

**GOVERNING BOARD
OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES**

**December 1, 2022
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 11:45 a.m. on the meeting day to lori.calarruda@dogami.oregon.gov. Written comments received will be distributed to the Board.

Dial: 1-253-215-8782

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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: www.oregon.gov/dogami.

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| 8:30 a.m. | Item 1: | Call to Order – Chair Scott Ashford |
| 8:35 a.m. | Item 2: | Introductions – Chair Scott Ashford and Staff |
| 8:40 a.m. | Item 3: | Introduction of New Board Members
Briefing: The Board will not be asked to take an action on this item |
| 8:45 a.m. | Item 4: | Review Minutes of September 27, 2022 Board Meeting
Board Action: The Board will be asked to take an action on this item |
| 8:50 a.m. | Item 5: | Confirm 2023 Board Meeting Dates
Board Action: The Board will be asked to take an action on this item |
| 9:05 a.m. | Item 6: | Financial Report – Steve Dahlberg, Chief Financial Officer
Board Action: The Board will be asked to take an action on this item |
| 9:15 a.m. | Item 7: | Civil Penalties – Sarah Lewis, MLRR Program Manager, and Cari Buchner, Mining Compliance Specialist
Board Action: The Board will be asked to take an action on this item |
| 9:45 a.m. | Break | |
| 10:00 a.m. | Item 8: | Technical Presentation: Post-Fire Debris Flow – Bill Burns, Engineering Geologist
Briefing: The Board will not be asked to take an action on this item |
| 10:40 a.m. | Break | |
| 10:50 a.m. | Item 9: | MLRR Update – Sarah Lewis, MLRR Program Manager
Briefing: The Board will not be asked to take an action on this item |
| 11:20 a.m. | Item 10: | GS&S Update – Jason McClaghry, Interim GS&S Program Manager
Briefing: The Board will not be asked to take an action on this item |
| 11:30 a.m. | Item 11: | Director’s Report – Ruarri Day-Stirrat, Director
Briefing: The Board will not be asked to take an action on this item |

11:40 a.m. Item 12: Public Comment

Only written comments received prior to or by 11:45 a.m. on the day of the meeting will be accepted

11:45 a.m. Item 13: Board Adjourn

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: November 15, 2022

Regarding: Agenda Item 4 – Review Minutes of September 27, 2022 Board Meetings

Attached are draft Board Minutes from the September 27, 2022 Board meeting.

Proposed Board Action: The Board Minutes of September 27, 2022 Board meeting be Approved/Approved as Amended/Not Approved.

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

Tuesday, September 27, 2022

8:30 a.m.

Virtual Public Meeting

1) Call to Order: (Scott Ashford, Board Chair)

Chair Scott Ashford called the meeting to order at 8:32 a.m.

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

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

Laura Gabel, Coastal Field Geologist

Christina Appleby, Legislative Coordinator/Geohazards Analyst

Jeff Lulich, Reclamationist

Becca Misho, Reclamationist

Telicia Hixson, Natural Resources Specialist Intern

Dayne Doucet, Consolidated Mining Permit Lead

Cari Buchner, Mining Compliance Specialist

Others in attendance:

Diane Lloyd, Department of Justice (DOJ)

Sione Filimoehala, DAS Office of the Chief Financial Officer

Erica Medley, Member of the public/new Board Member starting 9/28

Anne MacDonald, Member of the public/new Board Member starting 9/28

1 3) Introduction of New Board Members:

2 Chair Ashford introduced new Board Members Anne MacDonald and Erica Medley, who were
3 confirmed by the Senate on Friday, September 23, 2022. Their terms begin on Wednesday,
4 September 28, 2022.

5
6 Erica Medley is an Engineering Geologist, and has been working for the Army Corps of Engineers for
7 ten years; her specialty is in quantitative risk assessments for high-risk federal dams.
8

9 Anne MacDonald is a geomorphologist, environmental and engineering geologist currently working
10 for Clean Water Services in Washington County.

11
12 **4) Review Minutes of June 16, 2022 and July 13, 2022 Board Meetings:**

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

14
15 Board Action: **Jeremiah moved to approve the minutes of June 16, 2022 and July 13, 2022 as**
16 **submitted. Kozlowski seconded. Motion carried.**

17
18 **5) Financial Report:**

19 Steve Dahlberg, Chief Financial Officer, presented the DOGAMI FY2021 Budget Status Report, as of
20 July 31, 2022, for the Geological Survey and Services (GS&S) and Mineral Land Regulation &
21 Reclamation (MLRR) programs.

22
23 Dahlberg stated the financial actuals and projections are in the Board Packet, and his presentation
24 will be on highlights and a financial summary.

25
26 For the highlights, Dahlberg said Legislative Days were last week, and DOGAMI's request for approval
27 to apply for a USGS Data Preservation Grant was approved. This past quarter, DOGAMI received
28 three grant awards: BLM \$75,000, over three years; NOAA \$400,000, over one year; and FEMA \$1.1
29 million, with multiple awards spanning three years. The Lidar Consortium has many projects and will
30 finish up two Lidar projects, one for Elliott State Forest in Coos County, and one in Klamath County.

31
32 DOGAMI is expecting the CFO Analysts recommendations of its budget and POPs later this week. The
33 Agency will have an opportunity to appeal the analyst's recommendations within 48 hours, which will
34 then be followed up with an in-person meeting in Salem to discuss the merits and the values of the
35 POPs.

36
37 Currently, GS&S has a General Fund budget of \$6.4 million, with planned expenditures of \$5.2
38 million, resulting in being \$1.2 million under budget; which is 18.5%. This trend continues to show
39 staff are working more on Federal Funds resulting in less time on General Fund. This also has an
40 impact of additional indirects, which are charged to Federal Funds, that actually benefit the General
41 Fund. The Agency has started specific project work that had previously been put on hold; which
42 include increased data processing efficiency, critical mineral research, and continued post-fire debris
43 flow research.

44
45 Other Funds and Federal Funds are very strong. Federal Funds continues to have a strong outlook,
46 and the current ratio between the two is 15% Other Funds and 85% Federal Funds. As a reminder,
47 federal funders are BLM, FEMA, NOAA, and USGS, and for Other Funds, the largest three funders are
48 the Department of Land Conservation and Development (DLCD), the Universities, which are the
49 University of Oregon and University of Washington, and Department of State Lands (DSL). The
50 Agency is currently developing some new grant proposals for Other Funds. The Agency is going to be
51 about \$1.5 million under the limitation budget in Other Funds. Federal Funds has a \$5.8 million
52 limitation budget, and the Agency will spend \$5.4 million.

53
54 MLRR's overall workload is increasing, and staff are working hard to keep up with it. Revenues are
55 meeting expectations and steady spending are resulting in meeting the 6-month operating reserve

56 target. MLRR's budget is \$4.3 million and the expenditures are coming in at \$4.1 million; leaving the
57 Program \$200,000 under budget.

58
59 Chair Ashford asked if the \$5.5 million budget is what has been approved by the Legislature to spend,
60 and also what is the difference between the budget and what is spent on grants. Dahlberg explained
61 the Agency asked the Legislature for the specific amount to spend, which was approved, but they do
62 not determine where the money comes from.

63
64 Chair Ashford then asked if being underbudget on Federal Funds means the Agency returns some of
65 the money. Dahlberg said it is two different things, the goal is to meet the needs and the
66 requirements of the federal grant and to spend the money that has been approved for DOGAMI to
67 spend.

68
69 Dahlberg went through the projections requested by Chair Ashford. He explained the General Fund
70 projection is off by roughly 9%, as there was reduced spending in June and July due to increased
71 Federal Funds.

72
73 Federal Funds represents about 85% of the combined Other Funds and Federal Funds grant revenue
74 and expenses for the biennium. The shift in personnel cost from General Fund is based on the
75 current grant load, as well as the increased Lidar work. Dahlberg said the projection is off about 13%.

76
77 Other Funds has fewer grants than planned and is off by about 10%, which is due to a strategic
78 decision to go after larger grants; there is an expectation the Agency will have more grants in the
79 next biennium.

80
81 MLRR Other Funds is driven from permit fees. The Program has a very consistent expense trend and
82 personnel projection model that has been dialed in; the projections are just as predicted with a
83 variance of 6%, which is on target.

84
85 Dahlberg said DOGAMI is doing well with a very healthy outlook for the future. He is confident in the
86 projections and continues to update them. The Agency is looking forward to continued partnerships
87 with various State and federal agencies to meet their needs and requirements. DOGAMI works as a
88 team as it drives towards long-term success. The Agency keeps the LFO and CFO analysts, as well as
89 the Governor's Office, updated on its progress.

90
91 Chair Ashford said he is happy to see that the trends and projections are doing well and it is great to
92 see how the information on the grants now allows staff the ability to make a conscious decision to
93 focus on the larger grants.

94
95 Kozlowski said it is great to see where the Agency is, compared to a couple of years ago, which is very
96 different. It is exciting to see the analytics and be able to compare where the Agency is and what the
97 projections are. She has greater confidence in the numbers. It is an excellent job! Jeremiah dittoed
98 Kozlowski's comments.

99
100 Board Action: **Kozlowski moved to accept the Budget Status Report as presented. Maffei**
101 **seconded. Motion carried.**

102
103 **6) GS&S Grant History and New Grant Development:**

104 Steve Dahlberg, Chief Financial Officer, and Jason McClaughry, Interim GS&S Program Manager,
105 presented the GS&S Grant History and New Grant Development.

106
107 Dahlberg stated his presentation is on the GS&S Active Grants. The focus has changed from many
108 grants to fewer but larger Federal Funds and Other Funds grants. The funding trend shows the
109 overall revenues are still very good, even with fewer awards. The main area that has actually
110 reduced is Other Funds. This information is tracked and updated quarterly, and includes the
111 available balance and forecasted revenues, which helps to show the workload for staff.

112
113 In FY20 and FY21, there were over 40 grants worth \$6.7 million to \$9.5 million, and now it is 27
114 grants worth \$8.5 million. Lidar grants are trending up with awards being an average of \$3 million;
115 they take less staff time because 85% of the cost and revenue goes directly to a third party. For Lidar,
116 there are three milestones: 40% when it is flown, 30% upon first delivery of data, and 30% for final
117 version of that data.

118
119 Chair Ashford asked when the Agency considers it revenue. Dahlberg said revenue is generated at
120 the time of invoice. Outstanding invoices are monitored and tracked, with gentle reminders being
121 sent out; there is currently only one customer that is over 30 days.

122
123 Dahlberg displayed and explained different graphs showing the same information in different formats
124 for the revenue and funding mix trend. Kozlowski asked about the increase in FEMA funding and if it
125 was due to the fires. McClaughry answered that it is driven by the amount of funds available in the
126 program authorized by Congress, and what the Agency decides to apply for; in addition to the fires.

127
128 Other Funds Non-Lidar changes over time based upon the agency needs and their requirements. For
129 this biennium, DSL, DLCD, and the Universities, have actually increased their percentage of the total
130 mix. Ashford asked if these are fulfilling DOGAMI's role-serving other departments within the State.
131 Dahlberg answered yes, the Agency is helping these other departments meet their needs with its
132 expertise.

133
134 Dahlberg shared a chart with the intent to show how long the existing grant balance would last with
135 the assumption no new grants were received; DOGAMI's work would continue into FY24. This is not
136 where the Agency is at, its normal trend of revenues are over \$3 million.

137
138 Dahlberg reviewed the Grant Direct Expenses without indirect costs; it represents the actual
139 workload DOGAMI has available for staff to work on. He said the intent here, is to show the
140 remaining direct balance or workload over the last year has grown. He shared another slide with
141 Lidar, which has a different cost structure. All grants showed a holding pattern around \$3.5 million.
142 When DOGAMI applies and is awarded new grants, it positively impacts the remaining direct expense
143 and increases the available workload.

144
145 Dahlberg recognized Fiscal Analyst Emil Petcov, for his work on reviewing and compiling all the data.
146 The information will be updated quarterly in the grant tracking sheets.

147
148 McClaughry presented the New Grant Development for GS&S. He stated building relationships is
149 essential in grant development and within GS&S. For the benefit of the new Board Members and to
150 frame the particular grants the Agency goes after, he reviewed the basic structure of the GS&S
151 Program. GS&S is split into six programs: landslide inventory and landside inventory mapping, flood

152 and channel migration, earthquake and seismic hazards, tsunami and coastal erosion, geology and
153 mineral resource mapping. Since 2007, the foundation to all of these has been the collection of high
154 resolution Lidar topography, which is data essential to all projects now, and many of the safety and
155 federal partners as well.

156
157 Much of the relationship building has to do with collaboration with State, local, and federal partners
158 in looking at developing and building projects that support both Agency statute and mission. He
159 reviewed the grants by funder and the different GS&S programs to show which ones are Federal
160 Funds and Other Funds. As an example, McClaughry stated the USGS STATEMAP Program has
161 supported geologic mapping at DOGAMI since 1992, and has brought in nearly \$4.5 million to the
162 Agency for staff work. He added a variety of other partners, including other federal government
163 agencies and many State agencies, rely on DOGAMI's work, and from time-to-time will come to the
164 Agency with ideas for projects, or staff develop those projects through conversations with those
165 partners.

166
167 McClaughry broke the grant development down into three basic parts: Federal Grant Development,
168 Need-based Grant Development, and Responsive Grant Development.

169
170 Federal Grant Development: Federal competitive grants that align with key GS&S program areas.
171 These are annual programs that DOGAMI competes against others for, but there is no guarantee of
172 receiving them. These are reliant on staff to build good projects, and write very effective proposals
173 to convey the need for this funding to come to the State of Oregon to support our projects. They
174 require regular engagement with federal program staff, including the Director level of engagement
175 with Association of American State Geologists (AASG) to continue to learn about programs as they
176 develop new opportunities. Staff also engage in advisory committees of Oregon stakeholders; build
177 long-term partnerships with communities and local/state/federal collaborators; develop long-term
178 mapping or research strategies (5-10 years); and develop proposals based on the needs.

179
180 Need-based Grant Development are non-competitive, aligned with the GS&S Program areas, and are
181 typically where partners, such as other State agencies, come to DOGAMI with a particular issue they
182 would like to address, and believe that geologic mapping, landslide mapping, or other hazard
183 assessments will help them answer their questions and needs. Attending meetings and workshops
184 on a regular basis lays the fundamental groundwork for building long-term partnerships. DOGAMI's
185 consistent engagement with stakeholders leads to sharing of ideas, concerns, and opportunities for
186 collaborations. DOGAMI has expertise recognized by the notoriety of the staff. DOGAMI has
187 developed long-term community-based mapping and research strategies that lead to either
188 Interagency Agreements or longer-term Memorandums of Understanding, to support projects and
189 the Agency coming in accomplishing goals.

190
191 Responsive Grant Development is based on the Agency's responsiveness to events that happen.
192 McClaughry used the Eagle Creek fire, that erupted in the Columbia River Gorge in 2017, as an
193 example. Following those fires, Erosion Threat Assessment Reduction Teams (ETART) go in and focus
194 on what are the risk to public health and safety, property, infrastructure on State and private lands,
195 and they recommended a research protocol following the fires, that the State needed to understand
196 post-fire debris flow and risk. The State did not have funds to conduct the studies, so DOGAMI
197 responded by applying for grants through FEMA Cooperating Technical Partners (CTP) grants to
198 conduct the critical post-fire debris flow research. DOGAMI was awarded \$660,000 for research and
199 another \$100,000 to collect new Lidar. Additional funding came from the USGS to support that post-

200 fire debris flow assessment, and that research is ongoing and will be a big part of the future for GS&S
201 research.

202
203 McClaughry reviewed the GS&S Grand Development Process flowchart, discussing in length all the
204 steps in the process from how it starts by identifying the grant opportunity, to submitting a grant
205 application to get it funded. McClaughry reiterated that building the long-term partnerships and
206 relationships is important for this lengthy process.

207
208 Jeremiah asked how stakeholders are chosen to participate in the advisory committees for Lidar.
209 McClaughry said it starts with identify other State agencies and partners to determine who to reach
210 out to and then bring them in. Chair Ashford asked how someone would go about indicating their
211 interested in participating on the team. McClaughry said to contact himself or Dr. Reed Burgette for
212 Lidar.

213
214 Chair Ashford asked Dahlberg how much of the Lidar projects revenue covers staff. Dahlberg replied
215 it is about 15% of the revenue.

216
217 Teeman said she applauded the work that has been done to setup this process to get grant money.
218 She knows from experience what a delicate dance it can be when going after grants and identifying
219 whether there is enough staffing to complete the work, yet needing to constantly be looking for
220 additional sources of research grant money, so she really appreciates it.

221
222 Kozlowski applauded as well, she appreciated the high-level evaluation by Dahlberg and it was very
223 informative.

224
225 Chair Ashford said he appreciates the thoughtfulness of the team and the process they go through to
226 go after grants that are within the Agency mission, and can be done; before the Agency went after all
227 grants no matter if made the money or not.

228
229 Briefing: **No Board Action Required.**

230
231 **7) Agency Key Performance Measures Annual Update:**

232 Laura Gabel, Coastal Field Geologist, reviewed the Agency's annual Key Performance Measures.

233
234 Gabel stated KPMs 1-5 are for Fiscal Year 2022, which is July 1, 2021 through June 30, 2022. KPM 6 is
235 the Annual Assessment of the Board and consists of 15 questions the Board will answer.

236
237 **KPM 1 – Hazard and Risk Assessment Completion:**

238 Percent of population residing in Oregon Urban Growth Boundary Areas (UGBs) that have completed
239 geologic hazard and risk assessments that are suitable to initiate Department of Land Conservation and
240 Development goal 7 planning for earthquake, landslide, tsunami, coastal erosion, volcanic or flooding
241 hazards.

242
243 The target was 62% and the actual was 68%. Chair Ashford said it looks like work has been done in
244 every UGB. Gabel said she was not sure but would find out and let them know at the next meeting.

245
246 **KPM 2 – Detailed Geologic Map Completion:**

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

249
250 The target was 66% and actual was 62.80%. Gabel said mapping is being done but not all done in the
251 populated areas as captured by the metric.

252
253 **KPM 3 – Lidar Data Completion:**

254 The percent of Oregon with lidar data at USGS quality of Level 2 or better (density and accuracy). The
255 higher standards are lower numbers.

256
257 The target was 56% and actual was 60.50%.

258
259 **KPM 4 – Percent of Mine Sites Inspected biennially:**

260 The percent of permitted mine sites inspected biennially.

261
262 The target was 50% and actual is 7%. This is reporting currently on the first half of the 2021-2023
263 biennium. Starting in 2 years DOGAMI will be reporting this differently.

264
265 **KPM 5 – Customer Service:**

266 Percentage of customers rating their satisfaction with the agency's customer service as "good" or
267 "excellent": helpfulness, overall customer service, accuracy, expertise, availability of information, and
268 timeliness.

269
270 The goal is to have 95% target in the six areas, and this year's averages were between 74% and 80%.
271 Gabel said there were roughly 100 responses out of 2000 emails sent. Chair Ashford asked if the
272 number of responses is typical and if there is any additional information. Gabel replied that it has
273 typically never been over 200 responses.

274
275 Jeremiah asked to have Director Day-Stirrat respond to this, based on her conversations with him
276 with regards to MLRR specific concerns. Per her observation she believes the 2018-2019 change was
277 when Sarah Lewis was appointed the MLRR Supervisor and there was a tremendous focus on
278 customer service in permit turnaround time.

279
280 Day-Stirrat said he looked at the numbers, and this year's respondent count is low relative to the
281 past, so that makes one to one comparison quite difficult. There are some themes in the comments
282 which have a mixture of validity. One key comment is around communication and speed of
283 communications with regard to permits. The number of permits have gone up and inspections have
284 gone down; those two factors are playing into those comments. Staff are overwhelmed right now
285 with permits, and this is leading to a slower than optimal time in communicating with permit holders.
286 Day-Stirrat said communication from staff to permittees has been incredibly constructive, well
287 thought out, many options were presented to permittees to help move a permit forward; and there
288 was a significant amount of time involved in putting that communication together. A few comments
289 had to do with the number of times a permittee contacted the Agency, it does take time to respond
290 to each email or phone call. MLRR staff are overwhelmed on permits, and overwhelmed on
291 communication, which is leading to a general slowdown; and it is something the Agency will work on.

292
293 Chair Ashford asked if there is any differentiation between the MLRR and GSS Programs. Day-Stirrat
294 said from the comments you can breakout which part of the Agency the respondent dealt with; it is

295 mixed. The strongly negative comments are individual responses. Day-Stirrat said what this survey
296 seeks to do is to wrap some of that into a bit of a higher level, and what the Agency will try to do is to
297 look at the helpfulness and timeliness, and see what can be done in terms of being more responsive
298 and more communicative in the correct way that allow permits to move forward. One he wanted to
299 address here concerns expertise. DOGAMI has had some senior retirements and if someone has/had
300 34 years in an Agency, yes, you lose expertise, but DOGAMI is trying to replace those positions. He is
301 not too concerned about that particular one, but he is somewhat concerned about the overall
302 sentiment, and Leadership/DOGAMI will attempt to address that over the next year.

