

**IN THE MATTER OF SERVICES NO. K4450 22 1028**  
**FOR THE MARATHON PALLADIUM PROJECT**

**TRANSCRIPT OF PROCEEDINGS**  
held virtually at Toronto  
on Tuesday, March 29, 2022, at 9:00 a.m.

VOLUME 11

**BEFORE:** Debra Sikora, Panel Chair  
Gay Drescher, Panel Member  
Laurie Bruce, Panel Member

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Dr. Ron Nicholson	
Dr. Rob Foster	Northern Bioscience
Dr. Don Hart	
Jon Pounder	
Suraj Dave	On behalf of Pays
Raymond Belmar	Plat First Nation
Deb King	
Mayor Rick Dumas	On behalf of the town
Daryl Skworchinski	of Marathon
Tracy Zanini	On behalf of Biigtigong Nishnaabeg
Jody Duncan	
Gregory Crooks	On behalf of Stantec
Frank Babic	
Sean Capstick	On behalf of Golders
Robert Clavering	On behalf of Environment
Allison Kroeze	and Climate Change Canada
Matthew LeBlanc	
Lynn McCarty	On behalf of Michipicoten
Dean Fitzgerald	First Nation
Kitty Ma	On behalf of Health Canada
Frédéric Valcin	
Luc Pelletier	
Umme Akhtar	
Laura Romeo	On behalf of Ministry of Heritage, Sport, Tourism and Culture industries
Courtney Bice	On behalf of Transport Canada

**Also Present:**

Chief Duncan Michano

Gavin Fitch

Legal counsel to the Panel

Jason Patchell

Panel manager

Robert Purdon

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Youssef Kalogo

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Élyse Maisonneuve-Campbell

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Dominic McRae

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Audrey Rooney

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Sophie Regimbald

Panel secretariat

Jillian Smith

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Frank Bohlken

Christine Walsh

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Sandra Brereton

Court reporter

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1 Virtual proceedings  
2 --- Upon resuming on Tuesday, March 29, 2022,  
3 at 9:00 a.m.

4 PANEL CHAIR: Okay. Good  
5 morning everyone and welcome to day 11 of the  
6 public hearings for the Marathon Palladium  
7 Project.

8 My name is Debra Sikora, and  
9 I'm the chair of the joint review panel. My  
10 colleagues on the panel are Gay Drescher to my  
11 left and Laurie Bruce to my right.

12 Today we plan on completing  
13 our topic-specific session on human  
14 environment with a focus this morning on  
15 socioeconomic effects and land and resource  
16 use and that will be followed by our next  
17 topic, human health.

18 My full opening remarks from  
19 day 1 of these hearings can be found in the  
20 transcripts and on YouTube, so an abbreviated  
21 version today.

22 A few housekeeping items.  
23 Just a reminder that live audio and video  
24 streams and video recordings of this hearing  
25 are available to the public through YouTube.

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1 Anyone in the virtual hearing room with their  
2 camera or microphone turned on will be  
3 captured and images and recording of you and  
4 your surroundings will be broadcast to a  
5 publicly available YouTube video. If you have  
6 concerns about this, please contact the  
7 secretariat, and we'll do our best to  
8 accommodate while considering the need to  
9 conduct an open and transparent public  
10 process.

11                               The secretariat is assisting  
12 with logistical and process-related questions,  
13 and they can be reached by writing to the  
14 project e-mail address found on the public  
15 registry.

16                               In the event of an emergency  
17 where you are please consider your safety  
18 first and exit your location if needed. When  
19 it's safe to do so, please let us know how we  
20 may assist, and we'll find time to reschedule  
21 your presentation if needed.

22                               Today we do plan to take a  
23 15-minute break mid-morning and afternoon and  
24 a one-hour break for lunch.

25                               An updated hearing schedule

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1 is available on the registry for viewing, and  
2 I'll just do a quick review of today's agenda.  
3 We will first hear from the Town of Marathon,  
4 followed by the Ontario Ministry of Heritage,  
5 Sport, Tourism and Culture Industries on  
6 socioeconomic effects and land and resource  
7 use. We will then follow with questions of  
8 presenters to wrap the human environment  
9 topic.

10                                 We have had to make some  
11 adjustments to our scheduling today, so we may  
12 pause questions on the human environment topic  
13 to hear from one of our presenters on human  
14 health. We'll then resume our questioning for  
15 the earlier topic session, and we do want to  
16 express our thanks to all participants for  
17 your flexibility the last day and today with  
18 the schedule changes. Thank you.

19                                 For the remainder of the day  
20 we'll then hear from participants in the order  
21 they are presented in the hearing schedule and  
22 follow up with questions related to human  
23 health.

24                                 We will continue to provide  
25 an opportunity for Generation PGM to respond

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1 to any of the information presented for each  
2 topic session with remarks for the human  
3 environment and human health currently  
4 scheduled for end of day today.

5 So before we begin, are there  
6 any questions or procedural matters that  
7 anyone would like to raise? Mr. Barretto,  
8 good morning.

9 MR. BARRETTO: Good morning,  
10 Madam Chair. Jeremy Barretto for the record.

11 I just have an update on  
12 undertakings and one matter regarding MECP  
13 from yesterday.

14 First, I can report that  
15 Generation has prepared its responses to  
16 undertaking numbers 5, 11, 22 and 24, and I'll  
17 be filing these undertakings today. I can also  
18 report with respect to a conversation from the  
19 hearing yesterday where MECP had certain  
20 comments on the air quality model and the  
21 panel had requested that MECP and Generation  
22 representatives engage regarding these  
23 comments. That engagement occurred yesterday  
24 evening and Generation expects to have an  
25 update for the panel within the coming days

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1 regarding the resolution of MECP's concerns.

2 PANEL CHAIR: That's great,  
3 Mr. Barretto. Thank you very much for that  
4 update. And let us know when that is ready,  
5 and then we'll work it into the schedule where  
6 it makes sense.

7 MR. BARRETTO: Thank you,  
8 Madam Chair.

9 PANEL CHAIR: Thank you.

10 Okay. Any other items? Okay.  
11 So with that I will turn it over to the Town  
12 of Marathon as our first presenter. Good  
13 morning.

14 PRESENTATION BY MAYOR RICK DUMAS AND DARYL  
15 SKWORCHINSKI:

16 MAYOR DUMAS: Good morning,  
17 Chair and panel members.

18 I'm Mayor Rick Dumas, Town of  
19 Marathon. I'm also on with our CAO Daryl  
20 Skworchinski. So we're going to share the  
21 opening this morning, the opening session with  
22 the socioeconomic presentation from Town of  
23 Marathon, and both Daryl and I will be sharing  
24 the overview of the economic impact to the  
25 community. So thank you for the opportunity to

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1 address the panel today. We will be  
2 highlighting the positive socioeconomic  
3 effects of Marathon Palladium Project that  
4 will have on our community. Mr. Skworchinski.

5 MR. SKWORCHINSKI: Thanks,  
6 Your Worship, and good morning panel and those  
7 on the call today. Daryl Skworchinski for the  
8 record.

9 So Marathon is a natural  
10 resource-based community. Our socioeconomic  
11 evolution has been a result of being a host  
12 mining and forestry community. We have been  
13 home to the Hemlo gold field mining operations  
14 for over 35 years and, prior to that the  
15 Marathon pulp mill, for over 70 years.

16 Every new mine in Ontario  
17 makes a difference to our economic and social  
18 wellbeing. A University of Toronto study  
19 commissioned by Ontario Mining Association and  
20 produced with the support of the Ministry  
21 Northern Development Mines, Natural Resources  
22 and Forestry shows that the benefits from  
23 opening just one new gold mine in Ontario  
24 include more than \$102 million in tax revenue  
25 for all levels of government annually, the

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1 creation of a large number highly skilled,  
2 high paying jobs, enhancements to Ontario's  
3 GDP, gains in the province's trade balance,  
4 support for local infrastructure development  
5 and more opportunities for Indigenous  
6 Canadians.

7                                   This project, the Marathon  
8 Palladium Project and its associated  
9 employment opportunities, will provide a  
10 reason for our youth to stay or return to  
11 Marathon.

12                                   A March 2022 study undertaken  
13 by the Northern Policy Institute indicates  
14 that job opportunities are the key for youth  
15 to remain in northern Ontario. 48 percent of  
16 survey samples indicated that they wished to  
17 stay in the north.

18                                   The average weekly mining  
19 wage in Ontario is 70 percent higher than the  
20 average industrial wage in the province of  
21 Ontario. Simply stated these jobs associated  
22 with the Marathon Palladium Project would be  
23 house-buying jobs.

24                                   Project construction is  
25 estimated to result in 3,916 full-time

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1 equivalents of labour, comprised of 1,013  
2 direct, 1,268 indirect and 1,135 induced jobs  
3 which will generate \$433 million in labour  
4 income.

5 Project operations will  
6 create 1,165 full-time equivalents annually  
7 through direct, indirect and induced labour.  
8 On average this will generate \$104 million in  
9 labour income annually. Again, simply stated,  
10 these jobs will sustain Marathon's economic  
11 future.

12 The Marathon Palladium  
13 Project represents an opportunity to create a  
14 diverse and inclusive workforce for  
15 underrepresented areas such as Indigenous,  
16 women and visible minorities. New employment  
17 opportunities will require training and  
18 education locally. This will directly enhance  
19 community education levels which will have far  
20 reaching benefits for all of Marathon and the  
21 region.

22 And with that I'll turn it  
23 over to Mayor Dumas, thank you.

24 MAYOR DUMAS: Thank you, Mr.  
25 Skworchinski. And just for the record, panel

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1 members, Mr. Skworchinski started his career  
2 in the Town of Marathon as the economic  
3 development manager, so he's fully aware of  
4 the economic impacts of communities in  
5 Northwestern Ontario.

6                               The project will drive  
7 localized economic development through new  
8 recruitment --

9 --- (Reporter clarification)

10                              PANEL CHAIR: Yes, if you  
11 could please slow down, Mayor Dumas. Much  
12 appreciated.

13                              MAYOR DUMAS: Certainly, Sorry  
14 about that. I talk quickly.

15                              The project will drive  
16 localized economic development through new  
17 recruitment opportunities. Marathon and  
18 regional businesses are well positioned to  
19 capitalize on these new contracts based on the  
20 long established history of mining and  
21 forestry in the area. 24 million in local  
22 property and school taxes is estimated to be  
23 generated over the life of this mine which  
24 will be reinvested in Marathon in areas such  
25 as sports, recreation and quality of life

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1 initiatives. This will further enhance and  
2 cement Marathon's role as a regional health  
3 care, recreation and commercial shopping hub  
4 of the North Shore.

5                                   Housing. Multi-residential  
6 and transient accommodations are in full  
7 development mode based on Marathon's economic  
8 outlook. The Town of Marathon will be starting  
9 to review processes in the fall of '22 to look  
10 at a subdivision expansion in the Penn Lake  
11 Heights area. A new 30-unit multi-residential  
12 facility has been approved, and the Ontario  
13 Aboriginal housing services corporation will  
14 start construction in April with an additional  
15 110 multi-residential units planned for  
16 construction in late fall '22 and early spring  
17 '23 be approved by developers as well.

18                                   And on that note these  
19 facilities obviously were addressed somewhat  
20 in the opening remarks of some different  
21 agencies about housing and the need of  
22 housing. And Marathon experienced, just like  
23 every other part of Ontario, probably Canada  
24 for that matter, a housing crunch and that  
25 vacancy shortfall and price increase. So we

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1 recognize that, so we're looking at that.

2                                 Marathon originally, when it  
3 built the Hemlo development, looked at a lot  
4 bigger expansion. We were going to grow to  
5 10,000 people. So we have areas in our  
6 community that are already pre-developed,  
7 serviced and ready to go. So we look out for  
8 the opportunities to look at developing these  
9 expansions, and these are the sites that I  
10 mentioned here on the Penn Lake Heights.

11                                 Two hotel developments are  
12 planned for construction. The start dates will  
13 be in April of this year. That will add  
14 another 80 units to local transient mix. I  
15 just want to make note that I'm also the chair  
16 of the Police Services Board, and when I've  
17 listened to some previous presentations about  
18 the impact on housing and the camps itself and  
19 the community impact it has on residents alike  
20 -- as chair of the Police Services Board for  
21 the last 16 years we've seen a lot of  
22 different construction phases going through  
23 our community, both through Hemlo and of  
24 course with the east-west tie, most recently  
25 some over 330 employees living in Marathon in

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1 camp-style facility right in the middle our  
2 community, and we had very little, if any,  
3 impacts.

4 I spoke directly with our  
5 detachment commander, and of course being a  
6 chair of the Police Services Board looking at  
7 our reports on the quarterly basis, no impact  
8 in service calls from the mine is itself and  
9 the camp itself.

10 I think today camps are much  
11 more well-run than they have been in the past,  
12 and the employers have very strict guidelines  
13 and curfews set out for those employees. So if  
14 there's a breach in those contracts and curfew  
15 times, employees are usually dismissed, so  
16 it's much better run in today's economy.

17 The project will play an  
18 important role in social wellbeing and  
19 contributing to local organizations, charities  
20 and programs through donations and community  
21 partnerships. These contributions will aid in  
22 reinvigorating local volunteerism which is a  
23 critical part of our small community and  
24 geographic isolated communities in north  
25 Ontario. I think that goes for everywhere. If

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1 you lose your volunteerism, then your impact  
2 to your community is great, so that's a big  
3 part of it and having utilize (sic) of that in  
4 our community.

5                                   In closing, the Marathon  
6 Project will help secure the future of  
7 socioeconomic sustainability of Marathon and  
8 region. As we know, we have two First Nation  
9 communities who utilize Marathon for their  
10 shopping, their economics, their health care,  
11 their recreational needs.

12                                   So without the development,  
13 this project, that are built on the natural  
14 resources such as mines and minerals and  
15 forests, small northern Ontario communities  
16 will experience population shrinkage,  
17 including out-migration of all our  
18 professionals, loss of critical services and  
19 infrastructure, economic decline and social  
20 fabric loss. You need not to undertake a study  
21 to validate this community decline. You only  
22 need to look at real world examples of  
23 communities who lost their primary industry  
24 and wealth generators that never rebounded and  
25 whom are now just shadows of the communities

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1 they were, a form of vibrant selves.

2                                 We want Marathon to be a  
3 leader as it always has been and that has  
4 always been the drive and focus of our  
5 community, our administration and our  
6 councils. That is why Marathon fully supports  
7 the mining sector as well as the forestry  
8 sector. In this case we fully support  
9 Generation project going forward.

10                                One final message I'd like to  
11 share with the panel. Over the last 11 days of  
12 listening to the remarks and the comments and  
13 the interactions and the presentations to the  
14 panel, I spoke with Mr. Skworchinski about  
15 this on several occasions. We're always open  
16 and willing to listen and have engagement with  
17 anybody. And if I look back on the second day  
18 of the presentation, Northwatch said they came  
19 to Marathon in 2012 to speak to the community.

20                                I wish that all the  
21 participants, every agency, every participant  
22 on the actual process over the next, you know  
23 -- well, the full 30 days of the hearing would  
24 have come out and reached out to the Town of  
25 Marathon both to council and administration.

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1 We're very open and willing to discuss  
2 anything.

3                               Our only relationship we've  
4 ever had in this project is basically with  
5 Generation and a previous owner, Stillwater  
6 Montana and Stillwater Canada, and we've  
7 always been there. We have a great  
8 relationship with Barrick's Hemlo. We have a  
9 great relationship with Generation Mining. We  
10 would just wish that everybody who is  
11 participating in the process in the hearings  
12 would come out and talk to us to have a  
13 firsthand feeling on what is really happening  
14 on the ground in Marathon.

15                               With that, I don't know if  
16 Mr. Skworchinski has any final comments. I  
17 would like to thank the panel for listening to  
18 us this morning.

19                               PANEL CHAIR: Thank you very  
20 much, Mayor Dumas and Mr. Skworchinski. And I  
21 appreciate, Mayor, you're adjusting your pace  
22 for the court reporter. Thank you.

23                               Thank you very much. We will  
24 proceed to our next presenter, so if I could  
25 call up Ontario Ministry of Heritage, Sport,

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1 Tourism and Culture Industries for your  
2 presentation. Good morning.  
3 PRESENTATION BY LAURA ROMEO:

4 MS. ROMEO: Good morning,  
5 Madam Chair and panel members. My name is  
6 Laura Romeo, and I work for the Ministry of  
7 Heritage, Sport, Tourism and Culture  
8 Industries which hereafter I will refer to as  
9 MHSTCI.

10 Before I start I would like  
11 to begin with a land acknowledgement. From my  
12 location I would like to acknowledge my  
13 presence on the homelands of the Mississaugas  
14 of the Credit, Anishnabeg, Haudenosaunee and  
15 Wendat peoples. I would also like to  
16 acknowledge that the proposed mine is located  
17 within the unceded and unsurrounded territory  
18 of the Biigtigong Nishnaabeg First Nation.

19 A little bit about myself. I  
20 am a heritage planner in the heritage planning  
21 unit at MHSTCI and led the review of the  
22 Marathon Palladium Project documentation on  
23 behalf of MHSTCI and authored the MHSTCI  
24 written submission to the review panel  
25 secretariat.

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1                   For this presentation I am  
2 accompanied by my colleague, Paige Campbell,  
3 who is an archeology review officer in the  
4 archeology program unit at MHSTCI.

5                   Next slide, please.

6                   For today's presentation I'll  
7 be discussing the Ministry of Heritage, Sport,  
8 Tourism and Culture Industries heritage  
9 mandate as well as the legislative framework,  
10 the scope of MHSTCI review role, the summary  
11 of MHSTCI review, and MHSTCI's conclusions.

12                  Next slide, please.

13                  First, I will discuss  
14 MHSTCI's heritage mandate.

15                  Next slide, please.

16                  MHSTCI's mandate is to  
17 develop policies and programs for the  
18 conservation of Ontario's cultural heritage as  
19 well as stimulate growth and investment in  
20 tourism, sport and recreational activities.

21                  Next slide, please.

22                  Next I'll be discussing the  
23 legislative framework.

24                  Next slide, please.

25                  Under the *Impact Assessment*

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1 Act physical and cultural heritage resources  
2 must be considered when undertaking a federal  
3 environmental assessment. Additionally,  
4 potential impacts to recreation and tourism  
5 should be identified and assessed as they  
6 often fall under socioeconomic conditions  
7 related to a project.

8                               It is important to note that  
9 there are additional tools to the IAA to help  
10 protect properties of cultural heritage value  
11 or interest. These include other federal,  
12 provincial, territorial and municipal policies  
13 and legislation.

14                               Next slide, please.

15                               Under the *Environmental*  
16 *Assessment Act* environment includes cultural  
17 conditions that influence human life. The  
18 *Planning Act* identifies cultural heritage as a  
19 matter of provincial interest. The *Planning*  
20 *Act* authorizes the provincial policy  
21 statement, the PPS contains provisions  
22 specific to cultural heritage conservation and  
23 is mandatory for all planning authorities. The  
24 province of Ontario's interest in protecting  
25 property of cultural heritage value or

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1 interest is reflected in provincial  
2 legislation and policy such as the *Planning*  
3 *Act*, the provincial policy statement, the  
4 *Ontario Heritage Act* and the *Ontario*  
5 *Environmental Assessment Act*.

6 Next slide, please.

7 The *Ontario Heritage Act*  
8 regulates archeology, enables municipalities  
9 to identify and conserve heritage properties,  
10 establish heritage conservation districts and  
11 to enter into heritage conservation easement  
12 agreements. It authorizes the standards and  
13 guidelines for conservation of provincial  
14 heritage properties, establishes the Ontario  
15 heritage trust provides regulatory criteria  
16 for determining cultural heritage value or  
17 interest.

18 Next slide, please.

19 Under the *Ontario Heritage*  
20 *Act* real property of cultural heritage value  
21 or interest may include archeological  
22 resources or areas of archeological potential,  
23 build heritage resources and cultural heritage  
24 landscapes.

25 Next slide, please.

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1                   The key provisions under the  
2 *Ontario Heritage Act* include archeology in  
3 Part 6. Archeological sites may not be  
4 disturbed, and archeological field work may  
5 not be undertaken except by archeologists  
6 licensed by MHSTCI. Licensed archeologists  
7 must follow MHSTCI process and report their  
8 work for review. Key provisions for heritage  
9 properties are included in Part 4 of the OHA.  
10 Municipalities can designate properties by  
11 bylaw protecting specified heritage  
12 attributes. They can also list on a public  
13 register properties that have heritage value  
14 but are not designated. Criteria for cultural  
15 heritage value or interest is included in OReg  
16 906.

17                   Municipalities are required  
18 to apply criteria in developing a statement of  
19 cultural heritage value or interest. The  
20 criteria are applied in identifying and  
21 evaluating cultural heritage resources in  
22 other insect such as environmental assessment.

23                   Next slide, please.

24                   Next I'll outline MHSTCI's  
25 role for commenting and review.

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1 Next slide, please.

2 MHSTCI is not an EA approval  
3 authority. MHSTCI reviews and comments on  
4 studies and commitments undertaken by EA  
5 proponents related to potential impacts on  
6 cultural heritage resources. Qualified  
7 heritage consultants and licensed  
8 archeologists are responsible for identifying  
9 these impacts and recommending mitigation  
10 measures. MHSTCI does not determine potential  
11 impacts or appropriate mitigation measures but  
12 ensures that these matters have been  
13 appropriately addressed through technical  
14 studies.

15 Next slide, please.

16 MHSTCI's review of technical  
17 heritage studies is supported by policies,  
18 directives, guides and best practice  
19 documents, including the reference guide on  
20 physical and cultural heritage resources  
21 prepared by the Impact Assessment Agency of  
22 Canada.

23 Drawing upon the guide, the  
24 overall approach is: Identify cultural  
25 heritage resources, including both previously

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1 recognized and potential resources located on  
2 and off-site that could be affected by  
3 project, and to do this it is necessary to  
4 conduct a site survey or inspection to assess  
5 the potential for presence of cultural  
6 heritage resources, then identify and evaluate  
7 them; identify and analyze potential  
8 environmental effects, mainly the potential  
9 effects of project construction and operation  
10 on cultural heritage resources; describe any  
11 proposed measures for mitigating any negative  
12 effects and a follow-up program on monitoring;  
13 verifying the accuracy of the EA and  
14 determining the effectiveness of any  
15 mitigation measures that have been  
16 implemented.

17                   If it is determined that a  
18 project is likely to cause effects on cultural  
19 heritage resources and that a follow-up  
20 program is needed, then monitoring the effects  
21 on the cultural heritage resources maybe  
22 included in the follow-up program.

23                   Next slide, please.

24                   Next I'll be providing a  
25 summary of MHSTCI's review for the Marathon

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1 Palladium Project.

2 Next slide, please.

3 I'll start with a summary of  
4 MHSTCI's review for archeology.

5 A stage 1-2 archeological  
6 assessment, and a stage 1, partial stage 2  
7 archeological assessment were undertaken in  
8 2008 and 2009, respectively. This stage 1-2  
9 archeological assessment examined the proposed  
10 mine site area, including areas along the Pic  
11 River. No archeological resources were  
12 discovered in those areas and no further  
13 archeological assessment was recommended. The  
14 stage 1, partial stage 2 archeological  
15 assessment report identified the Hare Lake  
16 area as having archeological potential and  
17 recommended further assessment be undertaken  
18 for that area prior to any ground disturbing  
19 activities, including mining activities. Both  
20 reports have been entered into the Ontario  
21 public register of archeological reports.

22 Next slide, please.

23 An archeological site was  
24 discovered near Hare Lake. The archeologist  
25 recommended that it requires stage 3

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1 archeological assessment if it were to be  
2 impacted by development activity. Additional  
3 areas of archeological potential on the  
4 shoreline were identified but not tested.  
5 Therefore, a stage 2 archeological assessment  
6 is required for the discharge pipeline project  
7 component area and other project components in  
8 that area.

