

## **Oregon Landslide Risk Reduction Team (OLRRT) Meeting**

1 pm – 3 pm, January 2<sup>nd</sup>, 2019

Oregon Department of Geology and Mineral Industries (DOGAMI) conference room, 9<sup>th</sup> floor

Portland State Office Building, 800 NE Oregon St, Portland OR

### **Attendees**

Joining by conference call:

Mike Burren – Oregon Dept of Forestry – landslide specialist

Theresa Burcsu- OR Geospatial Enterprise office

Ryan Michie– OR DEQ; primarily water quality – sedimentation

Stephen Slaughter – WGS

Kate Mickelson – WGS

In person:

Bill Burns (convener) – Oregon Department of Geology and Mineral Industries (DOGAMI)

Mike Harryman – Oregon Resilience officer, Governor’s Office

Tricia Sears – DLCD

Erica Koss – City of Portland: Bureau of Development Services

Nancy Calhoun - DOGAMI

### **Updates**

Bill Burns, OLRRT organizer:

- Created webpage- it’s on DOGAMI website ([OLRRT](#)) – it’s very simple; it now includes agenda, charter, meeting minutes and how to sign up for OLRRT email listserv
- Haven’t publicized OLRRT far and wide, because we are still deciding what is within the scope of this group (though it is open for everyone)

Standing agenda item: Updates from department and attendees

- Reminder: main reason of this group is to keep each other informed of our actions, issues, publications relating to landslides (from different state agencies)
- Update from DOGAMI (Bill Burns)
  - o DOGAMI has been doing a lot of work with FEMA Region X
  - o Multihazard risk assessments through FEMA CTP RiskMAP group
  - o We decided to focus on geohazard mapping first, follow-up with second project with risk assessment

- We are funded to work in Washington Co, Marion, Morrow, Benton counties (4) for geohazard mapping (FY18); two year project timeline
- next counties we are proposing (FY19) – Yamhill, Polk, Jackson, Linn, Douglas County
- We will not map whole county surface area; we use GIS layers of to see where to focus geohazard mapping
- Mike Harryman: will channel migration mapping include entire reach of rivers?
- Bill Burns: we determined based on earlier DOGAMI statewide study, which include low moderate or high potential for channel migration
- Mike Burren: will debris flows be included?
- Bill Burns: Debris flow fans will be mapped through landslide inventory  
Mike Harryman: How are we deciding which counties?  
Bill Burns: Based on NHMP for county and its scheduled update, so updated mapping can be included in county NHMP.

DLCD (Tricia Sears):

- State Oregon natural hazard mitigation plan expires in 2021; working on updating state natural hazard mitigation plan
- Working with DOGAMI on landslide guide, set to come out in 2019; funded by CTP funds from FEMA; this guide will be technical resource– similar to tsunami specific guide (published in 2000) Silver Jackets published something similar post-wildfire flood “Playbook”(2018)
- Tricia: most questions from research for this guide on landslides are related to legal issues; tool for local jurisdictions to use; other examples in codes/regulations from and for Oregon counties; aim to address fears of liabilities and takings;
- Things come up related to OAR provision related to landslides, (e.g. UGB expansions)
- Will bring draft of landslide guide to OLRRT, when it is prepared

DAS GEO (Theresa Burcsu):

- DAS GEO works on Framework data; natural hazards are part of Framework data
- GEO continuing to work with OGIC on ORS 276A 500-515; working on plan on hub/portal for secure data sharing among public entities (Deadline 2020 at the earliest)
- Post-disaster project: damage assessments; understanding next steps; Mike Harryman involved
- Oregon Data Spatial Library relating to landslides: has broken links; source site is incorrect; would like to update with appropriate links

Mike Burren (ODF)

- Project almost finished; rule set Landslides in Public Set for timber harvest above roads and homes; had GIS to see if rule set needs to be used on particular proposals (GIS layer from 10 m DEM and could be improved); updating layer to include lidar-based elevation data; have most of western Oregon covered by high-resolution lidar
- Layer will be used when people want to harvest steep slopes above homes; then go out and field checks sees if there is moderate to significant hazard to homes
- This will beef it up, because it is screening tool for foresters to use; screening tool will be much more accurate

- New technology: tethered logging; harvester is put on a cable and lowered down the slope and assisted by a cable to come back up; this is different because the previous rules included ground disturbance which this technology has different/unknown type of disturbance. Working on regulations related to this tool; does it disturb slope? Sedimentation? Landslide risk?