303

304 A lengthy conversation took place.

305

306 Chair Ashford said this should come back to the Board, schedule a working session for a future
307 meeting, and maybe at the next meeting talk/discuss a little more to find ways to improve collection
308 of that data, and maybe help inform where the Agency needs to improve.

309

310 Kozlowski asked if two separate surveys are sent out to each Program. Gabel said yes, and explained
311 they both get the same questions. Kozlowski would like to see the differentiation between the two
312 so the Board can more closely focus on where to best support the Agency. Gabel said approximately
313 40 people responded to the GS&S side, and 74 responded for the MLRR side; there's so much more
314 interaction between stakeholders and staff on the MLRR side than the GS&S side.

315

316 Jeremiah would like to see the separated results and thinks it is really important. She said the
317 feedback she has received is the lack of simple status updates and not having timely responses to
318 that, so they think that the response lack of responsiveness is targeted to their individual matter, and
319 really it's an agency-wide issue. She thinks an autoreply should be sent out and also have it in the
320 newsletter to recognize that there is an issue, and that that the Agency is actively working on it.

321

322 **KPM 6 – Governance:**

323 For the Annual assessment by the Board, Gabel reviewed the 15 required questions and noted the
324 Board Member's responses. The target was 100% and the actual was 100%.

325

326 Board Action: **Maffei moved to accept the revisions to the 2022 Annual Progress Performance**
327 **Report as presented/revised. Teeman seconded. Motion carried.**

328

329 **8) MLRR Update and Permitting in Oregon:**

330 Sarah Lewis, MLRR Program Manager, provided an update on MLRR and permitting in Oregon.

331

332 Lewis gave a brief presentation the Mine Permitting Overview for the MLRR Program. She gave a
333 similar presentation to the Legislative Commission on Indian Services Natural Resource Working
334 Group on September 9, 2022.

335

336 MLRR Program Overview Presentation

337 Lewis said the Mineral Land Regulation and Reclamation program, or MLRR, is funded by regulatory
338 fees for permit. It is not currently supported by General Fund, grant funding or federal funding. The
339 MLRR program oversees the State mineral production, and works to minimize impacts of natural
340 resource extraction and to maximize the opportunities for land reclamation. The statewide program

341 regulates mining activities in Oregon and works collaboratively with other state agencies, local and
342 Tribal governments, industry, and the public.

343
344 Lewis showed a diagram that summarized MLRR's regulatory framework and explained the statutes
345 are laws enacted by the legislature; divisions of rule are the Governing Board's rules, which is where
346 the Governing Board weighs in on how the program is operated;. DOGAMI has regulatory authority
347 for surface mining, through ORS 517 and oil and gas, geothermal under ORS 520 and 522
348 respectively. Under the drilling programs are three divisions of Oregon Administrative Rule (OAR);
349 Division 20 is geothermal and Division 10 gas permits; there are currently no onshore oil permits in
350 Oregon, and there is a moratorium on offshore drilling.

351
352 Under ORS 517, Division 30 is aggregate mining, which makes up the bulk of the surface mine
353 permitting; it is almost 85% of the permits and workload. Aggregate mining includes upland rock
354 quarries and the excavation of sand, gravel, and industrial minerals. DOGAMI does not have
355 authority for in-stream mining, those permits are issued by the Department of State Lands. DOGAMI
356 does also have delegated authority from the Department of Environmental Quality, or DEQ, to
357 administer water quality permits on surface mines; approximately 20% of DOGAMI permitted mines
358 also hold a DEQ permit. There are fewer permits under Division 35 and 33. Non-aggregate mineral
359 extraction in Oregon is mostly for placer gold and silver. Mineral exploration activities looks for
360 materials like clay bearing lithium, underground gold, silver, or platinum. Exploration activities may
361 identify resources that could be developed into a larger mining project. There are currently no
362 permits under Division 37, chemical process mining, but MLRR does have one application, which is
363 the first ever received.

364
365 Lewis stated MLRR has a dedicated coordinator position at .75 FTE for the Chemical Process Mining
366 Program, a full-time Stormwater Reclamationist for the DEQ permits, 5.5 FTE (5 1/2 people) Natural
367 Resource Specialists cover the full workload for surface mining, exploration, gas and geothermal.
368 Those technical staff are supported by 3.25 FTE Operational Support, and myself as Program
369 Manager.

370
371 DOGAMI administers permits across every county in Oregon. Surface mining activity has just over a
372 thousand permits; there are three clusters of gas wells in Columbia, Coos, and Malheur counties;
373 geothermal wells located in Deschutes, Lake, Klamath, and Malheur counties; and the Grassy
374 Mountain Goldmine Project in eastern Oregon.

375
376 There are also mining-related activities that are not under DOGAMI's regulatory authority; in-stream
377 mining is regulated by Department of State Lands; drilling of water wells, that are distinct from
378 geothermal or gas wells, is administered by the Oregon Water Resources Department; mining claims
379 are registered with the Bureau of Land Management, or at the county level; and DOGAMI does not
380 regulate mining on Tribal owned lands.

381
382 Lewis briefly described the DOGAMI surface mining process in nine steps as: 1: Land Use Approval; 2:
383 Permit Application; 3: Permit Issued; 4: Mining Begins; 5: Renew Permit Annually; 6: Site Inspections;
384 7: Mining Ceases; 8: Site Reclamation; and 9: Mine Site Closed. Lewis said it is important to recognize
385 that DOGAMI does not determine where mining happens, that authority sits with the local land use
386 decision making body; whether it's a county, city, or different entity. Aggregate mining is one of the
387 natural resources that falls under statewide planning, and that approval process allows for public
388 input. The average annual aggregate production in Oregon is around forty million tons.

389
390 Lewis explained the Operating Permit Application Process ideally starts with an optional pre-
391 application meeting to discuss the proposed plans, and clearly communicate requirements and
392 timeline. She said the application process is designed to generate permit conditions that minimize
393 off-site impacts during mining, and ensure mitigation and the return of the mined land to secondary
394 beneficial use, such as forestry, industrial, open space; the application itself requires detailed
395 technical operating and reclamation plans and site maps. The application is first assessed against a
396 checklist for completeness, to ensure that all the required pieces are present, and then moves to
397 technical review. If adequate information is received from the applicant, the application can move
398 along quickly. If proposals deviate from standard practices, or the applicant initiates changes to the
399 plan during the review process, this results in additional back and forth that lengthens timeline. A
400 reclamationist will also meet on site with the applicant for a site inspection, during that review
401 period. Each draft permit has site-specific conditions, based on the proposed operation and
402 reclamation plans, feedback from our permitting partners. The permit also includes standard
403 conditions, like don't mine outside your permit boundary, and the inclusion of things like an
404 inadvertent discovery plan for cultural and archaeological resources. Before a permit is issued, the
405 applicant must also provide a financial security. The average time from receipt of an application to
406 issuance, currently ranges from ranges from 8 to 12 months; complicated applications on the
407 floodplain usually take 1 to 2 years. The application process for exploration, gas and geothermal well
408 permits are generally similar to the operating permit process; the timelines and materials required,
409 vary with the permit type.

410
411 Lewis discussed the Circulation of Applications. She stated that when an application is received,
412 MLRR provides early notification to the local land use authority, and to tribal partners with an
413 interest in that geographic area. Each draft permit goes through a formal 35-day circulation process
414 and is sent to a wide range of permitting partners, including, but not limited to State and Historic
415 Preservation Office, Departments of State Lands, Environmental Quality, Fish and Wildlife, Forestry,
416 Water Resources, back to the local land use authority, tribal governments, and to federal agencies if
417 they are the landowner. Any comments received are communicated back to the applicant, and then
418 reconciled through modifications to the proposed plans, or perhaps through permit conditions. This
419 is another place where MLRR has significant back and forth, and conversations with the applicant
420 about how to get their plans to where the conditions required by the State are met. Lewis provided
421 examples of requirements from other partners and said these are areas where applicants can be
422 more proactive by reaching out to those agencies in advance. She added this is one of the things that
423 MLRR can discuss at a pre-application meeting.

424
425 Lewis said the exploration permit process is receiving a lot of attention right now, given renewed
426 interest in critical minerals, specifically lithium in the McDermitt Caldera in Southeast Oregon. The
427 exploration permit process is similar to the Operating Permit Process, with a review of draft permits
428 by circulating agencies, and site-specific conditions added to the permit, based on the responses
429 received. One significant difference is that exploration is an outright allowed land use in most
430 counties in Oregon. DOGAMI notifies the county, and the federal agency responsible for oversight of
431 land use, but the permittee is responsible to make sure that they are completing requirements
432 independent of permit issuance. Mineral exploration activities, look for things like clay bearing
433 lithium, gold, silver, platinum, and these exploration activities may identify resources that can be
434 developed later. Exploration activities that disturb more than 1 surface acres or drill to greater than
435 50 feet, require an Exploration Permit from DOGAMI. Exploring under these limits is considered
436 prospecting, and does not need a permit. If more than 5 acres are disturbed, or the material will be

437 sold into market, then an Operating Permit is required. If the proposed operations include chemical
438 processing of the ore to determine what is there, then it requires the Consolidated Permit Process. If
439 mining is occurring without the appropriate permit, DOGAMI does have several tools to bring the
440 operator into compliance; enforcement actions include Suspension Orders to cease operations,
441 collecting the financial security posted by the permittee, and assessing Civil or Criminal Penalties.
442

443 The Consolidated Permit Process, associated with chemical process mining, is the most rigorous
444 permitting process that DOGAMI administers. Chemical Process Mining is when extracting metal
445 from metal-bearing ores uses chemicals to dissolve metals from the ore. There are currently no
446 operating chemical process mines in Oregon, but the State received the first ever application in 2019
447 from Calico Resources USA, Inc., for the Grassy Mountain Mine Project outside of Vale Oregon.
448 Oregon law envisioned strong environmental protections if chemical process mining was to happen
449 in Oregon. The intent of the regulatory framework is to minimize environmental damage through
450 use of best available, practicable, and necessary technology and provide protection measures that
451 are consistent with policies of the permitting agencies. DOGAMI is the lead facilitating agency, and
452 provides coordination, accountability, and mediation among partner State agencies, for the
453 consolidated process that issues a single permit decision on behalf of the State. A Technical Review
454 Team, or TRT, of permitting agencies and cooperating agencies review submitted materials and
455 recommend approval of reports or request for additional information. External technical consultants
456 provide reports where there is no in-house expertise or for a specific technical need. DOGAMI also
457 convened a Project Coordinating Committee, or PCC, to share information and promote
458 communication and transparency. The Consolidated Permit Process has many opportunities for
459 public engagement, as the TRT and PCC meetings are open to the public, and PCC meetings also
460 accept public comments. All the project materials are available online for review, and application
461 and permit materials have public comment periods.
462

463 Lewis said applying for a Chemical Process Mining Permit takes many years and went through the
464 steps and timeline by using the Grassy Mountain Project as an example.
465

466 The Grassy Mountain Project began as exploration activities and Calico Resources filed with DOGAMI
467 Notices of Intent, or NOIs, to submit a Consolidated Permit Application in 2012, and again in 2015,
468 which were superseded by the current NOI filed in February, 2017. In September 2017, Calico moved
469 to Step 2 in this process, Notice of Readiness, by filing to collect Baseline Data and began preparing
470 Baseline Data work plans for approval by the TRT. Step 3 of Baseline Data Collections, document
471 existing conditions and preparation of Baseline Data Reports, has been ongoing since that time. In
472 November 2019, Calico Resources moved to Step 4 by submitting the first ever Consolidated
473 Application for Chemical Process Mining, and the project is currently in Step 5.
474

475 The State proceeded with a Completeness Review of the application, including convening a meeting
476 of the PCC and holding a public hearing. In February 2020, the TRT determined that the application
477 was not complete, and requested additional information from the applicant. Beginning in December
478 2021, revised application materials were submitted to the State, and review of the materials is
479 ongoing. The next TRT meeting will likely be at the end of October. In late June, the TRT met and
480 approved two Baseline Data Reports, and is now working on the revised application material. The
481 Completeness Review occurs prior to an evaluation of the technical merits of the application; and is
482 designed to avoid a situation where an agency would have to deny a permit for lack of information.
483 Information required by statute or rule, and information requested from the applicant must be both
484 present and sufficient for the application to be complete. When the TRT determines an application is

485 sufficient to support making a permit decision, DOGAMI will issue a Notice to Proceed, which is Step
486 6, and begin preparing required reports based on the application material; this includes an
487 Environmental Evaluation and Socio-economic Impact Analysis. Portions of the Grassy Mountain
488 Project are located on public lands, managed by the BLM, so DOGAM is working with the BLM to
489 coordinate on Key Environmental Analyses, their NEPA process, and other joint concerns, including
490 bonding. There is a strict regulatory timeline for the preparation and review of the draft permit, and
491 a final permit decision has to be made within a year. DOGAMI has a new coordinator on staff,
492 working toward developing detailed protocols for Steps 8 through 10 of the Consolidated Permit
493 Process.

494

495 Permit Status Summary

496 Lewis stated the total permit numbers are stable; however, the number of active applications have
497 reached 69, and the workload is greater than the staff can handle. MLRR hired a Natural Resource
498 Specialist 2 (NRS 2) Reclamationist to help with the process. Pre-application meetings continue to
499 provide guidance on what materials are required for a complete application, to frontload the
500 beginning of the process in hopes that once the applications get in the system, it can move through
501 quickly by reducing or eliminating the back and forth over weeks or months with permittees to try to
502 fine-tune what is needed. If there are deviations from what would normally be approved or special
503 reports required, that is going to lengthen the timeline.

504

505 The Program is going to shift the initial Application Completeness Review to an administrative staff
506 person, who will ensure that those materials needed to evaluate the application are in place before
507 moving forward to technical review, to try and make the process more efficient. It will also create
508 some clear milestone that staff can communicate to applicants, so that applicants have a better
509 sense of where their permits are in the process.

510

511 Lewis wanted to recognize that staff are similarly frustrated by the slow timelines and the inability to
512 provide the customer service that they want to. Staff pride themselves on the relationship that they
513 have with permittees, and it is very difficult when they feel that they are not meeting their
514 permittee's and applicant's expectations. They are highly productive but can't make headway with
515 the increasing workload.

516

517 Chair Ashford asked if the applications slowdown in the winter. Lewis said MLRR actually receives
518 more in the winter as many operations close down, or ease off a little bit for the winter months, and
519 they focus on their planning for the next couple of years.

520

521 Chair Ashford asked Lewis what her take is on the anticipated uptick in applications and staff working
522 really hard, as he is not sure there will be any catching up anytime soon. Lewis replied MLRR has
523 hired a couple of new people, who are getting up-to-speed, and she anticipates the Program's pace
524 picking up with respect to its ability to do the work. One of the challenges staff are facing is the
525 ability to answer calls and be responsive to giving status updates with so few people reviewing
526 permits. Lewis appreciates Board Member Jeremiah's suggestion about auto-reply emails, which is
527 something the Program has not tried yet, and will work toward implementing it to give a better and
528 immediate response to permittees; as she knows they just want to feel heard and know their permit
529 is moving forward.

530

531 Lewis said there is slow decrease in the number of compliance items. She said staff are not going out
532 and looking for people to enforce on, these are being found as part of routine permit review and
533 often by complaints from neighbors. The Compliance Program has been up and running for about 3
534 years, it is really getting its feet under it and providing great support to the Permit Review Process.
535

536 Morgan Creek was MLRR's first Mining Without a Permit Civil Penalty, that the Governing Board
537 approved in July 2020. MLRR reached a negotiated settlement in December 2021, that included a
538 timeline for reclamation and specific milestones. Earthwork was successfully completed in August
539 2022 and was verified by site inspection. Lewis showed some before and after photos and said the
540 contractor and respondent are working to complete the work, and the payments negotiated in the
541 settlement are all up-to-date. Lewis said she was pleased to be able to provide the Board with this
542 positive update around how the program can be a success and protect the natural resources of the
543 State.
544

545 Lewis said the MLRR packet includes the Summer 2022 Newsletter, that includes an update to the
546 permittees on the performance of the January, 2021 fee increase, as the Board suggested at the last
547 meeting.
548

549 Sarah Lewis introduced the new MLRR staff, who joined the meeting from the MLRR Conference
550 Room. Jeff Lulich, Mining Geologist Reclamationist, who took over for Ben Mundie who retired in
551 December. Becca Misho has been with DOGAMI for over two year and transitioned from office temp
552 to a limited duration (LD) Natural Resource Specialist 2, and will focus on file review and permit
553 review, in response to that increased application workload; this is not a permanent position for the
554 Program, it is temporary to help with the workload. Telicia Hixson is a Natural Resource Specialist 1
555 Intern, to assist with office tasks; she will be pursuing a project as part of her master's program at
556 Oregon State University. Dayne Doucet started last week as the Consolidated Mining Permit Lead, he
557 has a background in petroleum engineering, and comes from a position as Oil and Gas Permitting
558 Manager with the Utah Department of Natural Resources.
559

560 Jeremiah asked if the awards program is going to be reinstated. Lewis said the awards program is
561 one of the higher priority things for getting reinstated once staff have available time; it is hard to
562 justify it at this time. Jeremiah said she would like to see it remain as a priority, that when staff time
563 allows the program can be resurrected.
564

565 Chair Ashford said he and the Board appreciate the work of the MLRR staff. He looks forward to
566 hearing about how Jeremiah's suggestions on better and additional communication works out at the
567 next Board Meeting.
568

569 Briefing: **No Board Action Required.**
570

571 **9) GS&S Update:**

572 Jason McClaughry, Interim GS&S Program Manager, provided an update on the GS&S program.
573

574 McClaughry said seven publications have been released so far this year. Most recently, two multi-
575 hazard risk assessments around Washington County and Marion County, and another tsunami and
576 earthquake hazard study have been completed. There are five more publications that are currently

577 going into editing and review for final release, and expects those to be completed by the end of this
578 year.

579
580 McClaughry provided an update on the current staffing and active recruitments that are ongoing.
581 Two NRS 4 level positions were advertised: Geohazards Specialist, and the Eastern Oregon Regional
582 Geologist, which is a limited duration to fill the position he rotated out of to be the Interim Program
583 Manager. The application period has closed for both positions and first round interviews are starting;
584 the selected candidates will move on to the second round.

585
586 McClaughry said the following grant opportunities are significant awards for funding staff, and these
587 are part of the annual grant programs that are funding fundamental programs for GS&S. They have
588 either been received or are in the process of being developed.

589
590 Federal grants received:

- 591
- 592 • BLM Landslide Grant (\$75,000 Federal Funds: Look at landslides in Coos Bay area.
- 593 • National Tsunami Hazard Mitigation Program (NTHMP) (\$494,000 Federal Funds): Oregon Coast.
- 594 • FEMA Cooperating Technical Partners (CTP) Proposals: Three awards totaling \$1,134,215 for
595 Jackson County Lidar, Oregon Digital Flood Hazard Database Update, Historical Flood Event
596 Database, Hood River County Landslide Inventory, Outreach and Community Engagement, Multi-
597 Hazard Risk Assessments Cottage Grove, South-Central Lane County Geohazard Mapping & Risk
598 Reduction.
- 599

600 Federal and Other grant applications:

- 601
- 602 • U.S. Geological Survey National Geological and Geophysical Data Preservation Program
603 (NGGDPP) (up to \$50,000 Federal Funds): This will work to archive and make publicly available
604 some of DOGAMI's historic mining data and other published resources, located in both the Baker
605 City and Portland offices.
- 606 • U.S. Geological Survey STATEMAP Program (up to \$250,000 Federal Funds): This program funds
607 the Agency's geologic mapping, and has funded geologic mapping in Oregon since 1992.
- 608 • U.S. Geological Survey 3D Elevation Program (3DEP) (up to \$4,087,700 Federal Funds): Collection
609 new high resolution Lidar in the entirety of Deschutes County, through the Willamette Valley,
610 where the Lidar is now outdated; it was collected in 2007 to 2009.
- 611 • Oregon State Parks, Ecola State Parks Multi-hazards and exploring the possibility to make this a
612 long-term arrangement with State Parks to look at the Ecola and other parks they have concerns
613 about on the coastal segment, and then further inland as needed (TBD)
- 614 • Regional Disaster Preparedness Organization, Landslide Inventory Mapping in the Metro
615 Counties, Washington, Multnomah, Clackamas Counties in Northwest Oregon, to continue to fill
616 in necessary and needed mapping in there in that areas (TBD)
- 617

618 McClaughry provided details on General Fund special projects to take care of some key projects that
619 are aligned with key GS&S Program areas. These are separated into three categories: research and
620 development, build tools and infrastructure, and data maintenance; and there are two main projects.
621

622 The Eastern Oregon mineral scoping is basically designed to collect data and samples throughout
623 Southeast Oregon to assess critical mineral potential. This is to look at the link between national
624 security, economic security, and energy security, as we move to electrification. The Agency
625 purchased a portable device to analyze lithium contents in rocks throughout Southeast Oregon. Staff
626 can compare these to lab-based analysis, that they will get from rocks to create a spatial database of
627 lithium concentrations in Eastern Oregon, to inventory what the State's potential resources are and
628 how that may develop in the future. DOGAMI is also working with university groups that have looked
629 specifically at McDermitt Caldera, and produced geologic maps in that area that the Agency will
630 publish. This is aligned with proposed POP 102 in the Agency Request Budget.

