

Identifier	Topic	Reference to EIS/EA Report	Summary of Comment	Proponent's Response	Subsequent Comment
			<i>Date: March 2014</i>	<i>Date: June 2015</i>	
MNR-EM 2	Environmental Monitoring	EIS/EA Chapter 8	<p>Similarly, an effect was identified around loss of water bodies which would affect the associated aquatic ecosystems. The waterbodies remaining after this project are significant in size with the TMF waterbody predicted to be a 65 ha lake and the pit predicted to be a 210 ha lake. In spite of the claim that both these lake will have acceptable water quality, there is no mention of how these waterbodies will be used to meet the goal of mitigating the loss of aquatic ecosystems. The NNLP only addresses fish species but not the wide range of other species that depend on aquatic environments. An effective EMP would include mitigation strategies to ensure appropriate habitat exists in these waterbodies (such as littoral zone habitat in the pit lake and wetlands in the TMF lake) and monitoring to ensure suitability for aquatic life and contingency strategies on how to ensure water quality meets provincial guidelines, especially when some metals (eg Cu and cyanide) are predicted to be above PWQG at closure and the impact of thiocyanate resulting from cyanide breakdown on the environment has not been evaluated.</p> <p>The EMP needs to be redeveloped to include mitigation and monitoring objectives that actually address the potential effects and contingency/non-compliance strategies that provide some assurance that efforts are being taken to address the identified effects.</p> <p>Why is there not a link between the monitoring program and the VECs.</p>	<p>In terms of wildlife displacement, monitoring methods and objectives will be developed, in consultation with the MNR, and identified in the final environmental management plan. If monitoring data suggests displacement is greater than predicted or stakeholder concerns are raised, targeted studies, appropriate to the species of concern, maybe initiated to assess the potential causes of displacement, the adequacy of the active monitoring program and to investigate and identify potential mitigation measures.</p> <p>The loss of water bodies and water courses within the mine footprint will be compensated for as described in the draft NNLP. Monitoring related to compensation will be focused on assessing the effectiveness of habitat offset projects in replacing lost habitat.</p> <p>The open pits and residual TMF reclaim pond are not intended to be developed as aquatic habitat and this is not an objective of the closure plan or NNLP.</p> <p>Discussions occurred with government regulators regarding potential to use the open pits as part of the habitat conservation plan. This was not considered a viable alternative because potential pit slope stability concerns that could represent a potential hazard to wildlife and humans. The potential for mechanical instability of the bedrock around the perimeter of the pits also limits the potential to either blast or fill any near shore areas to create shallow water littoral habitat for fish.</p> <p>Cyanide (CN) is a carbon-nitrogen compound and breaks down to carbonate and ammonia in the natural environment. The current process includes a cyanide destruction circuit which will lower cyanide concentrations as described in the Site Water Quality TSD. The resulting cyanide concentrations do not have a significant influence on predicted ammonia and carbonate concentrations downstream. Cyanide is included in the current assessment (Section 4.2.3 and Section 4.3 of the Site Water Quality TSD).</p> <p>Thiocyanate (SCN) is a sulphur-carbon-nitrogen compound, which degrades in the environment to sulphate, ammonium ion and carbonate. The rate of thiocyanate production in a given process is dependent on the host rock mineralogy and the process itself. Concentrations of thiocyanate in the process water are generally low for most mining operations, and are expected to be low at the Hammond Reef site given that: sulphide concentrations in the ore are low; sulphide when present is generally in the form of pyrite which has a lower affinity for production of thiocyanates relative to other sulphide minerals such as pyrrhotite or chalcopyrite; and, part of the process includes a cyanide destruction circuit. It is recognized that monitoring for these compounds will be required initially during operations to confirm the concentrations are not influencing overall water quality. Depending on the monitoring results, the process can be controlled, or water can be treated to reduce thiocyanate (e.g., through addition of an ozone oxidation step) however this step is not expected to be required at this site and would only be undertaken if necessary, depending on</p>	

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				<p>monitoring results.</p> <p>Potential for impacts of both copper and cyanide during operations and at closure were included in the assessment in EA (Section 4.2.3 and Section 4.3 of the Site Water Quality TSD with overall results of the water quality and biological assessments provided in Final EIS/EA Sections 6.1.3 and 6.2).</p> <p>TMF pond water quality will be monitored and if it is deemed to be unsuitable for release to the environment, it will be diverted to the open pits. Pit water quality will be monitored during the filling period and if concerns are identified near the time of discharge, appropriate mitigation measures will be developed and implemented based on the nature of the concern.</p>	