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11 March 2022

Impact Assessment Agency of Canada
55 York Street, 6th Floor
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By email: UpperBeaver@iaac-aeic.gc.ca

Re: Agnico Eagle Upper Beaver Gold Project
Draft Tailored Impact Statement Guidelines, and
Draft Public Participation Plan
IAAC Reference Number: 82960

Dear Sirs:

The Ontario Rivers Alliance (ORA) is a not-for-profit grassroots organization with a mission to protect, conserve and restore riverine ecosystems in Ontario. ORA advocates for effective policy and legislation to ensure that development affecting Ontario rivers is environmentally and socially sustainable.

The ORA commented on the Initial Project Description (IPD) and requested that the Impact Assessment Agency of Canada (Agency) require a full federal Impact Assessment on the Upper Beaver Gold Project (Project), due to its potential ongoing cumulative effects on the environment, Indigenous communities and the public, and to ensure a more environmentally and socially sustainable outcome. We strongly support the Agency's decision to require a full federal Impact Assessment and appreciate the opportunity for the public and Indigenous communities to provide meaningful input into the Project.

The Agency has deemed the Project to be within federal jurisdiction and required it to undergo a federal Impact Assessment, and yet Agnico Eagle (AE) is planning to move forward with their advanced exploration as soon as weather permits. ORA objects to the Project moving forward with any advanced exploration activities that would result in any damage to the environment.

According to Section 7 (1) of the *Impact Assessment Act* (*IAA*),

> "*Subject to subsection (3), the proponent of a designated project must not do any act or thing in connection with the carrying out of the designated project, in whole or in part, if that act or thing may cause any of the following effects:*
>
> *(a) a change to the following components of the environment that are within the legislative authority of Parliament:*
>
> *(i) fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act,*
>
> *(ii) aquatic species, as defined in subsection 2(1) of the Species at Risk Act,*
>
> *(iii) migratory birds, as defined in subsection 2(1) of the Migratory Birds Convention Act, 1994, and*
>
> *(iv) any other component of the environment that is set out in Schedule 3;*

(b) *a change to the environment that would occur*
  (i) *on federal lands,*
  (ii) *in a province other than the one in which the act or thing is done, or*
  (iii) *outside Canada;*

(c) *with respect to the Indigenous peoples of Canada, an impact — occurring in Canada and resulting from any change to the environment — on*
  (i) *physical and cultural heritage,*
  (ii) *the current use of lands and resources for traditional purposes, or*
  (iii) *any structure, site or thing that is of historical, archaeological, paleontological or architectural significance;*

(d) *any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada; or*

(e) *any change to a health, social or economic matter within the legislative authority of Parliament that is set out in Schedule 3.*

RECOMMENDATION 1: The Agency must enforce Section 7 (1) of the *IAA* to ensure that the proponent does not undertake any advanced exploration activities or do any act or thing in the carrying out of the designated project in whole or in part that may cause harm to the environment until the Minister makes a final decision on the Project.

The "Gold Standard":

AE boasts about setting the "gold standard", "*for over 60 years Agnico Eagle has been attracting investment to Canada, from those who seek a mining company committed to make mining work better for communities, shareholders and the planet".*[1] ORA submits that Stakeholders expect AE to set the "gold standard" on this Project by undertaking the most environmentally and socially rigorous, advanced and responsible project "for communities, shareholders and the planet". [2]

RECOMMENDATION 2: AE initiate their "Gold Standard" promise in all aspects and decisions regarding this Project "*to make mining work better for communities, shareholders and the planet*".

[1] *Agnico Eagle Twitter Posting, 22 November 2021*
[2] *Source: Hill Times, March 2022.*

ORA Comments on the draft Tailored Impact Statement Guidelines and Public Participation Plan:

The ORA has reviewed the draft Tailored Impact Statement Guidelines (TISG) and draft Public Participation Plan (PPP) and recommend the following factors be considered in the preparation of the Impact Statement.

1. Valued Components: In reference to valued components (VC), the ORA strongly supports the public's need and right to clean air, clean water, and a healthy and resilient environment. We also recognize the need for good jobs; however, it is of utmost importance that we carefully consider what is being traded-off in both the short-term and long-term to secure those jobs.

   In Ontario the trade-offs have become too great when environmental policy and legislation are routinely considered to be "red tape" and set aside in favour of unmitigated development at any cost – this is the case in Ontario right now. Consequently, we are relying on the federal *IAA* process to compensate for the very lacking policy, legislation and consultation process in Ontario. A big thank you to the federal government for making this possible!

