



FINAL ENVIRONMENTAL ASSESSMENT
Table of Contents and Acronyms
November 2023

Acknowledgements

We wish to acknowledge that the Waasigan Transmission Line Project is located within lands that represent the traditional territories and homelands of the Robinson-Superior Treaty (1850) First Nations and Treaty #3 (1873), and traverse the Red Sky Métis Independent Nation, Northwestern Ontario Métis Community and Northern Lake Superior Métis Community.

Hydro One also wishes to acknowledge Indigenous artist, Storm Angeconeb, for developing the covering page and wildlife designs throughout the Final Environmental Assessment. Storm is a highly recognized visual artist from Lac Seul First Nation in Treaty #3 and currently resides in Red Lake. Many of her works include animals and birds as representations of herself or those close to her. The artist's description of the covering page is presented below.

Hydro One Environmental Study Art:

What stands out in this art piece is the symbolic representation of solar rays as “Bringing Power”; we can see the environment represented through the wildlife and Ojibwe floral visuals. This artwork is an excellent representation of Hope, Life, and Opportunity, visually portrayed through the Black Bear and her two cubs. The colour theme of this artwork comes from the Waasigan Transmission Line Project brand identity.

Artist: Storm Angeconeb

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Commitments for the Waasigan Transmission Line



Acronyms

| | |
|-------------------|--|
| AADT | annual average daily traffic |
| AC | alternating current |
| AEDC | Atikokan Economic Development Corporation |
| AER | Alberta Energy Regulator |
| AMIS | Abandoned Mines Information System |
| ANSI | Area of Natural and Scientific Interest |
| AOC | areas of concern |
| APS | Anishinabek Police Service |
| ASCE | American Society of Civil Engineers |
| ASTM | American Society of Testing Materials |
| ATV | all-terrain vehicle |
| BHA | bait harvesting area |
| BLM | Bureau of Land Management |
| BMA | bear management area |
| BMP | best management practice |
| BP | before present |
| CAA | IESO Connection Assessment and Approval |
| CAAQS | Canadian Ambient Air Quality Standards |
| CAC | criteria air contaminant |
| CaCO ₃ | calcium carbonate |
| CAD | Canadian dollars |
| CAR | Canadian Aviation Regulations |
| CCME | Canadian Council of Ministers of the Environment |
| CDEM | Canadian Digital Elevation Model |
| CDSM | Canadian Digital Surface Model |
| CEC | Community Engagement Coordinators |
| CEDC | Community Economic Development Commission |
| CEPA | <i>Canadian Environmental Protection Act, 1999</i> |
| CFA | Capacity Funding Agreements |
| CFSA | <i>Crown Forest Sustainability Act, 1994</i> |
| CH ₄ | methane |
| CHEC | Cultural Heritage Existing Conditions |



| | |
|------------------|--|
| CHER | Cultural Heritage Evaluation Report |
| CHVI | Cultural Heritage Value or Interest |
| CIRNAC | Crown-Indigenous Relations and Northern Affairs Canada |
| CLI | Canada Land Inventory |
| CLUPA | Crown Land Use Policy Area |
| CMO | Chi Mino Ozhitoowin |
| CNR | Canadian National Railway |
| CNWA | <i>Canadian Navigable Waters Act, 1985</i> |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO _{2e} | carbon dioxide equivalent |
| COH | Community Open House |
| CONMX | conifer mixed |
| COSEWIC | Committee on the Status of Endangered Wildlife in Canada |
| COSSARO | Committee on the Status of Species at Risk in Ontario |
| CPAWS | Canadian Parks and Wilderness Society |
| CPR | Canadian Pacific Railway |
| CSA | Canadian Standards Association |
| CTAS | Canadian Triage and Acuity Scale |
| CUSW | Canadian Union of Skilled Workers |
| CWQG | Canadian Water Quality Guidelines |
| CWS | Canadian Wildlife Service |
| dB | decibel |
| dba | A-weighted decibel |
| dBL | linear decibel |
| DCHS | dynamic caribou habitat schedules |
| DDT | dichloro diphenyl trichloroethane |
| DEM | digital elevation model |
| DFO | Fisheries and Oceans Canada |
| DSLR | digital single lens reflex |
| DSM | digital surface model |
| EA | environmental assessment |
| EAA | <i>Environmental Assessment Act, 1990</i> |
| EAB | Environmental Assessment Branch |
| EASR | Environmental Activity and Sector Registry |



