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RESOURCE STEWARDSHIP DEPARTMENT

Creating Solutions for Our Future

Joshua Cummings,
Interim Director

MEMORANDUM (1)

TO: Thurston County Planning Commission

FROM: Maya Bühler, Associate Planner
Allison Osterberg, Senior Planner

DATE: November 9, 2017

SUBJECT: Mineral Resource Lands – Criteria: Designation versus Permitting

Overview

In the October 12, 2017, memo (1) to Planning Commissioners (*Comprehensive Plan Update - Mineral Resource Lands: Designation Scope*), staff posed the following questions to consider when evaluating criteria for including in the designation of mineral resource lands.

“Where should mineral lands of long-term commercial significance be designated?”

Versus

“Where should mineral extraction be permitted?”

Designation is not Permitting. Designated mineral resource land does not imply that mining-related activities will automatically occur there. It means that the excavation and processing of minerals is limited to lands within the Mineral Lands Overlay, and that the land is eligible for permitting of mineral operations. All designated mineral lands would be subject to the permitting process.

The Mineral Lands Overlay is intended to conserve and protect mineral lands from development and potential land use conflicts which might preclude future mineral extraction. Hence, some land use activities could be restricted within the Overlay.

At their meeting on November 6, 2017, the stakeholder focus group discussed the appropriate stage for considering various criteria. Information on criteria and stakeholder feedback is summarized below in Table 1.



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Data Quality

One of the main outcomes of this planning process is a map that show the Mineral Lands Overlay. Some criteria that have been discussed may not have corresponding available, reliable, spatial data, and some may have spatial data that is of a coarser resolution, not accurate to the parcel scale. Staff have characterized the spatial data available for various criteria under consideration:

- High quality – indicates the data has a high level of accuracy (for example, site verified) and is complete (measures features throughout the entire county).
- Medium quality – indicates the data is complete, but may not be accurate.
- Low quality – indicates the data is likely not accurate at the site scale (it may based on historical data that has changed over time; has not been site verified; is inexact or gathered inconsistently) and is incomplete (does not exist for the entire county or has not been gathered consistently throughout the county).

Table 1 Potential Designation and Permitting Criteria for Mineral Resource Lands

| Category | Designation (Current) | Designation (Proposed; includes all criteria currently being considered) | Permitting Stage (New or Expansion of Operation) | Data Quality | Stakeholder Focus Group Feedback |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Geology | Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist. | Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist. | | Medium Data is available countywide, as developed through this project, but has not been verified at the site scale. | n/a |
| Jurisdictional | None. | Exclude non-county governmental jurisdiction including federal lands (military, national forests, tribal); city jurisdictions. | | High Data is available countywide and is accurate to the site scale. | Unanimous preference for including at the designation stage. |
| Land Use | Mineral lands are separated from urban growth areas by at least 1,000 feet. | Mineral lands are separated from urban growth areas by at least 1,000 feet. | | High Data is available countywide and is accurate to the site scale. | Some stakeholders question blanket application of 1,000-foot buffer. Preference divided between applying at the designation stage or at the permitting stage, and some indicate no buffer should not be applied at any stage. |
| | Remove parcels smaller than 5 acres in size. | Remove parcels smaller than 5 acres in size. | | High Data is available countywide and is accurate to the site scale. | General support. |
| | At least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger. | At least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger. | | High Data is available countywide and is accurate to the site scale. | Preferences divided between applying at the designation stage or at the permitting stage, and some indicate this criteria should not be applied at any stage. |
| | Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves. | Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves. | | High Data is available countywide and is accurate to the site scale. | Some stakeholders question blanket application of 1,000-foot buffer. Preferences divided between applying at the designation stage or at the permitting stage, and some indicate no buffer should be applied at any stage. |
| | Mineral resource lands shall not include historical/cultural preservation sites. | Mineral resource lands shall not include historical/cultural preservation sites. | | High Data for sites included on the Historic Inventory for Thurston County is available countywide and is accurate to the site scale. However, this dataset does not include all cultural and archeological sites, some of which are confidential. | General preference for including this criteria at the permitting stage, rather than designation. One stakeholder prefers this not be an exclusionary criteria at any stage. |
| | | Mineral resource lands shall not include areas identified as LAMIRDs. | TCC 20.54.070 (Table 1): Mineral extraction is prohibited in the following zones unless specifically | High Data is available countywide and is | N/a |

