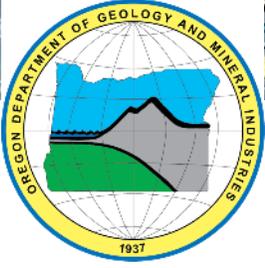


# Oregon Department of Geology and Mineral Industries

Joint Committee on Ways and Means  
Subcommittee on Natural Resources  
February 15, 2023



# DOGAMI Programs Delivers Science & Stewardship

**Five Person Governing Board Confirmed by Senate**

**Agency Leadership (Administration, IT and Finance 8 FTE)**

**Mineral Lands (12 FTE)**

**Geological Survey & Services (15 FTE)**



**Regulation & Reclamation  
of Surface Mining,  
Exploration, Oil & Gas,  
Geothermal, Chemical  
Process Mining**



**Landslide  
Inventory &  
Susceptibility  
Mapping**



**Flood &  
Channel  
Migration  
Mapping**



**Earthquake  
& Seismic  
Hazards  
Mapping**



**Tsunami &  
Coastal  
Erosion  
Mapping**

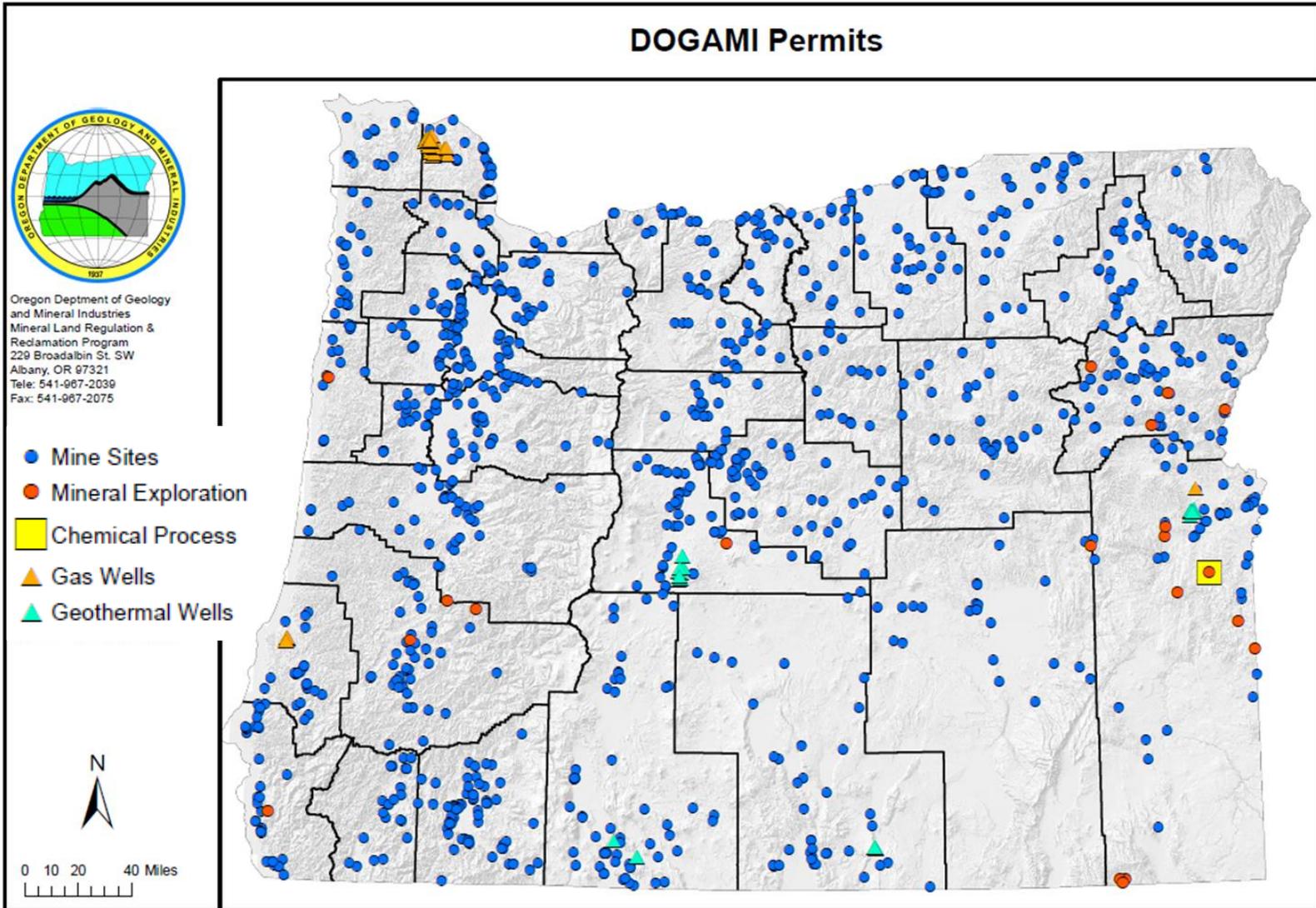
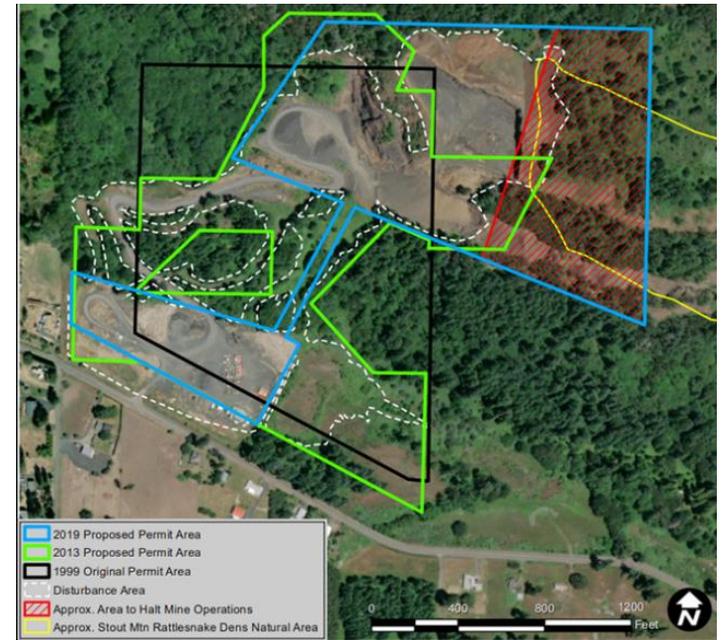
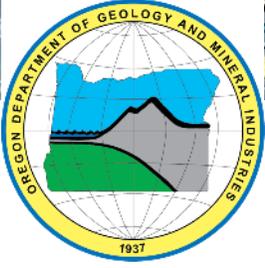


**Geological  
& Mineral  
Resource  
Mapping**



**Lidar Mapping**

# Mineral Land Regulation and Reclamation (MLRR)

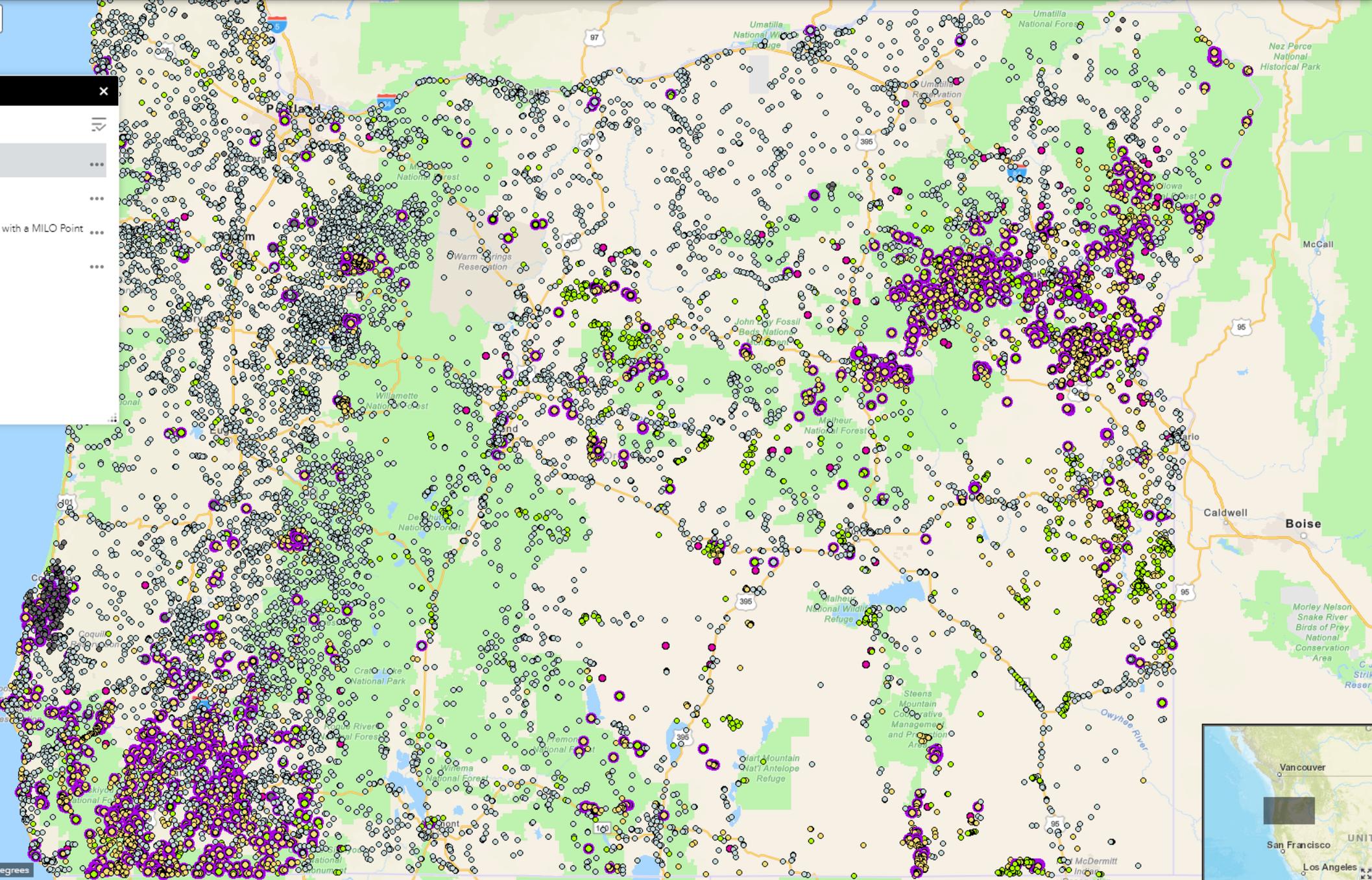


Oregon Deptment of Geology and Mineral Industries  
Mineral Land Regulation & Reclamation Program  
229 Broadalbin St. SW  
Albany, OR 97321  
Tele: 541-967-2039  
Fax: 541-967-2075

Find address

Layers Currently Shown

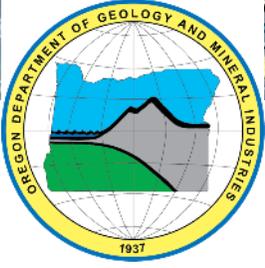
- Layers
- MILO Release 3
- MILO Points
- Large Format Maps Not Connected with a MILO Point
- Lidar Bare Earth Hillshade



