GOVERNING BOARD MEETING MINUTES
OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Tuesday, March 10, 2026
8:30 a.m.
Teleconference Public Meeting

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

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

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

Chair Linda Kozlowski, Vice-Chair Anne MacDonald, Board Members Tiffany Thomas, and Ruth Dittrich were all in attendance via Zoom video/phone. Board Member Diane Teeman was not in attendance.

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

Others in attendance:
Diane Lloyd, Department of Justice (DOJ)
Dr. Alexis Templeton, Professor of Geochemistry & Geobiology, Dept. of Geological Sciences, University of Colorado, Boulder
Paul Edison-Lahm, Board Applicant
Travis Miller, Legislative Fiscal Office (LFO)
Adison Rowe, DAS CFO Analyst
Blair Fitzgibbon, LPP Resources

3) **Review Minutes of November 21, 2025 Board Meeting:**

Chair Kozlowski asked if there were any changes to the minutes as presented. Vice-Chair MacDonald asked to have line 102 checked for her approval of the Budget Status Report. The recording was checked and verified she was not present at the time of that specific voting. No changes were made.

Board Action: **Thomas moved to approve the minutes of November 21, 2025 Board Meeting as submitted. MacDonald seconded. Yes Votes: Kozlowski; MacDonald; Thomas; Dittrich. Motion carried.**

4) **Financial Report:**

Steve Dahlberg, Chief Financial Officer, presented the DOGAMI FY2025 Budget Status Report, as of December 31, 2025, end of the 2023-25 Biennium results for the Geological Survey and Services (GS&S) and Mineral Land Regulation & Reclamation (MLRR) programs. He also reviewed high-level charts of the new 2025-27 LAB Budget. The Board Packet contained the financial actuals, graphs, and projections.

Dahlberg briefly reviewed the graph of the Biennium Comparison – Actual results from 2015-2025 with the 2025-27 LAB Budget. The current biennium reflects a significant step up in the Agency's budget and capacities primarily due to the five POPs listed at the bottom of the chart.

The Agency's General Fund Expenditure budget is $8.8M, with an expectation of $100,000 being left at the end of the biennium. Dahlberg stated that the numbers presented during the meeting are what he knows as of now and clarified that he is expecting adjustments once the Omnibus Bill is passed, which will be discussed at the June Board Meeting. Some of the adjustments include a General Fund reduction; salary adjustment, aka SALPOT, for COLAs, step increases, and a one-time payment to staff as the State changes from a once-a-month Workday payroll payment to every-two-weeks, that will take place in 2027.

Other Funds is approximately $12M with $10M coming from the POP for geologic carbon sequestration. There are 16 active grants from other State agencies and universities, and 15 active federal grants. Other Funds and Federal Funds reflect a fairly large amount of unspent budget, which is actually fine. It is due to the budget being created almost 2 years ago when the Agency was expecting more in the Lidar program, which unfortunately the federal resources that drove that has changed some of its focus. The Agency is actually spending the money it has on grants that are primarily staff-focused, where Lidar was technology-focused. Dahlberg said he is not concerned with the underbudget quantities for the Federal and Other Funds.

Dahlberg reviewed the 2025-27 General Fund – Utilized Budget graph, which is the burndown or consumption of the budget. It reflected the starting budget, what was spent through December, and where the projected ending balance will be at. The Agency plans to spend as much of it as it can. There is a large difference in Services and Supplies compared to the last Board Meeting due to an investment in a larger study area for additional coverage in the Blue Mountain Project at a lower cost per flight mile, that will be utilized as match for future grants.

Day-Stirrat added that for simpler terms, the Agency did not know what the legislative action would be going into the Short Session, so $500,000 was held back, which would have been the maximum cut based on the requested scenarios. Once it became clearer in the Session, the Agency actioned a spend as match against a federal grant, which is the difference the Board sees. The match is against a DOE proposal that DOGAMI is in award negotiations for right now, that has a 3-year performance period.

Chair Kozlowski asked if it was part of the Governor's request for reduction in expenditures. Day-Stirrat answered that it was a legislative request for multiple percentage reduction scenarios they were going to action during the Short Session.

Dahlberg stated the vast majority of the Other Funds is coming from the subsurface geology and mapping. Very little has been spent as of December 31st, but that is starting to ramp up as the Agency continues to move forward with the project, especially during summer. He is working to make sure the projections are aligned with what staff have worked on and what they will be working on to predict the future to keep it in the right spot. There are currently three federal grants the Agency is awaiting decisions on.

The MLRR program has good revenues. The fee increase started January 1, 2026, Dahlberg will continue to analyze the revenue stream to see if the earlier projections and actuals are in line. MLRR had a number of POPs, particularly POP 103, which is the first step to increase staffing in an effort to right-size the Program to deliver on services and meet the demand. The target operating reserve is closer to the $1M negotiated with industry for the fee increase, instead of the 6-months DOGAMI wanted. The ePermitting platform is starting to get good traction, but due to the delayed start a carryover of $700,000 from last biennium was requested to be rolled over into this biennium, which still keeps it on track for the original budget of $2.5M.

Dahlberg wrapped up by saying DOGAMI is doing great and it is exciting to see where the Agency's future is heading. New things are coming, which will not only benefit the Agency but the State. Leadership works closely with the LFO and CFO analysts to keep them updated on the direction of the Agency. He stated the financials are holding steady and not going up and down, so it may be kind of boring.

Dittrich asked what the Strong Motion Instrument Fund (SMIF) is about. Dahlberg explained that for certain types and sizes of buildings, developers and builders are required to either install seismic equipment in the building or in lieu of installing the instrumentation, they pay a fee into the fund. DOGAMI partners with the University of Oregon (U of O), who purchases the equipment to get installed in a variety of locations in the state to increase the seismic array.

Vice-Chair MacDonald said that where accounting is concerned, boring is just fine. Dahlberg agreed.

Chair Kozlowski thanked Dahlberg for the thorough report in the Board Packet, stating it gives the Board confidence that the finances are well managed, and they know where the Agency is financially.

Board Action: **MacDonald moved to accept the Budget Status Report as presented. Thomas seconded. Yes Votes: Kozlowski; MacDonald; Thomas; Dittrich. Motion carried.**

5) **Rulemaking:**

Vaughn Balzer, DOGAMI Rules Coordinator and MLRR Floodplain Mining Reclamationist presented on the topic of rulemaking to amend Oregon Administrative Rule (OAR) Chapter 632, Divisions 1, 10, 15, 20, 20, 33, 35, and 37.

Balzer stated MLRR received a fee increase that went into effect in January 2026. The proposed rulemaking is a significant effort to address clarifying regulatory fees following the fee increase approved for the MLRR program during the 2025 legislative session. The rulemaking effort will also cleanup several references to "Total Exemption" and replace with "Exclusion Certificate" language consistent with statute, and conduct general housekeeping updates that include updating statutory citations, correcting formatting errors, aligning internal inconsistencies within rule, and address outdated references. It will take some time and effort for this rulemaking process, this initial ask is to request approval from the Board to begin the process.

Chair Kozlowski clarified if this is an overview of a project the Agency is beginning that will be brought back to the Board for approval of the changes. Balzer answered yes. Kozlowski asked if there will be any public input through this process. Balzer said yes for substantiative changes that could affect stakeholders/the regulated community, but no for minor housekeeping cleanup.

Lloyd said this is just the initial kickoff process to get approval from the Board to start an extensive process governed by the Administrative Procedures Act. If additional rule changes are determined by staff, the proposed rules would go through the public process with public comments, and the Agency/staff will come back and present on the scope to the Board in advance of any vote on proposed regulatory changes.

Day-Stirrat asked Lewis to provide more information on item 1 related to ePermitting. Lewis explained there are two main functions for this point. First, many of the Program's fees are set in statute, there are a few set in rule, and there are some duplicated in rule. When a fee changes in statute and rulemaking is not done, there is an inconsistency between the two. There is a fee set in Statute around Exclusion Certificates that has not been updated since 2015, which needs an update in rule. With the implementation of ePermitting, now called DEPS, the DOGAMI ePermitting System, the Program is trying to minimize the number of ways it collects fees within the system.

Dittrich asked for more context about item 2. Balzer explained the term Total Exemption is an outdated term in statute and relates to small-scale mining operations that were exempt from DOGAMI's regulatory authority because they fell below the definition of surface mining in statute. Previous statutory changes a number of years ago replaced Total Exemptions with Exclusion Certificates that are mandatory registrations with the State. There are bodies of rule, specifically Division 35 that still contain references to Total Exemptions, which are no longer in statute, so this would be cleaning up the rule to be consistent with current existing statutes.

Board Action: **Thomas moved to approve the Agency to initiate rulemaking to amend Oregon Administrative Rule (OAR) Chapter 632, Divisions 1, 10, 15, 20, 20, 33, 35, and 37 as presented. MacDonald seconded. Yes Votes: Kozlowski; MacDonald; Thomas; Dittrich. Motion carried.**

6) **Presentation: "Overview of Geological Hydrogen":**

Dr. Alexis Templeton, Professor of Geochemistry & Geobiology, Dept. of Geological Sciences, University of Colorado, Boulder.