#### DEQ (Ryan Michie):

- DEQ started looking at landslide susceptibility as it relates to water quality; looking for sediment concerns for drinking water source updates; helps communities identify risk for their drinking water
- Working on update to model for hazards to drinking water systems for communities; picking back up effort on this; primarily Brian Fulfrost (sp?) and Josh Seeds (sp?)
- Looking at landslide susceptibility and the sediment input to streams from shallow landslides (logistic regression; original source of data –landslides from '96 (ODF source)); new model will include rainfall and rainfall intensity (not included previously)
- In phase of model development and draft; will bring draft to this group; primary purpose is source drinking water reports from DEQ
- Mike Burren: how are you looking at road building practices?
- Ryan: eliminates road components. Primarily looking at non-road-related shallow landslides. Includes many factors like rainfall, slope steepness
- Mike Burren: how is the meteorological data for 1996?
- Ryan: use PRISM data- grid level scale; includes rain gauges from '96; fixed stations at time of '96
- Estimated timeline on draft: ??; Ryan: we have draft of model now- there are some specifics working on; very early draft of manuscript (methods, results, etc) now; check in ½ year; will bring updates to this meeting
- Bill B: prelim discussions w OWRD w/ municipalities w surface water collections; it'd be good if we collected information that you may need (DEQ); Statemap works on that (PI Jason McLaughry; [Jason.mcclaughry@oregon.gov](mailto:Jason.mcclaughry@oregon.gov))

#### OEM (Angie Lane; email update to Bill before OLRRT meeting)

- Disaster 4296: landslide inventory proposal for Western Hood River County from DOGAMI; application deadline is April 4<sup>th</sup>

#### Governor's Office (Mike Harryman)

- Next legislative session starts on Jan 22<sup>nd</sup> for 144 days
- Governor budget released in late November
- Good work is being done on earthquake / seismic preparedness
- Introduced wildfire cabinet and tie it in with West Coast states
- Jason Miner is leading wildfire issue and on the climate change issue
- For DOGAMI in governor's budget: put in funding for agency to put in assessment for 12 schools and districts along coast – for relocation due to exposure to natural hazards (e.g. if maybe Tillamook County move hospital (county owned hospital) move away from coast)
- Make suggestions for schools that may not be able to apply for relocation

- \$500,000 fuel abatement (through?) OEM
- Sept 2020 due dates with a bow on it to FEMA for statewide NHMP
- Bill Burns: we are mapping landslides on the Coast – 7 counties; coastal strip for landslide hazard
- Mike Harryman: debris? Has Coos and Curry County received landslide information?
- Bill Burns: yes
- Tricia S: local NHMP have unique deadlines; emergency managers are the point person; Tricia hoping to bring in planning dept in the NHMP

City of Portland- Bureau of Development Services (Ericka Koss)

- Land use regulation are in the process of being updated to include landslide information; hopefully they will be
- Beta test on Survey123 landslide response system; if familiar w/ ATC 20/45, it will be similar
- Will do real field beta test on Survey 123 when city of Portland responds to landslide in city of Portland. This will be real time (through city of Portland ArcGIS) for maintenance folks.
- City of Portland specific: 10 yrs of monitoring from USGS; several hundred landslides in the past 10 years; using volumetric water content determined when landslides occurred in winter; HANDOUT from Ericka; hopefully will publish this in the future
- Mike Burren: would very much like to see this

Washington Geological Survey (Stephen Slaughter)

- Busy mapping landslides; following what we learned from DOGAMI; learning from Oregon

DOGAMI (Bill Burns)

- GSA Cordilleran Section Meeting in Portland OR in May 2019; WGS and DOGAMI propose one-day field trip in the Columbia River Gorge to observe landslides

OEM - Angie Lane (via email)

I will not be at meeting as I will be on vacation. Here is my update related to landslides:

- DOGAMI will be reviewing the application they submitted under DR 4296 for mapping landslide risk for Hood River County side of the Eagle Creek fire, and resubmitting it under HMGP Post Fire. Waiting for Nancy's response on this. New application is not required, just edits to existing one as they apply. Application deadline is April 4, 2019.

