

DIRECTOR'S ORDER

TO: **Town of Marathon**
4 Hemlo Drive, P.O. Bag TM
Marathon, Ontario P0T 2E0

SITE: See Schedule "A" to this Order

PART 1 LEGAL AUTHORITY AND REASONS

1.1 Pursuant to subsection 1(1) of the *Environmental Protection Act*, R.S.O. 1990, c. E. 19, as amended (the "*EPA*"):

"contaminant" means any solid, liquid gas, odour, heat, sound, vibration, radiation or combination of any of them resulting directly or indirectly from human activities that causes or may cause an adverse effect.

"adverse effect" means one or more of,

- (a) impairment of the quality of the natural environment for any use that can be made of it;
- (b) injury or damage to property or to plant or animal life;
- (c) harm or material discomfort to any person;
- (d) an adverse effect on the health of any person;
- (e) impairment of the safety of any person;
- (f) rendering any property or plant or animal life unfit for human use;
- (g) loss of enjoyment of normal use of property; and
- (h) interference with the normal conduct of business.

1.2 Subsection 18(1) of the *EPA* provides that the Director may, by Order, require a person who owns or owned or who has or had management or control of an undertaking or property to do any one or more of the following:

1. To have available at all times, or during such periods of time as are specified in the Order, the equipment, material and personnel specified in the Order at the locations specified in the Order.
2. To obtain, construct and install or modify the devices, equipment and facilities specified in the Order at the locations and in the manner specified in the Order.

3. To implement procedures specified in the Order.
4. To take all steps necessary so that procedures specified in the Order will be implemented in the event that a contaminant is discharged into the natural environment from the undertaking or property.
5. To monitor and record the presence or discharge of a contaminant specified in the Order and to report thereon to the Director.
6. To study and to report to the Director upon,
 - a) the presence or discharge of a contaminant specified in the Order,
 - b) the effects of the presence or discharge of a contaminant specified in the Order,
 - c) measures to control the presence or discharge of a contaminant specified in the Order,
 - d) the natural environment into which a contaminant specified in the Order is likely to be discharged.
7. To develop and implement plans to,
 - a) reduce the amount of a contaminant that is discharged into the natural environment,
 - b) prevent or reduce the risk of a spill of a pollutant within the meaning of Part X, or
 - c) prevent, decrease or eliminate any adverse effects that result or may result from a spill of a pollutant within the meaning of Part X or from any other discharge of a contaminant into the natural environment, including,
 - A. plans to notify the Ministry, other public authorities and members of the public who may be affected by a discharge, and
 - B. plans to ensure that appropriate equipment, material and personnel are available to respond to a discharge.
8. To amend a plan developed under paragraph 7 above or section 91.1 of the EPA in the manner specified in the Order.

- 1.3 Subsection 18(2) of the *EPA* provides that the Director may make an Order under section 18(1) if the Director is of the opinion, based on reasonable and probable grounds, that the requirements specified in the Order are necessary or advisable so as,
- (a) to prevent or reduce the risk of a discharge of a contaminant into the natural environment from the undertaking or property, or
 - (b) to prevent, decrease or eliminate an adverse effect that may result from,

- (i) the discharge of a contaminant from the undertaking, or
- (ii) the presence or discharge of a contaminant in, on or under the property.

