

1e.) Performance Measures (Report for Fiscal Year 2013-14)

OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES ANNUAL PERFORMANCE PROGRESS REPORT (APPR) FOR FISCAL YEAR 2013-14

2015-17 Budget Form 107BF04c

To obtain this report, visit www.oregongeology.org or
http://cms.oregon.gov/DAS/CFO/pages/kpm_reports.aspx

Agency Mission

Provide earth science information and regulation to make Oregon safe and prosperous.

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ABOUT THIS REPORT

Purpose of Report

The purpose of this report is to summarize the Agency’s performance for the reporting period, to explain how performance data are used, and to analyze Agency performance for each key performance measure legislatively approved for the 2013-15 biennium. The intended audience includes Agency managers, legislators, fiscal and budget analysts and interested citizens.

1. PART I: EXECUTIVE SUMMARY defines the scope of work addressed by this report and summarizes Agency progress, challenges and resources used.
2. PART II: USING PERFORMANCE DATA identifies who was included in the Agency’s performance measure development process and how the Agency is managing for results, training staff and communicating performance data.
3. PART III: KEY MEASURE ANALYSIS analyzes Agency progress in achieving each performance measure target and any corrective action that will be taken. This section, the bulk of the report, shows performance data in table and chart form.

KPM = Key Performance Measure

The acronym “KPM” is used throughout to indicate **Key Performance Measures. Key performance measures are those highest-level, most outcome-oriented performance measures that are used to report externally to the legislature and interested citizens. Key performance measures communicate in quantitative terms how well the Agency is achieving its mission and goals. Agencies may have additional, more detailed measures for internal management.**

Consistency of Measures and Methods

Unless noted otherwise, performance measures and their method of measurement are consistent for all time periods reported.

OREGON DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES

TABLE OF MEASURES

Agency Mission: Provide Earth Science Information and Regulation to Make Oregon Safe and Prosperous.

| 2013-14 KPM# | 2013-14 Key Performance Measures (KPMs) | Page # |
|-------------------------|--|---------------|
| 1 | EARTHQUAKE AND LANDSLIDE MAP COMPLETION - Percent of inhabited areas with maps and data. | 5 |
| 2 | TSUNAMI EVACUATION MAP COMPLETION – Percent at-risk communities with new evacuation brochures. | 8 |
| 3 | COASTAL EROSION MAP COMPLETION – Percent target communities with standardized, 4-risk zone erosion hazard maps. | 10 |
| 5 | RECLAMATION – Total number of mining acres that have been reclaimed and returned to secondary beneficial use. | 12 |
| 6 | DETAILED GEOLOGICAL MAP COMPLETION – Percent of inhabited areas with detailed geologic data to be used for local problem solving and resource management. | 14 |
| 7 | REGIONAL GEOLOGICAL MAP COMPLETION – Percent of Oregon with statewide geologic data for regional resource and hazard assessment. | 16 |
| 8 | MINESITES INSPECTED ANNUALLY – Percent of unique mine operators with active permitted sites inspected annually. | 18 |
| 9 | TSUNAMI INUNDATION MAP COMPLETION – Percent of coast provided with detailed tsunami inundation maps for local planning. | 20 |
| 10 | CUSTOMER SERVICE – Percent of customers rating their satisfaction with the Agency’s customer service as “good” or “excellent”: overall customer service, timeliness, accuracy, helpfulness, expertise and availability of information. | 22 |
| 11 | GOVERNANCE – Percent of yes responses by Governing Board members to the set of best practices questions. | 23 |
| 12 | GEOLOGIC HAZARD PREPAREDNESS – Percent of Oregon communities with geologic hazard data and prevention activities in place | 24 |

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| Contact: Vicki McConnell, Director | Phone: (971) 673-1550 |
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1. SCOPE OF REPORT

For the Geological Survey and Services program area, KPM 1, 2, 3, 6, 7, 9, 10, and 12, measure progress. Due to the diversity of geologic, geomorphologic, natural hazard, natural resource assessment, and risk analysis work the Department performs, not all of its activities are captured by the KPMs. KPM 12 was designed to capture most of our hazards work in one comprehensive measure. For the Mined Land Regulation and Reclamation program, its activity and progress are partially measured by KPM 5, 8, and 10. KPM 10 measures our relevance and ability to provide timely service to Oregonians. The Agency’s Governing Board performance is measured by KPM 11 (Governance).

2. THE OREGON CONTEXT

The Agency provides geologic, geomorphologic, natural hazard and natural resource regulation, assessment, and risk analysis services for federal agencies, state agencies, counties and cities.

3. PERFORMANCE SUMMARY

| KPM Progress Summary | Key Performance Measures (KPMs) with Page References | # of KPMs |
|---|---|-----------|
| KPM MAKING PROGRESS at or trending toward target achievement | The Department continues to make progress towards its goals. With the completion of the tsunami inundation maps and tsunami evacuation brochures for key communities, a major milestone was accomplished. Progress is being made on most other areas. Landslide mapping is progressing slowly since most mapping is done post disaster when funds are available. KPM 2 and 9 are at 100%. | 8 |
| KPM NOT MAKING PROGRESS not at or trending toward target achievement | No progress is being made for KPM 3, coastal erosion mapping, because a lack of funding has limited new work. No progress was made on KPM 7, regional geologic mapping, but it is nearly complete. | 2 |
| KPM - PROGRESS UNCLEAR data not collected this year | Insufficient data were collected to report on KPM 10, Customer Satisfaction. | 1 |
| Total Number of Key Performance Measures (KPM) | | 11 |

4. CHALLENGES

The Department receives approximately 40% of its funding from federal agencies. As a result, the federal sequester and the ending of specific programs (NOAA tsunami mapping) has made predicting federal funds for projects difficult. Some of our program areas, such as coastal erosion and landslide mapping, do not have an ongoing source of funds, which limits the Department's ability to provide services in these areas. The Department's General Fund revenue has not kept up with inflation or communities’ needs, resulting in the Department seeking and becoming more dependent on outside sources of funds.

KPM 2 and 9 have reached the targeted 100% coverage, and need to be replaced or updated. The Agency is currently developing a new 6-year strategic plan, which will be used to develop new targets or measures.

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5. RESOURCES USED AND EFFICIENCY

The Department has become more efficient in performing its work over time. The addition of lidar as a base for geologic mapping was a big driver for efficiency. For example, before we had lidar base maps, the Department was mapping 1-2 quadrangles per year. Now we typically map 8 quadrangles per year with the same resources, and with greater accuracy and resolution. Prior to lidar, one watershed had only eight landslides mapped using traditional methods. After mapping using lidar, over 1,300 landslides were identified. The Department continues to evaluate new technologies or new uses for old ones that allow us to collect more and better data using existing resources. Due to this effort, the Department is a leader in geologic studies, which results in funding opportunities from our federal, state, and local partners.

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| <i>The following questions indicate how performance measures and data are used for management and accountability purposes.</i> | |
|--|---|
| <p>1 INCLUSIVITY Describe the involvement of the following groups in the development of the Agency’s performance measures.</p> | <p>Staff: Semi-annual to quarterly discussions with section leaders and project staff.</p> <ul style="list-style-type: none"> • Elected Officials: The Joint Natural Resources Sub-Committee reviewed, discussed and approved the KPM in 2005; targets were modified by the Legislature in 2007 and again in 2009. • Stakeholders: Input has been sought and received from coastal communities, OSSPAC, OCAPA and key federal and state natural resource and emergency management agencies such as DLCDD, OEM, USGS, NOAA and FEMA. • Citizens: The five-person Governing Board, selected from different geographic areas of Oregon, reviews and approves proposed and modified KPM. |
| <p>2 MANAGING FOR RESULTS How are performance measures used for management of the Agency? What changes have been made in the past year?</p> | <p>The KPM are directly used to measure program and project progress. Results and Measure targets impact project selection and focus fund solicitation efforts. KPM are a frequent discussion item at monthly management meetings. Nine of the ten KPM have been revised in recent biennia.</p> |
| <p>3 STAFF TRAINING What training has staff had in the past year on the practical value and use of performance measures?</p> | <p>Staff have had detailed KPM briefings on content, objectives, targets, measurement criteria, standards, results, benefits and consequences of their assigned KPM. These KPM are a driving influence used to craft Statements of Work for the Agency’s numerous contracts for services. Examples include department work on NOAA National Tsunami Hazard Mitigation Program, USGS National Geologic Map Program and FEMA National Flood Insurance Program.</p> |
| <p>4 COMMUNICATING RESULTS How does the Agency communicate performance results to each of the following audiences and for what purpose?</p> | <ul style="list-style-type: none"> • Staff: KPM relative and absolute progress is a component of performance expectations and appraisal. • Elected Officials: The annual report is available online at the Agency and Progress Board websites. • Stakeholders: KPM objectives and targets manifest themselves within contract Statements of Work. • Citizens: The general public is briefed during Governing Board meetings when KPM are on the agenda; KPM are described and results reported on at numerous public presentations that Agency staff present regarding geologic hazards in order to increase awareness and facilitate personal accountability towards mitigation. |

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| KPM #1 | EARTHQUAKE AND LANDSLIDE MAP COMPLETION % of inhabited areas with maps and data | Measure since: 2005 |
|-----------------------|---|------------------------|
| Goal | Reduce the loss of life and property by understanding and mitigating geologic hazards. | |
| Oregon Context | OBM 67a: Community Preparedness For Natural Hazards. | |
| Data Source | Department records. | |
| Owner | Geologic Survey and Services Section; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. OUR STRATEGY

Provide earthquake-related and landslide hazard maps for populated areas and key infrastructure areas of Oregon. Partners include USGS, FEMA, OEM, and numerous Oregon counties and cities.