   ORA's concerns and highly Valued Components (VC):
   - Clean and healthy air, fisheries, wildlife, and species at risk
   - Clean and healthy surface water and groundwater quality and quantity
   - Indigenous peoples have given their full consent to the Project
   - Local and downstream Stakeholders continue to have the optimum quality of enjoyment of their lake and river shoreline properties
   - Ability to hear the sounds of nature
   - Health and sustainability of the Beaverhouse Lake, Ava Lake, York Lake and the Misema River, through to the Blanche River, Englehart River, Lake Nippissing, Ottawa River, and St. Lawrence River Watershed and Basin.
   - Lakes, rivers and wetlands that act as a carbon sink, rather than a GHG emitter
   - Resilience of our lakes, rivers and wetlands to a warming climate
   - An open, inclusive, transparent and meaningful Indigenous and Stakeholder consultation process

   RECOMMENDATION 3: That Stakeholder concerns and recommendations and the above noted VCs be embedded throughout all aspects of the guidelines and Impact Statement.

2. TISG, Pdf 12/168 - 1.3. Preparing the Impact Statement

   This section states, *"Where the proponent is of the opinion that particular information is not required, it should contact the Agency to confirm the rationale for not including it prior to submitting the Impact Statement. The rational for not including the information must also be provided in the Impact Statement."*

   RECOMMENDATION 4: Add, The Agency will share their rationale for allowing the proponent to leave the requested information out and publish it in the Impact Statement.

3. TISG, Pdf 12/168 - 1.3. Preparing the Impact Statement

This section states, *"The Agency is available to support the proponent during the preparation of the Impact Statement and may establish technical advisory groups, consisting of FAs and others, as appropriate."*

RECOMMENDATION 5: Meeting Notes from every Proponent meeting with regulators is made available to Stakeholders within the Impact Statement, to reveal their concerns, issues, positions taken, and advice given regarding the Project.

RECOMMENDATION 6: The same consideration for obtaining help from the Agency FAs and experts, should also be made available to the public, Stakeholders and Indigenous peoples.

4. TISG, Pdf 15/168 - 2.2. Qualifications of individuals preparing the Impact Statement

   This section states, *"demonstrate that qualified individuals have prepared the information or studies".*

   RECOMMENDATION 7: In addition to demonstrating that qualified individuals prepared the information or studies, the proponent must also indicate whether the studies conducted were independent or conducted by staff.

5. TISG, Pdf 18/168 - 3.4. Project components and activities

   This section states, *"describe project activities to be carried out during each project phase, with a focus on activities with the greatest potential to have environmental, health, social and economic effects, or impacts on Indigenous people and their rights."*

   RECOMMENDATION 8: The proponent must notify the Agency and stakeholders through-out all phases of the Project, of all project-related activities it plans to undertake and inform the Stakeholders at least 30 days prior to any activity occurring.

6. TISG, Pdf 19/168 - 3.4. Project components and activities

   This section states, *"In addition to describing the project components and activities, the Impact Statement must also describe the following: dewatering York Lake;…"*

   Stakeholders would like to know, in detail, how and where the water from York Lake will be disposed of, and how or whether it will be treated before disposal.

   RECOMMENDATION 9: In addition to describing the project components and activities, the Impact Statement must also describe in detail how York Lake will be dewatered and how and where its contents will be disposed of.

   It's also important to know the tonnage of ore that would or could come from any off-site deposits.

   RECOMMENDATION 10: Include in this list of project components and activities, the volume of ore to be processed from any and all off-site deposits.

7. TSIG, Pdf 123/168 - 11.1. Risk Assessment

A stand-alone underground mine creates the smallest footprint and least impact on the environment. The mining company proposing the work, has not clearly demonstrated that a stand-alone underground mine is uneconomic without the open pit. The benefits of an underground only are as follows: no river diversion, minimal waste dump, minimal airborne dust, minimal mining noise, minimal footprint, and minimal closure requirements. A technical and economic study needs to be completed for a stand-alone underground only mine. The recent increase in gold price should help on the revenue side.[3]

RECOMMENDATION 11*:* AE be required *to complete a new and formal Risk Assessment of the upper Beaver Gold Project as currently proposed. The Risk Assessment shall begin forthwith listing all hazards, severity ratings and potential mitigation so the results are available for the decision-making process. Main mining hazards to be listed include: the crown pillar, four diversion dikes and tailings dams, all of which have the potential for failure or breach resulting in an inrush of water into the proposed mine and/or the environment. Active participants of the joint Risk Assessment process shall include a senior government official as lead, mining company personnel, Indigenous communities, and a minimum of two Stakeholders or their designate/s.*[4]

8. TSIG, Pdf 18/168 - 3.4. Project components and activities

Crown Pillar:

A crown pillar of 20 metres has been described by the mining company as a potential hazard to miners during underground mining. A comment in the project description states, "part of the ore to be mined….is located less than 15 to 20 metres below York Lake". This statement indicates that the crown pillar has not been fully delineated and mapped.