Director Day-Stirrat stated that the Board requested an external speaker around one of the topics that is of significant interest to Oregon. He introduced Dr. Alexis Templeton, who gave a presentation on "Challenges and Opportunities in "Geological Hydrogen".

Vice-Chair MacDonald asked what the risk is of diffusive loss before it can be captured with how light the gas is, and can the exploration be done effectively without losing the resource. She also asked if there is a sense of the ecosystem services provided by the subsurface microbial communities and what would be disrupted if biocides are used or deprive them of their energy source. Dr. Templeton answered hydrogen does diffuse easily, but some rock layers can seal and trap it effectively. Current research focuses on identifying which rocks form reliable seals and how thick and undisturbed they need to be. To avoid disrupting these natural seals, her project avoids shallow, highly fractured zones and instead works deeper than 500 meters, where intact rock has very low transmissivity.

Each site must be carefully characterized, since some geological systems will retain hydrogen much better than others. In terms of subsurface biosphere, subsurface microbes live throughout pore spaces and fractures, and drilling continually moves and re-inoculates them. Instead of trying to eliminate microbes, Dr. Templeton's group study how water chemistry affects their hydrogen consumption. Some fluids can cause microbial blooms that consume hydrogen rapidly, while others reduce activity significantly. Technologies being developed aim to temporarily slow microbial consumption without killing the microbes so the system can naturally reset once fluid pumping stops.

Thomas asked if she has any concerns about perturbing the other geochemical equilibria in the system, mobilizing other trace elements, things like that that would otherwise interfere with either the hydrogen generation or other unintended consequences for the surrounding aquifer systems. Dr. Templeton emphasized that subsurface hydrogen production is unlikely to significantly alter existing rock–water systems, as water chemistry is largely controlled by the surrounding geology. She noted that the primary operational challenge is water management, including understanding the quality of water brought to the surface and determining how it will be handled or reinjected. Dr. Templeton highlighted that industry still lacks clarity on the relative proportions of gas versus water that will be produced from natural hydrogen reservoirs, underscoring the need for more data before large-scale development decisions are made.

Kozlowski asked about the future of when producing hydrogen might be economically feasible and the needed regulatory framework needed for it. Dr. Templeton explained that the main barrier to advancing geologic hydrogen production is the lack of a clear regulatory framework. States differ widely based on their histories with oil, gas, and mineral exploration, making permitting complex and inconsistent. She notes that progress will require coordinated efforts to develop regulations, enable pilot projects, and eventually scale to commercial production. Despite these challenges, she sees momentum building and believes rapid commercialization is possible with strong partnerships and focused effort.

Kozlowski asked Director Day-Stirrat where Oregon is in the regulatory process with geological hydrogen. Day-Stirrat answered in the short term, for exploration activity, there are no necessary changes to regulation, due to the frameworks in place for oil and gas, exploration drilling, and geothermal that allow a certain pathway. However, because none of those regulations explicitly call out hydrogen, further down the road a certain regulatory question mark would require specific legislation to explicitly spell out hydrogen. Industry will need to actively communicate with DOGAMI about what their actual needs are, so the Agency can work out across multiple agencies what the potential conflicts and opportunities are.

Dittrich asked what the main advantage is of the stimulated hydrogen over traditional hydrogen, and if she expects costs to be considerably lower, or if there are other advantages. Dr. Templeton explained that natural and stimulated (engineered) hydrogen are complementary because they expand where hydrogen can be produced. In some regions, like Oman, the rocks are highly suitable for engineered hydrogen even though natural accumulations are limited. Other areas, such as the Midcontinent Rift, may offer both natural accumulations and opportunities to stimulate new hydrogen production. The usefulness of each approach depends on local geology, scale, and application. Stimulated hydrogen can be especially valuable in remote areas (e.g., Alaska) where small, local hydrogen systems could replace diesel. Overall, each state or region differs in its suitability for natural versus stimulated hydrogen.

Kozlowski thanked Dr. Templeton for presenting to the Board.

Kozlowski asked Director Day-Stirrat if geological hydrogen is on the Agency's long-term list to think about and move forward with. Day-Stirrat answered yes, the Agency has been tracking it for over a year now, given the geology of Oregon. There is a basic information webpage on the Agency's website. Kozlowski asked if there has been any interest in Oregon from the business community and if any industry or company has reached out. Day-Stirrat said yes, there have been multiple companies actively exploring in Oregon right now.

Thomas asked with regards to exploration, if is there a concern that the basalt formations are problematic in any way to the extraction because they are leaky relative to the other materials discussed in the presentation. Day-Stirrat said he was unable to really answer the question because there are a number of questions that still need to be resolved.

Briefing: **No Board Action Required.**

7) **Legislative Update:**

Christina Appleby, Legislative Coordinator and Geologist, provided a Legislative Update.

Appleby stated the Legislative Short Session just wrapped up. She explained the introduction of the 35-day Short Session began in 2010 to balance the budget for the legislature due to the 2-year budget cycles becoming more difficult. The legislature takes the opportunity to get as much work done on all fronts, not just fiscal during that time. There were roughly 300 bills introduced but only about 110 passed through votes in the House and Senate, with approximately 30 already signed into law by the Governor, and the remaining are still awaiting the Governor's review. Appleby mentioned the Capitol building is now open again after being under construction for many years.

There were four bills passed that affect DOGAMI, three are policy type bills that change the work DOGAMI does in some specific sort of way, and the Omnibus Budget Bill. None of them have been signed by the Governor yet.

HB4020: Requires certain agencies to specify the authority justifying the denial of a permit application and provide the applicant a guide on how to contest the denial. Requires certain agencies to develop a performance measure to measure the timeliness of permit and permit renewal processing and issuance. Some affected agencies include DOGAMI, DEQ, Department of Transportation (ODOT), Department of State Lands (DSL), and Department of Energy (ODOE). DOGAMI already does this first provision, and is currently working on the Budget Note with a similar KPM requirement that is a bit more inclusive for the second provision, which must be adopted in the 2027-29 budget development process. HB4020 requires the KPM to be adopted by July 1, 2029.

HB4021: Modifies effective date and notice requirements for certain permanent rules adopted, amended or repealed by certain agencies. Requires certain agencies to make available on the agency's website contact information for questions about each rule adopted, amended or repealed. Takes effect on the 91st day following adjournment sine die. It affects most of the same agencies as HB4020, and requires the agencies to give at least 28 days advance notice to Secretary of State before it goes into effect. It is not a huge change to DOGAMI's process but will need to be built into the rulemaking timeline. The second provision is that the information also needs to be posted on the

Agency's website and specifically provide contact information and where people can go for questions about the rule change. DOGAMI already does this, but needs to ensure the website complies with the specific level of language.

HB4084: Establishes the Joint Permitting Council. Directs the council to administer a fast track permitting program. Directs certain state agencies to publish a catalog of permits related to economic development projects issued by the agencies within 120 days after the effective date of the Act. Updates certain requirements and thresholds for the enterprise zone program. Restricts the use of the program for data centers. Modifies provisions establishing a personal income or corporate excise tax credit for a taxpayer that creates new jobs. Takes effect on the 91st day following adjournment sine die. This was one of the Governor's bills, and creates a joint permitting council to fast-track permitting programs. The Council will establish criteria, review applications, and move the eligible projects forward to the Governor's Office for consideration. There is a size limit for urban and non-urban areas in trying to target larger projects in general. The Governor will appoint a representative from DOGAMI to serve a 4-year term by July 1, 2026. The Council can only consider 15 projects for the fast-track process.

HB5204 The Omnibus Budget Bill: Establishes and modifies certain biennial appropriations made from the General Fund to specified state agencies and the Emergency Board. Establishes and modifies limitations on expenditures for certain biennial expenses for specified state agencies. Declares an emergency, effective on passage. It focused on balancing the Budget across all agencies, so funds were added to some programs and cut from others. DOGAMI had a position reclassification, a vacancy savings, and rollover of funding for e-Permitting.

Chair Kozlowski asked with the Council managing large permitting projects what kind of impact will it have on DOGAMI. Day-Stirrat explained it is partly a Business Oregon decision to determine which projects end up in the top 15, what the criteria are, and the type and size of the project. If the Council is around for a period of time, he anticipates at least one DOGAMI project being fast-tracked. Kozlowski asked Day-Stirrat if he sees it as a positive in terms of next steps. Day-Stirrat answered yes, but there is a challenge that there are no funds associated with the Council, so the Agency will need to find a way to have an FTE sit on the Council and participate inside the existing budget constraints.

Vice-Chair MacDonald asked Day-Stirrat if he sees DOGAMI getting pulled into a major private infrastructure project where a new aggregate source is developed requiring a new DOGAMI permit, and one where the Agency is ancillary to the project type. Day-Stirrat said it was a good question. The Agency does not tend to work on materials until there is a land use determination, and he is unable to give a full answer because it is not on his radar. MacDonald mentioned the pre-existing Oregon Solutions process and how it worked to bring agencies together to come up with optimization strategies for permitting and working with applicants.

Briefing: **No Board Action Required.**

8) **<u>ARB Update:</u>**

Ruarri Day-Stirrat, Director & State Geologist, provided an Agency Request Budget (ARB) update.

