**Prepared for Tweed Shire Council** 



# Development Servicing Plan For Sewerage Services

Draft Report May 2007



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This document is a Development Servicing Plan (DSP) and it contains, or references, all relevant information used to calculate the unit charge (developer charge per equivalent tenement) for developments in each relevant sewerage DSP area within the Tweed Shire local government area. It has been prepared in accordance with the Guidelines for Developer Charges for Water Supply, Sewerage and Stormwater issued by the Minister for Land and Water Conservation (now Department of Water and Energy) in December 2002 [Ref 1]. These guidelines were based on a Determination issued by the Independent Pricing and Regulatory Tribunal (IPART) in September 2000 [Ref 2].

A DSP enables Council to levy contributions where the anticipated development will or is likely to increase the demand for sewerage services. Projected population and development growth will place additional demand on the sewerage systems. Generally, additional capacity is required in the sewerage systems to accommodate the increased demands. This normally requires system components, such as pumping stations and pipelines to be upgraded. On occasions it is necessary to construct additional system components to service the growth. The principal purpose of the DSP is to identify the demand for capacity in sewerage infrastructure as a result of development and to provide for that capacity through development contributions.

This draft document incorporating the DSPs for the Tweed sewerage system will be submitted to Council for approval prior to being placed on public exhibition in conjunction with Council's 2005/2008 Management Plan for a 28 day period. This will to provide an opportunity for examination by interested parties and for such parties to make submissions to Council on the draft Plans. The DSPs will come into force from 1 July 2007. The DSPs will then be forwarded to the Department of Water and Energy (DWE) for registration.

The following DSPs are referenced in this document:

- Tweed Heads servicing the Tweed Heads urban area west of Razor Back and Tweed Heads West - east of Cobaki Bridge
- Banora Point servicing Tweed Heads east of Razor Back, Cobaki Lakes, Bilambil Heights, Tweed Heads West - west of Cobaki bridge, Terranora, Tweed Heads South and Banora Point
- Kingscliff servicing the areas of Fingal Head, Kingscliff, Salt, Casuarina and Kings Forest.



- Hastings Point servicing the areas of Tanglewood, Cabarita Beach, Bogangar, Hastings Point, Pottsville, Koala Beach and Sea Breese.
- Murwillumbah servicing the areas of Condong, Murwillumbah, South Murwillumbah and Bray Park
- Tumbulgum servicing the village of Tumbulgum
- Tyalgum servicing the village of Tyalgum
- Uki servicing the village of Uki

Tweed Shire Council also proposes to construct an additional sewerage system to service the village of Burringbar.

The areas covered by each DSP are shown in Plans included in Appendix A.

The Developer Contribution is determined by analysing the cost of existing augmentation works, existing demand, anticipated growth and the cost of works required to meet the demand created by growth. The total cost of existing and proposed augmentation works required to service development is divided between demand units to determine the capital cost per unit. Any surplus income Council generates from a development (i.e. operational income minus operational, maintenance and administration costs) is deducted from the capital cost to obtain the Developer Contribution.

The methodology adopts a Return On Investment (ROI) approach to cover the opportunity costs or borrowing cost, capital cost variations and variations in rate of connection. All calculations are undertaken using Net Present Value (NPV). NPV is a standard commercial procedure for calculating the expected net monetary gain or loss from a project by discounting all expected future cash inflows and outflows to the present time, using the required return on investment.

The Developer Contribution is therefore calculated as:

- The present value (PV) of the cost over time of capital works required to service less
- The present value of expected net income (revenue less expenses) over time from servicing development (referred to as the "reduction amount").

The capital charge calculated for each DSP area is shown in Table A. The calculation spreadsheets are included in Appendix C.



#### **Table A**Calculated Capital Charges

DSP	Calculated Capital Charge (\$/ET)
Tweed Heads	10,243
Banora Point	5,323
Kingscliff	10,076
Hastings Point	5,176
Murwillumbah	8,191
Tumbulgum	4,773
Tyalgum	5,939
Uki	5,564
Burringbar	34,740

Where the capital charges of two or more service areas (DSPs) are within 30%, they should be agglomerated into a single DSP. Tweed Shire Council service areas should therefore be agglomerated into three DSPs as shown in Table B.

	Capital Charge	% of Highest Capital Charge			
DSP	\$/ET	A	В	С	
Burringbar	34,740	100			
Tweed Heads	10,243	30	100		
Kingscliff	10,076		98		
Murwillumbah	8,191		80		
Tyalgum	5,939		58	100	
Uki	5,564			94	
Banora Point	5,323			90	
Hastings Point	5,176			87	
Tumbulgum	4,773			80	

#### **Table B**Agglomeration of Service Areas

DSP A would include the Burringbar sewage treatment plant catchment.

DSP B would include the Tweed Heads, Kingscliff and Murwillumbah sewage treatment plant catchments.

DSP C would include the Tyalgum, Uki, Banora Point, Hastings Point and Tumbulgum sewage treatment plant catchments.



The calculation of the agglomerated capital charges is shown in Table C.

DSP	Area	Capital Charge (\$/ET)	Growth (ET)	Weighted Average Capital Charge (\$/ET)
А	Burringbar	34,740	191	34,740
В	Tweed Heads	10,243	577	
	Kingscliff	10,076	7,731	9,689
	Murwillumbah	8,191	2,214	
С	Tyalgum	5,939	66	
	Uki	5,564	53	
	Banora Point	5,323	18,880	5,302
	Hastings Point	5,176	3,507	
	Tumbulgum	4,773	26	

Table C	Calculation	of Agglomera	ted Capital	Charges
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A uniform reduction amount of \$2,056/ET has been calculated for the Tweed Shire local government area. The calculation spreadsheet is included in Appendix D.

The calculated developer charges are summarised in Table D.

<b>Tuble D</b> Culculated Developer Charges	Table D	Calculated	Devel	loper	Charges
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DSP	Area	Capital Charge (\$/ET)	Reduction Amount (\$/ET)	Developer Charge (\$/ET)
А	Burringbar	34,740	2,056	32,684
В	Tweed Heads Kingscliff Murwillumbah	9,689	2,056	7,633
С	Tyalgum Uki Banora Point Hastings Point Tumbulgum	5,302	2,056	3,246

On 25 October 2004 DEUS issued Circular LWU 5 which modified the guidelines to give Local Water Utilities (LWUs) more flexibility in selection of the number of DSP areas and the developer charges to be adopted. The Circular describes a process to be followed if a LWU wishes to carry out additional agglomeration of DSP areas to suit their local circumstances.



A weighted average developer charge for all new developments within the Tweed Shire Council local government area has been calculated and summarised in Table E.

DSP	Area	Developer Charge (\$/ET)	Growth (ET)	Weighted Average Developer Charge (\$/ET)
А	Burringbar	32,684	191	
В	Tweed Heads Kingscliff Murwillumbah	7,633	10,522	
D	Tyalgum Uki Banora Point Hastings Point Tumbulgum	3,246	22,532	4,804

<b>Table E</b> Agglomerated De	eveloper Charges
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The calculated developer charges as detailed in Table D or the agglomerated developer charge of \$4,804/ET are the maximum that may be levied by Tweed Shire Council. In adopting a DSP, Tweed Shire Council may elect to levy less than these amounts, but any resulting cross subsidies must be disclosed in the DSP.

It is recommended that the agglomerated Developer Charge of \$4,804/ET be adopted for exhibition.



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# 1 INTRODUCTION

### 1.1 BACKGROUND

The development or redevelopment of land for residential, commercial or industrial purposes creates a need for additional capacity in water supply and sewerage systems. Water and sewerage providers recover the cost of providing this additional capacity predominantly through developer contributions.

Section 64 of the Local Government Act – 1993 details the provisions relating to the construction of works for developments. It states that the provisions of operation for water authorities, detailed in Division 5 of Part 2 of Chapter 6 of the Water Management Act 2000, apply to Councils exercising functions in the same way. Developers are required to pay a contribution, to the water supply authority, towards the cost of existing and projected water management works. The water supply authorities are also authorised, when calculating a developer contribution, to take into consideration the value of the existing water management works and the estimated cost of projected water management works.

This document is a Development Servicing Plan (DSP) and it contains, or references, all relevant information used to calculate the unit charge (developer charge per equivalent tenement) for developments in each relevant sewerage DSP area within the Tweed Shire local government area. It has been prepared in accordance with the Guidelines for Developer Charges for Water Supply, Sewerage and Stormwater issued by the Minister for Land and Water Conservation (now Department of Water and Energy) in December 2002 [Ref 1]. These guidelines were based on a Determination issued by the Independent Pricing and Regulatory Tribunal (IPART) in September 2000 [Ref 2].

IPART is an independent authority that regulates the pricing of declared government monopoly services. The Tribunal regulates urban water services under the Independent Pricing and Regulatory Tribunal Act 1992. Inquiries are undertaken under Section 11 of the Act for the following government agencies, which are Standing References under Schedule 1 of the Act:

- Sydney Water Corporation
- •
- Hunter Water Corporation
- Gosford City Council
- -
- Wyong Shire Council.



A DSP enables Council to levy contributions where the anticipated development will or is likely to increase the demand for sewerage services. Projected population and development growth will place additional demand on the sewerage systems. Generally, additional capacity is required in the sewerage systems to accommodate the increased demands. This normally requires system components, such as pumping stations and pipelines to be upgraded. On occasions it is necessary to construct additional system components to service the growth. The principal purpose of the DSP is to identify the demand for capacity in sewerage infrastructure as a result of development and to provide for that capacity through development contributions.

Tweed Shire Council maintains an asset register that includes details and timing of existing infrastructure. In addition, Council has prepared a schedule of capital works based on current projections of growth. In this DSP a developer contribution is determined by analysing the cost of existing infrastructure, existing demand, anticipated growth and the cost of works, required to meet the demands created by growth. The total cost of these works is divided between demand units to determine the capital cost per unit.

This draft document incorporating the DSPs for the Tweed sewerage system will be submitted to Council for approval prior to being placed on public exhibition, in conjunction with Council's 2005/2008 Management Plan, for a 28 day period. This will provide an opportunity for examination by interested parties and for such parties to make submissions to Council on the draft Plans. The DSPs will come into force from 1 July 2007. The DSPs will then be forwarded to the Department of water and Energy (DWE) for registration.

### **1.2 PREVIOUS DEVELOPER CONTRIBUTIONS**

The Historic developer charges for sewerage services adopted by Tweed Shire Council are shown in Table 1-1.

Year	Treatment		Transport			Total		
	Value \$	Cap EP	Levy \$	Value \$	Cap EP	Levy \$	Calc \$	Charge \$
1991		-			-		1,800	1,800
1992	-		-		2,100	2,100		
1993		-			-		2,100	2,100
94 ½y	29,450,000	71,600	1,234	33,900,000	88,600	1,148	2,382	2,380
94/95	29,450,000	71,600	1,234	33,900,000	88,600	1,148	2,382	2,380
95/96	40,480,000	95,600	1,270	36,780,000	88,600	1,246	2,516	2,520
96/97	43,450,000	91,750	1,421	39,620,000	96,250	1,235	2,656	2,660
97/98	52,983,500	91,700	1,849	40,671,600	141,618	919	2,768	2,770

#### Table 1-1 Historic Developer Contributions (\$/ET)



Year	Treatment		Transport			Total		
	Value \$	Cap EP	Levy \$	Value \$	Cap EP	Levy \$	Calc \$	Charge \$
98/99	52,983,500	91,700	1,849	40,671,600	141,618	919	2,768	2,770
99/00	54,195,389	91,700	1,891	41,155,588	141,618	930	2,821	2,820
00/01	57,359,467	91,700	2,002	42,812,081	141,618	967	2,969	2,970
01/02	65,758,691	91,700	2,295	45,609,805	141,618	1,031	3,325	3,215
02/03	66,974,563	97,700	2,194	48,315,011	143,366	1,078	3,272	3,275
03/04	66,812,551	97,700	2,188	48,979,301	143,366	1,093	3,282	3,285
04/05	71,011,141	97,700	2,326	51,982,460	143,366	1,160	3,486	3,490

Notes:

1. Value is the estimated replacement value at year of calculation.

2. Cap is Capacity in EP.

*3. 1 ET equates to 3.2 EP.* 

In June 2005 Council adopted the Developer Charges detailed in Table 1-2.

#### **Table 1-2**Developer Charges Adopted June 2005

DSP	Area	Developer Charge (\$/ET)
A	Burringbar	31,494
В	Uki	10,488
	Kingscliff	
С	Tumbulgum	6,152
	Tyalgum	
	Tweed Heads	
	Hastings Point	
D	Banora Point	2,634
	Murwillumbah	



.

The above charges have been adjusted annually on the basis of the change in the consumer price index (CPI). The current Developer Charges are detailed in Table 1-3.

DSP	Area	Developer Charge (\$/ET)
А	Burringbar	34,236
В	Uki	11,401
	Kingscliff	
С	Tumbulgum	6,688
	Tyalgum	
	Tweed Heads	
	Hastings Point	2,863
D	Banora Point	2,863
	Murwillumbah	2,863



### 2.1 **REFERENCE**

The following DSPs are referenced in this document:

DSP Name	Tweed Heads
DSP Area 1	The area covered by this DSP is shown in the Plan of Tweed Heads - west of Razor Back, Tweed Heads West - east of Cobaki Bridge (Refer Plan of the Tweed Heads Sewerage DSP Area in Appendix A)
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Tweed Heads Sewage Treatment Plant.

DSP Name	Banora Point
DSP Area 2	The area covered by this DSP is shown in the Plans of Tweed Heads - east of Razor Back, Cobaki Lakes, Bilambil Heights, Tweed Heads West – west of Cobaki Bridge, Terranora, Tweed Heads South and Banora Point (Refer Plans of the Banora Point Sewerage DSP Area in Appendix A).
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Banora Point Sewage Treatment Plant

DSP Name	Kingscliff
DSP Area 3	The area covered by this DSP is shown in the Plans of Fingal Head, Kingscliff, Salt, Casuarina and Kings Forest, (Refer Plans of the Kingscliff Sewerage DSP Area in Appendix A).
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Kingscliff Sewage Treatment Plant.

DSP Name	Hastings Point
DSP Area 4	The area covered by this DSP is shown in the Plans of Tanglewood, Cabarita Beach, Bogangar and Hastings Point, Pottsville, Koala Beach and Sea Breese (Refer Plans of the Hastings Point Sewerage DSP Area in Appendix A).
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Hastings Point Sewage Treatment Plant

DSP Name	Murwillumbah
DSP Area 5	The area covered by this DSP is shown in the Plans of Condong, Murwillumbah, South Murwillumbah and Bray Park (Refer Plans of the Murwillumbah Sewerage DSP Area in Appendix A
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Murwillumbah Sewage Treatment Plant



DSP Name	Tumbulgum
DSP Area 6	The area covered by this DSP is shown in the Plan of Tumbulgum. (Refer Plan of the Tumbulgum Sewerage DSP Area in Appendix A
DSP Boundary	The basis for defining the DSP area boundary in the sewerage areas served by the Tumbulgum Sewage Treatment Plant

DSP Name	Tumbulgum
DSP Area 7	The area covered by this DSP is shown in the Plan of Tyalgum (Refer Plan of the Tyalgum Sewerage DSP Area in Appendix A
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Tyalgum Sewage Treatment Plant

DSP Name	Uki
DSP Area 8	The area covered by this DSP is shown in the Plan of Uki (Refer Plan of the Uki Sewerage DSP Area in Appendix A)
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the Uki Sewage Treatment Plant

DSP Name	Burringbar
DSP Area 9	The area covered by this DSP is shown in the Plan of Burringbar (Refer Plan of the Burringbar – Mooball Sewerage DSP Area in Appendix A)
DSP Boundary	The basis for defining the DSP area boundary is the sewerage areas served by the proposed Burringbar Sewage Treatment Plant.

#### 2.2 WHEN ARE DEVELOPER CONTRIBUTIONS APPLICABLE?

Where additional demand is placed on its systems as a result of additional development connecting to the water supply and/or sewerage system, Council will issue a notice stating the required developer contribution.

For example, when a Developer proposes to subdivide land, erect or extend a commercial/industrial building or multiple residential dwelling units, a Development Application is lodged with Tweed Shire Council. If the new development is to be connected to Council's water and/or sewer mains, Council will investigate the impact of the proposed development on its systems and advise the Developer of the required developer contribution. This contribution will be a condition of the approved Development Application.



#### 2.3 WHEN ARE DEVELOPER CONTRIBUTIONS PAYABLE?

The contribution(s) will be assessed by Council and will apply for 12 months from the date of this approval. Contributions not received by Council within 12 months of the date of notice will be adjusted in accordance with the DSP current at the time of payment.

For the subdivision of land, contributions are paid prior to the issue of the Subdivision Certificate.

For the erection or extension of commercial/industrial buildings or multiple residential dwelling units etc, contributions are paid prior to the issue of the Construction Certificate.

#### 2.4 HOW IS THE DEVELOPER CONTRIBUTION APPLIED?

The developer charge is the cost per *unit of capacity* within the relevant water and/or sewer infrastructure system. The measure for the standard *unit of capacity* is the capacity requirement relative to a single residential dwelling i.e. one residential dwelling equals to one Equivalent Tenement (ET).

The developer contribution payable for the respective water and/or sewer system is thus:

#### Assessed Demand or Loading (ET) x Developer Contribution (\$/ET)

In order to assess the developer contribution applicable to a specific development, it is necessary to assess the demand that the proposed development will place on the relevant water and/or sewer systems.

For the case of a development involving the creation of additional residential lots, this is a relatively simple process. The additional demand or loading created by the development is the number of additional lots.

The process of assessing the demand or loading of a potential development can be more complex if the development contains other than standard residential dwellings. For this case it is necessary to estimate the number of standard residential dwellings required to generate an *equivalent demand* or *loading* to the proposed development.

In order to assist with the assessment of sewage demand, the Water Directorate has published Technical Guidelines for Section 64 Determinations of Water and Sewer Equivalent Tenements (ETs) [Ref 3]. This document was produced specifically to aid NSW Local Government Water Authorities in the process of determining developer charges under S64 of the Local Government Act 1993.



Tweed Shire Council recognises the above guidelines cannot practically be applied to all development applications. Some developments will not 'fit' a category in the Guidelines.

For this reason Council accepts that a small proportion of applications will be assessed on individual merit. Council will determine a loading for the development using the best available data. Council's Director Engineering and Operations retains the discretion to assess an application on its merits and in situations requiring conflict resolution, to determine the appropriate course of action.

# 2.5 WHAT RELATIONSHIP DOES THIS PLAN HAVE TO OTHER PLANS?

In addition to the sewerage systems a developer charge has also been calculated for the water supply system that Tweed Shire Council operates and maintains. Hence the total developer charge that is applicable to a development will be the sum of the charges for each system that services the development site.

Also, in addition to any contribution which may be levied in accordance with this DSP, Council may require a contribution towards other public amenities and public services in accordance with its adopted Section 94 Contribution Plans which may be relevant to the proposed development.

Other fees and charges not relating to a Plan may also be applicable.

#### 2.6 MONITORING AND REVIEW/UPDATE OF DEVELOPER CONTRIBUTIONS

The developer contribution calculated in this DSP is based on current projections of growth in population and development and Council's assessment of infrastructure that will be required to service this growth. It is important that trends are monitored to ensure that contributions received are spent in a manner that provides services in an efficient and effective way.

Council's commitment to future works will be dependent on development and any change in the current projections may necessitate the rescheduling of future works. This plan therefore will require periodic review, at maximum of every 5 to 6 years, to ensure the developer contributions remain valid. Any review of the plan would include a public exhibition, normally in conjunction with Councils Management Plan for that year.

In the period between any review, the developer contribution will be adjusted annually (1 July each year) on the basis of the change in the consumer price index (CPI) in the preceding 12 months to December, excluding the impact of GST.



# 3 PLANNING PROFILE

### 3.1 **GROWTH PROFILE AND EXISTING LOADINGS**

Census data for Tweed Shire Council to 2001 is used as the basis for serviced population determination.

The population connected to the Water supply was determined by reducing the total shire population by individual Collector District populations in rural and un-serviced areas. Best estimates were used for Collector Districts which are partially serviced.

The connected Sewerage population was then determined from the above connected Water Supply population. Note: not all Water connections have a Sewerage connection. Therefore a reduced Sewer connected population was estimated for individual Collector Districts. Again best estimates were used for Collector Districts which are partially serviced.

The above provided a total Shire wide serviced population for both Water and Sewer for each of the census periods.

The above 2001 serviced populations were projected forward. The population projections are based on the assumption that current and identified potential rezonings are fully developed in a 30 year period. A hyperbolic growth profile utilising 4.5% for 2006 declining to 2.5% in 2036 was adopted and applied. This forms the basis of a high growth profile.

Similarly medium and low growth profiles were then determined based on the percentages detailed in Table 3-1.

Growth Profile	2006	2036
High (base values)	4.5%	2.5%
Medium	3.5%	2%
Low	2.5%	1.5%

#### **Table 3-1***Growth Projections (% per annum)*

The low profile closely corresponds to a linear trendline based on historic growth patterns since 1986.

The basic unit of measure to quantify the demand or loading on a water supply or sewerage system is an equivalent tenement (ET). One ET represents the equivalent demand or loading from a standard household.



An equivalent person (EP) is another basic unit of measure generally to quantity the loadings on a sewerage treatment works. One EP represents the equivalent loading from a standard person.

EPs can be converted into ET loadings by defining an EP/ET ratio. The average household density or occupancy ratio is normally adopted as this ratio.

Table 3-2 details the existing loadings for each sewerage catchment.

**Table 3-2***Tweed Sewerage Catchments – Loadings at 30 June 2006* 

Catahmant	Existing Loadings			
Calchment	EP	ET		
Tweed Heads	7,791	2,484		
Banora Point	42,073	13,415		
Kingscliff	14,528	4,632		
Hastings Point	9,801	3,125		
Murwillumbah	11,096	3,538		
Tumbulgum	463	147		
Tyalgum	272	87		
Uki	373	119		
Burringbar	0	0		

### 3.2 HISTORICAL DEVELOPMENT PROFILE

The historical loadings on the Tweed Shire sewerage system, based on historical Census data, are detailed in Table 3-3.

Catabra art	Historical Loadings (ETs)						
Catchment	1971	1976	1981	1986	1991	1996	2001
Tweed Heads	2,002	2,691	3,057	3,385	4,408	2,271	2,291
Banora Point	0	0	3,500	3,876	5,048	9,956	11,900
Kingscliff	1,120	1,505	1,709	1,893	2,465	2,586	2,911
Hastings Point	0	0	0	1,022	1,330	2,043	2,423
Murwillumbah	1,440	1,936	2,199	2,435	3,171	3,187	3,169
Tumbulgum	0	0	0	0	0	147	138
Tyalgum	0	0	0	0	0	90	74
Uki	0	0	0	0	0	0	0
Burringbar	0	0	0	0	0	0	0



### 3.3 FUTURE DEVELOPMENT PROFILE

Projected future loadings on the Tweed sewerage systems were estimated using the medium growth profile. The future demands are summarised in Table 3-4.

