

# Emergency Preparedness Data Catalog Project... ...Data Sharing in Oregon under the Framework GIS Program



Don Pettit  
Preparedness FIT Chair  
Emergency Response Planner  
Oregon Department of Environmental Quality

# What is the Prep-FIT?

- The Prep-FIT is one of 16 Framework Themes that make up Oregon's GIS Framework for geospatial data collection, creation, standardization and distribution
- The purpose of the Prep-FIT is to identify crucial (best available) datasets needed to prepare for and respond to a wide variety of emergencies or incidents and make them available to the public safety community

# Oregon GIS Framework

Oregon Geospatial Enterprise Office

## Oregon framework program

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## About framework

Through the Oregon Framework Program, agency GIS staff across all levels of government collaborate to assemble and share important statewide GIS datasets, called Framework data. By working together, we increase efficiency, reduce costs and improve access to data for everyone.

Framework data are fundamental geospatial data sets intended to serve the purposes of a broad range of users and are organized into Framework themes, such as Administrative Boundaries and Geoscience. Framework datasets are developed to adopted standards, shared openly, and maintained through a voluntary, collaborative, community-based effort participated in by local, regional, and state level agencies within Oregon.

Theresa Burcsu chairs the Framework Implementation Team. For more information see the [FIT Charter, v.1.0.pdf](#) .

[theresa.burcsu@oregon.gov](mailto:theresa.burcsu@oregon.gov) 

## Framework Data Development Program - 2015 - 2017

GEO is pleased to offer the Framework Funding Program for the 2015 - 2017 biennium. Please refer to the program document for details.

• [Framework Data Development Program 2015-17](#) 

## Join the email list

- [FIT Listserv](#)

## Forums

- [Framework Forums](#)

## Framework themes

- [Admin Boundaries](#)
- [Bioscience](#)
- [Cadastral](#)
- [Climate](#)
- [Coastal and Marine](#)
- [Elevation](#)
- [Geodetic Control](#)
- [Geoscience](#)
- [Hazards](#)
- [Preparedness](#)
- [Hydrography](#)
- [Imagery](#)
- [Land Use/Land Cover](#)
- [Transportation](#)
- [Utilities](#)
- [Reference](#)

## Framework tools

- [Keyword Thesaurus](#)
- [Oregon GIS Standards](#)

# Oregon Framework Data Themes...



# Who is the Prep-FIT?

- Primarily state and local agencies with an emergency preparedness and response role
- Need and/or create geospatial data
- Members include:
  - federal
  - other state agencies
  - Oregon Military Department

# Primary Documentation Tool is GovSpace

The screenshot shows the top portion of a GovSpace page. On the left, the Oregon.gov logo is displayed. In the center, the GovSpace logo is accompanied by the tagline "Collaborate Inspire Share" and a colorful icon of three stylized figures. To the right, a scenic photograph of a coastline with waves and purple flowers is visible. Below the logos, a navigation bar includes links for "Home", "Your View", "Browse", "Get Help", and "News". On the right side of this bar, there are icons for user profile, a "Create" button, and a search icon. A secondary navigation bar below features a large background image of a forest at sunset, with the text "Preparedness FIT" and "Hospital Enterprise Office - Framework Teams" overlaid. At the bottom of this bar, there are links for "Overview", "Content", "People", "Subspaces and Projects", "Reports", "Actions", "About", "Share", and "Manage".

## WELCOME TO THE PREPAREDNESS FRAMEWORK IMPLEMENTATION TEAM

This space is dedicated to facilitating and documenting the work of the Preparedness Framework Implementation Team.

The Prep-FIT website will be used to present key documents, notices and links...and to refer interested people to this space for details and to participate.

The Prep-FIT website is located at...<http://gis.oregon.gov/DAS/EISPD/GEO/pages/fit/preparedness/prepfitframe.aspx>



## ACTIONS

- Start a discussion
- Write a document
- Upload a file
- Write a blog post
- Create a poll
- Create a sub-space
- Create a project
- Create by email
- View feeds

## TOP PARTICIPANTS

- Don Pettit
- Micah Babinski

# Emergency Preparedness Framework Data Project...

- IAA from DAS-GEO  
\$48,407 for 2-year project!
- IAA with PSU-CSAR  
\$35,647 for bulk of project
- IAA with OSU-INR  
\$12,760 for:  
Development of Data Catalog  
Assistance with Metadata  
Integration into Catalog  
Access via Oregon Explorer

- Data Discovery
- Data Evaluation
- Data Creation
- Data Standardization
- Data Categorization
- Metadata Creation
- Development of  
Specialized Maps/Viewers
- Providing Access to Data
- +Private Drinking Water  
Well Pilot Project

# Emergency Preparedness Framework Data Catalog

- The Evolution of the Oregon Incident Response Information System (OR-IRIS)
- People still refer to the geodatabase as OR-IRIS or IRIS data
- Data consists of 250+ datasets arranged into themes
- Data discovery, analysis, organization, tracking, stewardship all done by hand

# What is Authoritative Data?

- **Rational Authority.** Government agencies are by default the “authoritative” sources for data or services that they produce, or have a statutory responsibility for.
- **Expert Authority.** Scientifically authoritative data is defined in the realm of the various professions under which the standards and methodology for data are created.



