

# Water Efficiency Management Plan

Customs House

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# **General Business Information**

Account Data	
Account Number	99987
Water Service Provider	Brisbane City Council
Business Name	The University of Queensland – Customs House
Address of Site	427 Queen Street Brisbane
Telephone	07 3365 8999
Date Account opened	Not known
Water connection size	
Organisation Data	
Site Description	Restaurant/Function Venue
Organisation Description	Education and Research – Customs House is a cultural, educational
	& heritage facility
Nominated WEMP Officer	Leigh Burgess
Current Water Source	
Reticulated Potable	100%
Summary of Water using	See section 2
activities	
Contact	
Organisation Contact	Mr Brian Roberts
Job Title	Operations Manager
	Customs House
Telephone Number	3365 8923
Mobile Phone Number	0412 727 958
Fax Number	3365 8900
Water Efficiency Managem	nent Policy
Policy Number (if applicable)	See p.1-3
No. of Personnel on site	Highly variable, dependant on functions.

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#### Water Management Policy

Policy Number: Policy Name: Contact Officer: Date Approved by Senate: Date of Next Review: Related Policies:

7.50.4 Water Management Policy Environmental Engineer, Property and Facilities Division 27/3/2008 27/3/2011 7.50.2

#### 1. Overview

The University of Queensland acknowledges the importance of water as an essential resource for successfully meeting its operational objectives. The University also realises the need to use this resource responsibly in a manner that is sustainable and complementary to its Environmental Management Policy.

#### 2. The Policy

In addressing this statement, the University will:

- Incorporate water efficiency measures into all new and refurbished facilities through best practice in water efficient design, the selection and sizing of plant and equipment, systems and other water infrastructure;
- Maintain all plant and equipment, and control and manage systems and water infrastructure in such a way as to maximise efficiency;
- Monitor and report on the University's water consumption at micro and macro levels and identify and implement opportunities for improved water efficiency;
- Promote awareness of the responsibility for water conservation to faculties, institutes, schools, centres, divisions, sections and individuals;
- Pursue the use of alternate water sources to supplement potable water use;
- Strive to meet our obligations as a member of the Global Community including legislative requirements and minimising environmental impact; and
- Strive to procure, distribute and maintain water resources at the lowest cost while addressing the items above.

The Property and Facilities Division has the additional responsibilities of:

- Acquisition of water;
- · Design and construction of new, and maintenance of existing facilities and their fixed water infrastructure;
- · Identification, development and implementation of awareness programs and
- Making available funding to support water conservation measures.

#### Faculties, Institutes, Schools, Centres and Divisions

UQ Business Units within their area of influence are encouraged to:

- Purchase water efficient plant and equipment;
- · Consume water responsibly and within the South East Queensland Water restrictions;
- Ensure that every individual within the Business Unit is aware of this policy and their responsibilities to conserve water;
- Ensure that any third parties are accountable for the use of any water within The University of Queensland;
- Support, where appropriate, courses and programs, and research of alternate water sources, treatment,
- plant and equipment, systems and other water infrastructure; and
- Make available funding to support water conservation measures.

#### Individuals

The University Community is encouraged to:

- Use water in an efficient manner, including the operation of personal equipment and environment;
- · Report any water leaks to the Property & Facilities Works Control Centre; and
- Comply with any policies and procedures for water management university wide and in their local area.

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# 1. Introduction

This document is the Water Efficiency Management Plan (WEMP) for The University of Queensland Customs House site. The Action Plan outlines water efficiency measures to be progressively implemented by the University. The plan complements the University's Environmental Management System (EMS).

# 1.1 Background

Customs House, one of Brisbane's heritage icons, is located on the river in the CBD at 399-427 Queen Street. Customs House is a cultural, educational and heritage facility of the University of Queensland.

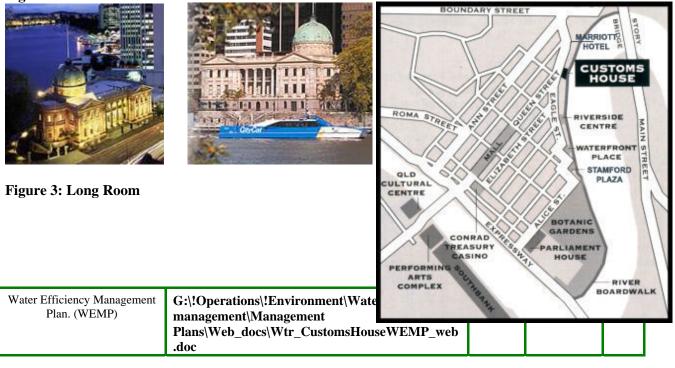
The Customs House provides restaurant dining as well as facilities for corporate and private functions for up to 350 guests, including a boardroom, private dining room and function room. There is also a ballroom suitable for large gatherings, which holds a series of concerts presented by the University of Queensland School of Music. A University information office is located on the Queen Street level of the building and is open between 9am - 4pm Monday to Friday.