Catchment	Future Demands (ETs)					
	2011	2016	2021	2026	2031	2036
Tweed Heads	2,676	2,869	3,061	3,061	3,061	3,061
Banora Point	15,443	18,241	21,282	24,705	28,262	32,295
Kingscliff	6,138	7,319	8,500	9,680	10,861	12,363
Hastings Point	3,826	4,528	5,229	5,931	6,632	6,632
Murwillumbah	3,906	4,276	4,644	5,014	5,382	5,752
Tumbulgum	157	166	173	173	173	173
Tyalgum	100	113	126	141	153	153
Uki	130	141	153	164	172	172
Burringbar	157	166	176	186	191	191

 Table 3-4
 Tweed Sewerage Catchments – Future Loadings



# 4 SEWERAGE SERVICES

#### 4.1 EXISTING AND FUTURE SEWERAGE SERVICES

Tweed Shire Council operates and maintains eight separate sewerage systems. These systems and the areas they service follow:

- Tweed Heads servicing the Tweed Heads urban area west of Razor Back and Tweed Heads West - east of Cobaki Bridge
- Banora Point servicing Tweed Heads east of Razor Back, Cobaki Lakes, Bilambil Heights, Tweed Heads West - west of Cobaki bridge, Terranora, Tweed Heads South and Banora Point
- Kingscliff servicing the areas of Fingal Head, Kingscliff, Salt, Casuarina and Kings Forest.
- Hastings Point servicing the areas of Tanglewood, Cabarita Beach, Bogangar, Hastings Point, Pottsville, Koala Beach and Sea Breese.
- Murwillumbah servicing the areas of Condong, Murwillumbah, South Murwillumbah and Bray Park
- Tumbulgum servicing the village of Tumbulgum
- Tyalgum servicing the village of Tyalgum
- Uki servicing the village of Uki

Tweed Shire Council also proposes to construct an additional sewerage system to service the village of Burringbar.

A separate DSP has been prepared for each existing and proposed sewerage system. Each DSP area has been determined based on the drainage catchment boundaries of the assets that make up these sewerage systems. These assets include sewage treatment plants, pumping stations, rising mains and trunk gravity mains. The location of the principal assets and catchment boundaries for each sewage catchment are shown in the Plans included in Appendix A.

#### 4.2 LAND USE INFORMATION

The DSPs should be read in conjunction with the Tweed Shire Local Environmental Plan and other Council planning instruments.



#### 4.3 **DESIGN PARAMETERS**

Investigation and design of sewerage system components is based on the following design manuals:

- Council's Development Control Plan 16 (DCP 16) and its references.
- Council's Development Design Specification D11 Sewerage System
- Council's Development Construction Specification C401 Sewerage System
- WSAA Sewerage Code of Australia (WSA02-2002)
- WSAA Sewerage Pumping Code of Australia (WSA04-2001).
- Manual of Practice: Sewage Pumping Station Design (1986)
- Manual of Practice: Sewer Design (1987)

#### 4.4 SYSTEM CAPACITY

Tweed Shire Council propose to augment is sewerage systems to cater for future growth over the next 30 years. The projected number of Equivalent Tenements (ET) in 2036 has been used as the future system capacity to calculate the developer charges.

#### 4.5 STANDARDS OF SERVICE

The standards of service to be provided to customers in the Tweed Shire sewerage systems are detailed below:

- Sewage effluent meeting Environment Protection Authority, now Department of Environment and Conservation (DEC), 90 Percentile Licence Limits (BOD5, SS, Total N, NH3N, Oil and Grease, Total P, Faecal coli forms).
- 95% of sewer chokes removed and service restored within 8 hours.
- Dry Weather Sewer overflows to water ways less than 10 per 100 km of gravity mains per year.
- Odour complaint events less than 1 per 1000 connected assessments.
- Confirmed sewer chokes less than 40 per 100 km of gravity mains per year.
- Sewer rising main breaks less than 10 per 100 km of pressure main per year.

#### 4.6 CAPITAL WORKS

Growth related capital works of \$245.5M will be required over the next 30 years to provide sewerage services to the Tweed Shire Council local government area (refer Figure 4.1).



The timing and expenditure of capital works required to service the predicted future population are shown in the capital works program included in Appendix B.



Figure 4-1 Sewerage Capital Works Program



#### 5.1 GENERAL

The Developer Contribution is determined by analysing the cost of existing augmentation works, existing demand, anticipated growth and the cost of works required to meet the demand created by growth. The total cost of existing and proposed augmentation works required to service development is divided between demand units to determine the capital cost per unit. Any surplus income Council generates from a development (i.e. operational income minus operational, maintenance and administration costs) is deducted from the capital cost to obtain the Developer Contribution.

#### 5.2 **NET PRESENT VALUE PROCESS**

In order to account for the time value of money, all calculations are undertaken using Net Present Value (NPV). NPV is a standard commercial procedure for calculating the expected net monetary gain or loss from a project by discounting all expected future cash inflows and outflows to the present time, using the required return on investment.

The Developer Contribution is therefore calculated as:

 The present value (PV) of the cost over time of capital works required to service development (referred to as the "capital charge")

less

• The present value of expected net income (revenue less expenses) over time from servicing development (referred to as the "reduction amount").

#### 5.3 DISCOUNT RATES

A discount rate calculates the present value of money arising in the future. The discount rate therefore converts the value of future money to today's money.

The discount rate used in the developer charge calculation should reflect the opportunity cost to Council of funding infrastructure works. It should recognise that in providing infrastructure prior to development Council faces a number of uncertainties or risks. These uncertainties include growth rates, cost of capital works and changes in interest rates.



IPART has specified the discount rates to be used by Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong shire Council. The specified discount rates vary depending on whether the assets were commissioned prior to or following 1996. Similar values are recommended by DLWC (now DWE) for regional Councils.

For the Tweed sewerage system a pre-1996 asset real discount rate of 3% and a post-1996 asset real discount rate of 7% have been adopted. This complies with the DWE guidelines [Ref 1].

#### 5.4 ASSETS

IPART defines assets on the basis of whether they were commissioned before or after the initial application of the NPV methodology for calculating developer contributions, i.e. 1996. This ensures a consistent rate of return is applied to all assets in subsequent reviews of a DSP.

Assets constructed prior to 1970 have generally been excluded from the developer contribution calculation as it assumed the cost of these assets has been fully recovered. Exceptions are made if the asset is a major works such as sewage treatment plants, major trunk sewers, major pumping stations and rising mains.

Tweed Shire Council has prepared a future Capital Works Schedule that includes works proposed to be constructed until 2036. Sufficient confidence of the timing of construction and costing of these works governs their inclusion in the developer contribution calculation.

A Modern Engineering Equivalent Replacement Asset (MEERA) value has been calculated for existing assets. The MEERA valve has been calculated on the basis that the asset is constructed at the time of valuation in accordance with modern engineering practice and the most economically viable technologies, which provides similar utility functions to the existing asset in service.

All assets have been defined as either an 'upgrade' or an 'augment'. An 'upgrade' asset provides capacity for existing (developments already connected at the time of commissioning) as well as growth and hence only a proportion of the cost is recovered through the developer charge process. An 'augment' asset provides capacity only for growth and hence the cost is fully recoverable.

Data for existing assets has been obtained from Tweed Shire Council's TAMS database [Ref 4]. Details are included of all treatment plants, pumping stations, rising mains and gravity sewer mains associated with the sewerage schemes of Tweed Shire.

Reticulation assets are excluded from the calculation of developer charges as the developer is responsible for the full cost of the design and construction of reticulation works within developments including subdivisions.



### 5.5 CALCULATION OF CAPITAL CONTRIBUTION

#### NPV (Contribution) = NPV (Σ ASSET COSTS) / NPV (Σ INCREMENT ETs)

The capital cost includes the cost of providing, extending or augmenting assets required, or likely to be required, to provide services to a development area. The capital cost for equivalent tenement (ET) is the value of the relevant assets divided by the capacity of these assets (in ETs).

The capital charge is calculated for each service area. Service areas are:

- An area served by a separate sewage treatment plant
- Separate small towns or villages
- A new development area of over 500 lots

Where the capital charges for two or more service areas are within 30% they are agglomerated into a single DSP.

#### 5.6 **REDUCTION AMOUNT**

Water utilities with more than 2000 assessments are offered the following methodologies for calculating the reduction amount:

- NPV of annual charges
- Direct NPV.

The NPV of annual charges method involves the calculation of the net present value (NPV) of the future net income from annual charges (income less OMA) for the development area.

The Direct NPV method involves the calculation of the renewal works and works to improve standards per ET, plus part of the net debt of the utility per ET.

The reduction amount for Tweed Shire Council has been calculated using the NPV of Annual Charges methodology. This is because Council has a current 30 year financial plan for its sewerage schemes. The reduction amount (cost) is determined as the difference between the operating revenue arising from a DSP area and the operating, maintenance and administration costs for that area. Projected net revenues and costs were determined until 2036 and hence a forecast horizon of 30 years was adopted to calculate the reduction amount. A single reduction amount has been calculated for the Tweed Shire local government area as common Sewerage Access and User Charges are levied.



# 6 **DEVELOPER CONTRIBUTIONS**

### 6.1 CALCULATION OF CAPITAL CHARGES

The capital charge calculated for each DSP area is shown in Table 6-1. The calculation spreadsheets are included in Appendix C.

DSP	Calculated Capital Charge (\$/ET)
Tweed Heads	10,243
Banora Point	5,323
Kingscliff	10,076
Hastings Point	5,176
Murwillumbah	8,191
Tumbulgum	4,773
Tyalgum	5,939
Uki	5,564
Burringbar	34,740

#### **Table 6-1**Calculated Capital Charges

#### 6.2 AGGLOMERATION OF CAPITAL CHARGES

Where the capital charges of two or more service areas (DSPs) are within 30%, they should be agglomerated into a single DSP. Tweed Shire Council service areas should therefore be agglomerated into three DSPs as shown in Table 6-2.

**Table 6-2**Agglomeration of Service Areas

Dep	Capital Charge	% of	Highest Capital C	harge
DSP	\$/ET	А	В	С
Burringbar	34,740	100		
Tweed Heads	10,243	30	100	
Kingscliff	10,076		98	
Murwillumbah	8,191		80	
Tyalgum	5,939		58	100
Uki	5,564			94
Banora Point	5,323			90
Hastings Point	5,176			87
Tumbulgum	4,773			80



DSP A would include the Burringbar sewage treatment plant catchment.

DSP B would include the Tweed Heads, Kingscliff and Murwillumbah sewage treatment plant catchments.

DSP C would include the Tyalgum, Uki, Banora Point, Hastings Point and Tumbulgum sewage treatment plant catchments.

The calculation of the agglomerated capital charges is shown in Table 6-3.

DSP	Area	Capital Charge (\$/ET)	Growth (ET)	Weighted Average Capital Charge (\$/ET)
А	Burringbar	34,740	191	34,740
В	Tweed Heads	10,243	577	
	Kingscliff	10,076	7,731	9,689
	Murwillumbah	8,191	2,214	
С	Tyalgum	5,939	66	
	Uki	5,564	53	
	Banora Point	5,323	18,880	5,302
	Hastings Point	5,176	3,507	
	Tumbulgum	4,773	26	

 Table 6-3
 Calculation of Agglomerated Capital Charges

### 6.3 CALCULATION OF REDUCTION AMOUNT

A uniform reduction amount of \$2,056/ET has been calculated for the Tweed Shire local government area. The calculation spreadsheets are included in Appendix D.



### 6.4 CALCULATED DEVELOPER CHARGES

The calculated developer charges are summarised in Table 6-4.

1 able 0-4	Calculated Developer Charges				
DSP	Area	Capital Charge (\$/ET)	Reduction Amount (\$/ET)	Developer Charge (\$/ET)	
А	Burringbar	34,740	2,056	32,684	
В	Tweed Heads Kingscliff Murwillumbah	9,689	2,056	7,633	
С	Tyalgum Uki Banora Point Hastings Point Tumbulgum	5,302	2,056	3,246	

 Table 6-4
 Calculated Developer Charges

#### 6.5 AGGLOMERATION OF DEVELOPER CHARGES

On 25 October 2004 DEUS issued Circular LWU 5 which modified the guidelines to give Local Water Utilities (LWUs) more flexibility in selection of the number of DSP areas and the developer charges to be adopted. If a LWU wishes to carry out additional agglomeration of DSP areas to suit their local circumstances the process will be as follows:

- 1. Subject to note 4 below, any DSP area can be agglomerated with the next highest or the next lowest DSP area on the basis of the weighted average developer charge for their areas.
- 2. Alternatively, the LWU may agglomerate all its DSP areas to calculate a weighted average developer charge for all new development.
- 3. The developer charges resulting from the additional agglomeration will be the maximum charges which the LWU can levy in each of the new agglomerated DSP areas.
- 4. However, in order to provide appropriate signals regarding the cost of urban development, additional agglomeration is not recommended for new development areas with high calculated developer charges (over about \$20,000 per ET), where these areas involve a significant proportion of the LWU's new development.



The calculated developer charge for Burringbar is in excess of \$20,000/ET. However this DSP area includes only a minor proportion of Tweed Shire's new development.

All of the remaining calculated developer charges for the Tweed Shire Council DSPs are below \$20,000/ET. A weighted average developer charge for all new developments within the Tweed Shire Council local government area has been calculated and summarised in Table 6-5.

DSP	Area	Developer Charge (\$/ET)	Growth (ET)	Weighted Average Developer Charge (\$/ET)
А	Burringbar	32,684	191	
В	Tweed Heads Kingscliff Murwillumbah	7,633	10,522	
D	Tyalgum Uki Banora Point Hastings Point Tumbulgum	3,246	22,532	4,804

**Table 6-5**Agglomerated Developer Charges

#### 6.6 CROSS SUBSIDY

The calculated developer charges as detailed in Table 6-4 or the agglomerated developer charge of \$4,804/ET are the maximum that may be levied by Tweed Shire Council. In adopting a DSP, Tweed Shire Council may elect to levy less than these amounts, but any resulting cross subsidies must be disclosed in the DSP.

### 6.7 DEVELOPER CHARGES ADOPTED FOR EXHIBTION

It is recommended that the agglomerated Developer Charge of \$4,804/ET be adopted for exhibition.



# 7 **REFERENCES**

- [1] Department of Land and Water Conservation (May 2000), *Developer Contributions for Water Supply, Sewerage and Stormwater, Guidelines.*
- [2] Independent Pricing and Regulatory Tribunal of New South Wales (September 2000), *Developer Contributions, Determination No 9, 2000.*
- [3] Water Directorate (January 2005), Section 64 Determinations of Equivalent Tenements, Technical Guidelines.
- [4] Tweed Shire Council, *TAMS Database*.



# 8 GLOSSARY OF TERMS

In this DSP, unless the context or subject matter otherwise indicates or requires:

*'Council'* refers to Tweed Shire Council

'TSC means Tweed Shire Council

'Development' may include a reference to the erection of a building on land; the carrying out of a work in, on, over or under land; the use of land or of a building or work on that land and/or the subdivision of land.

'DEC' means Department of Environment and Conservation

'DLWC' means former Department of Land and Water Conservation

'DWE' means Department of Water and Energy

'EPAA' means the Environmental Planning and Assessment Act 1979

'EP' means the equivalent persons and is the unit of measure to describe the flow or demand associated with an average person.

'ET' means the equivalent tenement and is the basic unit of measure used to describe flow or demand from contributing sources as a ratio to that expected from a single average residence. Other uses can be assessed as equivalent to a number of tenements

'*Headworks*' means those components that form the key infrastructure requirements for the supply of sewerage or water supply services to an area. Typically, Headworks comprise such components as dams, bores, pumping stations, treatment plants, purification plants and trunk mains.

'*HWA*' means Hunter Water Australia

'Indexation' means the percentage by which contributions are increased for each calculation period

*'IPART'* means Independent Pricing and Regulatory Tribunal

'LG Act' means the Local Government Act 1993;

*'NPV'* means Net Present Value; a process to convert future incomes or expenditures to the value of today's money.

*Occupancy Rate'* means the average number of people per household; commonly referred to as the EP/ET ratio

*'STP'* means Sewage Treatment Plant



### Appendix A – Plans

Disclaimer

- 1. The Developer Charge is applicable to all land which is to be serviced and/or redeveloped, including land outside the DSP boundaries.
- 2. Land included within each boundary does not necessarily mean that it is proposed, or able, to be serviced.
- 3. This Plan should not be relied upon to determine development potential.
- 4. Additional Capital charges/levies may also apply in some instances.




















# Appendix B – Capital Works Program Tweed Shire Council

#### Tweed Shire Council - Growth Related Capital Works for Sewer

Project	Description	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Banora Point																																
SPS Banora Pt SPS Banora Pt	Land Acquisition Mechanical Llograde	\$725,000	\$0 \$12.500	\$25,000 \$12,500	\$25,000 \$12,500	\$25,000 \$12,500	\$25,000 \$12,500	\$25,000 \$12,500	\$25,000	\$25,000 \$12,500	\$25,000 \$12,500	\$25,000 \$12,500	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000 \$14,141	\$25,000	\$25,000	\$25,000	\$25,000 \$15,891	\$25,000	\$25,000	\$25,000	\$25,000 \$17,714	\$25,000	\$25,000	\$25,000 \$19,146	\$25,000	\$25,000 \$20,126	\$25,000	\$25,000
SPS Banora Pt	Electrical Upgrade	\$441,318	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,837	\$13,176	\$13,518	\$13,862	\$14,208	\$14,557	\$14,907	\$15,260	\$15,614	\$15,969	\$16,326	\$16,685	\$17,044	\$17,404	\$17,765	\$18,127	\$18,490	\$18,853	\$19,216
SPS 2000 Tweed Heads Regional	SPS New	\$1,900,000	\$1,900,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 2002 Florence Street, West SPS 2018 Gollan Drive (Park)	SPS New Mechanical Liberade	\$200,000	\$200,000	\$0 \$0	\$0 \$0	\$0 \$0	\$200,000	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0																			
SPS 2018 Gollan Drive (Park)	Electrical Upgrade	\$100,000	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	so	\$0	50																			
SPS 2046 Cobaki Broadwater Village	Mechanical Upgrade	\$30,000	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 2052 Piggabeen Rd (Regional)	Estimate Only Manhanian Library	\$720,000	£6.000	80	50	£460.000	80	50	80	80	80	80	80			\$720,000																
SPS 3021 Fraser Drive	Mechanical Upgrade	\$70,000	30,000	30	\$70,000	\$160,000	50	\$0 \$0	50	30 S0	50	\$0 \$0	50																			
SPS 3021 Fraser Drive	Electrical Upgrade	\$50,000	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 3028 Enterprise Ave	Mechanical Upgrade	\$80,000	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 3028 Enterprise Ave SPS 3032 Sullivant / Euture Regional)	Electrical Upgrade SDS New	\$120,000	\$0	\$120,000	\$0	\$0	\$0 \$0	\$190,000	\$0	\$0	\$0 \$0	\$0 \$0	\$0																			
SPS 3033 Henry Lawson Drive	Mechanical Upgrade	\$50,000	\$0	\$50.000	\$0	\$0	\$0	\$150,000	\$0	\$0	so	\$0	50																			
SPS 3037 Terranora Area E Regional ( Futu	re SPS New	\$260,000	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$160,000	\$0	\$0																			
SRM Banora Pt	Land Acquisition	\$150,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Banora Pt Banora Pt	SRM New SRM Llograde	\$1,048,708 \$419,460	\$U \$0	\$25,000	\$25,000	\$25,750	\$20,523	\$27,318	\$28,138	\$28,982	\$29,851 \$11,940	\$30,747 \$12,298	\$31,009	\$32,522	\$33,381 \$13,352	\$34,247 \$13,698	\$35,119 \$14,047	\$35,997 \$14,398	\$36,880	\$37,768	\$38,661 \$15,464	\$39,008	\$40,459 \$16,183	\$41,363	\$42,271 \$16,907	\$43,181 \$17,272	\$44,094 \$17,637	\$45,009	\$45,926 \$18,370	\$46,845 \$18,737	\$47,764	\$48,685
SRM 2000 Tweed Heads Regional	SRM New	\$695,000	\$695,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0									4.01022										
SRM 2002 Florence Street, West	SRM Upgrade	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SRM 2003 Beryl Street	SRM Upgrade	\$222,000	\$0	\$100,000	\$122,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			80							£4 E94 000									
SRM 2018 Golian Drive (Fark)	SRM New	\$97,500	\$1,723,825	\$97,500	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	30 S0	so	\$0 \$0	\$0 \$0			30							\$1,564,000									
SRM 2033 Afex Park	Actuated Control Valve	\$40,000	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SRM 2046 Cobaki Broadwater Village	SRM New	\$120,000																					\$120,000									
SRM 2052 Piggabeen Road Regional SRM 2006 Darlington Drive (South)	Estimate Only SRM Llograde	\$4,320,000	\$45,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$n	\$0	\$0										\$4,320,000									
SRM 3027 Shallow Bay Drive (Former Egg 8	LI SRM New	\$189,000	\$189,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SRM 3037 Terranora Area E Regional ( Futu	ire SRM New	\$1,433,000	\$0	\$0	\$0	\$0	\$0	\$1,433,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																
Banora Pt	Gravity Sewer Upgrade	e \$445,537	\$0	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,901	\$13,308	\$13,721	\$14,141	\$14,567	\$14,999	\$15,437	\$15,881	\$16,331	\$16,786	\$17,247	\$17,714	\$18,186	\$18,663	\$19,146	\$19,633	\$20,126	\$20,624	\$21,126
Truck to SPS 3001 P Hwy Truck to SPS 3006 Darlington Dr	Gravity Sewer Upgrade Gravity Sewer Upgrade	e \$60,000	\$U \$170.000	50	\$60,000	50	\$U \$0	\$U \$0	50	\$U \$0	\$0 \$0	50	50																			
Gollan Dr high level gravity M/H DA/1-DA/3	Gravity Sewer Upgrade	e \$26,000	\$0	\$0	\$26,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Banora Pt	Gravity Sewer New	\$445,537	\$0	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,901	\$13,308	\$13,721	\$14,141	\$14,567	\$14,999	\$15,437	\$15,881	\$16,331	\$16,786	\$17,247	\$17,714	\$18,186	\$18,663	\$19,146	\$19,633	\$20,126	\$20,624	\$21,126
Pearl & Florence St	Gravity Sewer New	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		50	80	80	50	80	80	80	60	80	80	60	80	80	80	50	80	**	
Banora Point STP	General	\$40,500,000	325,000	30	50	50	\$500.000	\$5,000,000	\$20,000,000	\$15,000,000	50	30 \$0	50	30	φu	30	30	φu	30	40 40	40	30	30	40	30	30	φu	30	30	â0	30	φ.
Banora Point STP	Outfall Upgrade 12500	\$2,850,000	\$100,000	\$0	\$2,750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Banora Point STP	Grit & Screenings Mgt	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Banora Point STP Eff Quality Upgr Banora Point STP Eff Quality Upgr	Construction	\$19,200,000	\$0	\$250,000	\$0	\$10,800,000	\$8,400,000	\$0 \$0	\$0	\$0	\$0 \$0	\$0	\$0																			
Banora Point STP Eff Quality Upgr	Detailed Design	\$1,400,000	\$0	\$200,000	\$1,400.000	\$0	\$0	\$0	\$0	\$0	so	\$0	SO																			
Banora Point STP Eff Quality Upgr	Aeration Upgrade	\$140,000	\$0	\$140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Banora Point Total		\$83,599,922	\$5,323,825	\$992,500	\$4,623,000	\$11,076,050	\$9,317,132	\$6,841,243	\$20,119,391	\$15,120,572	\$281,791	\$123,045	\$124,336	\$127,070	\$129,833	\$852,626	\$135,451	\$138,304	\$141,185	\$144,093	\$147,028	\$149,987	\$6,176,969	\$155,974	\$159,005	\$162,055	\$165,124	\$168,215	\$171,322	\$174,450	\$177,594	\$180,752
Hastings Point																																
SPS Hastings Pt	Land Acquisition	\$290.000	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10.000
SPS Hastings Pt	Mechanical Upgrade	\$183,213	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,160	\$5,323	\$5,489	\$5,656	\$5,827	\$6,000	\$6,175	\$6,352	\$6,532	\$6,714	\$6,899	\$7,085	\$7,274	\$7,465	\$7,658	\$7,853	\$8,050	\$8,250	\$8,45*
SPS Hastings Pt	Electrical Upgrade	\$176,530	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,135	\$5,270	\$5,407	\$5,545	\$5,683	\$5,823	\$5,963	\$6,104	\$6,246	\$6,388	\$6,531	\$6,674	\$6,818	\$6,962	\$7,106	\$7,251	\$7,396	\$7,541	\$7,683
SPS 5004 Tamarind Avenue	Mechanical Upgrade	\$30,000	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 5005 Creek Street SPS 5010 Philip Street	Mechanical Upgrade	\$60,000	\$50,000	\$0 \$0	\$0 \$0	50	\$0 \$0	\$U \$0	\$U \$0	\$U \$0	\$0 \$0	50 \$0	50																			
SPS 5014 Overall Drive	Mechanical Upgrade	\$105,000	\$5,000	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 5016 Cudgera Avenue (Koala Beach) E	ly Mechanical Upgrade	\$5,000	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 5028 Coast Rd Nth Pottsville	SPS New	\$649,000	\$649,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				<b>6</b> 0 000															
SRM Hastings Pt Mastings Pt	Land Acquisition SPM New	\$60,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000 \$15,107	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Hastings Pt	SRM Upgrade	\$167,785	\$0	\$4,000	\$4,000	\$4,120	\$4,244	\$4,370	\$4,501	\$4,636	\$4,776	\$4,919	\$5.067	\$5,203	\$5.341	\$5,479	\$5.619	\$5,759	\$5,901	\$6.043	\$6,185	\$6.329	\$6,473	\$6.618	\$6,763	\$6,909	\$7.055	\$7.201	\$7.348	\$7,495	\$7.642	\$7.78
SRM 5005 Creek Street	SRM Upgrade	\$835,000	\$0	\$0	\$0	\$835,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SRM 5008 Rajungra Street	SRM New	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SRM 5014 Overall Drive SRM 5016 Curdoara Avenue (Koala Beach)	SRM Upgrade SRM New	\$401,000	\$20,000	\$0	\$401,000	\$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0	\$0																		
SRM 5028 Coast Rd Nth Pottsville	SRM New	\$25,000	\$25,000	\$0 \$0	\$0 \$0	\$0 \$0	su su	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
Hastings Pt	Gravity Sewer Upgrade	e \$178,213	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,160	\$5,323	\$5,489	\$5,656	\$5,827	\$6,000	\$6,175	\$6,352	\$6,532	\$6,714	\$6,899	\$7,085	\$7,274	\$7,465	\$7,658	\$7,853	\$8,050	\$8,250	\$8,45
Hastings Pt	Gravity Sewer New	\$178,213	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,160	\$5,323	\$5,489	\$5,656	\$5,827	\$6,000	\$6,175	\$6,352	\$6,532	\$6,714	\$6,899	\$7,085	\$7,274	\$7,465	\$7,658	\$7,853	\$8,050	\$8,250	\$8,451
Data call sites Hastings Pt	Gravity Sewer New	\$10,000	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Hastings Point STP	Construction	\$1,360,000	50 S0	4400,000 \$0	50 50	50 S0	50 50	\$0 \$0	50 50	\$0 \$0	50 S0	50 S0	\$2 000 000	\$400,000 \$8,000,000	\$8,000,000				\$+30,000			20					20					
Hastings Point STP	Dune disposal system	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,220,000	÷=,==0,000																	
Hastings Point Total		\$23,413,436	\$1,046,000	\$476,000	\$547,000	\$881,420	\$46,852	\$47,297	\$47,755	\$48,228	\$48,716	\$49,217	\$2,049,735	\$8,530,828	\$8,051,932	\$53,052	\$54,181	\$55,324	\$536,476	\$57,638	\$58,809	\$59,994	\$61,185	\$62,391	\$63,601	\$64,821	\$66,049	\$67,285	\$68,530	\$69,779	\$71,038	\$72,303