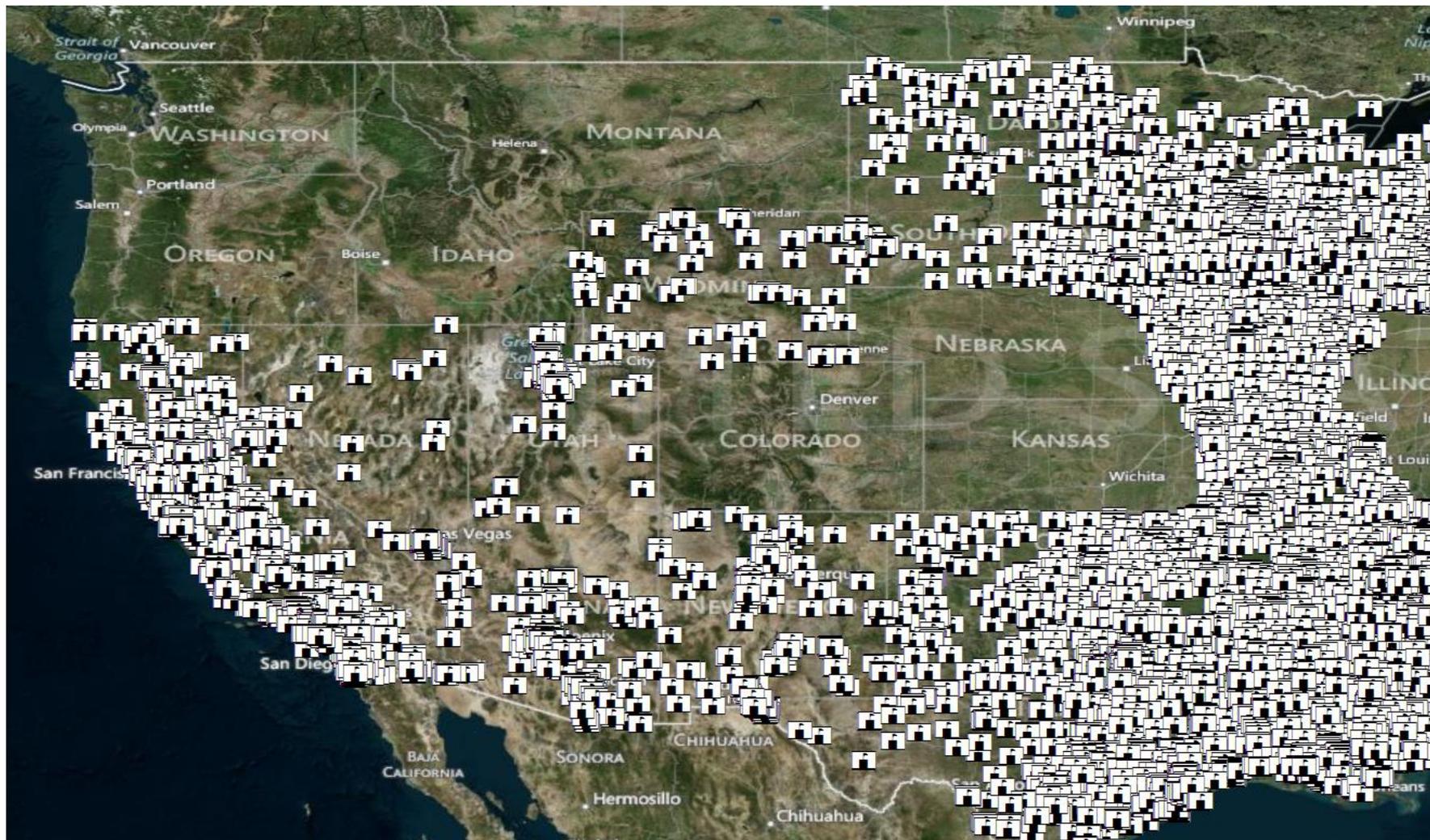
The owner or authoritative source of any geospatial data is responsible for defining the business rules for the access and sharing of that information across the stakeholder community.

# What if we don't have Authoritative Data?

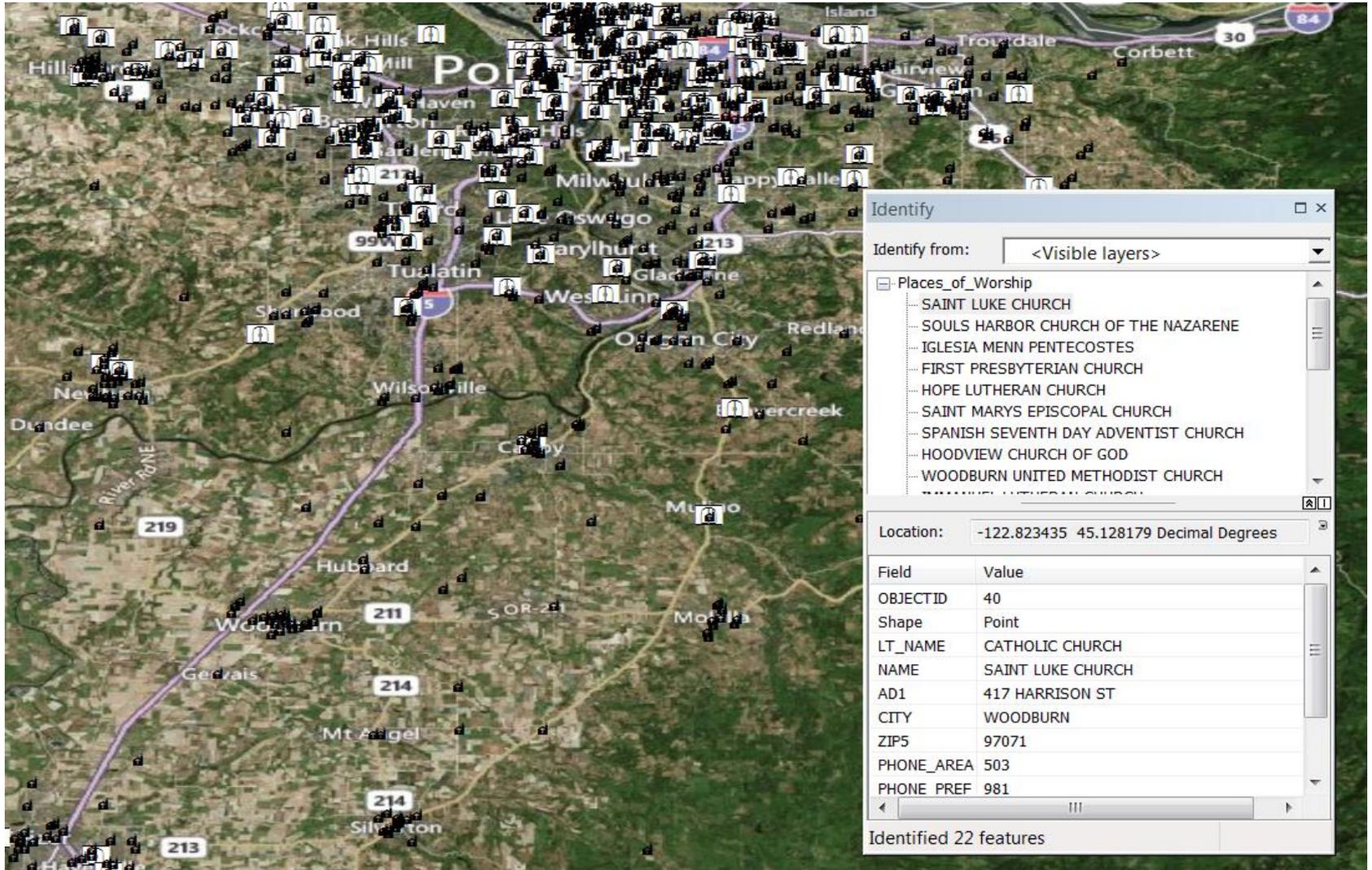
As you know, you go to an emergency with the data you have, not the data you might want or wish to have at a later time. ~Donald Rumsfeld~

