



FACTSHEET

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REGULATORY PERMITTING & COMPLIANCE

Bridget Visser & Eric Rozema

Introduction

When either removing water from or discharging water into the environment there are necessary permits required to do so. This factsheet addresses requirements for Permits to Take Water (PTTW) and Environmental Compliance Approvals (ECA). In addition, conditions under Environmental Orders requiring abatement plans and assimilative capacity studies are addressed. Reuse of greenhouse nutrient feedwater is covered as well. The information that follows is applicable only to Ontario as it references provincial law and regulatory bodies.

Permit to Take Water

A Permit to Take Water (PTTW) from the Ministry of the Environment and Climate Change (MOECC) is required for removals greater than 50,000 litres of water per day, whether from surface or ground water. This includes water taken from lakes, ponds, rivers, streams, and wells. The total daily taking limit is cumulative across all water sources on the property. Permits are not required for takings less than 50,000 L/day. Exemptions exist for takings more than 50,000 L/day for livestock and poultry purposes or if the water is supplied by someone who already has a valid PTTW.

The purpose of the permitting system is to manage water removal in accordance with the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement which is an agreement between two provinces and eight US states. The Ontario regulatory

Acronym List

ECA: Environmental Compliance Approval
EPA: Environmental Protection Act
GNF: Greenhouse Nutrient Feedwater
MOECC: Ministry of the Environment and Climate Change
NMA: Nutrient Management Act
OWRA: Ontario Water Resources Act
PTTW: Permit to Take Water

framework falls under the Ontario Water Resources Act.

While ensuring water availability to existing permit holders, the permitting system provides environmental protection. In any geographic area permits are managed to ensure sufficient water is available for removal without creating a negative impact on the environment. Where water is drawn from wells, a hydrological assessment may be required. The Ontario Ministry of Natural Resources monitors water levels during drought periods to ensure that water takings are managed based on water availability. In some cases, it may result in a lower daily taking limit or possible water taking reduction to 50,000 L/day in severe drought conditions.

Water takings are assigned to a category based on the source, the possible risk to the environment, and amount removed. There are three permit categories; first is a low risk (Category 1), second are those with potential to cause an adverse effect (Category 2), and third is a high risk (Category 3). Due to the number of variables involved, the application or renewal processes can be

complex. Once a permit is issued daily volumes taken must be monitored, recorded daily, and reported yearly.

Additional information on the permit and application process can be found at <http://www.ontario.ca/environment-and-energy/permits-take-water>

Regulatory Process for Discharge

Approval

There are several steps to achieving approval by the MOECC to discharge wastewater into the environment as demonstrated in Figure 1. MOECC has the authority to inspect agricultural washing operations or greenhouses to ensure compliance with the various environmental laws. These include Environmental Protection Act, Ontario Water Resources Act, Nutrient Management Act, Pesticides Act and others. Under OWRA vegetable washing operations are required to obtain an ECA.

There is an obligation of operators to apply voluntarily; however, if an Environmental Officer were to visit a site that has not obtained an ECA, a Sewage Treatment Inspection Report would most likely be issued based on observed conditions during the visit. In extreme circumstances an Environmental (Provincial

Officer's) Order could be issued as well. The Inspection Report triggers a response by the operator in the form of an abatement plan. The plan prepared by the operator addresses the report's requirements identified by the Environmental Officer and a timeline to correct the situation. Applications for an ECA may require an assimilative capacity study before the treatment system and discharge is approved.

Environmental Compliance Approval

An Environmental Compliance Approval (ECA) is an agreement between the MOECC and an operation that outlines how the washwater would be treated to meet discharge conditions. The treatment system's discharge has limits of allowable contaminant concentrations. These limits vary from property to property and ultimately the level is determined by MOECC based on the assimilative capacity study of the receiving water body. Where information is lacking, MOECC may require a study to be completed by the facility. Furthermore, if discharge concentrations are below the Provincial Water Quality Objectives, the need for an assimilative capacity study may be waived.

The goal of these limits is to ensure the quality of the receiving water body does not deteriorate because of the wastewater discharge. If discharge limits are not followed, the MOECC can take legal action against the operation under the Environmental Protection Act (EPA) and Ontario Water Resources Act (OWRA). The operation may be fined, ordered to install proper wastewater management technologies, or shut down.

