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Memo

To:	Steve Lines, Environmental Assessment and Permitting Manager	From:	Sheldon Smith, MES, P.Geo. Bryan Leece, Ph. D. Tony McKnight-Whitford, Ph.D. Daniel Fensom, P.Eng.
	Greenstone Gold Mines GP Inc.		Stantec Consulting Ltd.
File:	160961223	Date:	June 28, 2018

Reference: **MOECC Response to Hutchinson Environmental Sciences Ltd. Review of Mercury Analysis**

The following response addresses the memorandum received from the Ministry of the Environment and Climate Change (MOECC) Manager, Northern Region Technical Support (June 11, 2018) on the technical memorandum prepared by Hutchinson Environmental Sciences, Ltd. (HESL), on behalf of Greenstone Gold Mines GP Inc. (GGM), entitled *Greenstone Gold: independent review of the analysis of mercury concentrations in surface water, sediment and groundwater in the vicinity of Kenogamisis Lake, and implications of these concentrations to human and ecological health* (May 22, 2018).

The MOECC's general comments/recommendations include:

- The fish consumption guidelines used in the memo to evaluate changes in potential health concerns for humans due to changing mercury concentrations in fish tissue are not reflective of current guidelines.
- Predictive concentrations of mercury in Northern Pike should be re-evaluated based on the current guidelines.
- A Wildlife Exposure Assessment may be required due to the re-evaluation.
- The MOECC agreed that future monitoring of mercury concentrations in media including fish tissue is needed along with contingency plans and mitigation strategies if concentrations are higher than predicted.

Response:

The technical memorandum prepared by HESL concluded that the changes in fish tissue concentrations predicted using the conservative calculations in Ontario Water Power Association (OWA; 2016) would not result in a change of the consumption level; the consumption level for the sensitive population would remain at 8 or greater meals per month for both Walleye and Northern Pike. This conclusion was based on the information provided in Figure 2 and Figure 3 of the *Best Management Practice-Small Hydropower and Methyl Mercury (Version 2, February 2016)* (OWA 2016). The information in OWA (2016) is based on the 2013-2014 version of the *Guide to Eating Ontario Sport Fish* (MOE 2013). The information in the 2015-2016 version of the guide was not available at the time of the development of the initial version of OWA (2016) in 2014. OWA (2016) was revised in 2016 and the 2015-2016 guide was available at that time, but there was mixed acceptance of the revised guidelines. As a result, the 2013-2014 guidelines were retained in OWA (2016), but a recommendation to consult the new 2015-2016 guidelines was included. The 2013-2014 guide only provides restriction levels up to 8 or greater meals per month for sensitive populations, with 8 or greater meals indicating no restriction. The 2015-2016 Guide includes additional restriction levels of 12, 16 and 32 fish per month, although there are still sections of the 2015-2016 Guide that refer to 8 meals per month as being a restriction cut-off. If the increases in fish tissue were reassessed using the consumption guidelines in the 2015-2016 Guide then the consumption restriction level of the Northern Pike for the sensitive population would change from 16 meals per month to 12 meals per month due to the Project, while there would be no change in the consumption level for Walleye (8 meals per month). However, the number of meals consumed per month using either the 2013-2014 Guide or the 2015-2016 Guide would still be 8 or more meals (12 being greater than 8).

The actual restrictions for Kenogamisis Lake are similar in the 2013-2014 and 2015-2016 guides. Based on the fish lengths used in the technical memo (550 mm for Northern Pike and 400 mm for Walleye), sensitive populations obtaining fish from Kenogamisis Lake (Western arm, Barton's Bay, Thunderbay) should not eat any Walleye and should only eat 0-4 servings of Northern Pike per month. These restrictions are both less than the predicted 12 meals per month. In addition, a restriction level of 12 meals per month (at 227 g per meal (MOECC 2015)) exceeds the expected monthly intake of fish for an adult, which is approximately 10 meals per month based on recommendations in the First Nations consumption study for a heavy consumer (Chan 2014). A value of 10 meals per month was calculated by multiplying the daily intake of fish provided in Chan (2014) (i.e., approximately 74 g per day) by 30 (i.e., assume 30 days in a month) and then dividing by 227 g per meal.

