

# Leveraging Oregon's Geospatial Data Clearinghouse

Cy Smith | Oregon Geospatial Information Officer

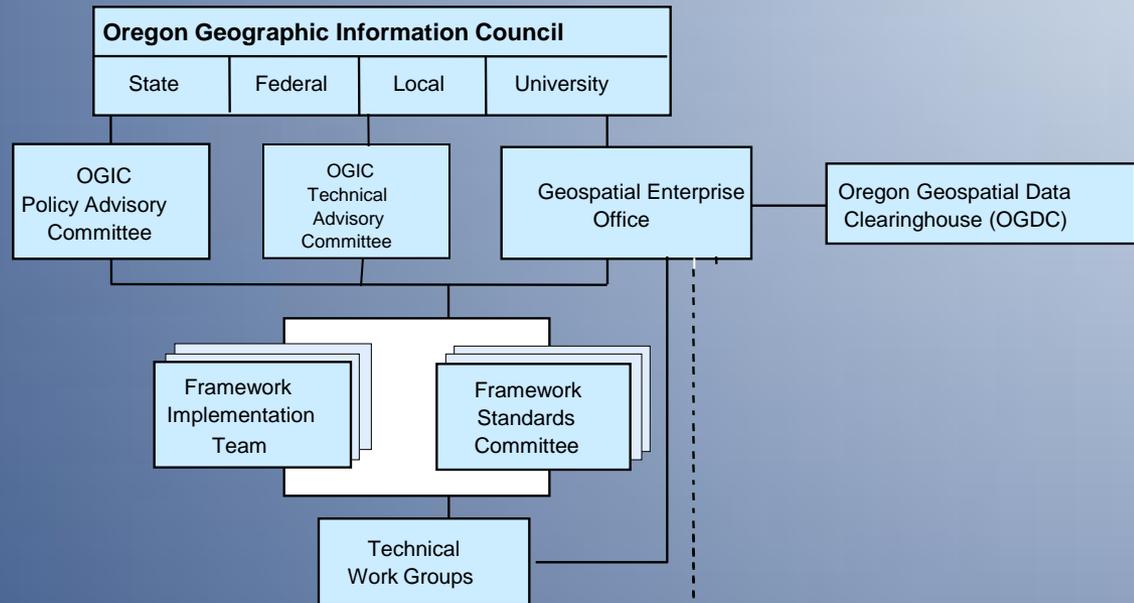
Geospatial Enterprise Office

<http://gis.oregon.gov>

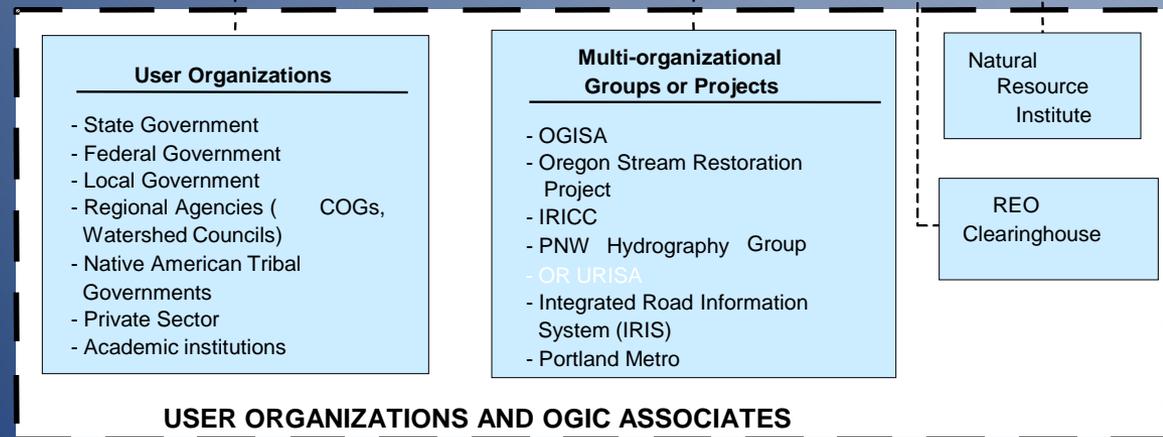
# Geospatial Enterprise Office

- **Coordinates** statewide GIS efforts
- **Facilitates Framework** development
- **Distributes** geospatial data

# Geospatial Governance Structure



Enterprise  
Coordination  
Of GIS  
Activities



# Activities Managed With A Focus On Outcomes

## *GIS Integrates Information Across the Enterprise*

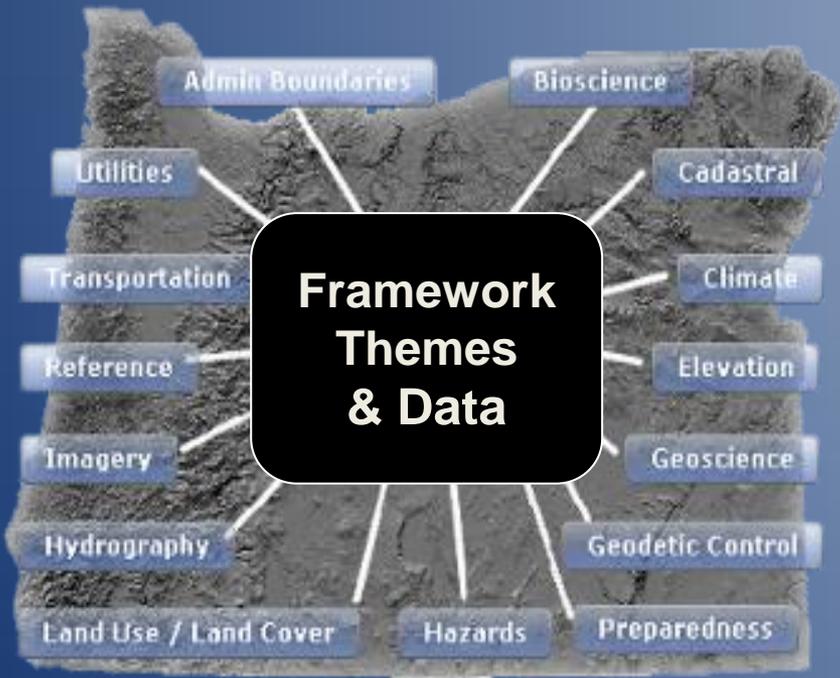


One Government Approach

# Framework Data Initiative

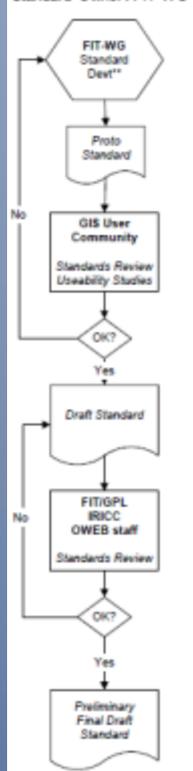
- **Fourteen Working Committees**
- **400+ people on committees**
- **Tasked with Implementation Plan and Standard for each theme**
- **Standards Development and Adoption Process ongoing**
- **Biggest Challenge is Communication**

# Data Standards Process



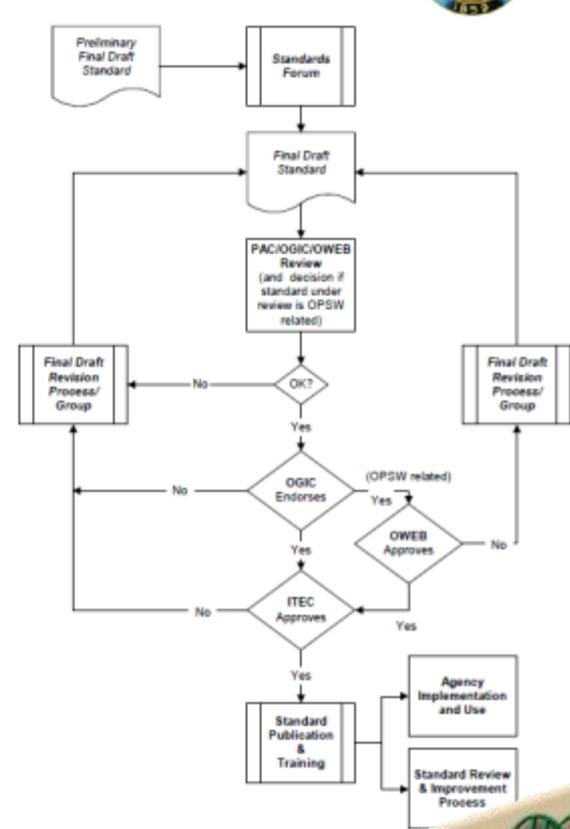
## Drafting Phase

Standard 'Owner': FIT-WG



## Endorsement Phase

Standard 'Owner': Statewide GIS Coordinator



Authoritative Framework Data



## Home

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

### Find Data

#### Oregon Framework Data

- |                          |                            |
|--------------------------|----------------------------|
| <b>Admin Boundaries</b>  | <b>Hazards</b>             |
| <b>Bioscience</b>        | <b>Hydrography</b>         |
| <b>Cadastral</b>         | <b>Imagery</b>             |
| <b>Climate</b>           | <b>Land Use/Land Cover</b> |
| <i>Elevation*</i>        | <b>Transportation</b>      |
| <i>Geodetic Control*</i> | <i>Utilities*</i>          |
| <b>Geoscience</b>        | <b>Reference</b>           |

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

**GEO Spatial Data Library Alphalist**

[What is Framework Data?](#)

### Featured Data

#### Oregon Hazards Data

##### DATA

- Hazards data includes:
- **Climate**
  - **Coastal Erosion**
  - **Earthquake**
  - **Floods**
  - **Geologic Floodplain**
  - **Landslides**
  - **Naturally Occurring Hazardous Materials**
  - **Tsunami**
  - **Volcanic Hazards**
  - **Wildfire**

##### RESOURCES

- **Hazard/Preparedness Framework Implementation Team**
- **geodata.gov**
- **The National Atlas**
- **Hazards Explorer**



