

# Water Management Plan Guidelines for Level 3 Restrictions

June 2006



Saving for the future.

# Water Management Plan Guidelines

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# INTRODUCTION

## Why do we need a Water Management Plan?

In response to the drought conditions being experienced on the Central Coast, a number of drought contingency measures have been introduced. These include water restrictions, which to date have contributed to reducing average residential water consumption by over 15%. By contrast, between 2003/04 and 2004/05 large users increased their collective usage by 4%.

Level 2b and Level 3 Water Restrictions introduce specific requirements for medium to large water-users, typically from the commercial, industrial and government sectors. The preparation and implementation of Water Management Plans (WMPs) by these medium to large water users aims at ensuring that water is being used appropriately and that any wasteful practices are identified and discontinued.

The expected outcome for the WMPs is to achieve a minimum of 24% reduction on pre-restriction usage. Whilst it is expected that all customers will attempt to achieve at least this level of saving, it is recognised that the opportunity for individual customers to achieve savings will be variable.

## Legislation

As well as being the Local Government agencies on the Central Coast, Gosford City and Wyong Shire Councils are both Water Supply Authorities under the Water Management Act 2000. The Councils must assure that there is a sufficient supply of water for the community particularly in time of water shortage.

The Level 3 Water Restrictions have been implemented as part of a suite of measures being undertaken to ensure that the Councils fulfil their obligations under the Water Management Act 2000 and that the water supply is maintained during periods of drought. Level 3 restrictions require the preparation of WMPs and the implementation of water saving measures identified therein. The Councils are acting in accordance with Section 31 of the Water Management (Water Supply Authorities) Regulation 2004. This section of the above Regulation provides that:

*(1) If a water supply authority considers it necessary to do so in order to conserve supplies of water in time of drought or other emergency, it*

*may, by a notice under this Regulation, regulate or restrict any one or more of the following:*

- (a) the purposes for which water may be used,*
- (b) the times when water may be used,*
- (c) the quantities of water that may be used,*
- (d) the means or methods by which water may be used.*

## **Who is required to develop a Water Management Plan?**

Under Level 2b restrictions, customers with an annual use greater than 6,000 kL were required to prepare and implement a WMP. Under Level 3 restrictions, water customers that used over 3,500 kilolitres per year in 2004 or 2005 as well as all hotels, motels, resorts, caravan parks and public swimming pools (ie. irrespective of annual water use) are also required to prepare and implement a WMP, and adopt a water-use strategy that accommodates their unique organisation circumstances and targets specific water savings.

WMPs prepared and adopted by organisations under Level 2b restrictions will generally satisfy WMP requirements under Level 3 unless otherwise advised by Council.

Organisations that are undertaking or have recently participated in the Councils' Large Water User Audit Programme are also required to prepare a WMP under Level 3 restrictions. The outcomes from the water audit will form a component of their WMP.

## **When does the Water Management Plan have to be complete?**

Customers must submit a draft WMP to the appropriate Council by the date advised by Council in correspondence.

## **How do I prepare a Water Management Plan?**

A typical step-by-step process for developing a WMP is as follows:

1. Determine baseline water use. Council will provide information on the amount of water used in 2004 and 2005;
2. Identify areas of water wastage and review water usage;
3. List water saving measures;

4. Prepare and send the draft WMP to your Council for review and acceptance; and
5. Implement your WMP and reporting.

Detailed information on each of these steps is provided later in these guidelines including WMP Templates.

The adopted WMP must include an “Action List” (Template 3) nominating all actions that will be implemented to save water for at least the 12 months following WMP adoption and until notified otherwise by the appropriate Council. The action list is to include quarterly progress reporting (by letter) to Council on the water saving actions taken until all water saving measures have been implemented.

The Councils will audit customers to ensure the adopted WMPs are achieving water savings and eliminating wastage.

## **Where do I direct enquiries about Water Management Plans?**

Should there be clarification required in relation to WMPs, including questions relating to the approach your business/organisation may take to preparing your plan, please direct enquiries to the contacts below.