2. ABOUT THE TARGETS

The targeted area of Oregon constitutes 17,610 square miles (areas labeled “Nominal Inhabited Area” on the maps on page 5) of populated area. In 2012-2103 we exceeded the target, and for this year we have reset the target to reflect the 2012-2013 status with an annual increment of 2%.

HOW WE ARE DOING

In FY 2013, the Department produced low-resolution (2D) earthquake-induced landslide, ground motion amplification and liquefaction hazard maps covering the entire state. This part of the KPM metric is now at 100%, and new metrics will be considered as part of the ongoing Department strategic plan rewrite. Through FY 2014, the Department has produced new lidar-based landslide inventory and hazard maps for **5,542** square miles including **4,090** square miles of inhabited area (**23%**). The combined degree of map completion is thereby **62%**, slightly short of the target.

3. HOW WE COMPARE

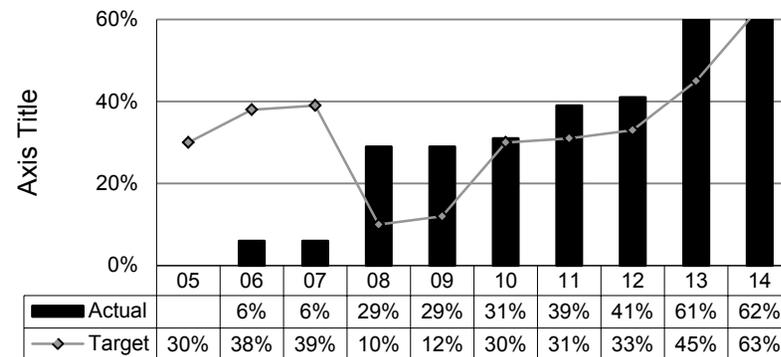
No comparable data for similar jurisdictions is available at this time.

4. FACTORS AFFECTING RESULTS

In FY 2014, the only funding that the Department had for earthquake or landslide hazard mapping came from Other Funds or Federal Funds contracts. Without General Fund to support these efforts, future progress will be entirely dependent on the availability of outside contract funds.

The current success of the landslide mapping program is entirely dependent on the availability of lidar data. Since 2008, the Department has utilized \$2 million in Measure 66 Lottery Fund seed capital to leverage an additional \$15 million in federal and other funds to acquire 32,243 square miles of high-resolution lidar elevation data (see map on page 6) which is 33% of Oregon. This area covers 12,809 square miles, or 72%, of the populated target area of Oregon, and is the foundation for our new generation of hazard maps now in production at the Department. The detail and multi-purpose reach of this data is

% Earthquake and Landslide Map Completion



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revolutionary towards resource management everywhere and hazard mitigation in the built environment, especially towards earthquake, landslide, tsunami, flooding, channel migration, coastal erosion and volcanic hazard assessment, risk analysis and at-risk communities outreach. Lidar data is required to support Department KPMs 1,2,3,6,7,9 and 12. The Department may develop a new KPM for lidar data collection pending the results of the ongoing rewrite of the Strategic Plan.

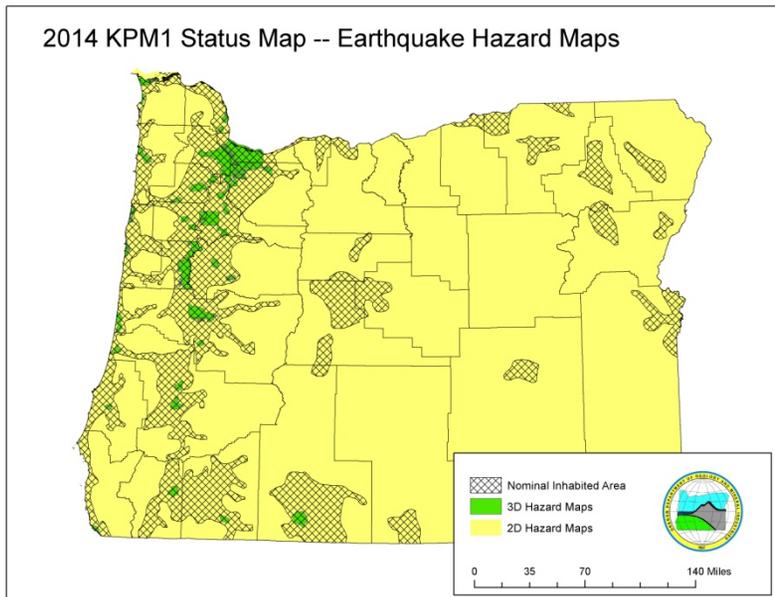
5. WHAT NEEDS TO BE DONE

The Department continues to initiate landslide hazard assessment funding partnerships with federal and state agencies and with various cities and counties. However, most of this work is in response to disasters. Oregon needs a strategy to address these hazards pre-disaster to ensure that its citizens and property are protected. New lidar-derived landslide inventory maps can be previewed at <http://www.oregongeology.org/sub/publications/IMS/ims.htm> (see, e.g., IMS-30).

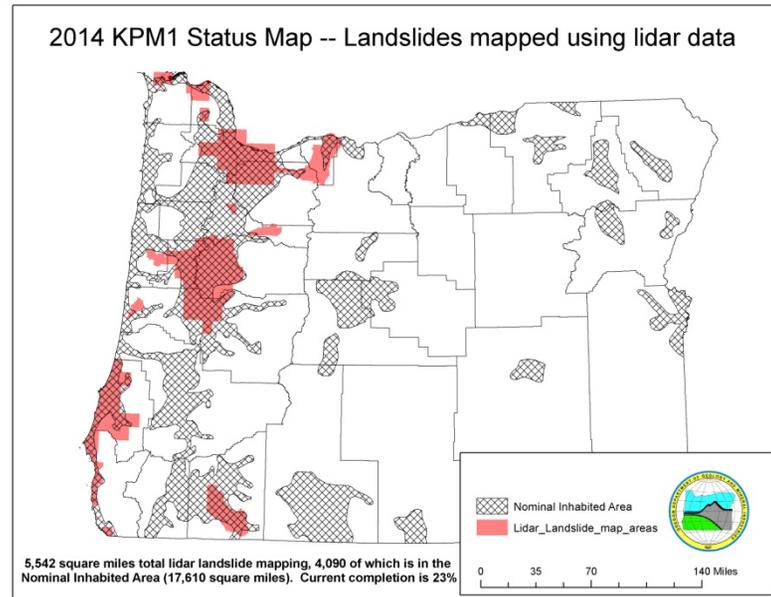
6. ABOUT THE DATA

The target area matches the methodology utilized and more fully described in KPM 6. The actual score reported for KPM 1 is the simple average of the two sub-measures.

KPM 1: Earthquake hazard mapping progress map



KPM 1: Landslide hazard mapping progress map



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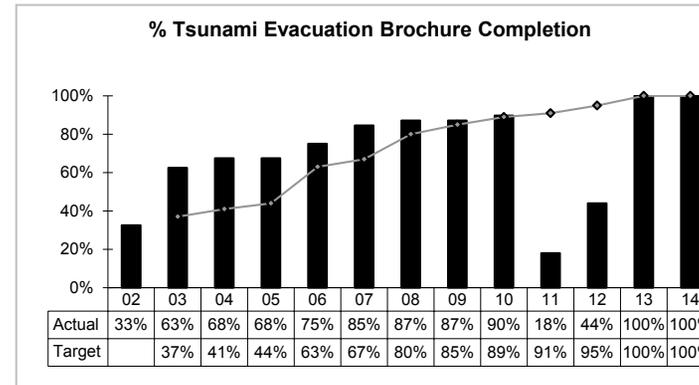
| KPM #2 | TSUNAMI EVACUATION MAP COMPLETION % target communities with new evacuation brochures. | Measure since: 2005 |
|-----------------------|---|------------------------|
| Goal | Reduce the loss of life and property by understanding and mitigating geologic hazards. | |
| Oregon Context | OBM 67a: Community Preparedness For Natural Hazards. | |
| Data Source | Department records. | |
| Owner | Geologic Survey and Services Section; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. **OUR STRATEGY**

Reduce the loss of life of Oregonians and visitors to the Oregon Coast by mapping tsunami hazards; educating coastal residents and visitors, local city officials, county emergency managers and other state and federal agencies about tsunami hazards; and by providing materials and signs for those exposed and vulnerable to the risk so they can save themselves in when a disaster occurs.

2. **ABOUT THE TARGETS**

This measure targets 45 at-risk communities along the Coast (see map below). In addition, there are numerous State Parks and other facilities at risk along the coast. The complementary performance measure (KPM 9: Tsunami Inundation Map completion) measures the relative proportion of the total coast mapped while this measure refers to specific communities.



3. **HOW WE ARE DOING**

In 2010, DOGAMI commenced a program to re-map tsunami inundation zones for several different tsunami scenarios along the **entire Oregon Coast**. This work incorporated the recent technical findings from the Sumatra, Chile and Japan earthquakes and resultant tsunamis. As part of this initiative, funded by the NOAA National Tsunami Hazard Mitigation Program, the Department developed a new Tsunami Evacuation Brochure that shows both the worst case local (Cascadia Subduction Zone) and worst case distant (new Alaska) tsunami. At the end of FY 2013, the Department completed evacuation maps for all at-risk communities. The Department will evaluate possible replacements for this KPM as part of the ongoing rewrite of the Strategic Plan.

4. **HOW WE COMPARE**

There are 30 Washington communities at risk, most clustered at the southern end of the state along a length of coast about 1/3 as long of that at risk in Oregon. Washington has produced similar evacuation brochures for 27 communities, however these do not provide recommended evacuation routes.

5. **FACTORS AFFECTING RESULTS**

The task is complete.

