

11.12 Development Servicing Plans - Water and Wastewater

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Delivery Program	Water and Wastewater
Objective	To obtain Council approve to exhibit draft Developer Servicing Plans for public comment

Background

Under section 64 of the *Local Government Act 1993* Council is able to recover part of the infrastructure costs incurred in servicing new development or additions and changes to existing development for water and wastewater (sewer) services.

To be compliant with the provisions to recover these costs, Council is required to prepare Developer Servicing Plans (DSPs). The Council's current DSP is due to be updated. In response to this draft plans were presented to Council last year and Council resolved to conduct a workshop to review the plans.

Prior to arranging the workshop, staff determined that the draft plans as submitted required further refinement. This internal review of the financial modelling of the DSPs has resulted in a reconfiguration of the costings to better match the loan arrangements that have been put in place to fund the Recycled Water Master Plan.

This has now been completed and new drafts are ready to be submitted to Council for its consideration.

Having regard to the previous resolution, and the new members of Council, a workshop to review the plans is still considered to be worthwhile. Assuming Council accepts the recommendation to this report, a workshop will be scheduled prior to exhibition of the plans.

This report provides summary information in respect to the plans, and in particular reviews the changes proposed when compared to the old plan.

Key Issues

- Equitable recovery of the costs of infrastructure provision in response to future development.
- Compliance with statutory arrangements and guidelines.

Information

Relevant Legislation

The relevant legislation is noted below.

Local Government Act 1993 Section 64 Construction of works for developers

"Division 5 of Part 2 of Chapter 6 of the Water Management Act 2000 applies to a council exercising functions under this Division in the same way as it applies to a water supply authority exercising functions under that Act."

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Water Management Act 2000 Chapter 6 Part 2 Division 5 Section 306 (2)

“As a precondition to granting a certificate of compliance for development, a water supply authority may, by notice in writing served on the applicant, require the applicant to do either or both of the following:

- (a) to pay a specified amount to the water supply authority by way of contribution towards the cost of such water management works as are specified in the notice, being existing works or projected works, or both,
- (b) to construct water management works to serve the development.”

Water Management Act 2000 Chapter 6 Part 2 Division 5 Section 306 (3)

“In calculating an amount for the purposes of subsection (2) (a)... consideration is to be given to any guidelines issued for the time being for the purposes of this section by the Minister.”

What is a DSP?

A Development Servicing Plan (DSP) is a document published by Council that shows the construction works necessary to allow the connection of new development areas into its water and wastewater networks.

This includes works such as the upgrades to Ballina and Lennox Head wastewater treatment plants, the Recycled Water Master Plan, Ballina Heights and Lennox Head reservoirs, various sewage pump stations and pipe upgrades and extensions.

The works within the DSP are funded by developers. These up-front costs are called “Developer Charges” or “Section 64 Charges”. Proponents are required to pay these as a condition of development.

A copy of the draft DSPs have been provided to Council under separate cover.

What is a Developer Charge for Water and Wastewater?

Ballina Shire Council can levy for Developer Charges under section 64 of the *Local Government Act 1993* to recover part of the infrastructure costs incurred in servicing new development or additions and changes to existing development.

Developer charges provide a source of funding for infrastructure and provide signals to the community regarding the cost of urban development. In essence, where the costs of serving new urban development are in excess of the current and expected costs of servicing existing customers, then the additional costs should be recovered from new entrants in the form of an up-front contribution.

The NSW Office of Water has issued Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, December 2002 pursuant to section 306 (3)(C) of the Water Management Act 2000.

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In order to be compliant with the NSW best practice management framework, NSW local water utilities are required to prepare a Development Servicing Plan (DSP) and to levy developer charges in accordance with these guidelines.

The Guidelines define the elements of best practice developer charges and provide guidance on the development, analysis and implementation of appropriate developer charges to ensure that new development meets a fair share of the cost of service provision.

How has Council developed the new developer servicing plan (2012)?

Council adopted the initial *Water and Sewerage Infrastructure Development Servicing Plans* (DSPs) in **May 2004**. The DSPs were prepared in accordance with the *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater (2002)* issued by the NSW Office of Water, pursuant to section 306 (3) of the *Water Management Act 2000*.

