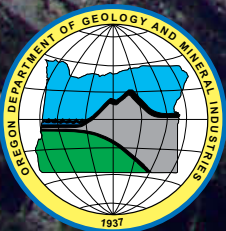


# OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

STRATEGIC FRAMEWORK  
2015-2021





# ABOUT DOGAMI

## OUR MISSION

The Oregon Department of Geology and Mineral Industries provides earth science information and regulation to make Oregon safe and prosperous.

## OUR VISION

DOGAMI envisions an Oregon where people and places are prepared for natural hazards; where decisions for Oregon's future always consider natural hazards; where resource potential is fully understood and responsibly developed; where earth science contributes to the health of our coast, rivers, forests, and other ecosystems; and where geologic learning and discovery abound.

## OUR VALUES

We are committed to our mission and vision and hold our work and ourselves to the highest standards of science and professionalism. We will continuously seek opportunities for innovation and collaboration; build our capacity for sustainable success; and be open, engaged, responsive, and respectful in all we do.

## OUR WORK

The Department of Geology and Mineral Industries (DOGAMI) increases understanding of Oregon's geologic resources and hazards through science and stewardship.

Our Geological Survey & Services program develops maps, reports, and data to help Oregon manage natural resources and prepare for natural hazards such as earthquakes, tsunamis, landslides, floods, volcanoes, coastal erosion, and climate change. Our Mineral Land Regulation & Reclamation program oversees the state's mineral production, and works to minimize impacts of natural resource extraction and to maximize the opportunities for land reclamation.

The 2015-2021 Strategic Framework will guide DOGAMI in achieving our ambitious vision for Oregon. The framework provides common goals and objectives for our work over the next six years, but purposefully allows for creativity and flexibility in how we reach them. Working within this broad framework, the Agency will develop the specific plans, initiatives and priorities necessary to make measureable and significant progress toward our vision.

### BY THE NUMBERS

45

Full-time staff positions

\$14.7 million

Agency budget for the 2013-2015 biennium

18

Percent of Agency operations supported by State general funds for the 2013-2015 biennium

206,000

Number of interactions with DOGAMI's website, [oregongeology.org](http://oregongeology.org), between June 2013 and July 2014