6. **WHAT NEEDS TO BE DONE**

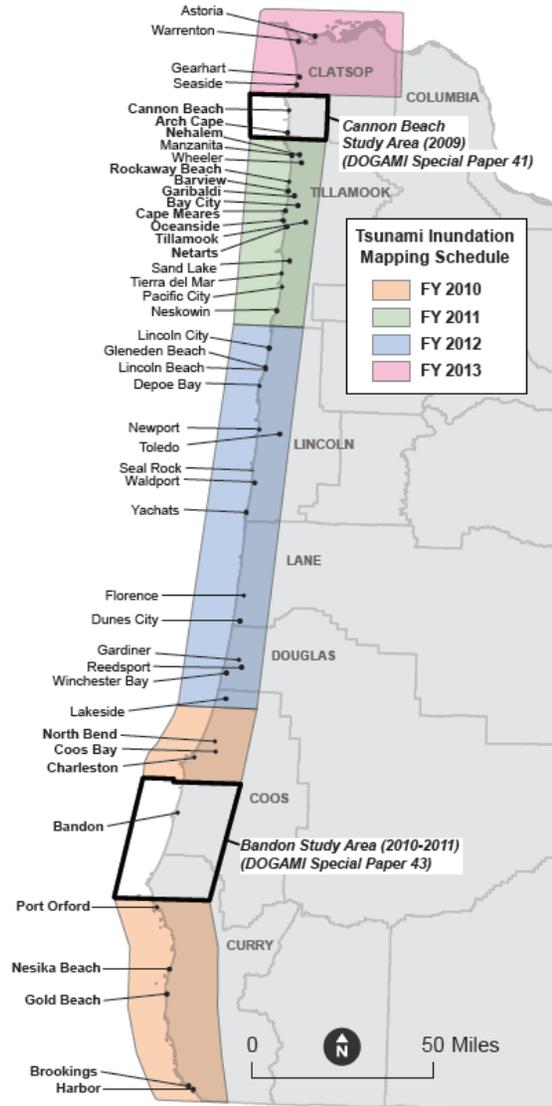
The Agency completed the re-assessment of tsunami inundation along the entire Oregon coast using new lidar-derived detailed topography which significantly improved true elevation accuracy.

7. **ABOUT THE DATA**

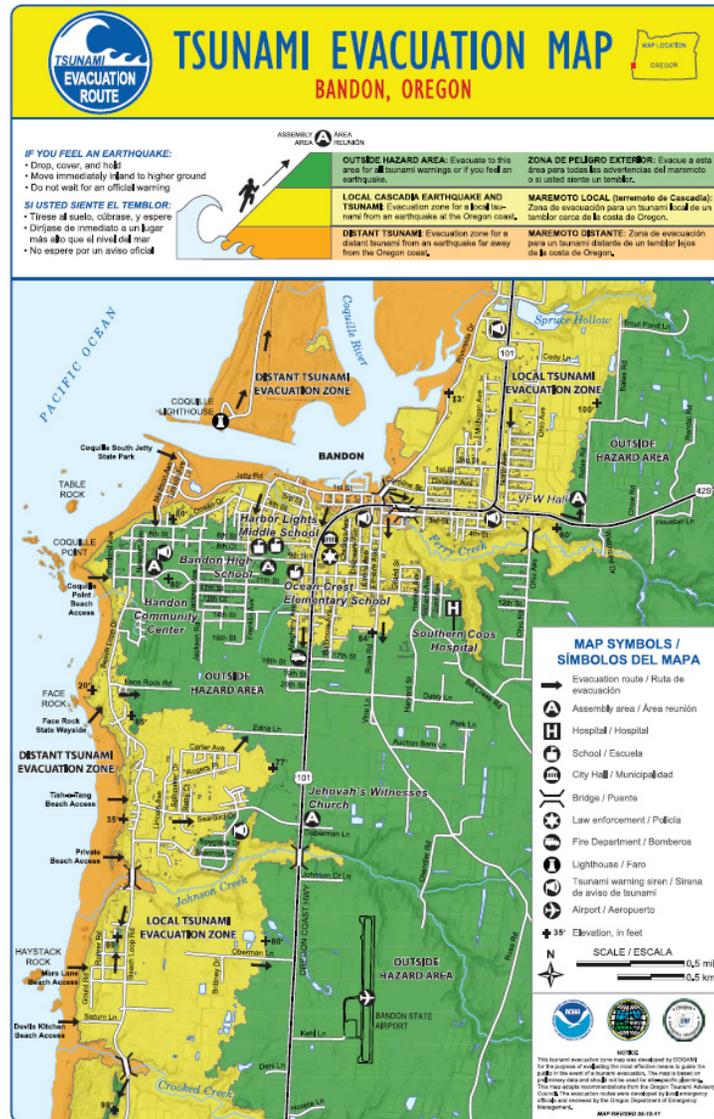
8. The data is through FY 2014. Tsunami evacuation brochures are available at <http://www.oregongeology.org/tsuclearinghouse/pubs-evacbro.htm>.

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KPM 2: New tsunami evacuation brochure coverage



KPM 2: Example of new tsunami evacuation brochure/map



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| KPM #3 | COASTAL EROSION MAP COMPLETION % target communities with standardized, 4-risk zone erosion hazard maps. | Measure since: 2005 |
|-----------------------|---|------------------------|
| Goal | Reduce the loss of life and property by understanding and mitigating geologic hazards. | |
| Oregon Context | OBM 67a: Community Preparedness For Natural Hazards. | |
| Data Source | Department records. | |
| Owner | Geologic Survey and Services Section; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. **OUR STRATEGY**

Reduce the risk of losses to property and infrastructure by identifying minimum and maximum potential coastal change erosion distances for bluff- and dune-backed shorelines over the next 60-100 years; for use by land use planners. DLCDD, coastal counties and communities are active partners.

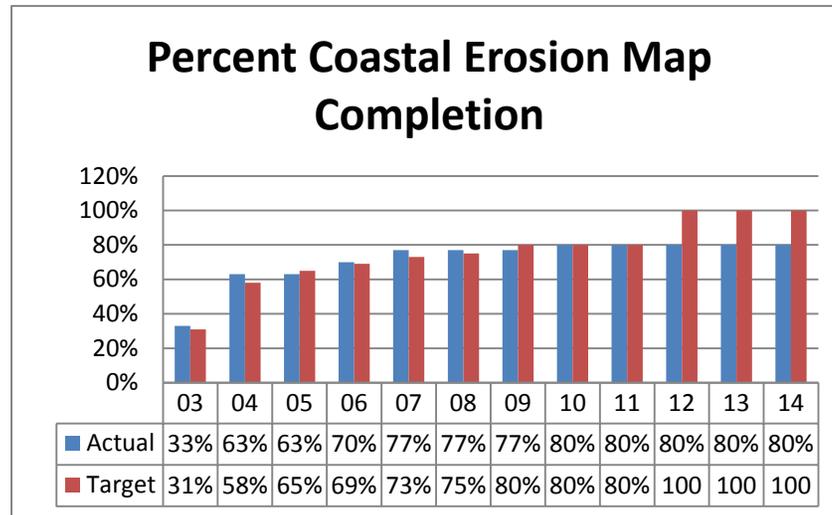
2. **ABOUT THE TARGETS**

Thirty selected communities represent the coastline of interest and are risk.

3. **HOW WE ARE DOING**

Four-zone erosion maps (“Active, High, Moderate, and Low Hazard Zones”) have been completed for 24 of 30 communities. Extensive supportive work is in progress focused on coastal change on the northern Oregon coast, including ongoing monitoring of beach erosion and collaborative research with OSU to develop new erosion models that account for climate change. See a portion of this work assessing estuaries and shores at <http://www.oregongeology.org/sub/nanoos1/index.htm>.

In FY 2014 the Department revised the coastal erosion maps for Tillamook County to reflect the impact of long-term sea level rise and abrupt sea level rise associated with a future Cascadia Subduction Zone earthquake. Because this area had already been mapped, the effort did not change the completion metric.



4. **HOW WE COMPARE**

A direct comparable has not been located. Various jurisdictions, including the State of Hawaii, have active coastal erosion studies incorporated as part of their coastal zone management programs.

5. **FACTORS AFFECTING RESULTS**

With no General Fund support for this effort, erosion hazard studies are only carried out where outside source of funding area available. Hazard assessment efforts have focused on the northern half of Oregon where beaches are more prevalent, exposed, populated and there is greater risk due to rising sea levels exceeding plate tectonic uplift. The reverse is generally true for southern Oregon. The overall coastal erosion hazard in Lane, Douglas, Coos, and Curry counties is relatively low. Therefore, funding source priorities have followed areas of higher erosion risk.

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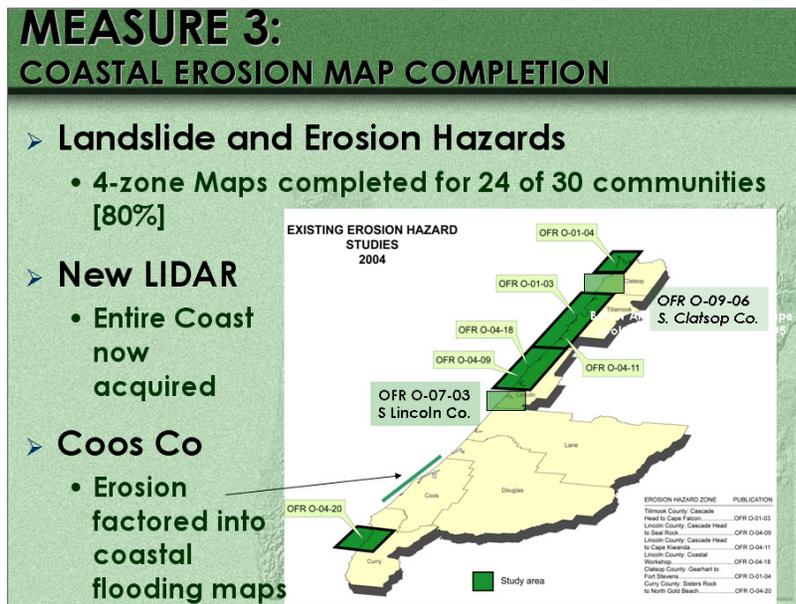
6. WHAT NEEDS TO BE DONE

Partnerships with state and local authorities are necessary to advance this work for the communities located in Curry, Coos, Douglas and Lane counties. The Department recommends conducting detailed coastal erosion studies on a case-by-case basis within these counties.