631
632 The last project is the post-fire debris flow research and the Labor Day fires, which burned
633 approximately 11% of the Cascades in Western Oregon. The Agency is looking at supporting
634 additional field data collection after storms during the 2022-2023 season. this is aligned with POP
635 103 in the Agency Request Budget.

636
637 McClaughry said related to the idea of building relationships, this past week, one of DOGAMI's staff
638 members, Carlie Azzopardi, was out of the field with a company out of New Hampshire collecting
639 rock samples for recreating a geochemical reference sample collection, which was used to calibrate
640 both lab and portable geochemical collection devices. He shared a picture of Azzopardi collecting
641 nearly four hundred pounds of rock at each site. He stated these types of partnerships pay off for the
642 Agency in the sharing of ideas, and with the company helping DOGAMI to calibrate some of its
643 exploration techniques for projects looking at lithium and calibrating the new portable device that is
644 going to deploy in that project; also opportunities to collaborate on publications related to this and
645 further DOGAMI's mission.

646
647 Briefing: **No Board Action Required.**

648
649 **10) Director's Report:**

650 Ruarri Day-Stirrat, Director & State Geologist, provided an update on the Agency.

651
652 Agency Update

653 Director Day-Stirrat stated the big Agency update will be receiving the 2023-25 Analyst
654 Recommended Budget, which is an internal document, and is used to help advise the Governor as
655 she prepares her budget. As such, DOGAMI is expected to keep the contents of that document
656 confidential, and it will only remain within the Leadership Team as to how they work through that.

657
658 DOGAMI is having an extremely positive recruiting campaign for open positions within the Agency,
659 which is bucking the State trend here. With Lewis' introduction of DOGAMI's intern Telicia Hixson,
660 Day-Stirrat said this is something the Agency is very pleased to be able to have in place, as this is
661 something that has not been around for some time and is something the Agency hopes to keep going
662 over many years.

663
664 In mid-September, DOGAMI initiated an agency-wide, quarterly technical seminar series, and the goal
665 of that was to enhance cross-agency visibility, and make sure that the Agency was acting as one.
666 Day-Stirrat said one of his goals as Director, was to make sure that the two programs were coming
667 together as best as possible, and this is one of those mechanisms.

668

669 Outreach and Community Engagement

670 Day-Stirrat said the last quarter the Agency has been focusing on outreach and community
671 engagement. Two of the three people who went to the Cottage Grove Emergency Preparedness Fair
672 on a Saturday afternoon in early August, were on this Board Meeting call, and he thanked them for
673 that engagement. This was a multi-agency preparedness event in which the local community was
674 informed of hazards and how they could best mitigate those hazards; it was a very well attended
675 event with approximately 1000 people in attendance.

676
677 For MLRR, two entities with the largest number of permits in the State, have had extended sessions
678 with DOGAMI staff, looking at how they may prepare more and complete permits, which is one step
679 in helping the Agency move some of these actions forward.

680
681 DOGAMI's LinkedIn presence has increased with sharing publications and job openings. This is
682 DOGAMI's soft opening into the social media space.

683
684 Day-Stirrat said in late July, he took an opportunity to visit the McDermitt Caldera in Southeast
685 Oregon.

686
687 Day-Stirrat and Lewis took part in the Malheur County Economic Development Tour at the end of
688 August. This was at the invitation of Senator Findley and Representative Owens. They toured the
689 site of the potential Grassy Mountain Gold Mine Project, and answered many questions, for about an
690 hour, from State Senators and Representatives. Those questions covered Consolidated Mining
691 Permits, permits, mineral extraction, gold mining, and many other aspects of the work that DOGAMI
692 does.

693
694 Next week he and Lewis will participate in the 2022 Annual Tribal-State Government-to-Government
695 Summit. It is happening in Florence, with a specific session on Natural Resources and Climate.

696
697 The week of October 9th is Earth Science Week and there will be a proclamation from the Governor,
698 with regard to Science Week. DOGAMI has distributed 49 Earth Science packs from the American
699 Geological Institute (AGI) to Oregon school districts; the Agency will see what comes back, and then
700 form part of its strategy going forward in that area.

701
702 Legislative Update

703 Day-Stirrat stated Christina Appleby is the Legislative Coordinator for the next biennium. The
704 Agency's grant request for the USGS Data Preservation Program was approved, so the grant will go
705 in. DOGAMI has two large grants that will go into the next Legislative Session.

706
707 Chair Ashford said he heard DOGAMI presented itself well at the Grassy Mountain Gold Mine Project.

708
709 Briefing: **No Board Action Required.**

710
711 **11) Confirm Time and Date for Next Quarterly Meeting:**

712 Chair Ashford stated the next DOGAMI Board is currently scheduled for Thursday, December 1, 2022
713 at 8:30 a.m. – 1:00 p.m. in Portland or via Zoom. He confirmed this date is still acceptable for the
714 Board.

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12) Recognition of Board Members:

Chair Ashford recognized outgoing Board Members Laura Maffei and Katie Jeremiah and thanked them for their participation on the DOGAMI Governing Board. The Board greatly appreciates their service and dedication to the Agency.

Kozlowski thanked them both for their work and stated she has learned so much from them, particularly around MLRR. .

Teeman thanked them, and said she enjoyed working on the Board with them.

Jeremiah said she appreciated her time on the Board and the diverse perspectives of everyone on the Board, it has been a pleasure and an honor. She stated Maffei’s leadership has been amazing and that she learned a lot from her. She feels very confident that the Agency is in good hands with Day-Stirrat.

Maffei said it was a pleasure and honor to serve the State. She reflected back to 2014, when she started on the Board, it was the very beginning of a huge amount of change in this Agency, and in the ensuing 8 years things went really, really bad and they have gotten so much better. It is really very heartening to her to know that the Agency is under good leadership, and it is going in the right direction; she knows the Agency is in good hands with Day-Stirrat’s leadership.

Briefing: **No Board Action Required.**

13) Public Comment:

Only written comments received prior to or by 12:15 p.m. on the day of the meeting were to be accepted. Chair Ashford asked for any written public comments. No public comments.

Comment of Anne MacDonald: MacDonald said she is honored to serve, and looking forward to serving the State of Oregon and helping maintain the standing that DOGAMI has in the State and across the country.

14) Board Adjourn:

Chair Ashford adjourned the meeting at 11:31 a.m.

APPROVED

Scott Ashford, Chair

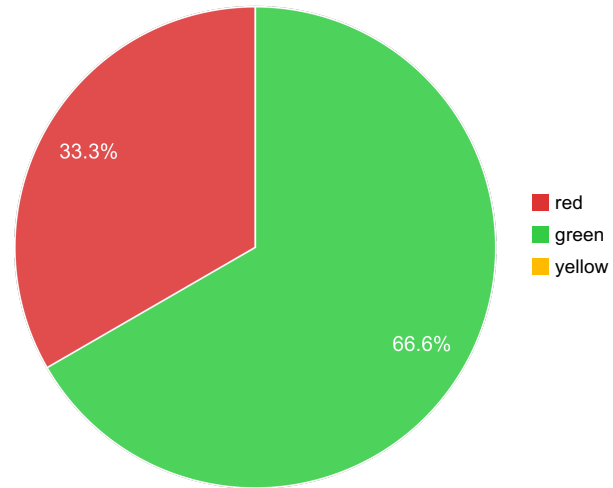
Geology & Mineral Industries, Department of

Annual Performance Progress Report

Reporting Year 2022

Published: 10/5/2022 9:54:19 AM

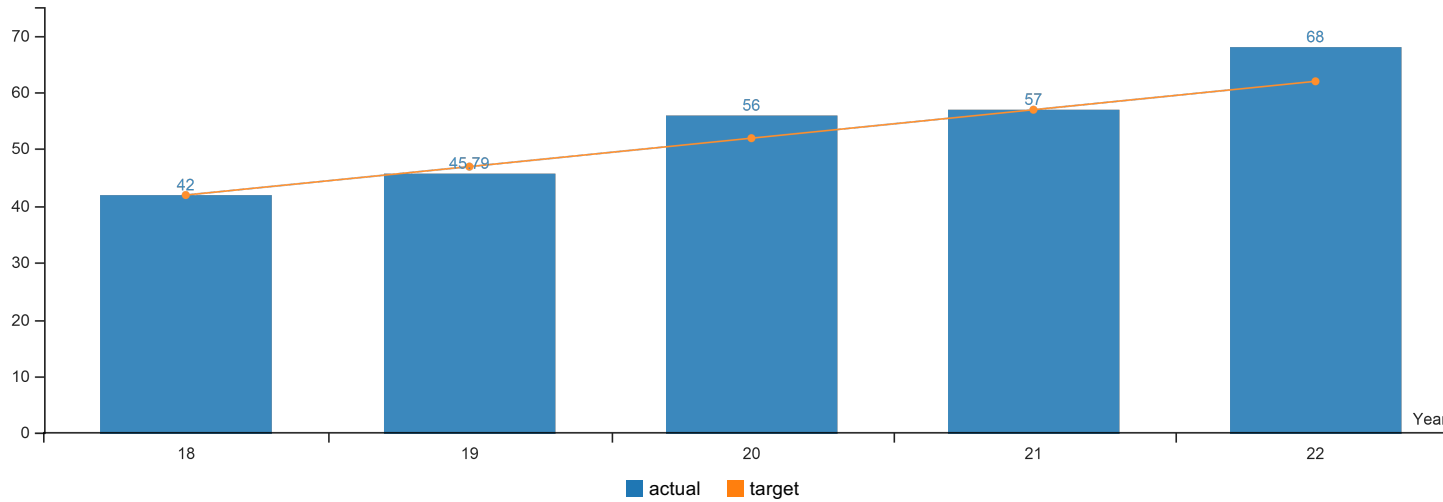
KPM #	Approved Key Performance Measures (KPMs)
1	HAZARD AND RISK ASSESSMENT COMPLETION - Percent of population residing in Oregon Urban Growth Boundary Areas (UGBs) that have completed geologic hazard and risk assessments that are suitable to initiate Department of Land Conservation and Development goal 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	PERCENT OF MINE SITES INSPECTED BIENNIALLY - Percent of permitted mine sites inspected biennially.
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:	66.67%	0%	33.33%

KPM #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.
	Data Collection Period: Jul 01 - Jun 30

* Upward Trend = positive result



Report Year	2018	2019	2020	2021	2022
HAZARD AND RISK ASSESSMENT COMPLETION					
Actual	42%	45.79%	56%	57%	68%
Target	42%	47%	52%	57%	62%

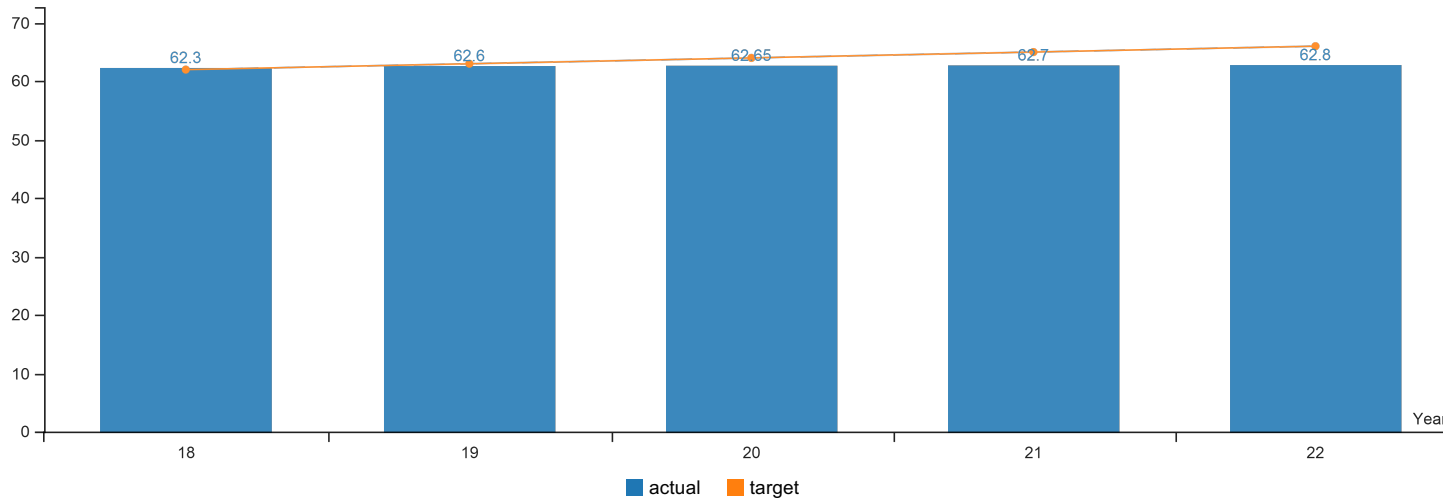
How Are We Doing

Factors Affecting Results

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



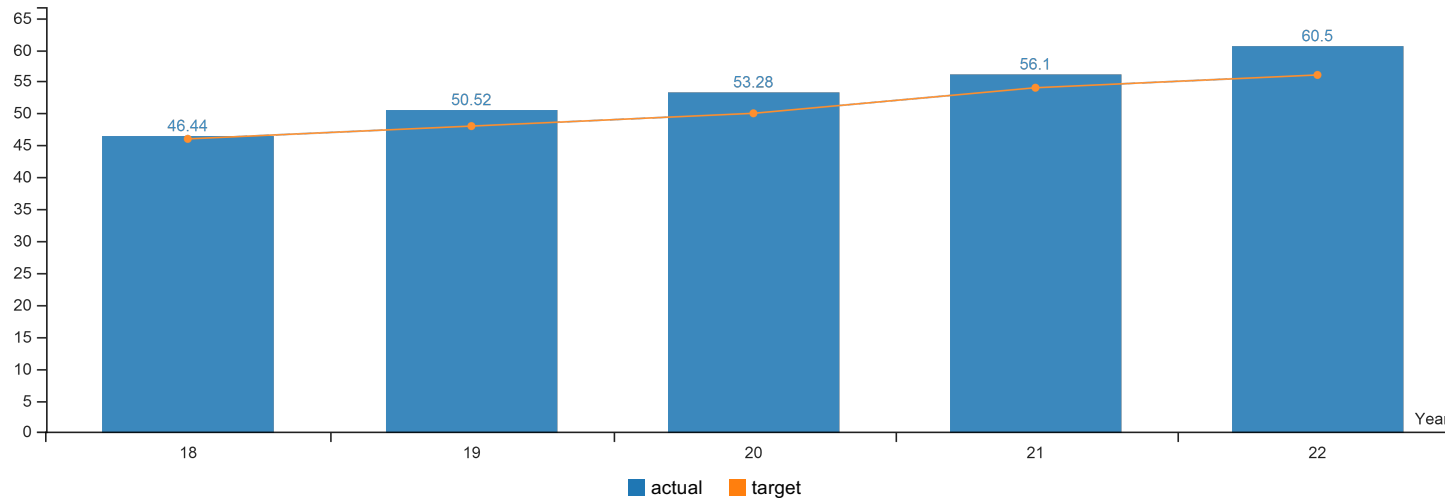
Report Year	2018	2019	2020	2021	2022
DETAILED GEOLOGIC MAP COMPLETION					
Actual	62.30%	62.60%	62.65%	62.70%	62.80%
Target	62%	63%	64%	65%	66%

How Are We Doing

Factors Affecting Results

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



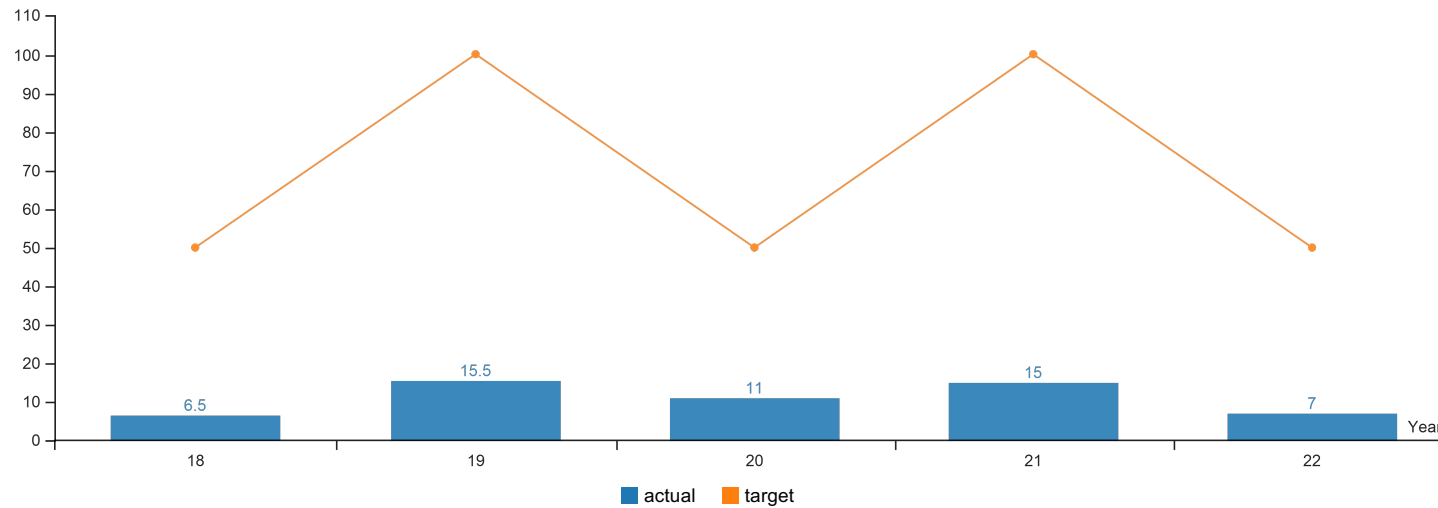
Report Year	2018	2019	2020	2021	2022
LIDAR DATA COMPLETION					
Actual	46.44%	50.52%	53.28%	56.10%	60.50%
Target	46%	48%	50%	54%	56%

How Are We Doing

Factors Affecting Results

KPM #4	PERCENT OF MINE SITES INSPECTED BIENNIALLY - Percent of permitted mine sites inspected biennially.
	Data Collection Period: Jul 01 - Jun 30

* Upward Trend = positive result

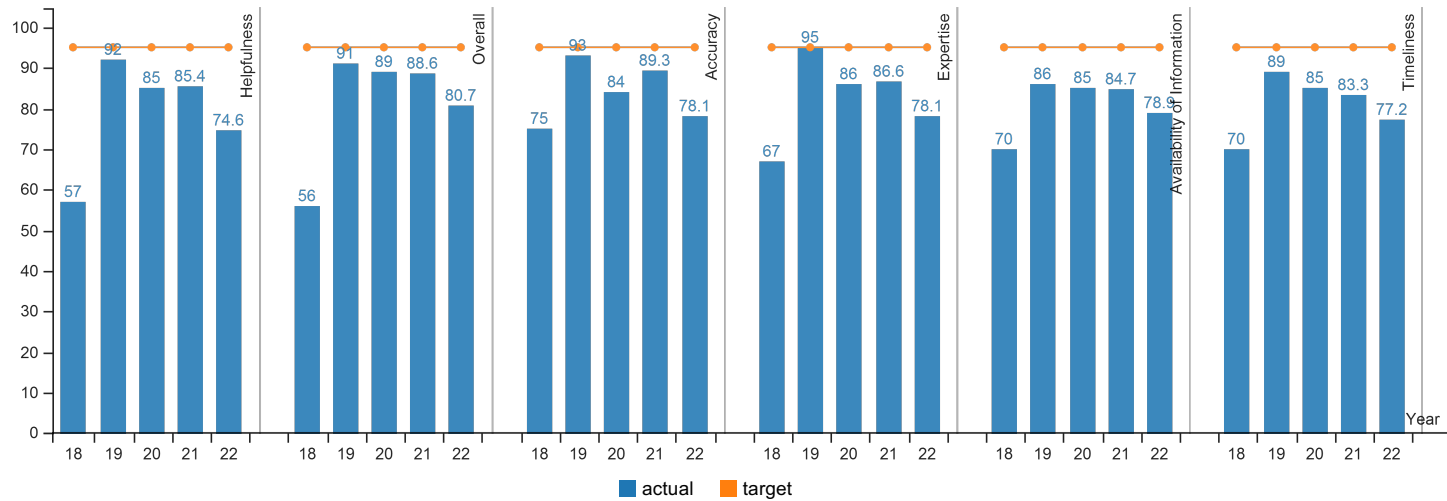


Report Year	2018	2019	2020	2021	2022
Percent of permitted mine sites inspected biennially;					
Actual	6.50%	15.50%	11%	15%	7%
Target	50%	100%	50%	100%	50%