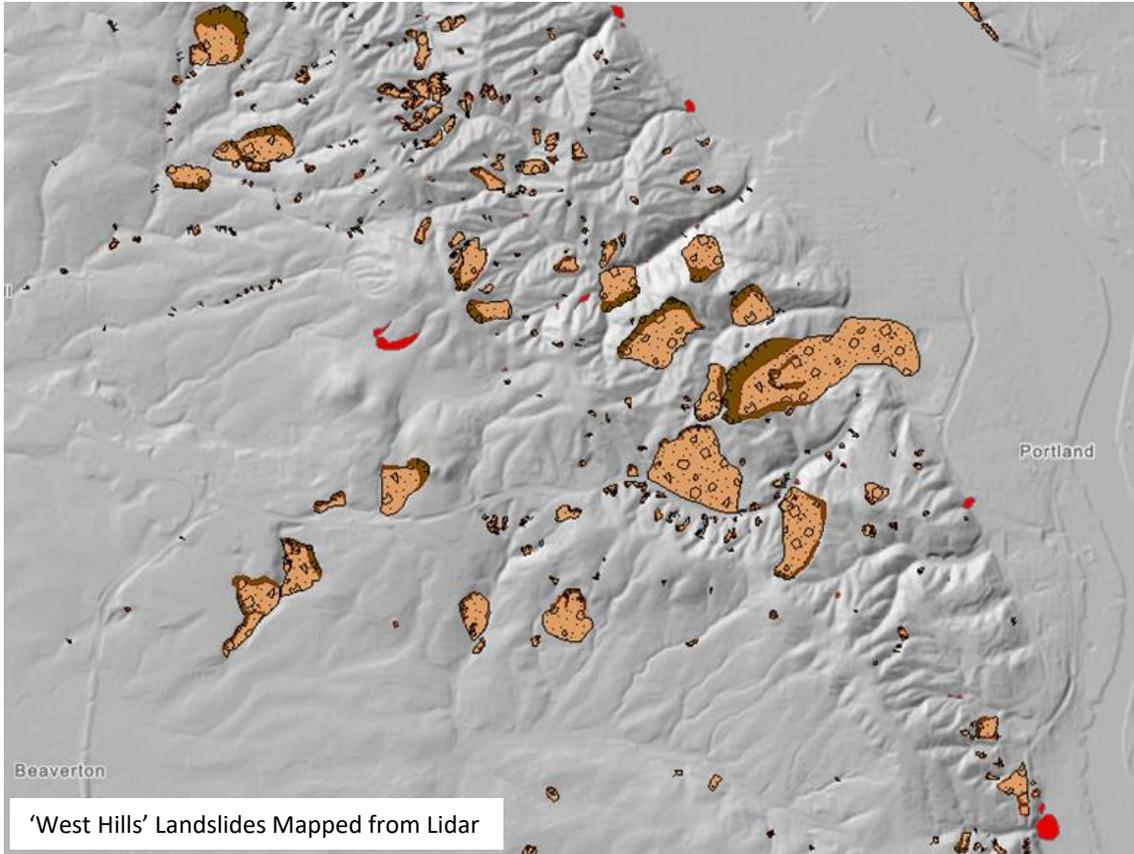
30mi -122.782 45.474 Degrees

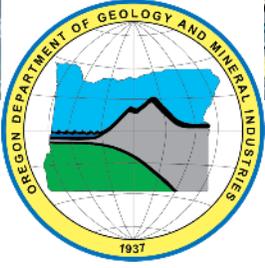






# Geological Survey & Services (GS&S)

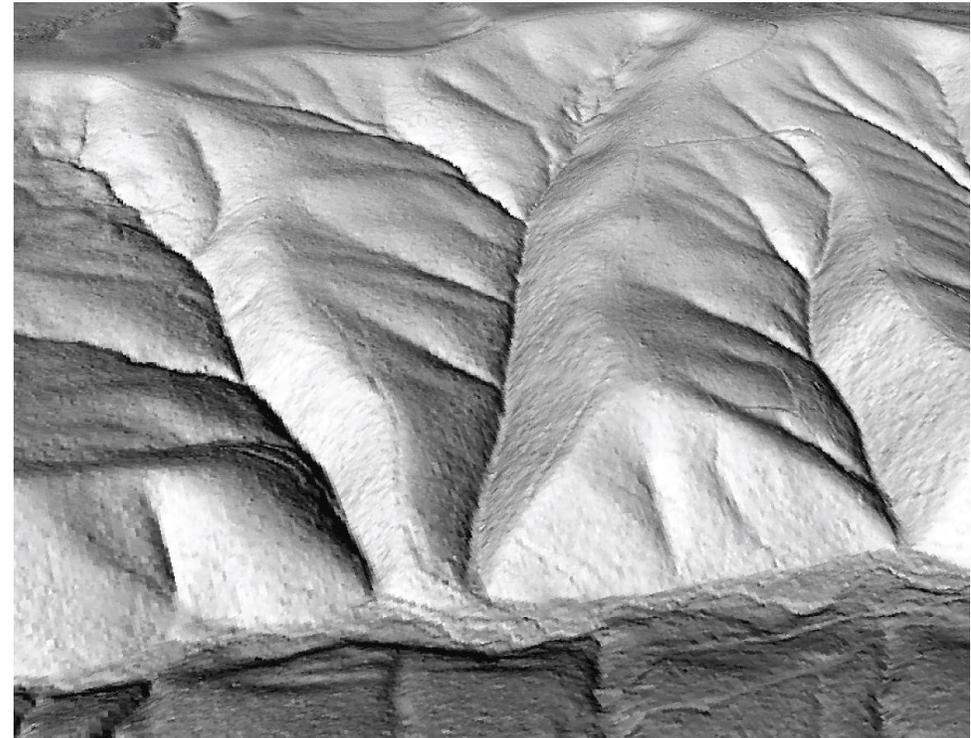




# Geological Survey & Services (GS&S)

## Post-Fire Debris Flow Risk after Wildfire

January 2021 Fatal Post-Fire Debris Flow. Source of debris flow within the 2017 Eagle Creek Fire, Columbia River Gorge, Oregon (photo courtesy of ODOT)

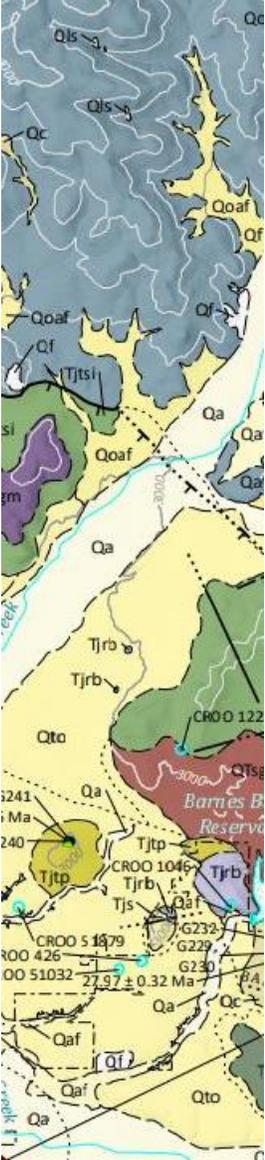


- DOGAMI collaborates with local communities to leverage technical expertise and federal funding to assess erosion and debris flow risk



# Long-Term Vacancies

- The Agency has no positions that qualifies for long-term vacancy status
  - Currently no vacant position in the Agency
- 2022 was an exceptionally successful year in hiring for vacant positions
  - Workload necessitated hiring:
    - Limited Duration Staff
    - Intern
- Increase in both the number of Staff who hold Registered Geologist Licenses in Oregon and/or an advanced degrees





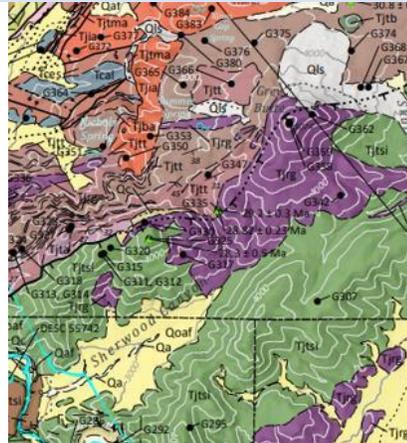
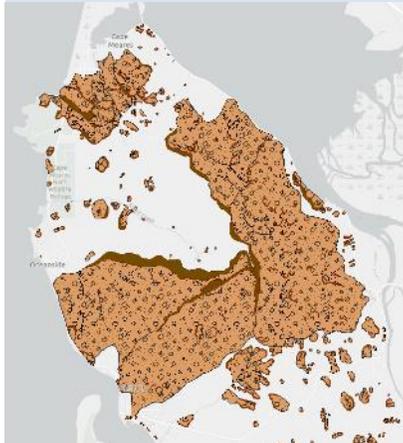
# Key Performance Measures and Focus Areas

Strategic Focus Areas

## Geological Survey & Services

## MLRR

## All Agency



Natural Hazards

Earth Science

Resource Management

Outreach & Education

Governance & Operations

Key Performance Measures

## KPM#5: Customer Service

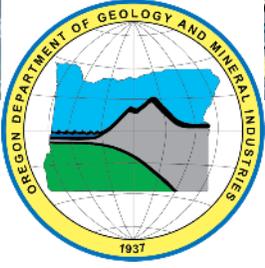
KPM#1: Hazard Assessment

KPM#4: Percent of Mines Sites Inspected

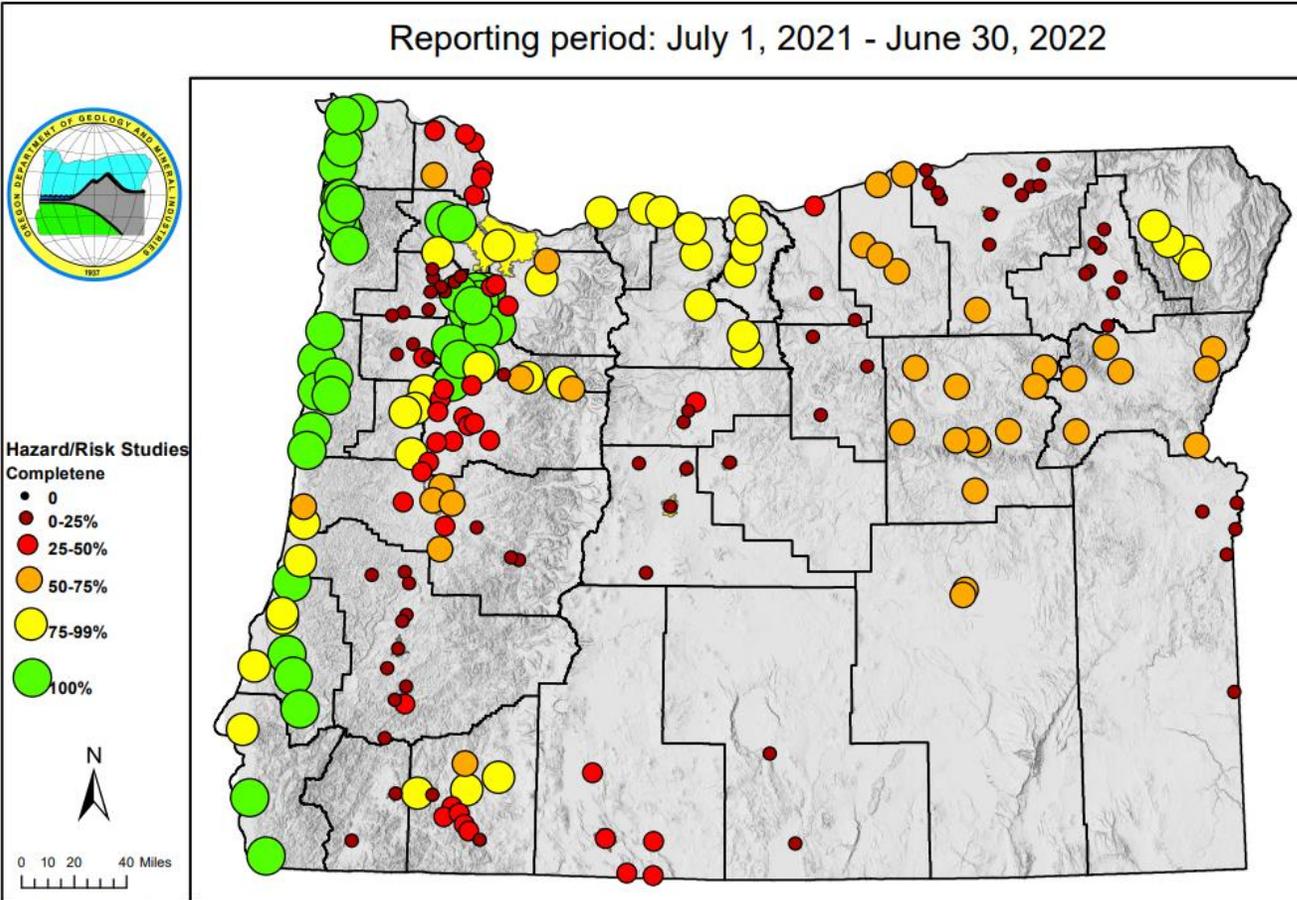
KPM#6: Governance

KPM#2: Geologic Mapping Completion

KPM#3: Lidar Coverage



# KPM#1 Geologic Hazard and Risk Assessment Completion



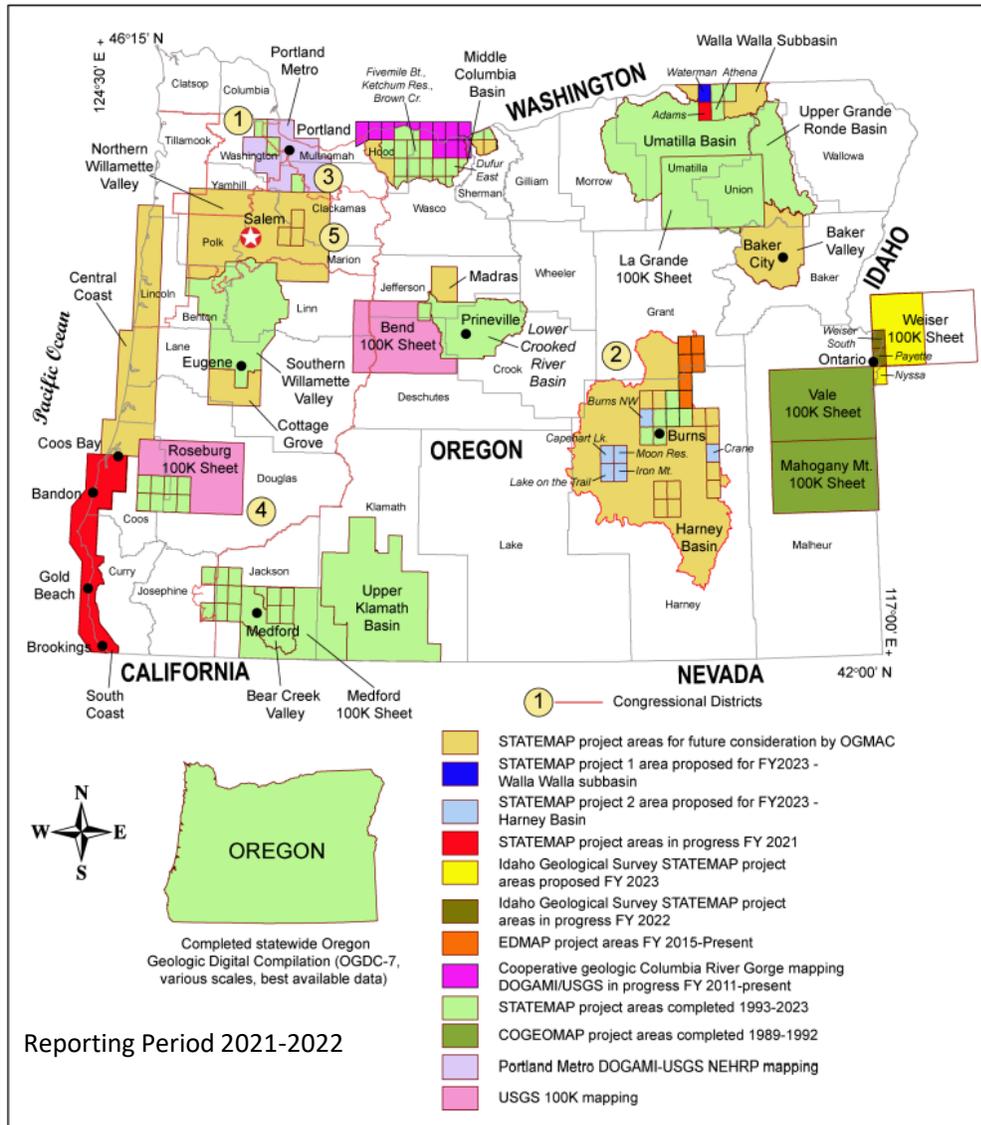
Prepared By: M. C. Williams 9-12-2022

- Percent of population residing in Oregon Urban Growth Boundary Areas (UGBs) that have completed geologic hazard and risk assessments

Report Year	2021	2022
<b>Target</b>	57%	62%
<b>Actual</b>	57%	68%



# KPM#2 Detailed Geologic Map Completion



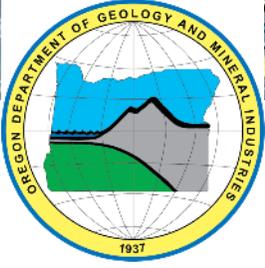
- Percent of Oregon (inhabited) where geologic data in the form of high-resolution maps have been completed to be used for local problem solving.