### **Gosford City Council**

Contact person: Sue Firth  
Phone 4368 3618 or 4368 3363  
Fax: 4368 1800  
E-mail [susan.firth@gosford.nsw.gov.au](mailto:susan.firth@gosford.nsw.gov.au)  
Postal Address: Sue Firth, Water Assessment Officer  
Gosford City Council  
PO Box 21  
GOSFORD NSW 2250

### **Wyong Shire Council**

Contact person: Ms Ingrid Tejo  
Phone: 4350 5518  
Fax: 4350 1516  
E-mail: [ingrid.tejo@wyong.nsw.gov.au](mailto:ingrid.tejo@wyong.nsw.gov.au)  
Postal Address: Ms I Tejo  
Wyong Shire Council  
PO Box 20  
Wyong NSW 2259

If you require a digital copy of these WMP Guidelines please download from Council websites at:

#### **Gosford Council:**

[http://www.gosford.nsw.gov.au/customer/document\\_gallery/council\\_guidelines/alpha\\_listing](http://www.gosford.nsw.gov.au/customer/document_gallery/council_guidelines/alpha_listing))

#### **Wyong Council:**

[www.wyong.nsw.gov.au/services/water](http://www.wyong.nsw.gov.au/services/water)

## PREPARING A WATER MANAGEMENT PLAN

### Task One: Determine normal water use

Your business/organisation's normal or 'baseline' water use is simply the amount of water your business/organisation typically uses in a year. A period of no more than two years should be used to determine this. Council will provide water use figures for 2004 and 2005 based on meter records. Adjustments to actual usage figures may be appropriate to set a baseline usage in some circumstances. Such adjustments could be made on the basis that for example:

- Drought measures have already been implemented; or
- The organisation has not been operating under normal circumstances.

Confirm that the data used to determine baseline water use is **based on normal operation** and is corrected for any variation from normal operations (variation from normal operations includes refurbishments or shutdowns, long periods of low or high business activity).

### ***Complete Template 2 – Baseline Water use.***

### Task Two: Awareness and elimination of wastage

This task includes a review of operating procedures and water use practices and identifying water saving measures that could be introduced within the organisation.

#### **Awareness of water use**

It is important that all staff, residents, contractors, visitors etc are made aware of the need for water conservation at the premises. Use the following as a guide for completing the "Awareness" section of your WMP (Template 3 – Action List):

- Assign a staff member to manage water conservation as part of their daily duties.
- Regularly communicate importance of conservation and financial savings associated with water efficiency initiatives, eg. *monthly or quarterly reports of water consumption and comparison with previous times/periods.*

- Provide staff training in water conservation.
- Encourage staff to provide suggestions for improving water efficiency, eg. *By inclusion of water issues at monthly management meetings.*
- Ensure staff report and act upon leaks and wasteful practices. Implement a procedure for reporting and repairing maintenance faults promptly.
- Put up posters or distribute material encouraging water efficiency practices, eg. *monthly newsletters or signs.*

### **Eliminate Wastage**

Use the following as a guide for completing the “Eliminate Wastage” section of your WMP (Template 3 – Action List). In the case of customers that have completed a water audit under the Councils' Large Water User Audit Programme, areas of wastage identified in the audit report should be included.

- Check the water using equipment, devices and processes across the site to see if:
  - they are still required;
  - they could be replaced with more efficient or waterless devices;
  - the service/function it provides could be done differently with less or no water.
- Implement regular, eg. *weekly*, inspection of equipment/facilities for leaks or faults. Check for leaks by taking water meter readings during 'downtimes', i.e. *periods of little or no other water use*;
  - check the water meter at the end of a usage day and then check it again after sometime (overnight) before any water is used. If there is a significant difference in the two meter readings then there are leaks (which could be from pipes) that should be identified and repaired.
- Is the water used effectively? Consider whether the same outcome can be achieved with a reduction in the amount of water being used (e.g. Using a blower/vac or a mop/bucket to clean a surface instead of hosing).