It is noted that the change in one consumption level for Northern Pike (from 16 meals per month to 12 meals per month) based on the 2015-2016 guide does not result in the requirement of a Wildlife Exposure Assessment based on recommendations in OWA (2016), which indicates that a Wildlife Exposure Assessment is only required if the change is greater than one consumption level.

The changes predicted in the memo which also account for bioaccumulation of methylmercury are based on the use of calculations suggested in OWA (2016). Little background literature is available to investigate the method in which these calculations were developed. The following is a list of factors that were expected to influence the calculations' predicted methylmercury concentrations in fish tissues:

- It was originally assumed feeding rates during the overwintering period for fish would be the same as those during the spawning and rearing periods. As suggested in OWA (2016), a '% of Time Used' modifying factor was applied to the predicted increase in methylmercury concentrations for both Walleye and Northern Pike to account for their expected residency time in the Southwest Arm Tributary. Originally, a 2.33% modifying factor was applied to the expected increase in methylmercury concentrations for Northern Pike. If it is assumed Northern Pike significantly reduce their feeding during the overwintering period, their uptake of methylmercury in the Southwest Arm Tributary during this time would be nearly eliminated resulting in a new 1.86% modifying factor. Use of this new modifying factor results in a nearly 20% reduction in their estimated increase in methylmercury concentrations over the year. A potential 20% reduction in the predicted increase in methylmercury concentration would result in predicted future case methylmercury concentrations in Northern Pike that would be below 0.12 µg/g which is the threshold for reducing the recommended meals from 16 meals/month to 12 meals/month and thus, there would be no change in the consumption restrictions. Walleye were not expected to overwinter in the Southwest Arm Tributary.

- In the OWA (2016) guide, mercury and methylmercury in fish tissue are terms used interchangeably based on the assumption that all mercury in fish tissue is present in the methylated form (Pers. Communication, David Leeder, HESL). Stantec (2015) observations of fish tissue concentrations for mercury and methylmercury found that methylmercury accounted for approximately 37% of total mercury tissue concentrations in the whole bodies of fish sampled. Thus, if this methylmercury concentration modifying factor of 37% were applied to the calculated estimates, the predicted methylmercury concentration would be 0.104 µg/g. Stantec (2018) (attached) also concluded that in sampling the fillets and liver of 55 large fish (i.e. Walleye), methylmercury accounted for approximately 44% of total mercury tissue concentrations. If this methylmercury concentration modifying factor of 44% were applied to the calculated estimates, the predicted methylmercury concentration would be 0.106 µg/g. The methylmercury concentration boundaries for the 16 meals/month category range from 0.06 – 0.11 µg/g for the Sensitive Population and thus indicate no change in fish consumption advise using either modifying factor.
- The calculations used in estimating methylmercury concentrations in fish tissues, suggested in OWA (2016), were originally developed for hydropower dams of varying sizes. Their application to tributaries with minimally-flooded areas may result in more conservative estimates of methylmercury concentrations in fish tissue due to the lower anticipated residency times of methylmercury-containing organic matter and low-trophic level organisms.

The inherent conservativism in the fish tissue methylmercury calculations is understood and reasonable considering the importance of mercury from an ecotoxicological and bioaccumulative perspective. However, the 2015-16 Guide, though based on lower tissue concentrations, actually provides for higher meals per month than the earlier guidance. Considering the calculations' conservatism, it is not unreasonable to expect that predictions over-estimate future methylmercury fish tissue concentrations, especially in light of the relatively temporal increase in mercury concentrations following permanent inundations, the time required to bioaccumulate mercury through the food chain from water/sediment to Northern Pike of the 550 mm size class focused on in the OWA (2016) guide and the relatively short term residency expected for Northern Pike in the Southwest Arm tributary and diversion.

