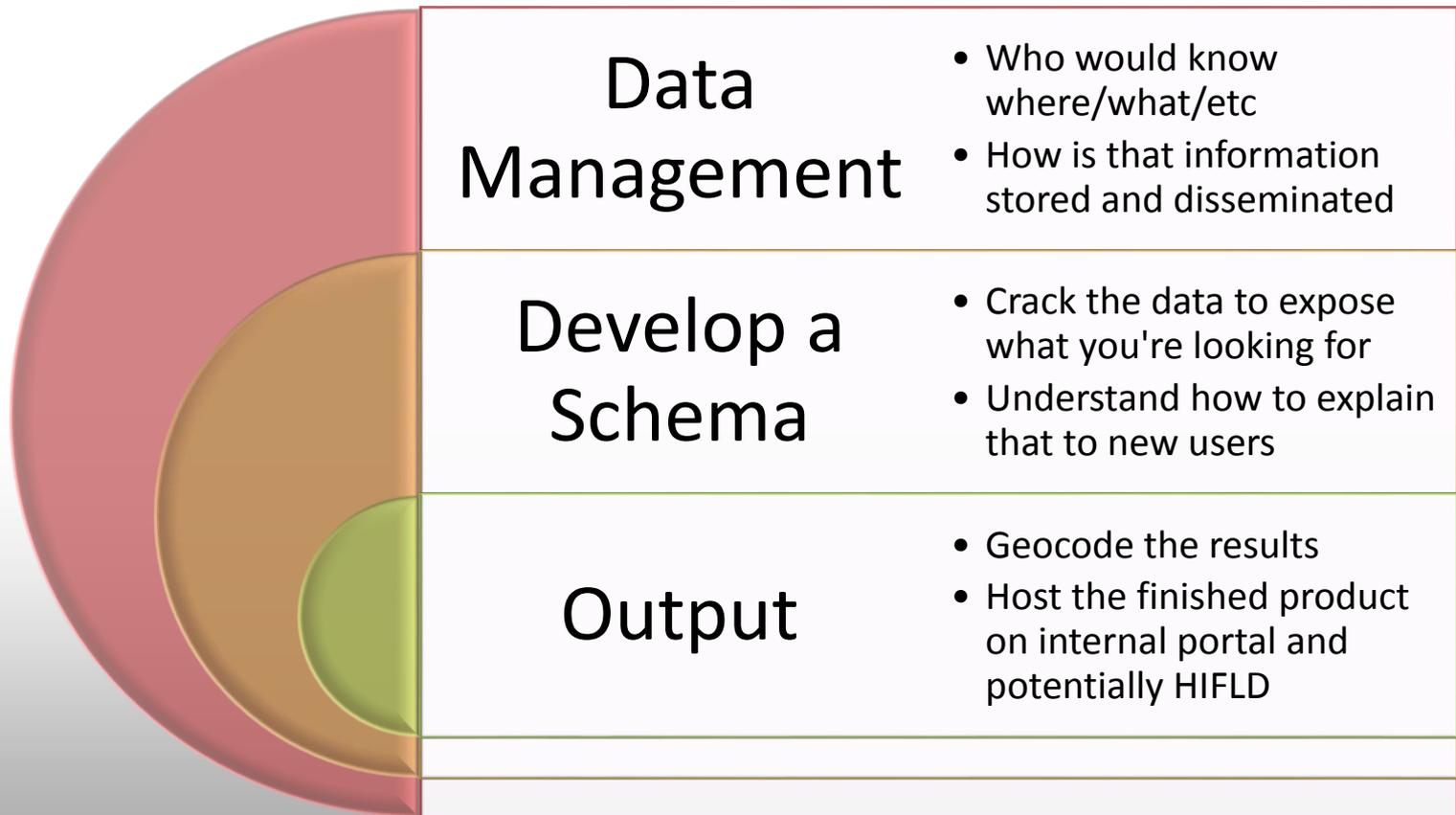
GEOINT DATA MANAGER

JR MACDONALD, DI/GMO



How to get the data you need

How do you get current foundation data?





How to get the data you need, continued

- We needed to find a current list of places of worship
- We needed to figure out who maintained that data, and/or if it existed
- The IRS maintains a publicly available list of 501c3 or Non-Profit non taxable entities)
- That data was cracked from the 501c3 master data (*approx. 3m records*) and geocoded to street addresses or general PO Box Addresses (*Zip or City*)





Understanding the data

The screenshot displays the ArcGIS Desktop interface with a map of Washington, DC, showing numerous red and purple markers representing places of worship. The interface includes a menu bar, toolbars, and several data tables.