- We can develop most, but not all, needed data ahead of an incident or an emergency.
- It is much easier to gather data before an incident, than during an incident...allowing more time for analysis of data.
- Not all Authorities are doing their part in data creation.
- There are limitations placed on certain datasets deemed sensitive or which have use limitations based on how they were obtained.
- There will always be a need to develop data during and incident.

# HSIP Gold



# HSIP Gold vs. Oregon Data



# What's New...What's the Same...

Main data structure remains unchanged...  
Arranged by theme

- Transportation and Infrastructure
- People at Risk
- Water Resources Protection
- Potential Toxic Sources
- Incident Notification Groups
- Emergency Response Resources
- Wildlife and Habitat
- Natural Resources & Hazards
- Aerial Imagery and Maps
- Base Map

However, Data Within Each Is Greatly Expanded

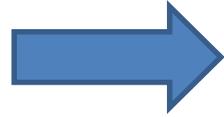
- Transportation and Infrastructure
  - ▼ Road Related
  - ▼ Rail Related
  - ▼ Water Related
  - ▼ Air Related
  - ▼ Other Infrastructure
- People at Risk
  - ▼ Medical
  - ▼ Educational
  - Child Care
  - Prison
  - Place of Worship
  - ▼ Population Density
- Water Resources Protection
  - Water Rights
  - ▼ Public Drinking Water System
  - All Water Wells by Section
- Potential Toxic Sources
  - Hazardous Materials Storage
  - ▼ HSIS Derivative Layers
  - ▼ DEQ Facility Profiler
  - ▼ Outfalls
  - Drinking Water Contaminant Sou
  - Waste Water Treatment Facility
  - ▼ Petroleum Pipelines
  - Confined Animal Feeding Operat

- Incident Notification Groups
  - ▼ Land Ownership and Interest
  - ▼ OR State
  - ▼ Federal
  - ▼ Political Districts
  - ▼ Utility Districts
- Emergency Response Resources
  - ▼ First Responders
  - ▼ Medical
  - ▼ Response Coordination
  - Red Cross Emergency Shelter
  - ▼ Oil Spill Response
    - Adopted GRP Sectors
    - Adopted GRP Strategies
      - Adopted\_BoomStrategies\_100
      - Adopted\_BoomStrategies\_100
    - Adopted GRP Strategy Points
    - Adopted McKenzie River Strategi
    - Adopted McKenzie River Strategi
    - Draft Anchor Points
    - Draft Boom Lines
    - Draft Strategy Points
    - Draft Staging Area / Boat Launch
    - Draft GRP Sectors
    - Spill Boom Cache
    - ▼ NOAA ESI
  - Shoreline Access
  - ShoreZone Photo Points

# Themes with many sub-elements, denoted by: ▼



- Transportation and Infrastructure
  - ▼ Road Related
  - ▼ Rail Related
  - ▼ Water Related
  - ▼ Air Related
  - ▼ Other Infrastructure
- People at Risk
  - ▼ Medical
  - ▼ Educational
  - Child Care
  - Prison
  - Place of Worship
  - ▼ Population Density
- Water Resources Protection
  - Water Rights
  - ▼ Public Drinking Water System
  - All Water Wells by Section