How Are We Doing

Factors Affecting Results

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



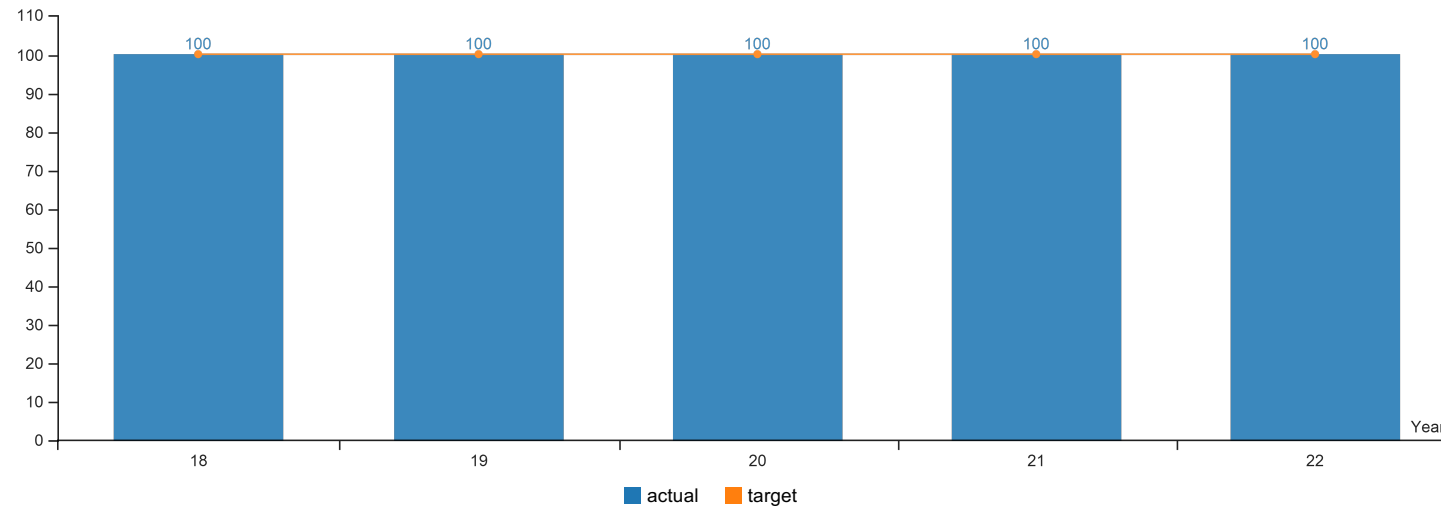
Report Year	2018	2019	2020	2021	2022
Helpfulness					
Actual	57%	92%	85%	85.40%	74.60%
Target	95%	95%	95%	95%	95%
Overall					
Actual	56%	91%	89%	88.60%	80.70%
Target	95%	95%	95%	95%	95%
Accuracy					
Actual	75%	93%	84%	89.30%	78.10%
Target	95%	95%	95%	95%	95%
Expertise					
Actual	67%	95%	86%	86.60%	78.10%
Target	95%	95%	95%	95%	95%
Availability of Information					
Actual	70%	86%	85%	84.70%	78.90%
Target	95%	95%	95%	95%	95%
Timeliness					
Actual	70%	89%	85%	83.30%	77.20%
Target	95%	95%	95%	95%	95%

How Are We Doing

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	2018	2019	2020	2021	2022
Metric Value					
Actual	100%	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: Lori Calarruda, Executive Assistant

Date: November 15, 2021

Regarding: Agenda Item 5 – Confirm 2023 Board Meeting Dates

Below are the Proposed 2023 Board Meeting Dates.

Proposed dates:

March 6, 2023 (Monday) – alternate date is March 9, 2023 (Thursday)

June 26, 2023 (Monday) – alternate date is June 22, 2023 (Thursday)

September 25, 2023 (Monday) – alternate date is September 21, 2023 (Thursday)

December 11, 2023 (Monday) – alternate date is December 13, 2023 (Wednesday)

Proposed Board Action: The Proposed Board Meeting Dates be Approved/Approved as amended/Not Approved.

Staff Report and Memorandum

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

From: Steve Dahlberg, Chief Financial Officer

Date: November 18, 2022

Regarding: Agenda Item 6- Financial Report

Attached is the DOGAMI Budget Status Report, as of September 30, 2022 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: December 1, 2022
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 2023 (July 2022 – June 2023)

The information in this board report is as of **September 30, 2022**, which is fifteen (15) months into the new biennium. The revenue collections, accounts payable, indirect cost capture, and financial system structure set up are routine and our normal processing.

Geological Survey & Services (GS&S) Program

As of September 30, 2022

	2021-23 Projected Revenue & Expenditures			
	General Funds	Other Funds*	Federal Funds	All Funds
Total Available Revenue**	\$ 6,444,037	\$ 1,661,278	\$ 5,199,733	\$ 13,305,048
Total Expenditures	\$ (5,498,888)	\$ (1,008,687)	\$ (5,173,253)	\$ (11,680,828)
GS&S Ending Balance	\$ 945,149	\$ 652,592	\$ 26,480	\$ 1,624,221

Percent under Revenues	14.7%	39.3%	0.5%	12.2%
Percent under Expenditure budget	14.7%	59.1%	10.3%	20.4%

* includes the Strong Motion Instrument Fund (SMIF)

** Includes the beginning balance

The General Fund expenditures are projected to be \$5,498,888 which will be under-budget by \$945,149 or 14.7%. The current projection includes investments in acquiring new scientific data to enhance forward looking geological needs and requirements. DOGAMI also approved additional post-fire debris flow research, Eastern Oregon mineral scoping, and internal process updates to be more efficient in our data processing. These projections, in addition to the normal anticipated expenses, have amounts earmarked for public outreach, grant preparation, web site upgrade, consulting for the strategic planning initiative, replace or upgrade aging technology, and employee training.

The Other Funds projected revenues are nearly \$930,750 consisting of lidar projects for \$277,245, other grants for \$507,245, and the Strong Motion Instrument Fund (SMIF) for \$146,260. The projected expenses are \$1,008,687 or 59.1% under the budgeted expense limitation. The Strong Motion Instrument Fund contributes almost \$206,300 to the ending balance. The overall projected ending balance will be almost \$652,600.

The Agency is anticipating finalizing two project proposals, one for Oregon State Parks and the other for Portland's Regional Disaster Preparedness Organization (RDPO).

The Federal Fund projected revenues are \$5,225,650. The projected non-lidar federal grant revenues are \$2,273,150 (43.5% of total federal revenues) driven by FEMA (47.1%), NOAA (43.9%), and USGS (8.7%).

The projected federal LIDAR revenues are \$2,952,500 (56.5% of total federal revenues) driven by FEMA (50.3%), BLM (26.8%), and USGS (22.9%). DOGAMI will be soon submitting three grant proposals to USGS for StateMap, Data Preservation, and two large USGS Lidar proposals in the Willamette Valley and Deschutes County.

The projected federal fund expenses are \$5,173,250 or 10.3% under the budgeted expense limitation. The Federal funds are projected to have an ending balance of \$26,480. Note: Lidar projects are dependent upon clear weather, pending how good/bad winter is, it may delay some revenues and matching expenses into the next biennium. The projects are not at risk, just the timing.

Strong Motion Instrument Fund (SMIF)

As of September 30, 2022

2021-23 Actual Revenue & Expenditures

	Other Funds
Beginning Balance (July 1, 2021)	\$ 260,376
Actual & projected Revenue	\$ 146,261
Actual + Projected Expenditures	\$ (200,340)
SMIF Projected Ending Balance	\$ 206,297

The Strong Motion Instrument Fund are projected to end the biennium with a balance of \$206,297. The projected revenue includes seven (7) deposits made thus far in the biennium and expecting one (1) more deposit before the biennium ends. These revenues are from developers of large building projects in-lieu of installing seismic instruments in their buildings. The projected expenditures represent the current work order with the University of Oregon (UofO) for \$200,000, which supplies the funding for 24 new sensors at 18 new sites. The contract with UofO goes through December 2023, therefore the \$200,000 may not be fully spent in the current biennium and will be recorded in the 2023-25 biennium.

Mineral Land Regulation & Reclamation (MLRR) Program

As of September 30, 2022

2021-23 Projected Revenue & Expenditures

	Other Funds
Total Available Revenue*	\$ 5,306,854
Total Expenditures	\$ (4,054,871)
MLRR Ending Balance	\$ 1,251,982

Percent under Expenditure budget 5.4%

Percent of target 6-month operating reserve 106.2%

* Includes the beginning balance

The MLRR Program is projected to finish the biennium under the expenditure budget limitation by \$232,777 reflecting 5.4% of the expenditure budget. MLRR will have a robust ending balance of \$1,251,982 and is now at 106.2% of the anticipated six-month operating reserve target. For the next board meeting, an update to the 6-month operating reserve outlook for 2025 will be recalculated with the latest projections. The projected revenues for the biennium continue to hold solid after the recent analysis of the approved fee increase in January 2021. This revenue, along with careful spending,

is performing as expected or slightly better and provides confidence that the program will achieve the goal of a six-month operating reserve in the 2023-25 biennium.

Reclamation Guarantee Fund

As of September 30, 2022

Beginning 2021-23: 58 Cash Securities	\$	669,943
12 New Securities	\$	206,804
-4 Security Releases	\$	(50,095)
Biennium to Date: 66 Cash Securities	\$	826,652

The Reclamation Guarantee Fund retains \$826,652 in cash securities. Since the last board meeting, four (4) new securities have been added and released two (2) securities. This brings the biennium total of 12 new securities and the release of 4 securities.

Business Office Activities

All required grant financial reporting is complete and up to date. We continue our 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 diving deeper into the analysis of the grants and lidar projects.

In July 2022, the State of Oregon implemented a new procurement platform called OregonBuys. DOGAMI was in the first wave of agencies for go-live. As with most new implementations, there have been a few minor start-up issues, but the Business Office is working with DAS to resolve and update our processes.

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 authorize 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 go 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. There are a few other 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 after 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.

GRB – Governor Recommended Budget. Using the ARB, 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 not provided by the Oregon state general fund directly to DOGAMI and not 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 2022

% of Time Spent of 2 years
63%

Geological Survey & Services (GS&S) Program

Budget Category / Line Item	2021-23 Budget by Funding Source				2021-23 Actual Revenue & Expenditures				Actual Budget Spent				2021-23 Projected Revenue & Expenditures				2021-23 Actual + Projected Revenue & Expenditures				Actual + Projected Budget Total			
	General	Other	Federal	All	General	Other	Federal	All	GF	OF	FF	All	General	Other	Federal	All	General	Other	Federal	All	General	Other	Federal	All
	Funds	Funds	Funds	Funds	Funds	Funds	Funds	Funds				Funds	Funds	Funds	Funds	Funds	Funds	Funds *	Funds	Funds	Funds	Funds	Funds	Funds
Revenue																								
Beginning Balance	-	750,913	-	750,913	-	730,528	(25,920)	704,608					-	-	-	-	-	730,528	(25,920)	704,608				
2021-23 Revenue & Trans	6,444,037	2,149,316	5,765,844	14,359,197	2,946,150	678,504	3,085,440	6,710,094					2,552,739	252,247	2,140,212	4,945,198	5,498,888	930,751	5,225,653	11,655,292				
Total Available Revenue	6,444,037	2,900,229	5,765,844	15,110,110	2,946,150	1,409,032	3,059,520	7,414,702	46%	49%	53%	49%	2,552,739	252,247	2,140,212	4,945,198	5,498,888	1,661,278	5,199,733	12,359,900	85%	57%	90%	82%
Expenditures:																								
<i>Personnel Services</i>	3,851,150	535,210	2,255,915	6,642,275	1,698,072	310,790	1,193,130	3,201,992	44%	58%	53%	48%	1,412,423	209,955	656,722	2,279,100	3,110,495	520,745	1,849,852	5,481,092	81%	97%	82%	83%
<i>Services & Supplies</i>																								
Instate Travel	34,832	67,557	151,380	253,769	30,156	5,340	1,353	36,849					30,368	9,633	5,870	45,871	60,524	14,973	7,223	82,720	174%	22%	5%	33%
Out of State Travel	18,200	25,153	7,066	50,419	429	314	3,057	3,800					5,000	-	-	5,000	5,429	314	3,057	8,800	30%	1%	43%	17%
Employee Training	31,290	11,826	8,931	52,047	31,326	-	438	31,764					9,689	500	-	10,189	41,015	500	438	41,953	131%	4%	5%	81%
Office Expenses	31,290	35,028	1,510	67,828	7,391	35	352	7,778					8,626	-	1,328	9,954	16,017	35	1,680	17,732	51%	0%	111%	26%
Telecomm	93,605	484	15,612	109,701	41,222	-	-	41,222					33,031	-	-	33,031	74,253	-	-	74,253	79%	0%	0%	68%
State Gov't Svc Chg	331,063	-	-	331,063	314,291	-	-	314,291					15,551	-	-	15,551	329,841	-	-	329,841	100%	-	-	100%
Data Processing	308,795	-	7,294	316,089	182,566	-	-	182,566					358,070	-	-	358,070	540,636	-	-	540,636	175%	-	0%	171%
Publicity & Publications	70	5,330	64,253	69,653	1,219	-	6,942	8,161					14,224	-	26,289	40,513	15,443	-	33,231	48,674	22062%	0%	52%	70%
Professional Services	165,467	730,275	3,057,430	3,953,172	9,961	221,965	1,688,796	1,920,722					295,181	210,593	1,052,711	1,558,485	305,142	432,558	2,741,507	3,479,206	184%	59%	90%	88%
IT Professional Services	9,387	88,112	-	97,499	28,159	-	-	28,159					100,000	-	10,005	110,005	128,159	-	10,005	138,164	1365%	0%	-	142%
Attorney General	20,492	-	-	20,492	5,963	-	-	5,963					11,000	-	-	11,000	16,963	-	-	16,963	83%	-	-	83%
Employee Recruitment	1,043	1,512	-	2,555	16,790	-	-	16,790					2,600	-	-	2,600	19,390	-	-	19,390	1859%	0%	-	759%
Dues & Subscriptions	7,301	1,028	2,368	10,697	1,995	-	-	1,995					1,465	-	-	1,465	3,460	-	-	3,460	47%	0%	0%	32%
Lease Payments & Taxes	458,432	243,316	77,595	779,343	271,267	-	4,803	276,070					176,178	-	-	176,178	447,445	-	4,803	452,248	98%	0%	6%	58%
Fuels & Utilities	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-	-	-	-	-
Facilities Maintenance	-	-	-	-	392	-	-	392					-	-	-	-	392	-	-	392	-	-	-	-
Medical Services	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-	-	-	-	-
Agency Related S & S	-	-	-	-	347	-	42,840	43,186					-	-	14,711	14,711	347	-	57,551	57,897	100%	-	-	-
Intra agency Charges	-	-	-	-	-	-	-	-					46,000	-	15,000	61,000	46,000	-	15,000	61,000	100%	-	-	-
Other Services & Supplies	735,690	700,080	53,660	1,489,430	428,186	506	428	429,120					21,690	-	-	21,690	449,876	506	428	450,810	61%	0%	1%	30%
Expendable Prop (\$250-\$500)	8,344	20,758	30,695	59,797	7,156	-	-	7,156					12,000	-	13,800	25,800	19,156	-	13,800	32,956	230%	0%	45%	55%
IT Expendable Property	239,890	-	32,135	272,025	107,431	16	-	107,447					166,352	-	-	166,352	273,783	16	-	273,799	114%	100%	0%	101%
Technical Equipment	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-	-	-	-	-
Automotive & Aircraft	-	-	-	-	33,900	-	-	33,900					-	-	-	-	33,900	-	-	33,900	100%	-	-	-
Data Processing Software	97,696	-	-	97,696	-	-	-	-					-	-	-	-	-	-	-	-	-	-	-	0%
Data Processing Hardware	-	-	-	-	-	-	-	-					84,600	-	-	84,600	84,600	-	-	84,600	100%	-	-	-
Other Capital Outlay	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	-	-	-	-	-
Indirect	-	-	-	-	(272,067)	35,274	202,783	(34,011)					(251,308)	3,766	231,895	(15,647)	(523,375)	39,040	434,678	(49,657)	-	-	-	-
<i>Total Services & Supplies</i>	2,592,887	1,930,459	3,509,929	8,033,275	1,248,078	263,449	1,951,791	3,463,318	48%	14%	56%	43%	1,140,316	224,492	1,371,609	2,736,417	2,388,394	487,941	3,323,400	6,199,735	92%	25%	95%	77%
Total Expenditures	6,444,037	2,465,669	5,765,844	14,675,550	2,946,150	574,240	3,144,921	6,665,311	46%	23%	55%	45%	2,552,739	434,447	2,028,331	5,015,517	5,498,888	1,008,687	5,173,253	11,680,828	85%	41%	90%	80%
GS&S Ending Balance	\$ -	\$ 434,560	\$ -	\$ 434,560	\$ -	\$ 834,792	\$ (85,401)	\$ 749,391					\$ -	\$ (182,200)	\$ 111,881	\$ (70,319)	\$ -	\$ 652,592	\$ 26,480	\$ 679,072				

\$ 945,149
Under-budget

* Includes the Strong Motion Instrument Fund (SMIF)

Department of Geology & Mineral Industries
Budget Status Report: December 2022

% of Time Spent of 2 years 63%

Mineral Land Regulation & Reclamation (MLRR) Program

Budget Category / Line Item	2021-23 Budget by Funding Source	2021-23 Actual Revenue & Expenditures	% Actual Budget Spent to Date	2021-23 Projected Revenue & Expenditures	2021-23 Actual + Projected Revenue & Expenditures	Actual + Projected Budget % Total Spent
	Other Funds	Other Funds	OF	Other Funds	Other Funds	OF
Revenue						
Beginning Balance	401,956			401,956	401,956	
2021-23 Revenue & Transfers	4,236,325	3,545,570		1,359,328	4,904,898	
Total Available Revenue	4,638,281	3,545,570	76%	1,761,284	5,306,854	114.4%
Expenditures:						
<i>Personnel Services</i>	3,051,569	1,970,156	65%	1,425,109	3,395,265	111.3%
<i>Services & Supplies</i>						
Instate Travel	70,340	19,756		17,696	37,452	53.2%
Out of State Travel	-	-		-	-	
Employee Training	15,645	4,151		5,031	9,181	58.7%
Office Expenses	32,871	11,102		11,254	22,356	68.0%
Telecomm	46,920	21,897		15,457	37,355	79.6%
State Gov't Svc Chg	-	212		-	212	
Data Processing	83,330	16,439		15,146	31,586	37.9%
Publicity & Publications	3,882	184		332	516	13.3%
Professional Services	562,039	123,697		74,886	198,583	35.3%
IT Professional Services	-	28,159		-	28,159	
Attorney General	123,950	53,313		49,500	102,813	82.9%
Employee Recruitment	10	-		-	-	0.0%
Dues & Subscriptions	2,086	493		-	493	23.6%
Lease Payments & Taxes	85,526	44,646		29,782	74,428	87.0%
Fuels & Utilities	13,559	5,470		4,304	9,774	72.1%
Facilities Maintenance	12,516	6,372		4,022	10,394	83.0%
Medical Services	-	-		-	-	
Agency Related S & S	-	347		7,000	7,347	
Intra agency Charges	-	-		-	-	
Other Services & Supplies	119,063	189		8,000	8,189	6.9%
Expendable Prop (\$250-\$500)	19,613	7,804		-	7,804	39.8%
IT Expendable Property	25,032	537		80	617	2.5%
Technical Equipment	-	-		-	-	
Automotive & Aircraft	-	-		-	-	
Data Processing Software	19,697	-		-	-	0.0%
Data Processing Hardware	-	-		-	-	
Other Capital Outlay	-	-		-	-	
Indirect	-	36,702		35,647	72,348	
<i>Total Services & Supplies</i>	1,236,079	381,470	31%	278,137	659,607	53.4%
Total Expenditures	4,287,648	2,351,626	55%	1,703,246	4,054,871	94.6%
MLRR Ending Balance	350,633	\$ 1,193,944		\$ 58,038	\$ 1,251,982	

