

Neil Hutchinson, Ph.D.

HESL Principal Consultant



Professional History

Hutchinson Environmental Sciences Ltd.

President & Principal Scientist Bracebridge, ON 2009 – Present

Gartner Lee Limited/AECOM

Senior Aquatic Scientist Bracebridge, ON 1998 – 2009

Dorset Environmental Science Centre

Lake Scientist
Ontario Ministry of the
Environment
1987 – 1997

Dorset Environmental Science Centre

Ontario Ministry of the Environment Post-Doctoral Research: Aquatic Toxicology 1984 – 1987

Ph.D. Aquatic Toxicology

Department of Zoology, University of Guelph 1979 – 1985

B.Sc., Honours Ecology University of Guelph 1974 – 1978 Dr. Hutchinson brings over 41 years of postgraduate experience to the study team. His professional career has focussed on pollutants and stressors of aquatic systems, with a focus extending from geochemical to laboratory to whole-watershed levels of investigation and a specialization in PreCambrian Shield systems. He was the Senior Aquatic Scientist at Gartner Lee Limited from 1998 – 2009 before forming HESL. He has applied his knowledge of aquatic systems, watersheds and policy development to research, monitoring, development and peer review projects across Canada and is recognized as a national expert in water quality. He has managed projects, provided technical direction and served as a technical specialist across the country, completing substantial projects for the private sector, government and governmental agencies, NGOs and First Nations.

As President and Principal Consultant, he provides senior technical direction to all studies completed by HESL.

He has worked with a variety of regulators and proponents and coupled strong technical assessment with effective project management and successful facilitation and engagement to ensure that a balance of viewpoints is represented in regulatory decisions.

Neil's experience in Northern Canada has been largely focused on the mining sector, which has been characterized by detailed technical analysis and review, industry cooperation, engagement of a wide and diverse group of stakeholders and focused followup on commitments and agreements. Since 1998, Neil has provided a leadership and technical role in the review, development of the Report on the Environmental Assessment and the resultant Water Licences for the Diavik, Ekati, Jay, Snap Lake and Gahcho Kue diamond projects in the Northwest Territories and the Victor diamond mine in the James Bay Lowlands of Northern Ontario. He has been retained by the Mackenzie Valley Environmental Impact Review Board, Mackenzie Valley Land and Water Board, the Wek'eezhi Land and Water Board and the Sahtu Land and Water Board in the NWT and the Yukon Water Board. He has completed reviews of the Hope Bay and Sabina Projects for the Kitikmeot Inuit Association, of the Meadowbank., Meliadine and Kiggavik projects for the Kivalliq Inuit Association. Proponent clients include DeBeers Canada (Gahcho Kue project) and MMG Minerals (Izok and High Lake Projects). He has worked for First Nations representatives in Ontario and Alberta as technical advisor on water quality for mining and hydrocarbon projects.

Neil played a major role in development of the Inu'tuti aquatic cumulative effects monitoring framework for the Baker Lake basin, provided technical input to the development of various water and effluent management policies and frameworks to guide development in the north and is well regarded as a technical facilitator. He has published 13 papers and a book chapter on acidification and nutrient management in the primary scientific literature.

He has served as an invited expert for:

 United States National Acid Precipitation Assessment Program. "Critical Values for Effects of Acidification on Fish Populations", April 1989.



Neil Hutchinson, Ph.D.

HESL Principal Consultant

- Natural Sciences and Engineering Research Council of Canada (NSERC). Grant Selection Committee 18

 Ecology and Evolution.: 2000 2002.
- Natural Sciences and Engineering Research Council of Canada (NSERC). Strategic Project Grants Selection Committee. Panel A "Healthy Environment and Ecosystems": 2007 – 2009. Panel Chair – 2008, 2009.
- Natural Sciences and Engineering Research Council of Canada (NSERC). Vanier Graduate Scholarship Selection Committee. 2012-2014.
- George Barley Water Prize Florida Everglades Foundation. Application Judge. 2016-2018.
- Natural Sciences and Engineering Research Council of Canada (NSERC). CRD Program External Project Review. 2018.