The mining company needs to complete early mapping and extensive geotechnical core drilling analyzed by a reputable geotechnical firm so discussions on the crown pillar are based on technical facts.

Through its recent merger with Kirkland Lake Gold, Agnico Eagle has acquired the operating Macassa Mine which has a 25-metre rock pillar with the neighbouring Kirkland Minerals Mine holding back over 500 metres of water. [5]

RECOMMENDATION 12: *Crown Pillar*: AE be required to *complete a full Geotechnical study forthwith including geotechnical core drilling on the crown pillar between the bottom of York Lake and top of underground workings. The scope shall include: the integrity of the pillar for underground mining only and recommendations for mitigating risk (i.e., such as a reinforced concrete bulkhead between the crown pillar and underground workings). The mining company shall be mandated to start this study process forthwith so results can be integrated into the underground only Preliminary Economic Assessment (PEA). The mining company shall nominate three independent geotechnical firms to study the crown pillar and*

[3] *Addendum 1, Recommendations – Upper Beaver Gold Project, Commentary on Recommendations, Risk Assessment, by William A. Glover, P.Eng., Mining Engineer.*
[4] *Addendum 1, Recommendations – Upper Beaver Gold Project, Summary of Recommendations, 1) Risk Assessment, by William A. Glover, P. Eng., Mining Engineer.*
[5] *Addendum 1, Recommendations – Upper Beaver Gold Project, Commentary on Recommendations, Crown Pillar, by William A. Glover, P.Eng., Mining Engineer.*

one shall be selected by representatives of local Indigenous communities, and Stakeholders or their designate/s.[6]

RECOMMENDATION 13: *PEA Underground Only:* AE be required to *complete a study, PEA level or higher, on a stand-alone underground mine at the Upper Beaver Gold Project without an Open Pit, without draining York Lake and without diverting the Misema River. The study shall incorporate pastefill and emulsion explosives. The engineering company selected to complete the study shall be independent of the mining company (currently Agnico Eagle). The mining company shall nominate three engineering companies to do the PEA study and one selected by local Indigenous communities, and Stakeholders or their designate/s. The Stakeholders shall participate with representation on the PEA study team (and Crown Pillar Study) with full access to information going forward.*[7]

Induced Chemicals:

AE has the opportunity to raise the bar with 100% wastewater recycling and "zero discharge" plans for all induced chemicals and contaminants.[8]

RECOMMENDATION 14: *Pastefill:* If the Project is approved, that AE be required to *use pastefill exclusively for filling underground voids as part of the mining cycle. The use of pastefill from mill tailings material will reduce the amount of surface tailings deposited and hence a smaller footprint. Rockfill will also reduce the footprint of the surface waste pile.*[9]

RECOMMENDATION 15: *Nitrate Control:* If the Project is approved, that AE be required to *eliminate Ammonium Nitrate, Fuel Oil (AN/FO) based explosives from blasting and use alternate explosives such as emulsions to minimize nitrates in the water discharge. The mining company shall be mandated to implement its zero "nitrate" discharge plan and incorporate it into the PEA.*[10]

RECOMMENDATION 16: If the Project is approved, that AE be required to provide mitigation measures that would ensure 100% wastewater recycling and "zero discharge" for all induced chemicals and contaminants.

9. TISG, Pdf 20/168 - 4. Project purpose, need and alternatives considered

This section states, *"The proponent must also analyze alternatives to the Project and alternative means of carrying it out."*

There appears to be a lack of integration between "alternatives to the Project" and "alternative means to carry out the Project".

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[6] *Addendum 1, Recommendations – Upper Beaver Gold Project, Summary of Recommendations, 2) Crown Pillar, by William A. Glover, P. Eng., Mining Engineer.*
[7] *Addendum 1, Recommendations – Upper Beaver Gold Project, Summary of Recommendations, 3) PEA Underground Only, by William A. Glover, P. Eng., Mining Engineer.*
[8] *Addendum 1, Recommendations – Upper Beaver Gold Project, Commentary on Recommendations, Induced Chemicals, by William A. Glover, P.Eng., Mining Engineer.*
[9] *Addendum 1, Recommendations – Upper Beaver Gold Project, Summary of Recommendations, 4) Pastefill, by William A. Glover, P. Eng., Mining Engineer.*
[10] *Addendum 1, Recommendations – Upper Beaver Gold Project, Summary of Recommendations, 5) Nitrate Control, by William A. Glover, P. Eng., Mining Engineer.*

The proponent should be documenting draft alternatives (designs and methods) for this assessment and sharing with stakeholders prior to performing impact assessments. This may include alternative methods (means) of extraction and/or alternative extraction designs assessed to better understand degree of risk of impact avoidance on the lake.[11] This may include suggested alternatives in Addendum 1 and/or Addendum 2.