- 1.4 Subsection 132(1) of the EPA provides that the Director may include in an order in respect of a works a requirement that the person to whom the order directed provide financial assurance to the Crown in right of Ontario for the performance of any action specified in the order.
- 1.5 Subsection 196(1) of the EPA provides that the authority to make an Order under the EPA includes the authority to require the person or body to whom the Order is directed to take such intermediate action or such procedural steps or both as are related to the action required or prohibited by the Order and as are specified in the Order.
- 1.6 Subsection 196(2) of the EPA provides that a person who has authority under the EPA to order that a thing be done on or in any place also has authority to order any person who owns, occupies or has the charge, management or control of the place to permit access to the place for the purpose of doing the thing.
- 1.7 Section 5, paragraph 5 of Ontario Regulation 681/94, made under the *Environmental Bill of Rights, 1993*, S.O. 1993, c. 28, as amended (the "EBR") provides a proposal for an Order under sections 18 of the EPA is a Class II proposal.
- 1.8 Subsection 22(1) of the EBR provides that the Minister shall do everything in his or her power to give notice to the public of a Class I, II or III proposal for an instrument under consideration in his or her ministry at least thirty days before a decision is made whether or not to implement the proposal.
- 1.9 Subsection 22(2) of the EBR provides that, for purposes of subsection (1), a proposal for an instrument is under consideration in a ministry if,
 - (a) it is possible that a decision whether or not to implement the proposal will be made under an Act by the Minister for the ministry or by a person employed in the ministry; or
 - (b) it is possible that a decision whether or not to implement the proposal will be made under an Act administered by the Minister for the ministry.
- 1.10 The Site (described in **Schedule "A"** to this Order) is located in Marathon, Ontario and is part of a former pulp mill established in 1945. The Site was owned by Marathon Pulp Inc. ("MPI").
- 1.11 MPI was engaged in the production of Northern Bleached Softwood Kraft ("NBSK") pulp which was sold to paper manufacturers.
- 1.12 MPI was deemed to have made an assignment in bankruptcy, effective March 17, 2009, under the *Bankruptcy and Insolvency Act*, R.S. 1985, c. B-3 ("BIA").

PricewaterhouseCoopers Inc. (“PWC”) was appointed as the trustee in bankruptcy and receiver for the estate of MPI. PWC obtained an order of the Ontario Superior Court of Justice on July 7, 2009 to divest itself of the Site. MPI continues to own the Site.

- 1.13 MPI was wholly owned by 1398172 Ontario Inc. Tembec Industries Inc. (“Tembec”) and Kruger Inc. each owned 50% of the issued and outstanding shares of 1398172 Ontario Inc. In 2009 and 2010, the Ministry issued several Director’s Orders to MPI as the owner of the Site and Tembec on the basis that it exercised management and control over the Site and mill operations. The Director’s Orders required remediation work with respect to the Site.
- 1.14 Tembec appealed the Director’s Orders to the Environmental Review Tribunal. These appeals were resolved by minutes of settlement, dated September 7, 2011, between Tembec, the Ministry, and several other parties (the “Minutes of Settlement”). On October 26, 2011, the Environmental Review Tribunal issued a decision accepting the Minutes of Settlement and dismissing the proceeding.
- 1.15 The Minutes of Settlement required decommissioning of the former mill and environmental management and monitoring measures in respect of the Site and related mill properties. In addition, Tembec provided financial assurance to the Ministry to ensure that the work required under the Minutes of Settlement will be implemented.
- 1.16 Monitoring of the former mill site is required to ensure there is no further contamination of Peninsula Harbour from the former mill site. Further to the settlement, Tembec undertook comprehensive groundwater monitoring for the former mill site in accordance with a plan entitled *Groundwater Monitoring Plan*, prepared by SNC-LAVALIN Inc. (Darren Dickson, Senior Environmental Engineer), sent to Tembec Inc. (Lyle Biglow, Manager, Technology & Integration), dated December 12, 2011 that was acceptable to the Ministry. This plan included a list of wells, recommended parameters for analysis, frequency of sampling and a contingency plan. The contingency plan was based on trigger concentration levels of contaminants of concern derived from the groundwater quality conditions and a risk assessment undertaken at the time of the settlement.
- 1.17 The 2017 groundwater monitoring results indicated exceedances of the Trigger Value for electrical conductivity and an exceedance of the applicable ministry standard for sodium. Electrical conductivity exceedances typically represent worsening groundwater quality. The results also indicated increased concentrations of barium, chloride and mercury in the groundwater. As a result, Tembec implemented contingency measures including increased groundwater sampling frequency and installation of three (3) new monitoring wells.
- 1.18 The Ministry completed a review of all sampling done to date and recommended additional monitoring and sampling, including:

