GOVERNING BOARD MEETING MINUTES
OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Monday, December 10, 2018
8:30 a.m.
Portland, Oregon

1) Call to Order: (Laura Maffei, Board Chair)

Chair Laura Maffei called the meeting to order at 8:40 a.m.

2) Introductions: (Laura Maffei, Board Chair and staff)

Chair Laura Maffei, Vice-Chair Katie Jeremiah, and Board Members Scott Ashford, Diane Teeman, and Linda Kozlowski were in attendance.

Department of Geology and Mineral Industries (DOGAMI) Staff in attendance:
Brad Avy, Director/State Geologist
Lori Calarruda, Recording Secretary/Executive Assistant
Kim Riddell, Chief Financial Officer (CFO)
Bob Houston, Interim Legislative Coordinator
Sarah Lewis, MLRR Program Manager
Alyssa Pratt, Acting GS&S Program Manager
Christina Appleby, Acting GIS & Remote Sensing Supervisor
Bill Burns, Acting Earth Science Supervisor
Laura Gabel, Acting Natural Hazards Supervisor
Connor Anderson, Chief Information Officer
Becky Johnson, Office Operations Assistant
Randy Jones, Chemical Process Mining Coordinator
Yumei Wang, Resilience Engineer

Others in attendance:
Sherry Carter, DAS Human Resources (HR)
Diane Lloyd, Department of Justice (DOJ)
Haylee Morse-Miller, DAS Office of the Chief Financial Officer (CFO)
Doug Toomey, Professor University of Oregon
Mike Harryman, State Resilience Officer
Emilie Hooft, University of Oregon
Amira Streeter, Natural Resources Policy Advisor

3) Review Minutes of October 1, 2018:

Chair Maffei asked if there were any changes to the minutes as presented. No changes.

Board Action: Ashford moved to approve the minutes of October 1, 2018 as submitted. Kozlowski seconded. Motion carried.
4) **Proposed 2019 DOGAMI Board Meeting and Retreat Location(s):**

Lori Calarruda, Executive Assistant and Bob Houston, Interim Legislative Coordinator presented the proposed location(s) for the 2019 Board Meeting and Retreat location(s), which are currently scheduled for July.

Houston provided details for each proposed location and answered Board member questions.

**Proposed 2019 Board Meeting and Retreat location(s)**

**Option A: Ontario, OR - Neal Hot Springs Geothermal Area**

One (1) stop to visit the Neal Hot Springs Geothermal area, tour a working geothermal power plant, and discuss regional geologic controls, future development, and regulatory oversight.

**Option B: Ontario, OR – Proposed Grassy Mountain Gold Mine**

One (1) stop to visit the proposed Grassy Mountain gold mine. Learn about the geologic history of the deposit, the initial discovery and exploration, mining methods, permitting, and reclamation requirements.

**Option C: Burns, OR – Geology and Aggregate/Hydrocarbon Resources of the Burns Basin**

Three (3) stops to visit key rock outcrops and learn how recent geology mapping is helping answer local groundwater resource needs. Visit an upland quarry and observe mining and reclamation techniques.

**Option D: Bend, OR – Geology, Volcanic Hazards and Geothermal Potential of the Lower Crooked River Basin**

Three (3) stops to visit key locations and learn about the geology, volcanic hazards, geothermal exploration at Newberry Volcano, and regional geologic controls on groundwater and surface water.

**Option E: The Dalles, OR – Geology and Natural Hazards of the mid-Columbia Basin**

Three (3) stops to visit key locations and learn about the regional geologic history, volcanic hazards, landslide hazards, Missoula floods, and geologic controls on groundwater and surface water.

Chair Maffei thanked Houston for the detailed chart. Ashford asked what would be seen at the Grassy Mountain site and if it would be possible to see actual drilling. Houston explained it would most likely be historical work done in the past with a slight possibility to see actual work being done, but mainly just rock and sagebrush. Ashford asked about the Neal Hot Springs Geothermal Area. Houston explained they would see a working geothermal plant and cooling facility, with above ground pipes that connect the geothermal plant to various drilled geothermal wells. It is the only one in the State.