The proponent should not just analyze alternatives to the Project but provide alternative design and means of carrying it out.

RECOMMENDATION 17: Section 4, add: "*the proponent must also analyze alternatives to the Project and alternative* design and *means of carrying it out*."

10. TISG, Pdf 21/168 - 4.4. Alternative means of carrying out the Project

"The Impact Statement must identify and consider the potential environmental, health, social, cultural and economic effects and the impacts on the rights of Indigenous peoples of alternative means of carrying out the designated project that are technically and economically feasible."

Again, as recommended in section 4 above, this section should require an alternative design and means analysis. This should be considered in all references to "alternative means". See Addendum 2.

The Proponent should not just consider an alternate way of carrying out the Project, but it expands the possibilities when considering a different design of the Project.

Design: a plan – perhaps a different location or approach vs Means: a different technology to carry out the plan.

Section 4.4 should state "alternative designs and means" - not just alternative means. Alternative designs may have different degrees of footprint on the lands with different degrees of environmental impact.[12]

RECOMMENDATION 18: Section 4.4 should state, *The Impact Statement must identify and consider the potential environmental, health, social, cultural and economic effects and the impacts on the rights of Indigenous peoples of alternative* design and *means of carrying out the designated project that are technically and economically feasible.*[8] *(Recommendations 20, 21 & 22 apply to this section as well.)*

Stormwater Management:

Also, missing from the key project elements that must be addressed on the Project site is stormwater management – a key element of concern that is not spelled out.

[11] *Addendum 2, Recommendations – Upper Beaver Gold Project, Review of Draft Tailored Impact Statement Guidelines, by Mark Heaton, Fish and Wildlife Biologist.*
[12] *Addendum 2, Recommendations – Upper Beaver Gold Project, Review of Draft Tailored Impact Statement Guidelines, by Mark Heaton, Fish and Wildlife Biologist.*

RECOMMENDATION 19: Add stormwater management to the alternative design and means analysis.

11. TISG, Pdf 48/168 - 8. Biophysical Environment - 8.1 through 8.11

There appears to be a lack of integration between "alternatives to the Project" and "alternative means to carry out the Project" with the impact assessments described in Sections 8.1 through 8.11. It is not clear how alternatives are being assessed in terms of potential impacts on the biophysical environment. Current generic language is "describe the potential effects of the Project" for each attribute in Sections 8.1 through 8.11. A more integrated approach would read "describe the potential effects of the Project [design/ methods/means] alternatives".

More specifically as examples:

"The Impact Statement must describe the potential effects of the Project design alternatives on fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act."

"The Impact Statement must describe the mitigation measures for the potential effects of each Project design alternative on fish and fish habitat".

Adopting this approach would mean that the proponent would assess alternative methods of extraction to avoid need for draining the lake and constructing diversions. It could also involve the assessment of alternative types of watercourse crossings, such as culverts and open-span bridges in relation to impacts to fish passage and fish habitat.

There also seems to be a lack of recognition for "avoidance of impact". Each Biophysical Environment attribute should describe and assess impact avoidance measures, similar in manner to mitigation and enhancement measures.
In closing, the draft document appears comprehensive but, needs some additional work to demonstrate assessment of impacts associated with alternative structural designs and methods of extraction.[13]

RECOMMENDATION 20: Each attribute in Sections 8.1 through 8.11 should take a more integrated approach that should read "*describe the potential effects of the Project* [design/methods/means] alternatives".

RECOMMENDATION 21: *The proponent should be documenting draft alternatives (designs and methods) for this assessment and sharing with stakeholders prior to performing impact assessments.* This may include alternative methods (means) of extraction and/or alternative extraction designs assessed to better understand degree of risk of impact avoidance on the lake.[14] This may include suggested alternatives in Addendum 1 and/or Addendum 2.