Report Year	2021	2022
Target	65%	66%
Actual	62.7%	62.8%

KPM

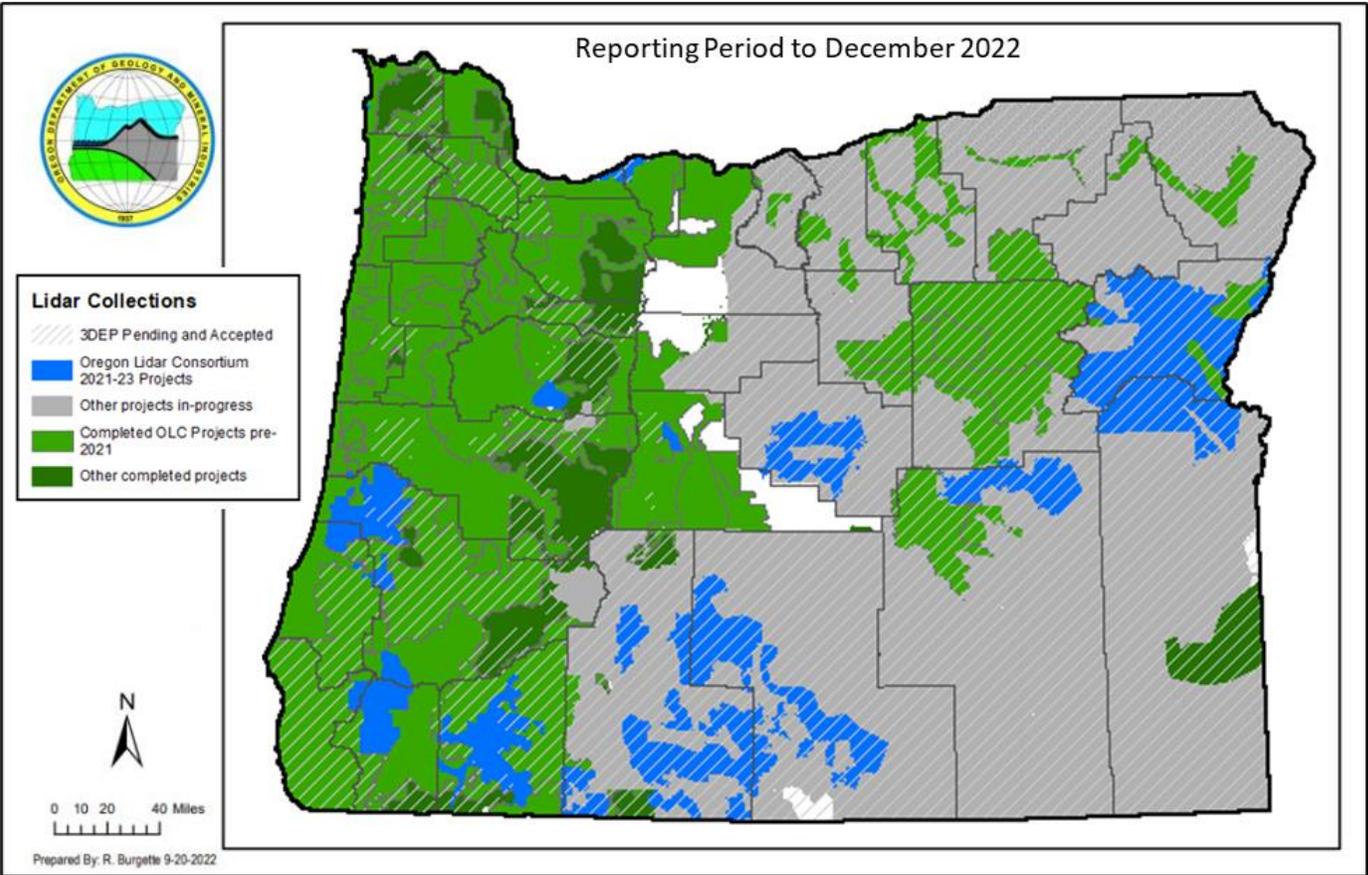
Year/Scale	2021	2022
1:100k	31.1%	31.5%
1:24k	21.1%	22.1%

Statewide

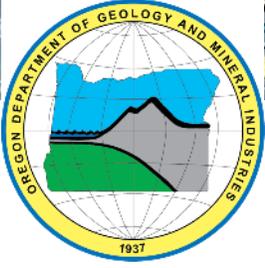


# KPM#3 Lidar Data Completion

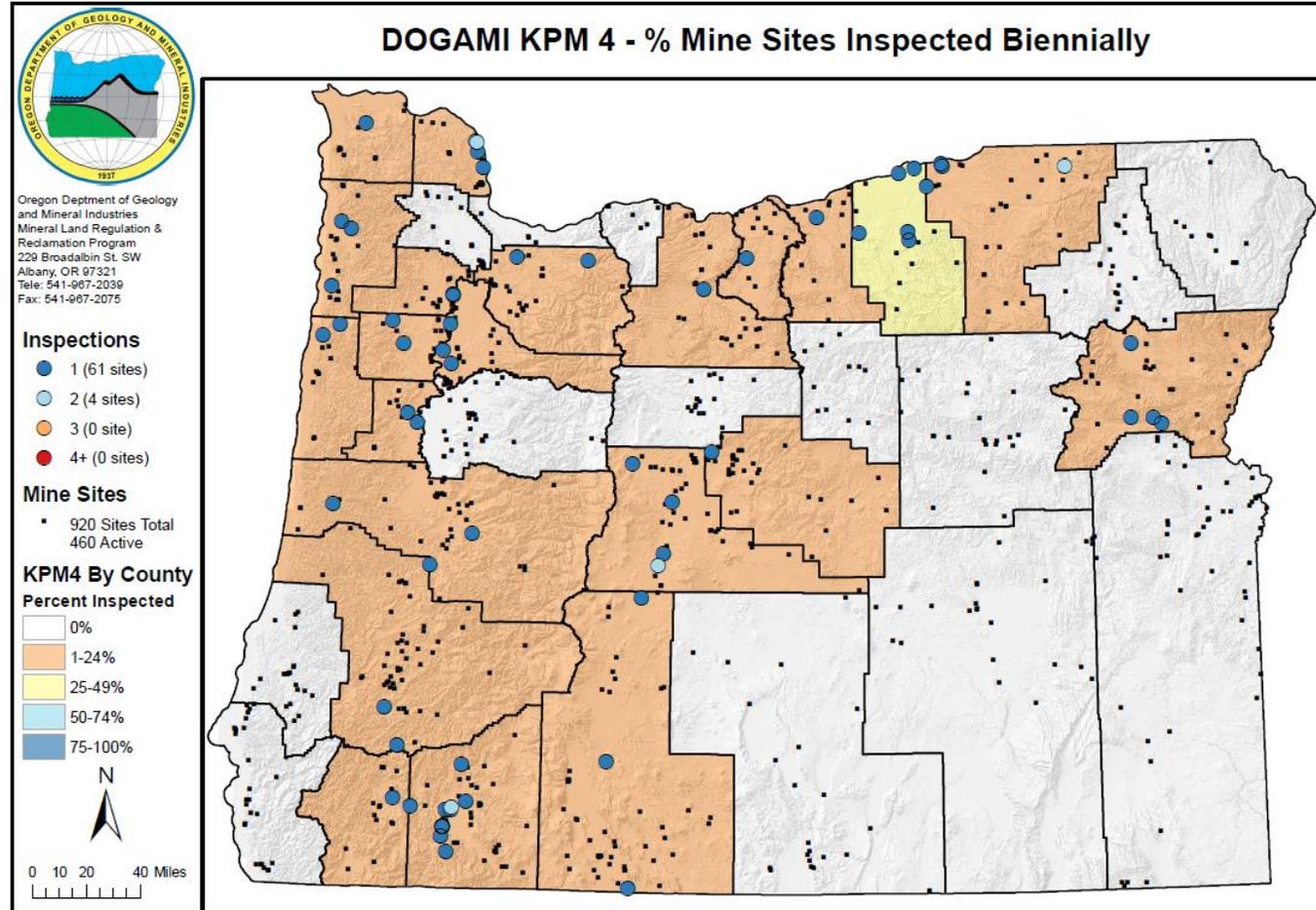
- Percent of Oregon (sq. miles) with Lidar data at USGS quality level 2 or better.



Report Year	2021	2022
Target	54%	56%
Actual	56.1%	60.50%



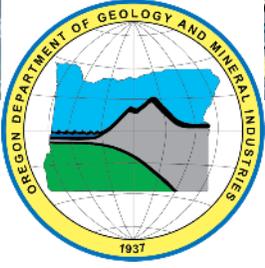
# KPM#4 Permitted Mines Sites Inspected



- Percent of Permitted Surface Mine Sites Inspected Biennially (with 1 year of data reported)
  - Total sites: 920
  - Unique Inspections: 65

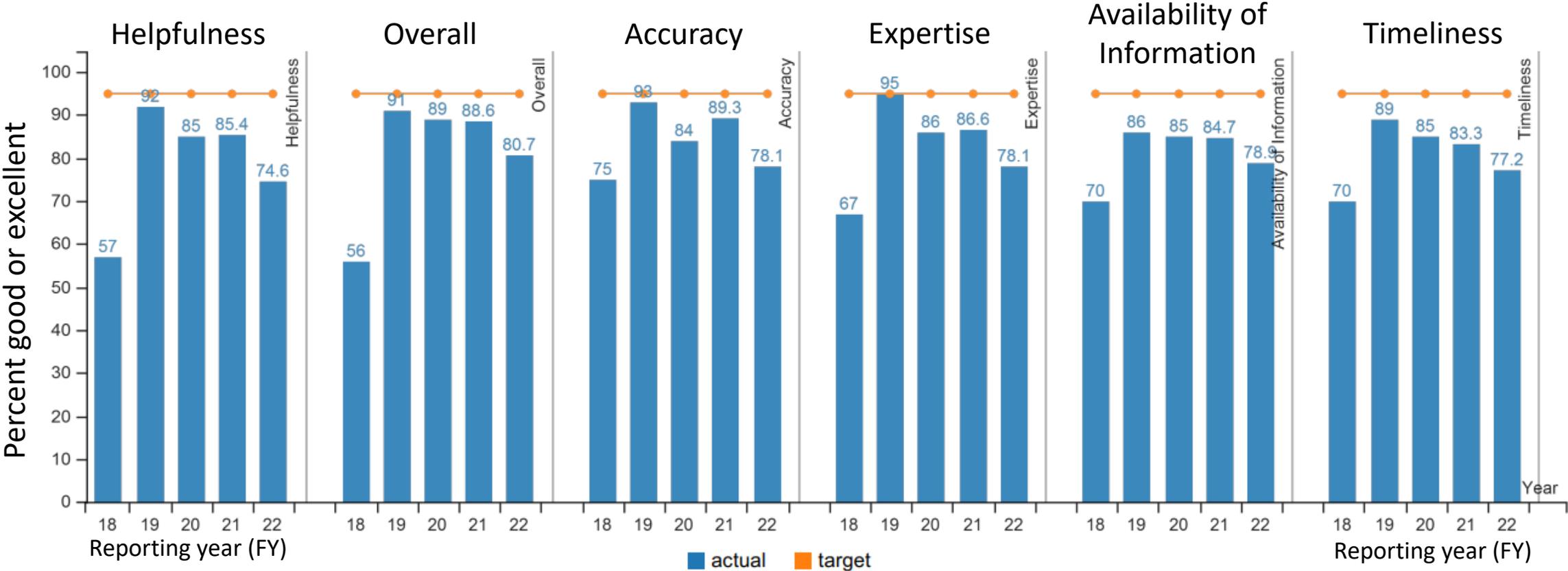
Report Year	2021	2022	Proposed
<b>Target</b>	50% (100%)	50%	20%
<b>Actual</b>	6% (15%)	7%	15-20%

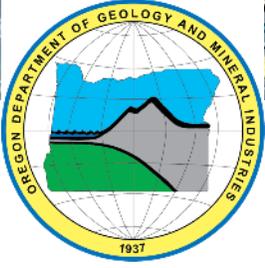
- Revised KPM #4 proposed - Percent of **Active** Mine Sites Inspected Annually



# KPM#5 Customer Service

- Percent of customers rating their satisfaction with the agency's customer service as "good" or "excellent" in six categories.





# KPM#6 Governance

## Board Evaluation Criteria

- 1) Executive Director's performance expectations are current
- 2) Executive Director receives annual performance feedback
- 3) The agency's mission and high-level goals are current and applicable
- 4) The Board reviews the Annual Performance Progress Report
- 5) The Board is appropriately involved in review of the agency's key communications
- 6) The Board is appropriately involved in policy-making activities
- 7) The agency's policy option packages are aligned with their mission and goals
- 8) The Board reviews all proposed budgets
- 9) The Board periodically reviews key financial information and audit findings
- 10) The Board is appropriately accounting for resources
- 11) The agency adheres to accounting rules and other relevant financial controls
- 12) The Board members act in accordance with their roles as public representatives
- 13) The Board coordinates with others where responsibilities and interests overlap
- 14) The Board members identify and attend appropriate training sessions
- 15) The Board reviews its management practices to ensure best practices are utilized

- Percent of yes responses by Governing Board members to the set of best practices.

Report Year	2021	2022
Target	100%	100%
Actual	100%	100%



# Agency Budget Overview

## General Fund

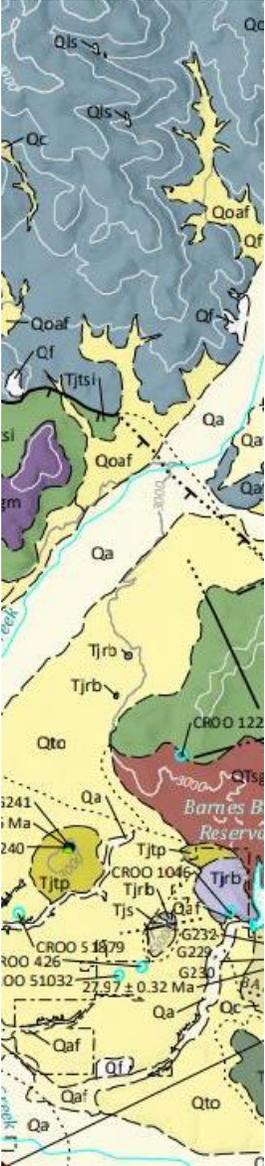
- Agency is provided balance, draws down over Biennium, and ends at or near zero.

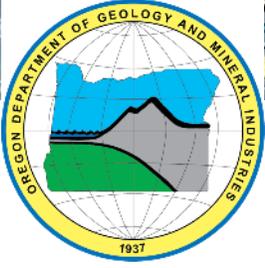
## MLRR Revenues (Other Funds – Fees)

- Revenues from permit applications, renewals, tonnage fees and cost-recovery.
- A small operating balance carries over from year-to-year.