The Guidelines have been reviewed by IPART (the Independent Pricing and Regulatory Tribunal) who has made recommendations to the minister for changes to the Guidelines. New draft Guidelines have been published however, despite an initial notification that they would come into effect in July 2013, it is not clear when the State Government will finalise the new Guideline.

In preparing the new draft DSPs (2012), Council has considered the IPART recommendations and sought to address them where practical. However it is seeking to comply with the 2002 Guideline.

It is possible that the modification to the Guideline will result in a requirement to modify the structure of the financial calculations within the DSP document. However it is possible that this will not significantly impact the amount of the developer charge.

The review considers factors such as:

- Projected growth areas
- Projected Capital Works Plan, including Council's Recycled Water System for Lennox Head and Ballina
- Current valuation for Council's Assets and
- the level of the Developer Charge

The new draft DSPs 2012 have been prepared continuing on from the approach in the 2004 Plan with no difference in the levels of services for water and wastewater. Service levels for recycled water have been firmed up as part of the hydraulic modelling necessary to support the Plan.

Relationship to Section 94 Charges

Section 94 of the Environmental Planning and Assessment (EP&A) Act 1979, enables Ballina Shire Council to levy contributions for public amenities and services required as a consequence of development (stormwater may be levied either through section 94 of the EP&A Act or section 64 of the Local Government Act).

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While this is a very similar concept to the Section 64 Charges, it is worth noting some key differences.

Item	Section 94 Charges	Section 64 Charges
Enables funding of	Community facilities, open space, roads, car parking, civic improvements, stormwater and other support facilities	Water, Sewer, Wastewater, Recycled Water, Stormwater
Relevant Acts	EP&A Act 1979	Local Government Act 1993 Water Management Act 2000
Relevant Regulation	Environmental Planning and Assessment Regulation 2000	Local Government (General) Regulation 2005 Water Management (General) Regulation 2011
NSW Government Department	Planning and Infrastructure	Office of Water
Fee cap	A cap of \$20,000 per residential lot or per dwelling for established areas A cap of \$30,000 per residential lot or per dwelling for greenfield areas	No cap
Guidelines	Development Contributions Practice Notes 2005, Updated 2006	Guidelines are Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, December 2002
Acceptable basis of calculation	per dwelling per lot per worker per room or key per car space per metre of road frontage	per Equivalent Tenement (ET)

Determination of Equivalent Tenements (ETs)

The Guidelines show how to calculate the Developer Charge per ET but they do not describe how the quantity of an ET is to be calculated. In the new plans Council has elected to use the methodology published by the NSW Water Directorate, *Section 64 Determinations of Equivalent Tenements Guidelines May 2009*.

This Guideline is currently in use, but is subject to some contradiction in the existing DSPs.

The implementation of a subsidy

Council may elect to subsidise the amount of the developer charge through increasing residential bills (the water or wastewater service charges). However, to do so it must place its intention to subsidise on public exhibition as part of the exhibition period for the Developer Servicing Plans

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Council will still be compliant with the Guidelines even were it to completely subsidise the Developer Charge, however this would mean that the \$60M of infrastructure, over the life of the plan, that would have been funded by the developer would otherwise be funded by the community through service charges (annual water and wastewater charge).

The plans propose to subsidise the developer charges for wastewater services in Wardell to a level equivalent to Area B (Lennox Head and Ballina). This will reduce the Wardell charge by \$5,415 per Equivalent Tenement. The purpose of this is to reduce the Wardell charge to a more affordable level, due to overall low level of population in that location and to make the Wardell charge more consistent with other charges.

The water supply developer charge for Wardell is not proposed to be reduced by a subsidy (as is currently case) as Rous Water developer charges are not imposed in the Wardell area. This means even though Council's developer charge is higher for Wardell than, say, Ballina Island the combined Rous Water and Ballina Shire Council developer charge is in total very similar (refer to the attachment for further detail).

The maximum amount that could be charged as a single Developer Charge (rather than having separate location charges) across the Shire is \$5,594 per ET (combined for water and wastewater) as the level of cross subsidy is restricted by the Guidelines. If this approach was followed this would result in the community funding in excess of \$25M of infrastructure across the life of the plan and these funds would then need to be sourced through annual service charges.

Works Program

Developers are typically responsible for the full cost of the design and construction of reticulation works within new development areas that relate to the servicing of that area. Therefore the preferred approach with the DSPs has been to focus on the provision of infrastructure that cannot be practically provided by a developer. Typically this relates to works that are centralised and remote from the development site such as treatment facilities.