- Continued groundwater sampling to verify any trends in values, (e.g. while some values show downward trends, the amount of sodium is still above ministry criteria).
 - Samples from all monitoring wells at the Site should be collected in spring and summer 2019 and analyzed for routine and additional parameters.
 - A decrease in the trigger value for mercury is required in the event there is future development at the Site, which will be more protective of aquatic life.
- 1.19 The Ministry currently holds \$1,234,074.00 in financial assurance for the purpose of long-term monitoring at the Site, as required by the Minutes of Settlement. The Ministry also holds financial assurance associated with the decommissioning of the Aeration Stabilization Basin.
- 1.20 In accordance with the terms of the Minutes of Settlement, Tembec Inc. completed the demolition of the mill (above ground) in 2017. Decommissioning of the industrial sewage works is forecasted to occur in 2019.
- 1.21 The Minutes of Settlement agreement provides that Tembec may solicit bids and negotiate the sale of portions of the mill property, including the Site, in the event it identifies purchaser(s) acceptable to Tembec and the Ministry. In the event of a sale of one or more of the facilities that are the subject of the Minutes of Settlement, Tembec is relieved from its obligations under the settlement in relation to the property sold.
- 1.22 Under the Minutes of Settlement, any financial assurance associated with that sale transaction shall be released by the Ministry to Tembec if the purchaser has submitted the same type and amount of financial assurance, unless the ministry otherwise agrees.
- 1.23 The Municipality is proposing to purchase the Site, which constitutes part of the former Marathon Pulp Inc. mill site that is the subject of the Minutes of Settlement. The Site to be purchased, excludes the industrial sewage works. I understand that the Municipality intends for the Site to be subsequently developed for industrial purposes.
- 1.24 The Municipality has provided the Ministry with a proposed Groundwater Monitoring Program. The MECP has reviewed the Groundwater Monitoring Program for the Site and have incorporated this program into the monitoring conditions described in the work items of this Order. The review and work items do not apply to the monitoring of the Aeration Stabilization Basin.
- 1.25 Under the Ministry's Financial Assurance Guideline, financial assurance is not normally required of municipalities.
- 1.26 The Municipality has provided the Ministry with an affidavit acknowledging and agreeing to be responsible for the ongoing environmental obligations associated

with the Site, including any necessary long-term groundwater monitoring or further groundwater assessments deemed necessary by the Ministry.

- 1.27 On this basis, the Ministry is not requiring the Municipality to replace the financial assurance to be returned to Tembec as a result of the sale of the Site.
- 1.28 Further, the Director agrees to stay Item No. 2.4 of this Order as against the Municipality, which requires the Orderee to provide financial assurance for long-term monitoring at the Site.
- 1.29 For the sake of clarity, the stay of the financial assurance requirements does not apply to any successor or assignee of the Municipality. In the event the Municipality sells the Site, any subsequent purchaser or owner of the Site will be subject to the requirements of this Order, including the requirement in Item No. 2.4 to submit financial assurance in respect of the long-term monitoring requirements for the Site as set out in this Order.
- 1.30 In order to protect the natural environment and to prevent, decrease or eliminate adverse effects, it is important that the work described in Part 2 of this Order be undertaken.
- 1.31 I am of the opinion, based on reasonable and probable grounds, that:
 - a) The requirements specified in the Order are necessary or advisable in order to ensure ongoing monitoring is occurring at the Site to ensure contaminants are not being released from the former mill property into the natural environment from the undertaking or property;
 - b) The requirements specified in the Order are necessary or advisable in order to prevent, decrease or eliminate an adverse effect that may result from the discharge of contaminants into the natural environment from the mill site or from the presence or discharge of any contaminant from the Site.
 - c) The requirements specified in the Order are necessary or advisable to prevent the discharge of contaminants into Lake Superior as land, water, property, animal life, plant life or human health or safety is injured, damaged or endangered or is likely to be injured, damaged or endangered if such discharge is not prevented.
 - d) The requirements specified in the Order are necessary or advisable to ensure there is financial means to address any potential long-term environmental issues.

PART 2 WORK ORDERED

Pursuant to the authority vested in me by Sections 18, 132 and 196 of the EPA, I hereby order the Orderee to:

- 2.1 Effective immediately, the Orderee shall undertake a groundwater monitoring, sampling, and reporting program in accordance with the Groundwater Monitoring Program and subject to the following conditions:
- a) groundwater monitoring and sampling from all monitoring wells at the Site shall be completed on a bi-annual basis in the spring (May/June) and summer (July/August) of each year, with a minimum of 60 days between sampling events;
 - b) monitoring wells MW-15, MW-16, MW-17, MW-1D, MW-2D, MW-3D and MW-4D shall be included in the groundwater monitoring and sampling program;
 - c) any low-flow groundwater sampling is to follow the appropriate methodologies described in the Standard Guide for Purging Methods for Wells Used for Groundwater Quality Investigations;
 - d) the groundwater monitoring and sampling program shall also include the following parameters: alkalinity, bicarbonate, carbonate, calcium, magnesium, potassium and sulphate;
 - e) implementing a contingency plan, as agreed upon by the District Manager, in the event of an exceedance of the following groundwater parameter concentration values (collectively, the "Trigger Values") as follows:
 - (1) pH: 10.5 pH units
 - (2) electrical conductivity: 3,500 $\mu\text{mho/cm}$
 - (3) total mercury
 - i) 0.77 $\mu\text{g/L}$, for the following monitoring wells: MW-1S/D, MW-2S/D, MW-3S/D, MW-8, MW-15, MW-16, and MW-17; and
 - ii) 30 $\mu\text{g/L}$, for all other monitoring wells
 - (4) PCBs: 7.8 $\mu\text{g/L}$
 - (5) All other parameters: Table 3 Standards, as applicable.
- 2.2 By **June 30, 2019**, and on this date each subsequent year, the Orderee shall submit to the District Manager an annual groundwater monitoring and sampling report, prepared by a Qualified Person, which includes:
- a) a site plan illustrating the location of all existing/former infrastructure, monitoring wells, and nearby sensitive groundwater and surface water features, which may include private and municipal water supply wells, lakes, streams;
 - b) groundwater elevation measurements in tabular format, and interpreted groundwater elevation contours and flow directions displayed on a map for each monitoring event carried out during the previous year;
 - c) borehole and well installation logs for all groundwater monitoring wells at the Site;

- d) stratigraphic cross-sections which clearly illustrate the subsurface distribution of geological materials at the Site;
- e) tables illustrating current and historical groundwater quality data and applicable parameter Trigger Values;
- f) an assessment of the monitoring and sampling data from the previous year to evaluate compliance with the applicable groundwater quality Trigger Values;
- g) groundwater quality data from the previous year plotted on Piper diagrams and an interpretation of the results of these diagrams;
- h) time-series graphs showing groundwater quality data from 2011-present from all monitoring wells at the Site;
- i) Mann-Kendall trend tests for monitoring wells showing exceedances of the applicable groundwater quality Trigger Values at the Site and an interpretation of the results;
- j) copies of the laboratory certificates of analysis and chain of custody documents for all sampling events during the previous year;
- k) recommended changes to the monitoring program, if any, to ensure the program is effectively monitoring groundwater contamination at the Site in light of the obtained data, including but not limited to any changes to sampling frequency, additional sampling locations, additional parameters, alternative sampling methods, or additional remedial/contingency measures; and
- l) all monitoring and sampling data shall be submitted in an electronic format.

2.3 In the event that the results of any sampling event indicates an exceedance of Trigger Values, the Orderee shall (i) provide written notification to the District Manager within fifteen (15) days of receipt of the laboratory results; and (ii) prepare and submit a contingency plan prepared by a Qualified Person to the District Manager that includes:

- a) delineation of the area of groundwater concerns;
- b) identification of potential ongoing sources contributing to the contamination of groundwater;
- c) identification of potential ongoing sources contributing to the contamination of groundwater;
- d) plans to prevent the migration of contaminated groundwater to Lake Superior; and
- e) a schedule for carrying out the work described in the plan, acceptable to the Director.

2.4 Effectively immediately, the Orderee shall submit financial assurance for any outstanding monitoring required by this Order within ten (10) days of acquiring an interest in the Site, in accordance with Part XII of the EPA and applicable Ministry guidelines.

- 2.5 Upon service of this Order, the Orderee shall before dealing with the Site in anyway, give a copy of this Order, including any amendments thereto, to every person who will acquire an ownership interest in the Site as a result of the dealing.
- 2.6 Within ten (10) days of receipt of a Certificate of Requirement, register the Certificate of Requirement on title to the Site in the appropriate land registry office.
- 2.7 Within two (2) days of registration of the Certificate of Requirement, provide written verification to the Director that the Certificate of Requirement has been registered on title for the Site.
- 2.8 While this Order is in effect, report in writing to the District office prior to any significant changes of operation, ownership, tenancy or other legal status of the operations at the Site.
- 2.9 Unless otherwise specified, all requirements of this Order are effective upon service of this Order and is binding to any future owners of the property as long as the work is required.