Selected Experience in Northern Environmental Management

- Review of AEMP Design Plans (2001-2019):
 - NWT Diavik, Ekati Main, Sable and Jay, Snap Lake, Gahcho Kue, NICO, Prairie Creek,
 Imperial Oil Norman Wells Projects, Giant Mine Remedial Plan
 - NU Sabina, Hope Bay. Meadowbank., Meliadine and Kiggavik Projects.
- Review of EIS, Water Licences and Amendments (1999 2019):
 - NWT Diavik, Ekati Main, Sable and Jay, Snap Lake, Gahcho Kue, NICO, Prairie Creek, Imperial Oil Norman Wells and
 - o NU Sabina, Hope Bay. Meadowbank, Meliadine and Kiggavik Projects. 2001 2019.
 - o YT Aishihik GS Water Licence Renewal (2019)
- Senior Technical Lead Five Year Review of Community Based Water Quality Monitoring Program. Government of Northwest Territories, 2017.
- Analysis of environmental trends and cumulative effects assessment as input to the five year independent
 environmental audit to assess the quality of the environment and the effectiveness of environmental
 management in the Mackenzie Valley. Stratos Inc., for Government of Northwest Territories, 2019.
- Technical Advisor for the development of preferred statistical methodologies and policy considerations for the establishment and use of water quality triggers for the management of transboundary surface water quality. 2016. Stratos Inc., for GNWT.
- Guidance Document for Monitoring of Surface and Groundwater Response to Vertical and Horizontal Hydraulic Fracturing ("Fracking") Operations in the Mackenzie Valley, and Recommendations for Future Water Licences. SLWB, 2014.
- Technical Lead for Development of Baker Lake Cumulative Effects Monitoring Framework, Baker Lake Limnology Study and "One Voice" IQ study. For Kivalliq Inuit Association (2014-2018).
- Development of baseline water and fish sampling programs in support of small hydropower facility development in Ontario, For Xeneca Power (2010-2015).
- Nunavut Draft Land Use Plan Review. Review of draft Nunavut Land Use Plan to evaluate whether
 proposed policies adequately protect Nunavut's natural heritage rivers, drinking water supply and
 freshwater resources. For: Kivalliq Inuit Association, 2015 2016.
- Senior Water Quality and Strategic Advisor to MMG Minerals for the Izok Corridor Project of two base metals mines, a 250 km all season road and Arctic Ocean port facility in Nunavut (2012-2013).



Neil Hutchinson, Ph.D.

HESL Principal Consultant

- Revised Criteria for Calculation of Risk Level for Wastewater Facilities in Canada's Far North (CCME, 2011).
- Input to "Development of an Adaptive Management Response Framework for Diamond Mines in the NT" for Wek'eezhi Land and Water Board (2008-2010).
- Technical peer review of the fisheries/aquatic resources components of the "Detour Lake Project Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects Environmental Study Report", Certificate of Approval and Permit to take Water Applications for Detour Gold Mine (2010-2012,DPRA, on behalf of Moose Cree First Nation).
- Third Party Reviewer for Shareholders Feasibility Study and external reviewer of EA submission – Gahcho Kue Diamond Project for DeBeers Canada Inc. 2010-2011.
- Water quality input to the EA for remediation of the Anvil Range mine Faro (YT), for AECOM, Canada.
 2009-2010
- Preparation of the water quality input to the Environmental Assessment Report for the Anvil Range Mine Maintenance Program, Faro, YT (for Deloitte and Touche Interim Receiver, 2003).
- Development of draft site-specific water quality objectives for final closure of the Anvil Range Mine, Faro,
 YT (for Deloitte and Touche Interim Receiver, 2003).
- Technical Peer Review of The NWT Transboundary Water Quality Agreement with Alberta, on behalf of DIAND Water Resources Division, Yellowknife (2002).
- From 2010 to 2012, I was retained by Management Solutions in Environmental Science (MSES, Calgary, AB) to conduct peer reviews of various applications submitted in support of Oil Sands production and related facilities for various First Nations. 18 reviews were completed between 2010 and 2012:
- Water quality review of draft Environmental Compliance Approval of the Wallbridge Mining Company Ltd. Broken Hammer Mine Operation, Sudbury ON. For Shared Value Solutions, on behalf of Atikameksheng Anishnawbek First Nation (October 2013).
- Water quality review of draft Advanced Exploration Closure Plan and supporting documents for the FNX Mining Company Inc.'s Victoria Project, Sudbury ON. For Shared Value Solutions, on behalf of Atikameksheng Anishnawbek First Nation (December, 2013).
- Water quality and aquatic ecological baseline and impact assessment for Argonaut Gold Magino Project, Wawa ON. SLR Consulting (2013-2014).
- Aquatic effects baseline and impact assessment lead for High Lake Mine in the Izok Corridor Project for MMG Minerals (2012).
- Preparation, filing and cross examination of affidavit respecting potential aquatic effects, cumulative
 effects and EA process regarding Cliffs Chromite Project. For Olthuis, Kleer, Townsend
 representing Matawa First Nation (2011-2013).
- Technical Review of Water Quality and Aquatic Disciplines for Quintette and Line Creek Applications (Teck Coal Ltd. 2011).