9 Further stages of  
10 archeological assessment may be required  
11 depending on the findings of the stage 2 and  
12 the results of the stage 3.

13 All archeological fieldwork  
14 must be completed as early as possible during  
15 detailed design and prior to any ground  
16 disturbing activities. Archeological fieldwork  
17 is to be completed by licensed consultant  
18 archeologist in compliance with the *Ontario*  
19 *Heritage Act*.

20 Next slide, please.

21 MHSTCI notes that there is no  
22 requirement under the *Ontario Heritage Act* to  
23 engage with Indigenous communities at these  
24 early stages of archeological assessment.  
25 However, MHSTCI recommends early engagement as

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1 a best practice.

2 Under the standards and  
3 guidelines for consultant archeologists the  
4 licensed archeologist must engage Indigenous  
5 communities at the end of stage 3 if  
6 mitigation is required and the archeological  
7 site is affiliated with any Indigenous  
8 communities. There is no documentation  
9 indicating that the archeologist engaged in  
10 Indigenous communities in 2008 and 2009.  
11 Indigenous communities have identified the  
12 area as having high cultural value and  
13 provided information regarding contemporary  
14 use of the site for cultural purposes.

15 Next slide, please.

16 I'll now provide a summary of  
17 MHSTCI review for built heritage resources and  
18 cultural heritage landscapes.

19 An updated cultural heritage  
20 baseline report was completed by Stantec  
21 consulting in November 2020. MHSTCI finds that  
22 the report is consistent with the  
23 requirements, guidance and standards of a  
24 Federal EA and with best practice guidance  
25 prepared by MHSTCI.

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1 Next slide, please.

2 The report states that based  
3 on screening using the MHSTCI checklist, no  
4 indicators for potential built heritage  
5 resources or cultural heritage landscapes were  
6 identified. The report also states that these  
7 findings are consistent with the previously  
8 completed assessment from 2013 and that no  
9 changes to the previous conclusions are  
10 required. Therefore, there was low potential  
11 for built heritage resources or cultural  
12 heritage resources to be identified within the  
13 site study area. This being the case, no  
14 further assessment is required.

15 MHSTCI has also reviewed  
16 project documentation from a tourism  
17 perspective. No significant concerns with the  
18 project from a tourism perspective were  
19 identified.

20 Sorry, next slide, please.

21 And next slide, again.

22 I'll now provide a summary of  
23 MHSTCI's conclusions for the Marathon  
24 Palladium Project.

25 Next slide, please.

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1                   MHSTCI finds that under this  
2 EA process the proponent has carried out the  
3 appropriate investigations to identify  
4 cultural heritage resources and potential  
5 project impacts on them and has provided  
6 sufficient documentation describing these  
7 potential impacts while identifying migration  
8 measures. The proponent has committed to  
9 further archeological assessments in the Hare  
10 Lake area and to take appropriate action in  
11 the case of encountering archeological  
12 resources. There is no documentation  
13 indicating that the proponent has shared the  
14 stage 1 and 2 archeological assessment with  
15 Indigenous communities.

16                   Next slide, please.

17                   In the EIS addendum the  
18 proponent discusses consultation with  
19 Indigenous communities but does not explicitly  
20 state whether the stage 1 and 2 archeological  
21 assessment has been shared with Indigenous  
22 communities. The archeologist's obligation to  
23 engage with Indigenous communities is distinct  
24 from any obligation of the proponent to engage  
25 or consult.

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1 Under the *Ontario Heritage*  
2 *Act* the engagement requirements apply to the  
3 licensed archeologist and not the proponent.  
4 MHSTCI recommends that the stage 1 and 2  
5 archeological assessment be shared with  
6 Indigenous communities if this has not already  
7 been done.

8 Next slide, please.

9 That concludes my  
10 presentation for today. Thank you for your  
11 time.

12 PANEL CHAIR: Thank you, Ms.  
13 Romeo. I appreciate your presentation.

14 Okay. With that we will move  
15 to the question phase for the socioeconomic  
16 effects and land and resource use. So let me  
17 just go through.

18 QUESTIONS SESSION:

19 PANEL CHAIR: The Town of  
20 Marathon, do you have any questions for  
21 presenters on socioeconomic and land and  
22 resource use?

23 MAYOR DUMAS: Thank you again,  
24 Madam Chair. No, I do not have any, and Mr.  
25 Skworchinski, I don't know if he has any

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1 specific questions.

2 PANEL CHAIR: Mr.

3 Skworchinski?

4 MAYOR DUMAS: He may be tied

5 up right at the moment. But no, we don't --

6 the Town of Marathon doesn't have any

7 questions in regards to the presentation.

8 PANEL CHAIR: Thank you. Thank

9 you.

10 Ministry of Heritage, Sport,

11 Tourism and Culture Industries, do you have

12 any questions from participants? It includes

13 participants from yesterday's presentations as

14 well on socioeconomic and land and resource

15 use.

16 MS. ROMEO: No, we do not,

17 Madam Chair.

18 PANEL CHAIR: Thank you. Are

19 there other participants who may have

20 questions for presenters today or yesterday on

21 socioeconomic land and resource use? Okay.

22 Seeing no hands....

23 Generation PGM, do you have

24 any questions for presenters on those topics?

25 MR. BARRETTO: Madam Chair,

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1 Jeremy Barretto for the record, Generation  
2 Mining has no questions. Thank you.

3 PANEL CHAIR: Thank you very  
4 much. With that I will turn it over to the  
5 panel. We do have some questions for  
6 presenters, so I'll look to Ms. Bruce to begin  
7 our questioning. Thank you.

8 PANEL MEMBER BRUCE: Thank  
9 you. So my first set of questions are for  
10 Generation PGM, please. Thank you.

11 On slide 15 of your  
12 presentation that was made yesterday, the  
13 reference construction labour force was  
14 identified as being between 430 and 550. We  
15 have seen numbers in the 800-plus range. Can  
16 you please provide some clarification on or at  
17 least confirmation that the numbers provided  
18 yesterday are an accurate range of the labour  
19 force expected during construction.

20 MR. ANWYLL: Thank you for the  
21 question, Panel Member Bruce. So for clarity  
22 the numbers we flagged from 430 to 550 are the  
23 approximate average over that period.  
24 Depending on the timing of some of the trades  
25 and some of the construction coming in, it

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1 will peak at anywhere from 800 to 1,000.

2                               So in terms of full clarity  
3 of what those numbers would be, that would  
4 come out in further evaluation of the project  
5 and the project execution strategy which is a  
6 bit further down the path should the project  
7 proceed beyond the EA phase.

8                               PANEL MEMBER BRUCE: Okay. So  
9 just for clarification for my notes, 430 to  
10 550 is an average with a peak between 800 and  
11 a thousand. So there may at some point in time  
12 between 800 and 1,000 construction labourers  
13 on-site?

14                              MR. ANWYLL: That's correct,  
15 yes.

16                              PANEL MEMBER BRUCE: Okay.  
17 Thank you.

18                              And my next question is the  
19 variation in numbers. Have they been  
20 considered in the economic benefit  
21 calculations?

22                              MR. ANWYLL: I will caucus  
23 quickly and get the appropriate person to  
24 answer this. Give me a second, please, panel  
25 member.

1 PANEL MEMBER BRUCE: Thank  
2 you.

3 MR. ANWYLL: Thank you for the  
4 time to caucus, Panel Member Bruce. I'll hand  
5 over the answer to that question to Mr. Frank  
6 Bohlken.

7 PANEL MEMBER BRUCE: Thank  
8 you.

9 MR. BOHLKEN: Good morning,  
10 Panel Member Bruce. Frank Bohlken for the  
11 record.

12 The economic impact  
13 assessment is based on the estimated  
14 expenditures by the project, so, for example,  
15 the construction expenditures were -- that  
16 information was inputted into the multiplier  
17 analysis which then generated the numbers that  
18 are provided in the report.

19 However, in response to IR  
20 2-2 we also did a sensitivity analysis around  
21 those numbers of plus or minus 25 percent, so  
22 there is a bit of a range provided in that  
23 sensitivity analysis, but the core economic  
24 impact assessment is based on, again, an  
25 estimated construction expenditure and that

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1 resulted in a specific estimate of direct,  
2 indirect and induced construction-related  
3 employment. Thank you.

4 PANEL MEMBER BRUCE: Thank  
5 you.

6 So my next few questions are  
7 about the availability of workforce. So I'm  
8 not sure who -- if you will be answering that  
9 or if Mr. Anwyll will be coming back on. Thank  
10 you.

11 So my question relates to  
12 your assessment to support your conclusions  
13 about the availability of labour particularly  
14 in the context of ongoing or upcoming  
15 projects. So have you undertaken a  
16 quantitative assessment to support your  
17 conclusions that there is available labour in  
18 the context of other projects?

19 MR. ANWYLL: I'll caucus  
20 quickly to get clarity on that, please.

21 PANEL MEMBER BRUCE: Thank  
22 you.

23 MR. BOHLKEN: It's Frank  
24 Bohlken for the record.

25 So the question was in

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1 regards to labour availability. This is --  
2 this was addressed in the EIS, so there's a  
3 section -- labour availability is within  
4 section, excuse me here -- 6.2.9.6.1, and we  
5 speak to labour availability.

6                               One of the factors which was  
7 actually discussed also in the presentation  
8 yesterday was the -- first of all, the size of  
9 the mining-related workforce in the (skipped  
10 audio), and secondly, the -- due to the  
11 reduction in the size of the mining workforce  
12 at the Hemlo operation, the potential  
13 availability of workers from that project able  
14 to work on the Generation PGM project, so  
15 these topics were discussed and were assessed  
16 in the items.

17                               PANEL MEMBER BRUCE: So  
18 there's no new information to change any of  
19 the previous conclusions?

20                               MR. BOHLKEN: Sorry, the  
21 conclusions regarding what?

22                               PANEL MEMBER BRUCE: The  
23 conclusions you spoke about in the EIS, I'm  
24 just confirming that there isn't anything new  
25 that has arisen, for example, discussions with

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1 Confederation College, the proposed centre of  
2 excellence. Is there anything else that you  
3 want to flag that is new relative to when the  
4 EIS was put together?

5 MR. BOHLKEN: Excuse me. I'll  
6 just caucus with my colleagues. Thank you.

7 Okay. Frank Bohlken for the  
8 record. I'm going to introduce Cathryn Moffett  
9 who will respond to the last question. Thank  
10 you.

11 PANEL MEMBER BRUCE: Thank  
12 you.

13 MS. MOFFETT: Hello, everyone.  
14 It's Cathryn Moffett for the record. I hope  
15 you can hear me.

16 So I just wanted to give a  
17 little bit of context. I think your question  
18 is around any work that's been going on  
19 subsequent to the filing around training. So  
20 we --

21 PANEL MEMBER BRUCE: That is  
22 correct.

23 MS. MOFFETT: Thank you.

24 So we have been working with  
25 the local people. As you alluded there is

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1 quite a bit of existing initiatives in the  
2 area, including Northwest Employment Works,  
3 and we have been talking to them to understand  
4 opportunities for training grants and  
5 classroom training and driver training. We've  
6 begun developing a skills survey which will be  
7 placed on a -- our recruitment website to  
8 understand the level of skills that are  
9 available in the regional population a little  
10 bit better, the firsthand information.

11                                 We have a plan to participate  
12 in a regional career fair this month actually  
13 in a couple days. We've had a few  
14 conversations with AETS, who is the  
15 Anishnaabeg Employment and Training Services.  
16 They have a partnership as well with colleges  
17 and funders to provide training specifically  
18 to Indigenous people.

19                                 We've talked to Confederation  
20 College and the Town of Marathon since they  
21 have a training facility in place in the town  
22 of Marathon to see how that could be used.

23                                 Yeah, I guess a lot of it is  
24 building off, like I said, what's been in  
25 place and been initiated through other

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1 projects such as the east-west tie and really  
2 looking to collaborate with the existing  
3 initiatives.

4                               So this is just in the  
5 starting phase and that's a summary, but I  
6 hope it adds some of the detail that you were  
7 looking for.

8                               PANEL MEMBER BRUCE: Yes, that  
9 was -- appreciated the detailed response.  
10 Thank you.

11                              Okay. My next question  
12 relates to I believe it was Ms. Janes'  
13 presentation yesterday that suggested that  
14 even if a hundred percent of labourers needed  
15 accommodation during the construction phase  
16 and 50 percent of the labour force needed  
17 accommodation for operations, in other words,  
18 that they were coming in from the outside  
19 area, that there is sufficient accommodation.  
20 And Ms. Janes stated that there is housing  
21 available for up to 180 during operations.

22                              So I'm just trying to  
23 understand these numbers a little bit better.  
24 Can you identify what other accommodation  
25 assumptions have been made?

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1 MR. ANWYLL: Yes, certainly.  
2 Give me a second to caucus, and I'll come back  
3 for clarity.

4 PANEL MEMBER BRUCE: Thank  
5 you.

6 MR. ANWYLL: Thank you for  
7 that time to caucus. I'll introduce Ms. Hilary  
8 Janes to clarify the answer.

9 PANEL MEMBER BRUCE: Thank  
10 you. Hello, Ms. Janes.

11 MS. JANES: Good morning. It's  
12 a pleasure to speak to you.

13 So during construction there  
14 will be a construction camp. There currently  
15 is an existing construction camp with 230  
16 rooms. Extra rooms will be built to  
17 accommodate the entire construction workforce  
18 prior to construction, and during operation  
19 there will be an accommodations complex which  
20 will house a hundred people but can be  
21 expanded to house 180 people, so that should  
22 cover the entire workforce.

23 PANEL MEMBER BRUCE: Thank  
24 you.

25 MS. JANES: You're welcome.

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1                                   PANEL MEMBER BRUCE: Okay.  
2    Again to PGM, GenPGM. The panel has heard from  
3    MiningWatch and the Biigtigong First Nation  
4    that workers relocating to the area may put a  
5    strain on local resources and infrastructure  
6    in both Indigenous and non-Indigenous  
7    communities. What role is GenPGM prepared to  
8    have in developing and/or supporting the  
9    necessary services? Are you able to  
10   specifically identify programs, policies or  
11   practices you plan to implement for service  
12   development?

13                                  MR. ANWYLL: Thank you for the  
14   question, Panel Member Bruce. I'll take a  
15   second to caucus, please. Thank you for that  
16   time to caucus. We'll have two folks help  
17   clarify the answer, Hilary Janes and Cathryn  
18   Moffett.

19                                  PANEL MEMBER BRUCE: Thank  
20   you.

21                                  MS. JANES: Hi, it's Hilary  
22   Janes for the record.

23                                  So I think for the assessment  
24   we've shown that there is existing capacity  
25   with the majority of services and

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1 infrastructure throughout the entire RSA.  
2 Housing is a concern, and GenPGM will manage  
3 that concern with the availability of the  
4 housing complex and the construction camp.

5                   At the project site and at  
6 the accommodation camp there will be a number  
7 of services provided to handle any additional  
8 demands created by the project and the project  
9 workforce. So there will be security on-site.  
10 There will be first aid and some fire and  
11 other security and safety measures and so that  
12 should manage any additional demands, and I'm  
13 going to hand it back to Cathryn Moffett to  
14 address the -- another part of the question.

15                   PANEL MEMBER BRUCE: Thank  
16 you.

17                   MS. MOFFETT: Thank you,  
18 Hilary. It's Cathryn Moffett for the record.

19                   I just wanted to briefly  
20 acknowledge as well that we have heard  
21 directly from Biigtigong Nishnaabeg, and it is  
22 on the record about their concerns about their  
23 social infrastructure in their community, and  
24 I do not want to speak for them, but I do want  
25 to just state that the company's support for

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1 them and their request directly to the Crown  
2 to work to remedy these social inequities that  
3 are present at their community.

4 PANEL MEMBER BRUCE: Thank you  
5 both. May I just ask a follow-up question to  
6 Ms. Janes, please. Thank you.

7 Now, I think it was in your  
8 presentation yesterday; it was slide 21. It  
9 was stated that health and emergency services  
10 in the regional study area have the capacity  
11 to handle existing demand.

12 MS. JANES: Correct.

13 PANEL MEMBER BRUCE: So what  
14 -- you probably know my next question. It's  
15 about the -- it has capacity for the existing  
16 demand. Do you or have you been able to assess  
17 whether there's expected to be any shortfalls  
18 given the increase in population coming into  
19 the region?

20 MS. JANES: Okay. I'll caucus  
21 with the team if you don't mind.

22 PANEL MEMBER BRUCE: Thank  
23 you.

24 MS. JANES: Okay. Thank you  
25 for that time to chat with the team.

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1 I just want to that bring  
2 your attention to section 6.2.9.6.2 of the  
3 addendum. We have pointed to some spare  
4 capacity in the -- with respect to increases  
5 in the number physicians in the region and  
6 that there is a new health care centre in BN  
7 with a mental health team now that's providing  
8 some additional health care.

9 I would also like to mention  
10 that GenPGM is committed to providing services  
11 that will reduce the amount of additional  
12 demand that the project will place on health  
13 care services and infrastructure. There will  
14 be first aid on-site. There will be an  
15 environmental management plan that will  
16 outline guidance for reducing accidents, and  
17 there will also be employee assistance program  
18 that will help with health care services as  
19 well.

20 PANEL MEMBER BRUCE: Okay.  
21 Thank you.

22 MS. JANES: You're welcome.

23 PANEL MEMBER BRUCE: So my  
24 next set of questions are for Mayor Dumas.

25 MAYOR DUMAS: Yes, go ahead.

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1 Thank you. My video has stopped. The host has  
2 to open up. Okay. Great. Thank you.

3 PANEL MEMBER BRUCE: Thank  
4 you.

5 So we have heard both in the  
6 EIS and from yourself about the need for more  
7 housing in the community, and this morning you  
8 spoke to new developments. And given that we  
9 didn't have a slide presentation from you, I  
10 wanted to make sure that I've completely  
11 understood the proposed developments and the  
12 numbers that you spoke about this morning. So  
13 I'm just going to go back over and ask you  
14 some specific questions.

15 So you referred to Penn Lake  
16 subdivision, and it would have 30 units.

17 MAYOR DUMAS: No, that is --  
18 Aboriginal housing out of Sault Ste. Marie is  
19 going to develop a 30-unit two-bedroom  
20 apartment building complex starting this  
21 spring. That is going to be on McLeod Drive,  
22 which is at the lower end of our --

23 PANEL MEMBER BRUCE: Sorry,  
24 Mayor, could you please slow down a little  
25 bit, please.

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1                   MAYOR DUMAS: Yeah, sorry.  
2 Sorry. I speak fast, and I get on a role, but  
3 thank you for that.

4                   So no, the 30-unit facility  
5 that is being built by Aboriginal housing out  
6 of Sault Ste. Marie with start in the spring.  
7 Well, we are in spring, but April of this  
8 year. That will be on the McLeod Drive which  
9 is in the older portion of our community.

10                  Then the second part, I think  
11 what you are asking about the subdivision, the  
12 subdivision has already serviced lots. Over  
13 20, I think there's 22 serviced lots right  
14 now. We just surplussed off about four of  
15 those lots for development of a potential  
16 50-unit apartment building that we're in  
17 discussions with the contractor to develop a  
18 50-unit apartment building. So that is  
19 happening in discussions. Nothing is signed  
20 and sealed in that regard, but those  
21 discussions are ongoing.

22                  And then, of course, as I  
23 said in the Hemlo-boom days Marathon was  
24 looking at developing the community and  
25 growing to a population of 10,000. So on the

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1 books, to say on the shelf collecting dust is  
2 a potential development all around the Penn  
3 Lake Heights subdivision for additional  
4 portions of that subdivision to be developed  
5 quickly if possible. You know, it's a matter  
6 of working with GenPGM and knowing the demand  
7 that they are looking and potential workers  
8 moving to the community.

9 PANEL MEMBER BRUCE: And  
10 somewhere I wrote down 110.

11 MAYOR DUMAS: Yeah. 110 units  
12 would be multi-residential units planned for  
13 construction. So that's a combination of the  
14 potential up on the Penn Lake Heights. But  
15 we're only in discussion for the preliminary  
16 50, so, you know -- we know there could be  
17 potentially as much as 110 multi-residential  
18 units, construction. So that's ongoing  
19 discussions not with GenPGM, with other  
20 developers because they are looking at the  
21 opportunities as private entrepreneurs for  
22 future economic growth for their companies.

23 PANEL MEMBER BRUCE: Okay.

24 MAYOR DUMAS: So providing  
25 housing services potentially obviously for

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1 GenPGM employees.

2 PANEL MEMBER BRUCE: Okay. And  
3 would you require any zoning or official plan  
4 modifications to accommodate these  
5 developments?

6 MAYOR DUMAS: No, this has  
7 already been taken care of in our official  
8 plan, and this whole area has been already  
9 identified many, many years ago for  
10 development.

11 PANEL MEMBER BRUCE: Okay.  
12 Thank you.

13 MAYOR DUMAS: I would like to  
14 make a comment on the previous question as  
15 GenPGM if I may in regards to the health  
16 aspect in our community --

17 PANEL MEMBER BRUCE: Well, I'm  
18 going to ask you to hold that.

19 MAYOR DUMAS: Sure, sure,  
20 sure.

21 PANEL MEMBER BRUCE: Okay. So  
22 -- because I do have a question in that  
23 regard. How about I ask the question and then  
24 feel free to answer my question and elaborate.

25 So I just wanted to make

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1 sure, we have heard back from GenPGM on, if I  
2 can call it, their migration measures to deal  
3 with increased demand on health and emergency  
4 services. Do you have any concerns about the  
5 ability of the town of Marathon to be able to  
6 provide the necessary health services?

7                                   MAYOR DUMAS: So as you would  
8 know, and I think the majority of people on  
9 the session, the town of Marathon does not  
10 provide health care services. That is provided  
11 by the Ontario Ministry of Health through the  
12 Wilson Memorial General Hospital as well as  
13 the Marathon Family Health Team, but we're  
14 very blessed.

15                                   We're recognized in the  
16 province of Ontario for many, many years,  
17 almost since 1995, as a Cinderella story. As  
18 our neighbouring communities throughout  
19 Ontario are always looking for GPs and family  
20 physicians, Marathon today, as I speak to you  
21 we have eight full-time family physicians in  
22 Marathon. So that provides services for  
23 Marathon, BN and Pic Mobert, so our  
24 surrounding communities and Heron Bay North.  
25 So we're very blessed in that regard. We have

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1 an excellent family health team. We have all  
2 kinds of support services on the family health  
3 team that provide many different aspects of  
4 health and wellness in our community.

5                   Of course our staff and team  
6 at Wilson Memorial General Hospital, NOSH,  
7 which is managed both Marathon and Terrace  
8 Bay, McCausland Hospital, are under one  
9 umbrella. So the administrative level is run  
10 by our CAO Adam Brown, and he does an  
11 excellent job in managing both hospitals. And  
12 Terrace Bay provides a long-term care facility  
13 as well as acute care, and Marathon was --  
14 sorry -- that was a mistake. I normally ask  
15 everybody to turn off their electronic  
16 devices.

17                   So also Marathon has been  
18 approved by the Ontario government for 14  
19 additional long-term care beds. So we feel  
20 that the community is well-situated for any  
21 impact that Gen might bring with the increase  
22 in population.

23                   But I also would like to make  
24 mention in that regard that Marathon, through  
25 the 37 years of Hemlo, have seen our

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1 residents, you know, age and retire. And with  
2 that being said, they stay in the community  
3 and they are going to need more services. So  
4 that's why the long-term care facility that we  
5 just announced by the provincial government  
6 working with NOSH which is the Wilson Memorial  
7 and McCausland combined hospitals will provide  
8 those services.

9                                   We have a 36-unit supportive  
10 housing complex in Marathon that is new that  
11 we took the initiative to build a couple years  
12 ago. So we believe that our community is  
13 providing excellent services for the residents  
14 and future residents, as well as our First  
15 Nations communities.

16                                   PANEL MEMBER BRUCE: Thank  
17 you, Mayor. Okay. Thank you, Mayor. My next  
18 questions are going to go back to GenPGM.

