

Clarence Valley Council & Coffs Harbour City Council



Water Efficiency Implementation Plan



2013

PURPOSE

The purpose of the plan is to support an ongoing co-operative approach and range of integrated actions to use and manage water in an ecologically sustainable manner in the region.

The Water Efficiency Implementation Plan will give direction to the water efficiency programs in the Clarence/Coffs Harbour region.

AIMS

1. Effectively co-ordinate water efficiency programs and actions for Council, community, and government agencies.
2. Manage water efficiently and carefully from its supply sources, to its return to the natural environment.
3. Reduce reliance on water from rivers, by using existing and emerging technologies for improving water efficiency.
4. Encourage a water saving and resource conservation ethic in the community through education, information programs and participation.
5. Utilize pricing and regulatory mechanisms to reduce and manage the demand for water especially during dry periods.



TARGETS

Participation in and maintenance of stakeholder networks

- Liaison with the community on water conservation issues through community committees and public consultation.
- Participation in joint water efficiency and education initiatives with other regional councils.
- Provide information and involve government agencies in water efficiency initiatives within the region.
- Engage with other water authorities on a regional basis.
- Identify and involve key stakeholders and establish partnerships.

Related to Aims – 1,2,4,5

Identification of opportunities for water saving and re-use in infrastructure design, operation and maintenance.

- Continue to carry out water loss programs as required and assess pressure reduction opportunities.
- Water main surveys - proactive detection and repair of water main leaks.
- Telemetry Implementation - automatic detection of system leaks to facilitate fast repairs.
- Continued evaluation of opportunities for integrated water solutions in the design of infrastructure.
- Water meter exchange.
- Water audit guide/s.

Related to Aims - 2,3

Water audits for high water users in commercial, tourism and industrial sectors.

- Water audits with committed high use industries/ properties.
- Promotion of retrofitting to privately operated parks and motels, and rebates available.
- Tourism advertising (incl. water restrictions advertising)

Related to Aims - 3,4,5

Rebates and other incentives to reduce water use.

- Tank, and dual flush toilet rebate programs.
- Program to swap to new min. 9l/min showers and replace old inefficient showers

Related to Aims - 3,4

Water education programs for Schools

- Deliver Waterwise Schools program.
- In-school visits.
- School resource kit with more local content.
- Ongoing provision of school dam / water treatment plant / water reclamation plant tours.
- Refresher courses for already Waterwise accredited schools.

Related to Aim - 4

Publicity and campaigns to maintain water saving awareness.

- Advertising, website newspaper articles, dam tours, letter drops, events, awareness campaigns.
- National Water Week activities and World Water Day activities.
- Promotion of Water Efficient electrical appliances (i.e clothes washing machines & dishwashers).
- Demonstration of water efficient gardening principles through Waterwise gardens.
- Waterwise garden walks.
- Sponsorship of Waterwise activities and events.
- Bus shelter advertising
- Savewater Alliance membership - to allow residents access to national website, regular competitions and specifically designed bill inserts, etc.

Related to Aim - 4

Water pricing mechanisms to reduce water demand.

Implement best practice in water pricing.

Related to Aim – 5

Regulatory mechanisms to reduce/manage water demand.

- Permanent water conservation measures.
- Advertise and enforce water restrictions particularly in dry times.
- Tourism advertising (incl. water restrictions advertising).
- BASIX Implementation

Related Aim - 5

Current Status

Targets	Target Description	Outcomes	Current Status (January 2013)
Participation in and maintenance of stakeholder networks.	<ul style="list-style-type: none"> • Liaison with the community on water conservation issues through community committees and public consultation. • Participation in joint water efficiency and education initiatives with other regional councils. • Provide information and involve government agencies in water efficiency initiatives within the region. • Engage with other water authorities on a regional basis. • Identify and involve key stakeholders and establish partnerships. 	<ul style="list-style-type: none"> • Maintenance of networks and partnerships. 	<ul style="list-style-type: none"> • Ongoing committees currently include the Waterwise Schools coordination committee, the Water Efficiency Working Group, and NEWE. • Both councils have an ongoing partnership with the Savewater Alliance and the Cascade Environmental Education Centre (NSW Department of Education). • Liaison with other water authorities and government agencies occurs as needed.
Identification of opportunities for water saving and re-use in infrastructure design, operation and maintenance.	<ul style="list-style-type: none"> • Continue to carry out water loss programs as required and assess pressure reduction opportunities. • Water main surveys - proactive detection and repair of water main leaks. • Telemetry Implementation - automatic detection of system leaks to facilitate fast repairs. • Continued evaluation of opportunities for integrated water solutions in the design of infrastructure. • Water meter exchange. • Water audit guide/s. 	<ul style="list-style-type: none"> • Integrated water cycle management principles incorporated into the design of infrastructure. • Proactive and early detection and repair of water leaks, reducing water system losses. 	<ul style="list-style-type: none"> • Both Clarence and Coffs Harbour have assessed opportunities for water pressure reduction, and implemented programs in viable locations. • Telemetry has been implemented in both council areas. • Opportunities for water re-use are routinely assessed and incorporated into the design of all new sewerage treatment plants. • Many existing plants have been upgraded to allow re-use.

