

# WYONG SHIRE COUNCIL

# SUBMISSION TO THE

# INDEPENDENT PRICING AND REGULATORY TRIBUNAL

# **PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013**

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#### 1.1 General

Council's last pricing submission to the Tribunal was in September 2005. At that time, the most significant issue facing Council's water business was a continuation of its worst drought in history. Recognising at the time the continuing uncertainties associated with the drought and its long term impacts, the Tribunal determined a three year price path in the May 2006 determination.

Although the drought situation on the Central Coast has eased, Council's financial position continues to be under pressure due to reduced water sales arising from ongoing restrictions and the funding necessary for works required for drought recovery and to secure water supplies into the future.

In accordance with Section 3.4.1 of the IPaRT Issues Paper, Council has prepared this submission based on a 4 year price path from 2009/10 to 2012/13 inclusive.

#### **1.2** Significant Issues Addressed in this Pricing Submission

#### a) Drought Impact on Water Supply Works

The impact of the drought continues to affect the financial position of Council's water business. The continuing development of alternative water supplies, demand management strategies and work to secure the water supply into the future is detailed in Sections 5.3 & 5.4 of this submission.

#### b) <u>Stormwater Drainage Pricing</u>

It is proposed to implement a Drainage Service Charge in 2009/2010. Council's proposal is outlined in Section 3.2.1 of this submission.

#### c) <u>Trade Waste Pricing</u>

#### (i) Liquid Trade Waste Charges for Septic Tank Waste and Pan Waste.

The Department of Water and Energy (in late 2007) issued a direction to NSW Councils requiring that septic tank waste and pan waste now be classified as liquid trade waste.

Council's pricing proposal in response to this requirement is outlined in Section 3.2.2 of this submission.

(ii) Liquid Trade Waste Usage Charges for Category 2 Compliant Dischargers.

A higher than CPI increase is proposed over the pricing path to continue the progression to full cost recovery. This is outlined in Section 3.2.3 of this submission.

## d) <u>Revenue from Water Sales</u>

Council's revenue from water sales over the period from 2003/2004 to 2007/2008 has been significantly less than that which formed the basis of previous pricing determinations. This is discussed in Sections 2.1.4 and 5.2 of this submission.

## **1.3 Background to Wyong Council Business**

Council operates its water business under the provision of the Water Management Act 2000. Services provided by this business relate to the provision, operation and maintenance of water supply, sewerage and drainage infrastructure. The Shire has a population of over 145,000 and has been experiencing sustained growth, which is expected to continue at approximately 2% pa over the period of this determination.

The water supply business includes the full range of operation, maintenance and capital works activities associated with the water supply catchment, water harvesting, treatment and distribution to customers. Major headworks components such as dams, weirs, treatment plants and bulk water distribution reservoirs are shared with Gosford City Council and administered by a joint Board. Water supply infrastructure associated with the distribution of water to customers is the responsibility of each individual Council.

Council provides water to a permanent population of approximately 143,000 via over 61,000 metered connections. Over 14,500ML of water is supplied annually, during periods of unrestricted water usage, with peak demands ranging from 35ML/day in winter to 100ML/day in summer. Prior to introduction of restrictions the 2001/2002 Shire demand was 14,871 ML.

Since February 2002 the Shire has been subject to water restrictions. Drought management strategies implemented since that time have resulted in a reduced system demand of approximately 20%. Current Shire demand (2007/2008) is 11996 ML per year.

Council's sewerage business includes operation and maintenance of the sewerage system together with the provision of capital works and effluent and sludge disposal. Connection is provided to over 60,000 properties.

Sewage is treated at six treatment plants located throughout the Shire with treated effluent being either discharged to the ocean (via two ocean outfalls) or recycled for beneficial reuse, e.g. golf course watering. In 2007/08, 8.1% of effluent produced was recycled. Sewage is treated to a secondary standard for ocean discharge and tertiary standard for effluent reuse.

All sludge is composted for re-use. Currently, approximately 1400 dry tonnes per year of sludge is recycled for beneficial reuse, e.g. composting.

Council's objective for the Water Supply and Sewerage businesses is to "provide cost effective services that meet customer service standards, conform to health and environmental requirements and are provided in a timely manner consistent with development needs". To assist in achieving this objective Council has developed a Best Practice Strategic Business Plan for its water and sewerage business. The Plan has been prepared in accordance with the requirements of the Department of Water and Energy, (DWE) Best Practice Guidelines.

Drainage capital works and operating costs are currently funded from the water supply and sewerage functions, however Council, in this pricing determination is proposing a separate drainage service charge (Refer Section 3.2.1).

In older areas of the Shire, inadequate drainage systems have led to significant local flooding problems. Council has had an ongoing program to upgrade these older systems which will continue for at least the next twenty years. Much of the existing drainage infrastructure requires refurbishment which is carried out under this programme. The objective for the drainage function is to minimise damage to properties caused by flooding.

Council is faced with increasing costs arising from a combination of factors. The most significant of these are: -

- ongoing maintenance and operation of contingency and demand management measures as part of the continuing drought recovery
- implementation of measures, associated with the long term water supply security
- addressing the implications of water sharing plans on water harvesting
- providing and servicing information systems to meet increasing regulatory reporting requirements

# 2. CURRENT AND FUTURE OPERATING ENVIRONMENT

#### 2.1 Current Environment

The operating environment has changed considerably since Council's previous submission.

While the major influence is still the impact of the drought, the immediate risk of running out of water has receded and the works, and associated costs, necessary for drought recovery and to secure long term water supply needs are reasonably well defined.

The following issues relevant to the operating environment are discussed below: -

- Long Term Water Supply Security
- Drought Recovery Works
- Ongoing Demand Management Measures
- Reduced Water Sales Resulting from Drought and Restrictions
- Proposed Merger of Gosford and Wyong Council's Water Functions
- Ongoing Development of the Water Strategic Business Plan
- Continued Growth
- Subsidisation of Development

#### 2.1.1 Long Term Water Supply Security

Council is currently recovering from its worst drought on record when water supply storages reached their lowest level since 1987.

The drought has impacted water supplies since 1992, from which time they have fallen from 70% to 12.4% in February 2007. At July 2008 storages have recovered to 30%.

In February 2002 the storages had fallen to 41%. This represented about 8 years of usable storage based on the rate at which the storages had drawn down over the previous 10 years. While system modelling, based on historical rainfall and streamflow data, indicated that a return to normal rainfall patterns, and the storages subsequently recovering, was imminent, the Board of the Gosford and Wyong Councils' Water Authority considered it prudent to review the long term water supply strategy for the Central Coast which was then over 20 years old. This involved the letting of a major consultancy to the Department of Commerce (DoC) to review various options including: -

- reducing usage through demand management
- effluent re-use to substitute for potable water use
- further extractions from run of river flows
- use of groundwater
- desalination

The reports resulting from the DoC consultancy represented the available options to ensure the long term security of Central Coast water supplies.

The strategies detailed in the DoC reports, subsequent input from the community and negotiations with the State Government in relation to water sharing plans has enabled the development of a long term strategy for the Central Coast (WaterPlan 2050).

WaterPlan 2050 identifies a strategy to secure the Central Coast water supply over the next 45 years.

Following an extensive review process and community input both Wyong and Gosford Councils adopted the preferred WaterPlan 2050 strategy in August 2007.

The WaterPlan 2050 Summary Document is attached to this submission as Appendix H.

The major work identified for long term water supply security is the Mardi to Mangrove Link which is estimated to cost \$110M. Allowing for an \$80.3M Federal funding grant, the Councils will fund \$29.7M of this cost.

## 2.1.2 Drought Recovery Works

Works required in the medium term (within the proposed pricing path) to improve system security / performance and speed recovery from the drought include: -

- Augmentation of the Lower Wyong River Transfer System (Total Project Cost - \$7.47M)
- Construction of the Mardi High Lift Pump Station (Total Project Cost -\$14.76M)
- Gosford associated works for Mardi High Lift Pump Station (Total Project Cost - \$4.42M)
- Dam spillway widening and spillway bridge at Mardi Dam\* (Total Project Cost - \$2.28M)
- Augmentation of Mardi Transfer System (Total Project Cost \$33.28M)
- Mardi Power Supply Upgrade (Total Project Cost \$5.18M)
- Mardi Dam Pre-Treatment Facilities (Total Project Cost \$20.0M)
- \* This work is the outcome of reassessment of the Mardi Dam raising proposal. Refer to Sections 2.1.3.3 and 3.2.2.3 in Appendix A for more details.

The above works are integral to WaterPlan 2050 and will be completed by 2012/13 at an estimated total project cost of \$87M of which Wyong will fund 50%.

While approximately \$17M of this expenditure has been incurred up to and including 2007/08, approximately \$70M will be incurred over the 2008/09–2012/13 period inclusive. This expenditure will be shared equally between Wyong and Gosford councils.

#### 2.1.3 Ongoing Demand Management Measures

The Councils facilitated / implemented a range of contingency and demand management measures targeted at managing the Central Coast water reserves through the drought.

These included the following: -

- community education to encourage water conservation;
- retrofit of Council facilities with water efficient appliance and devices;
- provision of rainwater tanks to Council properties and schools;
- a programme to retrofit residential homes and Department of Housing properties on the Central Coast with water efficient devices;
- a programme of industrial water use audits targeted at improving water efficiency;
- introduction of a broader strategy (in line with Level 2B restrictions) requiring major commercial and industrial water users to prepare and implement Water Management Plans to reduce consumption;
- a rebate programme to encourage retrofitting of rainwater tanks to existing residential properties;
- a rebate programme to encourage take-up of water efficient washing machines;
- amendments to operational procedures to reduce water losses during mains and reservoir cleaning;
- ongoing system leakage reduction programmes;
- effluent re-use via tankers for landscape watering and construction works;
- effluent re-use systems at Bateau Bay and Toukley Sewage Treatment Plants to service the Tuggerah Lakes Golf Club, Toukley Golf Club and adjacent areas;
- effluent re-use system upgrades at Wyong South, Mannering Park, Charmhaven and Gwandalan Sewage Treatment Plants for use within the treatment plants and external use via tankers;
- implementation of an effluent reuse system at Vales Point Power Station;
- facilitation of water saving projects through the NSW Government Water Savings Fund;
- investigations into the feasibility of a dual water (potable and non-potable) for the new release areas in the north of the Shire;
- development of groundwater sites for both non-potable and potable uses. (Total programme cost - \$30.7M);
- development of infrastructure to enable transfer of water from the Hunter Water Corporation. (Total programme cost – Nett \$34.9M after allowing for Federal Grant);
- pre-construction activities associated with desalinated water supplies. (Total programme cost - \$4.0M);
- operational contingency planning associated with accessing low level supplies in Mangrove Creek Dam, Mardi Dam and Lower Mooney Dam. (Total programme cost - \$3.15M);
- sourcing additional water supplies in Ourimbah Creek and Porters Creek. (Total programme cost - \$1.57M);
- provision off diesel powered temporary Mardi High Lift Pump Station to enable water transfers to Gosford via the Gosford / Wyong Trunk Main. (Total programme cost -\$1.12M);

To date the total cost borne by the Councils for these works is in excess of \$80M. While additional contingency measures are not warranted, the ongoing O & M costs associated with many of these existing measures are discussed further in Section 2.2.2.

### 2.1.4 Reduced Water Sales Resulting from Drought and Restrictions

The introduction of water restrictions in February 2002 has resulted in actual water sales by Council being significantly less than sales estimates upon which previous pricing determinations have been based. This has resulted in a revenue shortfall of approximately \$8.2M in the period 2003/04-2007/08.

Basis for Determination**	Actual Sales by Council	Reduced Water Sales	Reduced Revenue*
15,000 ML	13,467ML	(1,533) ML	(\$1,119,090)
15,000 ML	13,099 ML	(1,901) ML	(\$1,437,000)
12,814 ML	13,013 ML	199 ML	\$184,075
12,939 ML	10,889 ML	(2,050) ML	(\$2,296,000)
13,128 ML	10,786 ML	(2,342) ML	(\$3,232,000)
CO 004 MI	64 0E4 MI	(7.02) MI	¢0 004 000***
	Determination** 15,000 ML 15,000 ML 12,814 ML 12,939 ML 13,128 ML 68.881 ML	Determination**      Actual Sales        Determination**      by Council        15,000 ML      13,467ML        15,000 ML      13,099 ML        12,814 ML      13,013 ML        12,939 ML      10,889 ML        13,128 ML      10,786 ML        68.881 ML      61.254 ML	Determination**Actual Sales by CouncilKeduced Water Sales15,000 ML13,467ML(1,533) ML15,000 ML13,099 ML(1,901) ML12,814 ML13,013 ML199 ML12,939 ML10,889 ML(2,050) ML13,128 ML10,786 ML(2,342) ML68.881 ML61,254 ML(7,627) ML

A comparison is as follows:

\* Based on sale price in relevant year (\$ of the day)

\*\* Projected sales as determined by IPART for price setting

\*\* Estimated Total in 2008 \$

The worsening of the drought after the 2006 IPART review has seen a continuing deterioration in water sales, relative to IPART projections, which has adversely impacted Council's financial position.

#### 2.1.5 Ongoing Development of the Water Strategic Business Plan

Best Practice Management Guidelines, as published by DWE, provide for the development of a Water Strategic Business Plan that addresses:-

- Pricing and Developer Charges
- Demand Management
- Drought Management
- Performance Reporting
- Integrated Water Cycle Management
- Customer Services
- Asset Management

IPART through its determination and various consultants' reports has also encouraged the preparation of such plans.

Council has completed the over arching plan and the Integrated Water Cycle Management component of the Strategic Business Plan at an estimated cost of approximately \$250,000 including consultant and Council costs.

Council will continue to develop and implement its asset management system during the period of the determination.

Council foresees the requirement for ongoing resources to develop and maintain these systems.

## 2.1.6 Continued Growth

While Shire population growth (of approximately 1% pa) over the past 5 years has been less than originally predicted this growth has still been a key driver of capital works programmes.

This pricing proposal has been based on population growth of 2% pa over the next price path. This level of growth is consistent with Department of Planning predictions taking into account the objectives of the Central Coast Regional Strategy.

In addition, while recent levels of development have been lower than originally anticipated, any reduction in interest rates could trigger increased development.

## 2.1.7 Subsidisation of Development

The recent review (Draft IPaRT report July 2008) of developer contributions by IPaRT proposed to phase out the cap which currently restricts Council to recovering only 85% of the cost of providing water and sewerage infrastructure for development. However, it should be noted that under this cap which has been in place since 1996, Council has under-recovered for future works and as such must continue to cross subsidise development from fees and charges for a number of years

#### 2.2 Future Operating Environment

The major influence associated with the future operating environment, in the short to medium term, will be the ongoing impacts of the drought. These will include: -

- Continuing reduced water sales as a result of restrictions and changed community attitudes;
- The ongoing cost of contingency and demand management measures;
- Cost of system security works.

Other influences include: -

- Ongoing management costs associated with the new IT system;
- Costs associated with meeting regulatory requirements stemming from the Strategic Business Plan, particularly Asset Management;
- Impacts of Water Sharing Plans;
- Ongoing growth.

## 2.2.1 Continuing Reduced Water Sales

Council's estimated future water sales are summarised in Section 5.2 with a background report included as Appendix C of this submission.

While Section 2.1.4 has highlighted the water sales "shortfall" in previous years, current estimates indicates that water sales will still be reduced by up to 19% over the period 2008/2009 - 2012/2013 compared to estimated sales had water restrictions not been in place. (Refer Sections 5.1 and 5.2)

## 2.2.2 Cost of Contingency and Demand Management Measures

Many of the contingency and demand management plans detailed in Section 2.1.3 will result in ongoing operational costs, eg. groundwater, purchase of water from the Hunter Water Corporation, effluent reuse, etc.

In particular the potable groundwater programmes and Hunter water purchases will need to continue over, at least, the period 2008/2013 to enable local Central Coast water sources to recover.

In the case of Hunter water purchases, it is probable that unit purchase costs will increase significantly (in excess of CPI) over the 2008/2013 period based on current advice from Hunter Water Corporation.

A number of other contingency plans relating to demand management initiatives have had to be brought forward or accelerated as a result of the drought eg. effluent reuse schemes. Operation and maintenance costs associated with these schemes will now become a permanent feature of Councils cost structure into the future. These are estimated to cost \$1.4M over the period of this determination.

#### 2.2.3 Cost of System Security and Drought Recovery Works

The system security and drought recovery works identified in Section 2.1.2 will result in increases in future operating costs that will start to phase in during the next pricing path. These are estimated to cost \$1.45M over the period of this determination.

### 2.2.4 Strategic Business Plan / Asset Management

Council has completed its water and sewerage strategic business plan. The plan has been reviewed several times since it was completed in 2004 and audited externally by the NSW Department of Commerce after each review. Every audit has concluded that the plan meets the Best Practice Management requirements as detailed by the Department of Water and Energy. The last audit was completed in 2007.

In 2005, Council completed a water and sewerage asset management plan and in 2007, Council established an asset management project team to further enhance Council's overall management of assets. Over the last few years, Council has continued to introduce additional asset management software packages as part of the Councils On-Line Project.

The main asset management related software packages include Project Accounting, Fixed Assets, Asset Work Management, Geographic Information System and Strategic Asset Management. Development of these systems is ongoing. These systems are providing increase asset management information and will enhance financial management and reporting.

A review of water and sewerage staff resources in 2004 identified that at least four new positions would be required, at an annual cost of approximately \$400,000, to meet regulatory requirements associated with the development and maintenance of the Water Strategic Business Plan and enhancement of associated asset management systems.

These positions have been filled.

#### 2.2.5 Water Sharing Plans

System yield analysis for the Central Coast water supply incorporates the provision of environmental flows for the water supply source streams. Though the draft Water Sharing Plan impacting the source streams on the Central Coast has not yet been released by the Department of Water and Energy (DWE) at this stage, extensive discussions have been held between the Councils and DWE. The yield analysis incorporates the latest information as to the most likely environmental flow requirements that will be applied.

The environmental flow rules will impact the timing and amount of water extractions permissible from the water sources, particularly reducing extractions during low flow periods. This will reduce the yield of the existing system unless infrastructure upgrades are provided to allow for additional water extraction in the high flow periods.

Current proposed infrastructure programmes have been based on the most likely Water Sharing Plan requirements, estimated population growth and water efficiency (demand management) impacts.

#### 2.2.6 Growth

Section 2.1.6 above outlines the basis for growth predictions.

## 3. PRICING ISSUES

#### 3.1. Price Path Period

From Section 3.4.1 of the Issues Paper it is understood that IPART proposes to apply a 4 year price path from 2009/10 to 2012/13 inclusive. Council concurs with this being an appropriate price path period given the greater certainty surrounding future drought related works and, accordingly, Council's submission is based on this time frame.

#### 3.2. Changes to Pricing Structure

Council proposes changes to its pricing structure in the following areas: -

- Introduction of a Drainage Service charge
- Introduction of a Septic Tank and Pan Waste charge under its Trade Waste Charges.
- Continued phased increase of its Liquid Trade Waste Usage Charge.

#### 3.2.1 Drainage Service Charge

#### (i) Background

Council proposed a drainage service charge in it's submission to the 2006-2009 price determination however, IPART subsequently deferred the introduction of this charge due to administrative difficulties associated with its introduction and requested Council to further develop this proposal for the next pricing review.

Council currently funds drainage works including all of the capital works and most of the maintenance works from income derived from water and sewerage charges. Currently, there is no separate drainage charge.

General rates fund the maintenance of drainage structures associated with roadside drainage.

Council also currently charges a Stormwater Levy. This levy enables Council to make a charge for specifically identified water quality related works. The Stormwater Levy applies to the urban area of the Shire – defined as the area to the east of the F3 Freeway plus the Highway Service Centre and any industrial-zoned land to the west of the Freeway. Vacant properties (i.e. those without impervious surfaces) are not subject to this levy. The Stormwater Levy is a State Government approved funding mechanism. The pricing structure has been developed by the State Government for use by Local Government. The 2008/09 pricing structure for Wyong is outlined below: -

Residential properties	\$25.00 per property
Residential strata properties	\$12.50 per lot
Residential company title properties	\$25.00 per Company Title complex apportioned according to the number of shares in the company owned by each shareholder
Business properties	\$25.00 per 850 square metres (or part thereof) with a ceiling of \$5,000
Business strata properties	\$25.00 per 850 square metres (or part thereof of the land area of the strata complex) for strata business properties and apportioned equally to each lot within the strata complex.
Business company title properties	\$25.00 per 850 square metres (or part thereof) of the company title complex with a ceiling of \$5,000, apportioned according to the number of shares in the company owned by each shareholder.

#### (ii) <u>Review of Charges by Other Authorities</u>

A review of drainage charges levied by other authorities indicated the following: -

(1) Sydney Water Corporation

In its price determination for Sydney Water (June 2005), IPaRT set out a stormwater drainage service charge as follows, for the year commencing 1 July 2008.

\$45.03 pa for residential properties and vacant land \$117.19 pa for non-residential properties

Sydney Water does not levy charges on rural properties.

(2) Hunter Water Corporation

In its price determination for Hunter Water of June 2005, IPaRT set out a stormwater drainage service charge from 1 July 2008 as follows: -

- \$56.29 pa for residential and non-residential properties, up to 1000m<sup>2</sup>
- \$101.79 pa for non-residential properties 1001-10,000 m<sup>2</sup>
- \$647.08 pa for non-residential properties 10,001-45,000 m<sup>2</sup>
- \$2,055.91 pa for non-residential properties larger than 45,000 m<sup>2</sup>

Hunter Water does levy stormwater drainage charges to rural properties.

## (3) Gosford City Council

In its price determination for Gosford Council of June 2005, IPaRT set out a stormwater drainage service charge of: -

\$57.22 pa for metered residential properties metered non-residential properties, multi premises with a common water meter, vacant land or an unmetered property (from 1 July 2008)

Gosford does levy stormwater drainage charges on rural properties.

#### (4) Upper Parramatta River Catchment Trust

The trust ceased operations in 2006, and some of its activities have been transferred to the Sydney Metropolitan Catchment Management Authority.

The River Management service charge that had been levied by the Trust (approximately \$30 pa per residential property) was discontinued in 2006.

- (5) <u>Authorities outside NSW</u>
  - a) <u>Melbourne Water</u>

Melbourne Water is the wholesale water authority for the Melbourne metropolitan area. It manages rivers, creeks and major drainage systems throughout Port Phillip and Westernport region.

Melbourne Water levies a charge based on property value, with a minimum charge of \$56.40 per property.

Rural properties that have not changed ownership since 1993 are exempt from these charges.

b) <u>SA Water</u>

SA Water is the water authority serving South Australia. The organisation does not have responsibility for managing stormwater, and it does not levy drainage charges. SA Water charges the "Save the River Murray" Levy of \$32.80 pa for residential properties and higher for non-residential properties.

c) <u>Western Australia Water Corporation</u>

The Water Corporation of Western Australia maintains drainage and irrigation services for both residential and commercial properties.

The Corporation levies a drainage charge on properties in the metropolitan areas based on property values. In 2008/09 the minimum charge for residential and non-residential properties and vacant land is \$63.10. No charge is levied on country customers.