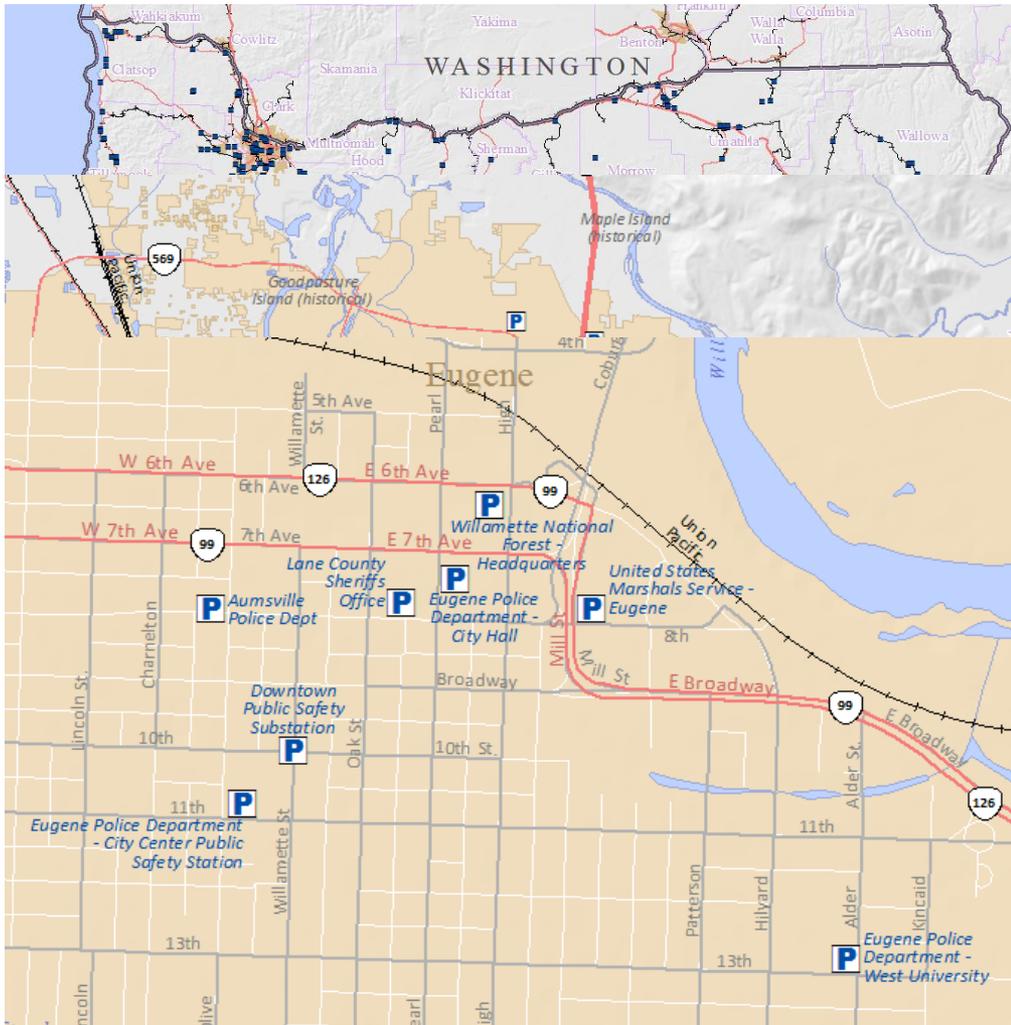
- Transportation and Infrastructure
  - ▼ Road Related
    - Mileage (distance along route)
    - Milepost (sign location)
    - Interstate Exit
    - Rest Area
    - Park and Ride
    - Bridge
    - Tunnel
    - Culvert
    - Seismic\_Lifeline
  - ▼ Rail Related
    - Milepost
    - Bridge and Tunnel
    - Grade Crossing
    - Stations and Other Facilities
    - Yard
  - ▼ Water Related
    - River Mileage
    - Shipwreck / Obstruction (AWOIS)
    - Submarine Telecom Cable
    - Boat Ramp / Launch / Marina
    - Dam



- ▼ Air Related
  - Airport
- ▼ Other Infrastructure
  - Campground
  - Library
  - Post Office
  - USFS Facility
  - Lookout / Fire Tower
  - Communication Tower
  - Museum
  - Fairground
  - Park (city / county / state)
  - Cemetery
  - Mortuary / Crematorium