Customs House dates from 1889. The University acquired it in 1992, refurbished it through a successful fundraising initiative and reopened it in 1994 as a facility for all to enjoy. A conservation plan is in place to ensure the ongoing sustainability of the building into the future.

# 1.2 WEMP Purpose

The WEMP is written to ensure that water at The University of Queensland Customs House site is used in an efficient manner and that strategies are implemented to ensure best practice water consumption in accordance with The University of Queensland Water Management Policy and Brisbane City Council and the Queensland Water Commission guidelines.

The WEMP Action Plan is designed to address potential impacts of water consumption. It complements the University of Queensland EMS which can be accessed at <u>http://www.pf.uq.edu.au/ems.html</u>



### Figure 1 and 2: View of Customs House



#### Table 1: Room Capabilities

#### Room Cocktail Banquet Cabaret Theatre 300 The Long Room 200 300 120 The Charitable Trusts N/A 30 N/A N/A <u>Room</u> The Reid Room 10 N/A 8 N/A The Sylvia Jones 20 N/A N/A N/A Boardroom 70 60 40 70 The Lady Thiess Room 70 130 60 80 Art Gallery **Restaurant** 48 N/A N/A N/A

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#### **Figure 4: Location of Customs House**



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# 2. Water Consumption Audit

# 2.1 Potable Water Consumption

Figure 5 and table 2 show consumption from 2004 to 2008. It is difficult to establish a baseline based on total consumption at Customs House as it is highly dependent on the number of functions, type of function and the number of people attending the function. Customs House also holds free concerts on a regular basis and has an open 'tourist day' on Sundays with approximately 25 to 30 people attending each week.

According to the Queensland Water Commission best practice water consumption for non-Asian style kitchens is <35L per food cover or restaurant patron. This is difficult to calculate at Custom's House as water consumption for the number of persons who are served food cannot be separated from the total water consumption for the venue which includes non-restaurant related events as mentioned above.

To arrive at the Key Performance Indicators shown in Table 2, it was assumed that 25 persons attended each of the 10 free concerts held over the year in 2007 and that approximately 30 people attend the tourist days each Sunday. Actual figures for patronage in functions and the restaurant have been used in the calculations.

Custom's House has achieved a reduction in total water consumption from 2004 to 2008 of around 27%.

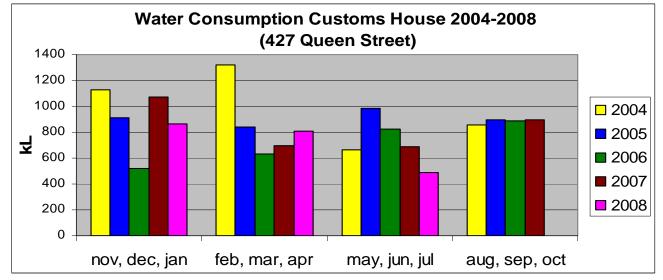


Figure 5: Quarterly Water Consumption The University of Queensland Customs House site

#### Table 2: Water Consumption Customs House 2004-2007 (Kilolitres)

Table 2. Water Consump				<b>e</b> b)				
BILLING PERIOD		2004	2005	200	6	2007	200	8_
NOV, DEC, JAN		1127	914	52	3	1074	86	7
_FEB, MAR, APR		1324	837	63	2	696	808	В
MAY, JUNE, JULY		666	987	82	1	688	49	1
AUG, SEPT, OCT		858	896	88	5	900	720	1*
Total		3975	3634	286	1	3358	288	6
% Change			-8.58%	-21.279	%	17.37%	-14.06%	6
Number of persons (inclusi staff)	ive of					94492	7927	Э
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#### \* Prediction



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# 3. Description of Activities- Performance & Opportunity Assessment

### 3.1 Toilets, Urinals, Taps and Showers

Flow restrictors have been placed on all hand basins and showerheads and have been replaced with water efficient alternatives. All toilets at Customs House have 6/3 flush cisterns in place and the urinals are on a zip sensor for flushing. Hand basins have been retrofitted with water efficient aerators which reduce flow to 3L/minute. High pressure cleaning units are used for cleaning the kitchen and the bins when required.

# 3.2 Kitchen and Bar

Both the dishwasher and the glass washer are used for functions and for normal restaurant operation. The glass washer has recently been replaced with a more efficient model reducing consumption from 12 litres per wash to 2 litres per wash. In the kitchen the dishwasher holds 57 litres of water. This is replaced every 30 minutes in busy periods and every 90 minutes in slower periods. In addition the washer uses 4 litres per cycle. Busy days could be over an 8-10 hour period. The dishwasher is reasonably new and in good condition, however when it is ready for replacement water efficiency will be a high priority.

