Wyong Shire Council
CENTRAL COAST

Wyong Shire Council

Business Paper

EXTRAORDINARY COUNCIL MEETING

30 October 2014

This page is intentionally blank

MEETING NOTICE

The EXTRAORDINARY COUNCIL MEETING
of Wyong Shire Council
will be held at Gosford Regional Gallery and Arts Centre,
36 Webb Street, East Gosford on
Thursday 30 October 2014 at 7.30 pm,
for the transaction of the business listed below:

OPENING PRAYER

ACKNOWLEDGEMENT OF COUNTRY

RECEIPT OF APOLOGIES

1 PROCEDURAL ITEMS

2 GENERAL REPORTS

3 INFORMATION REPORTS

4 QUESTIONS ON NOTICE ASKED

At the conclusion of the meeting and at the discretion of the Mayor, Council may meet with staff in an informal, non-decision making mode for a period of no more than 30 minutes.

Michael Whittaker
GENERAL MANAGER

1.1 Disclosures of Interest

TRIM REFERENCE: F2004/06390 - D11747755
MANAGER: Lesley Crawley, Manager Corporate Governance
AUTHOR: Sonia Witt; TL Governance and Councillor Services

The provisions of Chapter 14 of the *Local Government Act, 1993* regulate the way in which Councillors and nominated staff of Council conduct themselves to ensure that there is no conflict between their private interests and their public trust.

The Act prescribes that where a member of Council (or a Committee of Council) has a direct or indirect financial (pecuniary) interest in a matter to be considered at a meeting of the Council (or Committee), that interest must be disclosed as soon as practicable after the start of the meeting and the reasons for declaring such interest.

As members are aware, the provisions of the Local Government Act restrict any member who has declared a pecuniary interest in any matter from participating in the discussions, voting on that matter, and require that member to vacate the Chamber.

Council's Code of Conduct provides that if members have a non-pecuniary conflict of interest, the nature of the conflict must be disclosed. The Code also provides for a number of ways in which a member may manage non pecuniary conflicts of interest.

RECOMMENDATION

That Councillors now disclose any conflicts of interest in matters under consideration by Council at this meeting.

2.1 Proposed Meeting Dates and Times for the Central Coast Regional Organisation of Councils

TRIM REFERENCE: F2004/06390 - D11747608
MANAGER: Lesley Crawley, Manager Corporate Governance
AUTHOR: Sonia Witt; TL Governance and Councillor Services

SUMMARY
Report on the proposed meeting dates and times for the Central Coast Regional Organisation of Councils (CCROC).

RECOMMENDATION

1 That Council note that the meeting dates and locations for the CCROC Executive Committee are as follows:

- ***4 December 2014 commencing at 4pm - GCC***
- ***All future meetings be held each quarter***

2 That Council note the that the meeting dates and locations for the Central Coast Organisation of Councils Joint Meetings are:

- ***30 October 2014 commencing at 5.30pm - GCC***
- ***18 December 2014 commencing at 5.30pm - WSC***
- ***All future meetings be held each quarter***

3 That Council adopt to hold an Extraordinary Council Meeting following each CCROC Joint meeting, commencing at 7.30pm.

ATTACHMENTS

Nil.

2.2 Draft Central Coast Water Corporation 2013/14 Financial Statements

TRIM REFERENCE: F2004/06390 - D11747624
MANAGER: Stephen Naven, Chief Financial Officer
AUTHOR: Mellissa McKee; Corporate Planning Executive

SUMMARY

The Central Coast Water Corporation is required, under the Central Coast Water Corporation Act, to prepare, submit to audit, adopt and present to the community a set of financial reports.

RECOMMENDATION

1 ***That Council note that the CCROC Executive referred the draft Central Coast Water Corporation financial statements for 2013/14 (as presented) to the Member Councils for the Shareholders to execute all documents related to the draft 2013/14 financial reports as required by legislation on 2 October 2014.***

2 ***That Council note that the CCROC Executive referred the draft Central Coast Water Corporation financial statements for 2013/14 (as presented) to external audit on 2 October 2014.***

3 ***That Council note that the CCROC Executive set 30 October 2014 as the date for the presentation of the audited 2013/14 financial statements and external audit report in accordance with section 419(1) of the Local Government Act 1993.***

BACKGROUND

Section 45 of the Central Coast Water Corporation Act requires the Central Coast Water Corporation (CCWC) to apply the provisions of Divisions 2 and 3 of Part 3 of Chapter 13 of the Local Government Act 1993 in the same way as they apply to and in respect of a Council.

Division 2 of the Local Government Act relates to Accounting records, financial reports and auditing (incorporating Sections 412 to 421) and Division 3 relates to Auditors (incorporating Sections 422 to 427).

In accordance with Section 413(1) of the Local Government Act 1993 (LGA) CCWC must prepare Financial Statements for each year, and must refer them for audit.

CCWC appointed PricewaterhouseCoopers (PwC) as it External Auditor at its meeting of 27 July 2012.

THE PROPOSAL

That Council note that the CCROC Executive referred the 2013/14 draft Financial Statements for external audit opinion on 2 October 2014.

2013/14 General Purpose Financial Reports

Section 413(2) (c) of the Local Government Act (LGA) requires the Corporation to prepare a statement in the approved form as to its opinion on those financial statements.

Wyong Shire Council's General Manager and Responsible Accounting Officer certify that the 2013/14 General Purpose Financial Statements have been prepared in accordance with the LGA 1993, the Local Government (General) Regulation 2005, Australian Accounting Standards and professional pronouncements and the Local Government Code of Accounting Practice and Financial Reporting.

A statement in the approved form is included as Attachment 1.

Attached at Attachment 2 is a Management Representation letter signed by Wyong Shire Council General Manager and Wyong Shire Council Responsible Accounting Officer in regards to the preparation of CCWC Draft 2013/14 Financial Statements.

Overview of Financials 2013/14

Income Statement

CCWC expended $69,978 (net), or 64% of its 2013/14 adopted budget of $109,000. Due to the establishment of the Corporation being put on hold, spending did not occur as originally budgeted. Activity in 2013/14 reduced as an outcome of the findings of the Independent Local Government Review Panel that reported *"The Panel does not believe a separate water corporation should proceed before options for a full amalgamation or multi-purpose County Council for the Central Coast have been properly evaluated."*

Below is a summary of financial performance for 2013/14 compared to prior year 2012/13.

Budget 2014 $'000		**Actual 2014 $'000**	Actual 2013 $'000
	Income from continuing operations:		
	Revenue:		
2	Interest and investment revenue	**2**	5
2	**Total income from continuing operations**	**2**	5
	Expenses from continuing operations:		
73	Employee benefits and on-costs	**50**	165
36	Materials and contracts	**20**	85
2	Other Expenses	**2**	1
111	**Total expenses from continuing operations**	**72**	251
(109)	**Net operating result for the year**	**(70)**	(246)

Balance Sheet

Below is the Balance Sheet for 2013/14, compared to 2012/13.

	2014 $'000	2013 $'000
Assets		
Current assets		
Cash and cash equivalents	**53**	120
Total assets	**53**	122
Liabilities		
Current liabilities		
Payables	**11**	10
Total liabilities	**11**	10
Net assets	**42**	112
Equity		
Capital Contributions	**500**	500
Retained earnings	**(458)**	(388)
Total equity	**42**	112

Cash Reconciliation

CCWC did not receive cash contributions from its shareholders in 2013/14. The Corporation utilised funds ($120,000) in its Special Projects reserve to meet its obligations in 2013/14. These funds represented unspent funds from the 2011/12 and 2012/13 financial years.

During 2013/14 the Corporation had a net cash decrease of $67,000, which leaves $53,000 in the Special Projects Reserve (refer Note 6 c of the 2013/14 Statements) as at 30 June 2014.

A reconciliation of cash is as follows:

Opening Bank Balance 1 July 2013 (balance of Cash Reserve)	**$119,909.18**
Less accrued expenses from prior year paid in 2013/14	($7,785.28)
Less net operating expenditure as reported in 2013/14 Statements	($69,977.91)
Sub Total (Cash)	**$42,145.99**
Add Back Accrued Expenses Not Yet Paid at 30 June 2014	$10,583.10
Less GST paid June 2014 (refund due from ATO in July 2014)	($132.84)
Closing Bank Balance 30 June 2014 (balance of Cash Reserve)	**$52,596.25**

CONCLUSION

The draft 2013/14 Financial Statements represent CCWC's formal financial position for 2013/14.

Presenting final year-end accounts is a statutory requirement.

ATTACHMENTS

1	CCWC Statement By Voting Shareholders re 2013/14 General Purpose Financial Reports	D11714553
2	Management Representation letter signed by Wyong Shire Council General Manager and Wyong Shire Council Responsible Accounting Officer in regards to the preparation of CCWC Draft 2013/14 Financial Statements	D11714548

Central Coast Water Corporation

General purpose financial statements for the year ended 30 June 2014

Statement by Voting Shareholders made pursuant to section 413(2)(c) of the Local Government Act 1993 (as amended)

The attached General Purpose Financial Statements have been prepared in accordance with:

- The Central Coast Water Corporation Act 2006 (as amended)
- The Local Government Act 1993 (as amended) and the Regulations made thereunder.
- The Australian Accounting Standards and professional pronouncements.
- The Local Government Code of Accounting Practice and Financial Reporting.

To the best of our knowledge and belief, these statements:

- present fairly the Corporation's operating result and financial position for the year, and
- accord with the Corporation's accounting and other records.

We are not aware of any matter that would render the Reports false or misleading in any way.

Signed in accordance with a circular meeting of the Board in August 2014.

Paul Anderson
DEPUTY **Director**

Michael Whittaker
Director

Stephen Naven
Responsible Accounting Officer

PricewaterhouseCoopers
Chartered Accountants
GPO BOX 2650
SYDNEY NSW 1171

29/08/2014

Dear Sir or Madam,

Subject: Management Representation Letter on the Financial Report of Central Coast Water Corporation for the financial year ended 30 June 2014

1 I, Stephen Naven, CFO Wyong Shire Council confirm to the best of my knowledge and belief, and having made appropriate inquiries of other officials of the Central Coast Water Corporation, the following representations given to you in connection with your audit of the Corporation's general purpose financial report for the financial year ended 30 June 2014, and in the light of the requirements of the Local Government Code of Accounting Practice and Financial Reporting.

2 I acknowledge the directors and management's responsibility for ensuring:

a the accuracy of the financial records and the financial report prepared from them; and

b that the financial report is drawn up:

i to give a true and fair view of the Corporation's financial position as at 30 June 2014 and of its performance, as represented by the results of its operations and cash flows, for the financial year ended on that date;

ii in accordance with the Local Government Code of Accounting Practice and Financial Reporting; and

iii to comply with Accounting Standards, interpretations and other mandatory professional reporting requirements.

c that the financial report is drawn up:

i. in accordance with the NSW Government Policy Statement "Application of National Competition Policy to Local Government" ;

ii. in accordance with the Department of Local Government Guidelines "Pricing & Costing for Corporation Businesses: A Guide to Competitive Neutrality";

iii. in accordance with Local Government Code of Accounting Practice; and

Fraud and error

3 I acknowledge my responsibility for the design and implementation of internal control to prevent and detect error and fraud. I have established and maintained adequate internal control to facilitate the

preparation of a reliable financial report, and adequate financial records have been maintained. There are no material transactions that have not been properly recorded in the accounting records underlying the financial report.

4 I have disclosed to the auditor the results of my assessment of the risk that the financial report may be materially misstated as a result of fraud

5 I have disclosed to the auditor all significant facts relating to any frauds or suspected frauds known to management that may have affected the entity; including:

a fraud, error or non-compliance with laws and regulations involving management or employees who have a significant role in internal control;

b fraud, error or non-compliance with laws and regulations that could have a material effect on the financial report;

c communications from regulatory agencies concerning non-compliance with, or deficiencies in, financial reporting practices that could have a material effect on the financial report; and

d knowledge of any allegations of fraud, or suspected fraud, affecting the entity's financial report communicated by employees, former employees, analysts or others.

Materiality of uncorrected misstatements

6 I believe the effects of the uncorrected misstatements brought to my attention by you are immaterial, both individually and in the aggregate, to the financial report taken as a whole. A summary of such items is attached as Appendix 1 to this letter.

Financial records and transactions

7 All the financial records have been made available for the purpose of the audit, and all the transactions undertaken have been properly reflected and recorded in the financial records. All other records and related information which might affect the truth and fairness of, or necessary disclosure in, the financial report, including minutes of directors and shareholders' meetings (and of all relevant management meetings), have been made available to you and no such information has been withheld.

Related parties

8 I have provided you with all information and documentation regarding related party relationships and transactions, including support for all employee and director remuneration and related party transactions, including equity instruments that were issued to employees and directors during the current year

9 Full and adequate disclosure has been made in the financial report of all related party transactions.

Disclosure of assets

10 The financial report at 30 June 2014 (balance date) includes all cash and bank accounts and all other assets of the Corporation required to be included therein in accordance with generally accepted accounting principles. The Corporation has satisfactory title to all recorded assets.

Liabilities

11 All known liabilities of the Corporation at balance date were included in the financial records and no further liabilities of a material amount have since come to my knowledge.

12 I am not aware of any pending litigation, proceedings, hearings or claims negotiations which may result in significant loss to the Corporation.

Debt

13 The Corporation has no borrowings and financial obligations as at 30 June 2014.

14 The Corporation has appropriately accounted for and disclosed the impact of all off-balance sheet commitments, borrowings and other obligations pursuant to the appropriate authoritative literature.

Contingent liabilities

15 Contingent liabilities of the Corporation at balance date to the extent to which provision has not been made in the financial report are set out in Note 18 of the financial statements and no further contingent liabilities of a material amount have since come to my knowledge.

Commitments

16 Commitments under contracts for capital expenditure at balance date to the extent to which provision has not been made in the financial report amount to nil.

Future cash resources

17 Based on cash flow forecasts, adequate cash resources will be available to cover the Corporation's requirements for at least the next twelve months.

Insurance

18 All insurable assets and risks are to the best of my knowledge and belief covered by insurance where reasonable and considered prudent.

Electronic presentation of financial information

19 The electronic presentation of the financial report is my responsibility.

20 The electronic version of the financial report and audit report presented on the web site are the same as the final signed version of the financial report and audit report.

21 I have clearly differentiated between audited and unaudited information in the construction of the Corporation's web site and understand the risk of potential misrepresentation in the absence of appropriate controls.

22 I have assessed the security controls over audited financial information and the audit report and am satisfied that procedures in place are adequate to ensure the integrity of the information provided.

23 Where the audit report on the financial report is provided on the web site, the full financial report is also presented on the web site.

Other matters

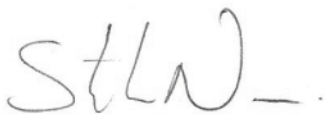
24 I am not aware of any possible breaches of statute, regulations, contracts, agreements which might result in the Corporation suffering significant penalties or other loss. No allegations of such breaches have come to my notice.

After balance date events

25 No matters or occurrences have come to my attention up to the present time which would materially affect the financial report or disclosures therein, or which are likely to materially affect the future results or operations of the Corporation.

I understand that your examination was made in accordance with Australian Auditing Standards and was, therefore, designed primarily for the purpose of expressing an opinion on the financial report of the entity taken as a whole, and that your tests of the financial records and other auditing procedures were limited to those which you considered necessary for that purpose.

Yours faithfully,



Stephen Naven
Chief Financial Officer, Wyong Shire Council

Appendix 1

Summary of Uncorrected Misstatements

Description	Assets $'000	Liabilities $'000	Equity $'000	Income $'000	Expenses $'000
Nil					

5

2.3 Final Central Coast Water Corporation 2013/14 Financial Statements

TRIM REFERENCE: F2004/06390 - D11747627
MANAGER: Stephen Naven, Chief Financial Officer
AUTHOR: Mellissa McKee; Corporate Planning Executive

SUMMARY

This report presents the External Audit Reports for the 2013/14 financial year and Final Audited 2013/14 Financial Statements for the Central Coast Water Corporation.

RECOMMENDATION

1 That Council receive the External Audit Reports for the Central Coast Water Corporation Financial Statements for the Year Ended - 30 June 2014.

2 That Council adopt the Final Central Coast Water Corporation 2013/14 Financial Statements for the Year Ended - 30 June 2014.

BACKGROUND

PricewaterhouseCoopers (PwC) have completed the audit of the Central Coast Water Corporation's financial statements for the 2013/14 financial year and have issued unqualified audit reports.

Copies of the Auditors' Clearance Report and the Audit Report of the 2013/14 Financial Statements are attached for the Council's information.

The Final Central Coast Water Corporation's Financial Statements for the year ending 30 June 2014 are tabled. These reports are now referred to each of the Shareholder Council's for final adoption.

ATTACHMENTS

1	PwC Clearance Report on the Conduct of the External Audit 2013/14	D11743802
2	PwC Report of the 2013/14 Financial Statements	D11743799
3	Final Audited Central Coast Water Corporation 2013/14 Financial Statements	D11743804

The Directors
Central Coast Water Corporation
2 Hely St
Wyong NSW 2259

23 September 2014

Dear Directors

Report on the conduct of the audit for year ended 30 June 2014 – Section 417(3)

We have completed our audit of the financial reports of the Central Coast Water Corporation for the year ended 30 June 2014, in accordance with Section 415 of the Local Government Act, 1993.

Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the financial reports are free of material misstatement. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial reports, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial reports are presented fairly in accordance with Australian Accounting Standards as well as statutory requirements so as to present a view which is consistent with our understanding of the Corporation's financial position, the results of its operations and its cash flows.

This report should be read in conjunction with our audit opinion on the general purpose financial statements provided under Section 417(2) of the Local Government Act 1993.

Flowing from our audit, there are a number of comments we wish to raise concerning the trends in the Corporation's finances. These are set out below.

Financial Results

The Corporation incurred an operating deficit of $70,000 during the period under review. This was funded from the capital contributions by the owners of the Corporation.

General

The books of accounts and records inspected by us have been kept in an accurate and conscientious manner.

Yours faithfully

PricewaterhouseCoopers

Peter Buchholz
Partner

PricewaterhouseCoopers, ABN 52 780 433 757
Darling Park Tower 2, 201 Sussex Street, GPO BOX 2650, SYDNEY NSW 1171
T: +61 2 8266 0000, F: +61 2 8266 9999, www.pwc.com.au

Central Coast Water Corporation

Independent auditor's report to the Directors – s417 (2)
Report on the special purpose financial report

Report on the financial report

We have audited the accompanying financial statements of the Central Coast Water Corporation (the Corporation), which comprise the Balance Sheets as at 30 June 2014, the income statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, accompanying notes to the financial statements and the Statement by Directors in the approved form as required by Section 413(2) of the Local Government Act 1993.

Directors responsibility for the financial report

The Directors of the Corporation are responsible for the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Local Government Act 1993 and for such internal control as the Directors determine is necessary to enable the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on the financial statements based on our audit. We conducted our audit in accordance with Australian Auditing Standards. These Standards require that we comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Statement. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the Statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the Statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial report.

When this audit report is included in an Annual Report, our procedures include reading the other information in the Annual Report to determine whether it contains any material inconsistencies with the financial statements.

PricewaterhouseCoopers, ABN 52 780 433 757
Darling Park Tower 2, 201 Sussex Street, GPO BOX 2650, SYDNEY NSW 1171
DX 77 Sydney, Australia
T +61 2 8266 0000, F +61 2 8266 9999, www.pwc.com.au

Our audit responsibility does not extend to the Origin Budget Figures included in the Income Statement, Statement of Cash Flows and the Origin Budget disclosures in notes 2(a) and 16 and the Projections disclosed in not 17 to the financial statements, nor the attached Special Schedules, and accordingly, we express no opinion on them.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Auditors' opinion:

In our opinion:

(a) the Corporation's accounting records have been kept in accordance with the requirements of the Local Government Act 1993, Chapter 13 part 3 Division 2 (the division); and

(b) the financial statements:

   a. have been presented, in all material respects, in accordance with the requirements of this Division

   b. are consistent with the Corporation's accounting records

   c. present fairly, in all material respects, the Corporation's financial position as of 30 June 2014 and its financial performance and its cash flows for the year then ended in accordance with Australian Accounting Standards

(c) all information relevant to the conduct of the audit has been obtained; and

(d) there are no material deficiencies in the accounting records or financial statements that have come to light during the course of the audit.

PricewaterhouseCoopers

Peter Buchholz
Partner

Sydney
23 September 2014


Central Coast Water Corporation
Financial Reports
2013/2014
GOSFORD CITY COUNCIL
Wyong Shire Council
CENTRAL COAST

Central Coast Water Corporation Financial Reports 2013/2014
Author: M McKee
Date: 19 September 2014
Draft Version 0.1

PO Box 60 Wyong NSW 2259
P 02 4350 5555 **F** 02 4351 2098
E ccwc@wyong.nsw.gov.au

Central Coast Water Corporation
General purpose financial statements
for the year ended 30 June 2014

Contents:

These financial statements are general purpose financial statements of Central Coast Water Corporation and are presented in Australian currency.

Nothing contained within these statements may be taken to be an admission of any liability to any person under any circumstance.

Central Coast Water Corporation is constituted under the *Central Coast Water Corporation Act* 2006 (as amended) and has its principal place of business at 2 Hely Street, Wyong, NSW 2259.

Central Coast Water Corporation

General purpose financial statements for the year ended 30 June 2014

Statement by Voting Shareholders made pursuant to section 413(2)(c) of the Local Government Act 1993 (as amended)

The attached General Purpose Financial Statements have been prepared in accordance with:

- The Central Coast Water Corporation Act 2006 (as amended)
- The Local Government Act 1993 (as amended) and the Regulations made thereunder.
- The Australian Accounting Standards and professional pronouncements.
- The Local Government Code of Accounting Practice and Financial Reporting.

To the best of our knowledge and belief, these statements:

- present fairly the Corporation's operating result and financial position for the year, and
- accord with the Corporation's accounting and other records.

We are not aware of any matter that would render the Reports false or misleading in any way.

Signed in accordance with a circular meeting of the Board in August 2014.

Paul Anderson
DEPUTY **Director**

Michael Whittaker
Director

Stephen Naven
Responsible Accounting Officer

Central Coast Water Corporation
Income statement

for the year ended 30 June 2014

Budget 2014 $'000		Notes	Actual 2014 $'000	Actual 2013 $'000
	Income from continuing operations:			
	Revenue:			
-	Rates and annual charges	3(a)	-	-
-	User charges and fees	3(b)	-	-
2	Interest and investment revenue	3(c), 16(a)	2	5
-	Other Revenues	3(d)	-	-
-	Grants and contributions provided for operating purposes	3(e,f), 16(a)	-	-
-	Grants and contributions provided for capital purposes	3(e,f), 16(a)	-	-
	Other income:			
-	Net gain from the disposal of assets	5	-	-
2	**Total income from continuing operations**		2	5
	Expenses from continuing operations:			
73	Employee benefits and on-costs	4(a)	50	165
-	Borrowing costs	4(b)	-	-
36	Materials and contracts	4(c), 16(a)	20	85
-	Depreciation and amortisation	4(d)	-	-
2	Other Expenses	4(e), 16(a)	2	1
-	Net loss from the disposal of assets	5	-	-
111	**Total expenses from continuing operations**		72	251
(109)	**Net operating result for the year**		(70)	(246)
	Attributable to:			
(109)	Central Coast Water Corporation		(70)	(246)
(109)	**Net operating result for the year before grants and contributions provided for capital purposes**		(70)	(246)

Note: *Original Budget as approved by the Corporation on 12 September 2013 - refer Note 16.*

This statement is to be read in conjunction with the accompanying notes.

Central Coast Water Corporation
Statement of comprehensive income
for the year ended 30 June 2014

Budget 2014 $'000		Notes	Actual 2014 $'000	Actual 2013 $'000
(109)	**Net operating result for the year - from Income Statement**		**(70)**	(246)
	Other comprehensive income			
-	Gain / (Loss) on revaluation of infrastructure, property, plant & equipment	20b	-	-
-	Gain / (Loss) on revaluation of available for sale investments	20b	-	-
-	Realised available - for-sale investment gains recognised in revenue	20b	-	-
	Adjustment to correct prior period errors	20d	-	-
-	**Total other comprehensive income for the year**			
(109)	**Total comprehensive income for the year**		**(70)**	(246)
	Attributable to:			
(109)	**Central Coast Water Corporation**		**(70)**	(246)

This statement is to be read in conjunction with the accompanying notes.

Central Coast Water Corporation
Statement of Financial Position
as at 30 June 2014

	Notes	2014 $'000	2013 $'000
Assets			
Current assets			
Cash and cash equivalents	6	**53**	120
Investments	6	**-**	-
Receivables	7		2
Inventories	8	**-**	-
Other	8	**-**	-
Total current assets		**53**	122
Non-current assets			
Investments	6	-	-
Receivables	7	-	-
Infrastructure, property, plant and equipment	9	-	-
Intangible assets	22	-	-
Other	8	-	-
Total non-current assets		**-**	-
Total assets		**53**	122
Liabilities			
Current liabilities			
Payables	10	**11**	10
Borrowings	10	**-**	-
Provisions	10	**-**	-
Total current liabilities		**11**	10
Non-current liabilities			
Payables	10	-	-
Borrowings	10	-	-
Provisions	10	-	-
Total non-current liabilities		**-**	-
Total liabilities		**11**	10
Net assets		**42**	112
Equity			
Capital Contributions		**500**	500
Retained earnings	20	**(458)**	(388)
Asset revaluation reserves	20	**-**	-
Total equity		**42**	112

This statement is to be read in conjunction with the accompanying notes.

Central Coast Water Corporation
Statement of changes in equity

for the year ended 30 June 2014

	Note	2014 Retained earnings $'000s	2014 Asset Revaluation Reserve $'000s	2014 Other Reserves $'000s	2014 Corporation Equity Interests $'000s	2014 Outside Equity Interests $'000s	2014 Total Equity $'000s	2013 Retained earnings $'000s	2013 Asset Revaluation Reserve $'000s	2013 Other Reserves $'000s	2013 Corporation Equity Interests $'000s	2013 Outside Equity Interests $'000s	2013 Total Equity $'000s
Opening balance	20	**(388)**			**(388)**	**500**	**112**	(142)			(142)	250	108
Correction of errors	20												
Changes in accounting policies													
Restated opening balance		**(388)**			**(388)**	**500**	**112**	(142)			(142)	250	108
Capitl Contributions												250	250
Net operating result for the year	20	(70)			(70)		(70)	(246)			(246)		(246)
Other comprehensive income	20												
Movement in Equity for the period	20	**(70)**			**(70)**		**(70)**	(246)			(246)	250	4
Closing balance		**(458)**			**(458)**	**500**	**42**	(388)			(388)	500	112

This statement is to be read in conjunction with the accompanying notes.

Central Coast Water Corporation
Statement of cash flows
for the year ended 30 June 2014

Budget 2014 $'000		Notes	Actual 2014 $'000	Actual 2013 $'000
	Cash flows from operating activities			
	Receipts:			
-	Rates and annual charges		-	-
-	User charges and fees		-	-
2	Investment Revenue and Interest		2	5
-	Grants and contributions		-	-
-	Deposits and retentions received		-	-
-	Other		2	-
	Payments:			
(73)	Employee benefits and oncosts		(50)	(165)
(36)	Materials and contracts		(19)	(109)
	Borrowing Costs		-	-
	Deposits and retentions refunded		-	-
(2)	Other		(2)	(2)
(109)	**Net cash provided by (or used in) operating activities**	11(b)	(67)	(271)
	Cash flows from investing activities			
	Receipts:			
-	Sale of investments		-	-
-	Sale of real estate assets		-	-
-	Sale of infrastructure, property, plant and equipment		-	-
-	Other		-	-
	Payments:			
-	Purchase of investments		-	-
-	Purchase of infrastructure, property, plant and equipment		-	-
-	Purchase of real estate		-	-
-	Other		-	-
-	**Net cash provided by (or used in) investing activities**		-	-
	Cash flows from financing activities			
	Receipts:			
-	Borrowings & Advances		-	-
-	Other		-	250
	Payments:			
-	Borrowings & Advances		-	-
-	Lease Liabilities		-	-
-	Other		-	-
-	**Net cash provided by (or used in) financing activities**		-	250
(109)	Net increase / (decrease) in cash and cash equivalents		(67)	(21)
120	Cash and cash equivalents at beginning of reporting period		120	141
11	**Cash and cash equivalents at end of reporting period**	11(a)	53	120

This statement is to be read in conjunction with the accompanying notes.

Central Coast Water Corporation
Notes to the financial statements
for the year ended 30 June 2014

Index:

Notes to the financial statements
for the year ended 30 June 2014

Note 1 – Summary of significant accounting policies

The principal accounting policies adopted in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Basis of preparation

These general purpose financial statements have been prepared in accordance with Australian Accounting Standards and Australian Accounting Interpretations, the Local Government Act (1993) and Regulation, and the Local Government Code of Accounting Practice and Financial Reporting.

New and amended standards adopted by the Corporation

None of the new standards and amendments to standards that are mandatory for the first time for the financial year beginning 1 July 2013 affected any of the amounts recognised in the current period.

During the current year, the following relevant standards became mandatory for Council and have been adopted:

- AASB 13 Fair Value Measurement
- AASB 119 Employee Benefits

AASB 13 Fair Value Measurement has not affected the assets or liabilities of Central Coast Water Corporation. It introduces the concept of highest and best use for non-financial assets, (of which Central Coast Water Corporation has none). Disclosure regarding fair value has been included in the financial statements at note 22.

AASB 119 Employee Benefits has changed the basis for determining the income or expense relating to defined benefit plans and introduces revised definitions for short-term employee benefits. However as Central Coast Water Corporation has no Award employees this standard has had no effect on these reports.

Early adoption of standards

Central Coast Water Corporation has not elected to apply any pronouncements before their operative date in the annual reporting period beginning 1 July 2013.

Historical cost convention

These financial statements have been prepared under the historical cost convention.

Critical accounting estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Corporation's accounting policies. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that may have a financial impact on the entity and that are believed to be reasonable under the circumstances.

Critical accounting estimates and assumptions

Central Coast Water Corporation makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results.

(b) Revenue recognition

Central Coast Water Corporation recognises revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the entity and specific criteria have been met for each of Central Coast Water Corporation's activities as described below. Central Coast Water Corporation bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

Revenue is measured at the fair value of the consideration received or receivable. Revenue is measured on major income categories as follows:

Interest

Interest income is recognised using the effective interest rate at the date that interest is earned.

(c) Principles of Consolidation

Associates and Joint Ventures,

As at balance date there were no Associates or Joint Ventures.

The project by Gosford and Wyong Councils to implement the Central Coast Water Corporation (CCWC) was aimed at achieving a co-ordinated regional management approach to water and sewerage services and decision-making, and reducing costs through the development of common administrative systems and pooled resources.

(d) Leases

Central Coast Water Corporation presently has no obligations under finance or operating leases.

(e) Acquisition of assets

The purchase method of accounting is used to account for all acquisitions of assets. Cost is measured as the fair value of the assets given, plus costs directly attributable to the acquisition.

Where settlement of any part of cash consideration is deferred, the amounts payable in future are discounted back to their present value as at the date of exchange. The discount rate used is the Corporation's incremental borrowing rate, or the rate at which a similar borrowing could be obtained from an independent financier under comparable terms and conditions.

(f) Impairment of assets

Intangible assets that have an indefinite useful life are not subject to amortisation but are tested annually for impairment or more frequently if events or changes in circumstances indicate that they might be impaired.

Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount might not be recoverable.

(g) Cash and cash equivalents

For Statement of cash flow presentation purposes, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts (if any) are shown within borrowings in current liabilities on the Statement of Financial Position.

(h) Receivables

Receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. Receivables are generally due for settlement within 30 days.

Collectability of receivables is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off by reducing the carrying amount directly. An allowance account (provision for impairment of receivables) is used when there is objective evidence that Central Coast Water Corporation will not be able to collect all amounts due according to the original terms of the receivables. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments (more than 30 days overdue) are considered indicators that the receivable is impaired.

(i) Inventories

As at the reporting dates 30 June 2013 and 30 June 2014 Central Coast Water Corporation carried no amount on its Statement of Financial Position in respect of inventories.

(j) Non-current assets (or disposal groups) held for sale and discontinued operations

Non-current assets are classified as held for resale if their carrying amount will be principally recovered through a sale transaction.

Discontinued operations are Central Coast Water Corporation functions or projects which will be, or have been transferred, to another entity. Generally, Central Coast Water Corporation would receive some amount of compensation for the value of assets transferred.

As at the reporting dates 30 June 2013 and 30 June 2014 Central Coast Water Corporation carried no amount on its Statement of Financial Position in respect of non-current assets held for sale or in respect of discontinued operations, and has not recorded any income or expense transactions related to these categories in the financial years ending on those dates.

(k) Investments and other financial assets

As at the reporting dates 30 June 2013 and 30 June 2014 Central Coast Water Corporation carried no amount on its Statement of Financial Position in

respect of Financial Investments (Cash and cash equivalents only).

(l) Fair value estimation

The fair value of financial assets and financial liabilities must be estimated for recognition and measurement or for disclosure purposes.

The fair value of financial instruments traded in active markets is based on quoted market prices at the reporting date.

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques.

The nominal value less estimated credit adjustments of trade receivables and payables are assumed to approximate their fair values.

The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Central Coast Water Corporation for similar financial instruments.

(m) Infrastructure, Property, Plant and Equipment (IPPE)

In the period ended 30 June 2013 and 30 June 2014 Central Coast Water Corporation carried no amount on its Statement of Financial Position in respect of IPPE.

(n) Investment property

In the period ended 30 June 2013 and 30 June 2014 Central Coast Water Corporation had no investment properties.

(o) Payables

These amounts represent liabilities for goods and services provided to Central Coast Water Corporation prior to the end of financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

(p) Borrowings

In the period ended 30 June 2013 and 30 June 2014 Central Coast Water Corporation carried no amount on its Statement of Financial Position in respect of borrowings.

(q) Borrowing costs

In the period ended 30 June 2013 and 30 June 2014 Central Coast Water Corporation recognised no amount on its Income Statement in respect of borrowing costs.

(r) Provisions

In the period ended 30 June 2013 and 30 June 2014 Central Coast Water Corporation carried no amount on its Statement of Financial Position in respect of Provisions.

(s) Employee benefits

At balance date the Corporation had no Award employees and therefore no employee leave entitlement provisions.

(t) Rounding of amounts

Unless otherwise indicated, amounts in the financial statements have been rounded off to the nearest thousand dollars.

(u) Goods and Services Tax

Revenues, expenses and assets are recognised net of the amount of associated GST, unless the GST incurred is not recoverable from the taxation authority. In this case it is recognised as part of the cost of acquisition of the asset or as part of the expense.

Receivables and payables are stated exclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included with other receivables or payables in the Statement of Financial Position.

Cash flows are presented on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to the taxation authority, are presented as operating cash flows.

(v) New accounting standards and interpretations not yet effective

Certain new (or amended) accounting standards and interpretations have been published that are not mandatory for 30 June 2014 reporting periods. Central Coast Water Corporation has not adopted any of these standards early. Central Coast Water Corporation's assessment of the impact of these new standards and interpretations is set out below

i) **AASB 9 Financial Instruments, AASB 2009 11 Amendments to Australian Accounting Standards arising from AASB 9, AASB 2010-7 Amendments to Australian Accounting Standards arising from AASB 9 9 and AASB 2012-6 Amendments to Australian Accounting Standards – Mandatory Effective Date of AASB 9 and transitional disclosures and AASB 2013-9 Amendments to Australian Accounting Standards – Conceptual Framework, Materiality and Financial Instruments (effective from 1 January 2017)** AASB 9 Financial Instruments addresses the classification, measurement and de-recognition of financial assets and financial liabilities. These amendments are not expected to impact on central Coast Water Corporation's reporting.

(**ii) AASB 2013-3 Amendments to AASB 136 Recoverable Amount Disclosures for Non-Financial Assets (effective 30 June 2015 financial statements)** There are no changes to reported financial position or performance from AASB 2013 – 3, however additional disclosures may be required.

(iii) AASB 10 Consolidated Financial Statements, AASB 11 Joint Arrangements, AASB 12 Disclosure of Interests in Other Entities, revised AASB 127 Separate Financial Statements and AASB 128 Investments in Associates and Joint Ventures and AASB 2011-7 Amendments to Australian Accounting Standards arising from the Consolidation and Joint Arrangements Standards (effective 1 January 2014 for not-for-profit entities) AASB 10 replaces all of the guidance on control and consolidation in AASB 127 Consolidated and Separate Financial Statements, and Interpretation 12 Consolidation – Special Purpose Entities. The core principle that a consolidated entity presents a parent and its subsidiaries as if they are a single economic entity remains unchanged, as do the mechanics of consolidation. However, the standard introduces a single definition of control that applies to all entities. It focuses on the need to have both power and rights or exposure to variable returns. Power is the current ability to direct the activities that significantly influence returns. Returns must vary and can be positive, negative or both. Control exists when the investor can use its power to affect the amount of its returns. There is also new guidance on participating and protective rights and on agent/principal relationships. Central Coast Water Corporation does not expect the new standard to have a significant impact on its composition.

AASB 11 introduces a principles based approach to accounting for joint arrangements. The focus is no longer on the legal structure of joint arrangements, but rather on how rights and obligations are shared by the parties to the joint arrangement. Based on the assessment of rights and obligations, a joint arrangement will be classified as either a joint operation or a joint venture. AASB 11 will not have any impact on the amounts recognised in its financial statements.

AASB 12 sets out the required disclosures for entities reporting under the two new standards, AASB 10 and AASB 11, and replaces the disclosure requirements currently found in AASB 127 and AASB 128. Application of this standard by Coast Water Corporation will not affect any of the amounts recognised in the financial statements.

There are no other standards that are not yet effective and that are expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

(w) Going Concern

These financial statements have been prepared on a going concern basis. The Corporation does not yet have sources of income sufficient to meet its operating costs and is dependent on its shareholders to fund its operations.

For the period covering the twelve months from the date of this financial report, the Corporation expects this to continue. These conditions indicate a material uncertainty that may cast significant doubt about the Corporation's ability to continue as a going concern. Should the Corporation not be able to continue as a going concern, it may be required to realise its assets and extinguish its liabilities other than in the ordinary course of business and at amounts that differ from those stated in the financial statements.

(x) Disclaimer

Nothing contained within these statements may be taken to be an admission of any liability to any person under any circumstance.

Note 2(a) – Functions

Income, expenses and assets have been directly attributed to the following functions. Details of those functions are provided in Note 2(b).