5 Categories within the Theme = 38 Data Layers  
Total >250 datasets

# Each Sub-Element Has Duplicate Files to Enable Viewing at Different Scales



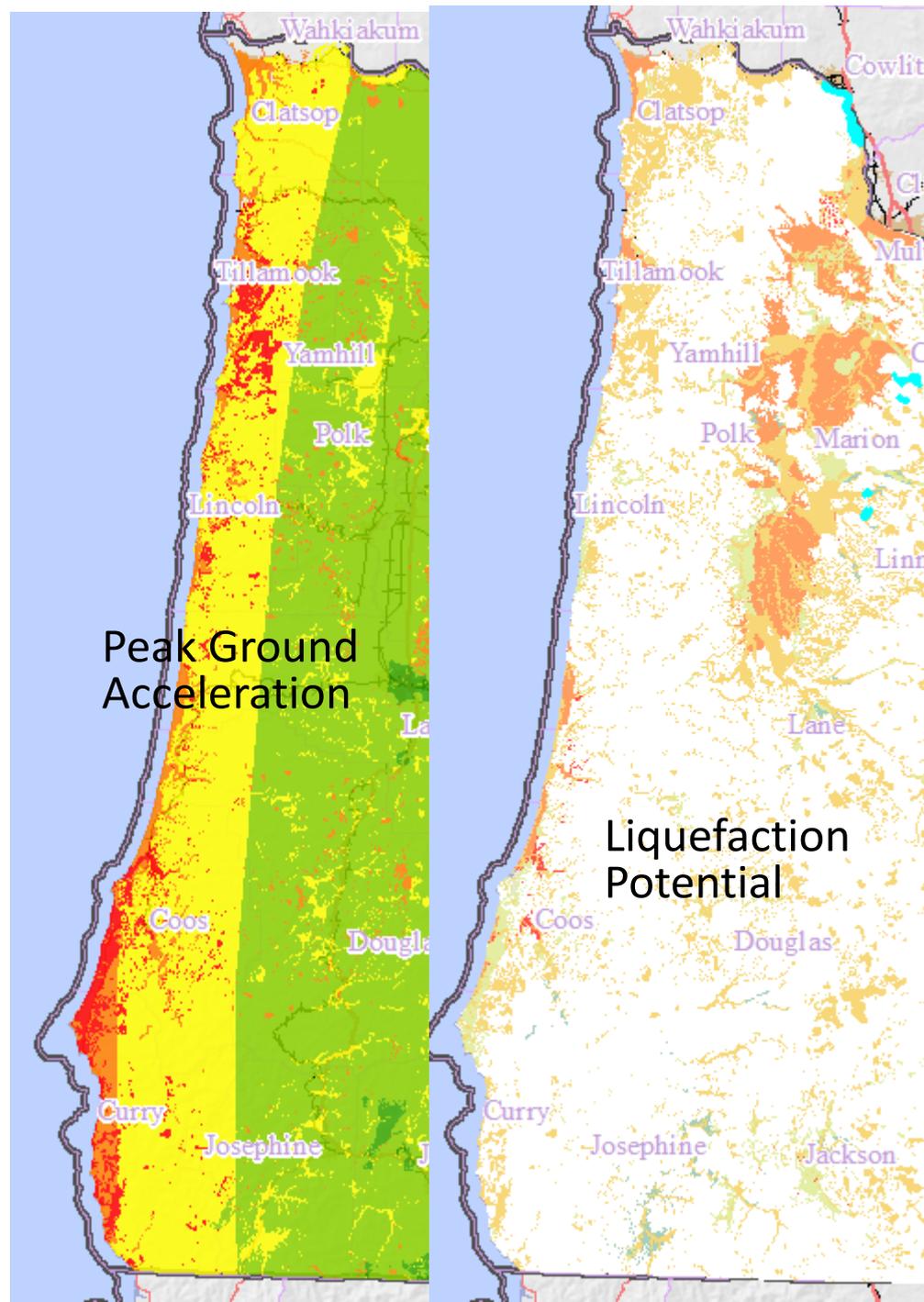
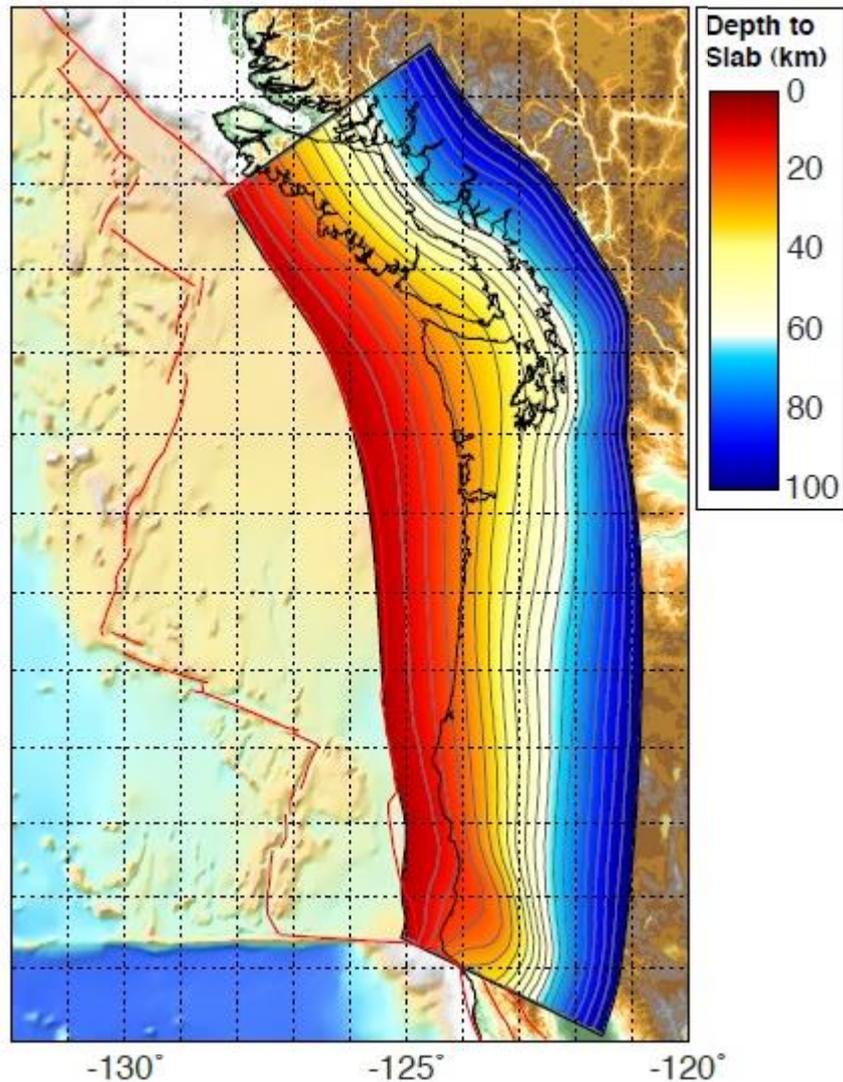
- Emergency Response Resources
- ▼ First Responders
  - Law Enforcement
    - LawEnforcement\_100k++
    - LawEnforcement\_10-100k
    - LawEnforcement\_10k--



- Emergency Response Resources
- ▼ First Responders
  - Law Enforcement
    - LawEnforcement\_100k++
    - Law Enforcement
  - LawEnforcement\_10-100k
  - Law Enforcement
  - LawEnforcement\_10k--
  - Law Enforcement

Duplicate files are transparent to the user, but allow for different labeling and symbology.