#### Tweed Shire Council - Growth Related Capital Works for Sewer

Project	Description	Total	1 2007	2 2008	3 2009	4 2010	5 2011	6 2012	7 2013	8 2014	9 2015	10 2016	11 2017	12 2018	13 2019	14 2020	15 2021	16 2022	17 2023	18 2024	19 2025	20 2026	21 2027	22 2028	23 2029	24 2030	25 2031	26 2032	27 2033	28 2034	29 2035	30 2036
Kingscliff																																
SPS Kingscliff SPS Kingscliff	Land Acquisition Mechanical Upgrade	\$435,000 \$274,821	\$0 \$7,500	\$15,000 \$7,500	\$15,000 \$7,740	\$15,000 \$7,985	\$15,000 \$8,233	\$15,000 \$8,485	\$15,000 \$8,740	\$15,000 \$8,999	\$15,000 \$9,262	\$15,000 \$9,529	\$15,000 \$9,798	\$15,000 \$10,072	\$15,000 \$10,348	\$15,000 \$10,628	\$15,000 \$10,911	\$15,000 \$11,198	\$15,000 \$11,487	\$15,000 \$11,780	\$15,000 \$12,076	\$15,000 \$12,374	\$15,000 \$12,676									
SPS Kingscliff SPS 4003 Owner Street	Electrical Upgrade	\$264,792	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,702	\$7,906	\$8,111	\$8,317	\$8,525	\$8,734	\$8,944	\$9,156	\$9,368	\$9,582	\$9,796	\$10,011	\$10,226	\$10,443	\$10,659	\$10,876	\$11,094	\$11,312	\$11,530
SPS 4003 Ocean Street	Mechanical Upgrade	\$27,000	\$27,000	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0																			
SPS 4003 Ocean Street SPS 4003 Ocean Street	Electrical Upgrade	\$6,000	\$6,000	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
SPS 4008 Chinderah Road	Mechanical Upgrade	\$36,000	\$36,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 4009 Vulcan Street SPS 4011 Chinderah Industrial Est. Morton St	SPS New In Mechanical Upgrade	\$310,000 \$24,000	\$310,000 \$0	\$0 \$0	\$0 \$24,000	\$0 \$0																										
SPS 4014 Kingscliff High School Oxford Stree	t Mechanical Upgrade	\$24,000	\$24,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 4014 Kingscliff High School Oxford Street SPS 4014 Kingscliff High School Oxford Street	t Pipe Work Replacemer	\$1,200	\$6,000	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
SPS 4015 Fingal Road South SPS 4015 Fingal Road South	Mechanical Upgrade Electrical Upgrade	\$52,000 \$6,000	\$52,000 \$6,000	\$0 \$0																												
SPS 4022 Ibis Court	Mechanical Upgrade	\$24,000	\$24,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 4022 lbis Court SPS 4022 lbis Court	Electrical Upgrade Pipe Work Replacement	\$1,200 \$6,000	\$1,200 \$6.000	\$0 \$0																												
SPS 4023 Kings Forest Regional (Future)	SPS New	\$125,000	\$0	\$0	\$0	\$0	\$125,000	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0 50																		
SPS 4025 Coast Road Casuarina Beach Sub SPS 4030 Point Break Circuit	Mechanical Upgrade	\$220,000 \$40,000	\$0 \$0	\$0 \$0	\$0 \$40,000	\$120,000 \$0	\$0 \$0	\$0	\$100,000 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	20																		
SPS 4034 Cnr Phillip & Ozone SPS 4034 Cnr Phillip & Ozone	SPS New Mechanical Liberade	\$67,000	\$67,000	\$0 \$42.000	\$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
SPS 4035 Cnr Elrond & Turnock	SPS New	\$516,000	\$516,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 4040 Noble Park Private SRM Kingscliff	Electrical Upgrade	\$18,000 \$90,000	\$18,000 \$3,000	\$0 \$3.000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000									
Kingscliff	SRM New	\$629,226	\$0	\$15,000	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$18,448	\$19,001	\$19,513	\$20,029	\$20,548	\$21,072	\$21,598	\$22,128	\$22,661	\$23,196	\$23,735	\$24,275	\$24,818	\$25,362	\$25,909	\$26,456	\$27,006	\$27,556	\$28,107	\$28,659	\$29,211
Kingscliff SRM 4003 Ocean Street	SRM Upgrade SRM New	\$251,676 \$169.000	\$0 \$169.000	\$6,000 \$0	\$6,000 \$0	\$6,180 \$0	\$6,365 \$0	\$6,555 \$0	\$6,752 \$0	\$6,954 \$0	\$7,164 \$0	\$7,379 \$0	\$7,600 \$0	\$7,805	\$8,011	\$8,219	\$8,428	\$8,639	\$8,851	\$9,064	\$9,278	\$9,493	\$9,710	\$9,927	\$10,144	\$10,363	\$10,582	\$10,802	\$11,022	\$11,242	\$11,463	\$11,684
SRM 4005 Kingscliff Street	SRM New	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SRM 4006 Waugh Street SRM 4008 Chinderah Road	SRM New	\$28,000 \$110,000	\$28,000	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0	\$U \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
SRM 4009 Vulcan Street	SRM New	\$160,000	\$160,000	\$0 50	\$0	\$0	\$0	\$0	\$0	\$0	\$0 50	\$0	\$0 \$0																			
SRM 4022 Ibis Court	SRM New	\$118,000	\$0	\$118,000	\$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0																			
SRM 4023 Kings Forest Regional (Future) SRM 4025 Coast Road Catuating Beach Sub	SRM New	\$5,580,000	\$60,000	\$0 \$621.000	\$1,150,000	\$1,150,000	\$1,610,000	\$1,610,000	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0																		
SRM 4030 Salt	SRM New	\$60,000	\$60,000	\$001,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																		
SRM 4034 Cnr Philip & Ozone Sts SRM 4035 Cnr Elrond & Turnock	SRM New SRM New	\$557,000 \$280.000	\$557,000 \$0	\$0 \$280.000	\$0 \$0																											
SRM 4040 Noble Park	SRM New	\$13,000	\$13,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Kingscliff	Gravity Sewer Upgrade Gravity Sewer New	\$267,321 \$267,321	\$0 \$0	\$7,500 \$7,500	\$7,740 \$7,740	\$7,985 \$7,985	\$8,233 \$8,233	\$8,485 \$8,485	\$8,740 \$8,740	\$8,999 \$8,999	\$9,262 \$9,262	\$9,529 \$9,529	\$9,798 \$9,798	\$10,072 \$10,072	\$10,348 \$10,348	\$10,628 \$10,628	\$10,911 \$10,911	\$11,198 \$11,198	\$11,487 \$11,487	\$11,780 \$11,780	\$12,076 \$12,076	\$12,374 \$12,374	\$12,676 \$12,676									
Tumock St Ext Kcliff High to SPS 4035	Gravity Sewer New	\$234,000	\$100,000	\$134,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 \$0	50	80	80	80	80	80	80	50	80	80	50	60	20	80	60	80	80	60	20
Kingscliff STP	Construction	\$74,500,000	\$26,000,000	\$12,000,000	\$0	\$0	\$0	\$0	\$0 \$0	\$500,000	\$15,000,000	\$15,000,000	\$0 \$0	\$6,000,000	30	30	30	30	\$0	\$0	30	30	30	\$U	30	40	40	30	30	40	30	30
Kingsoliff STP Kingsoliff STP	SRM new 2 x 500mm Effluent Disporal Main	\$229,126 \$018,802	\$229,126	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
Kingscliff STP	Effluent main modificat	\$450,000	\$450,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Kingscliff Total		\$88,329,575	\$30,233,418	\$13,274,000	\$1,283,000	\$1,339,630	\$1,805,279 \$	1,680,946	\$171,635	\$572,343 \$	15,073,075	\$15,073,827	\$74,601	\$6,076,240	\$77,901	\$79,577	\$81,272	\$82,982	\$84,710	\$86,455	\$88,217	\$89,990	\$91,783	\$93,585	\$95,401	\$97,231	\$99,075	\$100,928	\$102,794	\$104,671	\$106,556	\$108,453
Murwillumbah																																
SPS 1002 River Street	Building Works	\$100,000	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
SPS 1002 River Street SPS 1002 River Street	Electrical Upgrade	\$80,000	\$0 \$0	\$30,000	\$0	\$0 \$0	\$0 \$0	\$0	\$U \$0	\$U \$0	\$0 \$0	\$0 \$0	\$0 \$0																			
SPS 1005 Tweed Valley Way Buchanan St SPS 1005 Tweed Valley Way Buchanan St	Mechanical Upgrade	\$3,500	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 50	\$0	\$0 \$0																			
SPS 1005 Tweed Valley Way Bucharlan St SPS 1010 Lundberg Drive (West)	Electrical Upgrade	\$15,000	\$15,000	\$0	\$20,000	\$0	\$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0 \$0																			
SRM 1002 River Street (West End) SRM 1005 Tweed Valley Way Buchman St	SRM New SPM New	\$325,000	\$325,000	\$0 \$0	\$0 \$277.000	\$0 \$0																										
SRM 1010 Lundberg Drive (West) 150mm X	8 SRM Upgrade	\$200,000	\$200,000	\$0	\$277,000	\$0 \$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0 \$0																			
SRM 1023 North Arm Road	SRM New Gravity Sever New	\$541,000	\$0	\$541,000	\$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0														
Kielvale STP and Scheme	Investigation & Design	\$1,000,000	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0																			
Murwillumbah Total		\$2,611,500	\$543,500	\$751,000	\$1,317,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tweed Heads																																
Tweed Heads STP	Construction	\$41,500,000	\$400,000		\$100,000									\$2,400,000	\$1,800,000	\$28,400,000	\$8,400,000															
Tweed Heads Total		\$41,500,000	\$400,000	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,400,000	\$1,800,000	\$28,400,000	\$8,400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tumbulgum																																
Tumbulgum Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>0</b> 2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tumbulgum Total		40	40	40	ψU	40	<i></i>	40	ψU	40	40	ψU	40	ψu	40	40	40	40	ψU	40		ψU	40	ψU	40	ψŪ	40	φu	40	40	40	40
Tyalgum																																
Tyalgum Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<u>Uki</u>																																
Uki Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Burringbar																																
	1	\$6,120,000		\$500,000	\$1,000,000	\$4,620,000																										
Burringbar Total		\$6,120,000	\$0	\$500,000	\$1,000,000	\$4,620,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL SEWER CARITAL WOR	Ve	A0.15 534	AND 5 10 8	A15 444 5	An one of -	ALB ALB 4/1	A	AO EOO 10-	Ann ann 87 -	A.F. B.L. 4.17									AR44 47.1	Anno 14-			** *** ***	A011 0		Ann 1		AAAA 44 -				
I UTAL SEWER CAPITAL WOR	na	\$245,574,433	\$37,546,743	\$15,993,500	\$8,870,000	\$17,917,100	\$11,169,263	\$8,569,486	\$20,338,781	\$15,741,143	15,403,582	\$15,246,089	\$2,248,672	\$17,134,138	10,059,666	\$29,385,255	\$8,670,904	\$276,610	\$762,371	\$288,186	\$294,054	\$299,971	\$6,329,937	\$311,950	\$318,007	\$324,107	\$330,248	\$336,428	\$342,646	\$348,900	\$355,188	\$361,508

Appendix C – Capital Charge Calculation



## **DEVELOPER CHARGES MODEL**

Tweed Heads sewer

Year : 2006

### Calculation of Capital Cost

Catchment

Year of Calculation

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :

Tweed Heads sewer

2006

3%

Future Assets

Year

	( <b>(D)</b> 100.0		<b>F</b> • •		
isting As Year	Recoupable Capital Expenditure	Annual ET Take-up	Existing A Year	Assets (Post 1996) Recoupable Capital Expenditure	Annual ET Take-up
	(MEERA \$)	(ET)		(\$)	(ET)
1996	5,808,688	1031	1996	0	1031
1997		4	1997	1,431	4
1998		4	1998	0	4
1999		4	1999	0	4
2000		4	2000	0	4
2001		4	2001	433,888	4
2002		38	2002	6,363	38
2003		38	2003	11,931	38
2004		38	2004	0	38
2005		38	2005	14,312	38
2006		38	2006	77,448	38
2007		38	2007	0	38
2008		39	2008	0	39
2009		38	2009	0	38
2010		39	2010	0	39
2011		38	2011	0	38
2012		39	2012	0	39
2013		38	2013	0	38
2014		39	2014	0	39
2015		38	2015	0	38
2016		39	2016	0	39
2017		38	2017	0	38
2018		39	2018	0	39
2010		38	2010	0	38
2020		39	2020	0	39
2021		38	2020	0	38
2021		0	2021	0	0
2022		0	2022	0	0
2024		0	2024	0	0
2025		ő	2025	0	0
2026		ő	2025	0	0
2020		0	2020	0	0
2027		0	2027	0	0
2020		0	2028	0	0
2029		0	2029	0	0
2030		0	2030	0	0
2031		0	2031	0	0
2032		0	2032	0	0
2033		0	2033	0	0
2034		0	2034	0	0
2035		0	2035	0	0
2036		0	2036	0	0

TOTAL NPV CAPITAL WORKS CHARGE per ET

Annual ET Take-up

\$10,243

# Demand Profile

Catchment

Tweed Heads sewer

Year	Total	Annual Demand
	Demand	Increase
	(ET)	(ET)
1970	1240	
1971	1512	272
1972	1604	92
1973	1702	98
1974	1805	104
1975	2032	110
1970	2032	6
1978	2044	6
1979	2050	6
1980	2056	6
1981	2062	6
1982	2068	0 6
1985	2080	6
1985	2086	6
1986	2092	6
1987	2098	6
1988	2104	6
1989	2110	6
1990	2110	0 6
1992	2152	30
1993	2181	30
1994	2211	30
1995	2241	30
1996	2271	30
1997	2275	4
1998	2279	4
2000	2283	4
2001	2291	4
2002	2330	38
2003	2368	38
2004	2407	38
2005	2445	38
2000	2404	30 38
2007	2561	39
2009	2599	38
2010	2638	39
2011	2676	38
2012	2715	39
2013	2753	38
2014	2192	38 38
2015	2869	39
2017	2907	38
2018	2946	39
2019	2984	38
2020	3023	39 28
2021	3061	58 0
2022	3061	0
2023	3061	0
2025	3061	0
2026	3061	0
2027	3061	0
2028	3061	0
2029	3061	0
2030	3061	0
2032	3061	ů 0
2033	3061	0
2034	3061	0
2035	3061	0
2036	3061	U

### Existing Assets

Catchment

Tweed Heads sewer

#### Year of Calculation 2006 MEERA Value % Recoverable Recoverable MEERA Value Calendar Year Asset Type Description Sub System Asset ID Asset Status Date Commissioned Manholes Manhole 1905 \$436,200 100% \$436,200 #N/A Augment Manhole 1905 \$210,200 100% \$210,200 #N/A Augment 1905 \$41,600 100% \$41,600 #N/A Manhole Augment Gravity Pipes 225mm Augment 1968 \$570,188 100% \$570,188 1968 508mm 1968 \$891,269 100% \$891,269 1968 Augment 525mm Augment 1968 \$29.280 100% \$29.280 1968 1968 1968 \$393,788 100% \$393,788 534mm Augment \$37,325 \$37,325 150mm 1976 100% 1976 Augment 225mm 1976 \$47,065 100% \$47,065 Augment 1976 300mm 1976 \$360,938 100% \$360,938 1976 Augment 225mm Augment 1980 \$112,021 100% \$112,021 1980 Sewer Rising Mains 150mm Augment 1968 \$196,361 13% \$24,545 1968 \$602,620 \$75,328 300mm Augment 1968 13% 1968 300mm Augment 1972 \$5,717 13% \$715 1972 150mm 1974 \$122,697 13% \$15,337 1974 Augment 225mm Augment 1974 \$131,982 13% \$16,498 1974 100mm 1979 \$28,671 13% \$3,584 1979 Augment 250mm Augment 1979 \$483,111 50% \$241,556 1979 300mm 1979 \$57,562 50% \$28,781 1979 Augment 150mm 1980 \$94.013 50% \$47,007 1980 Augment 450mm 1987 \$1,503,376 50% \$751,688 1987 Augment 150mm Augment 1992 \$71,659 50% \$35,829 1992 300mm 1995 \$27,225 13% \$3,403 1995 Augment 100mm 2005 \$9,847 50% \$4,924 2005 Augment 150mm Augment 2005 \$55,417 13% \$6,927 2005 2005 \$4,923 50% \$2,462 2005 150mm Augment 2001 Sewer Pump Stations SPS 2005 2001 \$2,479,360 18% \$433,888 Augment SPS 2006 1962 \$382,347 13% \$47,793 #N/A Augment SPS 2008 \$21,191 1962 \$169,527 13% #N/A Augment SPS 2009 1962 \$531,127 13% \$66,391 #N/A Augment \$89,949 SPS 2011 Augment 1974 \$719,588 13% 1974 \$607,266 SPS 2012 Augment 1974 13% \$75,908 1974 SPS 2014 1974 \$369,263 17% \$63,045 Augment 1974 SPS 2015 1976 \$340,206 17% \$58,084 Augment 1976 Sewerage Treatment Plant \$3,548,736 \$887,184 General Augment 1987 25% 1987 General Augment 1990 \$500,000 25% \$125,000 1990 General 1997 \$5,725 25% \$1,431 1997 Augment General Augment 2002 \$25,451 25% \$6.363 2002 General Augment 2003 \$47,722 25% \$11,931 2003 WIP General Augment 2006 \$77,448 100% \$77,448 2006 \$6,354,061 \$16,328,821