Day-Stirrat stated DOGAMI is entering the next Agency Request Budget phase of the State Budget cycle. One of the budget items is Key Performance Measures (KPMs), which are signed off by the Board and included in the ARB. The Agency intends to change the KPMs for the Geological Survey & Services (GS&S) program. In regard to the additional KPM related to speed of permitting, Day-Stirrat went on the record stating the Mineral Land Regulation & Reclamation (MLRR) program is hampered by resource constraints there were only partially alleviated in the 2025-27 Budget process. He expects a robust conversation in the legislature related to the speed of permitting relative to the completeness, and the efficiencies the Program receives in permit materials. There are two sides, the Agency knows what it needs to do internally with the resources it has, but there is a reckoning for the industry with regard to the information they submit for assessment. In principle, he has no issues with the development of that KPM, but it is a two-way street.

The Agency received Budget instructions from the State CFO, Kate Naas. The budget process is to be net neutral, meaning no new programs can be proposed, and only the current service levels (CSLs) that include technical calculations for inflation factors for the 2027-29 Budget. For fee bills, the Agency is allowed to propose a CSL. The 6-month operating balance needs to be addressed, therefore the Agency will need to propose a fee bill that has CSL plus the additional amount needed to reach the 6-month operating balance at the end of the 2029 session. There is also a need to introduce a bill that was previously introduced but unsuccessful in the legislature, Day-Stirrat asked Lewis to discuss it as it relates to ePermitting.

Lewis explained that in the 2023-25 Budget, DOGAMI introduced several bills, one to create a fund to accept the revenue it would receive for ePermitting, a companion bill that would allow the Agency to accept credit cards and pass those fees onto the consumer, and the bill to get General Fund to complete the project. The General Fund and creation of the subaccount to accept the revenue received were created. The credit card fee bill came in at the same time a statewide bill was introduced in the Senate, so it was declined to be moved forward because it was duplicative of the State level one, which also failed to proceed because it was determined that it was not necessary as the State agencies had this authority. The Agency moved forward with ePermitting expecting to be okay with accepting credit cards. In conversation with Treasury, it turns out that DOGAMI does need statutory authority to pass the credit card fee on to consumers. The plan is to introduce the same Legislative Concept (LC) the Agency introduced two sessions ago to move it forward. Unfortunately, even with the emergency clause, it will not be in place when ePermitting is implemented in November of this year which creates a lag in the Program's ability to accept credit cards. The Agency will also explore other options to get this authority prior to the Long Session next year. Day-Stirrat added that the MLRR program is unable to absorb the credit card fee assessed by the card vendor.

Dittrich asked if applicants will have to pay with a check. Lewis said currently all applicants pay by check and the system will have the capacity to continue to accept checks and setup ACH payments, MLRR also wanted to have the credit card option because it has been asked for by applicants for a very long time. She stated if the Program covers the fee, it is actually increasing the permit fees for all rate payers regardless of what form they are using and subsidizing the use of credit cards for other payers.

Day-Stirrat said the Agency will likely introduce a bill related to geologic carbon sequestration that explicitly calls out carbon dioxide, as current regulations do not do that, and probably one that explicitly calls out hydrogen in a way statutes do not. This will be an active conversation due to a couple of different paths that can be taken with each one. Related to the fee bill LC, it will only pertain to aggregate surface mining, with only four numbers changing from previous bills.

Day-Stirrat said Lewis is working on a new structure for the two Programs, as both have about 20 staff per manager with the optimal being 8 to 12 staff. This will be presented to the Board as part of the ARB discussion in June.

The Policy Option Package (POP) for geologic carbon sequestration project with DSL for the unspent funds in 2025-27 biennium will be rolled over to the next budget cycle. The POP was originally scoped to be completed this biennium, which is not quite happening right now.

Dittrich asked what has been slowing down the spending on the geologic carbon sequestration project. Day-Stirrat said there has been a number of mechanical and practical reasons for the slowdown. He explained the Agency went through an initial hiring phase, getting the agreement in place with DSL in terms of how financial transactions would occur, establishing a project Committee to put together how the project would work, and via direction from the Governor and the Land Board, focusing on tribal engagement in front any technical decisions which has pushed out the technical work being done. Significant progress has been made on the project.

Briefing: **No Board Action Required.**

9) **<u>GS&S Key Performance Measures (KPMs):</u>**

Jason McClaughry, GS&S Program Manager, reviewed and discussed the proposed changes to the three GS&S Key Performance Measures (KPMs).
KPM 1 – Hazard and Risk Assessment Completion
KPM 2 – Detailed Geologic Map Completion
KPM 3 – Lidar Data Completion

McClaughry stated the three KPMs were legislatively adopted in 2017. A lot has changed within the Agency and priorities have shifted, with many new research topics and the dramatic change in the federal funding landscape. It is now time to see where appropriate changes need to be made based on the adaptive landscape. He set the framework by saying the Geological Survey is very successful at obtaining grant funding that supports a majority of the research work done by the Program, the outreach and connection to communities is significantly important to all of the projects and delivering final projects to them, and the publications which are the main vehicle for distributing information to the public and completing grant-funded projects. He reviewed the considerations for designing the KPMs, types of KPMs, and timelines.

KPM 1 – Hazard and Risk Assessment Completion- Legislatively approved 2017 Legislative Session. It does directly address risk reduction, but it also takes into account funded, in-progress, and unpublished studies that are counting towards the metric, which may not be DOGAMI related data but giving the Agency credit for things it may not necessarily do. It also does not consider additional completeness if a new hazard study were to be completed, the Agency would not get credit for the work. It does not accurately capture the completeness studies, and Portland Metro accounts for approximately 50% of the total score of the metric. The hazards studies are dependent on federal resources.

Proposed KPM 1 – Publish 4 geologic hazard and risk studies (regardless of UGB) annually that support the understanding of the State's geologic hazard, risk, and fundamental science.

- All DOGAMI hazard publications map the distribution of hazards and address risk reduction.
- Credit for all maps published.
- Realistically achievable in the performance period reported.
- Completed with Agency resources; not totally reliant on Federal Funds.

McClaughry used the Ecola State Park, and the Labor Day fires and Eagle Creek Fire as examples of how the work was completed but not captured in the current KPM.

Vice-Chair MacDonald said one thing to keep in mind is communities use DOGAMI studies to develop their own natural hazard mitigation plans for FEMA reimbursement and the wording needs to support Goal 7. Day-Stirrat said the Agency is not walking away from the UGB aspects, just adding to it to ensure it gets full credit for all the studies being completed. McClaughry said there is a distinction between what the Agency has as an external process for reporting metrics to the legislature, and the internal process of tracking hazard and risk assessments statewide. His goal is to make sure it is as accurate as possible.

KPM 2 – Detailed Geologic Map Completion – Legislatively approved 2017 Legislative Session. It was developed based on the number or concentration of well logs as a proxy for people, which reduces the amount of the State that is available to be credited to the KPM, about 82% is not available for measurement of this KPM. Only the mapping done that touches those areas is calculated towards the KPM, so very little work is being captured for the KPM, and the Agency is not meeting the metric target. McClaughry stated the goal is to put the Agency in a strategic position to be successful in what it is doing. He explained the internal process to prioritize geologic mapping projects and the involvement of the Oregon Geologic Mapping Advisory Committee (OGMAC). He provided an example of completed work by staff that was not credited towards the metric: 2020 Lower Crooked River Basin map, Bulletin 108, a geologic mapping to address critical groundwater issues in the basin, in which there was no credit for 900 sq mi of new mapping done. He reviewed mapping that currently reflects what is being done and future areas that are of critical importance to the State, but are not captured in the current KPM metric.

Proposed KPM 2 – Publish 3 geologic maps (regardless of scale) annually that support the understanding of the State's energy & mineral resources, water resources, natural hazards, and fundamental science.

- Recognizes all mission-driven geologic mapping activities.
- Credit for all maps published. Realistically achievable in the performance period reported.
- Completed with Agency resources; not wholly reliant on Federal Funds.

KPM 3 – Lidar Data Completion – Legislatively approved during the 2017 legislative Session. It tracks percentage of state completed. Last reporting was at 91%, as of March 2026 is 99% completed, with the exception of Warm Springs Indian Reservation which is confidential and will not be available in the mosaic. The Agency is looking at data sets to see how they can be delivered (data delivery), and what the 5-year plan is for the Lidar Program. Currently working on the Bare-earth mosaic and making tiles that are more user-friendly.

Proposed KPM 3 – Percent of Oregon where the highest-hit digital surface model geologic data has been completed to reach 100% coverage (currently at 48%). The target will be to build out 10% new coverage annually to reach statewide coverage in 5 years.

- Re-format and builds out coverage of the highest-hit digital surface model (and canopy height) to reach full statewide coverage, like the bare-earth model.
- Increase focus on more effective data delivery to more types of users.
- Make more types of Lidar data available statewide.
- Realistically achievable in the performance period reported.
- Completed with Agency resources; not reliant on Federal Funds.

Chair Kozlowski asked McClaughry what kind of input he was looking for from the Board. McClaughry answered he would like feedback on whether the Board feels what he presented is going in the right direction.