Substantial modelling work was undertaken to develop the wastewater servicing plan, which has fine tuned the pump station catchments that require upgrades to support development. In the whole the works required to facilitate development have not substantially altered since the 2004 DSP although in some cases the source of funding (Developer or DSP) for those works has changed.

Where infrastructure is required within a development area (which may be one or more land owners) the draft DSP has placed the onus and costs of providing that infrastructure onto the proponents of the development.

For instance, wastewater conveyance infrastructure within the Cumbalum Urban Release Areas (A and B) has been excluded from the DSP and is currently an item of negotiation.

However there will be occasions where the DSP contemplates the provision of shared infrastructure in release areas. This is done to support the orderly roll out of development.

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In summary the works that have been included in the DSPs relate to:

- Wastewater Treatment Plants (WWTPs)
- Recycled Water Plants (RWPs)
- Water Treatment Plants (WTPs)
- Effluent and bio-solids management works
- Pumping stations
- Distribution and trunk mains and
- Storage

The localised reticulation infrastructure will still need to be fully funded and provided by the developer.

Funding Arrangements with Rous Water for Recycled Water Infrastructure

In the past Rous Water and Ballina Shire Council have had an agreement for the funding of Recycled Water infrastructure to Ballina Heights, which has included direct funding by Rous Water for Ballina's capital works. The nature and extent of Rous Water contributions for past works, as well as any continuing has not yet been finalised.

These plans have been prepared on the basis that no funding arrangement with Rous Water has been included in the calculation. This is consistent with the purpose of the Guideline, particularly that Developer Charges "provide signals regarding the cost of urban development and thus encourage less costly forms and areas of development." However this is a matter that can be reviewed once Rous Water has completed its Future Water Strategy and there is a further direction in respect of how they intend to fund future infrastructure.

Determining DSP Areas

Council's are required to minimise the number of DSP areas, by applying the following criteria;

- Capital charges need to be calculated for each water supply distribution system or sewage treatment works catchment.
- Capital charges need to be calculated for each new development area of over 500 lots.
- Areas with calculated capital charges within 30% should be agglomerated into a single DSP.

Previously the then Department of Energy, Utilities and Sustainability (DEUS) published advice that enabled councils to agglomerate areas that are outside the 30% limit where "it is warranted to suit their local circumstances" – DUES, 2004. The IPART review, mentioned earlier, has recommended that this no longer be allowed.

Amount of the DSP Charges

In the past, both the water and wastewater developer charges for Wardell have been subsidised to the next higher charge. However, this resulted in a lower amount of total contributions for Wardell as it did not consider that the other areas, where bulk water is supplied by Rous Water, also pay the Rous Water developer charge, which is equal to \$8,268 for 2012/13.

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Once the Rous Water developer charge is taken into consideration, the Wardell charge is very similar to the next highest charge (Area B = \$18,266).

The table below shows the total developer charges for each service area, combined for water and wastewater. Further details on the breakdown of the developer charge are included in the attachments.

Area	Total Combined Charge	Change (\$ / %)	
Area A – Wardell	\$19,264* (equivalent to \$9,998 plus \$8,268)	\$ 9,124	90%
Area B - Lennox Head, Skennars Head, East Ballina, Fig tree Hill, North Ballina, West Ballina, Ballina Island, Pacific Pines Estate, Henderson Land Central and South	\$9,998	-\$ 142	-1%
Area B - Pacific Pines Estate, Henderson Land Central and South	\$9,998	\$ 2,424	32%
Area C - Wollongbar Urban Expansion Area	\$17,332	\$ 6,054	54%
Area E - Alstonville and Wollongbar	\$7,165	\$ 355	5%
Area F - Cumbalum Precinct A, Ballina Heights	\$8,936	-\$ 312	-3%
Area G - Cumbalum Precinct B	\$5,594	-\$ 3,654	-40%

**This includes a subsidy for the Wardell wastewater developer charge of \$5,415. The subsidy will be achieved by increasing annual wastewater bills by an equivalent amount (around \$1 per year) and must be publically disclosed. As mentioned this total figure is higher than the other areas as the Rous Water charge must be added to those other areas.*

Sustainability Considerations

- **Environment**

The Developer Servicing Plan helps to protect the environment by ensuring the infrastructure is appropriately sized to cater for development. Detrimental environmental outcomes may result if development is to occur without the servicing plan in place, though it is more likely that development would be stalled due to infrastructure capacity restraints.