| | |
|----------|---|
| ECA | Environmental Compliance Approval |
| ECCE | Environment and Climate Change Canada |
| ECI | early contractor involvement |
| ELC | ecological land classification |
| EM | Environmental Monitoring |
| EMF | electric and magnetic fields |
| EMS | emergency medical services |
| END | endangered |
| ENDM | Ministry of Energy, Northern Development and Mines |
| EPA | Environmental Protection Agency |
| EPC | environmental procurement contractor |
| EPP | Environmental Protection Plan |
| EPRI-GTC | Electric Power Research Institute-Georgia Transmission Corporation |
| ESA | <i>Endangered Species Act, 2007</i> |
| ESC | erosion and sedimentation control |
| ESMP | Environmental and Social Management Plan |
| ESRI | Environmental Systems Research Institute |
| FAA | Federal Aviation Administration |
| FCSI | Federal Contaminated Sites Inventory |
| FMP | Forest Management Plan |
| FMU | Forest Management Unit |
| FMZ | fish management zone |
| FPTCCCEA | Federal-Provincial-Territorial Committee on Climate Change and Environmental Assessment |
| FRI | Forest Resource Inventory |
| FTA | Federal Transit Administration |
| FTE | full-time equivalent |
| FWCA | <i>Fish and Wildlife Conservation Act, 1997</i> |
| GDP | gross domestic product |
| GHG | greenhouse gas |
| GHGRP | GHG Reporting Program |
| GIS | geographic information system |
| GLP | Gwayakocchigewin Limited Partnership |
| GPS | global positioning system |
| GRT | Government Review Team |



| | |
|------------|---|
| GWP | global warming potential |
| HADD | harmful alteration, disruption and destruction |
| HASP | health and safety plan |
| HBC | Hudson Bay Company |
| HCP | Heritage Conservation Plan |
| HFC | hydrofluorocarbon |
| HIA | Heritage Impact Assessment |
| HP | horsepower |
| HRDMW | hardwood mixedwood |
| HRDOM | hardwood dominant |
| HVA | highly vulnerable aquifers |
| HWM | high-water mark |
| Hydro One | Hydro One Networks Inc. |
| Hz | hertz |
| IAA | Impact Assessment Act |
| ICO | indigenous culture, values and land use |
| IEC | Engineering Institute of Canada |
| IEEE | Institute of Electrical and Electronics Engineers |
| IEK | Indigenous Ecological Knowledge |
| IEP | Indigenous Economic Participation |
| IESO | Independent Electricity System Operator |
| IK | Indigenous Knowledge |
| IPCC | Intergovernmental Panel on Climate Change |
| IPSP | Integrated Power System Plan |
| IQR | interquartile range |
| IUCN | International Union for Conservation of Nature |
| KOA | Kampgrounds of America |
| LCFSP | licence to collect for scientific purposes |
| LDGV | light-duty gasoline vehicle |
| $L_{eq,T}$ | equivalent noise level |
| LiDAR | light detection and ranging |
| LiUNA | Laborers' International Union of North America |
| LIO | Land Information Ontario |
| LRCA | Lakehead Region Conservation Authority |
| LRU | land and resource use |