#### (iii) <u>Recommended Methodology</u>

Based on the above review, it can be seen that while there is no single consistent approach, a generally common theme is: -

- Typical residential properties being charged a flat rate;
- Higher density residential properties are charged a portion of the flat rate;
- Non-residential properties (other than rural) are charged a multiple of the flat rate based on area;
- Rural properties are not charged.

These common principles are reflected in the pricing structure developed by the State Government for use by Local Government in implementing the Stormwater Levy. As Council already has in place the administrative systems that support the charging of this levy it is recommended that this methodology be extended to the Drainage Service charge.

Financial modelling indicates that a residential property drainage base charge of \$80.00 would meet Council's projected drainage funding requirements. Using this base charge, the proposed drainage service charges would be as follows: -

Proposed Drainage Service Charges					
Type of Development	Annual Charge, as a proportion of residential property drainage charge (RPDC)				
Residential properties	RPDC (\$80.00 in 2009/10)				
Residential strata properties	0.5 x RPDC				
Residential company title properties	RPDC per Company Title complex apportioned according to the number of shares in the company owned by each shareholder				
Business properties	RPDC per 850 square metres (or part thereof) with a ceiling of 35 x RPDC*				
Business strata properties	RPDC per 850 square metres (or part thereof) of the strata complex for strata business properties and apportioned equally to each lot within the strata complex.				
Business company title properties	RPDC per 850 square metres (or part thereof) of the company title complex with a ceiling of 35 x RPDC, apportioned according to the number of shares in the company owned by each shareholder.*				

A ceiling limit of 35 x RPDC has been proposed based on the IPaRT approved methodology for Hunter Water Corporation

## 3.2.2 Trade Waste Charging Methodology for Septic Tank and Pan Waste

### (i) <u>Background</u>

As part of the 2006-2009 pricing review IPaRT approved a new schedule of trade waste charges based on "Best Practice Management Guidelines for Liquid Trade Waste" developed by the Department of Water and Energy (DWE previously DEUS).

Council's proposal for the existing schedule of trade waste charges for the period 2009/10 - 2012/13 is with one exception (Refer Section 3.2.3) based on an annual CPI increase (calculated in accordance with the IPaRT methodology) projected from the current 2008/09 charges.

In late 2007, DWE amended "Best Practice" Guidelines for liquid trade waste to incorporate acceptance of septic tank waste and pan waste.

Septic tank and pan waste are now classified as trade waste based on the amended definition of "Sewage of a Domestic Nature" and "Sewage Management Facility" contained in the Local Government (General) Regulation 2005.

DWE further required that NSW Councils amend their Liquid Trade Waste Policies to incorporate septic tank waste and pan waste. (Classification S)

To accommodate the above requirements, Council proposes to amend its current Liquid Trade Waste Policy to take effect on 1 July 2009. This will require IPaRT approval of Council's proposed charges (commencing from 2009/10) for septic tank waste and pan waste.

Septic tank waste comprises two components that are required to be removed periodically from septic tanks and other similar facilities such as privately owned/operated pumping stations that discharge into Council's sewerage system. These components are septic liquid effluent and septage (septic tank sludge).

Pan waste comprises of wastes removed from either chemical toilets (such as portable toilets), or from nightsoil facilities.

Up to and including 2008/09, Council has accepted and charged for septic tank waste and pan waste, however this was not under the provisions of the Liquid Trade Waste Policy but under Council's waste functions as a Local Government Authority.

Commencing 2009/10 it is proposed to bring these charges under the Liquid Trade Waste Policy.

#### (ii) Current Charges for Septic Waste and Pan Waste

#### (1) Septic Waste

Currently, charging for septic tank waste is made up of 2 components: -

- septic tank waste removal and disposal charges
- administrative charges for licensing of septic facilities

The septic tank waste removal and disposal charge component is currently regulated by IPaRT and is included in this submission as Table 9.3 (Septic Tank Waste). These charges, although not presently included under Council's Trade Waste charges, apply for the transport and treatment of septic waste to Council sewerage facilities. Transport is facilitated through a Council appointed contractor.

The administrative charge component, not currently regulated by IPaRT, applies to Council's administrative costs to licence and monitor premises discharging septic waste. These charges are currently listed in Council's 2008/09 Annual Management Plan. (Items 13.15 and 13.16)

The administrative charge is made up of 2 components: -

"Application for initial approval to operate a sewage management facility" (Item 13.15 Wyong Council 2008/09 Management Plan). The charges allow for an initial inspection of the premises.

- Domestic (\$44.40 for 2008/09)
- Commercial (\$179.25 for 2008/09)

"Application for renewal of approval to operate a sewage management facility" (Item 13.16 Wyong Council 2008/09 Management Plan). The charges allow for an annual routine inspection.

- Domestic (\$39.40 for 2008/09)
- Commercial (\$80.05 for 2008/09)

#### (2) Pan Waste

Currently, charging for pan waste is based on removal and disposal charge.

Pan waste removal and disposal charges are regulated by IPaRT although again not included under Council's Trade Waste charges. The current charges are included as Tables 9.4 (Nightsoil) and 9.5 (Chemical Toilet) in this submission.

The charge in Table 9.4 applies to a nightsoil collection service supplied by Council to the customer.

The charge in Table 9.5 applies to the acceptance and discharge of chemical toilet waste into Council's sewerage system. The customer is responsible to arrange transport to a Council acceptance facility such as a sewage treatment plant.

### (iii) Proposed Charges for Septic Tank Waste and Pan Waste

To accommodate DWE requirements, Council proposes to amend its current Liquid Trade Waste Policy to incorporate septic tank and pan waste to take effect on 1 July 2009.

The following charges are proposed commencing 2009/10: -

(1) Septic Tank Waste

Retention of the current septic waste removal and disposal charge structure, although adjusted for CPI (calculated in accordance with IPaRT methodology), from the current 2008/09 charges in Table 9.3. These proposed charges are now listed under Section 10.3 "Proposed Trade Waste Charges" as Table 10.11.

Retention of the current administrative charge structure, although adjusted for CPI (in accordance with IPaRT methodology), from the current non-regulated 2008/09 charges listed in (ii) (1) above. These charges have now been incorporated into Table 10.11. The current charges will be renamed as Classification S – Application and Annual Fees in 2 categories, ie residential and non-residential (previously domestic and commercial categories).

Addition of the current IPaRT approved charge for "Reinspection Fee" for trade waste premises (in Table 9.6) to now also apply to septic waste (Classification S) premises. This fee is applied on a "per-inspection" basis for additional inspections arising from non-compliance. Up to and including 2008/09, there has been no facility to recover these costs with septic waste facilities. The current 2008/09 fee approved by IPaRT is \$70.40 per inspection and is proposed to increase at CPI annually. This fee is also incorporated into Table 10.11

#### (2) Pan Waste

Retention of current pan waste removal and disposal charge structure adjusted annually (calculated in accordance with IPaRT methodology) from current 2008/09 charges. These proposed charges are included in Tables 10.12 (Nightsoil) and 10.13 (Chemical Toilet).

To bring the administration of pan waste facilities into line with that of septic waste, it is proposed to introduce the same administrative charge structure and "Reinspection Fee" as for septic waste facilities.

#### *(iv)* <u>Customer Impacts for Proposed Charges for Septic Tank Waste and Pan</u> <u>Waste</u>

Other than the Reinspection Fee (which is a new non-compliance penalty charge) customers have been subject to the above charges, therefore, it is considered that the proposed charges will have minimal impact on customers.

#### 3.2.3 Liquid Trade Waste Usage Charges for Category 2 Compliant (with pretreatment) Discharges

A trade waste usage charge is levied to recover the additional cost of transporting and treating liquid trade waste from Category 2 dischargers. Either one of two charges is applicable, i.e. with pre-treatment (compliant) or without pre-treatment (non-compliant).

While the current "without pre-treatment" charge achieves full cost recovery, the "with pre-treatment" charge still does not achieve full cost recovery as recommended under the DWE "Best Practice Management Guidelines for Liquid Trade Waste".

DWE regulates trade waste discharges and provides guidelines relating to trade waste policy and charging. In 2005, DWE guidelines provided for a new trade waste usage charge of \$1.20 per kL for compliant discharges reflecting full cost recovery for trade waste dischargers subject to this charge.

To minimise impacts to customers, Council, in the last pricing determination, recommended a phased implementation of charges to progress towards full cost recovery. It was intended that full cost recovery would be achieved over several pricing determinations.

During the 3 year price path period covered by the previous determination, the trade waste usage charge increased by \$0.10 per annum above CPI to a current charge of \$0.31/kL.

It is proposed to continue this phased increase of \$0.10 per annum above CPI during the period of this price path.

2008/09	\$0.31 / kL (Current)
2009/10	\$0.42 / kL
2010/11	\$0.53 / kL
2011/12	\$0.64 / kL
2012/13	\$0.76 / kL

The following price steps are proposed: -

Appendix I details the impact of this proposal, over the pricing path, on a larger customer.

## 3.3. Pricing Methodology

Council utilises a long-term (30 year) financial planning model to calculate revenue requirements and pricing required to achieve the appropriate level of sustainable and stable water and sewerage charges.

The model projects the long term net cash flows from operations, capital and financing activities and facilitates the modelling of a number of charge / loan raising combinations that will result in a minimum acceptable cash and investment balance over 30 years.

Outputs of the long term financial planning model are detailed in Appendix F based on Council's proposal for this price path.

## 3.4. Pricing Proposal

Current and proposed prices are detailed in Section 9 and 10 of this submission.

Table 3.2 summarises Council's pricing proposal. Each year prices are proposed to increase by the amount indicated.

Propo	sed Price Mov	rements						
	2009/2010	2010/2011	2011/2012	2012/2013				
Water Service Charge (access) <sup>(i)(iii)</sup>	CPI	CPI	CPI	CPI				
Water Usage Charge <sup>(i)</sup>	CPI + 2.5%	CPI + 3%	CPI + 3.5%	CP + 3.5%				
Sewerage Service Charge (access) <sup>(i)(iii)</sup>	CPI	CPI	CPI	CPI				
Sewerage Usage Charge <sup>(1)</sup>	CPI	CPI	CPI	CPI				
	New charge							
Drainage Service Charge <sup>(i)</sup>	in 2009/10	CPI	CPI	CPI				
Trade Waste Charges) <sup>(III)</sup>	CPI	CPI	CPI	CPI				
Miscellaneous Charges) <sup>(i)</sup>	CPI	CPI	CPI	CPI				

#### Table 3.2

(i) Increase from previous year (2008/09) charges.

(ii) All charges increase by CPI except Trade Waste Usage Charge for compliant Category 2 discharges (Refer Section 3.2.3 for details.

(iii) After adjustment for Drainage Service Charge.

For the average residential dwelling consuming approximately 170 kL of water per annum the proposal will result in a \$154.54 (19.1%) increase in real terms in the water, sewerage and drainage bill over the three years. (Table 3.4)

The increases in excess of CPI contained in this proposal are required to address the impacts of: -

(i) Previous overestimated consumption forecasts (Section 2.1.4) resulting in lower determined prices than would have been the case had consumption forecasts matched actual sales.

(ii) Increased operating and capital expenditures resulting from strategies to address the water supply / demand imbalance (due to the recent drought) and address the longer term security of water supplies on the Central Coast. Details of forecast expenditure increases and the drivers for these increases are set out in section 5.3 and 5.4 of the submission.

In previous pricing submissions to the Tribunal Council highlighted that, based on projections at that time, price increases in excess of CPI would be required in subsequent pricing determinations. This situation continues.

Council considers the above pricing proposal will result in a minimum satisfactory level of revenue during the period of the determination, albeit resulting in a significant increase in debt levels.

As indicated in Table 3.2 Council's modelling indicates that water usage charges will need to be increased by in excess of CPI each year for the four years 2009/2010 to 2012/2013 to ensure ongoing financial viability. Given the impact of the drought and required drought recovery actions, continuing levels of restrictions and the community's increasing understanding of the issues faced in delivering sustainable water services it is considered that this increase is justified and necessary.

## 3.5. Alternative Pricing Structures

Council has reviewed IPaRT's comments in Section 4.3 of the Issues Paper and concurs with the view of IPaRT that a 2 part tariff approach is still appropriate at this stage.

This submission is not proposing any changes to the current 2 part tariff structure philosophy.

For Council comments on "Scarcity Pricing" please refer to the response to Question 22 in Appendix B.

#### 3.6. Customer Impacts

The following tables detail the impact of the pricing proposal on the total residential water, sewerage and drainage bills for various user groups. The bills are in constant 2008 \$ to enable analysis of movements in bills, in real terms, of the pricing proposal.

	Bills for Residential Property Using 142 KI Per Annum (in 2008 Constant \$)								
	2008/09 current	2009/10 proposed	% change on prev. year	2010/11 proposed	% change on prev. year	2011/12 proposed	% change on prev. year	2012/13 proposed	% change on prev. year
Water Usage	236.86	242.82	2.5%	250.06	3.0%	258.87	3.5%	267.95	3.5%
Water Access	112.16	83.08	(26%)	83.08	0	83.08	0	83.08	0
Sewerage Access	412.67	362.67	(12%)	362.67	0	362.67	0	362.67	0
Drainage Service	0	80.00	New Charge	80.00	0	80.00	0	80.00	0
Total Bill	\$761.69	\$768.57	0.9%	\$775.81	0.95%	\$784.62	1.1%	\$793.70	1.1%

#### Table 3.3

#### Table 3.4

#### Bills for Residential Property Using 170 KI Per Annum (in 2008 Constant \$)

	2008/09 current	2009/10 proposed	% change on prev. year	2010/11 proposed	% change on prev. year	2011/12 proposed	% change on prev. year	2012/13 proposed	% change on prev. year
Water Usage	283.56	290.70	2.5%	299.37	3.0%	309.91	3.5%	320.79	3.5%
Water Access	112.16	83.08	(26%)	83.08	0	83.08	0	83.08	0
Sewerage Access	412.67	362.67	(12%)	362.67	0	362.67	0	362.67	0
Drainage Service	0	80.00	New Charge	80.00	0	80.00	0	80.00	0
Total Bill	\$808.39	\$816.45	1%	\$825.12	1.1%	\$835.66	1.3%	\$846.54	1.3%

#### Table 3.5

	Bills for Residential Property Using 210 KI Per Annum ( in 2008 Constant \$)								
	2008/09 current	2009/10 proposed	% change on prev. year	2010/11 proposed	% change on prev. year	2011/12 proposed	% change on prev. year	2012/13 proposed	% change on prev. year
Water Usage	350.28	359.10	2.5%	369.81	3.0%	382.83	3.5%	396.27	3.5%
Water Access	112.16	83.08	(26%)	83.08	0	83.08	0	83.08	0
Sewerage Access	412.67	362.67	(12%)	362.67	0	362.67	0	362.67	0
Drainage Service	0	80.00	New Charge	80.00	0	80.00	0	80.00	0
Total Bill	\$875.11	\$884.85	1.1%	\$895.56	1.2%	\$908.58	1.4%	\$992.02	1.4%

(i) Average residential consumption for 2007/08 was 142 KL (Table 3.3)

(ii) Estimated average residential consumption for 2012/13 is 170 KL (Table 3.4)

(iii) The historic underlying long term average annual residential consumption (without restrictions in place) is 210 KL (Table 3.5)

# 4. CUSTOMER SERVICE STANDARDS & COMMUNITY COMMUNICATIONS

#### 4.1 Current Service Standards

The current level of service standards, as detailed in Council's Management Plan and Water and Sewerage Strategic Business Plan, have been determined based on the following: -

- Compliance with guidelines and standards regulated by the National Health and Medical Research Council (NHMRC), NSW Health Department and the Department of Environment and Climate Change (DECC).
- The NSW Department of Water and Energy "Best-Practice Guidelines for Water Businesses".

Benchmarking with standards applied by other Authorities as reported by the Department of Water and Energy, the Department of Local Government, the Water Services Association of Australia and in reports published by the various authorities.

- Community feedback received through: -
  - customer surveys
  - precinct committees
  - community liaison groups
  - representations to elected members
  - customer complaints

Attached at Appendix D is a summary of current service standards.

#### 4.2 Customer Response and Willingness to Pay

Council, in late 2008, will undertake a broad based customer survey across a range of issues. A previous broad based survey was undertaken in 2002.

Since the 2002 broad based survey, Council has undertaken a range of smaller, more targeted customer surveys on water related issues, ie: -

- i) Water Authority Community Survey (2004) investigated community understanding of water restrictions and conservation.
- ii) Community Surveys undertaken during local Home and Flora Festivals to assess community understanding of water conservation.

A regular telephone customer survey is undertaken each quarter to provide community feedback for reporting to elected representatives as part of Council's Management Plan.

Community responses indicate a continuing high rate of satisfaction with the water and sewerage services provided by Council.

### 4.3 Communications Strategy

Both Wyong and Gosford Councils have put in plan ongoing communication and educational strategies to encourage water conservation.

The current communications strategy and community education program is focused on the following key objectives: -

- Maintain awareness about the voluntary target of 150 litres per person a day remaining under Level 3 water restrictions
- Help maintain the demand reduction already achieved by residential and business users regardless of any change in water restriction levels
- Increase the awareness of monitoring water usage at home
- Continue to change people's permanent behaviour in terms of how they use water in their everyday lives, irrespective of what level of water restrictions are in place
- Continue to promote the advantages of rainwater tanks, particularly internally connected rainwater tanks, the Councils' rainwater tank rebate program and the NSW Government rainwater tank rebate program
- Continue to promote the advantages of water efficient appliances such as washing machines, shower heads, etc

Long term behavioural change in water saving habits is a key issue for the communications program. This focus is in line with the demand management strategy of WaterPlan 2050 and also consistent with the demand management actions of other regions across NSW and Australia.

## 5. REVENUE REQUIREMENTS

#### 5.1 Business Challenges and Risks

Council has identified the following uncertainties/risks in the operating environment over the period of the price path period and beyond.

- Strong population growth has been forecast to continue over the proposed pricing path at a rate of approximately 2% per annum. Any variation in projected growth rates represents a risk in the short and medium term to revenue stream projections.
- Strong growth rates represent a risk in terms of environmental impacts and the possible resultant responses (regulated and non-regulated) to these impacts.
- Notwithstanding recent improvements in the drought situation weather patterns are always a major source of business risk in terms of the impact on water availability and consumption, and hence impact on revenue, as well as the impact on the cost of sourcing water.
- Water restrictions were introduced on 24 February 2002 and still remain in place.
  Restrictions have introduced considerable uncertainty in terms of: -
  - Period of restrictions
  - Level of restrictions required
  - Impact on consumption and hence revenue

A summary below indicates a brief history of water restrictions on the Central Coast.

Restriction level	Date Introduced	Date Revoked
1	24 February 2002	
2	17 May 2004	
2A	1 August 2004	
2B	4 December 2005	
3	3 June 2006	
4	1 October 2006	29 March 2008
3	30 March 2008	

Financial projections included in this submission have been based on the following projected reductions in water sales (compared with unrestricted usage) as a result of restrictions: -

2008/09	-	usage down 19% from estimated unrestricted metered demand*
2009/10	-	usage down 14% from estimated unrestricted metered demand*
2010/11	-	usage down 9% from estimated unrestricted metered demand*
2011/12	-	usage down 4% from estimated unrestricted metered demand*
2012/13	-	Return to unrestricted usage pattern*

\* Refer to Table in Section 5.2

Based on continuing drought recovery, it has been assumed that water sales will return to unrestricted usage in 2012/13 (Refer Appendix C).

- Given Councils increased exposure to debt during the price path period and beyond, the risk of interest rate increases is a significant financial risk to the business.
- The final cost of implementing the significant drought recovery and long term system security works programme is a risk due to the volatility in the current market place and resulting tenders being received which in many cases are significantly higher than pre-construction estimates. (Refer Section 8.2)

#### 5.2 Consumption

Attached at Appendix C is Council's forecast of water consumption for the period 2008/2009 to 2012/2013. The basis of Council's forecast is discussed in detail in Appendix C.

These projections take into account:

- previous consumption trends
- future growth
- impact of current and future restriction regimes and other demand management initiatives.
- climate change

The projections, which form the basis for this submission, provide for the following estimated metered water sales.

Year	Estimated Metered Sales * (ML)	Estimated Unrestricted Metered Usage (ML)
2008/2009	10893	13479
2009/2010	11657	13538
2010/2011	12422	13691
2011/2012	13187	13830
2012/2013	13952	13952

\* Level of water sales assumed in this submission

The above projections take into account an estimate of future restriction regimes which, to a large extent, are dependent upon future rainfall. While this inherently has a considerable level of uncertainty the above estimates are considered reasonable for the following reasons: -

Council's water supply system does not respond rapidly to rainfall events. It will take several years of average or above average rainfall before the storages recover to a point that restrictions can be fully removed.

- The only event that would lead to restrictions being lifted early would be sustained wet weather. Associated with such an occurrence would be reduced water consumption due to reductions in outside watering requirements. Therefore, it is unlikely that such an event would lead to increased water sales.
- Previous experience indicates that the communities' water usage habits change slowly when restrictions are eased. As such, it is anticipated that there will be a gradual linear return to increased water usage as restrictions are eased rather than a series of stepped changes which occurs when restrictions are introduced.

Based on the above it can reasonably be expected that metered water sales will be less than pre-restriction levels for at least the next 3-5 years.

## 5.3 Operating Expenditures

#### 5.3.1 Operating Expenditure Requirements

Along with capital expenditure, forecast increases in operating expenditures are a major driver of proposed price increases in excess of CPI. The most significant increase in operating expenditures will occur in the water business as a result of increased operating cost associated with strategies implemented to address the supply/ demand imbalance.

The following table details forecast operating expenditures in constant 2008 \$ from 2008/09 through to 2012/13.

Operating Expenditure 2008 Constant \$'000								
	2007/08 Actual	2008/09	2009/10	2010/11	2011/12	2012/13		
Water	11,273	10,244	10,362	11,277	11,667	11,066		
% inc yr on yr		(9%)	1.15%	8.8%	3.5%	5.2%		
Sewer	13,628	11,890	12,122	12,356	12,580	12,807		
% inc yr on yr		(12.8%)	1.95%	1.9%	1.8%	1.8%		
Drainage	1,078	1,097	1,116	1,136	1,156	1,175		
% inc yr on yr		1.76%	1.73%	1.8%	1.8%	1.6%		
Corporate (1)	18,035	23,437	18,934	18,556	18,976	19,400		
% inc yr on yr		29%	(19%)	(2%)	2.3%	2.3%		
Total	44,014	46,668	42,534	43,325	44,379	44,448		
% inc yr on yr		6%	(8.8%)	1.9%	2.4%	0.2%		
% Property Growth		1.71%	1.68%	1.65%	1.62%	1.6%		

Table 5.1

(1) Including Water, Sewerage and Drainage.

Details of individual drivers of operating cost increases are detailed in Section 5.3.2 below.

### 5.3.2 Operating Expenditure Drivers

#### 5.3.2.1 Growth

Growth of approximately 2% per annum is expected over the next pricing path out to 2013. (Refer Section 2.1.6)

Growth directly impacts operating costs, more water has to be produced and distributed and sewage collected and treated, and indirectly impacts maintenance costs as more assets are created and need to be maintained.

While new assets required less maintenance than older assets, eventually an increasing asset base will incur maintenance costs relative to its size. Failure to recognise this progressively over time will result in under funding of maintenance requirements and impact asset life.