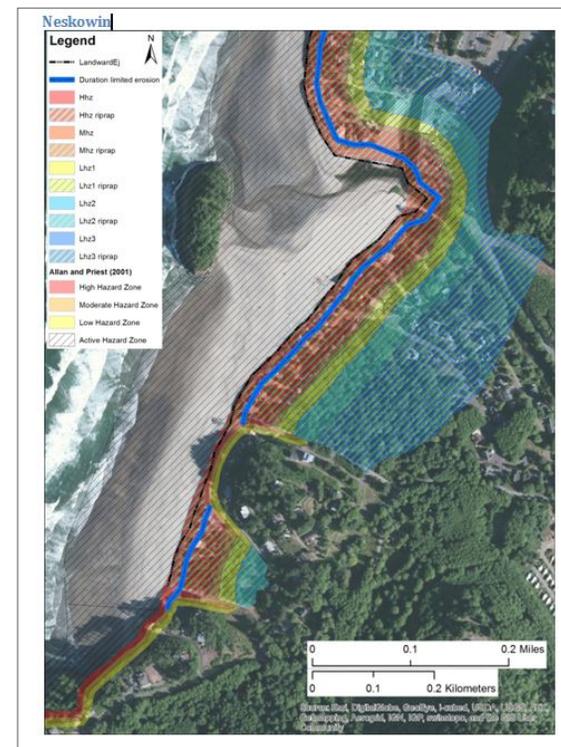
7. ABOUT THE DATA

The eight Open File Reports (OFR 01-03, 01-04, 04-09, 04-11, 04-18, 04-20, 07-03, and 09-06) documenting these studies are available from the Nature of the Northwest Information Center at <http://www.naturenw.org/>. Information concerning ongoing hazard mitigation activities along the coast can be found at <http://www.oregongeology.org/sub/earthquakes/Coastal/CoastalHazardsMain.htm>.

KPM 3: Coastal erosion map completion



KPM 3: Updated erosion hazard maps for Neskowin



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| KPM #5 | RECLAMATION Total number of mining acres that have been reclaimed and returned to secondary beneficial use. | Measure since: 2005 |
|-----------------------|--|------------------------|
| Goal | Recognize the important and essential contribution that the extraction of minerals makes to the economic well being of the state and the nation and to prevent unacceptable adverse impacts to environmental, scenic, recreational, social, archaeological and historic resources of the state that may result from mining operations. | |
| Oregon Context | Rural Economic Development and Sustainability of State Resources. | |
| Data Source | Department records. | |
| Owner | Mined Land Regulation and Reclamation Program; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. **OUR STRATEGY**

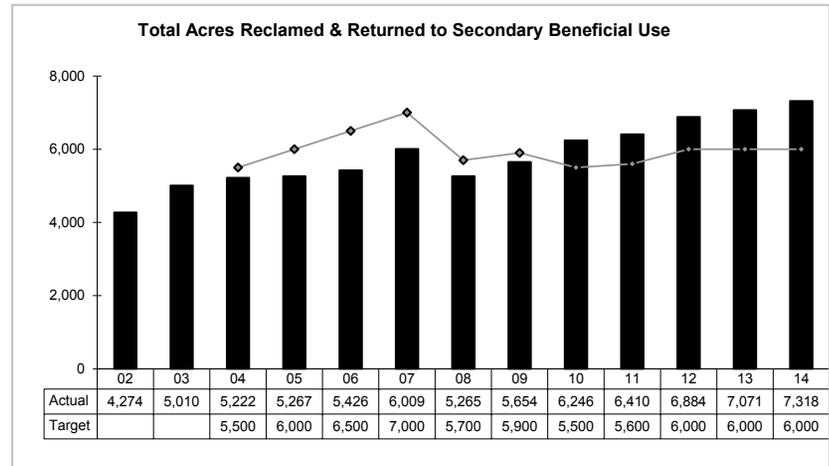
Administer reclamation plans of operating permit holders to minimize disturbance and efficiently return the land of **closed** sites to secondary beneficial use. The MLRR Awards program is found at: <http://www.oregongeology.org/mlrr/awards.htm>.

2. **ABOUT THE TARGETS**

A review of legacy data resulted in these modified targets. The actual performance in any one year is not within Agency control since the operator makes the decision when to close a site.

3. **HOW WE ARE DOING**

During the FY2013, **140** acres of disturbed land at **22** closed sites were reclaimed to secondary use. The trend is ahead of target. Of **7,318** acres reclaimed to date, the leading secondary beneficial use categories are open space and range (19%), agriculture (17%), wildlife/wetlands (12%), and housing (8%).



4. **HOW WE COMPARE**

Comparison to a similar jurisdiction is not available.

5. **FACTORS AFFECTING RESULTS**

The timing, pace and location of site closure, and subsequent reclamation, is independent of Agency activity.

6. **WHAT NEEDS TO BE DONE**

Continuous improvements are being made to the program, including accuracy of data tracking methods and development of a geospatial database of reclaimed acres/secondary use.

7. **ABOUT THE DATA**

As of June 30, 2014 there are 895 active site permits covering 57,250 permitted acres, with 24,496 of those acres considered disturbed by mining activity.

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KPM 5: Oregon Geology article describing Annual Mined Land Reclamation Awards for 2009-2013 (given in 2010-2014)

MINED LAND RECLAMATION AWARDS

Each year the Mineral Land Regulation and Reclamation Program (MLRR) of the Oregon Department of Geology and Mineral Industries (DOGAMI), with an independent panel of experts, selects specific mine sites and operators to receive industry and Department recognition for outstanding reclamation, mine operation and salmon protection (The Oregon Plan Award). Awards, based on an operator's performance during the previous calendar year, are presented at the Oregon Concrete and Aggregate Producers Association (OCAPA) annual conference.

"The companies and government organizations we recognize with these annual awards show an understanding of the issues involved in surface mining today and are committed to protecting the undisturbed environment around the site. They also are committed to the communities where they are based," notes Gary Lynch, Assistant Director of Regulation for DOGAMI's MLRR office. "The recognition is also an encouragement to others in the mining industry to follow suit."

The Mineral Lands Regulation and Reclamation program at DOGAMI serves as a steward of the state's mineral production, while encouraging best practices within the industry. MLRR's goals include environmental protection, conservation, effective site reclamation, and operational guidance regarding other engineering and technical issues. Contact Gary Lynch, Assistant Director of Regulation, MLRR, at (541) 967-2053 for more information.

For more information on the Mined Land Reclamation Awards program, contact Ben Mundie, telephone (541) 967-2149; email: ben.a.mundie@mlrr.oregongeology.com

AWARD CATEGORIES

Outstanding Operator recognizes operations that have done an excellent job of mine development and/or operations on a daily basis. Outstanding operations can lead to outstanding reclamation.

The outstanding operator is divided into two divisions to recognize that large corporations have a distinct advantage over small, family-owned operations in their ability to bring resources to a mine operation. The **Outstanding Operator** award (called "Outstanding Small Operator" prior to 2011) recognizes those operators who go beyond the regulations to protect surface and ground water, to protect adjacent natural resources, to protect adjacent properties, and utilizing innovative techniques to minimize adverse impacts. The **Outstanding Operator, Division II** award recognizes those operators as well as large corporations do business in Oregon. The Outstanding Operator award recognizes those operators who go beyond the regulations to protect surface and ground water, to protect adjacent natural resources, to protect adjacent properties, and utilizing innovative techniques to minimize adverse impacts.

Outstanding Reclamation recognizes operations that go beyond the minimum requirements of the DOGAMI-approved reclamation plan or that use innovative techniques to achieve successful reclamation.

Outstanding Reclamation / Agency recognizes reclamation by a government agency, which is considered separately from private operations because of the resources available to agencies not available to private operators.

Reclamationist of the Year recognizes an individual from the mining industry who provides an enthusiasm and creativity in producing outstanding operation and reclamation.

Oregon Plan recognizes operations that voluntarily create or enhance salmonid habitat within a permitted area or that volunteer equipment for offsite use.

Special Recognition, a new award category for 2012, recognizes an individual from the mining industry who has shown outstanding commitment and dedication in promoting the aggregate industry on the ground, politically, or through public education.

Good Neighbor recognizes those operators who go the extra mile to insure adjacent landowners are not adversely impacted by the mine operation or who look for ways to benefit the community at large.

Voluntary Reclamation recognizes those operators who perform reclamation on lands that have been deemed exempt from the reclamation law.

Outstanding Planning recognizes operators who, prior to receiving a permit, submit detailed innovative or creative integrated reclamation plans.

(continued on page 41)



Latham Excavation of Bend won the 2013 Good Neighbor Award for efforts to reduce off-site impacts and complete interim and concurrent reclamation on previously disturbed areas at the Johnson Road Pit in Deschutes County.