Jeremiah asked if it was possible to have board meetings at other locations throughout the year other than Portland and not just for the one in July. Chair Maffei explained the normal meetings are held in Portland, but the two-day meeting/retreat format meeting as a group facilitates the ability to setup a tour(s). There would be a lot of expense and drive time for both staff and Board members to have multiple meetings throughout the state.
Ashford asked if the geology at the hot springs and Grassy Mountain is similar. Houston replied yes, there are similar mineral deposits as well, but not accessible during the trip to see the geothermal field. Jeremiah asked what the forced ranking would be based on what activities the Board might be considered to take action on in those areas. Houston answered it would be where staff is currently working. He explained the Agency is wrapping up a five-year project on geologic mapping identifying hazards and ground water issues in The Dalles and Bill Burns’ team has been working on hazards related to the recent fire. Houston also mentioned mapping in the Burns area. Avy added the most immediate action item is at the Coast which is where the Board held their July meeting.

The Board chose Option A, Neal Hot Springs Geothermal Area, which requires a third day. The Board Retreat, field trip and Board meeting dates are now July 8, 9 and 10, 2019.

Board Action: **Ashford moved to accept Ontario, OR as the proposed 2019 Board meeting and retreat location with July 10, 2019 being added to the meeting dates as presented/discussed.**  
**Kozlowski seconded. Motion carried.**

5) **Financial Report:**

Kim Riddell, Chief Financial Officer, presented the budget status report as of October 31, 2018.

Riddell discussed an email that went out to staff regarding the amount of General Fund being spent on overbudget grants and their time. She wanted the Board to be aware that it may sound like the Agency is in trouble financially but that is not the case. It is meant to make the staff aware that they need to pay closer attention to their budget, not overspend, and is a stricter message to all staff not just the Principal Investigators (PIs) in charge of the projects. Riddell stated she has asked staff to keep their time being charged to General Fund to under 15%, except for staff who do grant writing, she will allow more for those staff members because it is not covered on a project but falls under General Fund.

Chair Maffei asked if this is only related to grant funded projects. Riddell explained that some of it is but also regarding training and presentations being held around the State. Riddell discussed a specific funder that is over budget in total of $100,000 and covers five grants, which is about 10% of the total funds. The funder had made some additional requests on the projects and may be providing more money to cover those requests. Riddell said that all PIs will be receiving training on how to track budgets and properly determine the actual budget. Riddell said she wanted to keep these issues open and transparent.

Ashford asked how many projects are over budget. Riddell replied there are 55 active grants with about 20 over budget. Some are just slightly over but some are extremely over budget. Riddell explained her plan on upcoming projects, how she will be tracking them closer, and stated there will be actual consequences. Maffei asked if it has to do with staff not saying no to additional requests being done. Riddell said that was part of it. Ashford discussed his concern, stating other entities must be on budget and time, that DOGAMI staff need to be held accountable and have reviews done based on their work. Maffei asked if PIs are removed, does the Agency have staff capable to take their place. Riddell said she felt there are staff who could do the job. Kozlowski provided her point of view as a new Board member, stating she thinks it is great Riddell is being proactive and that holding staff accountable is a good step. She said you cannot have progress if you do not teach and develop your staff.
Avy said Riddell has worked hard to get the systems and policies in place but the previous culture at DOGAMI has been that project costs overbudget will be covered. He believes the Agency will be able to change that going forward. Avy wants DOGAMI to be considered not only a well-respected science Agency but a well-managed one as well.

Ashford asked about the outreach portion mentioned. Riddell explained the training, public outreach, and presentations being done around the State but stated a budget was not established for it. Chair Maffei asked if Riddell makes the decision regarding no more training/presentations or if it is in consultation with management. Riddell replied it is through consultation. Ashford asked if anyone is vetting the requests to determine which ones should be done. Riddell said no, unfortunately that is where the Agency is at this time. Kozlowski believes an overarching strategy for the Agency is necessary and asked if it has determined what strategy it wants to take related to outreach and training. Avy said the new Communication Director will be tasked to do this when they start. Ashford suggested there should be key elements put in every presentation.