#### 5.3.2.2 Salary and Wage Rates

Salary and wage rate increases are made up of Award increases plus a component for performance based and other increases. Historically award increases have been in the order of 1% to 1.5% in excess of CPI. Performance based increases and increases resulting from labour market pressures, have added a further 0.5% to 1% to salary and wage rates. Actual award increases have been determined and are hence known for the period up to 2007/2008. Forecast increases included in Councils pricing model are as follows: -

Salary and Wage Rate Forecast % Increase								
	2008/09	2009/10	2010/11	2011/12	2012/13			
Nett % Increase	3.4%	3.4%	3.4%	3.2%	3.2%			

#### 5.3.2.3 Aging Assets

Council's water and sewerage assets are relatively new having been substantially constructed during the 1970's and 1980's. However some of the assets, eg asbestos cement water mains, are entering the last third of their design life while many electrical and mechanical assets have already been replaced or refurbished.

Council is progressively expanding its asset management activities to incorporate increasing levels of condition assessment as the asset base ages. Significant resources have been committed to the development and maintenance of these systems. (Refer Sections 2.1.5 and 2.2.4)

#### 5.3.2.4 Mandatory Standards

Changing mandatory standards have the potential to significantly impact operating costs, particularly in the longer term. For example the implementation of water sharing plans, arising from the Water Management Act 2000 will force Council to source higher cost water.

Similarly the OH&S Act 2000 has continuing cost implications on Council's work practices and those of contractors employed by Council.

#### 5.3.2.5 Impacts of Capital Expenditure

Sections 2.1.2 and 2.1.3 summarise the current situation in relation to key planned capital works up to 2012/13. These include significant works to secure the Central Coast Water Supply.

Increasing potable water substitution with reclaimed sewage effluent will also impact operational expenditure.

#### 5.3.2.6 Impact of Demand Management and Contingency Measures

Sustained attention to demand management since the 1970's has achieved water usage statistics within the Shire which are comparable with industry best practice. Council has achieved this result mainly through pro-active community education in conjunction with appropriate regulation in relation to building requirements and pricing.

Attention is also drawn to Section 2.2.2 in relation to the cost of future Hunter Water purchases.

However, the drought and its long term impacts, has required Council to significantly expand its demand management initiatives. Areas that will continue to impact future operating costs include: -

- Ongoing community communication / education
- ongoing system leakage reduction programmes
- operation of effluent re-use systems at Bateau Bay and Toukley Sewage Treatment Plants
- operation of effluent re-use system at Wyong South, Mannering Park, Charmhaven and Gwandalan Sewage Treatment Plants
- operation of ground water systems
- possible extension of effluent re-use systems to industry
- possible dual water system for the new release areas in the north of the Shire.
- rebates for rainwater tanks to existing residential properties, additional to the State rebate scheme

#### 5.3.2.7 Corporate Support

As can be seen from Table 5.1 corporate support costs will increase by an average 1.4% per annum in real terms over the next five years. This compares favourably to the average property growth over the same period of 1.65% per annum.

## 5.4 Capital Expenditure Drivers

The major drivers of Council's capital works programmes are: -

- Ageing Infrastructure
- Growth
- Standards
- Drought Management Works
- Drought Recovery and Long Term Water Security Works

#### Ageing Infrastructure

Council's water supply and sewerage assets were substantially constructed during the 1970's and 1980's. By 2020 many of these assets, for example asbestos cement pipes, will be in the latter stage of their service lives.

Current expenditure on refurbishment is approximately \$6.5M however, this will need to progressively increase to about \$9.0M (in 2008 \$) per annum, based on the current asset base, by about 2020.

By 2030 asset refurbishment allocations will be in excess of \$11M pa (in 2008 \$).

#### <u>Growth</u>

Sustained levels of growth over the next decade will require continuing staged augmentation of water supply and sewerage infrastructure.

Typically in future years this is reflected in an estimated average required sewerage collection infrastructure expenditure of about \$3.7M per annum and sewage treatment expenditure of approximately \$1M per annum.

Water supply expenditure on distribution works is similarly expected to be reasonably constant at about \$2.70M per annum (in 2008 \$) over the longer term, however in the short term, major water supply headworks will require substantial financing between 2008 and 2011 as discussed below and in Section 2.1.2.

#### Standards

The potential impact of changing standards associated with for example the Water Management Act 2000 and the OH&S Act 2000 has been estimated at incurring an average level of on-going capital expenditure of \$1.0M pa and \$1.2M pa for water supply and sewerage services respectively.

#### Drought Management Works

The recent drought, being the worst in recorded history, forced the Councils to implement contingency works to manage the dwindling water reserves. While the Central Coast is now currently recovering from this drought, the financial impacts are still ongoing.

During the drought the Councils were forced to source alternate supplies from Hunter Water Corporation and groundwater in Wyong and Gosford LGA. As indicated in Section 5.3.2.6 and 2.1.3, the Councils will have expended in excess of \$65M by the end of 2008/09 to finalise these projects.

The Councils have also spent in excess of \$9M to finalise a number of smaller drought contingency measures, eg Porters Creek Wetland.

### Drought Recovery and Long Term Water Security Works

As indicated in Section 2.1.2, the Councils are currently proceeding on a capital works programme designed to secure the Central Coast Water Supply in the medium terms and to accelerate recovery of storages from the recent drought.

This works programme has resulted from extensive reviews by the Department of Commerce leading into a summary document "WaterPlan 2050" which identifies a long term strategy for Central Coast Water Supply. The adopted WaterPlan 2050 document is included in this submission as Appendix H.

The level of expenditures by the Councils over the pricing path 2009/10-2012/13 is approximately \$70M.

#### 5.5 Dividends

Council is now permitted to pay an annual dividend from its water supply or sewerage businesses in accordance with Section 409 (5) of the Local Government Act 1993. Further, as required by the DWE Best Practice Management Guidelines, Council must pay a dividend for the amount calculated as the annual tax-equivalent payment.

In calculating its revenue requirement Council has included a dividend payment for tax equivalents of \$308,000 per annum (2008 \$) for the combined water supply and sewerage businesses. This additional cash outflow has contributed to the need increase charges in excess of CPI.

Council at this stage is not proposing to make dividend payments in the nature of a return on investment from the water supply and sewerage businesses to the general fund of Council. As such no amount for dividend payments, other than tax equivalents, has been included in the calculation of revenue requirement in this pricing submission.

Given the significant costs the community is facing as a result of the recent drought, it is considered inappropriate to pay a dividend in excess of tax-equivalents in the short to medium term.

# 6. FINANCIAL IMPLICATIONS

The key financial outcomes resulting from the pricing proposal contained in this submission are detailed in Table 6.1.

Nominal \$'000									
	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Water									
Net Profit / (Loss)	-776	-2,195	-10,966	-859	16,174	33,488	-676	-5,258	-2,394
Return on Net	-0.5%	-0.4%	-0.9%	-0.8%	3.9%	7.6%	-0.2%	-1.3%	-0.6%
Assets									
Cash &	15,466	24,547	4,247	10,898	-16,407	-15,894	-14,810	-17,827	-17,707
Investments									
Loans	2,845	46,984	66,095	76,358	93,077	151,640	170,832	179,470	183,095
Outstanding									
Loans Raised	11,000	23,650	23,100	14,700	4,530	64,000	25,000	15,000	10,500
Debt/Equity	12.4%	23.7%	17.2%	22.9%	22%	33.2%	37.5%	39.8%	40.9%
Debt Service	28.9%	31.4%	35.3%	35.9%	28.6%	26.4%	20.2%	18.1%	17.5%
Ratio									
Sewerage									
Net Profit / (Loss)	519	678	717	2,889	-2,670	1,753	1,397	1,763	2,082
Return on Net	0.2%	0.4%	0.5%	0.5%	-1.5%	-0.5%	-0.7%	-0.7%	-0.7%
Assets									
Cash &	13,582	15,581	21,099	11,994	-2,769	-8,165	-4,586	-2,050	1,358
Investments									
Loans	13,973	15,815	19,197	21,322	21,538	42,805	49,228	54,624	60,902
Outstanding	-								
Loans Raised	0	4,740	5,800	4,500	1,000	24,000	8,700	7,500	8,500
Debt/Equity	9.5%	9.5%	5.6%	5.3%	5.3%	10.6%	12.1%	13.4%	14.9%
Debt Service	17.2%	17.5%	15.2%	15.1%	13.5%	13.6%	8.8%	6.5%	5.4%
Ratio									
Stormwater									
Net Profit / (Loss)	5,645	4,650	8,594	4,803	9,077	1,662	11,025	11,445	11,858
Return on Net Assets	4.4%	6.0%	5.7%	5.5%	5.7%	1.04%	6.5%	6.3%	6.1%
Cash &	10.310	9.931	11.568	13.525	13.455	5.603	8.194	10.920	13.788
Investments	,	,		,	,	,	,	,	,
Consolidated									
Net Profit / (Loss)	5,388	3,133	-1,655	6,833	22,580	36,902	11,746	7,949	11,546
Return on Net	0.9%	1.5%	1.4%	1.5%	2.0%	6.0%	4.0%	4.0%	4.0%
Assets									
Cash &	39,358	50,059	36,914	36,417	-5,721	-18,456	-11,202	-8,957	-2,561
Investments						-		-	
Loans	40,818	62,799	85,292	97,680	114,615	194,444	220,060	234,094	243,996
Outstanding									
Loans Raised	11,000	28,390	28.,900	19,200	5,530	88,000	33,700	22,500	19,000
Debt/Equity	7.8%	11.4%	9.4%	11.8%	11.6%	19%	21.3%	22.5%	23.2%
Debt Service	22.0%	23.8%	24.9%	25.6%	20.5%	19.5%	14.5%	12.5%	11.6%
Ratio									

Table 6.1 Key Financial Indicators

Councils Water and Sewerage businesses have historically recorded very modest profits and returns on assets. The next five years will see further reductions in profits and returns on assets. This is primarily being driven by forecast losses in the water supply business. It is forecast that the water supply business will not record a profit until 2013/2014 albeit again at modest levels, due to reduced water consumption, increased operating costs and an increasing interest expense.

Councils modelling indicates that, given the prices proposed in this submission coupled with increased borrowings, it will be able to sustain these losses over this period. Anything less than the proposed prices will place considerable financial pressure on the business and on its ongoing financial viability.

As indicated earlier, the proposed price increases contained in the submission have been kept to a minimum through significant increases in borrowings and a reduction in cash and investments. By the end of 2008/2009 loans outstanding will more than double and investments will have almost halved. This will result in the debt to equity ratio increasing from 7.5% to 11.6% during this period. Continued reliance on debt funding will see the ratio increase to 23.2% in subsequent years. Increased exposure to debt will add financial pressures, particularly to the water supply business where the debt to equity ratio will increase from 14.4% in 2004/2005 to 40.9% in 2012/2013.
# 7. MISCELLANEOUS CHARGES

Miscellaneous charges are based on cost recovery with current changes generally reflecting this principle. In some instances charges are not levied where the relative administrative costs are considered to be excessive, for example, annual administration fees for backflow prevention devices. Where it is considered that Council has a shared responsibility in relation to the work requested, for example, an alteration from a dual to single water service less than full cost is charged.

A review "Miscellaneous Charges Pricing Proposals by NSW Metropolitan Water Agencies" prepared by an IPART Consultant Cameron Bird Pty Ltd for the 2005 IPART Determination concluded "that the agencies have approached the exercise in ways that are conservative and basically reflective of the costs incurred." Council considers that this situation remains unchanged.

Appendix F details the current and proposed miscellaneous charges over the pricing path which provides for maintaining the 2008/2009 current charges (as approved by IPART in the 2006 Determination) in real terms by applying a continuing CPI as determined by the Tribunal.

A new miscellaneous charge is proposed in this submission, ie: -

Item 35 (Appendix F) - Recovery of Council costs associated with investigating development proposals at the pre Development Application Stage. This will provide a fee for services provided to Developers.

Appendix G provides background and justification for this new charge.

## 8. OTHER ISSUES

### 8.1 Developer Charges

Current and previous pricing determinations by IPART have capped the charge Wyong Council may levy at 85% of the charge calculated in accordance with the IPART methodology which has resulted in significant cross-subsidisation, of developers, by existing residents. This is still currently in the order of \$750,000 - \$1,000,000 pa.

While the draft IPaRT report (July 2008) on developer charging methodology has accepted in principle Council's view that the 85% cap should be removed, the proposed staged removal at 5% per annum over 3 years (commencing 2009/10) will still require a cross subsidy from residents up to 2010/11

## 8.2 Price Volatility in Construction Industry

Council highlights concerns over the current, and foreseeable, conditions in a contracting sector which is operating at, or close to, capacity.

The impact of this situation is the potential for tendered prices to be significantly in excess of estimates for Councils significant capital works programme.

# 9. CURRENT CHARGES

The current charges for 2008/2009 are as follows:

### 9.1 Current Water Charges

Water Service Charge – Metered Services

Table	9.1		

Water Service Charge – Metered Services			
Nominal	Total		
Pipe/Meter Size	\$		
20 mm	112.16		
25 mm	166.89		
40 mm	404.06		
50 mm	622.98		
80 mm	1571.66		
100 mm	2447.36		
150 mm	5487.98		
200 mm	9744.86		
250 mm	15,217.98		

The above charges incorporate a contribution to the State Government's "Climate Change Fund" contribution of \$14.86 per property.

Charges for meters not specified above are calculated on the proportional increase in the area of the connection (when compared to a 20 mm connection) using the formula :  $(Meter Size)^2 \times \$97.31/400 + \$14.86$ .

### Water Usage Charge

All water consumed is charged at the rate of 166.8 cents per kilolitre.

### Water Service Charges – Strata Title Properties (Residential) with Master Meter Only

Where water usage to a residential strata titled property is measured through a master meter only, each individual unit is levied a service charge of \$112.16. Water Usage is apportioned to the various lots in the Strata Plan in accordance with the schedule of unit entitlement and charged to the unit owners at the rate of 166.8 cents per kilolitre.

<u>Water Service Charges –</u> <u>Community Title Properties and Non-Residential Strata Properties</u>

Where a master meter is attached to service the property, the service charge is based on an availability charge commensurate with the size of the meter and this charge is apportioned to the various lots in the community title/strata plan in accordance with the schedule of unit entitlement. Usage consumed through the master meter is apportioned and charged to the individual unit owners in accordance with the unit entitlement at the rate of 166.8 cents per kilolitre.

## Water Fire Service

There is no charge for a separate Water Fire Service.

Where a property has a combined fire and commercial service the property will be charged a Water Service Charge – Metered Service commensurate with the meter size.

### Water Service Charges Vacant Land and Unmetered Services

A water availability charge of \$112.16 is levied on vacant land to which water is supplied or to which it is reasonably practical for water to be supplied and all properties to which an unmetered water service is supplied.

## 9.2 Current Sewerage Charges

### <u>Sewerage Service Charge for Single Residential Properties Including Residential</u> <u>Strata Properties</u>

Council has a current charging structure based on a service charge for each single residential property to which a sewerage service is supplied. The current charge is \$412.67 for each single residential property.

There is no usage charge for this category.

### Non-Residential Service and Usage Charges

## Table 9.2

Non-Residential Properties - Service Charge		
Meter Size		
(mm)	\$	
20	148.67 x df *	
25	232.29 x df *	
40	594.68 x df *	
50	929.20 x df *	
80	2378.73 x df *	
100	3716.77 x df *	
150	8362.75 x df *	
200	14867.11 x df *	
250	23,229.68 x df *	
> 250	(Nominal size) ²/400 x	
	148.67 x df *	

\* A discharge factor is applied to the nominated charge based on the estimated proportion of metered water discharged into Council's sewerage system. The discharge factor reflects the type of premises discharging to the sewerage system.

The price for sewerage usage charges for properties is 74.41 cents per kilolitre.

The usage charge is based on the estimated proportion of metered water usage discharged into the Council's sewerage system. Metered water usage is multiplied by a discharge factor, based on the type of premises, to estimate the volume of water discharged.

The minimum amount payable for a non-residential customer is \$412.67.

Non-residential customers are those customers that do not meet the classification of a single residential property. Non residential customers include non strata titled residential units and Retirement Village properties.

## Sewerage Service Charges - Vacant Land

The charge for vacant land to which a sewerage service is supplied or to which it is reasonably practical for sewerage services to be supplied is \$309.51.

## <u>Sewerage Service Fees – Exempt Properties</u>

Properties exempt from services charges under Schedule 4 of the Water Management Act 2000 No 92 are charged a fee in accordance with Section 310(2) of the Act. The fee is \$58.26 per annum for each water closet and \$20.63 per annum for each cistern servicing a urinal where installed.

## Septic Tank Waste Removal and Disposal Charges

### Table 9.3

Type of Service**	Current Charge 2008/09	
Fortnightly effluent removal and disposal service	950.66 per annum	
Additional effluent removal and disposal service	36.79 per service	
Commercial effluent removal and disposal service	12.19 per kilolitre	
Sludge removal and disposal services		
<ul> <li>Septic tanks with capacity up to 2750 litres</li> </ul>	266.69 per service	
Septic tanks exceeding 2750 litres or AWTS	346.00 per service	
with one tank		
<ul> <li>AWTS with more than one tank</li> </ul>	516.13 per service	
Sludge disposal only	28.74 per kilolitre	
(collection organised by customer)		
Application for initial approval *		
Domestic	44.40	
Commercial	179.25	
Application for renewal of approval *		
Domestic	39.40	
Commercial	80.05	
Reinspection Fee	N/A	

\* These charges are not currently regulated by IPaRT and are levied under Items 13.15 and 13.16 of Council's 2008/09 Management Plan. From 2009/10, it is proposed that IPaRT will regulate these charges. (Refer Section 3.2.2)

\*\* Nominated Services apply to residential or non-residential properties as appropriate.

## Pan Waste (Nightsoil) Charges

### Table 9.4

Type of Service	Current Charge 2008/09	
Annual Fortnightly service	1370.17	
Each requested weekly special service	26.69	

This charge relates to collection of "nightsoil" by Council.

## Pan Waste (Chemical Toilet) Charges

Current charges for pan waste (chemical toilet) accepted and discharged into Council's sewerage system are: -

### Table 9.5

Type of Service	2008/2009 Current Charge
Pan Waste (Chemical toilet)	\$14.08 / kL

The customer is responsible to arrange transport of pan waste to the Council collection point. The above charge does not apply to septic tank waste removal and disposal charges which are covered separately in Table 9.3

## 9.3 Current Trade Waste Charges

### Table 9.6

Trade Waste Charges			
Charge Component:	2008/09 Current Charge		
Sewerage Service Charges	Refer Section 9.2		
Trade Waste Application Fee	Classification A - \$42.94 Classification B - \$54.65 Classification C - \$838.09		
Annual Trade Waste Fee	Category 1 - \$75.09 Category 2 - \$300.36 Category 3 - \$504.54		
Re-inspection Fee	All Categories - \$70.40 per inspection		
Trade Waste Usage Charge	Applies to Category 2 only With pre-treatment - \$0.31/kL Without pre-treatment - \$12.90/kL		
Excess Mass & Non-Compliant Excess Mass Charge Per Kilogram of Substance Discharged;			
Biochemical Oxygen Demand Suspended Solids	\$0.63 \$0.80		

Table 9.6	(Cont.)
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Trade Waste Charges			
Charge Component:	2008/09 Current Charge		
Total Oil and Grease	\$1.13		
Ammonia (as Nitrogen)	\$0.63		
Total Kheldhal Nitrogen	\$0.15		
Total Phosphorus	\$1.28		
Total Dissolved Solids	\$0.04		
На	\$0.35		
Aluminium	\$0.63		
Arsenic	\$0.63		
Barium	\$31.67		
Boron	\$0.63		
Bromine	\$12.67		
Cadmium	\$293.33		
Chloride	No Charge		
Chlorinated Hydrocarbons	\$31.67		
Chlorinated Phenolics	\$1267.22		
Chlorine	\$1.28		
Chromium	\$21.12		
Cobalt	\$12.90		
Copper	\$12.00		
Cvanide	\$63.36		
Fluoride	\$3.16		
Formaldehyde	\$1.28		
Herbicides/defoliants	\$633.61		
Iron	\$1.28		
Lead	\$31.67		
Lithium	\$6.33		
Manganese	\$6.33		
Mercaptans	\$63.36		
Mercury	\$2112.03		
Methylene Blue Active Substances	\$0.63		
(MBAS)	<i><b>40.00</b></i>		
Molvbdenum	\$0.63		
Nickel	\$21.12		
Organoarsenic compounds	\$633.61		
Pesticides general (excludes	\$633.61		
organochlorines and organophosphates)	<b>400000</b>		
Petroleum Hydrocarbons	\$2,11		
(non-flammable)	<b>\$</b>		
Phenolic compounds	\$6.33		
(non-chlorinated)	<b>40.00</b>		
Polynuclear aromatic hydrocarbons	\$12 90		
(PAH's)	<b><i>Q</i>12.00</b>		
Selenium	\$44.58		
Silver	\$1.16		
	<b>\$\$</b>		

Trade Waste Charges		
Charge Component: 2008/09 Current Charge		
Sulphate (as SO4)	\$0.12	
Sulphide	\$1.28	
Sulphite	\$1.40	
Thiosulphate	\$0.22	
Tin	\$6.33	
Uranium	\$6.33	
Zinc	\$12.90	

Where properties discharging Trade Waste become chargeable or non-chargeable for a part of the financial year a proportional charge calculated on a weekly basis is to apply.

# 10. PROPOSED CHARGES

### **10.1 Proposed Water Charges**

### Water Service Charge – Metered Services

#### Table 10.1

Water Service Charge – Metered Services					
Nominal Pipe/Meter Size	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
20 mm 25 mm 40 mm 50 mm 80 mm 100 mm 150 mm 200 mm 250mm	\$112.16 \$166.89 \$404.06 \$622.98 \$1,571.66 \$2,447.36 \$5,487.98 \$9,744.86 \$15,217.98	\$86.49 \$126.26 \$298.62 \$457.72 \$1,147.14 \$1,783.53 \$3,993.22 \$7,086.78 \$11,064.22	CPI CPI CPI CPI CPI CPI CPI CPI	CPI CPI CPI CPI CPI CPI CPI CPI	CPI CPI CPI CPI CPI CPI CPI CPI

Charges for meters in excess of 250 mm are calculated on the proportional increase in the volume of the connection when compared to a 20 mm connection.

The above charges have been reduced in 2009/2010 to compensate for the new drainage charge.

The above charges will include a per property (\$14.86 in 2008/2009 and \$15.78 in subsequent years) contribution to the State Government "Climate Change Fund".

### Water Usage Charge

Water Usage Charge						
Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge	
Proposed increase on per Kilolitre charge	\$1.668	\$1.768*	CPI + 3%	CPI + 3.5%	CPI + 3.5%	

\* Represent CPI + 2.5% where CPI assumed at 3.5% from 2008/09 to 2009/10

### Water Service Charges - Strata Title Properties (Residential) with Master Meter Only

Where water usage to a residential strata titled property is measured through a master meter only, each individual strata title unit is levied a service charge equal to the Water Service Charge – Metered Services for a 20mm water meter. Water Usage is apportioned to the various lots in the Strata Plan in accordance with the schedule of unit entitlement and charged to the unit owners at the Water Usage Charge per kilolitre.

