

Conservation and Water Stewardship

Environmental Stewardship Division Environmental Approvals Branch 123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5 T 204 945-8321 F 204 945-5229 www.gov.mb.ca/conservation/eal

File: 2815.10

September 8, 2014

Mr. Gord Glenn Minnova Corporation 365 Bay Street, Suite 400 Toronto, ON M5H 2V1

Dear Mr. Glenn:

Re: Minnova Corporation (Formerly Auriga Gold Corporation) – Puffy Lake Mine Environment Act Proposal

The initial review of the Minnova Corporation – Puffy Lake Mine Environment Act Proposal (EAP) has been completed.

The review has generated requests for additional information. Please review and provide responses to the comments from the Technical Advisory Committee (TAC) that are presented in the attached items. The EAP review process will continue upon receipt of your response.

If you have any questions, please contact me at 204-945-7012.

Yours truly,

"original signed by"

Jennifer Winsor, P.Eng. Environmental Engineer

Enclosure

Chris Beaumont-Smith, A/Director, Mines Branch – Mineral Resources
 Don Labossiere, Director, Compliance and Enforcement – Conservation and Water Stewardship
 Public Registries

Subject:

FW: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

From: Kelly, Jason (CWS)
Sent: August-13-14 10:02 AM
To: Winsor, Jennifer (CWS)

Subject: RE: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

Parks and Protected Spaces Branch has reviewed the proposal submitted pursuant to *The Environment Act* for EAP for review and comment - Auriga-Puffy Mine File: 2815.10. The Branch has no comments or concerns to offer as it does not affect any provincial parks, park reserves, ecological reserves, areas of special interest or proposed protected areas.

Jason Kelly, M.N.R.M.
Ecological Reserves and Protected Areas Specialist
Parks and Protected Spaces Branch
Conservation and Water Stewardship
Box 53, 200 Saulteaux Cres
Winnipeg, MB R3J 3W3

Phone: 204-945-4148

Cell:

Fax: 204-945-0012

Email: Jason.Kelly@gov.mb.ca

From:

Stibbard, James (CWS)

Sent:

August-22-14 1:18 PM Winsor, Jennifer (CWS)

To: Subject:

Re; 2815.10 Puffy Lake Mine EAP

Ms. Winsor,

I reviewed the above noted EAP and found no cause for concern respecting drinking water quality or safety. If you have any questions, please call. Regards,

James Stibbard P. Eng.

Approvals Engineer Office of Drinking Water 1007 Century Street Winnipeg MB R3H 0W4 phone: (204) 945-5949

fax: (204) 945-1365

email: <u>James.Stibbard@gov.mb.ca</u> website: <u>www.manitoba.ca/drinkingwater</u>

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Memorandum

DATE: 22 August, 2014

TO: Jennifer Winsor

Environmental Approvals Conservation and Water

Stewardship

160-123 Main Street, Winnipeg

FROM: Muntaseer Ibn Azkar

Air Quality-Environmental Programs

& Strategies

Conservation and Water Stewardship

1007 Century Street, Winnipeg

SUBJECT: Auriga Gold Corporation - Puffy Lake Mine (File 2815.10)

Air Quality Section has reviewed the above proposal and provides the following comments:

- It is expected that the proposal has no significant impact on air quality provided that control measures mentioned in the proposal are implemented to minimize the effect from noise, dust and particulate emissions from various mining activities e.g., blasting and excavation, transporting, storing and material handling, vehicle and heavy equipment operation etc.
- Air Quality Section suggests that the EA Clause regarding noise nuisance be included.



Infrastructure and Transportation

Highway Planning and Design Branch Environmental Services Section 1420 - 215 Garry St., Winnipeg, MB R3C 3P3 T (204) 619-4359 F (204) 945-0593

August 22, 2014

Tracey Braun, M. Sc.
Director, Environmental Approvals Branch
Manitoba Conservation and Water Stewardship
123 Main St., Suite 160
Winnipeg, MB R3C 1A5

RE: Auriga Gold Corporation - Puffy Lake Mine

Client File No. 2815.10

Dear Ms. Braun:

MIT has reviewed the proposal under the Environment Act noted above and we do not have any concern.

