



Institute for Natural Resources Institute for Water and Watersheds



OSU | PSU | UO

*Informing natural resource decision making through
integrated knowledge and information.*





The National Science Foundation

Willamette Water 2100

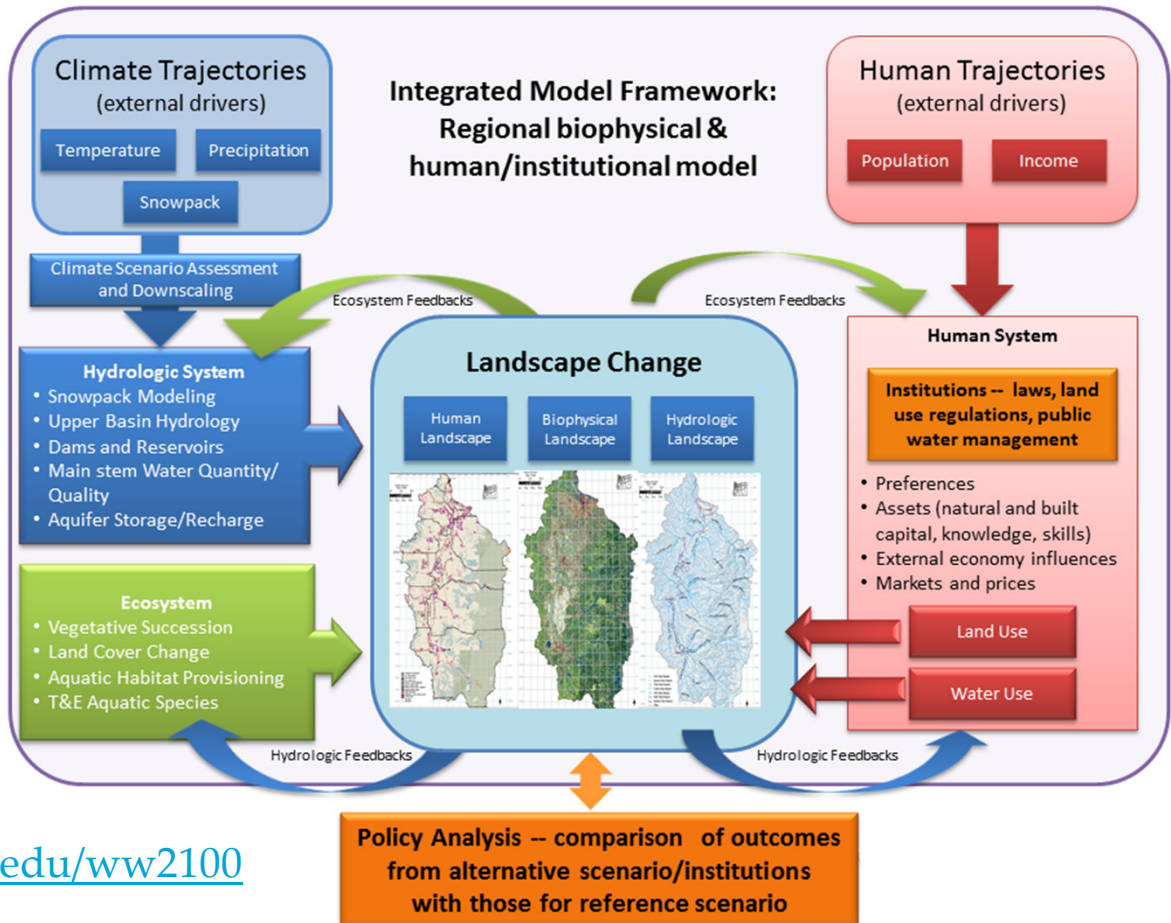


Principal Investigator: Roy Haggerty, OSU College of Earth, Ocean, and Atmospheric Sciences

Funded by the National Science Foundation

Managed by the OSU Institute for Water and Watersheds

A project evaluating how climate change, population growth, and economic growth will alter the availability and the use of water in the Willamette River Basin on a decadal to centennial timescale.



<http://water.oregonstate.edu/ww2100>



NAVIGATION

[Home](#)[Septic Systems](#)[Wells](#)[Water Tests](#)[Arsenic](#)[Bacteria](#)[Water Treatment](#)[Limited Water](#)[Assessment Tools](#)[Real Estate Sales](#)[Farm & Garden](#)[Pesticides](#)[Hazardous Waste](#)[Events](#)

Well Water Program, OSU Extension Service

**"Protecting the groundwater that provides
our drinking water through education."**

The goal of the Well Water Program is to help Oregonians protect the groundwater that supplies their drinking water through education. Information available at [Well Water events](#) is now available for your use on this web page.

If you have a [well](#) or [septic system](#), look over the many publications available to help you maintain these facilities in good working order—it could save you costly repairs, protect your family's health and insure the continued safety of your groundwater supply.

If you have questions and don't know where to turn, try contacting your local county Extension Service office.

If you want more information about the OSU Well Water Program or can't find the answers to your question - [contact the program coordinator](#)

What does water mean to people?

[Degrees of Thirst by Onlineassociatedegrees.com](#)



Institute for Natural Resources

Informing natural resource decision making through integrated knowledge and information.

Strategic Goals

Goal 1

Increase the ability of others to efficiently and effectively deliver environmental and resource outcomes.

