From: Howse Mine / Mine Howse (CEAA/ACEE)

To: "Didillon, Loic"; "Mariana Trindade"

Cc: "Mackenzie, Armand"; Kirstein, Friederike [CEAA]; Howse Mine / Mine Howse (CEAA/ACEE)

Subject: Follow-up Information Requests in reponse to IRs (Part 1)

Date: October 28, 2016 3:54:03 PM
Attachments: IRs Round 2 (Part 1).docx

Hi Loic and Mariana,

The Canadian Environmental Assessment Agency (Agency) has reviewed the responses provided by Howse Minerals Ltd. for Information requests sent to you on June 3, 2016 (Round 1, Part 1), with the exception of the responses pertaining to groundwater modelling, which have not yet been provided to the Agency. Please find attached, follow up Information Requests concerning responses provided for Part 1 of the Information Requests.

The Agency continues to review responses provided to Part 2 of the Information Requests sent to you on June 29, 2016. We will provide you with the outcome of our review of Part 2, as well as any additional questions, once complete.

You are encouraged to discuss attached Information Requests (Round 2, Part 1) with the Agency, and with government experts, as applicable, prior to submission of your responses. As indicated in my email sent earlier today, I will be away from my desk next week, and so I have copied Friederike who can address any pressing questions or concerns in my absence.

Kind regards,

Lyndsay

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Howse Property Project

Environmental Impact Statement Information Requests

Round 2 (Part 1)

October 2016

EIS or IR Reference	Dept Number	Effects Link to CEAA 2012	Link to EIS guidelines	Context and Rationale	Specific Question/ Request for Information
CEAA 1, Round 1, Part 1	CEAA	5(1) current use, migratory birds	3.3.3	In response to the CEAA 1, Part 1, the proponent stated that "it is not possible to know for sure whether an animal would be startled or not by the noise. It depends on the animal's current activity and mood, local environment, etc. We conclude that there is a lack of knowledge on the noise levels as they may be perceived by wildlife at a distance of 15 km from the Howse Project site".	Provide literature on noise effects on wildlife to reduce uncertainties regarding adverse effects as a result of noise beyond 15 km. This review should include other sectors such as highway studies, if there is insufficient literature regarding mining noise. Revise the environmental effects analysis if there is evidence there could be effects on wildlife beyond 15 km.
				Federal avifauna experts have noted that there are relevant studies that can be used to understand and reduce scientific uncertainties regarding effects of noise wildlife outside of the mining sector, such as highway studies conducted in Germany.	
CEAA 2, Round 1, Part 1	CEAA	5(1) and 5(2)	All	The proponent's response to CEAA 2, Part 1 is inadequate. Rather than describing proposed mitigation measures as requested, the proponent has removed all measures that did not, in the view of the proponent, fit the specified criteria. This does not address the intent of the request and leaves environmental effects unmitigated. For example, if the EIS proposed a plan to mitigate effects of NOx, and this measure was removed without providing replacement mitigation for NOx the environmental effect remains unmitigated.	 Review proposed mitigation measures in relation to all valued components and provide updated lists (either revised measures or new additional measures) of mitigation measures that are specific, measurable, attainable, relevant, time-bound for each valued component. Update analysis and determinations of significance, as appropriate, based on revised mitigation measures.
				 A more clear description of the criteria for mitigation measures is as follows: Mitigation measures should be specific, measurable, attainable, relevant, and time-bound; Mitigation measures should be worded in explicit, precise, unambiguous, and mandatory terms. Ambiguous terms, such as: "when/whenever 	

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				possible", "when not necessary", "where necessary", "when needed", and "could be installed/implemented/used", should not be used. Mitigation measures should be expressed in quantitative terms and be reportable. They should be realistic and achievable. The measures proposed should directly address the adverse environmental effects, and the timeframe for the implementation of the measure must be clear - whether it is during all phases of the designated project, or for a specific duration during a phase of the designated project.	
				Many of the mitigation measures included in the EIS did not conform to these requirements, so that their effectiveness in mitigating potential environmental effects is unknown and the resulting residual effects could not be accurately predicted. The followings are examples of mitigation measures that follow the desired criteria: • limit the maximum charges of explosives to be used so that the blast vibration and overpressure limits respect the NPC-119 guidelines (MOE, 1985). The smallest distance between the pit and a water body (Pinette Lake) is 900 m, which limits the charges to 3,128 kg per delay to protect fish eggs from vibration and to 1,092 kg to protect the fish from overpressure. • Riprap will be installed on both sides of the Creek from the discharge point to 600 m downstream - within Burnetta Creek littoral and lower shore up to where water flow increase is expected to stay below 20% - thereby nearly eliminating erosion risks in that stream.	
CEAA 22, Round 1, Part 1	CEAA	5(1)(a)(iii) Migratory birds	6.3.2	The proponent's response to CEAA 22, Part 1, indicates that "The proponent is currently preparing a wetland management plan (final version to be ready in the Fall 2016), which includes a submetric delineation of the wetlands that are in the vicinity of the proposed Howse Project infrastructures. The plan will include specific mitigation measures to minimize the effects of the Project	Provide the wetland management plan and update the effects assessment based on the additional information (i.e. delineation of wetlands in the vicinity of the Project), including changes to mitigation measures. In lieu of the detailed plan being available, provide sufficient information on wetlands potentially affected by the Project,

