GOVERNING BOARD OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

September 19, 2024 8:30 a.m.

Teleconference Public Meeting Agenda

This public meeting will be conducted as a virtual meeting. Written testimony can be submitted in advance, but no later than 12:15 p.m. on the meeting day to <u>lori.calarruda@dogami.oregon.gov</u>. Written comments received will be distributed to the Board.

Dial: 1-253-215-8782

When prompted, enter ID number: 885 8650 0994 If prompted for a Password: 718935

The Board makes every attempt to hold strictly to the sequence of the distributed agenda. Times and topics may change up to the last minute. This agenda is available on the DOGAMI website: <u>www.oregon.gov/dogami</u>.

8:30 a.m.	Item 1:	Call to Order – Chair Linda Kozlowski
8:35 a.m.	Item 2:	Introductions – Chair Linda Kozlowski and Staff
8:40 a.m.	Item 3:	Review Minutes of June 25, 2024 Board Meeting and July 22, 2024 Special Board Meeting
		Board Action: The Board will be asked to take an action on this item
8:45 a.m.	Item 4:	Financial Report – Steve Dahlberg, Chief Financial Officer
		Board Action: The Board will be asked to take an action on this item
9:25 a.m.	Item 5:	Agency Key Performance Measures (KPMs) Annual Update – Laura Gabel, KPM Coordinator and Coastal Field Geologist
		Board Action: The Board will be asked to take an action on this item
10:10 a.m	Break	
10:25 a.m.	ltem 6:	Presentation(s): Vertical Evacuation Structures and Customizing Evacuation Maps – Laura Gabel, KPM Coordinator and Coastal Field Geologist
		Briefing: The Board will not be asked to take an action on this item
11:10 a.m.	Item 7:	MLRR Update – Sarah Lewis, MLRR Program Manager
		Briefing: The Board will not be asked to take an action on this item
11:30 p.m.	Item 8:	GS&S Update – Ruarri Day-Stirrat, Director
		Briefing: The Board will not be asked to take an action on this item
11:40 a.m.	Item 9:	Director's Report – Ruarri Day-Stirrat, Director
		Briefing: The Board will not be asked to take an action on this item
11:55 a.m.	ltem 10:	Confirm Time and Date for Next Quarterly Meeting and Board Retreat/Special Meeting (October 15, 2024)
		Board Action: The Board may be asked to take an action on this item
12:10 p.m.	Item 11:	Public Comment
		Only <u>written comments</u> received prior to or by 12:15 p.m. on the day of the meeting will be accepted

PLEASE NOTE

AGENDA

The public portion of the Board meeting will begin at 8:30 a.m. and proceed chronologically through the agenda. Times listed on the agenda are approximate. At the discretion of the Chair, the time and order of agenda items—including addition of intermittent breaks—may change to maintain meeting flow.

PUBLIC TESTIMONY

Only written comments will be accepted.

REASONABLE ACCOMMODATION OF DISABILITIES

Please contact us at least three business days prior to the meeting to let us know if you need reasonable accommodations. Contact the Director's Office at (971) 673-1555 to make your request.

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Lori Calarruda, Executive Assistant

Date: September 11, 2024

Regarding: Agenda Item 3 – Review Minutes of June 25, 2024 Board Meeting and July 22, 2024 Special Board Meeting

Attached are draft Board Minutes from the June 25, 2024 Board Meeting, and July 22, 2024 Special Board Meeting.

Proposed Board Action: The Board Minutes of June 25, 2023 Board Meeting and July 22, 2024 Special Board Meeting be Approved/Approved as Amended/Not Approved.

GOVERNING BOARD MEETING MINUTES OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Tuesday, June 25, 2024 8:30 a.m. Virtual Public Meeting

1) Call to Order: (Linda Kozlowski, Board Chair)

Chair Kozlowski called the meeting to order at 8:33 a.m.

2) Executive Session – Annual Director Review: (Linda Kozlowski, Board Chair)

Chair Kozlowski announced the start of the Executive Session for the Director's Annual Review.

3) Return to Public Session: (Linda Kozlowski, Board Chair)

Chair Linda Kozlowski reconvened the regular public session at 10:39 a.m. following the Director's Review.

4) Introductions: (Linda Kozlowski, Board Chair, and Staff)

Chair Linda Kozlowski, Vice-Chair Anne MacDonald, Board Members Diane Teeman, Tiffany Thomas, and Ruth Dittrich were all in attendance via Zoom video/phone.

Department of Geology and Mineral Industries (DOGAMI) Staff in attendance: Ruarri Day-Stirrat – Director/State Geologist Lori Calarruda, Recording Secretary/Executive Assistant Alex Lopez, Public Affairs Coordinator Steve Dahlberg, Chief Financial Officer (CFO) Jason McClaughry, GS&S Program Manager Sarah Lewis, MLRR Program Manager Christina Appleby, Legislative Coordinator/Geologist Cari Buchner, Mining Compliance Coordinator

Others in attendance: Sherry Lauer, DAS Human Resources Business Partner Diane Lloyd, Department of Justice (DOJ) Geoff Huntington, Senior Natural Resources Advisor Governor's Office Wendy Gibson, Legislative Fiscal Office (LFO) Nathan Karman, DOJ

Chair Kozlowski asked new Board Member Ruth Dittrich to introduce herself. Dittrich stated she has been at the University of Portland for 8 years as an Associate Professor in Economics, and does different types of research work. She is an economist with a focus on applied environmental economics work and is currently working on a small research project on the perception of lithium mining among stakeholders with Alex Lopez of DOGAMI.

1	5)	Annual Director's Evaluation: (Linda Kozlowski, Board Chair)
2 3		Chair Kozlowski stated the Board conducted the Annual Director's Evaluation/Review.
4 5		Chair Kozlowski entertained a motion to adopt the 360 Performance Survey and draft Performance Summary as discussed in Executive Session. Noting that final Performance Summary will be
6 7		completed after the meeting and submitted to HR.
8		Board Action: Teeman moved to adopt the 360 Performance Survey and draft Performance
9		Summary as discussed in Executive Session. Noting that final Performance Summary will be
10		completed after the meeting and submitted to HR. MacDonald seconded. Motion carried.
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12		Chair Kozlowski asked the Board Members to deliberate and consider a motion to ask DAS for Special
13 14		went increase for a one-step special ment increase for exceptional individual performance of other
14 15		valid reasons.
16		Board Action: Thomas motioned to ask DAS for Special Merit Increase for a one-step special merit
17		increase for exceptional individual performance or other valid reasons. MacDonald seconded.
18		Motion carried.
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20		Chair Kozlowski asked the Board Members to deliberate and consider a motion to ask DAS for
21		Exceptional Performance Recognition Leave with Pay to equate to 3 days.
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23		Board Action: Teeman motioned to ask DAS for Exceptional Performance Recognition Leave with
24		Pay to equate to 3 days. Thomas seconded. Motion carried.
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26 27		Chair Kozlowski asked the Board Members to deliberate and consider a motion for the Board's preference for a one-step merit increase over vacation.
28		Board Action: MacDonald moved for the Board's preference for a one-step merit increase over
29		vacation. Thomas moved. Motion carried.
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31 32	6)	Special Board Meeting:
33 34		Chair Kozlowski asked if there were any changes to the minutes as presented. No changes.
35		Board Action: Thomas moved to approve the March 14, 2024 Board Meeting, March 27, 2024 Work
36		Session, and April 4, 2024 Special Board Meeting as submitted. MacDonald seconded. Motion
37		carried.
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39	7)	Financial Report:
40		Steve Dahlberg, Chief Financial Officer, presented the DOGAMI FY2021 Budget Status Report, as of
41		April 30, 2024, for the Geological Survey and Services (GS&S) and Mineral Land Regulation &
42		Reclamation (MLRR) programs. The Board Packet contained the financial actuals, graphs, and
43		projections.
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Dahlberg said DOGAMI's General Fund budget appropriation was \$7.8M with expectations to spend
\$7.5M, resulting in the Agency being \$300,000 underbudget. The Other Funds Expenditure
Limitation is \$2.6M with expectations of spending just over \$2M, resulting in the Agency being
approximately \$500,000 under the Expenditure Limitation. This is not a problem, as the Agency is
meeting its projects and grants as needed, which includes several completing at the end of June
2024. The Federal Funds Expenditure Limitation of \$5.7M with expectations of spending \$3.8M,
resulting in the Agency being \$1.9M under the Expenditure Limitation. The Agency is expecting that
to change in the next biennium.

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54 The MLRR Expenditure Limitation is \$5.2M with expectations to spend \$5.6M. The Program has the 55 cash, but will need to go to the Emergency Board (E-Board) in December to ask for an increase in the 56 Expenditure Limitation to meet where it is going to end up.

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Dahlberg reviewed the comparison of his projections from the last Board Meeting, explaining the
 change is due to the allocation of staff amongst project and other spending. He stated the lower
 2025-27 GS&S Federal Funds amount is primarily due to the reduction of Lidar grants.

Vice-Chair MacDonald said it is great the grants are going up, and asked if he has a sense of how
 much of that are inflationary changes in grant amounts due to hourly staff salaries versus more work
 being done asking for more FTEs. Dahlberg explained when they plan for grants, they do factor in
 salary COLAs and increasing costs. The Agency has been proposing larger projects to funders.

Dahlberg provided a breakdown of the detailed Budget Status Report in the Board Packet related to
 the consolidated numbers, per a request from Chair Kozlowski. He explained the color coding and
 terms. Projections is the term for where the Agency is going to end; Actuals is historic; and Forecast
 is between May to the end of the year. Projection is a combination of actuals plus the forecast.

Vice-Chair MacDonald asked if there is anything making him nervous about the financials. He
answered no, nothing keeps him awake, but added he does remind Day-Stirrat that when doing
grants that have match, to make sure the Agency has the capacity to absorb it, which it does. He
would like to see more Lidar type programs and the newer technology that can be utilized for the
betterment of the State and other customers doing their research.

In summary, Dahlberg said DOGAM has a healthy outlook with new and larger grants. The Business
Office just recently closed a FEMA desk audit and received a very good recommendation and followup. The Agency is in frequent communication with its Federal and State partners, and the Director
has been traveling and meeting with them to work towards DOGAMI's future. Leadership
communicates closely with the CFO and LFO Analysts, DAS, and the Governor's Office.

B3
B4 Dittrich asked if all the grants in the forecast have been awarded or applied for. Day-Stirrat explained
bittrich asked if all the grants in the forecast have been awarded or applied for. Day-Stirrat explained
bittrich asked if all the grants in the forecast have been awarded and some are almost certain to be
bittrich asked. The ones that have less certainty are not included in the projection. It is essentially the
bittrich asked if all the grant load that is being factored, and the performance period of the grants are
bittrich asked if all the grant load that is being factored.

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Board Action: <u>Teeman moved to accept the Budget Status Report as presented. MacDonald</u>
 <u>seconded. Motion carried.</u>

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93 8) Preliminary 25-27 Agency Request Budget (ARB) Discussion:

- Ruarri Day-Stirrat, Director & State Geologist, reviewed the preliminary 25-27 Agency Request Budget
 (ARB) for DOGAMI.
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Day-Stirrat explained the State Biennial Budget Cycle process and timeline, stating DOGAMI is an
early submittal agency with an end of July deadline. The ARB is the Current Service Level (CSL)
budget with vacancy, inflation and general inflation factors applied. Statute requires a 10% reduction
scenario be included, but is not coded in the ARB numbers. He reviewed the CSL Budget Agency
Fund Split using pie charts to demonstrate the different breakdowns by funds and programs. There
are seven Policy Option Packages (POPs) listed in order of importance, which he reviewed individually
and also grouped them together by connection/themes.

- POP 101 Agency Allotment, is being applied towards increased Esri licensing fees.
- POP 102 MLRR ePermitting, is for partial rollover of funds from current biennium, some additional fees to complete project with a slight change in staffing.
- POP 103 Subsurface Geology and Mapping, is focused on the carbon sequestration in basalt in northeast Oregon. He explained how the method is done and showed a picture of the results taken in Iceland. This is a way of developing economy in northeast Oregon and to meet the climate goals/objectives of the State. It is in partnership with POP 106 MLRR Class VI Injection Well Regulatory Program, to create the regulatory program that is often called Primacy.
- POPs 104 and 105 combined for MLRR right sizing and Program Establishment, POP 105 is a re-ask
 from last biennium to turn the LD positions to permanent positions (FTE). The number of permits,
 permitting process, and proposed Program structure were discussed in detail, with charts
 reflecting the additional information.
- POP 107 GS&S Floodplain Coordinator is a re-ask from last biennium, with a focus towards housing and the Governor's housing goals, due to frequent building on the floodplain.
- Day-Stirrat summarized the POPs by showing the change in Agency Fund Split with a comparison
 slide of the CSL plus (+) the POPs, stating it would change the Agency size significantly in terms of
 budget and FTE.
- 121 Chair Kozlowski said the fee increase is critical for MLRR and asked about the reception from 122 123 industry, and if talk had begun with the Legislature or Governor for their perspective. Day-Stirrat 124 answered the fee increase starts with a discussion with the Governor's Office, which has occurred. 125 Why the increase is needed, how much, and what factors went into making those decisions were 126 discussed with both the Governor's Office and Industry. He added that Industry was informed last 127 biennium they could expect a fee bill this biennium, and that he has asked for their input on what 128 they want in terms of service and what metrics the Agency can be held to. He is expecting more 129 discussions. He explained the fee bill is placing some costs up front to industry which is the permit 130 fee and the tonnage fee is when they have a revenue stream, so there is a difference between larger 131 and smaller operators and when they want to pay, which finding that balance is a legitimate 132 conversation. The Agency needs a baseline and consistent funding that is not too spiky, so there is 133 room for negotiation and he is waiting for Industry to discuss their needs and this fee bill.
- Dittrich asked if the application approval process can be simplified to optimize things, and have they
 checked with what other states are charging for fees to make the argument for fee increases. DayStirrat answered yes, they have compared what counties are assessing in Oregon, and Washington's
- 138 fees are twice as much as DOGAMI's current fees and they are going to have a fee bill this year due to

- 139 the same issue, which are costs have gone up and revenue is flat. As for simplifying, yes they have 140 worked on efficiencies, but there is a limit to what the Agency can do, which is the reason for the fee 141 bill. Lewis added that each operating permit is individual, and written to the plan submitted by the 142 permittee and customized to their needs and site. Right sizing the Program would allow them to look 143 at the potential for creating a general permit with a strict set of requirements and guidelines that 144 could be done at a lower cost for a specific subset of permittees, and go through the process faster if 145 it did not need the individualization. At this point it cannot be considered because it would require 146 statutory authority, rule writing and engagement with the Industry. Dittrich said this could make it 147 appealing to the Industry and be sure to communicate that. 148 149 Vice-Chair MacDonald said she is extremely excited about the revamp, but she has found for a general permit that they are easier to go through on the frontend, but more inspection is often 150 151 needed on the backend. Getting the inspection program up and going, and normalized with Industry 152 is going to be helpful and is a good argument for what the Agency is trying to do. 153 154 Chair Kozlowski said the POPs are exciting. She asked Day-Stirrat how positive he is that the carbon
- sequestration partnership with DEQ will actually occur. Day-Stirrat answered the economic case and
 climate case needs to be made. There is a lot of interest outside of State government in what Oregon
 can offer. The question is, can the Agency bring all those pieces together, stating he will be having
 conversations with the Governor's Office about it.
- 160 Day-Stirrat said no action is needed, other than scheduling a Special Board meeting to approve the 161 final ARB.
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- 163 Briefing: No Board Action Required.
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- 165 9) Confirm Time and Date for Special Board Meeting:
- DOGAMI is an early submittal agency, whose Agency Request Budget (ARB) must be approved by its Board and submitted by Wednesday, July 31, 2024. The DOGAMI Board needed to determine a date for a Special Board Meeting to approve the Agency Request Budget, prior to July 29, 2024 in Portland or via Zoom. After reviewing the potential dates listed in the Board Packet, it was decided the Special Board Meeting would be scheduled for July 22, 2024 at 2:00 p.m. for 1 hour.
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172 10) GNRO Report:

- 173 Geoff Huntington, Senior Natural Resources Advisor for the Governor's Office, was invited to 174 introduce himself, discuss the Governor's priorities, and take questions from the Board.
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- Huntington is Governor Kotek's Senior Policy Advisor for all Natural Resources Agencies, his portfolio
 for the Governor is 14 agencies and approximately 32 different Boards, and he has a team of four.
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- 179 Huntington discussed three things with the Board: the way they have been approaching
- administration of the Natural Resources agencies; the Governor's perspective on relationships
- 181 between their office and the Boards and Commissions; and a thematic overlay they are beginning to
- 182 weave into conversations with the Directors in the Natural Resources Cabinet. They have spent the
- 183 last year and a half working with the Cabinet Members to consolidate and deliver core functions as a
- 184 team and begin to do more integration across agencies.