The comments provided by the MOECC do not alter the conclusion in the human health risk assessment that Project related changes in health risks due to mercury exposure are expected to be negligible. As discussed, the calculations used to estimate bioaccumulation are conservative and predicted to overestimate actual bioaccumulation. Overall there are no significant inputs of mercury into the system from the Project (including the Southwest Arm Tributary), thus changes from the present-day mercury concentrations found in the water, sediments and fish of the lake are predicted to be negligible.

The Human Health and Ecological Risk Assessment also contained multiple conservative assumptions used to overestimate risk due to mercury exposure including the assumption that mercury in fish tissue is 100% methylmercury and Aboriginal people obtain their entire diet of fish from Kenogamisis Lake.

Reference: MOECC Response to Hutchinson Environmental Sciences Ltd. Review of Mercury Analysis

The proponent intends to conduct future monitoring of various media, including water, sediment and tissue from small and large bodied fish. The results will be compared to the predictions in the EIS. This is consistent with the post-development monitoring recommended in OWA (2016) for a change in the consumption guideline of 1 level. If the increases in measured mercury and/or methylmercury levels are higher than those predicted in the EIS, mitigation and/or contingency measures will be developed.

Stantec Consulting Ltd.

Sheldon Smith MES, P.Geo.
Senior Hydrologist
Phone: (905) 415-6405
Sheldon.Smith@stantec.com

Bryan Leece Ph.D.
Senior Toxicologist
Phone: (905) 281-3264
Bryan.Leece@stantec.com

Tony McKnight-Whitford Ph.D.
Risk Assessor
Phone: (905) 381-3296
Tony.McKnight-Whitford@stantec.com

Daniel Fensom P.Eng.
Water Resources Engineer
Phone: (647) 273-5239
Daniel.Fensom@stantec.com

Attachment: Memorandum: Stantec Consulting Ltd. (2018). Methylmercury Prediction in Fish Tissue.

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	Greenstone Gold Mines GP Inc		Stantec Consulting Ltd.
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Reference: Methylmercury Prediction in Fish Tissue

Hutchinson Environmental Sciences Ltd. (HESL) is undertaking an independent peer review of mercury and arsenic work associated with GGM's proposed Hardrock Project. The following response has been prepared to present predicted methylmercury concentrations in fish tissue within the Kenogamisis Lake watershed following implementation of the proposed Goldfield Creek Diversion. The approach used to predict methylmercury concentrations in fish in this memo, are recommended in the Ontario Waterpower Association's (OWA) Best Management Practice for Small Hydropower and Methlymercury V2.0 (BMP) (HESL., 2016). While GGM is not proposing to build a hydro facility, the approach is in frequent use in Ontario and has been carried out for comparative purposes to confirm that the approach used in the Final EIS/EA for assessing effects on human health is conservative.

GENERAL PREDICTIVE CALCULATION ASSUMPTIONS

1. Throughout the BMP (OWA, 2016), it appears that the terms mercury and methylmercury have been used interchangeably. For instance, the caption in Table 1 of the BMP (OWA, 2016) presents comparisons of the five predictive calculations for estimating methylmercury. A review of each predictive calculation however, indicates mercury (Hg) concentration is the primary parameter of concern and the assumed relationship between mercury and methylmercury concentrations in fish tissue is not defined in the report. In the absence of specific mercury-methylmercury relationships. it has been assumed that all references and calculations predicting mercury concentrations in fish tissue are in fact either predicting methylmercury concentrations or assume that all mercury in fish tissue is present in the form of methylmercury.
2. The five predictive calculations for estimating mercury concentrations in fish are only applicable to Walleye of approximately 400 mm in length and Northern Pike of approximately 550 mm in length.
3. Equations in all five calculations make use of several undefined parameters containing words such as 'area' and 'flooded area'. Because descriptions of these parameters are not provided in the BMP (OWA, 2016), Table 1 provides their assumed meaning.