Catchment	Tweed Heads s	ewer					
Year of Calculation		2006		Cut-off Year	2036		
AREA	PROJECT		ASSET STATUS	CONSTRUCTION DATE	ASSET COST	CPI	RECOVERABLE COST
Tweed Heads	Tweed Heads STP	Construction	Augment	2007	\$400,000	1	\$400,000
	Tweed Heads STP	Construction	Augment	2009	\$100,000	1	\$100,000
	Tweed Heads STP	Construction	Augment	2018	\$2,400,000		\$2,400,000
	Tweed Heads STP	Construction	Augment	2019	\$1,800,000	1	\$1,800,000
	Tweed Heads STP	Construction	Augment	2020	\$28,400,000	1	\$28,400,000
	Tweed Heads STP	Construction	Augment	2021	\$8,400,000	1	\$8,400,000
				Total	\$41,500,000		\$41,500,000



## **DEVELOPER CHARGES MODEL**

**Banora Point sewer** 

Year : 2006

#### Calculation of Capital Cost

Existing Assets (Pre 1996)

Catchment

Year of Calculation

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (qa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1990 : DISCOUNT RATE (qa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (qa) FOR PROPOSED FUTURE ASSETS :

Banora Point sewer

2006

809



Year	Recoupable	Annual ET	Year	Recoupable
	Capital	Take-up		Capital
	Expenditure			Expenditure
	(MEERA \$)	(ET)		(\$)
1996	67,686,565	9554	1996	93,338
1997		386	1997	65,224
1998		403	1998	964,069
1999		399	1999	237,693
2000		389	2000	50,431
2001		366	2001	304,246
2002		297	2002	356,730
2003		312	2003	502,138
2004		213	2004	386,542
2005		340	2005	51,474
2006		354	2006	3,903,303
2007		368	2007	0
2008		382	2008	0
2009		241	2009	0
2010		512	2010	0
2011		525	2011	0
2012		538	2012	0
2013		549	2013	0
2014		558	2014	0
2015		572	2015	0
2016		581	2016	0
2017		590	2017	0
2018		600	2018	0
2019		606	2019	0
2020		621	2020	0
2021		624	2021	0
2022		672	2022	0
2023		677	2023	0
2024		686	2024	0
2025		692	2025	0
2026		696	2026	0
2027		700	2027	0
2028		708	2028	0
2029		710	2029	0
2030		716	2030	0
2031		723	2031	0
2032		802	2032	0
2033		805	2033	0
2034		806	2034	0
2035		811	2035	0
2036		809	2036	0
	NPV CHARGE (\$/FT)	3306		NPV CHARGE (\$/F
		5500		1.1.1. C.Π.(ΟL (ψ/L

TOTAL NPV CAPITAL WORKS CHARGE per ET

Future Assets

Year

\$5,323

Annual ET

Take-up

# Demand Profile

Catchment

Banora Point sewer

Veen	T-4-1	Amural Damand
rear	Total	Annual Demand
	(FT)	(FT)
	(E1)	(E1)
1970	402	
1971	490	88
1972	520	30
1973	552	32
1974	585	34
1975	621	30 28
1976	059	58 200
1977	1420	453
1979	2085	665
1980	3062	976
1981	4495	1433
1982	4623	128
1983	4754	131
1984	4889	135
1985	5027	139
1986	5170	143
1987	5545	375
1988	5946	402
1989	6377	431
1990	0839	402
1991	7555	490
1992	8499	562
1994	9022	502
1995	9571	549
1996	9956	385
1997	10342	386
1998	10745	403
1999	11144	399
2000	11534	389
2001	11899	366
2002	12196	297
2003	12509	312
2004	12721	213
2005	13061	340
2006	13415	354
2007	13785	382
2008	14105	241
2010	14918	512
2011	15443	525
2012	15981	538
2013	16530	549
2014	17088	558
2015	17660	572
2016	18241	581
2017	18831	590
2018	19431	600
2019	20037	606 621
2020	20038	021 624
2021	21202	672
2023	22631	677
2024	23317	686
2025	24009	692
2026	24705	696
2027	25405	700
2028	26113	708
2029	26823	710
2030	27539	716
2031	28262	723
2032	29064	802
2033	29869	805
2034	31/86	000 811
2035	32295	809
2050	54475	002

### Existing Assets

Catchment	Banora Point sewer							
Voor of Colculation				2006	1			
Teal of Calculation				2008				
Asset Type	Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value Calendar
Manholes	Manhole			Augment	30/06/1968	\$1,221,600	100%	\$1,221,600 1968
	Manhole			Augment	30/06/1972	\$293,000	100%	\$293,000 1972
	Manhole			Augment	30/06/1978	\$175,400	100%	\$175,400 1978
	Manhole			Augment	30/06/1979	\$743,000	100%	\$743,000 1979
	Manhole			Augment	30/06/1981	\$129,800	100%	\$129,800 1981
	Manhole			Augment	30/06/1982	\$723,800	100%	\$469 200 1982
	Manhole			Augment	30/06/1987	\$65,800	100%	\$65,800 1987
	Manhole			Augment	30/06/1988	\$884,600	100%	\$884,600 1988
	Manhole			Augment	30/06/1989	\$50,600	100%	\$50,600 1989
	Manhole			Augment	30/06/1990	\$124,800	100%	\$124,800 1990
	Manhole			Augment	30/06/1992	\$278,400	100%	\$278,400 1992
	Manhole			Augment	30/06/1993	\$211,800	100%	\$211,800 1993
	Manhole			Augment	30/06/1995	\$59,000	100%	\$59,000 1995
	Manhole			Augment	30/06/1998	\$50,000	100%	\$50,000 1995
	Manhole			Augment	30/06/1999	\$25,000	100%	\$25,000 1999
o :	Manhole			Augment	30/06/2004	\$44,400	100%	\$44,400 2004
Gravity Pipes	150mm			Augment	30/06/1968	\$26,002	100%	\$26,002 1968
	300mm			Augment	1/07/1968	\$284,637	100%	\$284,637 1968
	500mm			Augment	1/07/1968	\$78,064	100%	\$78,064 1968
	525mm			Augment	6/07/1968	\$274,809	100%	\$274,809 1968
	225mm 300mm			Augment	1/07/1972	\$27,162	100%	\$27,162 1972
	375mm			Augment	1/07/1972	\$704,083	100%	\$704,083 1972
	225mm			Augment	1/07/1976	\$326,797	100%	\$326,797 1976
	300mm			Augment	1/07/1976	\$48,788	100%	\$48,788 1976
	225mm			Augment	1/07/1978	\$398,813	100%	\$398,813 1978
	225mm			Augment	1/07/1979	\$171,064	100%	\$171,064 1979
	300mm			Augment	1/07/1979	\$557,584	100%	\$557,584 1979
	375mm			Augment	1/07/1979	\$1,050,929	100%	\$1,050,929 1979
	225mm 225mm			Augment	1/07/1981	\$266,014	100%	\$1 383 702 1981
	300mm			Augment	1/07/1982	\$18,929	100%	\$18,929 1982
	375mm			Augment	3/07/1982	\$12,903	100%	\$12,903 1982
	450mm			Augment	1/07/1982	\$462,038	100%	\$462,038 1982
	225mm			Augment	1/07/1986	\$352,441	100%	\$760,991 1980
	375mm			Augment	1/07/1986	\$387,858	100%	\$387,858 1986
	450mm			Augment	1/07/1986	\$28,838	100%	\$28,838 1986
	300mm			Augment	1/07/1987	\$23,557	100%	\$23,557 1987
	225mm			Augment	1/07/1988	\$925,178	100%	\$925.178 1985
	300mm			Augment	1/07/1988	\$836,506	100%	\$836,506 1988
	375mm			Augment	1/07/1988	\$2,203	100%	\$2,203 1988
	375mm			Augment	1/07/1989	\$65,140	100%	\$65,140 1989
	300mm			Augment	1/07/1990	\$200.743	100%	\$200.743 1990
	375mm			Augment	1/07/1990	\$47,937	100%	\$47,937 1990
	225mm			Augment	1/07/1991	\$13,068	100%	\$13,068 1991
	300mm			Augment	1/07/1992	\$534,364	100%	\$534,364 1992
	225mm			Augment	1/07/1993	\$10,914	100%	\$10,914 1993
	225mm			Augment	1/07/1994	\$289,651	100%	\$289,651 1994
	225mm			Augment	1/07/1995	\$47,569	100%	\$47,569 1995
	225mm			Augment	1/07/2001	\$119,025	100%	\$119,025 1998
WIP	Various			Augment	30/06/2006	\$384,089	100%	\$384,089 2006
Sewer Rising Mains	100mm			Augment	1/07/1962	\$2,241	13%	\$280 1962
	150mm			Augment	1/07/1962	\$87,610	13%	\$10,951 1962
	225mm			Augment	1/07/1968	\$1,877	13%	\$235 1968
	300mm			Augment	3/07/1968	\$61,751	13%	\$7,719 1968
	150mm			Augment	1/07/1975	\$9,120	13%	\$1,140 1975
	300mm			Augment	1/07/1978	\$366,779	13%	\$45,847 1978
	100mm			Augment	1/07/1979	\$58,395	13%	\$7,299 1979
	100mm			Augment	4/07/1979	\$29,427	50%	\$14,714 1979
	150mm			Augment	1/07/1979	\$518,081	13%	\$64,760 1979
	150mm			Augment	5/07/1979	\$93.076	100%	\$93.076 1975
	200mm			Augment	8/07/1979	\$120,096	13%	\$15,012 1975
	225mm			Augment	1/07/1979	\$118,653	13%	\$14,832 1975
	250mm			Augment	1/07/1979	\$199,972	50%	\$99,986 1979
	300mm			Augment	1/07/1979	\$1,050,551	50%	\$261.379 1975
	375mm			Augment	6/07/1979	\$867,198	100%	\$867,198 1975
	450mm			Augment	1/07/1979	\$3,807,891	50%	\$1,903,945 1979
	750mm			Augment	1/07/1979	\$3,506,011	50%	\$1,753,006 1975
	200mm			Augment	3/07/1980	\$10.579	13%	\$1.322 1980
	200mm			Augment	1/07/1983	\$3,622	13%	\$453 1983
	100mm			Augment	1/07/1985	\$122,584	13%	\$15,323 1985
	150mm			Augment	3/07/1985	\$3,160 \$14,590	13%	\$1,580 1983
	250mm			Augment	1/07/1985	\$755,727	13%	\$94,466 1985
	450mm			Augment	1/07/1985	\$475,888	50%	\$237,944 1985
	150mm			Augment	1/07/1989	\$1,268	100%	\$1,268 1989
	225mm 300mm			Augment	1/07/1989	\$3,255	13%	\$407 1989
	375mm			Augment	1/07/1989	\$2,220,157	100%	\$2,220,157 1989
	225mm			Augment	1/07/1990	\$98,124	13%	\$12,266 1990
	300mm			Augment	1/07/1990	\$2,207	13%	\$276 1990
	200mm 225mm			Augment	4/07/1992	\$1,278	13%	\$160 1992 \$12.467 1993
	250mm			Augment	8/07/1992	\$36,666	100%	\$36,666 1992
	375mm			Augment	10/07/1992	\$150,512	100%	\$150,512 1992
	450mm			Augment	12/07/1992	\$9,526	100%	\$9,526 1992
	600mm			Augment	3/07/1993	\$8,773	100%	\$1,097 1993 \$507.067 1993
	100mm		<u> </u>	Augment	1/07/1994	\$37,304	100%	\$37,304 1994
	1E0mm			Augmort	3/07/1004	6450	100%	C4E2 100