- 185 186 Huntington discussed building this three point relationship between Boards, Directors and the 187 Governor's Office with accountability and clarity of roles within these cross jurisdictional natural 188 resource issues, and working to do more of what is important than what has historically been the 189 time consuming work of the Agency. They are asking for real active engagement with the Chairs of 190 Boards and Commissions, between Directors and Chairs, and between the Directors, Chairs and their 191 office. They are having these conversations because of the pace and scale of climate change. There 192 is a need to think more about what needs to be done in 2030/2035 to be ready for the management 193 challenges of natural resources across the State, and do more to be prepared for 5 or 10 years out as 194 budgets are constructed.
- 195 196 In addition, they want to have supportive open exchange with Boards and Commissions related to 197 fee conversations. They want to make sure the Board is feeling connected to Agency stakeholders 198 with opportunities to build that dialogue and relationship with them directly, as the Board is meeting, 199 and not necessarily just having a connection be funneled through the Department and Director. They 200 do not expect the Board to take on the load of running the Agency or acting on behalf of the Agency 201 in their individual capacities, but acting on behalf of the Agency when meeting as a Board collectively 202 working on policy discussions. As a collective voice focused on acting with thoughtful perspective on 203 what is good policy, using the Board's best judgement and advice and how to react to those 204 challenges and how to overcome them. The Board Members have a different perspectives and lens 205 than a Director to look at these issues, and encouraged them to create the partnership and dialogue 206 that allows access of different perspectives coming from stakeholders, not just to be a rubber stamp 207 of the Agency. He welcomed Chair Kozlowski to reach out to him on behalf of the Board, in asking for 208 information or clarity.
- Huntington discussed at length how the Natural Resource Cabinet is discussing how to drive progress
 and a consolidated prospective view of managing Oregon's natural resources. His request to the
 Board is looking at DOGAMI's mission and the execution of programs, use a thematic overlay to think
 about DOGAMI's role in building more resiliency in the natural resource base that makes Oregon a
 good place economically, socially and ecologically.
- Huntington asked the Board how they are feeling about their connection with Agency stakeholders as
 Board Members, what are their impressions regarding the challenges that DOGAMI and the Board
 are facing right now, and if they feel like stakeholders are actively engaged in paying attention to the
 Board and agenda issues.
- Chair Kozlowski stated it is exciting to see the direction the State is going. There is a significant
 transition and change in the direction DOGAMI is going and it is encouraging and exciting. The Board
 feels very optimistic about the future of DOGAMI and the role it can play in the State.
- 224 225 Chair Kozlowski asked Huntington what significant role he sees DOGAMI's playing. Huntington 226 answered there are two categories. One is the capacity to respond related to DOGAMI's 227 management and permitting processes in its portfolio around lithium mining and the new business 228 and economic drivers of the national initiatives landing at the Agency's doorstep in permitting and 229 oversight contexts. He expects DOGAMI to have the clarity and efficiency to move through a decision 230 process and meet the challenge of both protecting the resources and interests of the public in 231 Oregon, but also the business and economic drivers that some of that is going to represent, which 232 could be significant to rural communities and the economy of the State. Not to mention the

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- contribution it could make to the decarbonization of some of the transportation and energy sectors.
- The second is positioning Oregon so it can take advantage of the new technology around carbon
- capture and direct air capture, and what steps that DOGAMI can take to lead this Administration and
- Oregon through that would create Oregon to be the equivalent of shovel ready to accept some of
- these pilot and scalable processes interested in the basalt layers in portions of the State as part of a
- direct air capture technology advancement. The Land Board has been thinking about the use of
 common school fund lands that are supposed to be generating revenue for K-12 education for direct
- air capture in both proximity and suitability of the subsurface structure, which is on a forward leaning
 mode, not a responsive one.
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243 Chair Kozlowski said DOGAMI is data driven and asked if that is part of what he is looking to from 244 DOGAMI to provide to help them make decisions and move into the future. Huntington said yes and 245 mentioned Lidar flights being done for Elliott State Forest for forest inventory. He stated if he could 246 invest money, it would be to have the application of that data source and DOGAMI's capacity to 247 make that available for different applications for land management across the State. They will be 248 relying on DOGAMI to talk to them about what would be the most effective in an incremental way to 249 add to their capacity.

- 251 Chair Kozlowski stated she appreciated Huntington's input, stating it is very helpful and it is good to 252 know what the Governor is looking for, and for his work with natural resources and working together 253 as a Cabinet. She answered Huntington's initial question by saying she is most interested in hazard 254 mapping for tsunami and earthquake risks. She added DOGAMI rates very high in terms of customer 255 and stakeholder input. The Program had a potential reduction in federal funding and it took no 256 energy at all to get a lot of support sending to both Federal and State level to encourage the 257 continuation of that funding. From her perspective, DOGAMI rates very high with the stakeholders 258 they provide that information to.
- Vice-Chair MacDonald asked Huntington what the 14 agencies are in the Natural Resources Cabinet.
 Huntington answered by saying the ones probably not considered are PUC, LUBA, DLCD, Parks,
 Marine Board, OWEB, and Columbia Basin Gorge Commission.
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264 Vice-Chair MacDonald asked how the Natural Resources Cabinet has interacted with the different 265 Tribal Government natural resource programs and specifically if they are thinking about possible 266 partnerships on the basalt carbon sequestration. Huntington answered the Governor is the first have 267 a Tribal Policy Advisor. They are putting a lot of emphasis on adjusting and better defining what 268 consultation means between agencies and Tribal Governments, to make sure agencies are not 269 working with them as a stakeholder but as a sovereign, and they need to be engaged at the beginning 270 of a process before working on any rules and not just having them make comments. Each agency has 271 a responsibility to have a Tribal Policy Advisor embedded in a position that meets as a cohort with 272 the Governor's Tribal Policy Advisor, and they are defining what things should just be communicated 273 and when a formal consultation should be enacted with the Tribes. Due to Tribal capacity, they are 274 working with the Tribes on a process that involves the agencies to define and standardize 275 expectations around how to have an effective consultation that can also be completed within the 276 timeframes that the Administrative Procedures Act can put on an agency and/or other constraints 277 such as legislatively.

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- Vice-Chair MacDonald replied she was thinking of where there may be some opportunities forsovereign to sovereign partnerships. Huntington answered he was on point for the Columbia Basin

- Restoration Initiative, working with the six sovereigns of Washington, Oregon, the four Tribes in
 negotiations with the Federal Government. They are looking at tribally owned energy sources as part
 of a decarbonization plan for the State's energy infrastructure, and there is significant conversation
 that has spawned with other Tribes about potential areas that might replicate what is on the table
 conceptually with the Tribes, from the US Department of Energy.
- 287 Teeman said she appreciates the conversation regarding the carbon sequestration. There are 288 different worldviews about what is natural and what is cultural, and what is alive and what is not. 289 She thinks it is good that the conversations are expanding and continuing because that dialogue will 290 help with cross-cultural understanding, and everyone truly does have a voice in the conversation and 291 outcomes of the projects worked on. Huntington said as an enterprise, they tend to have an 292 anthropocentric view of the human based interaction with the environment and how they interact. 293 It is important to him to have the conversations with Tribal Governments at the start of their 294 processes, based on what she stated, because the starting point is very different and the two can be 295 integrated, but not if it is late in an agency's process due to constraints.
- 296 297 Huntington asked what challenges the Board is facing. Vice-Chair MacDonald said hazards, as the 298 press for affordable housing is butting up against land use structure or the requirements individual 299 jurisdictions have placed under that framework, where it might make it unaffordable due to floods, 300 poor drainage or landslides. There is a lot that DOGAMI can contribute, because Lidar is a key data 301 source that everybody uses and is the basis for a lot of land use analysis in multiple jurisdictions. 302 Huntington said the Governor is focused on the housing production priority, and that is a concern if it 303 intersects those areas, as it can get pretty expensive. He stated natural resources accounts for 2.8% 304 of the General Fund budget, but is embedded in every single social, economic, and environmental 305 policy decision that State makes. His concern is that most people do not know about DOGAMI and its 306 data driven contribution is a foundational underlay to a lot of things.
- Chair Kozlowski agreed and said most agencies do not know about the data DOGAMI can provide to
 help in their planning. There is a lot the Agency can provide, it just needs to be more present, and
 she thinks Huntington is helping this by DOGAMI being part of cabinet.
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- 312 Chair Kozlowski answers Huntington's question about DOGAMI and its relationship, and the 313 differences that have occurred. There are three new Board Members who are going to make a huge 314 difference as the Agency moves forward and she is excited about the composition of the Board. 315 DOGAMI previously struggled and had difficulties for a long time. With the addition of Day-Stirrat, 316 his leadership and capability, with his ability to bring DOGAMI together and raise expectations to 317 excellence, and beginning to be part of the major issues the State is facing today, the Agency is in a 318 very good position. The Board feels very strongly about its relationship with Day-Stirrat and the staff. 319 DOGAMI has an excellent staff and is ready to meet the needs of the State, it wants to participate 320 and be a key part of the decisions Huntington makes moving forward related to climate control, 321 geology and technical emphasis in the State. The Agency has a lot to provide and wants to be a 322 player. 323
- 324 Chair Kozlowski thanked Huntington for attending the meeting. Huntington stated he was happy to325 attend and he will talk to the Board again before Legislative Session starts.
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- Chair Kozlowski asked Day-Stirrat about the effectiveness of the Cabinet and working at State level.
 Day-Stirrat answered that not being part of a Department of Natural Resources and agencies being

- independent boards, means that they can get separated from bigger issues. He has been able to
 meet regularly and discuss issues and how they intersect across the agencies.
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Briefing: No Board Action Required.

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334 **11**) Legislative Update:

- 335 Christina Appleby, Legislative Coordinator, provided a Legislative Update.
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Appleby said during the May Legislative Days that DOGAMI's new Governing Board Member, Dr. Ruth
 Dittrich was confirmed. In addition, approvals were received for two applications to the USGS Earth
 Mineral Resources Initiative Grant Program; one for geologic mapping in the Quartzburg Mining
 District in Grant County, and the second for Mine Waste Inventory and Assessment for Critical
 Mineral Resources in and Grant and Malheur Counties.

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Appleby said the Legislative Concept that proposes the MLRR fee increase and supports the Policy Option Package for right sizing the Program was submitted the previous day. The fee increase would change statue, so there is quite a process of paperwork and review that needs to take place before it can be moved forward. It now needs to go through DAS' review of the concept and finances, and the legal review.

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- 349 Briefing: No Board Action Required.
- 351 12) GS&S Update:

352 Jason McClaughry, GS&S Program Manager, provided the GS&S program update.

McClaughry stated the Board Packet contained the extensive report on all the activities for GS&S
since the last Board Meeting, and his update would focus on grants. There are fourteen grants that
are either in contract submission review or in preparation phase, and the total value the projects
coming into the system is about \$6.5M. There are two grants he wanted to highlight.

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First is the STATEMAP Program that funds the Geologic Mapping Program, and has since its inception in 1992. This is the largest proposal DOGAMI has ever submitted and largest award ever received at around \$1.1M. The focus areas will be the Harney Basin in southeast Oregon; Lake Ebert near Lakeview; and northeast Oregon, near Milton-Freewater in the Walla Walla Basin. It is in the contracting phase and the agreement is almost completed.

364 365 Second is partnership grant through National Energy Technology Laboratory (NETL) and DOE called Carbon Ore, Rare Earth, and Critical Minerals (CORE-CM). DOGAMI was involved in two region 366 367 groups submitting this proposal: Region 8 is a collaborative of North Central Oregon up through 368 Alaska and the partnership is with University Alaska Fairbanks (UAF), Oregon State University (OSU) 369 and the Washington Geological Survey. Region 7 is largely southeast Oregon in Malheur and Harney 370 Counties into the Basin and Range of Southwestern US, and partners with University of Nevada Reno; 371 Nevada Geological Survey; University of Nevada Las Vegas; Nevada Governor's Office of Economic Development; University of Arizona; Arizona Geological Survey; University of Utah; California 372 373 Geological Survey, and some of the National Labs. It was an extensive partnership and complex 374 process that took about 2.5 months to get it worked on and they were submitted on Monday Now 375 they go into the decision phase. For Region 8, DOGAMI's portion is about \$1.8M with a 20% match of

- about \$450,000, which much of is in the way of geophysical data collection collecting aeromagnetic
 data and radiometric data across a large part of Grant County in northeast Oregon. This program
 goal is the US trying to reduce its dependence on imports of Rare Earth elements and Critical
 Minerals from other countries and create its own domestic supply chains. He elaborated in detail on
 the efforts that DOGAMI will be involved in, including the fundamental part of the outreach
 component.
- 382 383 For Outreach there is currently a project for earthquake hazards in the Eugene-Springfield area, Lalo 384 Guerrero, DOGAMI's Geology Hazard Specialist, has an expertise in bilingual communication and the 385 Agency is beginning to explore and create material to reach multiple different communities with 386 different languages to ensure everybody can understand what hazard potentials are in a community 387 and reaching the entirety of that community. It goes hand in hand with a FEMA outreach project 388 funded last year relate to drought and water scarcity in support of the Geologic Mapping Program to 389 create publicly accessible materials to explain how geology works, and how it controls ground water. 390 DOGAMI is excited and working hard to create these outreach materials and expand the portfolio of 391 how it interacts with the community.
- The Agency is currently hiring a permanent Landslide Geologist position, with the resignation of Nancy Calhoun, who moved to the Washington Geological Survey, and also a limited duration (LD) position for a Geologic Mapper.
- Chair Kozlowski said it was an exciting report, particularly the outreach component is really positive,and the grants are excellent.
- 400 Dittrich asked how the Agency determines what grants are applied for. McClaughry explained first 401 they look at if they fundamentally match the mission and goals of the Agency and its Strategic Plan. 402 Second, the Agency has developed strong partnerships with USGS STATEMAP, FEMA Cooperating 403 Technical Partner (CTP) Program and NOAA National Tsunami Hazard Mitigation Program (NTHMP), 404 these are annual grants and dedicated funding streams DOGAMI depends on for stable funding. 405 Third is staffing capacity to tackle new possibilities and needs of the Agency. Dittrich said the grant 406 applications and the different partners is impressive. McClaughry said there are twenty exceptional 407 staff in GS&S with expertise building the connections and partnerships.
- 409 Briefing: **No Board Action Required.**
- 410

392

396

399

411 13) MLRR Update:

- 412 Sarah Lewis, MLRR Program Manager, provided an update on MLRR.
- 413 414 Lewis said there were three items to discuss, and the first item does require a Board Action, she then
 - 415 turned it over to Cari Buchner, Mining Compliance Coordinator, to discuss the Civil Penalties.
 - 416
 - Buchner gave an update on three ongoing Civil Penalty cases for Mining Without a Permit (MWOP)and additional violations.
 - 419
 - 420 Update on Civil Penalty Cases for Mining Without a Permit
 - 421 Ekroth Quarry, DOGAMI site ID #29-0040

- 422 Buchner said the Ekroth Quarry Civil Penalty required a Board Action and briefly reviewed the 423 information about the site. The information for the request to adopt the Civil Penalty set forth in a 424 Second Amended Proposed Final Order, is in the Board Packet and outlines the necessity of 425 amending the Proposed Final Order and the nature of the amendments.
- 426
- 427

Board Action: MacDonald moved to Adopt Civil Penalty as Set Forth in Second Amended Proposed 428 Final Order. Thomas seconded. Motion carried.

- 429
- 430

438

431 Buchner provided an update on the first ever Civil Penalty for MWOP, the Morgan Creek site. In July 432 of 2020 the Governing Board approved issuance of a Civil Penalty that resulted in a negotiated 433 Consent Order requiring payment of \$43,000 and complete reclamation and closure of the 434 unpermitted site. The respondents have met the deadlines stipulated in the Consent Order and 435 submitted timely penalty payments. The site has been inspected and appeared stable with no 436 erosion, and documented well-established vegetation. The Program will be able to close this case 437 with receipt of the final penalty payment expected in the fall of this year.

439 Buchner briefly reviewed the violations for the most recent case, the Bonanza Mine Site. In March 440 2024, the Governing Board approved issuance of the Civil Penalty in the amount of \$834,250 for 441 multiple permit condition violations and failure to comply with Department orders. On June 21, 442 2024, the Department issues an Application denial, Notice of Violation, Notice of Civil Penalty, Revocation of Operating Permit and Compliance Order, or Proposed Final Order, to Rare Earth 443 444 Resources, LLC, permittees of the Bonanza Mine. A request for a Contested Case Hearing is 445 anticipated.

- 446 Chair Kozlowski told Buchner she does an excellent job of communicating the information to the 447 Board. 448
- 449 450 Permit Status Summary

451 Lewis reviewed the new Application Process and Workload flowchart that had been updated that 452 morning. With over 100 applications, a more rigorous system was needed to keep track of the 453 process of the Application. This is a reflection of where the Program is headed, with the need to 454 have discrete roles and responsibilities for each step of the process and work done by appropriate 455 staff. The Program hopes to have a similar graphic outward facing on the website that is updated 456 regularly with numbers from the database.

457

458 Chair Kozlowski asked if the Program has asked the stakeholders about this process, and the work 459 being put in to create the ability to respond more effectively. Lewis said yes, they have conversations 460 with applicants and permittees on a regular basis, and also try to highlight it in the newsletter. Director Day-Stirrat has also been interfacing with OCAPA and the graphic was shared at their annual 461 462 meeting last week.

463

464 Lewis added she had two new staff members recently start. As for ePermitting, it is still moving 465 forward, which required several submissions at the Enterprise Information Services (EIS) IT 466 prioritization for the 25-27 budget process, to demonstrate the Agency is still doing the appropriate 467 oversight of the ePermitting process, and starting in July quarterly reporting will be provided to EIS as 468 a requirement.

470 <u>Grassy Mountain Project</u>

469

482

487

471 Lewis said there is continued coordination with BLM, who have started their NEPA Process, and there 472 is a signed Memorandum of Understanding (MOU) for BLM and the State to work jointly on the 473 financial security for the project. Due to expected security calculations to be higher than \$12M, 474 having a single security that covers both Federal and State needs instead of two separate bonds, has 475 been a successful step. The Program is at the stage of finalizing the Environment Evaluation, which 476 has been through review by the State agencies. It will be finalized and presented to the Project 477 Coordinating Committee at a meeting this fall, written comments will be accepted, and then it is 478 expected to be finalized in a TRT meeting. Once the permits are drafted, there will be a Project 479 Coordinating Committee meeting and Public Hearing meeting most likely in late spring of 2025. She 480 said it is exciting to see the pieces coming together and appreciates the Board's support across this 481 process and doing something new for MLRR.