##### TOOLS



**Hazards Reporter**

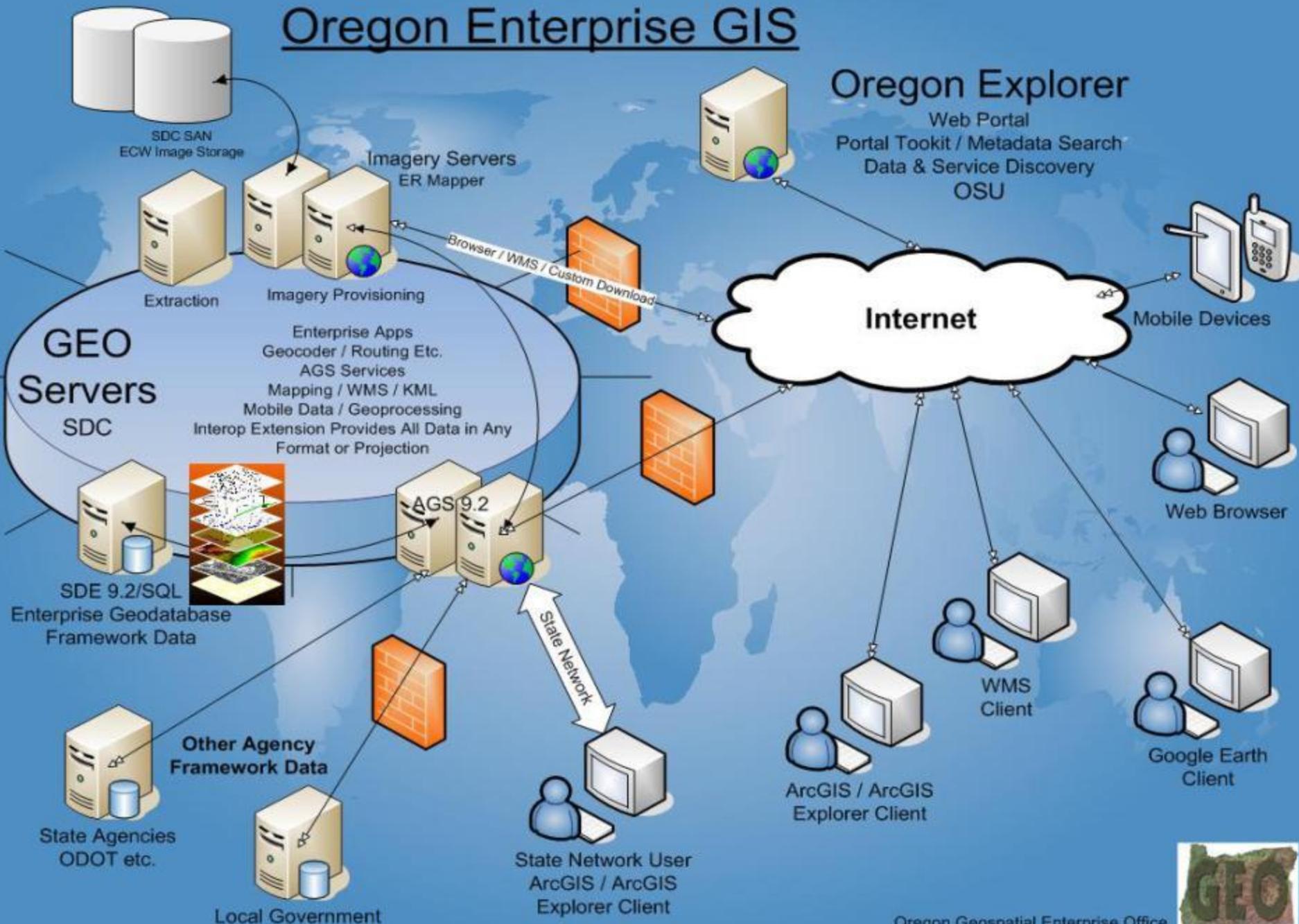
We are currently gathering feedback on Phase 1 of the Oregon Spatial Data Library. Your suggestions and comments will help improve this website.

[Take our online user survey](#)

This is a GIS Portal Toolkit Computer System. Please read the [Disclaimer](#) and [Privacy](#) or [Contact Us](#).

receive updates when data is added or changed in the Spatial Data Library.

# Oregon Enterprise GIS



# Web Mapping Services

**Avoid unnecessary redundancy**

**Directly access authoritative data**

**Enable use on desktop and web**

# Web Mapping Services

## Types of Services:

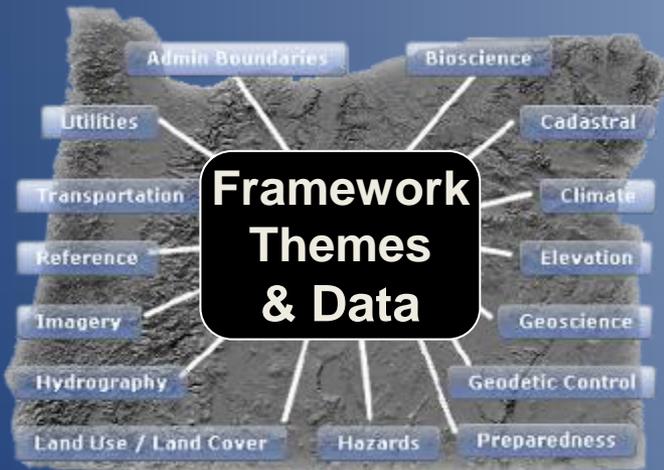
- Feature Services
- Geocode
- Geoprocessing
- Globe
- Image
- KML
- Mobile

## Specifications:

- ArcGIS REST
- KML
- WMS\*
- WFS\*
- WCS\*

*\* OGC-compliant*

# Web Services @ Oregon GEO



## Clearinghouses:

Oregon Spatial Data Library

HOME

SEARCH

DOWNLOAD



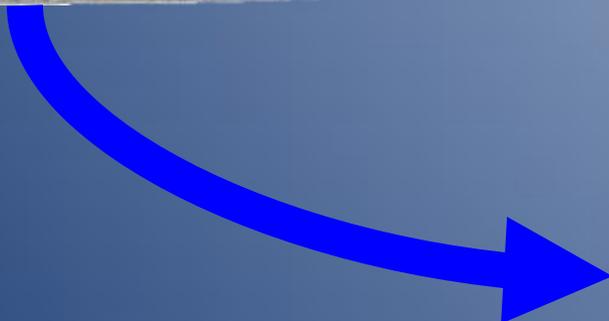
ArcGIS

GALLERY

MAP



State of Oregon



# Web Services @ Oregon GEO

## Web Service Example



Stream imagery as WMS or ECWP to  
desktop or web client

Saves \$\$\$ by avoiding data duplication

# Web Services @ Oregon GEO

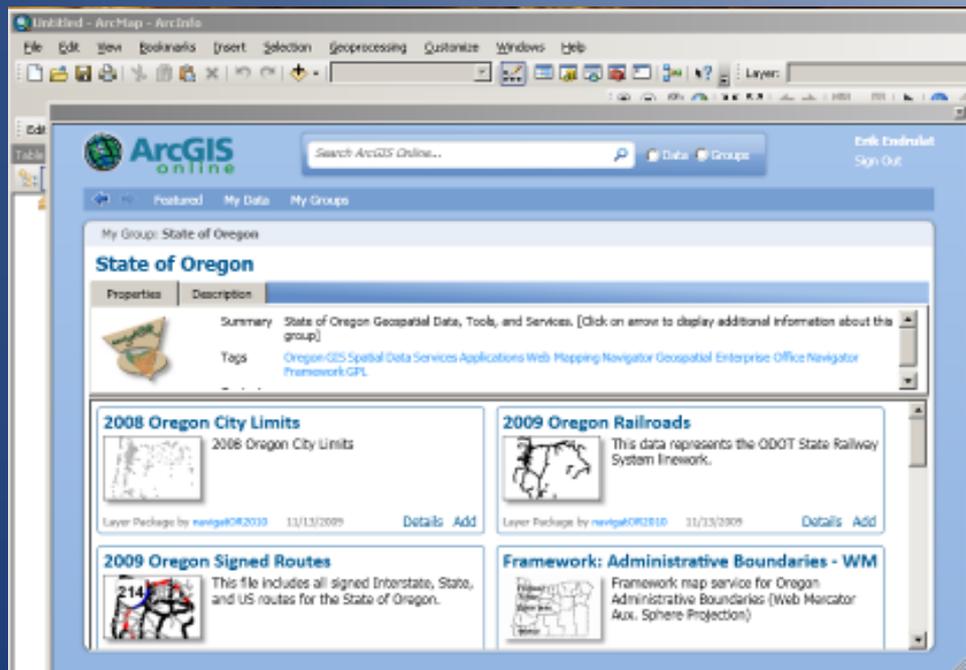
## Current Process



- Identify datasets
- Document metadata
- Create cartography
- Publish (ArcGIS REST, WMS, SOAP)
- Register in Library

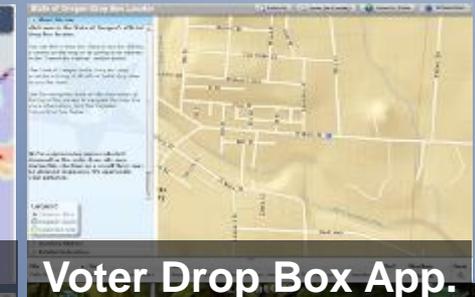
2. Web Service for desktop or Web app.

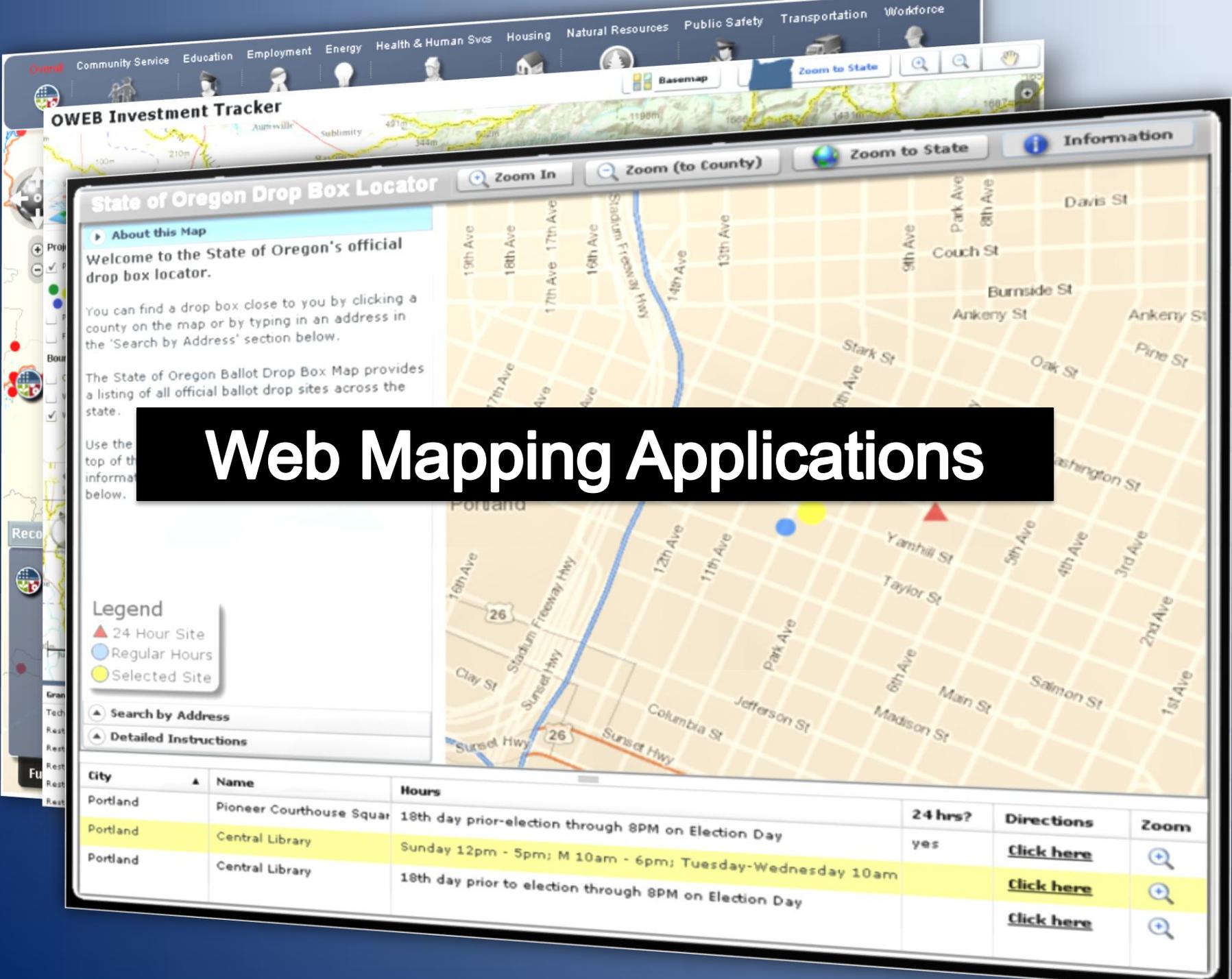
# Web Services @ Oregon GEO



Add services directly into desktop client (ArcMap 10)

Include (and re-use) services in web mapping applications





# Web Mapping Applications

## State of Oregon Drop Box Locator

**About this Map**

Welcome to the State of Oregon's official drop box locator.