	Income from continuing operations			Expenses from continuing operations			Operating result			Grants included in income		Total assets held (current and non current)	
Functions	Original Budget 2014	**Actual 2014**	Actual 2013	Original Budget 2014	**Actual 2014**	Actual 2013	Original Budget 2014	**Actual 2014**	Actual 2013	**2014**	2013	**2014**	2013
	$'000	**$'000**	$'000	$'000	**$'000**	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Administration	2	**2**	5	111	**72**	251	(109)	**(70)**	(246)	**-**	-	**53**	122
Total functions	2	2	5	111	72	251	(109)	(70)	(246)	-	-	53	122
General purpose income	-	**-**	-	-	**-**	-	-	**-**	-	**-**	-	**-**	-
Operating result from continuing operations	2	**2**	5	111	**72**	251	(109)	**(70)**	(246)	**-**	-	**53**	122

Notes to the financial statements
for the year ended 30 June 2014

Note 2(b) - Components of functions

The activities relating to the Central Coast Water Corporation's functions reported on in note 2(a) are as follows:

Administration

Administration provides corporate services. Administration is accountable for the governance and statutory compliance of the organisation's finance, human resources and corporate information. Administration also includes effective high level contract and project management to ensure fiscal responsibility.

Notes to the financial statements
for the year ended 30 June 2014

Note 3 – Income from continuing operations

	Actual 2014 $'000	Actual 2013 $'000
(a) Rates and annual charges		
Special rates		
Water supply	-	-
Sewerage services	-	-
Drainage	-	-
Other	-	-
Total special rates	-	-
Annual charges		
Water supply	-	-
Sewerage services	-	-
Other	-	-
Total annual charges	-	-
Total rates and annual charges	-	-
(b) User charges and fees		
User charges		
Water supply	-	-
Sewerage services	-	-
Total user charges	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 3 – Income from continuing operations (continued)

	Actual 2014 $'000	Actual 2013 $'000
Fees		
Regulatory/Statutory certificates	-	-
Regulatory/Statutory other	-	-
Fees other	-	-
Total fees	-	-
Total user charges and fees	-	-
(c) Interest and Interest Revenue		
Interest Other	2	5
Total interest and investment revenue	2	5
(d) Other revenues		
Legal fees recovery (rates)	-	-
Legal fees recovery (other)	-	-
Sewerage connections	-	-
Water connections	-	-
Sales general	-	-
Other	-	-
Total other operating revenue	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 3 – Income from continuing operations (continued)

	OPERATING Actual		CAPITAL Actual	
	2014 $'000	2013 $'000	2014 $'000	2013 $'000
(e) Grants				
General purpose (untied)				
- Financial assistance	-	-	-	-
Pensioners rate subsidies				
- General	-	-	-	-
Specific purpose				
Pensioners rate subsidies				
- Water	-	-	-	-
- Sewer	-	-	-	-
Water supplies	-	-	-	-
Sewerage services	-	-		-
Other	-	-	-	-
Total grants	-	-	-	-
Comprising				
- Commonwealth funding	-	-	-	-
- State funding	-	-	-	-
- Other funding	-	-	-	-
	-	-	-	-

	OPERATING Actual		CAPITAL Actual	
	2014 $'000	2013 $'000	2014 $'000	2013 $'000
(f) Contributions				
Water (S64)	-	-	-	-
Sewerage (S64)	-	-	-	-
Other	-	-	-	-
Total contributions	-	-	-	-
Total grants and contributions	-	-	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 3 – Income from continuing operations (continued)

	2014	2013
	$'000	$'000
(g) Restrictions relating to grants and contributions		
Ceratin grants and contributions are obtained by the Corporation on the condition they be spent in a specified manner:	-	-
Grants and contributions recognised in the current period which have not been spent	-	-
Less Grants and contributions recognised in the previous reporting periods which have been spent in the current reporting period	-	-
Net increase (decrease) in restricted assets in the current reporting period	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 4 – Expenses from continuing operations

	Actual 2014 $'000	Actual 2013 $'000
(a) Employee benefits and on costs		
Director's Fees	**46**	156
Superannuation	**4**	9
Workers' Compensation Insurance	**-**	-
	50	165
Less: Capitalised and distributed costs	**-**	-
Total employee costs expensed	**50**	165
Number of FTE Employees		
(b) Borrowing costs		
Total borrowing costs expensed	**-**	-

Notes to the financial statements
for the year ended 30 June 2014

Note 4 – Expenses from continuing operations (continued)

	Actual 2014 $'000	Actual 2013 $'000
(c) Materials and contracts		
Raw materials and consumables	**5**	8
Contract and consultancy costs	**4**	59
Auditor's remuneration (1)		
- Audit services	**11**	10
Legal expenses		
- Other	**-**	8
Total materials and contracts	**20**	85
(1) During the year the following fees were paid or payable for services provided by the Corporation's auditor		
(i) Audit and other assurance services		
Audit and review of financial statements	**11**	10
Other assurance services:		
- Audit of regulatory returns		
-Due diligence services		
Total remuneration for audit and other assurance services	**11**	10
(ii) Taxation services		
Tax compliance services		
Total remuneration for taxation services	-	-
(iii) Other services		
Remuneration advice		
Benchmarking services		
Total remuneration for other services	-	-
Total remuneration for audit services	**11**	10

Notes to the financial statements
for the year ended 30 June 2014

Note 4 – Expenses from continuing operations (continued)

	Actual 2014 $'000	Actual 2013 $'000
(d) Depreciation and amortisation		
Total depreciation and amortisation	**-**	-
(e) Other expenses		
Insurances	**1**	-
Bank fees and charges	**1**	1
Total other operating expenses from continuing operations	**2**	1

Notes to the financial statements
for the year ended 30 June 2014

Note 5 – Gain or loss from the disposal of assets

	Actual 2014 $'000	Actual 2013 $'000
Gain (or loss) on disposal of Infrastructure, Property, Plant and Equipment		
Proceeds from disposal	**-**	-
Less: Carrying amount of assets disposed	**-**	-
Gain (or loss) on disposal	**-**	-
Gain (or loss) on disposal of financial assets		
Proceeds from disposal	**-**	-
Less: Carrying amount of assets disposed	**-**	-
Gain (or loss) on disposal	**-**	-
Net gain (or loss) from disposal of assets	**-**	-

Notes to the financial statements
for the year ended 30 June 2014

Note 6 – Cash and cash equivalents

(a) Cash and Cash Equivalents	Notes	Actual 2014 Current $'000	Actual 2014 Non-current $'000	Actual 2013 Current $'000	Actual 2013 Non-current $'000
Cash at bank and on hand		**53**	-	120	-
Deposits at call		**-**	**-**	-	-
	11	**53**	-	120	
(b) Investments					
Summary					
Financial assets at fair value through profit and loss		**-**	**-**	-	-
Held to maturity investments		**-**	**-**	-	-
Available for sale financial assets		**-**	**-**	-	-
Total investment securities		**-**	**-**	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 6 (c) – Restricted assets (cash and investments)

	Notes	2014 Current $'000	2014 Non-Current $'000	2013 Current $'000	2013 Non-Current $'000
Total cash, cash equivalents, investments					
Cash and cash equivalents	6a	**53**	-	120	-
Investments	6b	**-**	**-**	-	-
		53	**-**	120	-
External restrictions		**-**	**-**	-	-
Internal restrictions		**53**	**-**	120	-
Unrestricted		**-**	**-**	-	-
		53	**-**	120	-

	Opening Balance 1 July 2013	Movements: Transfers To restriction	Movements: Transfers From restriction	Closing Balance 30 June 2014
	$'000	**$'000**	**$'000**	**$'000**
External restrictions	-	-	-	-
Total external restrictions	**-**	**-**	**-**	**-**
Internal restrictions				
Special Projects Reserve	120	-	67	**53**
Total internal restrictions	**120**	**-**	**67**	**53**

Notes to the financial statements
for the year ended 30 June 2014

Note 7 – Receivables

	Actual 2014		Actual 2013	
Purpose	**Current $'000**	**Non-current $'000**	Current $'000	Non-current $'000
Water annual charges	-	-	-	-
Sewerage annual charges	-	-	-	-
User charges and fees	-	-	-	-
Goods and services tax	-	-	2	-
Other	-	-	-	-
	-	-	2	-
Less: Provision for impairment				
- Rates and annual charges	-	-	-	-
- Other	-	-	-	-
Total receivables	-	-	2	-
Externally restricted receivables				
Water supply	-	-	-	-
Sewerage services	-	-	-	-
Other	-	-	-	-
Total externally restricted receivables	-	-	-	-
Unrestricted receivables	-	-	2	-
Total receivables	-	-	2	-

Notes to the financial statements
for the year ended 30 June 2014

Note 8 – Inventories and other assets

	Actual 2014		Actual 2013	
	Current $'000	**Non-current $'000**	Current $'000	Non-current $'000
Inventories				
- Stores and materials	**-**	**-**	-	-
- Other	**-**	**-**	-	-
Total inventories	**-**	**-**	-	-
Other				
Prepayments	**-**	**-**	-	-
Other	**-**	**-**	-	-
Total other assets	**-**	**-**	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 8 – Inventories and other assets (continued)

	Actual 2014		Actual 2013	
	Current $'000	**Non-current $'000**	Current $'000	Non-current $'000
Water				
- Stores and materials				
- Trading stock	-	-	-	-
- Prepayments	-	-	-	-
- Other	-	-	-	-
Total water	-	-	-	-
Sewerage				
- Stores and materials	-	-	-	-
- Trading stock	-	-	-	-
- Prepayments	-	-	-	-
- Other	-	-	-	-
Total sewerage	-	-	-	-
Total externally restricted inventories and other assets	-	-	-	-

Notes to the financial statements for the year ended 30 June 2014

Note 9(a) – Infrastructure, property, plant and equipment

Asset type	At 30 June 2013 $'000				Movements during year $'000							At 30 June 2014 $'000			
	At cost	Fair value	Accumulated depreciation	Book value	Asset Purchases Renewals	New assets	Transfers	Adjustments	Asset disposals	Depreciation and impairment	Revaluation increments/ decrements	At cost	Fair value	Accumulated depreciation	Book value
Capital WIP															
Plant and equipment															
Office equipment															
Furniture and fittings															
Property plant and equipment leased															
Land															
-Operational land															
-Community land															
-Non depreciable land improvements															
-Land under roads															
Depreciable land improvements															
Buildings															
Other structures															
Infrastructure															
-Roads, bridges and footpaths															
-Non-depreciable bulk earthworks															
-Stormwater drainage															
-Water supply network															
-Sewerage network															
Other assets															
Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note 9(b) – Restricted Infrastructure, property, plant and equipment

Asset type	2014 $'000 At cost	Fair value	Accumulated depreciation	Book value	2013 $'000 At cost	Fair value	Accumulated depreciation	Book value
Water supply								
Capital WIP								
Plant - equipment								
Office equipment								
Furniture and fittings								
Land								
- Operational land								
- Community land								
-non depreciable land improvements								
Land Improvements - depreciable								
Buildings								
Other structures								
Infrastructure								
- water supply								
- stormwater drainage								
Total water supply								
Sewerage services								
Capital WIP								
Plant - equipment								
Office equipment								
Furniture and fittings								
Land								
- Operational land								
- Community land								
-non depreciable land improvements								
Land Improvements - depreciable								
Buildings								
Other structures								
Infrastructure								
- sewerage assets								
Total sewerage services								
Total restrictions								

Notes to the financial statements for the year ended 30 June 2014

Note 10(a) – Payables, borrowings and provisions

	Actual 2014		Actual 2013	
	Current $'000	Non-current $'000	Current $'000	Non-current $'000
Payables				
Goods and services	-	-	-	-
Accrued expenses	**11**	-	10	-
Total payables	**11**	-	10	-
Current payables not expected to be settled within the next 12 months	-	-	-	-
Borrowings				
Bank overdraft	-	-	-	-
Secured loans (note 15)	-	-	-	-
Other	-	-	-	-
Total interest bearing liabilities	-	-	-	-
Provisions				
Total provisions	-	-	-	-
Current provisions not expected to be settled within the next 12 months	-	-	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 10(b) – Description of and movements in provisions

Class of Provision	Opening balance 2014 $'000	Unwinding of Discount 2014 $'000	Payments 2014 $'000	Re-measurement 2014 $'000	Closing balance 2014 $'000
Total	-	-	-	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 11 – Reconciliation of operating result to net cash movement from operating activities

(a) Reconciliation of cash assets	Notes	Actual 2014 $'000	Actual 2013 $'000
Cash and cash equivalents	6a	**53**	120
Less bank overdraft	10	**-**	-
Balances as per statement of cash flows		**53**	120
(b) Reconciliation of net operating result to cash provided from operating activities			
Net operating result from Income statement		**(70)**	(246)
Add: Depreciation and impairment		**-**	-
Increase in provision for doubtful debts		**-**	-
Increase in provision for leave entitlements		**-**	-
Increase in other provisions		**-**	-
Decrease in receivables		**2**	-
Decrease in inventories		**-**	-
Decrease in other current assets		**-**	-
Increase in payables		**-**	-
Increase in accrued interest payable		**-**	-
Increase in accrued salaries and wages		**-**	-
Increase in other liabilities		**1**	-
Loss on sale of assets		**-**	-
		(67)	(246)
Less: Decrease in provision for doubtful debts		**-**	-
Decrease in provision for leave entitlements		**-**	-
Decrease in other provisions		**-**	-
Increase in receivables		**-**	1
Increase in inventories		**-**	-
Increase in other current assets		**-**	-
Decrease in payables		**-**	-
Decrease in accrued interest payable		**-**	-
Decrease in other current liabilities		**-**	24
Non-cash contributions and dedications		**-**	-
Gain on sale of assets		**-**	-
Fair value adjustments to financial assets at fair value through profit and loss		**-**	-
Net cash provided from (or used in) operating activities from cash flow statement		**(67)**	(271)

Notes to the financial statements
for the year ended 30 June 2014

Note 11 – Reconciliation of operating result to net cash movement from operating activities (continued)

	2014 $'000	2013 $'000
(c) Non-cash financing and investing activities		
-Acquisition of plant and equipment by means of finance leases	-	-
-Dedications	-	-
	-	-
(d) Financing arrangements		
Unrestricted access was available at balance date to the following :		
Bank overdraft facility	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 12 – Commitments for expenditure

	Actual 2014 $'000	Actual 2013 $'000
(a) Capital commitments (exclusive of GST)		
Capital expenditure committed for at the reporting date but not recognised in the financial statements as liabilities:	-	-
Total commitments	-	-
(b) Finance lease commitments	-	-
Commitments under finance leases at the reporting date are payable as follows:		
- Not later than one year	-	-
- Later than one year and not later than 5 years	-	-
- Later than 5 years	-	-
	-	-
(b) Non-cancellable operating lease commitments		
Commitments under non-cancellable operating leases at the reporting date but not recognised in the financial statements are payable as follows:		
- Not later than one year	-	-
- Later than one year but not later than 5 years	-	-
- Later than 5 years	-	-
Total commitments	-	-

Notes to the financial statements
for the year ended 30 June 2014

Note 13(a) – Statement of performance measures – Consolidated results

		Amounts	Current year indicators	2013	2012
Operating Performance					
Total continuing operating revenue excluding capital grants and contributions - operating expenses	$	(70)	(35)	(49)	(71)
Total continuing operating revenue excluding capital grants and contributions	$	2			
Own source operating revenue					
Total continuing operating revenue less all grants and contribution	$	2	100%	100%	100%
Total continuing operating revenue inclusive of capital grants and contributions	$	2			
Unrestricted current ratio					
Current assets less all external restrictions	$	53	4.82	12.20	4.18
Current liabilities less specific purpose liabilities	$	11			
Debt service cover ratio					
Operating results before capital excluding interest and depreciation/impairment/amortisation (EBTDA)	$	(70)	-	-	-
Principal Repayments + borrowing costs	$	-			
Rates and Annual Charges outstanding percentage					
Rates and annual charges outstanding	$	-	-	-	-
Rates and annual charges collectible	$	-			
Cash expense ratio					
Current year's cash and cash equivalents	$	53	9	5	16
Payments from cash flow of operating and financing activities	$	67			

Detail methods for calculating these indicators are given in the *Local Government Code of Accounting Practice and Financial Reporting* (update no. 22).

Note 14 – Investment properties

Central Coast Water Corporation had no investment properties during the period ended 30 June 2014.

Notes to the financial statements
for the year ended 30 June 2014

Note 15 – Financial risk management

The Corporation's activities expose it to a variety of financial risks including price risk, credit risk, liquidity risk and interest rate risk. The Corporation's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the Corporation.

CCWC does not engage in transactions expressed in foreign currencies and is therefore not subject to foreign currency risk.

Financial risk management is carried out by the Finance Section under policies approved by the Corporation. CCWC held the following financial instruments at balance date:

	Carrying Value		Fair Value	
	2014	2013	2014	2013
	$'000	$'000	$'000	$'000
Financial assets				
Cash and cash equivalents	**53**	120	**53**	120
Receivables	**-**	2	**-**	2
Financial assets at fair value through profit or loss	**-**	-	**-**	-
Available-for-sale financial assets	**-**	-	**-**	-
Held-to-maturity investments	**-**	-	**-**	-
Total	**53**	122	**53**	122
Total financial assets				
Financial liabilities				
Payables	**11**	10	**11**	10
Borrowings	**-**	-	-	-
Total financial liabilities	**11**	10	**11**	10

Fair value is determined as follows:

Cash and Cash equivalents, Receivables and Payables - estimated to be the carrying value which approximates net market value.

Borrowings, Held to Maturity Investments – estimated future cash flows discounted by the current market interest rates applicable to assets and liabilities with similar risk profiles.

Financial Assets at Fair Value through profit and loss, Available for Sale Financial Assets – based on quoted market prices in active markets for identical investments.

Note 15 – Financial risk management (continued)

(a) Cash and investments (cash and cash equivalents, financial assets at fair value through profit and loss and held-to-maturity investments)

- CCWC held cash and cash equivalents of $53,000 at balance date.
- CCWC held no investments as at 30 June 2014.

(b) Receivables

CCWC's only receivable amounts as at 30 June 2014 were:

- GST refund due ("sundry debts"), less than $1,000

Notes to the financial statements
for the year ended 30 June 2014

Note 15 – Financial risk management (continued)

(c) Payables and borrowings

The following table shows estimated future cash flows for payables and borrowings.

	Due within 1 year $'000	Due Between 1 and 5 years $'000	Due after 5 years $'000	Total contractual cash flows $'000	Carrying values $'000
2014					
Payables	11	-	-	11	11
Borrowings	-	-	-	-	-
Total	**11**	**-**	**-**	**11**	**11**
2013					
Payables	10	-	-	10	10
Borrowings	-	-	-	-	-
Total	**10**	**-**	**-**	**10**	**10**

Central Coast Water Corporation incurred no overdraft debt in the year ending 30 June 2014.

The weighted average borrowing rate (based on nominal interest rates and nominal amount advanced) was 0% as at 30 June 2014 (0% at 30 June 2013).

Notes to the financial statements
for the year ended 30 June 2014

Note 16 – Material budget variations

The Corporation's original budget was adopted by the Board on 12 September 2013.

Material variations (of more than 10%) between this budget and actual results are explained below.

(a) Income Statement *(Operating income and expenditure)*

(b) Note 2a – Functions

(c) Cash Flow Statement

Employee Costs and Materials and Contracts were underspent by $39k in total (or 36%). Due to a reduction in the scope of the Corporation's activities actual expenditure was less than the original budget estimates.

Note 17 – Statement of developer contributions

(a) Summary of developer contributions

Purpose	Opening Balance	Contributions received during year		Interest earned during year	Expended during year	Internal borrowings during year (to)/from	Held as restricted asset	Projected future contributions	Projected cost of works	Projected over/(under) funding	Cumulative internal borrowings (to)/from
		Cash	Non-cash								
	$ '000	$ '000	$ '000	$ '000	$ '000	$ '000	$ '000	$ '000	$ '000	$ '000	$ '000
Total S94 under plans											
Total S94 not under plans											
Section 64 contributions											
Total contributions											

Notes to the financial statements
for the year ended 30 June 2014

Note 18 – Contingencies

Contingent Liabilities

Nil identified at reporting date.

Contingent Assets

Nil identified at reporting date.

Note 19 – Interests in joint ventures and associates

Central Coast Water Corporation had no joint ventures during the period ended 30 June 2014.

Notes to the financial statements
for the year ended 30 June 2014

Note 20 – Revaluation reserves and retained earnings

	2014 $'000	2013 $'000
(a) Retained earnings		
Movements in retained earnings were as follows:		
At beginning of year	**(388)**	(142)
Net operating result for the year	**(70)**	(246)
At end of year	**(458)**	(388)
(b) Revaluation Reserve		
- Infrastructure, property, plant and equipment revlaution reserve		
Movements:		
Infrastructure, property, plant and equipment revlaution reserve		
At beginning of year	-	-
Revaluations (Note 9)		
At end of year	-	-
Note: the above reserve is used to record increments and decrements on the revaluation of infrastructure, property, plant and equipment		
(c) Nature and purpose of reserves		
(i) Infrastructure, property, plant and equipment revaluation reserve		
The infrastructure, property, plant and equipment revaluation reserve is used to record increments and decrements on the revaluation of non-current assets.	-	-
(d) Correction of errors in previous years		
N/A	-	-

Note 21 – Events occurring after Statement of Financial Position date

Nil.

Note 22 – Fair Value Measurement

Central Coast Water Corporation does not have any of the following assets and liabilities and therefore has not measured at fair value on a recurring basis.

- Infrastructure, property, plant and equipment
- Investment property
- Financial assets

---End of audited general purpose financial statements---

Central Coast Water Corporation
Special purpose financial statements
for the year ended 30 June 2014

Contents:

Note: for the financial year 2013/14 the Central Coast Water Corporation do not have a Water or Sewer fund or any Business Activities.

---End of special purpose financial statements---

Central Coast Water Corporation

Special Schedules

for the year ended 30 June 2014

Contents:

Central Coast Water Corporation

Special Schedule No. 1 - Net Cost of Services

for the year ended 30 June 2014

Function or activity	Expenses *	Revenues - non capital *	Revenues - capital *	Net cost of services
	$000	$000	$000	$000
Administration	72	2	-	(70)
Totals - functions	72	2	-	(70)
General purpose revenues				-
Net Operating Result for the Year	72	2	-	(70)

** from continuing operations*

Central Coast Water Corporation

Special Schedule No 8 – Financial projections

Financial projections as at 30 June 2014

	2014 Actual $m	2015 Budget $m	2016 Budget $m	2017 Budget $m	2018 Budget $m
Recurrent budget					
Income from continuing operations	2	-	-	-	-
Expenses from continuing operations	72	-	-	-	-
Operating result from continuing operations before capital grants and contributions	(70)	-	-	-	-
Capital grants and contributions	-	-	-	-	-
Operating result from continuing operations	**(70)**	**-**	**-**	**-**	**-**
Net operating result from continuing operations before capital grants and contributions	**(70)**	**-**	**-**	**-**	**-**
Capital budget					
New works	-	-	-	-	-
Replacement of existing assets	-	-	-	-	-
Total capital	-	-	-	-	-
Funded by:					
Loans	-	-	-	-	-
Asset sales	-	-	-	-	-
Reserves	-	-	-	-	-
Grants/contributions	-	-	-	-	-
Recurrent revenue	-	-	-	-	-
Other	-	-	-	-	-
Total funds	**-**	**-**	**-**	**-**	**-**

---End of special schedules---

Central Coast Water Corporation

Independent auditor's report to the Directors – s417 (2)
Report on the special purpose financial report

Report on the financial report

We have audited the accompanying financial statements of the Central Coast Water Corporation (the Corporation), which comprise the Balance Sheets as at 30 June 2014, the income statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, accompanying notes to the financial statements and the Statement by Directors in the approved form as required by Section 413(2) of the Local Government Act 1993.

Directors responsibility for the financial report

The Directors of the Corporation are responsible for the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Local Government Act 1993 and for such internal control as the Directors determine is necessary to enable the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on the financial statements based on our audit. We conducted our audit in accordance with Australian Auditing Standards. These Standards require that we comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Statement. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the Statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the Statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial report.

When this audit report is included in an Annual Report, our procedures include reading the other information in the Annual Report to determine whether it contains any material inconsistencies with the financial statements.

PricewaterhouseCoopers, ABN 52 780 433 757
Darling Park Tower 2, 201 Sussex Street, GPO BOX 2650, SYDNEY NSW 1171
DX 77 Sydney, Australia
T +61 2 8266 0000, F +61 2 8266 9999, www.pwc.com.au

pwc

Our audit responsibility does not extend to the Origin Budget Figures included in the Income Statement, Statement of Cash Flows and the Origin Budget disclosures in notes 2(a) and 16 and the Projections disclosed in not 17 to the financial statements, nor the attached Special Schedules, and accordingly, we express no opinion on them.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Auditors' opinion:

In our opinion:

(a) the Corporation's accounting records have been kept in accordance with the requirements of the Local Government Act 1993, Chapter 13 part 3 Division 2 (the division); and

(b) the financial statements:

   a. have been presented, in all material respects, in accordance with the requirements of this Division

   b. are consistent with the Corporation's accounting records

   c. present fairly, in all material respects, the Corporation's financial position as of 30 June 2014 and its financial performance and its cash flows for the year then ended in accordance with Australian Accounting Standards

(c) all information relevant to the conduct of the audit has been obtained; and

(d) there are no material deficiencies in the accounting records or financial statements that have come to light during the course of the audit.

PricewaterhouseCoopers

Peter Buchholz
Partner

Sydney
23 September 2014

pwc

The Directors
Central Coast Water Corporation
2 Hely St
Wyong NSW 2259

23 September 2014

Dear Directors

Report on the conduct of the audit for year ended 30 June 2014 – Section 417(3)

We have completed our audit of the financial reports of the Central Coast Water Corporation for the year ended 30 June 2014, in accordance with Section 415 of the Local Government Act, 1993.

Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the financial reports are free of material misstatement. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial reports, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial reports are presented fairly in accordance with Australian Accounting Standards as well as statutory requirements so as to present a view which is consistent with our understanding of the Corporation's financial position, the results of its operations and its cash flows.

This report should be read in conjunction with our audit opinion on the general purpose financial statements provided under Section 417(2) of the Local Government Act 1993.

Flowing from our audit, there are a number of comments we wish to raise concerning the trends in the Corporation's finances. These are set out below.

Financial Results

The Corporation incurred an operating deficit of $70,000 during the period under review. This was funded from the capital contributions by the owners of the Corporation.

General

The books of accounts and records inspected by us have been kept in an accurate and conscientious manner.

Yours faithfully

PricewaterhouseCoopers

Peter Buchholz
Partner

PricewaterhouseCoopers, ABN 52 780 433 757
Darling Park Tower 2, 201 Sussex Street, GPO BOX 2650, SYDNEY NSW 1171
T: +61 2 8266 0000, F: +61 2 8266 9999, www.pwc.com.au

---End of Reports---

2.4 Future Governance Arrangements for Joint Water Assets

TRIM REFERENCE: F2004/06390 - D11747639
MANAGER: Michael Whittaker, General Manager
AUTHOR: Garry Casement; Manager Headworks Water and Sewer

SUMMARY

Following the suspension of the formation of the Central Coast Water Corporation there is a need to formalise governance arrangements for the Joint Water Assets. This report provides the recommendations of the CCROC Executive in relation to the future governance arrangements for joint water assets.

RECOMMENDATION

1 That Council write to the Minister requesting dissolution of CCWC and the repeal of the CCWC Act.

2 That Council receive the report on Future Governance Arrangements for Joint Water Assets.

3 That Council note that the CCWC Board is no longer operating.

4 That Council establish a joint committee for the management of the bulk water of the two Councils comprising of the CCROC Executive to meet at least quarterly.

BACKGROUND

The CCROC Executive at its meeting of 2 October 2014 considered the future governance arrangements for joint water assets and resolved the following:-

> *"RESOLVED unanimously on the motion of Councillor MACFAYDEN and seconded by* Councillor BEST:
>
> 1 *That the CCROC request both Councils to write to the Minister requesting dissolution of CCWC and the repeal of the CCWC Act.*
>
> *2 That the CCROC receive the report on Future Governance Arrangements for Joint Water Assets.*
>
> *3 That the CCROC note that the CCWC Board is no longer operating.*
>
> *4 That the CCROC Executive recommend the creation of a joint committee for the management of the bulk water of the two Councils comprising of the CCROC Executive to meet at least quarterly***."**

A copy of the report considered at the meeting is provided in Attachment 1.

The report was based on a proposal to establish governance arrangements based on the previous Gosford/Wyong Councils' Water Authority.

Given the composition of the CCROC Executive and the previous Gosford Wyong Councils'' Water Authority is similar, the CCROC Executive proposed that that a joint committee for the management of the bulk water of the two Councils comprising of the CCROC Executive. It was further proposed that the joint committee meet at least quarterly.

ATTACHMENTS

1	Future Governance Arrangements for Joint Water Assets (D11713370)	D11713370
2	Summary details of the GWCWA Board practices during the period 2004 and 2012 (D11715253)	D11715253

2 October 2014

To the Executive Central Coast Regional
Organisation of Councils Meeting

2.2 Future Governance Arrangements for Joint Water Assets

TRIM REFERENCE: F2004/06390 - D11713370
MANAGER: Daryl Mann, Manager
AUTHOR: Garry Casement; Manager Headworks Water and Sewer

SUMMARY

Following the suspension of the formation of the Central Coast Water Corporation there is a need to formalise governance arrangements for the Joint Water Assets. This report outlines proposed governance arrangements based on the previous Gosford /Wyong Councils' Water Authority.

RECOMMENDATION

1 That the CCROC Executive receive the report on Future Governance Arrangements for Joint Water Assets.

2 That the CCROC Executive note that the CCWC Board is no longer operating.

3 That the CCROC Executive note the NSW Government Fit for the Future requirements for councils.

4 That the CCROC Executive Request staff to prepare a report to the CCROC recommending an appropriate governance model generally in accordance with the previous Gosford/Wyong Councils' Water Authority arrangements.

BACKGROUND

As part of the development of the Central Coast Water Corporation the long standing Gosford/Wyong Councils' Water Authority (GWCWA) ceased operations and was dissolved on 12 October 2012. The functions previously undertaken by the GWCWA were to be undertaken by the Central Coast Water Corporation Board.

Since that time a number of significant events have taken place which has resulted in the Board becoming non- operational and there have been no alternative governance arrangements established. The key events were:-

- The Project Control Group for the establishment of the CCWC and associated Joint Services Business was suspended at Gosford Council's request.
- The Independent Pricing and Regulatory Tribunal (IPART) released its final water, sewerage and drainage pricing determination for Gosford and Wyong Councils. The determination specifically did not allow for any formation costs for the CCWC in the calculation of prices.

- The final report of the NSW Local Government Independent Review Panel was released. The Panel recommended that a stand-alone water corporation for the Central Coast should not proceed. A merger was recommended for Gosford and Wyong Councils, but if that option is rejected or deferred indefinitely then it was recommended that a county council type arrangement is implemented with responsibilities for water along with the delivery of other services.
- The two independent directors on the board of the CCWC reached the end of their tenure. No new directors were appointed.
- Wyong Council and Gosford Council resolved to reconfirm the establishment of the Joint Committee of Councils to deal with water issues by 1 July 2014, following the meeting of the Central Coast Regional Organisation of Councils held on 19 March 2014.

With the CCWC no longer being developed and the CCWC Board becoming non – operational there is a pressing need to establish formal governance arrangements for the development and operation of the Gosford and Wyong Joint Water Assets.

There is currently significant flux regarding local government structural arrangements which will require consideration in any long term governance arrangements for the Joint Water assets. In particular the 'Fit for the Future' – NSW Government response to the Independent Local Government Review Panel recommendations and the Local Governments Act Taskforce recommendations have recently been released. Under this proposal councils are to provide submissions to the state Government in 2015 regarding structural models. This process could take some time. In the meantime both councils continue to manage the Joint Water assets.

It is proposed that the Councils adopt a governance model generally based on the previous GWCWA model.

Summary details of the Board membership and decision making process practiced by the GWCWA Board during the period 2004- 2012 are provided in Attachment 1.

Since the GWCWA agreement was signed in 2000 a number of circumstances have changed which would require amendment in any reestablishment of the previous arrangements. These include

- Modifications associated with the replacement of the Water Supply Authorities Act 1987 with the Water Management Act 2000.
- Changes to infrastructure since the 2000 agreement
- Cost sharing arrangements now covered by the Joint Scheme Funding Agreement

Other issues that may warrant consideration in adopting governance based on the previous arrangements may include:-

- the need for a chairperson independent of either council. Whilst the GWCWA Agreement provided for a chairperson independent of either council, following the

resignation of the Chairperson in 2005 the Board successfully operated for 7 years without replacing the independent chair.

- Delegated authority for issues such as:-
  - Setting water restriction policy
  - Apply or remove restrictions
  - Liaise with regulators on joint water issues
  - Approve annual budgets consistent with 4 year IPART price path allowances
  - Make submissions to government inquiries

ATTACHMENTS

1	Summary details of the GWCWA Board practices during the period 2004 and 2012	D11715253

Summary details of the GWCWA Board practices during the period 2004 - 2012

The Board consisted of the following members:-

- Mayor of each council
- Two (2) additional councillors from each council
- General Manager from each council
- A relevant Director from each council
- Independent Chair (vacant from 2005)

Functions

The Board considered and made recommendations to the councils on issues including:-

1. Timing and funding of new joint works;
2. Matters pertaining to the design and construction of new joint works;
3. Management of joint works including levels of service, operations strategy, asset management, catchment management and the funding of same;

The Board could also examine/make recommendations to the Council's audit compliance with policies and licences on matters including but not limited to (a) and (b) below which are considered to be of regional significance.

a) Strategic Planning and Development Policies including sewer services;
b) Water Pricing and Demand Management Policies;
c) Sewer Pricing and Effluent Management Policies;
d) Operational/Service Standards; and
e) Asset Management for both Water and Sewerage.

Decision Making

Whilst the GWCWA Agreement provided for the Board to direct the councils in functional matters 1 to 3 noted above, in practice the Board operated as an advisory body only to the Councils. All resolutions of the Board were recommendations to the councils who then considered the recommendations at their respective ordinary meetings.

Generally, issues for consideration at Board meetings were raised by Board Members, the Technical Advisory Group (TAG) or either council.

Meeting Frequency

The normal meeting frequency was every three (3) months, though meetings could be called at shorter interval if required.

3.1 Lower Hunter Water Plan

TRIM REFERENCE: F2004/06390 - D11741130
MANAGER: Daryl Mann, Manager
AUTHOR: Garry Casement; Manager Headworks Water and Sewer

SUMMARY

This report provides an update on the preparation of the Lower Hunter Water Plan.

RECOMMENDATION

That Council receive the report on the Lower Hunter Water Plan.

BACKGROUND

Following the NSW Government's decision to not proceed with the construction of Tillegra Dam, the Metropolitan Water Directorate (MWD) with input from the Hunter Water Corporation (HWC) was tasked with preparing a water plan for the Lower Hunter region. The Lower Hunter is serviced by the Hunter Water Corporation.

Briefings regarding the development of the Lower Hunter Water Plan (LHWP) were provided by the Metropolitan Water Directorate to both Gosford and Wyong councils during 2013

Significant demand analysis and system analysis was undertaken during the planning process. This identified that the current Hunter system has sufficient capacity to meet demand for approximately the next 20 years.

Whilst the analysis did not identify a need to augment the system at this stage, it did identify the potential for rapid storage depletion in the Hunter system under extreme drought conditions. As such, the planning process focused on drought management.

The LHWP was formally released in April 2014. A copy of the plan is provided in Attachment 1.

The Lower Hunter Water Plan includes actions to supply, save and substitute water that are already in place or underway, as well as additional measures to respond to droughts when they occur.

The ongoing actions include:-

- Supporting water efficiency measures such as:-
  - BASIX,
  - National Water Efficiency Labelling Scheme (WELS)
  - Programs to detect leaks and manage pressure in Hunter Water's system

- Demand Management
  - Introduction of Water Wise rules
- Recycled Water
  - Kooragang Industrial Water scheme
  - Dual reticulation in developments at Chisholm and Gillieston
- Rainwater Tanks
- Preparation of readiness strategies for temporary desalination

The drought responses include:-

- Activating additional water efficiency programs for households and business
- Application of water restrictions
- Recognition that opportunities for additional recycling become more viable for some customers during drought
- Recognition there may potentially be more interest in stormwater harvesting
- Utilising the Hunter - Central Coast pipeline under the terms of the 2006 agreement.
- Staged implementation of temporary desalination plants in the event of extreme drought

The Hunter Central Coast Pipeline Agreement (which expires in 2026) provides for water transfers between the two systems based on relative storage levels in the systems and also by mutual agreement. The agreement was initiated by the Central Coast during the millennium drought to supplement the Central Coast's diminishing supplies. Transfers under the agreement have occurred between the two systems as required since 2006.

The LHWP recognises the potential for improved water transfer arrangements and supports opportunities for the Hunter and Central Coast regions to work together on options for drought and future longer term planning. Hunter Water and the councils are currently working on improved modelling capabilities to simulate inter regional water transfer scenarios.

Subsequent to the release of the LHWP council staff has provided Hunter Water Corporation information and advice in relation to drought management issues such as undertaking readiness preparations for temporary desalination.

ATTACHMENTS

1 Copy of the Lower Hunter Water Plan D06942827

NSW GOVERNMENT | Metropolitan Water Directorate

Newcastle Office
PO Box 2297, Dangar NSW 2309
(117 Bull St, Newcastle West NSW 2302)
Tel: 02 4908 4926 Fax: 02 4908 4954
TTY: 1300 301 181 ABN 81 913 830 179
www.services.nsw.gov.au

Mr Garry Casement
Assistant Project Manager
Wyong Shire Council
P.O. Box 20
Wyong NSW 2259

Dear Garry,

The Minister for Finance and Services, the Hon Andrew Constance, officially released the *Lower Hunter Water Plan* on 2 April 2014. This was an important and exciting milestone for the Metropolitan Water Directorate and all of the stakeholder and community members involved in developing the plan.

I understand that you weren't able to attend our small celebration of the plan's release, so I wanted to take this opportunity to thank you for your contribution and provide you a copy of the *Lower Hunter Water Plan*. The community and stakeholder input from the four sets of workshops and online engagement provided valuable feedback that helped shape the final plan.

The *Lower Hunter Water Plan* sets out how we will ensure there is enough water to supply the people and businesses of the lower Hunter region into the future, and how we will respond to severe droughts.

I have also enclosed a summary of the plan and a brochure that highlights the engagement process and how community feedback was used in developing the final plan.

The Metropolitan Water Directorate has launched a new website with information on the *Lower Hunter Water Plan* and a short video that showcases its key elements. I encourage you to visit the website at www.metrowater.nsw.gov.au.

If you would like additional copies of the *Lower Hunter Water Plan,* please contact Erin Toner on 4908 4924 or by email at erin.toner@finance.nsw.gov.au.