## GS&S Grants (Federal Funds and Other Funds)

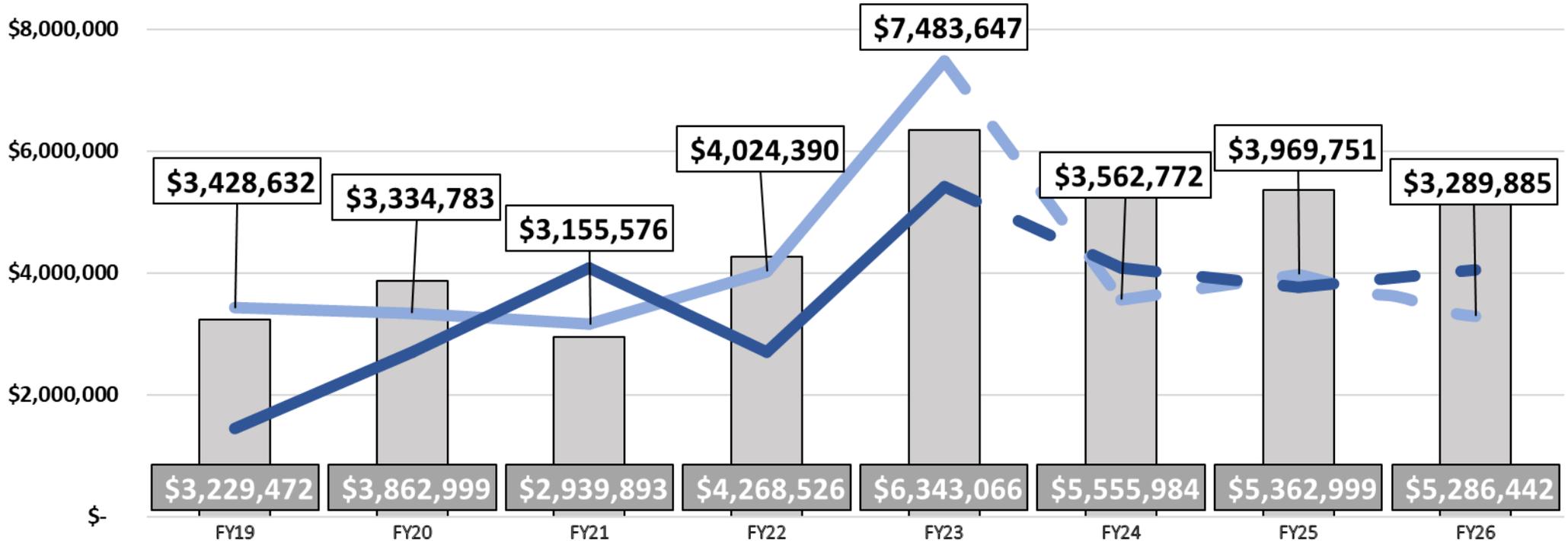
- Grant awards provide staff salary and research funds; new grants added each year as existing grants are drawn down.
- Grant award periods may cover several years.





# GS&S Grant Activity

## 2019-25 GS&S Grants - Revenue, Awards, Balance - Actual + Forecast



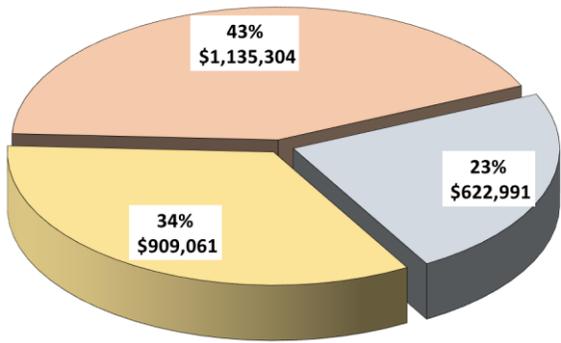
	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
<b>TOTAL ENDING BALANCE</b>	\$3,229,472	\$3,862,999	\$2,939,893	\$4,268,526	\$6,343,066	\$5,555,984	\$5,362,999	\$5,286,442
<b>TOTAL AWARDS</b>	\$3,428,632	\$3,334,783	\$3,155,576	\$4,024,390	\$7,483,647	\$3,562,772	\$3,969,751	\$3,289,885
<b>TOTAL REVENUE DRAWS</b>	\$1,446,168	\$2,701,257	\$4,078,681	\$2,695,758	\$5,409,106	\$4,076,968	\$3,755,757	\$4,046,308

Actuals to December 2022, with forward looking projections



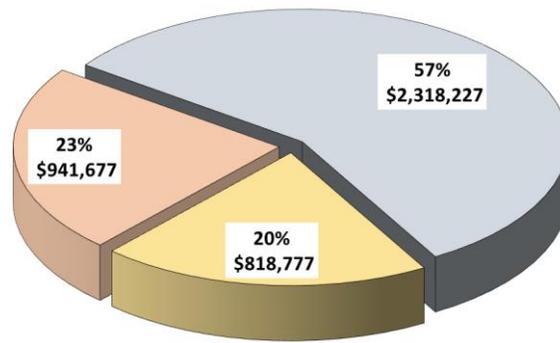
# GS&S Grants Revenue - Funding Mix Trend