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Part between the set of the s	Catchinent	Banora Point sewer	J							
Image: biology         Marge:	Year of Calculation				2006	1				
Ope         Definit         Long         Note         Note        <					H					
Note         Note <th< td=""><td>Asset Type</td><td>Description</td><td>Sub System</td><td>Asset ID</td><td>Asset Status</td><td>Date Commissioned</td><td>MEERA Value</td><td>% Recoverable</td><td>Recoverable MEERA Value</td><td>Calendar Year</td></th<>	Asset Type	Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value	Calendar Year
Cont         Cont <thcont< th="">         Cont         Cont         <thc< td=""><td></td><td>250mm</td><td></td><td></td><td>Augment</td><td>10/07/1994</td><td>\$1,057,595</td><td>100%</td><td>\$1,057,595</td><td>1994</td></thc<></thcont<>		250mm			Augment	10/07/1994	\$1,057,595	100%	\$1,057,595	1994
Part         Diam         Diam <thdiam< th="">         Diam         Diam         <thd< td=""><td></td><td>150mm</td><td></td><td></td><td>Augment</td><td>1/07/1995</td><td>\$24,583</td><td>13%</td><td>\$3.073</td><td>1995</td></thd<></thdiam<>		150mm			Augment	1/07/1995	\$24,583	13%	\$3.073	1995
		150mm			Augment	3/07/1995	\$5,919	50%	\$2,960	1995
No         No<		250mm			Augment	6/07/1995	\$23,358	13%	\$2,920	1995
Part Part Part Part Part Part Part Part		250mm			Augment	8/07/1995	\$1,578	100%	\$1,5/8	1995
		300mm			Augment	22/07/1995	\$69,788	100%	\$69,788	1995
Image: second		375mm			Augment	24/07/1995	\$13,128	100%	\$13,128	1995
		150mm			Augment	1/07/1997	\$53,424	100%	\$53,424	1997
Nom         Nom <td></td> <td>250mm</td> <td></td> <td></td> <td>Augment</td> <td>1/07/1998</td> <td>\$178,686</td> <td>50%</td> <td>\$89,343</td> <td>1998</td>		250mm			Augment	1/07/1998	\$178,686	50%	\$89,343	1998
		300mm			Augment	3/07/1999	\$146,481	100%	\$146,481	1999
		150mm			Augment	1/07/2000	\$4,530	100%	\$4,530	2000
1000         1000 <th< td=""><td></td><td>200mm</td><td></td><td></td><td>Augment</td><td>6/07/2000</td><td>\$45,901</td><td>100%</td><td>\$45,901</td><td>2000</td></th<>		200mm			Augment	6/07/2000	\$45,901	100%	\$45,901	2000
		150mm			Augment	5/07/2001	\$1,238	13%	\$100	2001
Apr:         Apr		200mm			Augment	7/07/2001	\$153,218	50%	\$76,609	2001
Bom         Amov         Boo         Disc         D		200mm			Augment	9/07/2001	\$36,423	100%	\$36,423	2001
Open         Appen         Appen         BUT         BU		250mm			Augment	12/07/2001	\$2,210	13%	\$276	2001
Image         Append         Append </td <td></td> <td>250mm</td> <td></td> <td></td> <td>Augment</td> <td>18/07/2001</td> <td>\$2,075</td> <td>100%</td> <td>\$2,075</td> <td>2001</td>		250mm			Augment	18/07/2001	\$2,075	100%	\$2,075	2001
Image:		100mm			Augment	1/07/2002	\$44,220	50%	\$22,110	2002
No         No<		150mm			Augment	6/07/2002	\$111,892	100%	\$111,892	2002
Nome         Amore         Nome         Nome         No         No        No       <		250mm 300mm			Augment	1/07/2003	\$338,656 \$980,198	13%	\$338,656 \$122,525	2003
		300mm			Augment	3/07/2003	\$1,132	50%	\$566	2003
.         .		375mm			Augment	5/07/2003	\$5,929	13%	\$741	2003
Nome         Nome <th< td=""><td></td><td>100mm</td><td> </td><td> </td><td>Augment</td><td>1/07/2004</td><td>\$1,580</td><td>13%</td><td>\$198</td><td>2004</td></th<>		100mm			Augment	1/07/2004	\$1,580	13%	\$198	2004
300m         - Amer         100/2014         Exc of Exc o		200mm			Augment	6/07/2004	\$42,280	100%	\$21,140 \$128,474	2004
Nome         Append         Control         Append         Control         Append         Control         Append         Control         Append         Control         Append         Control         Contro         Contro         Contro <td></td> <td>300mm</td> <td></td> <td></td> <td>Augment</td> <td>10/07/2004</td> <td>\$35,087</td> <td>13%</td> <td>\$4,386</td> <td>2004</td>		300mm			Augment	10/07/2004	\$35,087	13%	\$4,386	2004
Image: state in the s		300mm			Augment	12/07/2004	\$2,222	100%	\$2,222	2004
Nome         Nome <th< td=""><td></td><td>3/5mm 200mm</td><td> </td><td></td><td>Augment</td><td>15/07/2004</td><td>\$164,318</td><td>100%</td><td>\$164,318</td><td>2004</td></th<>		3/5mm 200mm			Augment	15/07/2004	\$164,318	100%	\$164,318	2004
P         Dom         Append         Uppedde         Uppedde </td <td></td> <td>250mm</td> <td></td> <td></td> <td>Augment</td> <td>3/07/2005</td> <td>\$18,671</td> <td>50%</td> <td>\$9,336</td> <td>2005</td>		250mm			Augment	3/07/2005	\$18,671	50%	\$9,336	2005
Part Part Part Part Part Part Part Part		150mm			Augment	1/07/2006	\$33,000	100%	\$33,000	2006
Amen         Amen         Amen         Support		200mm			Augment	3/07/2006	\$168,980	100%	\$168,980	2006
ope         Name		300mm			Augment	12/07/2006	\$632,559	13%	\$/9,070 \$84,627	2006
Oper Purping Solidon         Appare         Biologic         Solidon         Solidon <td>VIP</td> <td>Various</td> <td></td> <td></td> <td>Augment</td> <td>12/07/2006</td> <td>\$2,938,423</td> <td>100%</td> <td>\$2,938,423</td> <td>2006</td>	VIP	Various			Augment	12/07/2006	\$2,938,423	100%	\$2,938,423	2006
Pro         Description         Description <thdescription< th=""> <thdes< td=""><td>Sewer Pumping Stations</td><td>SPS 2000</td><td></td><td></td><td>Augment</td><td>30/06/2006</td><td>\$69,027</td><td>100%</td><td>\$69,027</td><td>2006</td></thdes<></thdescription<>	Sewer Pumping Stations	SPS 2000			Augment	30/06/2006	\$69,027	100%	\$69,027	2006
P         Dial biology of the set		SPS 2001			Augment	30/06/1962	\$279,461	50%	\$139,731	1962
P         NP         NP </td <td></td> <td>SPS 2002</td> <td></td> <td></td> <td>Augment</td> <td>30/06/1968</td> <td>\$219.915</td> <td>24%</td> <td>\$53,757</td> <td>1968</td>		SPS 2002			Augment	30/06/1968	\$219.915	24%	\$53,757	1968
P         Agent         Agent         Barles         Dial         Dial <thdial< th="">         Dial         Dial         <th< td=""><td>VIP</td><td>SPS 2002</td><td></td><td></td><td>Augment</td><td>30/06/2006</td><td>\$8,359</td><td>100%</td><td>\$8,359</td><td>2006</td></th<></thdial<>	VIP	SPS 2002			Augment	30/06/2006	\$8,359	100%	\$8,359	2006
Product         Signification         Augent         Signification         Augent         Signification         Augent         Signification         Sign		SPS 2003			Augment	30/06/1968	\$870,698	21%	\$179,261	1968
98         98         99<		SPS 2016 SPS 2016			Augment	30/06/2001	\$235,456	50%	\$117,728 \$41.493	2001
Pro         Non-res         Non-res         Sources         So		SPS 2017			Augment	30/06/2002	\$395,456	50%	\$197,728	2001
Product         August         South Party         Status         South Party         South P		SPS 2018			Augment	30/06/1985	\$1,803,626	50%	\$901,813	1985
P         Augenet         South 19         Sou		SPS 2019			Augment	30/06/1979	\$211,935	50%	\$105,968	1979
BP         Sign (s)         Augent (s)         Sign (s) <th< td=""><td></td><td>SPS 2020</td><td></td><td></td><td>Augment</td><td>30/06/1999</td><td>\$101,183</td><td>50%</td><td>\$50,592</td><td>1999</td></th<>		SPS 2020			Augment	30/06/1999	\$101,183	50%	\$50,592	1999
P         Agent         Soldelide         Status         Time         Status         Time           PP         PS 2030         Agent         Soldelide		SPS 2026			Augment	30/06/1983	\$661,091	8%	\$50,853	1983
Bit 6 303         Augenet         3000100         2.302.68         0.000         30.202.60         0.002.60           BY 5 035         Augenet         3000100         2.302.68         0.000         51.00.27         178.1           BY 5 035         Augenet         3000108         331.01.28         0.000         4.400         50.00         51.00.27         178.1         178.1         178.1         50.00         51.00.27         178.1		SPS 2030			Augment	30/06/1980	\$443,156	13%	\$55,395	1980
P P P P P P P P P P P P P P P P P P P		SPS 2030 SPS 2033			Augment	30/06/1995	\$249,786	13%	\$31,223 \$2,006,313	1995
BP         BP         Augent         30001985         S801.178         S90.         S805.88         195           BP 5205         Augent         30001985         S804.54         S00.         S820.31         197           BP 5205         Augent         30001797         \$11.040.67         S07.50         \$220.31         197           BP 5301         Augent         30001707         \$10.40.67         S07.50         \$820.31         177           BP 5305         Augent         30001707         \$601.051         179.5         \$820.58         177           BP 5305         Augent         30001707         \$81.4768         797         \$81.458         198.5           BP 5306         Augent         30001708         \$81.4776         275         \$81.458         198.5           BP 5302         Augent         3000198         \$84.358         505,5         \$81.488         198.5           BP 5302         Augent         3000198         \$84.358         505,5         \$81.488         198.5           BP 5302         Augent         3000198         \$84.388         505,5         \$81.488         505,5         \$91.488         198.5           BP 5302         Augent         3000198		SPS 2036			Augment	30/06/1985	\$337,435	50%	\$168,718	1985
BP         Augent         Solidinge         Stead         <		SPS 2037			Augment	30/06/1985	\$611,178	50%	\$305,589	1985
PP         Special (Special Special Sp		SPS 2038			Augment	30/06/1985	\$964,254	50%	\$482,127	1985
PP         SPS 501         Augent         S000000         52:564         100%         52:154         100%         52:154         100%         52:154         100%         52:154         100%         52:154         100%         52:154         100%         52:154         100%         52:154         100%         52:154         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:156         100%         52:157         100%         52:157         100%         52:157         100%         52:157         100%         52:157         100%         52:157         100%         52:157         100%         52:157         100%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:158         20%         52:168 </td <td></td> <td>SPS 2040</td> <td></td> <td></td> <td>Augment</td> <td>30/06/1990</td> <td>\$1,040,627</td> <td>50%</td> <td>\$93,338</td> <td>1998</td>		SPS 2040			Augment	30/06/1990	\$1,040,627	50%	\$93,338	1998
SPS 303         Augment         3000/1979         4801.001         13%         SS2.208         107%           SPS 3004         Augment         3000/11979         SS0.216         1070         SS0.216         1070           SPS 3006         Augment         3000/11979         SS0.2721         22%         SS1.0080         1076           SPS 3006         Augment         3000/11979         SS0.221         57%         SS2.016         1076           SPS 3010         Augment         3000/1198         SS2.231         57%         SS2.76.198         1086           SPS 3010         Augment         3000/1198         S2.16.308         50%         SS1.81.21         1086           SPS 3011         Augment         3000/1198         S2.16.308         50%         SS1.81.21         1085           SPS 3017         Augment         3000/1190         S2.16.16         1081         1091         1081.82         1092         1083.93.66         1092	VIP	SPS 3001			Augment	30/06/2006	\$21,594	100%	\$21,594	2006
Sing 300         August         3000110/19         30001241         30/0         30/0/2         10/0/2           SPS 3006         August         3000110/19         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         51.387/22         50/0         52.271.6         51.051/26         11.993           SPS 3006         August         300001968         5462.31         60/0         52.271.6         50/0         52.271.6         11.983           SPS 3011         August         300001968         5462.31         60/0         51.01.16.3         11.983           SPS 3011         August         300011902         543.171         10.98         10.91.16.3         10.92           SPS 3012         August         300011902         543.171         10.90         543.408         10.90           SPS 3013         August         300011912         543.116.4         13%         53.14.60         11.92           SPS 3014         August         30001192         543.327         69/0         53.44.61         19.21           SPS 3024         August         30001198         54.03.32         69/0         54.05.		SPS 3003			Augment	30/06/1979	\$661,091	13%	\$82,636	1979
Bys 500         Augment         300/1529         51.387.728         2.2%         5310.088         1979           SPS 5006         Augment         300/01989         \$547.010         75.4558         1988           SPS 5010         Augment         300/01988         \$552.351         50%         \$275.188         1988           SPS 5011         Augment         300/01988         \$467.748         50%         \$51.01.83         1988           SPS 5012         Augment         300/01988         \$21.65.88         50%         \$21.01.83         1988           SPS 5012         Augment         300/01908         \$21.71         25%         \$40.66.80         1981           SPS 5012         Augment         300/01909         \$31.271         50%         \$40.66.80         1992           SPS 5013         Augment         300/01908         \$1.267.217         26%         \$353.360         1992           SPS 5020         Augment         300/01908         \$1.062.581         50%         \$247.66         1983           SPS 5020         Augment         300/01908         \$1.022.51         24%         \$353.262         1985           SPS 5020         Augment         300/01908         \$232.03.84         1993		SPS 3004 SPS 3005			Augment	30/06/1979	\$920,943	50%	\$460,472 \$457,773	1979
BPS 3008          Augment         300011988         \$547.089         27%         \$14.6.538         11983           BPS 3000         Augment         300011988         \$552.301         60%         \$221.1874         11983           BPS 3011         Augment         300011988         \$463.748         60%         \$221.1874         11983           BPS 3012         Augment         300011993         \$443.158         50%         \$221.1578         1179           BPS 3017         Augment         300011993         \$443.158         50%         \$221.1578         1199           SPS 3016         Augment         300011993         \$443.158         50%         \$221.1578         1199           SPS 3017         Augment         300011993         \$140.2717         26%         \$350.466         1194           SPS 3013         Augment         300011985         \$160.2518         24%         \$350.466         1194           SPS 3021         Augment         300011985         \$160.2518         50%         \$221.178         11983           SPS 3023         Augment         300011985         \$43.435         50%         \$35.428         11983           SPS 3023         Augment         300011985		SPS 3006			Augment	30/06/1979	\$1,387,729	22%	\$310,686	1979
BYE 3009         Augment         Augment         30061968         \$552,2911         60%         \$272,198         1988           BYE 3010         Augment         30061968         \$42,183,248         50%         \$213,178         1988           BYE 3011         Augment         30061968         \$213,328         60%         \$101,184         1983           BYE 3012         Augment         30061968         \$213,328         60%         \$101,148         1984           BYE 3017         Augment         30061984         \$241,146         17%         \$303,014         1984           BYE 3018         Augment         30061989         \$12,27,271         28%         \$353,014         1984           BYE 3019         Augment         30061989         \$1,62,251         24%         \$358,802         1999           BYE 3020         Augment         30061986         \$1,02,255         24%         \$358,728         1999           BYE 3020         Augment         30061986         \$1,02,255         24%         \$358,728         1999           BYE 3020         Augment         30061986         \$2,02,384         10%         \$351,106         \$350,117         10%         \$370,701         10%         \$370,701 <td< td=""><td></td><td>SPS 3008</td><td></td><td></td><td>Augment</td><td>30/06/1968</td><td>\$547,069</td><td>27%</td><td>\$146,536</td><td>1968</td></td<>		SPS 3008			Augment	30/06/1968	\$547,069	27%	\$146,536	1968
		SPS 3009 SPS 3010			Augment	30/06/1968	\$552,391	50%	\$276,196	1968
SPS 3012         Augment         3000F1979         5443.168         50%         5221.578         1992           SPS 3012         Augment         3000F1980         \$242.788         50%         \$242.788         1992           SPS 3015         Augment         3000F1980         \$241.164         13%         \$30.141         \$30.171         Status         \$30.171         \$30.171         \$30.071990         \$31.271.91         \$5%         \$30.192           SPS 3013         Augment         3000F1980         \$12.67.51         \$24%         \$353.148         1981           SPS 3012         Augment         3000F1985         \$12.67.51         \$24%         \$353.1202         1985           SPS 3022         Augment         3000F1985         \$41.323         50%         \$211.664         1985           SPS 3023         Augment         3000F1985         \$43.327         50%         \$214.664         1985           SPS 3023         Augment         3000F1986         \$43.325         50%         \$214.664         1985           SPS 3029         Augment         3000F1986         \$43.325         50%         \$244.642         1991           SPS 3029         Augment         3000F1986         \$43.325         50%		SPS 3010			Augment	30/06/1968	\$2.163.686	50%	\$231,874	1968
BPS 3012         Augment         3006/1920         52.47,786         50%         512.48.93         1992           GPS 3015         Augment         3006/1930         531.371         50%         566.560         1980           GPS 3017         Augment         3006/1934         52.41.64         13%         533.64         1981           GPS 3019         Augment         3006/1989         51.627.271         28%         558.361         1982           GPS 3019         Augment         3006/1989         51.627.217         28%         558.361         1982           GPS 3021         Augment         3006/1989         54.43.45         50%         524.667         1985           GPS 3023         Augment         3006/1985         520.31         50%         524.668         1983           GPS 3028         Augment         3006/1985         52.820.84         100%         52.42.64         1994           GPS 3028         Augment         3006/1989         57.05         100%         52.42.64         1994           GPS 3028         Augment         3006/1989         52.820.84         1007         1983         52.82.84         100%         52.82.84         100%         52.82.84         100%         52.82.		SPS 3012			Augment	30/06/1979	\$443,156	50%	\$221,578	1979
Sirb 2013         Augment         33U0(1980)         3513,179         50%         \$405,860         [1980]           Sirb 3017         Augment         330061982         \$12,872,217         29%         \$330,30,146         [1984]           Sirb 3016         Augment         330061982         \$1,267,217         29%         \$339,366         [1982]           Sirb 3016         Augment         330061982         \$1,267,217         29%         \$339,366         [1982]           Sirb 3016         Augment         330061986         \$1,622,512         24%         \$338,368         [1982]           Sirb 3017         Augment         330061986         \$434,353         50%         \$231,718         [1985]           Sirb 3023         Augment         330061986         \$243,313         50%         \$247,649         [1994]           Sirb 3028         Augment         330061998         \$203,011         [100%         \$27,675,01         [1994]           Sirb 3028         Augment         330061998         \$203,0140         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1994]         [1995]         [1996]         [199		SPS 3012			Augment	30/06/1992	\$249,786	50%	\$124,893	1992
SPS 3018         Augment         300(91992         \$1287.217         29%         \$593(9)         192           SPS 3019         Augment         300(91986         \$11.02.583         50%         \$531.222         1980           SPS 3021         Augment         300(91986         \$1.02.583         50%         \$531.222         1985           SPS 3022         Augment         300(91986         \$433.327         50%         \$216.664         1985           SPS 3028         Augment         300(91986         \$203.31         50%         \$247.649         1945           SPS 3028         Augment         300(91986         \$208.208         50%         \$247.649         1944           SPS 3028         Augment         300(91998         \$2.82.084         100%         \$247.649         1944           SPS 3028         Augment         300(91998         \$2.82.0840         100%         \$247.549         1944           General         Augment         300(91998         \$2.82.0840         100%         \$247.549         1944           General         Augment         300(91996         \$2.82.0840         100%         \$2.82.500         50%         \$57.57.500         50%         \$57.57.500         \$50%         \$57.57.500 <td></td> <td>SPS 3015</td> <td></td> <td></td> <td>Augment</td> <td>30/06/1980</td> <td>\$241,164</td> <td>13%</td> <td>\$400,860</td> <td>1980</td>		SPS 3015			Augment	30/06/1980	\$241,164	13%	\$400,860	1980
SPS 3019         Augment         3006/1989         \$1,622,515         24%         \$338,728         1989           SPS 3021         Augment         3006/1985         \$1,062,563         50%         \$321,222         1985           SPS 3022         Augment         3006/1985         \$43,435         50%         \$321,118         1985           SPS 3024         Augment         3006/1985         \$43,327         50%         \$216,664         1985           SPS 3026         Augment         3006/1985         \$43,327         50%         \$216,664         1984           SPS 3028         Augment         3006/1983         \$22,820,884         1094         1984           SPS 3028         Augment         3006/1983         \$22,820,884         1094         1984           General         Augment         1971/78         \$11,665         50%         \$24,400         1996           General         Augment         1971/78         \$11,665         50%         \$24,800         1995           SUGR ACTOR1         Augment         1971/78         \$11,665         50%         \$24,800         1995           SUGR ACTOR1         Augment         1071965         \$24,87,800         50%         \$24,89,700         1		SPS 3018			Augment	30/06/1992	\$1,267,217	28%	\$359,360	1992
Srs suci         Augment         300/bit/1865         \$1,062,88         50%         \$531,292         1985           SFS 3022         Augment         300/61985         \$433,327         50%         \$221,664         1985           SFS 3023         Augment         300/61985         \$433,327         50%         \$221,664         1985           SFS 3026         Augment         300/61985         \$433,327         50%         \$247,649         1994           SFS 3026         Augment         300/61985         \$243,227         50%         \$247,649         1994           SFS 3028         Augment         300/61985         \$240,841         100%         \$222,684         100%         \$222,684         100%         \$222,684         100%         \$222,684         100%         \$22,682         100%         \$22,682         100%         \$22,682         100%         \$22,682         100%         \$22,682         100%         \$22,682         100%         \$22,682         100%         \$22,682         100%         \$24,76,49         1994           General         Augment         197,1996         \$1,71,60         50%         \$43,252         1995           BIOREACTOR1         Augment         107,1995         \$1,721,60         5		SPS 3019			Augment	30/06/1989	\$1,622,515	24%	\$388,728	1989
Spr5 3023         Double Spr5 3024         Spr5 3024         Spr5 3026         Spr5 3028		SPS 3021 SPS 3022			Augment	30/06/1985	\$1,062,583	50%	\$531,292 \$321,718	1985
SPE 3024         Augment         3006/f1985         \$202,312         50%         \$104,657         1995           SPS 3026         Augment         3006/f1930         \$2,820,884         100%         \$2,820,884         1994           SPS 3028         Augment         3006/f1930         \$2,820,884         100%         \$2,820,884         1993           sep 5 3028         Augment         2010/f1930         \$2,820,884         100%         \$2,820,884         1993           ewerage Treatment Plant         General         Augment         1917/1979         \$11,050         50%         \$14,400         1998           General         Augment         1917/1979         \$11,050         50%         \$52,520         50%         \$64,322         1997           General         Augment         107/1996         \$17,578,500         50%         \$53,789,200         1995           BIOREACTOR1         Augment         1007/1996         \$1,357,000         50%         \$2,379,000         1995           BLOWERS         Augment         1007/1965         \$1,357,000         50%         \$2,237,750         1995           General         Augment         1007/1965         \$4,350,500         50%         \$2,2397,750         1995		SPS 3023	<u> </u>		Augment	30/06/1985	\$433,327	50%	\$216,664	1985
Sh's SUGb         Augment         300GP1994         \$495,298         50%         \$247,649         1993           SPS 3028         Augment         300GP1993         \$2,200,848         100%         \$2,820,848         1993           ewerage Treatment Plant         General         Augment         300GP1996         \$2,820,848         100%         \$7,5701         1998           General         Augment         211/21999         \$28,800         50%         \$5,525         1979           General         Augment         197/21979         \$11,050         50%         \$6,525         1979           BioRe AcTOR1         Augment         107/1996         \$1,271,600         50%         \$6,37,89,250         1995           BiORE ACTOR1         Augment         107/1996         \$1,271,600         50%         \$3,789,250         1995           BIORE ACTOR2         Augment         107/1996         \$1,37,600         50%         \$3,789,250         1995           BLOWERS         Augment         107/1996         \$1,37,600         50%         \$4,57,250         1995           General         Augment         107/1996         \$4,39,300         50%         \$4,269,750         1995           GLORE ACTOR2         Augment <td></td> <td>SPS 3024</td> <td></td> <td></td> <td>Augment</td> <td>30/06/1985</td> <td>\$209,313</td> <td>50%</td> <td>\$104,657</td> <td>1985</td>		SPS 3024			Augment	30/06/1985	\$209,313	50%	\$104,657	1985
OLD CALCAD         Augment         32.00.011935         32.00.011935         10.0%         \$2.2.00.084         1093           ewerage Treatment Plant         General         Augment         21/12/1999         \$22.8.00         50%         \$14.4.00         1999           General         Augment         21/12/1999         \$22.8.00         50%         \$31.4.00         1999           General         Augment         19/12/1997         \$11.080         50%         \$34.62.526         1990           General         Augment         19/12/1997         \$22.8.00         50%         \$46.325         1990           Studge Handling         Augment         10/17/1995         \$7.767.500         50%         \$3.789.250         1995           BIOREACTOR2         Augment         10/17/1995         \$1.357.600         50%         \$3.789.250         1995           BLOWERS         Augment         10/17/1995         \$1.457.600         50%         \$2.377.50         1995           FLITRATE PS PR21         Augment         10/17/1995         \$4.435.500         50%         \$2.27.500         1995           INLETWORKS1         Augment         10/17/1995         \$4.435.500         50%         \$2.21.600         1995           SUTCHA		SPS 3026 SPS 3028			Augment	30/06/1994	\$495,298	50%	\$247,649	1994
General         Augment         22/12/1969         52.8.00         50%         \$14.400         1999           General         Augment         12/12/1973         \$11.050         50%         \$52.52         1979           General         Augment         16/12/1973         \$11.050         50%         \$54.622         1970           General         Augment         16/12/1970         \$22.850         50%         \$66.522         1970           BIOREACTORI         Augment         107/1985         \$7.77.500         50%         \$3.789.250         1995           BIOREACTORI         Augment         107/1985         \$7.75.800         50%         \$3.789.250         1995           BLOWERS         Augment         107/1985         \$1.37.600         50%         \$3.789.250         1995           BLOWERS         Augment         107/1985         \$1.37.600         50%         \$4.567.250         1995           CLARIFERS         Augment         107/1985         \$4.489.250         50%         \$4.567.250         1995           INLETWORKS1         Augment         107/1985         \$4.498.00         50%         \$2.21.750         1995           SUTCHOADDS         Augment         107/1985         \$4.498.250 <td></td> <td>SPS 3028</td> <td></td> <td></td> <td>Augment</td> <td>30/06/1998</td> <td>\$705,701</td> <td>100%</td> <td>\$705,701</td> <td>1998</td>		SPS 3028			Augment	30/06/1998	\$705,701	100%	\$705,701	1998
General         Augment         19/12/1979         \$11,050         50%         \$5,525         1979           General         Augment         16/12/1900         \$52,680         50%         \$46,322         1990           Sludge Handling         Augment         1/07/1995         \$17,576,500         50%         \$46,325         1995           BIOREACTOR1         Augment         1/07/1995         \$7,578,500         50%         \$3,789,000         1995           BIOREACTOR2         Augment         1/07/1995         \$7,538,000         50%         \$3,789,000         1995           BLONERS         Augment         1/07/1995         \$3,738,000         50%         \$3,789,000         1995           CLARIFIERS         Augment         1/07/1995         \$3,134,500         50%         \$4,267,500         1995           General         Augment         1/07/1995         \$4,393,500         50%         \$2,249,750         1995           General         Augment         1/07/1995         \$4,393,500         50%         \$2,249,750         1995           General         Augment         1/07/1995         \$4,393,500         50%         \$2,249,750         1995           General         Augment         1/07/1995	ewerage Treatment Plant	General			Augment	21/12/1969	\$28,800	50%	\$14,400	1969
General         Augment         1br/12/1940         3242,630         50%         \$48,325         1990           Bidge Handling         Augment         10/7/1995         \$12,71,600         50%         \$635,600         1995           BIOREACTOR1         Augment         10/7/1995         \$7,778,500         50%         \$83,789,250         1995           BIOREACTOR2         Augment         10/7/1995         \$7,578,500         50%         \$3,789,250         1995           BLOWERS         Augment         10/7/1995         \$1,357,600         50%         \$4,678,500         1995           General         Augment         10/7/1995         \$1,357,600         50%         \$2,297,500         1995           General         Augment         10/7/1995         \$4,438,500         50%         \$2,297,500         1995           INLETWORKS1         Augment         10/7/1995         \$4,438,500         50%         \$2,249,750         1995           SWITCHBOARDS         Augment         10/7/1995         \$4,438,500         50%         \$2,21,500         1995           BAR PUMPS         Augment         10/7/1995         \$4,45,000         50%         \$2,22,500         1995           SUTCHOARDS         Augment         1		General			Augment	19/12/1979	\$11,050	50%	\$5,525	1979
BIOREACTOR         Compared BIOREACTOR         Compared Augment         COMPARED         S7278.500         S6%         S32789.250         1995           BLOWERS         Augment         10071985         \$7278.500         S6%         S32789.250         1995           BLOWERS         Augment         10071985         \$73.50.00         S6%         S32789.250         1995           GLAMFIERS         Augment         10071985         \$1.357.60         S6%         \$4577.575.00         1995           GLAMFIERS         Augment         10071985         \$31.35.50         S6%         \$4227.500         1995           GLAMFIERS         Augment         10071985         \$443.00         S6%         \$227.500         1995           MICTWORKG1         Augment         10071985         \$42.93.500         6%         \$22.469.750         1995           SWITCHEDARDS         Augment         10071985         \$42.93.500         6%         \$22.160         1995           RAS PUMPS         Augment         10071985         \$42.90.506         6%         \$22.100         1995           STORTALLOR         Augment         10071985         \$42.90.506         6%         \$22.469.750         1995           STORMALG PS PDO <td< td=""><td></td><td>Sludge Handling</td><td> </td><td> </td><td>Augment</td><td>1/07/1990</td><td>\$92,650</td><td>50%</td><td>\$46,325</td><td>1990</td></td<>		Sludge Handling			Augment	1/07/1990	\$92,650	50%	\$46,325	1990
BIOREACTOR2         Augment         1/07/1985         \$7.338,000         50%         \$3.769,000         1995           BLOWERS         Augment         1/07/1985         \$1.357,600         50%         \$678,6800         1995           CLARIFIERS         Augment         1/07/1985         \$1.34,600         50%         \$45,607,500         1995           General         Augment         1/07/1985         \$45,600         50%         \$222,500         1995           INLETWORKST         Augment         1/07/1985         \$44,393,500         50%         \$22,497,750         1995           LAGOONS         Augment         1/07/1985         \$44,393,500         50%         \$22,497,750         1995           SWITCHBOARDS         Augment         1/07/1985         \$44,393,500         50%         \$22,400         1995           OUTFALL         Augment         1/07/1985         \$44,235,000         50%         \$242,500         1995           General         Augment         1/07/1985         \$445,000         50%         \$222,500         1995           GUTFALL         Augment         1/07/1985         \$120,000         50%         \$244,500         1995           STIEL PS P000         Augment         1/07/1985		BIOREACTOR1			Augment	1/07/1995	\$7,578,500	50%	\$3,789,250	1995
BLUWERS         Augment         1/07/1995         \$1,357,600         50%         \$678,800         1995           CLARFIERS         Augment         1/07/1995         \$1,357,600         50%         \$4,567,250         1995           FILTRATE PS P621         Augment         1/07/1995         \$545,000         50%         \$22,2307,509         1995           General         Augment         1/07/1995         \$4,395,500         50%         \$22,397,750         1995           INLETWORKS1         Augment         1/07/1995         \$4,393,500         50%         \$22,407,750         1995           SWITCHBOARDS         Augment         1/07/1995         \$4,567,226         1995         \$4,175,000         1995           SWITCHBOARDS         Augment         1/07/1995         \$1,563,800         50%         \$22,117,500         1995           RAS PUMPS         Augment         1/07/1995         \$1,563,800         50%         \$22,250         1995           RAS PUMPS         Augment         1/07/1995         \$35,5000         50%         \$44,4500         1995           STRE PS P000         Augment         1/07/1995         \$35,5000         50%         \$102,0200         1995           UV Sya         Augment <t< td=""><td></td><td>BIOREACTOR2</td><td></td><td></td><td>Augment</td><td>1/07/1995</td><td>\$7,538,000</td><td>50%</td><td>\$3,769,000</td><td>1995</td></t<>		BIOREACTOR2			Augment	1/07/1995	\$7,538,000	50%	\$3,769,000	1995
Decrementation         Augment 10//1180         391,59,000         20/0         34,69/201         (995)           General         Augment         10//1180         351,59,000         20/0         522,20,00         1995           General         Augment         10//1180         351,59,000         50/0         522,20,00         1995           General         Augment         10//1195         \$4,285,200         50%         \$2,24,69,761         1995           LAGCONS         Augment         10/071965         \$4,39,300         50%         \$2,24,69,761         1995           LAGCONS         Augment         10/071965         \$4,28,000         50%         \$2,21,000         1995           OUTFALL         Augment         10/071965         \$4,28,000         50%         \$2,22,000         1995           COUTFALL         Augment         10/071965         \$28,000         50%         \$24,22,00         1995         \$2,22,000         1995           COUTFALL         Augment         10/071965         \$20,000         50%         \$24,22,00         1995           COUTFALL         Augment         10/071965         \$20,000         50%         \$21,200         1995           STETE P000         Augment					Augment	1/07/1995	\$1,357,600	50%	\$678,800	1995
General         Augment         1/07/1995         \$4,795,500         50%         \$2,397,750         1995           INLETWORK51         Augment         1/07/1995         \$4,985,00         50%         \$2,469,750         1995           LAGCONS         Augment         1/07/1995         \$4,280,000         50%         \$2,469,750         1995           SWITCHBOARDS         Augment         1/07/1995         \$4,235,000         50%         \$2,2117,500         1995           OUTFALL         Augment         1/07/1995         \$4,235,000         50%         \$22,210,00         1995           RAS PUMPS         Augment         1/07/1996         \$44,500         50%         \$44,400         1995           Elluent         Augment         1/07/1996         \$196,3000         50%         \$44,400         1995           STORMLAG PS P700         Augment         1/07/1995         \$350,000         50%         \$192,500         1995           UV Sys         Augment         1/07/1995         \$350,000         50%         \$102,02,000         1995           UV Sys         Augment         1/07/1995         \$20,04,000         50%         \$102,02,000         1995           UV Sys         Augment         1/07/1995		FILTRATE PS P621			Augment	1/07/1995	\$545,000	50%	\$272,500	1995
INLETWORKS1         Augment         1/07/1995         \$4,393,600         50%         \$2,409,750         1995           LAGOONS         Augment         1/07/1995         \$4,530,000         50%         \$2,117,500         1995           SWITCHBOARDS         Augment         1/07/1995         \$4,530,000         50%         \$2,2117,500         1995           OUTFALL         Augment         1/07/1995         \$4,563,800         50%         \$222,500         1995           RAS PUMPS         Augment         1/07/1995         \$48,500         50%         \$242,600         1995           Effluent         Augment         1/07/1995         \$380,000         50%         \$44,450         1995           STRF PS P000         Augment         1/07/1995         \$350,000         50%         \$172,500         1995           UV Sys         STRORMACA PS P700         Augment         1/07/1995         \$350,000         50%         \$102,0200         1995           UV Sys         STRORMACA PS P700         Augment         1/07/1995         \$2,004,000         50%         \$20,000         2001           BLOWERS         Augment         1/3/122001         \$40,000         50%         \$22,000         2001         2006         2001		General			Augment	1/07/1995	\$4,795,500	50%	\$2,397,750	1995
LAGULINS         Augment         1/07/1995         \$4,235,000         50%         \$2,117,500         1995           SWTCHERARDS         Augment         1/07/1995         \$1,63,800         50%         \$781,900         1995           OUTFALL         Augment         1/07/1995         \$4,43,000         50%         \$22,12,000         1995           RAS PUMPS         Augment         1/07/1996         \$844,000         50%         \$24,230,000         50%         \$24,230,000         50%         \$24,230,000         1995           Elfuent         Augment         1/07/1996         \$38,000         50%         \$24,430,000         1995           STER PP 2000         Augment         1/07/1996         \$38,0000         50%         \$115,000         1995           STORMLAG PS P700         Augment         1/07/1996         \$38,0000         50%         \$12,020,1995         1995           UV Sys         Augment         1/07/1996         \$30,000         50%         \$10,02,000         1995           BLOWRS         Augment         1/07/1996         \$30,000         50%         \$10,02,000         1995           BLOWRS         Augment         1/07/1996         \$30,000         50%         \$2,000         2002		INLETWORKS1			Augment	1/07/1995	\$4,939,500	50%	\$2,469,750	1995
OUTFALL         Program         Program         Provide         Provide <t< td=""><td></td><td>LAGOONS SWITCHROARDS</td><td> </td><td></td><td>Augment</td><td>1/07/1995</td><td>\$4,235,000</td><td>50%</td><td>\$2,117,500</td><td>1995</td></t<>		LAGOONS SWITCHROARDS			Augment	1/07/1995	\$4,235,000	50%	\$2,117,500	1995
RAS PUMPS         Augment         10771995         \$288.000         50%         \$444.500         1995           Effluent         Augment         10071995         \$122.000         50%         \$64.500         1995           STICE PG P000         Augment         10071995         \$52.000         50%         \$175.500         1995           STORMA AC PS P700         Augment         10071995         \$\$25.000         50%         \$176.200.00         1995           UV Sys         Augment         10071995         \$\$2.004.000         50%         \$102.000         1995           UV Sys         Augment         10771995         \$2.204.000         50%         \$2.000.000         1995           BLOWERS         Augment         137122001         \$2.004.000         50%         \$20.000         2001           BLOWERS         Augment         137122001         \$50.000         50%         \$250.000         2001         2001           INETWORKS1         Augment         137122001         \$50.000         50%         \$21.400         2004         2014         2014         2014         2014         2014         2014         2014         2014         2014         2014         2014         2014         2014		OUTFALL			Augment	1/07/1995	\$445,000	50%	\$222,500	1995
Effluent         Augment         1/07/1995         \$12,000         50%         \$84,600         1995           STE PS P000         Augment         1/07/1995         \$350,000         50%         \$175,000         1995           STORMLAG PS P700         Augment         1/07/1995         \$326,000         50%         \$12,000         1995           UV Sys         Augment         1/07/1995         \$22,004,000         50%         \$1,002,000         1995           Effluent         Augment         1/07/1995         \$22,004,000         50%         \$21,002,000         1995           Effluent         Augment         1/3/122001         \$40,000         50%         \$22,000         2001           BLOWERS         Augment         1/3/122002         \$50,000         50%         \$22,000         2001           NLETWORKS1         Augment         1/3/122002         \$50,000         50%         \$23,600         2003           IP         Various         Augment         1/2/12204         \$42,810         50%         \$21,405         2004           IP         Various         Augment         1/2/12/2004         \$42,810         50%         \$21,405         2004         \$21,405         2004         20,401,703		RAS PUMPS			Augment	1/07/1995	\$889,000	50%	\$444,500	1995
Stife Ps P4000         Augment         1/07/1995         \$350,000         50%         \$175,000         1995           STORMLAG PS P700         Augment         1/07/1995         \$350,000         50%         \$182,500         1995           UV Sys         Augment         1/07/1995         \$2,004,000         50%         \$102,000         1995           Effluent         Augment         1/3/12001         \$4,000         50%         \$20,000         2001           BLOWERS         Augment         1/3/122002         \$50,000         50%         \$23,000         2001           INLETWORKS1         Augment         1/3/122002         \$50,000         50%         \$23,600         2003           Sludge Handling         Augment         1/2/122004         \$42,810         50%         \$21,406         2004           IP         Various         Augment         1/2/122004         \$42,810         50%         \$21,406         2004		Effluent			Augment	1/07/1995	\$129,000	50%	\$64,500	1995
Distribution of the second of the s		STORMIAG PS P700			Augment	1/07/1995	\$350,000	50%	\$175,000	1995
Effluent         Augment         13/12/2001         \$40,000         50%         \$20,000         2001           BLOWERS         Augment         13/12/2003         \$\$79,300         60%         \$26,000         2002           INLETWORKS1         Augment         13/12/2003         \$\$79,300         50%         \$39,650         2002           Sludge Handling         Augment         13/12/2003         \$\$79,300         50%         \$32,408         2004           IP         Various         Augment         12/12/2004         \$42,810         50%         \$21,408         2004           IP         Various         Augment         28/06/2006         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$116,134         200.0%         \$12,408,830         \$74,601,753		UV Sys			Augment	1/07/1995	\$2,004,000	50%	\$1,002,000	1995
BLOWERS         Augment         13/12/2002         \$50,000         50%         \$22,000         20/02           INLETWORKS1         Augment         13/12/2003         \$79,300         50%         \$39,650         20/03           Sludge Handling         Augment         12/12/2004         \$79,300         50%         \$39,650         20/04           Various         Augment         12/12/2004         \$42,810         50%         \$32,405         20/04           Various         Augment         28/06/2006         \$116,134         100.0%         \$161,134         20/06           Sta2,408,830         \$12,408,830         \$12,408,830         \$12,409,753         \$12,409,753         \$12,409,753		Effluent			Augment	13/12/2001	\$40,000	50%	\$20,000	2001
Int_C information         Augment         13/12/2004         \$7/3,000         00%         \$39,060         20/03           Studge Handling         Augment         12/12/2004         \$42,810         50%         \$221,405         20/04           View         Augment         28/06/2006         \$116,134         100.0%         \$116,134         2006           Various         Augment         28/06/2006         \$116,134         2006         \$116,137         2006		BLOWERS			Augment	13/12/2002	\$50,000	50%	\$25,000	2002
Various         Augment         28/06/2006         \$116,124         100.0%         \$116,134         2006           \$123,408,830         \$123,408,830         \$74,601,753         \$100.0%         \$116,134         2006		Sludge Handling			Augment	12/12/2003	\$79,300 \$42,810	50%	\$39,650	2003
\$123,408,830 \$74,601,753	VIP	Various		<u> </u>	Augment	28/06/2006	\$116,134	100.0%	\$116,134	2006
							\$123,408,830		\$74,601,753	