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(MLR Awards continued)

MLR 2009-2013 AWARD WINNERS

2009 (GIVEN IN 2010)

- Outstanding Reclamation**
River Rock Properties - Jackson County
- Outstanding Operator**
Jim Turin & Sons, Inc. - Clackamas County
- Outstanding Planning**
Whetstone Engineering - Jackson County

2010 (GIVEN IN 2011)

- Outstanding Operator**
Wilsonville Concrete Products Commercial Redi-Mix, Brown's Island, Marion County
- Outstanding Small Operator**
Rock Solid Sand & Gravel, Aylett Pit, Morrow County
- Outstanding Reclamation**
Myron Corcoran, Defiance 1 & 2, Josephine County
- Outstanding Voluntary Reclamation**
Umpqua Sand & Gravel, Umpqua Pit, Douglas County
- Oregon Plan**
Carlson's Gravel Pit, Josephine County
- Good Neighbor**
JC Compton Company, Salem Industrial Park, Marion County

2011 (GIVEN IN 2012)

- Outstanding Reclamation**
Plum Creek Timberlands LP, Siletz George Quarry, Lincoln County
- Good Neighbor**
Da-Tone Rock Products, Joe Hall Pit, Curry County
- Outstanding Operator**
Cornerstone Industrial Minerals Corporation, Tucker Hill Operation, Lake County
- Outstanding Operator Division II**
Kauffman Crushing, Inc., Eckman Creek Quarries, Lincoln County

2012 (GIVEN IN 2013)

- Outstanding Operator**
River Bend Sand and Gravel / CPM Development Corporation, Dalton Quarry, Salem
- Outstanding Reclamation**
Knife River Materials-Roseburg Operations, Smith Bar, Roseburg
- Outstanding Reclamation / Agency**
BLM Roseburg District, Lee Creek, Roseburg
- Reclamationist of the Year**
Ed McGill / River Bend Sand and Gravel, Salem
- Oregon Plan**
Copeland Sand and Gravel, Inc., Hyde Bar, Grants Pass
- Special Recognition**
Robert Hogensen / Green and White Rock Products, Corvallis

2013 (GIVEN IN 2014)

- Outstanding Reclamation**
Oregon Resources Corporation, Coos Bay
- Voluntary Reclamation**
Triple C Redi-Mix Inc., Baker City
- Outstanding Operator**
Southern Oregon Ready-Mix, Central Point
- Outstanding Operator, Division II**
Western Mine Development, Baker County
- Good Neighbor**
Latham Excavation, Bend
- Oregon Plan Award**
Weyerhaeuser Company
- Special Recognition Award**
Bob Short, consultant to CalPortland Company

To learn more about the MLR award winners, visit www.oregongeology.org/mlrr/awards.htm




Oregon Resources Corporation of Coos Bay won the 2013 Outstanding Reclamation Award for efforts to minimize the impacts to surrounding landowners and complete successful reclamation at their heavy minerals mining site in Coos County. Top photo: 2012, during operation; bottom photo: 2014, after reclamation.

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Agency Mission: Provide earth science information and regulation to make Oregon safe and prosperous.

| KPM #6 | DETAILED GEOLOGIC MAP COMPLETION % of inhabited areas with detailed geologic data to be used for local problem solving and resource management. | Measure since: 2005 |
|-----------------------|---|------------------------|
| Goal | Initiate and conduct studies and surveys of the geological and mineral resources of the state and their commercial utility and identify and map geologic hazards and estimation of their potential consequences and likelihood of occurrence. | |
| Oregon Context | Rural Economic Development and Sustainability of State Resources. | |
| Data Source | Department records. | |
| Owner | Geologic Survey and Services Section; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. **OUR STRATEGY**

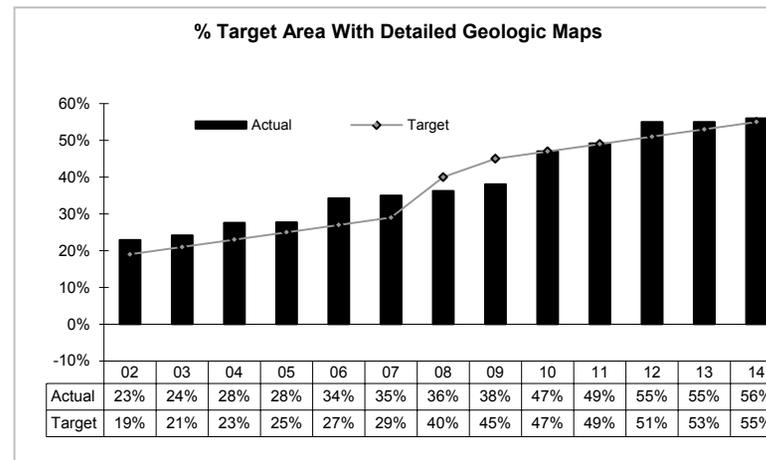
Collect geologic data at a map scale of 1:24,000 in targeted high priority areas in Oregon to support resource and hazard assessment. USGS is a key funding client.

2. **ABOUT THE TARGETS**

Target areas are defined by the Nominal Inhabited Area (NIA) of the state, which was developed using census data and water well density. The total targeted inhabited area is **17,610** square miles.

HOW WE ARE DOING

During FY 2013 and 2014 the Department mapped along the southern Oregon coast. The total area covered by these published maps is 287 square miles of which 222 cover the NIA. That brings the total square miles of inhabited area covered by detailed mapping to 9,866 or 56%. The measure continues to be slightly ahead of the target.



3. **HOW WE COMPARE**

Washington State does not currently have this scale of map available online. Nevada has PDF of 1:24,000 scale maps at <http://www.nbmng.unr.edu/dox/dox.htm#3> . Idaho has 1:24,000 maps at <http://www.idahogeology.org/Products/> . California has 1:24,000 maps at http://www.consrv.ca.gov/cgs/rghm/rgm/preliminary_geologic_maps.htm .

4. **FACTORS AFFECTING RESULTS**

Several mapping projects are in cooperation with the USGS and the release of their mapped areas will affect our performance results. During FY 2013, the USGS did not release new maps in Oregon. We anticipate they will release several maps to the west of Beaverton-Tualatin during FY 2013.

5. **WHAT NEEDS TO BE DONE**

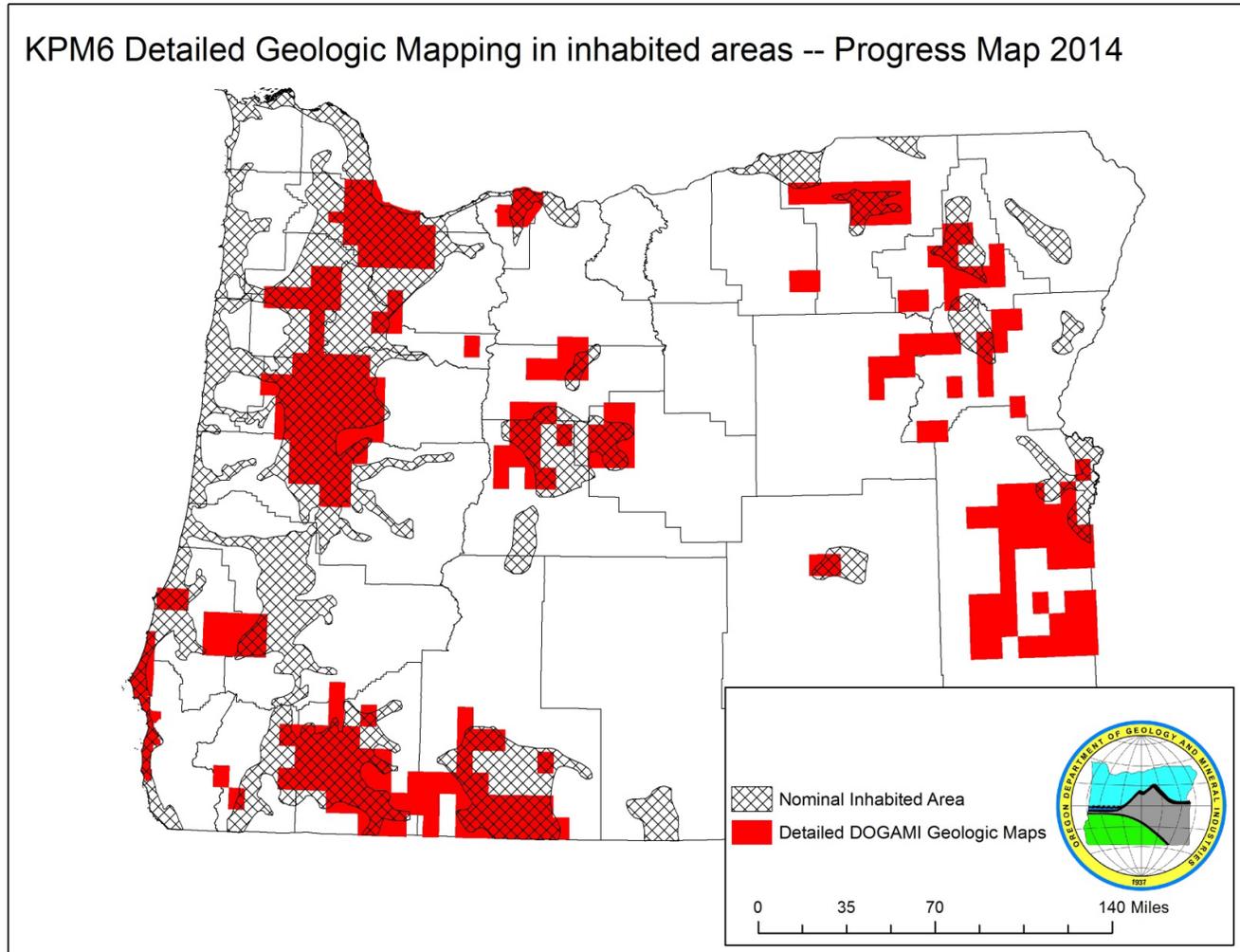
The Agency is collecting lidar topographic data in targeted areas. This data will significantly improve the positioning of rock formation outcrops, rock formation contacts, fault scarps, landslides and other key morphologic features, and thereby will improve the natural resource and hazard assessments drawn from the data. The Agency prioritizes new geologic mapping in areas with lidar data coverage.