## Water Service Charges - Community Title Properties and Non-Residential Strata Properties

Where a master meter is attached to service the property, the service charge is based on an availability charge commensurate with the size of the meter and this charge is apportioned to the various lots in the community title/strata plan in accordance with the schedule of unit entitlement. Usage consumed through the master meter is apportioned and charged to the individual unit owners in accordance with the unit entitlement at Water Usage Charge per kilolitre.

### Water Fire Service

There is no charge for a separate Water Fire Service.

Where a property has a combined fire and commercial service the property will be charged a Water Service Charge – Metered Service commensurate with the meter size.

### Water Service Charges Vacant Land and Unmetered Services

A water service charge is levied on vacant land to which water is supplied or to which it is reasonably practical for water to be supplied and all properties to which an unmetered water service is supplied.

### Table 10.3

Water Service Charges – Vacant Land and Unmetered Services					
Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
Water Service Charge	\$112.16	\$86.49	CPI	CPI	CPI

The above charge has been reduced in 2009/10 to compensate for the new drainage charges.

## **10.2 Proposed Sewerage Charges**

### <u>Sewerage Service Charge for Single Residential Properties Including Residential</u> <u>Strata Properties</u>

Council has a current charging structure based on a service charge for each single residential property to which a sewerage service is supplied.

There is no usage charge for this category.

Та	ble	10	).4
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Sewerage Service Charge						
Single	e Residential F	Properties incluing	uding Resident	ial Strata Prope	rties	
Type of Service Current Proposed Proposed % Proposed % Proposed % Proposed % Proposed % Increase on increase on increase on increase on Charge 2008/2009 Charge 2009/2010 Charge Charge Charge 0					2012/2013 Proposed % increase on 2011/2012 Charge	
Sewerage Service Charge	\$412.67	\$372.99	CPI	CPI	CPI	

The above charge has been reduced in 2009/2010 to compensate for the new drainage charge.

## Non-Residential Service and Usage Charges

In the determination of Council's 1995/96 charges, the Independent Pricing and Regulatory Tribunal approved the introduction of a pay for use system of charging for sewerage based on an access charge and a usage charge.

Non-Residential customers are those that do not meet the classification as a single residential customer. These include non strata titled residential units and Retirement Village properties.

### Table 10.5

Non- Residential Service Charge						
Nominal Pipe/Meter Size	Current Charge 2008/2009*	Proposed 2009/2010 Charge *	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge	
20 mm 25 mm 40 mm 50 mm 80 mm 100 mm 150 mm 200 mm 250mm	\$148.67 \$232.29 \$594.68 \$929.20 \$2,378.73 \$3,716.77 \$8,362.75 \$14,867.11 \$23,229.68	\$103.87 \$162.30 \$415.48 \$649.19 \$1,661.82 \$2,596.75 \$5,842.69 \$10,387.00 \$16,229.68	CPI CPI CPI CPI CPI CPI CPI CPI	CPI CPI CPI CPI CPI CPI CPI CPI	CPI CPI CPI CPI CPI CPI CPI CPI	

\* A discharge factor is applied to the charge based on the estimate proportion of metered water discharged into Council's sewerage system. The discharge factor reflects the type of premises discharging to the sewerage system.

Charges for meters not specified above are calculated on the proportional increase in the area of the connection (when compared to a 20 mm connection).

The above charges have been reduced in 2009/2010 to compensate for the new drainage charge.

Table	10.6
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Non-Residential Sewerage Usage Charge						
Type of Service	Current Charge 2008/2009 (¢ per KI)	2009/2010 Charge (¢ per Kl)	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge	
Per Kilolitre of Water Discharged	74.41	77.01*	CPI	CPI	CPI	

\* Represents CPI where CPI assumed at 3.5% from 2008/09 to 2009/10.

### Sewerage Service Charges - Vacant Land

The charge for vacant land to which a sewerage service is supplied or to which it is reasonably practical for sewerage services to be supplied.

### Table 10.7

Sewerage Service Charges – Vacant Land						
Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge	
Sewerage Service Charge	\$309.51	\$320.35	CPI	CPI	CPI	

### Non-Residential Minimum Sewerage Service Charge

#### Table 10.8

Non-Residential Sewerage Usage Charge						
Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge	
Minimum Sewerage Service Charge	\$412.67	\$372.99	CPI	CPI	CPI	

The above charge has been reduced in 2009/10 to compensate for the new drainage charge.

## <u>Sewerage Service Fees – Exempt Properties</u>

Properties exempt from services charges under Schedule 4 of the Water Management Act 2000 No 92 are charged a fee in accordance with Section 310(2) of the Act.

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Sewerage Service Fees – Exempt Properties						
Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge	
Per Water Closet	\$58.26	\$60.30	CPI	CPI	CPI	
Per Cistern Servicing a Urinal	\$20.63	\$21.35	CPI	CPI	CPI	

# **10.3 Proposed Trade Waste Charges**

### Table 10.10

	Current Charge	Proposed Charge	2010/11 Proposed % increase on 2009/2010	2011/12 Proposed % increase on 2010/2011	2012/13 Proposed % increase on 2011/2012
Type of Service	2008/2009	2009/2010	Charge	Charge	Charge
Trade Waste Application Fee – Classification A	\$42.94	\$44.44	CPI	CPI	CPI
Trade Waste Application Fee – Classification B	\$54.65	\$56.56	CPI	CPI	CPI
Trade Waste Application Fee – Classification C	\$838.09	\$867.42	CPI	CPI	CPI
Annual Trade Waste Fee - Category 1	\$75.09	\$77.71	CPI	CPI	CPI
Annual Trade Waste Fee - Category 2	\$300.36	\$310.87	CPI	CPI	CPI
Annual Trade Waste Fee - Category 3	\$504.54	\$522.19	CPI	CPI	CPI
Re-inspection Fee per inspection (All Categories)	\$70.40	\$72.86	CPI	CPI	CPI
Trade Waste Usage Fee – Compliant (Category 2 only)	\$0.31	\$0.42	\$0.53	\$0.64	\$0.76
Trade Waste Usage Fee - non compliant (Category 2 only)	\$12.90	\$13.35	CPI	CPI	CPI

Table 10.10 (Cont.)

Excess Mass & Non Compliant Excess Mass /kg of Substance Discharged	Current Charge 2008/2009	Proposed Charge 2009/2010	2010/11 Proposed % increase on 2009/2010 Charge	2011/12 Proposed % increase on 2010/2011 Charge	2012/13 Proposed % increase on 2011/2012 Charge
Biochemical Oxygen Demand	0.63	0.65	CPI	CPI	CPI
Suspended Solids	0.80	0.82	CPI	CPI	CPI
Total Oil & Grease	1.13	1.16	CPI	CPI	CPI
Ammonia (as Nitrogen)	0.63	0.65	CPI	CPI	CPI
Total Kheldhal Nitrogen	0.15	0.15	CPI	CPI	CPI
Total Phosphorus	1.28	1.32	CPI	CPI	CPI
Total Dissolved Solids	0.04	0.04	CPI	CPI	CPI
рН	0.35	0.36	CPI	CPI	CPI
Aluminium	0.63	0.65	CPI	CPI	CPI
Arsenic	0.63	0.65	CPI	CPI	CPI
Barium	31.67	32.77	CPI	CPI	CPI
Boron	\$0.63	\$0.65	CPI	CPI	CPI
Bromine	\$12.67	\$13.11	CPI	CPI	CPI
Cadmium	\$293.33	\$303.59	CPI	CPI	CPI
Chloride	No Charge	No Charge	No Charge	No Charge	No Charge
Chlorinated Hydrocarbons	\$31.67	\$32.77	CPI	CPI	CPI
Chlorinated Phenolics	\$1,267.22	\$1,311.57	CPI	CPI	CPI
Chlorine	\$1.28	\$1.32	CPI	CPI	CPI
Chromium	\$21.12	\$21.85	CPI	CPI	CPI
Cobalt	\$12.90	\$13.35	CPI	CPI	CPI
Copper	\$12.90	\$13.35	CPI	CPI	CPI
Cyanide	\$63.36	\$65.57	CPI	CPI	CPI
Fluoride	\$3.16	\$3.27	CPI	CPI	CPI
Formaldehyde	\$1.28	\$1.32	CPI	CPI	CPI
Herbicides/defoliants	\$633.61	\$655.78	CPI	CPI	CPI
Iron	\$1.28	\$1.32	CPI	CPI	CPI
Lead	\$31.67	\$32.77	CPI	CPI	CPI
Lithium	\$6.33	\$6.55	CPI	CPI	CPI
Manganese	\$6.33	\$6.55	CPI	CPI	CPI
Mercaptans	\$63.36	\$65.57	CPI	CPI	CPI
Mercury	\$2,112.03	\$2,185.95	CPI	CPI	CPI
Methylene Blue Active Substances (MBAS)	\$0.63	\$0.65	CPI	CPI	CPI
Molybdenum	\$0.63	\$0.65	CPI	CPI	CPI

### Table 10.10 (Cont.)

			2010/11	2011/12	2012/13
Excess Mass & Non Compliant	Current	Proposed	Proposed %	Proposed %	Proposed %
Excess Mass & Non Compliant Excess Mass /kg of Substance	Charge	Charge	2009/2010	2010/2011	2011/2012
Discharged	2008/2009	2009/2010	Charge	Charge	Charge
Nickel	\$21.12	\$21.85	CPI	CPI	CPI
Organoarsenic compounds	\$633.61	\$655.78	CPI	CPI	CPI
Pesticides general					
(Excludes organochlorines and organophosphates)	\$633.61	\$655.78	CPI	CPI	CPI
Petroleum Hydrocarbons					
(Non flammable)	\$2.11	\$2.18	CPI	CPI	CPI
Phenolic compounds	<b>*</b> •••••	<b>*</b> • <b>-</b> -	0.51	0.51	0.51
(Non-chlorinated)	\$6.33	\$6.55	CPI	CPI	CPI
Polynuclear aromatic hydrocarbons	¢12.00	¢10.05	CPI	CPI	CPI
(PAH)	\$12.90	\$13.33			
Selenium	\$44.58	\$46.14	CPI	CPI	CPI
Silver	\$1.16	\$1.20	CPI	CPI	CPI
Sulphate	\$0.12	\$0.12	CPI	CPI	CPI
Sulphide	\$1.28	\$1.32	CPI	CPI	CPI
Sulphite	\$1.40	\$1.44	CPI	CPI	CPI
Thiosulphate	\$0.22	\$0.22	CPI	CPI	CPI
Tin	\$6.33	\$6.55	CPI	CPI	CPI
Uranium	\$6.33	\$6.55	CPI	CPI	CPI
Zinc	\$12.90	\$13.35	CPI	CPI	CPI

# Septic Tank Waste Removal and Disposal Charges

### Table 10.11

Type of Service***			2010/2011 Proposed %	2011/2012 Proposed %	2012/2013 Proposed %
	Current Charge 2008/2009	Proposed Charge 2009/2010	increase on 2009/2010 Charge	increase on 2010/2011 Charge	increase on 2011/2012 Charge
Fortnightly effluent removal and disposal service (per annum)	\$950.66	\$983.93	CPI	CPI	CPI
Additional effluent removal and disposal service (per service)	\$36.79	\$38.07	CPI	CPI	CPI
Non-residential effluent removal and disposal service (per kilolitre)	\$12.19	\$12.61	CPI	CPI	CPI
Sludge removal and disposal services: -					
Septic tanks with capacity up to 2750 litres (per service)	\$266.69	\$276.02	CPI	CPI	CPI
Septic tanks exceeding 2750 litres or AWTS with one tank (per service)	\$346.00	\$358.11	CPI	CPI	CPI
AWTS with more than one tank (Per Service	\$516.13	\$534.19	CPI	CPI	CPI
Sludge disposal Only (per kilolitre) (collection organised by customer)	\$28.74	\$29.74	CPI	CPI	CPI

### Table 10.11 (Cont)

Type of Service	Current Charge	Proposed Charge	2010/2011 Proposed % increase on 2009/2010	2011/2012 Proposed % increase on 2010/2011	2012/2013 Proposed % increase on 2011/2012
	2008/2009	2009/2010	Charge	Charge	Charge
Classification S Application Fee*					
Residential	\$44.40	\$45.95	CPI	CPI	CPI
Non-Residential	\$179.25	\$185.52	CPI	CPI	CPI
Classification S Annual Fee*					
Residential	\$39.40	\$40.77	CPI	CPI	CPI
Non-Residential	\$80.05	\$82.85	CPI	CPI	CPI
Reinspection Fee **	N/A	\$72.86	CPI	CPI	CPI

\* Not currently regulated by IPART. Included in 2008/2009 Management Plan Fees and Charges as "Initial Approval" and "Approval Renewal" charges.

\*\* Same charge as in Table 10.10. This charge commences in 2009/2010

\*\*\* Nominated services apply to residential or non-residential properties as appropriate.

### Pan Waste (Nightsoil) Charges

Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
Annual Fortnightly Service	\$1,370.17	\$1,418.12	CPI	CPI	CPI
Each requested Weekly Special Service	\$26.69	\$27.62	CPI	CPI	CPI
Classification S Application Fee*					
Residential Non-Residential	N/A N/A	\$45.95 \$185.52	CPI CPI	CPI CPI	CPI CPI
Classification S Annual Fee*					
Residential Non-Residential	N/A N/A	\$40.77 \$82.85	CPI CPI	CPI CPI	CPI CPI
Reinspection Fee**	N/A	\$72.86	CPI	CPI	CPI

#### Table 10.12

\* This charge commences in 2009/10 for pan waste (nightsoil) premises.

\*\* Same charge as in Table 10.10. This charge commences in 2009/2010 for pan waste (nightsoil) premises

## Pan Waste (Chemical Toilet) Charge

Proposed charges for pan waste (chemical toilet) accepted and discharged into Council's sewerage system are:

Type of Service	Current Charge 2008/2009	Proposed 2009/2010 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
Pan Waste (per kilolitre)	\$14.08	\$14.57	CPI	CPI	CPI
Classification S Application Fee*					
Residential	N/A	\$45.95	CPI	CPI	CPI
Non-Residential	N/A	\$185.52	CPI	CPI	CPI
Classification S Annual Fee*					
Residential	N/A	\$40.77	CPI	CPI	CPI
Non-Residential	N/A	\$82.85	CPI	CPI	CPI
Reinspection Fee **	N/A	\$72.86	CPI	CPI	CPI

### Table 10.13

\* This charge commences in 2009/10 for pan waste (chemical toilet) facilities.

\*\* Same charge as in Table 10.10. This charge commences in 2009/2010 for pan waste (chemical toilet) premises.

Where properties discharging liquid trade waste become chargeable or non-chargeable for a part of the financial year a proportional charge calculated on a weekly basis is to apply.

## 10.4 Proposed Drainage Service Charges

### Drainage Service Charge

The proposed charge structure reflects that of Council's current stormwater levy.

The Drainage Service Charge applies to the urban area of the Shire – defined as the area to the east of the F3 Freeway plus the Highway Service Centre and any industrialzoned land to the west of the Freeway. Vacant properties (ie. those without impervious surfaces) are not subject to this charge.

### Table 10.14

		Drainage Service Charge			
	2008/2009	2009/2010	2010/2011	20/11/2012	2012/2013
Residential	Nil	\$80.00 per property	CPI	CPI	CPI
Properties		(within the area of the drainage plan)			
Residential	Nil	\$40.00 per lot	CPI	CPI	CPI
Strata					
Properties					
Residential	Nil	\$80.00 per Company title complex	CPI	CPI	CPI
Company		apportioned according to the number of			
Title		shares in the company owned by each			
Properties		shareholder			
Business	Nil	\$80.00 per 850 square metres (or part	CPI	CPI	CPI
Properties		thereof) with a ceiling of \$2,800			
Business	Nil	\$80.00 per 850 square metres (or part	CPI	CPI	CPI
Strata		thereof of the land area of the strata			
Properties		complex) for strata business properties			
		and apportioned equally to each lot			
		within the strata complex			
Business	Nil	\$80.00 per 850 square metres (or part	CPI	CPI	CPI
Company		thereof) of the Company Title complex			
litle		with a ceiling of \$2,800 apportioned			
Properties		according to the number of shares in			
		the company owned by each			
		shareholder			



# WYONG SHIRE COUNCIL

# SUBMISSION TO THE

# INDEPENDENT PRICING AND REGULATORY TRIBUNAL

# **PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013**

# **APPENDIX A**

Issues and Output Measures for Joint Water Supply

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## 1. INTRODUCTION

### 1.1 Background

The Central Coast water supply is provided by Gosford City Council and Wyong Shire Council. Although the Councils operate as separate water supply authorities under the Water Management Act 2000, they have entered into an agreement for the joint provision, administration and management of certain components of the Central Coast water supply. These components are referred to as the Joint Water Scheme (JWS) and include major water storages, treatment facilities and transfer systems.

The agreement between the Councils enables sharing of JWS capital, operational and maintenance costs. Traditionally, each Council plans, manages, budgets and funds the JWS works within their local government area (LGA) and an 'equalisation' occurs at the end of each financial year to reconcile any JWS expenditure differences between the Councils.

This Appendix discusses only the JWS expenditure items, which are presented in the relevant sections of each Council's submission.

## 2. ACHIEVEMENTS IN THE 2006-2009 PRICE PERIOD

### 2.1. Operational outcomes

### 2.1.1. Central Coast water supply and demand levels

### 2.1.1.1 Rainfall, streamflow and storage levels

Since the early 1990s the Central Coast has experienced reduced rainfall and streamflows in comparison to historical averages.

Figure 1 presents the total streamflows of the Central Coast's water supply sources (Mangrove Creek, Mooney Mooney Creek, Ourimbah Creek and Wyong River) since 1885. It can be seen from Figure 1 that average streamflows from 1991 to 2006 were substantially below long term average streamflows.



Figure 1: Central Coast water supply streamflows

Figure 2 presents the total system storage level since 1988 and illustrates the impacts that below average streamflows during recent years have had upon water supply storage levels. Figure 2 illustrates the downward trend of Central Coast water supply storage levels since 1992 to a level of 21% at the time of the Councils' last submission to IPART.



Figure 2: Total system storage since 1988

During the 2006 to 2009 determination period Central Coast storage levels continued to decline until February 2007 when total system storage reached a historical low of 12.4%. Since this time, the system has been slowly and steadily recovering with the exception of a steeper 6% increase associated with the June 2007 flood event.

Figure 3 provides a summary of Mangrove Creek Dam rainfall and total system storage levels from 2005 and illustrates the impact of recent above average rainfall on total system storage levels. At July 2008 total system storage was at 30.0% of total capacity.



Figure 3: Total system storage and Mangrove Creek Dam monthly rainfall

### 2.1.1.2 Water restrictions

In response to declining water storage levels water usage restrictions have been in place on the Central Coast since 2002. A summary of the restriction regime since 2002 including restriction level, target demand reduction and actual demand reduction is provided in Table 1.

Table 1 illustrates the effectiveness of water restrictions in reducing average system demand with actual demand reductions (except in one case) meeting or exceeding target demand reductions at each restriction level.

Restriction level	Date introduced	Target demand reduction <sup>1</sup> (%)	Actual demand reduction <sup>1</sup> (%)
1	24 February 2002	8	11.0
2*	17 May 2004	16	-2
2A	1 August 2004	16	20.6
2B	4 December 2005	16	21.4
3	3 June 2006	30	29.8
4	1 October 2006	32	32.0
3	30 March 2008	30	35.0

Table 1: Central Coast water restriction summary

<sup>1</sup> in comparison to unrestricted demand

\* The target reduction for Level 2 restrictions was not achieved as outdoor watering was not completely banned.

## 2.1.2. Securing Central Coast water supplies

To ensure that the growing population of the Central Coast has sufficient water to meet its needs for the next 50 years the Councils have developed and formally adopted WaterPlan 2050.

WaterPlan 2050 evaluated the short term actions required to manage the current drought in light of the medium and longer water supply needs of the Central Coast. WaterPlan 2050 details the Councils' strategic plans for managing and securing Central Coast water supplies and contains a combination of actions to further enhance the current water supply system, continue to use water as efficiently as possible and develop additional future sources of water. The long and medium term WaterPlan 2050 actions completed to date are presented in Section 2.1.3 of this Appendix and planned future works are presented in Section 3.2.

The adopted WaterPlan 2050 strategy is included as Appendix J.

In addition to medium and long-term measures to secure Central Coast water supplies, the Councils have implemented a range of demand management initiatives. Best practice demand management is recognised as essential for efficient management of the Central Coast water supply system and for the efficient use of water resources.

The Councils, as part of WaterPlan 2050, have undertaken comprehensive demand analysis to best understand and manage Central Coast water consumption. Major demand management initiatives identified and implemented include rainwater tank rebates, the residential refit program, non-residential water management plans and audits, reticulation system leakage detection programs, system pressure reduction programs and an extensive public education campaign. A summary of demand management initiatives is presented in Section 2.1.3 of the submission report.

WaterPlan 2050 has been prepared using the best available information, however due the nature of the inputs and predictions there is a level of inherent uncertainty in its findings.

Key demand and supply risks facing the Central Coast water supply, which could affect the timing of planned actions include: -

- failure to achieve the predicted water savings through water conservation and recycling projects
- growth exceeding the population predictions
- changes in the water access licence affecting the ability to extract water from the surface water sources, and
- climate change reducing natural streamflows

The impact of climate change upon Central Coast water supplies is discussed further in Section 3.4.1 of this Appendix.

In selecting a preferred strategy, the Councils have adopted an adaptive approach to manage the uncertainties and risks related to consumer water-use behaviour in the future, community acceptance, regulatory requirements, policy changes, climate change, technological innovation and future energy costs.

## 2.1.3. Joint Water Supply Authority outputs to date

Project Name	Lower Wyong Transfer System Upgrade
Scale and intent of completed project	Upgrade pumping station from 72 ML/d to 125 ML/d, duplicate rising
	main and an electrical supply upgrade to pumping station.
Context / Driver	Increase transfer of water from Wyong river to Mardi Dam in order to
	increase water supply yield.
Status of project	Practically completed in March 2008
Explanation of any difference between	The project was previously reported to IPART to be completed in mid
IPART completion date and actual	to late 2007. Due to additional power upgrades required at the
completion date.	pumping station and a required associated reconstruction of Old
	Maitland Rd the project was completed in early 2008.
Details of what has been achieved	All works commissioned.
	Some minor works remain to be completed in 2008/2009
Projected CAPEX	\$7.473M (shared equally between Gosford and Wyong Councils)
Actual CAPEX	\$7.473M (shared equally between Gosford and Wyong Councils)
Explanation of any difference in	The estimated total project cost was previously reported to IPART in
projected and actual CAPEX	2005 as \$5.8M. Additional costs incurred were due to a major power
	supply upgrade to the pumping station that was not previously
	anticipated and difficulty and delays caused by construction within the
	road reserve.
Source and value of any grants	Nil
Any other parties involved or	None
contributing funds	
Additional benefits	N/A
Delivery method	Works managed by NSW Dept. of Commerce and delivered by
How was/is the project to be procured?	private sector contractors via competitive tendering.
Any additional information?	None

## 2.1.3.1 Lower Wyong Transfer System Upgrade

## 2.1.3.2 Mooney Mooney Transfer System Upgrade

The Mooney Mooney transfer system upgrade will increase the transfer capacity from Mooney Mooney Dam to Somersby Water Treatment Plant.