[13] *Addendum 2, Recommendations – Upper Beaver Gold Project, Review of Draft Tailored Impact Statement Guidelines, by Mark Heaton, Fish and Wildlife Biologist.*
[14] *Addendum 2, Recommendations – Upper Beaver Gold Project, Review of Draft Tailored Impact Statement Guidelines, by Mark Heaton, Fish and Wildlife Biologist.*

RECOMMENDATION 22: The proponent should include consideration for *"avoidance of impact",* where *each Biophysical Environment attribute should describe and assess impact avoidance measures, similar in manner to mitigation and enhancement measures.*

12. TSIG, Pdf-25/168 – 5. Description of public participation and views

The public and stakeholders must have meaningful input into the Project, not just to "*have an opportunity to share their views*". Meaningful input means the Proponent must demonstrate in the Impact Statement how their input has been incorporated into the Project.

RECOMMENDATION 23: Title of section 5 should read, *Description of public participation and* input follow-up.

RECOMMENDATION 24: The guidelines should read; *Engagement activities should be inclusive and ensure that interested members of the public have an opportunity to* provide meaningful input with a well-considered follow-up response from the proponent on how it is incorporated into the Impact Statement.

13. TSIG, Pdf-25/168 - Section 5.2. Analysis and response to questions, comments and issues raised

First bullet point under *The Impact Statement must…*, reads, *that were raised through engagement with the public, or how they were incorporated into the Impact Statement.*

RECOMMENDATION 25: Should read, *that were raised through engagement with the public,* and *how they were incorporated into the Impact Statement.*

14. TSIG, Pdf 37/168 - 7.3. Spatial and temporal boundaries

The proponent must engage with Indigenous communities and is encouraged to engage with relevant non-Indigenous communities, when defining spatial and temporal boundaries for VCs that are identified by, or related directly to, Indigenous peoples.

It should not be an option to engage relevant non-Indigenous communities, it must be required.

RECOMMENDATION 26: The proponent must engage with Indigenous and relevant non-Indigenous communities, when defining spatial and temporal boundaries for VCs that are identified by, or related directly to, Indigenous peoples.

15. TSIG, Pdf 38/168 - 7.3.1. Spatial boundaries & 7.3.2 Temporal Boundaries

This section reads, *(ii) in a province other than the one where the physical activity or the Project is being carried out*

The proponent must address the potential full extent of the zone of influence for the effluent that will be released into the Misema River, and how it will impact on water quality and quantity in the entire downstream environment of the Misema River, Blanche River, Englehart River – right out to Lake Temiskaming, the Ottawa River and the St. Lawrence River, which defines the border between Ontario, Quebec and the United States.

RECOMMENDATION 27: Sections 7.3.1 and 7.3.2, for evaluating VCs should not be restricted to the regional scale but must instead use an ecosystem approach considered at the St. Lawrence Watershed scale.

16. TSIG, Pdf 39/168 - 7.4. Effects assessment methodology

There is no consideration in this section for the over-all trade-offs of the Project. What would the losses be to the environment and to the health, social and economics of the local and downstream communities if the upper Beaver Gold Project moves ahead as proposed? There must be an accounting of the ecosystem benefits of the land and communities as they now stand. If AE gets their gold and profits, what will the local and Indigenous communities be left to deal with during and after completion of the Project, as well as into the future?

The local and downstream communities will suffer the long-term adverse direct and/or incidental effects, as well as cumulative effects from the Upper Beaver Gold Project.

Local communities will have temporary jobs and economic gains, but there must be an accounting of what will be gained versus what will be lost. Do those gains justify the long-term damage, contamination and the loss of those ecosystem benefits?

For instance, the lakes, rivers and wetlands could be transformed from a carbon sink into a greenhouse gas emitter. Local properties could lose their value because of the industrial damage inflicted onto the landscape, as well as the acoustic, visual, dust, light and environmental pollution and ongoing cumulative effects of the Project. Water quality and quantity could be degraded and possibly contaminated and the overall quality of life and health of communities in the area and downstream could be negatively impacted for the long-term.

AE will be on this parcel of land for maybe 10 years and once they have taken all the gold and profits, what will be left behind for those that have lived in the area for generations and call this land home?

Consequently, we offer the following additional criteria that must be considered:

1. Describe the trade-offs – the ecosystem benefits that will be lost if the Project proceeds as proposed.
2. Detail how the Project would justify the loss of the multitude of benefits that a healthy freshwater ecosystem provides to the environment, climate resilience, and upstream and downstream public and Indigenous peoples.
3. Detail the impact this Project would have on the environmental sustainability of the Misema River, Blanche River, Englehart River, Lake Temiskaming, and the Ottawa and St. Lawrence Rivers which border on Quebec. The St. Lawrence River also borders on several states in the US.

RECOMMENDATION 28: AE be required to detail and make an accounting for baseline benefits of all VCs, and list the trade-offs, what would be lost or degraded in the short-term and long-term as a result of the Project as proposed.