- Chair Kozlowski asked how long MLRR has been going on Grassy Mountain. Lewis replied that the
 current Notice of Intent was submitted in 2017, which was the third Notice of Intent around the
 project, so it goes back before then. The current Application with current project scope is almost at 7
 years now.
- 488 Dittrich asked why there are so many more applications. Lewis explained there are three types of 489 applications: new applications, amendments applications, and transfer applications. New 490 applications are the smallest number, and the majority are amendments and transfer applications. 491 Transfer applications are where the ownership of the site, either the land, operator, or the permittee 492 itself has changed. These are largely administrative, but they are reviewed for compliance prior to 493 transferring the permit to ensure the Program and the person receiving the permit understands the 494 liability they are accepting with the site. The amendment applications are where most of the work is, 495 and those big increases are hard to absorb into the Program. Driving factors include the industry did 496 not shut down during COVID and stayed very active; the increase and focus on housing and 497 development, and the Federal Investments and Infrastructure, which all those projects require 498 aggregate so there is strong need for continued product.
- 499

500 Dittrich asked if there are economic downturns and if they reflect in permit amendments. Lewis 501 answered yes, historically there has been decreases in revenue driven by a decrease in production. 502 The current model the Program has does not allow it to adjust staffing based on application fees 503 alone, the fees are not high enough. The majority of the revenue comes from renewal fees.

504

505 Briefing: No Board Action Required.

506

507 14) Confirm Time and Date for Next Quarterly Meeting:

- 508 Chair Kozlowski stated the next DOGAMI Board is currently scheduled for Thursday, September 19,
 509 2024 at 8:30 a.m. 1:00 p.m. in Portland or via Zoom. She confirmed this date is still acceptable for
 510 the Board.
- 511 512 It was briefly discussed about having the meeting in person, which due time, will be discussed further 512 during the luke 22, 2024 Special Percent Meeting
 - 513 during the July 22, 2024 Special Board Meeting.
 - 514
 - 515 **15**) Public Comment:

- 516 Only <u>written comments</u> received prior to or by 1:30 p.m. on the day of the meeting were to be 517 accepted. Chair Kozlowski asked for any written public comments. No public comments.
- 518

519 16) Board Adjourn:

- 520 Chair Kozlowski adjourned the meeting at 1:25 p.m.
- 521 522 APPROVED
- 523
- 524

525

526 Linda Kozlowski, Chair 527

DOGAMI Board Minutes for June 25, 2024

GOVERNING BOARD SPECIAL MEETING MINUTES OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Monday, July 22, 2024 2:00 p.m. Virtual Public Meeting

1) Call to Order: (Linda Kozlowski, Board Chair)

Chair Kozlowski called the meeting to order at 2:03 p.m.

2) Introductions: (Linda Kozlowski, Board Chair and Staff)

Chair Linda Kozlowski, Vice-Chair Anne MacDonald, and Board Members Diane Teeman, Tiffany Thomas, and Ruth Dittrich were all in attendance via Zoom video/phone.

Department of Geology and Mineral Industries (DOGAMI) Staff in attendance: Ruarri Day-Stirrat, Director/State Geologist Sarah Lewis, MLRR Program Manager Lori Calarruda, Recording Secretary/Executive Assistant Alex Lopez, Public Affairs Coordinator Steve Dahlberg, Chief Financial Officer (CFO) Jason McClaughry, Interim GS&S Program Manager Christina Appleby, Legislative Coordinator/Geologist

Others in attendance: Diane Lloyd, Department of Justice (DOJ) Nancy Turner, Leadership Alchemy

- 1 3) <u>Review 2025-27 Agency Request Budget (ARB):</u>
- 2 Ruarri Day-Stirrat, Director; reviewed the 2025-27 Agency Request Budget (ARB) for DOGAMI.

Chair Kozlowski stated with all her time on the Board, this is probably the best budget she has seen
for DOGAMI. It is innovative, thoughtful and the explanations are very clear and precise. The
information allows for everyone to have a sense about what DOGAMI does and the contribution it
makes to the State. She gave kudos to Director Day-Stirrat and staff for putting together an
exceptional document.

9

3

Day-Stirrat stated the budget was presented during the June 25, 2024 Board Meeting. This version had a minor update for the vacancy assessed on the Agency, the previous version recorded 5% which should actually be 1.5%, causing a slight adjustment in the numbers of the budget. The Policy Option Packages (POPs) presented in June are all in this packet. This budget narrative is a complete rewrite from past biennium versions. He asked the Board if they had any questions on the information in the Board Packet.

16

Thomas asked if there was anything in the plan related to issues surrounding ground water, climate
 change impacts, or water quality assessments. Day-Stirrat answered no, and explained the Agency

- has authority on the mining side to request operators collect certain data as part of the permitting
 process, but on the Geological Survey side it does not have water directly in its structure, and water
 quality data collection is not routinely done by DOGAMI.
- 22

Thomas asked if that would fall under mandates regarding the permit requirements if needed. DayStirrat answered yes, if it was needed on an individual site basis.

Vice-Chair Macdonald said stormwater construction permitting does cover turbidity, so that
monitoring happens. Related to climate change, she asked if the Class VI well regulatory program
was designed to look at carbon sequestration issues. Day-Stirrat said yes, there are two POPs related
to climate. The first is for subsurface geology that seeks to find locations where geologic carbon
sequestration could occur at the state level, and the second is a position in the MLRR Program for
Class VI regulatory work for permitting of carbon sequestration or CO2 injection.

32

36

Dittrich asked if the permit fee increases would cause a decrease in demand for permits and if that is
 considered in the budget. Day-Stirrat said after the last fee increase there has been a steady increase
 in permit numbers.

37 Kozlowski asked Day-Stirrat to address the two Public Comments received. Day-Stirrat said the Public 38 Comments received reflects the Fee Bill. In the past band aids were placed on the MLRR program 39 and kept the program the same size. This budget is a material change to the Program, with the 40 intention to be a firm, fair, and consistent regulatory agency with customer service and community 41 service approaches. The package is comprehensive and covers many aspects of permitting, drilling, 42 customer support, and recognizes the difference between small and large operations, which requires 43 a fee increase. The current service level will not sustain the Program beyond June or July of 2025. He 44 expects a robust conversation on this topic.

45

Thomas said the OCAPA comments said the permits were not subdivided by permit application type
and publicly viewable. Day-Stirrat said the Board Packet does reflect that information, but going
forward those can be made more visible.

49

50 Dittrich asked about the comment regarding the permitting process by work group, and the 51 evaluation of the last fee increase in 2021. Day-Stirrat said the past Fee increase was successful 52 because there was not fee increase the previous biennium and the Program will meet its operating 53 balance target by the end of this biennium. As a strategic decision, limited duration staff have also 54 been hired to help get on top of the increased workload. it had not had a fee increase in several 55 years. The Legislative Concept and POP are to separate out various aspects of permitting, including 56 drilling and aggregate. 57

58 Chair Kozlowski said if the Board is comfortable with the budget, POPs and narrative presented, the 59 next step is to vote to allow her to sign the budget document on behalf of the Board once the final 60 numbers have been put into the correct areas.

Board Action: <u>Teeman moved to approve the DOGAMI Governing Board authorizes Chair Kozlowski</u>
 <u>to sign and certify the DOGAMI 2025-2027 Agency Request Budget on behalf of the Governing</u>
 <u>Board. Thomas seconded. Motion carried.</u>

66 4) Discuss September 19, 2024 Board Meeting:

67		Chair Kozlowski discussed having an in-person Board retreat for Members to get to know each other,
68		and reviewed the expectations and limitations based on a response received from the Oregon Ethics
69		Commission. The proposal was to have a two part full-day meeting. The first part is a non-public
70		retreat, in which discussions about operations or direction of the Board are not allowed to be
71		discussed. A second part will be a public meeting where staff will give a presentation to the Board on
72		a subject they want to move forward with, ideas were discussed.
73		
74		The date chosen for the in-person retreat is Tuesday, October 15, 2024 that is anticipated to end by
75		3:00 pm.
76		
77		Chair Kozlowski introduced Nancy Turner as the facilitator for the meeting and asked her to
78		introduce herself. Turner is a leadership coach and consultant who works with nonprofits and
79		organizations, and her small practice is based out of Manzanita. She previously worked for Nike and
80		Bank of America.
81		
82	5)	Public Comment:
83		Only <u>written comments</u> received prior to or by 3:00 p.m. on the day of the meeting were to be
84		accepted. Chair Kozlowski asked for any written public comments. Two Public Comments were
85		received.
86		
87		Written public comment from Matthew Hinck, on behalf of Northwest Aggregates Co.: It was not
88		read into the record due to its length but is related to the proposed DOGAMI fee increases. It will be
89		attached with the minutes and made public for review.
90		
91		Written public comment from Rich Angstrom, on behalf of OCAPA: It was not read into the record
92		due to its length but is related to the proposed DOGAMI fee increases. It will be attached with the
93		minutes and made public for review.
94		
95	5)	Board Adjourn:
96		Chair Kozlowski adjourned the meeting at 2:38 p.m.
97		
98		APPROVED
99		
100		
101		
102		Linda Kozlowski, Chair
103		

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Steve Dahlberg, Chief Financial Officer

Date: September 6, 2024

Regarding: Agenda Item 4- Financial Report

Attached is the DOGAMI Budget Status Report as of July 31, 2024, for the Geological Survey and Services (GS&S) Program and the Mineral Land Regulation & Reclamation (MLRR) Program.

Proposed Board Action: The Budget Status Report be Approved/Not Approved as presented.



TO:	DOGAMI Governing Board
FROM:	Steve Dahlberg, Chief Financial Officer
DATE:	September 6, 2024
SUBJECT:	Financial Operations and Reporting

Board Governance

The Board has a duty to provide guidance related to operational decision-making and to affirm the Agency is appropriately managing its financial resources. Four key areas of responsibility include:

- The Board reviews all proposed budgets.
- The Board periodically reviews key financial information and audit findings.
- The Board is appropriately accounting for resources.
- The Agency adheres to accounting rules and other relevant financial controls.

In addition to operational communication, this memo will include topical areas of discussion related to these objectives with the expectation of inquiry and follow-up as needed to support Board governance.

Fiscal Year 2024 (July 2023 – June 2024) Fiscal Year 2025 (July 2024 – June 2025)

The information in this Board report is as of <u>July 31, 2024</u>, which is 13 of 24 months of the 2023-25 biennium. The revenue collections, payroll monitoring, accounts payable, indirect cost capture, and financial system structure set up are routine and our normal processing. DOGAMI's expenditures, both actual running from July 2023 through July 2024, and our total expenditures are following our expectations and planning.

Geological Survey & Services (GS&S) Program

As of July 31, 2024

		2023-2	25 I	Projected Rev	vei	nue & Expend	itu	res
	G	eneral Fund		Other Funds*		Federal Funds		All Funds
Total Available Revenue**	\$	7,784,185	\$	2,843,098	\$	3,477,262	\$	14,104,545
Total Expenditures	\$	(7,489,270)	\$	(2,211,439)	\$	(3,476,907)	\$(13,177,616)
GS&S Ending Balance	\$	294,915	\$	631,659	\$	355	\$	926,930
Percent under Revenues		3.8%		22.2%		0.0%		6.6%
Percent under Expenditure budget		3.8%		14.5%		38.6%		17.8%

* includes the Strong Motion Instrument Fund (SMIF)

** Includes the beginning balance

The General Fund (GF): Budget is \$7,784,185, which has been updated for the biennium's Salary Pot adjustment for staff increase in pay steps and COLA's. The projected total expenditures to end the 2023-25 biennium is expected to be \$7,489,270 which is under-budget by \$294,915 or 3.8%. The total GF expenditure includes staffing costs, operating expenses, DAS and other state charges, professional services, as well as grant match (in staffing costs) associated with USGS STATEMAP and USGS Data Preservation grants.

<u>The GS&S Other Funds (OF)</u>: The projected revenues are \$2,147,267, which includes phase 3 of the Private Forest Accord lidar project completed by June 30. The revenues from lidar projects accounts for \$1,486,375 (69%), other Grants (staff resource driven) of \$660,892 (31%).

The expenditures are projected at \$2,211,439 which includes our staffing costs, travel & supplies, agency indirect, and Lidar vendor costs of \$1,418,000 which results in 14.5% under the expense limitation.

<u>The Federal Funds (FF)</u>: The total projected revenues are \$3,584,690, reflecting a small reduction in the overall projected totals for lidar projects. The <u>grant</u> revenues (staff resource driven) represent \$2,537,823 (71% of total federal revenues) driven by USGS (35%), FEMA (34%), NOAA (29%), and BLM (2%).

The <u>LIDAR</u> revenues are \$1,046,867 (29% of total federal revenues) driven by BLM (53%), FEMA (46%), and USGS (1%).

The current expenditures are now projected at \$3,476,907, reflecting the decrease in projected lidar projects. This represents expenditures being 38.6% under the budgeted expense limitation. These expenditures consist of DOGAMI staffing, travel & supplies, agency indirect, and Lidar vendor costs.

Strong Motion Instrument Fund (SMIF)

As of July 31, 2024

2023-25 Actual Revenue & Expenditures

	Other Funds			
Beginning Balance (July 1, 2023)	\$	220,236		
Actual + Projected Revenues	\$	71,200		
Actual + Projected Expenditures	\$	-		
SMIF Projected Ending Balance	\$	291,436		

The Strong Motion Instrument Fund: Starts the new 2023-25 biennium with a balance of \$220,236. The revenues are projected to include two completed deposits and two projected deposits (projects) for a total of \$71,200. These revenues are from developers of large building projects in-lieu of installing seismic instruments in the new buildings. DOGAMI is reviewing this program to determine if there are additional uses these funds to increase the capacity and data availability of the existing seismic network.

Mineral Land Regulation & Reclamation (MLRR) Program

As of July 31, 2024

2023-25 Projected Revenue	& Expenditures
	Other Funds
MLRR Beginning Balance	\$ 1,190,221
Total Revenues	\$ 5,801,701
Total Expenditures	\$ (5,705,288)
MLRR Ending Balance	\$ 1,286,634
	ľ
Percent under Expenditure budget	-10.7%
Percent of target 6-month operating reserve	99.0%

The MLRR Program – The 2023-25 biennium is projected to have revenues of \$5,801,701 consisting of permits (91.0%), DEQ Transfers (7.0%) and other sources (2.0%). The total expenditure is projected to be \$5,705,288, which is over the current budget expenditure limitation by \$549,862 (-10.7%). The agency is closely monitoring our projections and at the December Legislative E-Board, DOGAMI will request an increase in the MLRR Other Fund expenditure limitation. As of this board meeting, MLRR is anticipating an ending balance of \$1,286,634 representing 99.0% of the sixmonth operating reserve target of \$1,300,000.

Reclamation Guarantee Fund

As of July 31, 2024

Beginning 2023-25: 59 Cash Securities	\$ 898,288
6 New Securities	\$ 173,720
-3 Security Releases	\$ (42,548)
Biennium to Date: 62 Cash Securities	\$ 1,029,460

The Reclamation Guarantee Fund retains \$1,029,460 in cash securities. Since the beginning of the 2023-25 biennium, there has been a total of 6 added securities with 3 this quarter, and 3 released securities.

Mineral Land Regulation & Reclamation (MLRR) Program General Fund - ePermitting

As of July 31, 2024

2023-25 Projected Revenue & Expenditures										
	C	Other Funds								
Total Available Revenue	\$	2,060,023								
Total Expenditures	\$	(713,068)								
MLRR Ending Balance	\$	1,346,955								

Percent under Expenditure budget

The new MLRR ePermitting Fund began this biennium with the Legislative approval of \$2,000,000 for this biennium. This is a separate fund from the MLRR operations. The projected expenditures are for vendor costs (development and hosting), DEQ provided project manager and hiring a dedicated ISS3 staff member, and existing staff when working directly on the project. The project is delayed due to the delay in DEQ completing their on-line system. DOGAMI is leveraging lessons learned and will utilize the project management staff from the DEQ project. This change will push out our starting timeframe, but not the overall duration of the ePermitting implementation. DOGAMI is currently pursuing the Special Procurement with DAS so we may award DEQ's existing vendor and platform for DOGAMI's ePermitting project. To carry over the unspent amount in 2023-25, a Policy Option Package (POP) has been submitted to carry over the remaining balance into the 2025-27 biennium.

65.4%

Business Office Activities

All required grant financial reporting is complete and up to date. We hold monthly project manager meetings, using tracking tools and project financials to review the financial status and project updates.

The Business Office continues to be on-time with processing accounts payable items, creating invoices and federal draws, various grant reporting, and continue our analysis of the grants and lidar projects.

The Workday payroll platform is updated to finally fix the OPE reallocation issue and other bugs.

Financial Terms:

Allotment – the agency's plan of estimated expenditures, revenues, cash receipts and disbursements. Quarterly, agencies submit their request for the allotment to DAS and upon approval, funds are made available to the agency.

Appropriation – An amount of money from the General Fund approved by the Legislature for a certain purpose.

ARB – Agency Requested Budget. Using the CSL, adding Policy Option Packages (POP's).

Budget – The target of the revenues and expenses for the agency.

CSL – Current Service Level. Starting point of the budget process based upon the previous biennium budget with various adjustments for inflation and other DAS adjustment percentages, program phase-outs, previous biennium one-time costs.