Part 3: DEFINITIONS

For the purposes of this Order, the following terms shall have the meanings described below:

"Aquatic Protection Values" means the Table 3.1 Aquatic Protection Values to Protect Aquatic Biota Exposed to Contaminants from Migration of Contaminated Groundwater to Surface Water, Development of Values Protective of Aquatic Biota, described in the Ministry document entitled, "Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario", PIBS 7386e01, dated April 15, 2011.

"Director" means the undersigned Director or, in the event the undersigned is unable to act, any other Director authorized to act pursuant to sections 17, 27(1), 40, 44, 132(1), 133(1), 136(1), 186(3), 196(1), 196(2) and 197(1) of the Environmental Protection Act. R.S.O. 1990, c E.19.

"District Manager" means the District Manager of the Thunder Bay District of the Ministry of the Environment, Conservation and Parks. Any communications or documents that are to be provided to the District Manager shall be sent via mail to Ontario Ministry of the Environment, Conservation and Parks, 435 James Street South, Suite 331, Thunder Bay, ON, P7E 6S7 or electronically via email to trina.rawn@ontario.ca. In the event the District Manager is unable to act, any communication or document shall be sent to his/her written designate.

"EPA" means the *Environmental Protection Act*, R.S.O. 1990, c E. 19, as amended.

"Financial Assurance Guideline" means the document published by the Ministry, entitled, "F-15: Financial assurance guideline", Last Revision Date June 2011, PIBS 0226e04, as it may be amended.

"Groundwater Monitoring Program" means the report prepared by True Grit Engineering on behalf of the Municipality, entitled, "Proposed Groundwater Monitoring/Sampling Program, Former Marathon Pulp Inc. Mill Site and Aeration Stabilization Basin Site, Marathon Ontario", and submitted to the Ministry on September 28, 2017, a copy of which is attached as **Schedule "B"** to this Order.

"MECP" or "Ministry" means the Ontario Ministry of the Environment, Conservation and Parks.

"Municipality" means the Town of Marathon.

"Operator" means the person in occupation or having the charge, management or control of a waste management system or a waste disposal site as defined by Section 25, Part V of the EPA.

"Order" means this Director's Order No. **XXXXXX**, as may be amended.

"Orderee" means the person to whom this Order is directed, or any other successor or assignee of the person to whom it was directed, including any person who may acquire an ownership interest in the Site. For greater certainty, tenants of the Orderee are not bound by this Order where such tenants only acquire a leasehold interest in the Site.

"Qualified Person" means a person who has obtained the appropriate education and training and has demonstrated experience and expertise in the areas relating to the work required to be carried out in this Order.

"Site" means the properties described in "Schedule "A" to this Order.

"Standard Guide for Purging Methods for Wells Used for Ground-Water Quality Investigations " refers to the document ASTM D6452-99, Standard Guide for Purging Methods for Wells Used for Ground-Water Quality Investigations, ASTM International, West Conshohocken, PA, 1999. An electronic copy of this document may be found at <http://www.astm.org/cgi-bin/resolver.cgi?D6452-99>

"Table 3 Standards" means the values for coarse textured soils listed under the heading for Non-Potable Ground Water, All Types of Property Use in Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, described in the document " Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*,"

published by the Ministry of the Environment, dated April 15, 2011, PIBS # 7382e01. An electronic copy of this document may be found at <https://www.ontario.ca/page/soil-ground-water-and-sediment-standards-use-under-part-xv1-environmental-protection-act>

PART 4 GENERAL

- 4.1 All Orders are issued in the English language and may be translated into the French language. In the event that there should be a conflict between the English original and the French translation, the English original shall prevail.
- 4.2 The requirements of this Order are severable. If any requirement of this Order or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the Order shall not be affected thereby.
- 4.3 Subsection 19(1) of the EPA [13.1 of the OWRA; 31. (1) of the Pesticides Act] provides that an order of the Director is binding upon the successor or assignee of the person to whom it is directed.
- 4.4 Subsection 186(2) of the EPA [107(2) of the OWRA; 42(2) of the Pesticides Act] provides that non-compliance with the requirements of this order constitutes an offence.
- 4.5 Any request to change a requirement in this order shall be made in writing to the Director, with reason for the request, at least 14 days prior to any compliance date for that requirement.
- 4.6 The requirements of this Order are minimum requirements only and do not relieve you from:
 - i. complying with any other applicable order, statute, regulation, municipal, provincial or federal law; and
 - ii. obtaining any approvals or consents not specified in this Order.
- 4.7 Notwithstanding the issuance of this Order, further or other orders may be issued in accordance with the legislation as circumstances require. In particular, the Director shall issue an order where the approval of the Director is required in respect of a matter under this Order and
- 4.8 Notwithstanding the issuance of this Order, further or other orders may be issued in accordance with the legislation as circumstances require. In particular, the Director shall issue an order where the approval of the Director is required in respect of a matter under this Order and,