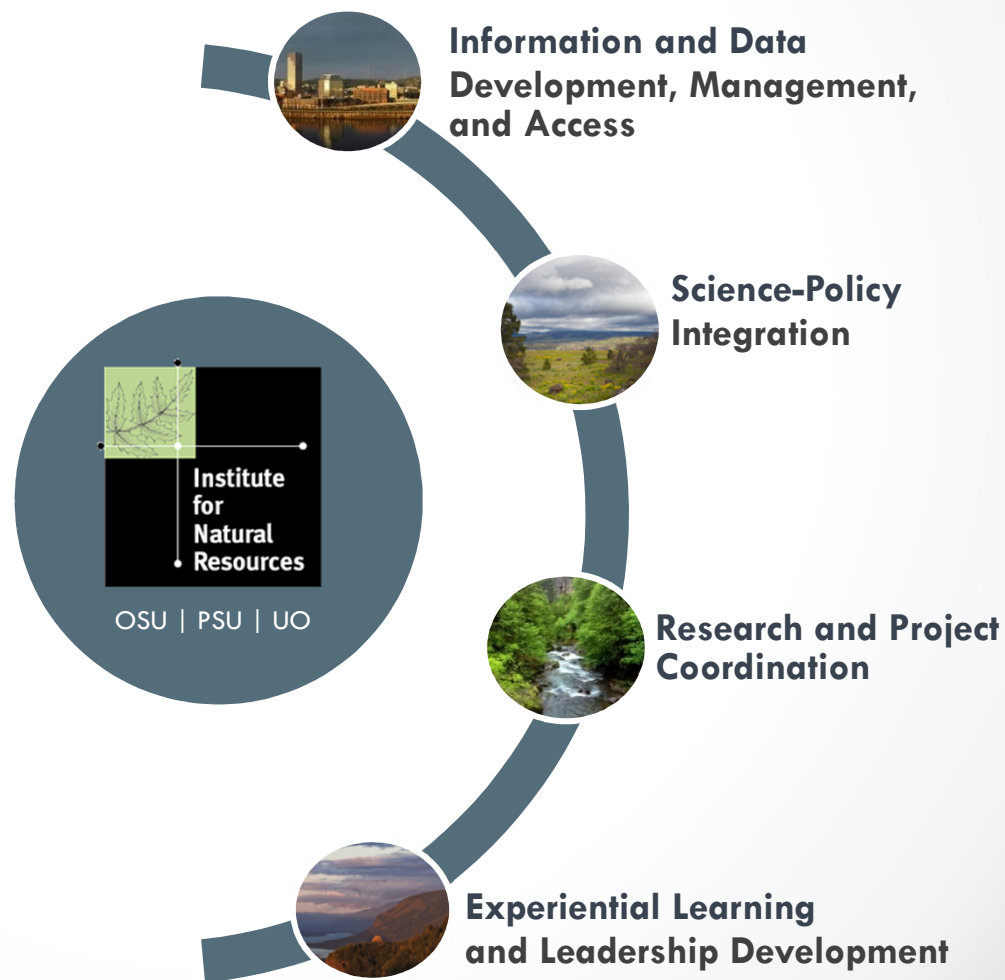
Goal 2

Extend the reach of integrated knowledge and information to inform natural resource decision making.

Goal 3

Enhance the relevance and delivery of INR's distinctive suite of services and products.

oregonstate.edu/inr

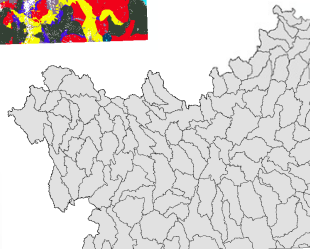
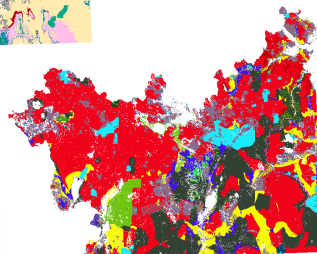
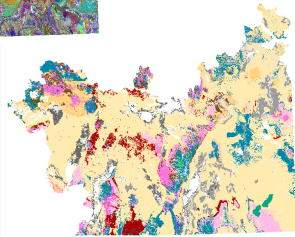
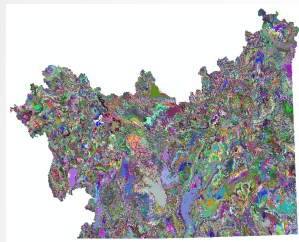




Information and Data Development, Management, and Access

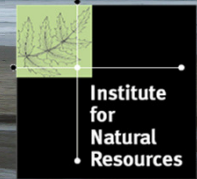
Core Functions

- Natural resource dataset compilation and integration
- Access to comprehensive information related to natural resources
- Resource mapping
- Digital library enhancements
- Vegetation and landscape modeling
- Creating collaborative workspaces



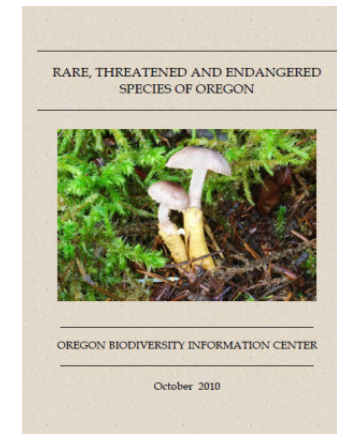
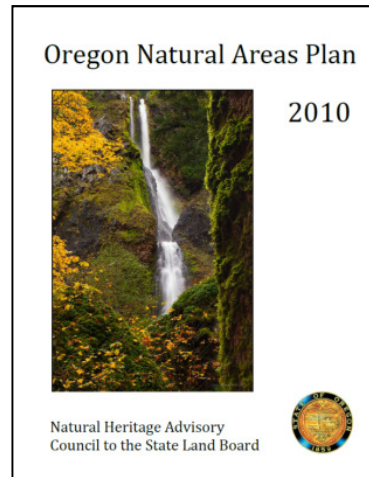
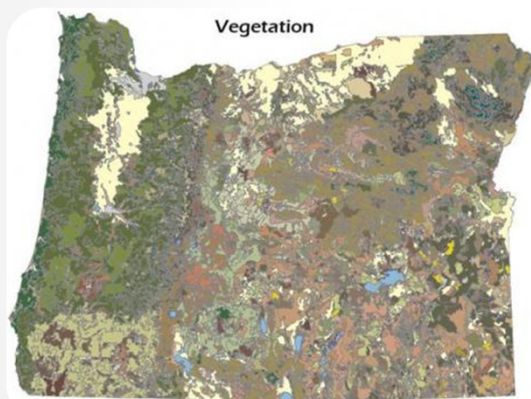
The ILAP vegetation modeling framework uses plot data, environmental data, and satellite imagery to create current and potential vegetation conditions and model future vegetation conditions