Table 1: Area Definitions

Parameters Named in BMP	Meaning
• Flooded Area	The newly flooded area resulting from diversion construction not including existing wetted area.
• Total Area and Total Reservoir Area	The entire flooded area resulting from diversion construction, including existing wetted area including the Diversion Reservoir, Goldfield Creek between the Diversion Reservoir and Kenogamisis Lake, SWP3 and the two ponds created by the flow control structures
• Original Area	Existing wetted area over which, diversion will be located.

4. For this assessment, it is assumed fish do not spend 100% of their life in the impacted area which conflicts with Section 6.3 of the BMP (OWA, 2016) that states the calculations assume fish spend 100% of their life in the in the impacted area. To provide estimates of methylmercury bioaccumulation in Northern Pike and Walleye in the Kenogamisis Lake system, estimates of fish residency time in the Diversion Channel, calculated below, must be incorporated into the calculations as a percentage of the year spent in the impacted area (OWA, 2016).
5. Four out of the five calculations provided in the BMP (OWA, 2016) predict peak post-flood methylmercury concentrations without reference to baseline conditions. It was therefore assumed that by applying the fish residency time modifying factor to the predicted peak methylmercury concentrations, a more conservative result would be obtained. This however, could not be said for the one calculation that predicts a change in methylmercury concentration over the baseline condition because the modifying factor could be applied directly to the predicted increase.
6. For execution of the calculations, it is assumed Walleye and Northern Pike have access to the full length of the diversion channel (up to and including the Diversion Pond) and all of Kenogamisis Lake.

FISH RESIDENCY TIME ASSUMPTIONS

The following inputs were used in developing the Walleye residency matrix based on field work (Table 2):

- 50% of the surface area in the Total Reservoir Area (impacted area) is suitable for Walleye rearing
- The Total Reservoir Area does not provide suitable Walleye Spawning Habitat
- The Total Reservoir Area does not provide suitable Walleye Overwintering Habitat
- 0.5% of the surface area in Kenogamisis Lake (non-impacted area) is suitable for Walleye spawning
- 80% of the surface area in Kenogamisis Lake is suitable for Walleye rearing
- 75% of the surface area in Kenogamisis Lake is suitable for Walleye overwintering.

The following inputs were used in developing the Northern Pike residency matrix based on field work (Table 3):

- 10% of the surface area in the Total Reservoir Area is suitable for Northern Pike spawning
- 80% of the surface area in the Total Reservoir Area is suitable for Northern Pike rearing
- 25% of the surface area in the Total Reservoir Area is suitable for Northern Pike overwintering
- 10% of the surface area in Kenogamisis Lake is suitable for Northern Pike spawning
- 80% of the surface area in Kenogamisis Lake is suitable for Northern Pike rearing
- 50% of the surface area in Kenogamisis Lake is suitable for Northern Pike overwintering.

FISH TISSUE METHYLMERCURY CALCULATION INPUTS

The average baseline methylmercury concentrations in Northern Pike (of approximately 550 mm in length) and Walley (of approximately 400 mm in length) from Kenogamisis Lake is 0.0907 µg/g and 0.2052 µg/g, respectively (Stantec, 2015). Tables 2 and 3 below present the fish residency time matrix, which provides the estimated useable habitat area and the approximate percentage of time Walleye and Northern Pike spend in the Total Reservoir Area relative to Kenogamisis Lake (non-impacted area).