Thank you very much for providing us the opportunity to review the proposal.

Sincerely,

Ryan Coulter, M. Sc., P. Eng.

Manager of Environmental Services



Subject:

FW: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

From: Sigurdson, Shauna [CEAA] [mailto:Shauna.Sigurdson@ceaa-acee.gc.ca]

Sent: July-24-14 9:21 PM

To: Winsor, Jennifer (CWS); Webb, Bruce (CWS) **Cc:** Steele, Tania (CWS); Carriere, Sean [CEAA]

Subject: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

Jennifer

We believe that this proposed project will be a designated project under CEAA 2012. We will be contacting the proponent to advise them and outline the requirements to submit a project description. Much of what is provided in the EAP will be support the completion of the project description.

Shauna Sigurdson

Regional Director | Directrice Régional

Canadian Environmental Assessment Agency | Agence canadienne d'évaluation environnementale

Prairie and Northern Region | Région des Prairies et du Nord

Canada Place, Suite 1145-Jasper Avenue, Edmonton Alberta, T5J 4C3 | Place Canada, pièce 1145 9700 avenue Jasper,

Edmonton (Alberta) T5J 4C3

Telephone | Téléphone 780-495-2236

Facsimile | Télécopieur 780-495-2876

Government of Canada | Gouvernement du Canada

Devez-vous vraiment imprimer ce courriel ? Pensons à l'environnement ! Do vou really need to print this email ? Think environment !

From: Roberts, Dan (CWS)
Sent: July-28-14 10:40 AM

To: July-28-14 10:40 AW Winsor, Jennifer (CWS)

Subject: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

Attachments: Drainage Licence Application.pdf

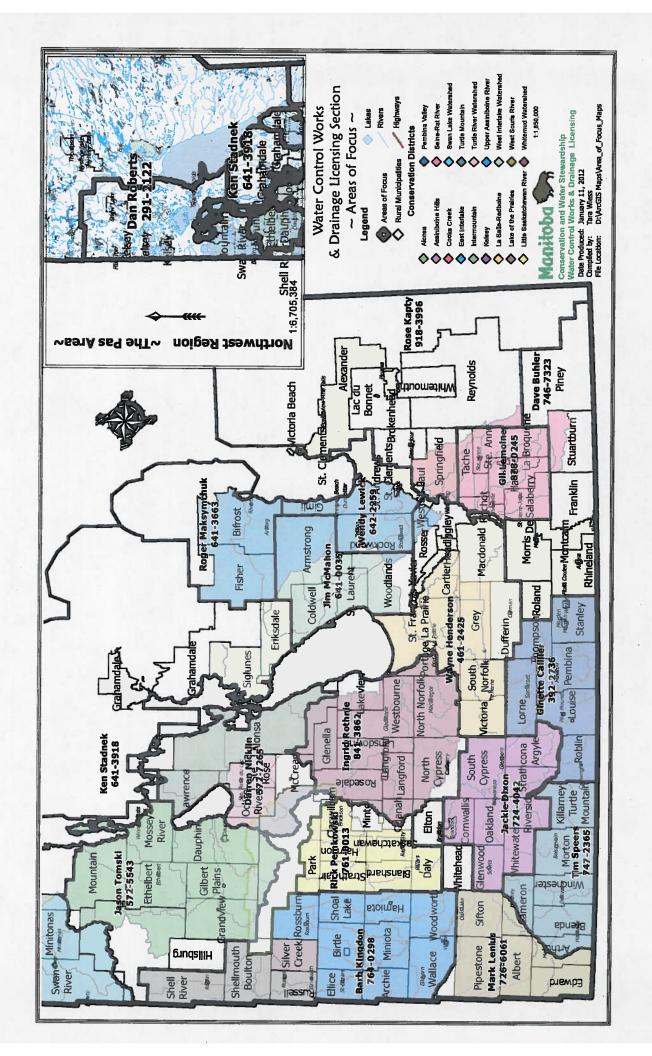
Any water control works (drains, culverts, dykes, dams, etc.) associated with this project will require licensing under the *Water Rights Act* — an application is attached for the proponent's convenience. Any inquiries in this regard may be directed to the local *Water Resource Officer*. Their contact information may be found at:

http://www.gov.mb.ca/conservation/waterstewardship/licensing/pdf/areas of focus jan 23 12.pdf