# The Importance of Metadata



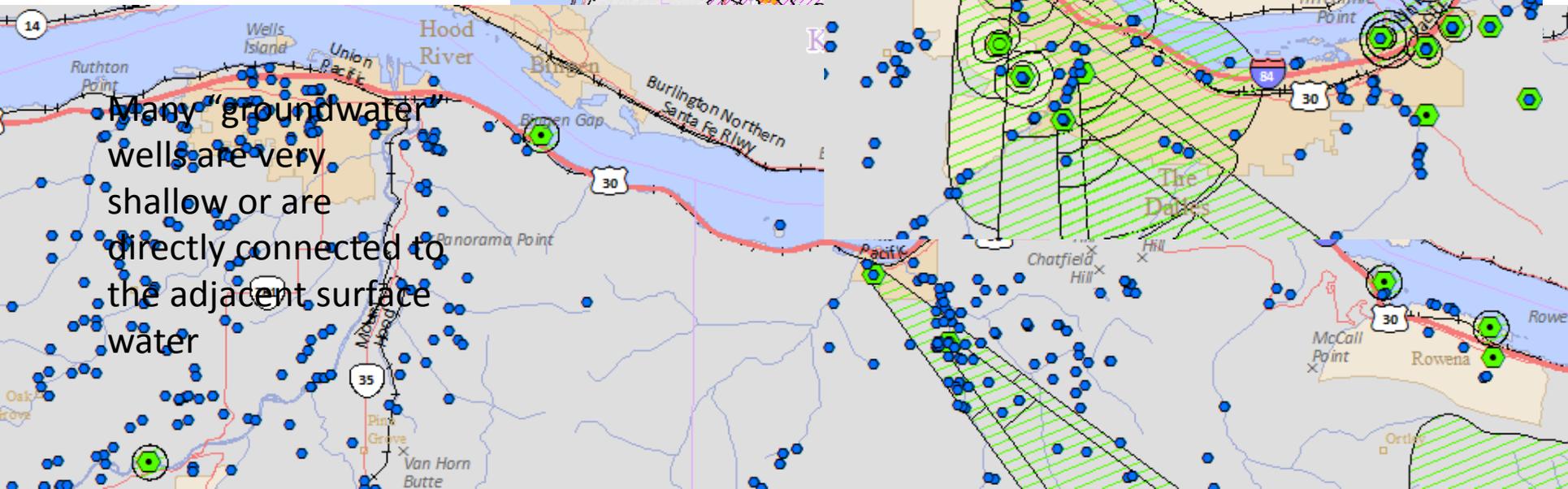
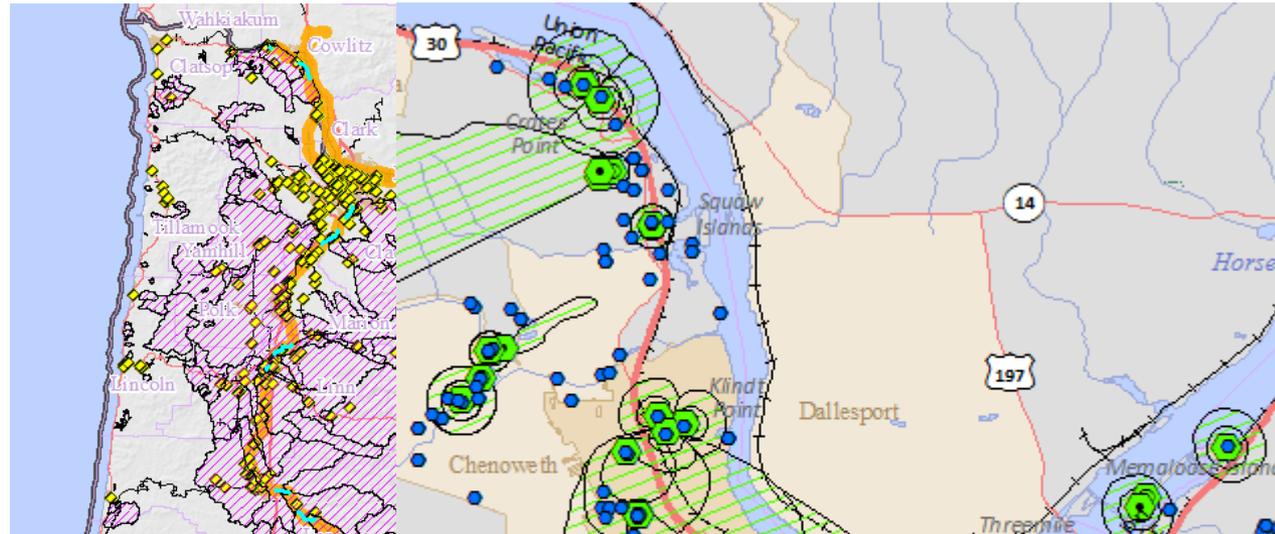
# How can the EPFDC data be leveraged?

- As standalone datasets within ArcGIS products
  - Secured version under Data Use Agreement with DAS
  - Non-Secured data will be discoverable through and link for download from within the Oregon Spatial Data Library (pending decision on data hosting)
- As services within:
  - RAPTOR...Oregon's Common Operating Picture Viewer
  - ERMA...NOAA's Common Operating Picture Viewer
  - Secured and Non-Secured applications by linking to DAS Servers (different versions depending on authorization)
  - Non-Secured data will be discoverable through and link for download from within the Oregon Spatial Data Library (pending decision on data hosting)

# Water Resources Protection

Oil train routes versus public drinking water intakes...

