



WATERSHED IRRIGATION PLAN PEI IRRIGATION STRATEGY 2022



Introduction

The PEI Irrigation Strategy is formulated to efficiently utilize available water for irrigation while providing protection for aquatic life. It follows direction for considerations under the Water Act and rules set by the Water Withdrawal Regulations. The available water is that available for all uses after water for environmental flows and aquatic life has been reserved. In watersheds where 80 per cent or more of the available water is allocated, the Strategy requires that a Watershed Irrigation Plan be prepared and implemented for efficient water use while equitably sharing the resource among those wishing to irrigate agricultural crops and any other plants including turf. The plan only applies to those who utilize enough water that they require a Water Withdrawal Permit to access their water. In order to ensure that Watershed Irrigation Plans have sufficient content to deliver on the goals of the strategy and that different plans are consistent in their content, this document provides a template of information that is required to be in the plans. While this template is a minimum of information, additional relevant information may be provided and is encouraged.

Components of a Watershed Irrigation Plan

The following describes items that are needed in the Watershed Irrigation Plan. It is preferable that they be in the order that they are presented here.

Current Watershed Situation

This section describes how water is currently being used in the watershed prior to the implementation of this plan. This helps in understanding the impact of the plan on current users and how much the plan changes the water use in the watershed. At a minimum it should contain:

- » Provide an overview of the watershed geophysical details such as its size, land use, precipitation patterns, impacts of climate change thus far and expected
- » Indicate how much water is being used and where in the watershed (including a map of extraction points – both surface water and groundwater)
- » Describe the types of water sources being used
- » Describe the various types of equipment being used and the crops being irrigated including the acreages
- » Describe the commitment and practices being used by the current irrigators that lead to responsible water use including soil health practices, water scheduling, moisture monitoring

Water Available for Irrigation

This section of the plan will describe the amount of water that is available for use both on an average and peak basis for groundwater and on a peak basis for surface water. Where needed, it will also describe how this may be different in sub-watersheds (particularly where more water is available in lower parts of a watershed). Determining the amount of water that is available in a watershed is the responsibility of EECA which will write and contribute the text for this section of all plans. This assessment will adhere to the objectives of the Water Act and to the rules set out in the Water Withdrawal Regulations. Contact the Watershed Hydrologist of EECA (qli@gov.pe.ca) to obtain the needed text for a plan.

Equitable Access

A cornerstone of the PEI Irrigation Strategy is the replacement of first-come-first-served access to water with equitable access. This is expected to be fairer to all water users but will come with greater challenges in determining what constitutes equitability. New entrants desiring access to water will no longer be unable to access it when existing users already use all the available water. In such watersheds, it is expected that users will be more committed to finding ways to share access and the total amount of available water so that as much as possible, everyone's irrigation needs are met.

PLAN CONTENT SUMMERY

- Current Watershed Situation
- Water Available for Irrigation
- Equitable Access
- Conservation Measures
- Drought Contingency Planning
- Water Withdrawal Permits

Equitable access processes may not be the same for all Watershed Irrigation Plans. It is likely to be influenced by the specifics of the needs of the individual permit holders. What may work best in one watershed may not in another. Therefore, the majority of the determination of what constitutes equitable access lies with the local watershed irrigation governance committee. Regardless of the methods they choose, there are provincial principles that their process must adhere to:

- » Fairness must be based on amount of land actually to be irrigated
- » Not based on the crop to be irrigated
- » Must accommodate new entrants equally to those already utilizing water
- » Permit holders must have sufficient infrastructure and crops to effectively utilize their permitted water allocation
- » Must have a process for adjusting amounts to permit holders if the total amount of available water determined by EECA changes.

The Watershed Irrigation Plan must contain the following information:

- Describe the methods that the local watershed irrigation governance committee will use to ensure equitable sharing of the resource available
- Describe any plans to schedule water access to limit impact on the environment

Conservation Measures

The Water Act and Water Withdrawal Regulations require the consideration of water conservation and efficient use of water. To accomplish this, irrigators need to undertake practices in their fields and utilize efficient equipment that reduce the requirement for supplemental water. This is the overriding purpose of the Soil Health Improvement Plans (SHIP) required to access Water Withdrawal Permits.