| | |
|------------------|---|
| LSA | local study area |
| LSPA | Lakehead Source Protection Area |
| LTEP | long-term energy plan |
| LUP | land use plan |
| MAI | Manito Aki Inakonigaawin |
| MBCA | <i>Migratory Birds Convention Act, 1994</i> |
| MCM | Ministry of Citizenship and Multiculturalism |
| MECP | Ministry of the Environment, Conservation and Parks |
| MLB | mature and late balsam fir mixed |
| MLI | mature and late lowland spruce and low other conifer |
| MMAH | Ministry of Municipal Affairs and Housing |
| MNDM | Ministry of Northern Development and Mines |
| MNO | Métis Nation of Ontario |
| MNR | Ministry of Natural Resources |
| MNRF | Ministry of Natural Resources and Forestry |
| MOE | Ministry of Energy |
| MOECC | Ontario Ministry of the Environment and Climate Change |
| MOHLTC | Ministry of Health and Long-Term Care |
| MOU | Memorandum of Understanding |
| MTCS | Ministry of Tourism, Culture and Sport |
| MTO | Ministry of Transportation |
| n/a | not available/applicable |
| N ₂ O | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAICS | North American Industry Classification System |
| NAPS | North American Pollutant Surveillance |
| NAR | narrative |
| NDMNRF | Northern Development, Mines, Natural Resources and Forestry |
| NEN | natural environment |
| NERC | North American Electric Reliability Corporation |
| NHIC | Natural Heritage Information Centre |
| NIR | National Inventory Report |
| NO ₂ | nitrogen dioxide |
| NO _x | nitrogen oxides |
| NOMA | Northwestern Ontario Municipal Association |



| | |
|---------|--|
| NOSTA | North of Superior Tourism Association |
| NOTL | Neighbours on the Line |
| NPC | Noise Pollution Control Guideline |
| NRC | Natural Resources Canada |
| NRVIS | Natural Resource Values Information System |
| NSWPB | North Superior Workforce Planning Board |
| NTU | nephelometric turbidity units |
| NWC | Northwest Trading Company |
| NWHU | Northwestern Health Unit |
| NWOMC | Northwestern Ontario Métis Community |
| NWOPA | Northwestern Ontario Prospectors Association |
| OASD | Ontario Archaeological Sites Database |
| OBBA | Ontario Breeding Bird Atlas |
| ODWS | Ontario Drinking Water Standards |
| OCLow | other conifer lowland |
| OEB | Ontario Energy Board |
| OFAH | Ontario Federation of Anglers and Hunters |
| OFATV | Ontario Federation of All-Terrain Vehicle Clubs |
| OFSC | Ontario Federation of Snowmobile Clubs |
| OGS | Ontario Geologic Survey |
| OHA | <i>Ontario Heritage Act, 1990</i> |
| OHN | Ontario Hydro Network |
| OHSW | overhead shield wires |
| OHT | Ontario Heritage Trust |
| OPA | Ontario Power Authority |
| OPGW | optic fibre ground wires |
| OPP | Ontario Provincial Police |
| OPSS | Ontario Provincial Standard Specification |
| O. Reg. | Ontario regulation |
| OTN | Ontario Trail Network |
| OWFMS | Ontario Wildland Fire Management Strategy |
| OWIT | Ontario Watershed Information Tool |
| PCMNO | Provisional Council of the Métis Nation of Ontario |
| PIA | Preliminary Heritage Impact Assessment |
| PJDEE | jack pine deep |



| | |
|-------------------|---|
| PM | particulate matter |
| PM _{2.5} | particulate matter smaller than 2.5 microns in diameter |
| PM ₁₀ | particulate matter smaller than 10 microns in diameter |
| POR | potential points of reception |
| PPC | Project Partners' Committee |
| PPS | Provincial Policy Statement |
| PPV | peak particle velocity |
| PSW | provincially significant wetlands |
| PTTW | Permit to Take Water |
| PVS | peak vector sum |
| PWQMN | Provincial (Stream) Water Quality Monitoring Network |
| PWQO | Provincial Water Quality Objectives |
| QA/QC | quality assurance/quality control |
| QP | qualified person |
| RFD | reasonably foreseeable future developments |
| RFP | request for proposal |
| RGA | Rapid Geomorphic Assessment |
| RMS | root-mean-square |
| ROM | Royal Ontario Museum |
| ROW | right-of-way |
| RSA | regional study area |
| RSMIN | Red Sky Métis Independent Nation |
| RSSA | route selection study area |
| RTO | Regional Tourism Organization |
| SACC | strategic assessment of climate change |
| SAR | Species at Risk |
| SARA | <i>Species at Risk Act, 2002</i> |
| SARO | Species at Risk in Ontario |
| SBLOW | black spruce lowland forest unit |
| SC | special concern |
| SCA | sudden cardiac arrest |
| SCADA | supervisory control and data acquirer |
| SEE | socio-economic environment |
| SEL | sound exposure level |
| SF ₆ | sulphur hexafluoride |