The recycled water scheme will decrease the quantity of discharge from Council's WWTPs and reduce the demand on the region's water sources are required to deal with growth.

- **Social**

The Developer Servicing Plan allows for the equitable collection of developer contributions where any new development is required to pay their fair share of the cost of supplying infrastructure to their development.

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- **Economic**

The Developer Servicing Plan promotes orderly and planned growth which provides economic development benefits. It is also important to consider the affordability of development. For the major growth areas the overall level of increase, in dollar terms, is not considered overly high, which is somewhat surprising considering the increases in infrastructure costs in recent years.

Legal / Resource / Financial Implications

By adopting the DSPs Council will be compliant with requirements of the:

- Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, (Department of Land and Water Conservation, NSW, 2002)
- Best-Practice Management of Water Supply and Sewerage Guidelines (Department of Water and Energy, 2007)
- Water Management Act 2000 and the
- Local Government Act 1993

The DSPs aim to ensure Council has adequate funds to provide the infrastructure needed to accommodate expected population growth.

Consultation

There is a statutory requirement to advertise the draft DSPs for a minimum period of 30 days for public comment.

Options

The Council's current DSP was adopted in 2004 and requires an update. The recommendation to this report is to place on public exhibition the proposed new plan. It is also suggested that a briefing be held with the Council to examine the plan in more detail. Alternatively the Council can defer the exhibition. The Council can also express a position in respect to amending the draft plans.

A briefing will allow Councillors to address issues in respect to the draft plans and if any items are raised that suggests the plans should be amended prior to exhibition, a further report can still be presented to Council that issue(s).

RECOMMENDATIONS

1. The Council approves the exhibition of the draft Development Servicing Plans for Water Supply and Wastewater Infrastructure (2012), as attached to this report, for public comment.
2. That Council hold a Councillor briefing prior to the exhibition period for the purposes of enabling a response to inquiries by Councillors regarding the information in this report and the draft plans.

Attachment(s)

11.1 Development Servicing Plans for Water and Wastewater - Re-exhibition.DOC

11.12 Development Servicing Plans - Water and Wastewater

1. Developer Services Plans (Under separate cover)



19 September 2014

Ballina Shire Council
PO Box 450
BALLINA NSW 2478

Our ref: 41/27101
461654
Your ref:

Dear Andrew

**Water and Wastewater DSPs
Re-calculation of Developer Charges**

GHD prepared Water and Wastewater Development Servicing Plans (DSPs) for the Ballina Shire Council (BSC). These DSPs were released publicly for developer comment in 2013, and revised in early 2014. The revised reports were submitted to the NSW Office of Water (NOW). In May 2014, NOW provided feedback on the DSPs, and continued to provide feedback to GHD and BSC during the revision process. The feedback entailed the following, with associated changes:

- The calculation of the Effective Year of Commissioning had not been correctly performed. The Effective Year of Commissioning for any development area is to be determined based on the year that the first asset was commissioned in that area (for either water or wastewater, depending on DSP). This likewise affects both the Discount Rate and Return on Investment (ROI) Factor.
- The *ultimate planned ET projection*, had been used in the calculation of the system capacity, rather than the *actual* system capacity in equivalent tenements (ET) – as is currently required by NOW. The actual system capacity may be determined based on the capacity of treatment plants and/or reservoirs, and may or may not resemble the planned capacity of infrastructure.
- The Reduction Amount Calculation was performed using the NPV of Annual Charges method, which though approved in the 2002 DLWC Guidelines, is difficult to check and assess. Instead, the Reduction Amount may be calculated using the NPV of Annual Bills Method, which is simpler to review.
- The subsidy of Area A (to the same Developer Charge as Area B) is to take place after agglomeration and reductions have occurred.

The Capital Charge and Reduction Amount Calculations have been corrected by GHD to suit the comments from NOW. Ongoing review of the changes by NOW has also taken place to ensure the changes made are in accordance with the Guidelines and meet the expectations of NOW.

