GUIDE TO SURVEYING AND MARKING OPERATING PERMIT AREAS
AND OTHER MINING-RELATED FEATURES

**Purpose of surveying and marking**
Revisions to Division 30 mining rules adopted in 2009 now include requirements for permittees to survey and mark the permit boundary so that machine operators do not inadvertently disturb areas outside of the permitted operating area. The new rules require that surveys be conducted by an Oregon licensed Professional Land Surveyor (PLS) to ensure accuracy and the ability to reference the survey to a common coordinate system.

**Who needs to submit a permit boundary map?**
- Applicants for new operating permits.
- Applicants amending existing operating permits.
- Operators at existing mine operations with a disturbance outside of any valid exempt area (Limited Exemption) that is greater than 20 acres
  - There are special circumstances that may require a surveyed map on sites with disturbances less than 20 acres.

**When should the map be submitted?**
- For amendments and new permits: Map should be included with the application.
- For existing permits: Map should be included with the renewal.

**What features on the map must be surveyed?**
- Permit Boundary
- In some circumstances the internal excavation boundaries may be required if they are not proximal to the permit boundary
  - Coordinate with DOGAMI for determination

**What additional features must be included on the map?** *(Not required to be surveyed)*
- Current or proposed disturbance area
- Setbacks and buffers
- Buildings
- Haul roads
- Stockpiles (reserved for final reclamation)
- Processing area
- Wells
- Ponds
- Power poles
- Floodways
- Topography or Aerial Base
What is a common coordinate system?
There are many potential coordinate systems, more common options in Oregon include:
- Oregon State Plane (North and South)
- UTM
- Oregon Lambert

What additional information must be included on the map?
- DOGAMI Operating Permit ID (for amendments and existing permits)
- Coordinates of the survey corners (do not need to be set boundary corners or monuments) in decimal degrees
- Coordinate system used

What boundaries must be marked in the field?
- Permit boundary
- Excavation areas
- Setbacks and buffers

When do these boundaries need to be marked?
- Amendments and New Permits: Once the permit has been issued
- Existing Permits: Within three months of receiving notification that the map was accepted

How should the boundaries be marked?
The markers must be clearly visible to equipment operators and at a spacing of no more than 200 feet or intervisible (in sight). DOGAMI may allow some latitude to these marking requirements if the mining is phased or where the marking of some features is infeasible or doesn’t meet the purpose for the marking. These exceptions must be approved, in writing, by DOGAMI.

NOTE: The map submitted to DOGAMI is not required to be filed with the county surveyor; however, any time fence posts or other permanent markers are installed on property lines by a PLS, ORS 209 requires the filing of a Record of Survey.

Who is exempted from this rule?
Surveying and staking is not required for sites that have a Grant of Limited Exemption or a Grant of Total Exemption. DOGAMI encourages permittees to survey and stake boundaries even for sites where it is not required since this can help minimize the potential for land use and third party legal disputes or questions regarding which areas are subject to reclamation plan requirements.

What would require an update to the survey and marking?
Under the new rules, DOGAMI can require mine operators to update surveys and maps if the operation is subject to a notice of violation, a suspension order, or if there is a significant modification to the operation.
Guidance – practical considerations

Property lines
Operating permit and property line boundaries often coincide. Where this is true and there is no dispute with neighbors over location of the property line, a fence line (for example) may serve as the “marked” operating permit boundary. Nevertheless, a land survey is still needed to determine the coordinates of the property line corners. The property corners must be clearly marked.

Permit boundary
The permit boundary is sometimes simply an offset distance from the property line. So, where the property line has been surveyed and clearly marked, surveying the permit boundary may not be necessary. Measuring the offset distance from the property line using a cloth tape could suffice.

The permit boundary may follow a natural feature that is obvious. For example, the permit boundary may be the edge of a river. In this case, surveying and marking the edge of the river may serve no purpose. More important is a survey of the line that defines the mining setback from the river. Similarly, where a permit boundary parallels a public road, the surveying and marking of the mining setback is more important than the road itself.

Permit boundaries that follow cliffs or the top of existing highwalls are not easy to survey and mark. In this case, surveying a line that is offset from the feature (uphill or downhill) in lieu of the permit boundary can be performed with written approval from DOGAMI.

Marking
The goal of marking is to provide a long-term and clear demarcation of important boundaries that define the mining area. The markers are intended to keep equipment operators from entering areas where the operating permit forbids (or allows only limited) disturbance.

Steel fence posts are the most convenient and visible long-term marker. They last for decades and are easily installed. However, like all markers, they become ineffective if blackberry or other vegetation grows up around them. So, part of marking a permit boundary, setback, or other feature is to periodically clear out vegetation that would prevent the marker from being seen by equipment operators. Markers other than fence posts that would also qualify as long-term markers include rebar, large diameter pipe, or composite fence posts that extend at least 5 feet above the ground.

The spacing of markers should generally be no greater than 200 feet. A greater spacing distance may be acceptable or a lesser spacing distance may be necessary. Depending upon the line of sight, markers should be intervisible. In all cases, corners where two lines adjoin must have a stake (such as a property line corner).

Marking areas within the mining boundary that are being farmed and will not be mined in the near future can be delayed if the marking would interfere with the farming. In these instances, DOGAMI will accept a map including the coordinates of the boundaries that will later be marked in the field.
**Need more help?**

There will undoubtedly be situations where application of the surveying and marking rules does not necessarily meet the intent of the rules. If you find yourself in such a situation, contact us and we will work with you to come up with a solution.

If you have questions regarding technical details of the map please contact:

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If you have questions regarding technical details of the permit boundary please contact your reclamationist or call 541-967-2039 to find out who your reclamationist is.

**DOGAMI Reclamationists**

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