Contents Panel:

- Map1
- Places_of_worship_and_affiliation_Street_Address_match
- Places_of_worship_and_affiliation_PO_Box_match

Table 1: All Places of Worship

FIPS	DIRECTIONS	EMERGTTITLE	EMERGTEL	EMERGEXT	CONTDATE	CONT
6010					9/24/2007	ALT RE
6010					7/28/2009	ALT RE
6010					7/29/2009	ALT RE
6010					7/29/2009	ALT RE
6010					7/29/2009	ALT RE
2290					8/12/2009	ALT RE
2185					5/1/2009	ALT RE
2090					4/28/2009	ALT RE

Table 2: Places_of_worship_and...t_Address_match

FID	Shape	Loc_name	Status	Score	Match_type	Match_addr	Addr_type	Type	PlaceName	Place_add
0	Point	USA.StreetAddress	M	100	A	1050 Thormdike St, P...	StreetAddress			
1	Point	USA.PointAddress	M	100	A	523 E Broadway, Sout...	PointAddress			
2	Point	USA.StreetAddress	M	100	A	157 Andover St, Low...	StreetAddress			
3	Point	USA.PointAddress	M	100	A	454 Essex St, Lawrenc...	PointAddress			
4	Point	USA.StreetAddress	M	100	A	75 Morton Village Dr,...	StreetAddress			
5	Point	USA.StreetAddress	M	100	A	32 Harvard St, Brook...	StreetAddress			
6	Point	USA.PointAddress	M	100	A	569 Broadway, Newa...	PointAddress			
7	Point	USA.PointAddress	M	100	A	3210 Southwestern Bl...	PointAddress			



Data Management

Overview

Settings

Edit Thumbnail



Places of Worship

★ Remove from Favorites

Places of Worship

by [FBI_AUTHORITATIVE](#)

Last Modified: May 1, 2019

Map Image Layer

Edit

Open in Map Viewer

Open in Scene Viewer

Open in ArcGIS Desktop

Share

Description

Edit

Places of Worship 2019 is a semi-comprehensive layer of all 501(c)3 organizations, institutions and businesses rated as a 7000 series category code, (or *place of worship*) by the Internal revenue Service. This data is current as of Jan 1, 2019.

For a direct download of all feature layers, for use in custom ArcGIS products, please email HQ-DIV19-GEOINT with your request and a data transfer will be initiated.

Layers

[PlacesOfWorship](#)

Access and Use Constraints

Edit

This data is not to be treated as a comprehensive list of every place of worship.

In the case of a PO BOX address. The address locations are matched to the centroid of the Zip Code, or City; whichever is smaller and therefore more accurate.

Classification

Edit

UNCLASSIFIED//FOUO

Comments (0)



Details

★★★★★ (0) views: 93

Source: [Map Service](#)

Created: February 21, 2019

Size: 1 KB

Shared with: Everyone (public), [Consolidated Data Portal](#)

Owner

Change Owner



FBI_AUTHORITATIVE

Folder

Move

FBI Layers (AS)

Tags

Edit

[Places of Worship](#), [Church](#), [Mosque](#), [Synagogues](#), [Temple](#), [Mass](#), [Bible](#), [Quran](#), [Torah](#), [Parrish](#), [Congregation](#), [Shrine](#)

Credits (Attribution)

Edit

2019 501(c)3 Data collected by the IRS



Contact Information

- JR MacDonald
Geospatial Data Manager
Geospatial Management Office
Advanced Analytics Intelligence Unit
- JRMACDONALD@FBI.GOV
- 202-323-0395 | 703-203-6208



Breakout Sessions

Room Number

Breakout Session Topics

BA102 A/B

Group 1: Data Policy & Management

Take a behind-the-curtain look at the data management lifecycle within the HIFLD Data Catalog. This session will detail the differences in maintenance lifecycle among federally provided data versus acquired commodity data. The session will touch on recent legislation related to Geospatial and Open Data and its effects on data policy within DHS. There will be a Q&A opportunity allowing for community questions around maintenance, derivative product user, and access to HIFLD Data.

1C400

Group 2: HIFLD Open Demo

Learn how to utilize HIFLD Open feature services data using GeoPlatform Enterprise Login credentials. Demonstration of how to search for HIFLD Open layers and navigate the GeoPlatform ArcGIS online site. Additional demonstration of how to access and search for HIFLD Open feature services in ArcGIS Desktop and ArcGIS Pro.

1B215

Group 3: Transportation Data Deep Dive

This breakout session will detail the differences between the HERE Roads and Routing Data recently released to the community. We will deep dive the decisions to move away from the former SMP base product and the improvements within the HERE Geodatabase Plus product. This session will also explain how a version of this data is being disseminated through the DHS Geospatial Information Infrastructure (GII) Portal.





Breakout Session Regroup

Breakout Session Topics

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Closing



We will see you tomorrow for Day 2:
GeoPlatform Community Meeting

Remarks begin at 8:30 AM