6. **ABOUT THE DATA**

Map areas comply with the national 7.5-minute quadrangle grid system.

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KPM 6: Detailed geologic map completion map



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| KPM #7 | REGIONAL GEOLOGIC MAP COMPLETION % of Oregon with statewide geologic data to be used for regional resource and hazard assessment. | Measure since: 2005 |
|-----------------------|--|------------------------|
| Goal | Initiate and conduct statewide geologic resource and hazard assessment. | |
| Oregon Context | Rural Economic Development and Sustainability of State Resources. | |
| Data Source | Department records. | |
| Owner | Geologic Survey and Services Section; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. OUR STRATEGY

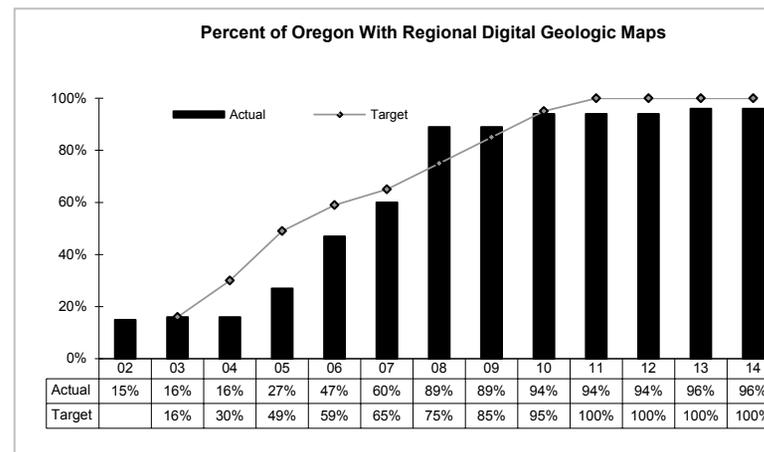
Compile and deliver on-line a digital geologic map database and map interface for resource, land use and hazard planning in Oregon; utilize best available legacy data derived from the >1,000 geologic maps in Oregon. Key partners include USGS, USFS, BOR, ODOT and DAS EISPD GEO.

2. ABOUT THE TARGETS

Complete 100% coverage and on-line delivery by June 30, 2013.

3. HOW WE ARE DOING

A complete digital geologic map for the state is now available. We are working on an update, and a new online platform is being developed for displaying this type of data. An example of the applied derivative information that can be created from this work is the ground shaking maps produced for a Magnitude 9 subduction zone earthquake that supported the Oregon Seismic Safety Policy Advisory Commission’s legislatively-mandated earthquake resilience plan, completed in 2013.



4. HOW WE COMPARE

No nearest state neighbor, nor the USGS, has a similar product online.

5. FACTORS AFFECTING RESULTS

Department web maps are being slowly rebuilt following the departure of key staff. The geology web map should be available in FY 2015, and join other Department web maps showing hazards, mineral, or geothermal data such as the Geothermal Information Layer for Oregon at <http://www.oregongeology.org/sub/gtilo/index.htm>.

6. WHAT NEEDS TO BE DONE

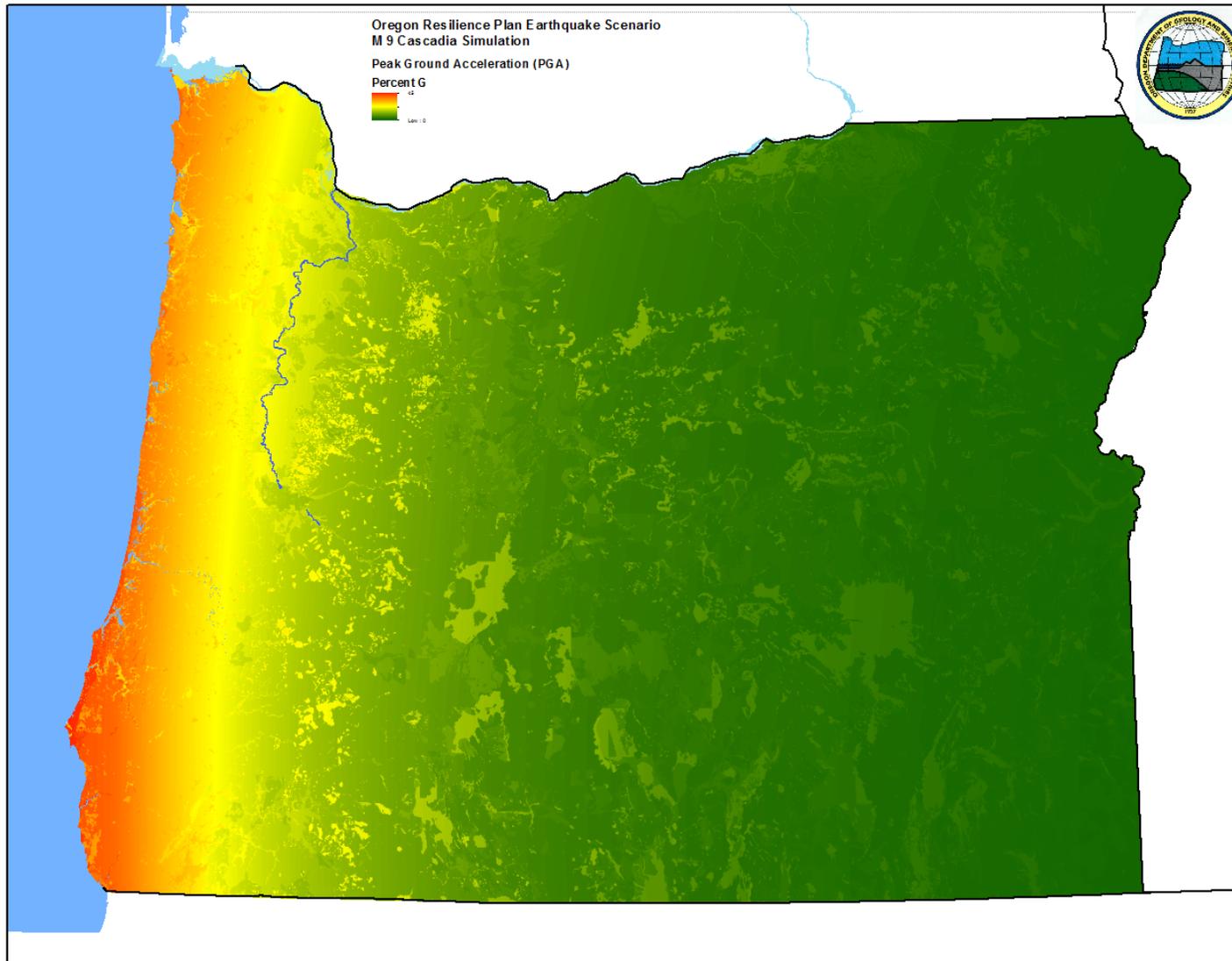
The digital geologic database needs to be updated with mapping completed since 2009, and made available as a web map.

7. ABOUT THE DATA

The geographic information system (GIS) layers of the data are available on CD at <http://www.oregongeology.org/sub/ogdc/background.htm#purchase>, and through the DAS GEO spatial data library

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KPM 7: Magnitude 9.0 Cascadia subduction earthquake ground shaking map (derived from statewide regional geologic map)



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| KPM #8 | MINESITES INSPECTED ANNUALLY % of unique mine operators with active permitted sites inspected annually. | Measure since: 2005 |
|-----------------------|--|------------------------|
| Goal | Recognize the important and essential contribution that the extraction of minerals makes to the economic well being of the state and the nation and to prevent unacceptable adverse impacts to environmental, scenic, recreational, social, archaeological and historic resources of the state that may result from mining operations. | |
| Oregon Context | Rural Economic Development and Sustainability of State Resources. | |
| Data Source | Department records. | |
| Owner | Mined Land Regulation and Reclamation; contact: Vicki McConnell, Director, 971-673-1550, vicki.mcconnell@state.or.us | |

1. **OUR STRATEGY**

Inspect 100% of unique permittees each biennium. The objective is to perform a site inspection of at least one operation of each unique mine operator with an active permitted site(s).

2. **ABOUT THE TARGETS**

Annually inspect 50% of the unique operators with active permits for a total of 100% for the biennium. As of June 30 2014, there were 491 unique permit holders with active, amended, or new permits.

3. **HOW WE ARE DOING**

During FY 2014 the Department performed a total of 487 inspections; including in-person and aerial methods. Of these, 258 (52%) represented unique permit holding operators. The inspection trend has reversed direction from previous years and is now above target.

4. **HOW WE COMPARE**

No comparable data for neighboring states available.

5. **FACTORS AFFECTING RESULTS**

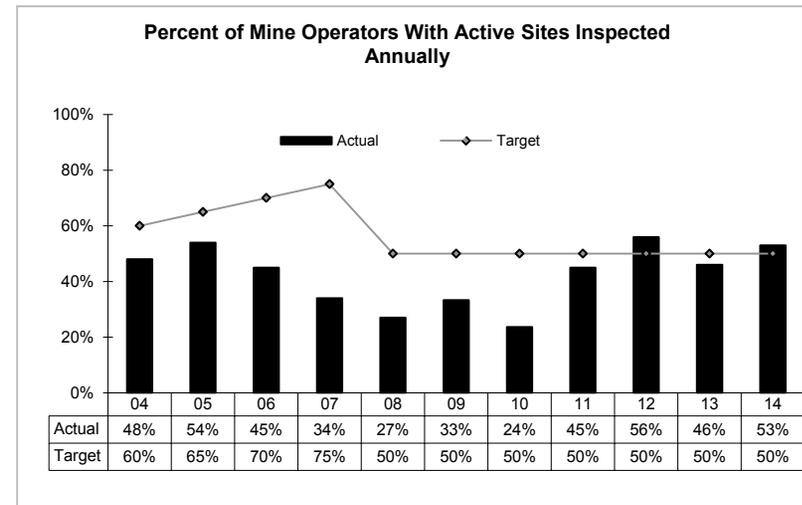
MLRR program reclamationists inspected 305 sites in-person; of those, 58 (19%) required multiple inspections to ensure compliance assurance. Overall, 146 out of 487 total inspections were repeat visits (30%).