Water audits for high water users in commercial, tourism and industrial sectors.	<ul style="list-style-type: none"> • Water audits with committed high use industries/ properties. • Promotion of retrofitting to privately operated parks and motels, and rebates available. • Tourism advertising (incl. water restrictions advertising) 	<ul style="list-style-type: none"> • Reduced water consumption by tourist and commercial facilities. 	<ul style="list-style-type: none"> • Most high use commercial industries and caravan parks have been water audited in the past. There has been varying levels of success, depending upon the commitment of management and staff to water use efficiency.
Rebates and other incentives to reduce water use.	<ul style="list-style-type: none"> • Tank and dual flush toilet rebate programs. • Program to swap to new min. 9l/min showers and replace old inefficient showers. 	<ul style="list-style-type: none"> • Reduction in water demand from more water efficient toilets showerheads. • Water conservation supported and encouraged in households through tanks supplementing town water supplies and increasing awareness of water use in residents. 	<ul style="list-style-type: none"> • There are ongoing tank and dual flush toilet rebate programs and showerhead exchange programs in both council areas. • There have also been showerhead exchange programs run by energy efficiency companies in both council areas. • The demand for dual flush toilets and showerheads is likely to decrease over time with ongoing replacement in older buildings. New toilets and showerheads on the market are nearly all water efficient.
Water education programs for Schools	<ul style="list-style-type: none"> • Deliver Waterwise Schools program. • In-school visits. • School resource kit with more local content. • Ongoing provision of school dam / water treatment plant / water reclamation plant tours. • Refresher courses for already Waterwise accredited schools. 	<ul style="list-style-type: none"> • School community involved in ongoing water education – raising awareness of water issues and appreciation of local water supply. • Greater understanding of water supply system and importance of water conservation by students. • Identification of water use and possible water saving opportunities in educational institutions. 	<ul style="list-style-type: none"> • The waterwise Schools program has been running since 2007 and more than 40 schools have been trained and accredited as “Waterwise Schools”. This represents the majority of primary schools in the Coffs Harbour and Clarence Valley council areas. • Dam and treatment plant tours are run on demand for schools. • Refresher courses have begun in already accredited schools.

<p>Publicity and campaigns to maintain water saving awareness.</p>	<ul style="list-style-type: none"> • Advertising, website newspaper articles, dam tours, letter drops, events, awareness campaigns. • National Water Week activities and World Water Day activities. • Promotion of Water Efficient electrical appliances (i.e clothes washing machines & dishwashers). • Demonstration of water efficient gardening principles through Waterwise gardens. • Waterwise garden walks. • Sponsorship of Waterwise activities and events. • Bus shelter advertising • savewater! Alliance membership - to allow residents access to national website, regular competitions and specifically designed bill inserts, etc. 	<ul style="list-style-type: none"> • Awareness of water use and possible household water savings and costs. • Increased local resident understanding of water issues. • Residents adopting waterwise gardening principles in their gardens. • Incentives for local residents and businesses to reduce water consumption in their gardens. • Water saving message visible to community on bus shelters. • Resident access to Savewater national website, regular competitions and specifically designed bill inserts, etc. that councils alone could not provide. 	<ul style="list-style-type: none"> • Both Councils have regular newspaper articles, dam tours, letter drops, events, awareness campaigns. • National water week activities are run annually. • Water efficient demonstration gardens established in both councils. • Bus shelter advertising in both councils. • Websites promoting water efficiency with links to the "Savewater Alliance" web site established. • Water efficiency labeling (WELS) regularly promoted through the media.
<p>Water pricing mechanisms to reduce water demand.</p>	<ul style="list-style-type: none"> • Implement best practice in water pricing. 	<ul style="list-style-type: none"> • Cost incentives for consumers to reduce water use. 	<ul style="list-style-type: none"> • Best practice pricing including an inclining block tariff and a price path has been adopted following a community consultation process.
<p>Regulatory mechanisms to reduce/manage water demand.</p>	<ul style="list-style-type: none"> • Permanent water conservation measures. • Advertise and enforce water restrictions particularly in dry times. • Tourism advertising (incl. water restrictions advertising). • BASIX Implementation 	<ul style="list-style-type: none"> • Reduced water use in dry times. • Visitors to resorts, motels, caravan parks, etc, have increased awareness of water use. • Water efficient design principles included in new houses and developments. 	<ul style="list-style-type: none"> • There are permanent level 1 water restrictions in place in both Coffs Harbour and Clarence Valley Council areas. • BASIX is being implemented by planning departments in both councils.