17. TSIG, Pdf 43/168 - 7.6. Cumulative effects assessment

This section states, *Activities from the Project itself that generate multiple emissions and discharges (e.g., simultaneous operations) may also need to be considered in the cumulative effects analysis to understand synergistic, compensatory, masking or additive effects.*

ORA strongly believes that the Project itself, as well as advanced exploration activities and other planned projects within the watershed, must be considered in the cumulative effects analysis to understand the full impact of Project effects.

RECOMMENDATION 29: This sentence should read, *Activities from the Project itself, advanced exploration activities, and other planned projects within the watershed, that would generate multiple emissions and discharges (or simultaneous operations),* even if deemed small or negligible, must be *considered in the cumulative effects analysis to understand synergistic, compensatory, masking or additive effects.*

18. TISG, Pdf 47/168 - 8. Biophysical Environment

The same argument and recommendations as in 7.4, for the evaluation and weighing of the ecosystem benefits and the trade-offs. All of section 8, the Biophysical environmental aspects, must take into account the trade-offs for this Project. It all must be weighed in consideration of whether this profit-driven Project outweighs the ecosystem and community benefits the land and waters currently provide.

RECOMMENDATION 30: To establish a baseline, describe the ecosystem benefits that the landscape and freshwater ecosystem provide to the environment, health, social, cultural and economy of local communities and the ecosystem.

RECOMMENDATION 31: Describe the trade-offs – what ecosystem and community benefits will be lost if the Project proceeds as proposed?

RECOMMENDATION 32: Detail how the Project would justify the loss of these benefits to stakeholders, to climate resilience, as well as surrounding and downstream communities.

RECOMMENDATION 33: Detail how the Project contributes towards Canada's environmental obligations and climate change commitments.

19. TISG, Pdf 60/168 - 8.5.2. Effects to groundwater and surface water

This section states, *present a comprehensive site water management plan for the Project's life cycle including for:*

The list does not specifically mention stormwater management, which is extremely important at any time, but especially now with the predicted increase in extreme rain events, at any time of the year, and the importance of protecting surface water and groundwater.

RECOMMENDATION 34: The list must include a stormwater management plan.

20. TSIG, PDF 65/168 - 8.5.3. Mitigation and enhancement measures

This section states, “describe methods for managing the seepage and runoff from mine infrastructure, including waste rock, tailings, overburden and ore stockpiles, and haul roads, and indicate how it will be collected, managed and monitored, during all phases”.

RECOMMENDATION 35: Must require the details of mitigation measures to store, treat, and protect the environment from stormwater.

RECOMMENDATION 36: Provide details for how the proponent’s mitigation measures would exceed the regulated requirements of protection for quantity and quality of surface water, groundwater and sediment.

21. TSIG, Pdf 91/168 - 9. Health, Social and Economic Conditions

ORA offers the same recommendations and rationale as for Sections 7.4 and 8 above.

An accounting must be made for the trade-offs of this Project and how it will affect the health, social and economic conditions during and after gold resources have been exhausted. It is crucial to weigh the interests of AE against the interests of local landowners and Indigenous and downstream communities.

RECOMMENDATION 37: Detail how the Project will improve or maintain the health, social and economic conditions of local landowners and Indigenous and downstream communities to ensure a healthy, sustainable, and resilient environment.

22. Draft Public Participation Plan:

In general, the Public Participation Plan seems to be comprehensive and fulsome. At the same time, it is important to emphasize the importance of the consultation process being open, available, transparent, inclusive and meaningful. The proponent must not just be informing stakeholders of the details of their plans but must ensure that Indigenous and Stakeholder input is incorporated into the Project in a practical and meaningful manner.

RECOMMENDATION 38: Demonstrate how Stakeholder input has been incorporated into the project design and means.

As mentioned earlier, we have heard that AE plans to move forward with advanced mineral exploration provincial in the spring, with provincial permits and approvals in hand.

RECOMMENDATION 39: AE keep Stakeholders informed of any permits or work schedules from this point onwards until a decision is made by the Agency and Minister.

The ORA also requests that online consultation meetings be offered to accommodate cottagers, landowners and Stakeholder organizations that live in other areas of Canada.

RECOMMENDATION 40: AE and the Agency provide access to online consultation meetings throughout the entire *IA* process.

ORA has found it time consuming and frustrating to find information on what funding is available for each phase of the Upper Beaver *IA* process. This is unacceptable as there is

a very short timeline to get our comments in and to also apply for funding before the deadline.

RECOMMENDATION 41: The Agency provide linked information in the Public Participation Plan and all Stakeholder Notices, to a schedule of funding opportunities and dollar amounts that will be available to Indigenous communities and Stakeholders throughout the different phases of the Impact Assessment Process.