Oregon Biodiversity Information Center



OSU | PSU | UO

Capturing and maintaining unique, comprehensive data on rare, threatened, and endangered species throughout Oregon in support of biodiversity conservation and informed decision-making.



species
(not endangered)
element
ficial geology
ture types

attributes
ributes





Central access to information for natural resource decision making in Oregon (since 2007) and the West (since 2012)

15 Explorer Sites

Newest portal

Western Landscapes Explorer

Data portals

Imagery Explorer
Spatial Data Library

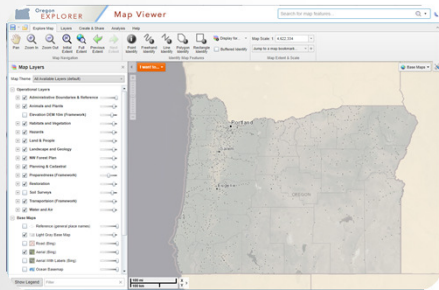
Location portals

Deschutes Basin Explorer
Lakes Basin Explorer
North Coast Explorer
Umpqua Basin Explorer
Willamette Basin Explorer

Topic portals

Oregon Farm Explorer
Oregon Hazards Explorer
Land Use Explorer
Rural Communities Explorer
Oregon Wetlands Explorer
Oregon Wildfire Risk Explorer
Oregon Wildlife Explorer

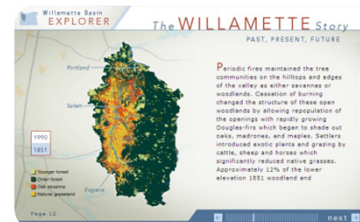
Tools



Data



Stories



Resources

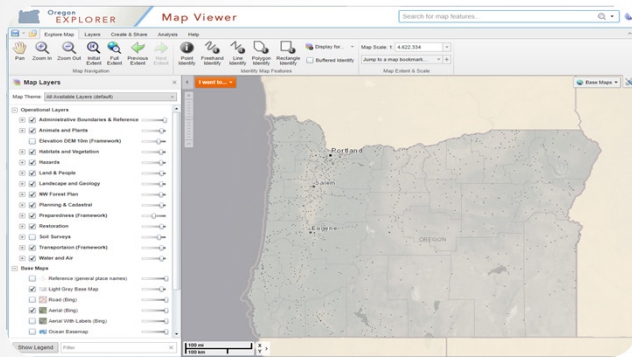
ADDITIONAL RESOURCES

- Biodiversity Partnership**
The Biodiversity Partnership website is a Defenders of Wildlife initiative dedicated to promoting and supporting regional and statewide strategies to conserve biodiversity. The initiative has its roots in the Oregon Biodiversity Project, a collaborative effort begun in the mid-1990s that resulted in one of the nation's first statewide biodiversity assessments.
- Conservation Online**
ConservationOnline is a meeting place for the conservation community, open to anyone who wants to find or share information relevant to conservation science and practice.
- EBM Tools Network**
The EBM Tools Network is an alliance of EBM tool developers, practitioners, and training providers to develop and support software tools for ecosystem-based management (EBM) in coastal and marine environments, including coastal watersheds and the Great Lakes region.
- Estropea, Oregon Public Broadcasting**
Oregon Public Broadcasting's news and insight on the most pressing environmental issues.
- EPA Surf Your Watershed**
The EPA's Surf Your Watershed service can help you locate, use, and share environmental information about your state and watershed.
- Fishing - Software and Learning Systems for fish passage through culverts**
ProvenFish - Fish Crossing™, this software is intended to assist engineers, hydrologists, and fish biologists in the evaluation and design of culverts for fish passage. It is free and available for download.
- Greenbelt Lands Trust**
The Greenbelt Lands Trust is a non-profit organization whose goal is to enhance and protect the open space amenities essential to preserving quality of life in the mid-Willamette Valley.

www.oregonexplorer.info

Oregon Explorer Tools

General Mapping Tool

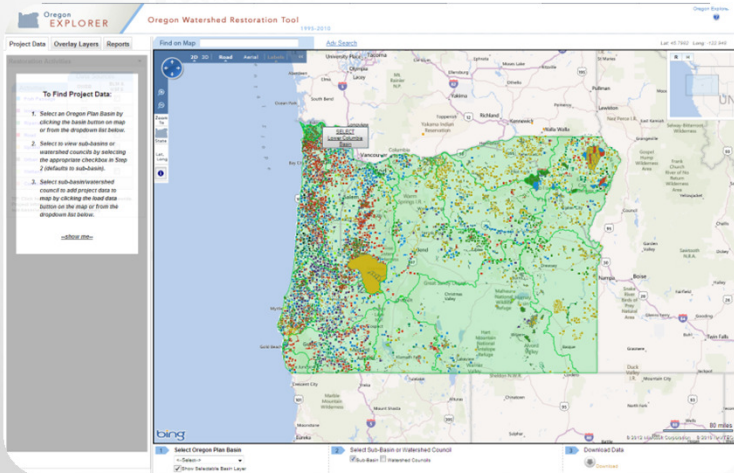


Reporting Tools



Data Tools

Thematic Mapping Tools



Data Tools

The screenshot displays the Oregon Spatial Data Library interface. It features a search bar and a navigation bar with 'HOME', 'SEARCH', and 'DOWNLOAD'. The main content area shows search results for 'Water' data, including 'Oregon Water Points - PNW Hydrography Framework', 'Oregon Water Bodies - PNW Hydrography Framework', 'Oregon Hydrography Water Courses - PNW Hydrography Framework', and 'Groundwater Water Drinking Water Source Areas (2011)'. Each result includes a brief description and links for 'Download', 'Preview Website Details', and 'Metadata Zoom To'.

Providing Access to DEQ Water Quality Data

Oregon EXPLORER / **Map Viewer** Search for map features...

