



October 14, 2022

Dan Colton, CEO/President
Green Light Wisconsin
2 East Mifflin St
Suite 600
Madison, Wisconsin 53703

Subject: NOI Submission Request for Additional Information

Dear Mr. Colton:

The Wisconsin Department of Natural Resources (DNR) received the Notice of Intent (NOI) to drill from Green Light Wisconsin (GLW) on September 23, 2022. The NOI and supporting information were posted on the DNR [webpage](#) on September 30, 2022. As provided under s. NR 130.109(3), Wis. Adm. Code, the information specified below must be provided in order for the DNR to complete its review of the NOI, determine whether any additional approvals or permits are needed, and ultimately issue a decision pursuant to s. NR 130.109(4), Wis. Adm. Code. The DNR's informational requests are organized to correspond to the required elements of an NOI, as delineated in s. NR 130.109(1), Wis. Adm. Code. To satisfy the additional information request, please amend the NOI to include details that address all of the bulleted items below:

(a) A legal description of the parcels where the exploration will take place including identification of land ownership and maps showing the approximate drilling site locations and anticipated site access routes.

- Although three maps have been provided, additional figures are necessary to clearly show the location of the drill sites to the closest mapped waterways including distances and labels.
- Provide a figure that includes the delineated wetlands overlain on an aerial at a scale of 1" = 200' to show the relation to the access roads/drill sites.

(b) A description of the means and methods that will be used for the exploration including drilling methods, anticipated drillhole locations, diameter, and depth, source of drilling water, and anticipated use of drilling additives, if any.

- The NOI does not address drilling through the overburden. Describe in detail how drilling will be conducted in the overburden, including methods, casing materials, use of drilling muds, and means of seating the casing into solid rock.
- Specify which drilling fluids and additives are intended to be used.
- Sec. 1.2 Diamond Drilling Program: Water Source specifies the Yellow River as the water source. The closest river is the North Fork of the Yellow River. Is the Yellow River the intended source of drilling water or will water be obtained from the North Fork of the Yellow River?

- Describe the process and equipment used to collect and transport water from the source to the drilling sites. Where will it be removed? How will it be withdrawn from the river, and will the site be readily accessible in the winter?
- How will records of when and how much water is withdrawn be maintained?
- Describe the chlorination specifications. How much bleach? How will records be maintained?
- Sec. 1.2 Diamond Drilling Program: Water Source. states “Water may also be pumped from the Yellow River to minimize surface impacts from road traffic to the drilling operation site.” Provide details on the purpose, timing, and process behind this statement.
- Sec. 1.2 Diamond Drilling Program: Water Source. states a “District Ranger” will be notified of any activity that could involve hazards to public safety. Clarify who this is and include DNR personnel on such notifications.

(c) A description of drilling site access and site preparation needed to accommodate the drilling activity including site grading and stabilization methods.

- Detail the schedule for preparing the site. For example, when will brush be cut relative to road preparation and other activities?
- Describe road and site preparation in more detail. For example, how will frozen conditions be determined? What equipment will be used to drive frost?
- Exhibit A, provisions 5(c), 5(a), 6(d) – Define the term “road construction”.
- Describe how erosion control measures and best management practices (BMPs) will be implemented. For example, if frozen conditions do not persist, what specific measures will be installed to minimize erosion and runoff?
- Exhibit A, provision 7(a) states, “Evidence of excessive rutting on access roads and drilling sites would lead to road closures until conditions improve.” Define “excessive rutting” and specify who would make that determination. Confirm that the total disturbance for all project related activities will remain under 1-acre or that a construction storm water permit will be acquired.
- If unexpected cessation of work occurs, provide details and procedures to ensure site stabilization for drillholes, drilling sites, sumps, and access roads for short-term and long-term protection until permanent reclamation and/or abandonment.
- Sec. 1.2 Diamond Drilling Program: Schedule. states, “The significance of this is that GLM has the discretion to undertake Work Plan activities before or after frozen conditions.” GLW only has permission to work within the schedule outlined in this NOI Exploration Plan. Modifications to the proposed work or schedule will need to be addressed through a separate NOI submittal and DNR review process.