The changes to the calculations have resulted in changes to the Capital Charges, the Reduction Amount and hence the Calculated (and Adopted) Developer Charge per ET for each area in the DSPs. In general it can be seen:

- The Adopted Developer Charges in the Wastewater DSP are now lower for areas A, B and C, and higher for Area F (approx. 25% increase), Area E and Area G (approx. 39% increase). Significant changes in agglomeration occurred.
- The Adopted Developer Charges in the Water DSP are now lower for all areas, except Areas B and E (approx. 21% increase). A minor change to agglomeration occurred.

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Wastewater DSP – Changes to Capital Costs, Reduction Amounts and Developer Charges

Development Area	Total Capital Cost per ET (\$ per ET)			Developer Charge after Agglomeration and less Reduction Amount (\$ per ET)		
	Former	Revised	Change (%)	Former	Revised	Change (%)
*A - Wardell	15,476	17,727	15%	7,348	6,575	-11%
B - North/East/West Ballina, Ballina Island, Skennars Head, Lennox Head	10,491	7,538	-28%	7,348	6,575	-11%
C - WUEA	14,773	13,024	-12%	12,633	9,199	-27%
E - Alstonville, Wollongbar	5,645	7,471	32%	4,726	6,575	39%
F - CURA A, Ballina Heights	7,464	9,774	31%	7,348	9,199	25%
G - CURA B	6,941	8,853	28%	4,726	6,575	39%
Reduction Amount:	Former	\$2,140		Revised	\$1,351	
Agglomeration:	Former	C, (B+A+F), (E+G)		Revised	A, (C+F), (G+B+E)	
* Area A Subsidy:	Former	\$5,950		Revised	\$10,249	

Water DSP – Changes to Capital Costs, Reduction Amounts and Developer Charges

Development Area	Total Capital Cost per ET (\$ per ET)			Developer Charge after Agglomeration and less Reduction Amount (\$ per ET)		
	Former	Revised	Change (%)	Former	Revised	Change (%)
A - Wardell	11,730	11,487	-2%	11,641	11,102	-5%
B - North/East/West Ballina, Ballina Island, Skennars Head, Lennox Head	2,815	3,337	19%	2,375	2,882	21%
C - WUEA	4,384	2,225	-49%	4,294	1,840	-57%
E - Alstonville, Wollongbar	2,605	3,177	22%	2,375	2,882	21%
F - CURA A, Ballina Heights	1,290	1,106	-14%	1,200	561	-53%
G - CURA B	894	849	-5%	804	561	-30%
Reduction Amount:	Former	\$90		Revised	\$385	
Agglomeration:	Former	A, (B+E), C, F, G		Revised	A, (B+E), C, (F+G)	

There are several key reasons for the changes which are cited on the more detailed tables in the attachment to this letter:

- Affecting all areas are the corrections to method of calculating the Effective Year of Commissioning and determining the correct ROI Factor. Referred to as the **ROI Factor Correction** in the attached tables, the previous ROI factor was calculated accounting for PV of population increase, and the difference between the construction year of each asset and its year of full take-up. These combined errors systematically overestimated the charges for areas with newer assets, and systematically underestimated charges for those built prior to 1996. The revised and correct method is to use the 3% or 7% discount factors for pre and post 1995/1996 assets respectively, in calculation of both their 2011/2012 cost and ROI factor, and to use the difference between the Effective Year of Commissioning and the year of full take-up in determining the Take-up period. This combined correction leads to decreases in the NPV and hence attributed charge of assets built post 1996, and increases in the attributed charge of assets constructed prior to 1996. The effects of the correction are larger for those assets with a particularly late year of commissioning (such as the recycled water infrastructure of Area G) since the difference between the year used for "Effective Year of Commissioning" under the old/incorrect method and the revised/correct method, is larger.
- Affecting those areas where assets were moved between "Existing" and "Future" tables, in either direction, are the changes created by applying a consistent year to discriminate between existing and future assets. This is referred to as **Retabulation** in the attached tables. This change has no impact on the overall cost assigned to an area, as the calculations on both tables are based on the base year of NPV calcs (2011/2012), the constructed year of the asset, and the year of commissioning of first asset in system (known as Effective Year of Commissioning). The only thing that has changed is whether the attributed cost is totalled under Existing or Future. The basis for sorting assets between "Existing" and "Future" tables was finally based on the year 2010/2011; assets with an assigned construction year up to and including in 2010/2011 fall on the "Existing" table, while later assets fall on the "Future" table; this may mean that some assets that are constructed in years such as 2012 or 2013 appear on the "Future" table. However, it must be stressed again that has no impact on the overall cost assigned to an area, as the revised calculations on both tables follow the same methodology. This is best seen in the Water DSP capital charge calculation tables, since the existing and future assets effectively are in the same table.
- Errors in Previous calculations meant that totals for areas F and G included the costs of the existing Ballina STP (pre 2010 cost) as a future cost, and also did not include any costs for future STP upgrades (post 2010) at Ballina STP. This meant that the capital charge for treatment works were underestimated for these areas.