Explore Map | Layers | Create & Share | Analysis | Help

Map Navigation: Pan, Zoom In, Zoom Out, Initial Extent, Full Extent, Previous Extent, Next Extent

Identify Map Features: Point Identify, Freehand Identify, Line Identify, Polygon Identify, Rectangle Identify, Buffered Identify, Address From Point

Query Data: Simple Query, Advanced Query

Map Extent & Scale: Map Scale: 1: 4,622,324 | Jump to a map bookmark...

Map Layers | I want to... | Map Theme: All Available Layers (default)

- Administrative Boundaries & Reference
 - Counties (Census 2010)
- Water and Air
 - Water Quality Streams (2010)
 - Cat 5: Water quality limited, TMDL needed
 - Cat 4: Water quality limited, TMDL not...
 - Cat 4A: Water quality limited, TMDL...
 - Cat 4B: Water quality limited, other...
 - Cat 4C: Water quality limited, impairment...
 - Cat 3: Insufficient data
 - Cat 3B: Insufficient data, potential concern
 - Cat 3C: Impairing pollutant unknown
 - Cat 2: Attaining, specific water quality...
 - Unknown status ID (8, 10, 21)
- Oregon Mask
 - States & Provinces
 - Other States and Provinces
 - Oregon

Show Layers | Filter

100mi / 100km | Lat: 45.9086 | Long: -125.5363 | Elevation: 1269 ft

Providing Access to Local Water Quality Data

The screenshot shows the Oregon Explorer Map Viewer interface. The search bar at the top right contains the text "camp sherman". The map displays an aerial view of Camp Sherman, Oregon, with a red circle highlighting a specific location on the Metolius River. Below the map, a table titled "Results (380)" displays water quality data for the Metolius River at Camp Sherman Bridge. The table includes columns for ObjectID, Water Type, Water Body, Sample Location, Sample Date, Analyte, Result, and DL.

OBJECTID_1	OBJECTID	Water_Type	Water_Body	Sample_Loc	Sample_Yea	Sample_Mon	Sample_Day	Sample_Tim	Sample_ID	Analyte	Result	Result_Val	Result_Uni	Analyzed_D	Analyzed_T	Method	DL
2203	2180	SW	Metolius River	Camp Sherman Bridge	2002	7	0			Nitrate	0.0400	0.04	mg/L			EPA 300.0	0.03
2204	2181	SW	Metolius River	Camp Sherman Bridge	2003	7	16			Nitrate	0.0900	0.09	mg/L			EPA 300.0	0.03
2205	2182	SW	Metolius River	Camp Sherman Bridge	2004	7	21			Nitrate	0.0300	0.03	mg/L			EPA 300.0	0.03
2206	2183	SW	Metolius River	Camp Sherman Bridge	2005	7	20			Nitrate	NonDetect	0	mg/L			EPA 300.0	0.03
2207	2184	SW	Metolius River	Camp Sherman Bridge	2006	7	19			Nitrate	NonDetect	0	mg/L			EPA 300.0	0.03
2208	2185	SW	Metolius River	Camp Sherman Bridge	2009	7	15			Nitrate	NonDetect	0	mg/L			EPA 300.0	0.03
2209	2186	SW	Metolius River	Camp Sherman Bridge	2008	7	16			Nitrate	NonDetect	0	mg/L			EPA 300.0	0.03

Future -- Providing access to crowd-sourced water quality data via "Monitool" in partnership with Gauge Scientific?

Watershed Restoration Tool

Oregon Watershed Restoration Tool
1995-2009

Oregon Explorer Home

Project Data | Overlay Layers | Reports

Find on Map [Adv Search](#)

Lat: 44.6687 Long: -121.2341

Restoration Activities

To Find Project Data:

1. Select an Oregon Plan Basin by clicking the basin button on map or from the dropdown list below.
2. Select to view sub-basins or watershed councils by selecting the appropriate checkbox in Step 2 (defaults to sub-basin).
3. Select sub-basin/watershed council to add project data to map by clicking the load data button on the map or from the dropdown list below.

TIP: Click here [to see project locations statewide.](#) Project information is [-show me-](#) within a sub-basin/watershed council boundary.

2D 3D | Road Aerial Labels

Map Labels: Cascade Range, Richland, Kennewick, Walla Walla, Umatilla National Forest, La Grande, Eagle Cap, Enterprise, N.A.A., Payette National Forest, Council, Snake River, Birds of Prey, Natural Area, Owyhee, Mount Hood