Table 2: Walleye Residency Matrix

Walleye		Total Reservoir Area			Kenogamisis Lake		
	Days/Year	Area (m^2)	% of Time Used	Equivalent Number of Days	Area (m^2)	% of Time Used	Equivalent Number of Days
	A	**B**	**C**		**D**		
Spawning	10	0	0.00%	0.00	170,000	100.00%	10
Rearing	188	199,575	0.58%	1.10	34,000,000	99.42%	187
Overwintering	167	0	0.00%	0.00	31,875,000	100.00%	167
Total	365	199,575	0.58%	1.10	42,500,000	-	364
Total without Overwintering	198	199,575	0.58%	1.10	10,625,000	-	197

Table 3: Northern Pike Residency Matrix

Northern Pike		Total Reservoir Area			Kenogamisis Lake		
	Days/Year	Area (m^2)	% of Time Used	Equivalent Number of Days	Area (m^2)	% of Time Used	Equivalent Number of Days
	A	**B**	**C**		**D**		
Spawning	10	39,915	0.93%	0.09	4,250,000	99.07%	10
Rearing	188	319,321	0.93%	1.75	34,000,000	99.07%	186
Overwintering	167	99,788	0.47%	0.78	21,250,000	99.53%	166
Total	365	459,023	2.33%	2.62	42,500,000	-	362
Total without Overwintering	198	359,236	1.86%	1.84	10,625,000	-	196

PREDICTIVE CALCULATION RESULTS

The following calculations are those suggested in the BMP (OWA, 2016) for predicting fish methylmercury concentrations. As presented in Tables 2 and 3, the '% of Time Used' as a modifying factor for Walleye and Northern Pike are 0.58% and 2.33%, respectively.

1) Johnston et al. (1991) Percent Flooding (PF) Calculation

Table 4: Johnston et al. (1991) Percent Flooding (PF) Equation

$Peak\ Hg = \frac{Burden}{W}$, where, $Burden = b_0 + b_1(PF)$
$PF = 100 * \frac{Flooded\ Area}{Total\ Area} = 100 * \frac{8.3\ ha}{8.8\ ha} = 94.3$
$W = Fish\ Weight\ (400\ mm\ Walleye) = 800\ g$ [1] $W = Fish\ Weight\ (550\ mm\ Northern\ Pike) = 1000\ g$ [2]
1. Walleye in Goldfield Lake and Kenogamisis Lake with lengths of approximately 400 mm have weights of approximately 800 g (Stantec, 2015). 2. Northern Pike in Southwest Arm Tributary Pond 3 with lengths of approximately 550 mm have weights of approximately 1,000 g (Stantec, 2015).

Table 5: Johnston et al. (1991) Percent Flooding (PF) Results

	Predicted Maximum Post-Flood MeHg Concentration Increase with Modifying Factor
Original Calibration	
Northern Pike, 550 mm	0.048 µg/g
Walleye, 400 mm	0.009 µg/g
Recalibration to Large and Small Hydro Sites	
Northern Pike, 550 mm	0.050 µg/g
Walleye, 400 mm	0.011 µg/g
Recalibration to Small Hydro Sites Only	
Northern Pike, 550 mm	0.038 µg/g

Walleye, 400 mm	0.008 µg/g

2) Bodaly et al. (2007)

Table 6: Bodaly et al. (2007) Equation

$Peak\ Hg = y_0 + a\left(1 - e^{-bx}\right)$
$x = 100 * \frac{Flooded\ Area}{Original\ Area} = 100 * \frac{8.8\ ha}{0.5\ ha} = 1760$

Table 7: Bodaly et al. (2007) Results

	Predicted Maximum Post-Flood MeHg Concentration Increase with Modifying Factor
Northern Pike, 550 mm	0.036 µg/g
Walleye, 400 mm	0.010 µg/g

3) Harris-Beals Percent Increase Flooding (PIF) 2014) Calculation from Reed Harris Environmental and WSP Canada, 2015