Expenditure Authority – One who has the permission to authorizes or approves the spending for the agency.

Expenditure Limitation – For Other and Federal Funds – the spending limits set by the legislature identifying the maximum amount the agency may spend, defined in the agency's budget. These funds must have a revenue source in place. If the agency receives more funds (revenues), the agency may to a legislative session for an increase and approval to spend the additional revenues.

Expenses / Expenditures – The decrease in net current financial resources. These include disbursements through Payroll for salary and benefits and Accounts Payable for service & supplies as well as accruals for the current period.

Federal Funds – Money provided for a specific set of work from a Federal Agency. DOGAMI typically works with BLM, FEMA, NOAA, and USGS. These are the typical federal agencies DOGAMI have submitted proposals and received a grant.

Grant Awards – The total amount of the grant from a funder. The award document contains a number of specific grant details items including start and end dates, brief description, contact, etc. A lot of work is done before a grant is awarded. This frequently includes working directly with a funder and building a proposal for consideration. Some grants are competitive, which the agency is competing with other for an entire grant or a portion of the available money the funder has available to distribute.

Grant Balance – The remaining amount of a grant <u>after</u> work is charged to the grant. Work charged to the grant will be followed with a draw or invoice to be reimburse the agency for the work completed. The agency continues to work until the end of the project and/or there's no remaining grant balance.

GRB – Governor Recommended Budget. Using the ARB plus modifications the Governor's Office recommends.

LAB – Legislative Approved Budget. Final decisions and changes. Base Budget is approved, may be followed with other bills that changes (add/subtracts) from the agency's original bill.

ORBITS – Oregon's Budget Information Tracking System. The system used to store all budget information and prepare budget requests and reports.

ORPICS – Oregon's Position Information Control System. The system to establish and maintain budgeted positions and related expenditures at a detail level. The personal information is summarized and added to ORBITS

Other Funds – Money received by state agencies that does NOT come from the General Fund or from the federal government. These are typically from other state agencies, cities or counties, or private companies where they are paying DOGAMI for services. Any money that's <u>not</u> provided by the Oregon state general fund directly to DOGAMI and <u>not</u> by a federal agency is considered an Other Fund.

Revenues – The recording of inbound cash from external sources. Revenues are collected through Invoicing, Draws, and Transfers. This term 'revenues' is normally used with Other/Federal Funds.

Reversion – The amount of the General Fund that is not spent at the end of the biennium. Reminder – the GF starts with a zero balance and ends with a zero balance.

SABRS – The State Audit and Budget Reporting Section. Supports the DAS Chief Financial Office with budget preparation and execution.

Salary/OPE – Costs of personal and related benefit costs. OPE are Other Personal Expenses, commonly referred as fringe benefits or just benefits.

Service & Supplies – Non-Payroll costs. These include travel, training, professional services, State charges for services, legal, office, and capital asset expenses (over \$5,000 and a useful life greater than 1 year).

ATTACHMENTS:

DOGAMI Financial Report

Department of Geology & Mineral Industries Budget Status Report: DECEMBER 2023

% of Time Spent of 2 years 54%

Geological Survey & Services (GS&S) Program

	202	3-25 Budget by	Funding Source	ce	2023-2	25 Actual Reven	ue & Expendit	ures	Actual Budget Spent	2023-25	S Projected Rev	enue & Expendi	tures	2023-25 Actual + Projected Revenue & Expenditures			penditures	Actual + Projected Budget Total			Total
	General	Other	Federal	All	General	Other	Federal	All	All	General	Other	Federal	All	General	Other	Federal	All			0	All
Budget Category / Line Item	Funds	Funds	Funds	Funds	Funds	Funds	Funds	Funds	GF OF FF Funds	Funds	Funds	Funds	Funds	Funds	Funds *	Funds	Funds	GF	OF	FF	Funds
Revenue																					
Beginning Balance	-	702,426	-	702,426	-	695,831	(107, 428)	588,403		-	-	-	-	-	695.831	(107.428)	588,403				
2023-25 Revenue & Trans	7,784,185	2.016.801	5,522,133	15,323,119	3,752,588	1.845,268	2,196,571	7,794,427		3,736,682	301,999	1.388.119	5,426,799	7,489,270	2,147,267	3,584,690	13,221,227				
Total Available Revenue	7,784,185	2,719,227	5,522,133	16,025,545	3,752,588	2,541,099	2,089,143	8,382,831	48% 93% 38% 52%	3,736,682	301,999	1,388,119	5,426,799	7,489,270	2,843,098	3,477,262	13,809,630	96%	105%	63%	86%
Expenditures:																					
Personnel Services	4,893,958	545,199	1,865,447	7,304,604	2,372,928	322,184	1,100,036	3,795,148	48% 59% 59% 52%	2,323,669	245,733	1,141,563	3,710,965	4,696,597	567,917	2,241,599	7,506,113	96%	104%	120%	103%
Services & Supplies																					
Instate Travel	74.013	46.167	64.332	184.512	59,507	5.676	14.001	79,184		54,750	2.000	1.000	57,750	114.257	7.676	15.001	136,934	154%	17%	23%	74%
Out of State Travel	18,964	-	-	18,964	12.069	996	3.977	17.041		78,000	_,	1,500	79,500	90.069	996	5.477	96.541	475%			509%
Employee Training	40,814	9,747	7,804	58,365	46,488	-	6,257	52,745		20,000	-	-	20,000	66,488	-	6.257	72,745	163%	0%	80%	125%
Office Expenses	34,102	-	-	34,102	8,694	-	1,217	9,911		11,000	-	-	11,000	19.694	-	1.217	20,911	58%			61%
Telecomm	116,107	-	-	116,107	38,753	-	-	38,753		29,692	-	-	29,692	68,445	-	-	68,445	59%			59%
State Gov't Svc Chg	521,138	-	-	521,138	262,917	-	-	262,917		258,101	-	-	258,101	521.018	-	-	521,018	100%			100%
Data Processing	473,789	-	-	473,789	291,290	-	-	291,290		264,000	-	-	264,000	555,290	-	-	555,290	117%			117%
Publicity & Publications	1,266	5,554	66,952	73,772	223	-	964	1,187		-	-	5,000	5,000	223	-	5,964	6,187	18%	0%	9%	8%
Professional Services	180,028	1,048,074	3,396,483	4,624,585	184,071	1,298,712	966,386	2,449,169		80,625	119,366	37,329	237,320	264,696	1,418,078	1,003,715	2,686,489	147%	135%	30%	58%
IT Professional Services	10,213	95,866	-	106,079	4,096	-	-	4,096		-	-	-	-	4,096	-	-	4,096	40%	0%		4%
Attorney General	22,642	-	-	22,642	8,269	-	-	8,269		60,000	-	-	60,000	68,269	-	-	68,269	302%			302%
Employee Recruitment	2,650	-	-	2,650	13,663	-	-	13,663		-	-	-	-	13,663	-	-	13,663	516%			516%
Dues & Subscriptions	6,750	-	-	6,750	2,330	-	-	2,330		1,200	-	-	1,200	3,530	-	-	3,530	52%			52%
Lease Payments & Taxes	524,797	-	10,854	535,651	283,492	-	-	283,492		240,619	-	-	240,619	524,111	-	-	524,111	100%		0%	98%
Fuels & Utilities	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-				
Facilities Maintenance	-	-	-	-	2,238	-	-	2,238		3,500	-	-	3,500	5,738	-	-	5,738				
Medical Services	-	-	-	-	193	-	-	193		-	-	-	-	193	-	-	193				
Agency Related S & S	-	-	-	-	5,433	-	38,611	44,044		-	-	-	-	5,433	-	38,611	44,044	100%			
Intra agency Charges	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	100%			
Other Services & Supplies	487,665	823,892	240,419	1,551,976	198,989	919	-	199,909		197,572	-	-	197,572	396,561	919	-	397,480	81%	0%	0%	26%
Expendable Prop (\$250-\$5	23,525	11,210	11,144	45,879	8,217	-	-	8,217		-	-	-	-	8,217	-	-	8,217	35%	0%	0%	18%
IT Expendable Property	249,965	-	-	249,965	170,078	-	-	170,078		231,250	-	-	231,250	401,328	-	-	401,328	161%	100%		161%
Technical Equipment	51,799	-	-	51,799	33,859	-	-	33,859		75,000	-	-	75,000	108,859	-	-	108,859	210%			210%
Automotive & Aircraft	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	100%			
Data Processing Software	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-				
Data Processing Hardware	50,000	-	-	50,000	9,122	-	-	9,122		10,000	-	-	10,000	19,122	-	-	19,122	100%			38%
Other Capital Outlay	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-				
Indirect	-	-	-	-	(264,330)	105,484	117,602	(41,244)		(202,296)	110,368	41,464	(50,464)	(466,626)	215,852	159,066	(91,708)				
Total Services & Supplies	2,890,227	2,040,510	3,797,988	8,728,725	1,379,660	1,411,788	1,149,015	3,940,463	48% 69% 30% 45%	1,413,013	231,734	86,293	1,731,039	2,792,673	1,643,522	1,235,308	5,671,502	97%	81%	33%	65%
Total Expenditures	7,784,185	2,585,709	5,663,435	16,033,329	3,752,588	1,733,972	2,249,051	7,735,611	48% 67% 40% 48%	3,736,682	477,467	1,227,856	5,442,005	7,489,270	2,211,439	3,476,907	13,177,616	96%	86%	61%	82%
GS&S Ending Balance	\$ -	133,518	\$ (141,302)	\$ (7,784)	s -	\$ 807,128	\$ (159,908)	\$ 647,220		\$ -	\$ (175,468)	\$ 160,263	\$ (15,205)	\$ -	\$ 631,659	\$ 355	\$ 632,015				

(400,584)

\$294,915 Under-budget

* Includes the Strong Motion Instrument Fund (SMIF)

Department of Geology & Mineral Industries

Budget Status Report: July 2024

% of Time Spent of 2 years

54%

Mineral Land Regulation & Reclamation (MLRR) Program

		2023-25 Actual		2023-25 Projected	2023-25 Actual +	
	2023-25 Budget by	Revenue &	% Actual Budget Spent	Revenue &	Projected Revenue &	Actual + Projected Budget
	Funding Source	Expenditures	to Date	Expenditures	Expenditures	% Total Spent
	Other	Other	1	Other	Other	
Budget Category / Line Item	Funds	Funds	OF	Funds	Funds	OF
Revenue			01			01
Kevenue						
Beginning Balance	1,190,221			1,190,221	1,190,221	
2023-25 Revenue & Transfers	4,285,983	4,611,639		1,190,062	5,801,701	
Total Available Revenue	5,476,204	4,611,639	84%	2,380,283	6,991,922	127.7%
Expandituras						
Expenditures.	2 505 105	0 000 054	500/	0.110.465	1 2 40 2 20	114.00/
Personnel Services	3,787,107	2,230,874	59%	2,118,465	4,349,339	114.8%
G · 8 G I:						
Services & Supplies	07 500	10 201		10.010	20 201	12.00/
Instate Travel	87,500	19,381		19,010	38,391	43.9%
Out of State Travel	-	-		5,000	5,000	
Employee Training	38,416	9,119		5,000	14,119	36.8%
Office Expenses	37,512	10,120		9,000	19,120	51.0%
Telecomm	52,491	19,166		20,286	39,452	75.2%
State Gov't Svc Chg	-	-		-	-	
Data Processing	88,330	17,479		18,000	35,479	40.2%
Publicity & Publications	4,999	998		750	1,748	35.0%
Professional Services	611,498	584,938		130,000	714,938	116.9%
IT Professional Services	-	-		-	-	
Attorney General	145.852	156.868		110.000	266.868	183.0%
Employee Recruitment	-			3 676	3 676	
Dues & Subscriptions	3.674	1.180		-	1,180	32.1%
Lease Payments & Taxes	89 118	41 128		33 991	75 119	84.3%
Fuels & Utilities	14.128	6.495		7,700	14,195	100.5%
Facilities Maintenance	13 042	17 159		7,150	24 309	186.4%
Medical Services	-	-		-	-	1001170
Agency Related S & S	-	447		360	807	
Intra agency Charges	-	-		-	-	
Other Services & Supplies	128,539	253		-	253	0.2%
Expendable Prop (\$250-\$500	20.437	9.017		-	9.017	44.1%
IT Expendable Property	32,783	2.662		500	3.162	9.6%
Technical Equipment	-	-		-	-	
Automotive & Aircraft	-	-		-	-	
Data Processing Software	-	-		-	-	
Data Processing Hardware	-	-		-	-	
Other Capital Outlay	-	-		-	-	
Indirect	-	38,654		50,464	89,118	
Total Services & Supplies	1,368,319	935,063	68%	420,886	1,355,949	99.1%
Total Expenditures	5,155,426	3,165,937	61%	2,539,351	5,705,288	110.7%
MLRR Ending Balance	320 778	\$ 1,445 702		\$ (159.068)	\$ 1 286 634	
MERIN Enung Dalance	520,778	φ 1,445,702		(15),000)	¢ 1,200,034	

Department of Geology & Mineral Industries Budget Status Report: July 2024 Other programs

Geological Survey & Serv	Mineral Land Regulation & Reclamation						
Strong Motion Instrument Fu	Reclamation G	iaran	tee Fund				
Revenue:	P R Exj	rojected evenue & penditures		Begin	nning 2023-25		
Beginning Balance		220,236	58 Cash Security's	\$	898,288		
Actual Revenues (Jul 2023 - July 202-		35,600			-		
Projected Revenues		35,780					
Total Available Revenue		291,616					
Expenditures:							
Actual Personnel Services		-	6 New Securities	\$	173,720		
Services & Supplies:			3 Security releases	\$	(42,548)		
Projected Professional Services		-					
Total Expenditures		-					
SMIF Ending Balance	\$	291,616	66 Cash Security's	\$	1,029,460		



RHVER CALDERA

- 30.8 ± 0.5 Ma

Ols



GS&S GENERAL FUND - Appn 89707	Legislative			Revenue & Exp	penditures			Difference Budget to Projection Under/(Over)			n - D		
Appropriation: \$7,784,185		Adopted Budget		ctuals to Date	% Spent		Projections			Meeti ng		Change	
Salpot adjustment \$400,584				July 2024									
Revenue:													
GF Appropriation	\$	7,784,185	\$	7,784,185	N/A								
Expenditures:													
Personal Services	\$	4,893,958	\$	2,372,928	48%		\$ 4,696,597	\$	197,361	\$	4,882,123	\$	(185,526)
Services and Supplies	\$	2,788,428	\$	1,336,679	48%		\$ 2,664,691	\$	123,737	\$	2,543,135	\$	121,556
Capital Outlay	\$	101,799	\$	42,982	42%		\$ 127,982	\$	(26,183)	\$	77,982	\$	50,000
Total Expenditures	\$	7,784,185	\$	3,752,588	48%		\$ 7,489,270	\$	294,915	\$	7,503,240	\$	(13,970)
							Net Position	\$	294,915	\$	280,945	\$	13,970
					(Le	eft	in the budget)		Within Budget				
					Expenditures u	inc	ler budget % >>		3.8%				

RIVER CALDERA

30.8 ± 0.5 Ma Tjtb

Qls



6 RIVER CALDERA

30.8 ± 0.5 Ma



D RIVER CALDERA

30.8 ± 0.5 Ma



GS&S OTHER FUND - Appn 30208 Appropriation: \$2,585,709		Legislative Adopted Budget		Revenue & Expenditures					ference Budget to	luno Roard			
				tuals to Date	% Spent	Projections		Projection Under/(Over)			Meeti ng		Change
SalPot Adjustment \$46,468				July 2024									
Beginning Balance:													
Beginning Balance	\$	702,426	\$	695,831	N/A	\$	695 <i>,</i> 831	\$	6,595				
Revenue:													
Revenue:	\$	2,016,801	\$	1,845,268	N/A	\$	2,147,267	\$	130,466	\$	2,010,713	\$	136,554
Expenditures:													
Personal Services	\$	545,199	\$	322,184	59%	\$	567 <i>,</i> 917	\$	(22,718)	\$	544,301	\$	23,616
Services and Supplies	\$	2,040,510	\$	1,411,788	69%	\$	1,643,522	\$	396,988	\$	1,487,434	\$	156,088
Capital Outlay	\$	-	\$	-	0%	\$	-	\$	-	\$	-	\$	-
Total Expenditures	\$	2,585,709	\$	1,733,972	67%	\$	2,211,439	\$	374,270	\$	2,031,735	\$	179,704
						Ν	et Position	\$	631,659	\$	674,809	\$	(43,150)
					(Projected	d Er	nding Cash)		Within Budget				
					Expenditures une	der	budget % >>		14.5%	•			

RIVER CALDERA

-30.8 ± 0.5 Ma - Tjtb

Qls

Qa

Expenditures under budget % >>



D RIVER CALDERA

30.8 ± 0.5 Ma



O RIVER CALDERA

30.8 ± 0.5 Ma

Qa/


GS&S FEDERAL FUND - Appn 60207		Legislative	F	Revenue & Exp	oenditures			Dif	ference Budget to				
Appropriation: \$5,663,435	Ad	opted Budget	Ac	tuals to Date	% Spent		Projections		Projection Under/(Over)	Ju	ine Board Meeting		Change
SalPot Adjustment \$141,302				July 2024									
Beginning Balance:													
Beginning Balance	\$	-	\$	(107,428)	N/A		\$ (107,428)	\$	107,428				
Revenue:													
Revenue:	Ş	5,522,133	Ş	2,196,571	N/A		\$ 3,584,690	Ş	(1,937,443)	Ş	3,890,958	Ş	(306,268)
Expenditures:													
Personal Services	\$	1,865,447	\$	1,100,036	59%		\$ 2,241,599	\$	(376,152)	\$	2,250,938	\$	(9,339)
Services and Supplies	\$	3,797,988	\$	1,149,015	30%		\$ 1,235,308	\$	2,562,680	\$	1,532,472	\$	(297,164)
Capital Outlay	\$	-	\$	-	0%		\$-	\$	-	\$	-	\$	-
Total Expenditures	\$	5,663,435	\$	2,249,051	40%		\$ 3,476,907	\$	2,186,528	\$	3,783,410	\$	(306,503)
							Net Position	\$	355	\$	120	\$	235
					(Projecte	ed	Ending Cash)		Within Budget				
					Expenditures un	nde	er budget % >>		38.6%	•			