Department of Geology & Mineral Industries
Budget Status Report: December, 2022
Other programs

Geological Survey & Services	
Strong Motion Instrument Fund (SMIF)	
	Projected Revenue & Expenditures
Revenue:	
Beginning Balance	260,376
Actual Revenues (Jul 2021 - Sep 202)	128,461
Projected Revenues	17,800
Total Available Revenue	406,637
Expenditures:	
<i>Actual Personnel Services</i>	340
<i>Services & Supplies:</i>	
Projected Professional Services	200,000
Total Expenditures	200,340
SMIF Ending Balance	\$ 206,297

Mineral Land Regulation & Reclamation	
Reclamation Guarantee Fund	
	Beginning 2021-23
58 Cash Security's	\$ 669,943
12 New Securities	\$ 206,804
4 Security releases	\$ (50,095)
66 Cash Security's	\$ 826,652

General Fund Utilized Budget

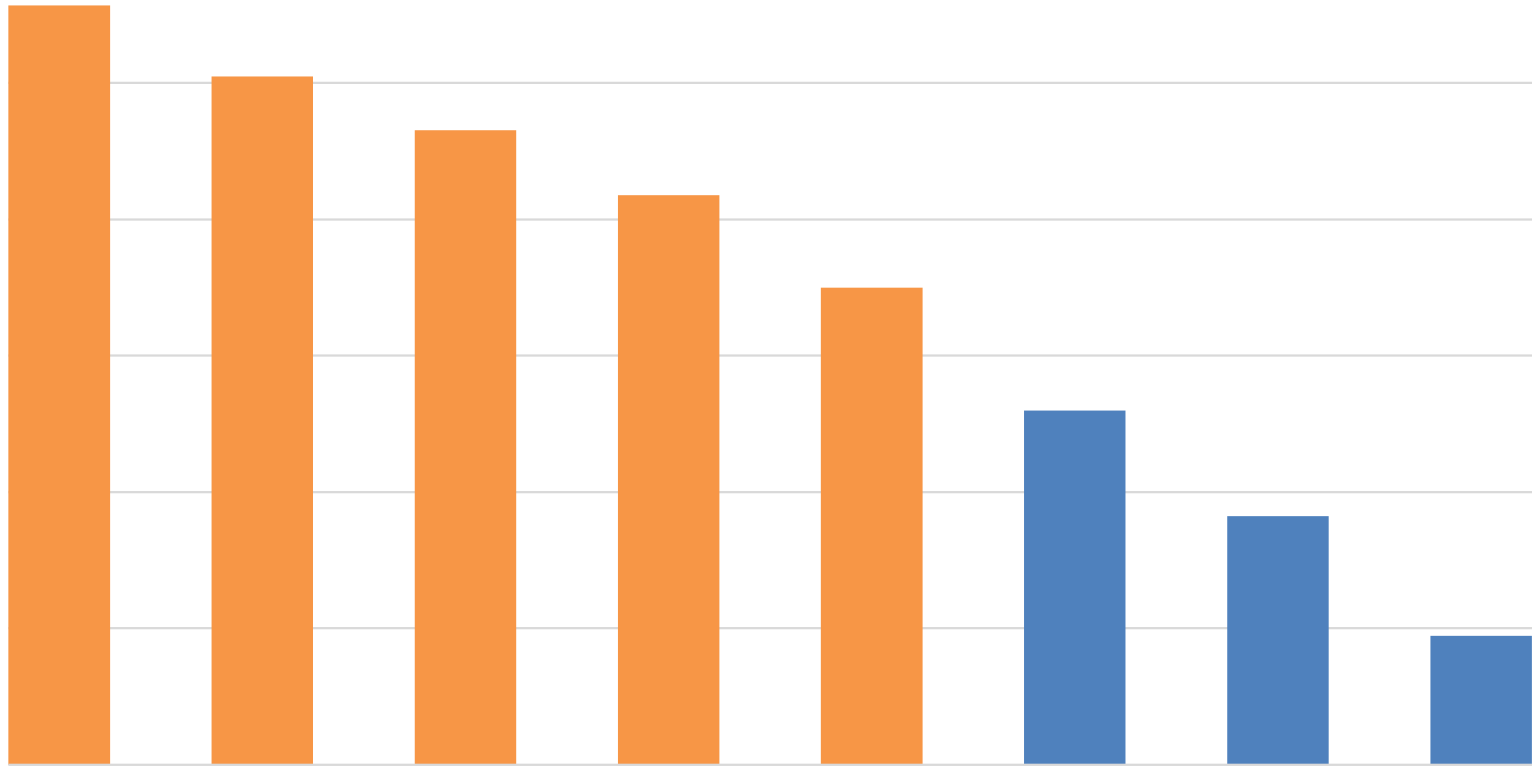
Current Projections through September 2022.

\$6,000,000
\$5,000,000
\$4,000,000
\$3,000,000
\$2,000,000
\$1,000,000
\$-

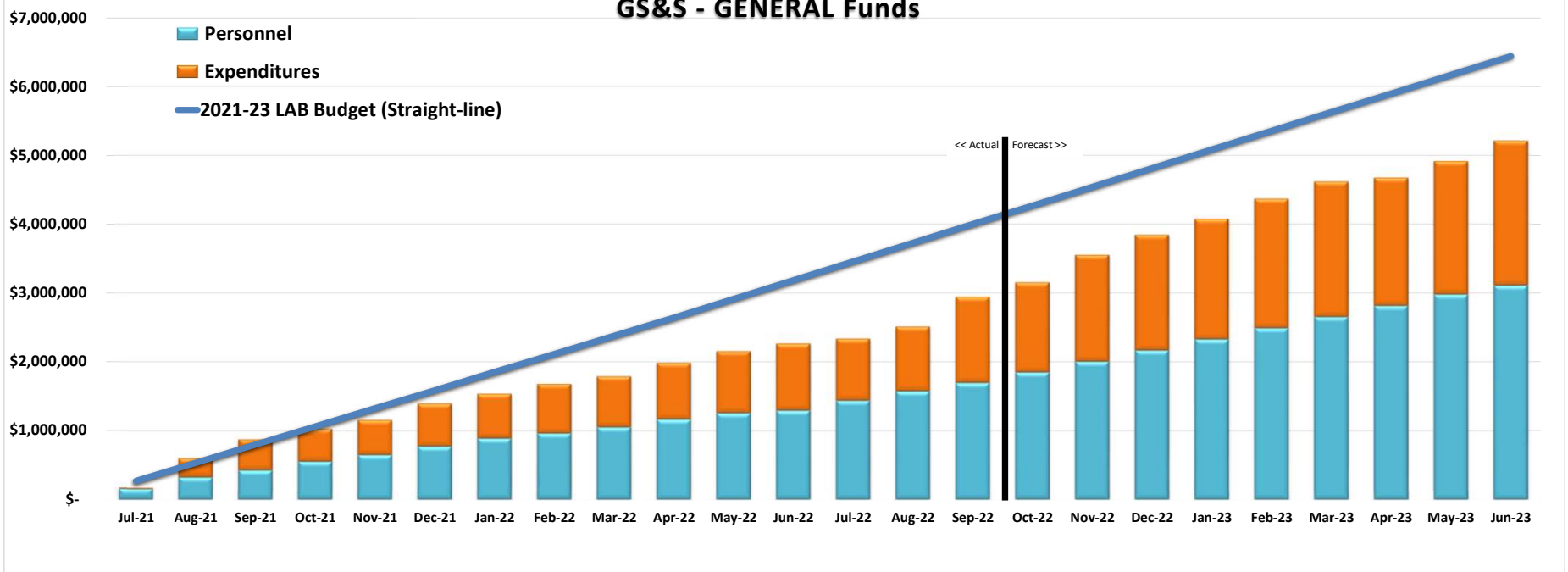
Q3-21 Q4-21 Q1-22 Q2-22 Q3-22 Q4-22 Q1-23 Q2-23

Calendar Qtrs

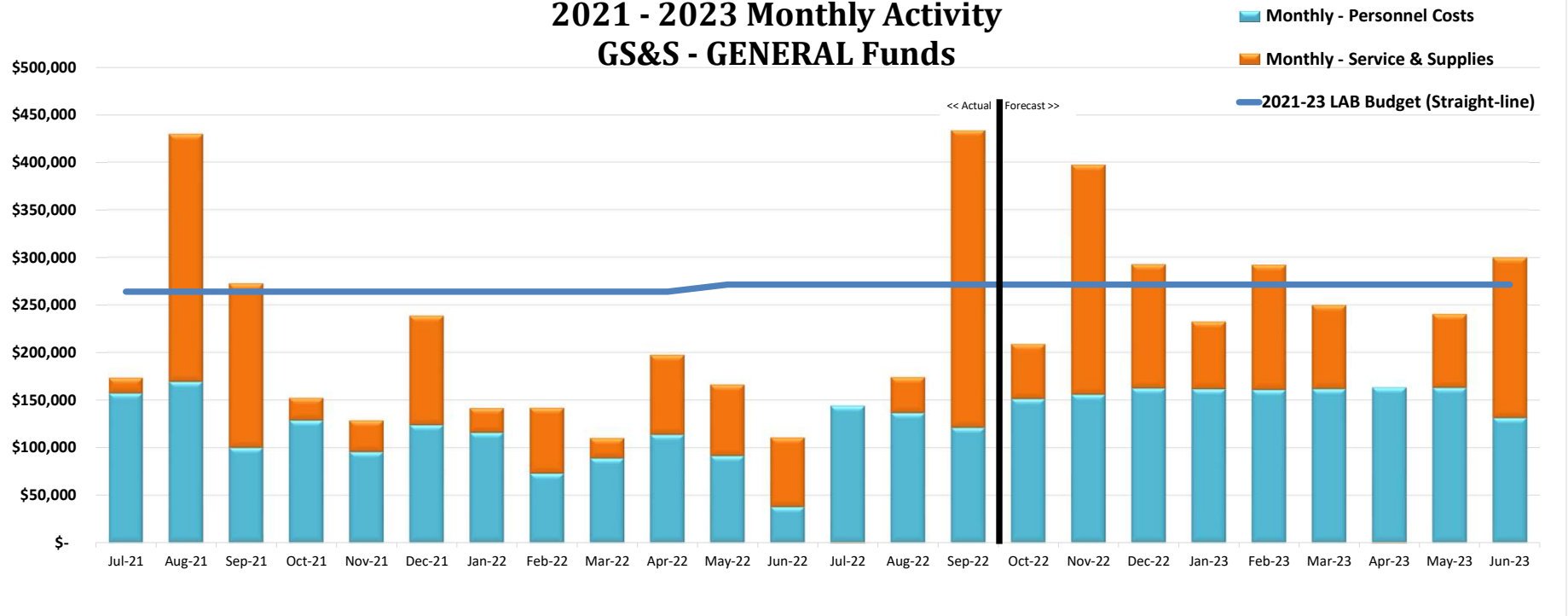
Actual Forecast



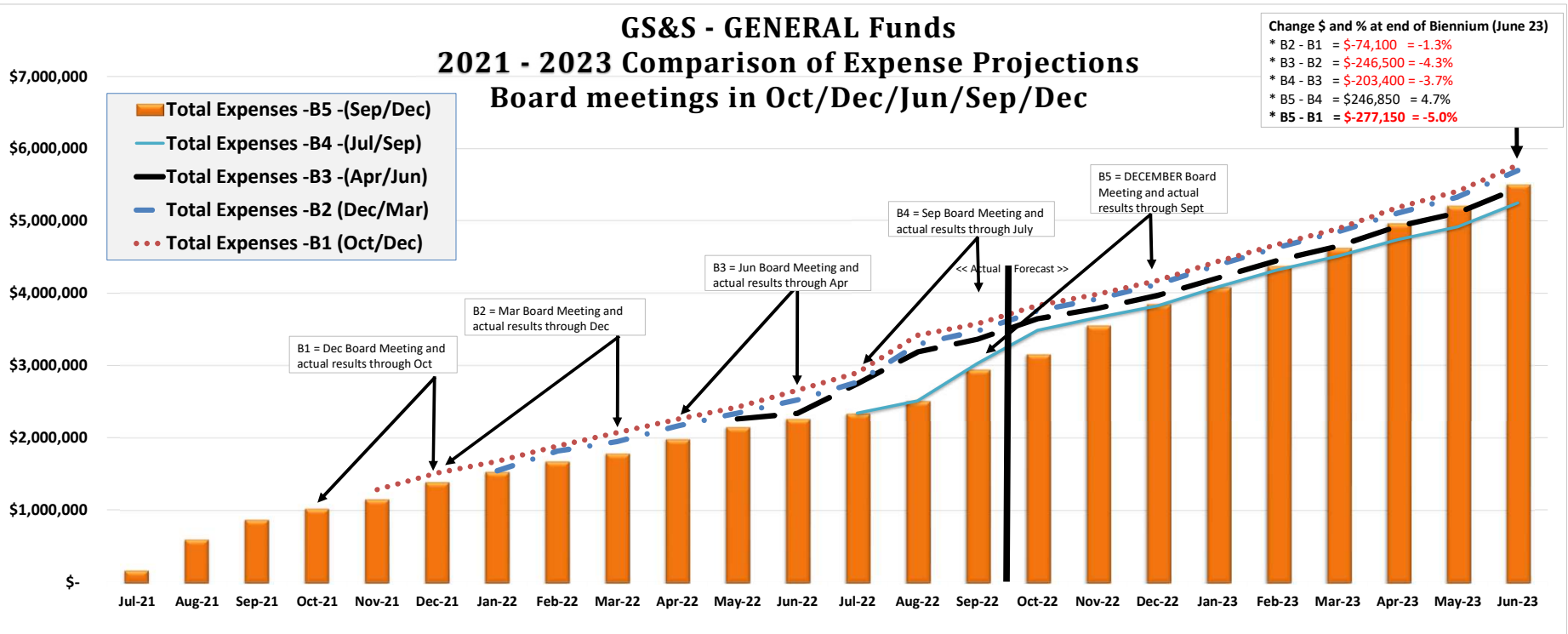
2021 - 2023 Running Balance: Budget to Spending GS&S - GENERAL Funds



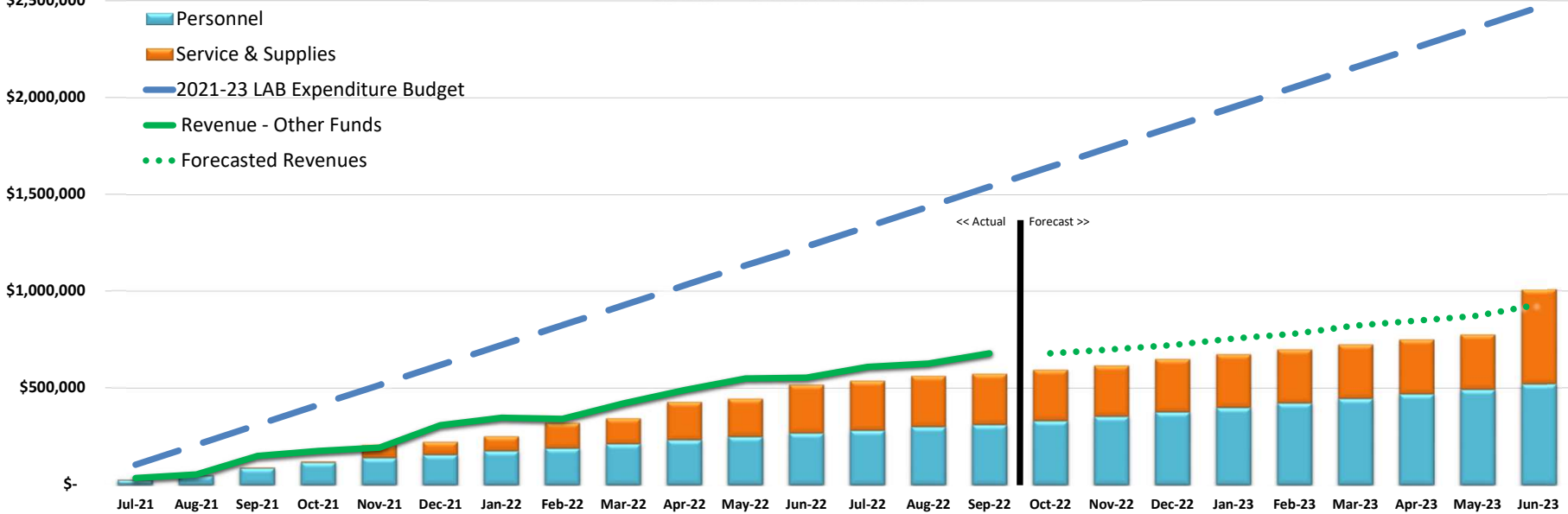
2021 - 2023 Monthly Activity GS&S - GENERAL Funds



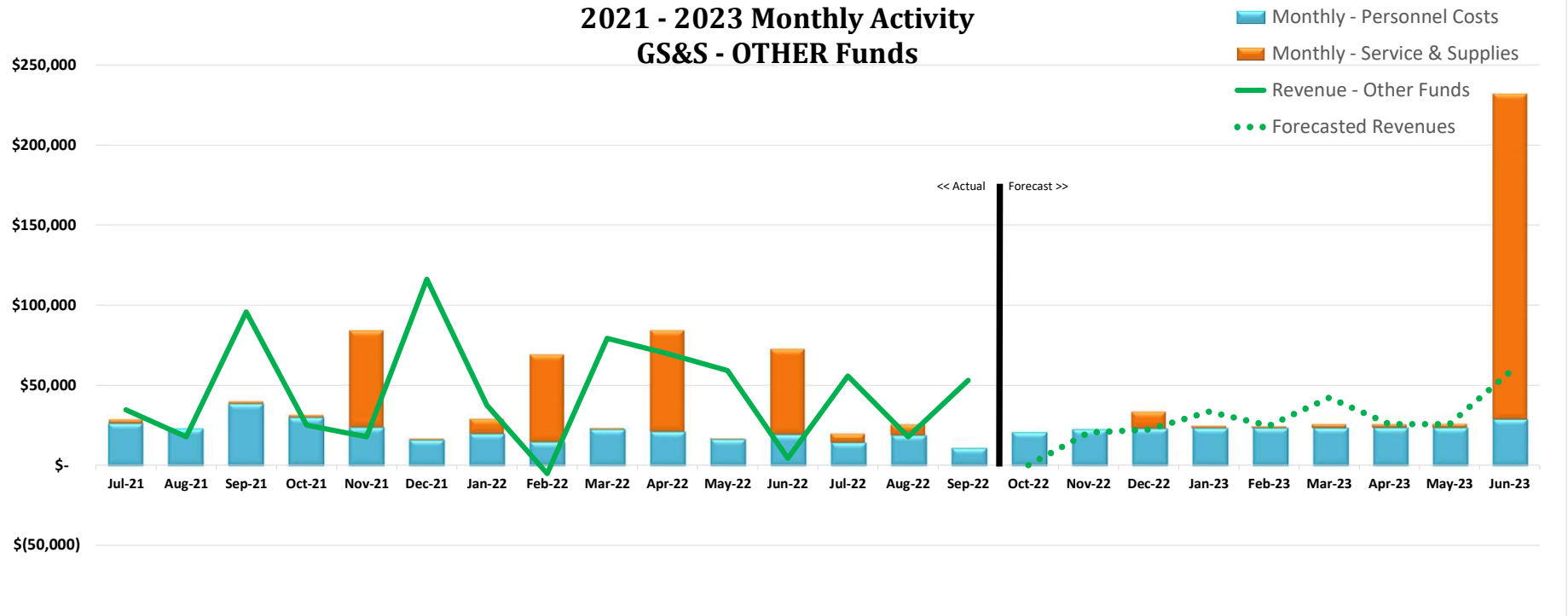
GS&S - GENERAL Funds 2021 - 2023 Comparison of Expense Projections Board meetings in Oct/Dec/Jan/Sep/Dec



