# Industrial Water Rate

# Water Conservation Plan

All information requested in this plan must be provided.

## Part A: Submission details

### Water Audit Engineer

The Water Conservation Plan must be completed and stamped by a certified professional engineer (P. Eng). Plans not completed and stamped by a P. Eng will be considered invalid.

|  |  |
| --- | --- |
| **Water Audit Engineer** |  |
| **Submitted by** | **Name (First, Last):** |  |
| **Phone** |  |
| **Email** |  |
| **Date of Report (yyyy-mm-dd):** |  |
| **Signature** | **P. Eng Stamp** |

### Site Specific Information

Complete a separate form for each facility/building.

###

|  |  |
| --- | --- |
| **Customer (Business) name:** |  |
| **Water account number:** |  |
| **Facility address:** |  |
| **Contact Information** | **Name (First, Last):** |  |
| **Phone:** |  |
| **Email:** |  |
| **Date (yyyy-mm-dd):** |  |

### Customer Background Information

* Your facility must be in compliance with the City’s Sewer-Use By-law. For information on the Sewer-Use By-law, please call 311.
* An employee involvement strategy outlining how employees will be involved with managing water in your facility is required and must be included when submitting this *Water Conservation Plan*.
* A corporate policy committing to water conservation and efficiency is required and must be included when submitting this *Water Conservation Plan*.

|  |  |
| --- | --- |
| **Size of Facility (m2/ft2)** |  |
| **Industry Sector** |  |
| **Brief Business Description**  |  |
| **Total Annual Water Usage (m3)** |  |
| **Water used for industrial process (m3)**  |  |

***Please include your employee involvement strategy and corporate policy committing to water conservation and efficiency here.***

## Part B: Facility water usage

* Use the chart below to describe where water is used in your facility. This form is intended as a template. Please provide a comprehensive inventory – including descriptions of all water using processes, operations, fixtures etc. Attach all supporting information such as metering and monitoring records, photographs, reports, and specifications.

### Briefly describe the methods that were used to measure or calculate the water usage (include monitoring methods and photographs, if applicable).

* Monitoring methods may include:
* the installation of additional metering and monitoring equipment
* equipment specification information
* stop watch and bucket measurements etc.
* Please include domestic uses such as water used in washrooms and kitchens.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Type/area of water usage for each facility area and/or process** | **Approximate water usage (m3) per year** | **Industrial use (yes/no)** | **Monitoring method** |
| 1 | Water Used in Product  |  |  |  |
| 2 | Process Cooling |  |  |  |
| 3 | Air Conditioning (central and units) |  |  |  |
| 4 | Cooling Tower |  |  |  |
| 5 | Pump Cooling |  |  |  |
| 6 | Refrigeration Units |  |  |  |
| 7 | Domestic  |  |  |  |
| 8 | Irrigation |  |  |  |
| 9 | Other *(please list)* |  |  |  |
|  | **Total Industrial Water Use** |  |  |  |
|  | **Total Facility Water Use** |  |  |  |

## Part C: Identified water saving opportunities

* Identified water saving opportunities may include:
	+ replacement of toilets with approved water efficient models
	+ changing current practices/processes
* The construction costs **(A)** should include all project management cost, equipment and installation costs.
* The Estimated Annual Water Use Reduction **(B)** is based on implementing the water efficiency measure.
* Use the non-reduced water rate for calculating the annual cost savings **(C)**. This rate is determined to be $2.08 per m3 as calculated using non-reduced water rates (assuming nine (9) per cent annual increase) averaged over five (5) years.
* The estimated payback is calculated by dividing the construction costs **(A)** by the estimated annual cost savings **(C)**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Water Efficiency Measures | Estimated ConstructionCosts | Estimated Annual Water Use Reductions (m3) | Estimated Annual Cost Savings | Estimated Payback Period (years) |
| **A** | **B** | **B x $3.11= C** | **A/C** |
|   |   |   |   |   |
|  |   |   |   |   |
|   |   |   |   |   |
|  |  |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |

## Part D: Implementation schedule and evaluation process

* List the measures from Part C that have a payback of five (5) years or less.
* List the forecasted start and end dates for each measure using the following guidelines for capital improvement implementation:
	+ If payback is less than one (1) year, construction must be complete in two (2) years;
	+ If payback is more than one (1) year but less than two (2) years, construction must be complete in less than three (3) years;
	+ If payback is between two (2) and five (5) years, construction must be complete within five (5) years.
* If any water efficiency measures identified in Part C will not be implemented your must provide a detailed explanation as to why.
* Describe the evaluation process used to monitor savings and the success of your *Water Conservation Plan*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Water Efficiency Measures** | **Estimated Payback Period (years)** | **Forecasted Start Date** | **Forecasted Completion Date** | **Monitoring Method for Water Savings** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

### Explanation for Not Implementing Water Efficiency Measure Identified in Part C

1. item 1
2. item 2

## Part E: Evaluation

Provide an explanation of the evaluation process planned to monitor the success of the *Water Conservation Plan* within your facility.

Provide any additional information you feel is relevant to the Water Conservation Plan.

**Completed Water Conservation Plans and all supporting documents should be submitted to:**

Industrial Water Rate, Business & Customer Support, Toronto Water

275 Merton Street, 1st Floor,

Toronto, ON M4S 1A7

For additional information, please call 311.