Jeremiah had a question about the grant writing and if it can be recovered in the grant. Riddell explained it is specifically stated it cannot be included. Jeremiah asked questions about the specifics of grant projects regarding the frequency of reporting on status of their progress versus the budget. Riddell said she will be asking more questions going forward.

Riddell said the Governor’s Budget came out last week and DOGAMI did well with the Agency getting additional $600,000; $300,000 is for lidar and, thanks to the Resilience Officer, $300,000 is to do a vertical evacuation study at the Coast. The fee increases for MLRR were approved to go through the legislative process.

Riddell stated the budget looks good, she does not have concerns at this time and does not feel the Agency will be going over. As a follow up, at the last Board meeting there were two budget line items named “Data Processing Hardware”, she determined one is supposed to be software. Chair Maffei wanted to verify the negative numbers for GS&S and MLRR. Maffei believed GS&S is due to the federal funding. Riddell confirmed it and said MLRR’s is due to Grassy Mountain.

Board Action: Kozlowski moved to accept the Budget Status Report as presented with the corrected pages. Jeremiah seconded. Motion carried.

6) Grassy Mountain Update:

Randy Jones, Chemical Process Mining Coordinator, provided the Grassy Mountain Update.

Jones discussed the Engagement Snapshot, which is a list of entities involved in this project. Jones said for the Process Snapshot, eighteen Baseline Data Reports have been reviewed/pending and two have yet to be submitted/finalized. Calico may submit a Land Use application to Malheur County in Q1 of 2019, which will be the company’s first official permitting in Oregon.

Jones said they are continuing to develop products for periodic briefings, including a joint product with BLM and alignment between the State’s required Environmental Evaluation and the federally required Environmental Impact Statement. He is expecting intense interagency conversations related to the tailing’s storage facility (TSF). The Communications Strategy is unfolding with
stakeholder interviews completed and GNRO briefing papers provided quarterly. The company acquired 100% interest/control of claims in its overall 9,300 acre claims area and secured additional interest in Frost, a 900-acre claim located 12 miles west of Grassy Mountain. Calico is requesting 1:1 agency meetings with DEQ, DOGAMI, ODFW and Water Resources to refine its application materials. MLRR is expecting a second quarter Consolidated Permit Application submission.

Jones presented a snapshot of the underlying geology at the TSF largely composed of massive clay and how this may relate to the requirement of an adequately lined TSF for groundwater resource protection. He briefly discussed the next steps and also highlighted the Land Use process. This will likely result in the first sage grouse mitigation plan in the State. Ashford asked about the liner and asked if it will require more land disturbance. Jones said it will not demand any significant earth work other than the impounding embankments.

Teeman said she is the contact for the Burns Paiute Tribe and will be recusing herself from any discussion or action related to the Grassy Mountain project.

Briefing: **No Board Action Required.**

7) **MLRR Update:**

Sarah Lewis, MLRR Program Manager, provided an MLRR update:

Lewis said the staff has been continuing to work on internal procedures. They are working on roles and responsibilities, including a new phone tree to get callers to the correct person. There is now a Field Inspection Calendar for MLRR staff to coordinate site visits.

ENGAGe Newsletter

Lewis stated the last newsletter was done in the early 2000s. They are looking to do it more as a flyer to answer questions coming into the office and announce changes related to staff and/or legislation.

Becky Johnson, Office Operations Assistant for MLRR, introduced herself and stated the newsletter will be going out with all new renewals through a listserv and posted on the website. Kozlowski asked how often the newsletter will go out. Johnson replied quarterly or seasonally unless there is some need to get information out before then. The team is expecting the next one to go out in mid-January and are trying to keep it to one page but still interesting. The Board really likes the idea.

**Permit Status Summary**

Lewis reviewed the detailed list of permits. She changed Tables 1 and 2 slightly to accommodate information going forward. The handout is an “at the moment” snapshot as of the end of November and will be updated each meeting. Lewis discussed the numbers in detail, stating four long-term applications had been crossed off and completed. They are looking at closing out some of the sites that are unable to move forward. The Board is happy with the information and status.