Day-Stirrat explained that similar to MLRR's KPM 4, it is coming up with an appropriate metric that focuses on the Agency's actions and what it is doing and not being dependent on the changing federal landscape in terms of funding, but equally getting full credit for all the work the Program does inside a particular theme area.

Chair Kozlowski said it seems the KPMs are being updated to match what the Agency's priorities are now, compared to what they were in 2017. She said McClaughry really targeted the KPMs to address the more immediate need, water being one of those, that then allows the Agency to get credit. The Agency is doing what it needs to do to get the information out anyway.

MacDonald asked about getting credit for repeat Lidar. McClaughry said at the moment there is no Lidar targeted on the horizon and there is no guarantee for it. McClaughry explained what the Agency has is the data for highest hits statewide or it can be calculated in areas the Agency does not have, which is in its control. New collections are outside of the Agency's control, and the U.S. Geological Society (USGS) is more likely to do their own collections now. The Agency will still emphasize and work on new collections and adding serial data.

Chair Kozlowski said it was an outstanding report, and it was obvious McClaughry and his team put a lot of work into it. She thinks it is going to move DOGAMI forward in a very positive direction, and not doing it how it has always been done, but in a new and different way.

Board Action: **Thomas moved to support the proposed GS&S Key Performance Measures (KPMs) as presented. Dittrich seconded. Yes Votes: Kozlowski; MacDonald; Thomas; Dittrich. Motion carried.**

Lewis reviewed the proposed MLRR KPM for Application Processing. This is a legislatively directed requirement from the budget passed last year, where the Program must propose at least one new KPM during the 2027-29 budget development process regarding the permit application processing timelines against regulatory timelines.

She reviewed the proposed KPM wording from September.
Proposed: Percent of complete permit applications receiving technical review with the designated regulatory timeline.

Measured As:
Number of complete applications received in the previous 12 months, where date of completeness is determined by staff review of submitted documents of inclusion of all required elements in accordance with department procedure.
Divided by number of those applications received where initial technical review for adequacy is completed within the specified regulatory timeframe, where date of technical review is recorded as the day the deficiency letter is sent to the applicant.

Lewis reviewed the MLRR regulatory timelines to deficiency letter chart. She stated they all have different timelines currently existing in either statute or rule, so the Program would be measuring quite a few different things against quite a few different standards. She went through an example. She asked the Board for input on how they would like to see them broken out, which could be done similarly to the Customer Service metric where several different categories are scored and then rolled up into a single score. She discussed how the Program is currently in progress to determine the reporting structure and targets. Back in September she received the go-ahead to go in this direction and is requesting support from the Board to move forward with this concept. She stated the way this metric as written, it will not meet the new legislation requirement, as it requires additional metrics.

Dittrich asked for clarity on whether this KPM is around what is in control of the Program and does not include the applicant. Lewis said this is based on having the complete application for the first technical review by technical staff and getting to the point of sending a deficiency letter to the applicant. It does not include a site inspection or getting it to technically complete. Day-Stirrat added that the KPM the State is requesting is from pre-application to issuance, so there will be a lot of discrepancy between a KPM related to the Program's action and the total time.

Chair Kozlowski asked how the two requirements will be measured. Lewis said they will need to be two different KPMs. Kozlowski asked if ePermitting will have a positive effect on getting from pre-application to issuance. Lewis said not by itself, it will help the Program track each phase, but it still needs work required by staff for the technical review and coordination between the agencies to determine appropriate permit conditions for the sites. The system will not be able to do this work.

Chair Kozlowski told Lewis she appreciated the effort she puts into the presentation to help the Board have a clearer understanding of a complicated process and the challenges the Program faces.

Vice-Chair MacDonald asked if there has been any conversation with other agencies regarding the Permitting Council about how to develop KPMs where time the applicant takes to respond is not held against the Agency. Lewis answered she does believe there will be significant conversation about it, as House Bill 4084 does call out that agencies should provide information about where the hurdles are and how they might be addressed. She does not believe the initial intent is to penalize agencies for slow permits, it is for the legislature to have data to understand where the issues are. Day-Stirrat added there is a difference between administrative permitting (driver's license) and technical permitting, (MLRR) and the true depth of necessity of the technical rules or statutes. There is a level of education that needs to occur.

Chair Kozlowski said there is concurrence from the Board in support of the direction of this KPM.

10) **MLRR Update:**

Sarah Lewis, MLRR Program Manager, provided the MLRR program update. The Board Packet contained the standard summary tables and figures.

Lewis provided a high-level overview of activity since the November Board Meeting. There were 17 new permit applications and 12 permit decisions, with the application workload holding steady. In addition several oil, gas, and geothermal permits were received. There is a new line under oil and gas for Information Holes, which has not been asked for in the last 15-20 years. There is renewed activity in the Mist gas field and interest in geothermal. There are 89 active Surface Mining Applications for Operations, 32 are with DOGAMI for review, and 52 have been returned to the applicant.

MLRR did get the funding for a new drilling lead, the recruitment is complete and an Energy Resource Geologist will be starting on March 30th. The Program is in the middle of a recruitment for two NRS 4 positions received last year, and in April will be opening the recruitment for two NRS 2 Field Specialists. These four positions will start to help with the backlog issue, but she does not expect immediate results due to the onboarding process.

The ePermitting project is going well. An update was given to the legislature on February 4th around where the project is, which is on time and on budget. She anticipates moving to the EIS Stage Gate 3 approval by the end of April, which allows the move into the project execution phase for user testing. She complimented the project team for all their time and work. It does have a name called DEPS, the DOGAMI ePermitting System, and a logo is being worked on.

There was a public hearing at the end of January for the Grassy Mountain Project draft permits. MLRR is working on responses to the public comments, about 60 were received. The final permits are in development. At the same time, the BLM issued their record of decision at the end of January, which is required by MLRR for landowner approval for the portions on federal land. The Program continues to coordinate closely with the BLM specifically around final required elements, which includes the jointly held reclamation security. MLRR is on track to issue the final permits.

Chair Kozlowski asked how long the project has been in process. Lewis stated the project has been around a long time with the first Notice of Intent issued in 2012 and was revised twice. The current Notice of Intent started in 2017. The application was submitted in the fall of 2019, found complete in the fall of 2024, and MLRR issued permits in December of 2025. The Program is excited to get to Permit Decision Issuance. Kozlowski said it was good collaborative teamwork.

MLRR received a new Notice of Intent for a Division 37 underground gold mine operation in Baker County, which is on patented claims. They are proposing to use froth floatation rather than cyanide processing, but it is still considered chemical processing under Oregon’s statutes. There is a web page on the DOGAMI website for this project called Cracker Creek Sumpter Mining Project, where all the information will be available to the public.

Briefing: **No Board Action Required.**

11) **<u>GS&S Update:</u>**

Jason McClaughry, GS&S Program Manager, provided the GS&S program update. The Board Packet contained all of the summarized GS&S activities.

McClaughry said DOGAMI has been very successful in a number of grants in both receiving awards and awaiting decisions. The Agency has a really great collaboration with its federal partners, with about $4.5M in federal awards in play, he is very excited to see these projects come online.

The Agency had made a lot of progress in staffing since the last Board Meeting. For the geologic carbon sequestration projects, Rich Walker has moved into the Decarbonization Science Leader position, and at the beginning of March, Neyda Maymi was hired as the Projects Leader. The Agency is beginning to make great progress in site selection and moving towards the contracting phase to move it along. Kellie Wall is working as part of the geologic mapping team on the STATEMAP Program, Earth MRI Mine Waste activities, and is taking on the leadership with the Cascade Volcano Observatory to help build out the volcano hazards program. Jacqueline Rheingans is an intern working on landslide projects.

One grant funded project McClaughry discussed is Core CM. It is a significant aware of $1.8M and a large section of match is going to support it. It is a collaborative with the University of Fairbanks and DOGAMI is a participant. This was submitted back in November 2023, the Agency has been waiting on notification for several years now and it finally came into Notice of Intent to Award. He provided an in-depth description of the 3-year project.

Chair Kozlowski said McClaughry has a really good team and excellent projects in front of him.

Dittrich congratulated McClaughry on getting the grant news after two years.

Briefing: **No Board Action Required.**

12) **Election of Chair and Vice-Chair:**

Chair Kozlowski stated it is time to elect a new Chair and Vice-Chair.

Chair Kozlowski said it has been a privilege to be a Board Member and Chair of DOGAMI. During her tenure she has seen the Agency navigate some very challenging issues during very challenging times. Today, DOGAMI has strong leadership, a clear vision for the future, incredible opportunities to make an impact on the stewardship and the future of the State. It is amazing what has happened in the last 3-4 years, and it has made a huge impact. The Board is strong thanks to the strong recruitment Day-Stirrat has done in terms of reaching out. The staff is among the most capable and dedicated she has had the opportunity and privilege to work with. The Director is providing visionary leadership necessary to move this outstanding organization/agency forward. She thanked everyone for the opportunity and is proud of where DOGAMI is right now. It is a good time to leave because DOGAMI is on a fast track going forward and she is proud of that and particularly the staff and leadership. The Board has done a great job.