- Is any water wasted during any of its uses? – Introduce regular checking for leaking taps, leaking hoses, use of high pressure hoses etc.
- Keep records, (eg. Monthly), of trends in water consumption in different areas of the business.
- Implement a monitoring program for other factors that will help assess the efficiency of water use in the business.
- Determine how much water your business is using and compare to national or international benchmarks (Council may be able to provide bench mark figures where available).
- Collect information on the water consumption of different processes in your business and determine if reductions are possible.
- Install additional meters to monitor water consumption in different areas of the business.
- Install a "Smart Water Meter" which can detect leakage and alert the responsible person of the leak.

### **Task Three: List Water Saving Measures**

Use the following as a guide in completing the “Water Saving Measures” section of your WMP (Template 3 – Action List). The water saving measures are in addition to water use restrictions that are in force. In the case of Customers that have completed a water audit under the Councils' Large Water User Audit Programme, the cost effective recommendations from the audit report should be included in the Action List.

#### ***Alternate Water Sources***

- Consider alternative water supplies that could be utilised eg. rainwater tanks, ground water bores, recycled water, stormwater, on-site storage dams, reclaimed water.
- Install a rainwater tank and receive a Council rebate of up to \$1,000.

#### ***Cleaning***

- Use a blower-vac or broom instead of water for internal and external cleaning or, if water is necessary, a mop & bucket.

#### ***Appliances and Equipment***

- Reduce flow rate or volume of water used in equipment.
- Investigate possibility of changing to more water efficient equipment.
- Operate dishwashers, washing machines etc only when full.
- Reduce volume of flush in single flush toilets using cistern weight or adjusting the arm/float.
- Change urinal to manual/sensor flush or waterless; adjust flush volume.
- Install tap aerators or flow reducers.
- Install water saving shower heads.
- Consider taking up Council Water "Refit Kit" which includes a water saving showerhead, 4 tap aerators, a toilet cistern weight, and more, all installed by a plumber.

#### ***Monitoring and Control***

- Link monitoring systems to automatic control systems.

- Install control timers or automatic shut off systems.

### **Swimming Pools**

- Review pool backwash procedures; if possible increase time between backwashes.
- Install pool cover to reduce evaporation.

### **Lawns and Gardens**

- Use more drought tolerant plants /grasses and/or native plant varieties.
- Install wind breaks to reduce transpiration.
- Use mulch to improve water holding capacity and reduce transpiration
- Use soil wetting agents to help retain soil moisture.
- Where watering is permitted, investigate possible redesign of irrigation system and scheduling.

## **Task Four: Complete draft WMP & Submit to Council**

### **Step One: Complete and send draft WMP to Council**

When the draft WMP is complete and signed by your business/organisation's senior management, send it to your Council (contact details below) and keep a copy for your organisation.

#### **Gosford City Council**

Contact person: Sue Firth  
 Phone: 4368 3618  
 Fax: 4368 1800  
 E-mail: [susan.firth@gosford.nsw.gov.au](mailto:susan.firth@gosford.nsw.gov.au)  
 Postal Address: Sue Firth, Water Assessment Officer  
 Gosford City Council  
 PO Box 21  
 GOSFORD NSW 2250

#### **Wyong Shire Council**

Contact person: Ms Ingrid Tejo  
 Phone: 4350 5518

Fax: 4350 1516  
E-mail: [ingrid.tejo@wyong.nsw.gov.au](mailto:ingrid.tejo@wyong.nsw.gov.au)  
Postal Address: Ms I Tejo  
Wyong Shire Council  
PO Box 20  
Wyong NSW 2259

**Step Two: Council Review and Adoption of WMP**

Your Council will review the draft WMP. Upon review, Council will either accept the WMP as submitted or make comments regarding improvements that should be made or are deemed necessary. If Council has commented, you will be required to respond to the comments. Council may accept or reject reasons given for any changes required and will then adopt and sign the final WMP and return a copy to you for implementation.