**Use of Civil Penalties**

Lewis discussed Civil Penalties as a possible tool to bring mining sites into compliance. She explained the previous discussion on the topic and that moving forward with Civil Penalties requires a Board action and wanted to bring it back to the Board’s attention. For unpermitted sites, MLRR can send a
notice of violation but there is no way of enforcing the order, as an unpermitted site does not have a bond or security deposit. For permitted sites, a renewal notice is sent out 30 days before it is due, a second notice is sent 45 days after that, but it is about six months late before the department can threaten to pull the bond. While this usually results in payment of the renewal fee, by then there is only six months left on the permit.

Lewis explained to Board members that she was giving them a heads up, not asking for action. For the notices of violations, a notice of a civil penalty package would need to be prepared, which might require a special session between Board meetings to get them completed due to timeline requirements. It would be case by case. Lloyd said there is a template and approval process, but each one would require an approval from the Board. There is currently a case that may be processed. She stated these could be done via a special meeting phone call or as part of the Board meetings.

Ashford asked how much discretion the Agency has on doing these. Lloyd replied the Agency has total discretion, but in the past nothing has been done. Lewis said there are 15 permittees responsible for 57 of the 182 late payments. Lloyd said that specific criteria could be determined going forward. Chair Maffei asked if DOJ would be involved in the process. Lloyd said yes. It might justify the costs to get these started but could cause contested cases to go higher. The Board asked about tracking the cost of staff’s time spent on preparing these. Lewis said it could be done. She said Civil Penalties come back to the department to cover the costs incurred for the case and any remaining money goes into the voluntary reclamation program.

Briefing: **No Board Action Required.**

8) **Public Comment:**

Chair Maffei asked for public comment. No public comments.

**Break**

9) **Legislative Update:**

Bob Houston, Interim Legislative Coordinator, provided a Legislative update for DOGAMI.

The Agency has two Legislative Concepts (LCs). The first LC is for MLRR program fee adjustments for mineral exploration, mining operation, exclusion certificates, oil and gas development and exploration, and permit issuance related to geothermal well drilling operations. Some permits have not had fees raised in decades. The concept also limits the distribution and numbers of onshore exploration sites, oil and gas, geothermal and exploration drilling sites to accommodate more effective permitting and consistency amongst the rules.

The current revenue projections indicate that in 21-23 current fees do not support basic program functions and will require staff reductions. Service levels will be affected and recent improvements to the overall service deliverables will not be sustainable.

The goals of the LC are to sustain the existing program beyond 2023, implement/develop and provide parity and fairness across the permit fees for the same permit action and their associated permit fee
amounts. The overall idea is the same fee for the same level of effort should be paid. The revenue
generated would provide one (1) FTE for field inspector and one (1) FTE ISS system specialist for IT
and ePermitting online programming.

The second LC corrects unintended capture of hobby mining by establishing a minimum yardage
threshold for when an Exclusion Certificate is required. It also corrects the unintended capture of
construction sites in the mining law unless those operations are competing in the commercial
market. Houston said 17 stakeholder groups have been identified, representing industry and
environmental. Most of them understand the need for the increase. In the next several weeks the
LCs will be given bill numbers.

Houston briefly discussed the Policy Option Packages (POPs). He said POP 103, which is the mineral
resource information study—digitizing historical data online, is not going forward. Avy said this was
the third effort for this POP and the Agency does not plan to try again. POP 101 is for additional
MLRR staff and POP 102 is for Lidar.

Session starts January 22, 2019.

Briefing: No Board Action Required.

10) ShakeAlert/Seismic Presentation:

Professor Douglas Toomey, University of Oregon, gave a ShakeAlert/Seismic presentation.

Professor Toomey presented “Oregon Hazards Lab: Science for Public Safety”. The Oregon Hazards
Lab (O-HAZ) uses science, technology, and education to understand, monitor and mitigate multi-
hazards within the Pacific Northwest. Projects they are involved with include Pacific Northwest
Seismic Network (PNSN), ShakeAlert, AlertWildfire, and Oregon Research Platform.

Pacific Northwest Seismic Network (PNSN)

PNSN monitors earthquake and volcanic activity across the Pacific Northwest, cooperatively operated
by the University of Washington (UW) and the University of Oregon (UO). PNSN is sponsored by the
There are more than 300 seismograph stations distributed across the region.