Sincerely,

Dan Roberts

Water Resource Officer
Water Control Works and Drainage Licensing Section
Conservation and Water Stewardship
Box 6000, Building #1180, 75 - 7th Avenue,
Gimli, MB R0C 1B0
Cell: (204) 281-2122



Application for Licence to Construct Water Control Works



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Subject:

FW: EA Proposal - Auriga-Puffy Mine - File: 2815.10

From: Kaita, Adara (CWS) On Behalf Of +WPG1212 - Conservation_Circulars (CWS)

Sent: August-22-14 9:32 AM **To:** Winsor, Jennifer (CWS) **Cc:** Armstrong, Mike (CWS)

Subject: FW: EA Proposal - Auriga-Puffy Mine - File: 2815.10

Hello Jennifer,

In addition to the comments outlined below, please include the following:

Page	Issue	Comments
16-17	Boreal Caribou	This assessment references several documents with outdated information on caribou. Manitoba recently released a draft version of "Conserving the Icon of the Boreal – Manitoba's Boreal Woodland Caribou Recovery Strategy". This updated document includes new information on caribou ranges, locations and conservation status assessments.
16-17	Boreal Caribou	Within the mapped project area and project region, historical data, and currently deployed telemetry collars show sporadic use by boreal caribou. This use is limited in duration and time and does not represent any core areas. Use of this area is generally limited to animals of the Naosap-Reed Herd. The Kississing herd to the north and the Wheadon Herd to the east occur in proximity to the project area and there may be potential use by these groups.
16-17	Boreal Caribou	The mine occurs in an area with existing disturbance. Due to the current level of industrial development there will be little additive affect with the development of this new mine.

Thank you.

- Adara

Ph:204-945-6301

From: Kaita, Adara (CWS) On Behalf Of +WPG1212 - Conservation_Circulars (CWS)

Sent: August-21-14 9:43 AM **To:** Winsor, Jennifer (CWS)

Subject: EA Proposal - Auriga-Puffy Mine - File: 2815.10

Hello Jennifer,

The Lands Branch provides the following comments:

- Monitoring to continue until all aspects of the alteration are decommissioned and must be to the satisfaction of the Environment officer; 6 years of post-closure monitoring will most likely not be sufficient.
- Decommissioning to occur in accordance with Mine Closure Reg. 67/99
- Open pits must be progressively rehabilitated as indicated in schedule.
- Financial security must be sufficient to cover all costs of site rehabilitation if project does not proceed
- Work Permits are required under The Wildfire Act, and The Crown Lands Act for clearing timber and removing overburden. Work Permits can be obtained Cranberry District Office.
- Without limiting other necessary regulatory approvals the proponent shall, prior to development on Crown land, apply
 for and obtain the appropriate land tenure allocations in accordance with *The Crown Lands Act*, from the Crown Land
 and Property Agency. It is noted that conditional general permits issued under *The Crown Lands Act* are in good
 standing: GP 4134/4058/2799/and 3758.
- Approvals will be required for any amendments to the existing proposal.

Thank you for the opportunity to review.

Adara Kaita

Crown Land Programs and Policy Manager Lands Branch | Conservation and Water Stewardship Box 25, 200 Saulteaux Crescent | Winnipeg, MB R3J 3W3 Cell: (204) 945-6301 | F: (204) 948-2197

Subject:

FW: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

From: Liske, Cal (MMR)
Sent: August-22-14 3:30 PM
To: Winsor, Jennifer (CWS)

Subject: RE: EAP for review and comment - Auriga-Puffy Mine File: 2815.10

Hi Jennifer,

I only have a couple of comments:

1. With respect to the open pits and current underground workings, will a pillar be created between the bottom of the open pit(s) and current mine openings which would be of concern? If a pillar is to remain, what actions will

take place regarding design to ensuring long term stability?

2. Upon reopening of the mine, a complete revised closure shall be re-submitted to the Mines Branch.

Regards, Cal.

Cal Liske, P. Eng.