Table 8: Harris-Beals Percent Increase Flooding (PIF) (2014) Equation

$Peak\ Hg = PIF * Baseline\ Hg$, where, $PIF = k_1 * \frac{A_f}{Q+(k_2 * A_t)} + k_3$
$Baseline\ Hg\ (Northern\ Pike)^1 = 0.0907\ \mu g\ g^{-1}$
$Baseline\ Hg\ (Walleye)^2 = 0.2052\ \mu g\ g^{-1}$
$A_f = Flooded\ Area = 0.083\ km^2$
$A_t = Total\ Reservoir\ Area = 0.088\ km^2$
$Q = Mean\ Annual\ Flow = 0.00713\ km^3 y^{-1}$
$k_1 = Regression\ coefficient\ (km\ yr^{-1})$
$k_2 = Regression\ coefficient\ (km\ yr^{-1})$

Reference: Methylmercury Prediction in Fish Tissue

$k_3 = Regression\ coefficient\ (dimensionless)$
1. Northern Pike in Lake A-322 have mean methylmercury concentrations of 0.0907 mg/kg wwt (Stantec, 2015). 2. The median methylmercury concentration in Walleye found in Goldfield Lake, Goldfield Creek and Kenogamisis River Inlet is 0.2052 mg/kg wwt (Stantec, 2015).

Table 9: Harris-Beals Percent Increase Flooding (PIF) (2014) Results

	Predicted Maximum Post-Flood MeHg Concentration Increase with Modifying Factor
Calibration to Large and Small Hydro Sites	
Northern Pike, 550 mm	0.011 µg/g
Walleye, 400 mm	0.003 µg/g
Calibration to Small Hydro Sites Only	
Northern Pike, 550 mm	0.013 µg/g
Walleye, 400 mm	0.004 µg/g

4) **Harris-Beals Concentration (2014) Calculation to Directly Predict Methlymercury Concentrations from Reed Harris Environmental and WSP Canada, 2015**

Table 10: Harris-Beals Concentration (2014) Equation to Directly Predict Methlymercury Concentrations Equation

$Peak\ Hg = k_1 * \frac{A_f}{Q+(k_2 * A_t)} + k_3$
$A_f = Flooded\ Area = 0.083\ km^2$
$A_t = Total\ Reservoir\ Area = 0.088\ km^2$
$Q = Mean\ Annual\ Flow = 0.00713\ km^3 y^{-1}$
$k_1 = Regression\ coefficient\ (\mu g\ km\ g^{-1}\ yr^{-1})$
$k_2 = Regression\ coefficient\ (\mu g\ km\ g^{-1}\ yr^{-1})$
$k_3 = Regression\ coefficient\ (\mu g\ g^{-1})$

Table 11: Harris-Beals Concentration (2014) Model to Directly Predict Methlymercury Concentrations Results

	Predicted Maximum Post-Flood MeHg Concentration Increase with Modifying Factor
Calibration to Large and Small Hydro Sites	
Northern Pike, 550 mm	0.039 µg/g
Walleye, 400 mm	0.008 µg/g
Calibration to Small Hydro Sites Only	
Northern Pike, 550 mm	0.048 µg/g
Walleye, 400 mm	0.011 µg/g

5) **Axor Calculation (2014) from Reed Harris Environmental and WSP Canada, 2015**

Table 12: Axor (2014) Equation

$Peak\ Hg = Baseline\ Hg + \frac{0.62 * \frac{FA}{Q}}{0.55 * \left(\frac{FA}{Q}\right)^{0.97} + 0.4}$
$Baseline\ Hg\ (Walleye)^1 = 0.2052\ \mu g\ g^{-1}$
$FA = Flooded\ Area\ (ha) = 8.8\ ha$
$Q = Mean\ Annual\ Flow = 0.226\ m^3\ s^{-1}$
1. The median methylmercury concentration in Walleye found in Goldfield Lake, Goldfield Creek and Kenogamisis River Inlet is 0.475 mg/kg wwt (Stantec, 2015).