RECOMMENDATION 42: ORA recommends that AE hire and train a minimum of two Beaverhouse First Nation members to perform environmental sampling and gather related information for studies and other knowledge-based activities.

The ORA wishes to express our strong support and alignment with the submission and recommendations made by Kerrie Blaise and Krystal-Anne Roussel, Canadian Environmental Law Association.

Thank you for this opportunity to comment! Please let me know if you have any questions or need clarification.

Respectfully,

<Original signed by>

Linda Heron
Chair, Ontario Rivers Alliance
(705) 866-1677

Cc: Mark Heaton, Fish and Wildlife Biologist
Bill Glover, Mining Engineer
Kerrie Blaise, Northern Services Legal Counsel, CELA
Krystal-Anne Roussel, Legal Counsel, CELA
Jaime Hennessey, Lands Manager, Beaverhouse First Nation
Chief Shelly Moore-Frappier, Temagami First Nation
Chief Alex Batisse, Matachewan First Nation
Chief Lance Haymond, Kebaowek First Nation
Chief Chad Boissoneau, Mattagami First Nation
Nicole Charbonneau, Wabun Tribal Council
Cathy Yandeau, Lands & Resources, Matachewan First Nation
Mike Guillemette, Wahgoshig First Nation
Randy Polson, Timiskaming First Nation
Alexandra Kosmides, Metis Nation of Ontario

ADDENDUM 1

William A. Glover, P.Eng., Mining Engineer
<Personal information removed>

March 8, 2022

Re: Recommendations - Upper Beaver Gold Project

PREAMBLE: Bill Glover is a mining expert with over 50 years building and operating underground and open pit mines worldwide. Glover has been contracted by "Ontario Rivers Alliance" to make recommendations on the Upper Beaver Mine Project as relates to a full Impact Assessment under the Impact Assessment Act. An operating Upper Beaver Gold Mine would certainly provide jobs and wealth to the area, but it is in everyone's best interest to minimize the footprint (i.e., underground mine only using pastefill) and minimize the impact on the environment (i.e., 100% recycling and zero discharge of all induced chemicals such as cyanide and nitrates).

DEFINITION: For the purposes of this report, "Stakeholders" refers to local landowners, community members and environmental groups.

SUMMARY OF RECOMMENDATIONS:

1) **RISK ASSESSMENT**: The mining company shall be mandated to complete a new and formal "Risk Assessment" of the Upper Beaver Gold Project as currently proposed by Agnico Eagle. The Risk Assessment shall begin forthwith listing all hazards, severity ratings and potential mitigation so the results are available for the decision-making process. Main mining hazards to be listed include: the crown pillar, four diversion dikes and tailings dams, all of which have the potential for failure or breach resulting in an inrush of water into the proposed mine and/or the environment. Active participants of the joint Risk Assessment process shall include a senior government official as lead, mining company personnel, Indigenous communities, and a minimum of two Stakeholders or their designate/s.

2) **CROWN PILLAR**: The mining company shall be mandated to complete a full Geotechnical study forthwith including geotechnical core drilling on the crown pillar between the bottom of York Lake and top of underground workings. The scope shall include: the integrity of the pillar for underground mining only and recommendations for mitigating risk (i.e., such as a reinforced concrete bulkhead between the crown pillar and underground workings). The mining company shall be mandated to start this study process forthwith so results can be integrated into the underground only Preliminary Economic Assessment (PEA). The mining company shall nominate three independent geotechnical firms to study the crown pillar and one shall be selected by representatives of local Indigenous communities, and Stakeholders or their designate/s.

3) **PEA UNDERGROUND ONLY**: The mining company shall be mandated to complete a study, PEA level or higher, on a stand-alone underground mine at the Upper Beaver Gold Project without an Open Pit, without draining York Lake and without diverting the Misema River. The study shall incorporate pastefill and emulsion explosives. The engineering

company selected to complete the study shall be independent of the mining company (currently Agnico Eagle). The mining company shall nominate three engineering companies to do the PEA study and one selected by local Indigenous communities, and Stakeholders or their designate/s. The Stakeholders shall participate with representation on the PEA study team (and Crown Pillar Study) with full access to information going forward.

4) **PASTEFILL:** The mining company shall be mandated to use pastefill exclusively for filling underground voids as part of the mining cycle. The use of pastefill from mill tailings material will reduce the amount of surface tailings deposited and hence a smaller footprint. Rockfill will also reduce the footprint of the surface waste pile.

5) **NITRATE CONTROL:** The mining company shall be mandated to eliminate Ammonium Nitrate, Fuel Oil (AN/FO) based explosives from blasting and use alternate explosives such as emulsions to minimize nitrates in the water discharge. The mining company shall be mandated to implement its zero "nitrate" discharge plan and incorporate it into the PEA.