The upgrade initially requires lowering of the water level in Mooney Mooney Dam and keeping Mooney Mooney Dam off-line for several months. It has not been possible or prudent to undertake these works until storage levels in Mangrove Creek Dam rise sufficiently to safely take Mooney Mooney Dam off-line.

The completion date for this project will be influenced by the completion date of the Mardi to Mangrove Transfer System which will provide the additional security of supply required to enable the Mooney Mooney Transfer System upgrade to take place.

The implementation of this project has been deferred and will be reviewed at the completion of the Mardi to Mangrove Transfer System.

### 2.1.3.3 Mardi Dam Raising (now Mardi Dam Safety and Operational enhancements)

Raising Mardi Dam was previously identified as a cost effective (albeit limited) method to reduce the current storage limitation for water extracted from Wyong River and Ourimbah Creek.

The decision to implement the Mardi to Mangrove link project reduces the immediate benefits of the Mardi Dam raising proposal, by more comprehensively addressing the current storage situation. As such, the Councils have now deferred the Mardi Dam raising project for the foreseeable future.

The Councils will however continue to implement safety and operational efficiency related activities at Mardi Dam, ie. widening the spillway and provision of a spillway bridge (refer Section 3.2.2.3 of this Appendix).

Project Name	Mardi Dam Spillway Bridge and Spillway Widening (previously Mardi Dam Raising).
Scale and intent of completed project	Includes widening of the existing spillway to meet Dam Safety Committee requirements, construction of a bridge over the spillway and boat ramp adjacent to the new Mardi Dam Transfer system tower.
Context / Driver	Safety and operational efficiency requirements.
Status of project	Tenders for construction have closed with construction expected to start in early 2009.
Explanation of any difference between IPART completion date and actual completion date.	The original completion dated as advised to IPaRT was mid 2008. Expected completion date is now December 2009. The original proposal to raise Mardi Dam was reviewed and due to the reduced yield benefits the decision was made to not to raise Mardi Dam but to proceed only with the ancillary works required for dam safety and operational efficiency. The work has been delayed to enable "packaging" with the Mardi Suite of Works.
Details of what has been achieved	Planning, design, and tendering completed.
Projected CAPEX	\$2.28M (shared equally between Gosford and Wyong Councils)
Actual CAPEX	\$0.9M spent to 30/6/08. (shared equally between Gosford and Wyong Councils)
Explanation of any difference in projected and actual CAPEX	This project is an entirely different scope of works to that reported to IPART in 2005 where the estimated capital expenditure for the dam raising was \$3.2M.
Source and value of any grants	Nil
Any other parties involved or contributing funds	None
Additional benefits	N/A
Delivery method	To be constructed by private sector contractor after EOI and
How was/is the project to be procured?	selective tendering process.
Any additional information?	None

Project Name	Mardi High Lift Pumping Station and High Voltage Ring Main
Scale and intent of completed project	Mardi High Lift Pumping Station enables water to be transferred from
	Mardi Water Treatment Plant to Tuggerah 2 Reservoir providing
	increased transfers to both Wyong and Gosford distribution systems.
	Stage 1 is 160ML/d capacity. Stage 2 is 240ML/d through installation
	of an additional pump unit.
Context / Driver	Caters for peak transfers into Wyong distribution system to meet
	peak day demand associated with growth. Also caters for transfers
	into Gosford distribution system to meet demand and yield
	requirements associated with growth.
Status of project	Tenders for construction closed with construction expected to start in
	early 2009.
Explanation of any difference between	The completion date as advised to IPaRT in 2005 was June 2008.
IPART completion date and actual	The current completion date is December 2009. Modifications and
completion date.	reviews of work scope have delayed project implementation.
Details of what has been achieved	Planning, design, and tendering completed.
Projected CAPEX	\$14.75M (shared equally between Gosford and Wyong Councils)
Actual CAPEX	\$1.1M spent to 30/6/08. (shared equally between Gosford and
	Wyong Councils)
Explanation of any difference in	The scope of work for this project has been significantly modified in
projected and actual CAPEX	order to achieve both cost savings and operational benefits. This
	compares to the estimated total cost of \$17.65M reported to IPART in
	2005.
Source and value of any grants	Nil
Any other parties involved or	None
contributing funds	
Additional benefits	N/A
Delivery method	To be constructed by private sector contractor after EOI and selective
How was/is the project to be procured?	tendering process.
Any additional information?	None

# 2.1.3.4 Mardi High Lifting Pumping Station and Associated Works

## 2.1.3.5 Mardi Dam Transfer System

Project Name	Mardi Dam Transfer System
Scale and intent of completed project	New outlet tower and transfer system from Mardi Dam to Mardi Water Treatment Works and to the Mardi to Mangrove Transfer pumping station. Stage 1 of the pumping station provides a capacity 160 ML/d. Outlet tower, tunnel and valve house designed for 360 ML/d capacity.
Context / Driver	Required to replace existing tower due to safety issues and to provide additional transfer capacity to cater for growth.
Status of project	Tenders for construction closed with construction expected to start in early 2009.
Explanation of any difference between IPART completion date and actual completion date.	Expected completion date is December 2009. This project was initially tendered in 2005 with the received tenders all substantially above the pre-tender estimate. An alternative detailed design was developed with fresh tenders called in early 2008. The design was also revised to cater for the proposed Mardi to Mangrove Transfer pumping station. Tenders have now closed and it is expected that construction work will commence in early 2009.
Details of what has been achieved	Planning, design, and tendering completed.

Projected CAPEX	\$33.2M (shared equally between Gosford and Wyong Councils)
Actual CAPEX	\$1.2M spent to 30/6/08. (shared equally between Gosford and
	Wyong Councils)
Explanation of any difference in projected	The scope of works for this project has been substantially revised
and actual CAPEX	since 2005 with the transfer system now catering for flows to both the
	Mardi Water Treatment Plant and the Mardi to Mangrove Transfer
	Pumping Station.
	Based on the tender prices received the projected capex has
	increased substantially compared to the pre-tender estimate.
	The projected capital cost is also substantially higher than the
	estimated total cost reported to IPART in 2005. ie \$19.0M
Source and value of any grants	Nil
Any other parties involved or contributing	None
funds	
Additional benefits	N/A
Delivery method	To be constructed by private sector contractor after EOI and selective
How was/is the project to be procured?	tendering process.
Any additional information?	None

## 2.1.3.6 Mardi to Mangrove Transfer System

Project Name	Mardi to Mangrove Transfer System
Scale and intent of completed project	Comprises a 320ML/d Wyong River to Mardi Dam pumping station and 2.6km rising main, a 120ML/d Mardi Dam to Mangrove Creek Dam pumping station and 20km rising main, a Mangrove Creek Dam inlet/outlet works and potentially a Mardi Dam Water Pre-treatment Facility.
Context / Driver	Required to provide additional yield for both improved drought security and future growth.
Status of project	The investigation and design activities are underway with completion of the project anticipated for March 2011.
Explanation of any difference between IPART completion date and actual completion date.	Forecast date for completion is March 2011.
Details of what has been achieved	Investigation and concept design.
Projected CAPEX	\$110 M (\$80.3 Federal Funding) (remainder to be shared equally between Gosford and Wyong Councils)
Actual CAPEX	Approx. \$6.4M spent to date (shared equally between Gosford and Wyong Councils)
Explanation of any difference in projected and actual CAPEX	N/A
Source and value of any grants	\$80.3M Federal funding through Water Smart program.
Any other parties involved or contributing funds	None
Additional benefits	Provides for additional environmental flows at Wyong River weir.
Delivery method How was/is the project to be procured?	Project managed in-house via combination of permanent and contract staff. Consultants carrying out investigation, design and construction management aspects of the project. Construction to be by private contractors through competitive tendering process.
Any additional information?	Nil

Project Name	Groundwater Contingency Scheme
Scale and intent of completed project	To provide emergency water supply drought contingency measures
	from seven borefields across the Central Coast.
	The Councils have established borefields at Mangrove Weir,
	Ourimbah, Mardi, Braithwaite Park, Somersby, Narara and Woy Woy.
	Major project components included the construction of substantial
	reticulation infrastructure and an advanced water treatment facility
	providing treated groundwater to the Woy Woy Peninsula area.
Context / Driver	Low surface water storages
Status of project	With the exception of some minor land matters, this project is now
	complete.
Explanation of any difference between	Completion delayed due to land matters associated with lease
IPART completion date and actual	agreement with Department of Primary Industries, in respect to the
completion date.	Narara borefield scheme
Details of what has been achieved	Establishment of the following borefields:
	Ourimbah & Bangalow, Mardi, Braithwaite Park, Mangrove Creek,
	Woy Woy & Narara, with overall average capacity of up to 8 ML/day.
	Projects included pumping and extensive reticulation works, and
	advanced water treatment facility servicing the Woy Woy borefield.
Projected CAPEX	\$30.7M
Actual CAPEX	\$30.7M
Explanation of any difference in	In 2005 IPaRT was advised that the estimated cost of this project
projected and actual CAPEX	was \$23.7M shared between the Councils. The cost has increased
	due to changes in work scope necessitated to maximise yield as far
	as possible. Additional costs have also been increased as a result of
	high levels of environmental monitoring.
Source and value of any grants	NIL
Any other parties involved or	None
contributing funds	
Additional benefits	N/A
Delivery method	A combination of separable tenders for pipeline construction, bore
How was/is the project to be procured?	pump supplies, water treatment facilities and Council day labour
	works, project management by consultants engaged by Council.
	All construction to contract tender, Woy Woy Water Treatment plant
	to Design & Construct contract.
Any additional information?	None

# 2.1.3.7 Completion of the Groundwater Contingency Scheme

# 2.1.3.8 Completion of the Hunter Transfer Contingency Scheme

Project Name	Hunter Transfer Projects Comprising: Hunter Transfer Pipeline Project, Additional Hunter Transfer Project and the Balickera Pre-Treatment Project.
Scale and intent of completed project	Provide for average of 33ML/d of transfer to and from Hunter Water.
Context / Driver	To provide drought security and additional yield to cater for growth.
Status of project	Hunter transfer pipeline completed. Additional pipework within the Hunter system and pumps at Balickera Pumping Station completed. Balickera Pre-Treatment Screens due for completion end of August 2008.

Explanation of any difference between IPART completion date and actual completion date.	The Hunter transfer pipeline was completed in December 2006 due to the critical drought situation on the Central Coast. Additional works were completed during the 2007/2008 and 2008/09 financial years to increase the transfer rate to an average of 33ML/d. The Hunter Transfer projects were brought forward to provide drought relief compared to the previously reported completion date of "2008/09" financial year reported to IPART in the 2005.
Details of what has been achieved	See status above
Projected CAPEX	\$39.73M (shared equally between Gosford and Wyong Councils)
Actual CAPEX	\$36.23M to 30/6/08 (shared equally between Gosford and Wyong Councils)
Explanation of any difference in projected and actual CAPEX	The scope of works for the Hunter Transfer projects was substantially increased to provide an average transfer rate of 33ML/d and a much greater level of reliability for the transfers. This resulted in an increased capital expenditure compared to the estimate of \$17.97M reported to IPART in 2005.
Source and value of any grants	\$4.825M Federal Government WaterSmart Grant.
Any other parties involved or	Hunter Water Corporation
contributing funds	
Additional benefits	N/A
Delivery method	Works managed by NSW Dept. of Commerce and delivered by
How was/is the project to be procured?	private sector contractors via competitive tendering.
Any additional information?	Nil

## 2.1.3.9 Permanent Desalination Pre-Construction Activities

Project Name	Pre-Construction activities for a 20ML/d Desalination Plant
Scale and intent of completed project	All investigation, environmental assessment and concept design
	activities required to support a development application for a 20
	megalitre per day sea water reverse osmosis desalination plant at
	Toukley.
Context / Driver	Drought contingency project.
Status of project	All work completed with Development Consent received in July 2007.
	The adopted WaterPlan 2050 strategy retains desalination as an
	option for potential use during future prolonged drought conditions or
	to meet significant future demand for water if required. The
	development consent allows for the timely construction of the plant
	should it be required sometime in the future.
Explanation of any difference between	N/A
IPART completion date and actual	
completion date.	
Details of what has been achieved	See scale and intent of project.
Projected CAPEX	\$2.1M (no further expenditure anticipated) (shared equally between
	Gosford and Wyong Councils)
Actual CAPEX	\$2.1M (shared equally between Gosford and Wyong Councils)
Explanation of any difference in	N/A
projected and actual CAPEX	
Source and value of any grants	Nil
Any other parties involved or	Nil
contributing funds	
Additional benefits	N/A
Delivery method	Managed in-house using private contractors and consultants.
How was/is the project to be procured?	
Any additional information?	Nil

## 3. PLANS FOR THE NEXT PRICE PERIOD

### 3.1 Supply and demand

The forecast water sales for both Councils have been developed using a common methodology and are based on information from the water supply system stochastic model, likely restriction regimes and analysis of customer response to easing restriction levels.

The main assumptions used in water sale forecasts are:

- water restrictions will be progressively eased from now until 2011/12 when no restrictions will be in force.
- there will be a time lag between the time when restrictions are eased and the associated increase in water sales.
- estimates of unrestricted demand are based on the recently completed Integrated Water Cycle Management Study (IWCM) for each Council which includes appropriate demand adjustments for permanent water savings.

Further information regarding the methodology used to estimate future demands and the quantity of each Council's forecast water sales are provided in Appendix D of this submission.

### 3.2 **Proposed JWS works**

### 3.2.1 Lower Wyong River Transfer System Upgrade

### Background

Refer to Section 2.1.3.1

### Current Status

With the exception of minor outstanding matters this project is complete.

### 3.2.2 Mardi Suite of Works

### **Background**

The Mardi Suite of Works includes the following Mardi based projects: -

- a. Mardi Dam Transfer System
- b. Mardi High Lift Pump Station (MHLPS)
- c. Mardi Dam Spillway and Bridge (previously Mardi Dam Raising proposal)
- d. High Voltage Electrical Ring Main for Mardi Infrastructure

These projects have been grouped together in a single construction contract package. Details on each major component of that package are provided below.

### 3.2.2.1 Mardi Dam Transfer System

### Background

The existing transfer system from Mardi Dam does not have the capacity to deliver the required volumes of raw water to the Mardi Water Treatment Plant (MWTP) and to allow the new MHLPS to provide for transfers to Gosford and Warnervale. It is now also required to provide sufficient transfer capacity from Mardi Dam to the Mardi to Mangrove Transfer system.

The new transfer system includes the following: -

- A reinforced concrete intake tower
- A single 1800 mm diameter main penstock
- A reinforced concrete valve house containing outlet pipework to the MWTP pumping station, to the Mangrove Creek Dam transfer system and to waste in the event of an emergency discharge from the dam
- A pumping station to enable transfers to MWTP
- Construction of a new supernatant return line to Mardi Dam

The project allows for a staged upgrade of the pumping capacity to MWTP. Stage 1 being carried out as part of the current project has the pumping station capacity of 160 ML/day which can be upgraded in the future as need dictates to a capacity of 240 ML/day.

### Current Status

Tenders are currently being reviewed, having closed on 28 May 2008.

### 3.2.2.2 Mardi High Lift Pump Station

### **Background**

The Mardi High Lift Pump Station (MHLPS) was identified in the mid 1980's as a key future component of the Joint Water Supply Scheme (JWSS). Its implementation had been deferred at that time because of lower-than-anticipated system demand.

In November 2004, the Councils approved the preparation of designs, tender documents and the obtaining of all necessary planning approvals for the construction of the MHLPS (for a capacity of 160 ML/d) and associated works.

The construction of the MHLPS will enable the transfer of water from the Wyong System to the Gosford System. It will enable transfers from Tuggerah 2 Reservoir to Gosford via the existing 1050/900 mm pipeline using the existing bi-directional pumping station at Ourimbah.

The construction of the MHLPS will also deliver additional supplies into the Warnervale growth area to allow its continued development, as well as supplementing the delivery of water into the existing Tuggerah No. 1, Kanwal and The Entrance – Wyrrabalong systems.

The project allows for a staged upgrade of the pumping capacity. Stage 1 being carried out as part of the current project has a pumping station capacity of 160 ML/day which can be upgraded in the future as need dictates to a capacity of 240 ML/day.

### Current Status

Tenders are currently being reviewed, having closed on the 28 May 2008.

# 3.2.2.3 Mardi Dam Spillway and Bridge Auxiliary Works (previously Mardi Dam Raising)

In November 2004 it was proposed that the storage of Mardi Dam be increased by the raising of the dam wall by two metres. The storage at Mardi Dam plays a key role in the secure yield of the Joint Water Supply Scheme by storing water harvested from Ourimbah Creek and Wyong River. The amount of water that can be harvested from Ourimbah Creek and Wyong River is often limited by Mardi dam being full and there being no space to store the available flows.

The Councils at that time directed that work commence on the preparation of designs, tender documents and all necessary planning approvals for the raising of Mardi Dam by approximately two metres.

Subsequently, with the opportunities for better access to increased yield afforded by the Mardi to Mangrove Creek Dam pipeline link, the need for the Mardi Dam raising was reassessed. The Water Authority Board resolved at the February 2008 meeting not to proceed with the raising of Mardi Dam at this time.

Although the raising of Mardi Dam has been removed from the current construction contract for the Mardi suite of works, the widening of the spillway is required by the Dam Safety Committee.

The construction of the spillway bridge is also required to provide allweather access to the new transfer tower and saddle dam. These works along with the design of the new transfer intake tower (Mardi Transfer System) will still allow the raising of the dam if required in the future.

### Current Status

Tenders are currently being reviewed, having closed on the 28 May 2008.

### 3.2.2.4 Mardi High Voltage Ring Main

### Background

To supply power to the new pump station (Mardi High Lift), a proposal to provide power via an 11 KVA ring main has been developed.

### Current Status

Tenders are currently being reviewed, having closed on the 28 May 2008.

### 3.2.3 Mardi to Mangrove Transfer System

### **Background**

The Lower Wyong to Mangrove Transfer Scheme, now being implemented by the Mardi to Mangrove Link Project, forms a key part of the WaterPlan 2050 strategy.

The basic principle of the project is to transfer water from Mardi Dam into Mangrove Creek Dam. This will enable more water to be harvested from Wyong River and Ourimbah Creek. Mardi Dam will, in future, operate as a balancing storage (it is a primary storage at present) with spare capacity ready to store water from the next high river flows.

This Project received grant funding approval for \$80.3M from the Federal Government in 2007.

Initially, the project plan had targeted a completion date of mid-2010. However, owing to the additional six months committed in assessing additional pipeline route options and approving the final route and the additional two months being committed in achieving land entry by consent, the original project timeframe has not been possible to achieve.

### Current Status

As at the end of July 2008, preliminary and concept design work and reports have progressed as far as practicable, with environmental data collection underway, but not yet completed.

Land entry processes, procedures and protocols have been finalised and approved. A successful trial of these processes has been carried out.

Initial land entry negotiations have commenced, with detailed engineering and geotechnical investigations and studies, and survey work due to commence on site in late August 2008. This work will focus initially on determining a number of route options prior to selecting and recommending a preferred route for consideration by the Gosford/Wyong Council's Water Authority at its November 2008 Board meeting.

### 3.2.4 Mardi High Voltage Power Supply Upgrade

### Background

As the concept designs for the Mardi suite of works were being developed, it was determined that the current power supply to the area would still not have the capacity to supply the power requirements needed for the entire upgrade infrastructure at their fullest development.

To ensure the security of the power supply, two feeders will be provided so that in the event of a power failure on one feed there will be another backup feed to continue supply.

### Current Status

Design certification is in the process of being obtained from Energy Australia. This work is to be let as a separate contract to the Mardi Suite Contract Package.

Tenders closed on 5 June 2008 and are currently being reviewed.

### 3.2.5 Porters Creek Stormwater Harvesting Project

### **Background**

Porters Creek Stormwater Harvesting Project involves the diversion of excess stormwater around the sensitive Porters Creek Wetland for use as environmental flows substitution water at Lower Wyong Weir.

### Current Status

Investigation and planning are underway.

### 3.2.6 Gosford Distribution Works for the Mardi High Lift Pump Station Works

#### Background

The original concept of the transfers to Gosford from the Mardi High Lift Pump Station is being reviewed to maximising the benefits of the transfer ability by undertaking enhancements on existing infrastructure. In particular, there may be the potential to utilise assets constructed as part of the groundwater scheme with this transfer.

This proposal is currently being developed.

#### Current Status

Investigation work is being undertaken using hydraulic modelling to determine all possible options available to maximise flow transfers from the upgraded Mardi High Lift Pump Station to the Gosford supply system.
#### 3.2.7 Mooney Mooney Transfer System Upgrade

#### **Background**

The upgrade of the Mooney Mooney Transfer System will enable a larger quantity of water to be transferred from Mooney Mooney Dam to Somersby Water Treatment Plant, thus increasing the yield of the system. The Mooney Mooney Transfer System upgrade involves replacement of current pumps and an augmentation of the suction pipework into the pump station. The upgrade will allow flows of 60 ML/day to be transferred, and increase of 43% on the current 42 ML/day.

#### **Current Status**

The final draft Concept Design Report was submitted in June 2008, with the final report expected in August 2008. Review of the need for the project will be undertaken once the Mardi to Mangrove Link has been completed.

#### 3.2.8 Water Quality 2010

#### Background

Water Quality 2010 is Gosford City Council's drinking water quality management program designed to protect, maintain and manage Gosford's drinking water supply into the future.

Water Quality 2010 has been deemed a Joint Water Supply Programme.

Water Quality 2010 involves a series of individual projects designed to collectively meet the program's objectives. The current proposed head works projects are:

- Process and monitoring improvements at Somersby Water Filtration Plant
- Remedial repair works to Kariong Reservoirs
- Cleaning of trunk mains from Somersby to Kariong

#### Current Status

The Pre-chlorination system upstream of the filters was completed in April 2008. Since operation began, lower and more consistent manganese levels have been achieved in the treated water.

The Concept Design for process improvements (Lime, CO2 and KMnO4 dosing; dosing point optimisation) to reduce manganese and increase alkalinity is complete. The specification for an open tender process was prepared and advertised in June.

An investigation into disposal/treatment of sludge lagoon wastewaters containing high levels of manganese is continuing.

The DN600 mm and DN900 mm trunk mains from Somersby to Kariong were cleaned by swabbing in May and June 2008 respectively.

#### 3.2.9 Groundwater

Refer to Section 2.1.3.7

#### 3.2.10 Mangrove Creek and Wyong River Fishways

#### **Background**

It is proposed to construct a new fishway at Mangrove Creek Weir and upgrade the existing fishway at Lower Wyong Weir to improve the fish passage between the downstream and upstream sections of these waterways.

#### 3.2.11 Mardi Dam Pre-treatment Facilities

#### **Background**

The construction of a Mardi Dam Pre-treatment Facility has been proposed to prevent water quality problems in Mardi Dam and Mangrove Creek Dam associated with the pumping of water from Wyong River during high flow conditions when water quality is of lower quality. The shift to pumping more water during high flows is due to the anticipated new water sharing plan rules for Wyong River currently being developed by the NSW Department of Water and Energy.

#### 3.3 **Proposed output measures**

Reference is made to Councils response to IPaRT Issue 18 in Appendix B of this submission.