You can find a drop box close to you by clicking a county on the map or by typing in an address in the 'Search by Address' section below.

The State of Oregon Ballot Drop Box Map provides a listing of all official ballot drop sites across the state.

Use the top of the information below.

- Legend**
- ▲ 24 Hour Site
  - Regular Hours
  - Selected Site

- ▲ Search by Address
- ▲ Detailed Instructions

City	Name	Hours	24 hrs?	Directions	Zoom
Portland	Pioneer Courthouse Square	18th day prior-election through 8PM on Election Day			
Portland	Central Library	Sunday 12pm - 5pm; M 10am - 6pm; Tuesday-Wednesday 10am	yes	<a href="#">Click here</a>	
Portland	Central Library	18th day prior to election through 8PM on Election Day		<a href="#">Click here</a>	
				<a href="#">Click here</a>	

# State of Oregon Courthouse Facility Projects

Basemap Zoom In Zoom Out Pan Zoom to State

## Courthouse Facility Projects

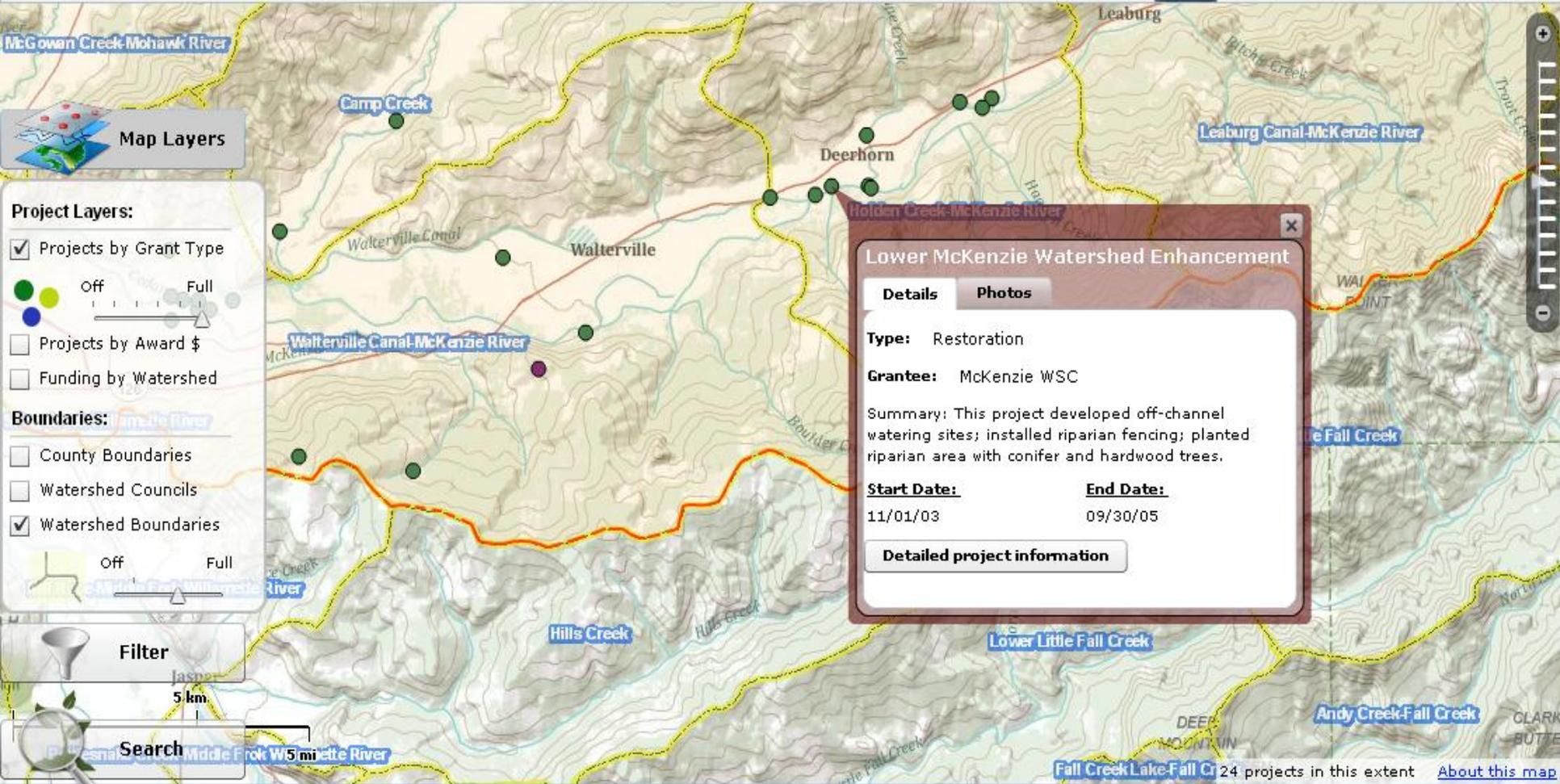
Name
Columbia County Courthouse
Coos County Courthouse
DAS - Facilities
Douglas County Justice Building
Hansell Complex
Jackson County Justice Building
Josephine County Courthouse
Lane County Courthouse
Marion County Courthouse
Polk County Courthouse
Umatilla County Courthouse
Yamhill County Courthouse

### Project Description:

Fire Alarm System Project, Budget=\$426,800; Fire Sprinkler Project, Budget=\$545,200

Search the Map About this Map

# DAS Courthouse Facility Projects



### Lower McKenzie Watershed Enhancement

**Details** | **Photos**

**Type:** Restoration

**Grantee:** McKenzie WSC

Summary: This project developed off-channel watering sites; installed riparian fencing; planted riparian area with conifer and hardwood trees.

**Start Date:** 11/01/03      **End Date:** 09/30/05

[Detailed project information](#)

Grant Type	Project Name	OWEB Fundir	Start Year	End Year	Grant Recipient	Project Status	Grant Application #
Restoration	Deerhorn Lower McKenzie Riparain Enhancement	\$2,947	2004	2004	McKenzie WSC	Complete	08-04-002
Restoration	Bauman-Reeves Riparian Habitat Restoration	\$9,537	2003	2003	East Lane SWCD	Complete	08-02-001
Restoration	Lower McKenzie Watershed Enhancement	\$83,594	2003	2005	McKenzie WSC	Complete	204-205*
Restoration	Lower McKenzie Watershed Enhancement	\$83,594	2003	2005	McKenzie WSC	Complete	204-205*
Restoration	Lower McKenzie Watershed Enhancement	\$83,594	2003	2005	McKenzie WSC	Complete	204-205*
Restoration	Lower McKenzie Watershed Enhancement	\$83,594	2003	2005	McKenzie WSC	Complete	204-205*

# State of Oregon Drop Box Locator

Zoom In

Zoom (to County)

Zoom to State

Information

## About this Map

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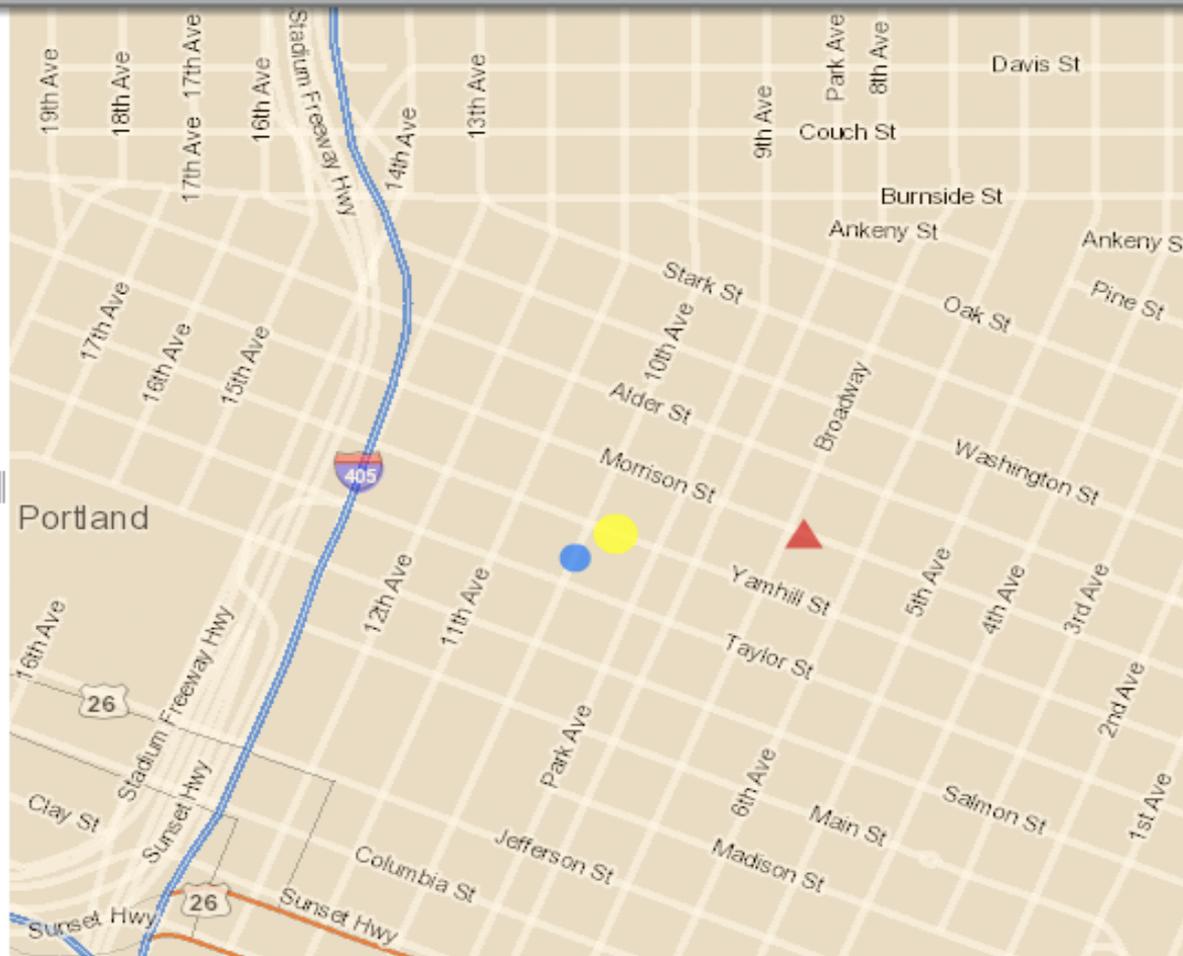
Use the navigation tools on the main menu at the top of this screen to navigate the map. For more information, click the 'Detailed Instructions' bar below.