Working through the ECA process is important and while there are many industry consultants available to aid in

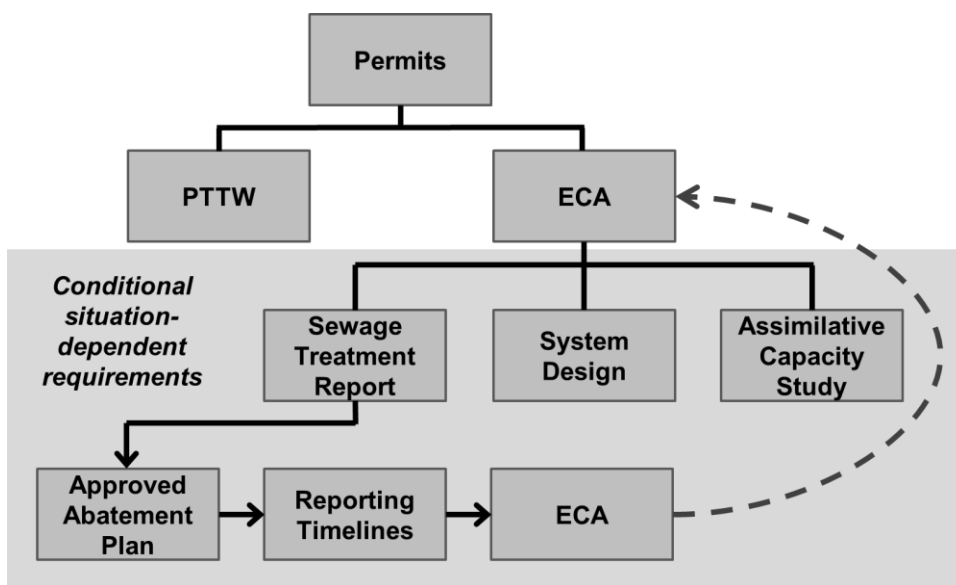


Figure 1: Permits and additional requirements

Table 1: Comparison of the conditions, exemptions, filing requirements, expiration, and additional requirements of permits associated with water taking and discharging

	PTTW	ECA
Conditions	>50,000 L/day removed	Every facility discharging to environment (includes owned land)
Exemptions	<ul style="list-style-type: none"> • Livestock • Poultry • Home uses • Firefighting • Supplied through a valid PTTW 	<ul style="list-style-type: none"> • Field washing is exempted as general agriculture practices • GNF land application through NMA
Filing requirements	Water taking reports filed annually	Vary according to the complexity
Expiration	Dependent on the permit	No expiry, but an expansion triggers a re-examination
Resources	MOE staff	<ul style="list-style-type: none"> • MOE staff • Accredited service providers: engineers, water samplers, labs, consultants
Additional requirements if requested	Hydrological assessment	<ul style="list-style-type: none"> • Facilities with an Order or Sewage Treatment Report <ul style="list-style-type: none"> • Abatement Plan approval • Reporting timelines • ECA application • Assimilative Capacity study • System design

the process, the MOECC has many resources to assist. Further information can be found at <https://www.ontario.ca/environment-and-energy/environmental-approvals>

Abatement Plans

An abatement plan is required when an operator has been issued a Sewage Treatment Inspection Report. The abatement plan is facility's response to the report as it outlines what steps will be taken to address the issues that were reported by the Environmental Officer.

The plan will include:

- The volume of wastewater generated per day
- The proposed treatment system or treatment improvements
- Timeline for when the steps will be completed

- Detailed drawings to outline the facility's washwater treatment process with discharge points to the environment clearly identified
- Description of how past discharges have been monitored
- Any available data on the quantity and quality of past discharges and receiving waters

An additional requirement from the Inspection Report may be sampling on a prescribed schedule. The operator may complete this in-house or retain a third party to do the sampling. Either method requires the samples go to a certified lab for testing.

If the abatement plan is not followed or initial issues are considered severe, further action can be taken by MOECC such as issuing of tickets or in extreme cases, prosecution.

Reporting Timelines

If the Inspection Report requires water sampling to document discharges, there will be a specified schedule to report water quality to the MOECC. The common requirement is monthly sampling. This condition may be eased under the ECA once it is approved or if historical data supports a decrease.

Assimilative Capacity Studies

Assimilative capacity refers to the ability of a water body to receive treatment system water inflows without comprising its overall quality. An assimilative capacity study is undertaken to model and predict what will happen to a water body based on current conditions and the types of activities that occur in its watershed. MOECC can then use these studies to regulate inflows into a watershed. Examples of inflows into water bodies include discharges from sewage treatment plants, storm water runoff from urban areas, discharges of agricultural wastewater, and other discharges that contain pollutants such

as solids, organic matter, nutrients, and other compounds. Assimilative capacity studies can be taken on a larger scale that includes entire watersheds or individual lakes or rivers. These studies are often done in partnership with local conservation authorities and consultants.

Examples of assimilative capacity studies, completed by the Lake Simcoe Regional Conservation Authority, can be found at <http://www.lsrca.on.ca/reports/acs.php>

Greenhouse Nutrient Feedwater Regulation

Greenhouse nutrient feedwater (GNF) can become unsuitable for reuse in the system and must be removed. Because it contains nutrients, this water may be suitable for land application as a crop input. The greenhouse sector has a set of regulations under the Nutrient Management Act (NMA) to guide operators in land application process. A standardized application process can be found at http://www.omafra.gov.on.ca/english/nm/reg_s/gnfpro/gnfreg.htm

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