

Marathon Palladium Project Environmental Impact Statement Addendum

VOLUME 2 OF 2

9.0 Assessment Summary and Conclusions

Prepared for:

GENERATIONPGM

Prepared by:



Ecometrix Environmental INTELLIGENCE





Date: April 2021

Environmental Assessment by Review Panel under CEAA 2012 Reference Number 54755

Assessment Summary And Conclusions April 2021

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Assessment Summary And Conclusions April 2021

Abbreviations

CEAA, 2012 Canadian Environmental Assessment Act, 2012

EIS Environmental Impact Statement

LSA Local Study Area

RSA Regional Study Area

SSA Site Study Area

VEC Valued Ecosystem Component

Assessment Summary And Conclusions April 2021

9.0 ASSESSMENT SUMMARY AND CONCLUSIONS

Based on the detailed environmental assessment of the Project, as assessed in the original EIS (2012) and subsequently updated in this EIS Addendum to reflect updated baseline conditions, thresholds, and refined project design, as well as all relevant supporting technical studies, and taking into account the various mitigation and compensation measures identified, GenPGM and its environmental assessment team concludes that:

- the Project will provide economic benefit to the local, regional, provincial and national economies, as well as to local communities and Indigenous peoples
- GenPGM has received and considered input from Indigenous communities, agencies and the
 public obtained through consultation efforts that are anticipated to continue through the
 environmental assessment, permitting, and implementation of the Project
- GenPGM has identified and committed to implement various mitigation and environmental protection measures to avoid, reduce or compensate for the predicted adverse environmental effects of the Project
- GenPGM will implement the mitigation and environmental protection measures and other commitments identified in this report through the development of detailed design plans and programs
- the updated technical studies demonstrate that the Project, can comply with Federal and Provincial regulatory requirements
- the effectiveness of mitigation measures and confirmation of predicted effects will be evaluated through the implementation of several follow-up and monitoring programs, with changes to be addressed through the implementation of adaptive management measures
- with the implementation of mitigation and environmental protection measures, the Project is not predicted to result in any significant adverse effects on the environment
- with the implementation of mitigation and environmental protection measures, the Project will not result in significant adverse effects on renewable resources
- accidents and malfunctions that might occur as the result of the implementation of the Project are not predicted to result in significant adverse environmental effects
- the environment, in consideration of climate change, extreme weather, forest fires and seismic events, is not likely to cause significant adverse effects on the Project
- the Project is not predicted to result in any significant adverse cumulative effects on the environment

Assessment Summary And Conclusions April 2021

To support and update the information already on the record for this Project and its requirements under CEAA 2012, this EIS Addendum has been prepared to reflect updated baseline conditions, new standards or criteria (thresholds) for determining significance, and a refined project design (components and activities that will be carried out during all phases) to update and describe the potential environmental effects (including cumulative environmental effects) of the Project.

The individual valued ecosystem components (VECs) identified in the original EIS (2012) have been carried through this EIS Addendum, with updates to the project, baseline conditions, and regulatory criteria considered in the assessment. The VECs assessed in the EIS Addendum include:

- · Atmospheric Environment, including air quality, greenhouse gas and light
- Acoustic Environment, including blasting and vibration
- Water Quality and Quantity, including surface water and groundwater
- Fish and Fish Habitat
- Terrain and Soils
- Vegetation
- Wildlife
- Species at Risk
- Socio-economics, including economics, community infrastructure and services, and land and resource use
- Human Health, including air quality, water quality, country foods and noise
- Physical and Cultural Heritage Resources
- Indigenous Considerations, including traditional land and resource use, Indigenous heritage and archaeological resources, and Indigenous health

Project interactions with all VECs were analyzed to determine potential environmental effects associated with the Project. The extent of the Project effects were assessed relative to the Site Study Area (SSA), Local Study Area (LSA) and Regional Study Area (RSA) over the duration of the project phases, including site preparation and construction, operation and closure and decommissioning. The environmental effects assessment for each VEC was carried out for all Project phases as well as for potential accidents and malfunctions and the effects of the environment on the Project. The analysis used qualitative and, where possible, quantitative information available from existing knowledge and appropriate analytical tools, as well as the consideration of identified mitigation measures. To eliminate or reduce anticipated environmental effects, mitigation measures were incorporated into the Project design. Residual environmental effects were predicted for VECs following the application of planned mitigation measures. The residual environmental effects of the Project were evaluated to confirm where such effects were considered significant, with the likelihood of occurrence of a significant effect identified in such cases.

Assessment Summary And Conclusions April 2021

Effects of the environment on the Project continue to be predicted to be not significant, consistent with the original EIS (2012), due to the low likelihood of occurrence and incorporation of appropriate mitigation measures into the design, construction, operation and decommissioning of the Project. The potential residual environmental effects of accidents and malfunctions also continue to be considered unlikely and not significant.

Cumulative environmental effects of the Project in combination with other past, present or reasonably foreseeable future projects or activities were also assessed. The assessment of cumulative effects was updated as part of this EIS Addendum to reflect any residual effects from the Project that may interact cumulatively in combination with other projects or activities that have been or will be carried out in the RSA. Project management and mitigation measures will be applied as part of the Project, such that the potential environmental effects of the Project in combination with other projects or activities that have been or will be carried out are not significant.

An appropriate follow-up program has been developed to verify the predictions of the original EIS (2012) and EIS Addendum and to verify the effectiveness of mitigation. Additional follow-up and monitoring activities have been proposed, where appropriate. As well, monitoring measures have been developed to measure compliance with regulatory requirements, and to assist in the identification of adaptive management measures as necessary to avoid or minimize potentially significant adverse environmental effects in the unlikely event they occurred.

Overall, the EIS Addendum confirmed the findings of the original EIS (2012), concluding that with the implementation of appropriate mitigation and environmental protection measures, the residual environmental effects of the Project, including cumulative effects and the effects of the environment on the Project, during all phases of the Project are considered not significant.