Actions 2013-2018

Targets	Target Description	Actions 2013-2018
Participation in and maintenance of stakeholder networks.	<ul style="list-style-type: none"> • Liaison with the community on water conservation issues through community committees and public consultation. • Participation in joint water efficiency and education initiatives with other regional councils. • Provide information and involve government agencies in water efficiency initiatives within the region. • Engage with other water authorities on a regional basis. • Identify and involve key stakeholders and establish partnerships. 	<ul style="list-style-type: none"> • Maintain current networks, • More liaison and talks to community groups (eg gardening clubs, U3A, Tourism Associations)
Identification of opportunities for water saving and re-use in infrastructure design, operation and maintenance.	<ul style="list-style-type: none"> • Continue to carry out water loss programs as required and assess pressure reduction opportunities. • Water main surveys - proactive detection and repair of water main leaks. • Telemetry Implementation - automatic detection of system leaks to facilitate fast repairs. • Continued evaluation of opportunities for integrated water solutions in the design of infrastructure. • Water meter exchange. • Water audit guide/s. 	<ul style="list-style-type: none"> • Implement current strategies • Audit council public toilets and facilities • Investigate new technologies for mains flushing (eg ice pigging, air scouring) and use of recycled water for fire fighting hydrants (dependant on State Gov't health legislation)
Water audits for high water users in commercial, tourism and industrial sectors.	<ul style="list-style-type: none"> • Water audits with committed high use industries/ properties. • Promotion of retrofitting to privately operated parks and motels, and rebates available. • Tourism advertising (incl. water restrictions advertising) 	<ul style="list-style-type: none"> • Regular water audits of tourist parks • Liaise with high water use industries and advise of specialist water audit consultancies.

Rebates and other incentives to reduce water use.	<ul style="list-style-type: none"> • Tank and dual flush toilet rebate programs. • Program to swap to new min. 9l/min showers and replace old inefficient showers. 	<ul style="list-style-type: none"> • Continue with existing programs. • Extend rainwater tank rebates to rural agricultural sheds currently connected to town water (CVC only).
Water education programs for Schools	<ul style="list-style-type: none"> • Deliver Waterwise Schools program. • In-school visits. • School resource kit with more local content. • Ongoing provision of school dam / water treatment plant / water reclamation plant tours. • Refresher courses for already Waterwise accredited schools. 	<ul style="list-style-type: none"> • Continue with existing Waterwise Schools program • Modify Waterwise Schools Program to tie in with national schools curriculum. • More focus on education for high schools and TAFE
Publicity and campaigns to maintain water saving awareness.	<ul style="list-style-type: none"> • Advertising, website newspaper articles, dam tours, letter drops, events, awareness campaigns. • National Water Week activities and World Water Day activities. • Promotion of Water Efficient electrical appliances (i.e clothes washing machines & dishwashers). • Demonstration of water efficient gardening principles through Waterwise gardens. • Waterwise garden walks. • Sponsorship of Waterwise activities and events. • Bus shelter advertising • savewater! Alliance membership - to allow residents access to national website, regular competitions and specifically designed bill inserts, etc. 	<ul style="list-style-type: none"> • Continue with existing publicity programs. • Promote water saving at building exhibits/events and any other local events where there is likely to be a high level of interest.
Water pricing mechanisms to reduce water demand.	<ul style="list-style-type: none"> • Implement best practice in water pricing. 	<ul style="list-style-type: none"> • In place – adjust in response to government pricing policies and council business plans.
Regulatory mechanisms to reduce/manage water demand.	<ul style="list-style-type: none"> • Permanent water conservation measures. • Advertise and enforce water restrictions particularly in dry times. • Tourism advertising (incl. water restrictions advertising). • BASIX Implementation 	<ul style="list-style-type: none"> • Permanent water conservation measures in place. • Replace “permanent water restrictions” with “permanent water conservation measures” in policies. • WELS labeling and BASIX in place – need identified to monitor BASIX compliance.

