

DRAFT for DISCUSSIONS

Agency Meeting Re:
Fisheries Act
MDMER
CNWA

MARATHON PALLADIUM PROJECT

GENERATION PGM

Ecometrix | Environmental
INTELLIGENCE



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METHODOLOGY – BASELINE DATA

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- Aquatic Baseline data collection throughout 2006 to 2013
- Multi-year, Multi-season, multi-gear, in lotic and lentic systems within the study area
- Additional field work conducted in response to IR regarding Hare Lake (2013)
- Baseline summary reports previously submitted as well as a *Aquatic Environment Baseline Report Update* as submitted to agencies in December 2020

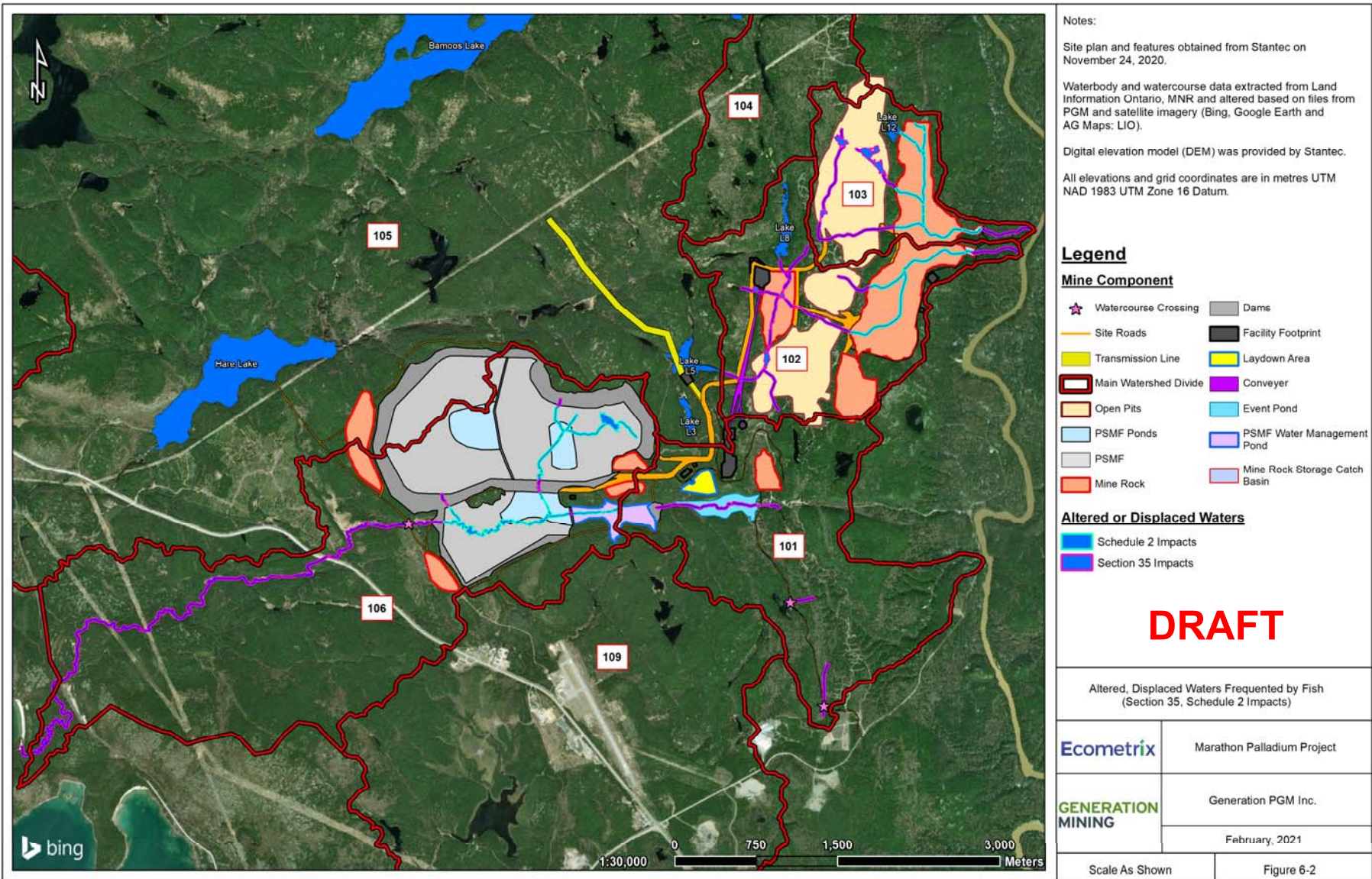
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METHODOLOGY – OVERPRINTED AREA