EIS or IR Reference	Dept Number	Effects Link to CEAA 2012	Link to EIS guidelines	Context and Rationale	Specific Question/ Request for Information
				on wetlands, such as limit their encroachment. " In order to fully understand the potential effects, and residual effects following mitigation, the proponent must provide sufficient information on the proposed mitigation measures, including those that will be part of a plan, as outlined in CEAA 2, Part 1.	predicted effects on wetlands, and proposed mitigation measures, so as to enable a full understanding of the significance of residual environmental effects on wetlands, as well as effects on the current uses of wetlands for traditional purposes by Aboriginal peoples.
CEAA 23, Round 1, Part 1	ECCC-IR- 01	5(1)(a)(iii) Migratory Birds	6.3.2	The proponent's response to Information Request CEAA 23, Part 1, is inadequate. As previously indicated, Environment and Climate Change Canada has advised that all migratory bird mitigation measures should be codified in an avifauna management plan. Prior to preparing a plan, the proponent should consult the following document: "Planning ahead to reduce the risk of detrimental effects to migratory birds and their nests and eggs" https://www.ec.qc.ca/paom-itmb/default.asp?lang=En&n=1B16EAFB-1# 001	Explain whether an avifauna management plan would be prepared in accordance with the following document: "Planning ahead to reduce the risk of detrimental effects to migratory birds and their nests and eggs" https://www.ec.qc.ca/paom-itmb/default.asp?lang=En&n=1B16EAFB-1# 001 . If so, describe the proposed review and approval process for an avifauna management plan. If not, provide information on how mitigation measures for avifauna will be reviewed and approved by relevant experts. Further to CEAA 2, Part 1, provide information on mitigation measures that the proponent would implement as part of the plan. If new or modified measures are selected, revise the effects analysis for avifauna, and other impacted valued components, including current use and cumulative effects where applicable.
CEAA 30, Round 1, Part 1	CEAA	5(1)(a)(iii) Migratory Birds 5(1)(c)	6.3.2 6.3.4	The proponent's response to CEAA 30, Part 1, states that "the proponent will not conduct any activities on Irony Mountain and the area will remain wild and undisturbed. As such, there are no anticipated adverse environmental effects of the project on avifauna at Irony Mountain."	Given the proximity of Irony Mountain (Kauteitnat) is 500 m to the Project, provide rationale to substantiate the proponent's predictions that the Project, including effects of noise, light, and air emissions, would not have any adverse effects on species, such as migratory birds or species used by Indigenous groups, potentially occurring on Irony Mountain, as well as adverse environmental effects that would discourage the use or enjoyment of lands and resources.
CEAA 31, Round 1, Part 1	ECCC-IR- 07	5(1)(a)(iii) Migratory Birds 5(1)(c)(iii) Current Use of Lands and Resources for Traditional Purposes	6.3.2, 8.1.	CEAA 31, Part 1 was not adequately addressed. The EIS states "the Proponent will engage in breeding birds and species at risk monitoring surveys every five years. Surveys with point count methods will allow HML to stay informed on avifauna in the area. In order to keep track of possible changes in bird populations, these surveys will be	State whether the following would be committed to by the proponent: • Post-construction monitoring every year for the first three years following completion of construction in order to assess initial effects of construction and operation. As requested, provide information on if and how Indigenous

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				conducted in every habitat present in the Howse area, after the end of the construction phase." One of the main purposes of post-construction surveys is to verify the prediction of adverse environmental effects on avifauna. However, the frequency of proposed surveys is too low to obtain adequate data to assess the population trends for migratory birds and to assess the success of project mitigations.	Traditional Knowledge would be considered in follow-up surveys for avifauna, and how local communities would be involved in the surveys.
				If surveys at the current frequency show that the prediction of 'no significant adverse effects' is incorrect, there may be insufficient time to undertake adaptive management to mitigate adverse effects. Following the initial three year post-construction period, monitoring as proposed by the proponent should be implemented to assess long-term effects.	
				The proponent's response as to how Indigenous Traditional Knowledge would be considered in follow-up avifauna surveys, states that " in Section 9.3: HML has put in place various communication and socioeconomic monitoring mechanisms collaboratively with affected Aboriginal communities." However, Indigenous Traditional Knowledge and its incorporation in follow-up surveys for avifauna is not mentioned in the various communication and socioeconomic monitoring mechanisms identified in Section 9.3.	