APPENDIX I

Annual Reporting Template – Water Efficiency Annual Report Coffs Harbour/Clarence Valley Council

Reviewed Targets – Coffs Harbour/Clarence Valley Council (Year)				
Targets	Target Description	Outcomes	Comments	Budget Requirements
Participation and maintenance in stakeholder networks.	<ul style="list-style-type: none"> Liaison with the community on water conservation issues through community committees and public consultation. Participation in joint water efficiency and education initiatives with other regional councils. Provide information and involve government agencies in water efficiency initiatives within the region. Engage with other water authorities on a regional basis. Identify and involve key stakeholders and establish partnerships. 	<ul style="list-style-type: none"> Maintenance of networks and partnerships. 		
Identification of opportunities for water saving and re-use in infrastructure design, operation and maintenance.	<ul style="list-style-type: none"> Continued evaluation of opportunities for integrated water solutions in the design of infrastructure. Continue to carry out water loss programs as required and assess pressure reduction opportunities. Water main surveys - proactive detection and repair of water main leaks. Telemetry Implementation - automatic detection of system leaks to facilitate fast repairs. Water meter exchange. 	<ul style="list-style-type: none"> Integrated water cycle management principles incorporated into the design of infrastructure. Proactive and early detection and repair of water leaks, reducing water system losses. 		
Water audits for high water users in commercial, tourism and industrial sectors.	<ul style="list-style-type: none"> Water audits with committed high use industries/ properties. Promotion of retrofitting to privately operated parks and motels, and rebates available. Tourism advertising (incl. water restrictions advertising) 	<ul style="list-style-type: none"> Reduced water consumption by tourist and commercial facilities. 		
Rebates and other incentives to reduce water	<ul style="list-style-type: none"> Tank, and dual flush toilet rebate programs. Program to swap to new min. 9l/min showers and replace old 	<ul style="list-style-type: none"> Reduction in water demand from more water efficient toilets 		

<p>use.</p>	<p>inefficient showers</p>	<p>showerheads.</p> <ul style="list-style-type: none"> • Water conservation supported and encouraged in households through tanks supplementing town water supplies and increasing awareness of water use in residents. 		
<p>Water education programs for Schools</p>	<ul style="list-style-type: none"> • Deliver Waterwise Schools program. • In-school visits. • School resource kit with more local content. • Ongoing provision of school dam / water treatment plant / water reclamation plant tours. • Refresher courses for already Waterwise accredited schools. 	<ul style="list-style-type: none"> • School community involved in ongoing water education – raising awareness of water issues and appreciation of local water supply • Greater understanding of water supply system and importance of water conservation by students • Identification of water use and possible water saving opportunities in educational institutions. 		
<p>Publicity and campaigns to maintain water saving awareness.</p>	<ul style="list-style-type: none"> • Advertising, website newspaper articles, dam tours, letter drops, events, awareness campaigns. • National Water Week activities and World Water Day activities. • Promotion of Water Efficient electrical appliances (i.e clothes washing machines & dishwashers). • Demonstration of water efficient gardening principles through waterwise gardens. • Waterwise garden walks. 	<ul style="list-style-type: none"> • Awareness of water use and possible household water savings and costs. • Increased local resident understanding of water issues. • Residents adopting waterwise gardening principles in 		

	<ul style="list-style-type: none"> • Sponsorship of Waterwise activities and events. • Bus shelter advertising • Savewater Alliance membership - to allow residents access to national website, regular competitions and specifically designed bill inserts, etc. • Water audit guide/s. 	<p>their gardens.</p> <ul style="list-style-type: none"> • Incentives for local residents and businesses to reduce water consumption in their gardens. • Water saving message visible to community on bus shelters. • Resident access to Savewater national website, regular competitions and specifically designed bill inserts, etc. that councils alone could not provide. 		
Water pricing mechanisms to reduce water demand.	<ul style="list-style-type: none"> • Implement best practice in water pricing. 	<ul style="list-style-type: none"> • Cost incentives for consumers to reduce water use. 		
Regulatory mechanisms to reduce/manage water demand.	<ul style="list-style-type: none"> • Permanent water conservation measures. • Advertise and enforce water restrictions particularly in dry times. • Tourism advertising (incl. water restrictions advertising). • BASIX Implementation 	<ul style="list-style-type: none"> • Reduced water use in dry times. • Visitors to resorts, motels, caravan parks, etc, have increased awareness of water use. • Water efficient design principles included in new houses and developments. 		
Sub Total				
Administration and miscellaneous				
TOTAL				

(Council Name) Water Use Statistical Information (Year/period)

Total Annual Consumption (Date)		Number of properties connected	
Average Daily Consumption		Average annual residential household consumption	

Water Usage by Category Type

Category	No. Accounts	Total Consumption (kl)	Category	No. Accounts	Total Consumption (kl)
Residential			Industrial		
Commercial			Rural		
Recreational			Raw		