Vice-Chair MacDonald extended her personal thanks to Kozlowski for all her work, and bringing her warmly into the fold. Kozlowski's leadership has been tremendous and the paddling under the surface she did over the last 3 years have really paid off. It has been an honor to serve with her as a Board Member and as Vice-Chair.

Day-Stirrat echoed the sentiment. He thanked Kozlowski for her support, leadership council, for her advocacy of the Agency and especially the technical staff, and steering the Agency over many years and chairing in recent times. She is an incredibly impactful Board Member for DOGAMI.

The Board voted for Anne MacDonald as Chair and Tiffany Thomas as Vice-Chair.

Board Action: **Thomas moved to elect Board Member MacDonald as Chair. Dittrich seconded. Yes Votes: Kozlowski; MacDonald; Thomas; Dittrich. Motion carried.**

Board Action: **Kozlowski moved to elect Board Member Thomas as Vice-Chair. Dittrich seconded. Yes Votes: Kozlowski; MacDonald; Thomas; Dittrich. Motion carried.**

13) Confirm Time and Date for Next Quarterly Meeting:

Chair MacDonald stated the next DOGAMI Board is currently scheduled for Monday, June 22, 2026 at 8:30 a.m. – 1:00 p.m. in Portland or via Zoom. She confirmed this date is still acceptable for the Board.

14) Public Comment:

Only written comments received prior to or by 1:20 p.m. on the day of the meeting were to be accepted. Chair Kozlowski asked for any written public comments. One written comment was received.

Written comment from Dr. James A. Miller, on behalf of LPP Resources: It was not read into the record due to being received after the meeting ended but prior to the deadline. It is related to the Newberry Resource Exchange. It will be attached with the minutes and made public for review.

15) Board Adjourn:

Chair MacDonald adjourned the meeting at 12:22 p.m.

APPROVED

Anne MacDonald, Chair

Subject: OFFICIAL PUBLIC COMMENT – March 10 Governing Board Meeting – Newberry Resource Exchange

Attention: Lori Calarruda (lori.calarruda@dogami.oregon.gov). **and the DOGAMI Governing Board**

CC:

Dr. Stu Garrett, (Chairman of the Citizens CommitteeTo establish the Newberry National Volcanic Monument in the State of Oregon) garrett@bendcable.com

Cathy Ehli General Manager and Executive Director of Warm Springs Power & Water Enterprises (WSPWE), cathy.ehli@wspower.com

William H. Holmes (K&L Gates) bill.holmes@klgates.com

Geoff Huntington (Senior Natural Resources Advisor) geoff.huntington@oregon.gov

Chandra Ferrari (Natural Resources Advisor) Chandra.Alene.Ferrari@oregon.gov

Amy Schlusser (Natural Resources Climate Advisor) Amy.schlusser@oregon.gov

Anca Matica (Communications and Policy Advisor for Natural Resources) anca.matica@ oregon.gov

Holly Jewkes, (Forest Supervisor, Deschutes National Forest): holly.jewkes@usda.gov

James McGuire (Prineville Bureau of Land Management) jpmcguire@blm.gov

Doug Burgum, Chairman of the NEDC (National Energy Dominance Council) and Secretary of the Interior: secretary_burgum@ ios.doi.gov

Chris Wright, Vice Chairman of the NEDC (National Energy Dominance Council) and Secretary of Energy: The.Secretary@hq.doe.gov

Lee Zeldin, Administrator of the EPA and NEDC (National Energy Dominance Council) Member: zeldin.lee@epa.gov

Carlos Araque Co-founder and CEO of Quaise Energy carlos.araque@quaise.com

Sriram Vasantharajan CEO of Mazama Energy sriram@mazamaenergy.com

Neil Ethier, (Executive Vice President, Eavor Technologies) neil.ethier@eavor.com

Dear Lori,

LPP Resources has been told by DOGAMI that no geothermal resource has been discovered at Newberry and therefore there was no need to address our correlative rights.

In Oregon, Geothermal Resources are defined as the natural heat of the earth and any energy that may be extracted from it.

DOGAMI's requirement to protect correlative rights is primarily established in Oregon Revised Statutes (ORS) Chapter 522, which governs geothermal resources.

DOGAMI has known of the geothermal and mineral assets of the Newberry Crater since DOGAMI formerly known as a Oregon State Mining Board was created in 1933. It followed the earlier 1925 State Mining Survey Board and the 1929 State Mining Board, when they partnered with the Federal government to identify the resources within the Newberry Crater. (USGS Bulletin 875 by Bernard Moore)

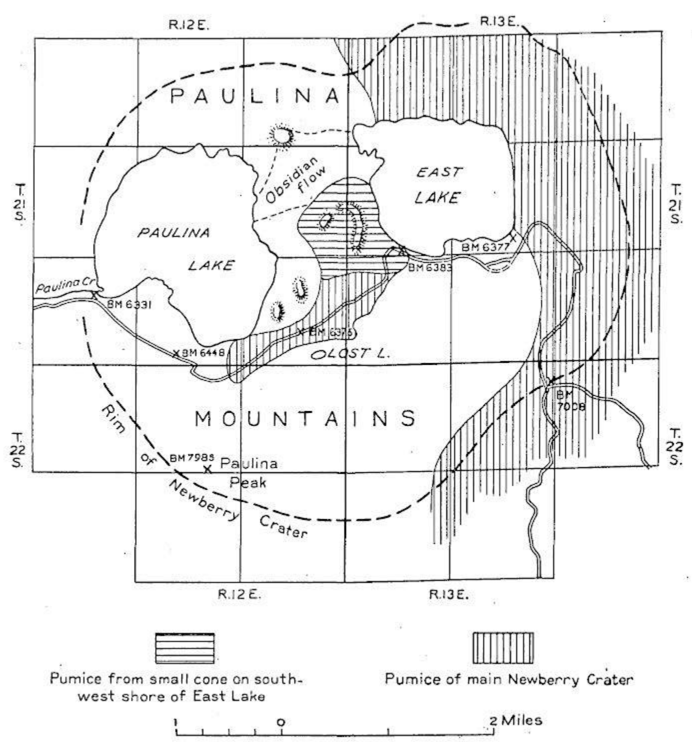


FIGURE 10.—Sketch of Newberry Crater showing approximate location of cones and distribution of pumice.

The pumice and geothermal resources are also identified in the Howel Williams' 1935 report, "Newberry Volcano of Central Oregon". DOGAMI frequently references Howel Williams' 1935 report, "Newberry Volcano of Central Oregon," as a foundational text in Oregon's volcanic geological history. It is cited across several decades of DOGAMI's primary journal, The Ore Bin (later renamed Oregon Geology) Below is an illustration by Williams in this publication which illustrates both the pumice volume and the magma anomaly which underlies our mining claims.

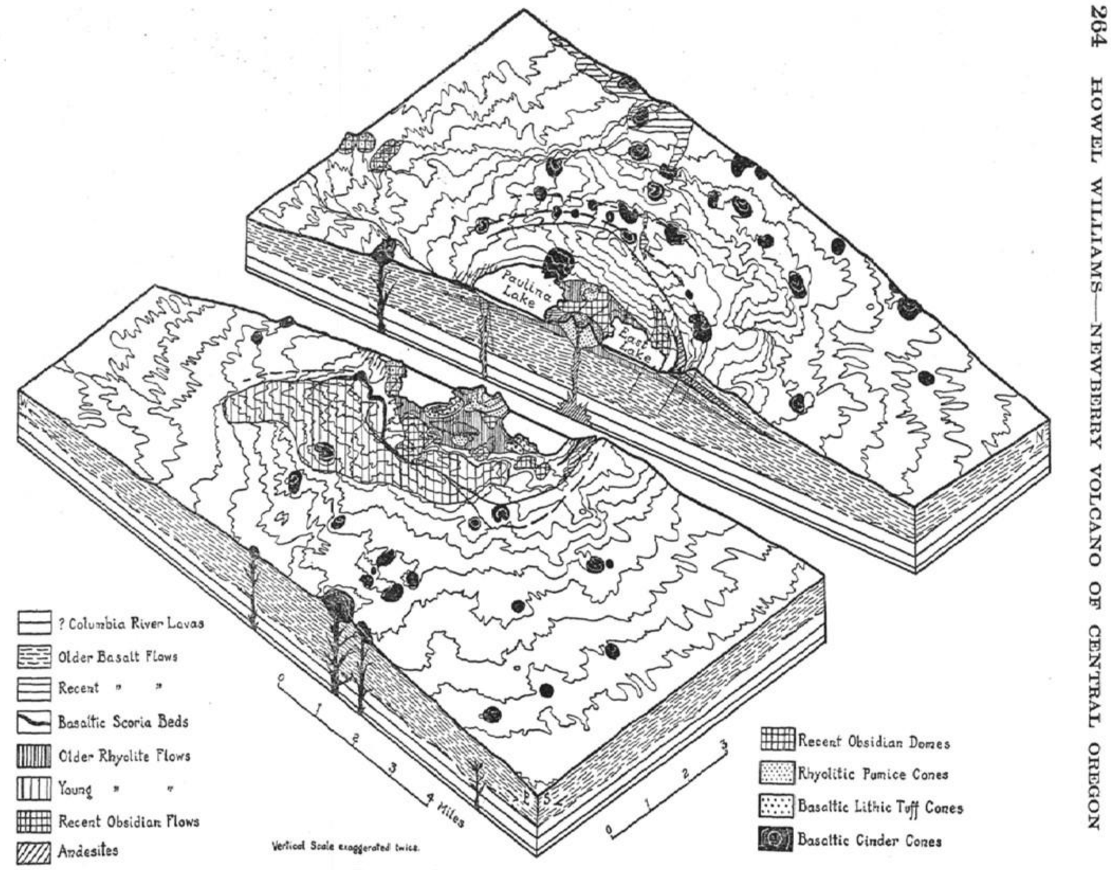


FIGURE 4.—*Block diagram of the Newberry volcano*

In the 1960's when the first Geothermal Steam Act was being developed during the Johnson administration DOGAMI published Edward A. Groh's research, in DOGAMI's *The Ore Bin* during the 1960s, the publication was foundational in identifying Newberry Volcano as one of the most significant geothermal prospects in the United States. (During this period we applied for patents on our four mining claims in the Newberry Crater).