1700

### OREGON'S LAST BIG ONE

A magnitude 9+ earthquake shakes the Northwest

1851

### EUREKA!

Gold discovered in Oregon Territory



1859

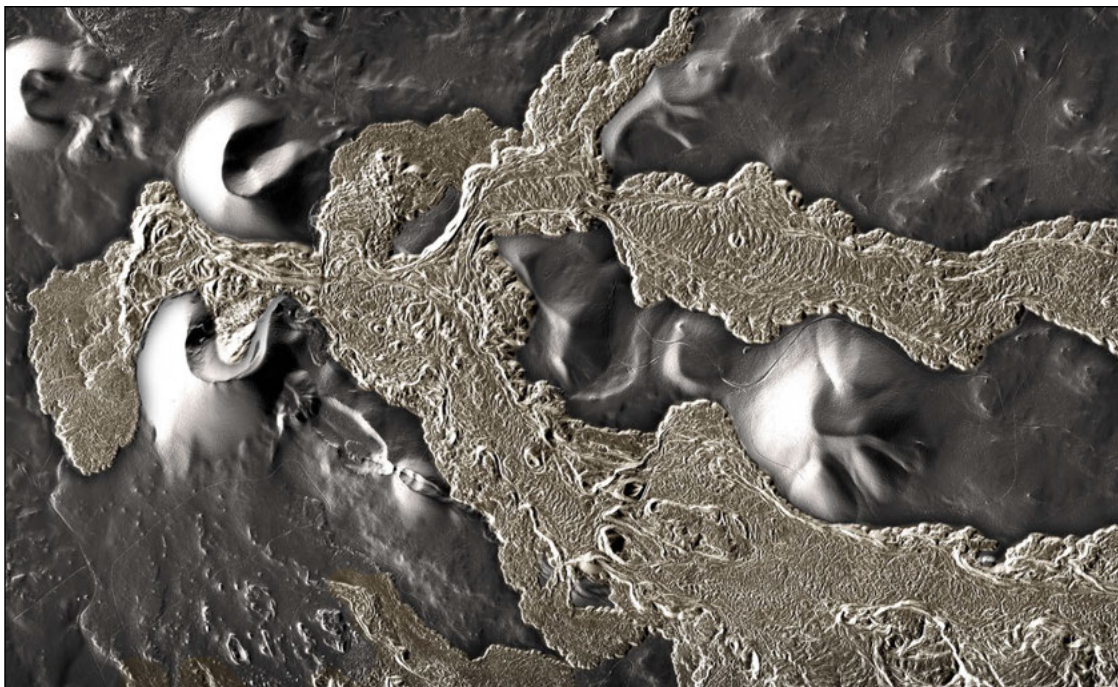
### BEAVER STATE

Oregon becomes the 33rd state in the Union

1872

### FIRST STATE GEOLOGIST

Minister, geologist and paleontologist Thomas Condon is appointed to fill the role



# EARTH SCIENCE

## GOAL

Acquire and organize complete and current descriptions of Oregon's geology, landforms, and geo-processes to assess resources and natural hazards, to support healthy ecosystems, and to guide safe and prudent rural and urban development.

## OBJECTIVES

- Develop data, maps and models describing Oregon's geology, tectonics, physical landscape and processes that shape it.
- Collect information on geothermal, metallic and aggregate mineral resources of Oregon.
- Acquire, organize and distribute high resolution lidar and other remotely sensed imagery for the state.
- Develop and maintain earth science databases to broadly support the mission of the Agency and other professionals working to keep Oregon's coast, rivers, forests, and other ecosystems healthy.
- Design earth science information products that effectively reach a wide audience.

## BY THE NUMBERS

**56**

Percent of Oregon's inhabited areas for which new-generation geologic mapping has been completed

**5,429**

Number of wells that have been investigated, or show potential as, a geothermal resource

**42**

Percent of Oregon counties in which DOGAMI has active projects

**72**

Percent of populated areas for which high-resolution lidar elevation data have been acquired

**1911**

### **MINES BUREAU**

The Oregon Bureau of Mines, forerunner to DOGAMI, is created



**1937**

### **DOGAMI**

The Oregon Department of Geology and Mineral Industries is created

**1953**

### **OIL & GAS ACT**

Oregon's Oil and Gas Conservation Act assigns DOGAMI regulatory responsibility for well drilling and operation

**1960s**

### **TO THE MOON**

NASA turns to DOGAMI for help as astronauts come to Central Oregon to study volcanic terrain thought to be similar to the moon's surface

# NATURAL HAZARDS

## GOAL

Create and compile comprehensive assessments of natural hazards and community vulnerability, and promote risk reduction strategies to build resilient communities.

## OBJECTIVES

- Map, model, and monitor hazards related to earthquakes, landslides, volcanoes, floods, the coast, tsunamis, toxic minerals, and climate change.
- Collect information, including lidar data, physical landscape change data, and inventories of the built environment, to assess the vulnerability and risk of communities to natural hazards.
- Promote probabilistic assessments of natural hazards to allow comparison of risks from all hazards, and to inform mitigation decisions.
- Support agencies and local governments in developing regulatory frameworks and tools to mitigate hazards.
- Collect and distribute data to inform response and recovery following natural disasters, and preserve disaster data for future scientific study.