Catchment	Banora Point sewer		]						
Veer of Calculation		2006	- 1			Cut_off Veer	2026		
Tear of Calculation		2006	]			Cut-on Year	2036		
AREA	PROJECT	PIPE SIZE	PIPE LENGTH	ASSET TYPE	ASSET STATUS	CONSTRUCTION DATE	ASSET	CPI	RECOVERABLE
Banora Point	SPS Banora Pt	Land Acquisition			Augment	2008	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition Land Acquisition			Augment Augment	2009 2010	\$25,000 \$25,000		\$25,000 \$25.000
	SPS Banora Pt	Land Acquisition			Augment	2011	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition Land Acquisition			Augment Augment	2012 2013	\$25,000 \$25,000		\$25,000 \$25,000
	SPS Banora Pt	Land Acquisition			Augment	2014	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition Land Acquisition			Augment	2015 2016	\$25,000 \$25,000		\$25,000 \$25,000
	SPS Banora Pt	Land Acquisition			Augment	2017	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition			Augment	2018	\$25,000 \$25,000		\$25,000
	SPS Banora Pt	Land Acquisition			Augment	2020	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition			Augment	2021	\$25,000		\$25,000
	SPS Banora Pt	Land Acquisition			Augment	2023	\$25,000		\$25,000
	SPS Banora Pt	Land Acquisition			Augment	2024	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition			Augment	2026	\$25,000 \$25,000		\$25,000 \$25,000
	SPS Banora Pt	Land Acquisition			Augment	2028	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition			Augment	2029 2030	\$25,000 \$25,000		\$25,000 \$25.000
	SPS Banora Pt	Land Acquisition			Augment	2031	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition Land Acquisition			Augment Augment	2032 2033	\$25,000 \$25,000		\$25,000 \$25.000
	SPS Banora Pt	Land Acquisition			Augment	2034	\$25,000		\$25,000
	SPS Banora Pt SPS Banora Pt	Land Acquisition Land Acquisition			Augment Augment	2035 2036	\$25,000 \$25,000		\$25,000 \$25,000
	SPS Banora Pt	Mechanical Upgrade			Augment	2007	\$12,500		\$12,500
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment Augment	2008 2009	\$12,500 \$12,500		\$12,500 \$12,500
	SPS Banora Pt	Mechanical Upgrade			Augment	2010	\$12,500		\$12,500
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment	2011 2012	\$12,500		\$12,500
	SPS Banora Pt	Mechanical Upgrade			Augment	2013	\$12,500		\$12,500
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade			Augment	2014 2015	\$12,500		\$12,500
	SPS Banora Pt	Mechanical Upgrade			Augment	2016	\$12,500		\$12,500
	SPS Banora Pt	Mechanical Upgrade			Augment	2017	\$12,901		\$12,901
	SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment	2019	\$13,308		\$13,308 \$13,721
	SPS Banora Pt	Mechanical Upgrade			Augment	2020	\$14,141		\$14,141
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment Augment	2022 2023	\$14,567 \$14,999		\$14,567 \$14,999
	SPS Banora Pt	Mechanical Upgrade			Augment	2024	\$15,437		\$15,437
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment Augment	2025 2026	\$15,881 \$16,331		\$15,881 \$16.331
	SPS Banora Pt	Mechanical Upgrade			Augment	2027	\$16,786		\$16,786
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment Augment	2028 2029	\$17,247 \$17,714		\$17,247 \$17,714
	SPS Banora Pt	Mechanical Upgrade			Augment	2030	\$18,186		\$18,186
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade Mechanical Upgrade			Augment	2031 2032	\$18,663 \$19,146		\$19,146
	SPS Banora Pt	Mechanical Upgrade			Augment	2033	\$19,633		\$19,633
	SPS Banora Pt SPS Banora Pt	Mechanical Upgrade			Augment	2034	\$20,624		\$20,624
	SPS Banora Pt	Mechanical Upgrade			Augment	2036	\$21,126		\$21,126 \$12,500
	SPS Banora Pt	Electrical Upgrade			Augment	2008	\$12,500		\$12,500
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment	2009 2010	\$12,500 \$12,500		\$12,500 \$12,500
	SPS Banora Pt	Electrical Upgrade			Augment	2011	\$12,500		\$12,500
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment	2012 2013	\$12,500 \$12,500		\$12,500 \$12,500
	SPS Banora Pt	Electrical Upgrade			Augment	2014	\$12,500		\$12,500
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment	2015	\$12,500		\$12,500
	SPS Banora Pt	Electrical Upgrade			Augment	2017	\$12,500		\$12,500
	SPS Banora Pt	Electrical Upgrade			Augment	2018	\$13,176		\$13,176
	SPS Banora Pt	Electrical Upgrade			Augment	2020	\$13,518		\$13,518
	SPS Banora Pt	Electrical Upgrade			Augment	2021	\$13,802 \$14,208		\$14,208
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment	2023	\$14,557 \$14,907		\$14,557 \$14,907
	SPS Banora Pt	Electrical Upgrade			Augment	2025	\$15,260		\$15,260
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment Augment	2026 2027	\$15,614 \$15,969		\$15,614 \$15,969
	SPS Banora Pt	Electrical Upgrade			Augment	2028	\$16,326		\$16,326
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment	2029 2030	\$16,685		\$16,685 \$17.044
	SPS Banora Pt	Electrical Upgrade			Augment	2031	\$17,404		\$17,404
	SPS Banora Pt SPS Banora Pt	Electrical Upgrade Electrical Upgrade			Augment	2032	\$17,765 \$18,127		\$17,765 \$18,127
	SPS Banora Pt	Electrical Upgrade			Augment	2034	\$18,490		\$18,490
	SPS Banora Pt	Electrical Upgrade			Augment	2035	\$19,216		\$19,216
	SPS 2000 Tweed Heads Regional SPS 2002 Florence Street West	SPS New SPS New			Augment	2007	\$1,900,000		\$1,900,000
	SPS 2018 Gollan Drive (Park)	Mechanical Upgrade			Augment	2007 2011	\$200,000		\$200,000
	SPS 2018 Gollan Drive (Park) SPS 2046 Cobaki Broadwater Villaga	Electrical Upgrade Mechanical Upgrade			Augment	2011	\$100,000		\$100,000
	SPS 2052 Piggabeen Rd (Regional)	Estimate Only			Augment	2009 2020	\$720,000		\$720,000
	SPS 3006 Darlington Drive (South) SPS 3006 Darlington Drive (South)	Mechanical Upgrade Mechanical Upgrade			Augment Augment	2007 2010	\$6,000 \$160.000	]	\$6,000 \$160.000
	SPS 3021 Fraser Drive	Mechanical Upgrade			Augment	2009	\$70,000		\$70,000
	SPS 3021 Fraser Drive SPS 3028 Enterprise Ave	Electrical Upgrade Mechanical Upgrade			Augment Auament	2009 2008	\$50,000 \$80,000		\$50,000 \$80.000
	SPS 3028 Enterprise Ave	Electrical Upgrade			Augment	2008	\$120,000		\$120,000
	SPS 3052 Sullivans (Future Regional) SPS 3033 Henry Lawson Drive	SPS New Mechanical Upgrade			Augment Augment	2012 2008	\$190,000 \$50,000		\$190,000 \$50.000
	SPS 3037 Terranora Area E Regional (Future )	SPS New			Augment	2012	\$100,000		\$100,000
	SFS 303 / Terranora Area E Regional (Future)	SPS New	1		Augment	2015	2100,000		\$160.000

Catchment	Banora Point sewer		]						
V		2004	-			C-1 PEX	2024	1	
Year of Calculation		2006	J			Cut-on Year	2036		
AREA	PROJECT	PIPE	PIPE	ASSET	ASSET	CONSTRUCTION	ASSET	CPI	RECOVERABLE
	SDM Banora Dt	SIZE Land Acquisition	LENGTH	TYPE	STATUS	2007	S5 000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2007	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2009	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2010	\$5,000		\$5,000
	SRM Banora Pt SRM Banora Pt	Land Acquisition			Augment	2011	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2013	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2014	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2015	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2016	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2018	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2019	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2020	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2021	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2023	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2024	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2025	\$5,000		\$5,000
	SRM Banora Pt SRM Banora Pt	Land Acquisition			Augment	2026	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2028	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2029	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2030	\$5,000		\$5,000
	SRM Banora Pt SRM Banora Pt	Land Acquisition			Augment	2031	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2032	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2034	\$5,000		\$5,000
	SRM Banora Pt	Land Acquisition			Augment	2035	\$5,000		\$5,000
	SKM Banora Pt Banora Pt	SRM New			Augment	2036	\$3,000		\$25,000
	Banora Pt	SRM New			Augment	2009	\$25,000		\$25,000
	Banora Pt	SRM New			Augment	2010	\$25,750		\$25,750
	Banora Pt	SRM New			Augment	2011	\$26,523		\$26,523
	Banora Pt Banora Pt	SRM New SRM New			Augment	2012 2013	\$27,518		\$28,138
	Banora Pt	SRM New			Augment	2014	\$28,982		\$28,982
	Banora Pt	SRM New			Augment	2015	\$29,851		\$29,851
	Banora Pt	SRM New			Augment	2016	\$30,747		\$30,747
	Banora Pt	SRM New			Augment	2017	\$32,522		\$32,522
	Banora Pt	SRM New			Augment	2019	\$33,381		\$33,381
	Banora Pt	SRM New			Augment	2020	\$34,247		\$34,247
	Banora Pt	SRM New			Augment	2021	\$35,119		\$35,119
	Banora Pt	SRM New			Augment	2022	\$36,880		\$36.880
	Banora Pt	SRM New			Augment	2024	\$37,768		\$37,768
	Banora Pt	SRM New			Augment	2025	\$38,661		\$38,661
	Banora Pt	SRM New SPM New			Augment	2026	\$39,558		\$39,558
	Banora Pt	SRM New			Augment	2028	\$41,363		\$41,363
	Banora Pt	SRM New			Augment	2029	\$42,271		\$42,271
	Banora Pt	SRM New			Augment	2030	\$43,181		\$43,181
	Banora Pt Banora Pt	SRM New SRM New			Augment	2031	\$45,009		\$45,009
	Banora Pt	SRM New			Augment	2033	\$45,926		\$45,926
	Banora Pt	SRM New			Augment	2034	\$46,845		\$46,845
	Banora Pt Banora Pt	SRM New SPM New			Augment	2035	\$47,764		\$47,764 \$48,685
	Banora Pt	SRM Upgrade			Augment	2008	\$10,000		\$10,000
	Banora Pt	SRM Upgrade			Augment	2009	\$10,000		\$10,000
	Banora Pt	SRM Upgrade			Augment	2010	\$10,300		\$10,300
	Banora Pt Banora Pt	SRM Upgrade SRM Upgrade			Augment	2011 2012	\$10,809		\$10,925
	Banora Pt	SRM Upgrade			Augment	2013	\$11,253		\$11,253
	Banora Pt	SRM Upgrade			Augment	2014	\$11,590		\$11,590
	Banora Pt	SRM Upgrade			Augment	2015	\$11,940		\$11,940
	Banora Pt	SRM Upgrade			Augment	2010	\$12,667		\$12,667
	Banora Pt	SRM Upgrade			Augment	2018	\$13,008		\$13,008
	Banora Pt	SRM Upgrade			Augment	2019	\$13,352		\$13,352
	Banora Pt	SRM Upgrade			Augment	2020	\$13,698		\$13,698
	Banora Pt	SRM Upgrade	t		Augment	2022	\$14,398		\$14,398
	Banora Pt	SRM Upgrade			Augment	2023	\$14,751		\$14,751
	Banora Pt	SRM Upgrade			Augment	2024	\$15,107		\$15,107
	Banora Pt Banora Pt	SKM Upgrade			Augment	2025	\$15,464 \$15,822		\$15,464 \$15,822
	Banora Pt	SRM Upgrade	t i		Augment	2020	\$16,183		\$16,183
	Banora Pt	SRM Upgrade			Augment	2028	\$16,544		\$16,544
	Banora Pt	SRM Upgrade			Augment	2029	\$16,907		\$16,907
	Banora Pt Banora Pt	SKM Upgrade			Augment	2030	\$17,272		\$17,272
	Banora Pt	SRM Upgrade	t i		Augment	2032	\$18,003		\$18,003
	Banora Pt	SRM Upgrade			Augment	2033	\$18,370		\$18,370
	Banora Pt Ranora Pt	SRM Upgrade			Augment	2034	\$18,737		\$18,737
	Banora Pt	SRM Upgrade			Augment	2035	\$19,473		\$19,473