6. **WHAT NEEDS TO BE DONE**

Continue to emphasize in-person inspections and increasingly utilize GIS-based analysis of mined sites, as well as other technical tools, as is appropriate to streamline inspection activities. Continue to add functionality and clarity of information on the Department’s website.

7. **ABOUT THE DATA**

A list of permit types, forms and related surface mining information is available at <http://www.oregongeology.org/mlrr/surfacemining.htm> .

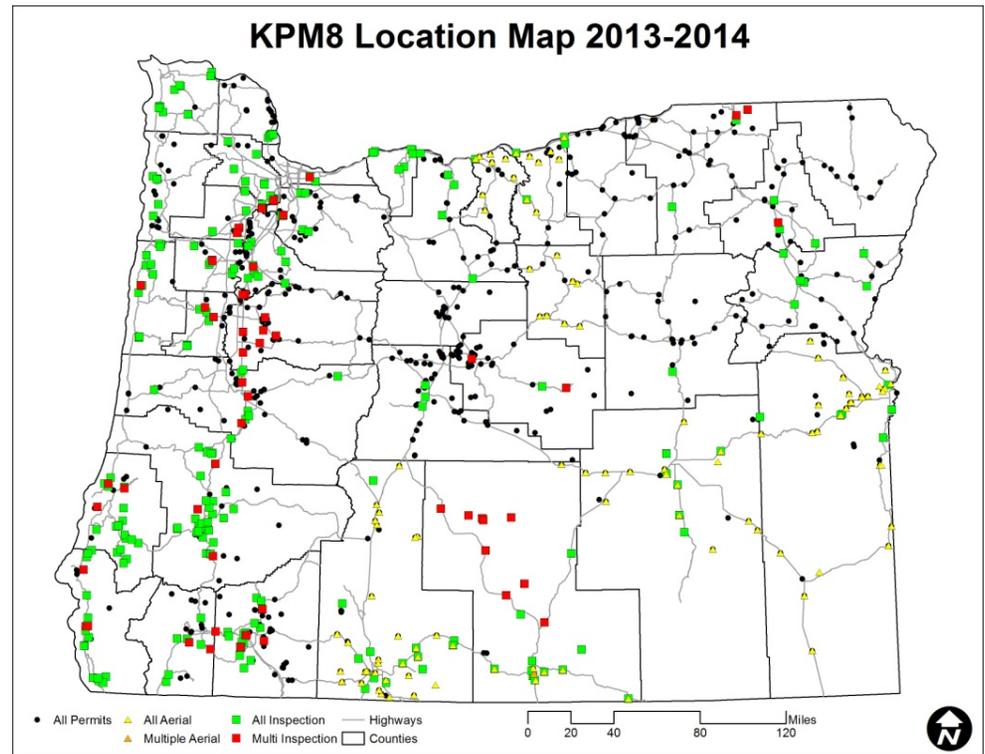


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KPM 8: MLRR website with enhanced information

The screenshot shows the website interface for Mineral Land Regulation & Reclamation. It includes a navigation menu with links for Surface Mining, Oil & Gas, Geothermal, Water Quality, Regulations & Statutes, and Staff. A sub-menu for the Permitting Process is expanded, showing links for Frequently Asked Questions, Permits & Production Information, and Mined Land Reclamation Awards. The main content area is titled 'Surface Mining Permitting Process' and provides detailed information about the MLRR program, including the types of permits issued (Operating, Total Exemption, Vegetation, and Exploration) and the requirements for an Operating Permit. A 'Forms' sidebar lists various application forms and their update dates, such as the Operating Permit Application (updated 10-20-11) and the Land Survey (updated 9-11).

KPM 8: Mine sites inspected 2013-14



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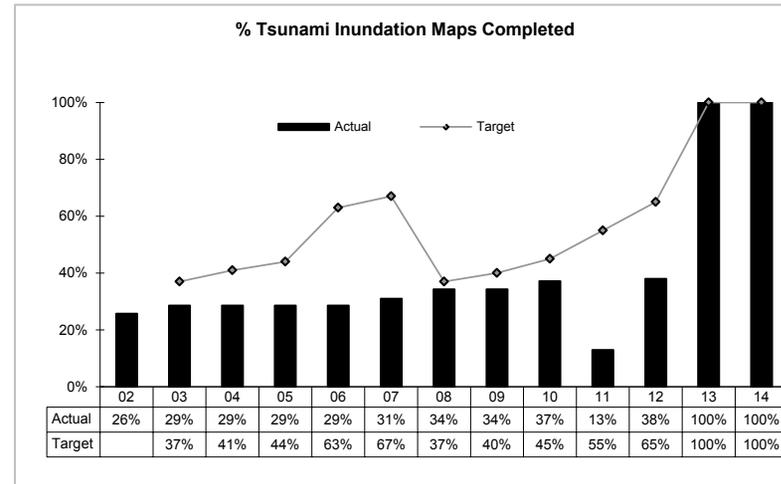
| KPM #9 | TSUNAMI INUNDATION MAP COMPLETION % of coast provided with detailed tsunami inundation maps for local planning. | Measure since: 2005 |
|-----------------------|--|------------------------|
| Goal | Reduce the loss of life and property by understanding and mitigating geologic hazards. | |
| Oregon Context | OBM 67a: Community Preparedness For Natural Hazards. | |
| Data Source | Department records. | |
| Owner | Coastal & Technical Services Sections; contact: Vicki McConnell, Director, 971-673-1550 | |

1. **OUR STRATEGY**

In partnership with NOAA and OEM, provide tsunami inundation hazard maps for at-risk communities and educate Coastal communities through the Tsunami Outreach Oregon education campaign. The maps depict five different sizes of tsunamis generated by progressively greater amounts of rupture along the Cascadia Subduction Zone (CSZ). The five scenarios are referred to as the "Tsunami T-shirts" (S, M, L, XL, XXL) that span the range of anticipated inundation as has been documented by past events. Although it is uncertain what the magnitude of the next CSZ event will be, the probability of a Magnitude 8-9 earthquake occurring somewhere along the CSZ in the next 30 years is 10%.

2. **ABOUT THE TARGETS**

The entire Oregon Coast is at risk of varying degrees of inundation, including 45 communities and numerous State Parks (see KPM 2). Instead of focusing solely on at risk communities, KPM 9 covers detailed tsunami inundation maps for the five CSZ scenarios at a scale of 1:10,000-12,000 for the entire 363 miles of Oregon Coast.



3. **HOW WE ARE DOING**

As of FY 2013 close, DOGAMI has mapped 363 miles of Oregon Coast for a 100% completion rate.

4. **HOW WE COMPARE**

NOAA considers the Department to be a national leader and model for other States in tsunami science, mapping, and outreach.

5. **FACTORS AFFECTING RESULTS**

Funding and technical factors have been resolved and mass production of new tsunami inundation maps has finished.

6. **WHAT NEEDS TO BE DONE**

As of FY 2013 close, DOGAMI has mapped 363 miles of Oregon Coast for a 100% completion rate. The Department will evaluate possible replacements for this KPM as part of the ongoing rewrite of the Strategic Plan.

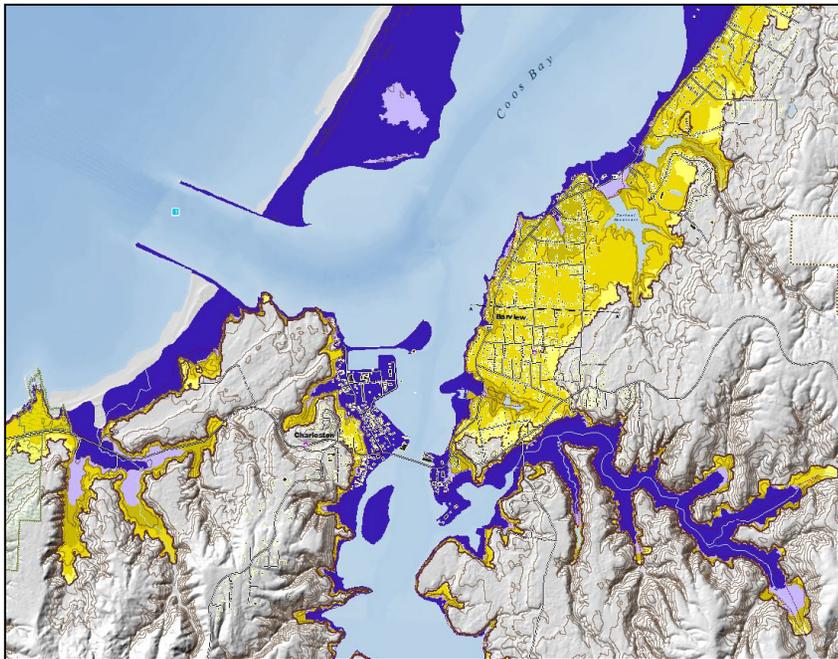
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7. **ABOUT THE DATA**

Tsunami inundation maps were previously published as Interpretative Map Series (IMS) maps 2,3,11,12,13,21,23, GMS-99, and Special Papers 41 and 43. The new generation of tsunami inundation maps are released as separate publications within the TIM (tsunami inundation map) series. All of these publications are available at <http://www.naturenw.org/geo-tsunamis.htm>.

8.