Yours sincerely,

Alison White
Director
Metropolitan Water Directorate

LOWER HUNTER water PLAN


LOWER HUNTER water PLAN
NSW GOVERNMENT
Metropolitan Water Directorate

Foreword from the Minister

The lower Hunter is the second largest urban centre in NSW behind Sydney. Its population has grown by 22,500 in the last five years and this growth is underpinned by a strong and diverse economy, as well as the current resources boom.

It is easy to see why over half a million people enjoy the lifestyle offered by the rich culture and natural beauty of the region, and why more people are choosing to make a life for themselves in the lower Hunter.

While we can make some assumptions about how the region's population will grow, our climate continues to create a level of uncertainty that we cannot accurately predict. We can however plan for this climate uncertainty, and we are fortunate to have the right tools and experience to develop and implement considered and robust water plans.

Water planning needs to be flexible and responsive to climatic conditions, and to have appropriate measures in place to ensure our community's water supply can withstand drought.

Extensive investigations have found that the lower Hunter has enough water in average conditions for around the next 20 years. However, because the region's storages are relatively small and prone to natural losses like evaporation, the focus for the first *Lower Hunter Water Plan* is about being prepared for drought. We have time in future plans to re-evaluate the needs for ongoing population and business growth based on the latest available information.

This approach recognises the lower Hunter community's long-term achievements in conserving water and reducing demand, which continue to defer the need for a major new supply. It is also important to note the NSW Government has specifically ruled out building Tillegra Dam and it is not an option to augment water supply in future.

Developing the *Lower Hunter Water Plan* has been a collaborative effort among water agencies, working in partnership with the community to develop a plan that we can all support. It is a responsible plan that maintains a balance between making the most of the water we have, while providing a mix of measures that will see the region through a severe drought.

The *Lower Hunter Water Plan* recognises the continued importance of the region's main water sources, while also reducing the demand for drinking water through water recycling and efficiency measures. The additional security offered by sharing water with the Central Coast is an important part of the plan. Including contingency measures that don't rely on rainfall, such as temporary desalination facilities that can be deployed only if and when needed, enables us to take a flexible approach to insuring against the risk of extreme drought.

The *Lower Hunter Water Plan* will be reviewed regularly to ensure appropriate investments are being made and the region's water needs are being met, now and into the future.

Water supply and security is an important issue for all NSW families and communities. I am very pleased that the lower Hunter now has a robust plan for one of our State's most vital and economically important regions.

Andrew Constance MP
Minister for Finance and Services

2014 Lower Hunter Water Plan
NSW Department of Finance and Services
JANUARY 2014

ISBN 978-0-7347-4480-7 (print version)
ISBN 978-0-7347-4481-4 (web version)

The Metropolitan Water Directorate is a unit of the New South Wales Department of Finance and Services

For enquiries, please contact mwd@finance.nsw.gov.au

Comments from the Independent Water Advisory Panel

An effective plan for meeting the lower Hunter region's water supply needs is of crucial importance to the region. Not only must the plan ensure that supply and demand are matched under 'normal' conditions and during drought, but it must also be cost effective and developed in close consultation with community members.

This plan has adopted a portfolio approach comprising a group of different options, combined to provide diversity of sources and demand management measures, which will be resilient and adaptable in the face of changing circumstances, especially drought. Extensive and rigorous computer modelling has been carried out to optimise and assess portfolios which accommodate growth and respond to drought. The modelling involved replicating the historical rainfall record in hundreds of thousands of different ways. The results suggest that the chosen portfolio should ensure that most basic water supplies are maintained for all droughts with return periods up to approximately 1 in 90,000 years, with options available to further increase security in an extreme drought. The plan thus accepts a very small risk of storages reaching critically low levels, in return for deferring expensive upfront investment.

For anticipated growth over a reasonable planning horizon, the portfolio to be implemented will ensure supply under 'normal' climatic conditions. Small, shallow dams in the system, however, make the region particularly vulnerable to drought, so particular attention was paid to measures which would manage demand and maximise supply under drought conditions, including restrictions, voluntary targets, inter-regional transfers and, if necessary, putting in place portable seawater desalination units – the only rainfall-independent source.

Managing the portfolio in drought conditions will require Government to take key steps on an agreed basis. The beauty of having a 'basket' of measures is that each one need only be implemented when needed, avoiding, or at least deferring, the high cost of major capital works. This amounts to an 'insurance policy' approach to supply, under all but the severest droughts.

A major impact of future climate change is likely to be greater weather extremes; potentially including acute droughts, worse than would be expected under the current climate. Managing that eventuality could test

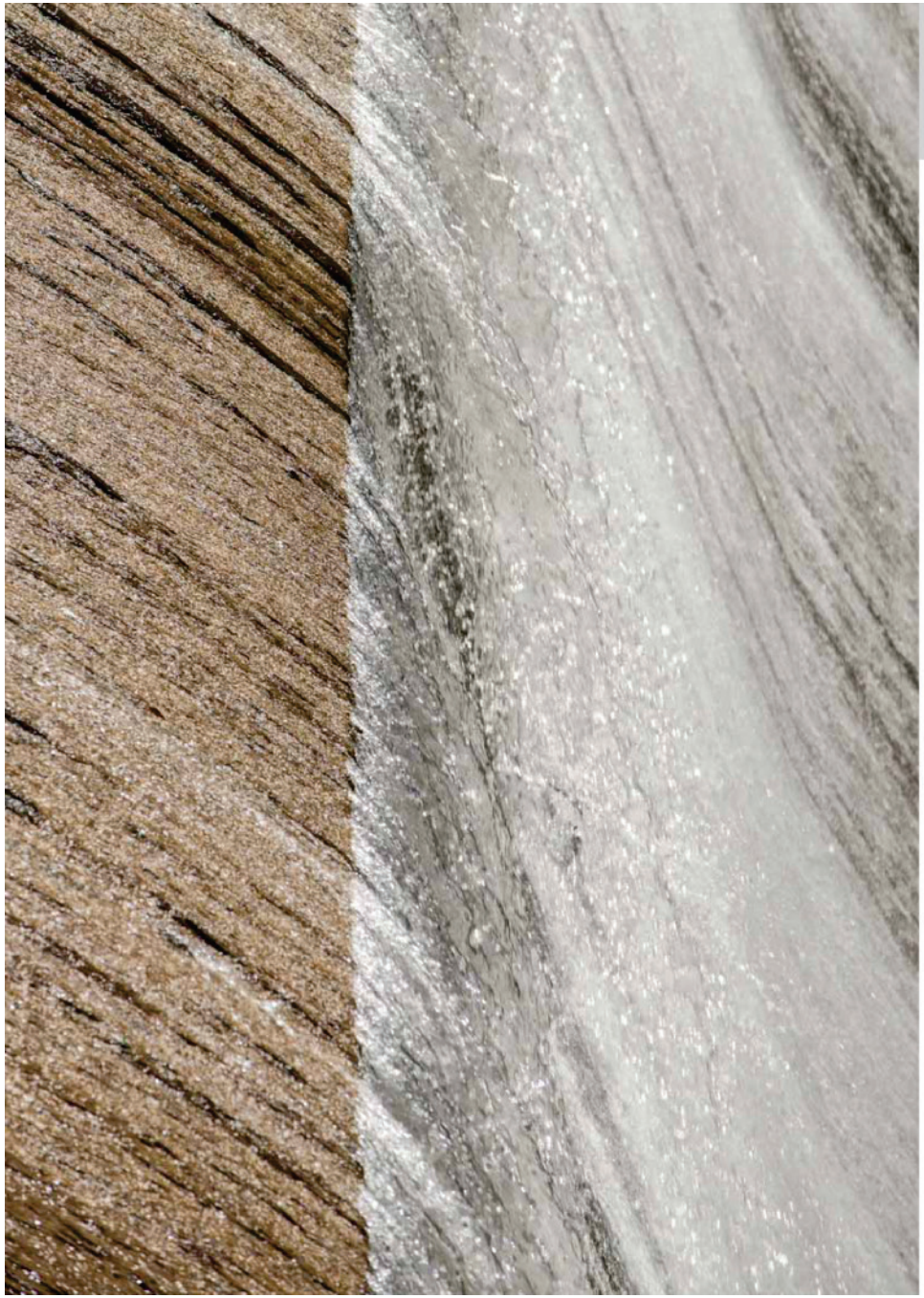
the identified measures and might be more expensive, with greater levels of uncertainty than anticipated. It is important to note that there is no way to absolutely guarantee storages will never empty, so adaptive plans must be made to meet the most basic water needs, and to manage supplies until drought breaks.

The Independent Water Advisory Panel has overseen the whole process of developing this plan and is particularly pleased at the quality of community engagement, the sophisticated modelling and the use of plain English. Clearly the need for ongoing monitoring and evaluation of the unfolding status of water and demand has been recognised. An annual report to Government on how the portfolio matches forecasts will ensure that the situation is always understood and should be under careful management control.

The *Lower Hunter Water Plan* is a commendable, robust assessment, produced under immense time pressure, and the Panel is glad to be associated with it.

Chris Davis
On behalf of the Independent Water Advisory Panel
Mr Ross Chapman
Dr Tony Church
Ms Kylie Cochrane
Prof George Kuczera
Prof Cynthia Mitchell
Dr WEJ Paradice

Contents



Executive summary

The lower Hunter's water supply is secure for around 20 years. The *Lower Hunter Water Plan* is a package of water supply and demand measures that incorporates the significant contribution of water efficiency and recycled water investments already in place and underway, and builds on these to ensure the region can withstand an extreme drought.

Water is essential for the lower Hunter's communities, its economy and the environment. It is vital that our region can withstand droughts without running out of water.

The lower Hunter's water supplies are very reliable under typical climatic conditions, and will be able to supply the water needs of a growing population and business community in the medium term. However, the region is vulnerable to drought, because water storage levels can fall quickly in prolonged periods of hot dry weather.

The *Lower Hunter Water Plan* sets out how we will ensure there is enough water to supply the people and businesses of the region, as well as how we will respond to severe droughts. It recognises the water needs for the lower Hunter's future growth and prosperity, as well as the needs of the environment.

Developing the plan

The Metropolitan Water Directorate in the Department of Finance and Services led a comprehensive process to develop the plan. This work has been done in consultation with Hunter Water Corporation and other government agencies involved in water management. Four phases of community and stakeholder engagement provided valuable input at each major step in developing the plan.

The planning process involved complex investigations, modelling and analysis to define the problem to be addressed, identify solutions, and support a decision on the final package of supply and demand measures.

Water planners took into account a large range of factors, including population and water demand projections, water supply system modelling, drought security objectives, climate change research, and economic, social and environmental impacts.

In developing the plan, all available and practical options to supply, save, or substitute water were considered and evaluated for how well they could respond in a drought situation. The challenge for planners was putting together the mix of measures to deliver a drought response strategy with the best economic, social and environmental outcomes for the lower Hunter community.

A balanced, adaptable plan

The *Lower Hunter Water Plan* is designed to be flexible to adapt to challenges, such as our highly variable climate patterns and changes to other factors, such as population and business growth, technology and behaviour patterns.

The plan will be reviewed regularly to respond to new information and technologies, and changes to climatic conditions. This allows the balanced portfolio of measures to be adjusted over time, to make sure that it is achieving its objectives.

The ***Lower Hunter Water Plan*** at a glance

The *Lower Hunter Water Plan* includes actions to supply, save and substitute water that are already in place or underway, as well as additional measures to respond to droughts when they occur.

The measures included in the plan will reduce the amount of water required to serve the lower Hunter's needs, make better use of existing storages, and provide extra supply as a contingency in extreme droughts. Some measures will apply all the time, to reduce demand or substitute supply, while others will only be activated as storage levels fall during droughts. The key elements of the plan are summarised overleaf.

MEASURE	CONTINUING ACTIONS[1]	DROUGHT RESPONSE
Surface water	Chichester and Grahamstown Dams will continue to provide most of the region's water needs each year. Modifications to the water supply network will enable more water to be transferred from the Central Coast to the lower Hunter, as required by the existing transfer agreement. The modelling of transfers to and from the Central Coast will be refined as a tool for optimising transfer arrangements. The NSW Office of Water will continue reviewing water sharing plans and implement related refinements of environmental flow rules through amendments to water licences and approvals.	Water transfers between the lower Hunter and Central Coast systems during droughts in either region will make better use of existing storages and improve drought resilience in both regions.
Groundwater	Groundwater from the Tomago and Tomaree sandbeds will continue to be an important source of water supply for the lower Hunter region. Investigations into the feasibility of new groundwater sources that might boost supplies in a drought will continue, focusing on the Lower Hunter Alluvial groundwater source in the short term.	The amount of water supplied from Tomago sandbeds generally increases in a drought.
Water efficiency	Hunter Water will continue to support water efficiency measures under its existing programs that assist households and businesses to save water. The national Water Efficiency Labelling and Standards (WELS) scheme and the NSW scheme to improve water and energy efficiency through the Building and Sustainability Index (BASIX) will continue to deliver improvements in water efficiency. Together, ongoing residential and non-residential water efficiency improvements are expected to save around 4.5 billion litres of water each year by 2034. Programs to detect leaks and manage pressure in Hunter Water's system are expected to save around 1.7 billion litres a year by 2034.	Additional water efficiency programs for both households and businesses will be activated in drought to help reduce demand as water storages fall. Hunter Water will also invest more in active leak detection and pressure management programs to reduce losses from the water supply system.
Demand management	Water Wise Rules to help conserve water every day will be introduced as an immediate priority under the *Lower Hunter Water Plan*. These common sense actions are estimated to save around one billion litres of water each year.	Water restrictions will be applied as storage levels fall to reduce both household and business demand and keep as much water in the storages as possible. Restrictions are a quick and effective response to drought. When in place, restrictions will be actively supported by education and awareness campaigns, and enforced through compliance activities.
Recycled water	The Kooragang Industrial Water Scheme will be able to deliver over three billion litres a year of recycled water to industrial users, starting in late 2014. This will bring the total amount of recycled water to nearly eight billion litres each year. Dual reticulation schemes in new developments at Chisholm and Gillieston Heights will provide recycled water to about 1000 properties as development proceeds. Private sector suppliers are likely to play a bigger role in providing water supply, wastewater and recycled water services to new developments, particularly in areas remote from urban centres.	In a drought, additional recycling opportunities may become more viable for customers seeking an alternate supply that does not depend on rainfall.
Rainwater and stormwater use	Rainwater tanks will continue to reduce drinking water use in new developments. If the current trend continues, rainwater tanks are expected to save around 3.4 billion litres of water each year by 2043. Councils and businesses may identify new opportunities to use stormwater as part of integrated water cycle management into the future.	There may be more interest in opportunities for stormwater harvesting for industrial uses or watering of sporting fields in a drought, although their dependence on rainfall makes them less reliable in a drought.
Temporary desalination	To enable a quick response in drought, 'readiness activities' will include site selection studies, technical and environmental investigations, and a review of procurement options. Ongoing research into potential improvements in desalination technology will be monitored.	Temporary desalination plants provide an emergency drought response for a very extreme drought. By planning in advance, the units can be built quickly if and when needed, and they would be removed when no longer required.

'The thing I liked most about participating in the whole process to develop the Lower Hunter Water Plan was being able to have input into an important issue for our community.'
COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013

1. The 'continuing actions' in the table include actions that relate to both the longer-term supply-demand balance and investment in activities to prepare for drought.

An integrated water cycle management approach

The *Lower Hunter Water Plan* recognises the importance of managing water resources in an integrated fashion to take into account the full urban water cycle. In line with the National Urban Water Planning Principles, the plan incorporates diverse water supplies and optimises the use of water at different stages of the urban water cycle.

Integrated water cycle management involves an integrated approach to water supply, sewerage, stormwater services and waterway health. It means customers can access different water supplies which are fit-for-purpose. For example, residential customers can use rainwater tanks or recycled water for non-drinking uses, and can reuse their own 'grey water' from washing machines, showers, baths and basins. Households in some new development areas will be able to access recycled water supplies delivered to their homes for non-drinking purposes such as garden watering, toilet flushing and laundry use.

Likewise, an industrial customer may harvest stormwater from their site for operational use, or be supplied with recycled water from a wastewater treatment plant for uses ranging from dust suppression or wash-down, through to steam generation or cooling water in the production process. Water licences and approvals administered by the NSW Office of Water may be required for the construction and operation of stormwater harvesting schemes.

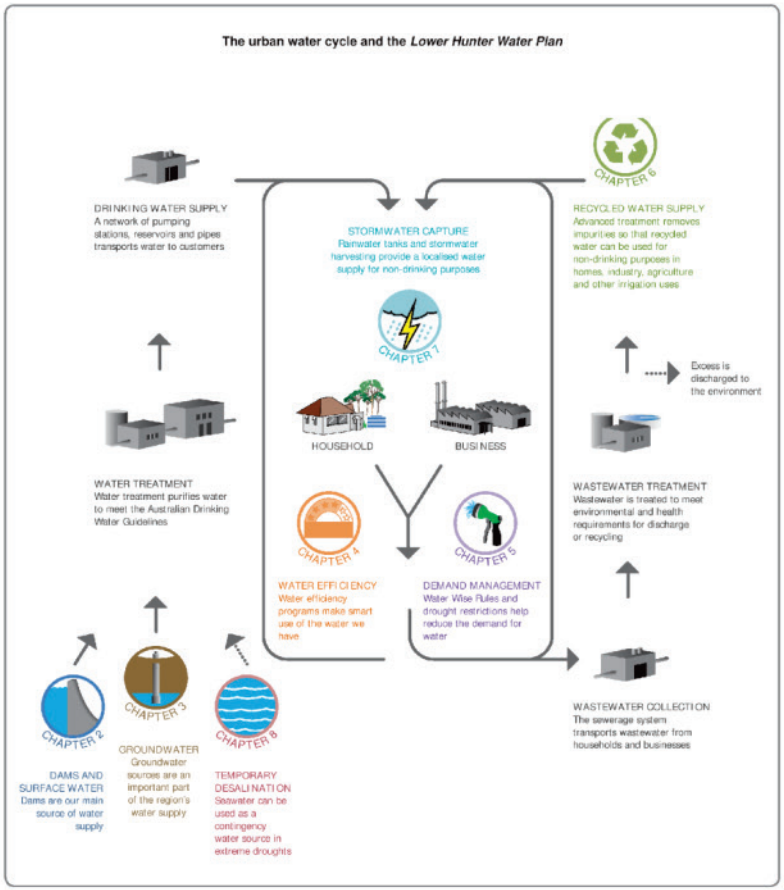
Managing water on a whole-of-water-cycle basis will deliver diverse water supplies that are fit-for-purpose, and make the best use of water at different stages of the urban water cycle.

All these examples have a benefit in substituting a lower grade water supply where high grade drinking water is not required, reducing the demand on the water sources that supply our drinking water.

The *Lower Hunter Water Plan* outlines how the region will respond to drought using an integrated approach to water management. The diagram opposite showcases the elements of the urban water cycle, and provides a guide to the essential elements of the plan.

Using recycled water for irrigation

The urban water cycle and the *Lower Hunter Water Plan*



Setting the scene

The *Lower Hunter Water Plan* has been developed to make sure the people of the lower Hunter have enough water to meet their needs for the medium term, including being able to withstand a drought much more severe than previously recorded in the region.

The plan is also concerned with protecting the health of the river systems in the region that are impacted by the water supply system. Modelling for the plan includes proposed refinements to environmental flow rules to better mimic natural conditions. These will be implemented through the water sharing plans and water licences managed by the NSW Office of Water.

The *Lower Hunter Water Plan* sets out the mix of supply and demand measures that will:

- provide water security during drought
- ensure reliable water supplies to meet growing water demand due to a growing population and increased business and industry activity
- help protect aquatic ecosystems
- maximise net benefits to the community.

The plan continues programs already in place to improve water efficiency and recycle water. These programs are an important part of the urban water cycle because they reduce demands on drinking water supplies. The plan also sets out measures that can be put into place as water storage levels fall during a drought. This 'portfolio' approach recognises that the best solution is generally based on a combination of measures rather than a single option.

The *Lower Hunter Water Plan* also sets out an adaptive management approach that will include monitoring the effectiveness of the plan, investigating new technologies, analysing new information, and monitoring developments in climate change research and best practice water management.

Water supply in the lower Hunter

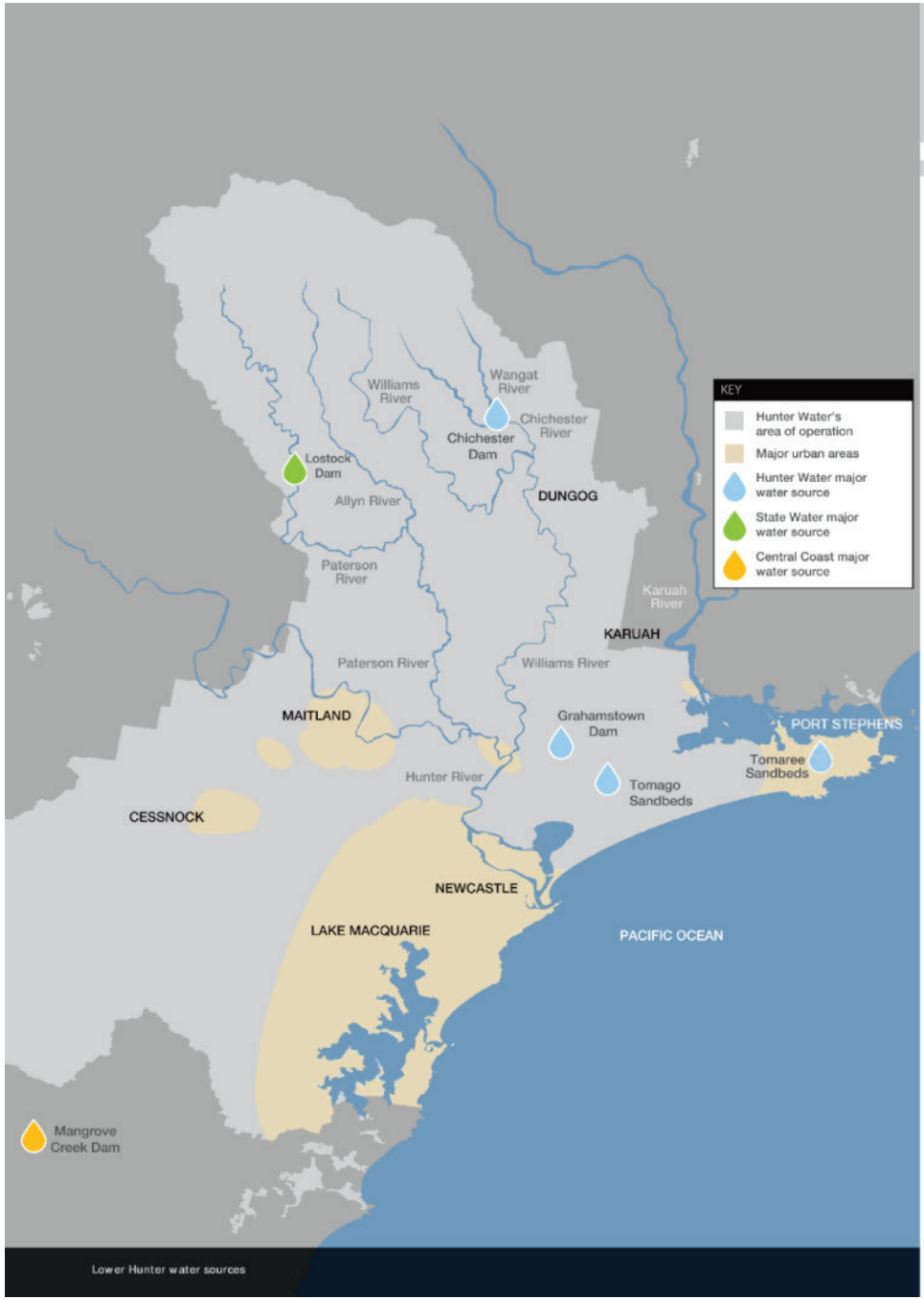
The lower Hunter is the seventh largest urban area in Australia and is home to over half a million people. Hunter Water Corporation is the major utility responsible for supplying drinking water to the region and for treating and disposing of wastewater. Hunter Water owns and maintains the network of water storages, pipes and treatment plants that deliver high-quality water to its customers.

Water is supplied to Hunter Water's customers from two main surface water sources – Chichester Dam and Grahamstown Dam – together with groundwater from the Tomago and Tomaree sandbeds. A small amount of water is also drawn from either the Paterson River or Allyn River to supply the town of Gresford.

The water storages in the lower Hunter have the capacity to store 276 billion litres of water to deal with our variable climate patterns. This means that we have enough water in storage to cope with most periods of hot, dry weather.

The water supply system covers a wide area of 5,366 square kilometres (see figure overleaf), stretching to Singleton shire in the north-west and adjoining the Central Coast in the south.

Providing safe, high-quality water is essential. Our drinking water is treated to meet the *Australian Drinking Water Guidelines*, which are among the highest in the world. Hunter Water has programs in place to monitor water quality at every stage of the supply system.



Lower Hunter water sources

Private sector involvement in water supply

For over 120 years, Hunter Water has been responsible for providing water, wastewater and some stormwater services to the community of the lower Hunter region. Now the private sector can also play a role in providing water and sewerage services in New South Wales.

The NSW Government established a third-party access and licensing system through the *Water Industry Competition Act 2006* (WIC Act) to harness the innovation and investment potential of the private sector in the water industry.

A licensing system, managed by the Independent Pricing and Regulatory Tribunal, enables private sector providers to operate within the industry, supplying drinking water, recycled water and sewerage services, while continuing to protect public health, consumers and the environment.

These systems have the potential to reduce drinking water use by including recycled water and stormwater as part of an integrated water cycle management approach. In Sydney, private utilities are servicing both new land release areas and high rise residential and commercial developments. In the lower Hunter, private sector operators estimate that a significant proportion of the projected new homes in the region could involve private sector services using decentralised recycled water systems.

Private operators have indicated they can provide innovative and affordable solutions, particularly to service new development areas that are remote from urban centres and existing water and sewerage infrastructure. Local examples include proposed new developments at Wyee and Catherine Hill Bay.

The *Lower Hunter Water Plan* recognises and supports the role the private sector can play in the water industry.

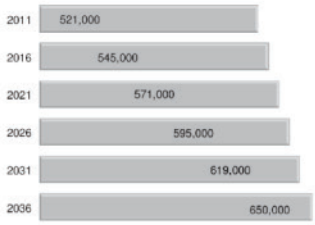
Demand for water in the lower Hunter

The lower Hunter's demand for water is currently around 67 billion litres a year on average. There are a number of factors that influence how much water we use and how this will change over time. Population growth and demographic changes, variations in the housing mix, the water efficiency of household appliances, and changes in business and industry use can all affect water demand. Changes in rainfall patterns also cause fluctuations in use from year to year.

Water demand forecasts for the lower Hunter take into account all these factors to estimate how much water we will use in the future. Water demand for the *Lower Hunter Water Plan* was modelled using historic usage patterns, together with predictions about population growth, business trends, and the ongoing adoption of water-efficient appliances and rainwater tanks.

Population growth is a key driver of residential water demand. The population in Hunter Water's area of operations is expected to reach around 650,000 by 2036, a 25 per cent increase since 2011.

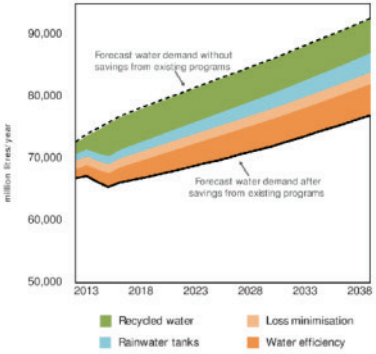
Estimated population served by Hunter Water Corporation



In the lower Hunter, water efficiency programs for households and businesses, adoption of water saving appliances, recycled water initiatives, changes in business and industry use, and water saving requirements for new houses mean the demand forecast is lower than it would otherwise have been. In fact, we are using about the same amount of water now as in 1970, even though around 200,000 more people now live in the region.

Existing water conservation programs are a very important part of the portfolio of measures that make up the *Lower Hunter Water Plan*. These programs include water efficiency, recycled water and rainwater tanks, which all contribute by reducing current and future water demand. This is illustrated in the graph below.

Reduction in water demand due to water conservation programs

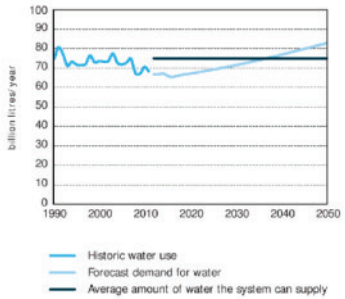


Balancing supply and demand

A key objective of water supply planning is to ensure there is enough water to meet the needs of households, businesses and the environment in the long term. Planners take into account the impact of uncertain climate patterns, service level objectives, and the operation of the water supply system to estimate the volume of water that can be supplied from the storages each year.

Our current water supply system can supply an average of around 75 billion litres of water each year to the people of the lower Hunter. Taking into account forecast population growth of just over 100,000, and water consumption trends, there will be enough water to supply the region for around 20 years under typical climate conditions.

Water supply and demand in the lower Hunter



It is important that we invest in new supplies only when they are needed. Deferring investment means we avoid 'gold plating' the system so the people of the lower Hunter are not paying for unnecessary infrastructure, and limited finances can be used for more immediate needs.

While we don't need to increase water supplies to meet long-term growth now, investigations into demand and supply options to meet growth will continue. When needed, these will be included in future plans for the region so new measures can be operational when they are needed.

Planning for drought

Although water supplies in the lower Hunter are sufficient to provide water to the community for the medium term, our water supplies are vulnerable to droughts because the storages are relatively small or shallow and water levels can fall quickly.

We need to plan for rare drought events because running out of water would have an enormous impact on the lives of people and on businesses in the region and on the State as a whole. Even though the chance of such a drought is extremely low, historical records show that the lower Hunter's climate is highly variable.

As the graph opposite shows, while the lower Hunter's storages tend to remain at between 80 and 100 per cent full most of the time, they can fall very quickly during droughts. Over the last 120 years, there have been four severe droughts – in the 1900s, the 1940s, the 1960s and the 1980s. The lower Hunter was not affected as badly as most other parts of NSW in droughts during the 1990s and 2000s.

Although they are rare, a severe drought can happen at any time, as was experienced with the 'millennium drought' in many regions of Australia - including our neighbours in Sydney and the Central Coast. In some areas, this drought was worse than any previously recorded. The lower Hunter was very fortunate to avoid water restrictions in the millennium drought because of a series of localised storm events, including the memorable *Pasha Bulker* storm in 2007.

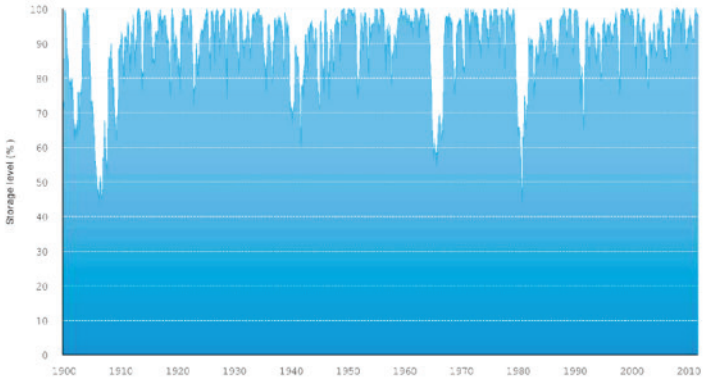
We don't know when droughts will occur, or how severe they will be, so it is important that we are ready with a range of actions that we can put into place quickly, if needed.

Some actions take longer to implement than others, because of design and approval processes and construction times. Planning for drought ensures we have time to respond to any drought that may come our way.

Drought portfolios need to include actions that can be put in place quickly, can be scaled up or down, and switched on or off as needed. Reducing dependence on rainfall, both through lower demand and a more diverse range of supply measures, also improves the resilience of the system to climatic variability.

Modelling for the *Lower Hunter Water Plan* demonstrated that, by implementing the measures outlined in the plan, our water supply system could withstand a drought significantly worse than any drought on record.

Simulated water storage levels in the lower Hunter
based on historic climate, current water storages and current demand



Implications of climate change

The impacts of future climate change on our weather patterns and water supplies are still unclear, however it is not expected that it will have any significant impact on water supplies over the planning period for the *Lower Hunter Water Plan*.

The NSW Government is involved in a number of research projects related to the potential impact of climate change on rainfall and runoff and how that may affect future water security for the metropolitan regions of NSW.

As climate predictions for these regions continue to improve, the latest research findings will be included in the water supply modelling so we can better incorporate the potential impacts into our future planning.

Developing the plan

A collaborative process

The Metropolitan Water Directorate led a whole-of-government process to develop the *Lower Hunter Water Plan*. This collaborative approach has ensured consistency between the plan and other policies, including the *Lower Hunter Regional Growth Plan* being developed by the Department of Planning and Infrastructure. This approach has also ensured the needs of the environment have been considered along with the needs of water users in the region, through environmental regulations and the water sharing plans for the region's rivers.

Along with the Metropolitan Water Directorate, the government organisations involved in developing the plan were:

- Hunter Water Corporation
- Department of Premier and Cabinet
- NSW Treasury
- NSW Office of Water
- Office of Environment and Heritage
- Environment Protection Authority
- Department of Primary Industries
- Department of Planning and Infrastructure
- NSW Health
- NSW Public Works
- Gosford City Council and Wyong Shire Council (for the Central Coast Water Corporation).

Planners also worked in close consultation with the community and other stakeholders to develop the plan, so their values, priorities and preferences could be incorporated into decision-making.

Community members and representatives from a range of stakeholder groups were involved in four sets of workshops from December 2012 to September 2013.

The workshops were held at key points throughout the planning process and are described below.

December 2012

In the first round of consultation, participants identified a set of community and stakeholder values about water planning (see box below). These values acted as a reference point for developing the plan, as well as feeding into the assessment of options from the community's point of view.

February 2013

The second round of consultation involved discussion about the latest demand forecast and the broad categories of supply and demand measures.

April/ May 2013

In the third round of consultation, the short-listed options being considered for the plan were discussed in more detail. Workshop participants provided feedback on the options and explored the concept of portfolios by working in groups to develop 'sample portfolios' that reflected the community values.

Feedback from these workshops, along with technical information and expert input, was then used in the multi-criteria analysis to help the planning team rank the options.

September 2013

A public discussion paper was released in August 2013 as supporting information for a fourth round of consultation. The discussion paper outlined the process for developing the plan and invited feedback on a short-list of six portfolios.

At the workshops, participants discussed the differences among the portfolios and considered trade-offs among cost, environmental and drought security features.

A similar workshop with representatives of the Aboriginal community expanded the community values to include cultural perspectives and provided feedback on the portfolios.

This feedback was used to support a decision on the final portfolio for the *Lower Hunter Water Plan*.

Community values for water planning

In addition to the overarching value of 'a process we can trust', the community values developed through the workshops were:

- sustainable solutions and water conservation
- a fair and affordable system
- safe, healthy water for all uses
- protecting the natural environment
- a secure, reliable supply for all
- a strategic, balanced and adaptable plan
- investing dollars wisely
- respecting the Aboriginal cultural value of 'life water'

Community engagement workshop

In 2012, the NSW Government established a new Independent Water Advisory Panel of water experts drawn from a range of disciplines to provide independent strategic and technical advice on urban water planning for the lower Hunter and greater Sydney regions. The independent panel provided valuable input throughout the planning process.

The planning framework

The planning framework for the *Lower Hunter Water Plan* was consistent with the National Urban Water Planning Principles adopted by all Australian governments (see box below).

A portfolio approach underpinned development of the plan. A portfolio is a set or sequence of water management measures, timings and rules. The portfolio approach involves building and analysing combinations of supply and demand measures (including those already in place) to achieve the best mix for delivering a secure water supply.

Drought response portfolios considered for the *Lower Hunter Water Plan* were made up of different measures to be implemented as water storage levels fall. Lead times for design, approvals and construction were taken into account when developing and analysing portfolios. The discussion paper *Building the Lower Hunter Water Plan* provides more detailed information on the planning framework.

The planning framework considered opportunities for staging and flexibility to adapt to uncertainties like climate change, population growth and new technologies over the life of the plan, using an approach that economists call 'real options' thinking. This approach aims to keep options open as long as possible to achieve efficient investment decisions.

National Urban Water Planning Principles

National principles for urban water planning should be universally applicable when developing plans to manage the supply/ demand balance of a reticulated supply for an urban population.

Key principles to achieve optimal urban water planning outcomes are:

- Deliver urban water supplies in accordance with agreed levels of service
- Base urban water planning on the best information available at the time and invest in acquiring information on an ongoing basis to continually improve the knowledge base
- Adopt a partnership approach so that stakeholders are able to make an informed contribution to urban water planning, including consideration of the appropriate supply/ demand balance
- Manage water in the urban context on a whole-of-water-cycle basis
- Consider the full portfolio of water supply and demand options
- Develop and manage urban water supplies within sustainable limits
- Use pricing and markets, where efficient and feasible, to help achieve planned urban water supply/ demand balance
- Periodically review urban water plans

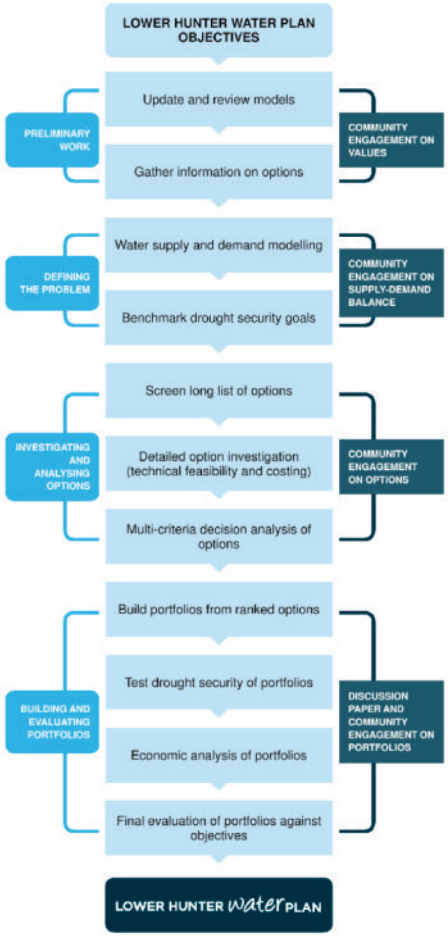
www.environment.gov.au/water/policy-programs/urban-reform/nuw-planning-principles.html

The key steps in the planning process that supported the decision on the final portfolio, or mix of measures, that make up the *Lower Hunter Water Plan* were:

- defining water supply needs by forecasting demand over the planning period and modelling water supply and drought scenarios
- testing the feasibility of identified water supply and demand measures through technical investigations and costing
- understanding the values of the community and stakeholders relating to water planning for the lower Hunter
- ranking the short-list of measures through analysis of economic, social, environmental and risk factors, including input from the community on how the options related to their values
- building portfolios and modelling them to understand the level of drought security they can provide
- cost-effectiveness analysis using a probabilistic model to compare the costs of portfolios under a large number of potential climate scenarios
- seeking the community's feedback on portfolios through a discussion paper and a series of workshops
- identifying the mix of measures for the *Lower Hunter Water Plan* through a final assessment of portfolios based on economic, social, environmental and risk factors.