#### 3.4 Emerging issues

#### 3.4.1 *Climate change*

Australian water supply authorities operate in an environment of increasing uncertainty. One major source of this uncertainty is global climate change and the consequent impacts upon rainfall, streamflows, evaporation and customer demand. It is expected that that climate change will result in reduced Central Coast streamflows whilst customer demands may increase in warmer/dryer conditions.

The Councils recognise the significant impacts that climate change is likely to have upon the Central Coast water supply. As such, strategic water supply plans, including WaterPlan 2050, incorporate the potential impacts of climate change.

A rainfall-runoff model has been used to estimate the month-by-month percentage changes in runoff and streamflows due to climate change induced rainfall reductions and increased evaporation. The estimated percentage streamflow changes have been incorporated into the water supply system model. The system model also calculates variations in monthly demands based on rainfall and evaporation.

System modelling and analysis has been based on a temperature of rise of  $0.3^{\circ}$  C per decade over the period 2006 to 2050. This is double the historical increase of about  $0.15^{\circ}$  C per decade. However, CSIRO projections indicate that without greenhouse gas-reduction strategies, temperatures could in fact increase by up to  $0.6^{\circ}$  C per decade.

A sensitivity analysis has been undertaken to model the impact of these temperature changes. This analysis indicates that in the event of temperature increases of 0.6° C per decade would bring forward the need to augment the water supply scheme from the year 2050 to approximately 2035.

The adaptive management approach adopted within WaterPlan 2050 will assist the Councils to best manage the uncertainties and risks related to climate change.

#### 3.4.2 Tillegra Dam

Hunter Water Corporation and the Councils currently have an agreement for the transfer of water between the Hunter and the Central Coast. This agreement was established in March 2006 and formed the basis for the development of the existing Hunter-Central Coast water supply link. The agreement sets out financial arrangements for capital contributions towards the associated infrastructure and details the price for water transfers. It also details the arrangements for the managing the timing, volume and direction of transfers. The agreement is for a period of 20 years expiring in 2026.

Subsequent to the agreement and development of the Hunter-Central Coast water supply link, the State Government announced its intention to construct Tillegra Dam.

Hunter Water Corporation and the Councils are currently considering potential cost sharing arrangements for a proportion of Tillegra Dam. Negotiations are continuing with particular focus on:

- the methodology for timing and quantum of water transfers
- mechanisms which equitably account for the net benefits derived by optimal transfers between the systems
- capital contributions towards the Tillegra dam
- the purchase price of water transferred.



## WYONG SHIRE COUNCIL

# SUBMISSION TO THE

## INDEPENDENT PRICING AND REGULATORY TRIBUNAL

### **PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013**

## **APPENDIX B**

Wyong Shire Council Response to IPART Issues Paper - Appendix B

### 1. WYONG COUNCIL RESPONSE TO APPENDIX B

Wyong Council provides the following responses to the numbered IPaRT issues raised in Appendix B of Issues Paper.

#### <u>IPaRT Issue 1</u>

The uncertainties/risks in the Council's operating environment over the upcoming regulatory period and beyond, including the nature of these uncertainties / risks and the likelihood of these impacting on specific costs (for example, electricity charges).

#### **RESPONSE BY WYONG SHIRE COUNCIL**

The risks associated with Council's future operating environment are outlined in Section 2.2 of the Submission report.

#### IPaRT Issue 2

How the Councils have ascertained the appropriate service levels to be provided over the regulatory period and how these service levels relate to forecast costs.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Current service levels (summarised in Appendix D) as outlined in Council's Management Plan are an outcome of industry regulatory requirements, industry best practice and community consultation.

Council's current and forecast cost structure embodies these service standards.

#### IPaRT Issue 3

The Councils' capital expenditure over the 2006-09 regulatory period.

SERVICE	<u>EXPENDITURE</u> (2006-2009)
Water Service	\$97.517 M
Sewerage Service	\$24.949 M
Stormwater Service	\$18.049 M

#### **RESPONSE BY WYONG SHIRE COUNCIL**

#### <u>IPaRT Issue 4</u>

Drivers of the Councils' capital expenditure over the 2006-09 regulatory period, and service outcomes achieved by this expenditure.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

The major driver of Council's capital Expenditure in the 2006-2009 regulatory period was drought and the measures to provide the community with water security. These measures are detailed in Appendix A. This objective was achieved.

#### <u>IPaRT Issue 5</u>

The Councils' capital expenditure over the 2006-09 regulatory period compared to expenditure allowed by IPaRT when it set prices in 2006, and an explanation of variances.

Service	Allowed by IPaRT	Actual	Variance
Water Service	\$49.4 M	\$97.517 M	\$48.117 M
Wastewater Service	\$27.1 M	\$24.949 M	(\$2.15M)
Stormwater Service	\$18.0 M	\$18.049 M	\$0.049 M
TOTAL:	\$94.5 M	\$140.517 M	\$46.016 M

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Variances were predominantly related to the recent drought which impacted the water service. This drought deepened in the regulatory period, and the associated need to invest in short and medium projects to secure the Shire's water supply. These projects included: -

- establishment of a link to the Hunter Water System and associated works;
- establishment of new bore fields;
- detailed investigation of permanent and temporary desalination plants;
- preconstruction work for the Mardi to Mangrove Link;
- construction of substantial water and stormwater harvesting projects;
- establishment of effluent reuse schemes from Toukley and Bateau Bay Sewage Treatment Plants;
- pre construction work for the planned Mardi to Mangrove Link.

#### IPaRT Issue 6

The Councils' projected capital expenditure program over the upcoming regulatory period.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Reference is made to Appendix E

### <u>IPaRT Issue 7</u>

Drivers of the Councils' projected capital expenditure program over the upcoming regulatory period, and expected service outcomes to be achieved.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Council's CAPEX for the upcoming regulatory period will continue to be driven by growth (particularly in the Warnervale area), responses to the recent drought, the need to secure the Shire water supply, the ongoing need to refurbish aging assets and to comply with regulatory standards.

The expected service outcomes will be: -

- (i) For growth
  - Commencement of the trunk main from Mardi to Warnervale.
  - Extension of a trunk main from Bushells Ridge Road to Sparks Road
  - Provision of water and sewage trunk mains to the Warnervale Economic Zone
  - Upgrading of an effluent treatment plant at Toukley Sewage Treatment Plant
  - Provision of sewer trunk mains in the Warnervale area
- (ii) For responses to the recent drought and to secure the areas water supply
  - Completion of the Lower Wyong Transfer upgrade
  - Complete the Mardi Dam suite of works
  - Complete the Mardi to Mangrove Transfer System
  - Complete the Porters Creek Stormwater Harvesting
- (iii) For refurbishing aging assets
  - Repair, replace and upgrade water & sewer mains, telemetry systems, service reservoirs, water and sewage pump stations, water and sewage treatment plants for identified priority works
- (iv) For standards
  - Fittings and tapping Ban Replacement (minimise dirty water)
  - Upgrade inlet works at Toukley & Mannering Park Sewage Treatment Plants (minimise odours)
  - Upgrade generator connections and Sewage Pump Stations (minimise overflows)

#### <u>IPaRT Issue 8</u>

The Councils' asset management practices and plans, and the relationship between the asset management framework and capital expenditure program.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Wyong Shire Council (WSC) has a dedicated assets section for water and waste. Asset management practices are based on the International Infrastructure Management Manual (IIMM). Council has a target of implementing a core asset management system (as defined by the Manual) by December 2008.

Council's asset management plans include the following documents: -

- a) "Internal policy for Management of Council's Infrastructure Assets"
- b) "Strategic Business Plan for Management of Council's Water and Sewerage Services"
- c) "Integrated Water Cycle Management Operational Plan"
- d) "Maintenance Management Plan"
- e) "Operational Management Plan"
- f) "Water and Sewerage Asset Risk Register"

Council uses the following Asset management Information Systems, in conjunction with five other Local Government bodies that form the Council's on Line (COL) group:

- a) Asset Works Management (AWM) as its Assets register that holds relevant attribute data for all of the asset.
- b) E-view, a GIS tool that is linked to AWM that provides a pictorial view of the assets
- c) Strategic Asset Management (SAM) that uses aggregated data from AWM for the purpose of long term management of the assets by modelling asset ageing and deterioration and develops future financial plans. The financial planning facility includes an analysis for risk assessment of alternative models and also allows for the inclusion of new assets that have been identified for growth or new standards.

The AWM register is populated for water and sewerage mains. Work is in progress to complete the AWM and SAM data bases for pumping stations, reservoirs and treatment plants by October 2008.

Asset condition has initially been assessed based on asset age. An asset condition assessment description has been completed and a programme of field inspections to confirm age and condition will commence in September 2008.

The capital expenditure programme has been developed based on asset knowledge of asset condition and performance and historical costs in replacing and repairing assets. Once the SAM model is populated with improved condition data it will be used to form the basis for future capital works programmes.

#### IPaRT Issue 9

Any changes proposed by the Councils for the calculation of depreciation including asset classes and asset lives for each asset class applied by the Councils and the methodology adopted in this calculation.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

No changes are proposed for the calculation of depreciation. No changes are proposed to asset classes nor asset lives for each asset class.

The current methodology used involves the depreciated replacement cost method, using the Modern Engineering Equivalent Replacement Asset, or MEERA, approach. The NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets is used to calculate the replacement cost. This process was used for the "fair" valuation calculations of water and sewerage assets in 2006/07.

The depreciated replacement cost was calculated using a conditioned based depreciation approach. Council used a process in which asset age was linked to a service index (i.e. condition) and the service index was linked to a proportion of depreciation to apply between service indices. The predicted service index, based on age, was modified to account for any other known condition indicators (such as maintenance or performance history).

Between valuations, the straight line depreciation method is used.

For complex assets, the replacement cost of the whole asset was taken from the reference rates. That cost was proportioned over the main components of the asset. Each of the main components was assigned a design life, as the components may have differing respective lives. Each component costs were then aggregated to determine the replacement cost of the complex asset.

#### IPaRT Issue 10

The value and timing of contributions (including contributed assets) to the Councils from developers, government and / or other sources.

#### RESPONSE BY WYONG SHIRE COUNCIL

Contribution Income												
2008/09 2009/10 2010/11 2011/12 2012/13												
Water	\$1.47 M	\$1.9 M	\$2.29 M	\$2.56 M	\$3.037 M							
Wastewater	Wastewater         \$0.90 M         \$1.23 M         \$1.46 M         \$1.64 M         \$1.91 M											

Appendix E outlines the estimated annual value of contributed assets.

#### IPaRT Issue 11

Any changes to the expected revenue from developer charges due to the draft Developer Charges Determination.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

The impacts of the draft Developer Charge Determination released in July 2008 have not yet been fully assessed. However, preliminary indications are that revenue will not change significantly.

#### IPaRT Issue 12

The Councils' operating expenditure over the 2006-09 regulatory period compared to expenditure allowed by IPART when it set prices in 2006, and an explanation of variances.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Comparison of Operating Costs (2006/07 – 2008/09)											
Type IPaRT Actual % charge on IPaRT											
Corporate	49.4	65.7	+33.0 %								
Water	33.3	34.6	+3.9 %								
Wastewater	30.9	36.7	+18.8 %								
Stormwater	4.0	3.1	-22.5 %								

Actual operating expenditure for both 2006/07 and 2007/08 was on average 19% higher than allowed by IPART. This was primarily due to significantly higher Corporate Support Overheads.

#### IPaRT Issue 13

Forecast operating expenditure including the potential for future efficiency gains.

#### RESPONSE BY WYONG SHIRE COUNCIL

Refer to Table 5.1 in the Submission.

#### IPaRT Issue 14

Drivers behind any projected real increase in operating expenditures during the determination period.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Drivers associated with real increase in operating expenditures are discussed in Section 5.3

#### IPaRT Issue 15

Status and quantum of contribution to and reimbursements from the Water Savings Fund (to 2007/08) and the Climate Change Fund (from 2008/09) and implications for forecast water sales.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Over the current determination period, Council will contribute an amount of \$2.85M to the Water Savings Fund / Climate Change Fund (CCF).

For the uncontested component of the CCF, Council received approximately \$450,000 pa in reimbursements, to fund Council water saving projects.

The balance of the reimbursements (approximately \$500,000pa) are made to non-Council organisations for private or community water saving projects.

To date, it is estimated that water savings accruing from CCF projects is approximately 100 ML pa.

#### IPaRT Issue 16

The costs and revenues of the Councils' recycled water schemes. Including avoided costs, proposed means of cost recovery, the timing / uptake of these schemes and the drivers or 'mandates' behind these schemes.

#### RESPONSE BY WYONG SHIRE COUNCIL

Council currently does not have any recycled water scheme subject to IPaRT regulation.

#### <u>IPaRT Issue 17</u>

Performance against the output measures agreed in the 2006 determination (as identified in Appendix D).

#### RESPONSE BY WYONG SHIRE COUNCIL

Council's performance against the previous agreed output measures is summarised in Appendix A (Joint Water Supply) and Annual Information Return (AIR) Table 1.6 (Wyong Specific).

#### <u>IPaRT Issue 18</u>

Appropriate output measures for each Council for the upcoming determination period.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

While Council believes that the current output measures as applied to Joint Water Supply projects are reasonable, the current output measures as they relate to "Wyong Specific" activities may not reflect a comprehensive picture of Council's performance.

Council proposes to work with IPaRT during the current pricing review to further develop appropriate measures.

#### <u>IPaRT Issue 19</u>

Forecast water sales, by customer grouping, for the upcoming determination period.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Appendix C in this submission outlines a common methodology (used by both Councils) and forecast water sales over the 2009/10-2012/13 pricing path.

Table 1.3 in the Annual Information Return details forecast water sales as summarised below: -

Water Sales Breakup									
Voar	Estimated Sales ML								
i eai	Residential	Non-Residential	Total						
2008/09	8280	2613	10893						
2009/10	8860	2797	11657						
2010/11	9440	2982	12422						
2011/12	10022	3165	13187						
2012/13	10603	3349	13952						

#### IPaRT Issue 20

The methodology and assumptions used in developing these forecasts.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

This is detailed in Appendix C.

#### IPaRT Issue 21

The Councils water supply / demand balance over the short to medium term, including the relative scarcity of water.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Following drought recovery, the water supply system with completed and currently planned upgrades will have a water supply that meets the estimated short to medium term demands.

A new agreement or an alternative water supply source will be required when the current agreement with Hunter Water expires in 2026 to provide a supply that can provide for demands beyond 2030.

#### IPaRT Issue 22

The basis on which the long run marginal costs of supply might be calculated and estimates of LRMC.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

In the past, IPaRT has determined a representative LRMC for the Central Coast based on information supplied by the Councils and the appropriate IPaRT methodology.

Council does not propose any change to this approach.

#### IPaRT Issue 23

The introduction of a stormwater charge in the Wyong Council area.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Council's proposed stormwater charge methodology is outlined in Section 3.2.1 of the submission report.

Council's proposed Stormwater charges for commencement in 2009/10 are outlined in Table 10.14 of the submission report.

#### IPaRT Issue 24

The Councils' proposed prices (including level and structure) for water and sewerage services over the upcoming regulatory period, and the reasoning or justification behind these proposals, including supporting cost information.

#### RESPONSE BY WYONG SHIRE COUNCIL

Proposed prices are outlined in Section 10 of the Submission report.

#### <u>IPaRT Issue 25</u>

Proposals for any changes to charges other services, including stormwater drainage services, trade waste services and other sewerage charges, and ancillary and miscellaneous customer services.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

Proposed changes and supporting information to charges for services are as follows: -

- (a) Stormwater Charges Refer Section 3.2.2 and 10.4 of Submission report
- (b) Trade Waste Charges Refer Section 3.2.2 and 3.2.3 and 10.3 of Submission
- (c) Miscellaneous Charges Refer Section 7 of Submission report and Appendices I and J

#### IPaRT Issue 26

If the Councils are proposing changes to prices structures, any perceived transitional issues that may arise.

#### RESPONSE BY WYONG SHIRE COUNCIL

Other than identified charges in Issue 25, Items (a) and (b), Council does not propose to alter/amend existing pricing structures.

There are no significant transitional issues foreseen in the implementation of these charges.

#### IPaRT Issue 27

The impact of the Councils' proposed prices for its water, sewerage and other services on customer groups and on the Councils' financial performance and standing.

#### **RESPONSE BY WYONG SHIRE COUNCIL**

As shown in Table 3.3 it is expected that the combined effect of Council's proposed prices and introduction of a Drainage Charge would result in an overall increase (in real terms) in the cost to the average Residential customer of 0.9% for 2009/10, 0.95% for 2010/11 and 1.1% for 2011/12 and 2012/13. In setting a price for the proposed Drainage Charge, Council has been mindful of the impact on customers, particularly pensioners and others on restricted incomes.

#### IPaRT Issue 28

Any mitigation measures that the Councils have in place, or propose, to help customers adjust to price increases.

#### RESPONSE BY WYONG SHIRE COUNCIL

On application, Council is able to put in place arrangements to assist financially disadvantaged customers. Such arrangements include deferred payments and payment plans.

Council has also actively supported water use efficiency which will mitigate the impact of price increases.



## WYONG SHIRE COUNCIL

# SUBMISSION TO THE

## INDEPENDENT PRICING AND REGULATORY TRIBUNAL

### **PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013**

## **APPENDIX C**

Water Consumption Forecast for Wyong Shire Council (Period 1 July 2009 – 30 June 2013)

#### 1. WATER CONSUMPTION FORECAST FOR WYONG SHIRE COUNCIL

#### 1.1 SUMMARY

For this pricing determination, Council has used as the basis for its water sales forecasts the Integrated Water Cycle Management Study (IWCM), which was recently completed and endorsed by the Department of Water and Energy.

This Appendix summarises the outcomes of the forecasts and includes a summary of the methodology used.

The forecasts comprises of 3 parts: -

PART A	-	Summary graph (1	page) showing	relationship between;
--------	---	------------------	---------------	-----------------------

- Actual Wyong water sales
  - Historic IPaRT determined Wyong sales (for pricing purposes)
  - Estimated unrestricted Wyong water sales (2007/08 2019/20)
  - Forecast Wyong water sales (2008/09 2012/13)
- PART B Summary of Part A (1 page) in table format
- PART C Background/Explanation to Parts A and B

PART A



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### PART B

### TABULAR SUMMARY OF PART A – WYONG SHIRE COUNCIL WATER SALES

	Parameter	Unit		Financial Year ending 30 June																				
			1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
١.	Actual Potable Water Sales	ML/a	13,692	13,779	15,440	15,000	13,880	13,467	13,099	13,013	10,889	10,786												
Ш.	Estimated Unrestricted Potable Water sales (IWCM)	ML/a								13,797	13,627	13,536	13,479	13,538	13,691	13,830	13,952	14,079	14,211	14,355	14,513	14,677	14,847	15,023
III.	Estimated Unrestricted Total potable production	ML/a								15,101	14,892	14,822	14,788	14,869	15,044	15,203	15,343	15,488	15,638	15,802	15,978	16,161	16,350	16,546
IV.	Estimated % of unrestricted consumption.**	%										79.69%	80.81%	86.10%	90.73%	95.35%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
V.	Estimated Restricted Potable Water Sales	ML/a										10,786	10,893	11,657	12,422	13,187	13,952	14,079	14,211	14,355	14,513	14,677	14,847	15,023
VI.	IPART determined Water Sales for pricing purposes	ML/a						15000	15,000	12,814	12,939	13,128	13,245											
	** Calculated as (v)/(i	i) x 100%													Pro	posed								

Pricing Path

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#### PART C

#### 1. Background to WYONG SHIRE COUNCIL Water Sales Estimates

#### 1.1 Modelling of Climate Change

System modelling and analysis has been based on a temperature of rise of  $0.3^{\circ}$  C per decade over the period 2006 to 2050. This is double the historical increase of about  $0.15^{\circ}$  C per decade. However, CSIRO projections indicate that without greenhouse gas-reduction strategies, temperatures could in fact increase by up to  $0.6^{\circ}$  C per decade.

A sensitivity analysis has been undertaken to model the impact of these temperature changes. This analysis indicates that in the event of temperature increases of  $0.6^{\circ}$  C per decade instead of the assessed increase  $0.3^{\circ}$  C, the need to augment the scheme would be brought forward from the year 2050 to approximately 2035.

Global warming is likely to include increases in evaporation. Midrange estimates of evaporation increases are 4% per 1<sup>°</sup> C of global warming. Increased evaporation will increase outdoor water use in dry periods. It will also result in reduced runoff from the catchments and associated streamflows. For NSW coastal areas, CSIRO climate change predictions include a decline in winter and spring rainfall but probably an increase in coastal rainfalls in summer.

A rainfall-runoff model was used to estimate the month-by-month percentage changes in runoff and streamflows in the catchments on the Central Coast because of rainfall reductions and increased evaporation resulting from each 1<sup>°</sup> C of global warming. The estimated percentage changes have been incorporated into the system model. The system model also calculates variations in monthly demands based on rainfall and evaporation.

#### 1.2 TILLEGRA DAM

Hunter Water Corporation, Wyong Shire Council and Gosford City Council currently

have an agreement for the transfer of water between the two regions. This agreement was established in March 2006 and formed the basis for the development of the existing Hunter Central Coast water supply link. The agreement sets out financial arrangements for capital contributions towards the associated infrastructure and details the price for water transfers. It also details the arrangements for managing the timing, amount and direction of transfers. The agreement is for a period of 20 years expiring in 2026.

Subsequent to the agreement and development of the link the State Government announced its intention to construct Tillegra Dam.

### **APPENDIX C** Page 5 of 8

Hunter Water Corporation, Wyong Shire Council and Gosford City Council are currently considering potential cost sharing arrangements for a proportion of Tillegra Dam. Negotiations are continuing with a special focus on:-

- the methodology for timing and guantum of water transfers \*
- mechanisms which equitably account for the net benefits derived by optimal \* transfers between the systems.
- \* capital contribution towards the dam
- \* purchase price of water transferred

#### WATER SALE ESTIMATES 1.3

#### Unrestricted Demand Estimates a)

Demand estimates are based on the unrestricted demand estimates developed during the recently completed Integrated Water Cycle Management Study (IWCM). The IWCM is a best practice approach to local water utility (LWU) strategic planning. It is a requirement of the Department of Water and Energy (DWE) "Best Practice Management of Water Supply and Sewerage Guidelines 2004" and forms part of a range of initiatives by the NSW Government to improve water management for LWU. The Wyong IWCM has been endorsed by DWE.

The IWCM study was completed in mid 2007 and includes a rigorous assessment of potable water supply demands for a range of integrated water cycle management scenarios.

Scenario 1 contained in the IWCM study represents the current urban water cycle management practice and Council's currently planned urban water management activities and is the basis used for estimating future water sales.

Key issues incorporated into the study include recycled water programs, stormwater harvesting programs, refit/rebate programs, education, high water user management plans, rainwater tank rebate program and penetration of BASIX requirements.

Though the long term estimated water demands are similar to those previously developed as part of Council's long term water supply planning, water sales estimates provided for in the IWCM Scenario 1 are lower than previous estimates to account for the impact of the water saving and substitution activities that Council has implemented as part of the drought management strategy. These activities have had the effect of advancing planned long term per capita demand reductions. Figure 3 details the estimated unrestricted water sales.