**Next Agenda Item (Bill Burns)**

- 1) Is quarterly too often to meet for OLRRT?
  - o Ericka – city of Portland has landslide group but it is boots on ground response group
  - o We'll keep in mind future changes, however maintain quarterly for now.
- 2) future agenda items
  - o Topic driven meetings – this was idea at last meeting

- E.g. state building code uses “Further Review Area” to determine whether building must take landslide mitigation action; there are no official maps to use currently, so building code does nothing; Oregon Amendments to the IBC Oregon Structural Specialty Code (Oregon Revised Statute)
  - Seismic code – currently must review for landslide risk
  - Next round 2022 for update for IBC
    - Basic requirements: on sloping lots, slopes should be analyzed for slope stability
    - Ericka doesn’t have code that makes lot owners reduce their risk
    - Rapidly Moving Landslides is all that is included in Further review Areas
    - Statewide building code – get some minimal stuff in there; a developer could argue that they can build on active slope because there is no code that prohibits (city of Portland cannot issue permit)
  - Mike B: this is at nexus w ODF rules; currently ODF does by case by case basis; it’d be big deal to take this issue on
    - Another topic: Mike B – thinks deep landslides move during subduction zone earthquakes, also tsunami zone + landslide = how to get out?
    - Bill B: Beat the Wave includes landslides as obstruction for evacuation from houses; also NEHRP project is trying to date a landslide that occurred in 1700 landslide – we are using lidar to identify particular landslides that killed trees and formed ghost forests; then dating
    - Next proposal is due in May; want to discuss w Bill B
    - Mike H – said he will write letter of support for next round of competitive grant
- Mike H: let him know if there are any agencies we are missing in OLRRT representation and participation; he can circle back and let folks know to be included in OLRRT
- **Webpage** – maybe it can be more of a resource for people
  - Put administrative rule that mentions landslides
  - As group comes across important links relating to landslides, we put on this website
  - E.g. realtors disclosure statute relating to landslides
  - Doesn’t need to be just permitting rules
  - Webpage would include link and 2 sentences introducing link
  - Build a topic list for OLRRT for ones that need addressing
  - could be state building codes (laundry list on agenda); link to host website (version control)
  - not too much work and can organize stuff for folks
  - mike B: confusion may occur when someone sees something on OLRRT and tries to contact wrong agency; consider adding disclaimer ‘owner’ of the host
  - 1) whoever is lead on particular item 2) link to item 3) sentence or two about it
  - Start emailing Bill with ideas and resources, and he will update
- **Longer term plan for OLRRT (Bill Burns)**

- State of Utah – published plan to reduce losses from natural hazards (2007)
  - Maybe we don't need formal static plan on issues we want to tackle
  - Mitigation actions (both NHMP and this plan has actions)
  - Maybe not appropriate for this group; but maybe IHMT can take this on; hazards that have been identified we come up with mitigation actions;
- Disaster (DARA 2018(?)) increased mitigation funding post- and pre-disaster grants; federal grants; formula and mitigation funding; maybe all states will see big increase in mitigation \$\$ in states
  - If we have roadmap on prioritization on issues, then we will be able to support counties and locals to get mitigation \$ to
  - Mike H supports Ericka's idea to get codes updated; backward planning w deadline – what do you want to make improvements on; have a focus and make our mark to see where codes can get improved; UGB hot topic – e.g. affordable housing please know the geohazards so they will have them after disasters
- Mitigation is LONG TERM – let's think with long term thinking and planning
- Communities would like to see this
- Link to UGS Circular 104 – A Plan to Reduce Losses from Geologic Hazards in Utah (Christenson and Ashland, USGS, 2007)
- In collaboration with IHMT, make a plan to reduce losses from geologic hazards (official? Living document?)

Next meeting to be announced through email listserv.

**Meeting adjourned 2:45 pm**