Groh's Key Geothermal Findings:

Magma Chamber Proximity: Groh and Peterson (1969) posited that Newberry's large size and frequent Holocene eruptions (within the last 11,000 years) indicated a substantial magma body at relatively shallow depths.

Heat Flow Anomalies: His work in The Ore Bin (Vol. 28, No. 7) categorized Newberry as a "high-potential" area because it sits at the intersection of major fault zones, which act as conduits for rising thermal fluids.

Surface Indicators: Groh documented high-temperature fumaroles and hot springs within the caldera (at Paulina and East Lakes) as direct evidence of a potent underlying hydrothermal system

Groh's early mapping of the Northwest Rift Zone paved the way for the USGS to drill the "Newberry 2" hole in 1978, on LPP's Pumice Claim No. 4 as permitted and mapped by DOGAMI which confirmed temperatures of 265°C (509°F) at just 930 meters deep, making it the hottest shallow geothermal well in North America

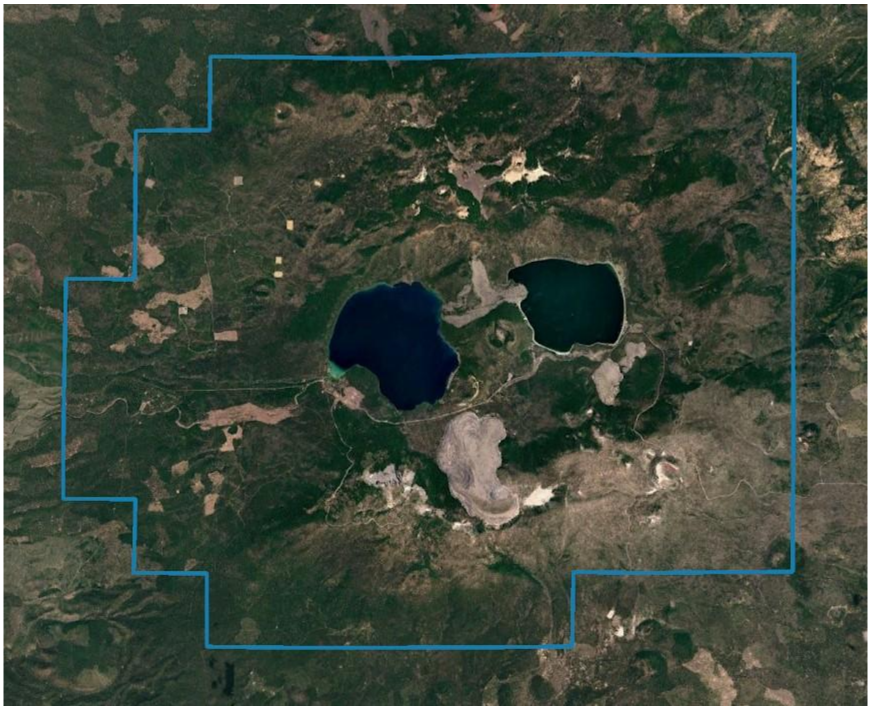
Modern Enhanced Geothermal (EGS): His research is the basis for current super-hot rock projects by companies at Newberry, which aim to produce up to 200 megawatts of power by tapping the dry, hot rocks Groh first identified.

Energy Capacity: Modern estimates inspired by Groh's geological models suggest the volcano could theoretically generate up to 5 to 50 gigawatts, enough to meet or exceed Oregon's average energy output.

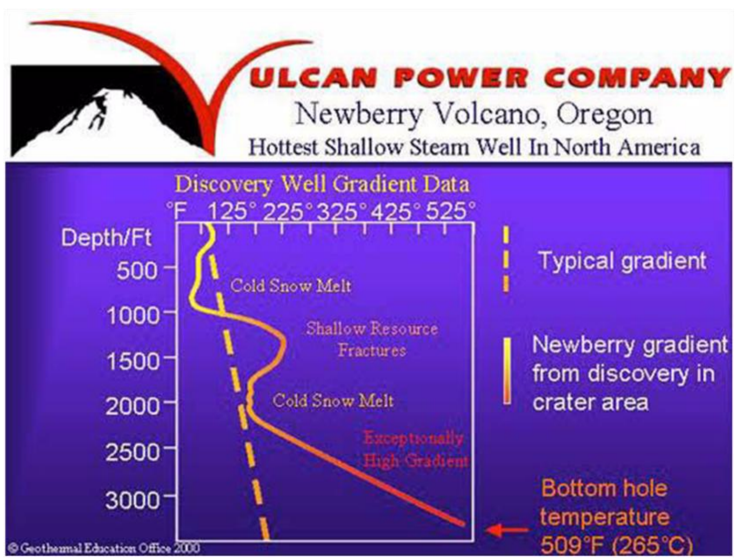
You can review Groh's original field reports in the DOGAMI Digital Library by searching for "Groh" in The Ore Bin archives.

Federal geothermal leases at Newberry Volcano were first available in 1974, following the formalization of federal leasing procedures under the Geothermal Steam Act of 1970.

The Newberry Known Geothermal Resource Area (KGRA) was designated by the U.S. Geological Survey (USGS) in 1976, and the subsequent exploration projects were heavily informed by DOGAMI publications. The designation acknowledged the underlying geothermal resources. (Below is the USGS KGRA Boundary.)

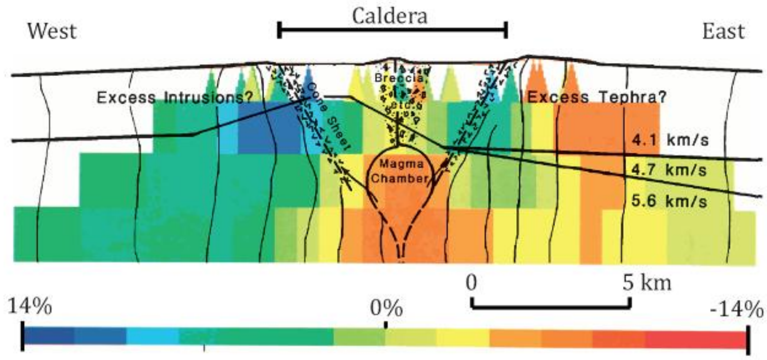


In 1978 the USGS spudded the DOGAMI permitted geothermal well on our claim no. 4 on the lost lake pumice ring.

