TECHNICAL MEMORANDUM

DATE May 26, 2017

PROJECT No. 1656263.1000.1005

TO Sandra Pouliot
Canadian Malartic Corporation

DOC No. 005 (Rev 1)

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ASSESSMENT OF EFFECTS ON FISHING AND HUNTING PRESSURE AND OPPORTUNITIES – HAMMOND REEF GOLD PROJECT

Background

The Ontario Ministry of Natural Resources and Forestry (MNRF) has requested an assessment of the potential changes resulting from the Hammond Reef Gold Project (Project) on fishing and hunting pressure in the regional study area including clarification on the proposed mitigation and monitoring activities. The key information requested by MNRF are:

- An effects assessment on fishing and hunting pressure/opportunities assuming a 1,200 person Project construction camp workforce;
- Details on the scope of the planned “No Fishing” policy and access restrictions; and
- A survey for monitoring regional impacts in angling effort.

The hunting and fishing information requests noted above are based on information provided in MNRF Round 3 Information Requests (IRs) #5, #10, #13 and #15. Canadian Malartic Corporation (CMC) responses are provided in Table 1.

Table 1: Responses to Round Three MNRF Information Requests related to Project Impacts to Access, Fishing and Hunting

MNRF Request Summary	Associated Previous Information Requests	CMC Response
Effects Assessment on fishing and hunting pressure/opportunities assuming a 1,200 person Project construction cam workforce	MNRF IR2-5, MNRF IR2-13	CMC has completed the requested assessment. The assessment is provided in the following section of this memorandum.
Details on scope of “No Fishing” policy and restricted access	MNRF IR2-10,	CMC will prohibit recreational fishing and hunting at the Project site for public and employee safety. Recreational fishing tackle and poles and firearms, ammunition and knives will be prohibited items at the Project site (including parking areas). All visitors and employees will be subject to security screening for prohibited items when entering or leaving the Project site. CMC does not have the authority to prohibit employees from exercising their recreational rights when outside of the Project site.
Survey for monitoring impacts to angling effort regionally	MNRF IR2-10, MNRF IR2-15	CMC will implement a bi-annual fishing effort survey of all site employees as part of an approved Project monitoring program to evaluate effect predictions. The design of the survey will be reviewed with MNRF following Project approval.

Assessment of Fishing and Hunting Pressure and Opportunities

Direct and indirect Project effects to fishing and hunting were assessed with respect to the social environment in Section 6.3 of the Environmental Impact Statement/Environmental Assessment (EIS/EA) and Section 3.3 of the Socio-Economic Technical Supporting Document (TSD). The overall residual effects following mitigation were predicted to be neutral for fishing and a low-level adverse effect for hunting (EIS/EA Table 6-58). Key mitigation for reducing residual direct effects by the Project on fish and wildlife resources include a no fishing and hunting policy, which prohibits possession of fishing and hunting gear at site (Table 1). A low-level adverse effect for hunting was predicted to result partially from reduced access for people to areas directly disturbed by the Project.

At the request of MNRF, the following describes further assessment of Project effects on fishing and hunting pressure and opportunities assuming a peak Project construction camp workforce of 1,200 full-time equivalents. Fishing and hunting pressure and opportunities were not measurement indicators assessed in the Project EIS/EA. For the purpose of this supplemental assessment, the abundance of people participating in either fishing or hunting was assumed to be an index of pressure. Availability of access to fishing or hunting resources was assumed to represent fishing and hunting opportunity. This assessment considered information and results presented as part of existing conditions (Baseline) of the Socio-Economic environment in Chapter 3, other Chapters of the EIS/EA, and external studies on fishing and hunting participation (DFO 2012; FPTGC 2014).