## Legend

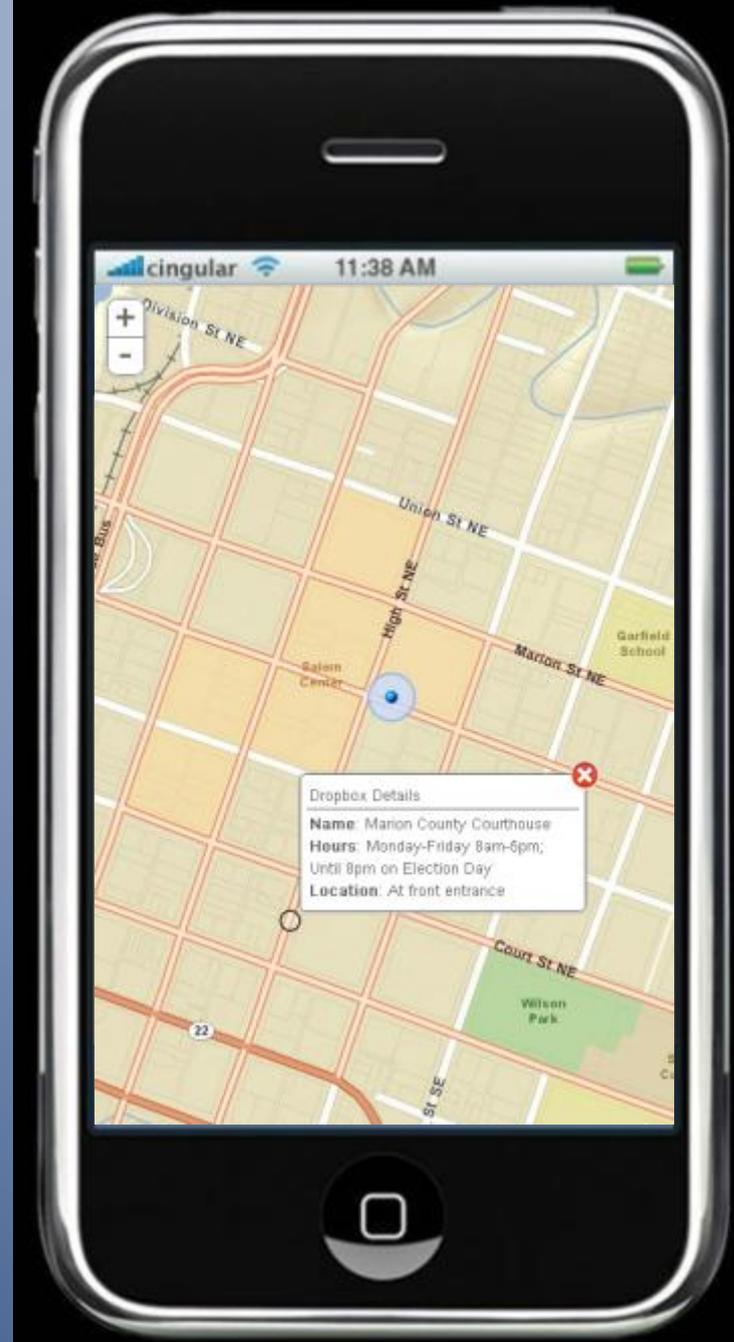
- 24 Hour Site
- Regular Hours
- Selected Site

Search by Address

Detailed Instructions

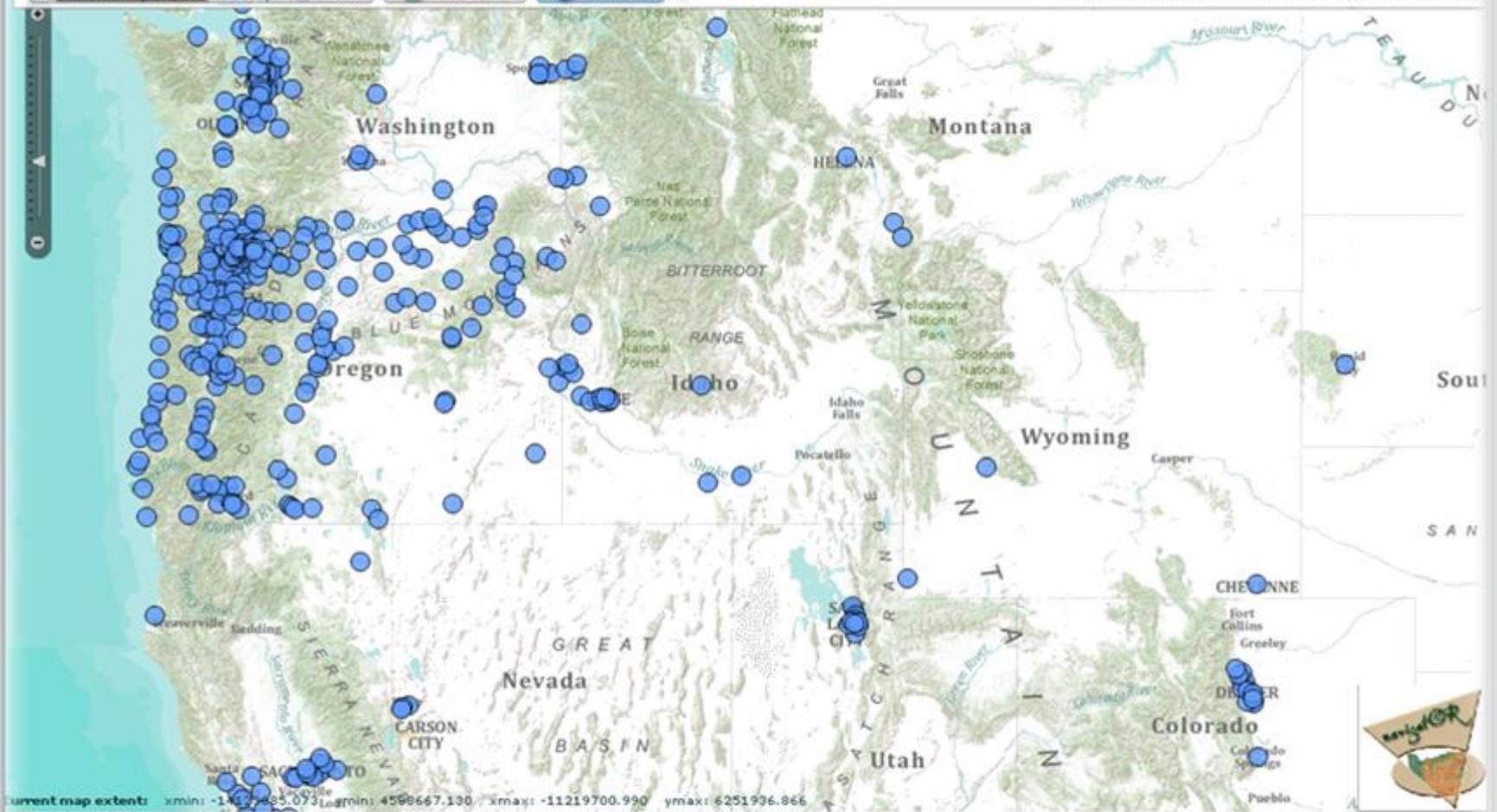


City	Name	Hours	24 hrs?	Directions	Zoom
Portland	Pioneer Courthouse Square	18th day prior-election through 8PM on Election Day	yes	<a href="#">Click here</a>	
Portland	Central Library	Sunday 12pm - 5pm; M 10am - 6pm; Tuesday-Wednesday 10am		<a href="#">Click here</a>	
Portland	Central Library	18th day prior to election through 8PM on Election Day		<a href="#">Click here</a>	



## Ballot Drop box 'concept' iPhone Map

[www.oregon.gov/DAS/EISPD/GEO/web\\_services/DAS/m\\_dropBox.html](http://www.oregon.gov/DAS/EISPD/GEO/web_services/DAS/m_dropBox.html)



Current map extent: xmin: -1121985.073 ymin: 4598667.130 xmax: -11219700.990 ymax: 6251936.866

State	Agency	Award Name	Award Type	Contractor Name	Award Amount
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...
WA	Washington State Department of Ecology	Ecology - Environmental Services	Professional Services (S-B)	...	...



# LocatOR

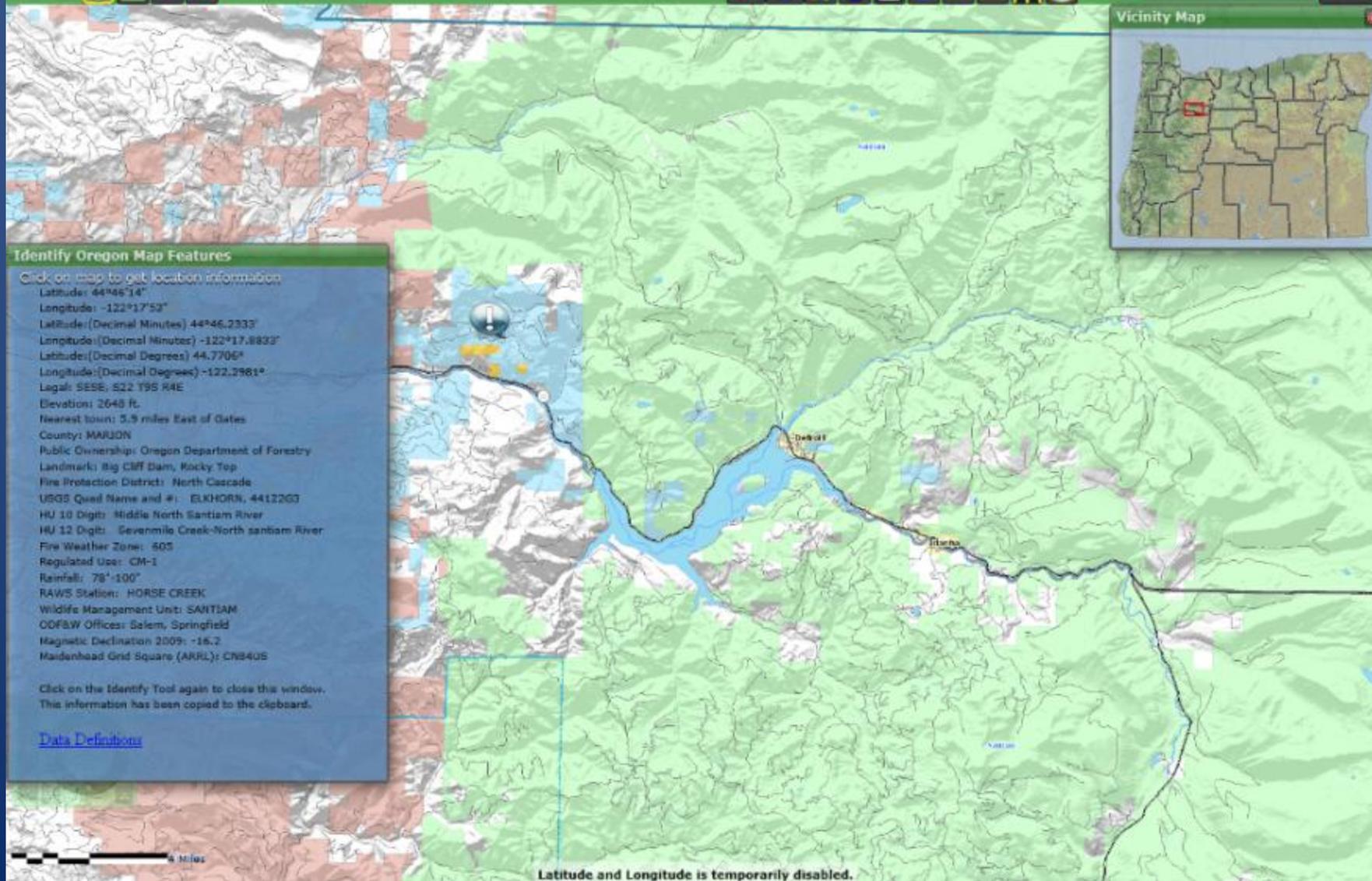
## Oregon Latitude Longitude Locator



Map Tools:

Search:

About LocatOR



### Identify Oregon Map Features

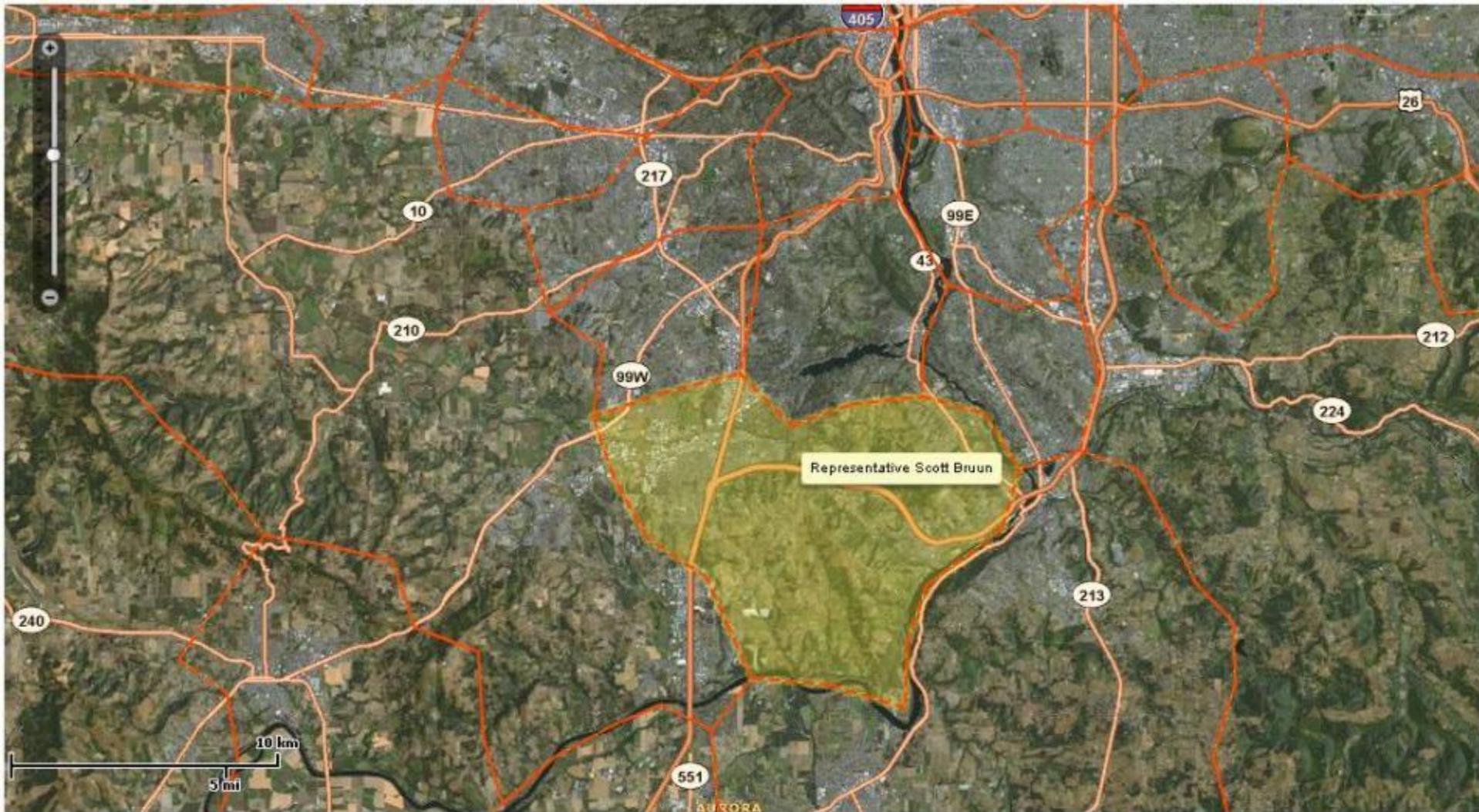
Click on map to get location information

- Latitude: 44°46'14"
- Longitude: -122°17'52"
- Latitude:(Decimal Minutes) 44°46.2333'
- Longitude:(Decimal Minutes) -122°17.8833'
- Latitude:(Decimal Degrees) 44.7706°
- Longitude:(Decimal Degrees) -122.2981°
- Legal: SESE, S22 T9S R4E
- Elevation: 2648 ft.
- Nearest town: 5.9 miles East of Gates
- County: MARION
- Public Ownership: Oregon Department of Forestry
- Landmark: Big Cliff Dam, Rocky Top
- Fire Protection District: North Cascade
- USGS Quad Name and #: ELKHORN, 44126G
- HU 10 Digit: Middle North Santiam River
- HU 12 Digit: Sevenmile Creek-North Santiam River
- Fire Weather Zone: 505
- Regulated Use: CM-1
- Rainfall: 75"-100"
- RAWS Station: HORSE CREEK
- Wildlife Management Unit: SANTIAM
- OOFBW Offices: Salem, Springfield
- Magnetic Declination 2009: -16.2
- Maidenhead Grid Square (ARRL): CN84US

Click on the Identify Tool again to close this window. This information has been copied to the clipboard.

[Data Definitions](#)

Latitude and Longitude is temporarily disabled.



Name	Party	District	Address	Phone	Email
<a href="#">Representative Scott Bruun</a>	Republican	37	900 Court St. NE, H-477 Salem, OR, 97301	503-986-1437	<a href="mailto:rep.scottbruun@state.or.us">rep.scottbruun@state.or.us</a>
<a href="#">Representative Chris Garrett</a>	Democrat	38	900 Court St. NE, H-377 Salem, OR, 97301	503-986-1438	<a href="mailto:rep.chrisgarrett@state.or.us">rep.chrisgarrett@state.or.us</a>
<a href="#">Representative Bill Kenemer</a>	Republican	39	900 Court St. NE, H-380 Salem, OR, 97301	503-986-1439	<a href="mailto:rep.billkenemer@state.or.us">rep.billkenemer@state.or.us</a>

## Legislative Administration: District Map

[www.oregon.gov/DAS/EISPD/GEO/web\\_services/LegisAdmin/LegisAdmin.html](http://www.oregon.gov/DAS/EISPD/GEO/web_services/LegisAdmin/LegisAdmin.html)



Airport Road Buildings ▶ Publishing and Distribution  
 Motor Pool, Publishing & Distribution, State Data Center  
 Airport Rd SE, Salem, OR 97301-6082

- Recently Modified
- Fleet
- Publishing and Distribution
- State Data Center
- Home
- How To Use This Library
- Menu
- ABCs of DASH
- Agency Directory
- Building News
- Calendar
- Committees
- Employee Search
- Publication Library
- Who Ya Gonna Call
- Commuter Links
- Cherriots Routes & Schedules
- Salem Weather
- Traffic Cams
- All Site Content

## Publishing and Distribution

**Print Plant Building**  
 550 Airport Rd SE  
 Salem, OR 97301

### Announcements

Title

There are no items to show in this view of the "Publishing and Distribution Announcements" list.

**Primary contact:**  
 John Rizzo, 503-373-1712  
 Debbie Gallagher, 503-373-1766  
 Sharon Berning, 503-373-1712

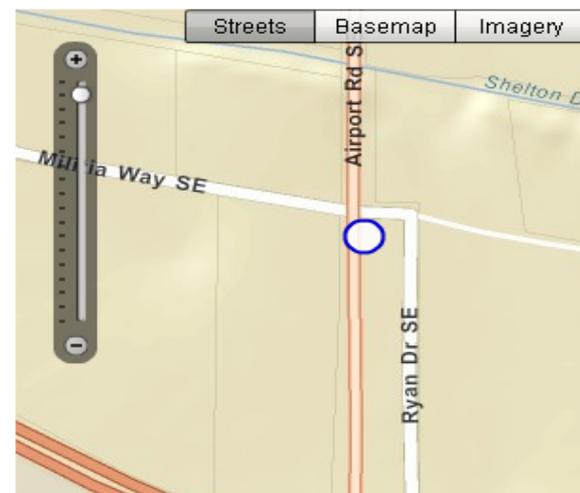
[Nearby Notaries Public](#)

### Emergency Information

Evacuation Plan (watch for it!)  
 Safety Committee  
 Evacuation Coordinators

### Restaurants

Title	Driving Directions
Burger Basket	Map
Costco	Map
Muchas Gracias Mexican Food	Map
Sybil's Omelettes	Map



Map courtesy of Geospatial Enterprise Office, DAS EISPD

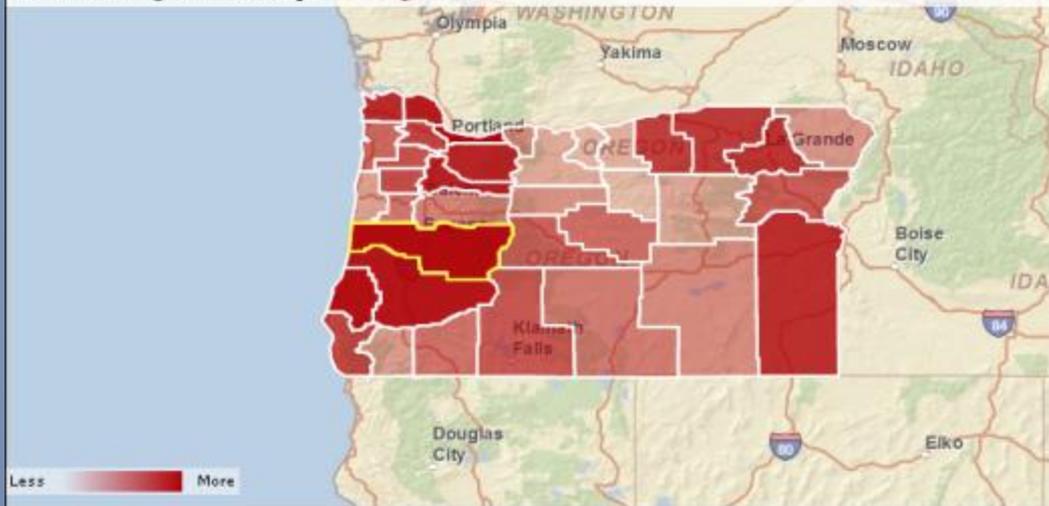
### Coffee Shops

Title	Driving Directions
Lottery Building Espresso Bar	Walk to the Lottery Building. First floor.