The overarching framework to support a decision on the preferred portfolio for the *Lower Hunter Water Plan* involved 'multi-criteria decision analysis'.

Multi-criteria decision analysis brought together the outcomes of the detailed water supply system modelling and the economic analysis with feedback from the community and a qualitative environmental assessment. It allowed planners to consider the multiple objectives of the *Lower Hunter Water Plan* in an open and transparent way and involve the community and stakeholders in this process.



Multi-criteria analysis was applied at several points through the planning process. It was used to assess and compare individual measures based on five criteria – cost per unit of drought security, environmental impact, consistency with community values, flexibility to respond to change, and certainty of implementation. Measures were ranked based on this analysis and the ranking was the starting point for building portfolios. At the portfolio stage, portfolios were assessed based on cost, risk, social and environmental outcomes.

Two key inputs into the analysis of portfolios were the *hydrological modelling*, to determine their drought security and the *economic analysis*, to compare their costs.

The drought security of each portfolio was estimated using Hunter Water's Source Model (SoMo) - a sophisticated computer model that represents how the water supply system, including any new measures, will perform under different climate conditions.

By generating hundreds of thousands of potential climate scenarios, including droughts more severe than any we have experienced, the model can estimate the probability of running out of water.

Portfolios being considered for the *Lower Hunter Water Plan* were modelled in SoMo to test the chance that storage levels would fall below ten per cent (which is effectively empty) over the planning period. Only portfolios with a very low probability (between 1 in 40,000 and 1 in 100,000) were retained for further analysis. As discussed above, this was because the probability of running out of water may be very low, but the consequences would be extreme for the people and businesses of the lower Hunter region.

The costs of portfolios were then analysed using the total expected present value cost of each portfolio, based on a probability of triggering investment across a large range of possible climate scenarios.

Inputs to this analysis included:

- the capital (upfront) and operating (ongoing) costs
- the volume of water supplied or saved
- the lead times for implementing options within the portfolios.

The non-monetary cost of experiencing water restrictions was also included in the analysis. This value was estimated through a 'choice modelling' study to estimate the community's willingness to pay to avoid drought restrictions for all households. The benefit of reducing the restrictions estimated in the study was minimal and did not impact significantly on the portfolios considered. This is discussed further in Chapter 5.

The multi-criteria decision framework brought together the outcomes of the hydrological and economic analyses, along with assessment of environmental impacts by expert planners. The outcomes from the community engagement workshops and consultation with Aboriginal community representatives were also incorporated into the decision on the final mix of measures for the plan.

Introducing the measures in the plan

The following chapters outline the portfolio of measures adopted for the *Lower Hunter Water Plan*:

2. Existing dams and sharing water
3. Making use of underground water
4. Water efficiency makes the most of the water we have
5. Demand management encourages less water use
6. Water recycling helps save our drinking water
7. Capturing rain and stormwater
8. A contingency measure that doesn't depend on rain

Looking to the future

Actions to monitor and evaluate the *Lower Hunter Water Plan* and guide an adaptive approach to future plans include:

- monitoring population projections and changes in water demand
- monitoring and reviewing ongoing climate change research to better understand the implications for the lower Hunter's water supplies
- monitoring research into new technology and innovative water management practices
- liaising with the NSW Office of Water on implementing changes to environmental flow rules for the region's river systems in accordance with water sharing plans
- investigating long term water demand and supply options for future plans
- continuing the partnership with the community for future water plans.

'The most useful part of these workshops was listening to different opinions and views with representatives from community, industry, government, and environment groups.'

COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013

Existing dams and sharing water

Dams play a vital and ongoing role in supplying drinking water for the lower Hunter region. Around 90 per cent of the region's drinking water supply comes from Chichester Dam and Grahamstown Dam, with the other ten per cent supplied from groundwater. These amounts can vary from year to year.

Hunter Water manages the dams, and works in partnership with Hunter Local Land Services, local councils, landholders, government agencies and other stakeholders to protect the health of the drinking water catchments.

Water can also be transferred between the lower Hunter and Central Coast water supply networks under an agreement developed in 2006, when the Central Coast experienced a severe drought. The ability to transfer water between the two regions will continue to be important in making best use of existing dams to benefit the communities in both regions.

Contribution of dams to our water supply

Chichester Dam

Chichester Dam has supplied the lower Hunter community with water for 90 years. The dam was built between 1917 and 1926, and first supplied water to the community in 1923.

The dam's catchment is largely within the Barrington Tops National Park, which is a declared wilderness area. As a result, the catchment is one of the most pristine in Australia, with large areas unaffected by human activity.

Chichester Dam

Chichester Dam can store over 18 billion litres of water. A gravity pipeline transports water to the Dungog Water Treatment Plant. Around half the water from the dam is supplied to the Maitland, Cessnock and Beresfield areas. The rest is supplied to Newcastle, where it blends with water from Grahamstown Water Treatment Plant.

The cost of supplying water from Chichester Dam is the lowest of all Hunter Water's sources, largely because water can be transported by gravity rather than pumping, using less electricity. The dam is small compared with its large catchment so it readily 'fills and spills' after medium to heavy rainfall, with water flowing over the spillway and down the river.

As a result of its reliability and low cost, water from Chichester Dam is used as often as possible. Averaged over the last ten years, the dam has supplied around 38 per cent of the region's water supply, as shown in the pie chart overleaf.

Grahamstown Dam

Grahamstown Dam was built between 1955 and 1965 and is the lower Hunter's largest drinking water supply dam. It can store around 182 billion litres of water.

Grahamstown Dam is called an 'off-river storage' because it is filled by pumping water from the Williams River at Seaham Weir, in addition to rainfall on its surface and run-off from its own catchment.

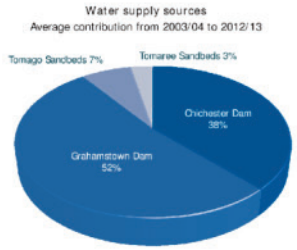
Due to its large surface area and shallow depth, a lot of water can be lost through natural processes like evaporation. In a hot dry summer, Grahamstown Dam can lose as much water by evaporation as it supplies to customers (about 200 million litres per day). Although early investigations looked at ways of covering the surface of the dam to reduce evaporation, the current


Grahamstown Dam

technologies are not viable because of the very large surface area of the water storage. Changes in technology will be monitored in case the feasibility changes in the future.

The Balickera pump station and canal are used to transfer water from the Williams River to Grahamstown Dam. The decision on when to pump from the Williams River depends on the amount of flow and water quality in the river, and whether there is space in the dam. The water licence issued by the NSW Office of Water sets rules on how and when water can be pumped.

Water from Grahamstown Dam is treated at Grahamstown Water Treatment Plant before being pumped to supply areas such as Medowie, Stockton, Kooragang Island, Newcastle and Lake Macquarie. Over the last ten years, Grahamstown Dam has supplied an average of around 52 per cent of the region's water supply.



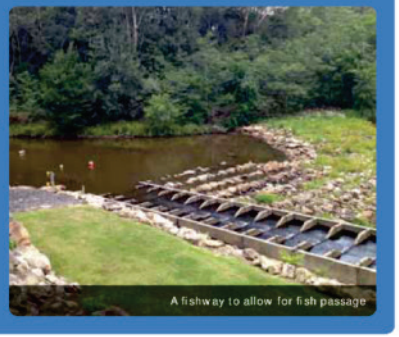
Protecting the aquatic environment

Dams and weirs affect the natural flow of water in rivers and streams. To help lessen these impacts, some water is released from the storages back into the river downstream of the dam. These releases are called environmental flows. They help maintain the ecology and biodiversity of ecosystems that depend on water. Environmental flows are in addition to the flows that naturally spill when the dam fills in high-flow events.

Fishways can also be built at dams and weirs to allow fish to move up and down stream.

Chichester Dam and Seaham Weir are licensed by the NSW Office of Water. The water licences include conditions called 'environmental flow rules' which aim to help protect aquatic health by providing a share of water for the downstream environment.

Proposed refinements to environmental flow rules for Chichester Dam and new conditions for Seaham Weir have been modelled in parallel with developing the ***Lower Hunter Water Plan***. This is important because environmental flows affect how much water is available for the water supply system. The proposed changes to the environmental flow rules aim to achieve more variability in flows to reflect natural wetting and drying conditions instead of a steady flow. This approach is consistent with the changes to environmental flow rules proposed by the NSW Office of Water for other rivers in the Hunter region.


A fishway to allow for fish passage


Mangrove Creek Dam

Sharing water between regions

Helping neighbours in a drought

In the early 2000s, the Central Coast experienced its worst drought since records began in 1885. The water level in the main storage, Mangrove Creek Dam, dropped to around 10 per cent in early 2007. The lower Hunter storages were relatively full due to a series of weather events called 'east coast lows' that brought significant rain to our catchments. These weather events include the *Pasha Bulker* storm in 2007.

The lower Hunter was able to supply water to the Central Coast to help maintain supplies through that extreme drought. An agreement was signed in 2006 to transfer water between the regions, with the daily transfer rates depending on the storage levels in each region.

The Central Coast water supply system

The main Central Coast water storages are the large Mangrove Creek Dam (190 billion litres) and the smaller Mardi and Mooney Mooney Dams. Water treatment plants located at Somersby and Mardi treat water from the dams to meet drinking water guidelines.

Since the last drought, over $100 million was invested by Gosford and Wyong councils and the Commonwealth Government to improve the security of the Central Coast's water supplies. Completed in 2012, the new pipeline and pumping stations allow more water to be pumped into Mangrove Creek Dam from Wyong River and Ourimbah Creek, so the region has more resilience for future droughts.

How does the transfer link work?

The lower Hunter and Central Coast water supply systems are connected by a pipeline linking reservoirs at Morisset and Kanwal. This link can transfer up to 33 million litres of treated drinking water per day south to the Central Coast water supply network.

The transfers do not move water between dams, as it is more efficient to simply transfer water between the two drinking water supply systems. For example, Hunter Water can supply the northern customers of the Central Coast. When this occurs, less water would need to be drawn out of Mangrove Creek Dam. Similarly, when water is transferred north from the Central Coast to supply Hunter Water customers in south-western Lake Macquarie, more water can remain in Grahamstown Dam.

At present only 13 million litres of water a day can be transferred north to the lower Hunter network. Wyong Shire Council is planning to construct a new pipeline from Mardi to Warnervale which will supply Central Coast customers in the Warnervale area and also meet commitments under the existing transfer agreement.

When this pipeline is completed in around 2017, the capacity to transfer water north to the boundary of the lower Hunter system will increase to 30 million litres a day.

Hunter Water will also need to modify its water supply system to remove 'bottle-necks' in order to receive 30 million litres a day of water from the Central Coast. This involves building a new pipeline, constructing a new water pumping station at Wangi, and modifying the existing water pumping stations at Morisset and Fennell Bay.

The price for water transferred under the existing water transfer agreement between the two regions is set by the Independent Pricing and Regulatory Tribunal. The water quality would be similar, as both water utilities must treat the water to meet the *Australian Drinking Water Guidelines*.

Constructing the Hunter – Central Coast pipeline

Transferring water between regions is a core component of the *Lower Hunter Water Plan*. The existing two-way agreement with the Central Coast can facilitate better use of existing storages, so that both regions are more resilient to cope with drought.

A 'watching brief' on other options

Lostock Dam is located on the Paterson River approximately 93 kilometres north-west of Newcastle. The dam is managed by State Water and can store around 20 billion litres of water when full. It supplies water for agricultural irrigation, but the volume of water available is not used to its full capacity.

If the lower Hunter region were to access water from Lostock Dam for drinking water supply in the future, a new water treatment plant and pipeline to connect to the existing water supply network near Maitland would be required. Transferring water from Lostock Dam has not been included in the *Lower Hunter Water Plan* at this time because the higher cost and longer lead time to construct the infrastructure required make it less suitable as a drought response compared with other measures. The potential to access water from Lostock Dam may be revisited in future planning processes.

It is important to note the NSW Government has ruled out building Tillegra Dam and it is not an option for future supply.

What would happen in a drought?

The two-way connection between the lower Hunter and Central Coast drinking water networks can provide additional water during drought to customers in either region. The daily transfer rate depends on water levels in the storages in each region, up to the maximum rate set by the agreement. For example, if storages in the lower Hunter were dropping, Hunter Water could purchase water from the Central Coast, allowing more water to remain in Grahamstown Dam for future use. Transfers would stop if the Central Coast storages were too low.

In a different drought scenario, Hunter Water could supply water to customers at the northern end of the Central Coast, as occurred in 2006-07.

Modelling indicates that there are different situations when each region can help the other. Transferring water between the Hunter and Central Coast helps to make better use of the combined water in existing storages, so both regions are more resilient to cope with drought.

In a very severe drought, both regions may be reduced to very low storage levels. This is why it is important for both regions to have other contingency plans in place for extreme events, which may be very unlikely but could have major consequences for the households and businesses in each region. These contingency measures can include supplies that do not depend on rainfall (discussed further in Chapter 8).

Looking to the future

- Wyong Shire Council and Hunter Water will construct new pipelines and water pumping stations to increase the transfer capacity so that up to 30 million litres a day of water can be transferred north in accordance with the existing water transfer agreement. This work is currently planned to be completed in 2017.
- The Central Coast councils and Hunter Water will continue working together to improve the modelling tools that simulate what would happen under different drought scenarios, and optimise the arrangements for inter-region transfers. A new integrated water supply model will provide better information to optimise the existing transfer arrangements, and support opportunities to work together on options for both drought and future longer-term planning.
- The Metropolitan Water Directorate, Central Coast councils and Hunter Water will continue working together on options to enhance the existing transfer agreement to benefit both regions. Options include the potential to consider transferring water outside drought periods, if one region has plentiful supplies and the other region's storages are lower, or increasing the transfer capacity between the regions. The aim would be to optimise the combined storage levels so that both regions are in a better position if a drought occurs.
- The NSW Office of Water (NOW) is responsible for implementing environmental flow rules through regulatory instruments such as water sharing plans and water licences. NOW will continue to consult with key stakeholders in the lower Hunter and Central Coast as relevant water sharing plans in the two regions are reviewed, and environmental flow rules are refined and implemented.

'Inter-regional transfers make use of some existing infrastructure and are a good flexible long term investment.'
COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013

Making use of underground water

Groundwater plays an important role in the drinking water supply system for the lower Hunter region. In the last ten years, an average of around ten per cent of the region's drinking water supply has been sourced from the Tomago and Tomaree sandbeds, but the amount varies from year to year and can be as high as 30 per cent.

Investigations are continuing into other potential sources of groundwater which might be suitable to access in a drought.

Contribution of groundwater to our water supply

Tomago sandbeds

The Tomago sandbeds catchment covers an area of 109 square kilometres from Tomago to Lemon Tree Passage. Most of the catchment is a State Conservation Area. There are a number of ecosystems in the area that depend on access to groundwater, including trees and other plants, wetlands, and coastal sand dune systems.

The aquifer can store approximately 100 billion litres of water above sea level. It is refilled by rain that falls directly on the sand surface. The sandbeds are around 20 metres deep on average, but reach a depth of 50 metres in some places.

Hunter Water may access up to around 60 billion litres in accordance with a licence issued by the NSW Office of Water.

Water is extracted from the Tomago sandbeds using a network of bores and vacuum stations, before being treated at the main Grahamstown Water Treatment Plant. A small treatment plant at Lemon Tree Passage also supplies water extracted from the sandbeds to the north-eastern areas of Tanilba Bay, Karuah and Lemon Tree Passage.

When the water in the sandbeds drops to a set level, pumping from the sandbeds must stop to minimise potential impacts on the ecosystems that depend on the groundwater. Coastal groundwater systems also need to be managed carefully to avoid the risk of fresh groundwater being impacted by contamination with salt water from the sea.

The *Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources* is currently under review, and the new plan is expected to commence in July 2014.

Tomaree sandbeds

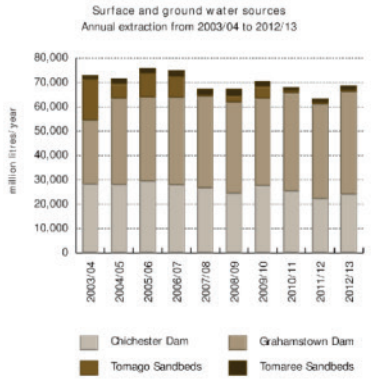
The sandbed systems within the Anna Bay and Nelson Bay areas are located within the protected area of the Tomaree National Park, with a catchment area of around 16 square kilometres.

The Tomaree sandbeds can store about 16 billion litres of water. The system can supply around seven million litres of water a day to the local area, after treatment at either the Anna Bay or Glovers Hill Water Treatment Plant. If needed, additional water can be supplied to the Tomaree peninsula via a pipeline from the Grahamstown Water Treatment Plant.

A bore pump at Tomago

What would happen in a drought?

In normal climate conditions, the Tomago groundwater source can reduce the water needed from the surface water sources of Chichester Dam and Grahamstown Dam. In recent years, around ten per cent of the region's drinking water supply has been sourced from the Tomago and Tomaree sandbeds on average, although this can be as high as 30 per cent. The variation from year to year is illustrated in the graph below.



The Tomago groundwater source is a particularly valuable reserve to supplement supplies from other sources in a drought. In a severe drought it may be viable to access new sources of groundwater. This is discussed further below.

Aerating groundwater from Tomago sandbeds

Groundwater from the Tomago and Tomaree sandbeds will remain an important source of drinking water for the region, in normal climate and in drought.

A 'watching brief' on other options

As part of the technical investigations for developing the *Lower Hunter Water Plan*, studies were initiated into other potential groundwater sources.

These included the Lower Hunter Alluvial groundwater source, near the junction of the Hunter and Paterson Rivers in the Morpeth-Bolwarra area. Investigations have only reached a preliminary stage, and further work is required into the feasibility of this potential new source of groundwater to understand if it could be used to boost supplies in a drought.

There are thought to be three separate aquifers in the Lower Hunter Alluvial groundwater source. The shallowest is located approximately six metres below the ground surface. Two deeper aquifers may lie at depths greater than 20 metres below the ground surface. Investigations are focusing on identifying the deeper aquifers, and if they are found, further investigations into available volumes and water quality would be needed.

If the Lower Hunter Alluvial groundwater source is found to contain suitable water, further studies would be required before it could be considered as a viable drought option. Any future drought water supply would require planning for a small borefield and supporting infrastructure to be installed, and some form of water treatment plant, depending on the water quality.

Another option that may be further explored is the potential to treat and use groundwater pumped out of underground coal mines on the western side of Lake Macquarie.

At this time, use of mine water is not considered suitable for drought contingency planning. During investigations for the *Lower Hunter Water Plan*, it became clear that occasional use of the water during a drought would not suit mining operations, due to the need to pump water out of the mine continuously. As there are no significant opportunities near the mine water source to use the water for non-drinking purposes, the main benefit from this potential future source would be achieved if it could be used for drinking water.

To be suitable for use as drinking water, the groundwater would require treatment to meet the *Australian Drinking Water Guidelines*, and the process would need to be acceptable to NSW Health. Preliminary investigations considered a conventional water treatment plant followed by desalination using reverse osmosis.

Modelling indicated that continuous use for drinking water supply would incur much higher costs for treatment and pumping into the water supply system compared with other options outlined in the *Lower Hunter Water Plan*.

Looking to the future

- Groundwater from Tomago sandbeds will remain an important source of drinking water for the lower Hunter region, in normal climate and in drought.
- The *Water Sharing Plan for the Tomago Tomaree Stockton Groundwater Sources* is being reviewed by the NSW Office of Water, and a new water sharing plan is expected to commence in July 2014. Any changes arising from the review process will need to be considered as part of an adaptive management process for the *Lower Hunter Water Plan*.
- Other potential new sources of groundwater supplies will continue to be investigated, focusing on the Lower Hunter Alluvial in the short term.
- Using water from underground coal mines may be further investigated, in consultation with NSW Health and other interested stakeholders.

Water efficiency makes the most of the water we have

The total amount of water used by households and businesses in the lower Hunter is now less than it was 40 years ago. These savings have been achieved through a combination of:

- 'user pays' pricing, introduced in 1982, so that customers pay more if they use more water
- household water efficiency measures, achieving significant reductions in water use per person
- various changes in business use, including water efficiency measures, water recycling, and the closure of some major industries (including BHP Steelworks).

The lower Hunter region now uses about the same amount of water on average as it did in 1970, although the population supplied by Hunter Water has grown by around 200,000.

Water efficiency programs saved around 1.2 billion litres of water in 2012/13. Water efficiency initiatives include programs to:

- help customers save water in the home by using more water-efficient appliances
- assist businesses and schools to use water more efficiently
- minimise leakage from the water supply system.

During a drought, additional measures to reduce water use and help our water storages last longer include drought restrictions, and further water efficiency and loss minimisation programs.

We all have a part to play

Household water use accounts for about 56 per cent of total water used in the lower Hunter. As shown in the pie chart, this is made up of around 49 per cent used by customers living in houses, and seven per cent by those living in flats and units.

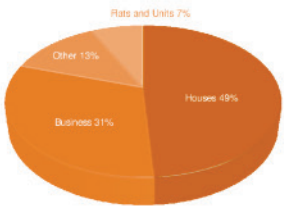
The remaining 'non-residential' customers include industries, businesses, office buildings, schools, hospitals, shopping centres, hotels, restaurants, councils and recreational facilities. For simplicity, we will call these collectively 'business customers'. Business customers currently account for about 31 per cent of the water used in the lower Hunter region.

The remaining 13 per cent (labelled 'other' in the pie chart) includes water used by Hunter Water and for firefighting, together with water leakage and metering errors.

There has been a gradual change in the share of water used by household and business customers over the last 25 years.

Before 1990, households used less water than businesses. With population growth and changes in the regional economy, households now account for a larger proportion of water use.

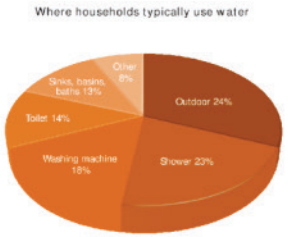
Breakdown of water supplied to customer groups by Hunter Water in 2012-13



Household water efficiency

With households accounting for more than half of the water use in the lower Hunter, household water efficiency programs will continue to play a vital role in saving water both inside and outside the home.

Understanding where water is used in the home can help target programs to improve water efficiency. The pie chart shows the typical breakdown of water use for a household.



Increases in indoor water efficiency will continue to be achieved by householders installing water-efficient shower heads, tap aerators and dual flush toilets, together with more water-efficient washing machines and dishwashers. Initiatives to save water outdoors include using a trigger nozzle on garden hoses and choosing plants that need less water.

Water efficiency programs for households offered by Hunter Water currently include:

- *Showerhead exchange program* – this program is run in conjunction with local councils. Customers can take their old showerhead to an office of Hunter Water or their local council, and exchange it for a more water-efficient showerhead. There are two options, one is free and the other is available at a cost of $50 (a saving on the recommended retail price of $199). Water savings from using a more efficient shower head are estimated at over 25,000 litres each year, reducing both water and energy bills.
- *Hunter Region No Interest Loans Scheme* – Hunter Water provides financial support to help low income customers who meet certain conditions to buy a water-efficient washing machine.

More information on these programs can be found at: www.hunterwater.com.au/Save-Water/Save-Water-Initiatives/

Exchanging a showerhead

Water efficiency measures have been implemented by many households in the lower Hunter, as indicated in a survey conducted by the Hunter Valley Research Foundation in 2011. The survey found that for the households that responded:

- 90 per cent had dual flush toilets
- 80 per cent had installed water-efficient showerheads.

Figures for the uptake of water efficiency programs suggest some may be reaching their full potential. However, water efficiency savings in households will continue through further technology improvements in water-efficient appliances, together with two main initiatives at national and state level - the national Water Efficiency Labelling and Standards (WELS) scheme and the Building and Sustainability Index (BASIX) – see box at right.

With households accounting for more than half the water used in the lower Hunter region, household water efficiency programs will continue to play a vital role in saving water inside and outside the home.

Water Efficiency Labelling and Standards (WELS) scheme

The WELS scheme, which began in 2005, enforces mandatory ratings and labelling for a range of appliances and fittings, and develops minimum performance standards for products.

As new water-efficient appliances and fittings are released to retailers, customers are encouraged to purchase these new products when their existing, less efficient ones need replacing.

By 2021, it is estimated that using water-efficient products will help reduce domestic water use across Australia by more than 100 billion litres each year. The main savings are being achieved from more efficient showers, washing machines and toilets.

More information can be found at www.waterrating.gov.au/. The WELS website has a wide range of information for industry and consumers, including advice on how to compare the water efficiency ratings of appliances.

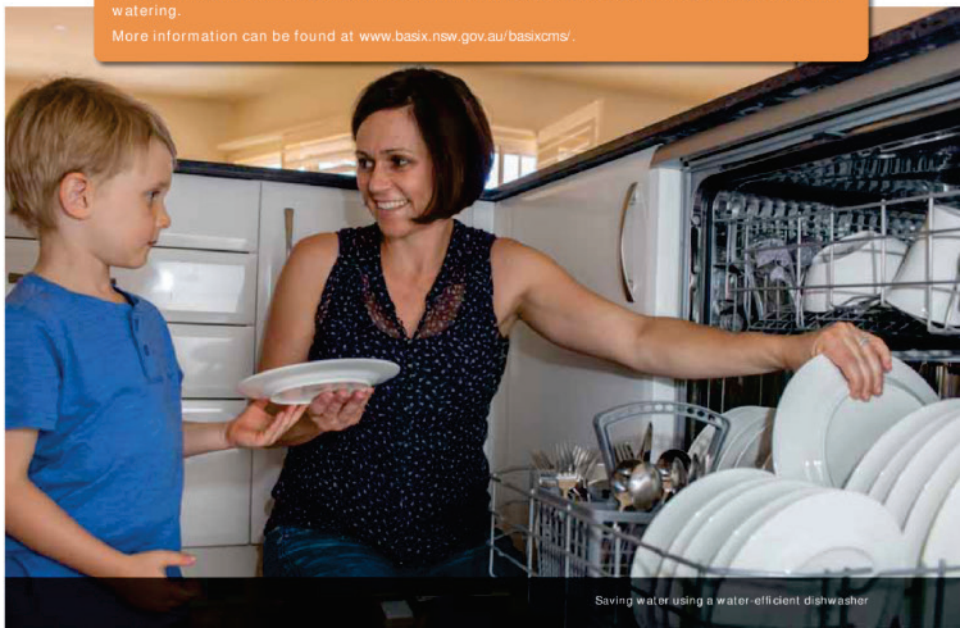
Building and Sustainability Index (BASIX)

Since 2005, BASIX has applied to all new homes in NSW, aiming to reduce water and energy use across the state. BASIX is a planning policy that ensures new residential properties are designed to use less drinking water. BASIX also applies to housing alterations and additions worth over $50,000. New or altered homes must achieve a 40 per cent reduction in drinking water use, compared with a pre-BASIX statewide benchmark of 90,340 litres of water per person each year (or 247 litres a day for each person).

Homes can meet BASIX requirements by using water efficient appliances and installing a rainwater tank. Where available, BASIX can be met by connecting to a supply of recycled water.

A review of BASIX certificates for the lower Hunter found that 97 per cent of certificates indicated connection to a rainwater tank, with connection to a recycled water scheme accounting for the remaining three per cent. Most tanks had a volume in the range 3000 - 5000 litres, and more than 90 per cent of homes connected their rainwater tanks for toilet and laundry end uses as well as garden watering.

More information can be found at www.basix.nsw.gov.au/basixcms/.


Saving water using a water-efficient dishwasher

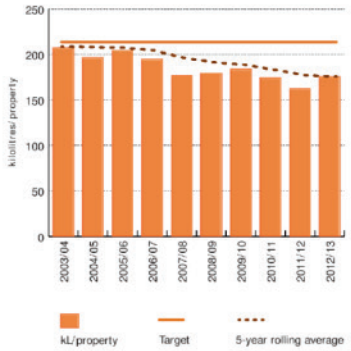
Water conservation target

Hunter Water's Operating Licence includes a water conservation target for annual residential water consumption to be equal to or less than 215 kilolitres (1 kilolitre = 1000 litres) a year for each residential property, based on a five-year rolling average. As shown in the graph below, the average has been trending downward since 2005/06, although some fluctuations occur due to climate variability (ie, some years are wetter and some are drier).

The five-year rolling average is now 175 kilolitres per property, which easily meets the target. For comparison, Sydney's annual residential water use is around 190 kilolitres per property[2].

The downward trend reflects the benefits of water savings from household customers using water more efficiently and replacing older appliances with more efficient models as they wear out.

Annual water use by residential customers



Community education programs

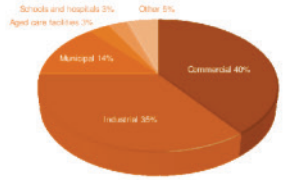
Since water saving starts with education and awareness, it is important for Hunter Water to play an ongoing role in helping educate the community about the many aspects of water supply, treatment and conservation. Current initiatives include:

- advertising campaigns which promote water efficient behaviour
- Hunter Water's website includes a dedicated 'Save Water' section that provides information on how to be water efficient in the home and garden
- contributing funding for the educational Bubbles and Supa Squirt Water Saving Show, catering for students from kindergarten through to year six
- contributing to the Australian Water Association's collaborative project to enhance water education resources linked to the school curriculum
- promoting water-saving products and gardening tips at relevant community events
- a community grants scheme that provides funding to community organisations for water conservation and educational projects
- promoting the national WELS scheme to encourage customers to choose household appliances that save both water and energy
- a new water education centre being constructed as part of the advanced water treatment plant for the Kooragang Industrial Water Scheme, to raise community awareness about sustainable urban water management and water recycling.

Business water efficiency

The breakdown of water use for key categories of business customers is shown in the pie chart below.

Breakdown of water use by business customers



2. Source: National Performance Report 2011-12: Urban Water Utilities, National Water Commission, March 2013

There are more than 20,000 businesses in the lower Hunter. Some small businesses use less water than a typical household, while others use a very large amount of water. The top 30 customers - who each use more than 50 million litres a year - together use more water than other business customers combined.

As part of its everyday operations, Hunter Water offers programs to help business customers reduce their water consumption by understanding and changing the way they use water, using equipment that is more water-efficient, investigating options for recycling, and reducing loss and waste.

The programs currently offered by Hunter Water to help businesses improve their water efficiency are:

- *Voluntary water audits* - subsidised audits are offered for major customers whose water use is over 30 million litres a year, leading to development of a Water Efficiency Management Plan
- *Hunter Water Business Savers Program* - provides a free water audit of amenities and commercial kitchens to 20 customers each year. The customer with the best water saving project is recognised with a prize at the Hunter Business Awards.

A wide range of businesses have already participated in the voluntary water audit and business saver programs. These include hospitals, aged care facilities, restaurants and clubs, food processing industries, educational facilities, sporting centres and holiday parks.

The existing programs will be expanded in a drought to try to achieve even more water savings. This is discussed later in this chapter, under the heading 'What would happen in a drought?'

Case Study 1: Hunter Water Business Savers

In 2012, the East Maitland Bowling Club was the winner of the Hunter Water Business Savers Award for their innovative ideas on water saving in the kitchen.

The Hunter Water Business Savers program aims to improve water efficiency in amenities and commercial kitchens for Hunter Water's business customers.

The East Maitland Bowling Club has replaced two existing water-cooled woks in their kitchen with air-cooled woks. They also installed two 10,000 litre rainwater tanks to use for irrigating the bowling greens.

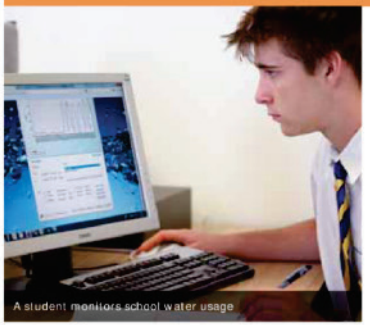
The water savings from the project are estimated to be over three million litres per year.

As part of the Business Savers program, Hunter Water offers a prize of $10,000 towards water-efficient equipment upgrades, rainwater tank installation, recycling and grey water reuse projects. The projects are judged on water savings, cost effectiveness, innovation and appeal of the project for widespread adoption in the region.

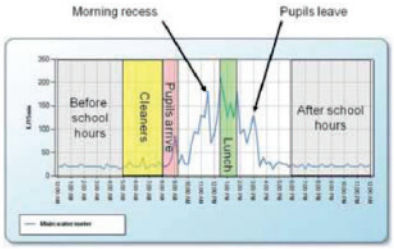
Chef Ming Liang at East Maitland Bowling Club

The program has been running since 2009 and has so far worked with 94 customers to identify 155 million litres of water saving opportunities, which would fill 62 Olympic sized pools.

Case study 2: Saving water in schools



A student monitors school water usage



To help local schools save money on their water bill, in 2013 Hunter Water provided 65 local schools with data loggers to connect to the school's water meter to track water usage in real time. The data loggers relay the information to an electronic portal that can be viewed by teachers, students, administrators, and Hunter Water staff in the water efficiency team.

The graph shows a typical trend in water use at a school during a normal day. Alerts can be set up through the online portal to be sent to mobile phones and/or email to advise if there is a spike in water usage overnight or on weekends, indicating a possible leak or vandalism.

Leaks are often in underground pipes and can waste many thousands of litres per day. Being able to respond quickly to such leaks can save schools thousands of dollars in water usage charges.

Minimising water lost through leaks

Hunter Water maintains the systems that deliver water to the people of the lower Hunter. Like all water supply systems around the world, the lower Hunter's water distribution system can lose water due to leaks and breaks. Leaks are caused by deterioration of joints and fittings, and by cracks in the pipes caused by ground movement or pressure changes.

Hunter Water's leak reduction programs use the latest methods and technologies to detect and repair hidden leaks and reduce the amount of water lost. The active leak detection program currently surveys around 1200 kilometres of water mains each year, so that the whole water supply system can be checked over a five-year cycle.

The main focus of activities to minimise losses from the water supply system involve:

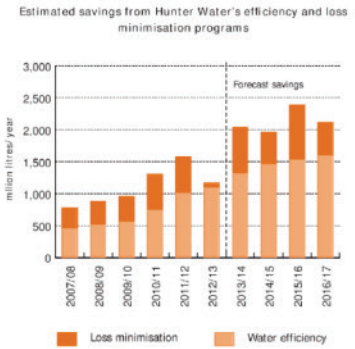
- actively detecting and repairing leaks, using listening devices to survey the water supply network and identify hidden leaks before they would normally be seen and reported
- reducing pressure in the pipes in selected zones with higher pressure to reduce the frequency and volume of leaks.

Water utilities compare their water loss performance using an international system called the 'Infrastructure Leakage Index', which shows how water losses compare with the theoretical lowest possible level of leakage that could be achieved by a water supply system. Hunter Water's performance is ranked in the 'excellent' category, along with all major Australian water utilities.

Leaks in pipelines on private property are the responsibility of the owner, and initiatives discussed in the water efficiency section can help customers find and reduce these leaks.

How much water is being saved?

Savings from water efficiency and loss minimisation programs have increased steadily in recent years, as shown in the graph at right. Over the next four years, the total water savings from these programs are estimated to total over 2000 million litres a year.



Note: The savings from the water loss minimisation programs in 2012/13 appear lower due to the timing of the contract for that year, resulting in most of the savings being recorded within the 2013/14 year.

What would happen in a drought?

Everyone has a part to play in improving water efficiency – household and business customers as well as Hunter Water. The water efficiency initiatives discussed above aim to reduce overall water use and help our water storages to go further. In a drought, these programs would be expanded under the *Lower Hunter Water Plan* to provide even more savings when we need them most.

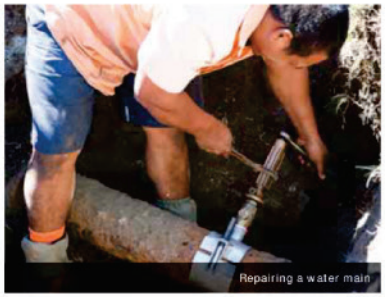
Household water efficiency – expanded drought program

In a drought, water efficiency programs to help households voluntarily save water would be staged as water storage levels drop, ramping up in parallel with drought restrictions (discussed in Chapter 5). Each stage would continue the programs from the previous stage, and expand on them as shown in the table below.

DROUGHT LEVEL	WATER STORAGES	PROPOSED ADDITIONAL HOUSEHOLD WATER EFFICIENCY PROGRAMS
Level 1	60%	Increase marketing of showerhead exchange program Free shower timers for customers to collect Free do-it-yourself water saving kits Expand multi-media advertising, education and awareness programs to encourage water savings indoors with key messages reminding customers about taking shorter showers, using washing machines and dishwashers with full loads, repairing leaking taps, how much water different activities use and savings that can be achieved from water-efficient appliances Complemented by tips about saving water outdoors, linked to Water Wise Rules and restriction levels Expand school water audits and encourage students to take the water-saving messages home and apply them
Level 2	50%	Introduce a rebate for installing a new dual flush toilet (WELS 4 star) Further expand advertising, education and awareness programs, emphasising key messages about indoor and outdoor savings as above
Level 3	40%	Introduce a rebate for purchasing a water-efficient washing machine (WELS 4.5 stars) Further expand advertising, education and awareness programs, emphasising key messages about indoor and outdoor savings as above

Business water efficiency – expanded drought program

During a drought, water efficiency programs targeting business customers would be expanded as shown in the table below. Similar to programs for households, these voluntary programs would be staged as water storage levels drop, operating in parallel with drought restrictions. These voluntary programs would provide incentives to help businesses improve their water efficiency, and be prepared before mandatory drought restrictions are introduced and become progressively more stringent (discussed in Chapter 5).