- i. the Director does not grant approval; or
 - ii. the Director does not grant approval because the changes which the Director considers necessary for granting approval have not been agreed to by the persons to whom this Order is issued.
- 4.9 In the event any party to this Order is, in the opinion of the Director, rendered unable to perform or comply with any obligations herein because of:
- i. natural phenomena of an exceptional, inevitable or irresistible nature, or insurrections, or
 - ii. strikes, lockouts, or other industrial disturbances, or
 - iii. inability to obtain materials or equipment for reasons beyond the control of the company, or
 - iv. any other cause whether similar to or different from the foregoing beyond the reasonable control of the parties,

the obligations hereof, as they are affected by the above shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the party must notify the Director immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the compliance dates in question.

- 4.10 Failure to comply with a requirement of this order by the date specified does not absolve you from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.
- 4.11 This order has no expiry date.

PART 5 HEARING BEFORE THE ENVIRONMENTAL REVIEW TRIBUNAL

- 5.1 Pursuant to section 140 of the *EPA*, you may require a hearing before the Environmental Review Tribunal, if within fifteen (15) days after service on you of a copy of this Order; you serve written notice on the Director and the Tribunal as set out in paragraph 4.3. Your notice must state:
- a) The portions(s) of the Order in respect of which a hearing is required; and
 - b) The grounds on which you intend to rely on the hearing.
- 5.2 Except with leave of the Tribunal, you are not entitled to appeal a portion of the Order or to rely on a ground that is not stated in the notice requiring the hearing. Unless stayed by the Tribunal, the Order remains in effect from the date of service.
- 5.3 Written notice requiring a hearing can be served upon:

The Secretary

Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario M5GP 1E5
Fax: (416) 326-5370
Email: ERTTribunalsecretary@ontario.ca

and

Director
Ministry of the Environment, Conservation and Parks
Thunder District
3rd Floor, Suite 331
435 James Street South
Thunder Bay, Ontario P7E 6S7

Further information on the Tribunal and requirements for an appeal can be obtained directly from the Tribunal by:
Tel: (416) 212-6349 or 1(866) 448-2248 Fax: (416) 326-5370 or 1(844) 213-3474
TTY: 1-800-855-1155 via Bell Relay Web: www.ert.gov.on.ca

- 5.4 Unless stayed by application under Section 143 of the EPA, this Order is effective from the date of issue.

FOR YOUR INFORMATION

The following is for your information:

Service of the documentation referred to above can be made personally, by mail, by fax, by commercial courier or by email in accordance with the legislation under which the Order is made and any corresponding Service Regulation. Further information can be obtained from e- Laws at www.e-laws.gov.on.ca. Please note that choosing service by mail does not extend any of the above mentioned timelines.

Unless stayed, this Order is effective from the date of service. Non-compliance with the requirements of this Order constitutes an offence.

The requirements of this Order are minimum requirements only and do not relieve you from complying with the following:

- a) any applicable federal legislation,
- b) any applicable provincial legislation or requirements that are not addressed in this Order, and
- c) any applicable municipal law.

The requirements of this Order are severable. If any requirement of this Order or the application of any requirement to any circumstances is held invalid, the application of such requirement to other circumstances and the remainder of the Order are not affected.

Further orders may be issued in accordance with the legislation as circumstances require.

The procedures and other information provided above are intended as a guide. The legislation and/or regulations should be consulted for additional details and accurate reference.

ISSUED at _____ this _____ day of June, 2019.