### Grocery Stores

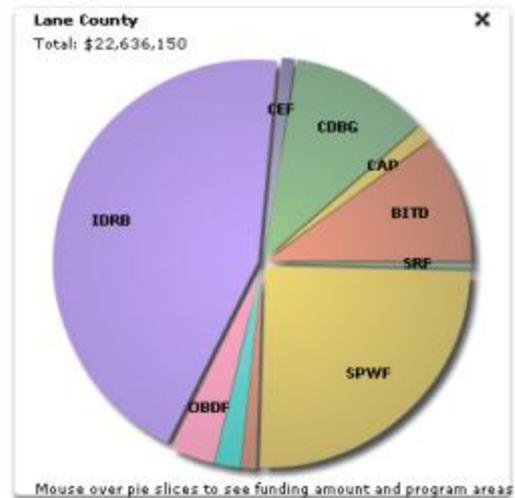
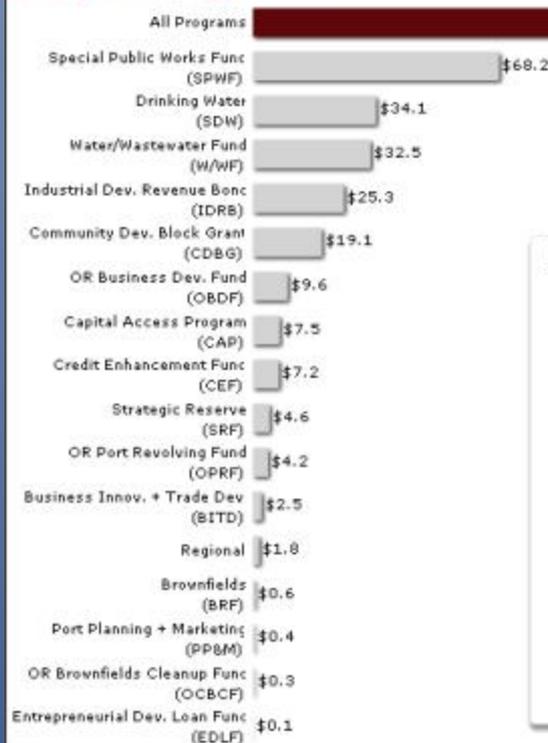
Title	Driving Directions
Costco	Map

OECD Funding Allocation Map: All Programs



Funding Allocation by Program

⌘ in Millions. Click the gray bar to update map.



OBDD Funding Map

Streets

Topo

**Imagery**

Zoom In

Zoom Out

Pan

Zoom to County

Click to zoom to entire County

Search By..

Address	Parcel #	Town
Street	1 W Main St.	
City	Enterprise	
Zip Code	97828	

**Find Address**

**Identify Results**

Field Name	Value
Map #	01S4435CC
Lot #	401
Owner	HAMMACK, VERNON
Taxlot Object ID	8090
Tax Lot #	01S4435CC401
Shape	Polygon

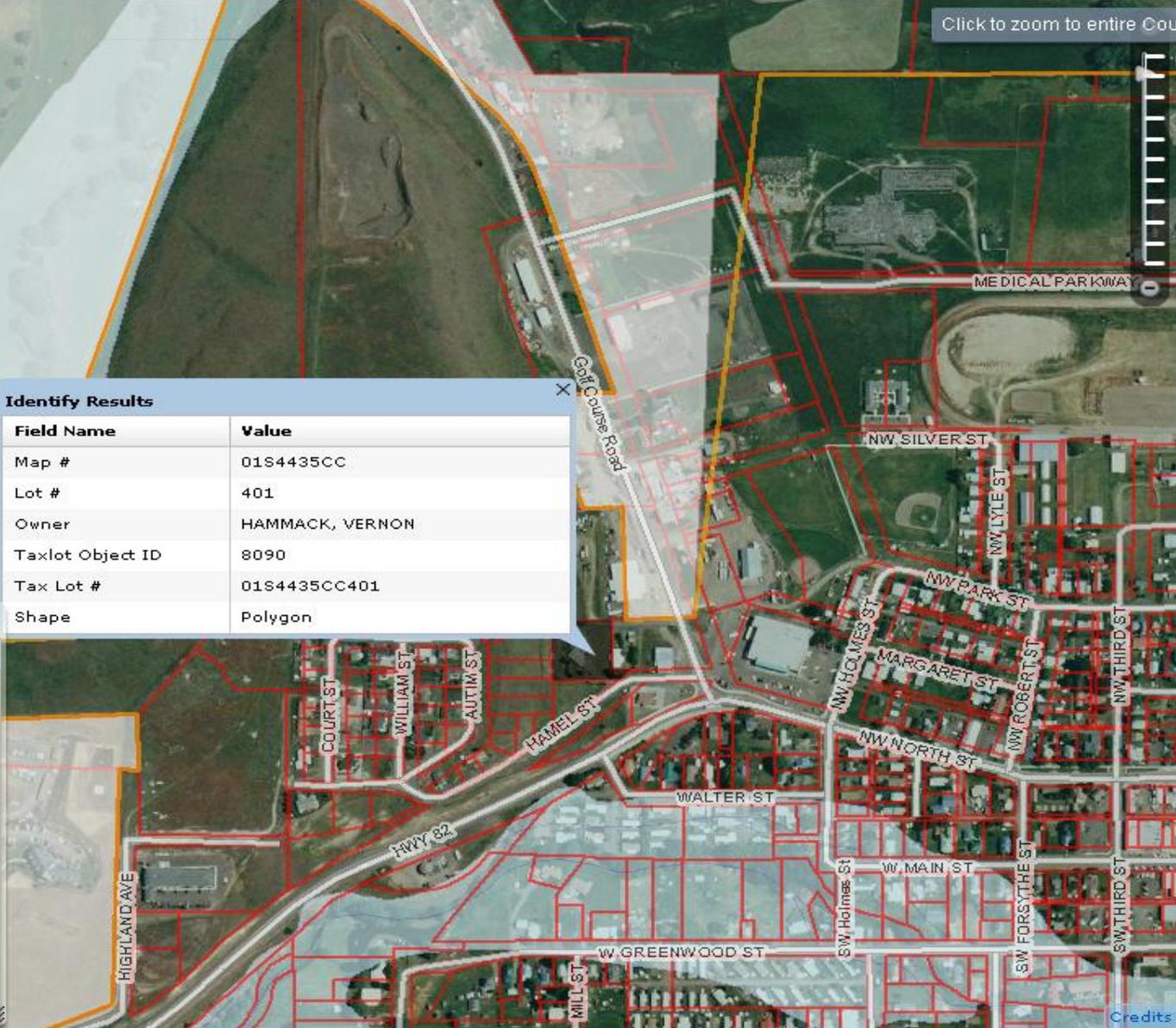
**Map Information**

Legend Tools Help

**Map Layers**

- Taxlots
- Zoning
- Floodplain
- Closed Range Areas
- Roads

Use the check boxes to the left to toggle the map layers on/off.



Identify Zoom In Zoom Out Pan Zoom to County Basemap

Search By..

**Address** **Parcel #** **Town**

Enter the Tax Lot or Map number here:

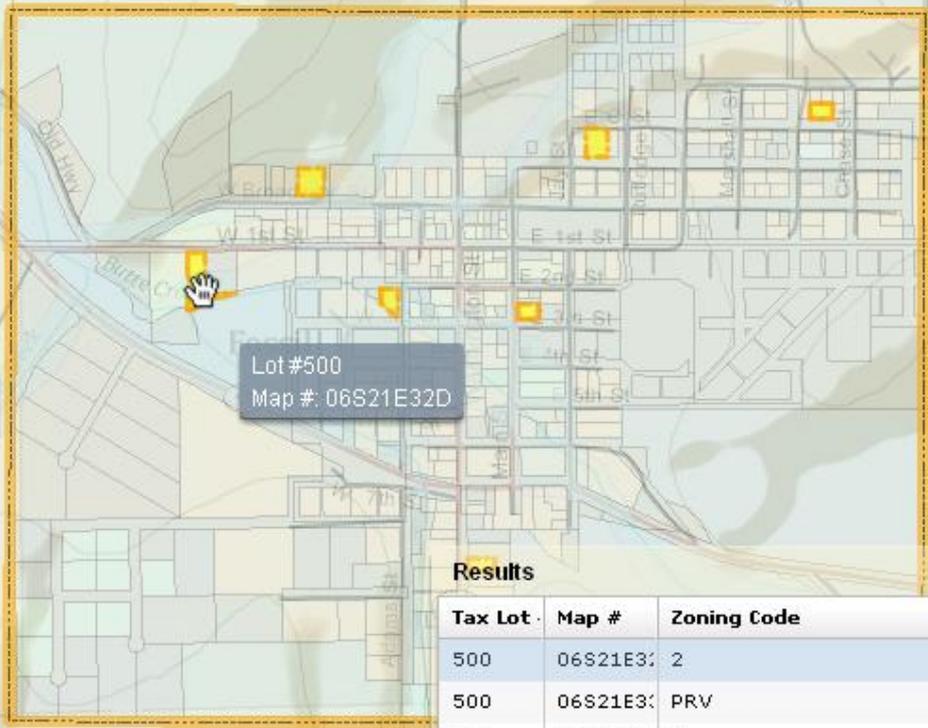
**Map Information**

**Legend** **Tools** **Help**

**Map Layers**

- Taxlots
- Zoning
- Floodplain

Use the check boxes to the left to toggle the map layers on/off.



**Results**

Tax Lot	Map #	Zoning Code
500	06S21E3	2
500	06S21E3	PRV
500	06S21E3	1
500	06S21E3	1

Show only records visible on map

Streets | Topo | **Imagery** | Zoom In | Zoom Out | Pan | Zoom to County

Search By..

Ad... | Par... | **Town**

**Zoom to City**

- Cove
- Elgin
- Imbler
- Island City
- La Grande

**Map Information**

**Legend** | **Tools** | **Help**

**Map Layers**

- Taxlots
- Floodplain

Use the check boxes to the left to toggle the map layers on/off.



Streets **Topo** Imagery Zoom In Zoom Out Pan Zoom to County

Search By..

**Address** **Parcel #** **Town**

**Zoom to City**

Paisley

Lake View

**Identify Results**

Field Name	Value
RangePart	0
MapNumber	39S20E16BC
OBJECTID_1	17316
MapClass	
ORMapNum	1939.00S20.00E16BC--0000
SpecialInt	

**Map Information**

**Legend** **Tools** **Help**

**Current map extent:** xmin: -13402116.327 yr

**Identify**

When active, the identify tool lets you left-click on a... updated when you zoom in to the map (City Level a... above button.

# Jefferson County Online Tax Lot Map

**Search By..**

Address	Parcel #	Town
Street: 500 Adams Av.		
City: Metolious		
Zip Code: 97741		

**Find Address**

**Map Information**

**Legend** **Help**

- City Limits
- Taxlots
- Zoning
- Public Services
- Voter Precincts
- Biology
- Hydrology
- Transportation