Repairing a water main

DROUGHT LEVEL	WATER STORAGES	PROPOSED ADDITIONAL BUSINESS WATER EFFICIENCY PROGRAMS
Readiness	70%	Expand the number of major customers (those using more than 50 million litres a year) that participate in water audits and develop a Water Efficiency Management Plan (WEMP). Develop water conservation toolkits to raise awareness of water-saving opportunities, targeting key industry sectors with high water use. Start recruiting participants for Level 1 water audits. Develop marketing and communications material encouraging water-efficient amenities and cleaning equipment.
Level 1	60%	Voluntary water audits and development of WEMP for customers using less than 50 million litres a year. Introduce subsidised audits to improve irrigation for open space, ovals, commercial nurseries, farms and market gardens. Promote best practice guidelines for commercial vehicle cleaning industry. Encourage a minimum water efficiency standard for showers and taps (WELS 3 star) for customers using more than 10 million litres a year. Encourage a minimum water efficiency standard for cleaning equipment (high pressure and trigger operated spray guns) for customers using more than 10 million litres a year. Roll out water conservation toolkits for specific industries. Prepare and distribute guidelines to restaurants on replacing water-cooled woks with air-cooled woks.
Level 2	50%	Maintain Level 1 programs for irrigation water audits and water-cooled woks. Expand education and awareness programs (including water conservation toolkits) and minimum water efficiency standard for taps, showers and cleaning equipment (WELS 3 star) for customers using more than 5 million litres a year.
Level 3	40%	Introduce a subsidy to assist with replacing water-cooled woks with air-cooled woks. Continue expanding education and awareness programs and minimum water efficiency standard for taps, showers and cleaning equipment.
Level 4	30%	Continue expanding education and awareness programs and minimum water efficiency standard for taps, showers and cleaning equipment.

Business water efficiency programs encourage and support the early adoption of water efficiency measures that eventually become mandatory if drought restrictions become more severe. The early adoption of water efficiency measures ensures that water savings start earlier, and help slow the drop in water supplies.

Minimising water losses from leaks – expanded drought program

In normal climate conditions, the active leak detection program would deliver a survey of the entire water supply network over a five-year cycle. In a drought, this program would be accelerated to cover the network within three years.

Additional pressure management zones would also be implemented, to reduce water loss due to background leakage.

Existing water efficiency programs for households and businesses would be expanded in a drought to try to achieve even more water savings.

Looking to the future

- Water efficiency and leak reduction programs will continue to deliver savings in water use, operating at the local level as well as the state and national levels (for BASIX and WELS schemes respectively).
- These programs would be progressively expanded in a drought, with responsibilities shared among household and business customers and Hunter Water.
- By adopting water efficiency measures early, particularly when incentive programs are available, businesses have the opportunity to be better prepared before drought restrictions are in place and become increasingly stringent.

'When all parties contribute to water savings, it diminishes the likelihood that storages will be drawn to critically low levels'

COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013

Demand management encourages less water use

Ensuring a secure supply of water relies on balancing both water supply and customer demand. With every measure that reduces customer demand, more water remains in our storages, helping to defer the need for major investment in new infrastructure on the supply side. In Australia and internationally, a number of approaches have been used to manage demand, ranging from water use rules to pricing.

Most utilities in Australia apply restrictions during drought to reduce demand so water in storages lasts longer. 'Water Wise Rules' are common sense actions that help conserve water every day, and were introduced by many utilities as restrictions were lifted after the millennium drought. These demand management approaches are more successful when the community is committed to using water wisely.

Water Wise Rules

What are Water Wise Rules?

Water Wise Rules are simple, common sense actions that help conserve water every day. Water Wise Rules already apply in Sydney, the Central Coast, and many other cities in Australia. They are similar to water saving tips that Hunter Water already promotes and many people apply every day.

Sydney and the Central Coast have similar rules that focus on efficient outdoor water use. Water Wise Rules were introduced in Sydney in 2009 after six years of drought restrictions. The Central Coast introduced Water Wise Rules in 2012, after a decade of water restrictions.

The lower Hunter has not experienced a long period of drought restrictions since the 1980s. The region was fortunate during the last drought as the water storages were replenished by significant rainfall in 2007.

The *Lower Hunter Water Plan* introduces similar Water Wise Rules in the lower Hunter as an immediate priority. The rules will apply to all customers – households and businesses – and are summarised in the box below.

Water Wise Rules for the lower Hunter

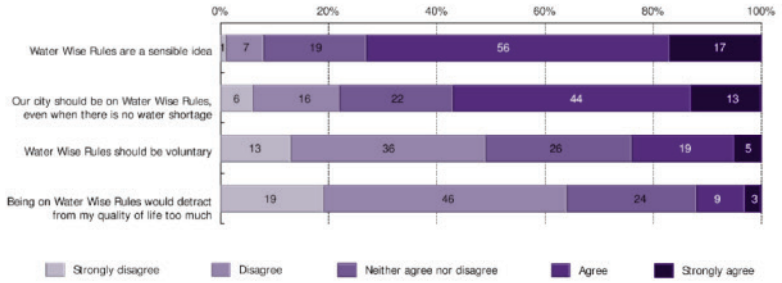
- All hand-held hoses must have a trigger nozzle
- Watering with a sprinkler, irrigation system or trigger nozzle hose is permitted any day before 10am or after 4pm, to avoid the heat of the day
- No hosing of hard surfaces such as paths and driveways
- All vehicles should be washed with a bucket, trigger nozzle hose or pressure cleaner.

By adopting Water Wise Rules to improve the efficiency of outdoor use – all the time, not just during drought – we can make better use of our available water supplies.

Water Wise Rules are estimated to achieve ongoing water savings of around 2.5 per cent of current residential water use, or around one billion litres a year.

Community support is vital for Water Wise Rules to be successful. A survey of lower Hunter residents as part of developing the *Lower Hunter Water Plan* indicated strong support for introducing Water Wise Rules to the region, with 73 per cent saying that Water Wise Rules are a sensible idea, and 57 per cent agreeing that our region should have Water Wise Rules even when there is no water shortage. The results are shown in the graph overleaf.

Community attitudes to Water Wise Rules



Drought restrictions

Drought restrictions can be used to limit water use by households and businesses in times of drought to help reduce the demand for water and slow down the drop in water storages. Restrictions may include actions such as banning fixed sprinklers, limiting hours and days when watering with a hose or drip irrigation system is permitted, and banning all household outdoor use completely when storage levels are very low.

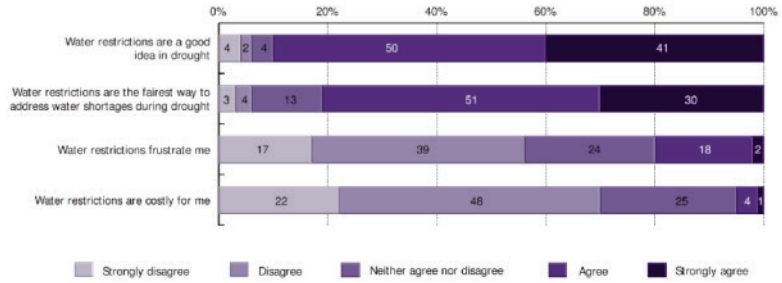
Restrictions, which apply equally across the whole community, are mandatory and enforceable under the *Hunter Water Regulation 2010*. Over the long term, the lower Hunter region is likely to have restrictions in place for less than five per cent of the time.

While drought restrictions do impose some costs on the community (for example, inconvenience and adverse impacts on gardens and playing fields) as well as impacting some industries, they are an effective and relatively low cost way of responding to a drought. Compared with drought responses involving the need to build new infrastructure, restrictions are flexible and relatively easy to start and stop.

As with Water Wise Rules, a survey of lower Hunter residents as part of developing the *Lower Hunter Water Plan* found that the community strongly supports water restrictions, with 91 per cent thinking that restrictions are a good idea during drought, and 81 per cent responding that water restrictions are the fairest way to address water shortages during drought. The responses are shown in the graph opposite.

Chichester Dam levels during 1980s drought

Community attitudes to drought restrictions



Choice modelling survey confirms community support for restrictions

Since drought restrictions do impose some costs on the community, and constrain customers from using water exactly as they might choose, it is reasonable for water planners to consider these costs as part of the economic analysis of measures to respond to drought.

Choice modelling is a sophisticated survey technique that puts forward different scenarios compared with the current situation, and asks respondents to choose which scenario they prefer. The Metropolitan Water Directorate engaged La Trobe University to undertake a choice modelling survey in the lower Hunter to find out if household customers might be willing to pay more to reduce the chance of the community experiencing water restrictions.

The purpose of the lower Hunter study was to estimate the value the community places on improving water supply availability during drought, by asking about their willingness to pay to reduce the likelihood, severity and duration of community-wide restrictions. The survey was conducted in June-July 2013, with over 400 responses.

The survey results indicate that the lower Hunter community is only willing to pay a relatively small amount to avoid restrictions. On a broad scale, the maximum willingness-to-pay to eliminate all restrictions in the lower Hunter was estimated to be around $15 million. However, to eliminate restrictions altogether – while still achieving an acceptable level of drought security – would require a major new source of supply, costing some hundreds of millions of dollars.

The willingness to pay to reduce the chance of restrictions, without eliminating them entirely, was also estimated and included in the economic analysis. Again, the results indicated the community was only willing to pay a relatively small amount to reduce the chance of restrictions.

The results from the choice modelling survey support the feedback from other community engagement activities, that the lower Hunter community accepts the occasional use of drought restrictions as a relatively low-cost measure to make our water supplies last longer in a drought.

What would happen in a drought?

The aim of water restrictions is to reduce the rate that storage levels drop and make the available water last longer. Restrictions are triggered as total water storage levels drop, becoming stricter at lower levels.

What would restrictions mean for households?

Drought restrictions limit the way households can use water, particularly outdoors. Advertising will also encourage households to be more efficient in their indoor water use. The key elements of each level of restrictions are summarised in the table below.

'Water use targets' are a way of encouraging the community to conserve more water during drought by advertising a set target for maximum daily water use per person. Water use targets are usually put in place when restrictions have reached the maximum level (including a total ban on outdoor use) as a way of encouraging the community to make voluntary reductions in indoor water use to achieve more savings.

Water use targets are implemented using multi-media advertising campaigns, to provide feedback to the community on the region's water use per person and encourage people to strive together to reduce water use even more. The community would be encouraged to reduce water use by having shorter showers and minimising waste in the bathroom, kitchen and laundry.

An indicative water use target for the lower Hunter would be 140 litres a day for each person. This target is based on an understanding of the lower Hunter's water usage in the home and outdoors, as well as considering the experience of other water authorities in the millennium drought.

Drought restriction levels and the corresponding target water use for households are illustrated in the diagram opposite. In normal times, the average water use per person is around 198 litres a day. Each level of restrictions aims to reduce this progressively, so that by the time level 4 restrictions apply, the target for each person is 140 litres a day. To help give an idea of what these volumes mean, hand watering the garden for five minutes, or one five-minute shower, each use around 50 litres of water.

RESTRICTION LEVEL	TOTAL WATER STORAGE LEVEL	RESTRICTIONS ON HOUSEHOLD CUSTOMERS	EXPECTED WATER SAVING (AS A PERCENTAGE OF HOUSEHOLD DEMAND)
Level 1	60%	No sprinklers at any time. Watering using a handheld hose with a trigger nozzle or a drip irrigation system is permitted between 5pm and 9am, but only on three days a week. Existing pools can only be topped up using a hose with a trigger nozzle.	4%
Level 2	50%	Watering with a handheld hose with a trigger nozzle or a drip irrigation system is reduced to two days a week. Vehicles can only be washed and rinsed using a bucket. Existing pools can only be topped up using a bucket.	9%
Level 3	40%	Total ban on outdoor use of drinking water.	21%
Level 4	30%	Multi-media advertising program to encourage indoor savings (voluntary).	29%

What would drought restrictions mean for businesses?

Water use by business customers is quite diverse. As discussed in Chapter 4, water efficiency programs for business customers have been designed to provide education and incentives to help businesses to use water more efficiently before restrictions apply stricter rules. The key features of business water restrictions are summarised in the table below.

RESTRICTION LEVEL	WATER STORAGE LEVEL	RESTRICTIONS ON BUSINESS CUSTOMERS	EXPECTED WATER SAVING (AS A PERCENTAGE OF BUSINESS DEMAND)
Level 1	60%	No sprinklers except for limited irrigation for open space and sports ovals. All customers using over 50 million litres a year to develop and implement a Water Efficiency Management Plan (WEMP)	6%
Level 2	50%	Limited irrigation of open space and sports ovals will only be permitted if the irrigation system meets minimum water efficiency standards. All customers using over ten million litres of water a year to develop and implement a WEMP. Particular customer groups (such as nurseries and car washes) using more than two million litres a year will also be required to develop and implement a WEMP.	7%
Level 3	40%	Outdoor watering ban except where alternative (non-drinking water) sources are used.	9%
Level 4	30%	Commercial kitchens to use air-cooled woks (no water-cooled woks).	11%

The role of pricing

The introduction of user pays pricing in the lower Hunter in 1982 has made a significant and lasting contribution to water use. Paying for the amount of water used sent a strong price signal to customers to discourage excessive or unnecessary water use. Water use fell immediately, deferring the need for a new source of water supply that had been planned at the time.

The graph below shows the historical water use in the lower Hunter since 1893. It shows the drop in usage due to restrictions in the 1980s drought, followed by the introduction of the user pays pricing system in 1982. The lower Hunter was the first region to introduce user pays pricing, and it is now the norm in Australia.

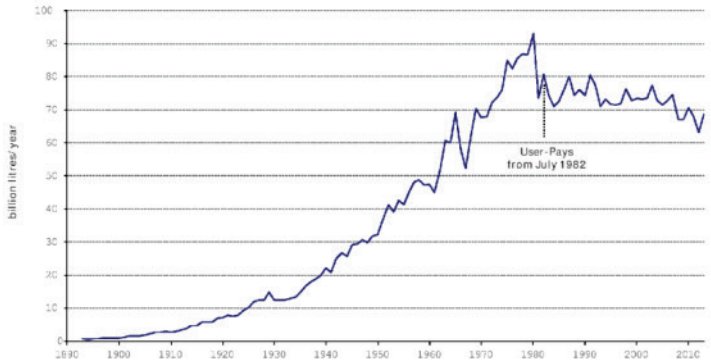
As outlined in Chapter 4, the total amount of water used by households and businesses in the lower Hunter has declined over the last 40 years, even though the population has grown by 200,000. This has been achieved by a combination of user pays pricing, together with household water efficiency measures and various changes in business use, including water efficiency measures, water recycling, and the closure of some major industries (including BHP Steelworks).

The Independent Pricing and Regulatory Tribunal sets the prices of water and sewerage services in the lower Hunter, greater Sydney and the Central Coast. Water prices are set so that they recover the efficient costs of providing a secure supply.

Water pricing is a complex issue and pricing regulators give careful consideration before new pricing approaches are introduced for metropolitan water supplies. It would be critical for any approach adopted to protect the long-term interests of water users and ensure that water supply for essential purposes is affordable for all households.

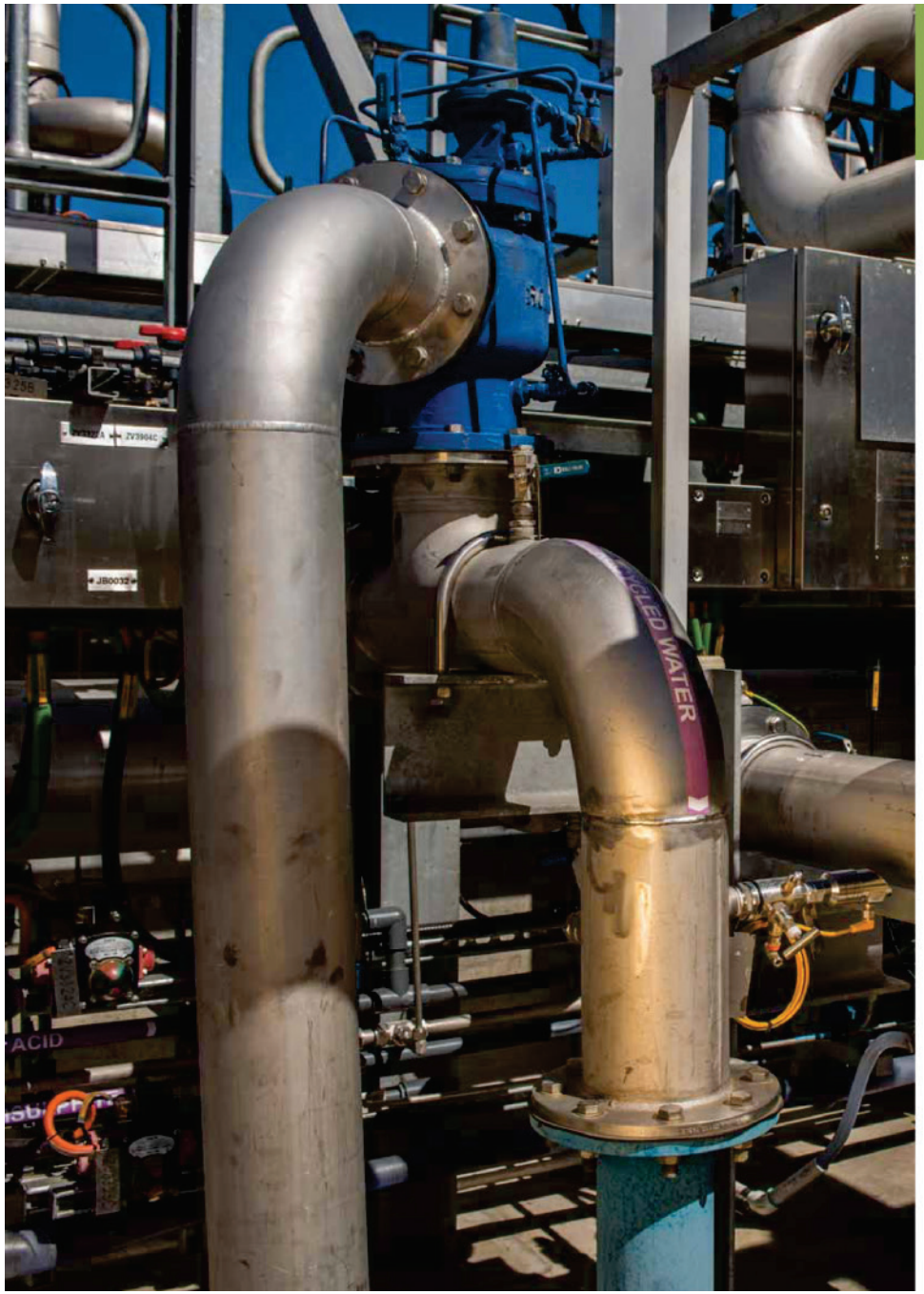
The Metropolitan Water Directorate is undertaking further work on water pricing issues for the review of the *2010 Metropolitan Water Plan* for greater Sydney. The outcomes of this work will be monitored and may influence future planning and pricing considerations for the *Lower Hunter Water Plan*.

Total water supplied from Hunter Water's sources 1893 to 2013



Looking to the future

- Water Wise Rules will be introduced immediately in the lower Hunter. These are simple, common sense actions to conserve water every day.
- Drought restrictions remain an important, effective and relatively low cost tool for responding to future droughts.
- Experience in other regions, including Sydney and the Central Coast, highlights that effectively communicating and enforcing drought restrictions are critical to achieving significant reductions in water use.
- A watching brief will be maintained on pricing issues to consider any potential future application for the lower Hunter region.



Water recycling helps save our drinking water

Water recycling involves treating and reusing wastewater or grey water in homes, industry, irrigation and agriculture. The key role of recycled water in the *Lower Hunter Water Plan* is to reduce pressure on water supplies by reducing demand for drinking water. Using recycled water for non-drinking purposes makes the drinking water supply go further, and can help delay the need to invest in major new supply infrastructure. The plan does not propose recycling water for drinking water purposes.

Recycled water must be treated to a level that is appropriate and safe for the particular end use. Different types of reuse have different treatment requirements to make the recycled water 'fit for purpose'. Producing higher quality recycled water will generally involve higher treatment costs.

Because water is heavy and costly to move around by pumping, recycled water projects tend to be more viable when the customers are located close to the source of the wastewater, such as near a wastewater treatment plant or sewer main, or where a recycled water scheme is within a cluster development. There can also be economies of scale where a number of industrial customers in a centralised location can be supplied with a larger volume of recycled water at a lower cost than supplying many small household customers with much smaller volumes.

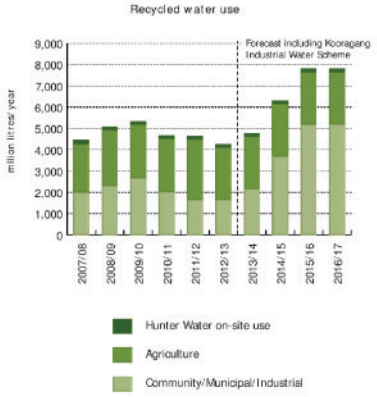
We know from the extensive community engagement undertaken to develop the *Lower Hunter Water Plan* that water recycling is strongly supported by the community.

How is recycled water used in the lower Hunter now?

Recycled water is currently used in the lower Hunter for industry, irrigation and agriculture, as well as on-site use at wastewater treatment plants. Around four to five billion litres of recycled water is currently used in the lower Hunter each year, as shown in the graph at right. This is forecast to significantly increase to nearly eight billion litres a year after the Kooragang Industrial Water Scheme starts operation in late 2014.

The main uses of recycled water currently include:

- irrigation use by golf courses, a trotting track, and the Kurri Kurri TAFE
- industrial use at sites including Eraring Power Station and the Oceanic Coal Washery
- agricultural use by local farmers, woodlots and the Karuah effluent reuse enterprise



Hunter Water's current recycled water schemes provide recycled water from ten wastewater treatment works as detailed in the table below. The locations of Hunter Water's current and proposed recycled water schemes are shown on the map opposite.

WASTEWATER TREATMENT WORKS	RECYCLED WATER SCHEME
Branxton	Branxton Golf Club, local farmer and The Vintage Golf Club
Cessnock	Stonebridge Golf Club
Dora Creek	Eraring Power Station
Edgeworth	Oceanic Coal, Waratah Golf Club
Farley	Local farmer
Karuah	Karuah Effluent Reuse Enterprise
Kurri Kurri	Kurri Kurri Golf Club and Kurri Kurri TAFE
Morpeth	Easts Golf Club, McColl Engineering (trotting track irrigation) and local farmer
Paxton	Paxton Woodlots
Dungog	Local farmer

Eraring Power Station uses recycled water

'Recycling water can save lots of water and reduce demand, and there are some good local projects'

COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013

New opportunities for industrial recycling

Recycled water is suitable for a range of industrial uses including dust suppression, generating steam, cooling tower water, wash-down and other industrial operations.

In 1994, the Hunter region led the way when Eraring Power Station was the first plant in the world to reclaim water from sewage and use it as feedwater to high pressure boilers, saving nearly four million litres of drinking water a day.

The next generation of major industrial water recycling in the lower Hunter is the construction of the Kooragang Industrial Water Scheme, which started in 2013. The scheme includes an advanced water treatment plant and water education centre in Mayfield West, and an eight-kilometre pipeline to provide high quality recycled water to industrial customers on Kooragang Island. When complete in late 2014, the project will use the effluent from Shortland wastewater treatment plant to produce nine million litres of recycled water a day for industrial use.

This project will increase the total recycled water use in the lower Hunter to nearly eight billion litres a year, or around 12 per cent of the total wastewater treated.

The Kooragang Industrial Water Scheme will reduce the demand for drinking water by around 3.2 billion litres a year by directly substituting recycled water for the existing use of drinking water by industries. This represents nearly five per cent of current drinking water use. By reducing demands on the drinking water supply system, recycled water projects delay the need to find new sources of supply to meet increasing demands from business and population growth. Recycling projects also help drinking water supplies to last longer in a drought.

New opportunities for household water recycling

New opportunities for residential use of recycled water have been investigated in developing the *Lower Hunter Water Plan*.

Recycling water for residential use for non-drinking purposes is more likely to be achievable in new growth areas, due to the high costs of laying recycled water pipes in existing urban areas and retrofitting the plumbing to existing homes.

'Dual reticulation' involves two sets of pipes supplying water to customers – one for drinking water and one for recycled water. The recycled water is delivered to households in purple pipes so that customers and plumbers don't confuse it with drinking water.

After rainwater tanks, the reticulation of recycled water is the second most common choice for an alternative water supply to meet BASIX requirements for improved water efficiency in new developments.

Hunter Water has already started dual reticulation schemes in new developments at Chisholm and Gillieston Heights, and these will provide recycled water to about 1000 properties as development proceeds.

The *Water Industry Competition Act 2006* facilitates private sector involvement in the water industry and the *Lower Hunter Water Plan* recognises and supports the role the private sector can play in providing water, wastewater and recycling services.

Private operators have indicated they can provide innovative and affordable solutions, particularly to service new developments that are remote from urban centres

Advanced water treatment plant under construction for the Kooragang Industrial Water Scheme

Pipes and fittings for recycled water supply

and would otherwise require substantial infrastructure investment. Examples of these 'decentralised systems' include new developments at Wyee and Catherine Hill Bay. Private sector operators estimate that a significant proportion of the 70,000 projected new homes in the region could involve private sector services using decentralised recycled water systems.

What would happen in a drought?

Recycled water schemes contribute to improved long-term water security by reducing the demand for drinking water and helping our existing water supplies last longer, in normal climate and in drought. This is one of the benefits of implementing the Kooragang Industrial Water Scheme now.

Water recycling is less suited to providing a robust, immediate response during a drought as there are often significant lead times to implement a project. However, new opportunities may become more feasible during a drought, as customers recognise the value of recycled water for the longer term benefits of a continuous source of water which does not depend on rainfall.

Using recycled water for non-drinking purposes makes our drinking water supplies go further and can help delay the need to invest in new water supply infrastructure to meet the needs of a growing community.

Looking to the future

- The Kooragang Industrial Water Scheme will be operating in late 2014 and will reduce the forecast demand for drinking water supplies by around 3.2 billion litres a year. There may be opportunities to expand the scheme in future.
- Dual reticulation schemes in new developments at Chisholm and Gillieston Heights will provide recycled water to about 1000 properties as development proceeds.
- Private sector involvement in providing water supply and/or wastewater services also has the potential to reduce demand on the water supplies of the lower Hunter by incorporating water recycling in other new developments, particularly in areas that are remote from urban centres.
- An adaptive management approach will be used to ensure actual water use across the lower Hunter region is monitored and the demand forecasts are regularly updated to reflect the latest available information and the savings achieved from any additional recycled water projects.

Capturing rain and stormwater

Rainwater tanks and stormwater harvesting projects provide an opportunity to substitute alternative sources of supply for uses that do not require drinking water quality. This reduces demand on drinking water supplies. They are an important element of integrated water cycle management.

While these are important initiatives for long term sustainability, rainwater tanks and stormwater harvesting projects rely on rainfall so they are not able to provide as robust a response during a drought as some other measures.

Household rainwater tanks

How is rainwater used?

Rainwater tanks have long been a valuable source of drinking water for many households in rural areas of Australia, where a town water supply may not be available.

Rainwater tanks can also be installed in new or existing homes with a town water supply. The water can be used in place of drinking water for a variety of non-drinking uses such as toilet flushing, laundry use, outdoor watering, car washing and topping up swimming pools.

Rainwater tanks are an efficient way to harvest rainfall as almost all of the rain that falls onto the roof can be collected and diverted to a tank for use. Rainwater tanks that are connected for internal household uses provide the greatest savings, by substituting rainwater where drinking water would otherwise be used all year round. When connected to internal plumbing for toilet flushing and use in the laundry, the system needs to be backed up by normal mains water supply in case the rainwater tank runs out of water.

What is the BASIX scheme?

The Building and Sustainability Index (BASIX) scheme is a sustainable planning measure to reduce water and energy use in new homes. Since July 2005, the BASIX scheme has applied to the whole of NSW. More information on the BASIX scheme is included in Chapter 4.

Under BASIX, new homes are required to achieve a mandatory 40 per cent reduction in potable water use compared to average water use before the BASIX scheme started. Rainwater tanks have proven to be a common choice in meeting BASIX requirements, with 97 per cent of all new houses in the Hunter using a rainwater tank as an alternative source of water supply.

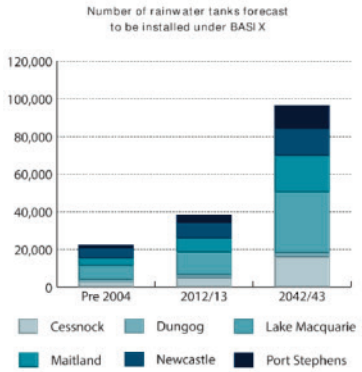
The effectiveness of rainwater tanks in the lower Hunter

A recent study into the role of rainwater tanks in the lower Hunter found that:

- From 2004 to 2013, the number of rainwater tanks in the region increased from around 22,600 to around 38,400.
- Rainwater tanks are estimated to have saved almost 1.2 billion litres of drinking water in 2012/13. This equates to around two per cent of the current total drinking water use.
- Over the next 30 years, it is expected that almost 60,000 more rainwater tanks will be installed in the lower Hunter region as a result of the BASIX scheme.
- By 2043, water savings from using rainwater instead of drinking water for suitable purposes are forecast to be around 3.4 billion litres a year, which represents around five per cent of the demand for drinking water.

The amount of drinking water savings achieved by rainwater tanks will normally be less in dry years when there is less rainfall to capture.

The graph below shows the estimated number of new rainwater tanks in each Council area in 2004 (before BASIX) and 2012/13, and the forecast for thirty years' time.



The effectiveness of rainwater tanks relies on a number of factors, including how well the rainwater capture and end-use connections are installed and maintained, and the owner's willingness and ability to use the system as intended, and to pay for repairs when needed.

The performance or 'functionality' of rainwater tanks is reduced by poor installation and inadequate maintenance, including blocked gutters and failed pumps. Although there is limited data on the performance of rainwater tanks, particularly for systems beyond a few years old, it has been estimated that around 60 per cent of rainwater tanks are fully functional.

The literature suggests that owners who voluntarily install a rainwater tank are often more motivated to use and maintain it compared with owners who had to install a rainwater tank to comply with BASIX. Better education about rainwater tank installation and maintenance could help to get the best performance from rainwater tanks. A trial program by Hunter Water and Lake Macquarie City Council in 2013/14 aims to better understand failures in rainwater tanks and educate participants on options to fix them.

Stormwater harvesting

Stormwater harvesting involves collecting stormwater from drains or creeks in urban areas, then storing and treating it for later use. Stormwater capture can provide significant quantities of non-drinking quality water that may be used for irrigating golf courses, sporting fields, parks and gardens, and for industrial purposes.

Stormwater can be stored in open dams and ponds or in enclosed tanks either above or below ground. Unless suitable storages already exist, this can be one of the most costly elements of a stormwater project.

Urban stormwater collects contaminants as it passes over roads and other surfaces, picking up chemicals and pathogens from the surrounding environment. Stormwater needs to be treated to a quality that suits how the water will be used (such as disinfection to kill pathogens) so that it meets public health and environmental guidelines. Stormwater use schemes generally need to be located near where the water will be used, and there can be significant costs to collect, treat and store the stormwater.

Water licences and approvals administered by the NSW Office of Water may be required for the construction and operation of stormwater harvesting schemes.

A range of stormwater harvesting case studies have been investigated for the *Lower Hunter Water Plan* in consultation with local councils. Although these opportunities were relatively expensive and did not provide a robust drought response measure for the broader community, use of stormwater to irrigate sporting fields and other council facilities can help maintain these important community assets.

There is also potential for industries to achieve significant water savings by harvesting and using stormwater on-site – as shown in the case study on stormwater use by the Newcastle Coal Infrastructure Group.

Although rainwater tanks and stormwater harvesting can reduce the overall water demand on the system, they may not be able to provide significant water savings during a drought.

What would happen in a drought?

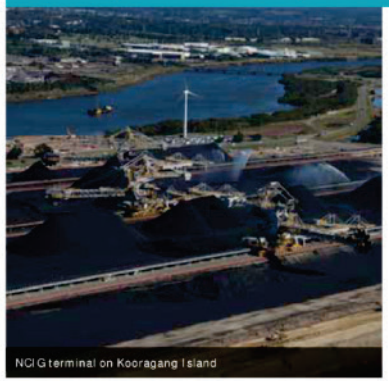
Rainwater tanks and stormwater harvesting schemes depend on rainfall, so their contribution in a drought depends on whether or not there is some localised rainfall that can be captured for use (sometimes called a 'green drought'). These schemes contribute to reducing the demand on drinking water supplies over the long term, but the lower Hunter still needs a contingency plan for a severe drought.

Stormwater capture projects have the potential to save water and provide other community benefits as part of an integrated approach to managing the urban water cycle. These may include maintaining green parks and playing fields and benefits in managing stormwater to reduce localised flooding. Investigations into their potential are encouraged in conjunction with water efficiency initiatives. However, they generally cannot deliver a robust drought response measure because of the significant lead times to implement a project and the benefits are likely to be localised.

During a drought, there may be more interest in opportunities for stormwater capture for uses such as watering sporting fields or for industrial purposes, with the potential for ongoing benefits. However, these projects are generally too uncertain for drought contingency planning because they depend entirely on rainfall.

Rainwater tanks come in a range of sizes and configurations

Case study - Stormwater use by Newcastle Coal Infrastructure Group



NCIG terminal on Kooragang Island

The Newcastle Coal Infrastructure Group (NCIG) owns and operates one of Australia's largest coal export terminals on Kooragang Island, with rail, coal storage and shiploading facilities and associated infrastructure.

Managing dust is a critical part of operations at the terminal. Dust is managed by wetting the coal stockpiles and unsealed surfaces on the site.

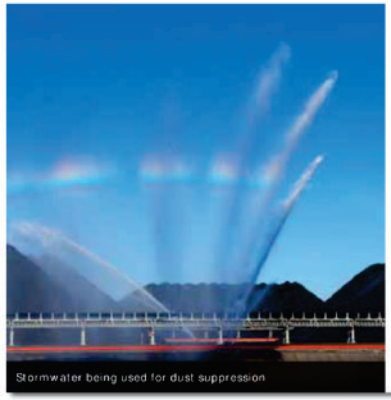
NCIG has reduced its use of drinking water by capturing and using stormwater on its site.

Stormwater is diverted by a series of drains across the site and stored in settlement ponds. The drains are lined to minimise the amount of water lost through the soil.

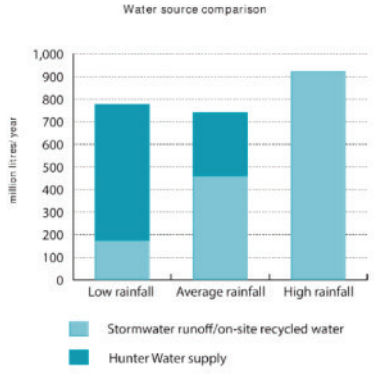
After settling in the first pond to remove particles and contaminants, water is pumped to a second storage pond for use in dust suppression, equipment washdown and landscape irrigation. The breakdown of water use is shown in the table below.

WATER DEMAND FOR:	LOW RAINFALL ML/ YEAR	AVERAGE RAINFALL ML/ YEAR	HIGH RAINFALL ML/ YEAR
Dust suppression	686	650	615
Washdown and cleaning	88	88	88
Landscape irrigation	2	2	2
Total	776	740	705

Depending on rainfall, the volume of stormwater runoff and on-site recycled water used by the NCIG is estimated to range from 174 million litres a year when rainfall is low, up to 922 million litres a year when rainfall is high and more stormwater is captured. As illustrated in the graph below, this results in a significant reduction in the amount of water purchased from Hunter Water.



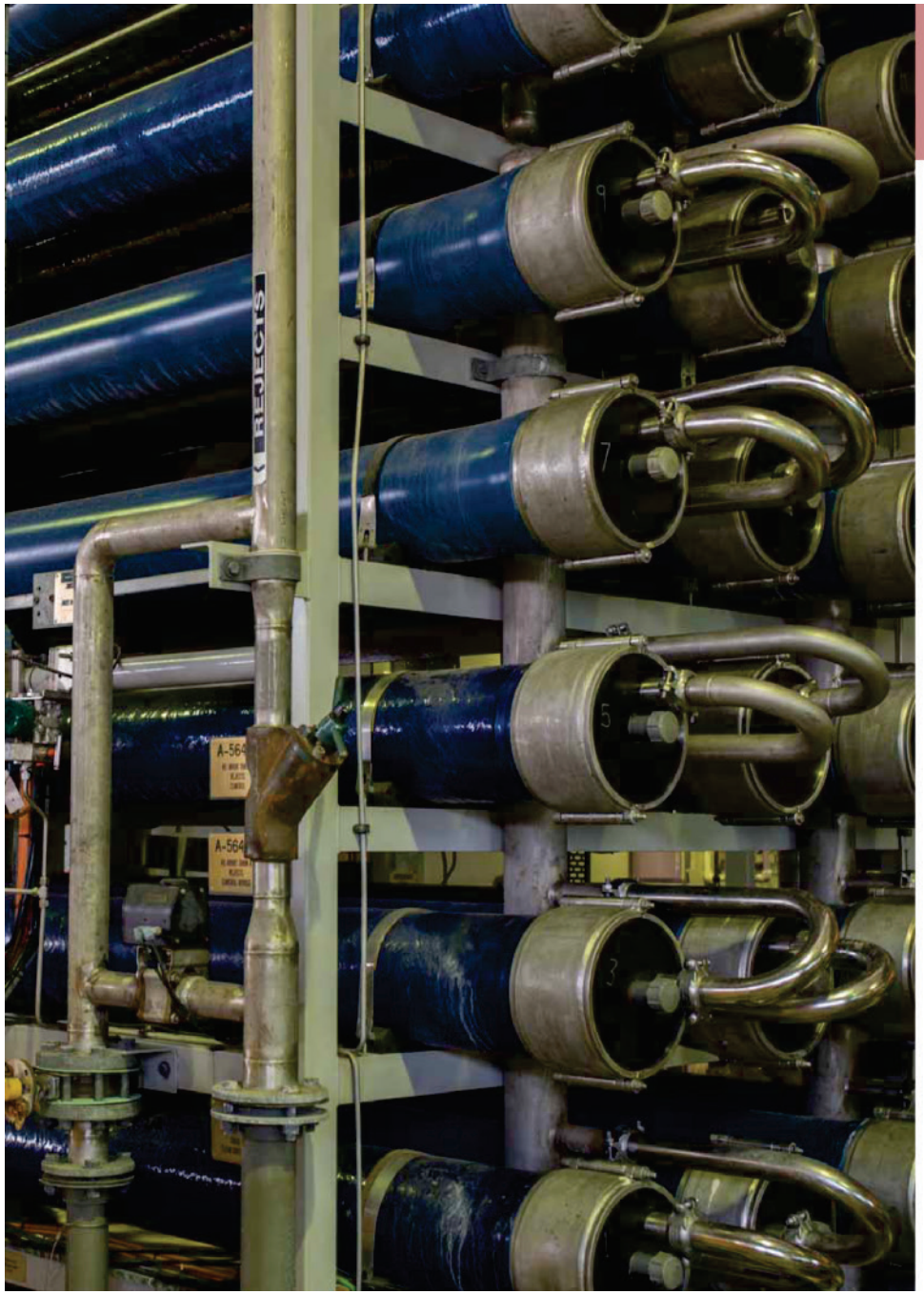
Stormwater being used for dust suppression



Looking to the future

- Rainwater tanks will continue to be installed in new homes under the BASIX scheme for new development. By 2043, rainwater tanks are expected to contribute to water supply savings of around 3.5 billion litres a year. The amount of water savings from rainwater tanks will depend on the balance between new developments using rainwater tanks or recycled water as alternative sources to meet BASIX requirements.
- Liaison with councils will continue in order to encourage the development of potential stormwater harvesting schemes as part of an integrated approach to water cycle management. Such schemes may be more feasible if sources of grant funding are available.
- Opportunities for stormwater harvesting and use by industrial customers will be encouraged in conjunction with water efficiency initiatives (refer Chapter 4).