Catchment	Banora Point sewer								
Veen of Colorlation		2007	1			Cut off Voor	2027		
Year of Calculation		2006	]			Cut-off Year	2036		
AREA	PROJECT	PIPE	PIPE	ASSET	ASSET	CONSTRUCTION	ASSET	CPI	RECOVERABLE
		SIZE	LENGTH	TYPE	STATUS	DATE	COST		COST
	SRM 2000 Tweed Heads Regional SRM 2002 Florence Street, West	SRM New SRM Upgrade			Augment	2007	\$695,000		\$65,000
	SRM 2003 Beryl Street	SRM Upgrade			Augment	2008	\$100,000		\$100,000
	SRM 2003 Beryl Street	SRM Upgrade			Augment	2009	\$122,000		\$122,000
	SRM 2018 Gollan Drive (Park) SRM 2018 Gollan Drive (Park)	SRM Upgrade			Augment	2007	\$1,725,825		\$1,584,000
	SRM 2032 Caloola Drive	SRM New			Augment	2008	\$97,500		\$97,500
	SRM 2033 Afex Park	Actuated Control Valve Upgrade			Augment	2008	\$40,000		\$40,000
	SRM 2040 Cotaki Bioadwater Vinage SRM 2052 Piggabeen Road Regional	Estimate Only			Augment	2027	\$4,320,000		\$4,320,000
	SRM 3006 Darlington Drive (South)	SRM Upgrade			Augment	2007	\$45,000		\$45,000
	SRM 3027 Shallow Bay Drive (Former Egg & I Site)	SRM New			Augment	2007	\$189,000		\$189,000
	Banora Pt	Gravity Sewer Upgrade			Augment	2008	\$12,500		\$12,500
	Banora Pt	Gravity Sewer Upgrade			Augment	2009	\$12,500		\$12,500
	Banora Pt Banora Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2010	\$12,500		\$12,500
	Banora Pt	Gravity Sewer Upgrade			Augment	2012	\$12,500		\$12,500
	Banora Pt	Gravity Sewer Upgrade			Augment	2013	\$12,500		\$12,500
	Banora Pt Banora Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2014	\$12,500		\$12,500 \$12,500
	Banora Pt	Gravity Sewer Upgrade			Augment	2015	\$12,500		\$12,500
	Banora Pt	Gravity Sewer Upgrade			Augment	2017	\$12,500		\$12,500
	Banora Pt Banora Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2018	\$12,901 \$13,308		\$12,901 \$13,308
	Banora Pt	Gravity Sewer Upgrade			Augment	2020	\$13,721		\$13,721
	Banora Pt	Gravity Sewer Upgrade			Augment	2021	\$14,141		\$14,141
	Banora Pt Banora Pt	Gravity Sewer Upgrade			Augment	2022 2023	\$14,999		\$14,999
	Banora Pt	Gravity Sewer Upgrade			Augment	2024	\$15,437		\$15,437
	Banora Pt	Gravity Sewer Upgrade			Augment	2025	\$15,881		\$15,881
	Banora Pt Banora Pt	Gravity Sewer Upgrade			Augment	2026	\$16,786		\$16,786
	Banora Pt	Gravity Sewer Upgrade			Augment	2028	\$17,247		\$17,247
	Banora Pt Ranora Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2029	\$17,714		\$17,714
	Banora Pt	Gravity Sewer Upgrade			Augment	2030	\$18,663		\$18,663
	Banora Pt	Gravity Sewer Upgrade			Augment	2032	\$19,146		\$19,146
	Banora Pt Banora Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2033	\$19,633 \$20,126		\$19,633 \$20,126
	Banora Pt	Gravity Sewer Upgrade			Augment	2035	\$20,624		\$20,624
	Banora Pt Transleto SDS 2001 PH/rm	Gravity Sewer Upgrade			Augment	2036	\$21,126		\$21,126
	Trunk to SPS 3001 P Hwy Trunk to SPS 3006 Darlington Dr	Gravity Sewer Upgrade			Augment	2009	\$170,000		\$170,000
	Gollan Dr high level gravity M/H DA/1-DA/3	Gravity Sewer Upgrade			Augment	2009	\$26,000		\$26,000
	Banora Pt Ranora Pt	Gravity Sewer New Gravity Sewer New			Augment	2008	\$12,500		\$12,500
	Banora Pt	Gravity Sewer New			Augment	2009	\$12,500		\$12,500
	Banora Pt	Gravity Sewer New			Augment	2011	\$12,500		\$12,500
	Banora Pt Banora Pt	Gravity Sewer New Gravity Sewer New			Augment	2012	\$12,500		\$12,500
	Banora Pt	Gravity Sewer New			Augment	2014	\$12,500		\$12,500
	Banora Pt	Gravity Sewer New			Augment	2015	\$12,500		\$12,500
	Banora Pt Banora Pt	Gravity Sewer New			Augment	2016	\$12,500		\$12,500
	Banora Pt	Gravity Sewer New			Augment	2018	\$12,901		\$12,901
	Banora Pt Ranora Pt	Gravity Sewer New Gravity Sewer New			Augment	2019	\$13,308		\$13,308 \$13,721
	Banora Pt	Gravity Sewer New			Augment	2020	\$14,141		\$14,141
	Banora Pt	Gravity Sewer New			Augment	2022	\$14,567		\$14,567
	Banora Pt Banora Pt	Gravity Sewer New Gravity Sewer New			Augment	2023	\$14,999		\$14,999
	Banora Pt	Gravity Sewer New			Augment	2025	\$15,881		\$15,881
	Banora Pt	Gravity Sewer New			Augment	2026	\$16,331		\$16,331
	Banora Pt	Gravity Sewer New			Augment	2027	\$17,247		\$17,247
	Banora Pt	Gravity Sewer New			Augment	2029	\$17,714		\$17,714
	Banora Pt Ranora Pt	Gravity Sewer New Gravity Sewer New			Augment	2030	\$18,186		\$18,186 \$18,663
	Banora Pt	Gravity Sewer New			Augment	2031	\$19,146		\$19,146
	Banora Pt	Gravity Sewer New			Augment	2033	\$19,633		\$19,633
	Banora Pt Banora Pt	Gravity Sewer New Gravity Sewer New			Augment	2034 2035	\$20,126 \$20,624		\$20,126 \$20,624
	Banora Pt	Gravity Sewer New			Augment	2036	\$21,126		\$21,126
	Pearl & Florence St	Gravity Sewer New			Augment	2007	\$75,000		\$75,000
	Banora Point STP	Gravity Sewer New General			Augment	2007 2011	\$500,000		\$25,000
	Banora Point STP	General			Augment	2012	\$5,000,000		\$5,000,000
	Banora Point STP Banora Point STP	General			Augment	2013	\$20,000,000		\$20,000,000
	Banora Point STP	Outfall Upgrade 125000Ep			Augment	2014 2007	\$100,000		\$100,000
	Banora Point STP	Outfall Upgrade 125000Ep			Augment	2009	\$2,750,000		\$2,750,000
	Banora Point STP Banora Point STP Eff Quality Uper	Grit & Screenings Mgt Construction	<u> </u>		Augment Augment	2007	\$100,000		\$100,000
	Banora Point STP Eff Quality Upgr	Construction			Augment	2011	\$8,400,000		\$8,400,000
	Banora Point STP Eff Quality Upgr	Concept Datailed Design			Augment	2008	\$250,000		\$250,000
	Banora Point STP Eff Quality Upgr	Aeration Upgrade			Augment	2009	\$140,000		\$140,000
						Total	\$76,221,399		\$76,221,399



## **DEVELOPER CHARGES MODEL**

Kingscliffe sewer

Year : 2006

#### Calculation of Capital Cost

Existing Assets (Pre 1996)

Year

2036

Recoupable Capital Expenditure (MEERA \$)

12,318,898

Catchment

Year of Calculation

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :

Kingscliffe sewer

2006

3%

ED ON OK API	IEK I JANU	AKI 1990.		1 70
ASSETS :				7%
	_	Existing A	Assets (Post 1996)	
Annual ET		Year	Recoupable	Annual ET
Take-up			Capital	Take-up
			Expenditure	
(ET)			(\$)	(ET)
1668		1996	0	1668
65		1997	0	65
65		1998	496,858	65
65		1999	153,698	65
65		2000	52,125	65
65		2001	135,726	65
344		2002	0	344
344		2003	113,561	344
344		2004	1,166,989	344
344		2005	121,161	344
344		2006	8,735,172	344
344		2007	0	344
345		2008	0	345
344		2009	0	344
237		2010	0	237
236		2011	0	236
236		2012	0	236
236		2013	0	236
237		2014	0	237
236		2015	0	236
236		2016	0	236
236		2017	0	236
236		2018	0	236
237		2019	0	237
235		2020	0	235
237		2021	0	237
236		2022	0	236
237		2023	0	237
235		2024	0	235
236		2025	0	236
236		2026	0	236
237		2027	0	237
235		2028	0	235
236		2029	0	236
237		2030	0	237
236		2031	0	236
301		2032	0	301
300	1	2033	0	300
301		2034	0	301
300		2035	0	300
300		2036	0	300

NPV CHARGE (\$/ET

1294

Year	Recoupable Capital Expenditure	Annual El Take-up
	(\$)	(ET)
1996	0	1668
1997	0	65
1998	0	65
1999	0	65
2000	0	65
2001	0	65
2002	0	344
2003	0	344
2004	0	344
2005	0	344
2006	0	344
2007	30,233,418	344
2008	13,274,000	345
2009	1,283,000	344
2010	1,339,630	237
2011	1,805,279	236
2012	1.680.946	236
2013	171.635	236
2014	572,343	237
2015	15.073.075	236
2016	15.073.827	236
2017	74.601	236
2018	6.076.240	236
2019	77.901	237
2020	79.577	235
2021	81.272	237
2022	82 982	236
2023	84 710	230
2024	86.455	235
2025	88 217	236
2026	89 990	236
2020	91 783	230
2027	93 585	235
2029	95,401	236
2030	97 231	230
2030	99.075	236
2032	100.928	301
2032	100,920	200
2033	102,794	301
2025	106 556	301
2035	108,453	300
		50.15

TOTAL NPV CAPITAL WORKS CHARGE per ET

NPV CHARGE (\$/ET)

1735

\$10,076

# Demand Profile

Catchment

Kingscliffe sewer

Vear	Total	Annual Demand
I cai	Demand	Increase
	(ET)	(ET)
1970	918	202
1971	1120	202
1972	1261	72
1974	1337	72
1975	1419	81
1976	1505	86
1977	1544	39
1978	1584	40
1979	1624	41
1980	1666	42
1981	1709	43
1983	1780	36
1984	1817	37
1985	1855	38
1986	1893	38
1987	1996	103
1988	2104	108
1989	2218	114
1990	2338	120
1991	2405	127
1992	2409	24 24
1994	2538	24
1995	2562	24
1996	2586	24
1997	2651	65
1998	2716	65
1999	2781	65
2000	2846	65
2001	2911	05 344
2002	3599	344
2004	3944	344
2005	4288	344
2006	4632	344
2007	4976	344
2008	5321	345
2009	5665	344
2010	5902	237
2011	6138	230
2012	6610	236
2013	6847	237
2015	7083	236
2016	7319	236
2017	7555	236
2018	7791	236
2019	8028	237
2020	8263	235
2021	8300	237 236
2022	8973	230
2023	9208	235
2025	9444	236
2026	9680	236
2027	9917	237
2028	10152	235
2029	10388	236
2030	10625	237
2031	10801	250 301
2032	11462	300
2033	11763	301
2035	12063	300
2036	12363	300

### Existing Assets

Catchment Kingscliffe sewer

Year of Calculation					2006					
Asset Type		Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value	Calendar Year
Manholes		Manhole			Augment	30/06/1967	\$65,800	100%	\$65,800	1967
		Manhole			Augment	30/06/1972	\$824,400	100%	\$824,400	1972
		Manhole			Augment	30/06/1982	\$9,000	100%	\$9.000	1982
		Manhole			Augment	30/06/1986	\$464,800	100%	\$464 800	1986
		Manhole			Augment	30/06/1989	\$80,400	100%	\$80,400	1980
		Manhole			Augment	30/06/1993	\$152,400	100%	\$152,400	1989
		Wannoic			Augment	00/00/1000	ψ102,400	100 %	\$102,400	1993
		Manhole			Augment	30/06/1998	\$9,000	100%	\$9,000	1770
		Manhole			Augment	30/06/2001	\$36,000	100%	\$36,000	2001
		Manhole			Augment	30/06/2003	\$59,000	100%	\$59,000	2003
Gravity Pipes		225mm			Augment	1/07/1967	\$115,311	100%	\$115,311	1967
		225mm			Augment	1/07/1972	\$1,454,959	100%	\$1,454,959	1972
		300mm			Augment	1/07/1972	\$631,871	100%	\$631,871	1972
		225mm			Augment	1/07/1982	\$24,161	100%	\$24,161	1982
		150mm			Augment	1/07/1986	\$136,849	100%	\$136,849	1986
		225mm			Augment	1/07/1986	\$1,146,765	100%	\$1,146,765	1986
		225mm			Augment	1/07/1989	\$175,044	100%	\$175,044	1989
		225mm			Augment	1/07/1993	\$268,286	100%	\$268,286	1993
		300mm			Augment	1/07/2001	\$94,055	100%	\$94,055	2001
		225mm			Augment	1/07/2003	\$54,561	100%	\$54,561	2003
Sewer Rising Mains		100mm			Augment	1/07/1970	\$60,021	13%	\$7,503	1970
		150mm			Augment	3/07/1970	\$2,515	13%	\$314	1970
		225mm			Augment	6/07/1970	\$234,089	13%	\$29,261	1970
		100mm			Augment	1/07/1971	\$19,328	50%	\$9,664	1971
		150mm			Augment	1/07/1972	\$6,704	13%	\$838	1972
		200mm			Augment	3/07/1972	\$5,609	13%	\$701	1972
		450mm			Augment	1/07/1979	\$2,019,021	50%	\$1,009,511	1979
		150mm			Augment	1/07/1986	\$332 471	13%	\$41 559	1986
		200mm			Augment	1/07/1986	\$1,760,624	13%	\$220.078	1986
		150mm			Augment	1/07/1989	\$381.021	13%	\$47 628	1989
		225mm			Augment	3/07/1989	\$122,828	13%	\$15,354	1989
		300mm			Augment	1/07/1994	\$191,931	13%	\$23,991	1994
		200mm			Augment	1/07/1999	\$307,395	50%	\$153 698	1999
		150mm			Augment	1/07/2000	\$104,250	50%	\$52,125	2000
		150mm		1	Augment	1/07/2001	\$2 627	13%	\$328	2000
		200mm		1	Augment	4/07/2001	\$42 742	13%	\$5.343	2001
		500mm			Augment	1/07/2005	\$238,385	100%	\$119,193	2001
		600mm		1	Augment	3/07/2005	\$3,937	100%	\$1 969	2005
		150mm		1	Augment	1/07/2006	\$4 137	13%	\$517	2005
		200mm			Augment	1/07/2006	\$76,661	13%	\$9.583	2006
	WIP	Various		1	Augment	1/07/2006	\$275 477	100%	\$275 477	2006
Sewer Pump Stations		SPS 4001		1	Augment	30/06/1970	\$297 207	50%	\$148,604	1970
contri i unip ciadono		SPS 4002			Augment	30/06/1970	\$541,751	29%	\$158.011	1970
		SPS 4003			Augment	30/06/1970	\$217,388	50%	\$108,694	1970
		SPS 4005			Augment	30/06/1970	\$2,505,121	50%	\$1 252 561	1970
	WIP	SPS 4005			Augment	30/06/2006	\$80,246	100%	\$80.246	2006
		SPS 4006			Augment	30/06/1972	\$692,942	50%	\$346 471	1972
		SPS 4007		1	Augment	30/06/1972	\$536,437	50%	\$268,219	1972
		SPS 4008		1	Augment	30/06/1989	\$632,668	13%	\$79.084	1080
		SPS 4011			Augment	30/06/1976	\$385,228	50%	\$192.614	1989
		SPS 4015			Augment	30/06/1986	\$731,658	50%	\$365.829	1086
		SPS 4016			Augment	30/06/1986	\$307 106	50%	\$153 553	1986
		SF 5 4010		1	Augment	20/06/1006	\$307,100	50%	\$100,000	1980
		SPS 4017		1	Augment	30/06/1986	\$280.478	50%	\$105,552	1980
Sowerage Treatment Di	ant	General		ł	Augmont	30/06/1070	\$200,470 \$1,410 = 40	50%	¢140,239 \$700,776	1980
Sewerage Treatment Pla	aill	General			Augment	30/06/1970	\$1,419,049	50%	φ/09,//5 ¢1 249 940	1970
		General		ł	Augment	1/07/1008	\$2,491,097 \$075,715	50%	\$1,248,849 \$107 050	1987
		General			Augment	30/06/2004	\$370,715 \$2,333,070	50%	9407,000 \$1 166 090	1998
	WIP	New Plant			Augment	30/06/2004	\$2,333,978	100%	\$8 360 350	2004
L	VV11-	INCW FIGHT		1	Augineill	30/00/2000	\$0,009,000 \$25,179,956	10070	φ0,309,300	2000

Catchment	Kingscliffe sewer		1						
Catchinent	Kingseinte sewei		1						
Year of Calculation		2006				Cut-off Year	2036		
AREA	PROJECT	PIPE	PIPE	ASSET	ASSET	CONSTRUCTION	ASSET	CPI	RECOVERABLE
Kingscliff	SPS Kinescliff	SIZE Land Acquisition	LENGTH	TYPE	Augment	2008	COST \$15.000	1	COST \$15,000
	SPS Kingscliff	Land Acquisition			Augment	2009	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2010	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2011	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2012	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2013	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2014	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2015	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2016	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2017	\$15,000		\$15,000
	SPS Kingschill	Land Acquisition			Augment	2018	\$15,000		\$15,000
	SPS Kingschift	Land Acquisition			Augment	2019	\$15,000		\$15,000
	SPS Kingschiff	I and Acquisition			Augment	2020	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2022	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2023	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2024	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2025	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2026	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2027	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2028	\$15,000	1	\$15,000
	SPS Kingscliff	Land Acquisition			Augment	2029	\$15,000		\$15,000
	SPS Kingschiff	Land Acquisition			Augment	2030	\$15,000		\$15,000
	SPS Kingsciff	Land Acquisition		-	Augment	2031	\$15,000		\$15,000
	SPS Kingseiff	Land Acquisition			Augment	2032	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition	1		Augment	2034	\$15,000		\$15,000
	SPS Kingscliff	Land Acquisition	1		Augment	2035	\$15.000		\$15.000
	SPS Kingscliff	Land Acquisition			Augment	2036	\$15,000		\$15,000
	SPS Kingscliff	Mechanical Upgrade			Augment	2007	\$7,500		\$7,500
	SPS Kingscliff	Mechanical Upgrade			Augment	2008	\$7,500		\$7,500
	SPS Kingscliff	Mechanical Upgrade			Augment	2009	\$7,500		\$7,500
	SPS Kingscliff	Mechanical Upgrade			Augment	2010	\$7,500		\$7,500
	SPS Kingscliff	Mechanical Upgrade			Augment	2011	\$7,500		\$7,500
	SPS Kingscliff	Mechanical Upgrade			Augment	2012	\$7,500		\$7,500
	SPS Kingscliff	Mechanical Upgrade			Augment	2013	\$7,500		\$7,500
	SPS Kingschift	Mechanical Upgrade			Augment	2014	\$7,500		\$7,500
	SPS Kingschift	Mechanical Upgrade			Augment	2015	\$7,500		\$7,500
	SPS Kingschiff	Mechanical Ungrade			Augment	2010	\$7,500		\$7,500
	SPS Kingschiff	Mechanical Upgrade			Augment	2018	\$7,740		\$7,740
	SPS Kingscliff	Mechanical Upgrade			Augment	2019	\$7,985		\$7,985
	SPS Kingscliff	Mechanical Upgrade			Augment	2020	\$8,233		\$8,233
	SPS Kingscliff	Mechanical Upgrade			Augment	2021	\$8,485		\$8,485
	SPS Kingscliff	Mechanical Upgrade			Augment	2022	\$8,740		\$8,740
	SPS Kingscliff	Mechanical Upgrade			Augment	2023	\$8,999		\$8,999
	SPS Kingscliff	Mechanical Upgrade			Augment	2024	\$9,262		\$9,262
	SPS Kingscliff	Mechanical Upgrade			Augment	2025	\$9,529		\$9,529
	SPS Kingscliff	Mechanical Upgrade			Augment	2026	\$9,798		\$9,798
	SPS Kingseliff	Mechanical Upgrade			Augment	2027	\$10,072		\$10,072
	SPS Kingschiff	Machanical Ungrade			Augment	2028	\$10,548		\$10,340
	SPS Kingschiff	Mechanical Upgrade			Augment	202)	\$10,020		\$10,020
	SPS Kingschiff	Mechanical Upgrade			Augment	2030	\$11,198		\$11,198
	SPS Kingscliff	Mechanical Upgrade			Augment	2032	\$11,487		\$11,487
	SPS Kingscliff	Mechanical Upgrade			Augment	2033	\$11,780		\$11,780
	SPS Kingscliff	Mechanical Upgrade			Augment	2034	\$12,076		\$12,076
	SPS Kingscliff	Mechanical Upgrade			Augment	2035	\$12,374		\$12,374
	SPS Kingscliff	Mechanical Upgrade	L		Augment	2036	\$12,676		\$12,676
	SPS Kingschiff	Electrical Upgrade			Augment	2007	\$7,500		\$7,500
	SPS Kingsciff	Electrical Upgrade			Augment	2008	\$7,500		\$7,500 \$7,500
	SPS Kingschiff	Electrical Ungrade			Augment	2010	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade			Augment	2011	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade			Augment	2012	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade	1		Augment	2013	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade			Augment	2014	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade			Augment	2015	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade			Augment	2016	\$7,500		\$7,500
	SPS Kingscliff	Electrical Upgrade			Augment	2017	\$7,500		\$7,500
	SPS Kingschiff	Electrical Upgrade			Augment	2018	\$7,702		\$7,702
	SPS Kingschift	Electrical Upgrade			Augment	2019	\$7,906		\$7,906
	SPS Kingselff	Electrical Unorade		-	Augment	2020	\$8 317		\$0,111 \$2,217
	SPS Kingscliff	Electrical Upgrade			Augment	2022	\$8,525		\$8,525
	SPS Kingscliff	Electrical Upgrade			Augment	2023	\$8,734		\$8,734
	SPS Kingscliff	Electrical Upgrade	1		Augment	2024	\$8,944		\$8,944
	SPS Kingscliff	Electrical Upgrade			Augment	2025	\$9,156		\$9,156
	SPS Kingscliff	Electrical Upgrade			Augment	2026	\$9,368		\$9,368
	SPS Kingscliff	Electrical Upgrade			Augment	2027	\$9,582		\$9,582
	SPS Kingscliff	Electrical Upgrade	ļ		Augment	2028	\$9,796		\$9,796
	SPS Kingscliff	Electrical Upgrade			Augment	2029	\$10,011	1	\$10,011
	SPS Kingschiff	Electrical Upgrade			Augment	2030	\$10,226		\$10,226
	SPS Kingsciff	Electrical Upgrade			Augment	2031	\$10,445		\$10,443
	SPS Kingselff	Electrical Unorade		-	Augment	2032	\$10,039		\$10,009 \$10,976
	SPS Kingscliff	Electrical Upgrade			Augment	2034	\$11.094		\$11.094
	SPS Kingscliff	Electrical Upgrade			Augment	2035	\$11.312		\$11.312
	SPS Kingscliff	Electrical Upgrade			Augment	2036	\$11,530		\$11,530