19                                   MAYOR DUMAS: Okay. Thank you.

20                                   PANEL MEMBER BRUCE: Oh, I'm  
21 sorry. May I call Mayor Dumas back again.

22                                   MAYOR DUMAS: Oh, sure. Sorry.

23                                   PANEL MEMBER BRUCE: So in  
24 your presentation today from the town there  
25 was reference to two documents. One was a -- I

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1 believe it was a U of T study on mining  
2 benefits as well as a March 2022 Northern  
3 Policy Institute study.

4 MAYOR DUMAS: Yes.

5 UNDERTAKING 25:

6 PANEL MEMBER BRUCE: Could we  
7 please ask as undertaking 25 to arrange to  
8 have those submitted to the panel for -- so  
9 that we have them on record.

10 MAYOR DUMAS: I certainly can.

11 I'm sure Mr. Skworchinski  
12 definitely could send them off to the panel for the  
13 record.

14 PANEL MEMBER BRUCE: Thank you  
15 very much. That was all, thank you.

16 MAYOR DUMAS: Thanks.

17 PANEL MEMBER BRUCE: Thank  
18 you. Mr. Anwyll, my next question, GenPGM has  
19 indicated that a conceptual monitoring and  
20 follow-up program for monitoring economic  
21 impacts of the project has been developed and  
22 that this program had been reviewed by the  
23 town of Marathon and the Biigtigong Nishnaabeg  
24 First Nation.

25 While conceptual details of

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1 the plans were provided in response to our  
2 information request, I believe it was number  
3 7, which is CIAR 587, the plan does not appear  
4 to have been finalized nor has the conceptual  
5 plan been included with the proponent's  
6 submissions.

7 Are you able to share with  
8 the panel and participants the conceptual  
9 monitoring program? Specifically we're  
10 interested in knowing the goals of the  
11 program, the roles for the local community and  
12 any potential measures that can be used to  
13 mitigate negative impacts or adapt relevant  
14 programs.

15 MR. ANWYLL: Thanks for the  
16 question. I kindly request a second to caucus,  
17 please.

18 PANEL MEMBER BRUCE: I'm just  
19 wondering -- could you just hold up just a  
20 sec. I'm just going to turn it back to the  
21 panel chair for a moment.

22 PANEL CHAIR: Thank you, Ms.  
23 Bruce.

24 I think given the time why  
25 don't we return here at 10:30 and we can

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1 resume our questioning. It gives Generation  
2 PGM that time as well to caucus and that will  
3 be our mid-morning break as well. I hope that  
4 works for everyone. So we'll see you back here  
5 at 10:30.

6 MR. ANWYLL: Thank you very  
7 much.

8 --- Recess taken at 10:15 a.m.

9 --- Upon resuming at 10:30 a.m.

10 PANEL CHAIR: Thank you.  
11 Welcome back, everyone. I think I'll turn it  
12 directly back to Generation PGM to respond to  
13 the question posed by Panel Member Ms. Bruce  
14 before the break.

15 MR. ANWYLL: Thank you very  
16 much for the lengthy time to caucus and have a  
17 snack. I'm going to hand over the answer to  
18 this question to Tabatha LeBlanc.

19 PANEL CHAIR: Thank you.  
20 Welcome.

21 MS. LEBLANC: Thanks. Sorry, I  
22 had a little technical glitch. And thank you  
23 for the question, Panel Member Bruce and Panel  
24 Chair. My name is Tabatha LeBlanc for the  
25 record.

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1                   Yes, there is a socioeconomic  
2 monitoring program in a conceptual state that  
3 was discussed with the town of Marathon and  
4 Biigtigong Nishnaabeg. The program has been  
5 outlined conceptually and IR 3-3. It does  
6 include monitoring of potential indicators for  
7 demography such as population, employment,  
8 housing, culture and Indigenous  
9 considerations. Some of those indicators would  
10 include duration, frequency and other  
11 components, but it is in a conceptual stage at  
12 this point and hasn't been advanced past that  
13 phase. But we are going to continue to  
14 collaborate with the Biigtigong Nishnaabeg and  
15 the town of Marathon to finalize that  
16 monitoring program.

17                   PANEL MEMBER BRUCE: Okay.  
18 Thank you. We were looking for an update from  
19 that IR, so I understand that you are still  
20 working on it, and there is not anything more  
21 to update at this time.

22                   MS. LEBLANC: That's correct.

23                   PANEL MEMBER BRUCE: Okay. My  
24 next series of questions specifically relate  
25 to access. So in IR 16.7 the panel requested

1 information regarding the impacts of the  
2 project on tourism and recreation values in  
3 the context of a Lake Superior enhanced  
4 management area land use policy direction. And  
5 GenPGM indicated that the only predicted  
6 effect would be a loss of fish habitat and  
7 fishing opportunity in Angler Creek.  
8 Participants have expressed concern over the  
9 loss of access to Bamooos Lake, and there may  
10 be Crown land permit owners who may be  
11 impacted by the project.

12                                   Now, we know that Indigenous  
13 participants have reflected or have expressed  
14 concerns regarding access for hunting,  
15 fishing, gathering and cultural practices. And  
16 while we have heard introductory remarks about  
17 Indigenous concerns, and I hope we will hear  
18 more next week, my questions today  
19 specifically focus on access to these areas  
20 from a tourism and recreation perspective.

21                                   So with that background the  
22 question is, please describe your engagement  
23 efforts with Crown permit holders that may  
24 potentially be affected by the project and  
25 identify any concerns or associated mitigation

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1 measures that you've identified.

2 MR. ANWYLL: Thank you for  
3 that. I'll caucus quickly, please.

4 PANEL MEMBER BRUCE: Just  
5 before you do, I'm going to tell you there is  
6 a second part to the question, and maybe it  
7 would be beneficial for me to ask that at the  
8 same time.

9 So the same question replies  
10 (sic) to any business or tourism industry  
11 members. And we're well aware that you've been  
12 dealing with the chamber of commerce, but this  
13 is specifically tourism.

14 MR. ANWYLL: Copy that. I will  
15 caucus.

16 PANEL MEMBER BRUCE: Thank  
17 you.

18 MR. ANWYLL: Thanks.

19 Thank you for the time to  
20 caucus, Panel Member Bruce. I'll introduce  
21 both Christine Walsh who will start, and then  
22 Cathryn Moffett who will add a little more  
23 colour.

24 MS. WALSH: Thank you.  
25 Christine Walsh for the record.

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1 I just wanted to start off by  
2 providing a little bit of context around  
3 access, site access and tourism in the area.  
4 Then I'll pass over to Cathryn Moffett to  
5 provide some details around engagement efforts  
6 that have been ongoing since this -- in  
7 support of this.

8 So tourism was assessed as  
9 part of the project, and the main tourism  
10 happening in the areas is with regards to  
11 outdoor recreational opportunities. So  
12 recreational opportunities as noted in the EIS  
13 addendum will be restricted within the SSA  
14 over the life of the project until the site is  
15 reclaimed and is safe for public access.  
16 Continued access and use of the LSA will not  
17 be affected by the project for recreational  
18 and tourism activities, and with migration  
19 measures such as noise reduction and dust, you  
20 know, adverse effects are anticipated to be  
21 low within the LSA.

22 It is acknowledged that there  
23 will be a restriction to the SSA and as noted  
24 in the presentation yesterday access can be  
25 granted through escort to the north of the

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1 site and as well as the alternative access  
2 route that was identified on yesterday's  
3 presentation figure.

4 I will then pass off to  
5 Cathryn Moffett to provide a little bit more  
6 detail on the engagement efforts with these  
7 affected users.

8 PANEL MEMBER BRUCE: Thank  
9 you, Ms. Walsh.

10 MS. MOFFETT: Thank you. It's  
11 Cathryn Moffett for the record.

12 So I just wanted to speak  
13 generally to our engagement efforts with the  
14 town of Marathon which has included their  
15 participation in our monthly, regional,  
16 environmental update committee meetings.

17 We also keep people informed  
18 of project through biweekly newspaper  
19 publications which are published in three  
20 local newspapers, as well as an Indigenous  
21 progress publication. And we've had several  
22 open house events in the town of Marathon,  
23 including two that took place in the summer of  
24 2021.

25 So this is the -- generally

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1 keeping the open communication and allowing  
2 people to be aware of the activities. We've  
3 also engaged directly with the Rod and Gun  
4 Club, and that was specifically around  
5 fisheries measures and their -- asking for  
6 their input on potential compensation  
7 opportunities.

8 PANEL MEMBER BRUCE: So with  
9 the Rod and Gun Club you spoke specifically  
10 about compensation measures? Is that what I  
11 understand you to say?

12 MS. MOFFETT: That's correct.  
13 So we asked them about any opportunities --  
14 well, we spoke to them generally about the  
15 project, and the main focus of the  
16 conversation was seeking potential  
17 opportunities for compensation projects.

18 PANEL MEMBER BRUCE: Oh, okay.  
19 Thank you. Okay. Thank you for your time, Ms.  
20 Moffett.

21 Okay. I have one final  
22 question, and this is with respect to the  
23 archeological investigation in the area of  
24 Hare Lake. So has GenPGM further explored --  
25 actually maybe I'll just back up a little bit.

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1                   Mr. Varley yesterday stated  
2 that there would be further archeological  
3 assessment proposed in the area around the  
4 discharge location into Hare Lake to avoid  
5 archeological resources. So has GenPGM further  
6 explored alternative designs related to the  
7 proposed location should there be potential  
8 for archeological impacts. In other words, is  
9 it feasible to move the pipeline location if  
10 archeological resources are found that cannot  
11 be avoided?

12                   MR. ANWYLL: Gotcha. Clear. If  
13 I can caucus quickly, please. Thank you for  
14 the time caucus, Panel Member Bruce. We'll  
15 have Colin Varley, the archeologist on the  
16 project will provide the first part of the  
17 answer and then Mr. Brian Fraser will help  
18 with the discharge commentary.

19                   PANEL MEMBER BRUCE: Thank  
20 you.

21                   MR. VARLEY: Colin Varley for  
22 the record. Thanks for the question, Panel  
23 Member.

24                   So far on Hare Lake the only  
25 archeological material that's been discovered

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1 is a piece of chart on the north side of the  
2 lake. The area --

3 PANEL MEMBER BRUCE: Sorry,  
4 sorry, Mr. Varley. Can you just say that  
5 again. The only thing that has been found has  
6 been --

7 MR. VARLEY: The only  
8 Aboriginal material so far identified is chert  
9 on the north site of Hare Lake opposite to  
10 where the discharge pipe is planned. Where the  
11 discharge pipe is planned is an area of  
12 archeological potential that has been  
13 recommended for stage 2 assessment, and that  
14 stage 2 assessment is planned to occur this  
15 summer.

16 If archeological resources  
17 are found we can either proceed to a stage 3,  
18 or if the archeological resources found are  
19 identified as meeting the criteria to move to  
20 stage 3, we can either move to stage 3, or  
21 there is an opportunity to adjust the location  
22 of the outlet within the existing corridor.  
23 I'll pass it off to Brian Fraser to discuss at  
24 little bit about the relocation possibilities.

25 PANEL MEMBER BRUCE: Thank

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1 you.

2 MR. FRASER: Thank you, Colin.  
3 Good morning, Panel Member Bruce, Panel Chair  
4 Sikora. It's Brian Fraser.

5 So within the embayment of  
6 the lake that the discharge structure is  
7 proposed, there is 200, 250 metres of  
8 shoreline off which the discharge structure  
9 could come. So I think within that variability  
10 the discharge corridor, there's some  
11 flexibility. It might need to change a little  
12 bit here or there based on what is found, but  
13 there should be sufficient room within that  
14 area to accommodate a change based on what the  
15 results of the subsequent archeological study  
16 say.

17 PANEL MEMBER BRUCE: Okay.  
18 Thank you. Sorry, one just follow-up question.

19 With the work that has been  
20 undertaken and the work that is planned with  
21 respect to archeological investigations, has  
22 there been or will there be further engagement  
23 with local Indigenous communities?

24 MR. FRASER: Thank you, Panel  
25 Member Bruce. I'll just get the right person

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1 to answer that question for you.

2 MS. MOFFETT: Hi there.

3 Cathryn Moffett for the record. Thank you for  
4 your question, Panel Member Bruce.

5 So yes, I wanted to confirm  
6 that we certainly did share the previous  
7 archeological reports with communities, and  
8 our plan is again to share the work. We have  
9 done our best to keep them informed that this  
10 work is planned for September, and we seek  
11 their direct participation in the fieldwork of  
12 community members that are available, and of  
13 course share the results of the report through  
14 our committees and then through the formal  
15 report when it's prepared.

16 PANEL MEMBER BRUCE: Thank  
17 you. So those are the end of the questions  
18 that I have with respect to socioeconomic  
19 environment. And I'm going to turn it back to  
20 our panel chair. Thank you for your responses.

21 PANEL CHAIR: Thank you, Ms.  
22 Bruce, and thanks to all the participants for  
23 their responses. I mentioned that we were  
24 going to move ahead -- sorry, I guess we've  
25 just got the thumbs up. No break needed.

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1                   That concludes the portion of  
2 our questions on socioeconomic effects and  
3 land and resource use, and we're now going to  
4 move into the human health component of our  
5 day, and we're going to be welcoming as our  
6 first presenter, Citizens for Responsible  
7 Industry in Northern Ontario, CRINO.

8                   I think you're on-line as our  
9 first presenter. Good morning. Thank you,  
10 appreciate your flexibility, glad we could  
11 accommodate your time as well, and we'll turn  
12 it over to you. We've got your presentation  
13 up. Just let us now how we can advance your  
14 slides. Go ahead. Thanks.

15 PRESENTATION BY SARAH NEWBERY:

16                   DR. NEWBERY: Thank you so  
17 much. I'll just check to see if you can hear  
18 me okay. Great.

19                   So first of all, thank you so  
20 much for the opportunity to present to you  
21 today. My name is Sarah Newbery, and I'm a  
22 rural generalist family physician in the  
23 community here in Marathon on the traditional  
24 unceded territory of Biigtigong Nishnaabeg  
25 First Nation, and it's been my privilege to

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1 live and work here for the past 26 years.

2 My focus as a physician  
3 certainly is on the health and wellbeing of  
4 this community and health and wellbeing  
5 defined quite broadly from the standpoint of  
6 both economic health and vibrancy, but also  
7 human health. And what I want to focus on  
8 today is the value of a community benefits  
9 agreement in helping the community to be  
10 engaged in understanding the mine impact and  
11 potential benefits to us as we move forward  
12 and the importance of an oversight committee  
13 for that.

14 So I'll ask you to go to the  
15 next slide.

16 So I think it's really  
17 important for us to think about what's  
18 possible in this context and to think about  
19 what we could do with an effective network of  
20 agencies, governments, citizens, businesses  
21 non-governmental organizations, coming  
22 together to look at the potential benefits of  
23 a project like this not only in the short term  
24 but also in the long term, and what it will  
25 take to ensure that as a project like this

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1 moves forward we are mitigating the potential  
2 impacts on the health of our citizens and  
3 advancing potential benefits as we move  
4 forward. That is going to take a holistic and  
5 systems thinking approach, and it is going to  
6 take clear and measurable goals, both around  
7 economic benefits but also around  
8 environmental risk, I should say, and the ways  
9 in which those risks might impact human  
10 health.

11 We'll go to the next.

12 So I think that this can be  
13 done through a community benefits agreement.  
14 And I want to spend a minute just talking  
15 about what a community benefits agreement is  
16 and the importance of an oversight committee.

17 So for those who aren't as  
18 familiar with community benefits agreement,  
19 they are signed, legally enforceable  
20 documents. They are specific to a particular  
21 project not to a particular organization or  
22 institution. And so that means that they can  
23 be enduring even if ownership changes. They  
24 are inclusive, collaborative and accountable  
25 processes, and I think that that's really

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1 important when I reflect on some of the things  
2 that this panel will have heard over the last  
3 many presentations.

4 I think the issue of  
5 accountability and accountability to community  
6 perhaps hasn't come up as much as would be  
7 reassuring for citizens. And so having an  
8 agreement that allows an accountability to the  
9 community I think is a really important piece.

10 A community benefits  
11 agreement leverages a project for a variety of  
12 things, including a broad range of policy  
13 objectives like health equity, poverty  
14 reduction, environmental safety and  
15 sustainability and local economic development,  
16 and it can detail in writing the specific  
17 benefits that a community should expect from a  
18 development project, including around hiring  
19 practices, funding for training and education,  
20 neighbourhood improvements and support for  
21 social enterprises, including the health  
22 sector.

23 I think when we think about a  
24 project like this particular one, the need for  
25 us to have a robust health sector to support

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1 industry is really important. And it's  
2 important for us to be aware that there needs  
3 to be a substantial community involvement in  
4 all of the phases of a community benefits  
5 agreement.

6                                   We'll go to the next slide. I  
7 want to just highlight where this is currently  
8 happening.

9                                   So with mining projects it's  
10 currently happening with Indigenous  
11 communities all across the country. Stillwater  
12 in Montana has a good neighbour agreement with  
13 its local community that includes not only  
14 economic benefits but also environmental  
15 monitoring and accountability. The Northwest  
16 Territories now requires a community benefit  
17 for every -- a community benefits agreement, I  
18 should say, for every new mining project. Bill  
19 6 in Ontario in 2014 compelled a community  
20 benefits agreement for new infrastructure  
21 development. And the Vancouver Olympic Village  
22 is certainly an important example of where a  
23 community benefits agreement has supported a  
24 project development in the broader interest of  
25 the community.

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1                                   And we can go to this next  
2 slide.

3                                   I want to just consider about  
4 why a community benefits agreement is  
5 important here and now and with this  
6 particular project. Again, I want to highlight  
7 the importance of accountability and  
8 accountability to the local community as we  
9 think about the importance for us as a human  
10 citizenry broadly and the importance of moving  
11 away from fossil fuels; the potential for  
12 mining projects to perhaps support the way  
13 that we move away from fossil fuels.

14                                  We also need to think about  
15 how we're accountable to local communities so  
16 that that broader effort is not achieved at a  
17 price paid highly by local citizens. So  
18 accountability to the community is an  
19 important piece of the why of a community  
20 benefits agreement.

21                                  We want to then ensure that  
22 the citizens of the North Shore experience a  
23 net benefit from this -- not just a short-term  
24 benefit but a net benefit over the long term.  
25 We want to ensure that the lifestyle that

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1 people live here both in terms of sustenance  
2 and in terms of recreation can be maintained  
3 during the course of the project but sustained  
4 in the long term as well.

5                   Marathon is no stranger to  
6 boom and bust cycles, and I think a community  
7 benefits agreement creates an opportunity to  
8 mitigate the boom and bust cycles that  
9 northern Ontario and Marathon is all too  
10 familiar with. And importantly, a community  
11 benefits agreement can compensate for the  
12 potential of insufficient government  
13 monitoring and enforcement.

14                   And we can go to the next  
15 slide. And actually we can go to the next  
16 slide.

17                   But I want to -- I do want to  
18 spend a minute talking about government  
19 enforcement and monitoring, both at the  
20 provincial and the federal level.

21                   So this graph is from the  
22 auditor general of Ontario's report in the  
23 "Value-For-Money Audit" regarding hazardous  
24 spills. It was released in November of 2021.  
25 And within this report the auditor general

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1 provided a critique of the Ministry of the  
2 Environment, Conservation and Parks in terms  
3 of the decrease in proactive inspections and  
4 enforcement of the -- enforcement of  
5 infractions around the environment.

6                               So you can see in this graph  
7 that there's been a decrease in staff; there's  
8 been a decrease in inspections; there's  
9 certainly been a decrease in prosecutions of  
10 infractions. And that's an important piece at  
11 the provincial level.

12                              If we go to the next slide,  
13 this chart is from the 2019 spring report of  
14 the commissioner of the environment and  
15 sustainable development to the Parliament of  
16 Canada and reflected on the lack of  
17 Environment and Climate Change Canada's  
18 inspections. So what we can see in this is  
19 that a mine in Ontario is inspected roughly  
20 only once every 3.6 years, and that probably  
21 is insufficient to understand what is  
22 happening in mines in the Ontario context.

23                              The point of these two slides  
24 really is to reinforce the notion that local  
25 community citizens can't rely on government

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1 inspections and enforcement to ensure that the  
2 local environment is being adequately  
3 protected, and a community benefits agreement  
4 can help mitigate some of the gaps that we see  
5 at the provincial and federal level.

6                               If we can go to the next  
7 slide.

8                               So who needs to be on a  
9 community benefits agreement oversight  
10 committee, because a benefits agreement  
11 without oversight is not actually particularly  
12 meaningful.

13                              So what we believe is that we  
14 need a community benefits agreement and an  
15 oversight committee that is comprised of  
16 people who are not driven by a profit motive  
17 in relation to the company. That they are  
18 people who will have some institutional  
19 memory, that they will have some project  
20 technical expertise, that there will be people  
21 with some governance expertise, that they will  
22 reflect the local and regional citizen base,  
23 and that they will have a local community and  
24 regional commitment.

25                              And we can go to the next

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1 slide.

2                               So I think it's important to  
3 think about how that happens and the  
4 importance of establishing a community  
5 benefits agreement with an oversight committee  
6 as soon as a project is approved, if it is  
7 approved; that we need to think about meeting  
8 frequently and regularly; and that there needs  
9 to be access to reports both from the  
10 proponent and from the government so that the  
11 community citizens that make up that oversight  
12 committee have an understanding of what the  
13 reporting is and can help to hold that project  
14 accountable to the commitments that are  
15 contained within the agreement.

16                               There needs to be a dispute  
17 mechanism in place, there needs to be an  
18 accountability broadly, and there needs to be  
19 an independent budget. I think this kind of  
20 work is really important, and it can't be done  
21 simply by people who are not well equipped to  
22 actually ask important questions, to consult  
23 experts where that's necessary and to be able  
24 to implement the kinds of things that that  
25 committee needs to see. So independent funding

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1 for a community benefits agreement oversight  
2 committee is also really important.

3 And we can go to the next  
4 slide.

5 I think one of the things  
6 that we believe currently is that this would  
7 be the first of its kind, community benefits  
8 agreement, with a non-Indigenous community in  
9 the province of Ontario. And I'm aware that  
10 Biigtigong First Nation has also sought a  
11 community benefits agreement, and I think  
12 working collaboratively and in partnership  
13 across communities that may be impacted by  
14 this project is really important.

15 But this would be a first of  
16 its kind with a mining project in Ontario, and  
17 I think creates a really interesting  
18 opportunity broadly to think about how we  
19 understand the value of a community benefits  
20 agreement for the health of a population, both  
21 economic and physical and human health.

22 We have an opportunity to  
23 engage a neutral policy observer to be able to  
24 research and study and iteratively improve and  
25 inform future projects in the province of

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1 monitoring of the environment, without  
2 appropriate monitoring of water, land and air,  
3 and a community benefits agreement like this  
4 can help position the community to hold the  
5 project proponents accountable to the ways in  
6 which they need to support this community as  
7 they benefit from the resources that exist  
8 here.

9 I think that it can position  
10 the people of Marathon and this area to be  
11 leaders in the province, and perhaps even in  
12 the nation, in this kind of agreement if we do  
13 it well.

14 So I will stop there, and I'm  
15 happy to take any questions.

16 PANEL CHAIR: Thank you Ms.  
17 Newbery. Appreciate your presentation, and  
18 given your time I think what we will do is I  
19 will open it up to participants on the line to  
20 ask if there are any questions that you would  
21 like to pose with respect to the presentation  
22 we've just heard.

23 Maybe I'll just go through.  
24 So the town of Marathon, do you have any  
25 questions for Ms. Newbery?

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1                   MAYOR DUMAS: Mayor Rick  
2 Dumas. Thank you, Dr. Newbery, and thank you  
3 for your service over the last 26 years in our  
4 community because it's well deserved. And you  
5 bring a very, very keen project to our  
6 attention, and we spoke about this.