KPM 9: Tsunami inundation and risk map



KPM 9: DOGAMI Tsunami Inundation Map (TIM) series index map



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| KPM #10 | CUSTOMER SERVICE : Percent of customers rating their satisfaction with the Agency’s customer service as “good” or “excellent”: overall, timeliness, accuracy, helpfulness, expertise, availability of information | Measure since: 2005 |
|-----------------------|---|---------------------|
| Goal | Improve collaboration and deliver the highest level of customer service possible. | |
| Oregon Context | Statewide Mission. | |
| Data Source | Department survey results. | |
| Owner | All Sections; contact: Vicki McConnell, Director, 971-673-1550 | |

1. **OUR STRATEGY**

Invite customer input; respond positively to constructive criticism.

2. **ABOUT THE TARGETS**

The ongoing target is 95% customer satisfaction.

3. **HOW WE ARE DOING**

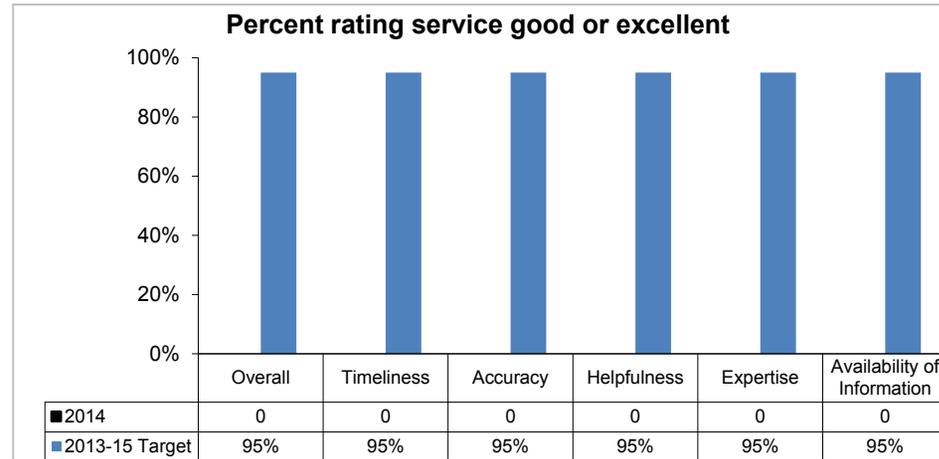
No data collected in this period.

4. **HOW WE COMPARE**

5. **FACTORS AFFECTING RESULTS**

6. **WHAT NEEDS TO BE DONE**

The Agency shall strive for continuous improvement in each category; will improve satisfaction by increasing the scope of information content and ease in locating earth science and regulatory information via the internet.



We will develop a process to continuously collect customer satisfaction data. Presently we survey after outreach opportunities and technology transfer forums. We also will include a customer satisfaction survey with annual mine permit renewals.

7. **ABOUT OUR CUSTOMER SERVICE SURVEY**

III. KEY MEASURE ANALYSIS

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| KPM #11 | GOVERNANCE : Percent of yes responses by Governing Board to the set of best practices | Measure since: 2007 |
|-----------------------|---|---------------------|
| Goal | Ensure discussion of governance best practices. | |
| Oregon Context | Statewide Mission. | |
| Data Source | Governing Board survey results. | |
| Owner | Vicki McConnell, Director, 971-673-1550 | |

| 6/9/2014 | | | | | | | | | | |
|---|-------------|----|--------------|----|-------------|----|-------------|----|-----------|----|
| Oregon Department of Geology & Mineral Industries | | | | | | | | | | |
| Governing Board Best Practices Self-Assessment Score Card | | | | | | | | | | |
| Adopted May 5, 2007 | | | | | | | | | | |
| | Givens | | D. MacDougal | | L. Phipps | | D. Luke | | Vacant | |
| Best Practices Criteria | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1. Executive Director's performance expectations are current. | x | | x | | x | | x | | | |
| 2. Executive Director's receives annual performance feedback. | x | | x | | x | | x | | | |
| 3. The agency's mission and high-level goals are current and applicable. | x | | x | | x | | x | | | |
| 4. The board reviews the <i>Annual Performance Progress Report</i> . | x | | x | | x | | x | | | |
| 5. The board is appropriately involved in review of agency's key communications. | x | | x | | x | | x | | | |
| 6. The board is appropriately involved in policy-making activities. | x | | x | | x | | x | | | |
| 7. The agency's policy option packages are aligned with their mission and goals. | x | | x | | x | | x | | | |
| 8. The board reviews all proposed budgets. | x | | x | | x | | x | | | |
| 9. The board periodically reviews key financial information and audit findings. | x | | x | | x | | x | | | |
| 10. The board is appropriately accounting for resources. | x | | x | | x | | x | | | |
| 11. The agency adheres to accounting rules and other relevant financial controls. | x | | x | | x | | x | | | |
| 12. Board members act in accordance with their roles as public representatives. | x | | x | | x | | x | | | |
| 13. The board coordinates with others where responsibilities and interests overlap. | x | | x | | x | | x | | | |
| 14. The board members identify and attend appropriate training sessions. | x | | x | | x | | x | | | |
| 15. The board reviews its management practices to ensure best practices are utilized. | x | | x | | x | | x | | | |
| <i>Totals</i> | | | | | | | | | | |
| Total Number | 15 | | 15 | | 15 | | 15 | | 15 | |
| Percentage of Total | 100% | | 100% | | 100% | | 100% | | 0% | |
| Additional Notes | | | | | | | | | | |

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| KPM #12 | Geologic Hazard Preparedness % of Oregon communities with geologic hazard data and prevention activities in place | Measure since: 2010 |
|----------------|--|------------------------|
| Goal | Reduce the loss of life and property by understanding and mitigating geologic hazards. | |
| Oregon Context | OBM 67a: Community Preparedness For Natural Hazards. | |
| Data Source | Department records. | |
| Owner | All Sections; contact: Vicki McConnell, Director, 971-673-1550 | |

1. OUR STRATEGY

Geologic hazards are defined in ORS 516.010: *“Geologic hazard means a geologic condition that is a potential danger to life and property which includes but is not limited to earthquake, landslide, flooding, erosion, expansive soil, fault displacement, volcanic eruption and subsidence.”*

2. ABOUT THE TARGETS

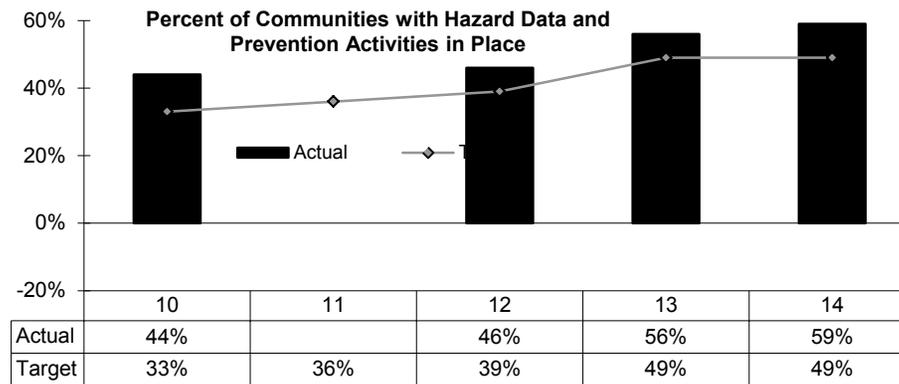
The geologic hazard data targets are a matrix of progressive, data quality-related, standards for six sets of geologic hazards: a) earthquake and earthquake induced liquefaction, slope instability, and ground motion amplification; b) tsunami inundation for the entire coast including lidar-based community exposure risk maps; c) landslide inventory and susceptibility maps including rapidly moving debris flows; d) coastal erosion 4-zone maps and channel migration maps; e) riverine and coastal flood maps and lidar-derived community exposure risk maps; f) volcanic lahar inundation maps. The prevention activity standards relate to the completion, status of FEMA-approval, web availability, and sources of hazard data content of Natural Hazard Mitigation Plans.

3. HOW WE ARE DOING

Sixteen counties rated at the 75% mark of prevention activities in place; as of 2012, Multnomah County has the highest hazard data rating at 80%.

4. HOW WE COMPARE

No comparable data set available. However it is notable that the Department is widely recognized as a national leader in geologic hazards assessment and risk analysis in several subject areas: FEMA recruited the Department to develop flood and multi-hazard risk map products as a pilot for the nation, the Department is the technical lead on mapping and modelling tsunami inundation for NOAA; the USGS volcano hazards program selected the Department to develop multi-hazard risk and vulnerability assessments using methodologies that would be applicable to volcanic areas; the DOE arranged for the Department to assess the exposure of energy infrastructure to seismic hazards towards energy assurance; the USGS landslide hazards program is highlighting the applied research of the Department with focus on major hazardous landslide processes affecting western Oregon, particularly debris flow and reactivation of large, deep landslides to establish new landslide mapping protocols and tools; and the Department has developed OBSMAP, the “Oregon Beach and Shoreline Mapping and Analysis program” for NOAA to document the spatial variability of beach change at various time-scales (i.e. seasonal, multi-year and long-term changes).



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5. **FACTORS AFFECTING RESULTS**

The acquisition and use of high-resolution lidar data improves the quality and measurable validity of hazard data in Oregon. This results in large scale and accurate inventories of existing hazards and provides the means for reliable hazard susceptibility mapping. Lidar-based maps have the added benefit of being visually appealing to the public and are readily understandable by decision makers.

6. **WHAT NEEDS TO BE DONE**

Continued hazard data mapping delivered in tandem with outreach and prevention activities of DLCD, OEM and local communities. The state is dependent on Federal funding by FEMA, NOAA, and USGS for most of the project funding for these efforts.

7. **ABOUT THE DATA**

The Hazard Prevention index is based on the status of county hazard mitigation plans and the quality of hazard data used to develop those plans. Hazard Data index is based on the availability and quality of earthquake, landslide, flooding, volcano, and river and coastal erosion data.