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#### b) Impact of Drought Conditions and Estimated Restricted Water Sales

Water restrictions have been in place on the Central Coast since 2002 due to severe drought conditions which have significantly impacted storage levels. Since February 2007 when the total system storage level reached a historical low of 12.4 % the system has been slowly recovering. This recovery has been generally slow with the exception of a 6% step increase associated with the June 2007 flood event. As at July 2008 the storage level of the system was at 30% of capacity. Figure 1 below details the total storage level for the combined Gosford Wyong Councils water supply system since 1988.





Given the significantly depleted storage level it is estimated that it will be a number of years until the storage reaches a level at which time restrictions could be fully removed.

Council has undertaken a stochastic analysis of the system behaviour with recent system upgrades and proposed upgrades implemented. Figure 2 below details the various probabilities for a range of recovery rates based on model system response for 1000 streamflow replicates. The key issue affecting the rate of recovery is climatic conditions influencing streamflows.

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From Figure 2 it can be seen that there is a 50 % probability of the system recovering to 47% by early 2011. This is the level at which it is considered that restrictions could be fully removed.

Based on a progressive recovery of the system storage consistent with the stochastic analysis for the 50 % probability, an estimate of the annual water sales is presented in Figure 3 below.

Figure 3

OVERVIEW - Estimated Wyong Shire Council Water Sales



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It is considered that following protracted drought conditions and a lengthy period of water restrictions where the community has developed significant water efficiency measures and behaviours that water sales will gradually change in response to a more secure water supply situation.

A step increase in water sales is not anticipated as storage levels increase and water restrictions are progressively reduced. Additionally a return to pre drought water demands is considered unlikely due to the water savings measures and behavioural changes that have taken place during the drought. This together with the ongoing impacts of regulatory changes such as BASIXs and water efficiency improvements (such as water efficient washing machines) progressively penetrating the supply area it is estimated that a reduction in the per-capita demands relative to the pre drought period will occur.

The estimated unrestricted water sales presented in Figure 3 is derived from the IWCM assessment of estimated average unrestricted water sales taking into account the water savings and water substitution measures detailed in the strategy report.

c) <u>Summary of Water Sales</u>

<u>The estimated water</u> sales over the price path are based on a consistent increase from the current water sales to the estimated unrestricted water sales for 2012/2013 being the first year under a 50 % probability recovery scenario that it is estimated that the community would increase demands to unrestricted demand levels.

PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013

**INDEPENDENT PRICING AND REGULATORY TRIBUNAL** 

SUBMISSION TO THE

WYONG SHIRE COUNCIL



## **APPENDIX D**

### 2008/2009 Water Supply and Sewerage Service Standards for Wyong Shire Council

### APPENDIX D

### Page 1 of 3

### 1. WATER SUPPLY SERVICE STANDARDS

	COUNCIL'S RESPONSE							
KEY STRATEGIES	PERFORMANC	CE MEASURE						
	PERFORMANCE TARGET	LONGER TERM TARGET (if applicable)						
1 Operate the water supply system to achieve:								
a Key regulatory requirements.	<ul> <li>* 100% compliance with National Health and Medical Research Council (NHMRC) monitoring guidelines.</li> </ul>							
	* 100% compliance with NHMRC health guidelines.							
B Key customer service performance requirements.	* Pressure at the point of meter connection is maintained at or above 15m for at least 98% of properties on an annual basis.							
	* The proportion of properties affected by an interruption (planned or unplanned) to supply longer than 5 hours is less than 5% on an annual basis.							
	* The proportion of properties with water quality complaints is less than 5 per 1,000 customers on an annual basis.							
	<ul> <li>Standard response times are achieved for systems malfunctions customer contact – 98% of the time.</li> </ul>							
	<ul> <li>2008/09 annual customer survey shows that no more than 15% of customers are dissatisfied with the service delivered.</li> </ul>							

### APPENDIX D Page 2 of 3

### 2. WATER SUPPLY SERVICE STANDARDS

			COUNCIL'S RESPONSE								
	KEY STRATEGIES	[	PERFORMANCE MEASURE								
			PERFORMANCE TARGET	LONGER TERM TARGET (if applicable)							
2	To secure the town water supply	1	Continue the current bulk water supply security programme.	To increase system yield by completing medium term infrastructure enhancements.							
		2	Continue implementation of WaterPlan 2050 strategies focussing on: * Demand Management; and * Development of the Mardi Dam to Mangrove Creek Dam transfer system.	To fully implement the adopted WaterPlan 2050 strategy.							
3	To operate the water supply to safeguard public health by ensuring compliance with regulatory and customer service requirements			To maintain operation and maintenance performance within the top 20% of commensurate utilities.							
4	To cater for growth by the timely preparation of Development Servicing Plans for new release areas.			To provide growth infrastructure in a timely manner with all costs recovered from developers.							

### APPENDIX D

### Page 3 of 3

### 3. SEWERAGE SERVICE STANDARDS

		COUNCIL'S RESPONSE	
	KEY STRATEGIES	PERFORMANC	CE MEASURE
		PERFORMANCE TARGET	LONGER TERM TARGET (if applicable)
1	Operate the sewerage system to achieve: a Key regulatory requirements.	* Effluent discharged to the ocean meets Department of Environment and Climate Change licence conditions 100% of time.	
	B Key customer service performance requirements.	* On an annual basis less than 1% of properties have a sewage overflow caused by a problem in the Council owned/operated sewer.	
		* 2008/2009 annual customer survey, that no more than 5% of customers are dissatisfied with the service delivered.	
		<ul> <li>On an annual basis less than 1% of properties experience odours from the Council owned/operated sewerage system.</li> </ul>	
		<ul> <li>Standard response times are achieved for system malfunctions customer contact – 98% of the time</li> </ul>	
2	To operated the sewerage system to safeguard public health by ensuring compliance with regulatory and customer service requirements		To maintain operation and maintenance performance within the top 20% of commensurate utilities.
3	To increase opportunities for recycling to minimise the impact on the environment.	Continue implementation of WaterPlan 2050 relating to Effluent Re-use schemes	To implement Council's Integrated Water Cycle Management (IWCM) strategy.
4	To cater for growth by the timely preparation of Development Servicing Plans for new release areas		To provide growth infrastructure in a timely manner with all costs recovered from developers.



## WYONG SHIRE COUNCIL

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PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013

### **APPENDIX E**

## Summary of Capital Expenditure As at July 2008

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CAPITAL EXPENDITURE AS AT JULY 2008 (Nominal \$)

(NOMINAL \$)	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
REFURBISHMENT												
WATER	5,103	4,262	4,362	3,643	3,873	4,113	4,350	4,583	4,826	5,065	5,299	5,542
SEWER	5,671	4,457	3,923	3,779	4,013	4,255	4,496	4,733	4,967	5,209	5,447	5,679
MAJOR HEADWORKS												
WATER 50% of	27,974	53,656	17,133	85	4,096	2,029	4,755	0	0	0	0	0
WATER- DESALINATION 50% of	0	0	0	0	0	0	0	0	0	0	0	0
EFFLUENT REUSE	0	0	0	0	0	0	0	0	0	0	0	0
SEWER	1,025	25,215	4,308	1,104	1,131	1,160	1,189	1,218	1,249	1,280	1,312	1,345
INFRASTRUCTURE												
WATER	15,751	38,995	5,048	2,976	3,050	3,126	3,204	3,285	3,367	3,451	3,537	3,625
SEWER	5,263	1,051	1,077	4,050	4,152	4,255	4,362	4,471	4,583	4,697	4,815	4,935
FREE ASSETS												
WATER	1,881	1,928	1,976	2,025	2,076	2,128	2,181	2,235	2,291	2,349	2,407	2,468
SEWER	1,881	1,928	1,976	2,025	2,076	2,128	2,181	2,235	2,291	2,349	2,407	2,468
STANDARDS												
WATER	692	1,199	1,170	1,086	1,113	1,141	1,170	1,199	1,229	1,260	1,291	1,323
SEWER	3,837	2,948	1,449	1,346	1,380	1,415	1,450	1,486	1,523	1,561	1,600	1,640
DRAINAGE												
FREE ASSETS	1,881	1,928	1,976	2,025	2,076	2,128	2,181	2,235	2,291	2,349	2,407	2,468
RENEWAL	252	258	265	272	278	285	292	300	307	315	323	331
ENVIRONMENTAL	883	905	927	950	974	998	1,023	1,049	1,075	1,102	1,130	1,158
GROWTH	5,079	5,434	4,746	4,865	4,987	5,111	5,239	5,370	5,504	5,642	5,783	5,928
GROWTH 94	2,885	2,937	2,573	2,769	2,950	3,156	3,373	3,598	3,834	4,078	4,335	4,601
CORPORATE IT W	0	0	0	0	0	832	853	0	0	0	0	0
CORPORATE IT S	0	0	0	0	0	535	548	0	0	0	0	0
TOTAL	80,058	147,101	52,909	33,000	38,225	38,795	42,847	37,997	39,337	40,707	42,093	43,511
Total Free Assets	5,643	5,784	5,928	6,075	6,228	6,384	6,543	6,705	6,873	7,047	7,221	7,404
Total excluding Free Assets	74,415	141,317	46,981	26,925	31,997	32,411	36,304	31,292	32,464	33,660	34,872	36,107



## WYONG SHIRE COUNCIL

SUBMISSION TO THE

## INDEPENDENT PRICING AND REGULATORY TRIBUNAL

PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013

### **APPENDIX F**

## **Summary of Miscellaneous Charges**

### Miscellaneous Charges Common Services

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed %	2010/2011 Proposed %	2011/2012 Proposed %	2012/2013 Proposed %
		(2000/2003)	2008/2009 Charge	2009/2010 Charge	2010/2011 Charge	2011/2012 Charge
1	Conveyancing Certificate Statement of Outstanding Charges					
	a) Over the Counter	16.34	CPI *	CPI *	CPI *	CPI *
	b) Electronic	N/A	N/A	N/A	N/A	N/A
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
2	Property Sewerage Diagram – up to and including A4 Size Diagram showing the location of the house service line, building and sewerage for the property.					
	a) Certified	16.34	CPI *	CPI *	CPI *	CPI *
	b) Uncertified	16.34	CPI *	N/A	N/A	N/A
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
3	Service Location Diagram Location of sewerage and /or water mains in relation to a property's boundaries					
	a) Over the Counter	16.34	CPI *	CPI *	CPI *	CPI *
	b) Electronic	N/A	N/A	N/A	N/A	N/A
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
4	Special Meter Reading Statement	50.12	CPI*	CPI*	CPI*	CPI*
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
5	Billing Record Search Statement – Up to and including 5 years	16.34	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable

\* CPI as determined by IPART

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed % increase on	2010/2011 Proposed % increase on	2011/2012 Proposed % increase on	2012/2013 Proposed % increase on
		· · · · · ·	2008/2009 Charge	2009/2010 Charge	2010/2011 Charge	2011/2012 Charge
6	Water Reconnection					
	a) During business hours	33.78	CPI *	CPI *	CPI *	CPI *
	b) Outside business hours	139.46	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
7	Workshop Test of Water Meter         Removal and full mechanical test of the meter by an accredited organisation at the customer's request to determine the accuracy of the water meter. This involves dismantling and inspection of meter components. If the meter is faulty no charge will be levied.         20mm         25mm         32mm         40mm         50mm         60mm         80mm	167.79 167.79 167.79 167.79 167.79 167.79 167.79 167.79 167.79	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *
8	Application for Disconnection – All sizes Administration fee only Does not include physical disconnection (Service No.34)	28.32	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
9	Application for Water Service Connection (all sizes) This covers the administration fee only. There will be a separate charge payable to the utility if they also	28.32	CPI *	CPI *	CPI *	CPI *
40	perform the physical connection. (Service No. 19)	No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
10	Meterea Standpipe Hire					
	Security Bond (25mm)	345.40	CPI *	CPI *	CPI *	CPI *
	Security Bond (63mm)	664.64	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed % increase on 2008/2009 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
11	Metered Standpipe Hire Annual Fee Quarterly Fee Monthly Fee (or part thereof)	As per water service charge based on meter size. (pro-rata for part of year)	As per water service charge based on meter size. (pro-rata for part of year)	As per water service charge based on meter size. (pro-rata for part of year)	As per water service charge based on meter size. (pro-rata for part of year)	As per water service charge based on meter size. (pro-rata for part of year)
12	Standpipe Water Usage Fee (All Usage)	As per standard water usage charges per kilolitre.				
13	Backflow Prevention Device Application and Registration Fee This fee is for the initial registration of the backflow	57.75	CPI *	CPI *	CPI *	CPI *
14	Major Works Inspection Fee This fee is for inspection only, for the purpose of approval, of water and sewerage mains, constructed by others, that are longer than 25 metres and/or greater than 2 metres in depth					
	Water Mains (\$ per metre)	5.01	CPI *	CPI *	CPI *	CPI *
	Gravity Sewerage Mains (\$ per metre)	6.69	CPI *	CPI *	CPI *	CPI *
	Sewerage Rising Mains (\$ per metre)	5.01	CPI *	CPI *	CPI *	CPI *
		No GST applicable				
15	<b>Statement of Available Pressure and Flow</b> This fee covers all levels whether hydraulic modelling is required or not.	122.03	CPI *	CPI *	CPI *	CPI *
		Incl GST				

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed % increase on 2008/2009 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
16	Plumbing and Drainage Inspection					
	Residential Single Dwelling, Villas & Units	148.61 /unit	CPI *	CPI *	CPI *	CPI *
	Alterations, Caravans & Mobile Homes	74.90/permit	CPI *	CPI *	CPI *	CPI *
	Commercial & Industrial	148.61 (+43.14/WC)	CPI *	CPI *	CPI *	CPI *
	Additional Inspections	55.13/inspect	CPI *	CPI *	CPI *	CPI *
		Incl GST	Incl GST	Incl GST	Incl GST	Incl GST
17	Billings Record Search – Further Back than 5 years	\$16.34 for the first 15 minutes or part thereof then \$10.89 per 15 minutes or part thereof	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
18	<b>Relocate Existing Stop Valve or Hydrant</b> <i>Price exclusive of plant hire charges, material costs and</i> <i>traffic control where applicable</i>	\$111.67 per hour for first hour or part thereof then \$27.78 per 15 minutes or part thereof	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed % increase on	2010/2011 Proposed % increase on	2011/2012 Proposed % increase on	2012/2013 Proposed % increase on
1.5			2008/2009 Charge	2009/2010 Charge	2010/2011 Charge	2011/2012 Charge
19	Provision of Water Services         This relates to physical provision of water service.         Please note that "Application for Water Service         Connection" (Service No 9) fee is also applicable         Meter Only (20mm)         Short service – 20mm         Long service – 20mm         Short service – 20mm         Long service – 25mm         Long service – 25mm         Short service – 40mm         Long service – 50mm         Long service – 50mm         Larger services *         * Provision of live main connection only. Price         exclusive of plant hire charges, material costs and         traffic control where applicable.	95.88 581.83 581.83 706.04 706.04 1327.10 1764.02 1893.68 2334.96 \$111.67 per hour for first hour or part thereof then \$27.78 per 15 minutes or part thereof.	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *	CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI * CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
20	Relocate Existing Services Short – 20mm	283.28	CPI *	CPI *	CPI *	CPI *
	Long – 20mm	441.28	CPI *	CPI *	CPI *	CPI *
	Larger Services – provision of live main connection only	by quote	By quote	By quote	By quote	By quote
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
21	Alteration from Dual Service to Single Service 20mm service only	338.86	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
22	Sewerage Drainage Arrestor Approval	91.52	CPI *	CPI *	CPI *	CPI *
	Annual Inspection	27.78	CPI *	CPI *	CPI *	CPI *
		No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed % increase on 2008/2009 Charge	2010/2011 Proposed % increase on 2009/2010 Charge	2011/2012 Proposed % increase on 2010/2011 Charge	2012/2013 Proposed % increase on 2011/2012 Charge
23	Sewerage Junction Cut-in (150mm) No excavation, no concrete encasement removal, no sideline, iunction within preparty. Excavation provided	275.66	CPI *	CPI *	CPI *	CPI *
	by customer.	Incl GST	Incl GST	Incl GST	Incl GST	Incl GST
24	Sewerage Junction Cut-in (150mm) with sideline less than 3m	288.73	CPI *	CPI *	CPI *	CPI *
	junction outside property. Excavation provided by customer.	Incl GST	Incl GST	Incl GST	Incl GST	Incl GST
25	Sewerage Junction Cut-in (225mm) No excavation, no concrete encasement removal, no sideline, junction within property. Excavation provided	645.02	CPI *	CPI *	CPI *	CPI *
	by customer.	Incl GST	Incl GST	Incl GST	Incl GST	Incl GST
26	Sewerage Junction Cut-in (225mm) with sideline less than 3m	680.97	CPI *	CPI *	CPI *	CPI *
	junction outside property. Excavation provided by customer.	Incl GST	Incl GST	Incl GST	Incl GST	Incl GST
27	Sewerage Junction Cut-in Greater than 225mm or where excavation or removal of concrete encasement required by Council	\$122.84 per hour for first hour or part thereof then \$30.56	CPI *	CPI *	CPI *	CPI *
	Price exclusive of plant hire charges, material costs and traffic control where applicable.	per 15 minutes or part thereof Incl GST	Incl GST	Incl GST	Incl GST	Incl GST
28	Sewer Main Encasement with Concrete Encasement inspection fee when construction is not by Council. This fee is also applicable for other equivalent sewer protective measures.	93.15	CPI *	CPI *	CPI *	CPI *
	Construction by Council	by quote				
29	Sewer Advance Scheme – Administration Charge	Incl GST 243.30	Incl GST CPI *	Incl GST CPI *	Incl GST CPI *	Incl GST CPI *
		Incl GST	Incl GST	Incl GST	Incl GST	Incl GST

Service No.	Description	Current Charge (2008/2009)	2009/2010 Proposed % increase on	2010/2011 Proposed % increase on	2011/2012 Proposed % increase on	2012/2013 Proposed % increase on
			2008/2009 Charge	2009/2010 Charge	2010/2011 Charge	2011/2012 Charge
30	Raise and Lower Sewer Manholes Raise manhole greater than 300mm Price listed is the manhole adjustment inspection fee only.	93.16	CPI *	CPI *	CPI *	CPI *
	Charge for actual physical adjustment is by quote.	No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
31	<b>Underground Plant Locations</b> Council assists in on-site physical locations <i>Customer to provide all plant required to expose asset.</i>	\$73.71 per hour for first hour or part thereof then \$17.97 per 15 minutes or part thereof	CPI *	CPI *	CPI *	CPI *
	Council undertakes on-site physical locations Council to provide all plant and labour to expose asset	\$122.84 per hour for first hour or part thereof then \$30.56 per 15 minutes or part thereof	CPI *	CPI *	CPI *	CPI *
		Incl GST	Inc GST	Inc GST	Inc GST	Inc GST
32	Water Sample Analysis For testing of standard water quality parameters for	74.89				
00	private supplies	Inci GST	Inci GST	Inci GS1	Inci GST	Inci GST
33	(No more than 2 metres from existing location) 20mm service only – no materials Larger services or requiring materials	112.23 by quote	CPI *	CPI *	CPI *	CPI *
24	Disconnection of Evipting Commiss	No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
34	This charge is for physical disconnection work. An "Application for Disconnection" charge (Service No 8) is	110.55	CPI *	CPI *	CPI *	CPI *
	also applicable.	No GST applicable	No GST applicable	No GST applicable	No GST applicable	No GST applicable
35	Development Investigation Fees Minor Developments (Category 2)	Nil	278.30	CPI *	CPI *	CPI *
	Major Developments (Category 1)	Nil	641.30	CPI *	CPI *	CPI *
			inc. GST	inc. GST	inc. GST	inc. GST


# WYONG SHIRE COUNCIL

SUBMISSION TO THE

# INDEPENDENT PRICING AND REGULATORY TRIBUNAL

PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013

# **APPENDIX G**

## Justification for New Miscellaneous Charge Item 35 – Development Investigation Fees

APPENDIX G Page 1 of 2

#### 1. NEW MISCELLANEOUS CHARGE – ITEM 35 (APPENDIX G)

Wyong Council in this submission proposes to introduce a new miscellaneous charge commencing 2009/2010. This proposed charge is a Development Investigation Charge (Item 35 – Appendix I) as discussed in Section 7 of this submission.

The following supporting background and justification is provided: -

#### Development Investigation Fee for Water and Sewerage Development Proposals 1.1

At times, Council is required to undertake water and sewerage investigations arising from developer proposals at the pre-development application stage.

An example of this situation would be where Council staff are required to assess the impact of a proposed development or existing infrastructure. These situations may require computer modelling etc.

To date Council has absorbed these costs however consider it now appropriate to commence recovery of these costs in the future. This will bring Council in line with other authorities such as Sydney Water, Hunter Water and Gosford City Council who have similar arrangements in place.

A fixed fee arrangement is proposed (rather than a time band fee) based on average resources required.

An appropriate level of fees has been considered at 3 levels of development, ie: -

Category 1 - Deemed Major Developments

Category 2 - Deemed Minor Developments

Category 3 - Single Dwelling and Extensions (No fee proposed)

The following fees are proposed for deemed Category 1 and 2 developments with the appropriate methodology/calculations submitted for IPART review.

#### a) <u>Category 1 – Major Developments</u>

Defined as Residential Properties of 10 apartments or more, greater than 5 lot Torrens title subdivisions, and factories and commercial properties (greater than 2000 sq m gross floor area).

Design Engineer (site inspection, more detailed investigation GIS review / sizing check / materials / depth / capacity / DSP / assist water supply modelling, operational issues, review impacts of development on assets and make recommendations for requirements)

\$35/hr x 2.2 (cover overheads and oncosts (vehicle, etc) for 3.5 hours = \$269.50

W&S Investigation and Design Engineer (water supply modelling, review recommendations, sign off, discuss with Development Engineer and/or Planner and provide requirements and contributions) \$45/hr x 2.2 (cover overheads and on costs) for 1.5 hours = \$148.50

APPENDIX G Page 2 of 2

\* Operational (field) Staff (verification of assets, asset location, CCTV, potholing) 2 staff @ \$25/hr each x 2.2 (cover overheads and on costs) for 1.5 hours = \$165.00

\$269.50 + \$148.50 + \$165.00 = \$583.00 + GST (Proposed Fee for 2009/2010 - Service No 35 - Appendix I)

#### b) <u>Category 2 - Minor Developments</u>

Defined as Dual Occupancies and residential properties with up to 10 apartments, or up to and including 5 lot Torrens title subdivisions and factories and commercial properties (up to and including 2000 sq m gross floor area).

- Design Engineer (site inspection, investigation GIS review / sizing / materials / depth / capacity / DSP, operational issues, review impacts of development on assets and make recommendations for requirements) \$35/hr x 2.2 (cover overheads and on costs (vehicle site inspection, etc) for 2 hours = \$154.00.
- \* W&S Investigation and Design Engineer (review recommendations, sign off, discuss with Development Engineer and / or Planner and provide requirements and contributions)
  \$45/hr x 2.2 (cover overheads and on costs) for 1 hour = \$99.00

\$154.00 + \$99.00 = \$253.00 + GST (Proposed Fee for 2009/2010 -Service No 35 - Appendix I)

#### c) <u>Category 3 - Single Dwellings and Extensions</u>

No fee proposed.



