



Department of Geology and Mineral Industries
ADMINISTRATIVE OFFICE

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October 21, 1986

Ms. Lois Bristow Prante, Chairman
Board of Commissioners
Deschutes County Courthouse
Bend, OR 97701

Dear Chairman Prante:

The DLCD periodic review of Deschutes County's comprehensive plan is underway and this letter is to offer suggestions to improve sections dealing with minerals and geologic hazards.

The subject of surface mining is well covered in its own section, and the plan indicates that additional information will be collected about available resources, demand, and the impacts of development. The need for this information was pointed out by the DLCD in their January 16, 1986 Acknowledgment of Compliance, p. 16, and will be a valuable addition to the plan. On p. 131 reference is made to a reclamation plan. The state reclamation requirements of ORS 517.750 to 517.990 should be referenced here and on p. 103 of the Resource Element. DOGAMI reserves for itself technical regulatory responsibility, but recognizes the authority of the county on all land use related questions and regulations. Thus, surface mining is regulated with the Class B type of permit, as is geothermal exploration and development. Failure to cross reference state regulations for reclamation can create in the permittee false expectation that a county permit for land use purpose is all that is required for mining in the county. Proper cross referencing to the state's technical regulatory role would minimize duplication of effort and confusion on the part of the permittee.

For example, your staff has indicated to me that the county permit for surface mining includes a requirement for a bond to insure reclamation. This is a duplication of ORS 517, which governs surface mining statewide. To reduce the burden on operators of surface mines, I recommend removal of the bonding requirement and reliance on the state bond.

The Resource Element discusses two areas that are likely to overlap mineral exploration: agricultural lands and forest lands. On agricultural lands, surface mining and

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the exploration and extraction of geothermal and fossil fuels are allowed. On forest lands, geothermal exploration and development is allowed as a conditional use, but no mention is made of mineral or oil and gas extraction. These should be allowed as a conditional use.

The Resource Element would benefit from a mineral resource chapter. Exploration for metallic, aggregate, and industrial minerals as well as oil and gas could be covered in more detail than is done on page 8 of the Element. Specifically, they could all be treated as geothermal resources are now, that is, utilization of the mineral resources would be optimized if their compatibility with surrounding land-uses can be shown.

In some of the discussion of mining activities, mine site processing plants are discussed in terms of being or not being part of the mining operation. Various court cases are cited to suggest that the processing plants are not part of the mine site. Although it is not our function to provide legal commentary we note that in 1983 processing plants were included in the definition of surface mining. This change is now codified into ORS 517.750, Section 13A.

The Geothermal Element in general is good and needs no revision. It incorporates our comments from July 1984. The geothermal section of the Resource Element (p. 8-10) could use some updating, however. The reference to 392° F steam on p. 8 should be cited from the literature. In addition, the maximum temperature for Newberry Caldera of 175° should be changed to 509° F (USGS well #2). Finally, I would make the same recommendation on bonding that I made for surface mining. That is, the county bonding requirement should be removed because there will be a state or federal bond in place for each geothermal well, and ~~no~~ county bond is needed.

In the geothermal ordinance the director of the planning department is given authority to defer regulatory authority for geothermal prospect wells to the state. This appears on page 185 of Public Law 15, Section 8.050, Item 21, Subsection A41. State law adequately regulates not only prospect wells for geothermal research but also geothermal wells. Regulations of the technical aspects of geothermal drilling by the county is a duplication of state authority for which the county is not properly staffed. We would recommend that the technical aspects of geothermal and prospect well regulation be left with the state, where it can be most appropriately handled. This is not to say that land use issues of greatest concern to the county should not

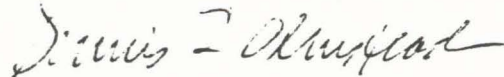
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be handled at the county level. In the present coordination scheme of DOGAMI using Class B permitting processes technical regulation is reserved to the state for geothermal activity and land use decision making is left to the county. This scheme works well and should be a part of the Deschutes County coordinated planning process.

Geological hazards are covered in the plan and in the Resource Element. No changes are needed at this time in those sections. The Plan, p.110, states that county land use regulations shall have provisions to assure proposed developments will receive review of potential natural hazards and that sufficient authority exists to modify or deny applications where such hazards exist. Have these regulations been written?

Enclosed is a copy of our comments to Deschutes National Forest on their plan. It will provide additional perspective on the importance of minerals in the planning process. Also, enclosed are our Mineral Resources Map of Oregon, publication lists giving other sources of information and copies of our Mined Land Reclamation and Geothermal Exploration statutes and rules. Feel free to call me if you need help obtaining any of these materials or other information.

Sincerely,



Dennis L. Olmstead
Petroleum Engineer

Enclosures
cc: Chuck McGraw, Deschutes Co.
Brent Lake, LCDC, Bend
Jerry Offer, LCDC, Salem
DO/sf
AT1/Olmstead/Prante

January 14, 1976

Howard Brooks
2033 First Street
Baker, Oregon 97814

Dear Howard:

I seem to remember a phone call sometime ago when we talked about the distribution of marketable pumice in the Deschutes National Forest.

On the enclosed map I have sketched very generally areas where pumice is being mined now, has been mined in the past, and also where pumice is most likely present.

The pumice being mined by Central Oregon Pumice and by Cascade Pumice is an ash flow tuff that we call the "Bend Pumice Deposit." It is second from the bottom of 5 ash flow tuffs that are present in the area south, west, and northwest of Bend. Thin basalt flows also overlie the ash flow tuffs in some places. Except where it has been partly eroded away, the pumice layer ranges from 20 to 40 feet thick, probably averages closer to 20 feet.

In our study we didn't attempt to calculate reserves, although Bill Miller suggested that on property he has control of, private land and mining claims that they have about a 50-year supply. I'm not sure he wants this information disclosed but this will give you an idea that there is still a large amount available. I'm not sure about how much land or pumice reserve the Cascade Pumice Co. has in the Laidlow-Tumalo area but it should extend to the south and west. There will be problems as subdivisions and farmland are encroaching in this area.

The pumice flat southeast of Pine Mountain probably only amounts to a few hundred acres and where I tested it was only about 4 feet thick. The pumice appears to be of commercial quality and someday the Forest Service probably would like to have it removed so they could get some trees to grow.

I hope this will be the kind of information you need for the U.S.F.S. If not, let me know what else may be needed.

Best regards,

Norm

NVP:rep
Encl: Map

P.S. The mineral resources map that shows the location of the pumice, sand & gravel, cinders, etc. is in Portland and Steve could probably supply a copy.