Director
Environmental Protection Act,
Sections 18, 132 & 196

Schedule "A" – Site Description

In this Order, "Site" means the lands owned by Marathon Pulp Inc. in the Township of O'Neill, in the District of Thunder Bay associated with or in the vicinity of the following parcels:

- (1) Closed Landfill, Property Identification Number ("PIN") 62448-0457
- (2) Pulp Mill, PIN 62448-0427

DRAFT

Schedule "B" - Groundwater Monitoring Program



Proposed Groundwater Monitoring/Sampling Program

Former Marathon Pulp Inc. Mill

Pulp Mill Site and Aerated Stabilization Basin Site

Marathon, Ontario

Pulp Mill Site Groundwater Monitoring/Sampling Program

- Review and summarize existing background information pertinent to the Groundwater Monitoring/Sampling Program for the Pulp Mill Site.
- Conduct a site walkover inspection to ensure familiarity with current site conditions and to inspect the 17 existing monitoring wells to determine whether they are still suitable for collection of viable groundwater samples.
- Maintain existing monitoring wells, included as part of the program, in good working order.
- Measure water levels and thickness of liquid-phase petroleum hydrocarbons (LPH), if present, using an oil/water interface probe at existing monitoring wells MW-1S, MW-1D, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S, MW-4D, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14.
- Conduct low-flow sampling using a peristaltic pump at wells MW-1S, MW-2S, MW-3S, MW-4S, MW-5, MW-7, MW-10, MW-11, and MW-13.
- Monitor field parameters during purging using a multi-meter and flow-through cell for pH, temperature, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO).
- Once field parameters stabilize, sample for specified parameters as outlined in the table below.

- Eliminate bailer sampling previously conducted at the site, given that the analytical results from the October 20, 2016 event did not show any appreciable differences between groundwater samples collected by bailer and by low flow procedures (particularly for the parameters of polychlorinated biphenyls [PCBs] and total mercury).
- Eliminate multi-method sampling for PCBs and collection of separate aliquots, given that the analytical results from the October 20, 2016 event did not warrant analysis of any aliquot samples.
- Prepare an annual report summarizing the results compared to the Trigger Concentrations and historical results; a copy of the report will also be submitted to the Ontario Ministry of the Environment and Climate Change (MOECC) for review.

Sampling Program - Mill Site												
Sampled	Frequency	Field Parameters						Analytical Parameters				
		Water Level	pH	Conductivity	Temp	Dissolved Oxygen	ORP	Metals (incl. Hg)	BTEX	PHC	Inorganics ¹	PCBs
MW-10	Once Annual (summer)	X	X	X	X	X	X	X	X	X	X	X
MW-13	Once Annual (summer)	X	X	X	X	X	X	X			X	X
MW-5	Once Annual (summer)	X	X	X	X	X	X		X	X		
MW-1S, MW-2S, MW-3S, MW-4S, MW-7, MW-11	Once Annual (summer)	X	X	X	X	X	X	X			X	X

Notes: 1. Inorganics includes conductivity, DOC, TSS, chloride, free cyanide, nitrate, nitrite, pH

Aerated Stabilization Basin Site Groundwater Monitoring/Sampling Program

- Review and summarize existing background information pertinent to the Groundwater Monitoring/Sampling Program for the Aerated Stabilization Basin Site.
- Conduct a site walkover inspection to ensure familiarity with current site conditions, as well as to inspect the six existing monitoring wells to determine whether they are still suitable for collection of viable groundwater samples.

- Maintain existing monitoring wells, included as part of the program, in good working order.
- Measure water levels and thickness of liquid-phase petroleum hydrocarbons (LPH), if present, using an interface probe at existing monitoring wells MW-1, MW-2S, MW-2D, MW-3, MW-4, and MW-5.
- Conduct low-flow sampling using a peristaltic pump at wells MW-1S, MW-2S, MW-2D, MW-3, MW-5, and MW-5.
- Monitor field parameters during purging using a multi-meter and flow-through cell for pH, temperature, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO).
- Once field parameters stabilize, sample for analysis of general chemistry parameters (alkalinity, BOD, COD, chloride, sulphate, conductivity, DOC, pH, phenols, TDS, toluene) and metals (comprehensive, including mercury).
- Prepare an annual report summarizing the results compared to MOECC Guideline B-7 (Reasonable Use Criteria) and historical results; a copy of the report will also be submitted to the MOECC for review.