Acting Director,
Chief Mining Engineer
Manitoba Mineral Resources
Mines Branch
360-1395 Ellice Avenue
Winnipeg, MB R3G 3P2
Phone (204) 945-6517
Cell (204) 619-3604
Fax (204) 948-2578

Email: Cal.Liske@gov.mb.ca

From:

Boissonneault, Caroline (CWS)

Sent:

August-26-14 9:19 AM

To:

Winsor, Jennifer (CWS)

Subject:

Emailing: EAP for review and comment - Auriga-Puffy Mine File 2815.10.msg due aug

26.msg

Attachments:

EAP for review and comment - Auriga-Puffy Mine File: 2815.10

Hello,

Wildlife Branch has reviewed the EA proposal and has the following comments to offer:

1) The wildlife and vegetation surveys were done in September. Many species of plants and animals are not detectable at this time of year (eg: breeding birds and many plant species). I strongly recommend additional wildlife surveys at other times of year when detectability is greatest.

2) Flooded Jellyskin, a federally threatened lichen, may be present in the area. The report indicates it was not observed during terrestrial surveys. However, it is unlikely it would be found during terrestrial surveys since it is a semi-aquatic species that typically grows on shorelines that are periodically flooded. Dedicated surveys in suitable habitat should be conducted for this species.

Thank you.

Caroline Boissonneault
Conservation and Water Stewardship
Wildlife Branch
Tel.: 204-945-6810

Caroline.boissonneault@gov.mb.ca

Your message is ready to be sent with the following file or link attachments:

EAP for review and comment - Auriga-Puffy Mine File 2815.10.msg due aug 26.msg

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Potential health considerations for Public Registry 2815.10 - Auriga Gold Corporation - Puffy Lake Mine

By Dr. Michael Isaac, BSc., MD, CCFP, MPH, FRCPC Medical Officer of Health Northern Regional Health Authority 867 Thompson Drive South Thompson MB R8N 1Z4 Phone: 204-612-8145

Approach

- 1. Review of 'Environmental Baseline Assessment' and accompanying figures
- 2. Review of 'Notice of Alteration' and accompanying figures
- 3. Application of tool 'HIA Screening Checklist of Health Determinants' to screen for health considerations in the above information.

Preamble

This document is meant to provide feedback on the planned re-development of Puffy Lake mine as part of the regular environmental approvals process led by Manitoba Conservation and Water Stewardship. As a Medical Officer of Health, my role is to apply a 'health lens' to this development in an attempt to identify any potential health effects so that planning may take place to protect and promote the health of the public. Potential health effects in each domain below were considered based on the screening checklist referenced above.

Biophysical Environment

- 1. Housing conditions where will employees be housed? Page7 of The Notice of Alteration states that there will be 60-100 employees (+/- families) housed in the community of Sherridon, Manitoba. Recent population statistics indicate a recent population in Sherridon of 80 people, with 36 private dwellings.(1) Based on the employee numbers provided, the community of Sherridon could potentially see a large increase in its population temporarily (mine to be operable for a period of 8-9 years). The magnitude of the increase appears to be in the range of 60 300 people depending on how many family members accompany mine employees. Consideration as to where employees and their families will be housed, and how this housing may affect local residents should be taken into account. Specifically consideration should be given to;
 - a) Fire and building safety
 - b) Security
 - c) Sanitation
 - d) Indoor air quality (including radon and asbestos)
 - e) Crowding
 - f) Affordability and accessibility of housing for employees and other community members