CROOKED RIVER CALDERA

Qa 30.8 ± 0.5 Ma

Qls



6 RIVER CALDERA

30.8 ± 0.5 Ma



RIVER CALDERA

30.8 ± 0.5 Ma



MLRR - OTHER FUND - Appn 30210	Legislative			Revenue & Exp	penditures		Dif	ference Budget to				
Appropriation: \$5,155,426	Ado	opted Budget	Ac	tuals to Date	% Spent	Projections		Projection Under/(Over)	JU	ine Board Meeting		Change
SalPot Adjustment \$310,752				July 2024					ĺ			
Beginning Balance:												
Beginning Balance	\$	346,829	\$	1,190,221	N/A	\$ 1,190,221						
Revenue: Revenue:	\$	5,129,375	\$	3,421,418	N/A	\$ 5,801,701	\$	672,326	\$	5,542,044	\$	259,657
Expenditures:												
Personal Services	\$	3,787,107	\$	2,230,874	59%	\$ 4,349,339	\$	(562,232)	\$	4,318,947	\$	30,392
Services and Supplies	\$	1,368,319	\$	935,063	68%	\$ 1,355,949	\$	12,370	\$	1,239,811	\$	116,138
Capital Outlay	\$	-	\$	- '	0%	\$ -	\$	-	\$	6,488	\$	(6,488)
Total Expenditures	\$	5,155,426	\$	3,165,937	61%	\$ 5,705,288	\$	(549,862)	\$	5,565,246	\$	140,042
						Net Position	\$	1,286,634	\$	1,167,019	\$	119,615
Future - Anticipate to request an increase in ex	pene	diture limitati	on		(Projecte	d Ending Cash)		Over Budget				
					Expenditures un	der budget % >>		-10.7%				
				6	5-Month Operatin	ng Reserve % >>		99.0%				

.8 ± 0.5 Ma

Qls



D RIVER CALDERA

- 30.8 ± 0.5 Ma



O RIVER CALDERA

30.8 ± 0.5 Ma



MLRR - GENERAL FUND - Appn 80210		Legislative		Revenue & Exp	penditures				Difference Budget			. .		
Appropriation: \$2,060,023	Ad	opted Budget	Ac	tuals to Date	% Spent		Pı	rojections		Projection Under/(Over)	Ju	ne Board Neeting	(Change
SalPot Adjustment \$60,023				July 2024										
Revenue:														
GF Appropriation:	\$	2,060,023	\$	2,060,023	N/	A								
Expenditures:														
Personal Services	\$	660,442	\$	4,396	1	%	\$	83,172	\$	577,270	\$	177,974	\$	(94,802)
Services and Supplies	\$	1,399,581	\$	610	0	%	\$	629 <i>,</i> 896	\$	769,685	\$	565,416	\$	64,480
Capital Outlay	\$	-	\$	-	0	%	\$	-	\$	-	\$	-	\$	-
Total Expenditures	\$	2,060,023	\$	5,006	0	%	\$	713 <i>,</i> 068	\$	1,346,955	\$	743,390	\$	(30,322)
							Ne	et Position	\$	1,346,955	\$	1,316,633	\$	30,322
ePermitting Project					(Pr	ojecte	d End	ding Cash)		Within Budget				
					Expenditu	es un	der b	oudget % >>		65.4%	-			

0.8 ± 0.5 Ma

Qls

Projection updated as of JULY 2024

Qa/

30.8 ± 0.5 Ma



O RIVER CALDERA

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Laura Gabel, Coastal Field Geologist and KPM Coordinator

Date: September 10, 2024

Regarding: Agenda Item 5 - Key Performance Measures (KPMs) Annual Data Report

Attached is the draft Annual Performance Progress Report (APPR) for your review.

KPM 6 is an annual assessment by the Board based on a set of 15 best practice criteria (see below). The Board will be asked to review and respond affirmatively or negatively to each of the following best practice criteria:

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

Proposed Board Action: The Board approves the revisions to the 2024 Annual Progress Performance Report as presented/revised.

Department of Geology and Mineral Industries

Annual Performance Progress Report

Reporting Year 2024

Published: 9/4/2024 3:02:38 PM

KPM #	Approved Key Performance Measures (KPMs)
1	HAZARD AND RISK ASSESSMENT COMPLETION - Percent of population residing in Oregon Urban Growth Boundary Areas (UGBs) that have completed geologic hazard and risk assessments that are suitable to initiate Department of Land Conservation and Development goal 7 planning for earthquake, landslide, tsunami, coastal erosion, volcanic and flooding hazards.
2	DETAILED GEOLOGIC MAP COMPLETION - Percent of Oregon where geologic data in the form of high resolution maps have been completed to be used for local problem solving.
3	LIDAR DATA COMPLETION - Percent of Oregon (sq. miles) with lidar data at USGS quality level 2 or better.
4	MINE SITE INSPECTIONS - Percent of active mine sites inspected annually.
5	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.
6	GOVERNANCE - Percent of yes responses by Governing Board members to the set of best practices.



Performance Summary	Green	Yellow	Red	
	= Target to -5%	= Target -5% to -15%	= Target > -15%	
Summary Stats:	33.33%	16.67%	50%	

HAZARD AND RISK ASSESSMENT COMPLETION - Percent of population residing in Oregon Urban Growth Boundary Areas (UGBs) that have completed geologic hazard and risk assessments that are suitable to initiate Department of Land Conservation and Development goal 7 planning for earthquake, landslide, tsunami, coastal erosion, volcanic and flooding hazards.

Data Collection Period: Jul 01 - Jun 30

* Upward Trend = positive result



Report Year	2020	2021	2022	2023	2024			
HAZARD AND RISK ASSESSMENT COMPLETION								
Actual	56%	57%	68%	70.40%	72.40%			
Target	52%	57%	62%	67%	67%			

How Are We Doing

Factors Affecting Results

DOGAMI KPM #1-Hazard and Risk Assessment Completion



Prepared By: M. C. Williams 9-8-2023

KPM #2 DETAILED GEOLOGIC MAP COMPLETION - Percent of Oregon where geologic data in the form of high resolution maps have been completed to be used for local problem solving. Data Collection Period: Jul 01 - Jun 30

* Upward Trend = positive result



Report Year	2020	2020 2021		2023	2024			
DETAILED GEOLOGIC MAP COMPLETION								
Actual	62.65%	62.70%	62.80%	62.80%	63.50%			
Target	64%	65%	66%	67%	67%			

How Are We Doing

Factors Affecting Results

DOGAMI KPM #2 Location Map 2023/2024 - Detailed Geologic Mapping



KPM #3 LIDAR DATA COMPLETION - Percent of Oregon (sq. miles) with lidar data at USGS quality level 2 or better. Data Collection Period: Jul 01 - Jun 30

* Upward Trend = positive result



Report Year	2020	2021	2022	2023	2024
LIDAR DATA COMPLETION					
Actual	53.28%	56.10%	60.50%	66.70%	76.30%
Target	50%	54%	56%	58%	58%

How Are We Doing

Factors Affecting Results

DOGAMI KPM #3- Lidar Coverage

Reporting period: July 1, 2023 - June 30, 2024





* Upward Trend = positive result



Report Year	2020	2021	2022	2023	2024
ACTIVE MINE SITE INSPECTIONS					
Actual					14%
Target					20%

How Are We Doing

Factors Affecting Results



Prepared By: E. Buchner / 8-16-2024

KPM #5 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.

Data Collection Period: Jul 01 - Jun 30



Report Year	2020	2021	2022	2023	2024
Helpfulness					
Actual	85%	85.40%	74.60%	80.30%	66.30%
Target	95%	95%	95%	95%	95%
Overall					
Actual	89%	88.60%	80.70%	82.20%	62.90%
Target	95%	95%	95%	95%	95%
Accuracy					
Actual	84%	89.30%	78.10%	79.30%	63.30%
Target	95%	95%	95%	95%	95%
Expertise					
Actual	86%	86.60%	78.10%	83%	68.90%
Target	95%	95%	95%	95%	95%
Availability of Information					
Actual	85%	84.70%	78.90%	78.20%	61.50%
Target	95%	95%	95%	95%	95%
Timeliness					
Actual	85%	83.30%	77.20%	74.80%	61.50%
Target	95%	95%	95%	95%	95%

Factors Affecting Results

KPM #6 GOVERNANCE - Percent of yes responses by Governing Board members to the set of best practices. Data Collection Period: Jul 01 - Jun 30

* Upward Trend = positive result



Report Year	2020	2021	2022	2023	2024
Metric Value					
Actual	100%	100%	100%	100%	
Target	100%	100%	100%	100%	100%

How Are We Doing

Factors Affecting Results

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Laura Gabel, Coastal Field Geologist and KPM Coordinator

Date: September 9, 2024

Regarding: Agenda Item 6 – Presentation(s): Vertical Structures and Customizing Evacuation Maps

Laura Gabel, Coastal Field Geologist and KPM Coordinator, will present on Vertical Structures and Customizing Evacuation Maps.

Proposed Board Action: The Board will not be asked to take an action on this item.

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Sarah Lewis, MLRR Program Manager

Date: September 9, 2024

Regarding: Agenda Item 7 – MLRR Update

Sarah Lewis, MLRR Program Manager, will provide an update on MLRR and report on the following topics:

- 1) Permit Status Summary
- 2) Grassy Mountain Project

Proposed Board Action: The Board will not be asked to take action on this item.



Map shows aggregate/non-aggregate active permitting applications, site visits in the last 6 months, and renewals due in last 3 months.

Table 1: Permit Status Summary (as of 8/30/24)
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	Nov 2	2023	Feb 2	024	Jun 2	024	Aug 2	2024
	Permits	Apps	Permits	Apps	Permits	Apps	Permits	Apps
Surface Mining								
Operating Permits	878	78	878	87	883	82	888	84
Exclusion Certificates	143	2	144	2	145	2	142	2
Sites Closed	4	1	1	0	2	6	0	7
Stormwater (DEQ)								
1200A Permits	156	9	156	11	156	11	156	11
WPCF 1000 Permits	51	2	51	3	52	2	53	3
Exploration	28	14	28	18	28	17	28	17
Oil & Gas Wells	81	2	81	2	81	2	75	1
Geothermal								
Well Permits	21	0	21	0	21	0	21	0
Prospect Wells	4	0	4	0	4	0	4	0



Figure 2: Operating and Exploration Permit Application Workload (as of 8/30/24)

The average processing time for an application completed during the last year was 12 months.

			•	
Site ID#	Application Type	Permit Type*	Date Received	
25-0069	Transfer	OP	6/5/2024	
23-0015	Amendment	OP-LE	6/14/2024	Key to Permit Type
22-0022	Amendment	OP-LE	6/21/2024	OP = Operating
31-0070	Amendment	OP	6/26/2024	Permit
01-0025	New	EC	7/17/2024	XP = Exploration
10-0026	Amendment	XP	7/30/2024	Permit
07-0160	Transfer	OP	8/2/2024	Exemption
03-0227	Amendment	OP	8/12/2024	EC = Exclusion
01-0201	Transfer	OP	8/14/2024	Certificate
15-0269	New	EC	8/15/2024	
19-0125	New	OP	8/28/2024	

Table 2a: Permit Applications received since last update:

Table 2b: Permit Decisions issued since last update:

Site ID#	Application Type	Permit Type*	Date Received	Date Issued
01-0201	New	OP	10/22/2022	6/6/2024
22-0022	Transfer	OP-LE	7/20/2022	7/17/2024
24-0041	Transfer	LE	1/4/2024	8/27/2024
01-0223	New	ХР	5/30/2023	8/28/2024



MLRR Program Update – September 2024

Compliance Activity at DOGAMI Mine Sites



Location of potential (green dots) and active (pink dots) compliance actions from Table 3. Size of circle indicates number of violations per site.

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	202	22		202	3			2024	
	Sep	Dec	Mar	Jun	Sep	Nov	Feb	Jun	Sep
Non-Payment of Fees	24	27	34	34	45	29	26	29	35
Exploring Without a Permit	2	0	0	1	1	0	0	0	0
Mining Without a Permit	13	13	13	14	14	14	14	13	13
Mining Outside Permit Boundary	18	19	19	22	22	20	20	19	20
Lack of Approval	4	4	4	4	4	4	4	4	4
Failure to Comply with Order	8	9	9	9	13	16	16	14	12
Permit Boundary Survey Map	5	5	5	5	5	5	5	0	0
Boundary Marking Violation	4	4	4	4	4	4	4	4	4
Permit Condition Violation	5	9	9	13	13	7	7	5	5
Reclamation Security	7	7	7	7	7	5	5	2	2
Failure to Reclaim Timely	1	1	1	1	1	1	1	1	1
Total	91	98	105	114	129	105	102	91	96

Table 3a: Compliance Summary – Active Violations by Type (as of 8/31/2024)

Table 3b: Compliance Summary – Active Department Orders by Type (as of 8/31/2024)

Total Active	Total Active Department Orders							
	Administrative	Environmental/						
Order Types	Orders (change	Permit Orders						
Order Types	since last	(change since						
	report)	last report)						
Notice of Violation	30	26 (+1)						
Suspension Order*	2	13						
NCP Referral	3 (-12)	0						
Notice of Civil Penalty	13 <i>(+3)</i>	2 (+1)						
Final Order	1	0						
Consent Order	0	1						
Demand Warning	0	0						
Notice of Intent	2	1						
Demand to Recover	0	0						
Notice of Action	1	8						

Table 3c: Compliance Summary – Active Suspension Orders (6/10/2024 – no change)

Total Active Suspension Orders					
Site Suspended	Date Suspended	Reason for Suspension			
23-0234	08-Apr-12	Legacy issue needs resolution. Issued in 2012 for non-payment.			
17-0020	15-Sep-08	Legacy issue needs resolution. Issued in 2008, bond increase required 2007, bond cancellation received 2011.			
01-0029	25-Apr-22	Permitted, were operating, Mining in advance of permit approvals.			
*06-NP0002	21-Mar-21	No permit, were operating. SO will remain indefinitely, no mining allowed without a permit.			
10-0183	9-Aug-19	No Permit - Floodplain site exceeded 5 acres, in permitting since ~2012			
*10-0223	28-Jul-17	No Permit - First Civil Penalty for MWOP resulting in Consent Order			
15-0116	10-Mar-22	No Permit, were operating			
17-0157	14-Apr-22	No Permit, were operating			
20-0011	14-Apr-22	Permitted, were operating, were discharging significant quantities of turbid stormwater to the Siuslaw River			
20-0158	8-Jul-19	Permitted, excavation outside excavation area. Operating in a limited area.			
23-NP0001	8-Mar-23	No Permit, exceeded thresholds. In negotiation for restoration.			
24-0091	22-Apr-22	Permitted, were operating, are now operating in a limited area, potential impacts to Category 1 Habitat			
27-0001	4-Feb-21	No Permit			
*29-0040	11-Mar-21	Permitted, trespassed onto ODF land, action ongoing since ~2017			
34-0011	4-Dec-19	Permitted, no land use acknowledged at transfer, County reported operations to DOGAMI			

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	CH o HO	Renewal	Renewal	Civil Pen.	violation (total)	Freq. of	Length of dolour	Mitigating Factors, Other	Max	Ctondard	Staff Docc	Geologist
0	23-0267	5/31/24		1910	(100al) 32 (92)	1/3 yr 3/14 yr	~5 mos.	Issued \$500 penalty in 2022	\$32,000	\$750	\$750	\$750
00	20-0018	5/31/24		1	32 (92)	1/3 yr 16/32 yr	3-6 mos.		\$32,000	\$250	\$250	\$250
	09-0118	5/31/24	1	1	32 (92)	2/3 yr 15/32 yr	3-6 mos.	Issued \$500 penalty in 2020	\$32,000	\$750	\$750	\$750
9	08-0106	5/31/24	8/19/24	I.	20 (80)	2/3 yr 2/5 yr	3-4 mos.	Exclusion Certificate	\$20,000	\$100	\$100	\$100
ъ	17-0056	4/30/24	1	1	63 (123)	2/3 yr 8/11 yr	2-5 mos.	lssued \$750 penalty in 2022	\$63,000	\$1,000	\$1,000	\$1,000
4	25-0006	2/28/24	7/22/24	8/16/24	85 (145)	1/3 yr 14/31 yr	2-3 mos.		\$85,000	\$250	\$250	\$250
m	05-0055	10/31/23	1/29/24	ı	31 (91)	1/3 yr	3 mos.		\$31,000	\$250	\$250	\$250
2	20-0129	10/31/23	1	J	245 (305)	2/3 yr 5/22 yr	1-4 mos.	lssued \$250 penalty in 2022	\$245,000	\$500	\$500	\$500
17	13-0083	8/31/23	1	1	306 (366)	1/3 yr	TBD		\$306,000	\$250	\$250	\$250
0	30-0023	6/30/23	9/28/23	3/7/24	30 (90)	2/3 yr 4/20 yr	~3 mos.	Issued \$250 penalty in 2020	\$30,000	\$500	\$500	\$500
6	15-0098	4/30/23	9/22/23	ji ji	85 (145)	1/3 yr 3/14 yr	~1-2 mos.		\$85,000	\$250	\$250	\$250
00	03-0115	2/28/23	5/15/23	N/A	16 (76)	1/3 yr 3/31 yr	~1-2 mos.	Department error, staff requests reversal	\$16,000	\$250	Waive	Waive
Lt .	17-0160	12/31/22	5/4/23	N/A	64 (124)	None	None	Department error, staff requests reversal	\$64,000	\$250	Waive	Waive
91	20-0068	12/31/22	1		549 (609)	None	None		\$549,000	\$250	\$250	\$250
12	32-0040	11/30/22	2/28/23	10/7/23	31 (91)	None	None		\$31,000	\$250	\$250	\$250
4	20-0129	10/31/22	4/19/23	3	110 (170)	2/3 yr 4/22 yr	~1-2 mos.		\$110,000	\$250	\$250	\$250
ŝ	02-0005	9/30/22	4/10/23	Į.	132 (192)	None	None		\$132,000	\$250	\$250	\$250
2	36-0062	9/30/22	6/9/2023	10/4/23	193 (253)	0/3 yr 1/8 yr	>60 days	Issued \$250 penalty in 2022	\$193,000	\$500	\$500	\$500

*Board Delegated Approval Authority to State Geologist on 6/25/2021.