FY 2020 Active Grants Revenue \$2.7M



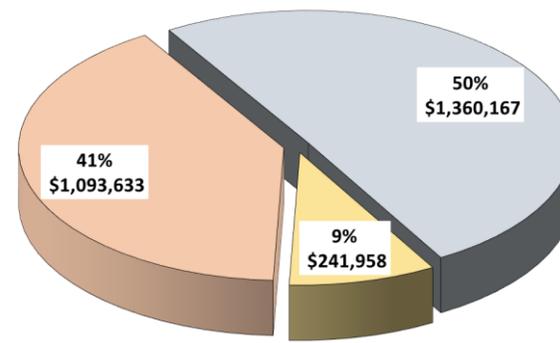
OTHER FUND FEDERAL FUND LIDAR

FY 2021 Active Grants Revenue \$4.1M



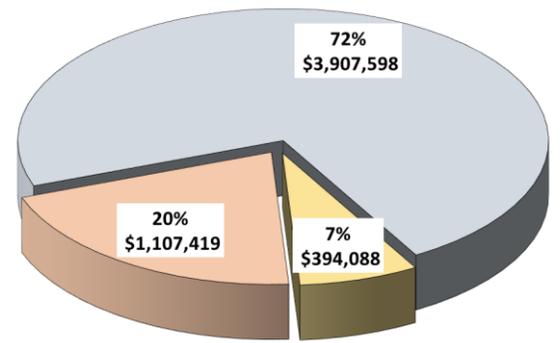
OTHER FUND FEDERAL FUND LIDAR

FY 2022 Active Grants Revenue \$2.7M



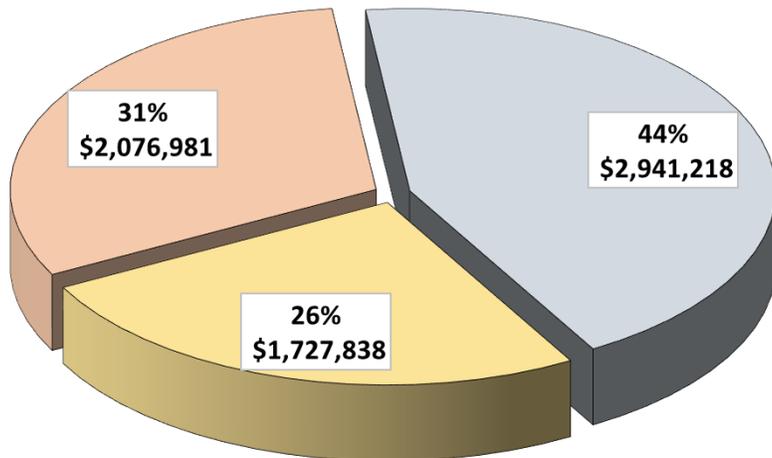
OTHER FUND FEDERAL FUND LIDAR

FY 2023 Active Grants Revenue \$5.4M



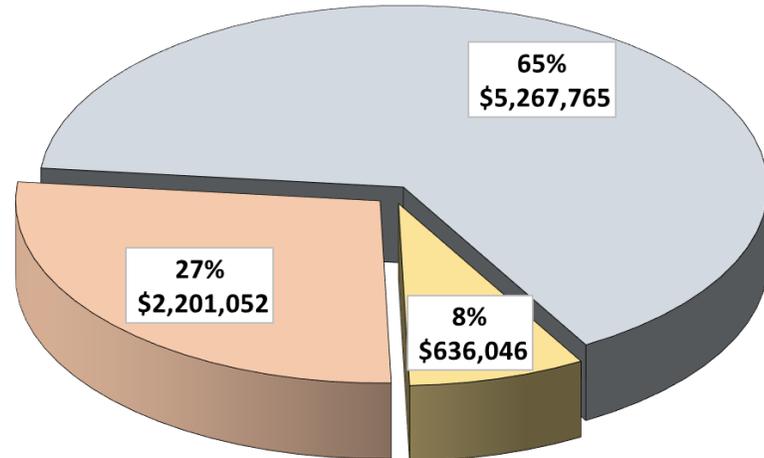
OTHER FUND FEDERAL FUND LIDAR

2019-21 Active Grants Revenue \$6.8M



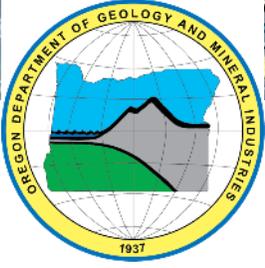
OTHER FUND FEDERAL FUND LIDAR

2021-23 Active Grants Revenue \$8.1M



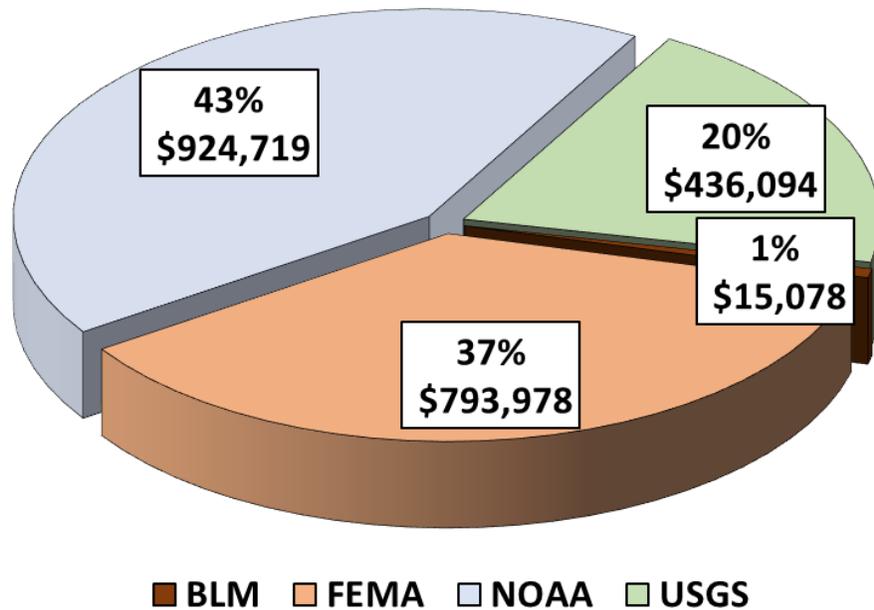
OTHER FUND FEDERAL FUND LIDAR

Actuals to December 2022, projection to biennium end

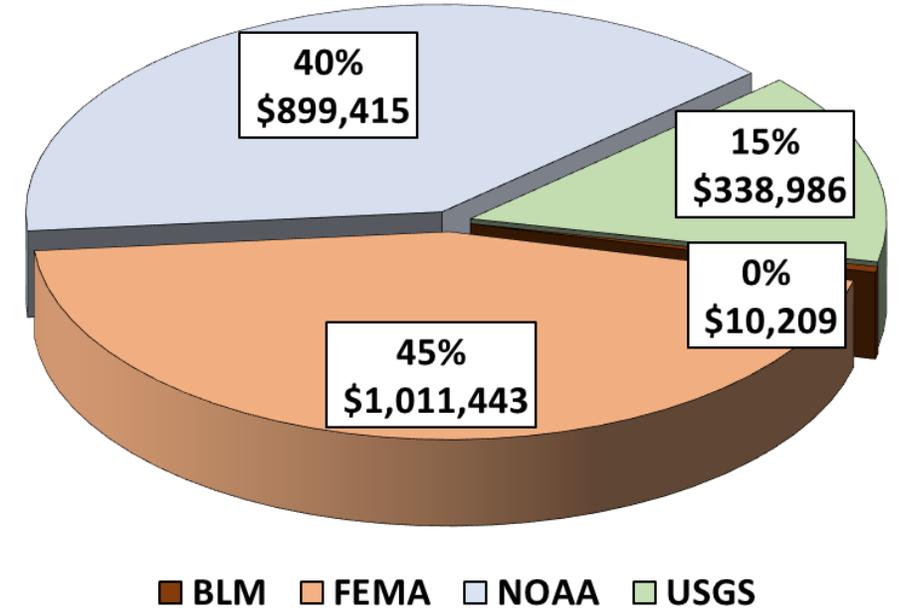


# GS&S Non-Lidar Federal Fund Revenue - Funders Mix Trend

## 2019-21 Federal Funders Revenue \$2.1M

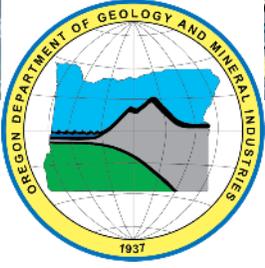


## 2021-23 Federal Funders Revenue \$2.3M

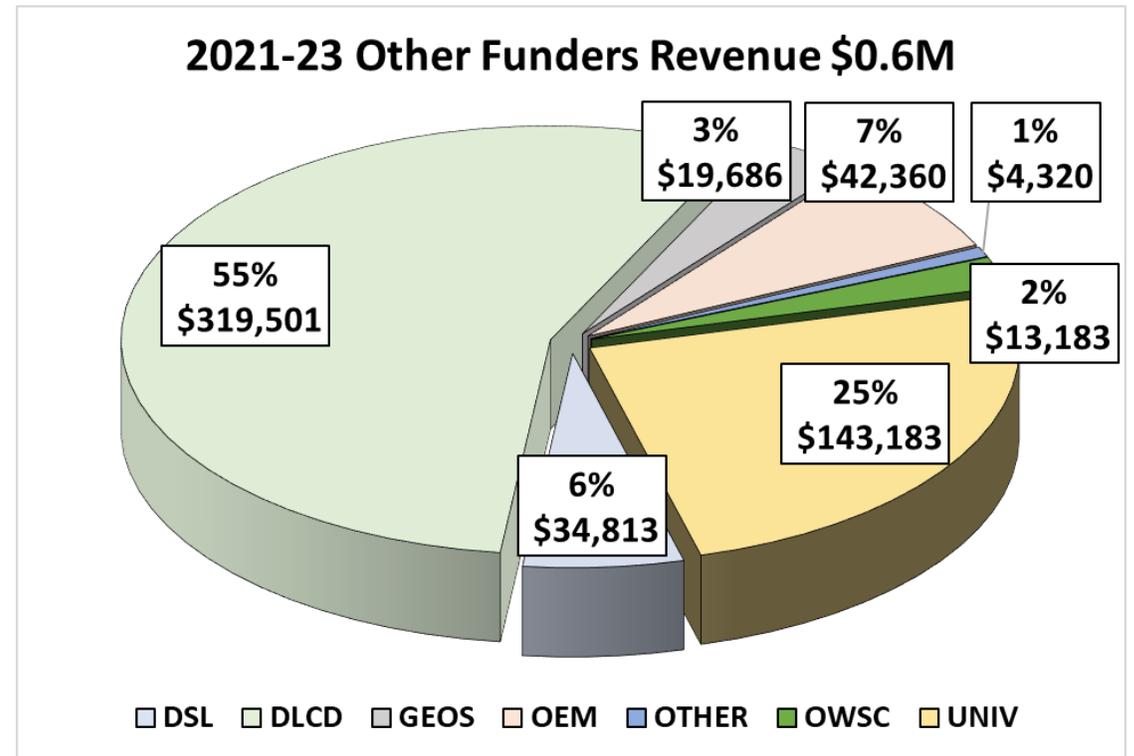
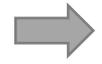
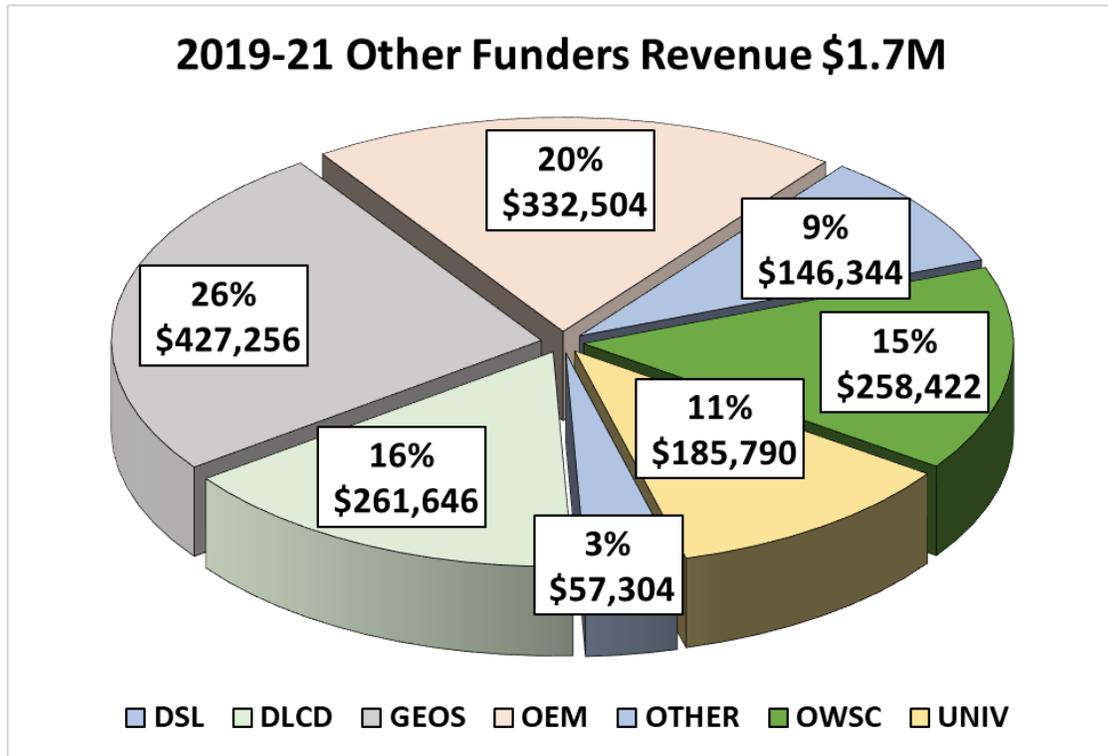


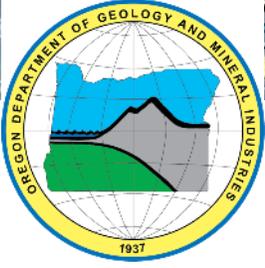
Proposals pending funder decisions

- \$50k USGS Geologic Data Preservation (FY24)
- \$500k USGS STATEMAP Geologic Mapping (FY24)
- \$330k USGS Earth MRI Resource Mapping (FY24-26)
- \$350k DOE Carbon Sequestration Siting (FY24-25)

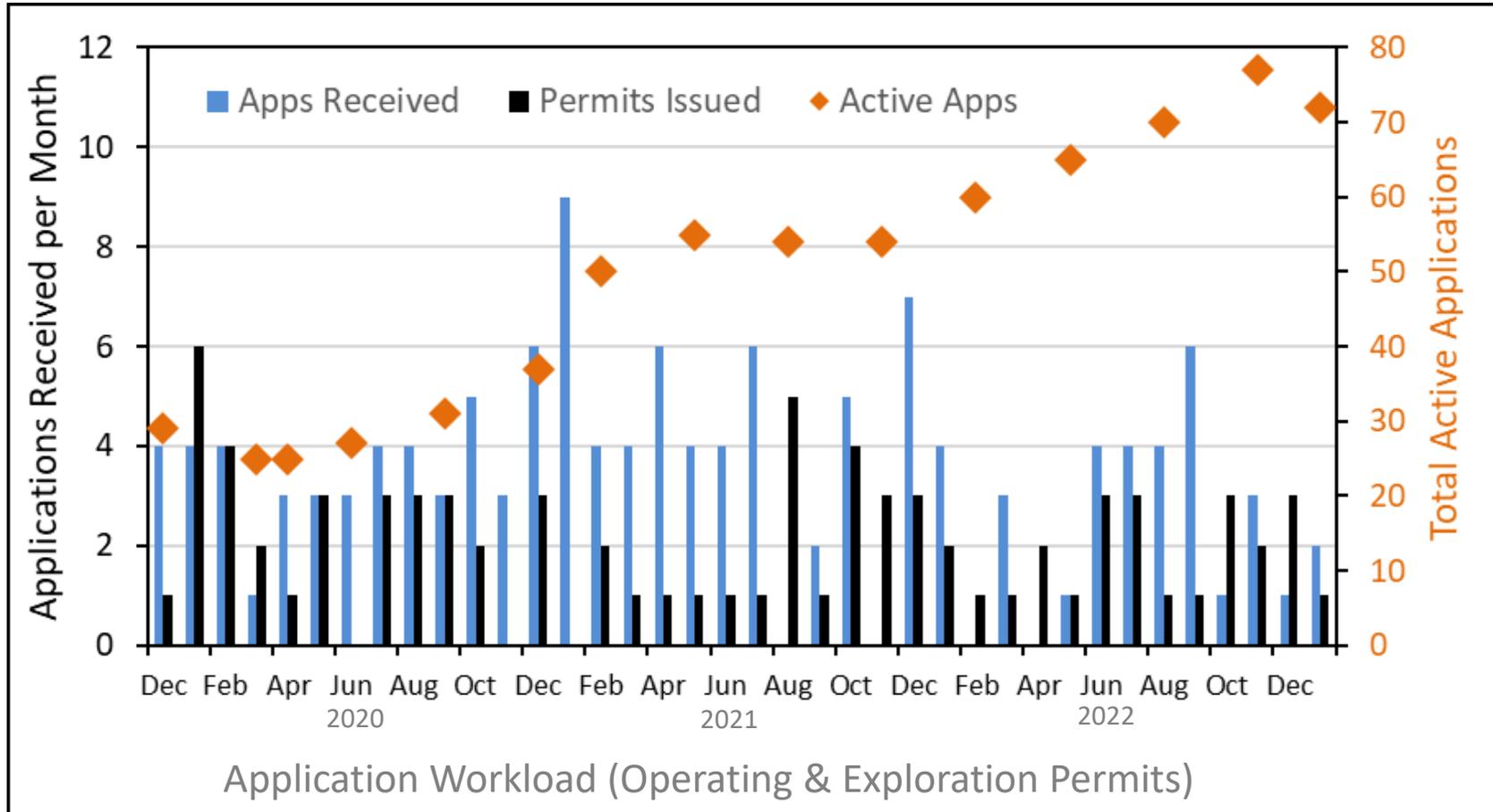


# GS&S Non-Lidar Other Fund Revenue - Funders Mix Trend



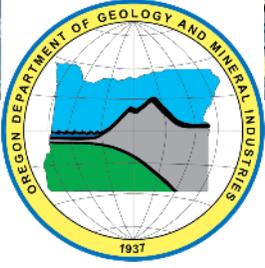


# 2021-23 Unresolved Issues Addressed by Policy Option Packages

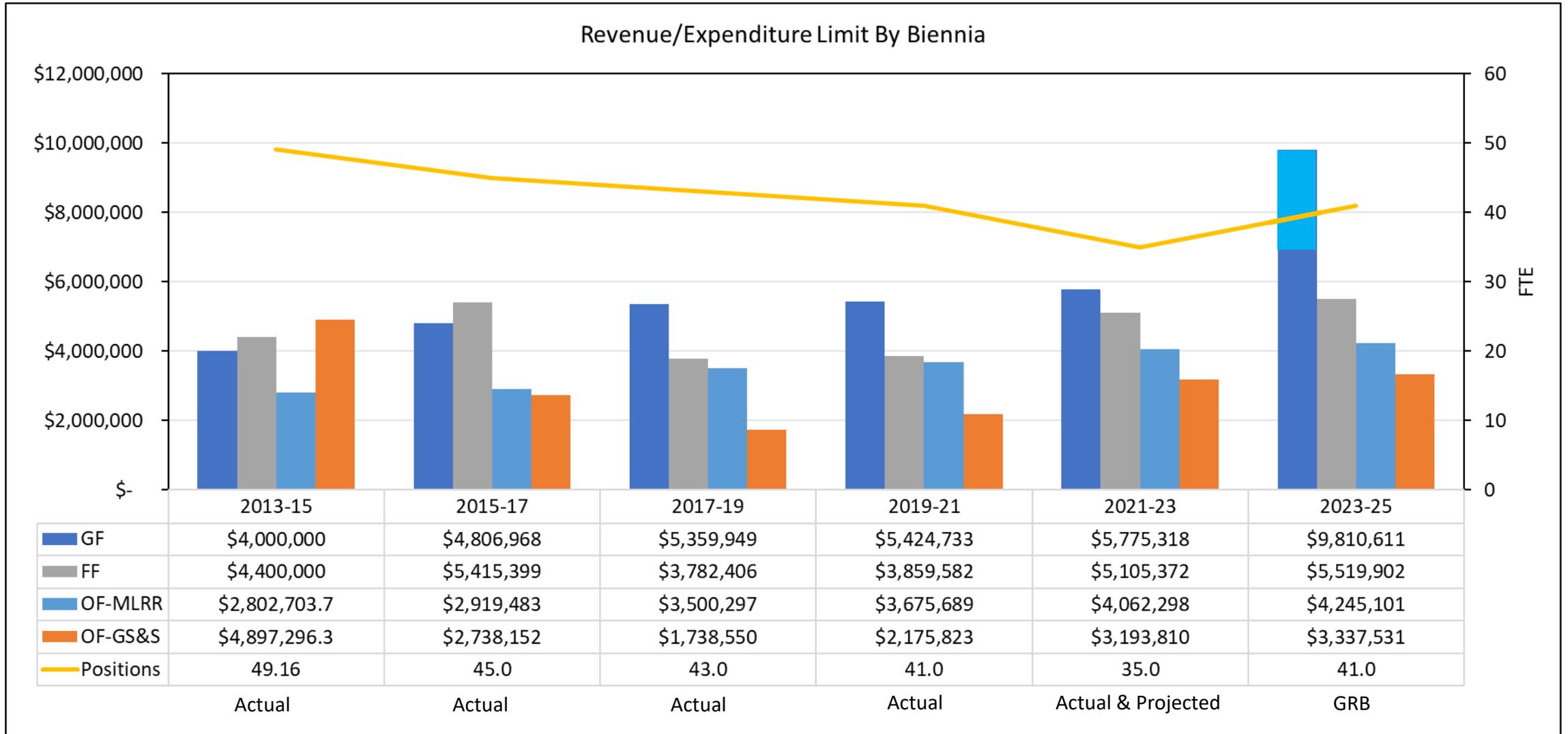


## MLRR

- Permit applications outpace staffing levels
- Permittee and Staff frustration at backlog
- Continued applications anticipated with federal and state investments in infrastructure



