



October 28, 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 October 7, 2022. The NOI and supporting information were posted on the DNR [webpage](#) on October 14, 2022. As provided under s. NR 130.109(3), Wis. Adm. Code, the information specified below must be provided 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 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 four maps have been provided, Figures 1, 3, and 4 have illegible features, labels, and/or legends. Provide all figures at a usable size and scale.
- Provide a figure that includes the referenced un-named stream and any adjacent waterways. Detail the proximity of planned work to the un-named stream including distances and labels. Describe any potential impacts to these waterways and planned avoidance measures.
- Provide a figure that includes floodplain details.
- Although the site access routes to each drilling area are included, differentiate existing trails from proposed new trails.
- Indicate the placement of the proposed sump on the wetland figure and include distances from mapped wetlands and water resources.
- Figure 3 – Clarify the placement of the rotonsonic holes labeled as RS1. Are they proposed in Thornapple Creek Road?

(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.

- Clarify the relationship between Program 1 and Program 2 regarding schedule? Are they intended to be operated concurrently?
- Will rotosonic drilling use water? If so, how will it be contained? Will it produce wastewater? If so, how will this be handled?
- Will there be residual solids resulting from the rotosonic process? If so, how will they be handled and removed from the site?
- What is the proposed rotosonic drillhole diameter? Does the size vary by location?
- Specify which drilling fluids and additives are intended to be used.
- Clarify the exact water source, access to it, methods for water removal, total amount of planned withdrawal, timing, methods of transportation/equipment, documentation procedures, and records management. Remove all errors regarding water sources – i.e. reference to the Yellow River.
- Due to low flows, provide calculations for the fraction of flow for the proposed water withdrawal from the un-named creek. Water withdrawal shall not occur if the stream is at or below the Q7,10 or if the proposed withdrawal will cause stream flow to fall below the Q7,10.
- To avoid restrictions based on low flow and the subsequent monitoring required to maintain compliance, it may be prudent to investigate alternate water sources. If so, list and describe the withdrawal process from an alternate source.
- Describe the chlorination specifications. How much bleach? How will records be maintained?
- Diamond Drill Site Construction / Drill Holes. paragraphs 5 and 6 state that 1 to 6 diamond core holes will be drilled during Program 2, Phase II. Will this estimation of drillholes consist of all new holes or a combination of new holes and off set holes?

(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. Include when brush will be cut relative to road preparation and other activities.
- Describe road and site preparation in more detail. How will frozen conditions be determined and monitored? What equipment and methods will be used to drive and maintain frost? Include criteria for work stoppage.
- Describe the specifications for the equipment that will be on site.
- Exhibit A, provisions 5(c), 5(e) – Define the term “road construction”.
- Exhibit A, provisions 5(e) – Define the term “mitigation”.
- Describe how erosion control measures and best management practices (BMPs) will be implemented. For example, if frozen conditions do not persist, how will wetland impact be avoided and what specific measures will be installed to minimize erosion and runoff?

- If unexpected cessation of work occurs, provide details on the short- and long-term and procedures to ensure site stabilization for drillholes, drilling sites, sumps, and access roads until permanent reclamation and/or abandonment.
- Acknowledge that the land disturbance for all project related activities totaling over 1-acre will require that a construction storm water permit application be submitted at least 14 working days prior to construction.

(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(d) - Define the term “highland site”? Where is this located?
- Exhibit A, provision 5(f) - Detail how and when will the groundwater depth be determined?
- Detail sump plans including locations; number of pits; location conditions; capacity; methods for groundwater determination, protection, and avoidance; timeframes for use; methods for digging, lining, use, and discharge; wetland and waterway avoidance for discharge; reclamation and restoration plans.
- Detail how cuttings and drilling fluids will be transported to the sump. What will be done with cuttings and drilling fluids accumulated in tanks?
- Elaborate on plans for wastewater and cuttings within wetlands. Include methods of collection, storage onsite, removal procedures, disposal sites, etc.
- Is the sump intended for cuttings from both Program 1 and Program 2?
- How will water be collected at the drill collar and directed to the tanks?
- Provide details, including methods and materials, for sump disposal, abandonment, and reclamation. Include details on how the sump base and sidewalls will be lined with bentonite.
- Include details for the process for adding cement to the dewatered sump. For example, include criteria for determining how much cement will be used. How will cement be mixed with the cuttings?
- Provide details regarding the timeframe for sump reclamation. Include BMPs for the period they are open. For example, how will the sump be kept from freezing while allowing time for the solids to settle?
- Describe how GLW will respond if flowing well conditions are encountered during drilling.
- Acknowledge that if flowing well conditions are encountered, abandonment 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 for handling waste with sulfides.
- What are plans for free water from the sump? If water is intended to be pumped onto the ground, coverage under the dewatering general permit will be needed. Applications are done through the [Wastewater General Permits webpage](#). A WAMs ID/account will need to be created through the Department of Administration prior.