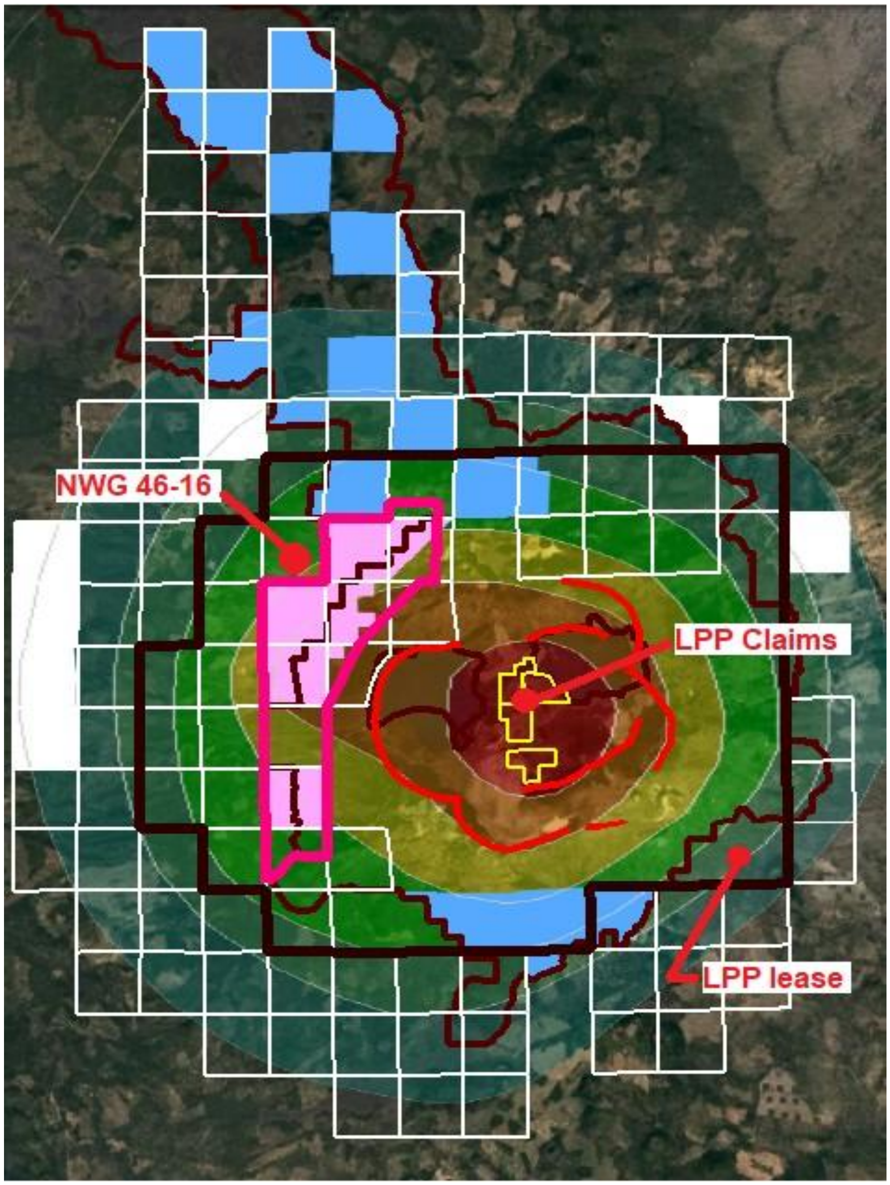


Subsequent seismic tomographic studies detected a magmatic anomaly beneath LPP Resources mining claims

Achauer et al. (1988): Using active-source P-wave arrival times, this study identified a clear low velocity anomaly approximately 3 km beneath the summit caldera. This was one of the first studies to interpret such an anomaly as a small magma chamber with a volume of a few to tens of cubic kilometers.



Chitwood, Davis, Ketrenos, Feuer (1990) System For Determining Geothermal Resource Equivalents Newberry Volcano, Oregon was part of the Newberry National Volcanic Monument lease exchange process. It mapped the volumetric heat for purposes of exchange. Assessment was based on heat and depth. Blue indicates the low intensity heat leases which were exchanged for high heat content leases adjacent to the caldera ring fracture. In a geothermal or thermodynamic setting, multiple volumes of "less dense" heat (lower temperature) are not equivalent to a single volume of "high dense" heat (higher temperature), even if the total energy (Enthalpy) adds up to the same number. And CalEnergy as vice chair of the monument committee was able to exchange low value leases for high value leases. These are the flank leases now being developed. The heat contours from the System For Determining Geothermal Resource Heat Equivalents at Newberry Volcano, Oregon are shown in the background indicating the magma anomaly at the caldera's center, and the lack of heat in the exchange leases. (Caldera ring fractures are in red) (Yellow indicates our claims over the magma anomaly)Today for Super Hot EGS you would want to target the orange 400 degree zone in order to get a ten fold return per well.



Zucca and Evans (1992): Re-evaluating the 1988 data for seismic attenuation, they noted a lack of a high-attenuation zone, suggesting the 3 km anomaly might instead be a breccia zone or a dry, cracked pluton.

Beachly et al. (2012): This research utilized modern tomographic imaging and waveform modeling of secondary arrivals. It found that while travel-time data could allow for a large range of melt volumes, waveform modeling constrained the presence of a magmatic body containing roughly **2–8 km³ of melt**.

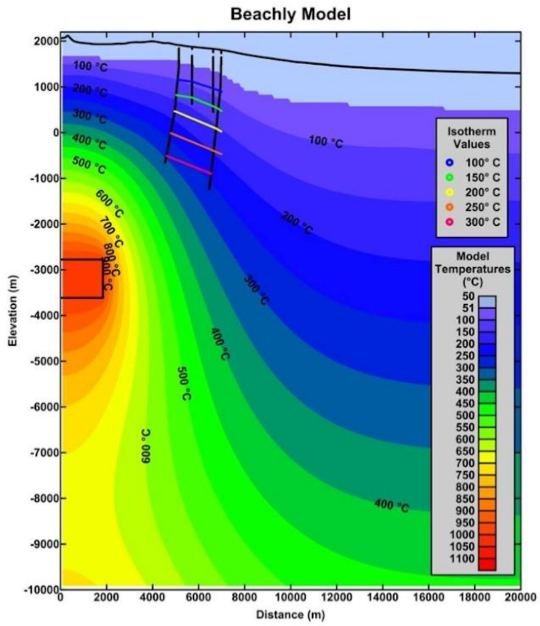
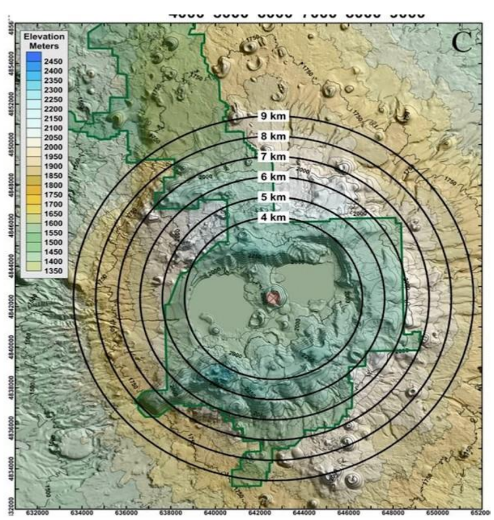
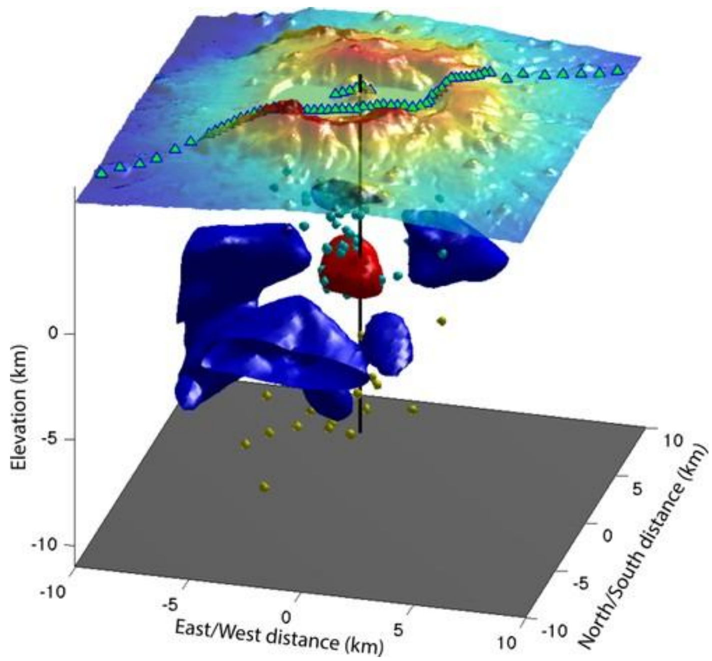


Figure 5: Results of 2-D model for a magma body under the Newberry Caldera consistent with results from Beachly et al. (2012). Magma body, shown by black outlines, temperature is 1000 °C, model time is 500,000 years. Model temperatures fail to match the observed temperature field.

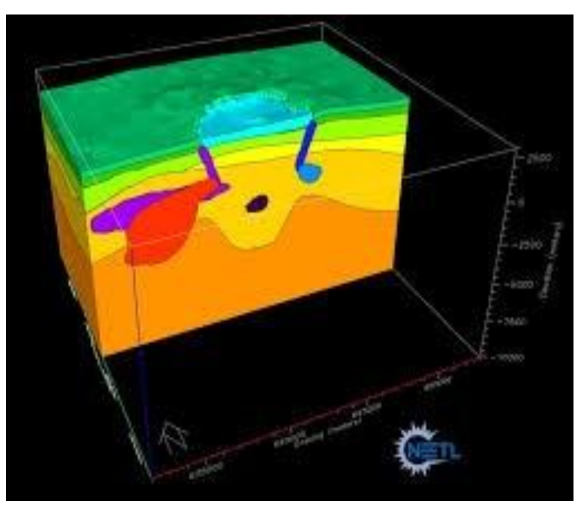
Frone (2014) in Thermal Modeling and EGS Potential of Newberry Volcano, Central Oregon puts the heat source equivalent at 175 exajoules. 175 exajoules (EJ) over century equates to approximately 55.5 gigawatts (GW) of power. LPP Resources is centered on this resource and emanates geothermal heat to all of the surrounding federal leases (illustration below)



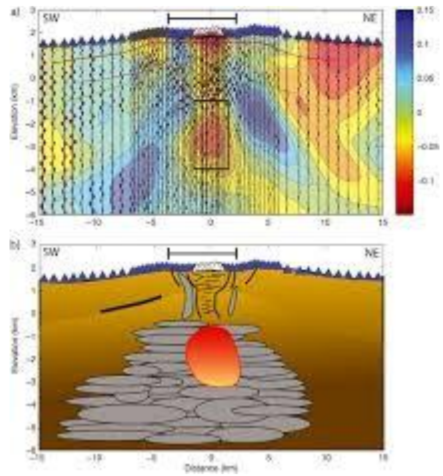
Heath et al. (2015): A joint inversion of active-source and teleseismic data revealed a low-velocity feature between **3 and 5 km depth** beneath the caldera. This model estimated a minimum melt volume of ~2.5 km³ and suggested that partial melt (~10%) is required to explain the observed seismic data.