Table 13: Axor (2014) Results

	Predicted Maximum Post-Flood MeHg Concentration Increase with Modifying Factor
Walleye, 400 mm	0.007 µg/g

DISCUSSION

Table 14 presents the summary of results from each of the calculations used for both Northern Pike and Walleye. In adjusting for fish residency time, the five calculations predict Northern Pike average methylmercury concentrations would increase from the average 0.0907 µg/g in fish tissue (Stantec, 2015) to 0.126 µg/g. Similarly, Walleye tissue methylmercury concentrations is predicted to increase from an average of 0.2052 µg/g to 0.213.

Using the advisory categories meals per month scale for 400 mm Walleye in Figures 2 and 3 of the BMP Guide (OWA, 2016), the predicted increase in methylmercury remains in the lowest concentration category and would not change the fish consumption advisory for Walleye. Using the same scale for 550 mm Northern Pike, with even lower baseline methylmercury fish tissue concentration, the predicted increase maintains consumption guidance within the same advisory category.

Table 14: Increase in Fish Methylmercury Concentrations Calculation Results Summary

Calculation		Northern Pike (550 mm)	Walleye (400 mm)
Johnson et al. (1991) Percent Flooding (PF)	Original Calibration	0.048 µg/g	0.009 µg/g
	Large and Small Hydro Sites	0.050 µg/g	0.011 µg/g
	Small Hydro Sites	0.038 µg/g	0.008 µg/g
Bodaly et al. (2007)		0.036 µg/g	0.010 µg/g
Harris-Beals Percent Increase Flooding (PIF) (2014)	Large and Small Hydro Sites	0.011 µg/g	0.003 µg/g
	Small Hydro Sites	0.013 µg/g	0.004 µg/g
Harris-Beals Concentration (2014) to Directly Predict Mercury Concentrations	Large and Small Hydro Sites	0.039 µg/g	0.008 µg/g
	Small Hydro Sites	0.048 µg/g	0.011 µg/g
5) Axor (2014)		-	0.007 µg/g
Average with Modifying Factor		**0.035 µg/g**	**0.008 µg/g**

CONCLUSION

Considering the diversion design and mitigating conditions limiting the potential for organic sediment erosion and transport, restricting the development of anoxic conditions, reducing opportunities for microbially mediated methylation, and reducing the hydraulic residence time, the diversion will not create an environment conducive to mercury methylation. Based on methylmercury design condition mitigations, the predictive calculation results presented above, and anticipated maintenance of predicted fish tissue methylmercury concentrations within the lowest concentration category in the diversion, it is concluded the Project will have negligible effects on top predator fish.

The human health risk assessment (Appendix F8 of the Final EIS/EA) estimated the potential human health risks associated with exposures to methylmercury in fish assuming the total mercury measured in Walleye fillet (0.586 µg total mercury/g fish tissue) was present as methylmercury. Based on the calculation results presented above, methylmercury concentrations in Walleye are predicted to increase by 0.008 µg/g. This represents a predicted increase in methylmercury concentrations of 1.4%. The conservative assumptions used in the HHERA (assuming 100% methylmercury) over-estimate the potential baseline and future risks associated with exposures to methylmercury in fish tissue. Thus, considering the conservative assumptions used in the HHERA, a 1.4% increase in methylmercury concentrations in Walleye tissue, represents a negligible human health risk for people who consume fish from Kenogamisis Lake. The multiple conservative assumptions used in these predictions provide a high degree of confidence in this conclusion.

STANTEC CONSULTING LTD.

Sheldon Smith, MES, P.Geo.
Senior Hyrologist
Phone: (905) 415-6405
Sheldon.Smith@stantec.com

Bryan Leece, Ph.d.
Senior Toxicologist
Phone: (905) 281-3264
Bryan.Leece@stantec.com

Daniel Fensom, P. Eng.
Water Resources Engineer
Phone: (905) 944-6381
Daniel.Fensom@stantec.com

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