Load Lower Deschutes Sub-Basin Data

80 miles

1 Select Oregon Plan Basin

Deschutes

Show Selectable Basin Layer

2 Select Sub-Basin or Watershed Council

Sub-Basin Watershed Councils

<--Select-->

3 Download Data

Download

Project Data | **Overlay Layers** | Reports

Find on Map

Adv Search

Lat: 45.2013 Long: -120.9357

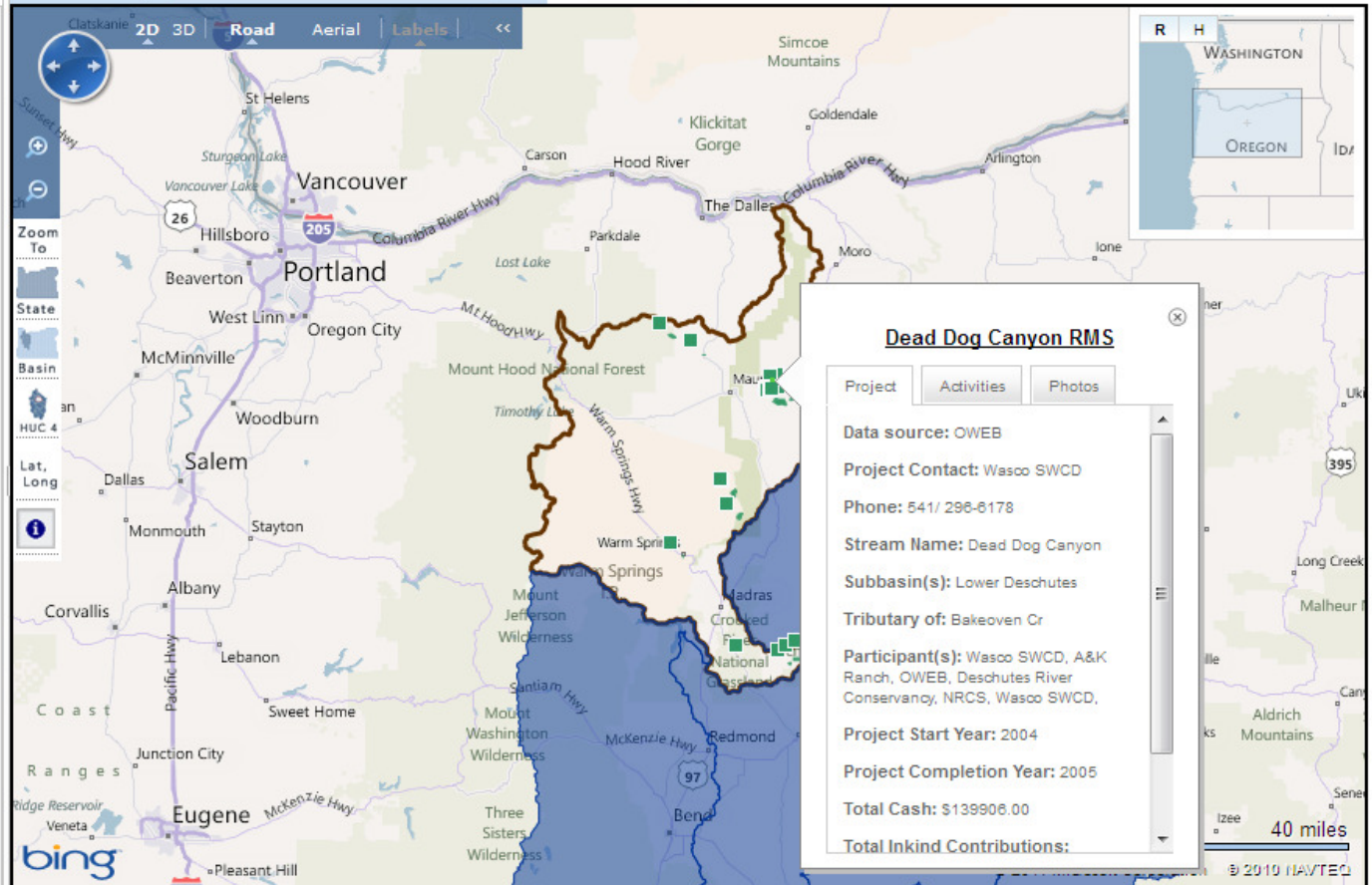
Restoration Activities

Activities	Data Sources	
	OWEB	BLM & USFS
Fish Passage	<input type="checkbox"/>	<input type="checkbox"/>
Instream	<input type="checkbox"/>	<input type="checkbox"/>
Riparian	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Road	<input type="checkbox"/>	<input type="checkbox"/>
Upland	<input type="checkbox"/>	<input type="checkbox"/>
Urban	<input type="checkbox"/>	<input type="checkbox"/>
Wetland	<input type="checkbox"/>	<input type="checkbox"/>
Combined	<input type="checkbox"/>	<input type="checkbox"/>

Special Investment Projects (SIP)

<input checked="" type="checkbox"/> Deschutes SIPs (in process)	<input type="checkbox"/>
---	--------------------------

TIP: Click here to see project locations statewide. Project information is only accessible within a sub-basin/watershed council boundary.



Dead Dog Canyon RMS

Project | **Activities** | Photos

Data source: OWEB

Project Contact: Wasco SWCD

Phone: 541/ 296-6178

Stream Name: Dead Dog Canyon

Subbasin(s): Lower Deschutes

Tributary of: Bakeoven Cr

Participant(s): Wasco SWCD, A&K Ranch, OWEB, Deschutes River Conservancy, NRCS, Wasco SWCD.

Project Start Year: 2004

Project Completion Year: 2005

Total Cash: \$139906.00

Total Inkind Contributions:

1 Select Oregon Plan Basin

Deschutes

Show Selectable Basin Layer

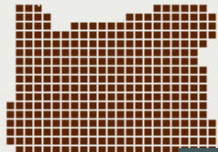
2 Select Sub-Basin or Watershed Council

Sub-Basin Watershed Councils

Lower Deschutes

3 Download Data

Download



Natural Resources Digital Library

Information to policymakers about rural issues and change in communities.

In partnership with Rural Studies



Community Data

Rural Communities EXPLORER

Explore Rural Communities

What is a [community](#)?

What is [rural](#)?

Rural Oregon [stories](#)

Use the [Rural Communities Explorer Tutorial](#)

[Glossary](#) of rural terms

Research, Map & Analyze

Access [community data](#)

Use the [Community Model](#)

[Map](#) rural issues

Find [data sources](#) for rural communities

[Reports](#) and Publications

Issues in Rural Oregon

Learn about [rural issues](#)

What is [community vitality](#)?

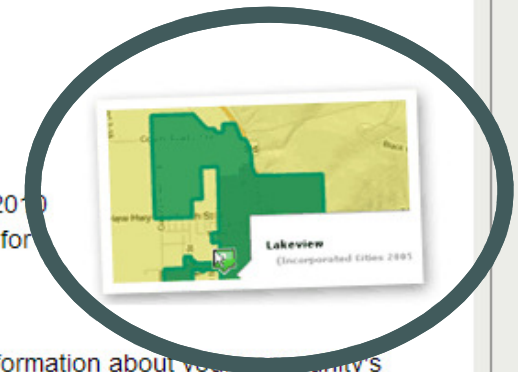
[Redefining](#) Oregon

Experts & Other Resources

ACCESS COMMUNITY DATA

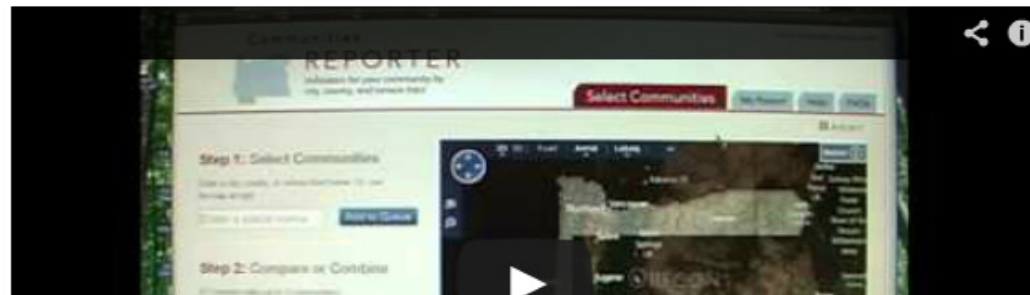
2006-2010 Community Data NOW AVAILABLE for communities in Oregon and Siskiyou County, CA!!