7                   We fully support the CBA, and  
8 we believe working with Generation Mining that  
9 we can have this true leadership going forward  
10 to be the community leaders as well as the  
11 provincial or national leaders for  
12 community-based benefit agreement. Thank you  
13 for that presentation.

14                  DR. NEWBERY: Thank you.

15                  PANEL CHAIR: Thank you, Mayor  
16 Dumas. Any other participants, have questions?  
17 Generation PGM, do you have questions for Ms.  
18 Newbery at this time?

19                  MR. BARRETTO: Thank you,  
20 Madam Chair. Jeremy Barretto for the record.  
21 Generation has no questions, and thank you Dr.  
22 Newbery.

23                  DR. NEWBERY: Thank you.

24 You're welcome.

25                  PANEL CHAIR: Okay. Thank you

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1 very much. All right. With no questions there,  
2 thank you again for the presentation, and we  
3 will now move to our additional presentations  
4 on human health, and I think our first  
5 presenter up next is Generation PGM.

6 MR. BARRETTO: Yes, thank you,  
7 Madam Chair. Jeremy Barretto for the record.

8 Mr. Anwyll will start the  
9 presentation, and then he will hand it off to  
10 our experts from there. So we just ask that  
11 the presentation be brought up. Thank you. Mr.  
12 Anwyll, please take it away.

13 PANEL CHAIR: Thank you.

14 MR. ANWYLL: Thank you, panel  
15 members. Next slide, please.

16 Again, human health. I think  
17 we're all largely familiar with the topics for  
18 discussion, and we'll have a few presenters  
19 coming up. And if you can go to the next  
20 slide, I'll introduce those presenters. And  
21 one more slide.

22 Okay. So the main witnesses  
23 in this phase will be largely Dr. Don Hart and  
24 Brian Fraser may add some colour.

25 So I think go to slide 10 if

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1 we could. I hope that's the right number. Look  
2 at that. And I'll hand over to Dr. Hart.

3 PRESENTATION BY DR. HART:

4 Thank you. Don Hart for the  
5 record.

6 Could I have next slide,  
7 please.

8 The original EIS in 2012  
9 concluded no significant adverse effects on  
10 human health would result from the  
11 project-related changes, changes to air  
12 quality, water quality, country foods, noise  
13 or electromagnetic fields from power lines.  
14 Key mitigation measures were identified to  
15 reduce project-related environmental effects  
16 through dust management, water treatment,  
17 design of the mine footprint to avoid Bamooos  
18 Lake, maintain access to Bamooos Lake, engage  
19 with Indigenous communities to inform closure  
20 planning and monitoring and to offer training  
21 and employment opportunities for Indigenous  
22 peoples.

23 A conceptual plan for country  
24 food monitoring was identified, and the human  
25 health effects assessment was then updated to

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1 support the current EIS addendum.

2 Next slide, please.

3 And this slide shows the  
4 general framework for the effects assessment.  
5 The exposure pathways that have potential to  
6 affect human health include inhalation of  
7 constituents in the air that may originate  
8 from project emissions, ingestion of  
9 constituents in drinking water and ingestion  
10 of constituents in country foods.

11 Indicators of effect for the  
12 quantitative risk assessment include the  
13 calculation of an exposure ratio for  
14 non-carcinogenic constituents. This is simply  
15 an exposure value divided by a toxicity  
16 reference value. Also for carcinogenic  
17 constituents a calculation of incremental  
18 lifetime cancer risk or ILCR, and this is  
19 simply an exposure value times a risk-per-unit  
20 exposure.

21 Next slide, please.

22 This slide shows the local  
23 study area for the human health component. The  
24 local study area for human health was defined  
25 to encompass local study areas for other

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1 project components that would have potential  
2 to affect human health.

3                               So in the atmospheric local  
4 study area is the large studies, and the human  
5 health local study area is aligned with that  
6 atmospheric area, and it's shown by the bold  
7 orange line in this figure.

8                               Next slide, please.

9                               This slide shows routes of  
10 access to the site and surrounding areas. I  
11 would note that there is no free access within  
12 the site study area; that's the gray area with  
13 purple outline in the middle. There would be  
14 escorted transit across this area if needed;  
15 that is from gates to areas northeast of the  
16 site.

17                              There are various trails  
18 outside the site study area providing access  
19 to important harvesting locations like Hare  
20 Lake and Bamoos Lake. There is road access via  
21 the Camp 19 Road to the Pic River, and also  
22 Highway 17 runs through the southern portion  
23 of the local study area in the south of the  
24 mine site.

25                              Next slide, please.

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1                   This slide shows the human  
2 receptor types that were considered within the  
3 HHRA. Three types were considered: Subsistence  
4 harvesters, these are located at Hare Lake and  
5 Bamoos Lake and the Pic River; seasonal  
6 residents, that is cottagers located at Hare  
7 Lake; and permanent residents, these would be  
8 residents within the town of Marathon.

9                   For each of these residents  
10 we have a conceptual model of how they may be  
11 exposed to our constituents arising from the  
12 project.

13                   Subsistence harvesters would  
14 consume country foods that are harvested in  
15 the area outside the SSA. They would consume  
16 surface water when harvesting, and they would  
17 breathe outdoor air. This is assumed to be  
18 eight hours per day exposure and eight weeks  
19 per year. So this would be day trips during  
20 specific seasons to the harvesting locations.

21                   For cottagers, again, would  
22 consume -- they would consume surface water,  
23 fish and game from around Hare Lake. They  
24 would breathe outdoor air; we assumed 4.8  
25 hours per day and eight weeks per year; that

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1 is cottage season. For residents of the town  
2 of Marathon they would consume groundwater as  
3 drinking water, and the assumption is that  
4 they would breathe outdoor air for three hours  
5 per day and 52 weeks per year.

6                               For all these receptors we  
7 assumed that they do these things for an  
8 80-year lifetime. So that's a conservative  
9 assumption given the considerably shorter  
10 duration of the project operational phase of  
11 12.7 years.

12                               Next slide, please.

13                               This slide shows the air  
14 quality model receptor locations that were  
15 considered within the HHRA. Those are the  
16 yellow dots. All these locations are outside  
17 the site study area. Some are at or within the  
18 outermost lease boundary, otherwise known as  
19 the fence line. That boundary is the light  
20 pink line in this figure.

21                               Next slide, please.

22                               This slide illustrates the  
23 human health conceptual site model which  
24 guides the HHRA and also guides the monitoring  
25 program. It shows the exposure pathways that

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1 were mentioned previously. That is air and  
2 water exposure for all receptors and exposure  
3 via country foods for some receptors.

4 Next slide, please.

5 This slide shows the water  
6 quality screening assessment that was  
7 conducted to select contaminants of potential  
8 concern in water. So for surface water,  
9 constituent concentrations in surface water  
10 are not predicted to increase above water  
11 quality guidelines during any phase of the  
12 project.

13 For groundwater, the seepage  
14 from project components into groundwater will  
15 travel down gradient over a span of decades to  
16 centuries. There's no hydraulic connection to  
17 drinking water supply wells. On the basis of  
18 the screening assessment no constituents were  
19 carried forward for quantitative risk  
20 assessment from water.

21 Next slide, please.

22 This slide shows the air  
23 quality screening assessment that was  
24 conducted to select constituents of potential  
25 concern here. The primary screening was a

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1 comparison of modelled constituents against  
2 ambient air quality criteria. Based on this,  
3 six constituents were identified to increase  
4 above air quality criteria at or near the  
5 property boundary.

6 Other constituents in air are  
7 not predicted to exceed air quality area  
8 criteria.

9 We then conducted a secondary  
10 screening by considering constituents that are  
11 predicted to exceed at residential or frequent  
12 use locations; that is where people would be.  
13 These include residences, cottages and  
14 harvesting locations.

15 Also at the secondary  
16 screening we considered crystalline silica  
17 which rarely exceeds its short-term criterion  
18 at places where people would be. We considered  
19 also that the criterion is overly  
20 conservative. It is a short-term criterion,  
21 but it is in fact based on assumptions of  
22 continuous lifetime exposure.

23 So given the relatively rare  
24 exceedance in the nature of the guideline, the  
25 crystalline silica was not carried forward for

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1 quantitative assessment.

2                                 This leaves benzene and  
3 benzo(a)pyrene which were carried forward for  
4 quantitative risk assessment, and these are  
5 both fuel combustion products.

6                                 We also assessed other  
7 carcinogenic PAHs to capture the full effect  
8 of all the modelled PAHs on the incremental  
9 lifetime cancer risk. Those additional PAHs  
10 contribute little to the overall risk, but  
11 they were considered for completeness.

12                                 Next slide, please.

13                                 This slide shows the country  
14 food screening assessment to select  
15 constituents the of potential concern in  
16 country foods. We note that meeting air  
17 quality criteria is the basis of facility  
18 permitting in Ontario. The air quality  
19 criteria were considered to be protective of  
20 terrestrial pathways to food. These pathways  
21 are considered either qualitatively or  
22 quantitatively in development of the ambient  
23 air quality criterion.

24                                 So there were two  
25 constituents in air that exceeded their

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1 criterion, and these were benzene and  
2 benzo(a)pyrene. These were predicted to exceed  
3 air quality criteria at locations where people  
4 would frequent. However, these substances do  
5 not bioaccumulate in food. This is according  
6 to their soil quality guideline documents.

7                   There's potential for  
8 de-position of these substances from air onto  
9 plant surfaces, but there is a weathering  
10 process to be considered as well. Weathering,  
11 that is wash-off processes would limit buildup  
12 of these substances on plant surfaces.

13                   With respect to water, we  
14 note that meeting water quality guidelines is  
15 the basis for facility permitting in Ontario.  
16 The water quality guidelines, that is lowest  
17 of either drinking water or aquatic life  
18 guidelines, are generally protective of  
19 aquatic pathways to food with a few known  
20 exceptions.

21                   Mercury and arsenic are the  
22 two known exceptions. They have potential to  
23 bioaccumulate appreciably even in clean waters  
24 that are below the lowest of water quality  
25 guidelines.

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1                   So with respect to mercury,  
2 mercury is not expected to be released in  
3 project effluent. So on that basis we expect  
4 no effects from mercury. Arsenic is expected  
5 to change a small amount in the surface water,  
6 and we would anticipate a corresponding amount  
7 in fish. But considering these changes, they  
8 would be insufficient to reach a level of  
9 concern, and specifically here we looked at  
10 the "First Nations Food, Nutrition and  
11 Environment Study" where typical country food  
12 diets were considered and specifically  
13 concentrations of arsenic in fish.

14                   So we looked at the benchmark  
15 levels of arsenic in fish that were typically  
16 seen and considered to be of no concern  
17 according to FNFNES.

18                   So based on this screening  
19 evaluation, there were no further quantitative  
20 assessment conducted with respect country food  
21 as no constituents of potential concern beyond  
22 those considered here that were identified.

23                   Next slide, please.

24                   So the results for air, risks  
25 from benzene and benzo(a)pyrene and other

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1 products of fuel combustion are expected to be  
2 well below negligible levels, risk levels at  
3 residences and cottages and harvest locations.

4                   With respect to water, the  
5 constituents in surface water are not expected  
6 to increase above water quality guidelines  
7 during any project phase. There is no  
8 connection from project groundwater to water  
9 supply wells.

10                   With respect to country  
11 foods, the environmental quality is not  
12 expected to differ substantially from  
13 background conditions at locations where  
14 country foods are likely to be harvested. And  
15 similarly, country foods are expected to not  
16 change substantially from background.

17                   So overall we anticipate no  
18 discernible health effects from the project.

19                   Next slide, please.

20                   Commitments to mitigation  
21 have been made by GenPGM relevant to  
22 atmospheric, aquatic, terrestrial and social  
23 environments. Commitments include an  
24 atmospheric quality management program to  
25 reduce both air and noise impact. Commitments

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1 include a water management program to provide  
2 erosion control and storm water management.  
3 They include management of acid rock drainage  
4 and metal leaching, management of vegetation,  
5 wildlife and species at risk. Commitments  
6 include a socioeconomic program. They include  
7 an occupational health and safety plan, and  
8 they include access management as discussed no  
9 free access within the mine site, but escorted  
10 access through the mine site as needed.

11 Next slide, please.

12 This slide shows the  
13 commitments made to monitoring and training  
14 programs. There's a commitment to engage with  
15 Indigenous peoples, interested parties and  
16 appropriate agencies in the monitoring of air  
17 quality, effluent quality, surface water  
18 quality, groundwater quality and country food  
19 quality. There are specific commitments to  
20 monitor mercury in the aquatic environment  
21 which is noted to be of particular concern,  
22 and there's commitment to assess the results  
23 of these monitoring programs with respect to  
24 human health.

25 There's a commitment to

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1 implement a harvester training fund to support  
2 the annual harvest. There's an offer to  
3 education and training programs to build  
4 capacity and increase employability for  
5 Indigenous workers. And finally commitment to  
6 monitor and record health and safety  
7 incidence, near misses and potential hazards.

8                               Next slide, please. And next  
9 slide.

10                              The next couple of slides  
11 provide an update on the country food  
12 monitoring program. The program has been  
13 developed through community engagement and  
14 will continue to develop through community  
15 engagement. The program includes monitoring of  
16 vegetation, wildlife and fish. It also  
17 includes a country food diet survey, that will  
18 serve to inform interpretation of results.

19                              The vegetation samples that  
20 were collected in 2021 included the species  
21 that are common and commonly used,  
22 specifically birch, blueberry, bunchberry,  
23 Labrador tea and raspberry.

24                              With respect to wildlife, the  
25 plan is to engage a local trapper to collect

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1 beaver along the Camp 19 Road. I should say  
2 that engagement is ongoing on the program.  
3 This is what it looks like now. It is expected  
4 to evolve in the collaboration with the  
5 community. This slide shows the --

6 Oh, next slide, please. Thank  
7 you.

8 This slide shows the fish  
9 tissue sampling locations in 2021. In the Pic  
10 River locations are located upstream of the  
11 mine site and also adjacent to the mine site  
12 so that the two can be compared. Species  
13 collected in 2021 included Chinook and coho  
14 salmon as well as walleye and whitesucker in  
15 the Pic River. Collections were also conducted  
16 in Hare Lake where northern pike and yellow  
17 perch were collected.

18 Next slide, please.

19 So in all in 2021, 187 plant  
20 samples were collected with corresponding soil  
21 samples; 49 fish flesh samples and  
22 corresponding fish liver samples. All were  
23 submitted for analysis for a broad suite of  
24 metals, and specifically including mercury.  
25 Analytical results will be available later in

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1 the spring of 2022, and the results will be  
2 shared with Indigenous groups through  
3 established environmental committees.

4 Next slide, please.

5 So in summary, mitigation and  
6 environmental protection measures are keeping  
7 project impacts low. Environmental exposures  
8 on the project are predicted to be less than  
9 benchmarks considered protective of human  
10 health. Monitoring of environmental media,  
11 including air, water, soil and country foods,  
12 has been initiated and will verify assessment  
13 conclusions going forward.

14 There has been and will  
15 continue to be ongoing engagement with  
16 Indigenous communities on the environmental  
17 monitoring program and the results.

18 So consistent with the  
19 original EIS, project-related changes in air  
20 quality, water quality, country foods, noise  
21 and electromagnetic fields from power lines  
22 are not expected to have a significant adverse  
23 effect on human health.

24 Next slide, please.

25 And at this point I would

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1 like to turn the presentation over to Mr.  
2 Brian Fraser.

3 MR. FRASER: Thank you, Don.  
4 Madam Chair, it's Brian Fraser for the record.

5 I'm just going to take us  
6 through a couple of slides regarding navigable  
7 waters and the assessment of effects on  
8 navigable waters related to the project.

9 Next slide, please.

10 In 2019 the *Navigable Waters*  
11 *Protection Act* was replaced by the *Canadian*  
12 *Navigable Waters Act*, and that restored some  
13 protections that had been removed earlier, a  
14 few years previously for navigable waters. And  
15 within the Act a navigable water is defined,  
16 and I'll just read from the slide:

17 "As a body of water that is  
18 used or where there is reasonable likelihood  
19 that it will be used by vessels in full or in  
20 part for any part of the year as a means of  
21 transport or travel for commercial or  
22 recreational purposes or as a means of  
23 transport or travel for Indigenous peoples.  
24 There's public access by land or by water or  
25 there is no such public access but there are

1 two more riparian owners or where the only  
2 riparian owner is Canada or a province."

3 So I think getting from that  
4 definition, the key points are access use or  
5 access and use, and that's the basis of how we  
6 did a preliminary assessment for the purpose  
7 of the EIS.

8 Next slide, please.

9 So with reference to CIAR  
10 727, it's appendix D7 from the EIS addendum;  
11 that is the navigable waters assessment. We  
12 initially looked at past and current use of  
13 navigable waters around and on the project  
14 site.

15 As we would have heard in  
16 previous presentations around aquatic  
17 environment, there will be a number of  
18 waterbodies and water courses that will be  
19 overprinted by the project, and we assessed  
20 these waterbodies, water courses along with  
21 Pic River, since it's an important feature of  
22 the landscape, as well as Hare Lake as to  
23 their navigability.

24 So our initial or preliminary  
25 assessment concluded that -- the waterbodies

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1 and water courses on site likely wouldn't meet  
2 the definition of navigable waters. In part,  
3 that's based on nature and access of these  
4 waterbodies and water courses. It's also  
5 informed by information that was provided to  
6 the project team from Indigenous communities  
7 on travel routes and portages that are of  
8 historic and current value. Generally  
9 speaking, those would be limited to the Pic  
10 River, the Hare Lake-Bamoos Lake corridor and  
11 the near shore of Lake Superior, including in  
12 particular the mouth of Angler Creek.

13                               Based on that assessment of  
14 past and current use, the preliminary  
15 assessment suggested that future use wasn't  
16 likely. However, decision regarding future use  
17 are ongoing. There's dialogue with Transport  
18 Canada, and specifically with that regard  
19 Transport Canada has provided a survey to  
20 local communities and Indigenous groups  
21 regarding their use or potential use in the  
22 future of those waterways.

23                               And hopefully within the near  
24 future we'll get some feedback regarding those  
25 surveys so that we can consider more fully

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1 future use and whether there might be need for  
2 an approval through the Act.

3 Next slide, please.

4 And that ends the human  
5 health presentation on behalf Generation PGM.  
6 Thank you very much, Madam Chair, for the  
7 opportunity, and we look forward to questions.

8 PANEL CHAIR: Thank you very  
9 much, Mr. Fraser and Mr. Hart. Appreciate the  
10 presentations.

11 Our next presenter is  
12 Biigtigong Nishnaabeg First Nation, and we  
13 have a hand up. Sorry. Just -- if you could --  
14 one moment, Ms. Zanini. Dr. Newbery, I think  
15 we have your hand up.

16 DR. NEWBERY: Thanks so much,  
17 if I could ask a question?

18 PANEL CHAIR: Yes, is your  
19 time -- we will be moving to questions later,  
20 but if I understand correctly, are you able to  
21 stay with us on-line or....

22 DR. NEWBERY: Yeah, perhaps  
23 for another half hour or so, so I'm happy to  
24 hold my question.

25 PANEL CHAIR: Can you hold for

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1 one moment, please, I'm just going to check  
2 our schedule. Thank you. Go ahead, please.

3 DR. NEWBERY: Thank you so  
4 much. So my question is about water protection  
5 and the groundwater in Marathon in particular.  
6 I ask my question as the past chair of the  
7 Groundwater Protection Steering Committee in  
8 Marathon.

9 And I'm wondering if the  
10 assessment about the lack of impact on  
11 Marathon's groundwater was done or is made  
12 based on formal hydrogeologic studies. I ask  
13 that for two reasons.

14 One. When we did the  
15 groundwater protection study, I was surprised  
16 by the underground flow of water into  
17 Marathon's groundwater and really surprised by  
18 the transit times. The distance over which  
19 water flowed which was estimated based on  
20 geography to be 25 years was actually only two  
21 years, and you have asserted that there may be  
22 many decades to centuries timeframe before  
23 water from this site might impact Marathon's  
24 groundwater.

25 From prior hydrogeologic

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1 studies I think the transit times in this area  
2 are shorter particularly through the sand that  
3 makes up so much of the Marathon area.

4 So my question really is  
5 whether the assertion about impact on  
6 Marathon's groundwater is based on a formal  
7 hydrogeologic or assumptions based on the  
8 region. Thank you.

9 PANEL CHAIR: Your question is  
10 to Generation PGM?

11 DR. NEWBERY: Yes.

12 PANEL CHAIR: Thank you, Dr.  
13 Newbery. Generation PGM?

14 MR. ANWYLL: Thanks for the  
15 question, Dr. Newbery. If you give me a  
16 second, I'll see if I can track down our  
17 hydro-g expert on-line. Would you give me a  
18 second, please.

19 DR. NEWBERY: Thank you.

20 PANEL CHAIR: Sorry, Mr.  
21 Barretto.

22 MR. BARRETTO: Yes, Madam  
23 Chair, I just wanted to note, we had four days  
24 of aquatic environment sessions, and I'll  
25 leave it to GenPGM to respond if they have the

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1 appropriate expert here. I think in the  
2 interest of efficiency they will do their best  
3 to respond to Dr. Newbery's question. But in  
4 the event they don't have the relevant expert  
5 here at this moment, perhaps GenPGM could, you  
6 know, respond as best they can and come back  
7 to our other aspects of the question. But I  
8 will leave it to Mr. Anwyll for the details.

9 PANEL CHAIR: Understood.

10 Thank you.

11 DR. NEWBERY: Chair, I don't  
12 want the delay the proceedings, and so if that  
13 answer isn't readily available, I'm happy to  
14 receive it separately or have it documented  
15 for the record as the meeting processes if I'm  
16 not able to be here. Thank you.

17 MR. ANWYLL: Thank you for  
18 your patience. We were just attempting to get  
19 our expert from on-line, so that's what the  
20 background was.

21 But in the meantime at a high  
22 level, I'll hand over to Brian Fraser to give  
23 some additional clarity for yourself and the  
24 Chair.

25 MR. FRASER: Thank you, Madam

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1 Chair. It's Brian Fraser for the record. Thank  
2 you, Dr. Newbery. It's nice to talk to you.

3                                 There was a formal  
4 hydrogeological assessment done with  
5 three-dimensional modelling for the project  
6 site and beyond. I'll give you a reference if  
7 that's okay on the record. So it's CIAR  
8 reference number 727, and it's appendix D4 of  
9 the EIS addendum.

10                                That details the study with  
11 respect to the hydrogeological environment and  
12 modelling that was done. Also if you're  
13 interested, our hydro-g expert was on our  
14 separate team call. She's going to join the  
15 Zoom call if there is additional information  
16 that she can provide. It will just take her a  
17 minute or to two to get onto the Zoom call.

18                                DR. NEWBERY: Thanks very  
19 much. I'm happy to receive that reference, and  
20 I don't want to delay the proceedings further,  
21 but thank you for that response.

22                                MR. FRASER: So, Madam Chair,  
23 if I can understand that correctly, then Ms.  
24 Michele Fraser who was going to join the Zoom  
25 call, I take it need not at this time, and

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1 we'll just move forward?

2 PANEL CHAIR: Thank you. I  
3 appreciate that. And thank you, Dr. Newbery  
4 and Mr. Fraser, for the question and response.  
5 Much appreciated.

6 Okay. Ms. Zanini, thank you  
7 for your patience and welcome.

8 MS. ZANINI: Thank you, Madam  
9 Chair.

10 PANEL CHAIR: Go ahead.

11 MS. ZANINI: Wonderful. Thank  
12 you.

13 PRESENTATION BY TRACY ZANINI:

14 MS. ZANINI: For the record,  
15 my name is Tracy Zanini on behalf of  
16 Biigtigong Nishnaabeg, and I would just like  
17 to provide an introduction to Biigtigong for  
18 the panel and for members participating today  
19 in the hearings.