Water wells...and numerous water rights



# OR-IRIS Data in RAPTOR

**RAPTOR** Real-Time Assessment and Planning Tool for Oregon (T&E Version)

Find address or place

**(1 of 6)**

**PACIFICA INC**

ReportedChems	Y
EHSFacility	Y
CAA112rFacility	N
PSMFacility	N
TRIFacility	N
EHSCoordFName	COLIN
EHSCoordLName	RICH
EHSCoordPhone	5034161036
EHSCoord24Phone	5035282606
EHSCoordEmail	COLIN@PACIFICA INTL.COM
LocAddress	3135 NW INDUSTRIAL ST

[Zoom to](#)

**Add IRIS Data**

Check the additional layers to add to the map

- Airports
- Anchorage
- Beach Access Points
- Boat Ramp/Launch
- Campgrounds
- Child Care Facilities
- City/County Parks
- Correctional Facilities/Jails
- Crude Oil Routes
- Dams
- Drinking Water Treatment Facilities
- Electrical Facilities
- Fairgrounds
- Fire Stations
- Fire Towers/Lookouts
- Hazardous Substances
- Hazmat Team Bases
- Highway Mileposts
- Hospital Satellites
- Hospitals with Trauma Center
- Hospitals without Trauma Center
- Interstate Exits

# EPDC Project Status...



- ✓ Review existing data
- ✓ Determine if new or additional data is available
- ✓ Create critical missing data, fill data gaps found in existing data
- ✓ Reach out to state, federal partners
- ✓ Process, update, improve and document data as needed
- ✓ Assemble into a single geodatabase with known data structure, standardized symbology
- Post data to servers, link to Oregon Spatial Data Library
- Integrate into RAPTOR, build new incident specific viewers
- Create data sharing agreements for .mxd's and secured data

# Data will be available at the Oregon Spatial Data Library (undergoing site update)

The screenshot shows the Oregon Spatial Data Library website. At the top, there is a navigation bar with links for 'Login', 'Register', 'Help', 'About', and 'Feedback'. Below this is a search bar with the text 'PreparednessFramework or Framework/F' and a 'Search' button. The main content area is divided into two columns: 'Find Data' and 'Featured Data'. The 'Find Data' column shows a list of categories under 'Oregon Framework Data', including 'Admin Boundaries', 'Bioscience', 'Cadastral', 'Climate', 'Coastal/Marine', 'Elevation', 'Geodetic Control\*', 'Geoscience', 'Hazards', 'Hydrography', 'Imagery', 'Land Use/Land Cover', 'Preparedness', 'Transportation', 'Utilities', and 'Reference'. A blue arrow points to the 'Transportation' category. The 'Featured Data' column displays four featured datasets: 'FEMA Flood Studies', 'Land Management', 'Education Boundaries', and 'Geologic Data Compilation'. Each dataset includes a thumbnail image and details about the data source and year.

**Home**

The Oregon Spatial Data Library provides easy and convenient ways to find, access and share geospatial data.

**Find Data**

PreparednessFramework or Framework/F

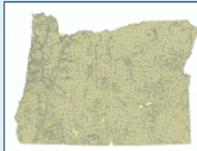
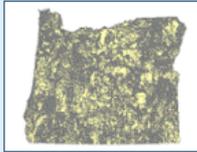
**Oregon Framework Data**

Admin Boundaries	Hazards
Bioscience	Hydrography
Cadastral	Imagery
Climate	Land Use/Land Cover
Coastal/Marine	Preparedness
Elevation	Transportation
Geodetic Control*	Utilities
Geoscience	Reference

\* No framework data and/or a standard available yet.

**What is Framework Data?**

**Featured Data**

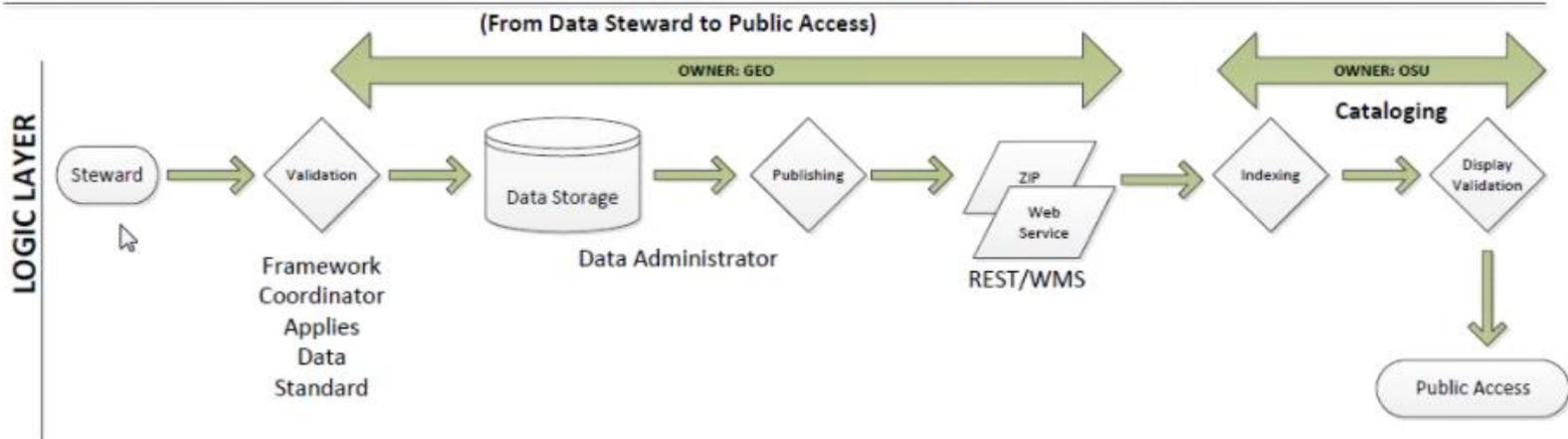
 <b>FEMA Flood Studies</b> DOGAMI 2015 (Framework)	 <b>Land Management</b> BLM 2015 (Framework)
 <b>Education Boundaries</b> DHS, OHA 2015 (Framework)	 <b>Geologic Data Compilation</b> DOGAMI 2015 (Framework)

The Oregon Spatial Data Library was built using the ESRI Geoportal Server. Please read the [Disclaimer](#) and [Privacy](#) or [Contact Us](#).