COMMENTARY ON RECOMMENDATIONS:

UNDERGROUND ONLY: A stand-alone underground mine creates the smallest footprint and least impact on the environment. The mining company proposing the work, has not clearly demonstrated that a stand-alone underground mine is uneconomic without the open pit. The benefits of an underground only are as follows: no river diversion, minimal waste dump, minimal airborne dust, minimal mining noise, minimal footprint, and minimal closure requirements. A technical and economic study needs to be completed for a stand-alone underground only mine. The recent increase in gold price should help on the revenue side.

CROWN PILLAR: A crown pillar of 20 metres has been described by the mining company as a potential hazard to miners during underground mining. A comment in the project description states, "part of the ore to be mined….is located less than 15 to 20 metres below York Lake". This statement indicates that the crown pillar has not been fully delineated and mapped. The mining company needs to complete early mapping and extensive geotechnical core drilling analyzed by a reputable geotechnical firm so discussions on the crown pillar are based on technical facts. Through its recent merger with Kirkland Lake Gold, Agnico Eagle has acquired the operating Macassa Mine which has a 25-metre rock pillar with the neighbouring Kirkland Minerals Mine holding back over 500 metres of water.

INDUCED CHEMICALS: The mining company has the opportunity to raise the bar with 100% wastewater recycling and "zero discharge" plans for all induced chemicals and contaminants.

William A. "Bill" Glover, P.Eng.
<Original signed by>

Mining Engineer
Kenogami, Ontario

<Personal information removed>

Belfountain, Ontario
<Personal information removed>

February 18, 2022

Ontario Rivers Alliance
379 Ronka Rd., Worthington, ON
P0M 3H0

Attention: Linda Heron, Chair

Re: Upper Beaver Gold Project
Draft Tailored Impact Statement Guidelines

Dear Linda,

I have completed the review of the Draft Tailored Impact Statement Guidelines (TISG) dated January 31, 2022.

To provide context for the following comments, I am a retired Fish and Wildlife Biologist, after working 34 years for the Ministry of Natural Resources and Forestry. My primary expertise relates to fish, wildlife and wetlands management within the Greater Toronto Area. I have reviewed and evaluated development and resource planning proposals under the Endangered Species Act, Planning Act, the Lakes and Rivers Improvement Act, Public Lands Act and the Environmental Assessment Act to identify potential conflicts with Provincial and Ministry fisheries and wildlife programs and policies. I provided similar review and evaluations under the habitat provisions of the federal Fisheries Act until September 1997.

Overall, a very comprehensive guidance document. However, there appears to be a lack of integration between "alternatives to the Project" and "alternative means to carry out the Project" with the impact assessments described in Sections 8.1 through 8.11. It is not clear how alternatives are being assessed in terms of potential impacts on the biophysical environment. Current generic language is "describe the potential effects of the Project" for each attribute in Sections 8.1 through 8.11. A more integrated approach would read "describe the potential effects of the Project [design/methods/means] alternatives".

Section 4.4 should state "alternative designs and means" - not just alternative means. Alternative designs may have different degrees of footprint on the lands with different degrees of environmental impact.

More specifically as examples:

"The Impact Statement must describe the potential effects of the Project design alternatives on fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act"

"The Impact Statement must describe the mitigation measures for the potential effects of each Project design alternative on fish and fish habitat"

<Personal information removed>

Belfountain, Ontario
<Personal information removed>

Adopting this approach would mean that the proponent would assess alternative methods of extraction to avoid need for draining the lake and constructing diversions. It could also involve the assessment of alternative types of watercourse crossings, such as culverts and open-span bridges in relation to impacts to fish passage and fish habitat.

The proponent should be documenting draft alternatives (designs and methods) for this assessment and sharing with stakeholders prior to performing impact assessments. This may include alternative methods (means) of extraction including use of horizontal boring machines. Alternative extraction designs should be assessed to better understand degree of risk of impact avoidance on the lake. This may include alternative depths of extraction or use of structurally reinforced shafts.

There also seems to be a lack of recognition for "avoidance of impact". Each Biophysical Environment attribute should describe and assess impact avoidance measures, similar in manner to mitigation and enhancement measures.

In closing, the draft document appears comprehensive but, needs some additional work to demonstrate assessment of impacts associated with alternative structural designs and methods of extraction.

Should you have any questions, please feel free to contact me at <Personal information removed> or email at <Email address removed>

Yours truly

<Original signed by>

Mark Heaton
Fish and Wildlife Biologist