20 Biigtigong Nishnaabeg is a  
21 progressive and prosperous nation. Its people  
22 have lived, worked and existed on the lands of  
23 the shores of Lake Superior and inlands of the  
24 northern region since time and memorial. The  
25 proposed mine is located entirely within the

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1 unceded, unsurrendered and exclusive  
2 Aboriginal title territory of Biigtigong  
3 Nishnaabeg and is nine kilometres away from  
4 our community.

5                   The project is located  
6 adjacent to the Biigtig Zibi which we regard  
7 as a sacred river. Biigtigong is not a  
8 stakeholder in this process. We are rights  
9 holders and stewards of our title area, the  
10 lands and the resources within it. The  
11 proximity of the project to Biigtigong means  
12 that the project will adversely impact the  
13 continued exercise of Aboriginal title rights  
14 and interests, and we anticipate there to be a  
15 very high impact to our rights. Biigtigong is  
16 the sole authority on our rights and interests  
17 and the impact that this project will pose.

18                   In previous sessions we  
19 presented on our concerns regarding the  
20 aquatic environment. Today we will present on  
21 further issues, concerns and recommended  
22 mitigations concerning the human environment,  
23 particularly as it relates to human health  
24 within the context of the issue of mercury and  
25 methylmercury.

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1                   Biigtigong feels these issues  
2 must be addressed by the proponent as the  
3 actor responsible for the development of the  
4 project, and the Crown as the actor  
5 authorizing or permitting the project to  
6 proceed to ensure that impacts are lessened so  
7 that rights can be continued to be exercised  
8 over the long term.

9                   This information has also  
10 been provided in Biigtigong's written  
11 submission to the panel, which for the record  
12 is registry document 1093.

13                   And now I would like to pass  
14 the presentation over to my colleague Jody  
15 Duncan to provide further details. Thank you.  
16 PRESENTATION BY JODY DUNCAN:

17                   MR. DUNCAN: Thank you, Tracy. Good  
18 morning, Madam Chair and panel members.

19                   This is Jody Duncan with  
20 Biigtigong for the record. And I'll do a quick  
21 sound check to make sure you're able to hear me all  
22 right. Okay. Great.

23                   So first off, I would like to  
24 thank you for this opportunity to present to  
25 you our concerns as they relate to human

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1 health. And as my colleague Tracy mentioned,  
2 today we'll be focusing our presentation on  
3 concerns about increases and in mercury and  
4 methylmercury in the environment and fish  
5 tissue and the risk this may pose to the  
6 health of Biigtigong.

7                               So we'll be delivering our  
8 presentation orally today without the use of a  
9 visual aid, so I will just jump right into it.

10                              So to provide some context,  
11 baseline studies conducted to date have found  
12 elevated mercury concentrations in fish tissue  
13 that currently exceed restriction values for  
14 human consumption. Fish tissue sampling  
15 completed on Bamooos Lake indicated that all  
16 five lake trout muscle tissue samples exceeded  
17 0.26 micrograms per gram, which is the value  
18 at which consumption restrictions begin for  
19 children under the age of 15 and women of  
20 childbearing age.

21                              In addition, two of those  
22 five samples exceeded the total restriction  
23 value of 0.52 micrograms per gram for this  
24 portion of the population which indicates that  
25 children under the age of 15 and women of

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1 childbearing age should not eat lake trout  
2 from Bamooos Lake currently.

3                   With regard to Hare Lake,  
4 mean mercury concentrations in both northern  
5 pike muscle and liver tissue were also above  
6 the value at which consumption restrictions  
7 for the general population begin.

8                   And all of the samples  
9 collected from northern pike exceeded the  
10 total restriction value for children under the  
11 age of 15 and women of childbearing age, and  
12 two of those five samples exceeded the total  
13 consumption restriction value of 1.84  
14 micrograms per gram.

15                   Again, we can see similar  
16 conditions in the Biigtig Zibi. So the  
17 reported mean mercury concentration in walleye  
18 collected from the Biigtig was 0.68 micrograms  
19 per gram which exceeds, again, the total  
20 restriction value for children under 15 and  
21 women of childbearing age. And I'll also note  
22 here that mercury concentrations in fish  
23 tissue sometimes also exceeded the CCME  
24 guidelines for the protection of fish-eating  
25 wildlife.

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1                   So these data may indicate  
2     that there's already a trend of elevated  
3     mercury concentrations in fish tissue for this  
4     region of Ontario. And mercury, it's a  
5     naturally occurring element which quite  
6     complex biogeochemical processes.

7                   The methylation of mercury to  
8     methylmercury is known to be enhanced in more  
9     eutrophic environments as a result of the more  
10    prevalent anoxic conditions and the associated  
11    anaerobic respiration that occurs under those  
12    conditions. And we're concerned that the  
13    concentrations of nutrients in the effluent  
14    discharge to Hare Lake may contribute to a  
15    eutrophic environment potentially resulting in  
16    an increased rate of mercury methylation and  
17    subsequently increased concentrations of  
18    mercury in fish tissue.

19                  GenPGM has also predicted  
20    that some sulfate may be deposited to Hare  
21    Lake during operations through the discharge  
22    of effluent and that sulfate concentrations in  
23    Hare Lake are predicted to increase during the  
24    operations phase of the project.

25                  So currently the background

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1 and total ammonia. So the current background,  
2 water quality for these constituents, sulfate,  
3 nitrate and total ammonia, are 3.5, 0.11 and  
4 0.06 milligrams per litre, respectively.

5                   The predicted average  
6 concentration for these constituents post  
7 closure are 7.2, 0.30 and 0.28 milligrams per  
8 litre, respectively. So this represents an  
9 approximately two times increase in sulfate  
10 concentrations, approximately a three times  
11 increase for nitrate and approximately a four  
12 times increase for total ammonia.

13                   Again, we're concerned that  
14 the increase in these constituents may  
15 contribute to a more eutrophic environment in  
16 Angler Creek leading to anoxic conditions that  
17 at certain times of the year may further  
18 contribute to the production of methylmercury.

19                   So we are concerned that  
20 project-related effects, such as the effluent  
21 discharge to Hare Lake as well as increases in  
22 certain constituents resulting in  
23 eutrophication, may contribute to increased  
24 concentrations of mercury in fish tissue,  
25 particularly in Hare Lake, including the

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1 downstream environment of Hare Lake or Hare  
2 Creek, as well as in Angler Creek.

3                               Biigtigong has zero tolerance  
4 for the project to increase the rate of  
5 mercury methylation in any waterbody affected  
6 by the project, and we believe it is critical  
7 to mitigate these risks to the extent feasible  
8 and to continuously monitor these conditions.  
9 Because if they were to occur, they are highly  
10 likely to have detrimental effects on the  
11 Aboriginal rights and interests of Biigtigong  
12 if left unmanaged.

13                               If food sources such as fish  
14 were to become inedible or were to be  
15 perceived as inedible by community members,  
16 this would compromise a very important  
17 traditional food source that Biigtigong relies  
18 on.

19                               Traditional foods are an  
20 important part of the contemporary Indigenous  
21 diet, and their inclusion in the diet helps to  
22 promote holistic health and improve diet  
23 through the intake of important nutrients.  
24 Eating fish, particularly casiverous (ph)  
25 fish, or fish that consume other fish, is the

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1 most common pathway by which methylmercury is  
2 introduced into the human body. And  
3 methylmercury can accumulate in the human body  
4 over time and present negative health impacts,  
5 particularly as a neurotoxin that is capable  
6 of crossing both the blood-brain barrier and  
7 the placental barrier, and long-term exposure  
8 to mercury can permanently damage the brain,  
9 kidneys and developing fetuses.

10                                   Indigenous populations are  
11 often more susceptible to elevated exposure to  
12 methylmercury contamination when compared to  
13 the general population as a result of an often  
14 higher fish consumption rate. And studies  
15 conducted in Ontario have found that the  
16 average mercury intake from diet among First  
17 Nations in Ontario was 1.6 times higher than  
18 that of the general Canadian population, and  
19 that among traditional food consumers the  
20 average total dietary mercury exposure was  
21 nine times higher than the Canadian average.

22                                   So we can see that Indigenous  
23 populations are often at greater risk of  
24 mercury intake and the associated human health  
25 risk.

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1                   We recommend that GenPGM  
2   conduct monitoring for mercury and  
3   methylmercury in surface water, groundwater,  
4   sediment, benthic invertebrates and fish  
5   tissues -- fish tissue from species of  
6   interest to Biigtigong in all waterbodies  
7   where an increase in nutrients is predicted  
8   because of the project, and this would be done  
9   in order to confirm methylmercury levels do  
10  not increase in these mediums and especially  
11  in fish tissue.

12                   Given the importance of the  
13  Biigtig to Biigtigong and acknowledging the  
14  already elevated concentrations of mercury in  
15  fish tissue that are present there, we also  
16  recommend that the monitoring program be  
17  extended to include this traditionally  
18  important water course.

19                   We recommend that the  
20  monitoring be implemented at the beginning of  
21  construction and occur every three years  
22  during the construction and operation phases,  
23  and then starting at the beginning of the  
24  decommissioning phase, we recommend that the  
25  monitoring occur every five years for a

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1 duration of approximately 25 years to confirm  
2 that the post-closure conditions are not also  
3 contributing to the production of  
4 methylmercury.

5                               We recommend that this plan  
6 include triggers that are approved by  
7 Biigtigong that outline clear timelines for  
8 monitoring and that recording, and that it  
9 include additional monitoring and mitigations  
10 that would be implemented as a result of  
11 meeting the trigger values that I mentioned  
12 earlier.

13                              Lastly, I would also like to  
14 briefly touch on our concerns with mercury in  
15 relation to the water management and storm  
16 water management ponds.

17                              So with regard to these two  
18 pieces of infrastructure, methylmercury  
19 production resulting from the impoundment of  
20 water has been well documented, mainly related  
21 to hydroelectric developments but also through  
22 research conducted at the experimental lakes  
23 area in northwestern Ontario. And this process  
24 is primarily attributable to the flooding of  
25 large quantities of organic matter such as

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1 vegetation and soil surface layers that  
2 contain inorganic mercury.

3                   When these organic materials  
4 are submerged in water, they are subject to  
5 bacterial decomposition which transforms the  
6 inorganic mercury present in the flooded  
7 organic matter into methylmercury.

8                   We are concerned that this  
9 process may occur within the water management  
10 and storm water management ponds following  
11 their construction, and if this process were  
12 to occur within the ponds, this methylmercury  
13 could then be made available for uptake in the  
14 aquatic food web of Hare Lake through the  
15 discharge of effluent.

16                   To mitigate the potential for  
17 this process to happen, we recommend that  
18 GenPGM implement practices to prevent mercury  
19 methylation within the water management and  
20 storm water management ponds by stripping  
21 organic soils in advance of flooding these  
22 areas and that they also investigate other  
23 best management practices that may be used  
24 within the industry for similar concerns for  
25 flooding large areas and what would be done in

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1 advance to prevent the organic matter and the  
2 mercury that it contains from methylating  
3 after the flooding has occurred.

4                               So with that, I will conclude  
5 my presentation for today. I would like to  
6 thank you, Madam Chair and panel members, for  
7 your time, and I will be around for the  
8 question period to come later. Thank you.

9                               PANEL CHAIR: Thank you very  
10 much, Mr. Duncan and Ms. Zanini. Appreciate  
11 your presentation.

12                              Given it's five after 12:00  
13 right now, why don't we have our lunch break,  
14 and we'll resume our presentations and the  
15 rest of the day at 1:05. Thank you very much.

16 --- Recess taken at 12:05 p.m.

17 --- Upon resuming at 1:05 p.m.

18                              PANEL CHAIR: Welcome back,  
19 everyone. We would like to turn to our next  
20 presenters, so I'll call on Health Canada for  
21 your presentation on human health. Good  
22 afternoon, Ms. Ma.

23 PRESENTATION BY KITTY MA:

24                              MS. MA: Good afternoon, Madam  
25 Chair. If we can have Health Canada's

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1 presentation pulled up, that would be greatly  
2 appreciated. Good afternoon, Madam Chair,  
3 members of the panel, chiefs, Indigenous  
4 members, and all other hearing participants.

5 Thank you for the second  
6 opportunity to present Health Canada's review  
7 and recommendations on the environmental  
8 assessment of the proposed Marathon Palladium  
9 Project. My name is Kitty Ma, and I'm the  
10 regional manager for Health Canada's  
11 environmental health program in Ontario.

12 Once again I would like to  
13 begin with a land acknowledgement. I  
14 acknowledge we're all on the land that was and  
15 is a traditional territory of many diverse  
16 Indigenous people, including First Nations,  
17 Inuit and Métis. I'm joining you today from  
18 Toronto, Ontario, which is the traditional  
19 territory of many nations, including the  
20 Mississaugas of the Credit, the Nishnaabeg,  
21 the Chippewa, the Haudenosaunee, and the  
22 Wendat peoples, and now home to many diverse  
23 First Nation, Inuit and Métis. I also  
24 knowledge that Treaty 13 with the Mississaugas  
25 of the Credit covers Toronto.

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1 I am mindful of and  
2 respecting important connections with the  
3 past, present and future in our ongoing  
4 relationships with Indigenous people, and I am  
5 grateful to have the opportunity to work and  
6 live on this territory.

7 I want to acknowledge that  
8 this project is being from proposed in an area  
9 of deep significance to Nishnaabeg people,  
10 including First Nations and Indigenous  
11 communities. We want to show our respect and  
12 appreciation with First Nation and Métis  
13 communities that are participating and  
14 representing themselves in the hearing.

15 I encourage everyone to take  
16 a moment to reflect on the land they are on  
17 and to be mindful of the opportunity to foster  
18 reconciliation. It is my hope that this  
19 acknowledgement starts us in a good way.

20 For this virtual hearing, I  
21 am responsible for the overall coordination of  
22 Health Canada's expert witnesses, and I will  
23 be receiving questions from the panel members  
24 on behalf of the team.

25 And now I would like to

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1 introduce my colleagues from Health Canada who  
2 will be joining me today.

3 Dr. Umme Akhtar, the lead  
4 environmental assessment specialist on this  
5 project file, will speak to general aspects of  
6 Health Canada's review of the project and on  
7 Health Canada's expertise on water quality.  
8 Dr. Dae Young Lee, supporting environmental  
9 assessment specialist on this project file.  
10 Aurelia Thevenot, acting senior environmental  
11 health assessment specialist. Luigi Lorusso,  
12 unit head of the contaminated site division.  
13 And Surgon Aun (ph), health risk assessment  
14 and toxicology specialist in the environmental  
15 contamination site program, will contribute to  
16 Health Canada's response on human health risk  
17 assessment.

18 Luc Pelletier, scientific  
19 evaluator with the chemical health hazard  
20 assessment division of Health Canada's food  
21 directorate, will provide expertise on the  
22 health risk assessment and safety evaluation  
23 with respect to chemical contaminants in food.

24 Expert summary of  
25 qualifications and experience have been

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1 provided as part of Health Canada's written  
2 submission to the panel in Canadian Impact  
3 Assessment Registry CIAR number 1077.

4 Next slide, please.

5 To begin, here is the outline  
6 of Health Canada's presentation today. This  
7 presentation provides a summary of Health  
8 Canada's mandate in environmental assessment,  
9 a brief description of Health Canada's scope  
10 of review and limitation, and recommendations  
11 that Health Canada submitted in our written  
12 final submission.

13 Health Canada will be  
14 presenting on the subjects of water quality,  
15 traditional foods, and human health risk  
16 assessment today. We have provided a separate  
17 presentation to the panel on the topics of air  
18 and noise on March 28th as part of the  
19 top-specific session on human health, air and  
20 noise.

21 Next slide, please.

22 Health Canada is  
23 participating as a federal authority in the  
24 review of this project in accordance with  
25 Section 20 of the *Canadian Environmental*

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1 *Assessment Act 2012*. As a federal authority,  
2 Health Canada's role is to provide information  
3 and knowledge from our experts to the panel on  
4 potential impacts of the project on the health  
5 of Indigenous people under subsection  
6 5(1)(c)(i) of the Act.

7 Health Canada's expertise  
8 relates to the potential impacts of this  
9 project resulting from changes to air quality,  
10 water quality, noise, and the potential  
11 contamination of traditional foods and the  
12 human health risk assessment.

13 Next slide, please.

14 In general, Health Canada  
15 provides comments on the accuracy, scientific  
16 validity, and the completeness of conclusion  
17 concerning potential human health effects.  
18 Actions that may be taken to mitigate  
19 potential health impacts of the project and  
20 the appropriateness of the proposed follow-up  
21 actions or programs to reduce risks to human  
22 health.

23 Health Canada promotes a  
24 precautionary approach when assessing risks to  
25 human health, including the design of

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1 follow-up monitoring and adaptive management  
2 initiatives.

3 Next slide, please.

4 Health Canada has no  
5 authority to make any decisions or issues  
6 licences, permits, or authorizations in  
7 relation to this project. Additionally, when  
8 reviewing environmental assessment, Health  
9 Canada does not audit the proponent's  
10 modelling, and assumes that correct results  
11 have been obtained.

12 Next slide, please.

13 Health Canada has reviewed  
14 the project documentation, including the  
15 environmental impact statements, addendums,  
16 and responded to information requests that are  
17 relevant to Health Canada's role as a federal  
18 authority. Health Canada provided  
19 recommendations for the panel's consideration  
20 in the department's final submission. The  
21 objectives of these recommendations is to help  
22 the panel to better understand and to minimize  
23 the potential human health risks associated  
24 with the project.

25 The remainder of Health

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1 Canada's presentation today will focus on the  
2 key deficiencies and recommendations included  
3 in Health Canada's written submission on the  
4 following two topics. First is water quality.

5                   We will discuss potential  
6 contaminants in surface water and the  
7 potential risk to human health. Second is  
8 human health risk assessment, where we will  
9 discuss consumption of traditional foods of  
10 local Indigenous populations as a potential  
11 contamination pathway, and potential project  
12 impacts on human health from exposure to  
13 contaminants from multi-media sources, which  
14 is exposure to sources from different  
15 environmental components such as air, water,  
16 and food at the same time.

17                   Next slide, please.

18                   So first we will start with  
19 the topic of water quality.

20                   Next slide, please.

21                   The human health risk  
22 assessment states that the proposed project  
23 will not negatively affect human health based  
24 on the predicted changes in surface water  
25 quality. Although the receiving water body of

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1 Pic River is not likely to be used as source  
2 of drinking water, exposure to contaminants  
3 may still occur through incidental ingestion  
4 or accidentally swallowing surface water  
5 during traditional land use. Exposure to  
6 contaminants can also occur through  
7 recreational activities like fishing, boating,  
8 and swimming.

9 Health Canada's final written  
10 submission expresses concern about the  
11 uncertainty regarding the conclusion that the  
12 proposed project will not negatively affect  
13 human health.

14 First, the assessment does  
15 not provide a predicted concentration of  
16 mining byproducts of palladium and other  
17 platinum group metals in Hare Lake during  
18 operation, nor of the chemicals that will be  
19 used for on-site processing of metals. It is  
20 unclear how toxicity data was used to screen  
21 out these chemicals for the human health risk  
22 assessment.

23 Health Canada recognizes that  
24 there are no established drinking water  
25 quality criteria for the mining byproducts of

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1 platinum metal waste and metal processing  
2 chemicals in Ontario or in Canada.

3                   Second, the post-closure  
4 surface water monitoring plan does not specify  
5 the duration of the monitoring of Pic River  
6 during post-closure phase. It is also not  
7 specified which factors will be considered to  
8 decide that the water quality of Pic River  
9 could pose a risk to human health. It is  
10 therefore unclear how chemicals of potential  
11 concern in mining and metal processing  
12 effluent will be monitored and how results  
13 will inform adaptive management during mine  
14 operations in Hare Lake and post-closure in  
15 Pic River.

16                   Next slide, please.

17                   Health Canada suggests that  
18 the panel recommend the proponent to develop  
19 and implement a comprehensive surface water  
20 quality monitoring program that includes  
21 monitoring of the mining byproducts of  
22 palladium and other platinum metal groups and  
23 metal processing chemicals in Hare Lake during  
24 operation. Develop and implement a  
25 comprehensive surface water quality monitoring

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1 program for Pic River for the complete list of  
2 surface water contaminants used in the  
3 environmental impact statement addendum before  
4 and after water overflow from the open pits.

5                   Define action levels at which  
6 additional mitigations and adaptive management  
7 measures should be considered. Example of  
8 action levels include applicable criteria for  
9 the protection of human health are the changes  
10 in contaminant level relative to baseline  
11 level where such criteria do not exist. Also,  
12 identify potential mitigation measures if  
13 monitoring results show contaminant levels  
14 greater than the action levels.

15                   Specify the action levels at  
16 which post-closure water quality in Pic River  
17 is deemed to be protective of human health and  
18 monitoring is no longer required.

19                   Next slide, please.

20                   Next we will be presenting on  
21 the human health risk assessment. Human health  
22 risk assessment is a tool to estimate  
23 potential risk to human health from  
24 project-related changes in different  
25 environmental media or components, for example

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1 air, soil, and water and traditional foods. A  
2 multi-media human health risk assessment can  
3 evaluate all potentially operable exposure  
4 pathways together.

5                                 The scope of the human health  
6 risk assessment is defined by the contaminants  
7 of potential concern in the environmental  
8 media, the people who may come into contact  
9 with those contaminants of potential concern,  
10 and how people come into contact with those  
11 contaminants of potential concern.

12                                 In the next few slides, we  
13 will discuss the traditional foods and  
14 multi-media components of the human health  
15 risk assessment.

16                                 You can stay on this slide.

17                                 In the interest of clarity,  
18 we will define the term "traditional foods."  
19 Traditional foods, also known as country food,  
20 may include those that are trapped, fished,  
21 hunted, harvested or grown for subsistence or  
22 medicinal purposes by Indigenous people or  
23 obtained from recreational activities such as  
24 sport fishing and/or game hunting and  
25 trapping. Traditional foods do not include

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1 food that are offered for sale.

2                               The ingestion or eating food  
3 of contaminants through food can be a pathway  
4 of exposure for humans when chemicals are  
5 deposited on food surfaces or increased in the  
6 food chain as a result of project activities;  
7 and/or food sources impacted by the project  
8 are harvested and consumed by local  
9 population.

10                              Next slide, please.

11                              For this project, the  
12 traditional food consumption pathway was  
13 excluded from the human health risk assessment  
14 based on criteria that were developed for  
15 another pathway, inhalation, and for  
16 protection of aquatic life instead of human  
17 health. For example, deposition of airborne  
18 polycyclic aromatic hydrocarbons and metals  
19 onto soil or traditional foods was not  
20 included in the assessment based on the air  
21 quality screening criteria that are protective  
22 of human health from exposures through the  
23 inhalation pathway. Screening should have been  
24 conducted based on the ingestion pathway, not  
25 inhalation.

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1                   The consumption of  
2 contaminated fish was also not included based  
3 on screening of the predicted metal  
4 concentrations in surface water against water  
5 quality criteria for the protection of aquatic  
6 life. Screening should have been conducted  
7 based on criteria relevant to human health,  
8 not aquatic life.

9                   These air and water criteria  
10 and guidelines used in the assessment are not  
11 considered appropriate health-based criteria  
12 or guidelines for the consumption of  
13 traditional foods.

14                   Health Canada also notes that  
15 there is an existing fish consumption advisory  
16 for mercury in northern pike and walleye in  
17 Pic River, and these species are known to be  
18 traditional foods of Indigenous interest.

19                   Excluding the traditional  
20 food consumption pathway creates uncertainty  
21 regarding the proponent's conclusion of low  
22 health risks, which may not be addressed  
23 through the proposed monitoring program.

24                   Next slide, please.

25                   Health Canada suggests that

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1 the panel recommends the proponent to develop  
2 and implement a comprehensive traditional food  
3 monitoring program for all phases of the  
4 project. This monitoring program should  
5 consider community-specific or representative  
6 food types or species, harvesting, fishing,  
7 hunting, trapping grounds, and consumption  
8 patterns of traditional foods. It should also  
9 demonstrate how Indigenous engagement is used  
10 to inform the monitoring program.