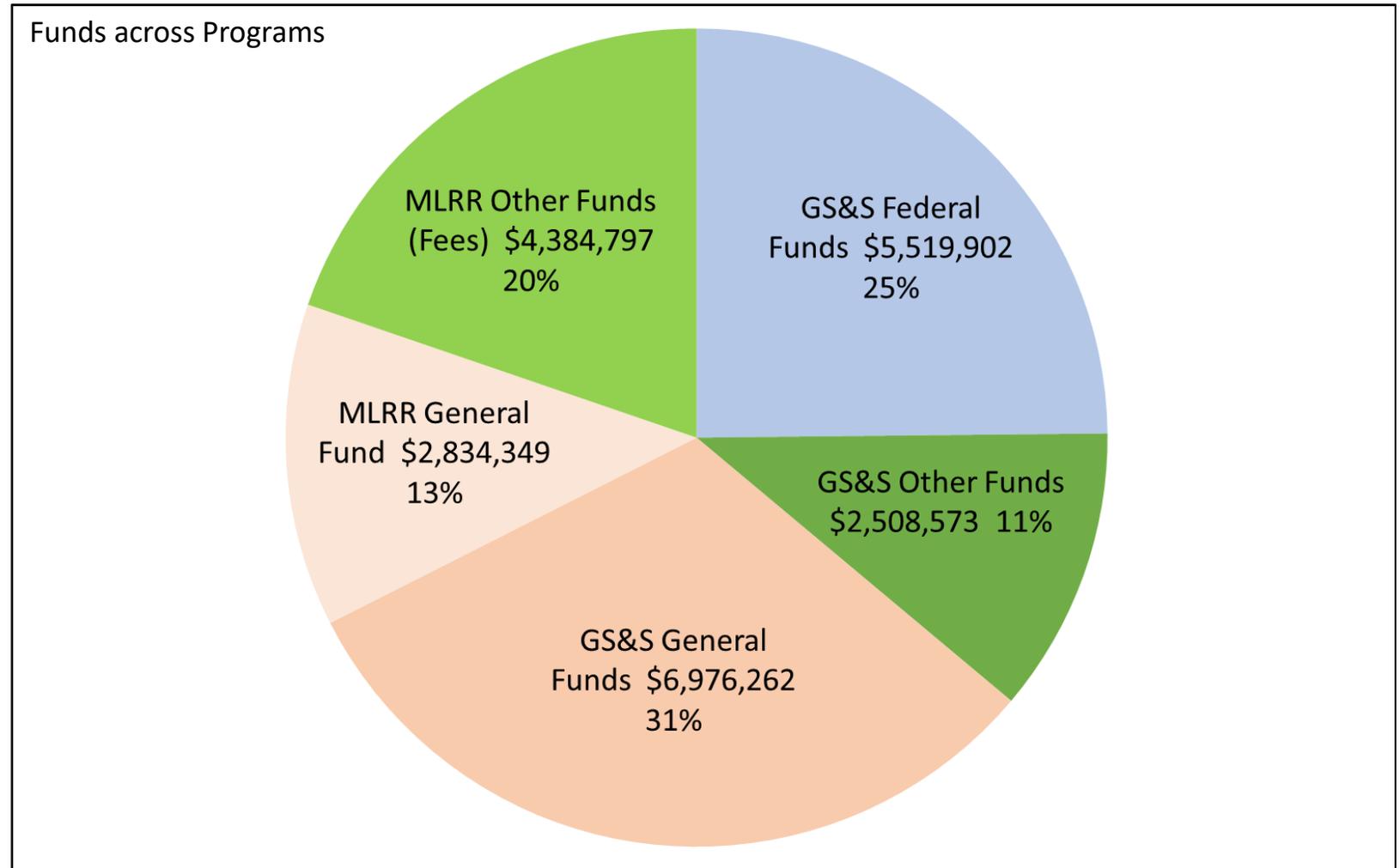
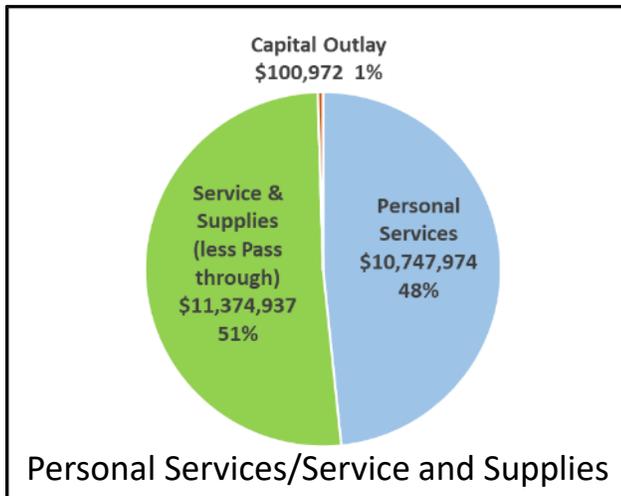
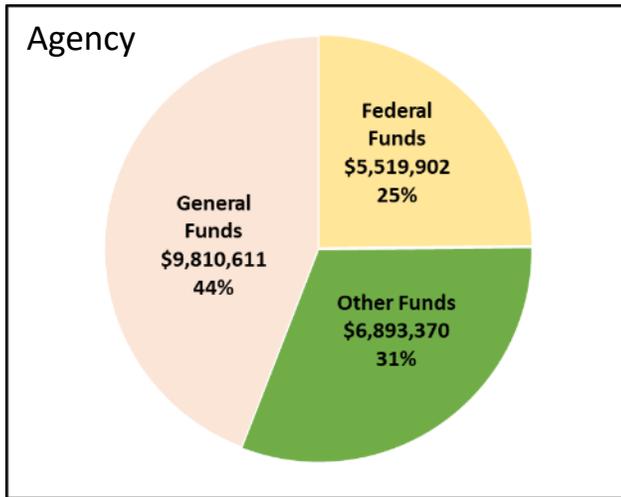
# Biennial Revenue History

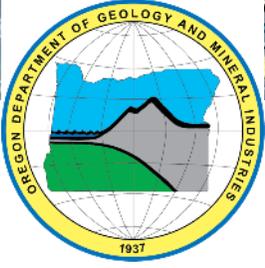




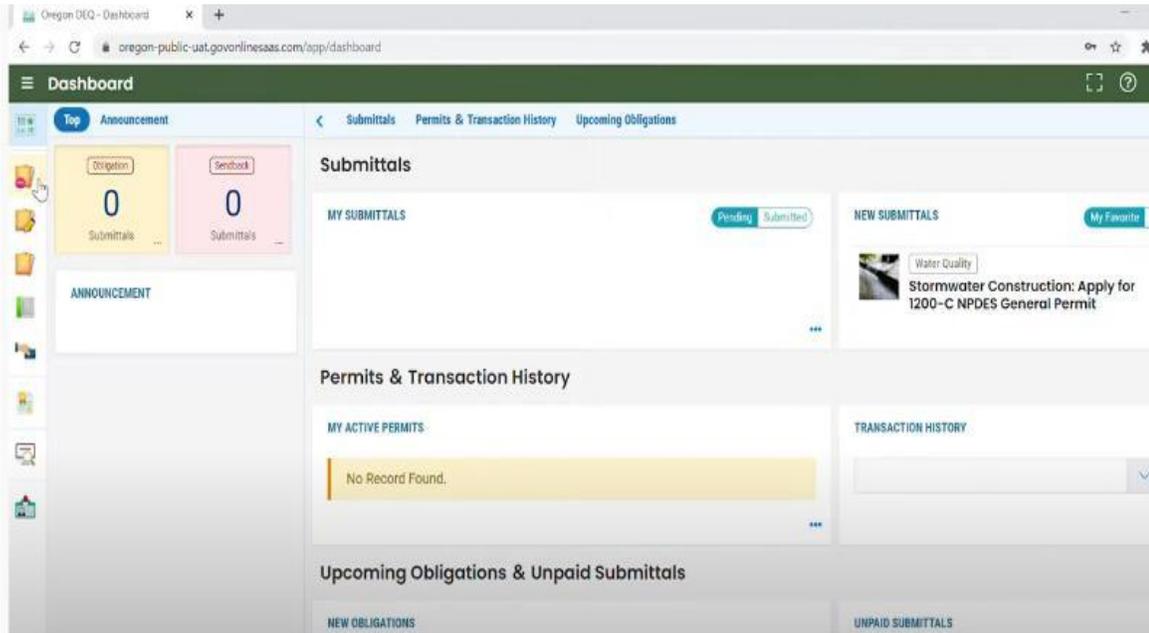


# Governor's Recommended Budget





# Policy Option Package 101: ePermitting & IT Modernization



*Example of an online permitting portal*

Solid business case built at legislative direction, using enterprise guidance, and leveraging existing state resources.

**Goal:** IT Modernization to develop online permitting and payment system (ePermitting)

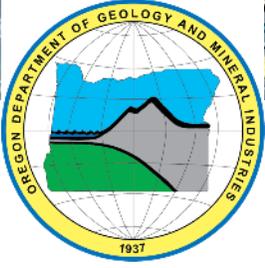
**Structure:** General Fund to configure and build system. Fees modified (earliest 2025) to maintain system.

- Includes Vendor Contract and two staff positions (Project Manager & IT Systems Support Specialist)

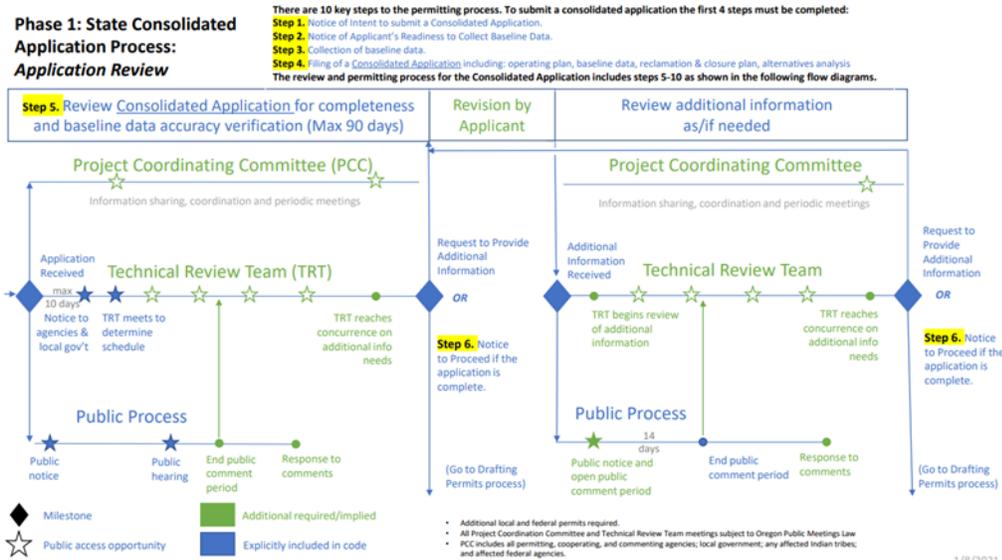
**Results:** Key Performance Measure (KPM) #4 – Percent of mine sites inspected and #5 – Customer Service

**Revenue Sources:**

- General Fund: \$2,000,000



# Policy Option Package 104: Consolidated Mining Permitting



Flow chart for Phase 1 of Consolidated Mining Permit Process

Consolidated Mining Permitting is a complex multi-agency process led by DOGAMI requiring coordination and communication.

**Goal:** Streamline Consolidated Mining Permitting. Consolidated Mining Permit requires inter-agency coordination and groundwork for future Consolidated Mining Permit.

**Structure:** FTE increase from 0.75 to 1.0. Funded via cost recovery

**Results:** Key Performance Measure (KPM) #5 – Customer Service

**Revenue Sources:**

- MLRR Other Fund (Cost Recovery): \$239,308





# Policy Option Package 107: Unpermitted Surface Mining



~20% of MLRR staff time is spent responding to complaints and compliance issues around unpermitted or non-compliant mining operations.

**Goal:** Protect State resources. Current staff capacity limits enforcement to only the most egregious transgressions.

- State takes responsibility for protecting its resources
- Active permittees do not fund this compliance activity
- Allows existing staff to focus on permits/renewals

**Structure:** General Fund request for LD positions to address workload and level the playing field for compliant operators

- Includes two staff positions (Mining Compliance Coordinator & Permit Reviewer)

**Results:** Key Performance Measure (KPM) #4 – Percent of mine sites inspected and #5 – Customer Service

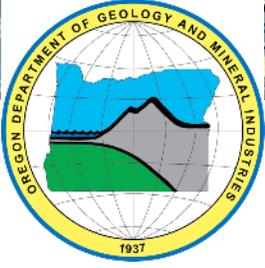
**Revenue Sources:**

- General Fund: \$411,649



# Legislation to Implement Governor's Request Budget

Bill #	BILL SUMMARY
<b><u>SB5510</u></b>	<b>Relating to the financial administration of the State Department of Geology and Mineral Industries; declaring an emergency.</b> Appropriates moneys from General Fund to State Department of Geology and Mineral Industries for biennial expenses.
<b><u>SB221</u></b>	<b>Relating to the State Department of Geology and Mineral Industries electronic permitting system.</b> Establishes Electronic Permitting System Subaccount.
<b><u>SB222</u></b>	<b>Relating to payments to State Department of Geology and Mineral Industries by credit card.</b> Authorizes State Department of Geology and Mineral Industries to accept payments by credit card and to add fee to credit card transactions.
<b><u>SB538</u></b>	<b>Relating to state agencies' acceptance of credit cards as payment.</b> Permits state agency to accept credit card as payment for charge or fee state agency imposes or collects for goods or services state agency provides to individual who is member of public and to add surcharge to amount person tenders to offset fees charged to state agency for accepting credit card as payment.

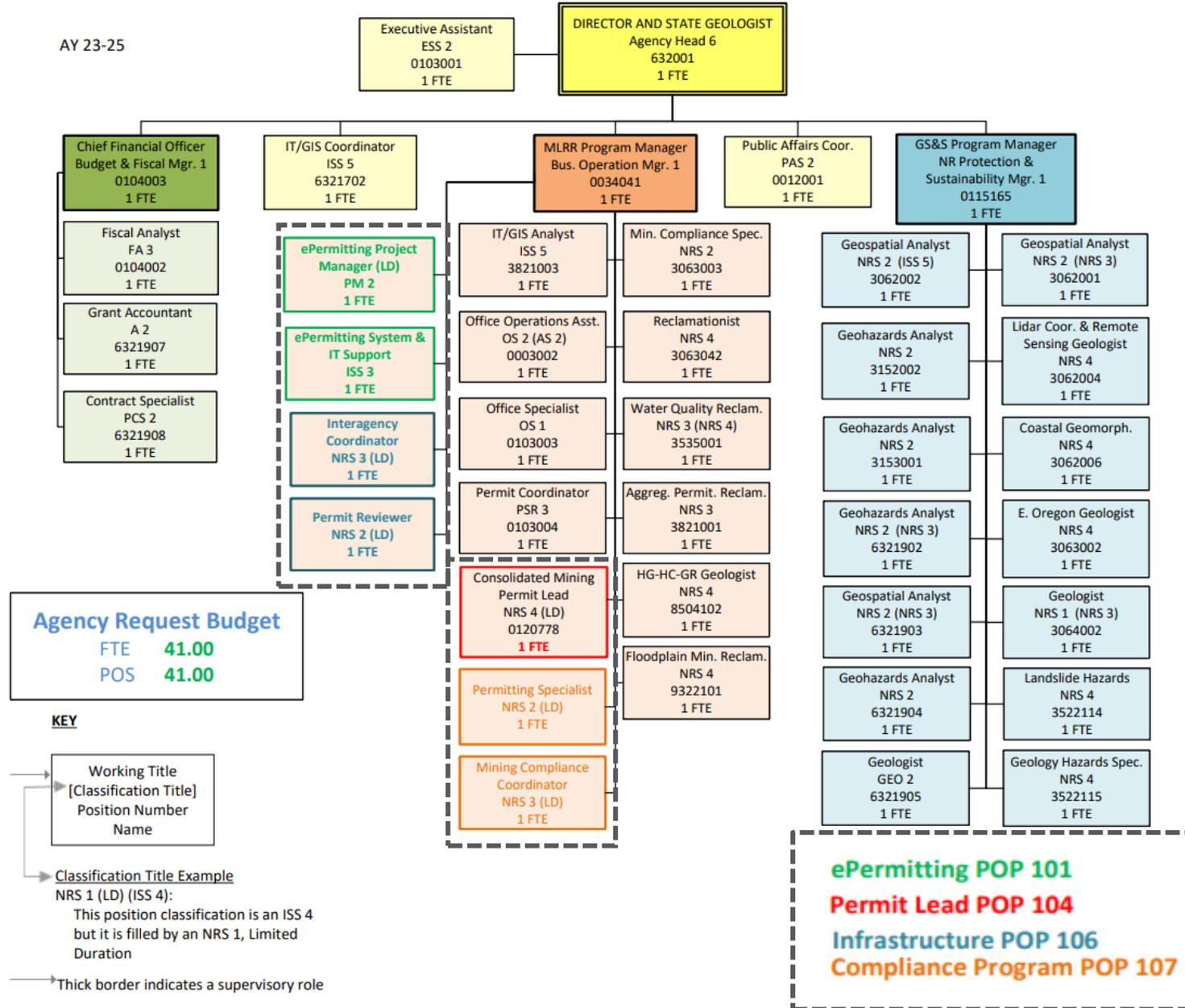


# OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

**PROPOSED**

February 1, 2023

AY 23-25



Agency Request Budget	
FTE	41.00
POS	41.00

**KEY**

Working Title  
[Classification Title]  
Position Number  
Name

Classification Title Example  
NRS 1 (LD) (ISS 4):  
This position classification is an ISS 4 but it is filled by an NRS 1, Limited Duration