(d) A description of how any diversion, retention, or drainage of water, including stormwater, drilling water, and water from flowing drillholes, on or around the drilling site will be conducted.

- Exhibit A, provision 5(f) How and when will the groundwater depth be determined?
- Provide details regarding the number, placement, sizes, excavation methods, and restoration of sumps.
- How will water be collected at the drill collar and be directed to the sump – e.g., flow through a shallow trench or pumped through a hose?
- Provide details, including methods and materials, addressing how the sump base and sidewalls will be lined with bentonite. The referenced, s. NR 130.111 (1)(b), Wis. Adm. Code, does not outline this method.
- Describe how GLW will respond if flowing well conditions are encountered during drilling.

- Include details for the process for adding cement to the dewatered sump pits. For example, include criteria for determining how much cement will be used. How will cement be mixed with the cuttings? How and where will the native soils be stored?
- Provide details regarding the timeframe for sump reclamation. Include BMPs for the period they are open. For example, how will the pits be kept from freezing while allowing time for the solids to settle?
- Exhibit A, provision 7(b) states, "...water can be pumped out on the surrounding ground surface." Note that discharging to groundwater requires a WPDES permit for wastewater discharge. Describe how the discharge will occur under frozen conditions?
- Note that if flowing well conditions are encountered during abandonment, GLW's procedure must be approved by DNR prior to continuing work.

(e) A description of how drilling mud, drill cuttings, any pollutant-bearing minerals or materials, including fuel, lubricants, and drilling additives, will be handled during exploration and a description of spill prevention, containment and remediation procedures.

- Roughly characterize and quantify the sulfides expected in the drill cuttings.
- Detail parameters to handling waste with sulfides.
- Describe any provisions to contain materials that could be released due to a pump failure, hose failure, or other spill.

(f) A description of drillhole abandonment methodology. The explorer shall conduct the drillhole abandonment procedures in compliance with s. NR 130.111.

- Detail plans and procedures for drillhole abandonment. Include where the cement will be mixed, special provisions for cementing in winter, record keeping regarding cement and water.
- Describe or amend the process of filling a hole "from top to bottom" with concrete or neat cement, as stated in Sec. 2.1 Drill hole abandonment, paragraph 2.

(g) A description of measures that will be taken to remove, stockpile, or otherwise protect topsoil during exploration.

- Describe measures that will be taken to remove, stockpile, and protect topsoil during excavation of sumps, during stockpiling, and after placement of topsoil as part of site termination.
- Clarify where topsoil stockpiles will be stored. Will they be within the 50 x 50 foot disturbed area for each drilling site?

(h) A description of methods and materials used to establish temporary vegetative cover, if necessary, to stabilize any part of the drilling sites and measures to control invasive species as a result of the temporary measures.

- Sec. 1.2 Diamond Drilling Program: Schedule. Describe how to complete restoration of drill sites under frozen conditions.
- Confirm that any equipment and materials brought on site will be seed and weed free to prevent introduction of invasive species.

(i) Identification and prevention of pollution, as defined in s. 281.01 (10), Stats., resulting from leaching of waste materials and identification and prevention of significant environmental pollution.

- Provide details on potential pollution sources and methods to prevent significant environmental pollution.

- Exhibit A, provision 8(b) states, “Fuel storage containers will be kept on an upland site where practical.” How is practicality determined? Clarify this statement.
- Exhibit A, provision 8(c) states, “In floodplains, if need arises to abandon the drilling site because of a potential flood threat...” Provide details regarding the locations of floodplains in relation to the site. If floodplains exist within the project area, provide maps and any correspondence with local government regarding compliance with federal floodplain standards.

(j) A reclamation plan designed to minimize adverse effects to the environment during and after exploration that includes all of the following:

1. A description of how all liquid and solid waste generated during the exploration activity will be disposed of or otherwise managed in an environmentally sound manner.

- Provide specific plans and locations for waste disposal.