Regards
GHD Pty Ltd



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ATTACHMENT 1 – CAPITAL CHARGES
COMPARISON TABLES

Water DSP Charges Comparison Table

Previous							Revised							Comparison: New - Old:							Main reason for change					
	A	B	C	E	F	G		A	B	C	E	F	G		A	B	C	E	F	G						
	Wardell	N, E &W Bal., Bal. Isl, Skennars Hd, Lennox Hd	WUEA	Alstonville, Wollongbar	CURA A, Ballina Heights	CURA B																				
Treatment Plants Ex	2058	0	0	0	0	0	Treatment Plants Ex	1707	0	0	0	0	0	Treatment Plants Ex	-351	0	0	0	0	0	0	0	0	0	0	Large decrease mainly due to system capacity being based on plant capacity (approx 1000 ET) rather than previously-used development projection of Area A (approx 630 ET).
Treatment Plants Fut	387	0	0	0	0	0	Treatment Plants Fut	841	0	0	0	0	0	Treatment Plants Fut	454	0	0	0	0	0	0	0	0	0	0	Higher cost due to standardised costs for the 0.3 ML/d plant; this was previously costed at \$150,000 (2011/12) but standard rate brings up to \$288,000 (2011/12). Additionally, the take-up period was calculated wrongly, underestimating the ROI factor previously
Pumps Ex	-	-	-	-	-	-	Pumps Ex	1377	15	0	140	0	0	Pumps Ex	1377	15	0	140	0	0	0	0	0	0	0	Error of omission; all future pump stations were summed as existing pump stations in previous submission, and existing pump stations were not counted
Pumps Fut	0	74	253	88	91	0	Pumps Fut	0	38	117	48	86	0	Pumps Fut	0	-36	-136	-40	-5	0	0	0	0	0	0	General decreases due to ROI Factor Correction
Reservoirs Ex	2580	665	2141	1352	0	0	Reservoirs Ex	2141	1270	1424	1606	0	0	Reservoirs Ex	-440	606	-718	254	0	0	0	0	0	0	0	General increases due to ROI Factor Correction Marked decreases in some areas due to system capacity being based on plant capacities rather than previously-used development projections. E.g the ET values used for system capacity of areas A and C approximately doubled, which greatly reduces the cost per ET. Also note that the East Ballina Reservoir (omitted from the previous calculations) will be recommissioned as it is necessary to service Area B; the costs of this reservoir were added to the charges for Area B, in keeping with the other existing reservoirs.
Reservoirs Fut	0	54	0	0	868	894	Reservoirs Fut	0	17	0	0	719	849	Reservoirs Fut	0	-36	0	0	-150	-45	0	0	0	0	0	General decreases due to ROI Factor Correction
Pipes Ex	6220	1251	0	1128	51	0	Pipes Ex	5254	1680	0	1362	78	0	Pipes Ex	-966	429	0	235	27	0	0	0	0	0	0	General increases due ROI Factor Correction . Marked decreases in Area A due to system capacity being based on plant capacities rather than previously-used development projections. E.g the ET values used for system capacity of areas A and C approximately doubled, which greatly reduces the cost per ET.
Pipes Fut	485	771	1990	37	280	0	Pipes Fut	167	318	684	21	223	0	Pipes Fut	-319	-453	-1306	-16	-57	0	0	0	0	0	0	General decreases due to ROI Factor Correction
TOTAL	11730	2815	4384	2605	1290	894	Total	11487	3337	2225	3177	1106	849		-244	524	-2159	572	-185	-45	0	0	0	0	0	As per the ROI Factor Correction , areas with extensive infrastructure existing pre-1996 generally had a higher NPV and ROI factor under the revised calculations. Areas with a large amount of newer infrastructure had lower costs. Areas A and C had marked changes to the basis of system capacity (in ET) which caused a marked decrease in these areas.