# WYONG SHIRE COUNCIL

SUBMISSION TO THE

# INDEPENDENT PRICING AND REGULATORY TRIBUNAL

**PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013** 

## **APPENDIX H**

# Adopted WaterPlan 2050 Strategy Document

APPENDIX H Page 1 of 16

## 1. ADOPTED WSC WaterPlan 2050



### APPENDIX H Page 2 of 16

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# Foreword

The Central Coast is a thriving community with a rich and diverse natural environment in which water plays a significant role.

At the time of developing this Strategy, the region was in the grip of the worst drought on record as a result of more than 15 years of below average rainfall and streamflows.

This has been the most severe period of such conditions and pushed the Central Coast's water supply system to its limits. That is why Gosford City and Wyong Shire Councils, which manage the Central Coasts water supply system, took action to ensure we have sufficient water in the short-term as well as long into the future.

Key to this future planning has been the development of WaterPlan 2050 which is the culmination of extensive technical studies and ongoing community involvement.

It sets out the strategy to secure and sustain our water supply system over the next 45 years. The following pages outline the context in which WaterPlan 2050 has been developed. It contains a combination of actions to:

- further enhance the current water supply system
- continue to use water as efficiently as possible
- develop additional future sources of water.

Gosford City and Wyong Shire Councils formally adopted WaterPlan 2050 in July and August 2007. Implementation of the strategy is therefore now underway.



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# **Current Situation**

#### Existing Water Supply System

The majority of the Central Coast's town water supply comes from harvesting water flows from our four local streams - Wyong River, Ourimbah Creek, Mangrove Creek and Mooney Creek along with Mardi and Mooney Dams.

Mangrove Creek Dam is our main water storage facility and provides back-up supplies for use during drought conditions.

Other key infrastructure includes three permanent weirs, two water treatment plants with a new one currently being built, 40 reservoirs and around 1900 kilometres of pipeline.

During the period of below average rainfall since the early 1990s, Mangrove Creek Dam has performed a vital role as a back-up source of water.

This has resulted in its storage levels being drawn down from around 70% in 1992 to just over 10% in early 2007.

#### Extended Drought

At the time of developing this strategy, the drought and ongoing period of below average rainfall was much more severe than any previous experience. In fact it is

the worst since records began in 1885. This resulted in average streamflows in our four rivers and creeks being reduced by about 50% over the previous 15 years compared to the long term average over the past 100 years - down from an annual average of 177,000 million litres to 83,000

million litres (see graph below).

## 2007 Rainfall

Rainfall during February-May 2007 steadily increased total dam storage levels on the Central Coast to about 15%. By May 2007 Mardi and Mooney Dams were each about 98% full, while Mangrove Creek Dam was about 10% full.

Severe storms during early June 2007 boosted total dam storage levels to about 22%

Limited water could be pumped from our rivers during the June 2007 storms

#### **Central Coast Streamflows**



because Mardi and Mooney Dams quickly filled to capacity and there was no facility to pump from these smaller dams to Mangrove Creek Dam.

In May and June 2007 we pumped about 290 million litres of water from our rivers up to the Hunter region to be 'banked' for future use. No water was 'banked' following the June long weekend storms as the Hunter dams were also then full.

#### Demand for Water

Demand for town water on the Central Coast on a per capita basis has been steadily failing since the 1980s. This follows the introduction of user pays pricing and community awareness of the need to conserve water.

This reduction, however, is offset by the Central Coast's growing population.

Based on State Government and Council estimates, the population of the region is expected to increase from about 295,000 In 2001 to around 465,000 by 2051.

Of total demand for water, around 70% comes from domestic users and the remaining 30% from non-domestic users.

### APPENDIX H Page 5 of 16

## Managing the Drought

In response to the extended drought Gosford City and Wyong Shire Councils focused on the following key elements of our water supply system.

#### (i) System Upgrades

At the time of printing this strategy, the Councils had undertaken a comprehensive program of works to improve the efficiency of the water supply system and to enable more water to be extracted from our rivers when available. Major projects includect

- Increasing the capacity of Wyong River pump station from 72 million libres to 125 million libres of water a day by October 2007
- building a new transfer system from Mardi Dam to Mardi Water Treatment Plant to increase its capacity from 100 million itres to 240 million litres a day by November 2008
- building a new 160 million litres a day high lift pumping station at Marol Dam by June 2006
- raising Mardi Dam wall to increase its storage capacity from 7,400 million litres to 8,800 million litres by May 2008
- building a connection from lower Mangrove Creek weir to Mooney Mooney Dam to enable the transfer of surplus water for storage by June 2007.

A number of interim actions were also undertaken to increase the amount of water available in the system by



Implemented since February 2002 which These actions helped reduce demand includes the following key elements: for town water across the entire water

- Increasingly stringent water restrictions including mandatory Water Management Plans for large water users
- extensive community education program (including dedicated schools program) to inform people about how they can use water more efficiently
- provision of rebates for installation of rainwater tanks, water efficient washing machines and greywater treatment systems
- provision of subsided REFIT kit that includes water efficient shower head, tap aerators and tollet cistern weight
- increased use of rainwater,

These actions helped reduce demand for town water across the entire water supply system by 39% over five years. This is down from a daily average of 100 million litres in early 2002 to 61 million litres in April 2007.

#### (iii) Accessing More Water

The Councils also introduced additional sources of water to boost supplies including:

- construction of the \$37 million Hunter Connection which can deliver an annual daily average of 30 million litres of treated drinking water
  - development of seven groundwater bore fields across the Central Coast to generate around nine million litres

building a temporary weir on Porters Creek, raising Mangrove Creek weir and reducing environmental flows on Ourimbah Creek.

#### (ii) Reducing Demand

To encourage everyone to use water as efficiently as possible to reduce overall usage, a comprehensive demand management program has been stormwater, non-drinking groundwater and treated wastewater for irrigation of sports grounds, parks, median strips, and to flush public toilets, fill tankers and roadworks

- active leak detection and water pressure management program
- actions to significantly reduce the amount of water used by Gosford City and Wyong Shire Councils.

of drinking water a day.

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investigations have also been carried out into the use of temporary mobile desaination units to provide up to 20 million litres of drinking water a day as a last resort if climatic conditions worsen.

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# **Planning Our Future**

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The Central Coast's water supply system was built over many decades with significant expansion since the 1960s. Over the past four decades improvement works have been origoing in response to population growth, new technology, variable climate conditions and changing government regulations.

As part of this process, and in addition to the drought management works, Gosford City and Wyong Shire Councils have been developing a long-term strategy to ensure the effective management of the Central Coast's water supply system for the next 45 years.

The strategy seeks to identify medium to long-term changes and improvements that can be progressively introduced over time to:

- achieve a safe, reliable and secure water supply that meets community needs
- ensure the supply and use of water is efficient and affordable
- protect the health of our rivers and creeks as well as the general environment.

In developing this strategy, now known as WaterPlan 2050, the two Councils have considered:

- the existing water supply system
- current available sources of water
- demand for and use of town water
- water conservation and people's
- changing attitudes to water
  local hydrology and climatic

conditions. In addition, the Councils undertook

extensive modelling and analysis to assess:

- future impacts of varying climate conditions
  - likely system yields and overall performance of the water supply system
  - possible future water sources
- likely demand for town water, in particular drinking water
- population growth and growth patierns

- regulatory and policy changes including the future cost of water
- · social and environmental impacts
- the potential benefits/opportunities of emerging new technology.

The Councils also worked with a WaterPlan 2050 Community Lialson Group to discuss community views and ensure a community perspective was a key part of developing a longterm approach to managing our water supply.

Additional community consultation was also undertaken before this final WaterPlan 2050 strategy was adopted (see Appendix A for details).



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## (i) Enhanced Water Supply System

#### Link Mardi Dam to Mangrove Creek Dam

To enhance the existing water supply system, a 21-kilometre pipeline will be built linking Mardi and Mangrove Creek Dams, together with two new pump stations. One pump station will enable water to be transferred between the two dams, the other will increase water extractions from Wyong River.

This additional water will be harvested from Wyong River and Ourimbah Creek. during medium and high flows and temporarily stored in Mardi Dam before being pumped through to Mangrove Creek Dam.

When required, spillway gates will be constructed on Mangrove Creek Dam to increase its storage capacity from 190,000 million litres to 230,000 million litres.

It is estimated the MardHMangrove Link project could be completed by the end of 2010, subject to NSW Government regulations and approvals. The anticipated timetrames aim to allow sufficient time for the necessary planning, design, construction and regulatory processes to be completed as well as ongoing community consultation.

The Federal Government has committed \$80 million towards the project through the National Water Commission.

The new Mardi-Mangrove Link is considered to provide the quickest drought recovery time compared to other possible options. The aim is to get the region's total dam storage levels back up to a level whereby water restrictions could be eased.

- The key benefits of this project include:
- harvesting more water for town use ٠ from Wyong River and Ourimbah Creek during medium and high flows
- ability to increase storage levels of Mangrove Creek Dam using excess water from Wyong River and Our imbah Creek
- ٠ enhanced environmental flows in Wyong River during low and medium streamflows
- good integration with current and future elements of the Central Coast's water supply system.
- The extraction of water from our rivers and creeks is regulated and licensed by the State Government.

Water Sharing Plans are prepared by the State Government to ensure water is shared fairly between environmental needs and water users including fown



supply, rural domestic supply, stock watering, industry and irrigation.

Access licenses are issued to the two Councils based on these Water Sharing Plans. They are therefore a key consideration as to the amount of water we will be allowed to harvest in the future.

Detailed environment assessments would be undertaken as part of the overall project to help ensure the long term health of our rivers and creeks.

#### **Tillegra Dam**

The NSW Government's proposed new 450,000 million litre dam at Tillegra, If built, could provide longer term benefits for the Central Coast's water supply system.

This new dam would help ensure the security of water transfers between Hunter Water and the Central Coast In the longer-term which are an important part of the WaterPlan 2050 strategy.

The two Councils will therefore investigate possible yield and cost options with the State Government to ensure that any potential benefits to the region's water supply system can be optimised.

The main issues to be considered in relation to this project are:

- the earliest that Tillegra Dam could

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### **APPENDIX H** Page 10 of 16

#### (ii) Efficient Water Use

Efficient water use is a simple and cost effective way to help ensure our water supply system into the future. Drinking water is too valuable a resource to be wasted.

By not wasting water and using it as efficiently as possible we can reduce overall demand for town water and increase the longevity of our water resources.

A key part of WaterPlan 2050 is to encourage people to implement water conservation as a part of their everyday lives to achieve a sustainable reduction in demand compared to pre-restriction water usage.

This will be achieved by:

- · Inclusion of mandatory water efficiency requirements for the building of new homes, businesses and other developments
- Increased uptake of water efficient appliances assisted by the provision of Council rebates and industry water efficiency labelling schemes



- ongoing retrofitting of water efficient devices in homes and businesses
- · continued community education to achieve permanent changes in how people use and value water
- continued use of mandatory Water Management Plans for businesses and organisations using more than 3.5 million litres of water a year to ensure water efficiency
- . continued active leak detection and repair programs to help further improve the overall efficiency of the water supply system
- - sporting facilities
  - projects for non-drinking purposes



### **APPENDIX H** Page 11 of 16

### iii) Additional Water Hunter Connection

The two Councils will continue to transfer water between Hunter Water and the Central Coast via the pipeline connection until our total dam storages have sufficiently recovered.

The timeframe for this will depend on climate conditions, the rate of drought recovery and demand for town water.

After the Central Coast recovers from the current drought the two-way link will remain a key measure to effectively manage the supply of water between the two regions.

#### Groundwater

Groundwater will continue to be accessed from the Central Coasts seven borefields to boost drinking water supplies until our total dam storages have recovered to an appropriate level.

Groundwater will then remain as a reserve source of water that can be called upon in the event of severe and prolonged drought conditions in the future.

#### Retrofitting Rainwater Tanks to Existing Dwellings

The use of rainwater tanks provides a further opportunity for the community to be part of WaterPlan 2050. Individual households, businesses and other organisations can capture and store rainfail for use in and around their premises, thereby reducing the amount of town water they may use.



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The key benefits of installing rainwater tanks include: • reduced demand for town water

- maximising the capture of coastal rains
- willingness by individual residents and businesses to install and maintain rainwater tanks over the long-term
- variations in the amount of water that can be saved due to differences in roof and tank size, as well as how

The Councils will continue to encourage the retrofitting of rainwater tanks to existing buildings by offering rebates, with additional incentives for internally connected tanks.

Further rebates are also offered by the NSW Government as an additional incentive.

- reduced extractions from the region's rivers and streams to meet demand for town water
- reduced stormwater discharges from residential areas which will help deliver stormwater management efficiency improvements.

Key factors that could impact the effectiveness of this program include:

#### the rainwater tank is connected

- affordability of installing rainwater tanks (WaterPlan 2050 assumes an average cost of \$3,000 per internally connected tank)
- the NSW Government discontinuing its rebates for rainwater tanks in the long-term once the Central Coast has recovered from the drought



#### APPENDIX H Page 12 of 16

## Possible Future Supply Enhancements

Any strategy that extends over 40 years into the future must be both flexible and adaptable.

That is why WaterPlan 2050 is based on a staged approach to increase our overall water resources to ensure supply always exceeds demand over the next 45 years.

Building the link between Mardi and Mangrove Creek Dams will help to access more water and make our supply system more effective and sustainable in the future, especially during years of above average rainfall.

If, however, there is further deterioration in climate conditions, with prolonged below-average rainfail, then more water may still be needed to meet demand.

In these conditions, based on the Councils' current modelling and Investigations, the most leasible sources of additional water would be highly treated recycled water and desailnated seawater.

Neither of these options depend on rainfall which is why they have been retained as potential future water sources within WaterPlan 2050.

#### **Recycled Water**

Further investigations will be undertaken into the use of highly treated recycled wastewater as a possible future water source.

If needed, this water could be used in a number of ways including to substitute flows for environmental purposes in Wyong River, downstream of the weir, so that more water could be extracted upstream to boost drinking water supplies.

Alternatively it could be added to our dams to boost overall water supplies. This approach would be pursued only after extensive technical research and sufficient community support and acceptance.

The other key challenge is that, as at mki-2007, there are no State or Federal Government policies or guidelines that allow highly treated recycled wastewater to be used to supplement drinking water.

#### Permanent Desalination

Permanent desalination will be retained for potential use during future prolonged drought conditions or to meet future significant increases in demand for town water.

Development consent was sought from the State Government for a 20 million litres a day plant so it could be constructed in an appropriate timeframe should it be needed over the next 45 years. The State Government granted conditional approval for the plant in July 2007.



#### APPENDIX H Page 13 of 16



#### Monitoring and Review

The estimates and assumptions on which WaterPlan 2050 Implementing has been developed are as accurate as possible based on the investment. extensive scientific modelling which is available in mid-2007. The Federal

Future circumstances, however, could be very different. That is why WaterPlan 2050 has been designed to be as adaptable as possible.

The Councils will continue to review and monitor WaterPlan 2050 with a specific focus on:

- demands and demographics
- climate trends
- system yield and performance
- technological developments.

Using the results of this ongoing analysis, WaterPlan 2050 will be adjusted and refined as required.

#### unding Options

Implementing WaterPlan 2050 requires significant capital Investment.

The Federal Government has already committed to providing \$80 million for the Mard-Mangrove Link project and this will help to reduce the financial burden on Central Coast residents.

Other projects may also need to be funded by Gosford City and Wyong Shire Councils. Funding options include:

- raising further loans
- seeking further support from the State and Federal Governments
- future increases in water pricing.



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## Appendix A – Community Consultation

the drought.

A number of community consultation phases were undertaken during the development of the WaterPlan 2050 strategy.

These included focus group meetings, community presentations, media advertising, fact sheets, community surveys and the establishment of a Community Liaison Group.

It also involved the public exhibition of two WaterPlan 2050 documents - a Preliminary Working Draft and a Recommended Strategy.

These communication and consultation activities aimed to keep all key stakeholders informed and involved in the future planning of our Central Coast water supply system.

#### **Community Liaison Group**

A dedicated WaterPlan 2050 Community Liaison Group (CLG) was formed in early 2004 to help provide a community perspective on planning for the future of the Central Coast water supply.

The CLG comprised community members, community group representatives. State Government agency staff and Gosford City and Wyong Shire Councils staff. The group met monthly until mid-2005.

The CLG advised that a future plan for the Central Coast Water Supply system should be environmentally sustainable, adaptable, regularly reviewed, and involve sustainable water usage by businesses and residents.

#### Public Exhibition of **Preliminary Working Draft**

In 2006 Gostord City and Wyong Shire Councils prepared a Preliminary Working Draft of WaterPlan 2050. This document was based on the extensive modeling and analysis which had been undertaken by the Councils, including work done during

VaterPlan 2050 The Preliminary Working Draft provided 10 possible options to help secure the water supply system over the next 45 years.

Each option was reviewed to assess how much additional water could be harvested, potential drought recovery

times, likely costs, benefits, challenges and environmental and social impacts.

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The Preliminary Working Draft of WaterPlan 2050 was placed on public exhibition for two months between December 2006 and February 2007. A total of 56 submissions were received from individual community members and interested organisations.

Submissions indicated that the community generally supported the Councils' approach to WaterPlan 2050. Respondents lavoured the demand reduction measures, continued use of recycled water for non-drinking purposes, the plan to link Wyong River and Mardi Dam to Mangrove Creek Dam, and the retrofitting of rainwater tanks.

#### Public Exhibition of **Recommended Strategy**

The Recommended WaterPlan 2050 Strategy was developed using the community, stakeholder and technical feedback from the Preliminary Working Draft.



It focused on plans to enhance the existing water supply system, use water efficiently, and access additional water sources.

The Recommended WaterPlan 2050 Strategy was

placed on public exhibition for six weeks during May and June 2007. The document received 20 submissions from the public.

These submissions indicated general support and acceptance of the Recommended Strategy, particularly for the Mardi-Mangrove Link project, for the ongoing need for demand management. and also for further water recycling and stormwater harvesting.

The Recommended Strategy was formally adopted by Wyong Shire

Advice and input from the CLG was considered as part of this strategy along with other community and stakeholder input.

> These submissions, along with further expert technical input, were considered in developing the next stage of the process, a Recommended Strategy.

Council on 25 July 2007 and by Gosford City Council on 7 August 2007. The resolution also stated that the

adopted WaterPlan 2050 strategy be regularly monitored and formally reviewed at least every five years.

The document you are reading is the finalised WaterPlan 2050 strategy.

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## Appendix B – Options Not Being Pursued

The preliminary working draft of WaterPlan 2050 contained 10 possible actions to secure a long-term sustainable water supply for the Central Coast.

Four of these options will not be pursued at this time but will remain available for future generations to consider as appropriate.

The decision not to pursue these options is based on feedback from the community and Counciliors as well as further technical reviews of the specific benefits, challenges, costs and estimated increases in yield.

The options not being pursued include:

Upper Wyong River to Mangrove Creek Dam Transfer System

This option included transferring water from the upper Wyong River to Mangrove Creek Dam to supplement run-off from the dam's catchment.

This would require a new weir that would affect more than 20 kilometres of the river downstream. To that end, the environmental impact of this was considered to be unacceptable.

This option only provides for water extraction from about one third of the Wyong River calchment and is therefore less favourable than the recommended option that provides for water extraction from almost the whole Wyong River catchment. Lower Mangrove Creek to Mangrove Creek Dam Transfer System

This option was based on modifications to existing infrastructure to allow excess flows in Mangrove Creek during rainfail events to be 'banked' in Mangrove Creek Dam.

This is likely to be impacted by future changes to State legislated environmental flow rules that have yet to be released.

Overall, the project would also have a significant impact on the environment along the Mangrove Creek Valley because of the need to construct a 17.5 kilometre access road.

#### Toobys Creek Off-stream Storage

This option involved the construction of an off-stream storage facility at Toobys Creek. Water harvested from the lower Wyong River and Ourimbah Creek during high flows could be stored for use at a later date.

Overall, it is estimated that the environmental impact of this option was unacceptable as it would result in the loss of more than 100 hectares of forest combined with significant changes to streamlows, tistways and ther bed movements in Toobys Creek. MacDonaid River to Mangrove Creek Dam Transfer System

This option included the transfer of water from MacDonaid River to Mangrove Creek Dam and was based on assumptions resulting from studies in 1965 about median annual flow of the MacDonaid River providing up to 165,000 million litres a year.

More recent analysis of potential flows, based on monitoring equipment installed in the 1990s, indicate that actual flows may be as little as 50,000 million litres a year.

Although the catchment area of the MacDonald River is much larger than Wyong River, the annual flow of both water sources is estimated to be very similar. The MacDonald River flow data is distorted by the occasional flood event.

Other challenges associated with this option include unacceptable environmental impacts on mainly farming land and areas in Yengo National Park, some of which are recognised as Aboriginal heritage sites of cultural significance.



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# WYONG SHIRE COUNCIL

SUBMISSION TO THE

# INDEPENDENT PRICING AND REGULATORY TRIBUNAL

PRICE PATH FROM 1 JULY 2009 – 30 JUNE 2013

## **APPENDIX I**

Customer Impact -Proposed Increase in Trade Waste Usage Charge For Category 2 Compliant (with pre-treatment)

APPENDIX I Page 1 of 1

## 1. Customer Impact – Proposed Increase in Trade Waste Usage Charge for Category 2 Compliant (with pre-treatment)

#### 1.1 Background

This Appendix summarises the impact of the proposed increase in the Trade Waste Usage Charge (for Category 2 compliant with pre-treatment dischargers) on a large discharger. The background to this proposal is discussed in Section 3.2.3 of this submission.

## 1.2 Analysis of Impact

Metered Water Usage = 1000 kL/year Sewerage Discharge Factor =85% Trade Waste Discharge Factor = 50% Discharge Quality = Compliant with acceptance standards

CURRENT CHARGE	PROPOSED CHARGES*			
2008/09	2009/10	2010/11	2011/12	2012/2013
Annual Trade Waste Fee = \$70.64	\$72.75	\$74.93	\$77.17	\$79.48
Sewerage Usage Charge	Sewerage Usage Charge	Sewerage Usage Charge	Sewerage Usage Charge	Sewerage Usage Charge
= 1000 kL / yr x 0.85 x \$0.7441 / kL	= 1000 kL/yr x 0.85 x \$0.7664 / kL	= 1000 kL/yr x 0.85 X \$0.7893/kL	= 1000 kL/yr x 0.85 X \$0.8129/kL	= 1000 kL/yr x 0.85 X \$0.8372/kL
= \$632.48	= \$651.44	= \$670.90	= \$690.96	= \$711.62
Trade Waste Usage	Trade Waste Usage	Trade Waste Usage	Trade Waste Usage	Trade Waste Usage
= 1000 kL / yr x 0.5 x \$0.31/kL	= 1000 kL/yr x 0.5 x \$0.42/kL	= 1000 kL/yr x 0.5 x \$0.53/kL	= 1000 kL/yr x 0.5 x \$0.64/kL	= 1000 kL/yr x 0.5 X \$0.76/kL
= \$155.00	= \$210.00	= \$265.00	= \$320.00	= \$380.00
TOTAL = \$858.12	\$934.19	\$1010.83	\$1088.13	\$1171.11

\*Assume CPI increase of 3% per year