## **Task Five: Implement your Water Management Plan & Reporting**

### **Step One: Implement Water Saving Measures**

Commence (if you haven't already) implementation of the actions identified that will save water in the timeframe/s identified in the WMP.

### **Step Two: Monitoring and Reporting for Water Management Plans**

You are required to report on progress on implementation of the water saving measures in your WMP Action List, including any new initiatives you have identified and will be implementing.

Reporting will be required on a quarterly basis until all measures have been implemented. Reporting will also include water usage and savings based on water consumption accounts.

Non-compliance with the WMP (delayed implementation and/or lack of achievement of identified water savings) is to be highlighted in progress reports and explanations provided.

A reporting format will be developed by Councils and made available on Councils web sites.

Council will audit the implementation of your WMP.

The person within the business/organisation who prepared the WMP and the senior management sponsor are expected to be available to answer any questions that may arise during any audit process or in any follow up to progress reporting by the organisation.

## APPENDIX ONE WATER MANAGEMENT PLAN TEMPLATES

### Template 1 - General Information

<b>Customer Name:</b>			
<b>Management Sponsor (Contact details):</b>	<b>Name:</b>		<b>Position:</b>
	<b>Phone:</b>		
<b>Plan Prepared by (Contact details):</b>	<b>Name:</b>		<b>Position:</b>
	<b>Phone:</b>		
<b>Site Address for WMP</b>			
<b>Brief introduction to the organisation:</b> (site description, nature / purpose / size of business, no. of employees, no. accommodation units/beds, etc; water use facilities)			

**Background / History of water use and savings within the organisation:**

(e.g. any water saving measures already in place, involvement in an existing voluntary programme)

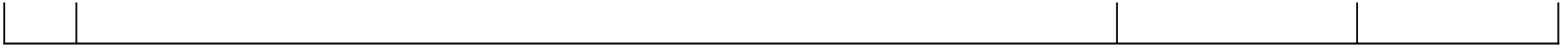

**Template 2 - Baseline Water Use**

<b>Customer Name:.....</b>	<b>Site:.....</b>	<b>Site:.....</b>
Site Description / Business type		
Address		
Council Water Account Number/s		
2004 Water Consumption (kL)		
2005 Water Consumption (kL)		
Current Baseline (average water consumption for last two years)		
Is the current baseline representative of normal water use YES/NO		
If NO, description of variation (e.g. restrictions, shutdown, refurbishment, busy or slow period etc)		
Impact of variation on water use (i.e. variation from normal) kL per annum		
Current baseline water use corrected for variation (kL per year)		



**Template 3 - ACTION LIST – Site:.....**

<b>No</b>	<b>Measure Description</b>	<b>Responsibility (person)</b>	<b>Planned Completion Date</b>
	<b>Awareness</b>		
	<b>Eliminate Wastage</b>		





## Template 4 - Management Commitment & Council Approval

<p><b>Customer Commitment to this Plan:</b></p> <p>(Signed statement from property owner, business owner, CEO or Director adopting the WMP)</p>	<p>The Customer (water account holder):</p> <p>(a) will implement the water saving measures in the Water Management Plan and do all things necessary to have its employees and contractors implement the water saving measures;</p> <p>(b) acknowledges that Council may modify the Water Management Plan;</p> <p>(c) acknowledges that Council will enforce the water saving measures.</p> <p>Signed on behalf of the Customer by:</p>			
	<p><b>Name:</b></p>		<p><b>Office held / position:</b></p>	
	<p><b>Signature:</b></p>		<p><b>Date:</b></p>	
<p><b>Council Acceptance of this Plan:</b></p>	<p>I, ....., accept this Water Management Plan on behalf of .....                  ..... Council and acknowledge that implementation of the water saving measures in the Plan will satisfy the Customer's obligation to comply with Level 3 Water Restrictions.</p>			
	<p><b>Signature:</b></p>		<p><b>Date:</b></p>	
	<p><b>Office held:</b></p>			

Personal information provided to Council is subject to the Privacy & Personal Information Protection Act 1998.