UO has been participating for nearly 30 years. Since 2014, it has expanded due to ShakeAlert. UO
Earth Science department is largest seismology group on the West Coast, with eight faculty who
claim expertise in seismology earthquake mechanics, or earthquake related processes. It is also one
of the largest volcanology centers in the country. They were gifted $10 million from Chuck Lillis,
which established the Oregon Volcanology Center, with currently fourteen faculty members working
in the center.

UO purchased, from the State of Oregon, 30 high-quality sensors located at 15 sites. They need to
add more in SW Oregon on the Coast. There are 1,600 stations planned for buildout in CA/OR/WA,
with 650 currently contributing for ShakeAlert. There are 110 seismic stations currently in Oregon
and there needs to be an additional 125 to be 100% operational for earthquake early warning.
Oregon is currently at 50% buildout but needs a minimum of 75% to be a public alert state.
Since 2014 DOGAMI has contributed $297,000 to capital investments from the Strong Motion
program, which resulted in 17 sites currently contributing to PNSN and ShakeAlert, with 16 more to
be installed. After they are installed, USGS assumes ongoing operations and maintenance. Toomey
discussed what it takes to get a site operational. It requires 1-3 days to install a site. Multi-hazard
monitoring installations take 2-3 days for install of solar powered sites and 1 day for urban site
installs. In building a robust telemetry model, the breakout is approximately 10% satellite, 30%
cellular, 30% internet of opportunity (schools, fire stations, etc.), and 30% microwave, which is their
preferred method. Multi-hazard monitoring sites require yearly maintenance visits because they are
exposed to various environmental conditions, including bear attacks.

ShakeAlert – What is it?

ShakeAlert is the name of the West Coast Earthquake Early Warning System (EEW), developed by the
USGS, Caltech, UC Berkeley, University of Washington, and University of Oregon. It can provide
warning times from seconds to minutes. There are early warning systems in Mexico and Japan.

There need be discussions to decide how to educate for ShakeAlert warnings. Toomey discussed the
applications for ShakeAlert regarding people, things and situational awareness.

Toomey talked about when it will be available for public alerts and discussed where California is in
their setup of the program. He stated Oregon is currently last. Toomey discussed the contributions
other states are making to rollout the program and provided examples of state-wide coordination
efforts. There are 30 stakeholders from across all sectors for the Oregon Committee on
Communication, Education and Outreach (CEO). Toomey briefly discussed the six key strategies of
Governor Brown’s Resiliency 2025 report, the ShakeAlert Committee, ShakeAlert project partners,
and partnerships and impacts.

AlertWildfire and ShakeAlert

AlertWildfire and ShakeAlert is a multi-hazards platform that increases state resilience by linking the
two programs and using microwave for the telemetry system. It leverages funding sources that can
save state tax dollars and will help with other hazards by pulling together technical and human
resources to improve coordination and response within the state. Toomey briefly discussed the
“State of Colorado 5 Lessons Learned from the 2018 Spring Fire”, which mentioned microwave
proved to be the most reliable technology.

Toomey reviewed AlertWildfire (www.alertwildfire.org/oregon/), which can discover/locate/confirm
fire ignition, quickly scale fire resources, monitor fire behavior through containment, help
evacuations during firestorms, and ensure contained fires are monitored. A demonstration of the
camera system was included in the presentation. These cameras can be viewed by the public. The
sponsors and partners include federal agencies, utilities, counties, private stakeholders, and
communities, which provides an opportunity for statewide cooperation.

In summary, there has been significant progress since 2014 for PNSN and ShakeAlert, with expected
public alerts becoming available when the network is at least 75% complete. AlertWildfire hardens
the telemetry of ShakeAlert, diversifies funding sources for hazards detection and monitoring, and is
a benefit to other stakeholders.

