



August 20, 2021

File: W2018L2-

Mr. Joseph Mackenzie, Chair  
Wek'èezhìi Land and Water Board  
#1-4905 48<sup>th</sup> Street  
Yellowknife, NT X1A 3S3  
Via e-mail:

Dear Mr. Mackenzie:

**Re: Nighthawk Gold Corp, Interim Closure and Reclamation Plan Version 3.3 Reasons for Decision**

Thank you for the response from the Board and Staff to Nighthawk's Interim Closure and Reclamation Plan (CRP) Version 3.3 and for the Reasons for Decision. We would like to take this opportunity to request Board consideration and clarification on several items as follows.

In the covering letter in the last paragraph, *"The Board would like to take this opportunity to remind Nighthawk that in accordance with Part 1, Condition 1 of Water License W2018L2-0002, Nighthawk must submit a CRP for activities on the federal portion of the Indin Lake Gold Property, including the Colomac Camp."* In reviewing that section, we find that Water Licence W2018L2-0002 states that a closure plan is required 'as directed by the Board'. Can the Board please clarify that direction is being given to Nighthawk to prepare a CRP for W2018L2-0002? If that is not the case, can the Board please provide clarification?

Decision #2: *"Nighthawk to work with Board staff to set a deadline for the next version of the CRP that is no later than December 15, 2022"*.

Nighthawk would like to use this letter as an opportunity for engagement with the Board on the deadline for the next version of the CRP. To allow time for inclusion of the September 2022 SNP results in the CRP, it is proposed that the deadline be set as December 15, 2022. Can the Board please provide comment or confirmation of this deadline?

Decision #15: *"The Board has not approved the proposed mixing zone."* The Record of Decision states that, *"The Board will only consider a mixing zone if there is adequate evidence demonstrating that it is required."* In Version 3.3 of the CRP, the proposed closure method proposed did not include a cover. The new selected closure activity includes covering the consolidated rock piles with a geosynthetic liner and low flux cover. This closure option will mean that runoff from the consolidated rock piles will consist of non-contact snow melt and precipitation, thereby isolating the receiving environment from any impacts from acid generating rock material. For this reason, Nighthawk supports the removal of the mixing zone in the Lardass Lake receiving environment from the CRP.

Could the Board please confirm that it agrees that a mixing zone is not required.

Decision #16: *"Nighthawk is to submit a supplementary report within six months of the Board's decision. The supplementary report must include updated water quality modelling that 25 See WLWB 'Policies and*



*Guidelines' webpage for MVLWB/GNWT Guidelines for Effluent Mixing Zones (2017)14 incorporates the selected closure activity for the rock pile, and either: rationale for why a mixing zone is not needed or the information required by the Mixing Zone Guidelines if a mixing zone is being proposed."*

Installation of a geosynthetic cover over the waste rock piles will eliminate the interaction between snowmelt and precipitation with the rock piles so that contact water is not generated and released into the drainage to Lardass Lake. Given the new selected closure activity, Nighthawk can use existing data to demonstrate in the updated ICRP that water quality in the drainage will meet closure criteria prior to mixing of site discharge with water in Lardass Lake. Rationale for why Nighthawk does not propose a mixing zone will be based on the existing dataset and closure design details.

Nighthawk therefore requests that the Board waive the requirement to provide an updated water quality model and supplementary report. Please confirm that the mixing zone rationale can be provided in the next version of the ICRP and that a supplementary report is not required.

Nighthawk has communicated with GNWT, ENR on this matter, and ENR agreed that an updated water quality model is likely not needed if sufficient rationale can be provided based on existing data for why a mixing zone is not required (see attached communications). However, ENR did request that low level (colourimetric) analysis of total and dissolved phosphorus be added to the SNP requirements due to the potential for waste rock to be a source of phosphorus to Lardass Lake. Low level analysis of phosphorus was added to the analytical requirements for the SNP starting in July 2021.

With regards to Decision #20: *Nighthawk is to submit updated RECLAIM estimate(s) to reflect the approved CRP Version 3.3 and propose any associated changes to security for W2018L2-0002, W2018L2-0003, W2018C0007, and W2018X0006 within 120 days of the Board's decision on Version 3.3 of the interim CRP. Nighthawk is to engage and collaborate with the GNWT and INAC when preparing updated closure cost estimates. Nighthawk will respond separately to this Decision.*

Thank you again for the thoughtful review of Nighthawk's Interim and Closure Reclamation Plan Version 3.3. We look forward to working with all stakeholders.