2021 - 2023 Running Balance: Budget to Spending GS&S - OTHER Funds



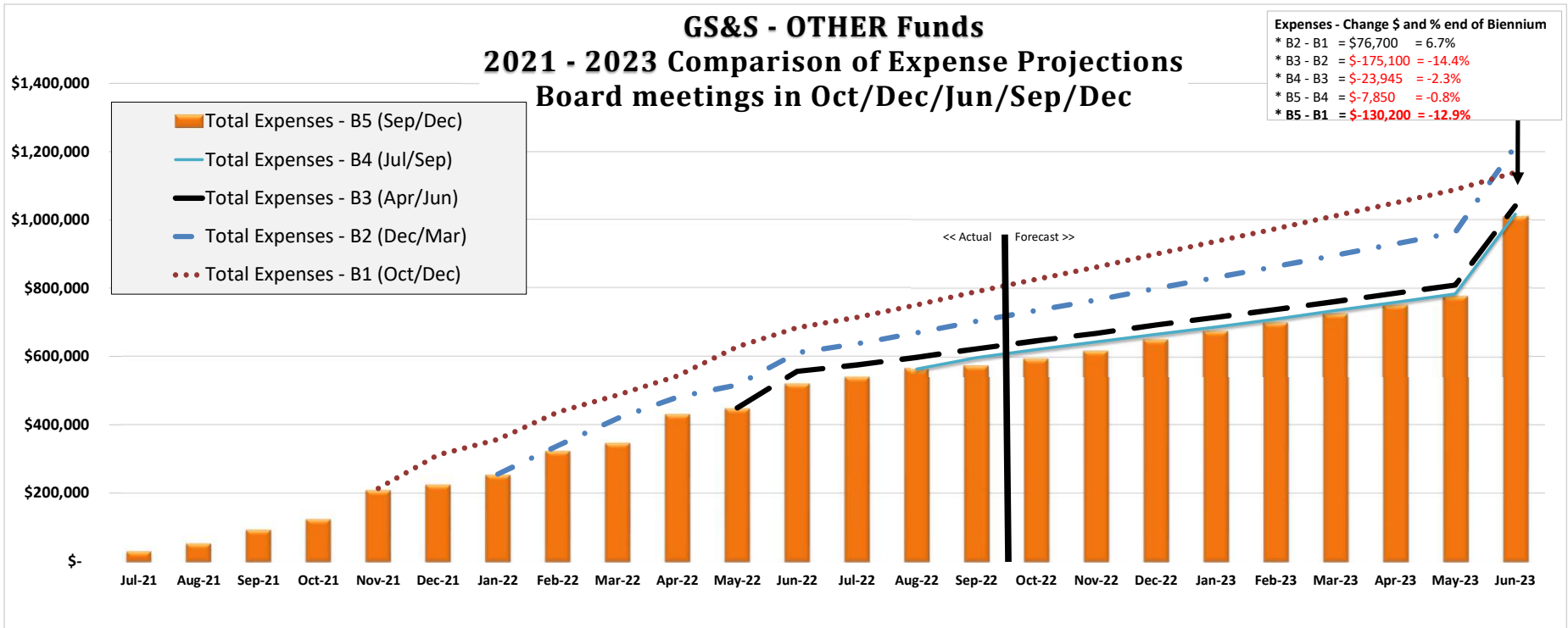
2021 - 2023 Monthly Activity GS&S - OTHER Funds



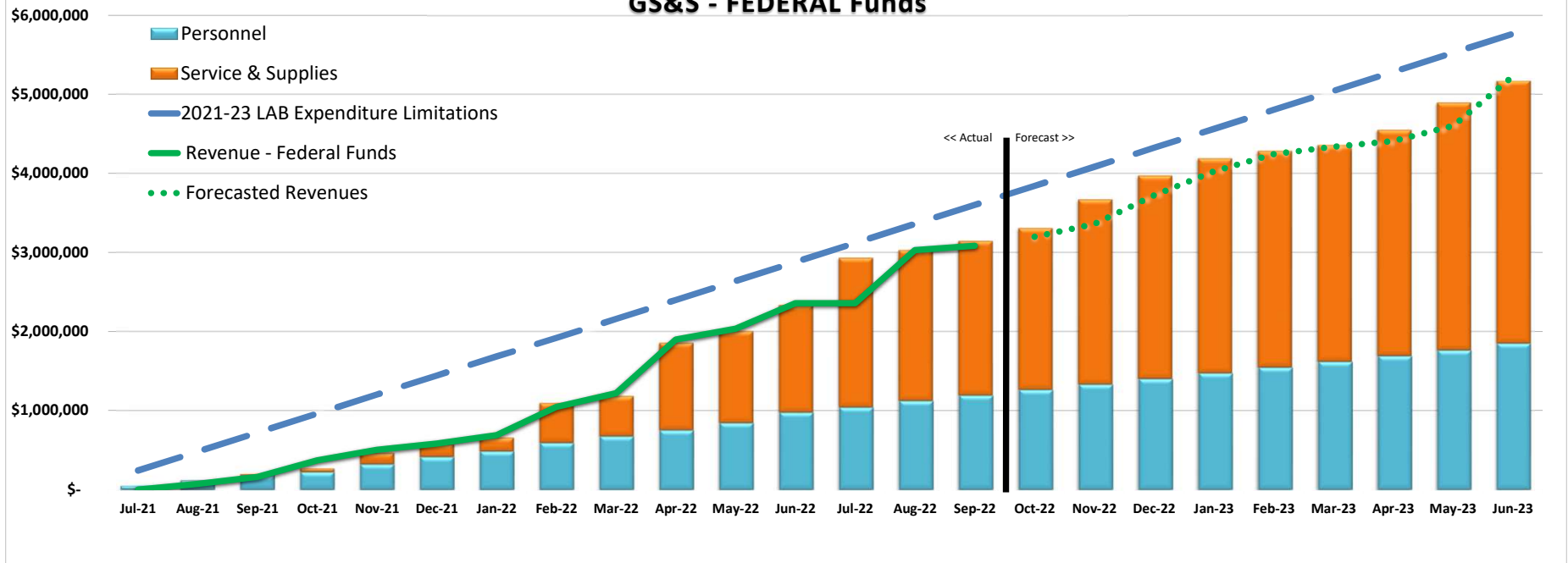
GS&S - OTHER FUNDS

2021 - 2023 Comparison of Expense Projections

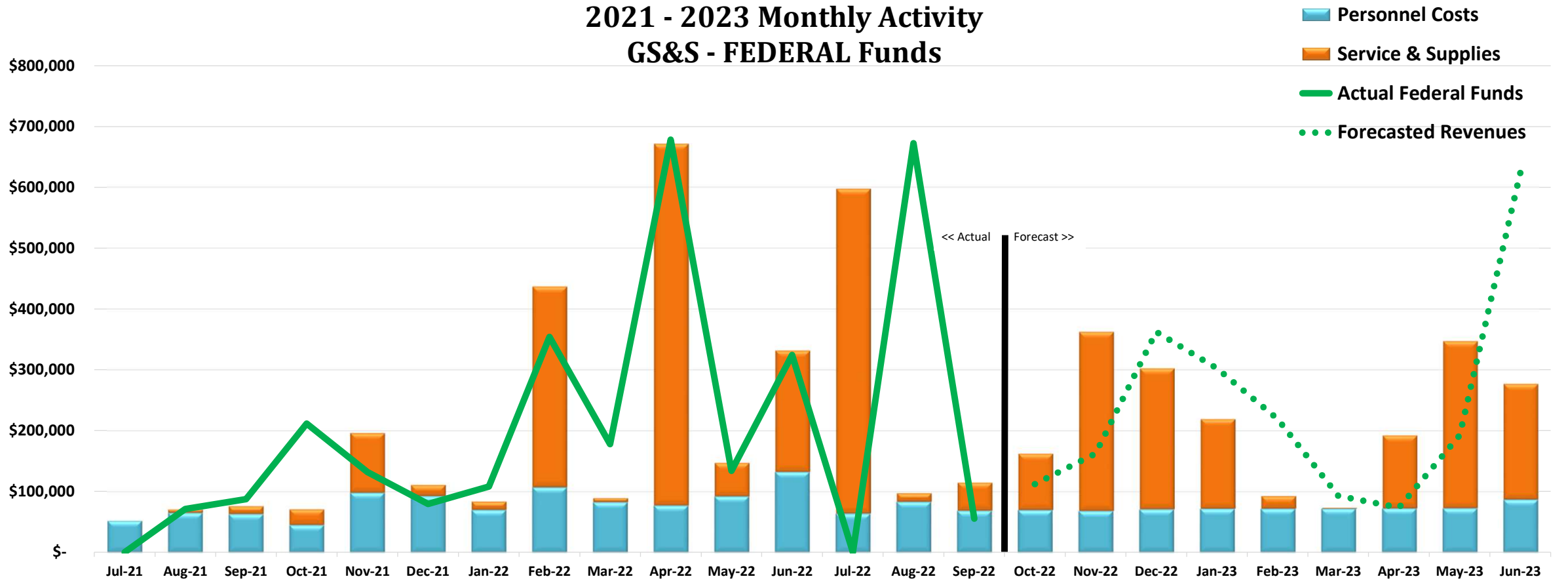
Board meetings in Oct/Dec/Jan/Feb/Mar



2021 - 2023 Running Balance: Budget to Spending GS&S - FEDERAL Funds

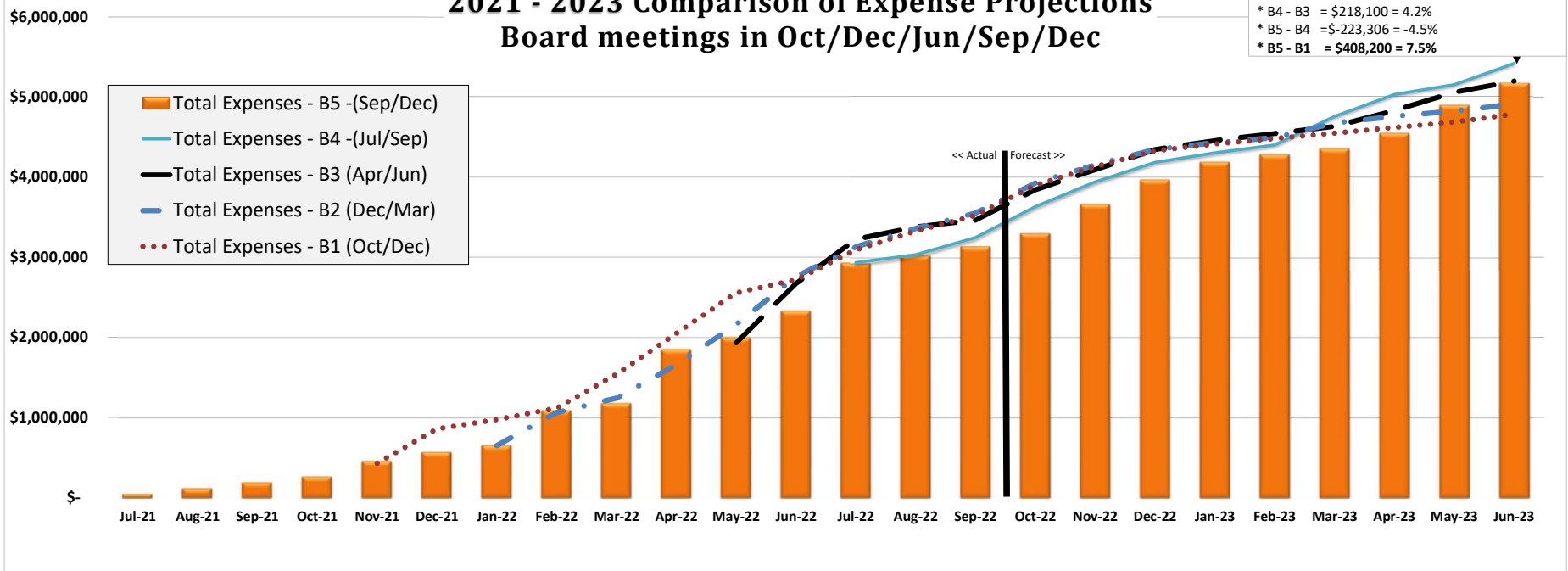


2021 - 2023 Monthly Activity GS&S - FEDERAL Funds

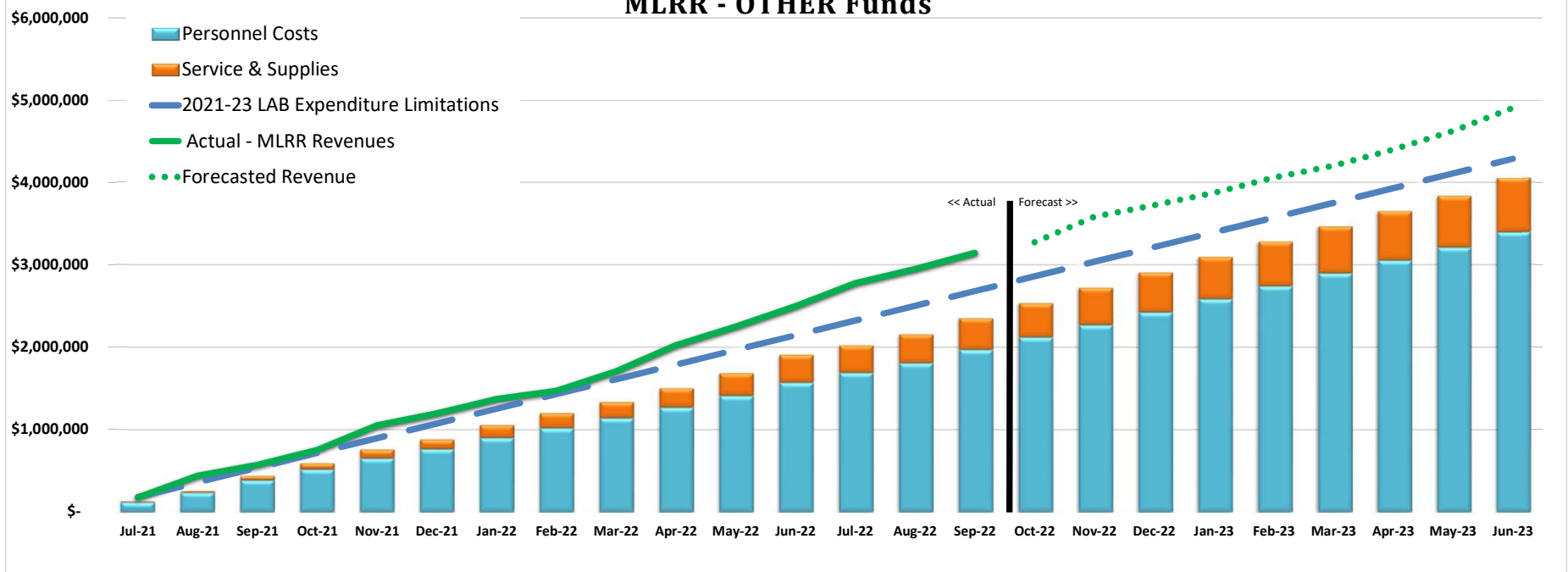


GS&S - FEDERAL FUNDS 2021 - 2023 Comparison of Expense Projections Board meetings in Oct/Dec/Jan/Feb/Mar/Apr/May/June/July/Aug/Sept/Oct/Nov/Dec

Expenses - Change \$ and % at end of Biennium
 * B2 - B1 = \$126,500 = 2.6%
 * B3 - B2 = \$286,800 = 5.8%
 * B4 - B3 = \$218,100 = 4.2%
 * B5 - B4 = \$-223,306 = -4.5%
 * B5 - B1 = \$408,200 = 7.5%



2021 - 2023 Running Balance: Budget to Spending MLRR - OTHER Funds



2021 - 2023 Monthly Activity MLRR - OTHER Funds



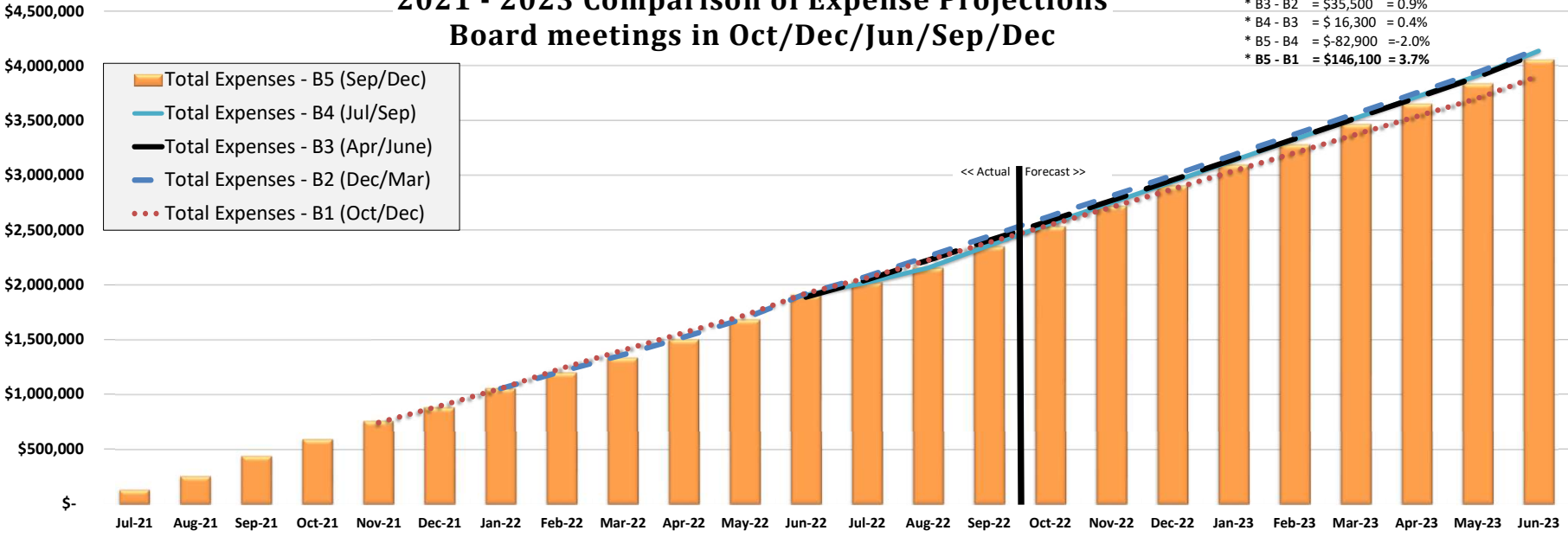
MLRR - OTHER Funds

2021 - 2023 Comparison of Expense Projections

Board meetings in Oct/Dec/Jan/Feb/Mar/Apr/May/June

Change \$ and % at end of Biennium (June 23)

- * B2 - B1 = \$248,200 = 6.4%
- * B3 - B2 = \$35,500 = 0.9%
- * B4 - B3 = \$ 16,300 = 0.4%
- * B5 - B4 = \$-82,900 = -2.0%
- * B5 - B1 = \$146,100 = 3.7%



Staff Report and Memorandum

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

From: Sarah Lewis, MLRR Program Manager, and Cari Buchner, Mining Compliance Specialist

Date: November 18, 2022

Regarding: Agenda Item 7 – Civil Penalties

Sarah Lewis, MLRR Program Manager, and Cari Buchner, Mining Compliance Specialist, will present program recommended Civil Penalties.

Proposed Board Action: The Board will 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: Bill Burns, Engineering Geologist

Date: November 15, 2022

Regarding: Agenda Item 8 - Technical Presentation: Post-Fire Debris Flow

Bill Burn, Engineering Geologist, will give a technical presentation on Post-Fire Debris Flow.