The newsletter of the Mineral Land Regulation and Reclamation program

ENGAGe Summer 2024



Exploration, Non-aggregate, Gas/oil, Aggregate, Geothermal

DOGAMI Permitting Timelines

Just a reminder: DOGAMI continues to experience an unprecedented volume of applications, inquiries, complaints, and compliance actions resulting in an ongoing increase in processing and response times. Thank you for your patience as we continue with our increased workload.

DOGAMI strives to process permit applications as quickly as possible to facilitate applicant/permittee compliance with Oregon law. We appreciate your patience and understanding.

Protecting Cultural Resources:

DOGAMI has developed an effective partnership with the Legislative Commission on Indian Services (LCIS), Oregon State Historic Preservation Office (SHPO), and the nine federally recognized Tribal governments in Oregon that emphasizes working cooperatively to address mutual concerns. DOGAMI includes all Tribes in the review and comment process regarding proposed mineral extraction and energy development projects statewide. This process helps identify proposed development projects that have the potential to impact cultural and historic sites, and to then develop mitigation strategies. Permit holders for mineral and energy development projects are now better informed of their responsibilities to report unanticipated discoveries. DOGAMI has actively sought to meet with individual Tribal staff to ensure communication and coordination occurs between the appropriate individuals.

<u>What does this mean for permittees and applicants</u>? Essentially, ORS 358.905 and ORS 97.740 protect archaeological sites, objects, and human remains on federal, state, and private lands in Oregon. Therefore, if any cultural material is discovered during excavation activities, all work should cease immediately until a professional archaeologist can evaluate the discovery. Applicants should familiarize themselves with the Oregon Parks and Recreation Department's State Historic Preservation Office (SHPO), with the Tribes in the project area, and preemptively reach out to them regarding your project or any future projects. They are important partners to have in any project, and they are genuinely happy to build a relationship. If you need help determining who to reach out to, DOGAMI is happy to help you make the initial connection with the correct Tribal contact. **Please do not send any cultural resource reports to DOGAMI. They should be sent directly to the Tribes and/or SHPO**

Staffing Changes to our Permitting Team:

New faces at MLRR! Within the last year we hired Melissa Carley, G.I.T (Aggregate Permitting Reclamationist) and John Hook, C.E.G (Mining Geologist/Reclamationist). We are happy to announce that we are adding two more wonderful people to our team – Nicole Ledbetter, G.I.T (Permit Specialist) and Clayton Rowden, G.I.T (Permit Specialist). While we are thrilled for the new additions to our staff, we are also sad to announce the departure of Justin McGillivary (Permit Specialist) as he starts a new adventure with the Oregon Department of Environmental Quality.

Contact Us at: 541-967-2039 or mlrr.info@dogami.oregon.gov https://oregon.gov/dogami/MLRR-overview

Oregon Department of Geology and Mineral Industries Mineral Land Regulation & Reclamation 229 Broadalbin St. SW, Albany, OR 97321



Summertime: Inspections!

Summer is finally here and along with it comes increased mine site activity and DOGAMI inspections! Currently, due to an increase in permit applications submitted to the MLRR office and compliance issues identified by the MLRR office, as well as a shortage in our technical staffing, site inspections are being done on sites with a permitting action – an active transfer, amendment, **or** a compliance action.

What can you do to prepare for your site inspection? Here are some stellar suggestions:



John Hook, R.G., C.E.G.; Mining Geologist

- Mark your permit boundaries in the field! After DOGAMI issues the permit and prior to mining, the operator **must** mark the boundaries for all excavation areas, stockpiles, setbacks, and buffers. The markings must be accomplished by placing clearly visible, semi-permanent markers, such as T-posts or fiberglass paddles, at no more than 200 feet from each other.
- Request a copy of your digital site file to make sure you know and understand the parameters of approval for the operations of your site (site conditions, permit conditions, operating and reclamation plan, maps, etc.)
- Sites with DEQ Permits: Perform preventative maintenance on your stormwater controls. The DEQ permit registrant must regularly inspect, clean, maintain, and repair all industrial equipment and systems and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater and mine dewatering structures, catch basins, and treatment facilities to ensure effective operation and in a manner that prevents the discharge of pollution.



- Clean up all of the garbage on site.
- To get the maximum benefit from your site inspection, feel free to come prepared with any questions, concerns, and anything you might need clarifications for! We are ultimately here for you!



Vaughn Balzer, R.G.; Floodplain Reclamationist

Lisa Reinhart. Water Quality Reclamationist

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Jason McClaughry, GS&S Program Manager

Date: September 12, 2024

Regarding: Agenda Item 8 – GS&S Update

Director Ruarri Day-Stirrat will provide the update on the GS&S program.

Proposed Board Action: The Board will not be asked to take an action on this item.

September 10, 2024 Agenda Item 8 – GS&S Update

This is a report of Geological Survey and Services Program activities since the last presentation to the Board on June 25, 2024. Staff remain focused on working on existing projects, closing out others, and developing new project ideas and concepts to explore, within DOGAMI's mission. Our current active grant load is 28 non-lidar grants (14 FF, 14 OF) and 9 Lidar projects. Potential grant opportunities continue to grow in the areas of: 1) landslide inventory and risk reduction; 2) post-wildfire landside and debris flows; 3) channel migration and flood zone analysis; 4) natural hazard risk assessments; 5) earthquake hazard analysis; 6) tsunami inundation model analysis and coastal geomorphology; 7) geologic mapping in support of groundwater studies, mineral resource evaluations, and geologic hazards; 8) carbon sequestration; and 9) critical mineral resource inventories.

Publications

Since the last board update June 25, 2024, 9 new publications were released by the GS&S Program (Figure 1; Table 1): DOGAMI has released 11 formal publications in 2024.



Figure 1. Chart showing DOGAMI publication output since 2019.

Table-1. Table showing DOGAMI publications released in 2024.

Publication Series	Publication Series No.	Title	Year
Idaho Geological Survey Digital Web /Geologic Map Series	DWM- 214/GMS 131	Geologic map of the Weiser South quadrangle, Payette and Washington counties, Idaho and Malheur County, Oregon	2023
Idaho Geological Survey Digital Web /Geologic Map Series	DWM- 215/GMS 132	Geologic map of the Payette quadrangle, Payette County, Idaho and Malheur County, Oregon	2023
Open-File Report	0-24-01	Multi-Hazard Risk Report for Morrow County	2024
Digital Data Series	SLIDO 4.5	Statewide Landslide Inventory for Oregon, release 4.5	2024
Open-File Report	0-24-02	Channel Migration Zone Maps for Eastern Lane County, Oregon, McKenzie and Middle Fork Willamette River	2024
Open-File Report	0-24-03	Brookings Tsunami Modeling: Toward Improved Maritime Planning Response	2024
Open-File Report	0-24-04	Multi-Hazard Risk Report for Polk County, Oregon	2024
Open-File Report	0-24-05	Channel Migration Zone Maps for Johnson Creek, Multnomah and Clackamas Counties, Oregon	2024
Open-File Report	0-24-06	Multi-Hazard Risk Report for Douglas County, Oregon	2024
Maritime Tsunami Response Guidance	MTRG-2024- OR-01	Oregon Maritime Tsunami Response Guidance (MTRG) No. 2024-OR-01, Port of Brookings Harbor, Curry County, Oregon	2024
Open-File Report	0-24-07	Multi-Hazard Risk Report for Clackamas County, Oregon	2024

Recently released DOGAMI publications

 Idaho Geological Survey Digital Web Map 215 and Oregon Department of Geology and Mineral Resources Geologic Map Series 132, Geologic map of the Payette quadrangle, Payette County, Idaho and Malheur County, Oregon, by Dennis M. Feeney, Jason D. McClaughry, Mark L. Ferns, and Mark S. Barton;

https://www.idahogeology.org/product/DWM-215

WHAT'S IN THIS REPORT?

The geologic map of the Payette 7.5' quadrangle depicts rock units exposed at the surface or underlying a thin cover of soil or colluvium; alluvial and man-made deposits are depicted where they form significant mappable units. This map is the result of field work performed in the summer and autumn of 2022 by Feeney (IGS) and McClaughry and from unpublished mapping in the state of Oregon conducted by Mark L. Ferns.



 Idaho Geological Survey Digital Web Map 214 and Oregon Department of Geology and Mineral Resources Geologic Map Series 131, Geologic map of the Weiser South quadrangle, Payette and Washington counties, Idaho and Malheur County, Oregon, by Dennis M. Feeney, Jason D. McClaughry, Mark L. Ferns, and Mark S. Barton;

https://www.idahogeology.org/product/DWM-214

WHAT'S IN THIS REPORT?

The geologic map of the Weiser South 7.5' quadrangle depicts rock units exposed at the surface or underlying a thin cover of soil or colluvium; alluvial and man-made deposits are depicted where they form significant mappable units. This map is the result of field work performed in the summer and autumn of 2022 by Feeney (IGS) and McClaughry and from unpublished mapping in the state of Oregon conducted by Mark L. Ferns.


3. Open-File Report O-24-02, Channel Migration Zone Maps for Eastern Lane County, Oregon, McKenzie and Middle Fork Willamette River, by Christina A. Appleby; https://www.oregon.gov/dogami/pubs/Pages/ofr/p-0-24-02.aspx

WHAT'S IN THIS REPORT?

This report describes the methods and results of channel migration zone mapping for eastern Lane County, Oregon. This information can help communities plan and prepare for natural disasters.



4. Open-File Report O-24-03, Brookings Tsunami Modeling: Toward Improved Maritime Planning Response, by Jonathan C. Allan, Joseph Zhang, Fletcher E. O'Brien, Laura L. S. Gabel; <u>https://www.oregon.gov/dogami/pubs/Pages/ofr/p-O-24-03.aspx</u>

WHAT'S IN THIS REPORT?

This study evaluates new tsunami modeling results completed for both distant and local tsunamis for the Port of Brookings. The goal is to examine the interaction of tsunamis with fluctuating (dynamic) tides (as opposed to modeling using a fixed tidal elevation such as mean higher high water) and friction to provide an improved understanding of tsunami effects at the mouth of the Chetco River and offshore region. These data are then used to develop maritime tsunami guidance to assist all vessels operating offshore the mouth of the Chetco River and within the estuary.



5. Open-File Report O-24-04, Multi-Hazard Risk Report for Polk County, Oregon, by Matt C. Williams, Nancy C. Calhoun, and Jason D. McClaughry; <u>https://www.oregon.gov/dogami/pubs/Pages/ofr/p-O-24-04.aspx</u>

WHAT'S IN THIS REPORT?

This report describes the methods and results of a natural hazard risk assessment for communities in Polk County. The results quantify the impacts of natural hazards to each community and enhance the decision-making process in planning for disaster.



6. Open-File Report O-24-05, Channel Migration Zone Maps for Johnson Creek, Multnomah and Clackamas Counties, Oregon, by Christina A. Appleby and Lowell H. Anthony; <u>https://www.oregon.gov/dogami/pubs/Pages/ofr/p-O-24-05.aspx</u>

WHAT'S IN THIS REPORT?

This report describes the methods and results of channel migration zone mapping for Multnomah and Clackamas Counties, Oregon. These hazard maps show the areas potentially at risk and the accompanying GIS datasets can be used to identify people, buildings, infrastructure, and lands potentially in harm's way. This information can help communities plan and prepare for natural disasters.



7. Open-File Report O-24-06, Multi-Hazard Risk Report for Douglas County, Oregon, by Matt C. Williams and Jason D. McClaughry; https://www.oregon.gov/dogami/pubs/Pages/ofr/p-O-24-06.aspx

WHAT'S IN THIS REPORT?

This report describes the methods and results of a natural hazard risk assessment for Douglas County communities. The results quantify the impacts of natural hazards to each community and enhance the decision-making process in planning for disaster.



 Maritime Tsunami Response Guidance MTRG-2024-OR-01, Oregon Maritime Tsunami Response Guidance (MTRG) No. 2024-OR-01, Port of Brookings Harbor, Curry County, Oregon, by Jonathan C. Allan;

https://pubs.oregon.gov/dogami/mtrg/MTRG-2024-OR-01 Port-of-Brookings.pdf

WHAT'S IN THIS REPORT?

Maritime response guidance in this document is based primarily on anticipated effects of a maximumconsidered distant tsunami event originating from the eastern part of the Alaska-Aleutian subduction zone (scenario AKMax of the Oregon Department of Geology and Mineral Industries). Smaller distant source tsunamis generated throughout the Pacific Rim will occur more frequently and are likely to cause much less damage than the AKMax scenario. Check with local authorities for more specific guidance that may be appropriate for smaller distant tsunami events. Although the focus of this document is on a distant source tsunami event, general guidance is also given for a much larger tsunami generated by a local earthquake on the Cascadia subduction zone.



9. Open-File Report O-24-07, Multi-Hazard Risk Report for Clackamas County, Oregon, by Matt C. Williams and Jason D. McClaughry;

https://www.oregon.gov/dogami/pubs/Pages/ofr/p-O-24-07.aspx

WHAT'S IN THIS REPORT?

This report describes the methods and results of a natural hazard risk assessment for communities in Clackamas County. The results quantify the impacts of natural hazards to each community and enhance the decision-making process in planning for disaster.



Upcoming DOGAMI publications

- Geologic Map of the Mill Creek Area, Hood River and Wasco Counties, McClaughry, GMS 128.
- Earthquake Hazard Assessment for the Eugene area, Guererro
- Channel Migration Zone Maps for Zigzag River, Clackamas County, Oregon, Appleby
- Landslide Inventory of Grant County, McClaughry
- Multi-hazard Risk Assessment of Linn County, Williams
- Oregon Geologic Data Compilation OGDC-8, Darin
- Mineral Information Layer for Oregon MILO-4, McClaughry
- Landslide Inventory of NW Hood River County, Burns
- Tsunami Evacuation Analysis of Brookings-Harbor and the Columbia River Shoreline, Gabel
- Vertical Structures and Other Tsunami Evacuation Improvements Options in Seaside and Cannon Beach, Clatsop County, Oregon, Gabel
- Slater Creek Landslide Inventory, Burns
- Cascadia Earthquake Sources, Syprus and Wang
- Geologic Map of the Adams Quadrangle, Azzopardi
- Geology of the South Coast, McClaughry and Darin
- Ecola State Park Landslide Risk Analysis, Burns
- Serial Lidar Analysis of Eagle Creek, Burns
- Oregon Coast Earthquake and Tsunami Impact Analysis, Allan

Grants

The following grant opportunities are in the process of being developed or awaiting funding decision. They support DOGAMI's mission to provide earth science information to make Oregon safe and prosperous.

Grant applications awaiting decision, contract, or legislative approval

- 1. Proposal to the National Tsunami Hazard Mitigation Program (NTHMP) describing tsunami related activities (education, outreach, modeling and mapping)
 - Fulfills goals for Key Performance Measure 1 Hazard and Risk Assessment Completion
 - Grant application requesting \$538,837 in Federal Funds (included an estimated \$200,000 to VIMS for modeling and \$13,000 to OEM for travel support). NOAA funded DOGAMI for \$296,496 in Federal Funds. No match is required and full indirect rate can be charged.
 - Focus Areas (*Perform tsunami outreach, implement new tsunami probabilistic modeling*)

 Sustaining support for outreach efforts on the coast; Supporting training opportunities for emergency managers and community emergency response teams; Purchasing needed tsunami signage; New probabilistic tsunami modeling and exposure analyses of communities along the coast of Lincoln and Coos County.
 - Project period September 2024 to August 2025
 - Funded. Seeking retroactive legislative approval, September 2024.

2. U.S. Geological Survey National Landslide Hazards Program

- Fulfills goals for Key Performance Measure 1 Hazard and Risk Assessment Completion
- Grant application requesting \$75,600 in Federal Funds. This grant program does not require a funding match however, one ranking criteria for future funding is the level of in-kind matching funds offered by the Agency. Therefore, DOGAMI will contribute a 50% match of \$75,600 in staff time. Total project funding requested is \$151,200. The Agency will charge a full indirect rate.
- This is a new federal opportunity, a result of the passing of 2019-2020 H.R.8810, the National Landslide Preparedness Act. The bill authorized a national landslide hazards reduction program (NLHRP), which includes a grant program directed at U.S. State Geological Surveys.
- Focus Areas: Landslide inventory mapping over 289 sq. miles along the HWY 26 Corridor between Portland and Mt Hood. An additional landslide mapping techniques short course developed by this project will help other mappers create similar landslide inventories in Oregon and other U.S. States.
- Project period July 2024 to July 2025
- Funded. Seeking retroactive legislative approval, September 2024.