'Rainwater tanks let the community contribute to the water solution'
COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013



A contingency measure that doesn't depend on rain

Desalination is a process of producing fresh water by removing dissolved solids (primarily salts) from a water source such as seawater, estuarine water, treated wastewater or brackish groundwater. Desalination produces high quality water without relying on rainfall, so it is resilient to drought and climate change.

Use of portable desalination units, installed as late as possible if and when needed, is one way of diversifying the lower Hunter's water supply sources, and reducing the risk of running out of water in an extreme drought. The units would be removed when no longer required.

Temporary desalination facilities offer a flexible contingency measure at a relatively low expected cost compared with other measures, as they would only be installed in a very rare drought and as late as possible.

Why consider desalination?

As discussed earlier, the lower Hunter has sufficient water to meet its needs in average climate conditions for the medium term.

However, the region's reliance on rain-fed dams and groundwater supplies makes it vulnerable to severe drought. A contingency measure that doesn't rely on rain would help make the system more resilient to climate variability.

How does desalination work?

Desalination removes salt and other impurities from salty water to produce fresh water that can be used for drinking water supplies, or for industrial processes that need high quality water.

The two most widely used and commercially proven technologies for desalination are reverse osmosis and thermal distillation. Most desalination plants built recently in Australia use reverse osmosis, which uses less energy than thermal distillation.

Seawater is pumped into the desalination plant from the ocean and passes through two levels of initial filtration to remove most of the large and small particles and impurities. The filtered seawater then enters the reverse osmosis plant where it passes through special membranes that act like microscopic strainers. The pores in the membranes are so tiny that only fresh water flows through leaving behind bacteria, viruses, other impurities and salt.

Around 40 per cent of the water that goes through the desalination plant comes out as fresh drinking water. The remainder is pumped back into the ocean as brine. Since it is more salty than normal seawater, special diffusers are often used to make sure it mixes quickly and thoroughly back into the sea to minimise any impact on the marine environment.

Reverse osmosis is proven technology that is also used to produce recycled water from wastewater. The major industrial recycled water schemes at Eraring Power Station and the new Kooragang Industrial Water Scheme (discussed in Chapter 6) both include reverse osmosis as part of the process to produce recycled water.

Research is continuing to improve desalination technology, including research into:

- improving energy efficiency
- reducing membrane fouling
- solar thermal distillation
- using ocean wave energy to generate clean electricity and drive the reverse osmosis process
- new developments in nanotechnology.

Permanent desalination facilities in cities around Australia

Since 2005, most of the coastal capital cities in Australia – including Sydney – have experienced severe drought and constructed desalination plants to improve their water security. These desalination plants provide an 'insurance policy' that ensures these cities will not run out of water, which would cause major social and economic disruption.

The reasons these major cities have invested in permanent seawater desalination plants include:

- a shift in climate, with Perth in particular experiencing a long-term reduction in rainfall and other coastal cities experiencing more variability in rainfall and longer droughts
- desalination plants don't depend on rainfall and can be sized to make a significant difference to the reliability of water supplies
- they can be integrated into existing water supply networks without too much difficulty, and can contribute to a diverse, resilient urban water system
- most of Australia's major cities are located on the coast so they can readily access seawater as a new source of supply.

In Perth, the desalination plants operate continuously as part of the regular water supply system. Some other cities, including Sydney, Melbourne and the Gold Coast, now have their desalination plants in 'shut down' mode. They will be turned on again if storage levels drop below certain trigger levels.

The Central Coast has planning approval for a 20 million litre a day permanent desalination plant at Toukley. The plant will not be built unless required in a severe drought.

Desalination would only need to operate in the lower Hunter in an extreme drought, and it would be very costly to construct a large-scale, permanent desalination plant for such rare occasions. However, desalination technology could be used as a contingency measure on a much smaller scale using portable units on a temporary basis.

What are the benefits of temporary desalination units?

Modelling has demonstrated that temporary, portable desalination units are able to provide enough water as a short-term solution to supplement the lower Hunter's drinking water supplies in periods of extreme drought, improving our drought security at a relatively low cost compared with other potential supply measures.

Investigations for the *Lower Hunter Water Plan* have identified that small, land-based, temporary units could provide a flexible supply in a severe drought. Small desalination plants can fit into several shipping containers or be skid-mounted to make them easier to transport and install.

Initial investigations suggest that portable desalination units, each producing around one to three million litres of treated water a day, could be installed at one or more sites. The modelling assumed a total of nine million litres a day of water could be supplied from temporary desalination units, with the number and configuration scaled up or down depending on needs at the time. This flexibility is one of the benefits of portable desalination units.

Portable desalination would only be deployed when needed in a severe drought. The units would be shut down, removed, and the sites rehabilitated when no longer required. Some infrastructure (such as pipelines below ground) might remain after the plant is removed.

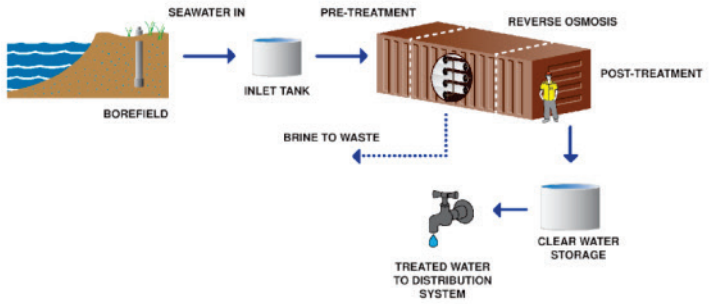
During the most recent drought, the Central Coast obtained planning approval to install several temporary desalination units. However the drought eased so they did not need to proceed with purchasing and installing the units. This means there is recent local experience to draw on in designing and procuring portable desalination units.

Portable desalination units are available in Australia and overseas. Examples of their use include drinking water supplies for naval and cruise ships, desalinating mine water, as well as providing emergency drinking water supplies after natural disasters such as Hurricane Katrina (see box below).

In 2005, the United States Navy set up a portable desalination unit in response to Hurricane Katrina. It delivered safe drinking water to Gulf Coast residents being treated at a hospital in Biloxi, Mississippi. The device was trucked in and set up on the shores of the Gulf of Mexico, approximately four blocks from the hospital. It desalted and purified about 100,000 gallons (380,000 litres) of water per day from the turbid Gulf of Mexico, replacing the daily caravan of 18 tankers needed to keep the hospital running.

www.greenbang.com/us-navy-aims-for-more-energy-efficient-desalination_11885.html

Schematic showing temporary, portable desalination units



What would be the main elements of a temporary desalination plant?

The main elements of a temporary desalination plant would include:

- an intake for saltwater, from a beach or estuary (this could include a number of bores and pumps buried in sand dunes, where the beach sand would act as a natural filter)
- preliminary treatment to remove sediment and organic material in order to protect the membranes from fouling
- reverse osmosis units to desalinate the water
- addition of minerals to improve the taste, along with disinfection and fluoridation
- pipes to connect to the water supply network for delivery to customers
- water and chemical storage tanks.

Environmental considerations

Further investigations are required to identify suitable sites for temporary desalination in the lower Hunter and undertake the necessary technical and environmental assessments. The sites would need access to seawater, sufficient power supply, and the water supply distribution system.

From a preliminary review, co-locating the units on an existing wastewater treatment plant site near the coast might be feasible. Other options include open space areas near the coast, but these could have short-term visual and noise impacts, and public access would need to be restricted until the units were removed.

Some of the key environmental factors relevant to temporary desalination are outlined below:

- Portable desalination units have a relatively small footprint and use less energy compared with permanent, full-scale desalination plants.
- Potential for environmental, social, cultural heritage, noise and aesthetic impacts would need to be minimised in selecting suitable sites.
- It has been estimated that the energy used to desalinate the amount of water used in an average house is about the same as the energy used each day by a refrigerator[3].
- Seawater could be extracted using bores in the sand dunes, with less potential to affect marine life than an ocean intake, while also providing a natural filter.
- If co-located with an existing wastewater treatment plant, the brine (or concentrated seawater) waste could be dispersed in the ocean, with the potential to be blended and discharged through an existing effluent diffuser system.
- The potential for short-term visual and noise impacts from the plant and any above-ground pipelines would be temporary, ending when the units were removed and the sites rehabilitated.

3. Water Services Association of Australia, Seawater Desalination Information Pack Two, 2013

What would happen in a drought?

Having the capacity to deploy temporary desalination units in a severe drought would provide a new, diversified source of water supply that would only be constructed if other measures in the *Lower Hunter Water Plan* had already been deployed, and storage levels continued to drop to very low levels (refer graphs in Chapter 9).

In order to delay a decision to proceed with construction of temporary desalination until the latest time possible in a drought, some 'readiness' activities will be undertaken to reduce lead times.

The first steps to progress in the short term include:

- further investigations to develop a short-list of suitable sites and assess their feasibility from an operational, environmental and planning approval perspective
- proceeding with environmental and other technical investigations
- undertaking a more detailed assessment of procurement options, including evaluating potential suppliers and comparing opportunities for purchase or hire of desalination units
- developing and implementing a water quality monitoring program for the preferred sites.

Further action may not be required until storage levels fall in a drought. The assumptions for the hydrologic and economic modelling undertaken in developing the *Lower Hunter Water Plan* included the following key triggers:

- when storage levels drop to around 65 per cent, work on design, environmental assessments and seeking planning and other approvals would be triggered
- when storage levels drop to around 35 per cent, installation would be triggered (by this time, drought restrictions would already include a total ban on outdoor water use[4])
- if storage levels continued to drop, operation would start at or below 30 per cent (the actual level would depend on the construction time and how quickly storages were falling at the time – the modelling assumed that the units would be producing water no later than 15 per cent storage level)
- when storage levels recover, operation would cease at around 35 per cent (on the rise)
- the units would remain on-site until the risk of continued drought was past, with decommissioning and site rehabilitation at around 50 per cent or higher.

The modelling for developing the *Lower Hunter Water Plan* included sensitivity analysis on triggering installation at higher storage levels (45 or 55 per cent), in order to explore the benefits for improved drought security. Trigger levels will need to be flexible as part of an adaptive management approach. For example, they will need to take into consideration the results of monitoring and evaluation of how the other demand and supply measures perform, as these will affect the supply-demand balance and the actual rate that storage levels fall in a real drought. This flexibility is one of the benefits of temporary desalination units.

As a contingency measure that does not depend on rainfall, small-scale, temporary desalination units could supplement water supplies during a very severe drought. The units would only be installed in a rare event, and would be removed when no longer required.

4. Under the proposed drought restrictions, a total ban on outdoor uses by household customers would have been implemented when storage levels reduced to 40 per cent (refer Chapter 5).

Looking to the future

- The Metropolitan Water Directorate and Hunter Water will continue working together on:
  - feasibility studies to identify a short-list of suitable sites for temporary, portable desalination units
  - a review of procurement options
  - a water quality monitoring program for preferred sites.
- Ongoing research into potential improvements in desalination technology will be monitored, so that the proposed approach to a temporary plant can be adapted based on the latest knowledge and improvements in energy efficiency.
- Liaison between the Central Coast and lower Hunter regions will continue to explore opportunities for information-sharing and cooperation, noting that both regions have identified desalination as a contingency drought measure.

'Temporary desalination is a good insurance plan option in severe drought.'
COMMUNITY COMMENT
CONSULTATION WORKSHOP 2013

Implementing the plan

The *Lower Hunter Water Plan* has been developed to make sure the people of the lower Hunter have enough water to meet their needs in the medium term, including being able to withstand a drought much more severe than previously experienced in the region.

The plan includes actions to supply, save and substitute water that are already in place or under way, as well as additional measures to respond to droughts if and when they occur.

The *Lower Hunter Water Plan* is a balanced, adaptable plan that recognises the importance of managing water in an integrated way to deliver diverse water supplies that are fit-for-purpose, and make best use of water at different stages of the urban water cycle.

It is important that we invest in new supplies only when they are needed, to avoid 'gold plating' the system. Deferring investment until it is needed means that the people of the lower Hunter are not paying for unnecessary infrastructure, and limited finances can be used for more immediate needs.

The plan will be reviewed regularly to respond to new information, technologies, and changes to climatic conditions. A formal *Monitoring, Evaluation, Reporting and Improvement Plan* will be used to evaluate performance of the portfolio of measures over time, including during a drought. This will allow it to be adapted in 'real time' to ensure the plan continues to achieve its objectives, and the measures can be adjusted to respond to any variations from the key planning assumptions.

How the plan will be implemented for different climate scenarios

Because this *Lower Hunter Water Plan* has a strong focus on actions to maintain the region's water supplies through a drought, it has to be able to respond differently depending on the climate we experience in future years.

To illustrate the different responses, the figures overleaf show water storage levels and the contribution of the different measures in three different climate scenarios - typical years, a moderate drought, and an extreme drought.

The examples demonstrate how measures are activated as storage levels fall. In most climate scenarios, the drought response measures are not needed. Although the chance of a severe drought is low, the consequences for households and businesses would be substantial without the portfolio of measures in the *Lower Hunter Water Plan*.

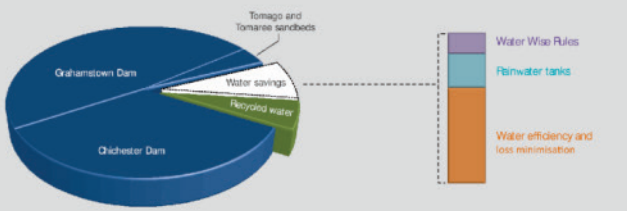
For all scenarios:

- Water Wise Rules will be implemented at the start of the *Lower Hunter Water Plan*
- modifications to the water supply network between the Central Coast and the lower Hunter will proceed, increasing the capacity to transfer water north as required under the existing water transfer agreement
- further investigations and 'readiness activities' for temporary desalination, to enable a quick response if needed in an extreme drought.

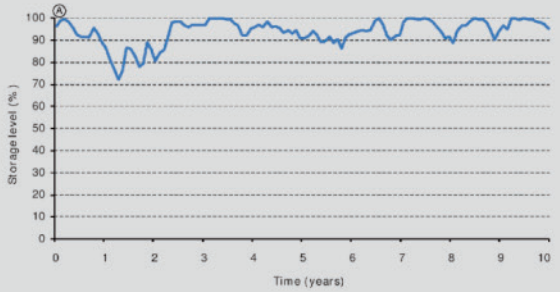
'Typical' climate conditions

This scenario shows lower Hunter water storage levels staying above 70 per cent full, which occurs most of the time.

The pie chart illustrates how the mix of measures contributes to the supply-demand balance in this example, demonstrating that programs to improve water efficiency and recycle water save a considerable volume of water. In typical years, no drought response measures need to be triggered.



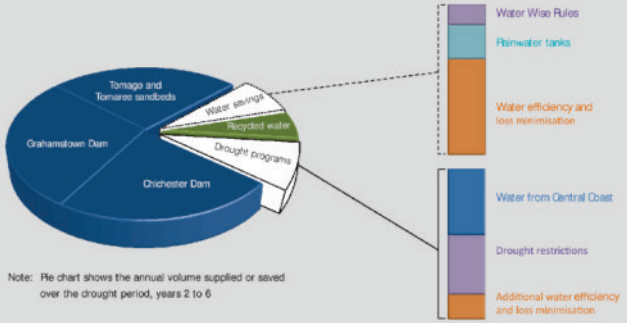
Note: Pie chart shows the volumes saved or supplied over the 10 year period



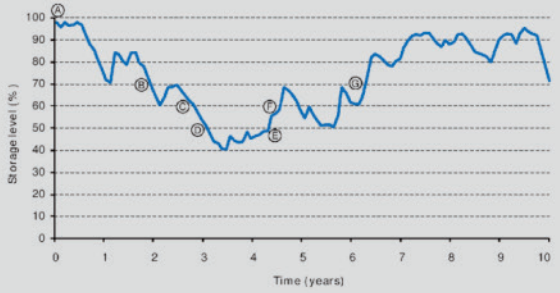
Moderate drought

This scenario represents a moderate to severe drought, similar to the drought in the lower Hunter during the 1980s, the worst drought since records began. In this drought scenario, water storage levels fall to almost 40 per cent, triggering additional water efficiency and loss minimisation programs, two levels of drought restrictions and transfers of water from the Central Coast.

In both the moderate and extreme scenarios, drought restrictions and water efficiency programs reduce water use from the storages, to help slow depletion. The contribution of the drought programs increases as the drought worsens. The graphs also illustrate that more water is likely to be used from Tomago sandbeds in a drought.



Note: Pie chart shows the annual volume supplied or saved over the drought period, years 2 to 6

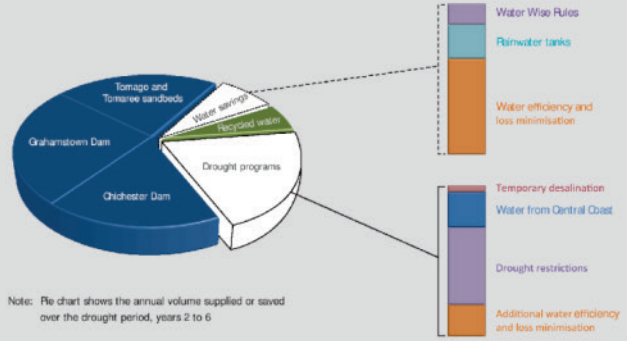


Extreme drought

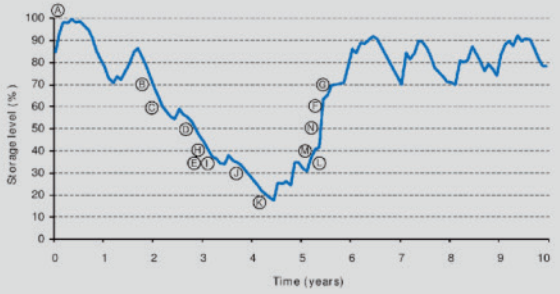
The drought depicted in this scenario is extremely rare, about twice as severe as the worst drought recorded in the lower Hunter. A drought of this severity would trigger all the measures in the *Lower Hunter Water Plan* portfolio.

In the early stages of the drought, additional water efficiency programs would be triggered to help households and businesses save more water, and Hunter Water would expand its loss minimisation programs. Drought restrictions and transfers of water from the Central Coast would also be triggered. The drought restrictions would become stricter as storage levels continue to fall, including a ban on outdoor water use once storage levels drop to 40 per cent. A water use target could be introduced to encourage households to further reduce indoor use.

As the drought continues, water transfers from the Central Coast are likely to stop as their storages also drop. The contingency measure of installing small, portable, temporary desalination units would be triggered to supplement supplies with a source that does not depend on rainfall.



Note: Pie chart shows the annual volume supplied or saved over the drought period, years 2 to 6



KEY

- (A) Water Wise Rules start
- (B) Leak detection and pressure management drought programs start
  Non-residential water efficiency drought programs start
- (C) Residential water efficiency drought programs start
  Level 1 drought restrictions start
  Water transfers from the Central Coast start
- (D) Level 2 drought restrictions start
- (E) Water transfers from the Central Coast stop
- (F) Level 2 drought restrictions eased to Level 1
  Residential and non-residential water efficiency drought programs stop
- (G) Level 1 drought restrictions lifted
  Leak detection and pressure management drought programs stop
- (H) Level 3 drought restrictions start
- (I) Construction of temporary desalination facilities starts
- (J) Level 4 drought restrictions start
- (K) Temporary desalination facilities turn on
- (L) Temporary desalination facilities turn off
- (M) Level 4 drought restrictions eased to Level 3
- (N) Level 3 drought restrictions eased to Level 2

Actions at a glance

The *Lower Hunter Water Plan* includes actions to supply, save and substitute water that are already in place or underway, as well as additional measures to respond to droughts when they occur.

The measures included in the plan will reduce the amount of water required to serve the lower Hunter's needs, make better use of existing storages and provide extra supply as a contingency in extreme droughts. Some measures will apply all the time, to reduce demand or substitute supply, while others will only be activated as storage levels fall during droughts. The key elements of the plan are summarised below.

MEASURE	CONTINUING ACTIONS[5]	DROUGHT RESPONSE
Surface water	Chichester and Grahamstown Dams will continue to provide most of the region's water needs each year. Modifications to the water supply network will enable more water to be transferred from the Central Coast to the lower Hunter, as required by the existing transfer agreement. The modelling of transfers to and from the Central Coast will be refined as a tool for optimising transfer arrangements. The NSW Office of Water will continue reviewing water sharing plans and implement related refinements of environmental flow rules through amendments to water licences and approvals.	Water transfers between the lower Hunter and Central Coast systems during droughts in either region will make better use of existing storages and improve drought resilience in both regions.
Groundwater	Groundwater from the Tomago and Tomaree sandbeds will continue to be an important source of water supply for the lower Hunter region. Investigations into the feasibility of new groundwater sources that might boost supplies in a drought will continue, focusing on the Lower Hunter Alluvial groundwater source in the short term.	The amount of water supplied from Tomago sandbeds generally increases in a drought.
Water efficiency	Hunter Water will continue to support water efficiency measures under its existing programs that assist households and businesses to save water. The national Water Efficiency Labelling and Standards (WELS) scheme and the NSW scheme to improve water and energy efficiency through the Building and Sustainability Index (BASIX) will continue to deliver improvements in water efficiency. Together, ongoing residential and non-residential water efficiency improvements are expected to save around 4.5 billion litres of water each year by 2034. Programs to detect leaks and manage pressure in Hunter Water's system are expected to save around 1.7 billion litres a year by 2034.	Additional water efficiency programs for both households and businesses will be activated in drought to help reduce demand as water storages fall. Hunter Water will also invest more in active leak detection and pressure management programs to reduce losses from the water supply system.
Demand management	Water Wise Rules to help conserve water every day will be introduced as an immediate priority under the *Lower Hunter Water Plan*. These common sense actions are estimated to save around one billion litres of water each year.	Water restrictions will be applied as storage levels fall to reduce both household and business demand and keep as much water in the storages as possible. Restrictions are a quick and effective response to drought. When in place, restrictions will be actively supported by education and awareness campaigns, and enforced through compliance activities.
Recycled water	The Kooragang Industrial Water Scheme will be able to deliver over three billion litres a year of recycled water to industrial users, starting in late 2014. This will bring the total amount of recycled water to nearly eight billion litres each year. Dual reticulation schemes in new developments at Chisholm and Gillieston Heights will provide recycled water to about 1000 properties as development proceeds. Private sector suppliers are likely to play a bigger role in providing water supply, wastewater and recycled water services to new developments, particularly in areas remote from urban centres.	In a drought, additional recycling opportunities may become more viable for customers seeking an alternate supply that does not depend on rainfall.
Rainwater and stormwater use	Rainwater tanks will continue to reduce drinking water use in new developments. If the current trend continues, rainwater tanks are expected to save around 3.4 billion litres of water each year by 2043. Councils and businesses may identify new opportunities to use stormwater as part of integrated water cycle management into the future.	There may be more interest in opportunities for stormwater harvesting for industrial uses or watering of sporting fields in a drought, although their dependence on rainfall makes them less reliable in a drought.
Temporary desalination	To enable a quick response in drought, 'readiness activities' will include site selection studies, technical and environmental investigations, and a review of procurement options. Ongoing research into potential improvements in desalination technology will be monitored.	Temporary desalination plants provide an emergency drought response for a very extreme drought. By planning in advance, the units can be built quickly if and when needed, and they would be removed when no longer required.

5. The 'continuing actions' in the table include actions that relate to both the longer-term supply-demand balance and investment in activities to prepare for drought.

Monitoring and evaluation

Monitoring and evaluation are essential tools for the implementation and ongoing improvement of the *Lower Hunter Water Plan*. This will involve collaboration with key stakeholders in the systematic collection of information, using existing monitoring systems where suitable. Through this process, the best available information will be used to assess if the plan is meeting its objectives and to make timely decisions on how best to adapt the plan to incorporate the latest knowledge, experience and technology in a process of continuous improvement.

This adaptive management approach is illustrated in the figure below, showing how the evaluation process can trigger adjustments to the plan prior to a major review.

Monitoring and evaluation in the adaptive management cycle[6]

Monitoring and evaluating the *Lower Hunter Water Plan* will involve assessing:

- the plan's effectiveness and efficiency in delivering on its objectives
- whether actions identified in the plan have been implemented in a timely manner
- key assumptions underpinning the plan, including factors considered in sensitivity analyses on demand forecasts and supply modelling
- the actual supply and demand balance compared with the plan's forecasts
- how the measures in the plan perform if a drought is experienced in the region, including whether the measures deliver the expected water savings and/or supply
- whether the measures in the plan continue to be appropriate and relevant in view of potential changes in the supply-demand balance or regulatory regime, advances in technology, and other developments
- appropriate triggers for review of the *Lower Hunter Water Plan*.

6. Adapted from www.cmar.csiro.au/research/mse/ accessed October 2013

A detailed *Monitoring, Evaluation, Reporting and Improvement Plan* is being developed to guide and support implementation of the *Lower Hunter Water Plan* and provide a basis for reviewing and improving the plan. As outlined in Chapter 1, actions to monitor and evaluate the plan and guide an adaptive approach to implementing or adjusting the measures in the plan and developing future plans include:

- monitoring population projections and changes in water demand
- monitoring and reviewing ongoing climate change research to better understand the implications for the lower Hunter's water supplies
- monitoring research into new technology and innovative water management practices
- liaising with the NSW Office of Water on implementing changes to environmental flow rules for the region's river systems in accordance with water sharing plans
- investigating long term water supply and demand options for future plans
- continuing the partnership with the community for future water plans.

Looking to the future

A structured monitoring and evaluation process will support periodic reviews of the *Lower Hunter Water Plan* to ensure it can adapt to changing circumstances and meet the ongoing needs of the lower Hunter community, providing water security during drought and reliable water supplies for business and population growth.

Mix of water supply and demand measures
BASIX
WHOLE OF GOVERNMENT APPROACH
Consultation
A balanced and adaptable plan
Detailed investigations
Engineering and costing Demand forecasting Collaborative process
Responding to extreme drought Flexibility
CONTINGENCY PLANNING Whole-of-water-cycle
Integrated approach REDUCING DEMAND Investigating new technologies Environmental Flow Rules Variable climate patterns SAFE, HIGH QUALITY WATER WELS Planning for drought Water security Implications of climate change BEST PRACTICE WATER MANAGEMENT National Urban Water Planning Principles Protecting ecosystems *Building portfolios* Multi-criteria analysis on options Cost effectiveness analysis Community Engagement In Water Planning Decision support framework Present value cost Balancing supply and demand Implementation lead times Choice modelling *Hydrological modelling* Economic analysis Water conservation and efficiency New opportunities Water that is fit-for-purpose Providing for population and business growth

Photography credits

Cover, Executive Summary, pages 6, 16, 18 (upper) , 29, 36, 44, 46, 53, 56, 62, 71, back cover ..... Edward Cross Photography
Independent Water Advisory Panel photograph ..... Hired Gun Photography
page 4, 13, 18 (lower) ..... Metropolitan Water Directorate
pages 17, 20, 22, 23, 24, 26, 28, 31, 34, 38, 48, 49 ..... Hunter Water Corporation
page 19 ..... Wyong Shire Council
page 32 ..... WaterSave
page 50 ..... Belinda Kozakiewicz
page 54 ..... Newcastle Coal Infrastructure Group

Notes

Engaging the community in developing the *Lower Hunter Water Plan*

The *Lower Hunter Water Plan* sets out how we will ensure there is enough water to supply the people and businesses of the lower Hunter region, as well as how we will respond to severe droughts. It recognises the water needs for the lower Hunter's future growth and prosperity, as well as the needs of the environment.

The Metropolitan Water Directorate led a collaborative approach to developing the plan, by working closely with the community and other stakeholders to ensure their values, priorities, and preferences were incorporated into decision-making.

Community engagement for the *Lower Hunter Water Plan* had three key objectives:

- to raise stakeholder and community awareness about the need for a plan to secure the lower Hunter's water supply for future growth and potential droughts
- to ensure that social aspects, including values, were appropriately considered as part of the water planning process
- to facilitate understanding and acceptance of the plan.

Four sets of community and stakeholder workshops were held between December 2012 and September 2013, with a total of 15 workshops held in different locations across the region. The workshops were complemented by online processes, including information, surveys, and forums on the 'Have Your Say' website. The workshops discussed community values about water planning and a wide range of supply and demand options being considered for the region. They also explored the cost, drought security and environmental trade-offs among potential portfolios (or mixes of measures) for the *Lower Hunter Water Plan*.

Inviting community input

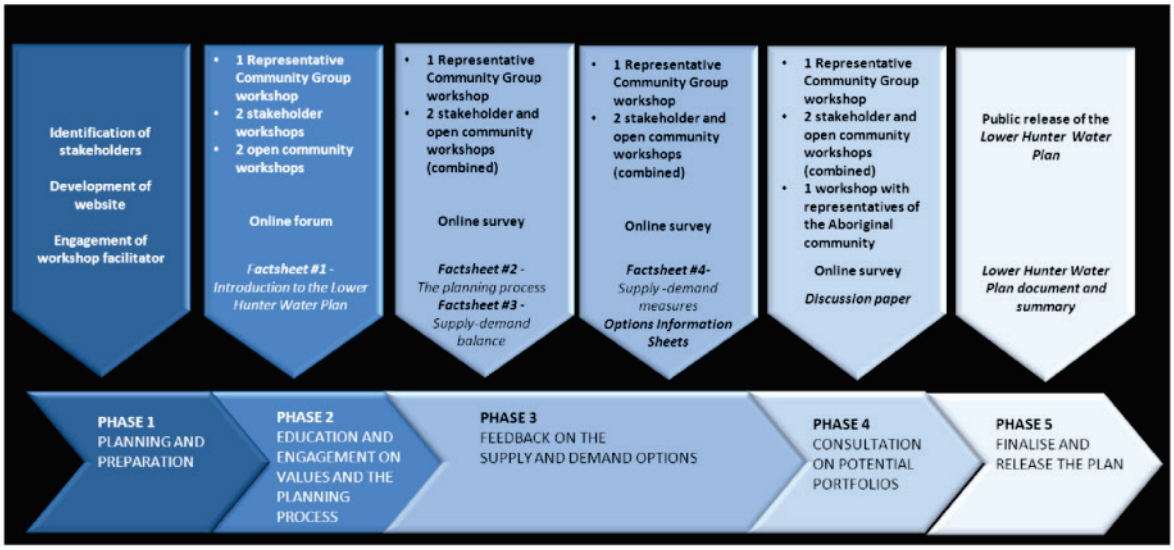
Workshops for the *Lower Hunter Water Plan* were designed to involve a broad spectrum of the community. This included stakeholders from identified groups, self-selected community members, and a Representative Community Group of randomly selected community members.

The Representative Community Group was recruited by the Hunter Valley Research Foundation as a sample of the diverse lower Hunter community, with a mix in gender, age and geographic area. This group was involved in developing the plan from beginning to end.

Stakeholder representatives from business and industry, agriculture, environmental groups, local government and educational facilities were invited to the workshops and provided valuable and diverse input.

Newspaper advertisements invited interested members of the community to have their say in the planning process either in workshops or online. Many community members took this opportunity, with a significant number joining in workshops in all phases of the process.

Some of the members of the Representative Community Group



What we heard from the community

The first round of consultation focused on community and stakeholder values about water planning. Workshop participants were asked to identify what mattered to them most about water planning. The responses were grouped together based on common themes, with participants identifying those they considered the most important.

The themes were combined from all the workshops and presented back at the next set of workshops so participants could review and confirm or modify community values. A similar approach was followed at a workshop with Aboriginal community representatives.

The final set of community values was:

- a process we can trust
- sustainable solutions and water conservation
- a fair and affordable system
- safe, healthy water for all uses
- protecting the natural environment
- a secure, reliable supply for all
- a strategic, balanced and adaptable plan
- investing dollars wisely
- respecting the Aboriginal cultural value of 'life water'.

In the second round of consultation, participants learned more about the latest demand forecast, the water needs of the Hunter, and seven broad categories of options:

- water efficiency
- demand management
- stormwater capture
- recycled water
- surface water
- groundwater
- desalination.

This workshop was an opportunity for participants to develop an understanding of regional water needs and the range of options that can save or supply water, and to provide broad feedback on each category.

By the third round of consultation, a list of around 20 specific options had been developed. These options were presented in detail so workshop participants could discuss how well each option reflected the community values. The workshops also explored the concept of portfolios by working in groups to identify and prioritise the options that were most consistent with the community values. The options selected most often included non-residential water efficiency, stormwater harvesting, inter-regional transfers with the Central Coast, drought restrictions, industrial use of recycled water and Water Wise Rules.

"The most useful part of this workshop for me was the feeling of engagement in a thorough and transparent planning process."

Community comment, consultation workshop 2013

How the community input was used in decision-making

Importantly, the activities at each set of workshops were designed to integrate with the planning framework, by providing data to incorporate in the decision-making process. This included both quantitative data (eg, a number) and qualitative information (eg, feelings and reasons).

The Metropolitan Water Directorate engaged the Institute for Sustainable Futures to develop and implement a 'multi-criteria decision analysis framework' to assess the options against criteria relating to cost, social, environmental and risk factors. This analysis brought together expert and community input to rank options and help develop portfolios for the next stage of modelling and evaluation.

The multi-criteria decision analysis combined community and expert input to help assess the options by comparing:

- the cost to improve drought security
- how well the option reflected community values
- certainty in implementing the option
- the potential to impact on the natural environment
- the flexibility to respond to drought in stages, without locking out other options in the future

Quantitative data on consistency with community values was collected directly from the workshops on options, where participants identified the options that best reflected the community values. The total number of times an option was selected was input to the multi-criteria analysis as a measure of 'consistency with community values'.

The outcomes of the multi-criteria analysis then guided the development of portfolios, which were outlined in a discussion paper released in August 2013 as background material for the final set of workshops. This paper outlined how the plan was being developed and presented six potential portfolios to the community for feedback. The discussion paper was sent out to stakeholders, the Representative Community Group, and participants from all other previous workshops. The community was invited to provide feedback on the portfolios in the discussion paper by attending a workshop and/or making a written submission. Eight written submissions were received from a mix of stakeholder and community representatives, and this feedback was another important input to developing the plan.

Again, community feedback from the final set of workshops was fed directly into the process to evaluate portfolios.The six portfolios were presented in detail, outlining the measures included in the portfolio and demonstrating the results of modelling how the measures would perform in droughts. After discussing the strengths and weaknesses of each portfolio, participants ranked the portfolios from most to least preferred. In selecting their preferred portfolio, participants at the workshops considered trade-offs among the cost, drought security and environmental features of the portfolios, and recorded the reasons for their preferences.

Participants at all workshops expressed strong support for the demand management and water efficiency measures included in every portfolio. A majority preferred portfolios that provided a greater level of drought security in a very severe drought through additional measures such as inter-regional transfers and temporary desalination.

Community feedback from these workshops provided quantitative data (the rankings) and qualitative information (the reasons) to input to the portfolio evaluation. The community and stakeholder rankings and reasons were combined with expert input to develop a recommendation to the NSW Government on the final portfolio presented in the *Lower Hunter Water Plan*.

The diagram below illustrates what the community was asked at each set of workshops, what the community said, and how this feedback was used.

Engaging the Aboriginal Community

A dedicated workshop was held in September 2013 for representatives of the region's Aboriginal community. The workshop was held at the Awabakal Newcastle Aboriginal Cooperative in Wickham, and was attended by representatives from across the region. The workshop covered values around water as well as information about the six potential portfolios. Participants highlighted lifestyle, sustainability, hygiene, employment, and water efficiency as priorities and identified *the Aboriginal cultural value of 'life water'* as a key value to include in the list of community values.

After discussing the supply and demand options and the six potential portfolios, workshop participants strongly supported the demand management and water efficiency measures included in every portfolio. This workshop also favoured portfolios that provided a greater level of drought security by including inter-regional transfers and temporary desalination for severe drought events.

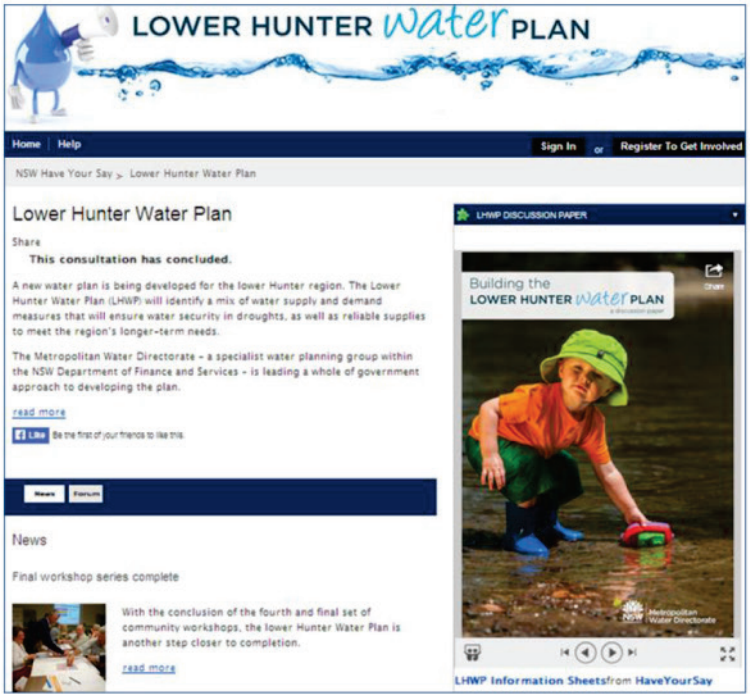
Online engagement

The Metropolitan Water Directorate used the government's 'Have Your Say' website throughout the planning process to invite community feedback on values, water supply and demand options, and portfolios.

In parallel with the workshops, the website was used to host forums and surveys which allowed an alternative way for community members to be involved and make a contribution.

'Have Your Say' also provided a way to give the community feedback on the results of engagement activities and progress on planning through regular news items, and a way to gauge community views on emerging issues and validate feedback from other engagement activities.

The site had over 7900 page visits during a 12-month consultation period, with many visitors downloading fact sheets, news items, and the discussion paper.



Choice modelling

Choice modelling is an economic survey technique that measures community preferences and estimates the value people put on social and environmental costs and benefits. The Metropolitan Water Directorate has used choice modelling as an input to the economic analysis in water planning for both the lower Hunter and greater Sydney.