The Watershed Irrigation Plan must detail the following information:

- » Describe in summary fashion the methods being utilized by the various irrigation permit holders to achieve their required SHIPs
- » Describe the equipment being used with respect to its efficient use of water and provide estimates of its efficiency

Drought Contingency Planning

Under the Water Withdrawal Regulations, major water users will be required to prepare drought contingency plans that must be approved by the Dept. of Environment, Energy and Climate Action (EECA). The purpose of these plans is for the water user to reduce their use of water during extreme droughts to reserve stream flow for the protection of aquatic life. This requirement applies to both surface water and ground-water users.

There are two options for irrigation permit holders for drought contingency plans. They may prepare an individual drought contingency plan for their operation for approval or the Watershed Irrigation Plan may hold the drought contingency plan. In the latter case, the individual irrigation permit holders would indicate that their drought contingency plan is to follow the drought contingency plan contained in the Watershed Irrigation Plan.

Requirements for drought contingency planning to be contained in the Watershed Irrigation Plan are:

- » Indicate which of the two options above are being chosen for the plan
- » In the case of individual drought contingency plans, describe the typical actions being chosen by the individual irrigation permit holders during extreme drought and what the expected reduction in water usage will be achieved.
- » In the case of the drought contingency plan being contained in the Watershed Irrigation Plan, describe specific actions that will be taken by irrigation permit holders and how much reduction in water usage will be achieved. Where there are surface water permits, describe any actions being taken to coordinate extraction to limit instantaneous extraction rates and how much reduction will occur.

Water Withdrawal Permits

Every irrigation permit holder will be required to adhere to the Watershed Irrigation Plan. This section of the plan must include:

- » List the permits and permit holders under the plan including new ones that are planned
- » Include the permitted amounts and the location of the permits

Authorship of Components

The responsibility for the creation of the Watershed Irrigation Plan lies with local watershed irrigation governance committee. In the initial implementation of the PEI Irrigation Strategy, there may be a requirement for a Plan prior to the establishment of the local watershed irrigation governance committee. In this case, irrigation permit holders within the watershed may come together to craft the plan. However, once established, the local watershed irrigation governance committee will have to review and change/approve it to suit their needs.

As indicated in the Plan description, EECA is responsible to determine the amount of available water following the requirements of the Water Act and Water Withdrawal Regulations and the direction in the PEI Irrigation Strategy. Therefore, EECA will write the text for Watershed Irrigation Plans under the section of available water.

Approval of a Watershed Irrigation Plan

The PEI Irrigation Strategy describes the overarching management of the strategy by a Provincial Water Authority. In the initial stages of the strategy implementation, there may be a need to approve a Watershed Irrigation Plan prior to the establishment of the Provincial Water Authority. In this initial phase, a Watershed Irrigation Plan will be approved by EEWC. Such plans will be adopted by the Provincial Water Authority once established.

There will be no specific requirement of a deadline for the establishment of a Watershed Irrigation Plan. However, in most cases, new permits in a watershed that requires a plan cannot be issued until a plan is approved. An exception to this will be the reissuance of surface water permits in 2022. While having Watershed Irrigation Plans in place for 2022 will be encouraged, it is not possible to ensure that this will be the case. Therefore, for 2022 only, renewals of surface water permits will be issued in fully allocated watersheds following prior criteria.

Watershed Irrigation Plans will need to change as often as irrigation permit holders or their operations change. They must always be kept up to date. In some cases, changes to overarching regulation or government policy may also trigger a need for adjustments. In cases where a Watershed Irrigation Plan hasn't changed in five years, a review will be completed by the local watershed irrigation governance committee and submitted to the Provincial Water Authority and EECA.

Appendix - Fillable Template

Watershed Irrigation Plan

[watershed name]

Submission Information

Watershed Area Covered:

Name of Submitting Local Watershed Irrigation Governance Committee:

Plan Commencement Date:

Current Watershed Situation [Include description and map]

Water Available for Irrigation

Equitable Access

Conservation Measures

Drought Contingency Planning



Watershed Irrigation Plan PEI Irrigation Strategy

A DOCUMENT FOR REVIEW,
COMMENT AND DISCUSSION

Fall 2021