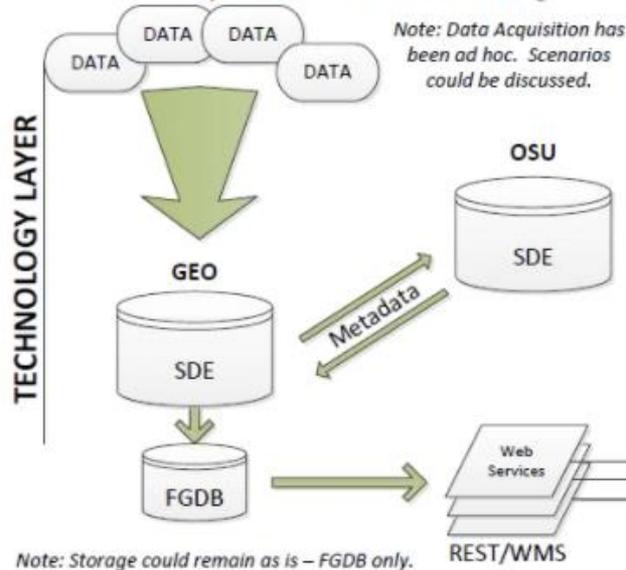
PrepFIT data sharing status - current practices (positive aspects along with issues, barriers, and concerns)

- The sharing of data is generally good... however, there is no mechanism for tracking stewardship, commitments are few and personnel providing data changes
- Data Security Concerns have created a burden for the collection and distribution of data that is not warranted by the sensitivity of the data
- The Federal government is a mixed bag in terms of partnership. We have very good partnerships with BLM, NOAA, and others, but Homeland Security is an obstacle.

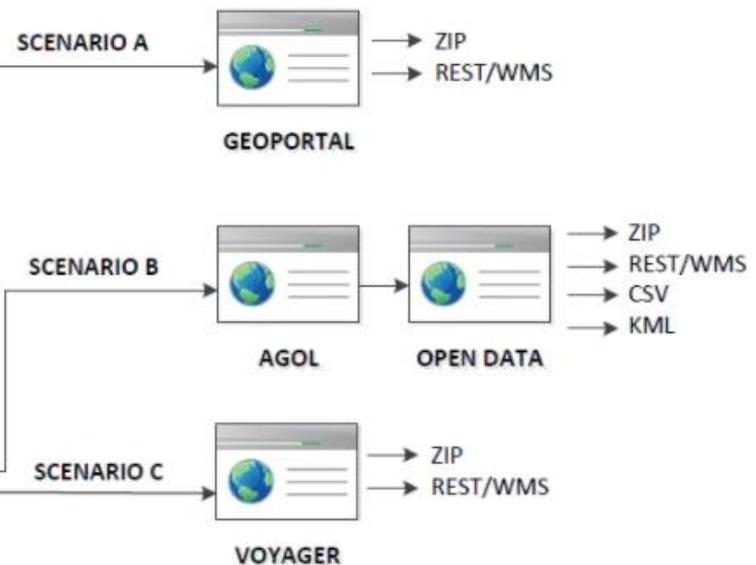
# IDEAL FRAMEWORK DATA MANAGEMENT PROCESS



## STORAGE SCENARIO : Enterprise Geodatabase Replication with Metadata Editing



## PORTAL SCENARIOS



PrepFIT future - what you believe needs to change/be improved to increase chances of success

- Support the Framework GIS Program... especially efforts to foster and track data stewardship
- Create an expectation among state agencies that their data needs to be made available to support emergency response and public safety...and that it needs a geospatial tie

PrepFIT future - what you believe needs to change/be improved to increase chances of success

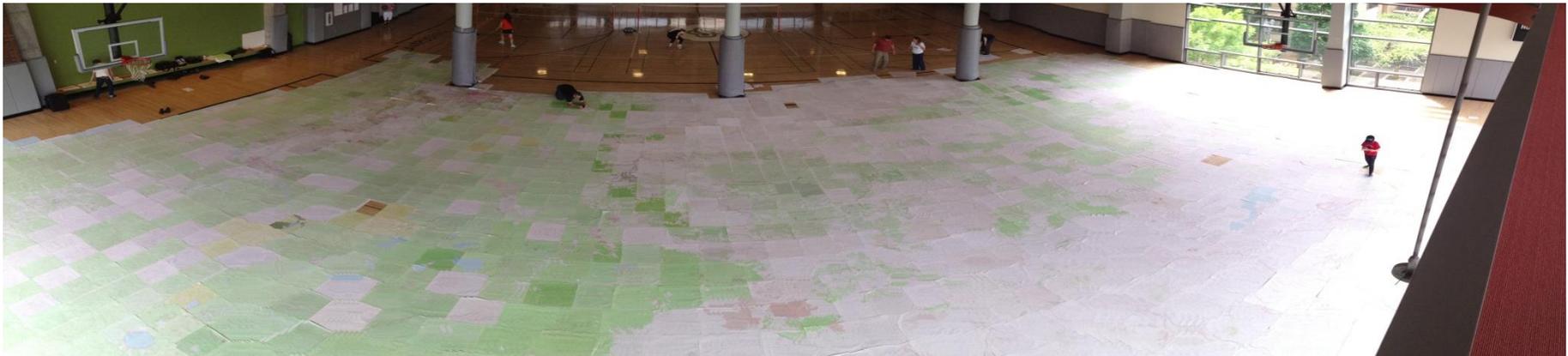
- Better coordination between the state and federal partners (Homeland Security/FEMA) with an acknowledgement that partnership will get both further toward end goal of having the best data available
- We need a mechanism for allowing local government to review and provide feedback (or even directly edit) our state-wide data

# For more information...or to pitch in!

Contact:

Don Pettit - Oregon Dept. of Environmental Quality

[pettit.don@deq.state.or.us](mailto:pettit.don@deq.state.or.us)



Join: Preparedness Framework Implementation Team

<http://www.oregon.gov/geo/Pages/preparednessframe.aspx>