Kozlowski asked about the Governor’s Budget and ShakeAlert. Toomey replied the request is for $12
million and would bring the State to 100% buildout, improve the telemetry system and move more of
the sites onto microwave, and add AlertWildfire and cameras. Kozlowski asked about the sensor
population for the Coastal region. Toomey showed the contribution map and discussed it. Toomey
mentioned the area west of Portland throws a lot of false alerts because it does not have enough
station coverage yet. Kozlowski asked more questions regarding the locations. Ashford asked if the
budget was base budget or tax increase. Toomey said base budget. Ashford asked about the
microwave stability. Toomey replied the technology has advanced and become more reliable.

Briefing: No Board Action Required.

11) GS&S Update:

Alyssa Pratt, acting GS&S Program Manager, provided an update on GS&S.

Pratt introduced herself, stating she started the rotational manager position November 1, 2018. She
joined DOGAMI 5 years ago and is grateful for the opportunity for developmental roles during her
tenure and expressed the benefits of her experience. Pratt discussed the rotational program and
introduced Laura Gabel, Christina Appleby and Bill Burns as the new section supervisors.

Jeremiah asked Pratt if there is anything the Board can do to support her, and the new supervisors
related to grant budgets, she replied not at this time since they are still trying to figure things out but
will be working closely with the Business Office.

Maffei expressed the Board’s gratitude to Jed Roberts for the work that he did during his rotation.

Briefing: No Board Action Required.

12) Director’s Report:

Director Avy presented his Director’s Report on the following:

November All Staff Meeting

The meeting was held on November 1, 2018 in Salem. Avy mentioned Chair Maffei and Board
member Kozlowski attended part of the day. Avy listed the agenda items covered during the meeting
and said there was a wall of informative posters related to different content: areas within the Agency.
Collectively staff felt it was time well spent and feedback reinforced objectives were met. Eight items
from the Employee Engagement Survey were voted on by staff for prioritization. A survey will go out
to rank the top three results for management to focus on. Avy acknowledged the great job done by
the planning team, which included Rachel Hiller (Hatfield Fellow), Sarah Lewis, Alyssa Pratt,
Kim Riddell, Lisa Reinhart, and Jason McLaughry. The Passport Program idea has been created for a
more collaborative effort between staff and programs. In-the-moment recognitions took place
throughout the day.

Kozlowski said she was really impressed. It was energetic and she thought the diversity at each table
was great.

Director’s Board of Pharmacy Interim Role

Avy discussed his interim director role at Board of Pharmacy (BOP) and thanked the Board for
allowing him the opportunity to help them get through their recruitment. The final round of
interviews happen this week and his interim role may end in January. Through this process, it has
opened the opportunity to have someone from BOP help our Business Office one day a week.

Communications Director Position

This position has been open since the previous Communications Director moved on. Avy said Pratt
has put together a team to provide input into what the position description should be. The team
consists of Alyssa Pratt, Jon Allan, Sarah Lewis, Connor Anderson, Bob Houston and Deb Schueller.
This effort is to determine what to recruit for and what the Agency really needs. Ashford asked if this
position will coordinate the outreach efforts from the staff for projects. Avy replied yes.

Tsunami Line Letter to the Governor’s Office

Chair Maffei will provide a draft to Director Avy for review. Kozlowski mentioned she was at a
tsunami conference recently and the SB 379 tsunami line came up a lot. It was very emotional for
architects and designers regarding how it would relate to building codes. The good news is the
interest is spreading and they are interested in getting a solution. Avy mentioned the Tsunami letter
during a conversation with Senator Johnson. She encouraged having a public member or two on the
task force.

Leadership Team Changes (Rotational)

Avy discussed the rotational interviews, stating there was a strong field of candidates for both the
manager and supervisor positions. There were seven candidates for the rotational manager position
and eight for the rotational supervisor positions. Avy acknowledged Sherry Carter who served on the
manager interviews and Jason Clary, Oregon Commission for the Blind, who served on both the
manager and supervisor interviews.

Ashford asked to have updates at upcoming Board meetings on Riddell’s budget report regarding
projects overbudget, progress of the steps being taken, and if they are effective.

Briefing: No Board Action Required.

13) Public Comment:

Chair Maffei asked for public comment. No public comments.

14) Board Adjourn:

Chair Maffei adjourned the meeting at 11:45 a.m.

APPROVED

Laura Maffei, Chair