### BY THE NUMBERS

20-40%

Probability that a magnitude 8+ Cascadia Subduction Zone earthquake will happen in the next 50 years

50,850

Known landslide locations and features mapped in the Statewide Landslide Information Database for Oregon (SLIDO)

1,111

Public education buildings in Oregon ranked in 2007 as having very high or high risk collapse potential in a major seismic event

251

Oregon communities prone to flooding

1971

### NEW ENERGY

Geothermal Resources Act assigns DOGAMI regulatory responsibilities for geothermal energy projects

1972

### MINED LAND ACT

Oregon's Mined Land Reclamation Act is adopted, ensuring reclamation of all open mining pits

1980

### ERUPTION!

Mount St. Helens erupts



1984

### CASCADIA'S A THREAT

Scientists first recognize the Cascadia Subduction Zone as a serious geologic hazard





# RESOURCE MANAGEMENT

## GOAL

Administer effective and balanced regulation of mineral, oil and gas, and geothermal energy development to support the environment, economy, and people of Oregon.

## OBJECTIVES

- Provide the regulatory framework to ensure beneficial reclamation and restoration of disturbed lands.
- Increase understanding of cultural, environmental, and economic effects of natural resource extraction.
- Ensure mitigation of mining's impacts, including those to water and air quality, habitat, waterways, and slope stability.
- Improve the efficiency of the regulatory programs by using appropriate and emerging technologies.
- Develop practices and procedures to assist mine operators in meeting new resource management challenges.
- Continually improve communication and coordination with stakeholders to support resource stewardship.

## BY THE NUMBERS

**11**

Mineral Land Regulation & Reclamation program staff members

**3**

Types of natural resource extraction—mining, oil and gas, and geothermal—regulated by the MLRR program

**57,250**

Acres currently permitted for mining

**\$350 million**

Average yearly production of Oregon's mineral industries

**487**

Number of site inspections staff completed from June 2013 to July 2014

**1987**

### EARTHQUAKE MAPS

DOGAMI begins mapping earthquake hazards

**1993**

### BIG QUAKES

Earthquakes in Klamath Falls and Scotts Mills are the most destructive in recent history

**1993**

### UP TO CODE

Seismic building code that recognizes Cascadia earthquake threat adopted for Oregon

**1993**

### STATEMAP

USGS STATEMAP project launches and significantly expands DOGAMI's production of new geologic maps

# GOVERNANCE & OPERATIONS

## BY THE NUMBERS

5

Number of Governing Board members, appointed by Oregon's governor, who oversee DOGAMI operations

\$1,000

Amount per year appropriated in 1872 to Thomas Condon, the first state geologist, for "necessary surveys and explorations"

\$15 million

Lidar acquisition funds leveraged by a \$2 million Oregon Lottery Fund seed capital investment

## GOAL

Provide leadership, develop partnerships, and maintain professional standards to optimize operations to achieve the Agency's mission.

## OBJECTIVES

- Secure sustainable funding sources to provide for continuity of Agency operations and services.
- Continue to assess and improve Agency performance in areas including fiscal management, business continuity planning, communication strategies, and customer satisfaction.
- Seek opportunities for partnerships that leverage our ability to effectively implement programs, and expand the use of Agency information.
- Facilitate the Governing Board's efforts to promote Agency activities.
- Support staff professional growth through technology training and a commitment to staying at the forefront of emerging science and technologies.
- Conduct business and operations safely and efficiently, with guidance from consistent and up-to-date Agency policies.



1995

### SB 379

Senate Bill 379 limits construction of critical and essential facilities in the tsunami inundation zone

1996

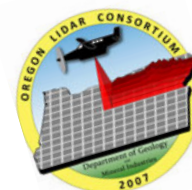
### LANDSLIDES!

Heavy winter storms trigger more than 9,500 landslides in Oregon

2005

### SEISMIC SAFETY

Senate Bill 2 directs DOGAMI to assess the seismic safety of K-12 schools and emergency facilities



2007

### COLLECTING LIDAR

The Oregon Lidar Consortium is established





# EDUCATION & OUTREACH

## GOAL

Provide earth science, resource management, and natural hazards information to support decisions and solutions on individual, local, regional, and statewide levels.