| | |
|---------|--|
| SFL | sustainable forest licence |
| SGRA | significant groundwater recharge areas |
| SLT | Saint Lawrence TradersSO ₂ sulfur dioxide |
| SOCC | species of conservation concern |
| SPF | spruce-pine-fir |
| SPM | suspended particulate matter |
| STEP | septic tank effluent pumping |
| SWH | significant wildlife habitat |
| TBDHU | Thunder Bay District Health Unit |
| TC | Transport Canada |
| TEC | technical and cost |
| THR | threatened |
| TK | Traditional Knowledge |
| TLRU | traditional land and resource use |
| ToR | Terms of Reference |
| TPBS | Thunder Bay Police Service |
| TS | transformer station |
| TSP | total suspended particles |
| TSS | total suspended solids |
| TTC | Toronto Transit Commission |
| TTP | Treaty Three Police |
| TWOMO | Territory Without Municipal Organization |
| UNDRIP | United Nations Declaration on the Rights of Indigenous People |
| UNFCCC | United Nations Framework Convention on Climate Change |
| USBM | United States Bureau of Mines |
| USDIBLM | United States Department of the Interior Bureau of Land Management |
| US EPA | United States Environmental Protection Agency |
| UTV | utility task vehicle |
| VKT | vehicle kilometres travelled |
| VMT | vehicle miles travelled |
| VP | viewpoint |
| VRM | visual resource management |
| WC | waterbody crossing |
| WHO | World Health Organization |
| WMU | Wildlife Management Unit |



| | |
|------|--------------------------------------|
| WNS | white nose syndrome |
| WSC | Water Survey of Canada |
| WSIB | Workplace Safety and Insurance Board |
| WWTP | wastewater treatment plant |
| ZOI | zone of influence |



Units

| Unit | Definition |
|-------------------|-------------------------------|
| ± | plus or minus |
| % | percent |
| # | number |
| < | less than |
| > | greater than |
| ≤ | less than or equal to |
| ° | degree(s) |
| °C | degree(s) celsius |
| CF | carbon fraction of dry matter |
| cm | centimetre(s) |
| DM | dry matter |
| GWP | global warming potential |
| g | gram(s) |
| ha | hectare(s) |
| kg | kilogram(s) |
| km | kilometre(s) |
| km/h | kilometre(s) per hour |
| km ² | square kilometre(s) |
| kV | kilovolt(s) |
| kWh | kilowatt hour |
| L | litre(s) |
| L/day | litres per day |
| m | metre(s) |
| m ² | square metre(s) |
| m ³ /s | cubic metre(s) per second |
| m/s | metre(s) per second |
| mg/L | milligram(s) per litre |
| mG | milliGauss |
| mm | millimetre(s) |
| mm/s | millimetres per second |
| MV | megavolt(s) |



| | |
|-------------------|---------------------------------|
| MW | megawatt(s) |
| MW/hr | megawatt per hour |
| N | number |
| NTU | nephelometric turbidity unit(s) |
| pH | potential of hydrogen |
| V/m | Volt(s) per metre |
| $\mu\text{S/cm}$ | microsiemen(s) per centimetre |
| $\mu\text{g/L}$ | Microgram(s) per litre |
| $\mu\text{g/m}^3$ | microgram per cubic metre |
| μPa | micropascals |





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