Thick border indicates a supervisory role

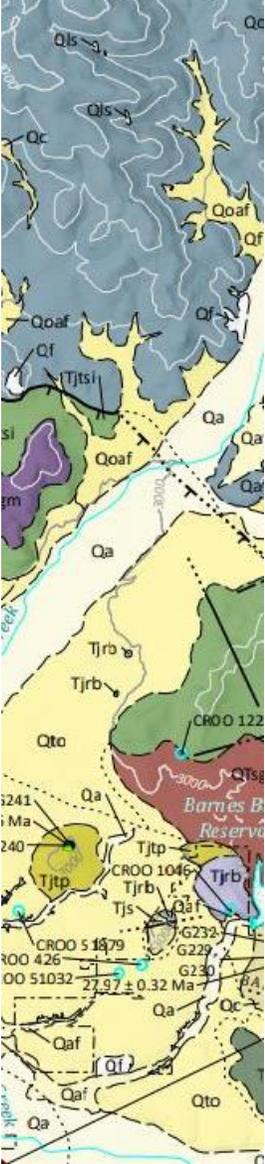
**ePermitting POP 101**  
**Permit Lead POP 104**  
**Infrastructure POP 106**  
**Compliance Program POP 107**



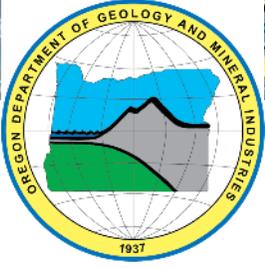
# Budget Summary

2023-25 Governor's Request Budget seeks to:

- Maintain the agency strength in geological mapping and hazard mitigation
- Build IT infrastructure to enhance customer service and agency efficiency
- Enable critical infrastructure projects while protecting Oregon's resources







# Five Person Governing Board Confirmed by Senate

## Agency Leadership (Administration, IT and Finance – 8 FTE)

### Mineral Lands (12 FTE)

### Geological Survey & Services (15 FTE)



**Regulation & Reclamation of Surface Mining, Exploration, Oil & Gas, Geothermal, Chemical Process Mining**



**Landslide Inventory & Susceptibility Mapping**



**Flood & Channel Migration Mapping**



**Earthquake & Seismic Hazards Mapping**



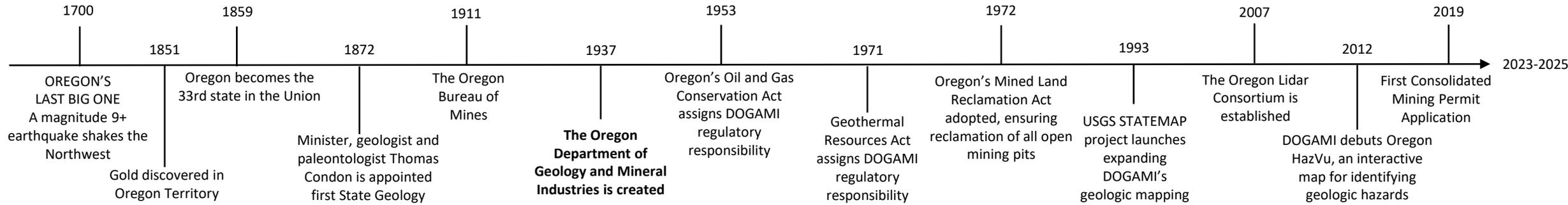
**Tsunami & Coastal Erosion Mapping**

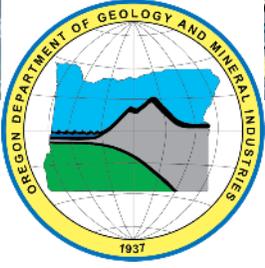


**Geological & Mineral Resource Mapping**

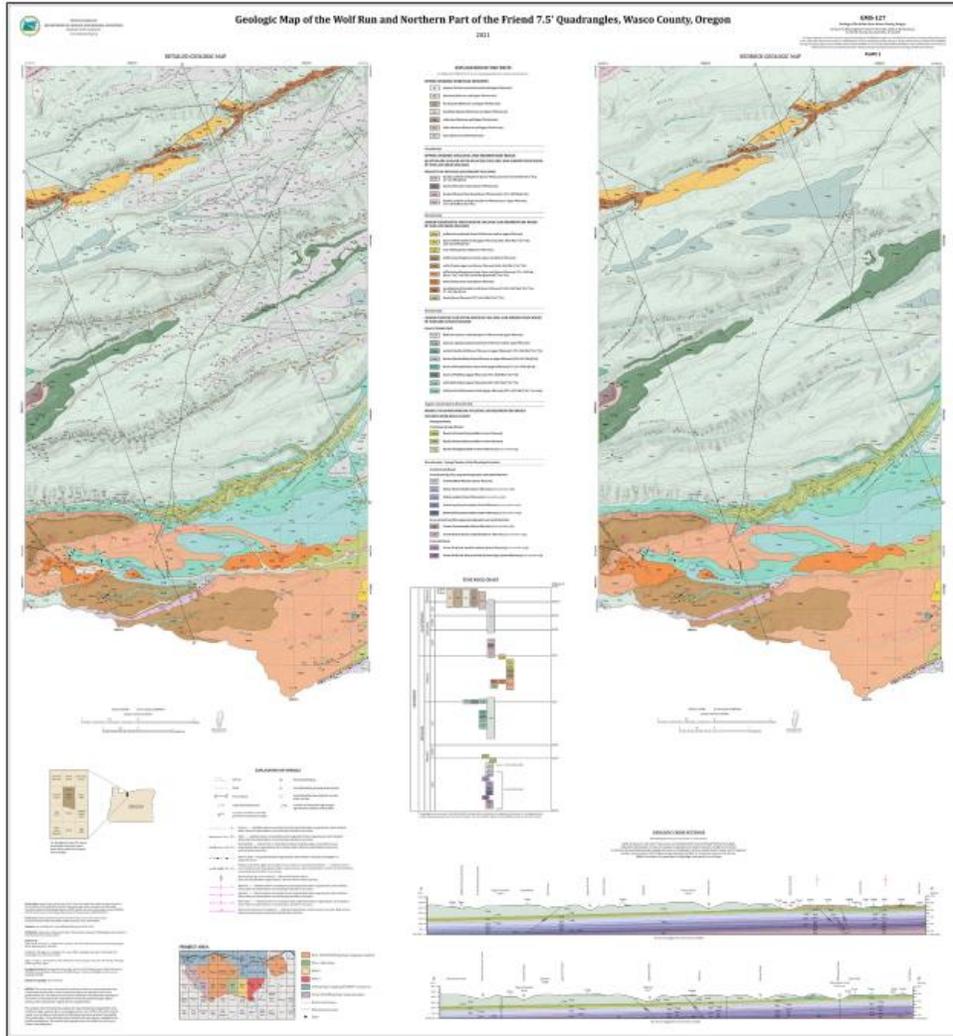


**Lidar Mapping**





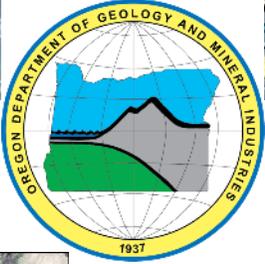
# GS&S: Earth Science Focus Area



Geologic Map from Wasco County



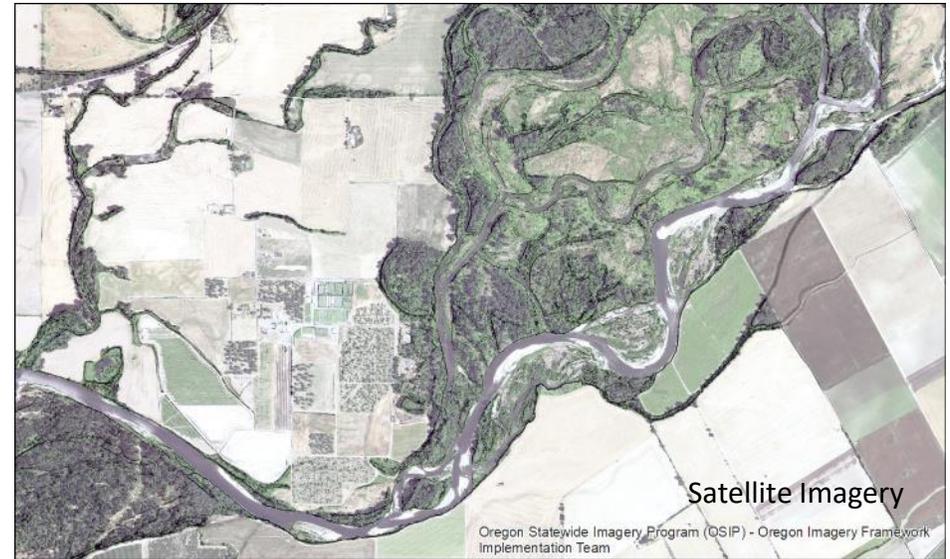
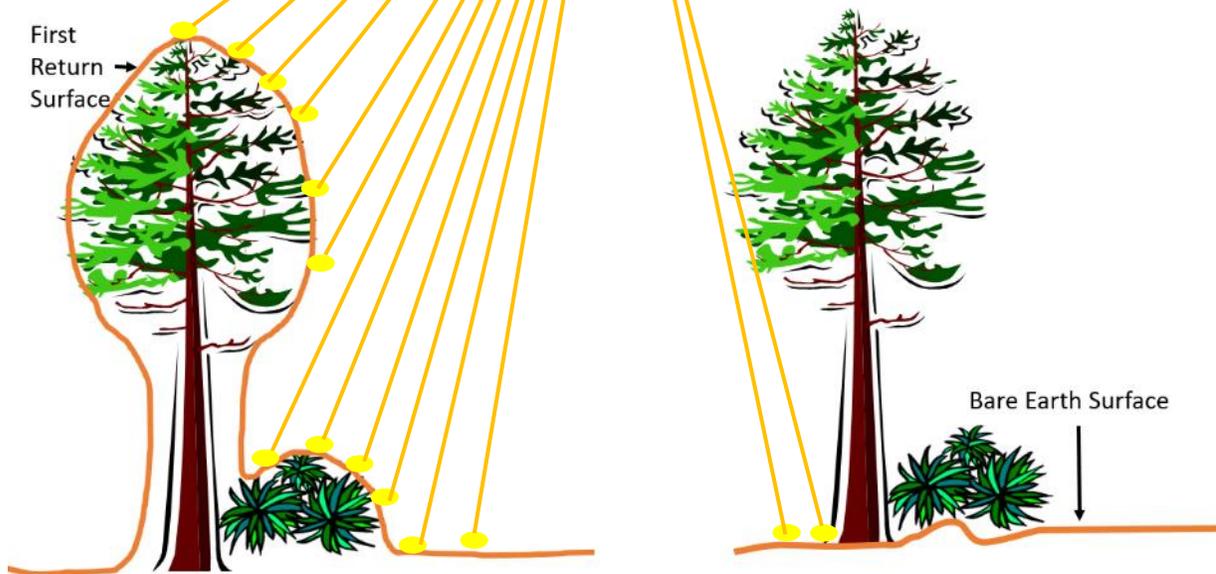
Geologic Mapping near Milton-Freewater (image courtesy of Katy Ely CTUIR)



# GS&S: Oregon Lidar Consortium



Lidar, *Light Detection and Ranging*, uses light in the form of a pulsed laser to measure ranges (variable distances) to the surface Earth.



Satellite Imagery

Oregon Statewide Imagery Program (OSIP) - Oregon Imagery Framework Implementation Team



Bare Earth Lidar

North Santiam River near Wiseman Island



# GS&S: Natural Hazards Focus Area



Images taken from video from: City of Pendleton, 2020. Umatilla Flood I84 to Reith.