Sincerely,

**NIGHTHAWK GOLD CORP.**

Denise Lockett,  
Manager, Stakeholder Relations and Licensing and Permitting

Cc: Damian Panayi, Golder

Clint Ambrose, Inspector, GNWT Lands

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David Scott-McQuinn, Water Resources Officer, GNWT ENR

Nathan Richea, Director, Water Resources, GNWT ENR

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## Attachment 1: Email Communications Between Golder and ENR,

**From:** Bryana Matthews <Bryana\_Matthews@gov.nt.ca>  
**Sent:** July 16, 2021 9:07 AM  
**To:** Sinclair, Kate <Kate\_Sinclair@golder.com>  
**Cc:** Denise Lockett <dlockett@nighthawkgold.com>; Panayi, Damian <Damian\_Panayi@golder.com>; McConaghie, Villa <Villa\_McConaghie@golder.com>; Rick Walbourne <Rick\_Walbourne@gov.nt.ca>  
**Subject:** RE: Damoti - mixing zone requirements

### EXTERNAL EMAIL

Hi Kate,

In regard to WLWB Decision 16, on Nighthawk's ICRP v.3.3, we also agree that the mixing zone may not be required given the updated closure activity for the consolidated waste rock pile will include a geosynthetic cover. To absolve Nighthawk of the need to define a mixing zone, Nighthawk will need to demonstrate to the Board's satisfaction that the proposed cover will effectively eliminate the consolidated waste rock pile as a source of degraded contact water and that the remainder of the water quality in the flow path migrating from the site to Lardass Lake (i.e., at SNP 5-14) can meet CCME chronic water quality guidelines before dilution in Lardass Lake is accounted for. If Nighthawk believes sufficient rationale can be provided in a discussion format, then an updated water quality model is likely not needed.

However, as noted in our submission to the Board, ENR remains concerned with the potential for site contact water to act as a source of phosphorus to Lardass Lake. We therefore recommend Nighthawk include an updated characterization of water chemistry for site contact water and Lardass Lake including the analysis of low level total and dissolved phosphorus in their submissions to the Board. Demonstration that site contact water is not a source of elevated phosphorus (or other parameters of concern) to Lardass Lake may support Nighthawk's case that an updated water quality model is not necessary.

Of note, ENR does not have the ability to change a Board decision. As well, there were other stakeholders that included comments regarding the closure plan for the waste rock piles and the post-closure water quality/mixing zone in review of ICRP v.3.3.

Happy to chat further if needed,

Bryana

Mársi | Kinanāskomitin | Thank you | Merci | Hąj' | Quana | Qujannamiik | Quyanainni | Máhsi | Máhsi | Mahsi

Bryana Matthews



Pronouns: she/her/hers

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**From:** Sinclair, Kate [<mailto:Kate.Sinclair@golder.com>]

**Sent:** July 6, 2021 2:50 PM

**To:** Bryana Matthews

**Cc:** Denise Lockett; Panayi, Damian; McConaghie, Villa

**Subject:** Damoti - mixing zone requirements

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Hi Bryana,

Thank you for the voice message last week, and hopefully we can find a time to connect over the next couple of days. As mentioned in my message to Rick, we are hoping for some guidance from ENR on the attached Reasons for Decision.

On the November 2020 call with you, Rick, John Brodie, and Richard Nesbitt, Nighthawk agreed to revise the closure plan for the waste rock piles to include a geosynthetic cover. As noted by the Board in the attached, a regulated mixing zone may no longer be required if a cover is installed because the consolidated rock piles will not generate any contact water. However, the Board have also requested the following (see Decision 16):

- *To allow Nighthawk to move forward with the closure planning process, the Board requires Nighthawk to submit a supplementary report within six months of the Board's decision. This supplementary report must include updated water quality modelling that incorporates the selected closure activity for the rock pile, and either: rationale for why a mixing zone is not*

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*needed or the information required by the Mixing Zone Guidelines if a mixing zone is being proposed.*

We agree that a mixing zone may not be required but are unclear why a revised model would be needed if the waste rock pile is not generating any contact water. We are hoping to discuss this with ENR prior to sending a response to the Board on the attached.

Just let me know if you would prefer us to set up a meeting to discuss this, or feel free to call my cell anytime (403-478-0086).

Regards,

Kate

**Kate Sinclair, PhD, PGeo**  
*Senior Water Quality Specialist*



**GOLDER**  
MEMBER OF WSP

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