



# **Guide on Water Efficiency Management Practices**

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## Introduction

The Water Efficiency Management Practices under Part IVA of the Public Utilities (Water Supply) Regulations came into operation since 1 January 2015. Under the requirements, it is mandatory for all large water users with water consumption of at least 60,000 cubic metres in the preceding year (i.e. qualifying consumers) to submit a notification to PUB on or before 31 March (for specified consumers\*) or 30 April (for non-specified consumers) for their different sites meeting this water consumption threshold.

Qualifying consumers will also be required to:

- Submit their Water Efficiency Management Plans (WEMPs) to PUB by 30 June each year for at least three consecutive years
- Install private water meters at key water usage areas within their premises to track and monitor water usage by 30 June
- Appoint at least one Water Efficiency Manager (WEM) by 30 June

Notification and submission of WEMPs shall be done through <https://www.edma.gov.sg>.

For enquiries on the mandatory requirements under the Water Efficiency Management Practices, please email us at [pub\\_conserve@pub.gov.sg](mailto:pub_conserve@pub.gov.sg).

\* A '*specified consumer*' is defined as a consumer who meets the following criteria:

- i. Holds one or more water accounts with PUB for water supplied to the site and the water is used in connection with any business activity carried out at the site (whether or not by the consumer)
- ii. Volume of water used under these account(s) in the preceding calendar year attains the water use threshold of 60,000 m<sup>3</sup> (or higher)

## Simple Guide on Mandatory Requirements

### 1. **Who are Qualifying Consumers under the Mandatory Water Efficiency Management Practices?**

A consumer is a qualifying consumer for a site if the water used at the site for the consumer's business activities is at least 60,000 cubic meters in any of the 3 preceding calendar years. This shall include water from PUB such as potable water, NEWater, industrial water, etc. as well as water from sources other than PUB such as demineralised water, high-grade industrial water, etc.

### 2. **What are the obligations of a Qualifying Consumer with respect to the Water Efficiency Management Practices?**

#### Installation of private water meters

Qualifying consumers are required to install private water meters at key water usage areas within their premises to track and monitor the water usage by 30 June. These areas are listed in the Fourth Schedule under Part IVA of the Public Utilities (Water Supply) Regulations.

#### Appointment of a Water Efficiency Manager (WEM)

Each qualifying consumer is required to appoint at least one WEM and notify PUB of the appointment through the digital service at <https://www.edma.gov.sg> by 30 June. The appointed WEM shall assist the qualifying consumer in their submission of the WEMP.

#### Stage 1: Notification

Qualifying consumers are required to submit a notification to PUB on or before 31 March (for specified consumers) or 30 April (for non-specified consumers) on an organisation level for their different sites meeting the consumption threshold.

#### Stage 2: Submission of WEMP

Thereafter on or before 30th June, qualifying consumers are required to submit their Water Efficiency Management Plans annually to PUB for at least three consecutive years.

### 3. Where are Qualifying Consumers required to install private meters?

Qualifying consumers shall install private meters to monitor the amount of water used at each of the following water usage areas.

	<b>Sector</b>	<b>Areas to Monitor</b>
1	Industries	<ul style="list-style-type: none"> <li>• Process</li> <li>• Cooling tower</li> <li>• Boiler</li> <li>• Scrubber</li> <li>• Cooking area or kitchen</li> <li>• Toilet</li> </ul>
2	Hotels	<ul style="list-style-type: none"> <li>• Guestroom</li> <li>• Cooling tower</li> <li>• Food and beverage outlets</li> <li>• Production kitchen</li> <li>• Laundry</li> <li>• Cold water inlet to hot water supply or boiler</li> <li>• Swimming pool</li> </ul>
3	Tertiary institution, prison, or military or defence installation	<ul style="list-style-type: none"> <li>• Cooling tower</li> <li>• Toilets for each block</li> <li>• Washing area</li> <li>• Swimming pool</li> </ul>
4	Hospitals	<ul style="list-style-type: none"> <li>• Cooling tower</li> <li>• Toilets, wards and operating theatres for each block</li> <li>• Kitchen</li> <li>• Cold water inlet to hot water supply or boiler</li> </ul>
5	Workers' Dormitories	<ul style="list-style-type: none"> <li>• Toilets for each block</li> <li>• Cooking area</li> <li>• Laundry</li> <li>• Washing area</li> </ul>
6	Construction Sites and Concrete Batching Plants	<ul style="list-style-type: none"> <li>• Construction activity</li> <li>• Recharge well</li> <li>• Concrete production</li> <li>• Toilet</li> <li>• Vehicle washing area</li> </ul>
7	Sports and Recreational Facilities and Tourist Attractions	<ul style="list-style-type: none"> <li>• Cooling tower</li> <li>• Exhibit or enclosure</li> <li>• Washing area</li> <li>• Toilet</li> <li>• Food and beverage outlet</li> <li>• Irrigation</li> <li>• Swimming pool</li> </ul>