2. A description of how topsoil, if removed and stockpiled, will be redistributed during reclamation of the drilling site.

- Describe restoration procedures for topsoil removal. For example, will the reuse of existing topsoil be priority?

3. A description of final drilling site reclamation and revegetation methods and materials that will be used to stabilize disturbed soils and prevent air and water pollution.

- Exhibit A, provision 10(a) states that all core holes will be permanently abandoned / closed per DNR regulations. Describe the final reclamation procedures for both the access roads and the drill sites.
- Specify the seed mixes that will be used.
- Describe planned site stabilization methods regarding both air and water pollution.

4. A description of any nearby wetlands that could be affected by the exploration activity and the measures that will be taken to minimize disturbance to wetlands, including the use of best management practices for construction in or adjacent to wetlands, and relocating or modifying the configuration of drilling sites or restricting exploration activity to the winter months.

- Sec. 1.2 Diamond Drilling Program: Schedule. states, “All the access roads and drill sites traverse and are located on uplands” and “No activities associated with the Work Plan take place in or proximate to wetlands.” Clarify how drill site DDH1 will be accessed without crossing w01 from the Wetland Determination supplement.
- Exhibit A, provision 5(e) states, “Drilling, road use, and road construction can occur within a wetland only after these surfaces have been frozen enough or mitigation used to provide access and use without breaking through the frozen layer.” This statement conflicts with the previous bullet. Are activities proposed in or proximate to wetlands?
- Exhibit A, provision 6(b) Provide details regarding the culverts and gravel approaches listed.
- Exhibit A, provision 9(a) Provide details as to gravel sources and onsite uses.
- Sec. 1.2 Diamond Drilling Program: Access. states, “Wood matting may be required for some access extensions to bridge the ditch (which contains a thin linear wetland) from the Yellow River Road (FS 112).” Provide details as to how the wetlands will be crossed and impacts avoided. Note that placing any materials within the wetland requires permitting.

5. A total cost estimate for drilling site termination including unit costs for drillhole permanent abandonment and drilling site reclamation.

- 8 drillholes are listed in Table 1 in Section 1.1 Location and a total of 9 drillholes are specified in Section 2.3 Reclamation Cost Estimate. Please clarify this inconsistency.
- Table 2 – Describe the line-item identified as “cementing sump pits” and the associated costs. Specifically, explain the unit cost (10/100 feet) and the number of units.
- Table 2 – Clarify the costs related to mulch. Is the \$12 unit cost for 5 bales or per bale? The table identifies 93 sites, please clarify.

Additional information:

- Provide copies of all correspondence with federal agencies.
- Provide the cultural resources review and/or SHPO clearance from the USFS, as stated in Ex. A 2(a).
- Exhibit A, provision 2(a) - Clarify who or what position would constitute the contracting-officer? Do you plan to alert the DNR in such instances?
- Discuss the results of the Endangered Resource Review mentioned in previous conversations.
- Review the NOI and remove inconsistencies. Some examples include:
 - Section 1.2 Diamond Drilling Program: Drill Site Construction / Drill Holes. states, “Merchantable timber will not be cut during the drilling operation, but in the event GLW needs to cut such timber it will be done in accordance with Forest Service regulations and specifications.”
 - Sec. 1.2 Diamond Drilling Program: Drill Site Construction / Drill Holes. states in the first paragraph, “No topsoil will be disturbed.” and then in the third paragraph, “To the extent possible, no top soil will be disturbed.” A variation of “no disturbance” to “where top soil is disturbed” are stated in 5 other paragraphs throughout the submittal.

Additional DNR permits, including waterway (Ch. 30, Wis. Stats.) and erosion control (s. NR 216, Wis. Adm. Code) may be required for this project. Once all requested information has been received by the DNR, the review process will resume. If you have any questions regarding this additional information request, please contact Molly Gardner at (715) 292-4911 or at molly.gardner@wisconsin.gov.

Sincerely,



Molly Gardner
Metallic Mining Coordinator

CC: Dave Carew, CFO, Green Light Metals
Theodore DeMatties, Geological Consultant
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