3. FEMA Cooperating Technical Partners (CTP) proposals

- Fulfills goals for Key Performance Measure 1 Hazard and Risk Assessment Completion
- Grant application. FEMA requested DOGAMI to provide three levels of performance for the grant proposals: good, better, best. Therefore, the original total pre-proposal ask ranged from \$317,067 to \$897,181 (Federal Funds). FEMA will fund DOGAMI for \$568,652 in Federal Funds. This grant program does not require a funding match and can charge a full indirect rate.

- Focus Areas:
 - 1. Yamhill County Geohazard Mapping in the amount of \$471,652
 - 2. Lane County Multi-hazard Risk Assessment in the amount of \$87,000
 - 3. Oregon Landslide Response Guide and Outreach in the amount of \$10,000.
- Project period October 2024 to 2027.
- Funded. Seeking retroactive legislative approval, September 2024.
- 4. FEMA Cooperating Technical Partners (CTP) proposals BRIC Oregon Department of Emergency Management Hazard Mitigation Building Resilient Infrastructure Communities and Flood Mitigation Assistance (BRIC/FEMA)
 - Fulfills goals for Key Performance Measure 1 Hazard and Risk Assessment Completion
 - Grant application as a subrecipient through Oregon Department of Emergency Management (OEM) requesting \$107,000 (Federal Funds). A 25% match is required and is being met by lidar data collections from the city of Portland. No indirect charges are allowed.
 - Focus Areas: Post-fire debris flow risk reduction in City of Portland's Surface Water Drinking Supply Watershed, Bull Run, Clackamas and Multnomah Counties.
 - Project period 2024 to 2026
 - Awaiting decision. Submitted to OEM January 2024; awaiting decision.

5. United States Department of Energy (DOE) in collaboration with Lawrence Berkeley Laboratory (LBL) and the U.S. Department of Energy National Energy Technology Laboratory (DOE-NETL)

- Grant application requesting \$320,000 (Federal Funds). A 20% match of \$80,000 will be met by DOGAMI staffing and supplies.
- Focus Area: This program supports a broad government-wide approach to upgrading and modernizing infrastructure, including by strengthening critical domestic manufacturing and associated supply chains to maximize the benefits of the clean energy transition as the nation works to curb the climate crisis, empower workers, and advance environmental justice.
- Project period June 1, 2023 to May 31, 2025
- Legislative approval received November 2023.
- Awaiting decision and contract with partners. Submitted December 2023; awaiting decision.
- 6. US Department of Energy Regional Scale Collaboration to Facilitate a Domestic Critical Minerals Future: Carbon Ore, Rare Earth, and Critical Minerals (Core-CM) Initiative
 - Fulfills goals for Key Performance Measure 2 Geologic Map Completion
 - Grant application. DOGAMI is requesting funding through two program regions; Core 7 and Core 8. For Core 7, DOGAMI is partnering with a research group
 - For Core 7, DOGAMI is partnering with a research group including University of Nevada Reno, California Geological Survey, and Arizona Geological Survey, and University of Utah. DOGAMI will be a subrecipient of the larger possible award, requesting \$200,366 in federal funds. This grant program requires a 20% funding match and can charge a full indirect rate. A 20% match of \$50,177 will be met by DOGAMI staffing and supplies. For Core 8, DOGAMI is partnering with a research group including University Alaska Fairbanks

(UAF), Oregon State University, and the Washington Geological Survey for a total budget of federal funds of \$7,500,000. DOGAMI will be a subrecipient of the larger possible award, requesting \$1,830,088 in federal funds. This grant program requires a 20% funding match and can charge a full indirect rate. A 20% match of \$457,934 will be met by DOGAMI staffing and supplies, as well as geophysical data collections over the project area.

- Focus Areas: Region 8 Regional mapping and rock sampling, analytical work, and airborne data collections of magnetics in NE Grant County and Malheur County. An additional major part of this proposal is targeted community outreach to explain to the public the importance of critical minerals, the need to inventory them, and path forward to produce them as an economic resource. Region 7 DOGAMI's role on this project focuses on community outreach. Collectively, these projects should lead to an expansion of the opportunities for the Northwest Region's mining industries and reduce the United States reliance on importing these critical minerals.
- Project period September 2024 to September 2027.
- Awaiting decision. Final proposal(s) for regions 7 and 8 to was submitted June 24, 2024; DOGAMI would be a subrecipient of a larger award.

Staffing

GS&S has completed a recent recruitment to fill a position for a permanent landslide mapping geologist.

Permanent Natural Resource Specialist 2, Landslide Mapping Geologist – The primary purpose of this position is to serve as a member of the landslide mapping team, building landslide inventories, susceptibility models and maps, and risk assessments for Oregon. The position gathers, evaluates, analyzes, maps, and interprets earth science information, topographic data, and remote sensing data to help identify and map landslide and debris flow deposits and related features. This data is used to inform the management of natural resources and help identify and understand the geology and geohazards at local, regional, and state-wide levels.

DOGAMI welcomed Jessi Wilder into the NRS2 Landslide Mapping position beginning on August 26th. Jessi joins DOGAMI, after receiving a M.S. degree in Geology at the University of Iceland in 2023, with a thesis entitled – Generation of Húsavík-Flatey Fault Rupture Models and Simulations of a Subsequent Tsunami. This work was a comprehensive study focused on modeling earthquake scenarios on the strike-slip Húsavík-Flatey Fault (HFF) in northern Iceland to simulate coseismic tsunami propagation. Her work focused on hazard modeling, mapping, and mitigation planning. Beyond academic studies, Jessi also served with the USGS between 2022 and 2024 training geologic map machine learning and contributing to deposit models for critical mineral resource assessment. Jessi is eager to contribute to landslide mapping, hazard modeling, and public outreach, all to support Oregon's geologic resilience efforts.

GS&S Program Focus Area: Outreach and engagement



The annual meeting of the Geological Society of America (GSA) will convene in Anaheim California, September 22-25. Nine staff from the Geological Survey and Services Program (GS&S) and 3 from the Mineral Regulation and Reclamation Program (MLRR) will attend to participate in professional development and outreach activities, as well as to present research in the geosciences. The listing below includes abstracts of eleven presentations to be given by GS&S scientists at the meeting. DOGAMI GS&S staff shown in Bold Underline in the author lists.

- Burgette, R. R., Guerrero, E.F., and Madin, I.P., 2024, Analyzing Oregon fault scarps with lidar to understand active Cascadia deformation: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-404619, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/404619.
- Scarps cutting late Quaternary geomorphic surfaces throughout the landscape of Oregon provide evidence of ongoing plate boundary deformation. Active faulting likely results from a variety of processes in the Cascadia region including subduction zone strain, vertical-axis block rotation, back-arc and intra-arc extension, and magmatism. High-resolution topographic data offer a way to analyze scarps at a synoptic scale across the region. The state of Oregon has near complete coverage by at least one QL1 (8 points per square meter) airborne lidar survey, and scarps are well-resolved even below areas of dense forest cover. We are analyzing geomorphic detail of mapped scarps to assess relative ages and cumulative offsets of surface-rupturing faulting. We are developing and applying methods to semi-automatically characterize scarp forms and vertical separations to interrogate the densely sampled bare-earth lidar data. This strategy allows efficient and detailed measurement of spatial variations of offset along individual faults and among multiple structures. When combined with regional ages of faulted geomorphic surfaces and deposits, these measurements will provide improved understanding of relative strain rates across this section of the plate boundary zone. Regional analysis of scarp height and displacement-length scaling will contribute to better understanding of the tectonic and magmatic processes that drive surface-rupturing faulting. Investigation of scarp form will measure effects of surface processes that modify scarps between earthquake rupture events across a large climatic gradient. Broad surface-based analysis provides context for detailed site-specific paleoseismic and slip-rate studies to better characterize seismic hazard in the region.

- Swenton, V.M., Appleby, C.A., McClaughry, J.D., and Darin, M.H., 2024, Empowering Oregon communities to act against water scarcity through geologic maps, innovative outreach, and effective communication: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-404907, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/404907.
- Oregon is known for its abundance of water along the dramatic Pacific coastline, in snowcapped mountains, in 150,000 km of streams and rivers, and in thousands of lakes. Despite Oregon's rainy, wet, and green reputation, two-thirds of the state is arid high desert that lies east of the Cascade Range rain shadow. While eastern Oregon communities have long dealt with limited water, population growth and climate change are increasing water demands, turning a perennial concern into an ongoing water crisis. The Oregon Department of Geology and Mineral Industries (DOGAMI) plays a major role in advancing water resource conservation and sustainability in Oregon, by creating high-resolution, data-rich geologic maps and by investing in strategic relationships with Oregon's communities and state and federal partners. Geologic maps are critical for establishing the stratigraphic framework needed to evaluate the 3D geometry and capacity of aquifers, identify flow barriers, model recharge, estimate long-term supply and extraction costs, and assess water quality and contamination risks. As DOGAMI produces more maps to support hydrologic studies, the agency must innovate outreach techniques and effectively communicate information in an engaging and digestible format so that stakeholders can make informed management, risk reduction, and mitigation decisions. DOGAMI, in collaboration with the Federal Emergency Management Agency Cooperating Technical Partners (FEMA CTP), aims to raise awareness about water scarcity, the application of geologic maps to the problem, and to develop a coordinated communications strategy. Initial outreach work is focused on eastern Oregon communities in Umatilla and Harney counties, where recent U.S. Geological Survey STATEMAP-funded geologic mapping characterizes the geo-stratigraphic framework and conditions controlling the distribution of water resources. DOGAMI is working to create engaging brochures, fact sheets, and Esri™ Story Maps that are accessible, understandable, and usable. We will directly connect with communities through workshops and field trips. Distilling complex scientific information into concise and engaging formats will both inform and intrigue the public to learn more about these issues and empower them to act to build a sustainable future.
- <u>Guerrero, E.F.</u>, <u>McClaughry, J.D.</u>, Gaylord, D.R., <u>Walker, R.J.</u>, and <u>Azzopardi, C.J.M.</u>, 2024, Insights into the spatial, temporal, and structural evolution of intersecting fault zones in the south-central Walla Walla Basin, NE Oregon: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-405154, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/405154.
- Recent geologic mapping by the Oregon Department of Geology and Mineral Industries (DOGAMI) has focused on the Walla Walla River basin (WWB) of NE Oregon, with the chief objective to establish its geologic and structural framework. The oldest rocks in the WWB are tholeiitic basaltic lava flows of the Miocene Columbia River Basalt Group (CRBG). CRBG lavas are overlain by upper Miocene-lower Pleistocene sedimentary rocks and upper Pleistocene glacial outburst megaflood slackwater deposits in the Walla Walla Valley. The CRBG is mantled in upland areas by m's of Pleistocene-Holocene loess. Loess locally hosts airfall tephras chemically correlated with the ~7.7 ka cal yr B.P. Mount Mazama and 13.7-13.4 ka cal yr B.P. Glacier Peak eruptions, and a 171-130 ka tephra from an unknown source. Three major fault zones intersect in the WWB: Wallula, Milton-Freewater, Hite. The Wallula fault zone is a set of locally active, WNW-striking right-lateral strike-slip faults and N-S-striking normal faults mapped for ~120 km between Kennewick, WA and Milton-Freewater, OR. West and northwest of the Wallula fault zone strain in eastern Washington is accommodated along ~E-W-trending Yakima Folds. East of Wallula Gap, WA the Wallula fault zone transfers strain to the Hite fault zone across the Milton-Freewater fault zone, a set of NNW-striking linear, vertical to subvertical, normal and right-lateral oblique-slip faults. The Hite fault zone is defined by a 20- to 25-km-wide set of NNE-striking, dominantly down-on-the-west, left-lateral oblique-slip faults, mapped for ~140 km between McKay Creek, OR and Pomeroy, WA. Mapped WWB faults cut the CRBG, with large-scale offset postdating the ~14 Ma Umatilla Member. Distinctive lineaments in loess observed from 1 m lidar DEMs run parallel to or along strike with mapped bedrock faults, suggesting late Pleistocene-Holocene offsets. Global Navigation Satellite System data, although limited in this area, suggests low strain rates, as compared to areas closer to the Cascadia subduction zone. The WWB is, however, a region capable of generating substantial earthquakes; the epicenter of the M 6.0 1936 Milton-Freewater earthquake was relocated to an area south and east of Umapine, OR. This event with intensities reaching MMI VII+, was the most damaging earthquake to occur within Oregon until the 1991 Klamath Falls and 1993 Scotts Mills events.

- Streck, M.J., Cahoon, E.B., <u>McClaughry, J.D.</u>, and Ferns, M.L., 2024, Reassessing composition and distribution of ~44 to 17 Ma volcanic activity across Oregon bearing on the Yellowstone-Siletzia plume interaction ahead of Columbia River Province magmatism: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-404649, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/404649.
- Despite extensive study, numerous questions remain regarding the Columbia River Basalt Group (CRBG) including the exact driving force of this magmatism. Most recently, a model is gaining popularity in which CRBG flood basalts do not result from the initial impingement of a deep-seated rising mantle plume but are a continuation of magmatism associated with the ~53 Ma Siletzia large igneous province. For this model, a critical time interval is the period when the North American plate started to override the plume to the onset of CRBG volcanism. Here, we focus on the composition and distribution of volcanic rocks in the intervening area between Siletzia and the CRBG dike swarms in this critical time window of ~44 to 17 Ma. The overall picture is that volcanism in this region of central and eastern Oregon was nearly continuous during the time period between 44 to ~22 Ma, yet evidence for that is sparser in areas covered by CRBG flood basalts along the Columbia River corridor as well as where covered by Miocene volcanic rocks along the High Lava Plains. Compositional data suggest that possibly except for the earliest part, volcanism was bimodal with abundant rhyolitic rocks (mostly A-type compositions) starting to erupt from 39 Ma onward belonging mostly to the John Day Formation and including now several recognized caldera systems. Most new studies, that include age dating of volcanic rocks of eastern Oregon, reveal ages that also fall in the mentioned bracket such as our new finding of widespread dacites and more mafic lavas with ages of 25 to 19 Ma in a broad area between Burns-John Day-Unity as well as 42-40 Ma basaltic andesite lava flows and andesitic ash-flow tuffs and 40 Ma rhyolite in the eastern part of the Clarno Formation that were on no previous geological maps. This highlights that our picture of ~44 to17 Ma volcanism in central to eastern Oregon (including the area of the early Cascades arc) is likely incomplete, however, currently available data suggest that the Yellowstone-Siletzia plume tracking across Oregon may have resulted in a more diffused volcanic surface expression than a relative narrow track.
- McClaughry, J.D., Burns, W.J., Calhoun, N.C., 2024, Community Risk Reduction Through Lidar-Based Landslide Inventory Mapping in Eastern Oregon: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-404977, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/404977.
- Landslides are common in Oregon, representing a serious natural hazard. A first step to reduce landslide-related damage and losses is by knowing where previous landslide activity has occurred and then take appropriate risk reduction actions. The Oregon Department of Geology and Mineral Industries (DOGAMI) utilizes high-resolution lidar to map the extent and distribution of landslide deposits and provides information such as failure type and age. Inventory maps have been developed for many communities in densely vegetated western Oregon, but few have been created for sparsely vegetated arid regions east of the Cascade Range. DOGAMI received Federal Emergency Management Agency Cooperating Technical Partners (FEMA CTP) funding in 2020 to support lidar-based landslide inventory mapping in Wasco and Grant counties, both located in eastern Oregon. Previous studies cataloged 135 landslides in Wasco and 81 in Grant. New lidar-based mapping delineated 95% more landslides, with 2,693 in Wasco and 1,507 in Grant. New mapping also provides a significantly greater level of confidence and detail, both in terms of spatial extent and landslide characteristics. The activation, reactivation, and distribution of landslides in Wasco and Grant counties is related to geologic conditions such as rock strength, structure, and contacts, but also to steep slopes, accumulations of colluvium, deep valley incision, precipitation, infrequent but very intense or long duration rain or rain-on-snow events, earthquake shaking, certain human activities, or some combination of these factors. During the projects, several community brainstorming meetings were held and landslide risk reduction actions were developed. High priority actions include: 1) use of new landslide inventory maps to determine where future site-specific geotechnical analysis must be performed prior to development, 2) public education and awareness, and 3) updating land use codes. We conclude lidar-based landslide inventory mapping results in significantly improved outcomes over other methods, even in areas of very sparse vegetation, such as eastern Oregon. The substantial increase in landslides identified in Wasco and Grant counties and the improved understanding of the hazard, underscores the critical need to expand lidarbased landslide mapping and risk reduction activities to other communities in eastern Oregon.