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- Use of most up to date Project layout
- Calculation of the aquatic habitat to be overprinted using GIS, known or extrapolated bankfull width (m) and aerial imagery
- Calculations undertaken for both lotic and lentic habitats and fish bearing and non-fish bearing waters (frequented and not frequented by fish)
- Estimate of the total area (ha) of HADD (direct physical) and indirect (flow related changes) to fish habitat
- Secondary estimate of the total area subject to Section 35(2) of *Fisheries Act* vs. Section 27.1 (Schedule 2) of MDMER

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IMPACTS TO AQUATIC HABITAT

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OVERPRINTED AREA (hectares) OF FISH HABITAT FOR FISH-BEARING AND NON FISH-BEARING WATERS IN EACH WATERSHED

Watershed	Fish Bearing			Non Fish Bearing			Total Aquatic Habitat		
	Lentic	Lotic	Sub-Total	Lentic	Lotic	Sub-Total	Lentic	Lotic	Total
101	0.31	0.13	0.44	0.02	0.16	0.18	0.33	0.29	0.62
102	1.21	1.02	2.24	0.24	0.06	0.30	1.45	1.09	2.54
103	0.00	0.48	0.48	3.41	0.47	3.88	3.41	0.95	4.36
104	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106	2.74	2.64	5.38	1.34	0.15	1.49	4.08	2.79	6.87
109	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.26	4.27	8.54	5.01	0.85	5.85	9.27	5.12	14.39

Note: 2.64 ha of lotic HADD at 106 is constituted by 0.13 ha due to direct habitat loss and 2.51 ha of indirect impact by flow reduction of greater tr

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IMPACTS TO AQUATIC HABITAT

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OVERPRINTED AREA (hectares) OF FISH HABITAT FOR FISH-BEARING AND NON FISH-BEARING WATERS IN EACH WATERSHED BY PROJECT COMPONENT

Project Component	Watershed	Fish Bearing			Non Fish Bearing			Total Aquatic Habitat		
		Section 35	Schedule 2	Sub-Total	Section 35	Schedule 2	Sub-Total	Section 35	Schedule 2	Total
Transmission Line	none	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open Pits	102	0.67	0.00	0.67	0.03	0.00	0.03	0.70	0.00	0.70
	103	0.00	0.00	0.00	3.30	0.00	3.30	3.30	0.00	3.30
Mine Rock Storage Area	102	0.00	0.43	0.43	0.00	0.00	0.00	0.00	0.43	0.43
	103	0.00	0.23	0.23	0.00	0.58	0.58	0.00	0.81	0.81
Mine Rock Storage Catch Basins	102	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.02	0.02
	103	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.06	0.06
Spillways	102	0.04	0.00	0.04	0.00	0.00	0.00	0.04	0.00	0.04
	103	0.04	0.00	0.04	0.00	0.00	0.00	0.04	0.00	0.04
Aggregate Site	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Roads / Crossings	101	0.26	0.00	0.26	0.10	0.00	0.10	0.36	0.00	0.36
	102	0.05	0.00	0.05	0.27	0.00	0.27	0.32	0.00	0.32
Conveyor	102	0.03	0.00	0.03	0.00	0.00	0.00	0.03	0.00	0.03
Overburden Stockpiles	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROM Stockpile	102	0.88	0.00	0.88	0.00	0.00	0.00	0.88	0.00	0.88
PSMF Including Water Management Pond	106	0.00	2.60	2.60	0.00	1.49	1.49	0.00	4.09	4.09
PSMF Embankments	101	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01
	106	0.27	0.00	0.27	0.01	0.00	0.01	0.28	0.00	0.28
SWM Pond (Event Pond)	101	0.18	0.00	0.18	0.06	0.00	0.06	0.24	0.00	0.24
Laydown Area	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flow Reduction (Indirect Effect)	102	0.11	0.00	0.11	0.00	0.00	0.00	0.11	0.00	0.11
	103	0.16	0.00	0.16	0.00	0.00	0.00	0.16	0.00	0.16
	106	2.51	0.00	2.51	0.00	0.00	0.00	2.51	0.00	2.51
Total	All	5.19	3.35	8.54	3.78	2.07	5.85	8.97	5.42	14.39

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NEXT STEPS

- Submit an Application for Authorization based on expectation of a HADD
- Finalize determination of “minor” and “major” works under CNWA and submit application as required
- Update estimates of fisheries impacts using a WSA approach – potentially through discussion DFO Fish and Fish Habitat Protection Program representative
- Prepare a draft Fish and Fish Habitat Offset Strategy / Plan for submission to DFO and ECCC for discussion, update and then review by interested parties.
 - Potentially through participation in fisheries technical working group with agency (provincial and federal) and other interested party representatives.
- Support agencies in provision of information as required through consultation with interested parties

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More Information on the Project can be found at

www.genmining.com

and the Impact Assessment Registry at

<https://iaac-aeic.gc.ca/050/evaluations/proj/54755?culture=en-CA>

**If you have additional questions,
please email us at comments@genpgm.com**