8	Office or retail building, or any other building not mentioned in items 1 to 7	<ul style="list-style-type: none"><li>• Cooling tower</li><li>• Toilet</li></ul>
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**4. How do I submit Notification on the online portal?**

A notification shall be submitted through the Emissions Data Monitoring and Analysis System at <https://www.edma.gov.sg>.

**5. How does one become a Water Efficiency Manager?**

To be certified as a WEM, the person must have attended the Water Efficiency Manager Course, jointly conducted by PUB and Singapore Polytechnic, and passed an assessment.

**6. What should the Qualifying Consumer do if the Water Efficiency Manager leaves the organisation?**

In the event that a person ceases to be a WEM of a qualifying consumer and that person was the only WEM of the qualifying consumer, the qualifying consumer is required to:

- i. notify PUB of the cessation through the digital service at <https://www.edma.gov.sg> within 30 days from the cessation
- ii. appoint another WEM and notify PUB of the substitute appointment through the digital service at <https://www.edma.gov.sg> within 90 days from the cessation

**7. What information is to be submitted as part of the Water Efficiency Management Plan?**

Information to be included in the Water Efficiency Management Plan:

- Number of days during which business activity was carried out
- Total volume of each type of water used (whether supplied by PUB or by third party suppliers)
- Volume of each type of water used at different water usage areas including the data recorded by private water meters
- Information on cooling system used at the site
- Information on each reused/ recycled stream (including the type of reused/ recycled stream, volume reused/ recycled, type of treatment, area of water reuse/ recycle etc.)
- Business Activity Indicator(s) (e.g. Gross Floor Area, no. of occupants/ visitors for commercial buildings, quantity of production for manufacturing plants, etc.)
- Water Efficiency Plan describing the water conservation measure(s), due date for implementation, estimated cost of each measure, projected annual water savings and type of water saved and the implementation status.
- Water Balance Chart

Please refer to the sample WEMP template which may be downloaded from the PUB website for more information.

**8. After submission, can a company revise it there is an error?**

Yes. The company may submit an amendment request via the online system to correct the factual errors.

**9. Will companies be required to keep records?**

Yes. Companies are required to keep and maintain complete and accurate records of any information relied on to prepare the Water Efficiency Management Plan, which includes but not limited to:

- Total amount of each type of water supplied by PUB and not by PUB
- Plant recycling rates and process recycling rates
- Amount of each type of water used at each water usage area, including amount recorded by any private meters
- Type of each reused or recycled stream, the amount of each stream, the type of treatment used for recycling and the water usage area that uses the reused or recycled stream

The records shall be kept for at least 5 years after the date of creation or receipt of their record, and may be kept and maintained in electronic form.

**10. Are there plans to make it mandatory for companies to implement the identified measures in the water efficiency plan?**

There are currently no plans to make it mandatory for companies to implement the measures in the water efficiency plan. However, companies are strongly encouraged to implement the measures. The industry will be consulted if the government assesses a need to establish mandatory implementation of the action plan or mandatory targets.

**11. How does PUB provide support to companies for the implementation of water efficiency measures?**

Funding for recycling/use of alternative sources of water:

- PUB has enhanced the incentives for recycling or the use of alternate sources of water under the Water Efficiency Fund.
- From 1 Apr 2014, PUB has increased the incentives for potable water savings from \$0.40/m<sup>3</sup> to \$0.60/m<sup>3</sup> and those for NEWater savings from \$0.10/m<sup>3</sup> to \$0.30/m<sup>3</sup>.

Useful link

For info on the Water Efficiency Fund, please log on to <https://www.pub.gov.sg/savewater/atwork/efficiencymeasures>.