- 2. Working conditions The nature of the operation may lend itself to occupational health and safety issues. Specifically, attention should be paid to;
 - a) Structural safety (especially for underground operations)
 - b) Air quality (including, but not limited to, diesel exhaust, dust, silica, carbon monoxide)
 - c) Exposure to toxins/heavy metals in mine tailings
 - d) Ergonomics
 - e) Work task safety
 - f) Noise
 - g) Psychosocial including stress from night shift, extended shifts, overtime, isolation
- 3. Water quality Water quality considerations should be addressed for both the site and community where employees and their families may be housed.
 - a) Will the water system in Sherridon be able to handle the extra capacity of employees and families housed in the community?
 - b) Will drinking water be provided at the mine site and if so will it be safe to drink? Will bottled water be brought in from off site or will there be a private/semi-private/or public water system used at the mine?
 - c) Will mine operations lead to environmental contamination of aquatic species which humans may consume as food?
- 4. Outdoor Air Quality
 - a) Will there be nuisance odours in the nearby communities of Sherridon/Cold Lake?
 - b) Will mine operations or an increase in vehicular traffic cause a significant increase in allergens/irritants (ex. diesel exhaust, particulates) for nearby community members or employees who are exposed?
- 5. Noise
 - a) Will vehicular traffic cause an undue amount of noise in nearby communities
- 6. Solid waste
 - a) Will members of nearby communities be exposed to mine tailings through trapping, hunting, fishing, or other occupational or recreational activities?
 - b) Will mine tailings lead to contamination of terrestrial species which may be consumed by local community members?
 - c) Will the solid waste and waste water systems in Sherridon be able to handle an increase in volume due to an increase in the population?
- 7. Food supply
 - a) Will a temporary increase in the population of Sherridon compromise access to a sufficient supply of safe and nutritious food?

Social and Economic Environment

- 1. Employment and Household economic resources there would appear to be a significant opportunity in this realm for community members who may be employed by the mine, or who may experience economic spin-offs.
 - a) Will there be consideration given to hiring local community members?
 - b) Will the jobs provided engender job stability and sufficient income?
 - c) Will there be access to financial services for employees?
 - d) How will operation of the mine affect economic disparities in the area?
 - e) How will employment equity be addressed?

2. Social networks

a) Will an increase in the population of Sherridon of temporary residents lead to a change in social cohesiveness in the community?

3. Violence

a) Will there be an increase in street violence in Sherridon, or family and relationship violence?

Health related behaviours and lifestyles

- 1) Will the local community be able to support employees in having a healthy diet, physical activity, recreation, and safe means of transport?
- 2) Will there be occupational and community capacity to deal with potential substance use issues including alcohol, and/or prescription/illicit drugs?
- 3) Will there be occupational and community capacity to address tobacco use from an individual and health protection standpoint?
- 4) Will there be occupational and community capacity to support positive mental health?

Health Care and Public Health Systems

1. Access to health services

- a) Will local health services be able to handle the extra capacity needed due to a population increase in Sherridon as well as potential occupational health issues from the mine site? These services include emergent/urgent care issues as well as primary care services such as family planning, mental health services, and maternal/infant/child health.
- b) Is there sufficient public health infrastructure in place to handle potential public health issues and prevention initiatives?

Other public services

1. Education

- a) Will the local education system be able to handle a potential increase in enrollment?
- b) Will health staff capacity be sufficient to meet school health needs?

2. Childcare

a) Will there be sufficient child care spaces in Sherridon or nearby communities for employee family members and others in the community?

3. Public Safety

a) Will there be sufficient police, fire, and emergency response preparedness for both the mine site and community of Sherridon?

Additional comments:

Resource extraction activities can lead to a temporary increase in the population of nearby communities, which no doubt can have positive impacts for local business and government. However, resource extraction developments can also lead to a phenomenon called 'the boomtown effect' which can cause unintended negative consequences for local communities. (2-5) Extensive work in this area has occurred over that past 4 decades, most recently with respect to shale gas developments. Mining operations in many ways are analogous to energy extraction projects when it comes to local community impact. The boomtown effect is described as (5):

"This effect occurs when a rapid change in population, industrialization and economic prosperity also leads to a host of social ills that impact community health. These can include increased rates of crime, drug and alcohol abuse, sexually-transmitted infections (STIs), and domestic violence; inadequate supply and quality of housing; increased cost of living; increased community dissatisfaction; increased mental health and social services case loads; increased hospital admissions; insufficient infrastructure; and insufficient capacity in public services, including policing, local government, social services, and health care." (Pg. 5)

Given the small size of Sherridon, and its relative isolation, the re-development of Puffy Lake mine could potentially have a large impact on the community. Attempts should be made to anticipate these impacts, and planning should occur to prevent or mitigate negative consequences in the community.

References

- (1) Statistics Canada. 2012. Sherridon, Manitoba (Code 460046) and Manitoba (Code 46) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E (accessed July 30, 2014).
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