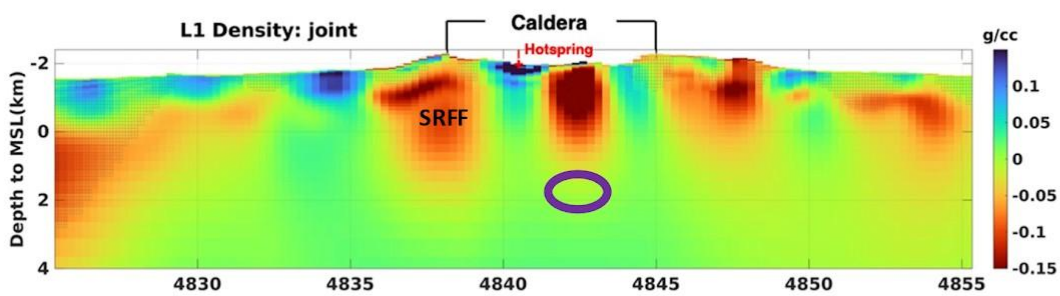
NETL (2016): A Conceptual Geologic Model for the Newberry Volcano EGS Site in Central Oregon: Constraining Heat Capacity and Permeability through Interpretation of Multicomponent Geosystems Data was created by the iNational Energy Technology Laboratory (NETL), a U.S. Department of Energy (DOE) national laboratory which shows the magmatic anomaly beneath our mining claims and patent.



Heath et al. (2018): Using seismic autocorrelation of ambient noise, researchers detected a reflection at approximately **2.5 km depth**, interpreted as the top of a partly melted body.



Schultz et al. (2024): Recent joint inversions of gravity and magnetotelluric (MT) data confirmed a highly conductive, seismically slow feature on the **south flank**. Just south of Newberry USGS No. 2 Well which was drillled on our claim no. 4. While primarily hydrothermal, it is noted as potentially containing partial melt at greater depths. This is currently target by a federal lease just south of USGS Newberry 2.

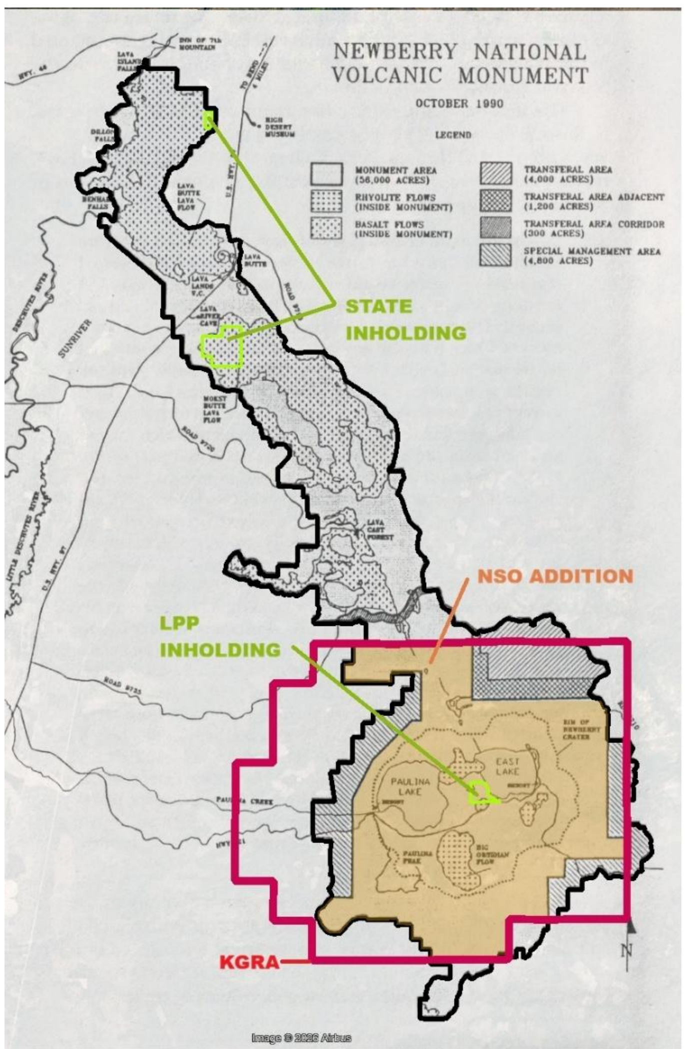


Please include the following proposal in the official record for the March 10, 2026, meeting. This submission is directed to the Board and the **Governor's Natural Resources Team** regarding Oregon's energy and conservation future.

Proposal Summary: The Newberry Resource Exchange

To resolve Oregon's looming **9-gigawatt (9GW) energy shortfall** and fulfill **Governor Kotek's EO 25-25**, we propose a strategic land and mineral exchange within the Newberry National Volcanic Monument.

The Exchange: Transfer Monument inholdings including LPP Resource's surface and surface mineral estates and Oregon State's surface inholdings to federal protection (completing the Monument) in exchange for **severed deep geothermal rights of like value** (Super-Hot Rock), beneath the Monument within the Newberry KGRA boundary. Extraction would take place at depths and conditions which would not interfere with hydrothermal features within the Monument. The area would become an extension of the National Monument's already proscribed **No Surface Occupancy Zone** (Special Management Area), which now excludes the 400 degree supercritical temperature halo around the magma anomaly beneath LPP Resources mining claims from development.



The Power: This project would unlock 5-50 GW of 24/7 carbon-free "firm" power, returning Oregon to a **net energy exporter** and securing our **Silicon Forest**.

The Legal Remedy: This exchange proactively settles potential **correlative rights** and **regulatory takings** claims under ORS 522, avoiding costly litigation for the State, Deschutes County and it would insure that federal funding benchmarks were met in a timely manner without legal delay.

Federal Alignment: This project implements **President Trump's Energy Dominance (EO 14154 & 14156)** by utilizing national emergency authorities to fast-track baseload power.

Landscape Protection: Concentrated geothermal power density removes the need to industrialize **Scenic Coastal Resources** with nearly a quarter million acres of offshore wind or the **High Desert** with similar solar sprawl. We request that the Governing Board and the Governor's Natural Resources Team review the attached full proposal and technical appendix during today's session.

To reiterate:

The laws of thermodynamics dictate that the magma anomaly will be drained anyway. Unlike the volumetric lease exchange (that created the monument) where the analogy was that by gathering an iceberg's worth of ice cubes you could somehow make steam. The heat only flows in one direction, emanating from the center of the caldera outward.

We would welcome existing developers utilizing quicker, cheaper and more effective protocols to reach the supercritical heat halo and pay to a royalty, which would be shared by the Federal Government (who had previously discarded their royalty), The State of Oregon (who could use the revenue to offset rising energy costs), LPP Resources (who could recoup their regulatory losses) and by tribal leaders whom we have conferred with.

Deschutes National Forest could manage the monument more effectively without private or state inholdings, ensuring its protection isn't dependent on state policies, while increasing federal revenues from royalties previously uncollected.

- Oregon's governor has declared a Climate Change Emergency issuing Executive Order 20-04 and set a deadline of 2027 by which to provide a carbon free energy supply. Newberry seems like the only option for this.
- The State would also benefit by greater royalty returns due to greater energy production and would own a equitable portion of the geothermal resource outright via an exchange of their surface rights and resources.

- The State would also benefit from a more robust economy, and reduced unemployment, at a time when Lori Chavez - DeRemer as the Secretary of Labor could assist.
- The Trump Administration has declared a National Energy Emergency, making energy production a matter of national security. Geothermal still receives federal assistance while wind and solar have lost their federal support. Our proposal alleviates the need for coal, oil, and nuclear and can supply 24-7 reliable energy without the drawbacks of intermittent supplies like wind and solar.
- Fishery and scenic resources along the coast would be free of giant offshore wind turbines, (the State's current plan). Solar also poses similar threats to open space, wildlife and scenic beauty. By utilizing Newberry these resources could still be preserved. Nuclear requires long term storage of radioactive waste and destructive uranium mining and has already been deemed unacceptable by the State of Oregon.

The supercritical temperatures needed for the tenfold increase in geothermal well production are either at great depth or are within the caldera, By allowing horizontal traversing wells beneath the monument, or allowing for the aforementioned exchange, geothermal developers would benefit both in time and cost and get a tenfold return on their wells, making the State's 2027-2030 climate goals feasible. More energy, faster energy, cheaper energy and it would all be imperceptible.

I believe this solution not only mitigates the concerns of all stakeholders, but enriches them all as well, while allowing for the incremental recoup of LPP Resources' regulatory losses. Should you have any concerns or questions please do not hesitate to contact me for a resolution.

Respectfully submitted,
Dr. James A. Miller, LPP Resources General Partner
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Hillsboro, OR 97124
james@lppresouces.com
503-703-1644