11 I think we can go back to the  
12 previous slide. Thank you.

13 Also, monitoring traditional  
14 food samples for airborne and waterborne  
15 contaminants of potential concern that may be  
16 deposited on or taken up by representative  
17 food types and species that are identified in  
18 the comprehensive traditional food monitoring  
19 program, including but not limited to  
20 polycyclic aromatic hydrocarbons and mercury.

21 Finally, assess the human  
22 health risk assessment, risks, based on the  
23 result of the traditional food monitoring  
24 program and communicate the findings to  
25 Indigenous people who may be impacted by

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1 project activities.

2 I would now move on to  
3 discuss the multi-media components of the  
4 human health risk assessment.

5 Next slide, please.

6 In the interest of clarity,  
7 when Health Canada uses the term "multi-media  
8 human health risk assessment," it means that  
9 in addition to assessing human health risks  
10 from exposure to chemicals in individual  
11 environmental media or components such as air,  
12 water and food. A multi-media human health  
13 risk assessment assesses the combined exposure  
14 to chemicals through multiple pathways.

15 The human health risk  
16 assessment for this project does not provide a  
17 multi-media exposure assessment for  
18 contaminant of potential concern in air, soil,  
19 water and traditional foods. As an example,  
20 traditional land and resource users near the  
21 project site may be exposed to elevated levels  
22 of metals, including the mining byproducts of  
23 palladium and other platinum group metals and  
24 metal processing chemicals released by project  
25 activities through inhalation or breathing of

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1 air, incidental ingestion or accidental  
2 swallowing of water, soil and sediment, and  
3 consumption of traditional foods.

4                                 In addition, the current  
5 human health risk assessment includes multiple  
6 information gaps and uncertainties related to  
7 the inhalation of airborne contaminants of  
8 potential concern within the project boundary  
9 or mining area where there is an interest for  
10 traditional land use. Incidental ingestion of  
11 waterborne contaminants of potential concern,  
12 for example mining byproducts, and consumption  
13 of contaminated traditional foods, for example  
14 through air deposition of polycyclic aromatic  
15 hydrocarbons to plants, and mining effluent  
16 accumulation in fish from Pic River and  
17 subwatershed 106.

18                                 In Health Canada's opinion,  
19 sufficient rationale or explanation was not  
20 provided to exclude these potential exposure  
21 pathways.

22                                 Next slide, please.

23                                 Health Canada suggests that  
24 the panel recommend the proponent to provide a  
25 multi-media human health risk assessment to

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1 evaluate all potential exposure pathways  
2 together for each contaminant of potential  
3 concern, including the mining byproducts of  
4 palladium and other platinum group metals and  
5 metal processing chemicals, before the start  
6 of construction.

7                           The human health risk  
8 assessment should be accompanied by a  
9 discussion of the uncertainties of key  
10 assumptions made in the assessment, including  
11 the exclusion of potential exposure pathways  
12 and contaminants of potential concern.

13                           The multi-media human health  
14 risk assessment outcomes and uncertainties  
15 analysis may inform the design of  
16 environmental monitoring programs recommended  
17 in Health Canada's submission.

18                           Design the air quality, water  
19 quality, and traditional foods monitoring  
20 programs recommended in Health Canada's  
21 submission to validate the key assumptions and  
22 predictions of the human health risk  
23 assessment, included uncertainties. If  
24 measured concentrations of these contaminants  
25 of potential concern in environmental media

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1 considered.

2 Next slide, please.

3 More information on Health  
4 Canada's submission may be found on the  
5 Canadian Impact Assessment Registry, and these  
6 include the documents listed here, and our  
7 final submission can also be found on the  
8 registry with document number 1077.

9 Next slide, please.

10 This concludes Health  
11 Canada's presentation on water quality,  
12 traditional foods, and the human health risk  
13 assessment. Thank you once again for the  
14 opportunity to present. We're happy to take  
15 any questions later on, and we would  
16 appreciate a few minutes to caucus before  
17 answering each question. Thank you.

18 PANEL CHAIR: Thank you very  
19 much, Ms. Ma. We appreciate your presentation  
20 this afternoon.

21 We'll move on to our next  
22 presenter -- I may just note, Mr. Barretto,  
23 your camera is on, so you're joining us on the  
24 big screen. You're certainly welcome to  
25 remain, but just so you know your camera is

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1 there. Thank you.

2 Welcome to -- it's Ms. Bice,  
3 I think, from Transport Canada. Thank you, and  
4 we'll turn it over to you. We can put up your  
5 presentation. You can let us know when you  
6 would like us to advance slides.

7 PRESENTATION BY COURTNEY BICE:

8 MS. BICE: Thank you. Just a  
9 quick test. Can everybody hear me okay?

10 PANEL CHAIR: Yes.

11 MS. BICE: Okay, perfect.

12 Good afternoon, Madam Chair  
13 and panel members. Thank you for the  
14 opportunity to speak today. For the record, my  
15 name is Courtney Bice. I'm a navigation  
16 protection officer at Transport Canada. I'm  
17 asking going to be speaking today about the  
18 Canadian Navigable Waters Act and its  
19 applicability to the project. I'm going to be  
20 referring to the Canadian Navigable Waters Act  
21 as the *CNWA* throughout my presentation.

22 I'm calling in today from  
23 Sarnia, Ontario, which I would like to  
24 acknowledge as the traditional territory of  
25 the Nishnaabeg. I would also like to

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1 acknowledge the neighbouring communities of  
2 Aamjiwnaang First Nation, Chippewas of Kettle  
3 and Stony Point, and Walpole Island First  
4 Nation. Lastly, I wish to recognize the long  
5 history of First Nations and Métis people in  
6 Ontario and show respect to them today.

7                                   Next slide, please.

8                                   Transport Canada is the  
9 federal department responsible for  
10 transportation policies and programs. TC  
11 promotes a transportation system that is safe,  
12 secure, efficient and environmentally  
13 responsible. This is achieved through a robust  
14 program of regulation, oversight, education,  
15 inspection and enforcement.

16                                   Next slide, please.

17                                   Transport Canada is  
18 participating in the environmental assessment  
19 of the proposed PGM mine as an expert federal  
20 authority. We are also participating in the  
21 Crown Indigenous consultations for the  
22 project.

23                                   Based on our review of the  
24 project description, the environmental impact  
25 statement and the submissions of interested

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1 parties, we have determined that the effects  
2 most relevant to our mandate are the impacts  
3 to potential navigable waters within the  
4 project footprint. Our review has therefore  
5 focused on these effects.

6 --- (Reporter clarification)

7 MS. BICE: Impacts to  
8 navigation are considered to be an  
9 environmental effect under Section 5(1)(c) of  
10 the Canadian Environmental Assessment Act,  
11 2012, as they may affect the socioeconomic  
12 conditions of Aboriginal peoples as well as  
13 their use of land and resources for  
14 traditional purposes.

15 Transport Canada may have  
16 regulatory authorities under the Canadian  
17 *Navigable Waters Act*, the *CNWA*, that could be  
18 required following a positive EA decision.

19 Next slide, please.

20 The Transport Canada  
21 directorate responsible for the oversight of  
22 navigation is the navigation protection  
23 program, which I'll be referring to as NPP  
24 going forward. The mission of the NPP is to  
25 help keep Canada's navigable waters open for

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1 transport and recreation. The NPP administers  
2 the Canadian Navigable Waters Act, through  
3 which it seeks to protect the public right of  
4 navigation.

5 Next slide, please.

6 The common law protects the  
7 public right of navigation, which gives people  
8 free and unobstructed passage over navigable  
9 waters. Only federal legislation can authorize  
10 interferences to navigation.

11 On August 28th, 2019, the  
12 *CNWA* came into force, replacing the *Navigation*  
13 *Protection Act*. The *CNWA* protects the public  
14 right of navigation by regulating works that  
15 may interfere with the public right of  
16 navigation on navigable waters. It also  
17 authorizes the Minister of Transport to manage  
18 obstructions. And lastly, it requires the  
19 Governor in Council approval before  
20 undertaking certain prohibited activities in  
21 navigable waters, including de-watering and  
22 depositing or throwing of materials.

23 Next slide, please.

24 The following slides will  
25 examine the key terms and principles necessary

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1 to understand the *CNWA* and how it will apply  
2 to the project. I'm going to discuss defining  
3 navigability, determining navigability, works  
4 and prohibited activities.

5 Next slide, please.

6 In the *CNWA*, navigable water  
7 means a body of water, including a canal or  
8 any other body of water created or altered as  
9 a result of the construction of any work, that  
10 is used or where there is a reasonable  
11 likelihood that it will be used by vessels, in  
12 full or in part, for any part of the year as a  
13 means of transport or travel for commercial or  
14 recreational purposes, or as a means of  
15 transport or travel for Indigenous peoples of  
16 Canada exercising rights recognized and  
17 affirmed by section 35 of the *Constitution*  
18 *Act*, 1982. And there is public access by land  
19 or water, or there is no such public access  
20 but there are two or more riparian owners, or  
21 Her Majesty in Right of Canada or a province  
22 is the only riparian owner.

23 Next slide, please.

24 The *CNWA* has a schedule of  
25 navigable waters, which are those with the

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1 greatest need for extra oversight and of  
2 greatest importance to Canadians and  
3 Indigenous peoples. There are no scheduled  
4 waterways within the project footprint.  
5 However, any body of water within the project  
6 footprint could still be considered navigable  
7 if it meets the definition in the CNWA and,  
8 therefore, it could be subject to the Act.

9                                   Next slide, please.

10                                   In determining whether a body  
11 of water is navigable, the following questions  
12 are asked. What are the characteristics, the  
13 physical characteristics of the body of water?  
14 Is it used by vessels, in full or in part, for  
15 any part of the year for transport or travel  
16 for commercial or recreational purposes? Is it  
17 used by vessels, in full or in part, for any  
18 part of the year for transport or travel by  
19 Indigenous peoples? Is there a reasonable  
20 likelihood for it to be used in the future?  
21 Was it used in the past? And is there public  
22 access, meaning is there access by land or  
23 water? Are there two or more waterfront  
24 owners, or is the Crown, provincial or federal  
25 Crown, the only waterfront owners?

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1 Next slide, please.

2 The CNWA includes three  
3 different types of works: There are minor  
4 works, works, and major works.

5 An owner of a "minor work"  
6 may construct, place, alter, rebuild, remove  
7 or de-commission a minor work in, on, over,  
8 under, through, or across any navigable water  
9 if the minor work meets the requirements and  
10 specific criteria of the order. This order  
11 establishes a class of works that are likely  
12 to slightly interfere with navigation.

13 A "work" is defined under the  
14 CNWA as any structure, device or other thing,  
15 whether temporary or permanent, that is made  
16 by humans, including a structure, device or  
17 other thing used for the repair or maintenance  
18 of another work; and any dumping of fill in  
19 any navigable water or any excavation or  
20 dredging of materials from the bed of a  
21 navigable water.

22 The "major works" order are a  
23 class of works that are likely to have a  
24 significant impact to navigation and require  
25 approval under the CNWA. Examples of major

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1 works can include water control structures,  
2 some types of bridges, causeways and ferry  
3 cables.

4 Next slide, please.

5 Sections 21 to 23 of the *CNWA*  
6 state that a person is prohibited from certain  
7 activities such as de-watering of a navigable  
8 water or throwing or depositing different  
9 materials into a navigable water. These  
10 prohibitions are applicable on all navigable  
11 waters, not just those listed in the schedule.  
12 The governor-in-council may order an exemption  
13 to these prohibitions if he or she is  
14 satisfied that it would be in the public  
15 interest. This process typically requires one  
16 to two years to complete following the  
17 submission of an application for exemption.

18 If a prohibited activity is  
19 undertaken as part of a project that is  
20 subject to a federal environmental or impact  
21 assessment and consultation with Indigenous  
22 groups, there must be a positive environmental  
23 and impact assessment decision and the Crown  
24 must be satisfied that the legal duty to  
25 consult has been met before the Governor in

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1 Council can consider ordering an exemption  
2 under Section 24(1) of the *CNWA*.

3 Next slide, please.

4 I'm going to discuss the  
5 applicability of the *CNWA* to the project  
6 specifically. I'm going to touch on the minor  
7 works. I'm going to talk about prohibited  
8 activities. The project proposes to de-water  
9 multiple bodies of water, and I'm going to  
10 talk about that in the next couple of slides.

11 Next slide, please.

12 Based on EIS addendum  
13 appendix D7, the proponent anticipates the  
14 applicability of the minor works order,  
15 specifically the outfalls and water intakes  
16 class of works. The proponent has indicated  
17 that they intend to install an effluent  
18 discharge structure at Hare Lake.

19 The minor works order is  
20 self-assessed, meaning that the proponent is  
21 responsible for ensuring that all of the  
22 relevant criteria is met to comply with the  
23 minor works order. The project does not  
24 currently propose any works or minor works --  
25 or major works, excuse me.

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1 Next slide, please.

2 The project may involve a  
3 prohibited activity, de-watering of a  
4 navigable waterway. The proponent has provided  
5 TC with a list of all streams, inlets,  
6 outlets, channels, lakes and ponds that are  
7 proposed to be de-watered by the project.

8 Transport Canada is currently  
9 conducting navigability assessments for the  
10 following bodies of water: L9, L10, L11, L13,  
11 L13A, L14, L15, L16, L24, and L26.

12 To determine the  
13 applicability of the *CNWA* and the potential  
14 for a GIC exemption order under Section 24 of  
15 the Act, Transport Canada is responsible for  
16 making a determination of navigability for  
17 each of the impacted bodies of water during  
18 the regulatory process.

19 Transport Canada has  
20 communicated the potential need for a GIC  
21 order to the proponent, and we have been  
22 working with them to gather the information  
23 necessary to support our review.

24 Please note, in 2013,  
25 Transport Canada provided a letter to the

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1 are currently unable to determine whether the  
2 CNWA applies to the project. The following  
3 information needs to be obtained from the  
4 proponent and/or First Nation communities and  
5 Métis Nation of Ontario in order to make a  
6 determination of navigability for each of the  
7 bodies of water.

8                                   Does your community have  
9 knowledge of any past use of the water body by  
10 vessels as a means of transport or travel for  
11 exercising your rights? Does your community  
12 currently use the water body by vessels as a  
13 means of transport or travel for exercising  
14 your rights? And if this mine was not  
15 proposed, is there a reasonable likelihood  
16 that your community would use the water body  
17 by vessels as means of transport or travel for  
18 exercising your rights?

19                                   Transport Canada has  
20 participated in the EIS addendum review and  
21 comment process, as well as ongoing  
22 discussions with the proponent in order to  
23 obtain this information.

24                                   Next slide, please.

25                                   So next steps. Transport

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1 Canada needs to understand water body usage by  
2 Indigenous peoples in order to ensure an  
3 accurate determination of navigability. As Mr.  
4 Fraser indicated earlier today, we have  
5 created and distributed an on-line survey  
6 requesting usage information for the impacted  
7 bodies of water.

8                               The survey has been  
9 distributed and we are awaiting further  
10 responses. Currently, we have received survey  
11 results from two Indigenous communities and  
12 hope to receive more in the future to assist  
13 in making our navigability determinations.

14                              Going forward, Transport  
15 Canada will continue to consult the project  
16 proponent and Indigenous communities to gather  
17 additional information on the use of the  
18 impacted bodies of water in order to determine  
19 their navigability. If one or more bodies of  
20 water are deemed navigable, we will work with  
21 the proponent to undertake the GIC exemption  
22 process.

23                              Next slide, please.

24                              That is the conclusion of my  
25 presentation. Thank you, panel members, for

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1 your time, and I look forward to answering any  
2 questions this afternoon.

3 PANEL CHAIR: Thank you, Ms.  
4 Bice. Appreciate your presentation.

5 QUESTIONS SESSION:

6 PANEL CHAIR: With that, we'll  
7 move to questions for this group of  
8 presenters. So I will ask Biigtigong  
9 Nishnaabeg First Nation if they have any  
10 questions of presenters this morning and this  
11 afternoon.

12 MS. ZANINI: Thank you, Madam  
13 Chair. Would we be able to have just one  
14 moment to confer internally?

15 PANEL CHAIR: Absolutely, yes.

16 MS. ZANINI: Okay.

17 Thank you, Madam Chair. I  
18 appreciate the time.

19 PANEL CHAIR: You're welcome.

20 MS. ZANINI: We have a  
21 question for Generation PGM for the  
22 presentation provided on human health,  
23 specifically referring to slide 15 of the  
24 presentation this morning.

25 We note the slide identifies

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1 DR. HART: Yes. Thank you for  
2 the question. Madam Chair, Don Hart for the  
3 record.

4 In the HHRA, the human  
5 receptors, in particular the harvesters that  
6 were identified, were considered to be  
7 representative of BN members that would be  
8 harvesting in these areas. We do note that  
9 harvesting locations are considered  
10 confidential information. There was dialogue  
11 with the community since 2009, but I would  
12 turn over to Tabatha LeBlanc to discuss that  
13 TK gathering.

14 MS. LEBLANC: Thanks, Mr.  
15 Hart. Tabatha LeBlanc for the record, panel  
16 member.

17 So in the earlier iteration  
18 of the EIS in 2009, we did begin discussions  
19 with Indigenous communities and Biigtigong  
20 Nishnaabeg on then collecting of traditional  
21 ecological knowledge and traditional land use,  
22 as well as mapping and confirmation of valued  
23 ecosystem components during that time. Most of  
24 that information was provided in confidence to  
25 the proponent.

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1                   We did with Biigtigong  
2 Nishnaabeg host a couple of information --  
3 community information sessions, and there was  
4 about 180 BN members that participated between  
5 that and the public information sessions to  
6 confirm ecological, socioeconomic and cultural  
7 VECs during that time, including traditional  
8 land use and harvesting.

9                   As I said, we also gathered a  
10 lot of our reports, and all this information  
11 was considered as we were developing the HHRA  
12 and conducting the assessment.

13                   I think Cathryn Moffett from  
14 Generation will talk about what's been going  
15 on in our plans going forward.

16                   MS. MOFFETT: Thank you, Ms.  
17 LeBlanc. Cathryn Moffett for the record.

18                   Yes, I just wanted to add to  
19 that with regards to the country foods study  
20 that is currently under development and  
21 underway.

22                   We did engage with Biigtigong  
23 and others to determine which species would be  
24 appropriate to include in that country foods  
25 program, as well as determining the locations

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1 for collection. These were collected for the  
2 first time in 2021. We did invite community  
3 members to attend and participate in the  
4 collection.

5                                 We've also worked directly  
6 with Biigtigong Nishnaabeg to develop a  
7 dietary survey, and that was done over a  
8 series of meetings and discussions to  
9 determine a similar survey to the FN and FNFES  
10 that was referenced, but more specific to the  
11 community, and that's been provided to the  
12 community for them to administer to their  
13 membership.

14                                 PANEL CHAIR: Ms. Zanini, go  
15 ahead. Thank you.

16                                 MS. ZANINI: Thank you, Madam  
17 Chair. And thank you Generation PGM for the  
18 responses.

19                                 I just wanted to confirm,  
20 there was reference to data gathering that is  
21 currently ongoing, but obviously that hasn't  
22 been included in the conclusions for the human  
23 health risk assessment here, so I just wanted  
24 to confirm that (indiscernible) that's  
25 presented in the health presentation today is

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1 not inclusive of specific data gathering  
2 regarding Biigtigong health and impact of  
3 Biigtigong members as it relates to  
4 harvesting, country foods and use of the area.  
5 Thank you.

6 MR. ANWYLL: Thanks for the  
7 question again, Ms. Zanini. If I could caucus  
8 quickly to inform the answer.

9 MS. LEBLANC: Tabatha LeBlanc  
10 for the record. Thank you for the question,  
11 Ms. Zanini.

12 So in 2020, Generation PGM  
13 did host community information sessions in  
14 Biigtigong Nishnaabeg, as well as the town of  
15 Marathon, and we hosted similar sessions in  
16 2021. The primary purpose of the sessions was  
17 to confirm valid ecosystem components and  
18 traditional ecological and traditional land  
19 use information during those sessions, and to  
20 help inform the assessment and the human  
21 health risk assessment as well, and Don Hart  
22 will speak to the actual monitoring program  
23 and how that is being developed.

24 DR. HART: Yes, thank you for  
25 the question. Don Hart for the record.

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1                   The monitoring program, as  
2   it's being developed, is gathering specific  
3   country food consumption information from the  
4   community and while that information was not  
5   able at the time of the HHRA preparation, it  
6   will be used going forward to interpret  
7   results of the country food program.

8                   PANEL CHAIR: Ms. Zanini, go  
9   ahead. Thank you.

10                  MS. ZANINI: Thank you, Madam  
11   Chair.

12                  So just confirming, I think  
13   what we're hearing here is there is some  
14   additional data gathering that is required  
15   specific to human health impacts related to  
16   Biigtigong Nishnaabeg that hasn't been  
17   considered or included in the current  
18   presentation today regarding human health, but  
19   that there is intention to do monitoring  
20   moving forward. I'm just relaying what we  
21   think we understand and wanting to thank  
22   Generation for their responses. The community  
23   will likely have further detail regarding  
24   impacts to human health, but we'll reserve  
25   that for our community sessions upcoming in

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1 the schedule next case week.

2 PANEL CHAIR: Thank you, Ms.  
3 Zanini. I just want to make sure -- I know you  
4 had questions for Generation PGM -- were there  
5 any other questions you had of other  
6 presenters?

7 MS. ZANINI: Thank you, Madam  
8 Chair. No other questions for other presenters  
9 at this time.

10 PANEL CHAIR: Thank you.  
11 Health Canada, would you have any questions of  
12 the presenters that you've heard today?

13 MS. MA: Thank you, Madam  
14 Chair. We do have one quick question.

15 We would like to ask PGM to  
16 provide more details on the established  
17 monitoring committees referred to in their  
18 presentation this morning.

19 PANEL CHAIR: This is a  
20 question to Generation PGM?

21 MS. MA: Yes.

22 PANEL CHAIR: Thank you.  
23 Sorry.

24 MR. ANWYLL: I apologize, Ms.  
25 Ma, I missed that question. Can you possibly

1 repeat for me.

2 MS. MA: Not a problem. So we  
3 would like to ask PGM to provide more detail  
4 on the established monitoring committees  
5 referred to in your presentation this morning.

6 MR. ANWYLL: All right. Thank  
7 you very much for the question. If I could  
8 have a second to caucus, Madam Chair.

9 PANEL CHAIR: Go ahead. Thank  
10 you.

11 MS. MOFFETT: Hi. Cathryn  
12 Moffett for the record. Thank you for the  
13 question, Ms. Ma.

14 To provide a little  
15 additional detail on these committees that  
16 were referenced, there's three standing  
17 environmental committees that are currently  
18 established. The first is with Biigtigong  
19 Nishnaabeg, the second is with Pays Plat, and  
20 the third is a regional environmental  
21 committee.

22 They have been meeting  
23 regularly. The regional committee has been  
24 meeting monthly since March 2021, and it  
25 includes communities -- representatives from a

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1 number of communities, which are the Métis  
2 Nation of Ontario, Red Sky Métis Nation,  
3 Jackfish Métis, Michipicoten First Nation, and  
4 Ginoogaming First Nation, and the town of  
5 Marathon.

6                                 So these meetings are an open  
7 forum for discussion for people to raise  
8 concerns and comments and are mostly focused  
9 around key environmental topics. You'll see us  
10 present more about them in the community days.  
11 The key topics have been around closure  
12 planning, fish compensation, caribou, and then  
13 exploration updates we provide, and the  
14 country food program has been one of the  
15 topics of interest. We keep them up-to-date on  
16 the field programs that we're doing and invite  
17 them to participate and attend.

18                                 So the topics of discussion  
19 for the other two committees, environmental  
20 committees that I mentioned, are generally  
21 similar. But again, they are led by community  
22 interest, as well as keeping people informed  
23 on our work and environmental management  
24 planning.