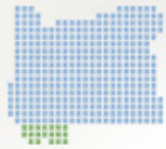
The Communities Reporter Tool has been updated with 2006-2010 data from the American Community Survey, 2000 census data, and 2010 data from over 25 other sources for all of the 1,431 places and 37 counties in Oregon and Siskiyou County, CA.



And now you can upload or download documents with information about your community's economy, environment, or demographics directly in the Communities Reporter Tool! Use this feature to access unique community data, or as an opportunity to share community data that you have gathered, with the public.

Video Introduction to the Rural Communities Explorer





REPORTER

Indicators for your community by city, county, and census tract

How-To Instructions

Select community from map

Type community name

Step 1: Select Communities

Enter a city, county, or census tract below. Or, use the map at right.

Report Queue:

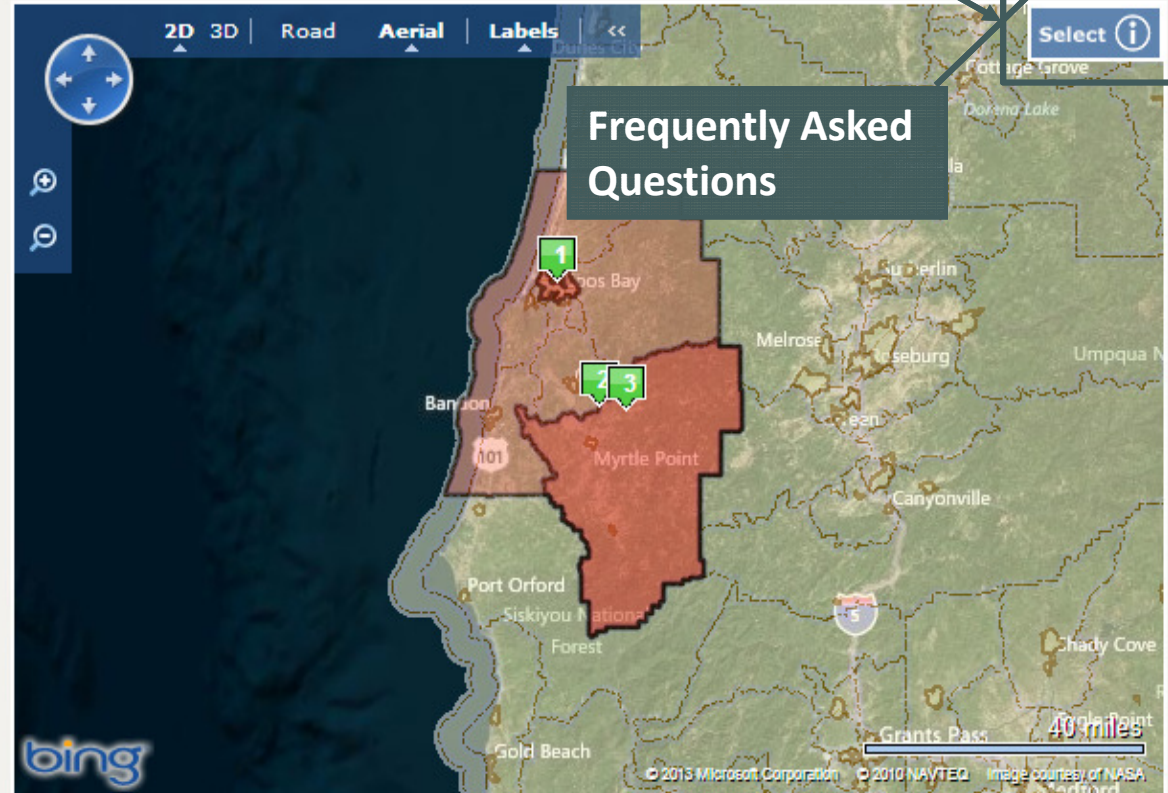
- 1. [Coos Bay](#) (Incorporated City) [Remove](#)
- 2. [Arago](#) (Unincorporated Place) [Remove](#)
- 3. [Coos County](#) (County) [Remove](#)

Step 2: Compare or Combine

- Compare data (up to 3 communities)
- Combine data (up to 12 communities)

Note: You can only combine cities with cities, counties with counties, or census tracts with census tracts.

If you want to compare California communities with Oregon communities, you can only do so with a single community from each state.