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

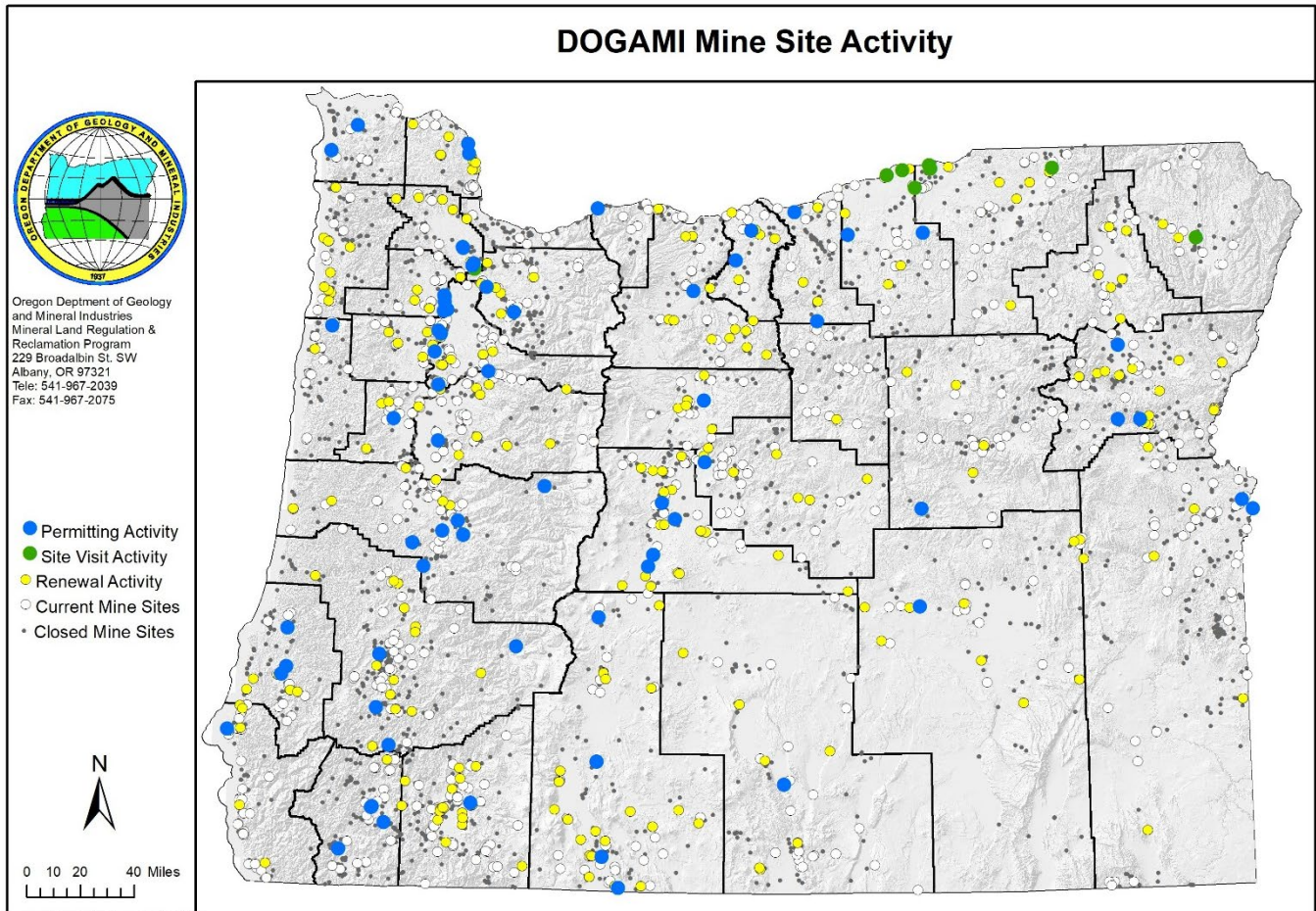
Date: November 18, 2022

Regarding: Agenda Item 9 – MLRR Update

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

- 1) Permitting Update
- 2) Survey Responses and Customer Service

Proposed Board Action: The Board will not be asked to take an 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 11/1/2022)

	Jan - Mar 2022		Apr - Jun 2022		Jul - Sep 2022		Oct - Nov 2022	
	Permits	Apps	Permits	Apps	Permits	Apps	Permits	Apps
Surface Mining								
Operating Permits	873	60	872	62	874	69	875	72
Exclusion Certificates	136	7	137	1	141	1	143	0
Sites Closed	(1)		(0)		(0)		(1)	
Stormwater (DEQ)								
1200A Permits	156	8	156	8	156	8	156	8
WPCF 1000 Permits	48	5	48	5	48	5	47	4
Exploration								
	19	3	20	4	20	5	21	7
Oil & Gas Wells								
	89	0	89	1	89	1	89	1
Geothermal								
Well Permits	21	0	21	0	21	0	21	0
Prospect Wells	4	0	4	0	4	0	4	0

Figure 2: Surface Mining Application Workload (as of 11/1/2022)

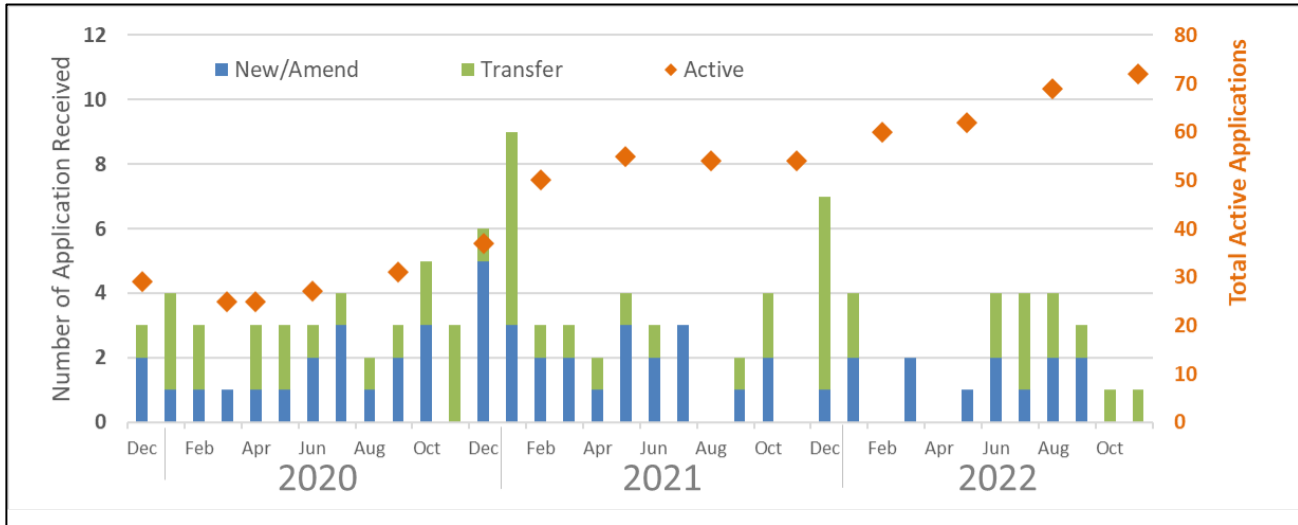


Table 2a: Surface Mining Applications Processed by Year

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023*
Total Received	39	38	48	27	14
Total Completed	42	35	17	20	6
Total Current Active Applications					72
Applications older than 1 year					40

The average processing time for an application completed during the last year was 11 months.

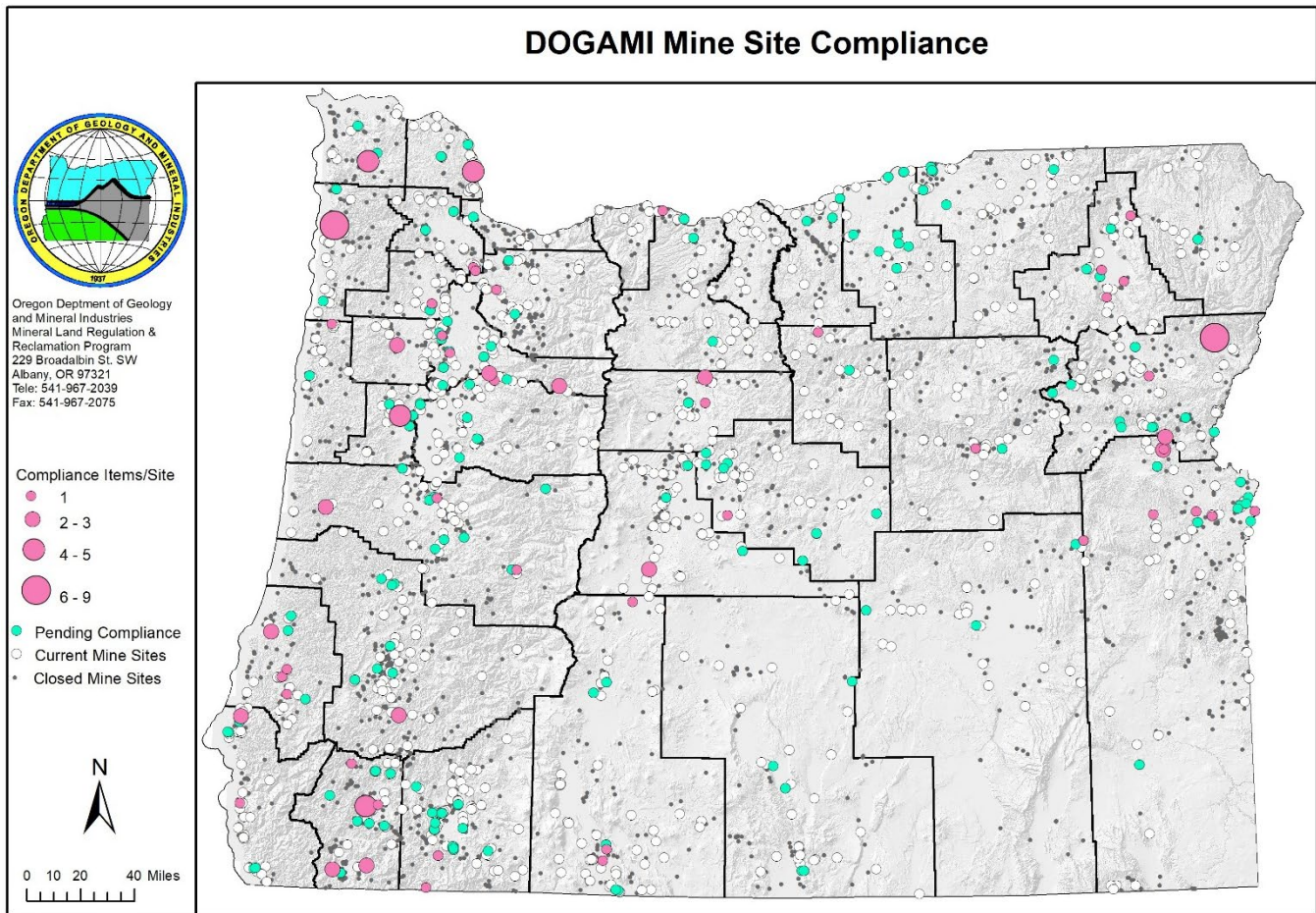
Table 2b: Surface Mining Applications received since last update:

Site ID#	Application Type	Permit Type	Date Received
10-0071	Amendment	OP-LE	9/12/2022
12-0108	Transfer	OP	9/12/2022
15-0063	Amendment	OP	9/20/2022
24-0100	New	EC	9/30/2022
28-0039	New	EC	9/28/2022
07-0137	Transfer	OP	10/07/2022
14-0158	Transfer	OP	11/02/2022
22-0158	New	EC	11/03/2022

Table 2c: Permits Issued since last update:

Site ID#	Application Type	Permit Type	Date Received	Date Issued
21-0057	Transfer	OP	10/27/2020	9/14/2022
24-0100	New	EC	9/30/2022	9/30/2022
28-0039	New	EC	9/28/2022	10/17/22
34-0010	Transfer	OP	12/15/2021	11/3/2022
01-0218	New	EC	8/17/2022	11/8/2022

Compliance Activity at DOGAMI Mine Sites



Prepared By: E. Buchner / 11-14-2022

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

Table 3a: Compliance Summary – Active Actions by Type (as of 11/14/2022)

	2021				2022			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
Non-Payment of Fees	15	12	20	25	28	26	24	27
Exploring Without a Permit	1	2	2	2	2	2	2	0
Mining Without a Permit	19	21	29	23	22	13	13	13
Mining Outside Permit Boundary	14	15	16	13	13	18	18	19
Lack of Approval	3	2	5	4	4	4	4	4
Failure to Comply with Order	6	8	8	9	9	8	8	9
Permit Boundary Survey Map	13	13	13	5	5	5	5	5
Boundary Marking Violation	4	3	5	5	5	4	4	4
Permit Condition Violation	3	3	5	5	5	5	5	9
Reclamation Security	7	7	8	7	7	6	7	7
Failure to Reclaim Timely	5	5	5	2	2	1	1	1
Total	90	91	116	100	102	92	91	98

Table 3b: Compliance Summary – Active Department Orders by Type (as of 11/14/2022)

Total Active Department Orders		
Order Types	Administrative Orders (change since last report)	Environmental/ Permit Orders
Notice of Violation	26 (+4)	21 (-1)
Suspension Order*	2	11
NCP Referral	4 (+3)	0 (-1)
Notice of Civil Penalty	2 (+2)	0
Final Order	1	0
Consent Order	0	1
Demand Warning	0	0
Notice of Intent	2	0
Demand to Recover	0 (-1)	0
Notice of Action	1	8 (-1)

Table 3c: Compliance Summary – Active Suspension Orders (as of 11/14/2022. No changes since last update)

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
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

Non-Payment of Renewal Fee – Civil Penalty Fact Pattern Matrix (*as of 12/1/2022)

#	Site Type-ID	Timeline			Days in violation (total)	Late Pay History		Mitigating Factors, Other Considerations (status)	Penalty Amount				
		Renewal Fee Due	Renewal Fee Paid	Civil Pen. Paid		Freq. of occurrence	Length of delay		Max (\$100k cap)	Standard	Staff Recc.	*State Geologist Approved	
40	20-0166	7/31/22	-		64 (124)	2/3 yr	< 60 days	Paid at the end of the NOV deadline the last two years	\$64,000	\$250	\$250	\$250	\$250
39	17-0056	4/30/22	-		64 (124)	2/3 yr 7/10 yr	2-5 mos.	Issued \$500 penalty in 2021	\$64,000	\$750	\$750	\$750	\$750
38	31-0005	2/28/22	-		125 (185)	1/3 yr 2/25 yr	2-6 mos.		\$125,000	\$250	\$250	\$250	\$250
37	12-0074	10/31/21	3/9/22		69 (129)	None	None		\$69,000	\$250	\$250	\$250	\$250
36	18-0033	10/31/21	-		245 (305)	2/3 yr 6/12 yr	~3 mos.	Penalty waived in 2020	\$245,000	\$500	\$500	\$500	\$500
35	36-0062	9/30/21	2/22/22		85 (145)	None	None		\$85,000	\$250	\$250	\$250	\$250
34	29-0074	9/30/21	1/20/22		53 (113)	1/3 yr	1 mo.	Paid on NOV last 3 years	\$53,000	\$250	\$250	\$250	\$250
33	29-0040	8/31/21	-		306 (366)	2/3 yr 9/11 yr	4-13 mos.	Issued \$500 penalty in 2020	\$306,000	\$750	\$750	\$750	\$750
32	01-0111	7/31/21	-		337 (397)	0/3 yr 0/41 yr	None		\$337,000	\$250	\$250	\$250	\$250
31	23-0269	6/30/21	-		368 (428)	3/3 yr 4/12 yr	4-5 mos.	Issued \$500 penalty in 2020	\$368,000	\$750	\$750	\$750	\$750
30	18-0099	5/31/21	-	\$250	398 (458)	0/3 yr 1/31 yr	~9 mos	STILL LOWE RENEWAL	\$398,000	\$250	\$250	\$250	\$250
29	23-0267	5/31/21	-		398 (458)	1/3 yr 2/12 yr	~5 mos.	Issued \$250 penalty in 2020	\$398,000	\$500	\$500	\$500	\$500
28	33-0082	5/31/21	9/7/2021	N/A	39 (99)	0/3 yr 1/29 yr	~2 mos	Staff recommended reversal based on extenuating circumstances	\$39,000	\$250	Reverse	Reverse	Reverse
27	20-0170	5/31/21	9/21/21	N/A	53 (113)	None	None		\$53,000	\$250	Waive	Waive	Waive
26	25-0049	3/31/21	11/3/21	11/3/21	157 (217)	0/3 yr 4/28 yr	~1-2 mos.		\$157,000	\$250	\$250	\$250	\$250
25	09-0159	2/28/21	5/24/20	11/3/21	25 (85)	0/3 yr 4/27 yr	~1-2 mos.		\$25,000	\$250	\$250	\$250	\$250
24	05-0004	12/31/20	6/9/22	N/A	465 (525)	None	None	Permittee passed away, new permittee working with estate to transfer will pay renewal	\$465,000	\$250	Waive	Waive	Waive
23	13-0089	9/30/20	12/23/20	N/A	25 (85)	0/1 yr	25 (85)	EC	\$25,000	\$250	Waive	Waive	Waive
22	01-0205	8/31/20	5/11/21	5/11/21	193 (253)	First renewal	193 (253)	Did not report change of address, promised payment 11/23/20.	\$193,000	\$250	\$250	\$250	\$250

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

Staff Report and Memorandum

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

From: Jason McLaughry, Interim GS&S Program Manager

Date: November 15, 2022

Regarding: Agenda Item 10 - GS&S Update

Jason McLaughry, Interim GS&S Program Manager, will provide an update on the GS&S program.

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

November 16, 2022

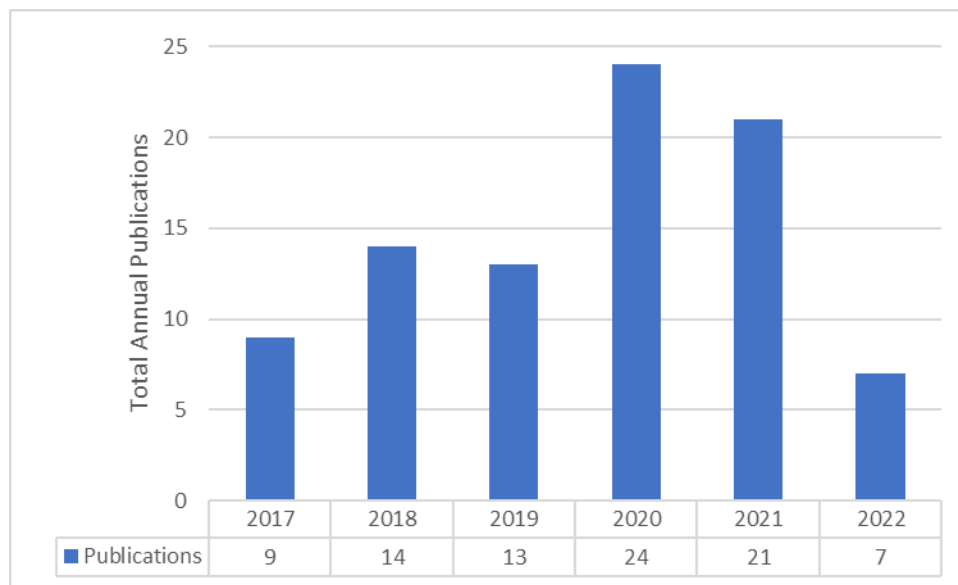
Agenda Item 10 – GS&S Update

This is a report of Geological Survey and Services Program activities since the last presentation to the Board on September 27, 2022. 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 15 non-lidar grants (8 FF, 7 OF) and 5 Lidar projects. Potential grant opportunities continue to exist in the areas of: 1) post wildfire landside and debris flows; 2) developing an “Oregon specific” probabilistic tsunami inundation model analysis; 3) channel migration and flood zone analysis; 4) geologic mapping in support of understanding groundwater and mineral resources; and 5) natural hazard risk assessments.

Publications

As of November 16, 2022 the Geological Survey and Services Program has released 7 publications. No publications were released since the last board update September 27, 2022. 6 new publications are expected to be released by December 31, 2022.

Figure 1. Chart showing DOGAMI publication output since 2017.