25                                 PANEL CHAIR: Thank you, Ms.

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1 Ma. Are there further questions,  
2 clarification?

3 MS. MA: No, there's no  
4 further questions. Thank you, Madam Chair.

5 PANEL CHAIR: Thank you. Thank  
6 you, Generation PGM.

7 I would invite Transport  
8 Canada, if you have any questions of  
9 presenters for today.

10 MS. BICE: Hi. Sorry, I can't  
11 seem to get my video to work, but Courtney  
12 Bice for the record, and we have no questions.

13 PANEL CHAIR: Thank you, Ms.  
14 Bice. Thank you. Are there other participants  
15 on the line that have questions of presenters?

16 Okay. Seeing none, Generation  
17 PGM, do you have questions for presenters?

18 MR. BARRETTO: Thank you,  
19 Madam Chair. Jeremy Barretto for the record.  
20 Generation PGM has no questions. Thank you.

21 PANEL CHAIR: Thank you, Mr.  
22 Barretto.

23 So with that, we are going to  
24 turn it to the panel to ask their questions.  
25 We're just going to ask for a 10-minute break.

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1 Why don't we return here at 2:15. We're just  
2 having a caucus before we begin our questions.

3 Thank you.

4 --- Recess taken at 2:04 p.m.

5 --- Upon resuming at 2:15 p.m.

6 PANEL CHAIR: Thanks for the  
7 few minutes to caucus, and I will turn over  
8 our panel questions to Ms. Bruce. Thank you.

9 PANEL MEMBER BRUCE: Thank  
10 you. So I'm going to start off with a little  
11 bit -- well, actually, a fairly long context.

12 In the human health risk  
13 assessment comments that we heard today, as  
14 well as responses to IR 6-33, GenPGM has  
15 clearly stated that no mercury releases are  
16 anticipated as a result of the project, and  
17 that this was the rationale on the human  
18 health risk assessment that there is no  
19 contamination pathway for country foods or  
20 risk to human health.

21 So just to do a bit of a  
22 recap. It's the panel's understanding that  
23 there may be several potential pathways  
24 resulting in a methylmercury elevation or  
25 increase in the environment due to project

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1 activities. So first, the panel heard that  
2 site water management and erosion control will  
3 be undertaken to mitigate mercury loadings  
4 from land clearing. So that we know. The panel  
5 heard commitments to employ treatment  
6 technologies for phosphorus in the effluent  
7 stream to Hare Lake. The panel heard ECCC note  
8 that the proponent predicts some sulfate to be  
9 deposited to Hare Lake during operations and  
10 that sulphate concentrations in Hare Lake are  
11 predicted to increase during the operations  
12 phase. ECCC noted that even small amounts of  
13 sulphate could stimulate sulphate reduction in  
14 systems where sulphate is limited, which can  
15 lead to increased methylmercury production.

16                   MECP also noted this in their  
17 hearing submissions, and today Jody Duncan  
18 with Biigtigong Nishnaabeg First Nation spoke  
19 about this issue. They also -- Biigtigong  
20 Nishnaabeg also spoke about concerns related  
21 to mercury production due to the timing of  
22 effluent discharge to Hare Lake and from the  
23 clearing of organic soil for the creation of  
24 the water and storm water management ponds.

25                   So two questions with respect

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1 -- well, the first question with respect to  
2 sulphate. Has GenPGM assessed the potential  
3 for increasing methylmercury concentrations in  
4 Hare Lake as a result of sulphate in the  
5 effluent stream?

6                               If you are going to caucus,  
7 maybe I'll give you a second question. Can  
8 GenPGM discuss mitigation options and expected  
9 efficacy to address methylmercury production  
10 from sulphate loadings?

11                              MR. ANWYLL: Thank you for  
12 your question, Panel Member Bruce. If I could  
13 have a second to caucus, please.

14                              PANEL MEMBER BRUCE: Thank  
15 you.

16                              MR. ANWYLL: Thank you, Panel  
17 Member Bruce. I'll get Don Hart to clarify the  
18 first part of the answer and then Mr. Fraser  
19 subsequently.

20                              PANEL MEMBER BRUCE: Thank  
21 you.

22                              DR. HART: Yes, thank you for  
23 the question, Ms. Bruce. Don Hart for the  
24 record.

25                              Yes, the concern about

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1 sulphate and mercury methylation, it's true  
2 that sulphate and sulfur-reducing bacteria are  
3 involved in mercury methylation, but it takes  
4 more than just a small amount of sulphate in  
5 the water to produce this effect. It's  
6 necessary to have anoxic sediment conditions  
7 because this is an anaerobic process. So an  
8 important part of the prevention of  
9 methylmercury formation is ensuring that those  
10 anoxic sediments do not develop.

11                                 We do not consider that the  
12 nutrient loadings would be sufficient to cause  
13 eutrophication and organic decay and anoxic  
14 sediments. However, there are mitigations to  
15 ensure that these conditions would not  
16 develop, and I would like to hand over to  
17 Brian Fraser to discuss the mitigations that  
18 are planned.

19                                 PANEL MEMBER BRUCE: Thank  
20 you, Mr. Hart. You're on mute, sir.

21                                 MR. FRASER: Sorry, got caught  
22 with too many mute buttons again. Madam Chair,  
23 it's Brian Fraser for the record. I'll address  
24 the mitigations on anoxia to begin with.

25                                 As we discussed in the

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1 aquatic sessions last week when we went  
2 through the CORMIX modelling of the discharge  
3 to Hare Lake, we discussed the sensitivity  
4 analyses that were done, assuming that the  
5 discharge to Hare Lake would be five times as  
6 dense as predicted, and under those  
7 circumstances because of the design of the  
8 different diffuser, there was still no  
9 indication that the water column would  
10 stratify and remain stratified due to density  
11 differences. So we would anticipate that the  
12 lake would go through its normal mixing cycle,  
13 and that would prevent those anoxic conditions  
14 and sediments from becoming present and  
15 potentially increasing methylation rates.

16                   With specific regard to  
17 sulphate. The mine waste management program is  
18 the primary mitigation for mitigating sulphate  
19 concentrations in mine drainage. So as Dr.  
20 Nicholson discussed last week, and hopefully  
21 as I can provide some clarity to, the type 2  
22 mine rock type 2 process solids will be  
23 treated as separate waste streams. They'll be  
24 compartmentalized for storage and submerged,  
25 and this will mitigate the production of

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1 sulphate, and that's why we have relatively  
2 low sulphate concentrations in drainage  
3 associated with the project.

4 PANEL MEMBER BRUCE: Thank  
5 you, Mr. Fraser. My next question is actually  
6 to Health Canada. Thank you, Ms. Ma.

7 Does Health Canada have an  
8 opinion on what level of mercury increases,  
9 methylmercury increases, if any, are  
10 acceptable and/or significant in light of the  
11 setting that this is in?

12 MS. MA: Thank you, Panel  
13 Member Bruce. I would like to take a few  
14 minutes to caucus if we can.

15 PANEL MEMBER BRUCE:  
16 Certainly.

17 MS. MA: Thank you. Thank you,  
18 Panel Member. I would like to invite Luc  
19 Pelletier to answer this question.

20 PANEL MEMBER BRUCE: Thank  
21 you, Ms. Ma.

22 MR. PELLETIER: Luc Pelletier,  
23 Health Canada, for the record.

24 I assume the question relates  
25 to increases in food, or fish in this case

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1 perhaps; is that accurate?

2 PANEL MEMBER BRUCE: That's  
3 fair.

4 MR. PELLETIER: There would be  
5 obviously some level of significant increase  
6 that could end up being unacceptable. Of  
7 course that always should be determined based  
8 on an assessment, as there's many factors that  
9 can be considered when determining what that  
10 level is, and in particular in these cases  
11 it's the food consumption, right, what rates  
12 of consumption are we seeing. And that's a big  
13 factor that will determine what level of  
14 increases in mercury may end up posing a risk.  
15 Nonetheless, there should always be a  
16 comparison with background or what is typical,  
17 as that would be also an indicator of what may  
18 be a significant increase.

19 PANEL MEMBER BRUCE: Thank you  
20 very much.

21 Just on the issue of mercury,  
22 I just want to ask, is there anyone from MECP  
23 on-line? It's an easy question, not a  
24 technical question. Doesn't necessarily have  
25 to be someone who is involved with mercury

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1 issues. No? Okay. So we'll leave that for  
2 another time.

3                                 Sorry, question is back to  
4 GenPGM. So on the aquatic days 4 and 5, GenPGM  
5 discussed settling of sediment that would  
6 include mercury in the temporary and then the  
7 more permanent water management ponds. GenPGM  
8 does not expect mercury to be present in the  
9 liquid, i.e., the water, rather that it would  
10 settle. And that water would be tested prior  
11 to release so as not to impact downstream  
12 receivers.

13                                 GenPGM, despite providing  
14 this information, did not indicate what  
15 treatment options there are if mercury or  
16 methylmercury in the water sediment contains a  
17 high level of mercury at closure. So here's  
18 the question for you, please.

19                                 What adaptive management or  
20 treatment options are available if mercury or  
21 methylmercury levels in water within the water  
22 management pond are elevated prior to -- are  
23 elevated as well as in the open pits prior to  
24 being allowed to flow into the Pic River? I  
25 believe there was some reference to a portable

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1 water treatment facility at some point in our  
2 discussions, so I just want to see if this is  
3 linked back to mercury. And if there isn't a  
4 water treatment method, what mitigation  
5 measures might GenPGM consider?

6 MR. ANWYLL: Thanks for the  
7 question, Panel Member Bruce. I'll caucus for  
8 a second if I could, please.

9 PANEL MEMBER BRUCE: Yes.

10 MR. FRASER: Thank you, Panel  
11 Member Bruce, Madam Chair. It's Brian Fraser  
12 for the record.

13 We do believe based on our  
14 analysis that the risk that mercury would be  
15 at levels in water that would need management  
16 is low, as we've discussed. But in the event  
17 that that was not the case, there are  
18 treatment technologies available that could be  
19 applied.

20 Now, having said that, I'm  
21 not a water treatment specialist and we don't  
22 have one on the call today. But there are  
23 technologies, standard technologies available.  
24 Mercury can be treated via precipitation or  
25 coprecipitation, absorption, membrane

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1 filtration, biological treatment or a  
2 combination thereof. So there are options  
3 available should we find based on monitoring  
4 program that there is unexpected levels of  
5 mercury in the water.

6 PANEL MEMBER BRUCE: Thank you  
7 for that. My next question is back to Health  
8 Canada. Thank you, Ms. Ma.

9 So participants have noted a  
10 growing body of scientific literature that  
11 seemed to suggest platinum and PGM metals may  
12 be more toxic than would have been known  
13 during the review of the 2012 EIS. In your  
14 hearing submission, Health Canada stated that  
15 the absence of water quality objectives was  
16 not sufficient justification for screening  
17 these out of the human health risk assessment.

18 Can Health Canada discuss the  
19 human health risks of PGMs in water in the  
20 context of the scientific studies it  
21 referenced in its hearing submissions, and I  
22 guess in absence of that, if there's specific  
23 documents that you would prefer to pass along  
24 to the panel as an undertaking.

25 MS. MA: Thank you very much

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1 for your question. I would like to take a  
2 minute to caucus with my team.

3 Thank you, Panel Member  
4 Bruce. I would like to invite Umme Akhtar to  
5 answer this question on behalf of Health  
6 Canada.

7 MS. AKHTAR: Thank you, Panel  
8 Member Bruce. This is Umme Akhtar from Health  
9 Canada for the record.  
10 ---(Reporter clarification)

11 MS. AKHTAR: I'll try again.  
12 So Health Canada recognizes that there are no  
13 established drinking water quality criteria  
14 for the mining byproduct of platinum group  
15 metals in Ontario or Canada. And that the  
16 currently available information on the  
17 toxicity of these chemicals and what happens  
18 to them in the environment may be immediate.

19 However, it isn't appropriate  
20 to screen chemicals out of quantitative human  
21 health risk assessment where there is no  
22 federal guideline for that chemical in the  
23 impacted media, including surface area.

24 Health Canada notes that  
25 European Medicine Agency recognizes that the

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1 adverse health effects of platinum solids and  
2 provides permitted daily exposure limits.  
3 Similarly, the United States Occupational  
4 Safety and Health Administration and World  
5 Health Organization regional office for Europe  
6 set occupational exposure limits and a  
7 tentative lowest observed adverse effect level  
8 for platinum salts.

9 --- (Reporter clarification)

10 MS. AKHTAR: Health Canada  
11 notes that the European Medicines Agency  
12 recognizes the adverse health effects of  
13 platinum salts and provides permitted oral  
14 daily exposure limits. Similarly, the United  
15 States Occupational Safety and Health  
16 Administration and World Health Organization  
17 region general office for Europe set  
18 occupational exposure limits and tentative  
19 lowest observed adverse effects level for  
20 platinum salts. However, these are some  
21 examples that Health Canada provided in their  
22 written submission and recognizes that there  
23 is growing amount of toxicological data for  
24 this group of metals.

25 If the proponent developed

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1 (indiscernible) values, toxicological  
2 reference values, Health Canada will remain  
3 available to review the proponent's screening  
4 approach upon request from the responsible  
5 authority.

6 PANEL MEMBER BRUCE: Thank  
7 you. Bear with me for a second, please.

8 MS. AKHTAR: If you need me to  
9 repeat any part of it...

10 PANEL MEMBER BRUCE: I'm okay.  
11 Thank you very much for participating. My next  
12 questions relate to crystalline silica.

13 Sorry. I'm going to back up a  
14 little bit. Before discussing crystalline  
15 silica, I have some questions with respect to  
16 groundwater wells. So these are questions for  
17 GenPGM, please.

18 So there are several  
19 businesses and residences along Highway 17  
20 southeast of the process solids management  
21 facility that are served by groundwater wells.

22 GenPGM discussed the  
23 groundwater model and answered questions on  
24 this issue on March 17th and 18th during the  
25 public hearing. And you have outlined the

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1 components of the monitoring and follow-up  
2 program for these groundwater wells. Simple  
3 question, will the monitoring and follow-up  
4 program for the groundwater wells along  
5 Highway 17 and southeast of the process solids  
6 management facility include a communication  
7 plan for the users.

8 MR. ANWYLL: Thanks for the  
9 question. If I could kindly caucus for a quick  
10 second, please. Thank you.

11 MR. DART: Thank you for the  
12 question, Panel Member Bruce. Madam Chair,  
13 Jeremy Dart for the record.

14 Yes, as part of the  
15 monitoring program for groundwater, we would  
16 instill a communication plan to users of those  
17 wells.

18 PANEL MEMBER BRUCE: Thank you  
19 very much. My next questions relate to air and  
20 benzene and benzo(a)pyrene health effects.

21 So yesterday GenPGM was asked  
22 about the magnitude of benzo(a)pyrene  
23 exceedances, both 24 hours and annual in the  
24 project-alone scenario. If you would like the  
25 reference hearing transcript, that would be

1 CIAR 1193, page 103.

2                               The response was that the  
3 project contribution is small and that  
4 exceedances are linked to traffic around the  
5 rail loadout facility. So if this was the  
6 project-alone scenario, it's unclear why  
7 existing traffic was referenced in the  
8 project-alone scenario.

9                               So just to restate it, can  
10 GenPGM clarify why emission sources other than  
11 from the project were considered in the  
12 project-alone scenario effects for  
13 characterization for benzo(a)pyrene?

14                              MR. ANWYLL: I understand. Let  
15 me go to caucus if I could, please.

16                              Thank you, Panel Member  
17 Bruce, Madam Chair. I'll bring back Mr. Greg  
18 Crooks from yesterday who presented that. And  
19 he'll help inform the answer.

20                              PANEL MEMBER BRUCE: Thank you  
21 very much.

22                              MR. CROOKS: Madam Chair, Greg  
23 Crooks for the record.

24                              For that particular roadway,  
25 we were modelling the pathway for the trucks

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1 that are traveling between the sites and the  
2 rail loadout. And to get the best estimate of  
3 what the actual impact would be of that  
4 roadway on the receptors in that area, we  
5 thought that it was best to include both the  
6 existing traffic levels plus the mine traffic  
7 inclusive on the roads to get the exact impact  
8 of both the background plus the mine traffic  
9 on the receptors within that area, and that is  
10 a conservative methodology because we are  
11 taking that traffic and then we're also  
12 including the background levels on top of it.

13                   PANEL MEMBER BRUCE: Thank you  
14 for that explanation. Mr. Crooks may need to  
15 come back on. I have a question with respect  
16 to again benzo(a)pyrene.

17                   So in their hearing  
18 submission, Health Canada warned that  
19 potential health risks from benzene and  
20 benzo(a)pyrene could have been underestimated  
21 by GenPGM. First reason is because GenPGM  
22 calculated the risk from outdoor exposure  
23 only. Specifically, three hours outdoors per  
24 day, and Health Canada is suggesting that  
25 there should also have been consideration of

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1 indoor exposure.

2 Can GenPGM explain why the  
3 infiltration of these contaminants to indoor  
4 environments was not considered in the human  
5 health risk assessment?

6 MR. CROOKS: Thank you for  
7 that question. I'll need to caucus with my  
8 colleagues. Thank you, Madam Chair. I'm going  
9 to pass over to Mr. Don Hart to answer this  
10 question.

11 PANEL MEMBER BRUCE: Thank  
12 you.

13 DR. HART: Yes, thank you for  
14 the question.

15 Indoor exposure of benzene  
16 and benzo(a)pyrene is dominated by in-home  
17 sources such as cooking, smoking, household  
18 products. These indoor levels are typically  
19 greater than outdoor levels and not  
20 appreciably affected by the outdoors. They go  
21 up and down according to what is happening in  
22 the home.

23 In addition, most homes have  
24 air filters that would serve to reduce any  
25 particulate and associated contaminants coming

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1 into the home from outdoors. So this would be  
2 a further reduction of connection between the  
3 outdoor and indoor environment. So the HHRA  
4 assessed outdoor exposures because this is  
5 where we see a project effect, and what's  
6 happening indoors would be essentially  
7 independent of that.

8 Further, I would note that  
9 the calculation that was performed of  
10 incremental lifetime cancer risk is  
11 conservative, through assumptions such as 80  
12 years of exposure, given that we only have 2  
13 years construction and 12.7 of operation. But  
14 this conservatism we believe offsets any  
15 uncertainty regarding hours per day related to  
16 that outdoor exposure.

17 PANEL MEMBER BRUCE: Thank  
18 you, Mr. Hart. I think you may have approached  
19 and answered my next question. Just bear with  
20 me, though. I'm going to ask Health Canada to  
21 come back on the line, please.

22 Reflecting on your comments  
23 both with respect to lack of indoor exposure  
24 to benzo(a)pyrene and benzene, as well as your  
25 concerns about how incremental lifetime cancer

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1 risk was calculated, you've heard responses to  
2 both those questions from Mr. Hart. Are there  
3 any other comments or concerns you would like  
4 to share with the panel in response to what  
5 Mr. Hart has just stated?

6 MS. MA: Thank you, Panel  
7 Member Bruce, for your question. I would like  
8 to have a moment to caucus with the team.

9 PANEL MEMBER BRUCE:  
10 Certainly.

11 MS. MA: Thank you, Panel  
12 Member Bruce. I would like to invite Frédéric  
13 Valcin to answer the question on behalf of  
14 Health Canada.

15 PANEL MEMBER BRUCE: Thank  
16 you.

17 MR. VALCIN: Thank you for the  
18 question. Frédéric Valin for the record.

19 We do acknowledge that  
20 calculating the incremental lifetime cancer  
21 risks over 80 years, so assuming 80 years of  
22 exposure is conservative. However, some  
23 uncertainties still remain in our view,  
24 especially concerning benzene filtration  
25 indoors.

1                   Although we do recognize that  
2 there are indoor sources of benzene and they  
3 will probably outweigh any infiltration from  
4 benzene indoors; however, when calculating the  
5 incremental lifetime cancer risks attributable  
6 to the project, in our view indoor exposure  
7 and indoor infiltration of benzene are still  
8 relevant to take into consideration,  
9 especially considering that people spend most  
10 of their time indoors, so that's where most  
11 exposure will occur.

12                   With regards to air  
13 filtration devices. We do recognize these  
14 would have an effect on filtering out  
15 particulate matter, especially we know that  
16 benzo(a)pyrene is mostly absorbed onto  
17 particulate matter. However, air filtration  
18 devices typically don't have much of an effect  
19 on reducing benzene levels indoors. And we  
20 also would argue or we wonder to what extent  
21 air filtration devices are common in Marathon,  
22 how many homeowners actually do have such  
23 devices installed in their homes. Thank you.

24                   PANEL MEMBER BRUCE: Thank you  
25 for your comments. I'm going to turn my

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1 questions back to -- first of all, to GenPGM.

2                                 So there's been quite a bit  
3 of discussion about crystalline silica, the  
4 fact that there were no background studies  
5 done. There are exceedances associated with  
6 the project alone. And today during the human  
7 health risk assessment, the secondary  
8 screening removed from consideration  
9 crystalline silica because it rarely exceeds  
10 the short-term criterion. Hopefully my notes  
11 are accurately reflecting the statement.

12                                 So if we add in the  
13 background, which may in fact increase the  
14 levels that are experienced, might the  
15 secondary screening of this constituent -- the  
16 need to screen out this constituent change?

17                                 MR. ANWYLL: Thank you for the  
18 question, Panel Member Bruce. I'll caucus  
19 quickly if I could, please.

20                                 PANEL MEMBER BRUCE: Thank  
21 you.

22                                 MR. ANWYLL: Thank you, Panel  
23 Member Bruce. I'll have Dr. Hart clarify the  
24 first part of the answer.

25                                 PANEL MEMBER BRUCE: Thank you

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1 very much.

2 DR. HART: Yes, thank you for  
3 the question, Ms. Bruce. Don Hart for the  
4 record.

5 It's true that we don't have  
6 a background value for crystalline silica. Not  
7 knowing what it is, we can't say what the  
8 result would be if we were to add a  
9 background. So it is conceivable that the  
10 screening assessment might change if we had a  
11 background number.

12 Having said that, I think  
13 there's been a commitment to monitor prior to  
14 construction. I would like to turn back to  
15 Jeremy Dart to discuss that commitment.

16 MR. DART: Thank you, Dr.  
17 Hart. Panel Member Bruce, Jeremy Dart for the  
18 record.

19 Yes, just to follow up on Dr.  
20 Hart's comments regarding commitments around  
21 ambient air monitoring. I believe in  
22 yesterday's session GenPGM committed to  
23 starting ambient air monitoring program prior  
24 to construction. With that commitment, we can  
25 include crystalline silica as a primer to be

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1 monitored, and as we collect data, we can then  
2 incorporate those results into our human  
3 health assessment.

4 PANEL MEMBER BRUCE: Thank you  
5 very much. I'm just going to do a -- provide a  
6 little bit of context which may ultimately  
7 influence the commitment that you were just  
8 referring to, Mr. Dart.

9 So for the construction  
10 phase, the crystalline silica values exceeded  
11 the 24-hour criterion by about 603 percent at  
12 the modelled property boundary, and up to 121  
13 percent at a special receptor located on  
14 Bamoo's Lake -- this is the key point -- where  
15 human presence is expected to be infrequent.

16 The question is -- just give  
17 me a second -- as you go forward and undertake  
18 your air quality monitoring, we're suggesting  
19 you consider a scenario where the use of  
20 Bamoo's Lake increases as a result of real or  
21 perceived effects to water quality in Hare  
22 Lake, resulting in increased use of Bamoo's  
23 Lake.

24 I'm just wondering, is it  
25 something that you have given some

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1 consideration to, whether there would be in  
2 fact an increase in the use of Bamoos Lake as  
3 a result of concerns about Hare Lake?

4 MR. DART: Thank you for the  
5 question, Panel Member Bruce and Madam Chair.  
6 We would just like to take a moment to caucus.