Frequently Asked Questions

LEGEND

Census Designated Places

Details ▾

Census Tracts

Details ▾

Oregon Counties

Details ▾

Education

Community Documents

Population

Age

Family Structure

Education

Income

Employment & Labor Market

Migration

Race & Ethnicity

Health & Medical

Crime & Abuse

Housing

Food system

Natural Resources & Amenities

Economic Resources

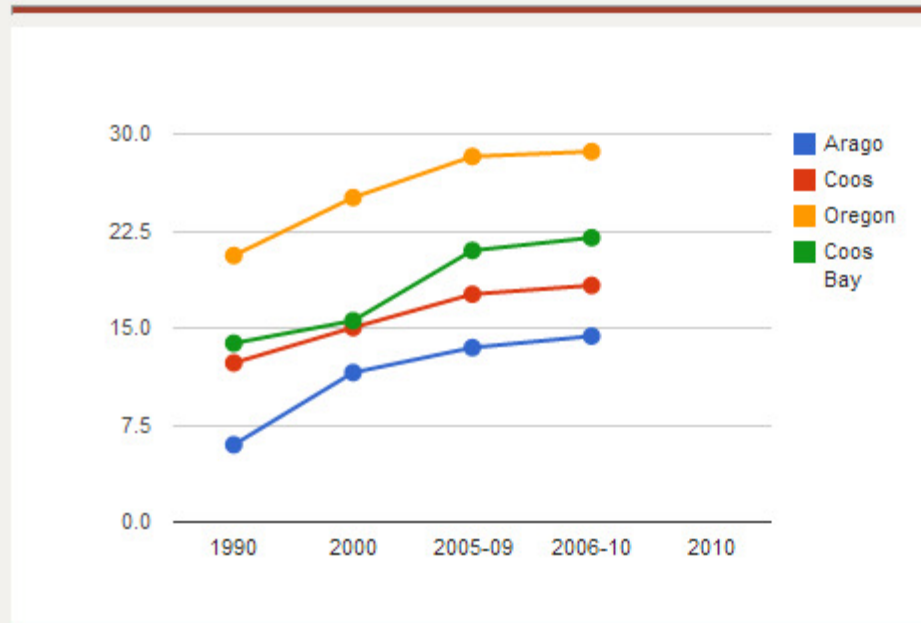
Environmental Health

Community Capacity

Classifications

Change Report

Percentage of Adults with 4-year Degree or Greater



	1990	2000	2005-09	2006-10	2010
<input checked="" type="checkbox"/> Coos Bay	13.82%	15.56%	20.99%	21.98%	--
<input checked="" type="checkbox"/> Arago	5.97%	11.55%	13.48%	14.37%	--
<input checked="" type="checkbox"/> Coos	12.30%	15.03%	17.61%	18.29%	--
<input checked="" type="checkbox"/> Oregon	20.60%	25.08%	28.26%	28.64%	--

<http://oe.oregonexplorer.info/rural/OregonCommunitiesReporter>

DOWNLOAD

Details

Communities REPORTER

Percentage of Adults with 4-year Degree or Greater

The percentage of the population age 25+ with 4-year degree or greater education.

Formula: $(\frac{\text{\# people over 25 with 4-year degree} + \text{\# with master's} + \text{\# with professional degree} + \text{\# with doctorate}}{\text{total population over 25}}) * 100$

Source: US Census Bureau Decennial Census (1990, 2000), American Community Survey (2005-09).

data available

Oregon

2006-10

88.55%
+/- 0.4%

28.64%
+/- 0.3%

data available

Oregon

2010

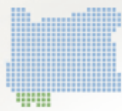
3.35%

--

51.19%

--

--



REPORTER

Indicators for your community by city, county, and census tract

Select Communities

My Report

Help

FAQs

Back to map

DOWNLOAD

PRINT

Environmental Health

Community Documents

Population

Age

Family Structure

Education

Income

Employment & Labor Market

Migration

Race & Ethnicity

Health & Mortality

Crime & Abuse

Housing

Food system

Natural Resources & Amenities

Economic Resources

Environmental Health

Community Capacity

-- no data available

Data from Other Sources

Change report years

View data for all years

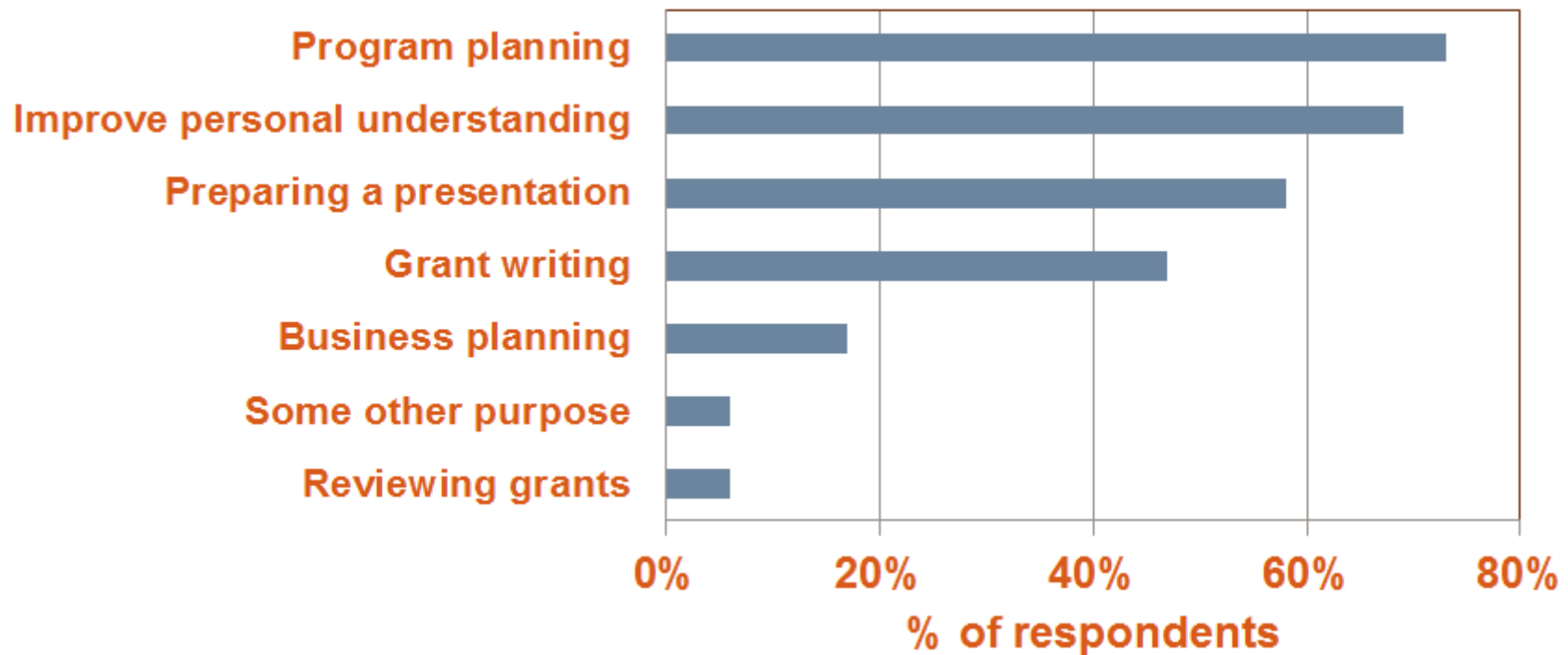
	View data for all years	Salem		Corvallis		Oregon	
		Incorporated City 2000	2010	Incorporated City 2000	2010	2000	2010
Number of Days of Unhealthy Air for All Groups <i>County-level data</i>		0	0	0	0	2	2
Details							
Number of Days of Unhealthy Air for Sensitive Groups <i>County-level data</i>		0	1	0	0	54	14
Details							
Number of Environmental Cleanup Sites with Known or Potential Contamination from Hazardous Substances <i>County-level data</i>		--	21	--	7	--	614
Details							
Number of Impaired (303d listed) Lakes within the County <i>County-level data</i>		0	--	0	--	36	--
Details							
Number of Impaired (303d listed) Stream Reaches within the County <i>County-level data</i>		57	--	20	--	1,682	--
Details							
Number of Leaking Underground Storage Tanks In Active Cleanup <i>County-level data</i>		--	633	--	82	--	6,753
Details							
Pounds of Waste Landfilled, per capita <i>County-level data</i>		1,552	1,305	1,472	1,275	1,617	1,311
Details							