Upcoming DOGAMI publications

- Geologic Map of the Mill Creek Area, Hood River and Wasco Counties, McClaughry, GMS 128.
- Geologic Map of the Athena Quadrangle, Umatilla County, McClaughry, GMS 129.
- Tillamook County Multi-Hazard Risk Assessment, Williams, OFR.
- Umpqua River Tsunami Modeling Report, Allan, O-22-07.
 - Umpqua Maritime Guidance Document
- Landslide Inventory and Risk Reduction, Wasco County, Burns, OFR.
- Bandon Beat the Wave, Gabel, OFR

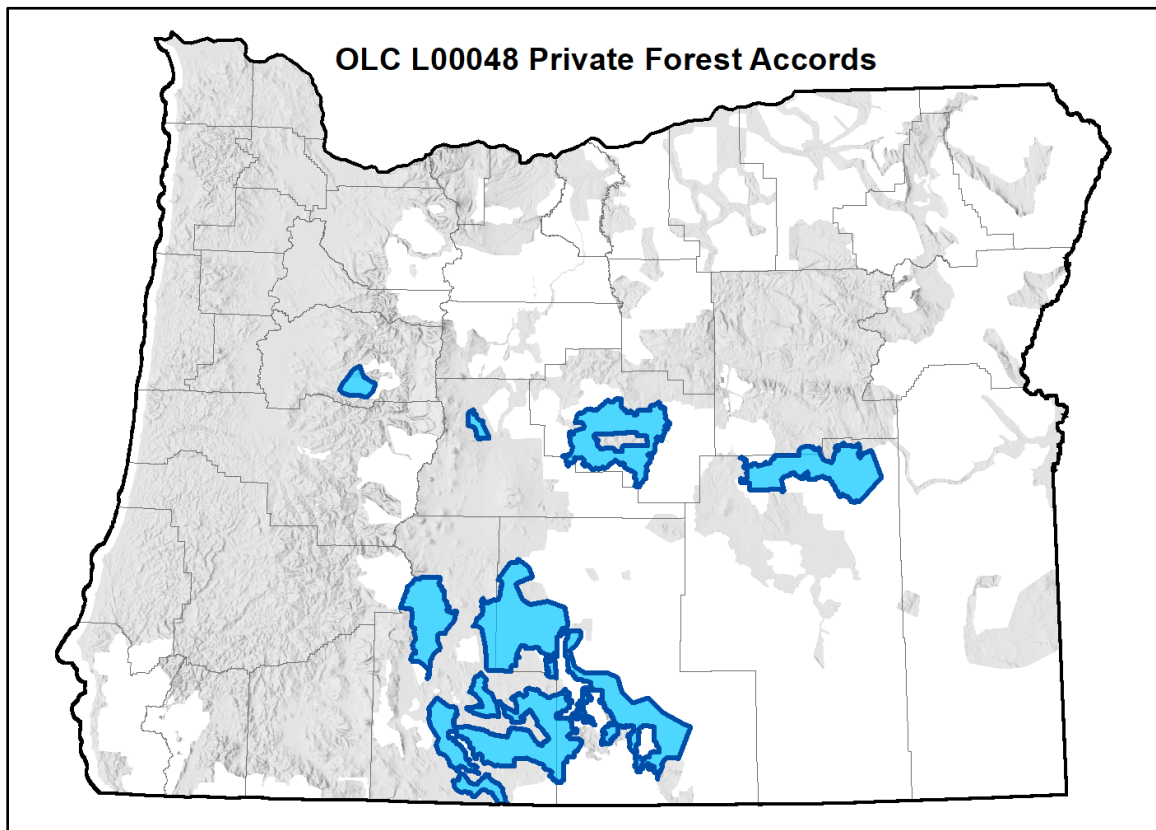
Grants

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

Grants received

1. Private Forest Accords

- Award \$2,200,000.00 (Other Funds through Oregon Department of Forestry)
- Focus Areas: The purpose of this grant is to acquire LiDAR for the Private Forest Accords collection is for an area of 4,629 sq. miles of lidar collection. The total award is \$2,182,573.50 = \$1,897,890.00 (direct) + \$284,683.50 (indirect). The image below shows data collection areas in blue. Gray shade is existing statewide lidar data.
- November 1, 2022 to June 30, 2023



Grant applications (upcoming)

2. RDPO Regional Disaster Preparedness Organization (RDPO)

- Grant up to \$81,491.00 (Other Funds)
- Focus Areas: The project will assist the Regional Disaster Preparedness Organization, Washington County, and Columbia County in understanding the landslide hazard which threatens their portions of the Portland Region. The scope of work we propose is aimed at regional landslide inventory mapping.
- Project period 2023 to May 30, 2024

- Proposal submitted October 24, 2022.
3. **Ecola State Park Multi-hazard Risk Assessment**
 - Grant up to \$225,082.00 (Other Funds)
 - Focus Areas: Lidar collection, landslide hazard mapping, and coastal assessment of Ecola State Park.
 - Project period 2023/2024
 - Proposal submitted to Oregon State Parks Department October 25, 2022. In review.
 4. **U.S. Geological Survey National Geological and Geophysical Data Preservation Program (NGGDPP)**
 - Grant up to \$50,000.00 (Federal Funds)
 - Focus Areas: This grant proposes to fund a project to scan, archive, and make publicly available historic scanned assay reports, mine maps, Oregon Bureau of Mines and Geology files, and historic Agency photographs.
 - Project period June 1, 2023 to May 31, 2024
 - Proposal submitted October 12, 2022.
 5. **U.S. Geological Survey STATEMAP Program**
 - Grant up to \$250,000.00 (Federal Funds)
 - Focus Areas: Geologic mapping in Umatilla and Harney Counties to support ongoing concerns about water scarcity, to investigate mineral resource potential, and to better understand geologic hazards.
 - Project period June 1, 2023 to May 31, 2024
 - Proposal due January 13th, 2023
 6. **U.S. Geological Survey 3D Elevation Program (3DEP)**
 - Grant up to \$7,219,368 (Federal Funds)
 - Focus Areas: The purpose of this grant is to acquire LiDAR data in the Willamette Valley covering 7,081 sq. miles and in Deschutes County for 6,741 sq. miles. These grants will: 1) fund the collection of new high-quality and high-resolution lidar data; and 2) update earlier LiDAR data which is now considered outdated according to USGS standards. The USGS 3DEP program is an annual grant opportunity which DOGAMI has applied since 2015. To date, DOGAMI has been awarded twelve grants supporting DOGAMI's lidar mapping program.
 - Project period early 2023 to 2024
 - Proposal will be submitted November 28, 2022

Staffing

GS&S is currently in the process of completing two recruitments for two positions: 1) A permanent full time Natural Resource Specialist 4, Geology Hazards Specialist. The primary purpose of this position is to serve the agency as the Geology Hazard Specialist, focusing on specific expertise in geologic mapping, tectonics, active faults, and seismic hazards.; and 2) A permanent limited duration Natural Resource Specialist 4, Eastern Oregon Regional Geologist (backfill for staff rotation to Program Manager). The primary purpose of this position is to lead the agency geologic mapping program, with emphasis on geochemistry, volcanology, mineral and water resources, and geologic hazards. Recruitments will be completed by December 1, 2022. With the completion of these recruitments GS&S will be fully staffed.

GS&S Program Focus Area:

Geological Society of America Annual Meeting, October 9-12th, Denver Colorado.

Several GS&S staff attended and represented the Agency at the Geological Society Of America Annual Meeting in Denver, CO, October 9-12th, 2022. DOGAMI staff organized several sessions around landslides and post-fire debris flows, as well as investigations into earthquake hazards. Three DOGAMI presentations discussed post-fire debris flows and landslide risk reduction.

Technical Sessions

20 T64. Understanding Landslides Role in Hillslope and Landscape Evolution (Posters)
William Burns, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street, Suite 965, Portland, OR, **Matthew Crawford**, Kentucky Geological Survey, University of Kentucky, Lexington, KY, **Anne Witt**, Charlottesville, VA and **Stephen L. Slaughter**, Washington State Department of Natural Resources, Washington Geological Survey, Olympia, WA

43 T64. Understanding Landslides Role in Hillslope and Landscape Evolution
William Burns, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street, Suite 965, Portland, OR, **Matthew Crawford**, Kentucky Geological Survey, University of Kentucky, Lexington, KY, **Anne Witt**, Charlottesville, VA and **Stephen L. Slaughter**, Washington State Department of Natural Resources, Washington Geological Survey, Olympia, WA

105: P2. Looking to the Future of Environmental and Engineering Geology: EEGD 75th Anniversary
Matthew Crawford¹, **Ann Youberg**², **Francis Rengers**³, **William Burns**, **Stephen L. Slaughter**³ and **Anne Witt**⁴,
(1)Kentucky Geological Survey, University of Kentucky, Lexington, KY(2)Arizona Geological Survey, University of Arizona, Tucson, AZ(3)Geologic Hazards Science Center, U.S. Geological Survey, Denver, CO(4) **Oregon Department of Geology and Mineral Industries**, 800 NE Oregon Street, Suite 965, Portland, OR(5)Virginia Department of Energy, Charlottesville, VA

149 T41. What's in a Slip Rate?

Alexandra Hatem¹, **Nadine Reitman**², **Richard Briggs**¹, **Jessica Ann A. Jobe**¹, **Christopher B. DuRoss**¹, **Harrison Gray**³ and **Reed Burgette**⁴, (1)U.S. Geological Survey, Geologic Hazards Science Center, Golden, CO(2)University of Colorado BoulderGeological Sciences, Boulder, CO(3)U.S. Geological Survey, Denver Federal Center, Denver, CO(4) **Oregon Department of Geology and Mineral Industries**

209 T41. What's in a Slip Rate? (Posters)

Alexandra Hatem¹, **Nadine Reitman**², **Richard Briggs**¹, **Jessica Ann A. Jobe**¹, **Christopher B. DuRoss**¹, **Harrison Gray**³ and **Reed Burgette**⁴, (1)U.S. Geological Survey, Geologic Hazards Science Center, Golden, CO(2)University of Colorado BoulderGeological Sciences, Boulder, CO(3)U.S. Geological Survey, Denver Federal Center, Denver, CO(4) **Oregon Department of Geology and Mineral Industries**

Presentations

141-10 RECENT OBSERVATIONS OF POST-FIRE DEBRIS FLOWS IN FIVE MEGAFIRES IN THE WESTERN CASCADES, OREGON

CALHOUN, Nancy, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street, Suite 965, Portland, OR 97232, **BURNS, William**, Oregon Department of Geology, 800 NE Oregon Street, Suite 965, 800 NE Oregon St, Portland, OR 97232, **KEAN, Jason**, U.S. Geological Survey, Geologic Hazards Science Center, P.O. Box 25046, MS 966, Denver Federal Center, Denver, CO 80225 and **RENGERS, Francis**, U.S. Geological Survey, Geologic Hazards Science Center, Box 25046, MSS 966, Denver Federal Center, Denver, CO 80225

Abstract

To better understand the influence of wildfire on debris-flow occurrence in the Pacific Northwest, we surveyed five burn areas in Oregon for debris-flow activity during the 2020-21 and 2021-22 winter rainy seasons. The sites include four burn areas that are the result of Oregon's devastating 2020 Labor Day megafires: Riverside, Lionshead-Beachie Creek, Holiday Farm and Archie Creek; as well as the 2017 Eagle Creek burn area. Each of these fires burned west of the Cascades, on the rainy side of the mountain range. We conducted field surveys after several major rain events, most of which were the result of moderate to intense atmospheric river storms. Additionally, we used aerial photos acquired by the Oregon Department of Transportation for two of the burn areas to identify initiation areas and transport zones, which were otherwise difficult to see in the field. We identified 56 debris-flow events, 17 flood-scour events, 26 shallow landslides, 9 rockfall instances, and 226 drainages that did not display evidence of a flood or debris flow. These non-events are important to build a dataset of null events needed for rainfall threshold analyses. Following event identification, we further characterized sites containing debris flows using additional feature classes, including initiation points, transport lines, and deposition polygons. We identified 22 initiation points, 72 nonunique transport lines, and 39 deposition polygons. In this presentation, we will provide observations of the variety of mass movement events within the burn areas, as well as comparisons between the 2020-21 events and events the following year. We will also compare these post-fire events to non-fire debris-flow events within the same geographic extents in four out of five of the burn areas (excluding Riverside). Initial observations suggest differing initiation styles between non-fire debris flows and post-fire debris flows.

20-5 LANDSLIDE RISK REDUCTION THROUGH DETAILED LANDSLIDE INVENTORIES AND STAKEHOLDER-DRIVEN COLLABORATION IN WASCO AND GRANT COUNTY, OREGON

BURNS, William¹, CALHOUN, Nancy¹, FRANCYK, Jon J.² and DANIEL, Katherine³, (1) Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street, Suite 965, 800 NE Oregon St, Portland, OR 97232, (2) Geohazards Section, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street #28, Suite 965, Portland, OR 97232, (3) Oregon Department of Land Conservation and Development, 635 Capitol Street NE, Suite 150, Salem, OR 97301

Abstract

The Oregon Department of Geology and Mineral Industries (DOGAMI) recently completed landslide inventory mapping of 600 square miles (mi²) of Wasco County and 280 mi² in Grant County, Oregon. The mapping identified 4,246 landslide features, where each landslide is characterized by 25 unique attributes, including landslide movement type (e.g., rotational rockslide, debris flow or rockfall) estimated failure depth, and associated geologic unit. Mapping in Wasco and Grant County was completed using well established methods and protocols for developing landslide inventories (Burns and Madin, 2009), using 3 ft-resolution lidar, orthophotos, and field validation, with all mapping undertaken at 1:8000 scale. Once published, the landslide inventory will be publicly available via webmap or downloadable geodatabase and will be presented to community stakeholders. In collaboration with the Oregon Department of Land Conservation and Development, DOGAMI staff held a series of meetings with a variety of stakeholders in both counties to create a list of risk reduction strategies that could be implemented to mitigate their community's risk from landslides. Examples of such actions are: adopting updated landslide inventory maps in land use codes, including a geotechnical or geological engineering assessment in the planning or permitting process, and connecting the public with landslide data and information. Key stakeholders who participated include city managers, engineers, permitting specialists and planners. In this poster, we present the final landslide inventory maps defined for Wasco and Grant county, Oregon, as well as the stakeholder-driven risk reduction action list, and summary of our collaborative approach toward landslide risk reduction in both counties.

PROTOCOL FOR CHANNELIZED DEBRIS FLOW SUSCEPTIBILITY MAPPING IN OREGON

BURNS, William, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street, Suite 965, 800 NE Oregon St, Portland, OR 97232, CALHOUN, Nancy, Geohazards Section, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street #28, Suite 965, Portland, OR 97232; Oregon Department of Geology, 800 NE Oregon Street, Suite 965, 800 NE Oregon St, Portland, OR 97232 and FRANZCYK, Jon J., Geohazards Section, Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street #28, Suite 965, Portland, OR 97232

Abstract

Since 2007, the Oregon Department of Geology and Mineral Industries (DOGAMI) has developed and published protocols which detail methods for creating next-generation landslide hazard maps. Landslide protocols, published as DOGAMI Special Papers (SP), include lidar-based landslide inventory (SP-42), shallow landslide susceptibility (SP-45), deep landslide susceptibility (SP-48), and a tool for semi-automatic landslide mapping (SP-52). In 2022, DOGAMI published a new protocol for channelized debris flow (CDF) susceptibility mapping (SP-53).

The SP-53 CDF susceptibility mapping protocol is a geomorphic empirical method, developed based on a CDF inventory dataset consisting of 680 debris flow events throughout western Oregon. This inventory was used to calibrate the CDF susceptibility mapping protocol to local Oregon conditions and to define four relative CDF susceptibility zones (none-very low, low, moderate, high). Each of the process subdivisions: initiation, transport and inundation are individually evaluated and then combined for an overall assessment of the project area. Initiation uses slope steepness, curvature, and distance to channel. Transport uses channel gradient and confinement. Overall basin susceptibility is a combination of initiation and transport. Inundation susceptibility uses a multi-point LAHARZ model developed at the USGS. DOGAMI's SP-53 methods will be the basis for completing future CDF mapping projects where needed to assist in landslide risk reduction. Project follow-up includes appending of data into our statewide landslide database for Oregon (SLIDO).

Oregon GEO

The Newsletter of the Geological Survey & Services Program

Fall 2022

Agency Update New Governing Board Members

In late September, the Oregon Legislature approved Governor Kate Brown's two new appointments to the DOGAMI Governing Board. Please join us in welcoming new board members Erica Medley and Anne MacDonald! We look forward to working with our new and incumbent board members as we move forward. We would also like to thank our outgoing board members, Katie Jeramiah and Chair Laura Maffei, for their years of service. Dr. Scott Ashford now Chairs the Governing Board with Linda Kozlowski as Vice Chair.



Erica Medley



Anne MacDonald

Staff Highlights



DOGAMI geologists Carli Azzopardi and Christina Appleby mapping the geology of the Wildhorse Creek area in northeast Oregon.



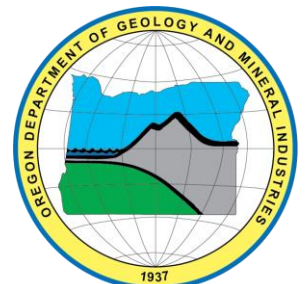
In August 2022, DOGAMI participated in the City of Cottage Grove's Emergency Preparedness Fair. The fair was held at Coiner Park in Cottage Grove and approximately 1,500 to 2,000 community members were in attendance. DOGAMI staff, including Director and State Geologist Ruarri Day-Stirrat, Christina Appleby, Lowell Anthony, and Alex Lopez were there to talk with the public about geologic hazards in the southern Willamette Valley, and strategies for mitigating those risks.

Get Ready for Landslide Season!

The winter/rainy season is landslide season in Oregon. Landslides are one of Oregon's most common and destructive (and sometimes fatal) natural hazards. There are three primary factors which make certain areas more prone to landslides: geology, slope, and water. DOGAMI scientists have identified more than 50,000 landslides in Oregon. Land that has slid once tends to slide again and therefore knowing where landslides have occurred in the past is critical to understanding, and preparing for, future landslides. DOGAMI maintains a database of landslide information called The Statewide Landslide Information Database for Oregon or SLIDO, available at: <https://www.oregongeology.org/slido/index.htm>.

Prior to the landslide season is the time to become familiar with the land around you. Do you live or work in a landslide prone area? Do you know where to evacuate to if needed? Watch the patterns of storm water discharge on slopes near your home. During intense storms, stay alert and monitor the weather. If you are in an area susceptible to landslides, consider leaving and remember that driving can also be hazardous. Find more information for homeowners at: https://www.oregongeology.org/Landslide/ger_homeowners_guide_landslides.pdf.

In addition to the statewide landslide inventory, DOGAMI also studies landslide risks and mitigation strategies in individual Oregon communities. For example, several communities have been impacted by recent wildfires, which can result in an elevated risk of post-fire debris flows. DOGAMI applied for and received FEMA grant funding to work with communities in the Columbia River Gorge, North Santiam River, McKenzie, River, and the North Umpqua River to map the hazard zones, evaluate the risk, and work on risk reduction. More information on this new project is available at: <https://www.oregongeology.org/Landslide/PostFireDebrisFlow.htm>.



New Tsunami Routable Roads Resource Added

The key to surviving a local Cascadia tsunami is evacuation preparation. Visitors and locals alike need to know where safety is and how to get there **BEFORE** the next Cascadia earthquake and tsunami. It will be too late to look up this information during the earthquake shaking or in the ~10-30 minutes before the tsunami arrives on the Oregon Coast.

To make this information as accessible as possible, DOGAMI, in partnership with the Northwest Association of Networked Ocean Observing System (NANOOS), researchers at the University of Oregon (UO) Infographics Lab, and the UO Safety and Risk Services Location Innovation Lab, have developed the ability to automatically generate evacuation routes for any location on the Oregon coast within the tsunami zone via a web portal (<http://nvs.nanoos.org/TsunamiEvac>). Users can enter an address for a specified location and an evacuation route is automatically generated from that starting point to the nearest high ground outside of the tsunami zone. Additional information such as the distance to safety and travel speed needed to “Beat the Wave” is also included.

The ability to easily and quickly look up evacuation routes allows families to develop a plan for the many locations they occupy during the course of their daily activities, i.e. home, work, school, beach visitation, etc. This tool also provides visitors with an easy way to become informed about their evacuation options in a place they may not be familiar with.

It has been proven that practicing evacuation is a key indicator of survival. DOGAMI’s tsunami evacuation tool provides a quick and easy way to encourage preparation by providing information (including routes and recommended travel speeds) for people to use when developing their own evacuation plans.



New Publications

Open-File Report O-22-06, Earthquake and tsunami impact analysis for coastal Lane, Douglas, and Coos Counties, Oregon (<https://www.oregongeology.org/pubs/ofr/O-22-06/p-O-22-06.htm>)

Open-File Report O-22-05, Multi-Hazard Risk Report for Marion County, Oregon (<https://www.oregongeology.org/pubs/ofr/O-22-05/p-O-22-05.htm>)

Open-File Report O-22-04, Natural Hazard Risk Report for Washington County, Oregon (<https://www.oregongeology.org/pubs/ofr/O-22-04/p-O-22-04.htm>)

Fact Sheet - Cascadia Earthquake Knowledge Points for Emergency Managers and the Public (<https://www.oregongeology.org/pubs/fs/cascadia-planning-for-em-and-public.pdf>)

Special Paper SP-53, Protocol for Channelized Debris Flow Susceptibility Mapping (<https://www.oregongeology.org/pubs/sp/SP-53/p-SP-53.htm>)

Open-File Report O-22-03, Multi-Hazard Risk Report for Wallowa County, Oregon, including the Cities of Enterprise, Lostine, Joseph, and Wallowa (<https://www.oregongeology.org/pubs/ofr/O-22-03/p-O-22-03.htm>)

Featured Resources

- Tsunami Clearinghouse (www.oregontsunami.org)
- Oregon HazVu: Statewide Geohazards Viewer (www.oregongeology.org/hazvu/index.htm)
- DOGAMI Lidar Data (www.oregongeology.org/lidar/index.htm)
- USGS ShakeAlert Earthquake Early Warning System (www.oregon.gov/oem/hazardsprep/Pages/orshakealert.aspx)

About the GS&S Program

DOGAMI’s Geological Survey & Services program develops maps, reports, and data to help Oregon manage natural resources and prepare for natural hazards such as earthquakes, tsunamis, landslides, floods, volcanoes, coastal erosion, and climate change.

Contact Us at 971.673.1555 | dogami-info@oregon.gov

<https://www.oregon.gov/dogami>

Oregon Department of Geology and Mineral Industries
Geological Survey & Services Program
800 NE Oregon St., Suite 965, Portland, Oregon, 97232

Staff Report and Memorandum

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

From: Ruarri Day-Stirrat, Director & State Geologist

Date: November 18, 2022

Regarding: Agenda Item 11 - Director's Report

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

- 1) Agency Update
- 2) Outreach and Community Engagement
- 3) Legislative Update

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