7 PANEL MEMBER BRUCE: Thank  
8 you.

9 MR. DART: Thank you for the  
10 time to caucus, Panel Member Bruce and Madam  
11 Chair. Jeremy Dart for the record. I'm going  
12 to turn this response over to Dr. Don Hart.

13 PANEL MEMBER BRUCE: Thank you  
14 very much.

15 DR. HART: Thank you for the  
16 question, Ms. Bruce. Don Hart for the record.

17 Yes, we didn't specifically  
18 consider increased usage of Bamoos Lake, but  
19 we do believe that the use assumptions that we  
20 utilized are conservative and would  
21 accommodate -- likely accommodate an increased  
22 usage. We assumed eight hour a day exposure  
23 and eight weeks harvesting up there through  
24 the year.

25 PANEL MEMBER BRUCE: Thank

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1 you. Sorry, I just want a follow-up question  
2 on that.

3                           You assume eight weeks and  
4 eight hours. Would there be a multiplier --  
5 would there have been a multiplier on that  
6 based on number of individuals? Probably not.

7                           DR. HART: Thank you for the  
8 question. No, we do the assessment for an  
9 individual harvester.

10                          PANEL MEMBER BRUCE: Okay.  
11 Thank you very much.

12                          This is a question about --  
13 sorry. Can GenPGM explain why crystalline  
14 silica exceedances at the airport boundary  
15 were not considered in the human health risk  
16 assessment given that employees could be  
17 present for considerable amounts of time?

18                          MR. ANWYLL: If I could caucus  
19 quickly, please.

20                          DR. HART: Yes, thank you for  
21 the question, Ms. Bruce. Don Hart for the  
22 record.

23                          The location where minor  
24 levels were measured at M7, the dustfall  
25 sampling location near the airport is not a

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1 place where people would be frequently. We  
2 believe that the airport is only used  
3 intermittently. We chose the residential  
4 location R22, which is nearby the airport, in  
5 order to represent a location that people  
6 would use more frequently.

7 PANEL MEMBER BRUCE: Thank you  
8 very much. I'm going to ask a general question  
9 of Health Canada, and the question can be  
10 answered after our break, so it gives you time  
11 to caucus.

12 Based on what you have heard  
13 today in terms of additional questions and  
14 answers from Generation PGM, is there anything  
15 else you would like to offer with respect to  
16 the effect on human health from crystalline  
17 silica that you haven't already offered to  
18 date?

19 So I'll ask you that when we  
20 come back from our coffee break, which I will  
21 hand over to our chair to set the time on.

22 MS. MA: Thank you.

23 PANEL MEMBER BRUCE: Thank  
24 you.

25 PANEL CHAIR: Great. Thank you

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1 Ms. Bruce. We're at 3:31. Let's go to 3:45.

2 We'll see you back here then. Thank you.

3 --- Recess taken at 3:31 p.m.

4 --- Upon resuming at 3:49 p.m.

5 PANEL CHAIR: Before the break

6 Ms. Bruce had a question for you, so we'll

7 hand it over to you.

8 MS. MA: Thank you, panel

9 members. I would like to invite Frédéric

10 Valcin to answer the question on behalf of

11 Health Canada.

12 MR. VALCIN: Thank you, Madam

13 Chair. Frédéric Valcin for the record.

14 With regards to exposure to

15 crystalline silica and human health, we have

16 no further questions, although we do

17 understand from yesterday's session that the

18 proponent intends to monitor crystalline

19 silica in the site study area.

20 We understand that this

21 monitoring would begin prior to construction

22 to confirm baseline levels. We also understand

23 that the location of monitoring stations is

24 yet to be confirmed but would be determined in

25 consultation with various stakeholders.

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1                   And finally, I would like to  
2 take the opportunity to reiterate that from a  
3 health protection perspective, in our view,  
4 the monitors should be placed in order to  
5 measure population exposure, and land use,  
6 whether it be traditional, residential or  
7 recreational, should also be considered.

8                   And finally also, receptors  
9 that are inside the property boundary were  
10 excluded by the proponent from the HHRA, but  
11 in our view they should be considered when  
12 determining where monitoring stations will be  
13 located. Thank you.

14                   PANEL MEMBER BRUCE: Thank you  
15 very much. Next questions are with respect to  
16 chemical dust suppressants, and they are for  
17 Generation PGM.

18                   Mitigation measures are  
19 proposed for fugitive dust from roadways,  
20 material handling and storage area stockpile,  
21 and include the application of water or  
22 surfactants. The EIS addendums table of  
23 commitments mentions the application of  
24 calcium or magnesium chloride to roads  
25 seasonally when initial water applications no

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1 longer achieving mitigation. Métis Nation of  
2 Ontario expressed concern that chemical dust  
3 suppressants could migrate into nearby  
4 vegetation as collected by subsistence  
5 harvesters. This could also alter harvesting  
6 patterns of harvesters who become aware of the  
7 use of chemical dust suppressants.

8                                   Can GenPGM discuss how  
9 chemical dust suppressants were considered in  
10 the environmental effects, and also advise if  
11 there's any plan to notify communities and  
12 traditional land users when chemical dust  
13 suppressants are being used?

14                                   MR. ANWYLL: Thanks for the  
15 question. I'll kindly caucus, if you will  
16 allow me.

17                                   PANEL MEMBER BRUCE: Thank  
18 you.

19                                   MR. DART: Thank you for the  
20 question, Panel Member Bruce and Madam Chair.  
21 Jeremy Dart for the record.

22                                   Chemical dust suppressants  
23 were not considered in the assessment of  
24 effects. The use of these suppressants would  
25 only be considered on an occasional use.

1 Anticipate maybe once or twice per season and  
2 only used in limited areas. With that as well,  
3 we would not consider informing communities  
4 when this product is being applied, due to its  
5 limited use on the site and frequency  
6 throughout the season.

7 PANEL MEMBER BRUCE: Thank  
8 you. Bear with me for a sec, please.

9 So Health Canada expressed  
10 concerns about Generation PGM's assertions  
11 that the conclusions of the human health risk  
12 assessment would not change if the project  
13 were considered without a fugitive dust best  
14 management plan. However, no supporting  
15 information was provided to support this  
16 assumption.

17 So we're just looking for  
18 some clarity on why GenPGM did not include  
19 dust from roads and stockpiles in the human  
20 health risk assessment, or to elaborate on the  
21 information that resulted in this conclusion.  
22 Thank you.

23 MR. ANWYLL: Thank you. I will  
24 caucus.

25 MR. CROOKS: Madam Chair, Greg

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1 Crooks for the record. I'm going to give a  
2 brief comment regarding the air quality  
3 monitoring and then I'll hand it over to my  
4 colleague Dr. Hart.

5                                 With regards to the air  
6 quality assessment, we looked and model  
7 emissions from the facility both including  
8 best management practices in place and also  
9 excluding. And so we looked at both of those  
10 cases, and both of those are reported in the  
11 air quality report. I'll just pass this over  
12 to Dr. Hart now.

13                                 DR. HART: Yes, thank you for  
14 the question. Don Hart for the record.

15                                 For the HHRA, we modelled the  
16 situation with best management practice in  
17 place. This decision was made because that is  
18 the plan for the project.

19                                 PANEL MEMBER BRUCE: A  
20 follow-up on that. The mitigation efficacy  
21 assumed in appendix D1 for road dust is only  
22 80 percent. That reference is CIAR 727, page  
23 250.

24                                 DR. HART: Could I take a  
25 moment to caucus, please?

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1 PANEL MEMBER BRUCE:

2 Certainly.

3 DR. HART: Thank you for the  
4 question, Ms. Bruce.

5 With respect to the HHRA,  
6 we're of the opinion that the 20 percent  
7 difference between 80 percent and 100 percent  
8 efficacy is accounted for by the conservatism  
9 in the approach, that is, using maximum  
10 predicted concentrations.

11 PANEL MEMBER BRUCE: Thank you  
12 very much.

13 My next questions. Health  
14 Canada expressed concern about Generation  
15 PGM's assertion that the conclusions of the  
16 human health risk assessment would not change  
17 if the project were considered -- sorry. Give  
18 me a sec.

19 Given that in terms of air  
20 quality within the property boundary, air  
21 quality dispersion modelling was carried out  
22 in accordance with MECP's guidance,  
23 contaminants of potential concern  
24 concentration predictions begin at the  
25 property boundary, which represent a bigger

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1 footprint than the site study area.

2                                   Given that short-term  
3 criteria exceedances are predicted at the  
4 property boundary, it's therefore conceivable  
5 that air quality would be worse between it and  
6 the site-specific study area. Health Canada  
7 has raised concerns about traditional land  
8 uses in these areas. The response to IR 6-31,  
9 which is CIAR 950, presented a brief analysis  
10 of elevated NO2 concentrations, but did not  
11 address the other contaminants that are  
12 predicted to have short-term exceedances at  
13 the property boundaries, specifically  
14 dustfall, particulate matter, crystalline  
15 silica which we spoke about earlier, and total  
16 suspended particulate.

17                                   Is GenPGM aware of any  
18 current land use, traditional land use  
19 activities in the areas between the  
20 site-specific study area and the property  
21 boundary? And clarify whether access would be  
22 restricted to the areas in question.

23                                   MR. ANWYLL: All right. Thanks  
24 for the question. If I could kindly caucus  
25 again.

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1 PANEL MEMBER BRUCE: Yes.

2 DR. HART: Yes, so I wonder if  
3 I could get the secretariat to bring up CIAR  
4 950, IR 6-3, figure 1-A.

5 PANEL MEMBER BRUCE: Just give  
6 us a second, please. Do you have a page number  
7 for that? Approximately?

8 DR. HART: Yes, actually maybe  
9 it would be better if you looked for CIAR  
10 1165, slide 16. Same figure.

11 PANEL MEMBER BRUCE: 1165,  
12 slide 16.

13 DR. HART: It's the  
14 presentation for today.

15 PANEL MEMBER BRUCE: Yes,  
16 today's presentation. We're just working  
17 through that, sir.

18 DR. HART: Thank you very  
19 much. Don Hart for the record.

20 The lease boundary is the  
21 light pink line, and the site study area is  
22 the darker purple line. As you can see, the  
23 lease boundary goes in and out quite a bit. We  
24 did in fact assess areas within the outermost  
25 lease boundary along Highway 17, which goes

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1 through that in between area.

2                               So we assessed, for example,  
3 R22 which is along the highway in that same  
4 area. This is the area of predominant wind  
5 direction, so we believe that the assessment  
6 that has been done in the in between area is  
7 probably representative for -- or somewhat  
8 conservative for the rest of that in between  
9 area.

10                              PANEL MEMBER BRUCE: Thank  
11 you. And just to confirm, we did hear from  
12 Health Canada just a few minutes ago. That was  
13 in relation to monitoring for crystalline  
14 silica, but the recommendation that sampling  
15 locations should also consider land use within  
16 the property. So I just wanted to flag that  
17 and see if there is anything -- if that might  
18 affect any future sampling.

19                              DR. HART: If I can take a  
20 moment to caucus, please.

21                              PANEL MEMBER BRUCE: Yes, sir.

22                              MR. DART: Thank you for the  
23 time to caucus, Panel Member Bruce and Madam  
24 Chair. Jeremy Dart for the record.

25                              With respect to the area

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1 where the property boundary that -- those are  
2 mining claim boundaries, just to be specific,  
3 and other receptors. We would consider  
4 development of monitoring sites under, you  
5 know, communication with community Indigenous  
6 groups and the regulatory agencies as part of  
7 our development of the ambient air monitoring  
8 program.

9                                   PANEL MEMBER BRUCE: Thank you  
10 very much. My next question again to GenPGM,  
11 and it's with respect to diesel exhaust.

12                                   So in their hearing  
13 submission, Health Canada expressed  
14 dissatisfaction with methods GenPGM employed  
15 to assess the potential health risks of diesel  
16 exhaust mixture, and they recommended that  
17 GenPGM characterize the carcinogenicity of  
18 diesel exhaust emissions from the project  
19 using one of Health Canada's recommended  
20 approaches, and use the findings from the  
21 assessment to inform any action levels that  
22 would be used to implement additional  
23 mitigation adaptive management measures.

24                                   So the question is, is GenPGM  
25 prepared to carry out Health Canada's

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1 recommendations prior to construction?

2 MR. ANWYLL: I would like to  
3 caucus quickly, please.

4 DR. HART: Yes, thank you for  
5 the question, Ms. Bruce. Don Hart for the  
6 record.

7 I would consider that we  
8 essentially did a qualitative risk assessment  
9 approach using Vermilion's relative risk  
10 method. We do acknowledge that diesel exhaust  
11 is a carcinogen. We do acknowledge that it  
12 acts without a threshold, although that may  
13 not be a strictly linear response. The  
14 rationale for not using the CalEPA unirisk is  
15 that this was -- the underlying data were  
16 reviewed by the Health Effects Institute in a  
17 1999 report. That's the year following the  
18 CalEPA report. And they deemed the underlying  
19 studies that CalEPA used to be insufficient  
20 for quantitative risk assessment.

21 So we believe we did  
22 everything that could be done quantitatively  
23 by looking at benzene and benzo(a)pyrene and  
24 mixture of PAHs that was modelled, but in  
25 addition we undertook the relative risk

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1 approach, and it is our opinion that this is a  
2 sufficient qualitative approach to represent  
3 the total mixture of diesel exhaust.

4 PANEL MEMBER BRUCE: Thank you  
5 for your response.

6 Before I go on to ask some  
7 questions with respect to monitoring, the  
8 questions will be to Health Canada. I just  
9 want to check once again.

10 Is there someone from MECP  
11 that is on the line, and if so, can you please  
12 turn your camera on? It's a very simple  
13 request.

14 UNIDENTIFIED SPEAKER: Is it  
15 related to the air?

16 UNDERTAKING 26:

17 PANEL MEMBER BRUCE: Thank  
18 you. Well, I'll tell you, it's a real simple  
19 question. The panel would like to get a copy  
20 of the Ontario guide to eating fish submitted  
21 so we have it on the record. And we just would  
22 like MECP to arrange that as undertaking 26.  
23 So it's not related to air, but if we could  
24 leave that in your hands and have you convey  
25 it to the appropriate individual as

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1 undertaking 26, it would be appreciated. Is  
2 that possible?

3 UNIDENTIFIED SPEAKER: Okay,  
4 we can accept this understanding (sic).

5 PANEL MEMBER BRUCE: Thank  
6 you. We would be looking for it by the end of  
7 this week, please. I did not see the name of  
8 who responded. Did you? Okay. Thank you very  
9 much.

10 My next question will be for  
11 Health Canada.

12 In your submission, you  
13 emphasize the need for a robust air quality  
14 follow-up and monitoring program, in  
15 particular highlighting the need for action  
16 and trigger levels that are not linked to  
17 Canadian ambient air quality standards, or  
18 CAAQS, in air pollutant cases where health  
19 effects may occur at any exposure levels.

20 Can you describe elements of  
21 an appropriate monitoring and follow-up  
22 program for these non-threshold contaminants,  
23 specifically PM10, PM2.5 and NO2?

24 MS. MA: Thank you for your  
25 question. I'll take a few minutes to caucus

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1 with the team.

2 PANEL MEMBER BRUCE: Thank  
3 you. And a heads up to Generation PGM. I will  
4 be looking for your feedback after we hear any  
5 recommendations from Health Canada, if they  
6 have some.

7 MS. MA: Thank you, panel  
8 members. I would like to invite Frédéric  
9 Valcin to answer the question on behalf of  
10 Health Canada.

11 PANEL MEMBER BRUCE: Thank  
12 you.

13 MR. VALCIN: Thank you.  
14 Frédéric Valcin, Health Canada, for the  
15 record.

16 So in regards to monitoring  
17 program and non-threshold pollutants such as  
18 PM2.5 and NO2, like I just mentioned, they are  
19 non-threshold pollutants, meaning that adverse  
20 effects can occur at any concentration, so  
21 even below the CAAQS, at levels below the  
22 CAAQS. So that's why CAAQS shouldn't be  
23 perceived as pollute up to levels. But in  
24 instances where baseline levels are below the  
25 CAAQS, every effort should be made to prevent

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1 air quality deterioration. That's why there  
2 are management levels below the CAAQS, so  
3 every effort should be made to prevent air  
4 quality deterioration.

5 So actual levels that are set  
6 in monitoring plan or an adaptive monitoring  
7 plan should take this fact into consideration  
8 and mitigation measures should be applied to  
9 prevent air quality deterioration as much as  
10 possible and prevent health effects. Thank  
11 you.

12 PANEL MEMBER BRUCE: Thank  
13 you. I'll now turn to Generation PGM.

14 Would Generation PGM be  
15 prepared to implement and address these air  
16 pollutants in the manner recommended by Health  
17 Canada?

18 MR. ANWYLL: Health Canada  
19 came back more promptly than we expected, so  
20 if I could caucus just to finish our  
21 conversation, I would appreciate that.

22 PANEL MEMBER BRUCE: Thank  
23 you.

24 MR. DART: Thank you for the  
25 time to caucus, Panel Member Bruce and Madam

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1 Chair. Jeremy Dart for the record.

2 GenPGM will commit to  
3 monitoring and comparing to criteria for NO2,  
4 PM2.5 and PM10, and Generation will develop  
5 the program and considering adaptive  
6 management as well in consultation with  
7 agencies to comply with any permitting  
8 requirements should the project proceed.

9 PANEL MEMBER BRUCE: And what  
10 I understand is you just committed to  
11 undertaking monitoring. Health Canada  
12 specifically was referencing elevations above  
13 background and not necessarily just using the  
14 -- I think it was the CCME -- the CAAQS, the  
15 CAAQS criteria. But focusing more on elevation  
16 above background. Was that intended to be part  
17 of your response?

18 MR. DART: Thank you for the  
19 question, Panel Member Bruce. Just allow us  
20 one moment to caucus, please. Thank you for  
21 the time to caucus, Panel Member Bruce and  
22 Madam Chair. Jeremy Dart for the record.

23 As part of the adaptive  
24 management plan, we would develop action  
25 levels that would be below the criteria that

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1 is common with adaptive management.

2 PANEL MEMBER BRUCE: Thank you  
3 very much.

4 This morning we heard from  
5 Biigtigong First Nation that CCME guidelines  
6 for wildlife that eat fish are being exceeded  
7 for mercury in the project area. Question to  
8 GenPGM. Has this been factored into the human  
9 health risk assessment?

10 MR. ANWYLL: We'll caucus  
11 promptly, please.

12 DR. HART: Thank you for the  
13 question, Ms. Bruce. Don Hart for the record.

14 We are of course aware of the  
15 existing situation with mercury. We did not  
16 consider wildlife criteria within the HHRA;  
17 however, we are of the opinion that the  
18 project will not be releasing mercury or  
19 creating conditions that will mobilize mercury  
20 in the environment.

21 PANEL MEMBER BRUCE: Thank  
22 you. Does GenPGM intend to carry out a new  
23 human health risk assessment if monitoring of  
24 biophysical valued ecosystem components show  
25 there are additional human health effects

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1 pathways?

2 MR. ANWYLL: Sorry, I missed  
3 that. My speaker went out. Can you possibly  
4 restate that?

5 PANEL MEMBER BRUCE: No  
6 problem. Does Generation PGM intend to carry  
7 out a new human health risk assessment if  
8 monitoring of biophysical valued ecosystem  
9 components show that there are additional  
10 human health effects pathways specifically on  
11 water or country foods?

12 MR. ANWYLL: Give me a second  
13 to caucus, please.

14 DR. HART: Thank you for the  
15 question, Ms. Bruce.

16 Yes, as part of the country  
17 food program, if the results indicate anything  
18 contrary to expectation from our assessment,  
19 anything that is unexpected or represents a  
20 health concern, there would be a reassessment  
21 of risk and this reassessment would be  
22 reported with the -- as part of the country  
23 food monitoring program.

24 PANEL MEMBER BRUCE: We don't  
25 need to turn off the cameras, but I'm just

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1 going have a caucus with my fellow panel  
2 members for a second.

3 --- (DISCUSSION OFF THE RECORD)

4 PANEL MEMBER BRUCE: Thank you  
5 for giving us a moment. As you can probably  
6 appreciate, lots of questions, but we're  
7 trying to keep on top of not asking you things  
8 that you've already answered or answered  
9 peripherally, so I am going to ask you a  
10 question that I'm not completely sure we've  
11 had a full answer to this.

12 Earlier today GenPGM spoke  
13 about country food sampling carried out in  
14 2021 on plants, soils and fish. Is there any  
15 preliminary results or conclusions that could  
16 be shared on the sampling?

17 MR. ANWYLL: I'll just get the  
18 appropriate person to answer, so I'll caucus  
19 quickly if I could, please.

20 MR. DART: Thank you for the  
21 question, panel members, Madam Chair. Jeremy  
22 Dart for the record.

23 At this time we do have some  
24 data available, specifically the soil data. We  
25 have a complete set of analysis that we've

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1 received from the lab. The plant and fish  
2 tissue summary will not be available for at  
3 least a couple more months. We did bring up an  
4 issue with the lab in previous discussions  
5 through the panel that there have been  
6 significant delays. We are prepared to share  
7 the soil results with the panel.

8 UNDERTAKING 27:

9 PANEL MEMBER BRUCE: Thank  
10 you. So that would be undertaking 27.

11 MR. DART: Thank you. Panel  
12 Member Bruce, can I just ask that we come back  
13 to you tomorrow with a date on when we can  
14 deliver that undertaking, as we have to  
15 understand the commitments, requirements from  
16 our consultants?

17 PANEL MEMBER BRUCE: Thank  
18 you. That was going to be my next question,  
19 was with respect to timing. So thank you for  
20 that.

21 MR. DART: Thank you.

22 PANEL MEMBER BRUCE: My next  
23 question is for Ms. Bice of Transport Canada.

24 MS. BICE: Go ahead.

25 PANEL MEMBER BRUCE: Thank

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1 you, Ms. Bice.

2 Now, this question is not  
3 related to navigation, but it's related to the  
4 airport. Jackfish Métis have asked of their  
5 potential concerns with project blasting in  
6 proximity to an airport. Are you able to  
7 respond to that question?

8 MS. BICE: May I take a minute  
9 to caucus with my team, please.

10 PANEL MEMBER BRUCE: Thank  
11 you.

12 MS. BICE: Hi, Panel Member  
13 Bruce. Thank you very much for your question.

14 Transport Canada doesn't  
15 anybody from civil aviation on the call today.  
16 We would like to request an undertaking to be  
17 able to provide you with more information  
18 about that.

19 UNDERTAKING 28:

20 PANEL MEMBER BRUCE: Thank  
21 you. I'm just looking for my official  
22 undertaking counter. 28. Okay. That will be  
23 undertaking 28, and that is to provide  
24 feedback to the panel on if there's any  
25 implications on the airport from blasting

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1 associated with the project.

2 MS. BICE: Okay.

3 PANEL MEMBER BRUCE: Thank  
4 you. So that was my last question, and I'll  
5 turn it back to our chair.

6 PANEL CHAIR: Thank you, Ms.  
7 Bruce. We are at 5:00 o'clock today. We have  
8 completed our questions related to human  
9 health and human environment.

10 What I'm going to suggest is  
11 that Generation PGM provide closing remarks  
12 tomorrow on the topic-specific session, if  
13 that works for Generation PGM, given the last  
14 two days, and we will then move quickly into  
15 our next set of topic-specific items. And  
16 we'll reconvene tomorrow at nine p.m. for  
17 that.

18 MR. ANWYLL: Nine a.m.

19 PANEL CHAIR: Nine a.m. I  
20 don't know why -- that's twice I've said nine  
21 p.m. now. Nine a.m. works. Thank you.

22 MR. ANWYLL: Closing tomorrow  
23 morning would work for us as well. Thank you  
24 very much for that consideration.

25 PANEL CHAIR: Thank you

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1 everybody for today's presentations and  
2 questions, and we'll see you all back here at  
3 nine a.m. tomorrow morning. Thank you.  
4 --- Whereupon at 5:01 p.m. the proceedings were  
5 adjourned till Wednesday, March 30, 2022,  
6 at 9:00 a.m.