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| | | | identified as allowable through special use review (Hearing Examiner is authority): R1/20, R1/10, RRR1/5, RR1/5, RL1/2, RL1/1, LI, RRI, RCC, LTF, MR. | accurate to the site scale. | |
| Agriculture | Mineral resource lands shall not include agriculture lands of long term commercial Significance. | Mineral resource lands shall not <u>may</u> include agriculture lands of long term commercial Significance. | | High Data is available countywide based on LTA and NA zoning layers, and is accurate to the site scale. | Divided preferences among considering at designation stage, permitting stage, or not at all. |
| Forestry | Mineral resource lands may include lands designated for long-term forestry. | Mineral resource lands may include lands designated for long-term forestry. | | High Data is available countywide and is accurate to the site scale. | N/a |
| FEMA Flood Zones | None. | Mineral resource lands shall not include FEMA flood zones (1% annual chance of flood hazard). | TCC 24.20.080 (Table 24.20-1): Mineral Extraction is prohibited in floodways, frequently flooded areas, channel migration hazard areas, and coastal flood hazard areas. Mineral extraction is permitted, subject to a critical area review, in high ground water hazard areas | High Data is available countywide, and FEMA has been updating this layer based on recent LiDAR. | Divided preferences, but concentration of support for considering at designation stage. |
| Critical Aquifer Recharge Areas | None. | Mineral resource lands shall not include 1-, 5-, and 10-year wellhead protection areas. | TCC, Table 24.10-1: Mining (coal and minerals) is prohibited in 1-year time of travel, and permitted in 5- and 10-year time of travel. Permitted in other CARA I, II, and III. | Medium Data is available county-wide. Estimated time-of-travel for pollutants to wellhead is standard, but not verified at the site scale. | Divided preferences among considering at designation, permitting, or not at all. |
| | | | TCC, Table 24.10-1: Mining (gravel and sand) is prohibited in 1-, 5- and 10-year time of travel. Permitted in other CARA I, II, and III. (TCC 24.10.150(f)) | n/a | n/a |
| | | | TCC 24.10.150 – Gravel mining shall not occur in locations where the approval authority determines, based on a hydrologic report, that the proposed mining would diminish the volume of water in springs or shallow wells such that it no longer meets the needs of dependent users, or influences quality such that it would be no longer suitable for drinking. | n/a | n/a |
| | | Mineral resource lands shall not include community water system Group B wellheads. | The approval authority shall determine the minimum horizontal distance to be maintained between a mineral operation and any well used as potable water. | High Data is accurate, and available county-wide. Maps parcels with Group B wells, not the exact location of the well. | Divided preferences among considering at designation, permitting, or not at all. |
| | | | If a hydrogeological report is required, it shall include: groundwater elevation, locations of existing wells within 1,000 feet, descriptions of water quality and water | n/a | n/a |

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| | | | <p>level changes expected to occur, proposed final depth of excavation, water chemistry parameters, turbidity analysis, and estimated effects of stormwater and process water. (TCC 17.20.200)</p> <p>Per TCC 17.15.530, every application for a Group B permit within a category I or II aquifer recharge area shall include a hydrogeological report and drainage/erosion control plan. A report may be required for Group A or B permit applications if there is insufficient groundwater information, the project is likely to possess, store, use, transport, or dispose of hazardous materials, or if there is evidence of known groundwater degradation or contamination near the proposed project.</p> | | |
| | | | For projects with a hydrogeological report, groundwater monitoring shall be implemented (TCC 17.20.210) | n/a | n/a |
| Slopes | None. | Mineral resource lands shall not include landslide hazard areas. | TCC 24.15.025 (Table 24.15-1) permits mineral extraction in landslide hazard areas and erosion areas (subject to a critical area review permit), and prohibits in marine bluff hazards. | High (for landslide hazard areas) Data is available county-wide and accurate to site scale, using DNR landslide data. | |
| Habitat | None. | Mineral resource lands shall not include habitat for state and federal threatened or endangered species including, but not limited to, Mazama Pocket Gopher, Taylor Check Spot Butterfly, Streak Horned Lark, Chinook salmon, and Oregon Spotted Frog. | <p>TCC 24.25.240 (Table 24.25-3) prohibits mineral extraction in riparian habitat areas, streams, ponds and buffers, marine habitat areas and buffers, and important species and habitats. It permits mineral extraction, subject to a critical area review permit, in riparian and marine management zones, landward of any documented channel migration hazard area.</p> <p>In areas where permitted, proposals shall be reviewed to determine if activity would be harmful to aquatic life, cause change in groundwater flows and temperatures, or adversely affect fish and wildlife</p> | Medium-High Some data is available county-wide, but not all. Data comes from subject matter experts. In some cases, it is verified at the site scale, but may be out of date. | Unanimous preference for permitting stage. |
| | | Mineral resource lands shall not include soils associated as preferred habitat for Mazama Pocket Gophers. | | Medium Data is available county-wide, but is not accurate at the site scale. | Unanimous preference for permitting stage. |
| Wetlands | None. | None. | TCC 24.30.085 (Table 24.30-4): Mineral extraction (new and expanded operations) are prohibited in category I and II wetlands. They are permitted, subject to Critical Area Review, in category III and IV wetlands. | Low Data is available county-wide but is historical and is not accurate at the site-level. | Unanimous preference for permitting stage. |

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| Inspection | None. | None. | Gravel mines shall be inspected annually for compliance with chapter 17.20. (TCC 17.20.160) | n/a | n/a |
| Reclamation | None. | None. | If a reclamation plan is not required by DNR, the applicant shall submit a rehabilitation plan in conjunction with the special use application. (TCC 17.20.140(A(1))) | n/a | n/a |
| | None. | None. | A layer of arable soil of sufficient depth to sustain grass, shrubs or trees shall be provided in parts of the operation where required. The approval authority shall determine the appropriate restorative cover. (TCC 17.20.140(A(1))) | n/a | n/a |
| Other | None. | None. | Roads - Road standards must be met. A traffic impact analysis shall be completed showing the estimated equivalent single axle loads for a minimum of 20 years. (TCC 17.20.090) | n/a | n/a |
| | None. | None. | Dust & Smoke - Operator shall obtain all required pre-construction approval permits from the Olympic Regional Clean Air Agency (TCC 17.20.100) | n/a | n/a |
| | None. | None. | Noise - Noise levels must comply with WAC 173-58 (TCC 17.20.110) | n/a | n/a |