The lower Hunter survey, involving over 400 community members, looked at the value people attach to water availability during droughts. The results were incorporated into the economic analysis. The choice modelling survey also explored community attitudes, and found that most people supported the idea of Water Wise Rules and agreed that water restrictions are fair and a good idea to have in drought.

'Thank you' to all our participants

The Metropolitan Water Directorate appreciates that integrating community engagement with the technical investigation and evaluation processes was critical to success in developing the *Lower Hunter Water Plan*.

To support an open and transparent planning process, participants were advised at each workshop how their input would be used, and the consolidated feedback from each set of workshops was reported back to the next set of workshops. This process helped to validate the feedback and, where necessary, modify how it was recorded to ensure it was a true reflection of the community input (for example, the list of community values was reviewed and modified at subsequent workshops). This process also demonstrated that participants at different workshops expressed a range of views and that all these views were important and being heard.

We would like to thank all the community members and stakeholder representatives who participated in the workshops or took the time to provide input online or in a written submission on the discussion paper. The feedback was valuable in ensuring the final plan is a balanced document that takes into account community values along with the technical inputs from hydrological modelling, economic analysis, environmental assessment, and the multi-criteria decision analysis framework.

Visit metrowater.nsw.gov.au/planning-lower-hunter to read more about the *Lower Hunter Water Plan*

NSW GOVERNMENT Metropolitan Water Directorate

LOWER HUNTER water PLAN

The *Lower Hunter Water Plan* sets out how we will ensure there is enough water to supply the people and businesses of the lower Hunter region, as well as how we will respond to severe droughts. It recognises the water needs for the lower Hunter's future growth and prosperity, as well as the needs of the environment.

The lower Hunter's water supplies are very reliable under typical climatic conditions, and will be able to supply the water needs of a growing population and business community for around 20 years. However, the region is vulnerable to drought, because water storage levels can fall quickly in prolonged periods of hot dry weather.

The *Lower Hunter Water Plan* is a package of water supply and demand measures that incorporates the significant contribution of water efficiency and recycled water investments already in place and underway, and builds on these to ensure the region can withstand an extreme drought.

Developing the plan

The Metropolitan Water Directorate in the Department of Finance and Services led a comprehensive process to develop the plan. This work has been done in consultation with Hunter Water Corporation and other government agencies involved in water management. Four phases of community and stakeholder engagement provided valuable input at each major step in developing the plan.

The planning process involved complex investigations, modelling and analysis to define the problem to be addressed, identify solutions, and support a decision on the final package of supply and demand measures.

Water planners took into account a large range of factors, including population and water demand projections, water supply system modelling, drought security objectives, climate change research, and economic, social and environmental impacts. The process was also consistent with the National Urban Water Planning Principles.

In developing the plan, all available and practical options to supply, save, or substitute water were considered and evaluated for how well they could respond in a drought situation. The challenge for planners was putting together the mix of measures to deliver a drought response strategy with the best economic, social and environmental outcomes for the lower Hunter community.

A balanced, adaptable plan

The *Lower Hunter Water Plan* is designed to be flexible to adapt to challenges, such as our highly variable climate patterns and changes to other factors, such as population and business growth, technology and water use behaviour.

The plan will be reviewed regularly to respond to new information and technologies, and changes to climatic conditions. This allows the balanced portfolio of measures to be adjusted over time, to make sure it is achieving its objectives.

It is important that we invest in new supplies only when they are needed. Deferring investment as long as possible means that the people of the lower Hunter are not paying for unnecessary infrastructure, and limited finances can be used for more immediate needs.

Key initiatives and directions of the 2014 *Lower Hunter Water Plan*

The *Lower Hunter Water Plan* includes actions to supply, save and substitute water that are already in place or underway, as well as additional measures to respond to droughts when they occur.

The measures included in the plan will reduce the amount of drinking water required to serve the lower Hunter's needs, make better use of existing storages, and provide extra supply as a contingency in extreme droughts. Some measures will apply all the time, to reduce demand or substitute supply, while others will only be activated as storage levels fall during droughts. The key elements of the plan are summarised below.

	CONTINUING ACTIONS	DROUGHT RESPONSE
Surface water	Chichester Dam and Grahamstown Dam will continue to provide most of the region's water needs each year. Modifications to the water supply network will enable more water to be transferred from the Central Coast to the lower Hunter, as required by the existing transfer agreement.	Water transfers between the lower Hunter and Central Coast systems during droughts in either region will make better use of existing storages and improve drought resilience in both regions.
Groundwater	Groundwater from the Tomago and Tomaree sandbeds will continue to be an important source of water supply for the region. Investigations into the feasibility of new groundwater sources will continue.	The amount of water supplied from Tomago sandbeds generally increases in a drought.
Water efficiency	Hunter Water will continue to support water efficiency measures under its existing programs that assist households and businesses to save water and minimise losses from the water supply system. The national Water Efficiency Labelling and Standards (WELS) scheme and the NSW scheme to improve water and energy efficiency through the Building and Sustainability Index (BASIX) will continue to deliver improvements in water efficiency.	Additional water efficiency programs for both households and businesses will be activated in drought to help reduce demand as water storages fall, along with further leak detection and pressure management programs to reduce losses from the water supply system.
Demand management	Water Wise Rules to help conserve water every day will be introduced as an immediate priority under the *Lower Hunter Water Plan*.	Water restrictions will be applied as storage levels fall to reduce both household and business demand and keep as much water in the storages as possible. When activated, restrictions will be supported by awareness campaigns and compliance activities.
Recycled water	The Kooragang Industrial Water Scheme will be able to deliver over three billion litres a year of recycled water to industrial users, starting in late 2014. Dual reticulation schemes at Chisholm and Gillieston Heights will supply recycled water as development proceeds. Private sector suppliers are likely to play a bigger role in providing water supply, wastewater and recycled water services to new developments, particularly in areas remote from urban centres.	In a drought, additional recycling opportunities may become more viable for customers seeking an alternate supply that does not depend on rainfall.
Rainwater and stormwater use	Rainwater tanks will continue to reduce potable water use in new developments. Councils and businesses may identify new opportunities to use stormwater as part of integrated water cycle management into the future.	There may be more interest in opportunities for stormwater harvesting for industrial uses or watering of sporting fields in a drought, although their dependence on rainfall makes them less reliable in a drought.
Temporary desalination	To enable a quick response in drought, 'readiness activities' will include site selection studies, technical and environmental investigations, and a review of procurement options.	Temporary desalination plants provide an emergency drought response for a very extreme drought. By planning in advance, the units can be built quickly if and when needed. They would be removed when no longer required.

A collaborative approach to planning

The Metropolitan Water Directorate led a whole-of-government process to develop the *Lower Hunter Water Plan*. This collaborative approach has ensured consistency between the plan and other policies, including the *Lower Hunter Regional Growth Plan* being developed by the Department of Planning and Infrastructure. This approach has also ensured the needs of the environment have been considered along with the needs of water users in the region, through environmental regulations and the water sharing plans for the region's rivers.

Planners also worked in close consultation with the community and other stakeholders to develop the plan, so their values, priorities and preferences could be incorporated into decision-making.

Community members and representatives from a range of stakeholder groups were involved in four series of workshops from December 2012 to September 2013. One workshop was dedicated to feedback from representatives of the Aboriginal community. The workshops were held at key points in the planning process and focussed on developing a set of community values for water planning, understanding the supply-demand balance, and seeking feedback on options and portfolios.

In 2012, the NSW Government established an Independent Water Advisory Panel of water experts from a range of disciplines to provide independent strategic and technical advice on urban water planning for the lower Hunter and greater Sydney regions. The independent panel provided valuable input throughout the planning process.

Community engagement workshop

Community values for water planning

- a process we can trust
- sustainable solutions and water conservation
- a fair and affordable system
- safe, healthy water for all uses
- protecting the natural environment
- a secure, reliable supply for all
- a strategic, balanced and adaptable plan
- investing dollars wisely
- respecting the Aboriginal cultural value of 'life water'

The planning framework

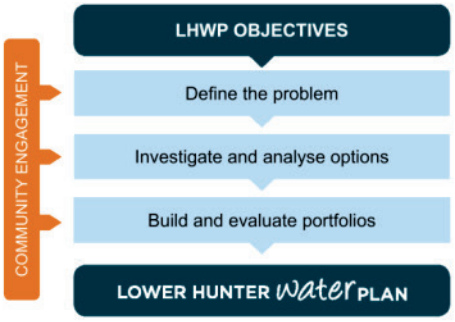
A portfolio approach underpinned development of the plan. A portfolio is a set or sequence of water management measures, timings and rules. The portfolio approach involves building and analysing combinations of supply and demand measures (including those already in place) to achieve the best mix for delivering a secure water supply.

Drought response portfolios considered for the *Lower Hunter Water Plan* were made up of different measures to be implemented as water storage levels fall. Lead times for design, approvals and construction were taken into account when developing and analysing portfolios.

Key tools used in the planning process included:

- hydrologic modelling – to simulate water storage levels under many different climate scenarios to compare how portfolios would perform in drought
- economic analysis – to compare the average cost of different portfolios across a wide range of possible climate scenarios by modelling the probability of triggering expenditure
- multi-criteria decision analysis – to bring together the outcomes of the hydrologic modelling and economic analysis with feedback from the community as well as qualitative assessment of features such as environmental impact, flexibility to respond to change, and certainty of implementation.

Simplified planning framework



Monitoring and evaluation

Monitoring and evaluation are essential tools for the implementation and ongoing improvement of the *Lower Hunter Water Plan*.

The best available information will be used to assess if the plan is meeting its objectives and to make timely decisions on how best to adapt the measures in the plan to incorporate the latest knowledge, experience and technology in a process of continuous improvement. A structured monitoring and evaluation process will support periodic reviews of the *Lower Hunter Water Plan* to ensure it can adapt to changing circumstances and meet the ongoing needs of the lower Hunter community, providing water security during drought and reliable water supplies for business and population growth.

Monitoring and evaluation in an adaptive management cycle

Adapted from www.cmar.csiro.au/research/mse/

Implementing the plan

Because this *Lower Hunter Water Plan* has a strong focus on actions to maintain the region's water supplies through a drought, it has to be able to respond differently depending on the climate we experience in future years.

The examples below demonstrate how measures are activated as water storage levels fall for three different climate scenarios - typical climate conditions, a moderate drought, and an extreme drought.

In the vast majority of climate scenarios, most of the drought response measures are not needed. Although the chance of an extreme drought is low, the consequences for households and businesses would be enormous without the portfolio of measures in the *Lower Hunter Water Plan*.

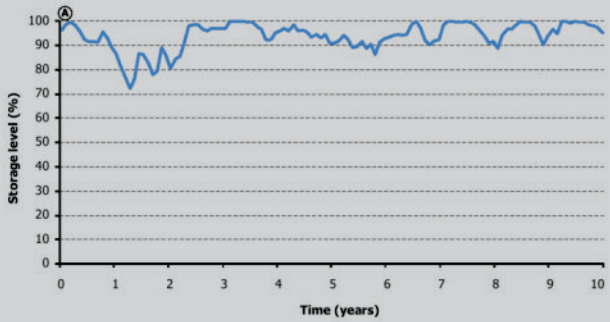
For all scenarios:

- Water Wise Rules will be implemented at the start of the plan
- modifications to the water supply network between the Central Coast and the lower Hunter will proceed, increasing the capacity to transfer water north as required under the existing water transfer agreement
- further investigations and 'readiness activities' for temporary desalination, to enable a quick response if needed in an extreme drought.

'Typical' climate conditions

This scenario shows lower Hunter water storage levels staying above 70 per cent full, which occurs most of the time.

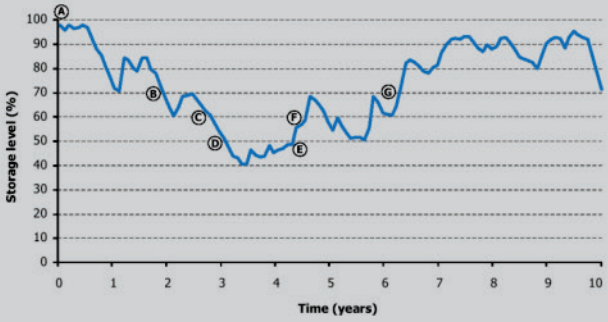
In typical years, no drought response measures need to be triggered.



'Moderate' drought

This scenario represents a moderate to severe drought, similar to the drought in the lower Hunter during the 1980s, the worst drought since records began.

In this drought scenario, water storage levels fall to almost 40 per cent, triggering additional water efficiency and loss minimisation programs, two levels of drought restrictions and transfers of water from the Central Coast.

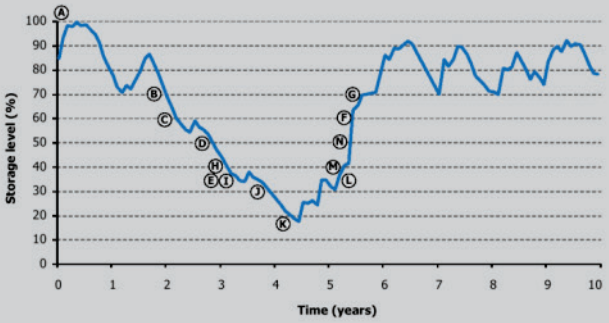


'Extreme' drought

The drought depicted in this scenario is extremely rare, about twice as severe as the worst drought recorded in the lower Hunter. A drought this severe would trigger all the measures in the *Lower Hunter Water Plan* portfolio.

In the early stages of the drought, water efficiency programs and loss minimisation program would be expanded. Transfers of water from the Central Coast would be triggered, and drought restrictions would apply, becoming stricter as storage levels fall. Water transfers from the Central Coast are likely to stop as their storages also drop.

The contingency measure of installing small, portable, temporary desalination units would be triggered as late as possible to supplement supplies with a source that does not depend on rainfall.



KEY

- Ⓐ Water Wise Rules start
- Ⓑ Leak detection and pressure management drought programs start
  Non-residential water efficiency drought programs start
- Ⓒ Residential water efficiency drought programs start
  Level 1 drought restrictions start
  Water transfers from the Central Coast start
- Ⓓ Level 2 drought restrictions start
- Ⓔ Water transfers from the Central Coast stop
- Ⓕ Level 2 drought restrictions eased to Level 1
  Residential and non-residential water efficiency drought programs stop
- Ⓖ Level 1 drought restrictions lifted
  Leak detection and pressure management drought programs stop
- Ⓗ Level 3 drought restrictions start
- Ⓘ Construction of temporary desalination facilities starts
- Ⓙ Level 4 drought restrictions start
- Ⓚ Temporary desalination facilities turn on
- Ⓛ Temporary desalination facilities turn off
- Ⓜ Level 4 drought restrictions eased to Level 3
- Ⓝ Level 3 drought restrictions eased to Level 2

2014 Lower Hunter Water Plan Summary
JANUARY 2014
ISBN 978-0-7347-4483-8 (print version) 978-0-7347-4484-5 (web version)

For enquiries, please contact mwd@services.nsw.gov.au

3.2 'Fit for the Future' State Government Response to the Independent Local Government Review Panel Final Report

TRIM REFERENCE: F2004/06390 - D11747653
MANAGER: Marie Hanson-Kentwell, Project Director
AUTHOR: Lesley Crawley; Manager Corporate Governance

SUMMARY

The NSW Government has released its response to the Independent Local Government Review Panel final report. The funding is aimed at assisting local councils to take the next step towards change and ensure the State's system of local government is 'Fit for the Future.' Councils will be asked to submit a proposal on how they intend to become fit for the future by 30 June 2015.

RECOMMENDATION

That Council receive the report on 'Fit for the Future' State Government Response to the Independent Local Government Review Panel Final Report.

BACKGROUND

The Government's reform package is designed to provide support and incentives to help each council become Fit for the Future. The Government says it will make improvements to the local government system, including the laws that govern it, the way the State works with councils and the support that councils receive.

The package is based on the Independent Local Government Review Panel's recommendations and reflects the priorities identified by the sector during the consultation process.

FIT FOR THE FUTURE PACKAGE

The Fit for the Future funding package includes:

- $258 million to assist councils that decide to merge and make the changes needed to provide better services to communities: $153m for Sydney councils and $105m for regional councils. Sydney councils can receive up to $22.5m to support their merger. Based on the funding model proposed by the State and on the assumption of a 350,000 resident population, a Central Coast Council may be eligible for $16.5 m dollars;

- $13 m to support local transition committees and ensure elected representatives are involved in the merger process;

- $5.3 m to get new regional Joint Organisations up and running;

- $4 m to help small councils (<10,000 population) develop innovative ways of working;

- Savings of up to $600 m by offering of cheaper finance for councils to build and maintain the facilities that communities need;

- Funding for experts to help merging councils and access to fully funded facilitators who can assist with merging.

There will also be reforms to the local government system, including the laws that govern it, the way the State works with councils and the support that councils receive. Reforms include:

- a new Local Government Act to be phased in from 2016/17 that will focus on Integrated Planning and Reporting;

- a new role for the NSW Auditor-General;

- a review of the rating system;

- greater clarity on the roles and responsibilities of mayors and general managers;

- a review of the regulatory burden on councils.

OBLIGATIONS UNDER THE FIT FOR THE FUTURE REFORM

Stage One

In October 2014, councils will receive a Self-Assessment tool to help them review their current performance against the Fit for the Future criteria. Based on these results, councils will progress to Stage Two to prepare a roadmap, demonstrating how they will move towards becoming Fit for the Future.

Stage Two

Councils will need to prepare a roadmap for becoming Fit for the Future, taking account of their community's needs and future outlook. Fit for the Future roadmaps must be submitted by 30 June 2015, for review by a team of independent experts.

Stage Three

During this stage, the expert panel will review each council's roadmap. The panel will make recommendations to the Minister for Local Government based on its assessment before the end of 2015.

Stage Four

In Stage Four, councils who are Fit for the Future will begin to implement their roadmaps and take advantage of the benefits of being a Fit for the Future council.

OFFICE OF LOCAL GOVERNMENT INFORMATION SESSION

The Mayor and General Manager of Gosford and Wyong Councils were invited to an information session conducted by the Office of Local Government on 24 September 2014.

The session was proposed by the Office of Local Government (OLG) to provide councils with information on the support and incentives available through Fit for the Future. It is proposed as an opportunity to hear more about the Fit for the Future package and the One Stop Shop which has been established by the Office of Local Government to assist Councils and to meet the OLG Relationship manager assigned as an ongoing point of contact for councils regarding this initiative.

ATTACHMENTS

1	NSW-Government-Response-Panel-and-Taskforce-recommendations 10 Sept 2014	D11706824
2	Office of Local Government Fit for the Future Session	D11712801
3	Fit for the Future - Facilitator Guide for Councils	D11744561

September 2014

Fit for the Future

NSW Government Response

Independent Local Government Review Panel recommendations

Local Government Acts Taskforce recommendations

NSW GOVERNMENT | Office of Local Government

Recommendations for local government reform

Three years ago, local councils from throughout NSW gathered for the Destination 2036 summit, to plan how local government could meet the challenges of the future.

Councils all agreed that change was needed, but there were various views as to how this could best be achieved.

Following Destination 2036, the (then) Local Government and Shires Associations asked the Minister to appoint an Independent Local Government Review Panel to develop options to improve the strength and effectiveness of local government in NSW.
The Local Government Acts Taskforce was also appointed to review the Local *Government Act 1993* and the *City of Sydney Act 1988.*

The Independent Panel

The Independent Local Government Review Panel, led by Professor Graham Sansom, conducted three rounds of public consultation and commissioned independent research to help develop its thinking.
The Panel considered options for governance models, structures and boundary change, as well as the wider questions of sustainability of the sector. It used the feedback it received from councils and community members to help refine its final recommendations.
The NSW Government has considered the 65 recommendations presented by the Panel and developed its response, based on support for the majority of recommendations. The response to each recommendation is detailed in the table on the following pages.

The Taskforce

The Taskforce looked at options to develop a new, modern Local Government Act that would meet the future needs of the local government sector and the community. It conducted several rounds of consultation to discuss options for streamlining the legislation and cutting red tape
The feedback received from councils, business and community members helped to inform the Taskforce's final recommendations.
The NSW Government response includes general support for the Taskforce recommendations and is detailed on the final page 20.

Pictured are members of the Local Government Acts Taskforce and the Independent Local Government Review Panel:
From left: Ian Tiley, Taskforce Chair John Turner, Panel Chair, Graham Sansom, Gabrielle Kibble, Glenn Inglis, Stephen Blackadder and Jude Munro.

Government response to the Independent Local Government Review Panel recommendations

Area	Recommendation	Position	Government response
Fiscal responsibility	1. Establish an integrated Fiscal Responsibility Program, coordinated by DLG and also involving TCorp, IPART and LGNSW to address the key findings and recommendations of TCorp's financial sustainability review and DLG's infrastructure audit (5.1 and 5.3)	Supported	The Office for Local Government (OLG) has been consulting councils and key stakeholders to develop a Financial Sustainability Program that supports all councils to become financially sustainable. The program will include guidance, targeted capacity building and direct intervention in high-risk councils. The approach to implementation, including the involvement of key stakeholders, will be determined by the OLG through the program design and be subject to available funding. This program will commence once council 'fit for the future' proposals have been considered.
	2. As part of the program: • Adopt an agreed set of sustainability benchmarks (5.1) • Introduce more rigorous guidelines for Delivery Programs as proposed in Box 9 (5.2) • Commission TCorp to undertake regular follow-up sustainability assessments (5.3) • Provide additional training programs for councillors and staff (5.3) • Require all councils to employ an appropriately qualified Chief Financial Officer (5.3)	Supported	Sustainability benchmarks Supported - The OLG has, in consultation with the sector, commenced work on developing a performance measurement framework, including financial sustainability indicators. Once these indicators are defined and piloted, work will commence to identify appropriate benchmarks and council comparison groupings. Delivery Program guidelines Supported - the Delivery Program guidelines will be amended to embed the principle of fiscal responsibility and improve financial and asset planning ahead of the next Integrated Planning and Reporting (IP&R) cycle (2016), and be reflected in the new Local Government Act. TCorp sustainability assessments Supported – Council financial sustainability will be assessed as part of the Fit for the Future proposal (see rec 33), with support from TCorp in the assessment process. Additional training Supported - This will form an important part of the Financial Sustainability Program, focused on high risk councils. CFO requirement Supported in principle – The Government recognises the importance of strategic financial management in ensuring financially sustainable councils, expects councils to have access to this expertise and encourages those councils with limited

Area	Recommendation	Position	Government response
			resources to explore opportunities to share expertise to ensure they have access to the necessary skills. It does not intend to make the employment of a qualified CFO a mandatory requirement in order to provide local flexibility, however will use other available tools, such as the Fit for the Future process to ensure councils address financial sustainability.
	3. Place local government audits under the aegis of the Auditor General (5.4)	Supported	The Government recognises the importance of a robust external audit process in improving financial management, fiscal responsibility and public accountability for how councils use taxpayer funds. It is concerned at the general quality of external audit, in particular timeliness and consistency. In particular it is concerned at the impact this has on the State and Local Government having a reliable picture of council financial sustainability, effective council decision making and the ability for the community to hold councils to account. The Government recognises the potential value in giving the Auditor General oversight of council financial audit to improve quality, consistency and timeliness and financial management more generally. The Government recognises however that this improvement will increase the cost of audit for councils. The OLG will therefore discuss the timing, cost and approach to implementation with the Auditor General and the sector, in accordance with the Intergovernmental Agreement, with a view to implementing the new regime following legislative change from mid-2016.
	4. Ensure that the provisions of the State-Local Government Agreement are used effectively to address cost-shifting (5.5)	Supported	The Government will continue to use the formal engagement mechanisms specified in the Intergovernmental Agreement and specific consultation as appropriate.
Strengthening revenues	5. Require councils to prepare and publish more rigorous Revenue Policies (6.1)	Supported in principle	The OLG will consider what is required to improve council revenue policies in reviewing the IP&R guidelines.
	6. Commission IPART to undertake a further review of the rating system focused on: • Options to reduce or remove excessive exemptions and concessions that are contrary to sound fiscal policy and jeopardise councils' long term sustainability	Supported	The Government notes the issues raised by the Panel in relation to the equity of the current rating system. It remains committed however to protecting ratepayers from unfair rate rises and to providing rate concessions for pensioners. The Government will commission IPART to conduct a rating review to reflect these issues.

Area	Recommendation	Position	Government response
	(6.2) • More equitable rating of apartments and other multi-unit dwellings, including giving councils the option of rating residential properties on Capital Improved Values, with a view to raising additional revenues where affordable (6.3)		
	7. Either replace rate-pegging with a new system of 'rate benchmarking' or streamline current arrangements to remove unwarranted complexity, costs, and constraints to sound financial management (6.5)	Supported	The Government is committed to a rating system that protects local ratepayers from unfair rate rises. It recognises however the improvements in council strategic planning under IP&R and therefore supports removing unwarranted complexity, costs and constraints from the rate-peg system, where there is evidence that the council has taken steps to reduce unnecessary costs before seeking to impose an increased burden on ratepayers. The OLG will work with IPART to amend the guidelines to develop a streamlined and more proportionate process for 'fit for the future' councils wanting to increase rates above the rate peg, and to offset revenue loss through Financial Assistance Grants (FAGs) redistribution.
	8. Subject to any legal constraints, seek to redistribute federal Financial Assistance Grants and some State grants in order to channel additional support to councils and communities with the greatest needs (6.6)	Supported in principle	The Government supports targeting Financial Assistance Grants to communities with the greatest need. It will ask the NSW Grants Commission (GC) to continue to identify opportunities to achieve this over time, within the constraints imposed by the national funding principles. It will also ask the GC to ensure transitional protection for those councils with lower levels of need, to minimise the impact of any redistribution.
	9. Establish a State- borrowing facility to encourage local government to make increased use of debt where appropriate by: • Reducing the level of interest rates paid by councils • Providing low-cost financial and treasury management advisory services (6.7)	Supported	The Government encourages councils to make increased use of debt to invest in critical infrastructure, improve financial sustainability and ensure intergenerational equity in providing services to the community. To support and encourage this, the Government will establish a State borrowing facility, managed by Treasury Corporation. This will provide 'fit for the future' councils, with a demonstrated capacity to borrow prudently, with access to low cost loans, saving councils up to $600 million over ten years.

Area	Recommendation	Position	Government response
	10. Encourage councils to make increased use of fees and charges and remove restrictions on fees for statutory approvals and inspections, subject to monitoring and benchmarking by IPART (6.8)	Partially Supported	The Government encourages councils, in consultation with their community, to make appropriate use of fees and charges, in particular to ensure cost recovery, to enhance financial sustainability. The Government remains committed however to consistency and affordability in council fees, to minimise red tape, protect service users and avoid significant local variation. It does not therefore support removing restrictions on fees.
Meeting infrastructure needs	11. Factor the need to address infrastructure backlogs into any future rate-pegging or local government cost index (7.1)	Supported	The Government has invested heavily, through the Local Infrastructure Renewal Scheme and Infrastructure Audit, in helping councils to tackle the infrastructure backlog. This remains a top priority. The Government will develop a streamlined and more proportionate process for 'fit for the future' councils wanting to increase rates above the rate peg, allowing for example rate rises to fund infrastructure renewal.
	12. Maintain the Local Infrastructure Renewal Scheme (LIRS) for at least 5 years, with a focus on councils facing the most severe infrastructure problems (7.2)	Supported in principle	LIRS has been successful in encouraging greater use of debt to fund infrastructure renewal. The Government remains committed to encouraging and supporting councils to borrow to invest in infrastructure. The current LIRS scheme will fund projects approved in the first three rounds until 2025. To provide a longer term solution, the Government will establish a local government borrowing facility through TCorp that will provide a more cost effective way for 'fit for the future' councils to access this support on an ongoing basis, giving those councils greater certainty and flexibility. The Government is providing significant funding to 'fit for the future' councils to support the merger and provide the infrastructure that communities need.
	13. Pool a proportion of funds from the roads component of federal Financial Assistance Grants and, if possible, the Roads to Recovery program in order to establish a Strategic Projects Fund for roads and bridges that would: • Provide supplementary support for councils facing severe infrastructure backlogs that cannot reasonably be funded from other available sources	Supported in principle	The Government recognises the challenge particular councils face in tackling the infrastructure backlog. The Government also recognises the need to invest in strategically significant road projects that can cut across council boundaries. The proposed establishment of Joint Organisations (JOs) will assist in improving regional infrastructure planning and provide a mechanism to fund regional projects in the future. For new government funding initiatives, the Government will prioritise the delivery of these initiatives through those councils that have reformed and become 'fit for

Area	Recommendation	Position	Government response
	• Fund regional projects of particular economic, social or environmental value (7.2)		the future'.
	14. Require councils applying for supplementary support from the Strategic Projects Fund to undergo independent assessments of their asset and financial management performance (7.2)	Supported in principle	Councils' financial sustainability and management of infrastructure will be assessed to determine if they are 'fit for the future'. Fit for the future councils will have priority access to State funding and grants.
	15. Carefully examine any changes to development (infrastructure) contributions to ensure there are no unwarranted impacts on council finances and ratepayers (7.3)	Supported	The Government has consulted extensively on the proposed changes to the planning system and associated development contributions, to enable consideration of the impacts on councils. This will continue to be considered as part of the future planning reforms.
	16. Adopt a similar model to Queensland's Regional Roads and Transport Groups in order to improve strategic network planning and foster ongoing improvement of asset management expertise in councils (7.4)	Supported in principle	Improving strategic network planning and fostering ongoing improvement of asset management through sharing expertise will be a priority for the proposed Joint Organisations. As JOs develop, further consideration will be given to the lessons from the Queensland model in developing a regional approach.
	17. Establish regional water utility alliances as part of new regional Joint Organisations proposed in section 11 (7.5).	Supported in principle	The Government acknowledges the potential benefit from improving strategic planning and sharing expertise through regional collaboration. This recommendation will be considered further as JOs develop.
Improvement, Productivity and Accountability	18. Adopt a uniform core set of performance indicators for councils, linked to IPR requirements, and ensure ongoing performance monitoring is adequately resourced (8.1)	Supported	The Government believes that gathering information about council performance is important to assist councils in driving their own improvement and to enable the community to hold councils to account. It is working with councils to develop a core set of performance indicators to pilot and implement. This will include the Fit for the Future criteria. The Government will continue to monitor council performance and intervene in cases of extreme dysfunction.
	19. Commission IPART to undertake a whole-of-government review of the regulatory, compliance and reporting burden on councils (8.2)	Supported	The Government supports identifying opportunities to streamline the regulatory, compliance and reporting requirements on councils to improve outcomes for communities. The Government will commission IPART to conduct this review.

Area	Recommendation	Position	Government response
	20. Establish a new sector-wide program to promote, capture and disseminate innovation and best practice (8.3)	Supported in principle	The Government believes that improvement and innovation is best driven by the local government sector itself and encourages the relevant representative bodies to develop capacity in this area. The OLG will continue to support councils to improve, focussing its efforts on developing a performance measurement framework and a Financial Sustainability Program. In addition, the Government will establish a $4m grant program to assist small rural councils with populations below 10,000 that are 'fit for the future' to improve service delivery and governance through better use of technology and innovative approaches.
	21. Amend IPR Guidelines to require councils to incorporate regular service reviews in their Delivery Programs (8.4)	Supported	The Government strongly encourages councils to have a continuous focus on service quality and efficiency, to ensure the needs of communities are met and ratepayers get value for money. The Government recognises that many councils are already doing this. To reinforce and develop this culture further, the OLG will develop revised IP&R guidelines to encourage a stronger focus on service efficiency and quality. The Government acknowledges the suggested 'Best Value' methodology suggested by the Panel but will develop, in consultation with the sector, principles suitable for NSW consistent with the principles of IP&R and within the NSW industrial relations system.
	22. Strengthen requirements for internal and performance auditing as proposed in Box 17 (8.5)	Supported	The Government recognises that internal audit is an effective mechanism for driving accountability and improvement. Given this, and the existence of guidelines encouraging councils to put in place effective internal audit processes, it is concerned that only about half of councils have done so. The Government supports the Panel's recommendations on internal audit and plans to incorporate these provisions in the proposed new Local Government Act. Despite the potential efficiency gains internal audit can generate, the Government recognises that establishing an independent audit committee will impose a cost on councils. To minimise this burden and provide councils with maximum flexibility, it is proposed to allow all councils the ability to share an audit committee, rather than mandating a stand-alone committee. The Government recognises the value of the Auditor General undertaking performance audits of the sector, to identify trends and opportunities for

Area	Recommendation	Position	Government response
			improvement. The OLG will therefore discuss the timing, cost, approach to implementation and interface with the proposed performance measurement framework with the Auditor General and the sector.
	23. Introduce legislative provisions for councils to hold Annual General Meetings (8.6)	Supported in principle	Strong accountability to the public is crucial in ensuring trust in democratic leadership and driving improvement in public services. The Government believes councils should use a range of mechanisms to ensure greater public accountability. In addition to the annual reporting that councils already do under the IP&R framework, the new performance measurement framework will further strengthen public accountability. Given this, the Government does not believe it is necessary to require councils to hold an Annual General Meeting. It does however encourage councils to consider this, and any other mechanism, that strengthens accountability to the local community.
	24. Develop a NSW Local Government Workforce Strategy (8.7)	Supported	Addressing skills shortages, such as financial management in rural communities and engineers to deliver critical infrastructure, is essential to the future success of local communities. So too is attracting and retaining high quality council staff. The Government strongly encourages the local government sector, led by the representative bodies, to prepare a NSW Local Government Workforce Strategy and more importantly to turn this plan into action to tackle these challenges.
	25. Explore opportunities for the Local Government Award to continue to evolve to address future challenges facing the sector and changing operational needs.	Supported	The Government encourages LGNSW and the unions, with the input of those from within the sector with the practical experience of managing and working within the award, to continue to negotiate an Award that provides opportunity for increased efficiency, productivity and flexibility.
Political Leadership and Good Governance	26. Amend the Local Government Act to strengthen political leadership: • Require councils to undertake regular 'representation reviews' covering matters such as the number of councillors, method of election and use of wards (9.1) • Before their nomination is accepted, require all potential candidates for election to local government to	Supported in principle	Stronger political leadership and effective representation are essential to strengthen local communities. In developing a new Local Government Act, the Government will consider how to embed these principles and achieve these outcomes. In time for the next local government elections in 2016, the Government will: • Amend the legislated role of councillors and mayors to provide greater clarity generally in accordance with the Panel's recommendations • Introduce minimum two year terms and compulsory voting in mayoral elections for mayors elected by councillors, to facilitate leadership stability

Area	Recommendation	Position	Government response
	attend an information session covering the roles and responsibilities of councillors and mayors (9.1) • Amend the legislated role of councillors and mayors as proposed in Boxes 19 and 21, and introduce mandatory professional development programs (9.2 and 9.3) • Provide for full-time mayors, and in some cases deputy mayors, in larger councils and major regional centres (9.3) • Amend the provisions for election of mayors as proposed in Box 22 (9.3)		In addition, the Government will give further consideration to: • Requiring representation reviews to ensure that communities are adequately represented, subject to consideration of the potential practical implications and cost • Greater powers for the community to decide if they wish to have a directly elected mayor • Ensuring councils comprise an odd number of councillors(including the mayor) to support decision making • Ensuring new mayors and first time councillors undergo induction training. The Government believes in addition to this that councils should encourage all councillors, mayors and candidates to undergo training to ensure they have the necessary information and skills to decide to stand for council and perform their role effectively. The Government recognises the important role of the Mayor in providing leadership to the council and the community. It recognises that the role of Mayor will inevitably vary given the size of the council and the nature of the community, and believes it is for the council to determine the appropriate time required to fulfil this important strategic role.
	27. Increase remuneration for councillors and mayors who successfully complete recognised professional development programs (9.2-9.4)	Not supported	The Government recognises the dedication of councillors across NSW to their local council and their community and supports councillors receiving a fair level of remuneration, which reflects the nature of the role and the communities' expectations of prudent use of ratepayer funds. The Government believes an independent process, currently undertaken by the Independent Remuneration Tribunal, provides a fair means of setting councillor remuneration, with the current criteria taking into account, among other things, the size and the significance of the council. The Minister for Local Government will ask the Tribunal to give further consideration to the criteria to better reflect the objectives of local government reform with a focus on those councils that have made the necessary changes to become 'fit for the future'.