The bins used by the kitchen area are required to be cleaned out regularly this is done with a hose and trigger nozzle attached to a high pressure cleaning unit. Kitchen floors are also cleaned with a high pressure cleaning unit.

In the kitchen other water saving initiatives are also used. For example staff empty the water used for rinsing vegetables into the gardens around customs house whenever possible and pots and pans are soaked overnight in an organic soaker to clean them which prevents scrubbing and helps to reduce water consumption.

# 3.3 Landscape and Lawns

Property and Facilities grounds Section is responsible for maintaining gardens at Customs House and Customs House staff water the gardens using waste water from the kitchen and bar areas. Town water is permitted to be used for watering of established gardens with a bucket or watering can on each day of the week between 4:00pm and 4:30 pm under the current high Level water restrictions.

# 3.4 Cleaning

Water restrictions are in place for external cleaning and cleaners and cleaning contractors should be familiar with current water restriction guidelines and ensure that they comply. Cleaning contractors are required to submit a Water Efficiency Management Plan (see the <u>EMS website</u>) before undertaking any work. Alternative water sources should be used where feasible. In-house cleaning should be undertaken with water efficiency in mind and high pressure cleaning units are required to be used with hoses if any washing down is required. Outdoor areas should only be cleaned with a high pressure cleaning unit if they represent a health and safety risk.

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# 4. Improving Water Efficiency at Customs House

The following strategies when implemented will help to ensure water efficiency at the University of Queensland continues to improve. Reducing water consumption helps to ensure that the University can continue to provide a sustainable working, teaching, research and recreational environment for staff, students and the local community.

Water Use	Opportunity for reducing consumption and costs
Cooking Appliances	Rinse fruit & vegetables in still rather than running water
	<ul> <li>Clean cooking equipment prior to cool down &amp; soak in biosoaker overnight to reduce water consumption</li> </ul>
	<ul> <li>Run dish and glass washing machines when they are full</li> <li>Thaw frozen foods in the refrigerator not under running water</li> </ul>
General	<ul> <li>Display signs and posters to encourage customers and employees to conserve water</li> </ul>
	<ul> <li>Use dry clean up practices instead of hosing down E.g. Use squeegees, blowers, brushes and brooms instead.</li> </ul>
	<ul> <li>Include Water Awareness in Staff and Student Training &amp;/or inductions.</li> </ul>
	<ul> <li>Be aware of current water restrictions</li> <li>See <u>www.qwc.qld.gov.au</u> for more information</li> </ul>
	<ul> <li>Report water leaks to Property &amp; Facilities Division Works Control Centre on 52222 or email wcc@pf.uq.edu.au</li> </ul>
	Be Water Wise and encourage others to be Water Wise too
	<ul> <li>Download water awareness posters from <u>www.pf.uq.edu.au/unigreen.html</u> &amp; post on notice boards</li> </ul>

Contacts: Environmental Services Section, Property & Facilities Division Unigreen@pf.uq.edu.au

Environmental Engineer 51587, Environmental Project Officer 57580,

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Environmental Coordinator 52076

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# 5. <u>WEMP Action Plan</u>

Performance	To meet the water restriction requireme	ents of the Queensland Wate	er Commission.			
Objective(s)	To meet the requirements of the Water Environmental Management System an	6	•			
	To meet the requirements of the <i>Environmental Protection (Water) Policy</i> 1997, the <i>Plumbing and Drainage Act</i> 2002 and the <i>Water Act</i> 2000.					
	To reduce potable water consumption through leaks in water infrastructure.					
	To operate at best practice water consur	mption.				
Management Strategies	The performance objectives above will <b>Awareness</b>	·				
	Distribute water awareness materials an	nd display signs in strategic	areas.			
	Ensure staff members are aware of their	r responsibilities to ensure v	water is used efficiently.			
	Monitoring and Measurement					
	Record and monitor water consumption and benchmark performance.					
	Reducing Water Usage					
	Use of improved technology where economically feasible to replace less efficient equipment.					
	Ensure that work practices using water					
Water Saving	Actions	Completion Date/Frequency	<b>Responsible Person</b>			
Actions	Ensure that posters and graphs showing water consumption at Customs House are posted in areas where staff can see them. Update consumption information regularly.	From November 2008	Project Officer Environmental P&F, Operations Manager Customs House			
	Ensure that a high pressure unit is attached to the hose when washing out bins or when washing down kitchen floor.	At all times	Head Chef - Customs House			
	Use waste water from kitchen and bar areas to water garden.	As required	All staff at Customs House			
	Report leaks. Staff should report to Customs House Operations Manager who will then notify Property & Facilities Division.	As required	All staff at Customs House			
	Ensure that equipment is replaced with water efficient models when at the end of its useful life.	As required	Operations Manager Customs House			
KPI	kL/food covers (maintained at < 35L/pe	erson)				