## OBJECTIVES

- Raise awareness of, support for, and engagement in the Agency's efforts to achieve a safe and prosperous Oregon.
- Reach wider audiences with Agency information by improving existing or adding new communication channels.
- Promote hazard awareness and preparedness.
- Inspire geologic exploration and discovery.
- Expand the use of Agency information through partnerships, collaboration and coordination, active engagement, and other communication strategies.

## BY THE NUMBERS

# 5,000

Approximate number of people who attended a rally, evacuation drill, presentation or other awareness event during 2012-2013  
Tsunami Outreach Oregon efforts

# 13,155

Maps, reports and other items of geologic interest purchased from the Nature of the Northwest Information Center from June 2012 to July 2013

# 598

Copies of Oregon: A Geologic History, a DOGAMI map created for Oregon's sesquicentennial, sent to every public middle and high school in Oregon

2011

### RESILIENCE PLAN

House Resolution 3 initiates the Oregon Resilience Plan, which will recommend policy direction to protect lives and keep commerce flowing during and after a Cascadia earthquake and tsunami

2012

### HAZVU

DOGAMI debuts Oregon HazVu, an interactive map for identifying geologic hazards

2013

### TSUNAMI MAPPING

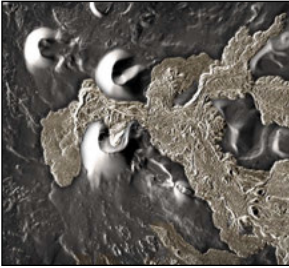
Tsunami inundation mapping is completed for the entire Oregon coast

2014

### TOWARD RESILIENCE

The Oregon Resilience Plan Task Force presents its recommendations to the Legislative Assembly

# OUTCOMES



## EARTH SCIENCE

We have readily available, complete and comprehensive geoscientific databases that can easily be used to answer questions about Oregon's landscape. We are trusted stewards of lidar and other remotely sensed data and products for landscape and GIS applications. The state is a recognized leader in using state-of-the-art geoscientific data in decision making.



## NATURAL HAZARDS

The state has engaged in actions that make Oregon a safer place to live based on the Agency's work to characterize and model natural hazards.



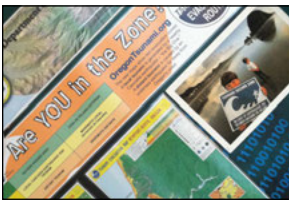
## RESOURCE MANAGEMENT

Mineral extraction in Oregon is productive, safe, environmentally sustainable, and is conducted to the highest operating standards. Regulation of mineral extraction is competent, fair, and uses relevant technology for efficiency.



## GOVERNANCE & OPERATIONS

We demonstrate through our operating methods and procedures and our business plan that we are a viable, secure, and supportive agency and employer. We develop and use business plans and operating procedures to optimize our effectiveness and minimize our expenses. We are fiscally responsible to our partners and the public.



## OUTREACH & EDUCATION

We are immediately recognized as the agency to contact or consult regarding geoscientific issues affecting Oregon, and our information and advice is trusted and acted upon.

## IMAGE CREDITS

**COVER:** Eagle Cap Wilderness; DOGAMI photo. **EARTH SCIENCE:** Lidar image of the Mokst Butte lava flow near Bend; image by Daniel E. Coe. **NATURAL HAZARDS:** DOGAMI coastal geomorphologist Jonathan Allan uses GPS instruments to document changes to Oregon's coast; DOGAMI photo. **RESOURCE MANAGEMENT:** Southern Oregon Redi-Mix was named 2013 Outstanding Operator in DOGAMI's annual Mined Land Reclamation Awards for management and reclamation efforts at their Jackson County sand and gravel site; DOGAMI photo. **GOVERNANCE & OPERATIONS:** DOGAMI Governing Board Chair Larry Givens during a field trip to Prineville ; DOGAMI photo. **OUTREACH & EDUCATION:** A DOGAMI outreach display; DOGAMI photo.