- Burns, W.J., Sanders, M., Roering, J.J., Mathews, N., Rengers, K.F., Leshchinsky, B., Olsen, M.J., Calhoun, N.C., De Sousa, D.M., 2024, Using multitemporal lidar to better understand postfire debris-flow hazards in western Oregon: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-401096, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/401096.
- The geology, relief, and precipitation in the Columbia River Gorge (CRG) result in a debris-flow prone landscape with many recorded historic events during the past 100 years. In 2017, the Eagle Creek Fire burned ~50,000 acres in the western section of the CRG on the Oregon side. Airborne lidar was collected before the fire in 2009 and after the fire in 2018. In January 2021, an atmospheric river (AR) triggered debris flows in the Eagle Creek burn area. Sixteen debris flows were inventoried through field work performed during the two weeks following the storm. Post-event lidar data was collected in December 2021. In January 2022, one year later, another AR soaked the same burned area. This event triggered many debris flows; 17 of which were identified in the field. Again, post-event lidar was collected in June 2022. These four lidar datasets were differenced to examine the hillslope and channel processes occurring during AR storms in the postfire landscape. The lidar difference mapping revealed over 200 mass wasting events had occurred during the January 2021 storm. This landslide inventory and local precipitation measurements indicate that the fire: (1) lowered the necessary terrestrial water input (TWI) threshold to trigger debris flows, (2) increased the temporal frequency of debris flows, (3) switched the debris-flow initiation process from a mostly infiltration-dominated process (shallow landslides on hillslopes) to a mostly runoff dominated process (in channel), and (4) decreased the required upslope contributing area for debris-flow initiation sites. We examined the upslope contributing area above the postfire debris-flow initiation sites and found approximately 70% of the postfire debrisflow initiation sites included >50% of the contributing areas is composed of slopes $\ge 25^{\circ}$ with a differenced normalized burn ratio (dNBR) \geq 270. This indicates that steep, burned areas above potential initiation sites promote postfire debris-flow initiation. The high resolution lidar change mapping resulted in the ability to perform detailed, spatially continuous analysis along a debris-flow path. This data improved the ability to understand where and why debris flows grow or deposit in the context of geologic and geomorphic factors like surficial soils, channel gradient, and confinement. These advances will improve the ability to model future debris-flow inundation zones.
- Bennett, S.E.K., <u>Darin, M.</u>, Dorsey, R.J., Stelten, M.E., Sawlan, M.G., Hagstrum, J.T., Thompson, L.A., Gardner, K., Morebeck, C., and Switzer, B., 2024, Geologia de la Sierra de San Jorge margen occidental de la rift del Golfo de California, Peninsula Central de Baja California, Mexico: Geological Society of America Abstracts with Programs. *Vol. 56, No. 5*, doi: 10.1130/abs/2024AM-402193, <u>https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/402193</u>
- La Sierra de San Jorge (SSJ) cruza la divisoria topográfica del centro de la península de Baja California, en el margen SO del límite transformante-rift del Golfo de California. Nueva cartografía geológica de la SSJ y los pasos adyacentes, junto con datos geocronologícos, paleomagnéticos, y geoquímicos, informan la evolución del magmátismo, la tectónica del margen de rift, y la evolución del Mioceno-Plioceno terreno en el centro de la península. Las rocas más antiguas en la SSJ son una secuencia de lavas intermedia, incluyendo una andesita de edad 17.04 ± 0.08 Ma, intercalada con conglomerado volcaniclástico y arenisca eólica que correlacionamos con el Grupo Comondú Superior. La toba de San Jorge es una toba de flujo de cenizas de edad 12.32 ± 0.01 Ma que rellena paleovalles por encima de esta secuencia y es un lecho marcador en la SSJ. Una secuencia superior de lavas máficas rematan la SSJ, incluyendo una andesita basáltica de edad 11.19 ± 0.04 Ma que recubre la toba. Las unidades más jóvenes entran y se apoyan contra la SSJ. En un paso a ~520 m sobre el nivel del mar (snm) al SE de la SSJ, el basalto de la Esperanza se superpone a una discordancia angular menor (5-10°) cortada a través del Grupo Comondú. Reportamos un dato radiométrico Ar/Ar de 9.9 ± 0.1 Ma para este basalto, concurrente con datos paleomagnéticos y edades U-Pb restrictivas. En un paso a ~405 m snm al NO de la SSJ, lavas máficas de edad 3.9–3.6 Ma que recubren un conglomerado volcaniclástico que se correlaciona con la bajada distal oriental del sistema volcánico Sierra de San Francisco con edad de 11–9 Ma y/o el Grupo Comondú en la SSJ. Los sedimentos marinos del Mioceno tardío-Plioceno de la cuenca de Santa Rosalía (CSR) se disminuyen contra el margen NE de la SSJ, a no más de ~200 m snm, y están >200 m por debajo de la divisoria peninsular. Estos depósitos marinos se encuentran ~30-40 km más al NO de los documentado antes, que indica una cuenca marina mucho más larga. La estructura primaria del margen de rift en la SSJ es un monoclinal extensional apuntando NO que se formó por encima de una falla normal inclinanda hacia el NE con propagación ascendente. Inclinación de las rocas volcánicas hacia el NE (15-30°) a través del monoclinal, hacia el Golfo de California, fue el principal mecanismo de subsidencia en la CSR. El margen SO del SSJ está cortado por la falla normal del Mezquital, con inclinación SO, y por la falla dextral de Bonfil, con orientación NNO.

Darin, M., Ogilvie, I., Harlaux, M., Reynolds, J., Chafetz, D., Ball, L., and Gustafson, C., 2024, Structural evolution of sedimenthosted Li-B deposits at rhyolite ridge and regional correlation of Li-enriched ash-flow tuff across Clayton Valley, southwestern Nevada: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-402276

https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/402276

Global interest in decarbonizing the energy industry has driven a surge in demand for Li that makes sediment-hosted Li deposits associated with volcano-sedimentary systems an emerging resource target. Sediment-hosted Li (and B) deposits at Rhyolite Ridge (Nevada) are poised for development, yet critical aspects about the Li system – from the original Li source to the structural setting and its relation to a hypothetical 'Silver Peak caldera' – are not well understood. We use geologic mapping, structural analysis, petrography, geochemistry, U-Pb geochronology, and airborne electromagnetic (AEM) data to elucidate the structural evolution and probable source of Li enrichment in lacustrine strata of the Cave Spring fm at Rhyolite Ridge.

Three major events set the stage for regional Li-enrichment and basin development: (1) extension via low-angle detachment faults and sedimentation in a broad Esmeralda basin from ~15 to 8 Ma; (2) regional emplacement of the ~6.05 Ma Rhyolite Ridge tuff (RRT); and (3) a switch to high-angle transtensional faulting and dismemberment of the Esmeralda basin into smaller, hydrologically closed, half-graben basins since ~6 Ma (e.g., Cave Spring, Clayton Valley, N. Fish Lake Valley). Our results indicate that the Cave Spring fm was deposited in a syn-extensional, modified half-graben from ~5.8 to 4.7 Ma, that Li-B enrichment was likely syndepositional, and that WNW-directed extension and subsidence progressively migrated westward since then.

The Cave Spring fm overlies local metaluminous silicic tuffs and lavas of the Argentite Canyon fm and the RRT that contain unusually high Li up to 358 ppm (mean = 70 ppm). AEM data reveal moderately conductive structure at depths of ~300–500 m below the central Silver Peak Range that is incompatible with a thick, resistive intra-caldera RRT inferred at depth, refuting the existence of a concealed 'Silver Peak caldera' source for the RRT. We identify and geochemically correlate outcrops of RRT with similarly high Li from northern Fish Lake Valley to the Montezuma Range that suggest confined deposition in a ~80 km-long, NW-SE-oriented paleovalley. Our results suggest the RRT as the primary source of Li in both brine and sedimentary deposits throughout greater Clayton Valley, which may support regional exploration and promote enhanced efforts in these common structural settings across the Basin and Range Province.

- Dolby, G., Munguia-Vega, A., Dorsey, R.J., Bennett, S.E.K., <u>Darin, M.</u>, Gardner, K., Araya-Donoso, R., Davalos-Dehullu, L., Baty, S., Biddy, A., Andreev, V., Lira-Noriega, A., Wilder, B.T., Cortez, D., Culver, M., and Kusumi, K., 2024, A new working model for co-evolution of plant and animal species on the Baja California Peninsula from genomic and geologic data: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-404092, https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/404092.
- For nearly 30 years, biologists have documented a striking pattern of intra-species genetic divergence on the Baja California peninsula in dozens of disparate species. Evolutionary theory predicts that when such a pattern is shared among species the cause is extrinsic (e.g., environmental, climatic, physiographic, geological). The leading hypothesis within biological literature has been that genetic divergence was facilitated by flooding across the central peninsula by a seaway between ~3-1 Ma, resulting in separation of northern and southern populations. However, new detailed geologic mapping from the Baja GeoGenomics consortium reveals evidence for continuous terrestrial environments during the last ~30 Myr in a ≥40-kmwide \sim E-W region of the central peninsula that straddles the modern-day crest, conclusively refuting the seaway hypothesis. Through integration of tectonic, volcanic, and sedimentological evidence with genomic (DNA) and gene expression (RNA) data for plants and animals, we are developing a new working model for Earth-life evolution on the peninsula over the last ~5 Myr. In this model, rift-related uplift drives the growth and dissection of topography, causing increased microenvironmental heterogeneity that populations differentially adapted to in the north and south. This is evidenced by widespread, statistically significant niche divergence in populations between northern and southern Baja in 21 studied taxa. This pattern is supported by strong differences in gene expression in northern and southern populations of two lizard species, particularly in genes relating to metabolism, which may indicate different diet or energy requirements between the regions. Habitats in the north and south then shifted due to glacial and interglacial periods, indicated by hindcasting the estimated niche conditions of those 21 taxa. With ongoing analyses, we expect to find genomic signatures of differential natural selection and adaptation within these species due in part to monsoon-driven rainfall differences. The significance of this work is twofold: it demonstrates the importance of incorporating geological data into evolutionary hypotheses and it cautions how mis-assigning cause-effect relationships in individual Earth-life systems can bias our fundamental understanding of how Earth processes shape biological evolution writ large.
- Gardner, K., Hasiotis, S., Dorsey, R.J., Darin, M., Hausback, B., Bennett, S.E.K., Heizler, M., and Dolby, G., 2024, evidence for terrestrial Origin of the Pliocene San Regis Beds, central Baja California Peninsula, Mexico: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-401950,

https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/401950.

A Pliocene-Pleistocene cross-peninsular marine seaway has been proposed to explain genetic divergence between northern and southern populations of land, plant, and animal species along the Baja California peninsula. The location of the hypothetical seaway is the low-lying San Ignacio Trough that trends NE-SW across the central Baja California peninsula. Although the seaway hypothesis has gained favor in genetic studies, it has not been tested with geologic data. In this study, we tested the seaway hypothesis through a detailed stratigraphic, sedimentological, geochronologic, and ichnological study of deposits that are well exposed at Mesa San Regis ~12 km east of San Ignacio. The informally named San Regis beds are at least 27 m thick, and not more than ~40 m thick. They contain interbedded tephra dated at 4.29 ± 0.04 Ma, and are capped by a Mgandesite flow dated at 3.70 ± 0.01 Ma (40Ar/39Ar). Four measured sections reveal stacked, fining-up intervals of pebbly sand to silt and mud with abundant calcrete and few preserved sedimentary structures. Calcic paleosols commonly occur at the tops of fining-up intervals and display varying stages of development. Ichnofossils (i.e., burrows) include Naktodemasis, Coprinisphaera, Celliforma, Parawanichnus, and Megaichnus, formed by various soil bugs, beetles, bees, ants, and large mammals, respectively, and common rhizocretions, rhizotubules, and rhizohaloes formed from roots of groundcover and shrubs. No marine fossils have been observed. The presence of stacked paleosol sequences, cross-bedding, and terrestrial trace fossils indicates that the San Regis beds accumulated in broad channels, point bars, and floodplains of a low-gradient intermittent river system. Ichnofossils, paleosols, and sedimentology of the San Regis beds are all diagnostic of deposition in a terrestrial environment, in a semi-arid climate with ample plants where evaporation was greater than precipitation to promote accumulation of pedogenic carbonate. All sedimentary deposits younger than the San Regis beds are thin and accumulated in alluvial, fluvial, and playa lake depositional settings. Collectively, these findings refute the hypothesis for a cross-peninsular seaway and suggest that alternate hypotheses, such as glacial refugia and regional rainfall variations, could explain the genetic divergence pattern.

Dorsey, R.J., <u>Darin, M.</u>, Bennett, S.E.K., Hausback, B., Gardner, K., Niemi, T., Busby, C., Graettinger, A.H., Salgado Munoz, V.O., Martinez Gutierrez, G., Morebeck, C., Usher, E., Heizler, M., Pecha, M.E., Stelten, M.E., Schmitt, A.K., and Dolby, G., 2024, Miocene tectonic and stratigraphic eveolution of the central Baja California Peninsula and rapid marine flooding into the Gulf of California at ca. 6.3 Ma: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-402328.

https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/402328.

The central Baja California peninsula contains a record of crustal deformation, sedimentation, magmatism, and geomorphic changes driven by tectonic evolution of the Pacific-North America plate boundary over the past 30 Myr. Here we summarize results from two collaborative studies: the Baja Basins program that trained undergraduate students in field-based research, and the Baja GeoGenomics project that is testing hypotheses for N-S genomic divergence in modern plants and animals along the peninsula. This abstract focuses on Miocene evolution of the central Baja California region as determined from geologic mapping, stratigraphic analysis, Ar/Ar and U-Pb ages of volcanic rocks, and U-Pb ages of detrital zircon (DZ) from sandstones and tuffs. We divide the Comondú Group into: (1) ~33–23 Ma sandstone and conglomerate including the El Salto Formation at the base; (2) ~23-19(±2) Ma tuff breccias and lahar deposits; and (3) ~19(±2)-11 Ma intermediate lavas, breccias, and pyroclastic rocks. The Comondú Group is interpreted to record westward migration of arc magmatism in response to steepening of the Farallon slab. The change to a dextral-oblique plate boundary ca. 12.3 Ma led to the end of subduction and a change to slab-window magmatism. Upper Miocene (12-6 Ma) rocks include tholeiitic basalts, bajaites, thick tuff breccias and dacite dome complexes, rift-transition bimodal volcanics near Santa Rosalía, and >10-Ma marine deposits (San Ignacio Formation) on the western peninsula below 200 m elevation. Age data define a magmatic gap and regional unconformity from 8.8 to 6.4 Ma, when plate-boundary dextral strain was becoming localized into the present-day Gulf of California prior to marine incursion. The Boleo Formation in the Santa Rosalía basin contains marine-deltaic gravels and sands that pass laterally into distal gypsum facies. DZ ages from the basal Boleo limestone yield a maximum depositional age of 6.35 ± 0.21 Ma, nearly 1 Myr younger than a previous age estimate. This dates earliest marine flooding into the central Gulf of California that resulted from linking of strike-slip faults and rapid subsidence in pull-apart basins during onset of sea floor spreading and related hydrothermal activity. Marine incursion was geologically instantaneous at ca. 6.3 Ma along ~1,000 km of the plate boundary, with unknown but potentially large impacts on Earth-life evolution.

- <u>Appleby, C.A.</u>, 2024, Dynamic riverscapes: Channel migration zone mapping for the McKenzie River, Oregon: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, doi: 10.1130/abs/2024AM-404988, <u>https://gsa.confex.com/gsa/2024AM/meetingapp.cgi/Paper/404988</u>.
- The McKenzie River represents a dynamic fluvial system in the southeastern end of the Willamette River basin, Oregon. Despite significant anthropogenic changes during the 20th century, including construction of large dams, levees, revetments, and other confining structures, more than 40 km of the banks of the McKenzie River have migrated laterally by dozens if not several hundred meters since the late 1960s, threatening people and infrastructure.
- The Oregon Department of Geology and Mineral Industries (DOGAMI) produced channel migration zone (CMZ) maps for the lower 108 km of the McKenzie River in eastern Lane County, Oregon. The components that comprise these CMZ maps include: the active channel; historical migration area; high, medium, and low erosion hazard areas; areas subject to avulsion; and flagged stream banks. The method used was primarily based on the interpretation of historical aerial photographs and lidar-based topographic, geologic, and flood inundation maps. This study shows that modern channel migration is concentrated in the lower 42 km of the river where avulsions and bank retreat 100 to more than 300 m have been recently observed.
- CMZ maps are designed to aid in community planning, raise awareness of flood and erosional hazards, and inform decisions about emergency management and land use. The maps may be used to identify which buildings, critical facilities, transportation infrastructure, and utility lines are potentially at risk from channel migration and to prioritize areas for pre-disaster risk reduction. CMZ maps can also be used to identify areas where the modern active channel has moved beyond the Federal Emergency Management Agency's regulatory floodway in their Flood Insurance Rate Maps.
- These CMZ maps are the first of their kind published for the McKenzie River. Consequently, they serve as an important baseline from which future morphological changes may be assessed. For example, these datasets can be used to determine if erosion rates are changing through time, or for evaluating how channel migration responds to events, such as large floods, wildfires, or the removal of dams. Finally, these data provide critical information to better understand the impact of climate change and land use modifications.

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Ruarri Day-Stirrat, Director & State Geologist

Date: September 9, 2024

Regarding: Agenda Item 9 - Director's Report

Director Day-Stirrat will deliver his report on the following topic:

1) Agency Update

Proposed Board Action: The Board will not be asked to take an action on this item.

Staff Report and Memorandum

To: Chair, Vice-Chair, and members of the DOGAMI Governing Board

From: Lori Calarruda, Executive Assistant

Date: September 9, 2024

Regarding: Agenda Item 10 – Confirm Time and Date for Next Quarterly Meeting and Board Retreat/Special Meeting (October 15, 2024)

Currently the next DOGAMI Quarterly Board meeting is scheduled for Thursday, December 12, 2024 in Portland or via Zoom.

Currently the Board Retreat and Special Meeting are scheduled for Tuesday, October 15, 2024.

Proposed Board Action: The Board may be asked to take action on this item by Confirming or Amending the currently scheduled Board meeting date.