- Provide details for site specific dewatering operations that meet the criteria covered on the best management practices (BMP) plan for handling discharge. The BMP Plan form can be located on the [Wastewater General Permits webpage](#).
- 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, documentation and record keeping procedures.
- Reclamation Procedures: Drill hole abandonment states the process for permanent abandonment of the diamond drill holes. Include the process abandonment procedures for the roto sonic drillholes.
- Detail the proposed schedule for roto sonic drillhole abandonment in relation to the drilling. For example, will there be temporary or permanent abandonment between holes at each site or between sites or at the completion of all roto sonic drillholes?
- Describe the general timeframe for when the down hole geophysics will be conducted and subsequent hole abandonment.

(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, store, and protect topsoil during excavation of the sump.
- Clarify where topsoil stockpiles will be stored until replacement including BMPs for storage through reclamation.

(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.

- Describe methods and timeline for temporary erosion control or temporary vegetative cover until complete restoration of drill sites, access roads, and sump location can be achieved.
- 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 regarding potential pollution sources and methods to prevent significant environmental pollution.

(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.

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.*

- Restoration of drill sites states that restoration will be completed “in accordance with restoration procedures outline by the WDNR.” Describe the final reclamation procedures for the access roads and drill sites including procedures for wetland 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.*

- Exhibit A, provision 5(a) states, “...there will be no drilling or construction of sump pits or storage of fuel/drilling substances within 100 feet of perennial, intermittent, or ephemeral rivers and streams, ponds, lakes, seeps, or springs.” To avoid the need for a waterway permitting, no activities can take place below the ordinary high-water mark, no bridges may be placed across waterways, and no vehicles are allowed to drive through waterways.
- Exhibit A, provision 5(d) states, “If some temporary fill material is needed, it will be removed following completion of drilling.” Fill placed in a wetland is considered a regulated activity. Clarify that no fill will be placed in a wetland or acknowledge that it will require approval.
- Will any stump removal or grubbing occur within wetland areas?

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

- Rotasonic Drill Site Construction / Drill Holes, paragraph 1 states that all rotasonic holes will be “50 feet or less”. Reclamation cost estimate states that the rotasonic drillholes will total 4,592 feet. Please clarify this inconsistency.
- Table 3 – Clarify if the rotasonic holes are larger diameter than diamond drill holes, would there be a different reclamation cost per foot?
- Table 3 – Clarify the costs related to Reclamation of Highland Sump. Is the unit cost \$1?
- Table 3 – Regarding the Labor line-item, include the roads in the units.
- Table 3 – Clarify the costs related to seed. Provide the unit cost in pounds per acre.
- Table 3 – Clarify the costs related to mulch. Is it \$12 for 5 bales of straw?
- If cessation in operation occurs before completion and/or permanent abandonment doesn’t occur until spring/summer, include in the Reclamation cost estimate the costs associated with temporary site stabilization for the drill sites, access roads, and sump location.

Additional information:

- Provide copies of all correspondence with federal agencies.
- 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?
- Although an avian survey was provided, also include a copy of the Endangered Resource Review.
- Review the NOI and Exhibit A and remove inconsistencies.

Please note that 2 drillholes from the Aquila Resources Inc. drilling campaign in 2011 were temporarily abandoned. Drillholes R11-11 (234 feet) and R11-12 (251 feet) will need to be properly abandoned. Include the timeframe and methods for permanent abandonment.

Additional DNR permits, including wetland (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
Benjamin Callan, DNR
Gregory Pils, DNR