Area	Recommendation	Position	Government response
			The Government also believes that professional development, particularly for new councillors but importantly for all councillors, is essential for being an effective councillor rather than a justification for increasing councillor remuneration and expects all councils to have in place a professional development program for councillors.
	28. Amend the legislated role and standard contract provisions of General Managers as proposed in Boxes 23 and 24 (9.5)	Partially supported	The Government recognises the important role that General Managers (GMs) play in ensuring the effective operation of the council and supports providing greater clarity of this role to improve decision making and relationships. It is proposed that this be clarified in the new Local Government Act and for those councils that have become 'fit for the future', the title of the position be 'Chief Executive Officer' as opposed to 'General Manager'. Given the importance of the relationship between the Mayor and the GM, the OLG will amend the standard contract for GMs to: • require the Mayor to lead the appointment and performance reviews of the GM • limit the ability of a council to bind a future council to a particular GM, by preventing councils from renewing a GM contract within 6 months of an election.
	29. Amend the provisions for organisation reviews as proposed in section 9.6	Supported	The Government recognises that the current provisions are an ongoing source of confusion and conflict and will address this in the new Act, with changes generally in accordance with the Panel's recommendations.
	30. Develop a Good Governance Guide as a basis for 'performance improvement orders' and to provide additional guidance on building effective working relationships between the governing body, councillors, mayors and General Managers (9.7)	Supported	The OLG will work with LGNSW and LGMA (now Local Government Professionals Australia NSW) to produce a Good Governance Guide to support effective working relationships. The Government encourages both LGNSW and LGMA to take a strong role in supporting councils to improve governance.
Structural Reform	31. Introduce additional options for local government structures, including regional Joint Organisations, Rural Councils and Community Boards, to facilitate a better response to the needs	Supported	The Government recognises the significant potential to strengthen regional planning and service delivery through a new approach to regional cooperation and is committed to making this happen. To support the development of this model, the Government will invite applications from approximately four regions to become 'Pathfinders', working with the State to develop this new approach before

Area	Recommendation	Position	Government response
	and circumstances of different regions (10.1)		making any necessary legislative change and implementing it. To assist councils the State Government will provide funding of $5.3 million to support the creation of 15 Joint Organisations outside of Greater Sydney and the Central Coast. The Government recognises the unique pressures facing rural councils and the calls from the sector for a model of local government where one size does not fit all. It supports therefore the principle of creating different local government structures to provide greater flexibility for councils to continue to represent and serve diverse local communities. The Government expects councils to consider the recommendations of the Panel for the creation of Joint Organisations, Rural Councils and Community Boards in submitting a proposal to demonstrate how they will become 'fit for the future'.
	32. Legislate a revised process for considering potential amalgamations and boundary changes through a re-constituted and more independent Boundaries Commission (10.3)	Not supported	The Government is committed to ensuring transparency and public confidence in any boundary review process. The Government will consider the suggestions made by the Panel in preparing a new Local Government Act, to identify opportunities to streamline the process whilst ensuring robust and transparent decision making. In the meantime, the Government will make it easier for councils wishing to merge voluntarily (see recommendation 33).
	33. Encourage voluntary mergers of councils through measures to lower barriers and provide professional and financial support (10.4)	Supported	The Government expects all councils to reform to meet the needs of their community – to become financially sustainable, efficient, effectively manage infrastructure and deliver services and have the scale, resources and 'strategic capacity' to govern effectively. It calls on all councils to submit a proposal by 30 June 2015, outlining how they will achieve this. The Government encourages Fit for the Future proposals broadly in line with the structural changes proposed by the Independent Panel. To support councils to voluntarily merge, the Government is providing up to $22.5 million for new councils in Greater Sydney, the Central Coast and the Newcastle/Lake Macquarie and up to $13.5 million for new councils in regional areas. In addition, the Government will seek to amend the Local Government Act to provide an opportunity for councils choosing to merge voluntarily to undergo a streamlined application process. This would enable an application to be made

Area	Recommendation	Position	Government response
			direct to the Minister for Local Government to seek the Governor's approval of the voluntary merger, where all the councils involved support the proposal and can demonstrate adequate community consultation and consideration of the issues. Merging councils will have the opportunity to guide the merger process through the creation of a Local Transition Committees, comprising the Mayor and one other councillor of the merging councils, plus general managers, to allow local leadership of the merger process. Councils deemed 'fit for the future' will have access to a range of benefits reflecting their greater capacity, including special rate variation flexibility, access to borrowing through a State Finance Authority, priority access to State funding and other grants and a greater role in planning decisions.
	34. Provide and promote a range of options to maintain local identity and representation in local government areas with large populations and/or diverse localities (10.5)	Supported in principle	See comment for recommendation 31
Regional Organisations	35. Establish new Joint Organisations for each of the regions shown on Map 2 by means of individual proclamations negotiated under new provisions of the Local Government Act that replace those for County Councils(11.5) • Defer establishment of JOs in the Sydney metropolitan region, except for sub-regional strategic planning, pending further consideration of options for council mergers (11.5) • Re-constitute existing County Councils as subsidiaries of new regional Joint Organisations, as indicated in Table 5 (11.2)	Supported in principle	As described in the response to recommendation 31, the Government supports the creation of Joint Organisations. It will provide funding of $5.3 million to support the creation of Joint Organisations outside of Greater Sydney and the Central Coast. It will work with up to four regions to develop and test the models, to improve regional strategic planning and service delivery. In designing and testing the model, the Government will: • Align the regional boundaries for council collaboration with the State planning boundaries to maximise the opportunity for effective strategic planning and reduce the costs of working across different boundaries, while exploring options to provide flexibility for councils to collaborate and share services across different boundaries • Examine ways to ensure State agencies collaborate with councils in strategic planning • Consider the relationship between existing county councils, water utilities and

Area	Recommendation	Position	Government response
	• Establish Regional Water Alliances in each JO along the lines proposed in the 2009 Armstrong-Gellatly report (11.3) • Set the core functions of Joint Organisations by means of Ministerial Guidelines (11.6) • Seek federal government agreement to make JOs eligible for general-purpose FAGs (11.6)		JOs, with the aim of maximising the benefits of the new collaborative model while minimising the disruption to existing collaborative arrangements • Work with the Pathfinder regions to identify appropriate core functions and the necessary legislative model to enable these functions to be carried out • Defer consideration of the proposal to seek federal government agreement to make JOs eligible for general-purpose FAGs until after the evaluation of the Pathfinders and consideration of the outcomes of the Commonwealth review of FAGs.
	36. Identify one or more regional centres within each Joint Organisation and: • Create a network of those centres to drive development across regional NSW (11.7) • Consider potential mergers of councils to consolidate regional centres, as indicated in Table 6 (11.7)	Supported in principle	The Government recognises the potential value of a strong regional centre to provide skills and capacity to the JOs and to drive growth in regional NSW through collaboration with other regional centres and the State. Subject to the outcome of the Pathfinder process, and following the establishment of JOs across the State, the Government will explore the establishment of a network of regional centres. As outlined in the response to recommendation 33, the Government will support voluntary mergers, including those driven by a desire to consolidate regional centres.
	37. Develop close working partnerships between Joint Organisations and State agencies for strategic planning, infrastructure development and regional service delivery (11.8), and • Add representatives of Joint Organisations to State agency Regional Leadership Groups (11.8) • Give particular attention to cross-border issues and relationships in the operations of Joint Organisations and in future regional strategies (11.9)	Supported in principle	Close working relationships between JOs and State agencies will be crucial to the success of this model of collaboration. The testing of the JO model will explore ways to ensure this, including a new approach to Regional Action Planning, possible amendments to the IP&R guidelines and through the involvement of JO representatives in the relevant regional service delivery coordination body and Regional Planning Board.
'Rural Councils'	38. Establish a working party as part of the	Supported in	As outlined in recommendation 31, the Government recognises the unique

Area	Recommendation	Position	Government response
and Community Boards	Ministerial Advisory Group proposed in section 18.1 to further develop the concept of 'Rural Councils' for inclusion in the re-written Local Government Act (12.1)	principle	pressures facing rural councils and the calls from the sector for a model of local government where one size does not fit all. The OLG will therefore work with rural councils to further develop the concept of a rural council for possible inclusion in the re-written Local Government Act as an option available to rural councils. This option will be available in sufficient time for councils to consider as part of their 'fit for the future' proposal.
	39. Also include provisions for optional Community Boards in the re-written Local Government Act, based on the New Zealand model, but also enabling the setting of a supplementary 'community rate' with the approval of the 'parent' council (12.2)	Supported in principle	The Government supports the principle of not having a one size fits all approach to service delivery and local representation, and is therefore willing to work with councils, to further develop the concept of community boards for possible inclusion in the new Act. In particular, the Government encourages councils considering voluntary mergers to consider whether this option might be useful in maintaining local representation.
Recommendations for Metropolitan Sydney	40. Strengthen arrangements within State government for coordinated metropolitan planning and governance, and to ensure more effective collaboration with local government (13.1)	Supported	The Government recognises the importance of Sydney remaining a global city and the need for more effective strategic planning and collaboration between State Government and councils to drive economic growth and ensure delivery of the NSW State Plan. The Government is providing support to councils to voluntarily merge to facilitate more effective collaboration and strategic planning and will consider ways of working more proactively with 'fit for the future' councils in the metropolitan area. 'Fit for the future' councils will also have the option of playing a stronger role in planning decisions.
	41. Seek evidence-based responses from councils to the Panel's proposals for mergers and major boundary changes, and refer both the proposals and responses to the proposed Ministerial Advisory Group (section 18.1) for review, with the possibility of subsequent referrals to the Boundaries Commission (13.3)	Supported in principle	As per the response to recommendation 33, the Government expects all councils to become 'fit for the future' and encourages proposals for structural change broadly consistent with the recommendations of the Panel.
	42. Prioritise assessments of potential changes to the boundaries of the Cities of Sydney and Parramatta, and • Retain a separate City of Sydney Act	Partially supported	The Government recognises the unique role of the City of Sydney in ensuring Sydney remains a global city and therefore supports retaining a separate City of Sydney Act. Similarly, harnessing the potential of Parramatta as Sydney's second CBD is

Area	Recommendation	Position	Government response
	to recognise its Capital City role • Establish State-local City Partnership Committees for Sydney and Parramatta along the lines of Adelaide's Capital City Committee (13.4)		essential to economic growth in Sydney, and in western Sydney in particular. In submitting a 'fit for the future' proposal, councils will need to demonstrate it has the scale and capacity consistent with the recommendations of the Independent Panel.
	43. Pending any future action on mergers, establish Joint organisations of councils for the purposes of strategic sub-regional planning (13.5)	Not supported	The Government acknowledges the Panel's recommendations for voluntary amalgamation in Sydney, and will therefore support voluntary mergers, as outlined in response to recommendation 33.
	44. Maximise utilisation of the available local government revenue base in order to free-up State resources for support to councils in less advantaged areas (13.6)	Not supported	The Government encourages councils to work in partnership with the State to deliver better outcomes for communities and welcomes financial contributions from councils to support shared priorities. The Government acknowledges the Panel's view that this approach would work best with the proposals for voluntary mergers. The Government will therefore defer consideration of this recommendation, while councils consider options to voluntarily merge.
	45. Continue to monitor the sustainability and appropriateness in their current form of the Hawkesbury, Blue Mountains and Wollondilly local government areas (13.7)	Supported	The Financial Sustainability Program and performance measurement framework will provide an important means of understanding council performance to drive improvement and ensure these councils identify options to ensure a sustainable future.
	46. Promote the establishment of a Metropolitan Council of Mayors (13.8)	Supported in principle	The Government is committed to stronger partnership working and building closer relationships with the political leadership of Sydney councils, to improve strategic planning and better meet the needs of Sydney communities and business. The Government encourages the sector to identify a way for the councils of Sydney to meaningfully engage with the State as a collective. In particular the Government will consider ways to more effectively collaborate with 'fit for the future' metropolitan councils.
Hunter, Central Coast and Illawarra	47. Refer possible mergers of Dungog-Maitland, Newcastle-Lake Macquarie and Gosford-Wyong to the Boundaries Commission for further investigation in	Not supported	See comments in relation to recommendation 33

Area	Recommendation	Position	Government response
	accordance with the new process proposed in section 10.3 (14.1 and 14.2)		
	48. Defer negotiations for the establishment of a Central Coast Joint Organisation pending investigation of a possible merger of Gosford and Wyong councils (14.2)	Supported in principle	The Government expects the proposals from Gosford and Wyong councils to demonstrate how they propose to become fit for the future, as per the definition. It is expected that this includes consideration of the recommendation for merger.
	49. Pursue the establishment of Joint Organisations for the Hunter and Illawarra in accordance with Recommendation 35 (14.1 and 14.3)	Supported	See comments in relation to recommendation 31 and 33
Non-Metropolitan Regions	50. Explore options for non-metropolitan councils in Group A as part of establishing the Western Region Authority proposed in section 16 (15.1)	Supported	The Government recognises the significant challenges faced by these councils and is committed to working collaboratively to explore options to ensure these communities face a sustainable future. Councils in this region will not be expected to submit a 'fit for the future' proposal, pending further work to develop a new model for this region.
	51. Refer councils in Groups B-F to the Boundaries Commission in accordance with Table 11 and the proposed timeline (15.1)	Not supported	See comments in relation to recommendation 33
	52. Complete updated sustainability assessments and revised long term asset and financial plans for the 38 councils identified in Table 11 by no later than mid-2015 (15.2)	Supported	'Fit for the future' proposals from these councils will be expected to address the issue of financial sustainability, and will be assessed on this basis.
The Far West	53. Agree in principle to the establishment of a Far West Regional Authority with the functions proposed in Box 39 and membership as proposed in Figure 8 (16.3)	Supported	The Government supports the principle of a new governance model in Far Western NSW to ensure the needs of these remote communities can be met into the future. To further develop the model and approach to implementation, it is proposed to conduct a forum with councillors and council staff from the region as a next step in developing a new model.
	54. Adopt the preferred new arrangements for local government set out in Box 40 as a basis for further consultation (16.4)	Supported in principle	See comment in relation to recommendation 53.

17

Area	Recommendation	Position	Government response
	55. Establish a project team and reference group of key stakeholders within the DPC Regional Coordination Program to finalise proposals (16.5)	Supported	The Government recognises the challenge of developing and implementing a new model for the Far West and the need therefore to involve key stakeholders. The Government will establish a project team and reference group to progress this work, following further consideration of the scope.
State-Local Government Relations	56. Use the State-Local Agreement as the basis and framework for a range of actions to build a lasting partnership, and negotiate supplementary agreements as appropriate (17.1)	Supported	The Government remains committed to the IGA and will identify opportunities to negotiate supplementary agreements as required.
	57. Introduce new arrangements for collaborative, whole-of-government strategic planning at a regional level (17.2)	Supported	The Government will give consideration to the opportunities identified by the Panel to establish effective strategic partnerships in designing the JO model.
	58. Amend the State Constitution to strengthen recognition of elected local government (17.3)	Supported in principle	The Government recognises the importance of democratic local government. It will therefore seek to embed this principle in the new Local Government Act and will consider strengthening recognition of local government through an amendment to the State Constitution.
	59. Seek advice from LGNSW on the measures it proposes to take to meet its obligations under the State-Local Agreement (17.4)	Supported	The Government strongly encourages LGNSW to continue to work as a driver of change and improvement, consistent with the commitment made in the IGA, and invites LGNSW to present its proposals at the IGA meeting with the Premier and Minister for Local Government in 2014.
	60. Strengthen the focus of DLG on sector development and seek to reduce its workload in regulation and compliance (17.6)	Supported	The OLG will strengthen its focus on sector development through establishing a Financial Sustainability Program and performance measurement framework. In addition it will establish a one-stop shop to assess 'fit for the future' proposals and support structural change
Driving and Monitoring Reform	61. Establish a Ministerial Advisory Group and Project Management Office (18.1 and 18.2)	Supported in principle	The Government strongly supports continuing the collaborative approach to reform, which begun with Destination 2036 (D2036). To achieve this it is proposed to: • establish a Ministerial Advisory Group, comprising an independent chair, and representatives of LGNSW, LGPA and USU to provide advice to the Minister for Local Government on the direction and implementation of the Fit for the Future program. • continue to use the regular engagement mechanisms under the IGA; meetings

Area	Recommendation	Position	Government response
			between the Premier, Minister for Local Government and LGNSW President and the Chief Executive dialogue to review progress in implementing reform • Establish a Project Management Office within the OLG
	62. Refer outstanding elements of the Destination 2036 Action Plan to the Ministerial Advisory Group (18.1)	Supported in principle	The Government remains committed to the vision of D2036 of stronger communities through partnerships. All relevant actions from D2036 have now been dealt with or are incorporated, where appropriate, in the future agenda for reform.
	63. Adopt in principle the proposed priority initial implementation package set out in Box 42, as a basis for discussions with LGNSW under the State-Local Government Agreement (18.3)	Supported in principle	The Government is committed to maintain momentum in the local government reform journey and is proposing to implement, working in partnership with the sector, many of the priority initiatives identified by the Panel, in particular: • 'Fit for the future' councils • The development and eventual implementation of JOs, with associated improvements to strategic planning and service delivery • Establishing a state wide local government finance facility • Designing a new Local Government Act that strengthens IP&R, internal audit, political leadership
	64. Further develop the proposals for legislative changes detailed in Boxes 43 and 44, and seek to introduce the amendments listed in Box 43 in early 2014 (18.5)	Partially supported	The Government proposes legislative change as outlined in this response.
	65. Adopt in principle the proposed implementation timeline (18.6)	Not supported	Further details of the implementation timetable can be found at fitforthefuture.nsw.gov.au . The Government will assess the progress of councils in taking the necessary steps to become fit for the future towards the end of 2015.

Government response: Local Government Acts Taskforce recommendations

The Local Government Acts Taskforce, in considering the provisions of the *Local Government Act 1993* and the *City of Sydney Act 1988,* formulated recommendations for an enabling, principles-based Local Government Act that simplifies the regulatory aspects of the legislation.

Key recommendations

- Many aspects of the current Act still work well. However, its effectiveness has been eroded as a consequence of the manner in which the Act is structured which is as a result of incremental amendments over the past 20 years.

- The integrated planning and reporting provisions of the Act provide the primary strategic planning mechanism for local government in NSW and should be given much greater prominence in the new Act.

- There is an opportunity to streamline the Act and therefore the effectiveness of councils through greater use of technology, streamlining of public land management, simplification of approvals, orders and enforcement, and revised procurement, capital expenditure framework and financial management.

- There is a need to retain a separate Act for the City of Sydney in recognition of the administrative and economic importance of the central business district of Sydney and its unique position in holding events of local, regional, national and international significance, but with some changes to the non-residential electoral roll.

Government response

The NSW Government broadly supports the recommendations of the Taskforce. It will therefore commence work, in consultation with the sector and key stakeholders, to develop a new Local Government Act, with the aim of phasing it in from 2016/17. The new Act will be designed to:

- Give more prominence to the IP&R sections of the Act and use IP&R as its central framework
- Reduce unnecessary red tape and prescription in the Act
- Enhance community engagement
- Embed the principle of fiscal responsibility
- Improve financial and asset planning
- Strengthen representation and leadership
- Enables Government to have a differential approach to councils that have undergone the necessary changes to become 'fit for the future', for example reduce the reporting and compliance burden
- Include the agreed recommendations of the Independent Local Government Review Panel
- Take account of the expected reports by IPART into red tape and licensing and the recommendations made by the Joint Select Committee into the 2012 local elections.

Government response: Local Government Acts Taskforce recommendations (cont.)

Early amendments

In the short term, the Government will reduce red tape for councils by amending the Local Government Act to:

- Remove the restriction on the delegation of the acceptance of tenders to support regional procurement
- Lift the prescribed tendering threshold for councils to $250,000 to align it with the approved State Government tendering threshold for 'fit for the future' councils
- Enable councils to be able to support registered Australian Disability Enterprises, by being able to procure directly without having to go to tender
- Clarify that the current exemption from tendering will apply where councils use standing offers established by the NSW Procurement Board, the Commonwealth Department of Administrative Services, Local Government Procurement and Procurement Australia even where no rate is specified.
- Remove the mandatory newspaper advertisement requirements for recruitment and tenders
- Reduce the frequency with which councils are required to adopt an expenses and facilities policy from annually to once in each term of the council within 12 months of an ordinary election.

Strengthening local government

NSW GOVERNMENT | Office of Local Government

5 O'Keefe Avenue NOWRA NSW 2541
Locked Bag 3015 NOWRA NSW 2541

Our Reference: A392155
Your Reference:
Contact: Development Team
Phone: 4428 4100

Mr Michael Whittaker
General Manager
Wyong Shire Council
PO Box 20
WYONG NSW 2259

11 September 2014

Dear Mr Whittaker

On 10 September 2014, the Premier and the Minister for Local Government announced the Fit for the Future local government reform package to help strengthen communities and ensure councils are Fit for the Future.

To ensure that Councils are fully aware of the support and incentives available through Fit for the Future, senior staff from the Office of Local Government will be conducting an information session for Mayors and General Managers from the following councils: Hornsby, Ku-ring Gai, Pittwater, Warringah, Manly, Ryde, Hunters Hill, Lane Cove, Willoughby, North Sydney, Mosman, Gosford, and Wyong.

This session will be an opportunity to hear more about the Fit for the Future package and the One Stop Shop which has been established by the Office of Local Government to assist councils. It will provide an opportunity to meet your Office of Local Government Relationship Manager who has been assigned as an ongoing point of contact for councils regarding Fit for the Future.

Fit for the Future Information Session
Monday, 29th September 2014 at 10:00am
MGSM Conference Centre
99 Talavera Road, Macquarie Park NSW 2113

Could you please advise your attendance by email to rsvp@olg.nsw.gov.au or telephone 4428 4100.

I look forward to working with you during this important time for local government in New South Wales.

Yours sincerely

Steve Orr
Acting Chief Executive
Office of Local Government

T 02 4428 4100 F 02 4428 4199 TTY 02 4428 4209
E dlg@dlg.nsw.gov.au W www.dlg.nsw.gov.au ABN 44 913 630 046

Strengthening local government

NSW GOVERNMENT | Office of Local Government

5 O'Keefe Avenue NOWRA NSW 2541
Locked Bag 3015 NOWRA NSW 2541

Our Reference: A392155
Your Reference:
Contact: Development Team
Phone: 4428 4100

Clr Doug Eaton
Mayor
Wyong Shire Council
PO Box 20
WYONG NSW 2259

11 September 2014

Dear Clr Eaton

On 10 September 2014, the Premier and the Minister for Local Government announced the Fit for the Future local government reform package to help strengthen communities and ensure councils are Fit for the Future.

To ensure that Councils are fully aware of the support and incentives available through Fit for the Future, senior staff from the Office of Local Government will be conducting an information session for Mayors and General Managers from the following councils: Hornsby, Ku-ring Gai, Pittwater, Warringah, Manly, Ryde, Hunters Hill, Lane Cove, Willoughby, North Sydney, Mosman, Gosford, and Wyong.

This session will be an opportunity to hear more about the Fit for the Future package and the One Stop Shop which has been established by the Office of Local Government to assist councils. It will provide an opportunity to meet your Office of Local Government Relationship Manager who has been assigned as an ongoing point of contact for councils regarding Fit for the Future.

Fit for the Future Information Session
Monday, 29th September 2014 at 10:00am
MGSM Conference Centre
99 Talavera Road, Macquarie Park NSW 2113

Could you please advise your attendance by email to rsvp@olg.nsw.gov.au or telephone 4428 4100.

I look forward to working with you during this important time for local government in New South Wales.

Yours sincerely

Steve Orr
Acting Chief Executive
Office of Local Government

T 02 4428 4100 F 02 4428 4199 TTY 02 4428 4209
E dlg@dlg.nsw.gov.au W www.dlg.nsw.gov.au ABN 44 913 630 046

Fit for the Future

Facilitation support guide

OCTOBER 2014

NSW GOVERNMENT | Office of Local Government

ACCESS TO SERVICES

The Office of Local Government is located at:

Levels 1 & 2
5 O'Keefe Avenue
NOWRA NSW 2541

Locked Bag 3015
NOWRA NSW 2541

Phone 02 4428 4100
Fax 02 4428 4199
TTY 02 4428 4209

Level 9, 6 – 10 O'Connell Street
SYDNEY NSW 2000

PO Box R1772
ROYAL EXCHANGE NSW 1225

Phone 02 9289 4000
Fax 02 9289 4099

Email: olg@olg.nsw.gov.au
Website: www.olg.nsw.gov.au

OFFICE HOURS

Monday to Friday
8.30am to 5.00pm
(Special arrangements may be made if these hours are unsuitable)
All offices are wheelchair accessible.

ALTERNATIVE MEDIA PUBLICATIONS

Special arrangements can be made for our publications to be provided in large print or an alternative media format. If you need this service, please contact our Executive Branch on 02 9289 4000.

DISCLAIMER

While every effort has been made to ensure the accuracy of the information in this publication, the Office of Local Government expressly disclaims any liability to any person in respect of anything done or not done as a result of the contents of the publication or the data provided.

Produced by the Office of Local Government

NSW GOVERNMENT | Office of Local Government

FIT FOR THE FUTURE FACILITATORS

This guide provides an overview of the Panel of expert Facilitators who will assist, at the request of councils, in bringing councils together to discuss structural change.

The Panel has been appointed by the Office of Local Government (OLG), following a competitive shortlisting process. Panel members have demonstrated their capacity to undertake complex facilitation processes and have a detailed understanding of the challenges facing NSW councils.

Councils requesting facilitation will be asked to nominate two preferred Facilitators from the Panel, based on which the OLG will undertake targeted procurement. The OLG will enter into an agreement with the Facilitator and meet 100% of the cost.

The Facilitator Panel will be active until 30 June 2015, to enable councils to access facilitation services throughout the Fit for the Future process.

WHY USE A FACILITATOR?

The Fit for the Future process requires councils to prepare a roadmap for becoming Fit for the Future, taking account of their community's needs and future outlook.

Consideration of scale and capacity will be the starting point, based on the Independent Panel's recommendations for your council. Councils may submit proposals for scale and capacity that are different to the recommendations made by the Panel, so long as they are broadly consistent with the Panel's recommendations.

To assist councils to prepare a structural change proposal by 30 June 2015, the Government is providing support to councils to discuss the options with each other, with the help of a skilled facilitator. Facilitation can help with initiating conversations in a neutral way, in understanding the issues and challenges and in building consensus on the approach to change.

OFFICE OF LOCAL GOVERNMENT ONE STOP SHOP

Facilitation is one of a number of services coordinated through the OLG One Stop Shop, to assist councils to develop their Fit for the Future roadmaps.

www.fitforthefuture.nsw.gov.au

OVERVIEW OF THE FACILITATION PROCESS

Facilitators will play two key roles in the Fit for the Future process:

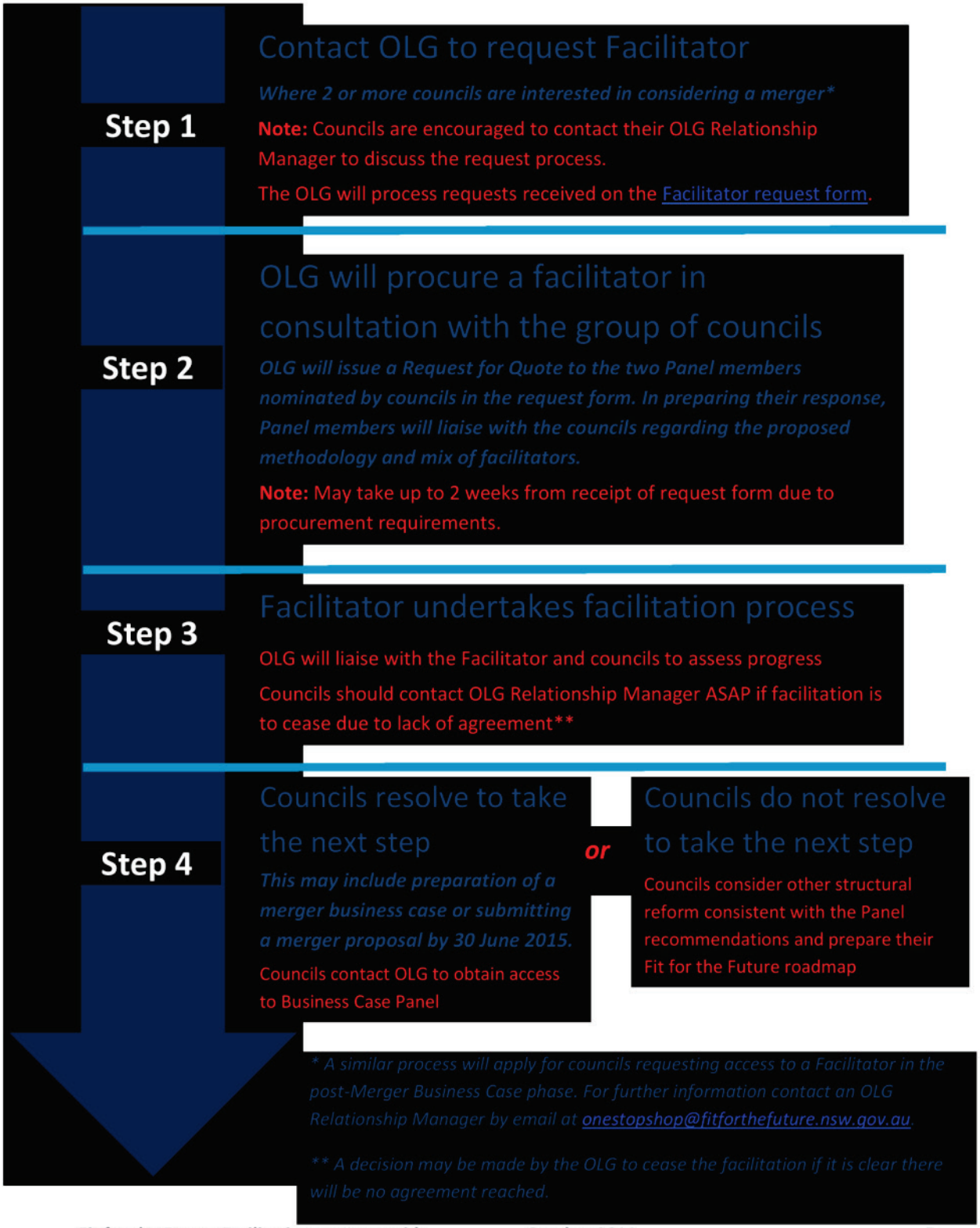
1. To assist groups of councils explore the potential of merging and
2. To assist councils who have undertaken a Merger Business Case to assess its findings and chart a way forward.

Facilitators will develop tailored facilitation plans to suit the needs and local circumstances of each group of councils. This could include the following:

- one-to-one session(s) with each council in a group to develop an understanding of each council's current state and views, and
- group workshop(s) with all councils in the group to explore and discuss opportunities, and identify and resolve obstacles to merging.

The OLG will regularly check-in with the Facilitator and councils over the course of the facilitation. Facilitators will be required to respect the confidentiality of each council in relation to any information passed on to the OLG and other councils.

ACCESSING A FACILITATOR



FACILITATOR PANEL

Advanced Dynamics

Advanced Dynamics is a New South Wales based company but our experience has been gained in New Zealand, the United Kingdom, South Africa and Australia, over nearly two decades.

We are no-nonsense people who know how to help local government through really challenging times of change. We've helped Councils in the NSW, WA, NZ and the UK achieve real results – from merging leadership teams and administrations to making cash savings from changing the way they work.

Our experienced facilitators have worked with public sector organisations as well as the private sector to resolve tough and complex issues. Our approach is to help people to look at issues from fresh angles while applying our knowledge of the environments in which these organisations operate.

Advanced Dynamics' facilitators come from varied backgrounds. We have those who can bring objectivity from outside the local government sector as well as those who have the deep knowledge of having been part of the sector at both an elected and appointed capacity.

We understand the multi-layered 'community-elected member-administration' dynamic. Recently we have been very involved in many different capacities with the local government reform programs of Western Australia, South Australia and New South Wales.

www.advanced-dynamics.com.au

Contact:
Susan Law
Managing Director

P: 0405 313 836
E: susan.law@LKSQuaero.com

Nominated facilitators

- Peter Cooper
- Alison Dalziel
- Andrew Betts
- Susan Law
- Mark Potter
- Peter Gesling
- David Gourlay
- Greg Mackie
- Benjamin Taylor
- Chris Stratten

Elton Consulting

Elton Consulting has been a trusted advisor to local government across NSW and Australia for over 25 years. We have worked regularly with both executive management and elected Councillors in individual councils and ROCS.

Our services to councils include: strategic and business planning, organisational and service improvement, facilitation of complex processes, and designing and supporting structural change.

Our senior staff understand the governance, business and operations of local government and the roles of State and local government. Many have previously held executive roles in councils and State agencies.

Our nominated facilitators are expert consensus builders, facilitators and mediators. We have assisted many sensitive, multi-party discussions through to successful outcomes. We are skilled at helping to navigate complexity, build consensus and identify practical, contemporary solutions.

We worked with the Division of Local Government and key local government stakeholders in 2011 to deliver the Destination 2036 workshop in Dubbo, including the discussion paper, design and facilitation of workshops and the outcomes report, including a draft Action Plan.

We have supported councils and ROCS to consider reform directions over the last three years. Our independent and trusted facilitation combines with our deep knowledge of local government to add value to the process of identifying strategic directions and practical solutions.

www.elton.com.au

Contact:
Kim Anson
P: (02) 9387 2600
E: kima@elton.com.au

Nominated facilitators

- Brian Elton – Managing Director
- Kim Anson – General Manager
- Brendan Blakeley – Associate Director
- Robert Mellor – Associate

Ernst & Young

www.ey.com/Government and Public Sector

Contact:
Adrian Renouf
Lead Partner, NSW Government and Public Sector
T: 02 8295 6117
M: 0408 251 398
E: adrian.renouf@au.ey.com

EY has been advising government clients in Australia and overseas for many years to review, restructure and improve their services, operations, performance, assets and infrastructure.

We are highly experienced in facilitating complex stakeholder consultations and negotiations to achieve positive outcomes, and are renowned for our independence, responsiveness and professionalism.

Our approach to each engagement is tailored to the needs and expectations of the clients and stakeholders involved, rather than imposing any pre-conceived views or process. This is possible because we have the ability to draw from a proven national network of highly experienced facilitators with an understanding of the key issues, challenges and drivers facing the local government sector in NSW and other Australian jurisdictions.

With recent experience in WA facilitating merger discussions between local councils, EY has a strong independent brand and market presence to support and facilitate Councils' discussions in regards to the Fit for the Future process.

Nominated facilitators

- Adrian Renouf
- Larni de Courtenay
- Peter Rohan
- Liam O'Connell
- Andrew Ozga
- Ben J Holland

Kathy Jones and Associates (KJA)

www.kjassoc.com.au

Contact:
Natalie Boyd – Communications Director
T: 02 9936 5104
M: 0408 626 407
E: n.boyd@kjassoc.com.au

We are pleased to present Kathy Jones (Principal, KJA) and Ian Colley (Facilitation Specialist) as project facilitators. Both are senior practitioners with impeccable reputations and experience in strategic stakeholder engagement, facilitated processes, issues management and relationship development for government and the private sector.

Kathy and Ian understand the dynamics of engaging with high level stakeholders and know how to manage issues-based engagements. They have the ability to confidently lead and direct conversations ensuring each workshop process results in a positive and engaging experience.

Kathy Jones is one of Australia's leading stakeholder engagement strategists. She has over 20 years of experience in facilitation for both private industry and the public sector. She is one of three founding directors of newDemocracy and is passionate about effective local government.

Kathy has guided General Managers, CEOs, boards, executive teams and senior management during crises, policy change and transformation. With extensive experience in Local, State and Federal government agencies, Kathy has designed and facilitated successful consultation processes for some of the nation's major projects and organisations including Barangaroo, Transport for NSW, WestConnex, AGL, Transgrid and Orica.

Ian Colley has facilitated hundreds of projects in business, government and community settings and also teaches facilitation at the University of Technology, Sydney. His focus is on building common ground between multiple stakeholders, solving difficult problems and creating clarity about uncertain futures.

Ian's career is based on a rich background in senior public policy roles, along with hands-on experience in ambitious practical reforms. With high profile clients such as American Express, UTS and IBM, and numerous NSW councils, he has a unique depth of experience to deal with 'tricky issues' through strong leadership and strategic communication skills.

Nominated facilitators

- Kathy Jones
- Ian Colley

Morrison Low

www.morrisonlow.com

Contact:
Dan Bonifant
Director
P: 02 9211 2991 or
0427 111 884
E:
d.bonifant@morrisonlow.com

Morrison Low is an Australasian management consulting firm. We are market specialists in local government and pride ourselves on building long-term relationships with our clients.

Local government is our main focus. Our expertise has been relied on by local government for almost fifteen years. With a team of people who have worked in virtually every aspect of local government, both across Australasia and internationally, we take a collegiate, integrated approach towards developing valuable, strategic and practical solutions. We specialise in assisting organisations improve their performance through examining and aligning strategies, structures, processes, systems and resources.

Morrison Low has significant recent experience in structural reform across multiple jurisdictions (QLD, WA, NSW and NZ) which means we understand and have helped councils identify and address the issues that typically arise around local government structural reform. In addition, we have facilitated councils through structural reform from the very beginning of the idea for mergers, through to the applications process, and finally the planning and implementation of successful mergers.

Our facilitator team is based around a core of experienced, well regarded local government professionals. Many of the nominated facilitators have personally been involved in/affected by amalgamations previously. They genuinely do understand the impacts on staff and councils. Importantly, our facilitators are supported by experts in infrastructure, finance and strategic planning who will provide valuable analysis and support to the Facilitators.

Nominated facilitators

- Bruce Nicholson
- Coreen Adamson
- Greg Wright
- Stephen Bunting
- Martin Bass
- Ian Reynolds

Third Horizon

www.thirdhorizon.com.au

Contact:
Robert Kelly
Director
P:+61 414 568 233
or +61 2 9333 6000
E: robert.kelly@thirdhorizon.com.au

We are a firm that focuses on working with clients to implement major reform across government and the private sector. For this project we have assembled a team of facilitators who represent an intentional mix of deep local government experience and those who are completely independent from any local government entity. Those with deep local government experience know the business of local government in NSW intimately and have worked with over 80 Councils across the State - two of our facilitators were key members of the Local Government Acts Taskforce. We are also aware that in some instances it will be important to have a facilitator who is completely independent and impartial.

Our facilitators have proven experience achieving positive outcomes in complex, politically charged and challenging stakeholder engagements. Our track record of implementing large change initiatives across the public and private sectors attests to our ability to collaboratively engage with senior leaders to build practical and long-lasting solutions that respond to the organisation's needs.

We have helped most of the State's departments and its agencies, including many Federal departments. We have extensive experience working with clients to facilitate and enable effective integration from identifying and realising merger synergies to identifying and managing the associated risks. Our facilitators are adept at asking the right questions to ensure successful outcomes. Our experience includes helping government departments with business and financial planning, managing business improvement services and identifying technology improvements.

Our understanding of government at all levels gives us insight into what is required to provide quality outcomes in a timely and collaborative manner with Councils.

We look forward to the opportunity of partnering with you to help achieve successful outcomes.

Nominated facilitators

- Steven Beattie
- Stephen Blackadder
- Lyndal Hughes
- Michael Johnson
- David Jones
- Steven Metzmacher
- Robert Kelly
- Dr Ian Tiley
- Stephen Timm
- Julie Vincent

FACILITATOR REQUEST FORM

- The OLG will process requests that are received on this request form **(an editable version of this form is available at www.fitforthefuture.nsw.gov.au).**
- It is assumed that the Mayors and General Managers of all of the councils listed below have agreed to submit the Facilitator Request Form.
- The form can be submitted by any of the listed councils. However, councils are asked to ensure that only one copy of the form is submitted.

Please send the completed form to: onestopshop@fitforthefuture.nsw.gov.au

Details of requesting councils (provide details of all councils/contacts in facilitation grouping)	
Council #1	
Contact: (eg: General Manager)	
Council #2	
Contact:	
Council #3	
Contact:	
Council #4	
Contact:	
Council #5	
Contact:	
Council #6	
Contact:	

Preferred Facilitator (nominate 2 from Facilitator Panel)		
Approved Facilitator name	**Preference no. (1 or 2)**	**Reason (max 100 words)** *This may include preference for an individual facilitator, although this cannot be guaranteed.*
Advanced Dynamics (Australia) Pty Ltd		
Elton Consulting Group Pty Ltd		
Ernst & Young		
Kathy Jones and Associates (KJA)		
Morrison Low Consultants Pty Ltd		
Third Horizon Consulting Pty Ltd		

FACILITATOR REQUEST FORM (page 2)

Current merger discussion	
Provide an overview of the level of progress in current merger discussions between these councils	

Prior merger discussions	
Provide an overview of any previous merger discussions that have taken place between these councils, or councils within this group	

Links to relevant studies or research	
Provide the details of (and links to) any research or studies relevant to this merger discussion (eg: options report, scoping study, business case etc)	

FURTHER INFORMATION

Enquiries about the Facilitator application process should be directed to Office of Local Government Relationship Managers via email to onestopshop@fitforthefuture.nsw.gov.au.

If you wish to speak to a Relationship Manager, please call 02 4428 4100.