Future Enhancement – Tracking Oregon’s Progress Indicators (TOP) for Healthy Economy, Communities, Environment

with support from Oregon Community Foundation & OSU Rural Studies Program

Users & Uses of the Rural Communities Explorer

- 4,000 people/month
- 55,000 visits since Oct. 2010



2012 User Survey

Initiatives

HIS Central – current status

- A quick data extraction for Western Oregon yields 18 major web services and roughly 20,000 data series from HIS Central
- Metadata, documentation, and related information on data and series
- Standardized database and repository for data and archiving
- Publicly accessible and supported by CUASHI, state and federal organizations and over 100 universities
- Interface for major data model and database management



Hydrologic Information Server



Willamette Water 2100 produced data



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Strategic Goals

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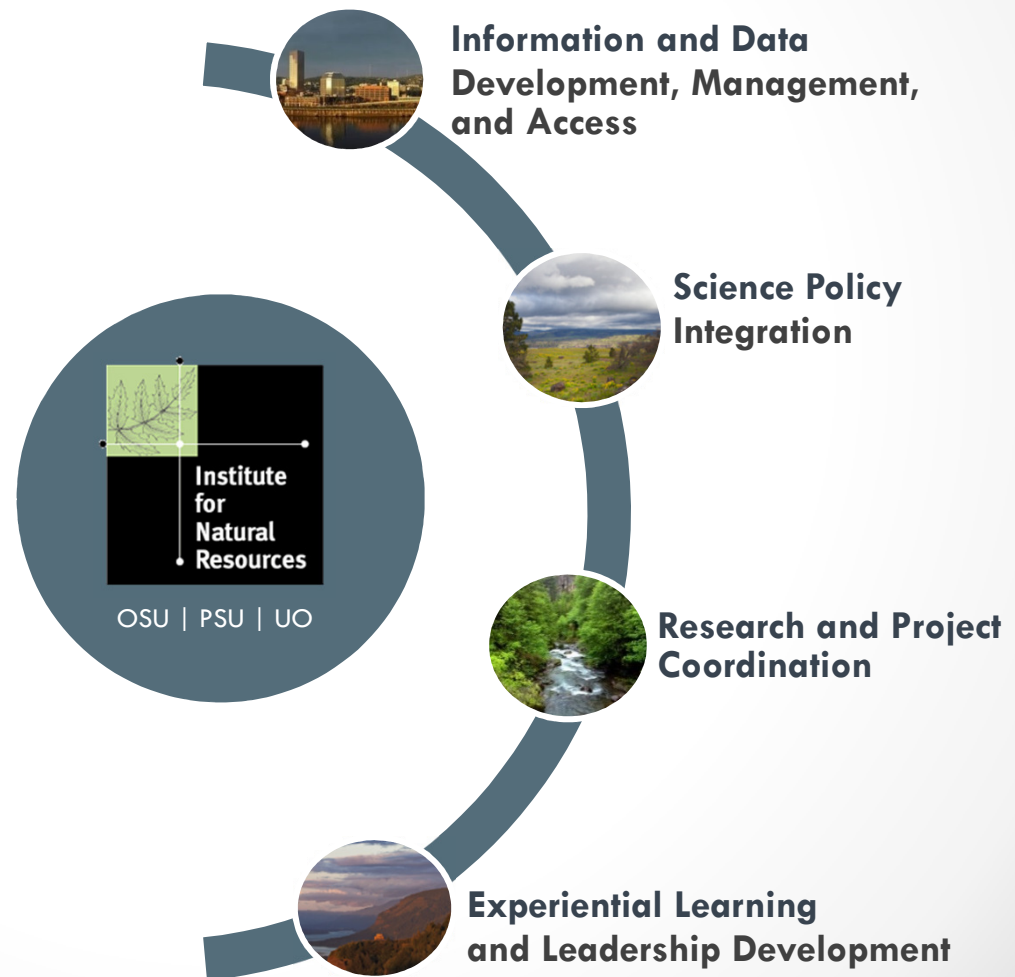
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Extend the reach of integrated knowledge and information to inform natural resource decision making.

Goal 3

Enhance the relevance and delivery of INR's distinctive suite of services and products.





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*Informing natural resource decision making through
integrated knowledge and information.*

Lisa Gaines, INR Director

Todd Jarvis, IWW Director

Jimmy Kagan, INR-PSU and ORBIC Director

Janine Salwasser, Oregon Explorer Program Lead