**Route Type**

- U5 HWY
- OR HWY

**Identify Results**

Field Name	Value
OBJECTID	31
Shape_Length	8766.511592
TAXCODE	15

## Jefferson County Tax Lot Viewer

# City of Forest Grove Online Tax Lot Map

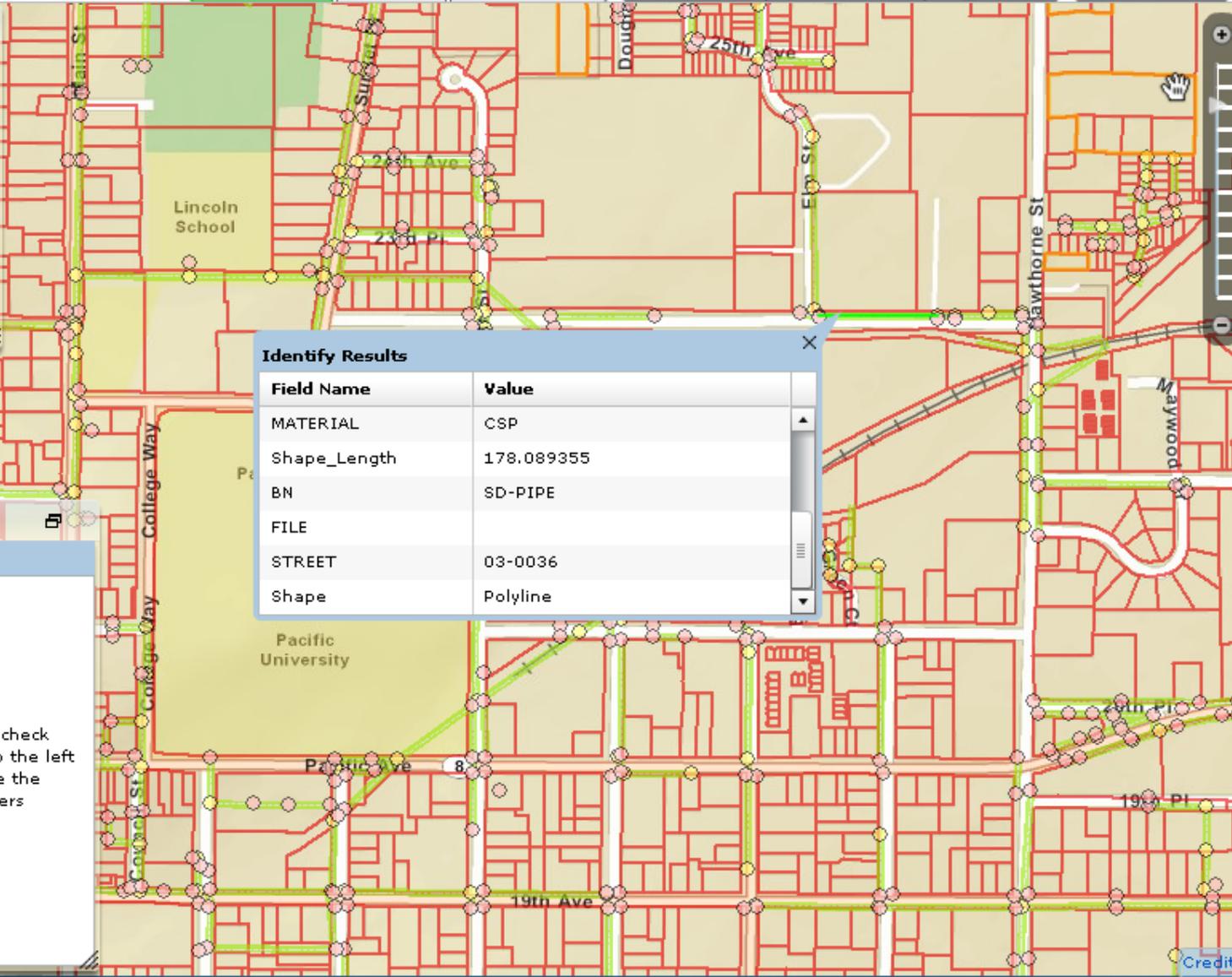
Streets | **Topo** | Imagery | Zoom In | Zoom Out | Pan | Zoom to City

Search By...

**Address** | **Parcel #**

Street:   
City:   
Zip Code:

**Find Address**



**Identify Results**

Field Name	Value
MATERIAL	CSP
Shape_Length	178.089355
BN	SD-PIPE
FILE	
STREET	03-0036
Shape	Polyline

**Map Information**

**Legend** | Tools | Help

**Map Layers**

- Taxlots
- Storm Water System
  - Catch Basins
  - Storm Manholes
  - Storm Water Lines
- Floodplain

Use the check boxes to the left to toggle the map layers on/off.

## City of Forest Grove: Tax Lot Map

## Oregon Geospatial Enterprise Office / OpenLayers - ArcGIS Server 9.3.1 REST API Example

Shows the basic use of using OpenLayers to display multiple ArcGIS Server base maps and operational layers from the Oregon Geospatial Enterprise Office using the REST API



**Sample showing integration of OpenLayers and GEO's REST Services**

[http://www.oregon.gov/DAS/EISPD/GEO/web\\_services/OpenSource/restExample2.html](http://www.oregon.gov/DAS/EISPD/GEO/web_services/OpenSource/restExample2.html)

# The Recovery Act in Oregon

- Contact Us
- Staff Directory
- Governor's Home Page

- Overview
- Tracking the Dollars
- Impacts by Category
- Impacts to Individuals
- State Agency Links
- Economic Recovery
- Executive Team Contacts
- Report Fraud and Abuse
- Stories of Recovery
- Press Releases

Recovery Act Home

## Tracking the Recovery Act

Community Service Education Employment Energy Health & Human Svcs Housing Natural Resources Public Safety Transportation Workforce

Find Recovery Projects near Me: 97301    Show Individual Projects on Map

Marion Co. Transportation Program - 7

**Award Recipient:**  
TRANSPORTATION, OREGON DEPARTMENT OF

**Award Amount:**  
\$424,561.00

**Amount Expended:**  
\$89,768.00

**Jobs Created:**

Recovery Act Statistics Salem

**Overall**  
[Statewide]  
(Hover mouse over chart or map for individual values.)

Funds Expended More Information Need

# The Recovery Act in Oregon

Contact Us

Staff Directory

Governor's Home Page

Overview

Tracking the Dollars

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Stories of Recovery

Press Releases

Recovery Act Home

## Tracking the Go Oregon! Projects

Overall ODFW OYA DAS DOC ODF ODOT DSL OJD OMD OPRD OUS COVID

ECONOMIC STIMULUS NEAR YOU: 955 Center St. NE, Salem, 97301 GO STATEWIDE  Show Individual Projects on Map Help

**Stimulus Statistics**

Overall  
Hood River  
\$2,045,376

Overall Stimulus	\$ 2,045,376
ODFW	\$ 33,768
Projects	\$ 33,768
ODOT	\$ 5,709
OMD	\$ 1,280,918
OUS	\$ 724,920

ALLOCATED



**Search By..**

Address

Street

City

Zip Code

**Map Information**

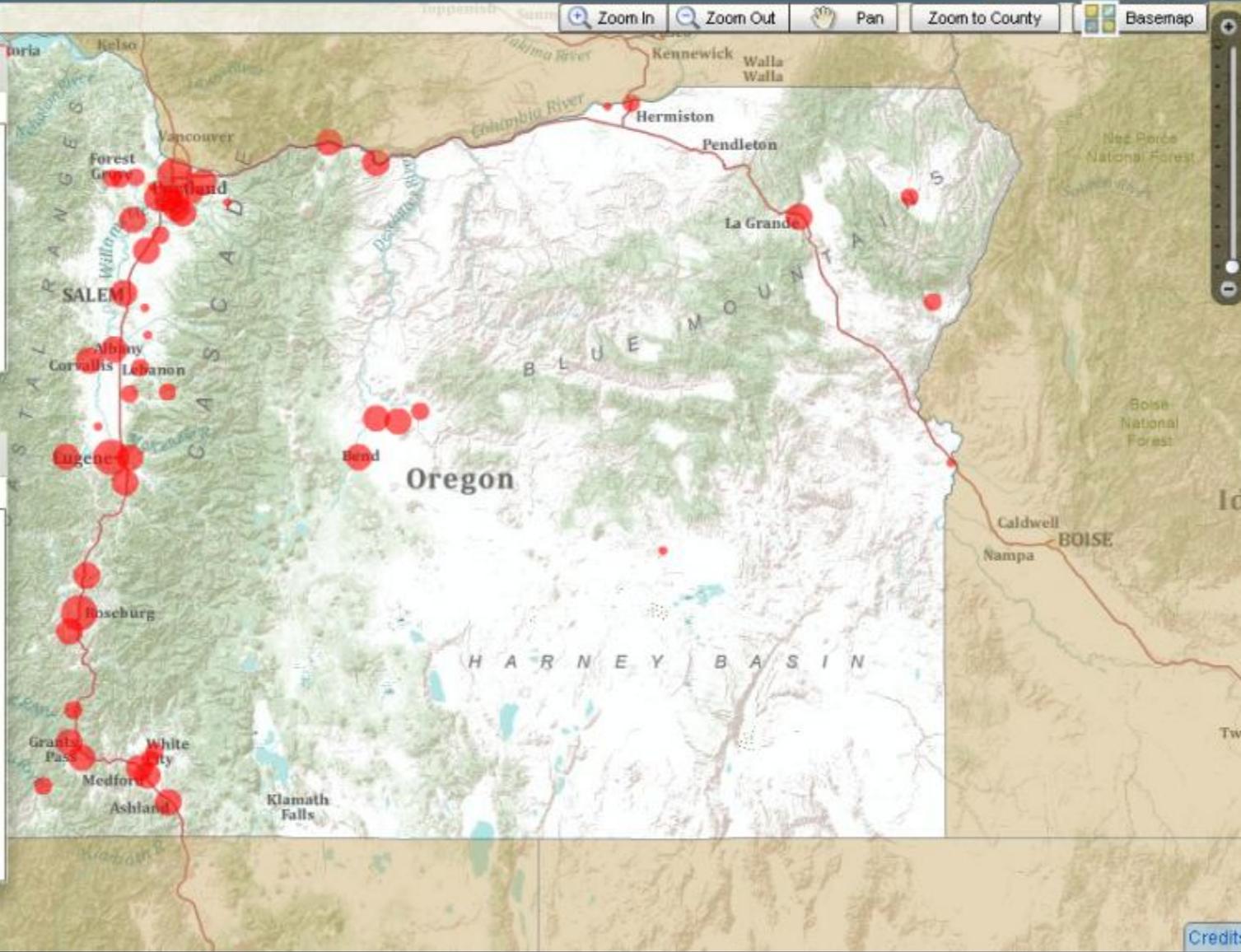
**Map Layers**

SEEARP Vouchers by City

- \$200
- \$200 - \$300
- \$300 - \$500
- >\$500

Off  Full

Other ODE ARRA Projects



**Search By..**

Address  Facility Name

Street

City

Zip Code

**Map Information**

Legend

**Map Layers**

Biomass Facilities

- Cogen
- Combustion
- Densified
- Heat

Wind Turbines

- Approved
- Proposed
- Other

**Identify Results**

Field Name	Value
Name	Harney District Hospital
Facility	Heat
Notes	Burns
Plant_ID	H03
OBJECTID	41
Shape	Point

**Area of Concern**  
Open: Place Polygon

Map Features Legend

- Base Layers
- Weather
- FEMA
- Planning
- EOC and Public Safety
- Community Infrastructure
- Transportation
- Hospitals and Health Care
  - Urgent Care Facilities
  - Hospitals
  - Medical Points of Distribution
  - State Health Dept Facilities
  - Emergency Warming Shelters
- Drinking Water Sources
- Flood Scenario
- Taxlots and Land Use
- External Feeds