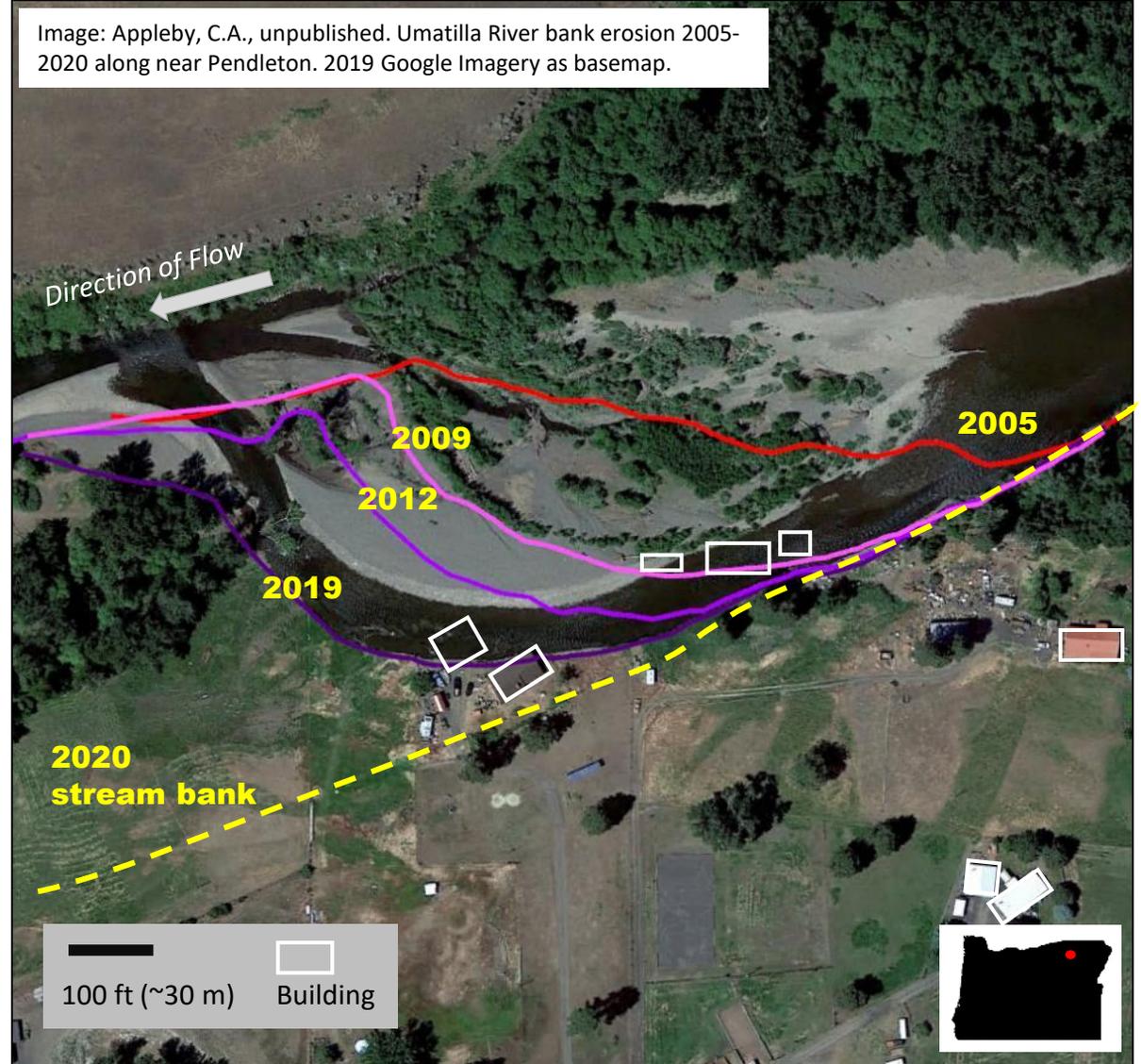
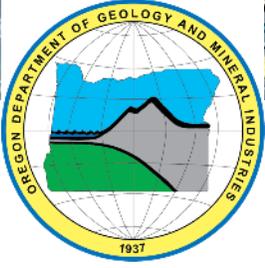
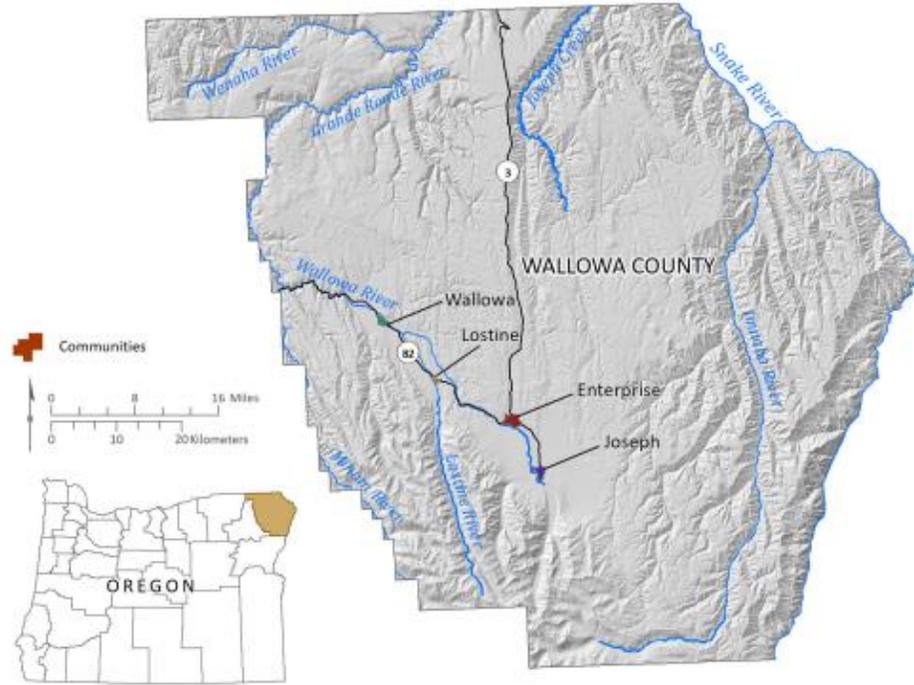


Image: Appleby, C.A., unpublished. Umatilla River bank erosion 2005-2020 along near Pendleton. 2019 Google Imagery as basemap.

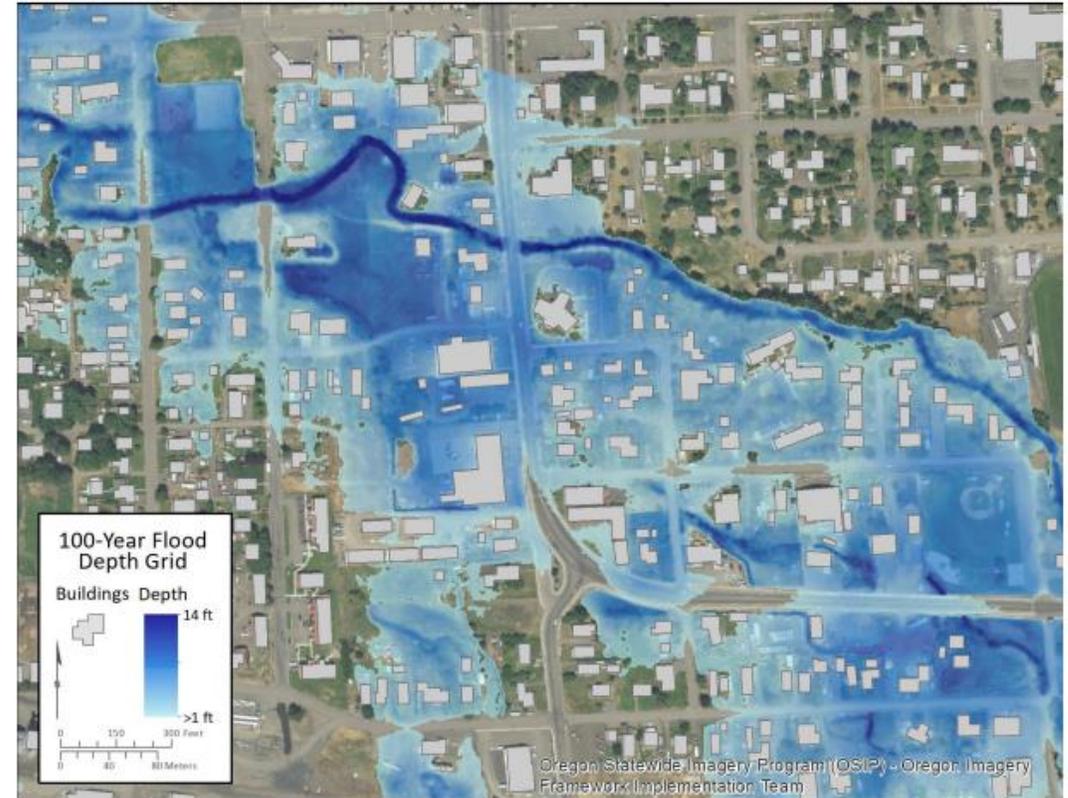


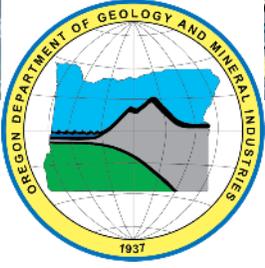
# GS&S: Natural Hazards Focus Area

## MULTI-HAZARD RISK REPORT FOR WALLOWA COUNTY, OREGON INCLUDING THE CITIES OF ENTERPRISE, LOSTINE, JOSEPH, AND WALLOWA

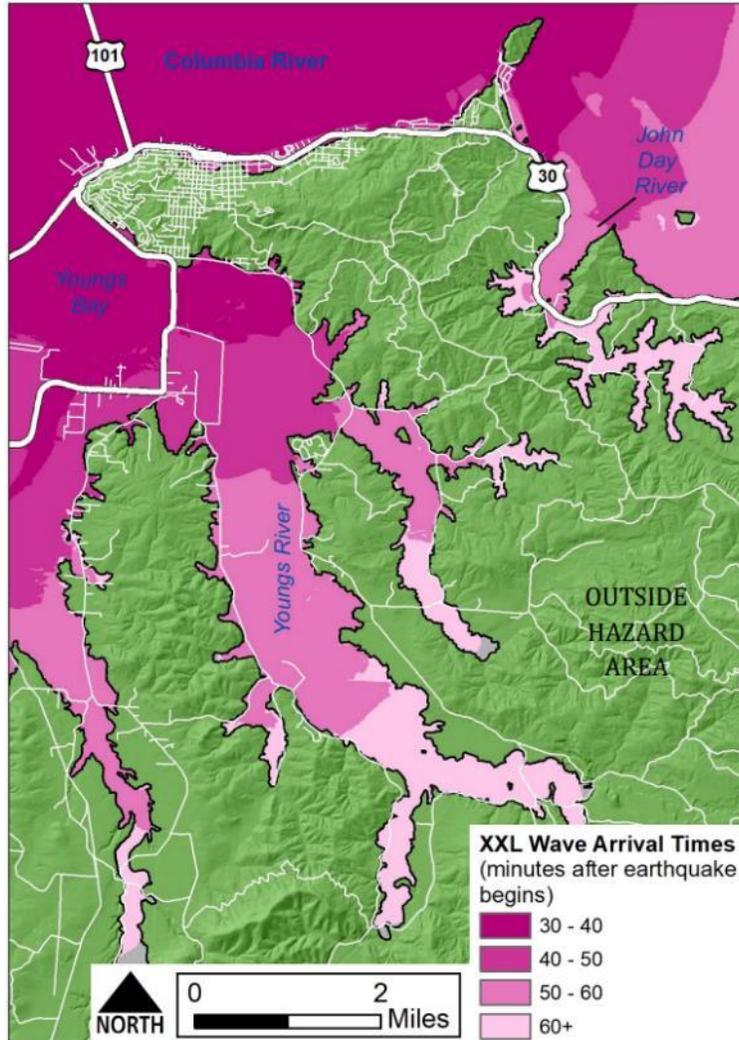


Flood depth grid example in the City of Enterprise, OR

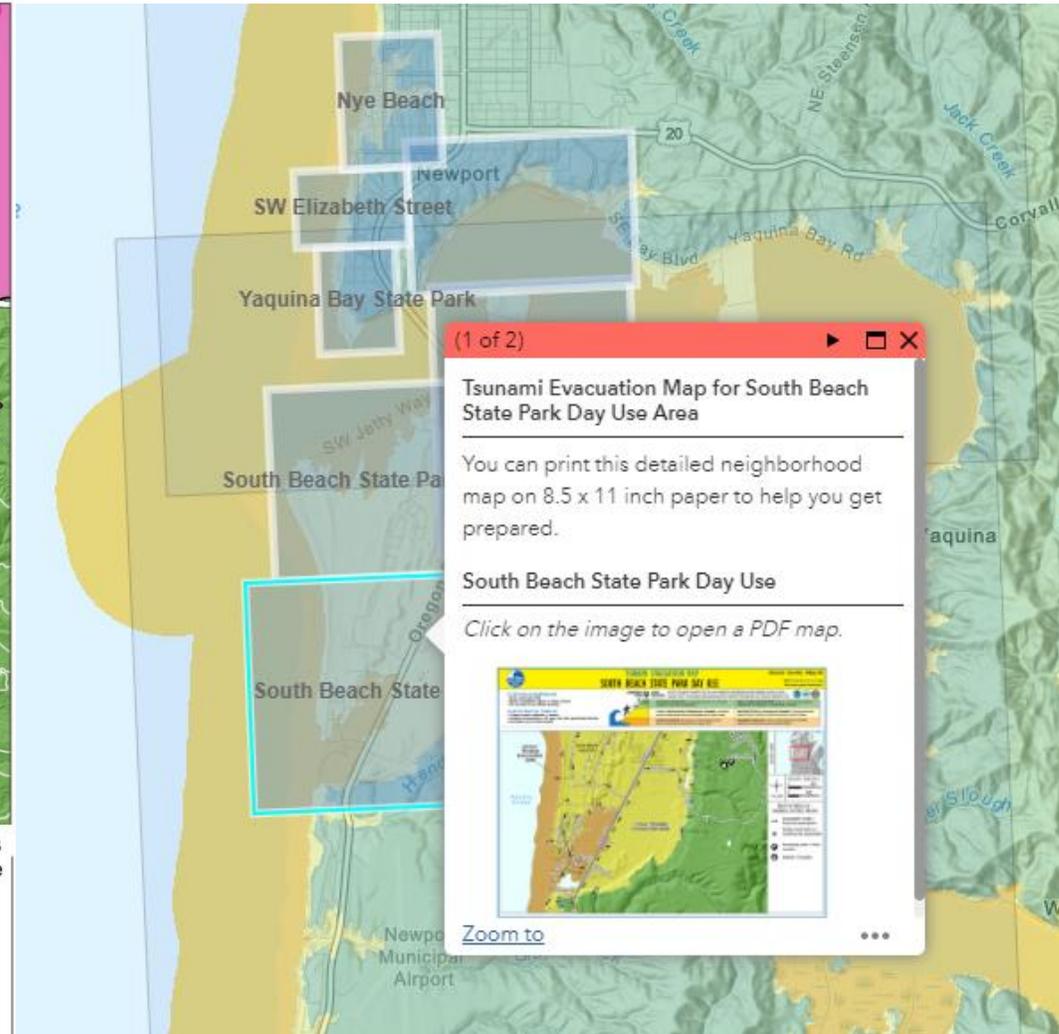




# GS&S: Natural Hazards Focus Area

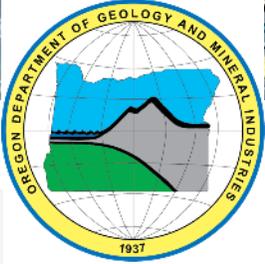


Tsunami Inundation Models Wave Arrival Time



Evacuation Route Plans





# Oregon's Tsunami Program Building a Culture of Awareness



## Prepare

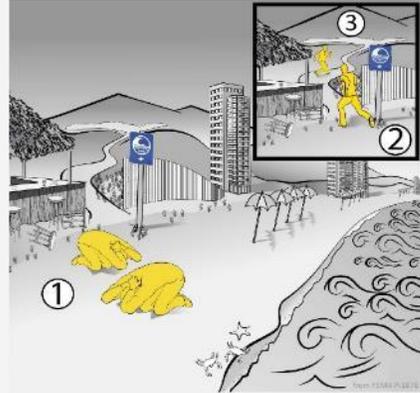
- Know what to do
- Attend local outreach events
  - Know your evacuation route
  - Assemble an emergency kit
  - Have a family or business plan
  - Practice

## Act!

- During an earthquake or if you hear a tsunami warning
1. Drop, cover, and hold during the earthquake
  2. Follow evacuation signs to high ground
  3. Stay there until you get the okay from officials; tsunami waves may continue to arrive for several hours



Goal: instinctive response



Education & Outreach

Modeling & Mapping



1700      1964      1995      2002      2009      2011      2013      2014      ?      ?      2025      2050

Most recent Cascadia earthquake & tsunami

1964 Alaska earthquake & tsunami hits Oregon coast

1st generation tsunami mapping begun

2nd generation tsunami modeling begun

Tohoku, Japan tsunami

1st generation maritime mapping begun

? Maritime port debris modeling

? Landslide modeling

[www.oregontsunami.org](http://www.oregontsunami.org)