As described in Section 6.3 of the EIS/EA, the human population of Atikokan has decreased from 4,043 in 1996 to 2,787 in 2011 (EIS/EA Table 3-47, StatsCan 1997, StatsCan 2012); a difference of 1,256 people. At the scale of the regional study area (RSA), the human population was 244,117 in 1996 and 224,034 in 2011, representing a decline of 20,083 people. Assuming 100% of people are anglers and hunters, then a peak Project construction camp workforce of 1,200 is within the range of Baseline fishing or hunting pressure relative to both the town of Atikokan and the RSA. In other words, the peak construction camp workforce of 1,200 will not exceed peak fishing or hunting pressure that has occurred historically. Furthermore, 15% of the workforce is predicted to originate from communities surrounding the Project (EIS/EA Figure 6-8), which would represent existing fishing or hunting pressure and not pressure introduced to the area by people immigrating to work at the Project. Thus, the absolute number of anglers and hunters new to the area will be less than 1,200 full-time equivalents. Harvest of big game species such as moose is regulated by MNRF through species tag allocation at the Wildlife Management Unit scale. The number of tags available to hunters is fixed annually and therefore independent of how many people apply for these tags. Thus, the peak construction camp workforce will have no effect on how many tags are available to hunters or big game harvest.

The most recent angler survey by the Department of Fisheries and Oceans indicates that 8% of adult Canadians fished in 2010, including 7% in Ontario (DFO 2012). About 8% of Canadians participated in hunting activities in 2012, including 5% in Ontario (FPTGC 2014), so there is uncertainty around the absolute number of anglers and hunters during Baseline or in the peak construction workforce. Annual numbers of fishing license sales were requested from MNRF by CMC to evaluate temporal trends community and regional angling effort during Baseline. This request was denied because MNRF indicated that fishing licences are not a reliable measure of fishing pressure specific to the Project area because they are available for purchase by anyone and can be used on all waters open to fishing. However, the number of anglers and hunters will likely be considerably lower than the assumption of 100%; the conclusion on the incremental effect of the Project to increased fishing and hunting pressure relative to Baseline will be the same (i.e., within the range of Baseline values). The assumed camp workforce of 1,200 is associated with a temporary peak during the construction phase of the Project. The Project construction phase will last 2.5 years (EIS/EA Section 5.1) with an estimated average workforce of 416 (EIS/EA Section 6.3.1.2.1), the Project operations phase will last 11 years (EIS/EA Section 5.1) with an estimated average

workforce of 550 (EIS/EA Section 6.3.1.2.2). An incremental change to fishing or hunting pressure by a temporary peak construction camp workforce of 1,200 people during the Project construction phase would be temporary and reversible post-construction.

Section 6.4 of the EIS/EA predicted that residual direct and indirect effects from the Project would not have a measurable influence on fish (smallmouth bass, northern pike, walleye or baitfish populations) or wildlife (moose, furbearers, upland breeding birds and species at risk) abundance and distribution in the local and regional study areas. Key mitigation for direct and indirect effects to fish populations include a No Net Loss Plan and fish salvage and restocking programs (EIS/EA Section 6.2.4). For wildlife populations, key mitigation includes limiting habitat loss by minimizing the Project terrestrial footprint, housing stationary equipment inside buildings to reduce noise, and application of dust suppression products. Other mitigation is identified in EIS/EA Section 6.3.4. The previously mentioned no fishing and hunting policy is also a key mitigation that will limit residual effects to fish and wildlife abundance and distribution. The Project is predicted to not significantly reduce fish and wildlife resource availability and accessibility for fishing and hunting.

A temporary peak construction workforce of 1,200 full-time equivalents will not directly alter access to fishing and hunting resources but development of the Project site is expected to change access to resources. The EIS/EA predicted a low effect for access to wildlife for hunting due to removal of 1,200 ha of terrestrial habitat from construction of the Project (EIS/EA Table 6-58). A similar effect to access was not predicted for fishing; however, for safety and security reasons, shore anglers will be unable to pass through the Project site, to access areas along the east side of the Upper Marmion Reservoir using existing trails and roads that pass through the Project area. Thus, there will be a temporary reduction in access to some areas of the Upper Marmion Reservoir for shore anglers once construction of the Project begins but the effect will be reversible post-closure when safety or security risks are no longer present. This effect to access is considered low because access to areas of the Upper Marmion Reservoir by anglers using boats will remain the same as during Baseline.

The additional assessment of residual effects from a temporary peak construction camp workforce of 1,200 full-time equivalents for the Project is predicted to not significantly alter fishing or hunting pressure and opportunities. Fishing and hunting pressure is predicted to be within the range of values that have occurred during Baseline. Residual effects to fishing and hunting opportunities are predicted to be lower due to access restrictions by the Project but are unrelated to the construction camp workforce size.

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