**Status/Resource Dashboard**

**All Warming Shelters**

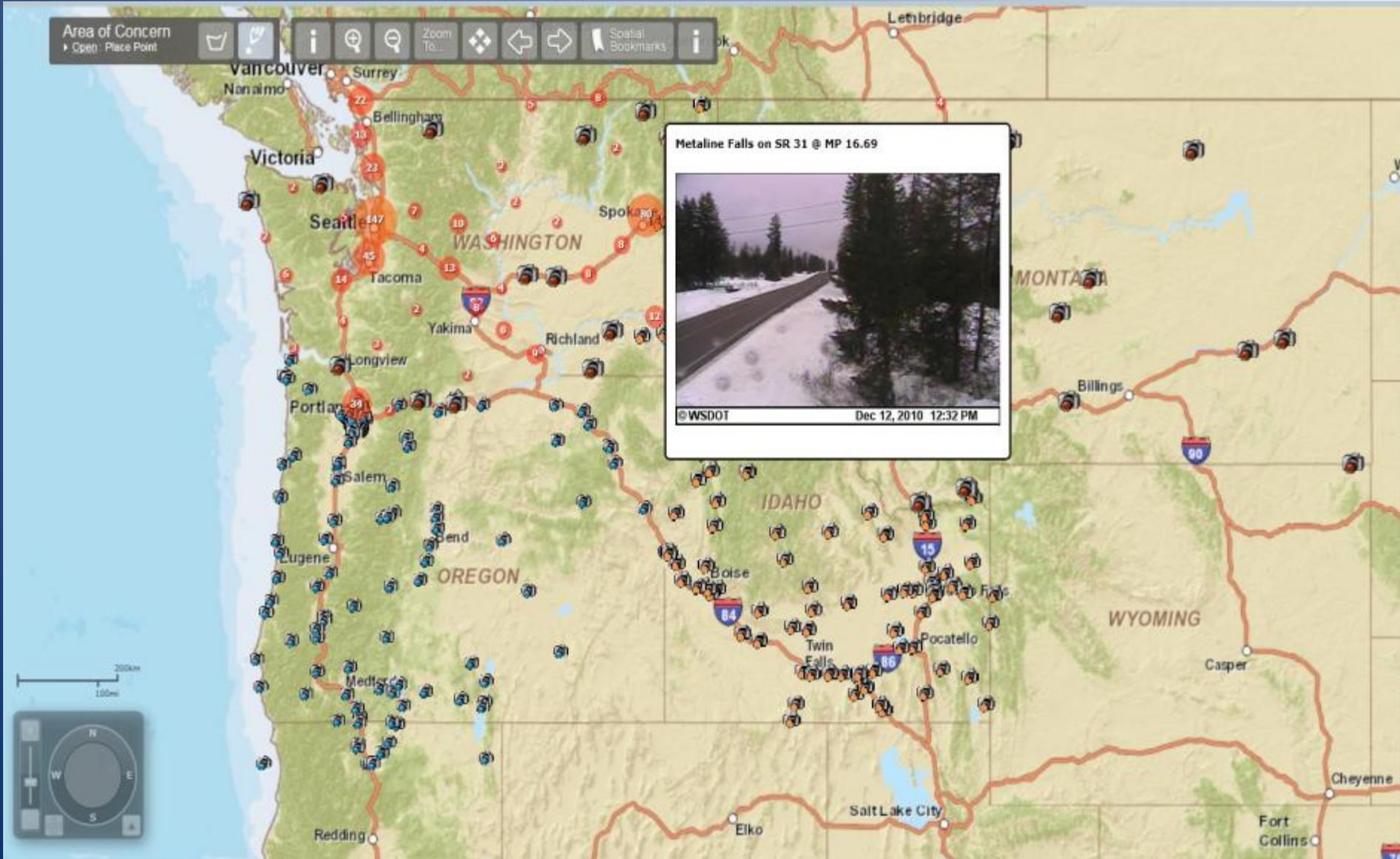
**Beds**  
Available: 379  
Occupied: 306  
Status unknown: 870  
Total: 1555  
Edit

**All Hospitals**

**Beds**  
Available: 1652  
Occupied: 748  
Status unknown: 11600  
Total: 14000  
Edit

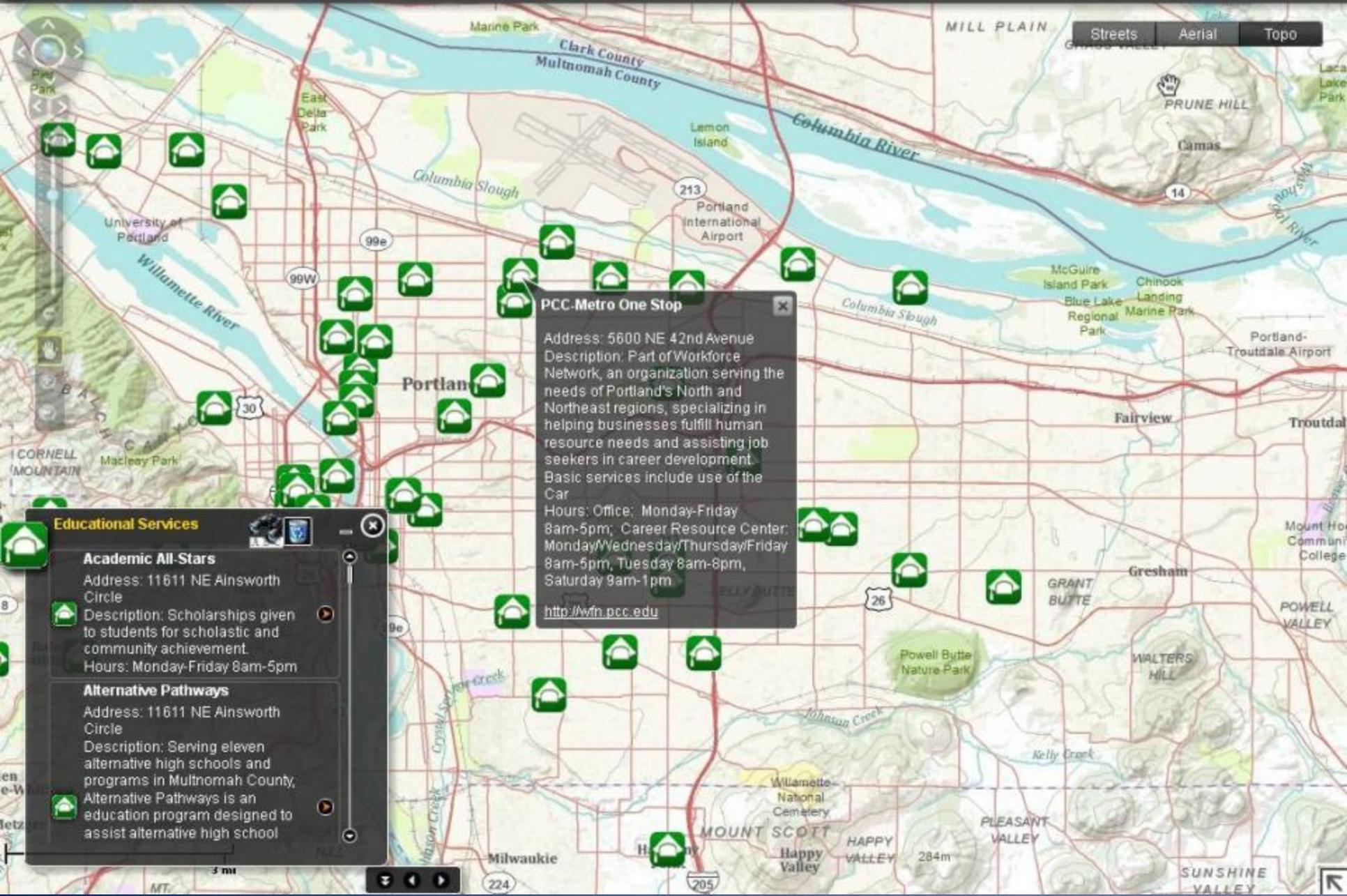
# Virtual Emergency Network of Multnomah (VENOM)

Secure site for first responders, not public



## VENOM/Virtual USA Regional Implementation

Secure site for first responders, not public



**PCC-Metro One Stop**

Address: 5600 NE 42nd Avenue  
Description: Part of Workforce Network, an organization serving the needs of Portland's North and Northeast regions, specializing in helping businesses fulfill human resource needs and assisting job seekers in career development. Basic services include use of the Car.  
Hours: Office: Monday-Friday 8am-5pm; Career Resource Center: Monday/Wednesday/Thursday/Friday 8am-5pm, Tuesday 8am-8pm, Saturday 9am-1pm  
<http://wfn.pcc.edu>

**Educational Services**

**Academic All-Stars**  
Address: 11611 NE Ainsworth Circle  
Description: Scholarships given to students for scholastic and community achievement.  
Hours: Monday-Friday 8am-5pm

**Alternative Pathways**  
Address: 11611 NE Ainsworth Circle  
Description: Serving eleven alternative high schools and programs in Multnomah County, Alternative Pathways is an education program designed to assist alternative high school



# Government Web Service Switchboard

The next big step



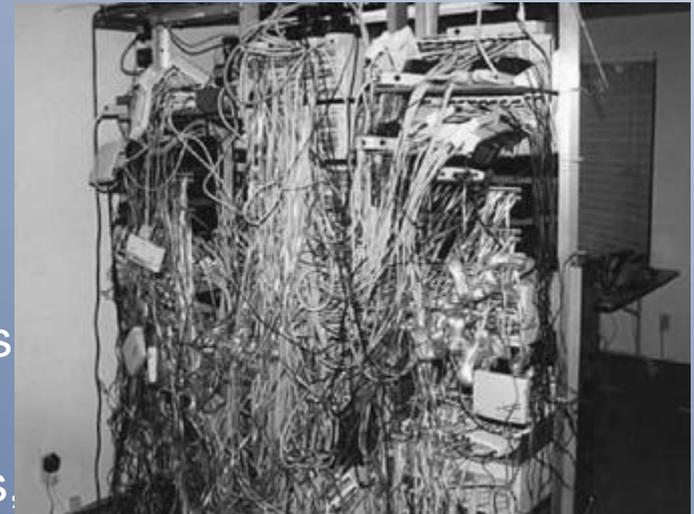
# Today Everyone Is Issuing Phone Numbers

- “Everyone” is standing up web map services and public APIs

- We need middleware infrastructure to share web services. We need a web service switchboard so we don't end up with this.

- Do the math...  
10 web services = 45 point to point integrations  
How many will you integrate with?

36 counties, 250 cities, 20 to 60 state agencies.



- Risk... “Sorry your Electitude. Someone changed “taxno””.
- We need “Authoritative Process” to ensure authoritative data.

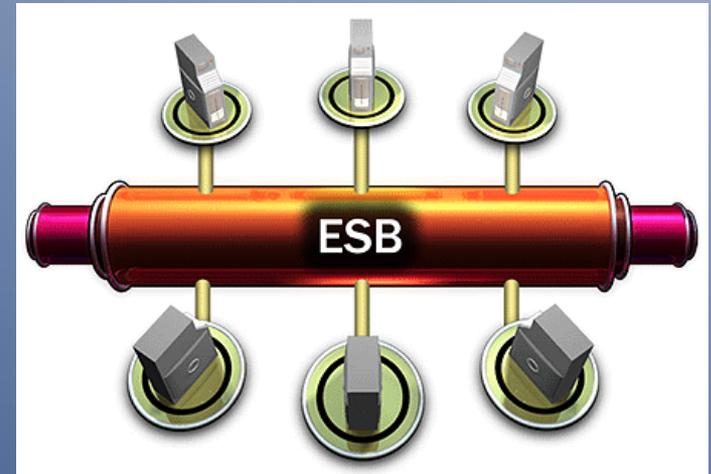
# Why Don't We AUTHORIZE Our Own Phone Numbers?

The Solution:

Build a government “information infrastructure” to REUSE, integrate, MAINTAIN, and share data across ALL levels of government.

Build a middleware Web Services Switchboard.

Build an “Authoritative Process” to manage the Switchboard by extending the existing governance structure.



“Another flaw in the human character is that everybody wants to build and nobody wants to do maintenance.”  
Kurt Vonnegut

# Fly in the Ointment

Data Sharing between government agencies is inconsistent.

Task Force on Government Effectiveness and Efficiency:

- Obstacles to data sharing are an impediment to government operations. <http://www.aocweb.org/AOC/LinkClick.aspx?fileticket=YpMC7jILayQ%3d&tabid=38>

State and local governments spend a combined \$4B+ on geospatial data development, use and management ANNUALLY.

- Consistent data sharing would save \$100M+ ANNUALLY.

The public wants greater government transparency, but doesn't want to give up their ability to sue the government if the data isn't 100% accurate.

- Liability issues prevent data sharing.