Catchment	Kingscliffe sewer								
Vear of Calculation		2006	1			Cut-off Vear	2036	1	
Teal of Calculation		2000	1			Cut-on Tear	2030		
AREA	PROJECT	PIPE SIZE	PIPE LENGTH	ASSET TYPE	ASSET STATUS	CONSTRUCTION DATE	ASSET COST	CPI	RECOVERABLE COST
	SPS 4003 Ocean Street	Valve Pit Upgrades			Augment	2007	\$24,000		\$24,000
	SPS 4003 Ocean Street SPS 4003 Ocean Street	Mechanical Upgrade Electrical Upgrade			Augment	2007 2007	\$27,000 \$6,000		\$27,000 \$6,000
	SPS 4003 Ocean Street	Pipe Work Replacement			Augment	2007	\$27,000		\$27,000
	SPS 4008 Chinderah Road SPS 4009 Vulcan Street	Mechanical Upgrade SPS New			Augment	2007 2007	\$36,000 \$310,000		\$36,000 \$310,000
	SPS 4011 Chinderah Industrial Est. Morton Street	Mechanical Upgrade			Augment	2009	\$24,000		\$24,000
	SPS 4014 Kingschift High School Oxford Street SPS 4014 Kingscliff High School Oxford Street	Electrical Upgrade			Augment	2007	\$1,200		\$1,200
	SPS 4014 Kingscliff High School Oxford Street	Pipe Work Replacement			Augment	2007	\$6,000		\$6,000
	SPS 4015 Fingal Road South	Electrical Upgrade			Augment	2007	\$6,000		\$6,000
	SPS 4022 Ibis Court	Mechanical Upgrade			Augment	2007	\$24,000		\$24,000
	SPS 4022 Ibis Court	Pipe Work Replacement			Augment	2007	\$6,000		\$6,000
	SPS 4023 Kings Forest Regional (Future) SPS 4025 Coast Road Casuarina Beach Sub Regional	SPS New Mechanical Ungrade			Augment	2011 2010	\$125,000		\$125,000
	SPS 4025 Coast Road Casuarina Beach Sub Regional	Mechanical Upgrade			Augment	2013	\$100,000		\$100,000
	SPS 4030 Point Break Circuit SPS 4034 Cnr Phillip & Ozone	Mechanical Upgrade SPS New			Augment	2009 2007	\$40,000		\$40,000
	SPS 4034 Cnr Phillip & Ozone	Mechanical Upgrade			Augment	2008	\$42,000		\$42,000
	SPS 4035 Cnr Elrond & Turnock SPS 4040 Noble Park Private	SPS New Electrical Upgrade			Augment	2007 2007	\$16,000		\$516,000 \$18,000
	SRM Kingscliff	Land Acquisition			Augment	2007	\$3,000		\$3,000
	SRM Kingschiff	Land Acquisition			Augment	2008	\$3,000		\$3,000
	SRM Kingscliff	Land Acquisition			Augment	2010	\$3,000		\$3,000
	SRM Kingscliff	Land Acquisition			Augment	2011	\$3,000		\$3,000
	SRM Kingscliff SRM Kingscliff	Land Acquisition			Augment Augment	2013 2014	\$3,000 \$3.000		\$3,000 \$3.000
	SRM Kingscliff	Land Acquisition			Augment	2015	\$3,000	1	\$3,000
	SRM Kingscliff SRM Kingscliff	Land Acquisition Land Acquisition			Augment Augment	2016 2017	\$3,000 \$3,000	1	\$3,000 \$3,000
	SRM Kingscliff	Land Acquisition			Augment	2018	\$3,000	1	\$3,000
	SKM Kingscliff SRM Kingscliff	Land Acquisition Land Acquisition			Augment Augment	2019 2020	\$3,000 \$3,000		\$3,000 \$3,000
	SRM Kingscliff	Land Acquisition			Augment	2021	\$3,000	1	\$3,000
	SRM Kingscliff	Land Acquisition Land Acquisition			Augment	2022 2023	\$3,000	1	\$3,000
	SRM Kingscliff	Land Acquisition			Augment	2024	\$3,000	1	\$3,000
	SRM Kingschiff	Land Acquisition			Augment	2025	\$3,000	1	\$3,000
	SRM Kingscliff SRM Kingscliff	Land Acquisition			Augment	2027	\$3,000	1	\$3,000
	SRM Kingscliff	Land Acquisition			Augment	2029	\$3,000		\$3,000
	SRM Kingscliff SRM Kingscliff	Land Acquisition Land Acquisition			Augment Augment	2030 2031	\$3,000 \$3,000	1	\$3,000 \$3.000
	SRM Kingscliff	Land Acquisition			Augment	2032	\$3,000	1	\$3,000
	SRM Kingscliff SRM Kingscliff	Land Acquisition Land Acquisition			Augment Augment	2033 2034	\$3,000 \$3,000	1	\$3,000 \$3,000
	SRM Kingscliff	Land Acquisition			Augment	2035	\$3,000		\$3,000
	Kingscliff	SRM New			Augment	2038	\$15,000		\$15,000
	Kingscliff Kingscliff	SRM New			Augment	2009	\$15,000		\$15,000 \$15,450
	Kingschiff	SRM New			Augment	2010	\$15,914		\$15,914
	Kingscliff Kingscliff	SRM New SRM New			Augment Augment	2012 2013	\$16,391 \$16,883		\$16,391 \$16,883
	Kingscliff	SRM New			Augment	2014	\$17,389		\$17,389
	Kingscliff Kingscliff	SRM New SRM New			Augment	2015 2016	\$17,911 \$18,448		\$17,911 \$18,448
	Kingscliff Kingscliff	SRM New			Augment	2017	\$19,001		\$19,001
	Kingschiff	SRM New			Augment	2018 2019	\$20,029		\$20,029
	Kingscliff	SRM New			Augment	2020	\$20,548		\$20,548 \$21,072
	Kingschiff	SRM New			Augment	2021	\$21,598		\$21,598
	Kingscliff Kingscliff	SRM New SRM New			Augment Augment	2023 2024	\$22,128 \$22,661		\$22,128 \$22,661
	Kingscliff	SRM New			Augment	2025	\$23,196		\$23,196
	Kingscliff Kingscliff	SRM New SRM New			Augment	2026 2027	\$23,735 \$24,275		\$23,735 \$24,275
	Kingscliff	SRM New			Augment	2028	\$24,818		\$24,818
	Kingschiff	SRM New			Augment	2029	\$25,909		\$25,909
	Kingscliff	SRM New			Augment	2031	\$26,456		\$26,456
	Kingschiff	SRM New			Augment	2032	\$27,556		\$27,556
	Kingscliff Kingscliff	SRM New SRM New	<u> </u>		Augment Augment	2034 2035	\$28,107 \$28.659	1	\$28,107 \$28.659
	Kingscliff	SRM New			Augment	2036	\$29,211	1	\$29,211
	Kingscliff Kingscliff	SRM Upgrade SRM Upgrade			Augment Augment	2008 2009	\$6,000 \$6,000	1	\$6,000 \$6,000
	Kingscliff	SRM Upgrade			Augment	2010	\$6,180		\$6,180
	Kingscliff	SRM Upgrade SRM Upgrade			Augment	2011 2012	\$6,365 \$6,555	1	\$6,365 \$6,555
	Kingscliff	SRM Upgrade			Augment	2013	\$6,752		\$6,752
	Kingschiff	SRM Upgrade			Augment	2014 2015	\$7,164	1	\$7,164
	Kingscliff Kingscliff	SRM Upgrade			Augment	2016	\$7,379 \$7,600	1	\$7,379 \$7,600
	Kingscliff	SRM Upgrade			Augment	2018	\$7,805		\$7,805
	Kingscliff Kingscliff	SRM Upgrade SRM Upgrade			Augment Augment	2019 2020	\$8,011 \$8,219		\$8,011 \$8,219
	Kingscliff	SRM Upgrade			Augment	2021	\$8,428		\$8,428
	Kingscliff	SKM Upgrade SRM Upgrade			Augment Augment	2022 2023	\$8,639 \$8,851		\$8,851
	Kingscliff Kingscliff	SRM Upgrade			Augment	2024	\$9,064		\$9,064
	Kingschiff	SRM Upgrade			Augment	2025	\$9,493		\$9,493
	Kingscliff	SRM Upgrade			Augment	2027	\$9,710		\$9,710
	Kingscliff	SRM Upgrade			Augment	2029	\$10,144		\$10,144
	Kingscliff Kingscliff	SRM Upgrade SRM Upgrade			Augment Augment	2030	\$10,363 \$10.582		\$10,363 \$10.582
	Kingscliff	SRM Upgrade			Augment	2032	\$10,802		\$10,802
	Kingschiff	SKM Upgrade SRM Upgrade			Augment Augment	2033 2034	\$11,022 \$11,242		\$11,022 \$11,242
	Kingscliff	SRM Upgrade			Augment	2035	\$11,463		\$11,463
	Augo 11	SIGM Opgraue			Augment	2030	\$11,064		φ11,004

Catchment	Kingscliffe sewer								
Year of Calculation		2006	1			Cut-off Year	2036		
AREA	PROJECT	PIPE	PIPE	ASSET	ASSET	CONSTRUCTION	ASSET	CPI	RECOVERABLE
		SIZE	LENGTH	TYPE	STATUS	DATE	COST		COST
	SRM 4003 Ocean Street SPM 4005 Kingscliff Street	SRM New SPM New			Augment	2007	\$169,000		\$169,000
	SRM 4005 Kingschn Street	SRM New			Augment	2007	\$28,000		\$28,000
	SRM 4008 Chinderah Road	SRM New			Augment	2007	\$110,000		\$110,000
	SRM 4009 Vulcan Street	SRM New			Augment	2007	\$160,000		\$160,000
	SRM 4011 Chinderah Industrial Est. Morton Street	SRM New			Augment	2007	\$44,000		\$44,000
	SRM 4022 Ibis Court	SRM New			Augment	2008	\$118,000		\$118,000
	SRM 4023 Kings Forest Regional (Future)	SRM New			Augment	2007	\$60,000		\$60,000
	SRM 4023 Kings Forest Regional (Future)	SRM New			Augment	2009	\$1,150,000		\$1,150,000
	SRM 4023 Kings Forest Regional (Future)	SRM New			Augment	2010	\$1,610,000	1	\$1,610,000
	SRM 4023 Kings Forest Regional (Future)	SRM New			Augment	2012	\$1,610,000	1	\$1,610,000
	SRM 4025 Coast Road Casuarina Beach Sub Regional	SRM New			Augment	2008	\$631,000	1	\$631,000
	SRM 4030 Salt	SRM New			Augment	2007	\$60,000	1	\$60,000
	SRM 4034 Cnr Phillip & Ozone Sts	SRM New			Augment	2007	\$557,000	1	\$557,000
	SRM 4035 Cnr Elrond & Turnock	SRM New			Augment	2008	\$280,000		\$280,000
	SKM 4040 Noble Park	SRM New			Augment	2007	\$15,000		\$13,000
	Kingscliff	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2008	\$7,500		\$7,500
	Kingscliff	Gravity Sewer Upgrade			Augment	2010	\$7,500		\$7,500
	Kingscliff	Gravity Sewer Upgrade			Augment	2011	\$7,500		\$7,500
	Kingscliff	Gravity Sewer Upgrade			Augment	2012	\$7,500		\$7,500
	Kingscliff	Gravity Sewer Upgrade			Augment	2013	\$7,500		\$7,500
	Kingscliff	Gravity Sewer Upgrade			Augment	2014	\$7,500		\$7,500
	Kingschiff	Gravity Sewer Upgrade	<u> </u>		Augment	2015	\$7,500		\$7.500 \$7.500
	Kingscliff	Gravity Sewer Upgrade	1		Augment	2017	\$7,500		\$7,500
	Kingscliff	Gravity Sewer Upgrade	1		Augment	2018	\$7,740		\$7,740
	Kingscliff	Gravity Sewer Upgrade			Augment	2019	\$7,985		\$7,985
	Kingscliff	Gravity Sewer Upgrade			Augment	2020	\$8,233		\$8,233
	Kingscliff	Gravity Sewer Upgrade			Augment	2021	\$8,485		\$8,485
	Kingscliff	Gravity Sewer Upgrade			Augment	2022	\$8,740		\$8,740
	Kingschiff	Gravity Sewer Upgrade			Augment	2023	\$0,999		\$0,999
	Kingscliff	Gravity Sewer Opgrade			Augment	2024	\$9,529		\$9.529
	Kingscliff	Gravity Sewer Upgrade			Augment	2026	\$9,798		\$9,798
	Kingscliff	Gravity Sewer Upgrade			Augment	2027	\$10,072		\$10,072
	Kingscliff	Gravity Sewer Upgrade			Augment	2028	\$10,348		\$10,348
	Kingscliff	Gravity Sewer Upgrade			Augment	2029	\$10,628		\$10,628
	Kingscliff	Gravity Sewer Upgrade			Augment	2030	\$10,911		\$10,911
	Kingscliff	Gravity Sewer Upgrade Gravity Sewer Upgrade			Augment	2031	\$11,198		\$11,190
	Kingscliff	Gravity Sewer Opgrade			Augment	2032	\$11,780		\$11,780
	Kingscliff	Gravity Sewer Upgrade			Augment	2034	\$12,076		\$12,076
	Kingscliff	Gravity Sewer Upgrade			Augment	2035	\$12,374		\$12,374
	Kingscliff	Gravity Sewer Upgrade			Augment	2036	\$12,676		\$12,676
	Kingscliff	Gravity Sewer New			Augment	2008	\$7,500		\$7,500
	Kingscliff	Gravity Sewer New			Augment	2009	\$7,500		\$7,500
	Kingschiff	Gravity Sewer New			Augment	2010	\$7,500		\$7,500
	Kingscliff	Gravity Sewer New			Augment	2012	\$7,500		\$7,500
	Kingscliff	Gravity Sewer New			Augment	2013	\$7,500		\$7,500
	Kingscliff	Gravity Sewer New			Augment	2014	\$7,500		\$7,500
	Kingscliff	Gravity Sewer New			Augment	2015	\$7,500		\$7,500
	Kingschiff	Gravity Sewer New			Augment	2016	\$7,500		\$7,500
	Kingschiff	Gravity Sewer New			Augment	2017	\$7,500		\$7,300
	Kingscliff	Gravity Sewer New	1		Augment	2019	\$7,985		\$7,985
	Kingscliff	Gravity Sewer New			Augment	2020	\$8,233		\$8,233
	Kingscliff	Gravity Sewer New			Augment	2021	\$8,485		\$8,485
	Kingscliff	Gravity Sewer New	L		Augment	2022	\$8,740		\$8,740
	Kingschiff	Gravity Sewer New			Augment	2023	\$8,999 \$0.262		\$0,999 \$0,999
	Kingscliff	Gravity Sewer New			Augment	2024	\$9,202		\$9,202
	Kingscliff	Gravity Sewer New	1		Augment	2026	\$9,798		\$9,798
	Kingscliff	Gravity Sewer New			Augment	2027	\$10,072		\$10,072
	Kingscliff	Gravity Sewer New			Augment	2028	\$10,348		\$10,348
	Kingscliff	Gravity Sewer New			Augment	2029	\$10,628		\$10,628
	Kingschiff	Gravity Sewer New			Augment	2030	\$10,911		\$10,911
	Kingschiff	Gravity Sewer New Gravity Sewer New	-		Augment	2031	\$11,198		\$11,198
	Kingscliff	Gravity Sewer New			Augment	2032	\$11,407		\$11.780
	Kingscliff	Gravity Sewer New	-		Augment	2034	\$12,076		\$12,076
	Kingscliff	Gravity Sewer New			Augment	2035	\$12,374		\$12,374
	Kingscliff	Gravity Sewer New			Augment	2036	\$12,676		\$12,676
	Turnock St Ext Kcliff High to SPS 4035	Gravity Sewer New	ļ		Augment	2007	\$100,000		\$100,000
	Turnock St Ext Keliff High to SPS 4035	Gravity Sewer New			Augment	2008	\$134,000		\$134,000
	Data can sues Kingschitt Kingscliff STP	Construction			Augment	2007	\$15,000		\$26,000,000
	Kingscliff STP	Construction			Augment	2008	\$12,000.000		\$12,000.000
	Kingscliff STP	Construction			Augment	2014	\$500,000		\$500,000
	Kingscliff STP	Construction			Augment	2015	\$15,000,000		\$15,000,000
	Kingscliff STP	Construction			Augment	2016	\$15,000,000		\$15,000,000
	Kingscliff STP	Construction	L		Augment	2018	\$6,000,000		\$6,000,000
	Kingschift STD	SKivi new 2 x 500mm Effluent Dienoeal Main New 600mm			Augment	2007	\$229,126		\$229,126
	Kingschit STP	Effluent main modification	<u> </u>		Augment	2007	\$450.000		\$450,092
L			1		, taginoni	2007	\$150,000		÷ 100,000
						Tatal	\$94 791 CCC		<b>≜04 501 ((0</b>



## **DEVELOPER CHARGES MODEL**

Hastings Point sewer

Year : 2006

#### Calculation of Capital Cost

Catchment

Year of Calculation

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :

Hastings Point sewer

2006

3% 7%

Future Assets

Year

1996 1997 1998

2036

Recoupable Capital Expenditure

(\$)

0 0 0

0 0 0 0 476,000 547,000 881,420 46,852 47,297 47,257 48,218 48,216 49,217 2,049,735 8,530,828 8,051,932 53,052 54,181 55,324 8,051,932 53,052 54,181 55,324 65,638 55,324 61,185 53,601 64,821 66,049 67,285 68,530 69,779 71,038 72,303

V CHARGE (\$/ET)

Annual ET Take-up

(ET)

victing A	ssets (Pre 1996)		Existing	Assets (Post 1996)	
Year	Recoupable Capital Expenditure	Annual ET Take-up	Year	Recoupable Capital Expenditure	Annual ET Take-up
	(MEERA \$)	(ET)		(\$)	(ET)
1996	8,513,113	2043	1996	2,432	2043
1997		76	1997	0	76
1998		76	1998	0	76
1999		76	1999	207,851	76
2000		76	2000	648,077	76
2001		76	2001	1,402,710	76
2002		140	2002	1,136	140
2003		140	2003	240,020	140
2004		140	2004	4,711,622	140
2005		140	2005	1,862,720	140
2006		140	2006	1,822,243	140
2007		140	2007	0	140
2008		141	2008	0	141
2009		139	2009	0	139
2010		141	2010	0	141
2011		140	2011	0	140
2012		141	2012	0	141
2013		140	2013	0	140
2014		140	2014	0	140
2015		141	2015	0	141
2016		140	2016	0	140
2017		140	2017	0	140
2018		140	2018	0	140
2019		141	2019	0	141
2020		140	2020	0	140
2021		140	2021	0	140
2022		140	2022	0	140
2023		141	2023	0	141
2024		140	2024	0	140
2025		140	2025	0	140
2026		141	2026	0	141
2027		140	2027	0	140
2028		141	2028	0	141
2029		139	2029	0	139
2030		141	2030	0	141
2031		140	2031	0	140
2032		0	2032	0	0
2033		0	2033	0	0
2034		0	2034	0	0
2035		0	2035	0	0
2036		0	2036	0	0
		1			

TOTAL NPV CAPITAL WORKS CHARGE per ET

\$5,176

# Demand Profile

Catchment

Hastings Point sewer

Demand         Increase (ET)         Increase           0         0         0           1970         0         0           1971         0         0           1973         0         0           1974         0         0           1975         0         0           1975         0         0           1976         0         0           1977         0         0           1978         0         0           1979         0         0           1980         0         0           1981         0         0           1982         0         0           1984         0         0           1985         0         0           1986         1022         1022           1987         1077         55           1988         1136         58           1990         1262         65           1991         1330         68           1992         1473         143           1996         2043         143           1996         2043         144	Vear	Total	Annual Demand
(ET)         (ET)           1970         0           1971         0         0           1973         0         0           1973         0         0           1973         0         0           1973         0         0           1975         0         0           1976         0         0           1977         0         0           1978         0         0           1980         0         0           1981         0         0           1982         0         0           1984         0         0           1985         0         0           1986         1022         1022           1987         1077         55           1989         1197         61           1990         1262         65           1991         1330         68           1992         1473         143           1996         2043         143           1997         2119         76           2000         2347         76           2001         2423 <td< th=""><th>i cui</th><th>Demand</th><th>Increase</th></td<>	i cui	Demand	Increase
1970         0         1           1971         0         0           1972         0         0           1973         0         0           1974         0         0           1975         0         0           1976         0         0           1977         0         0           1978         0         0           1979         0         0           1980         0         0           1984         0         0           1985         0         0           1986         1022         1022           1987         1077         55           1988         1136         58           1999         1262         65           1990         1262         65           1991         1330         68           1992         1473         143           1995         1901         143           1995         1901         143           1995         1901         143           1997         2119         76           2000         2347         76		(ET)	(ET)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		( ·- )	/
197000 $1971$ 00 $1972$ 00 $1973$ 00 $1974$ 00 $1975$ 00 $1976$ 00 $1977$ 00 $1978$ 00 $1978$ 00 $1978$ 00 $1980$ 00 $1981$ 00 $1988$ 00 $1988$ 00 $1988$ 00 $1988$ 10221022 $1987$ 107755 $1988$ 113658 $1989$ 119761 $1990$ 126265 $1999$ 133068 $1992$ 1473143 $1995$ 1901143 $1995$ 1901143 $1995$ 1901143 $1995$ 1901143 $1997$ 211976 $2000$ 234776 $2000$ 234776 $2000$ 234776 $2001$ 242376 $2002$ 2564140 $2005$ 2985140 $2006$ 3125140 $2006$ 3125140 $2011$ 3265140 $2012$ 3666141 $2013$ 413 $2014$ 4247140 $2015$ 4388141 $2016$ 4528140 $2011$ 3826140 $2015$ 3689			
1970         0         0           1972         0         0           1973         0         0           1974         0         0           1975         0         0           1976         0         0           1977         0         0           1978         0         0           1978         0         0           1980         0         0           1981         0         0           1982         0         0           1984         0         0           1985         0         0           1986         1022         1022           1987         1077         55           1988         1136         58           1990         1262         65           1991         1330         68           1992         1473         143           1994         1788         143           1995         1901         143           1996         2043         1443           1996         2044         140           2000         2347         76			
1972         0         0           1973         0         0           1974         0         0           1975         0         0           1976         0         0           1977         0         0           1978         0         0           1979         0         0           1980         0         0           1982         0         0           1983         0         0           1984         0         0           1985         0         0           1986         1022         1022           1987         1077         55           1988         1130         68           1990         1262         65           1990         1262         65           1990         1262         65           1991         1330         68           1992         1473         143           1995         1901         143           1995         1901         143           1995         1901         143           1996         2043         143	1970	0	0
1973       0       0 $1974$ 0       0 $1975$ 0       0 $1976$ 0       0 $1977$ 0       0 $1978$ 0       0 $1978$ 0       0 $1980$ 0       0 $1981$ 0       0 $1982$ 0       0 $1984$ 0       0 $1985$ 0       0 $1986$ 1022       65 $1987$ 1077       55 $1988$ 1136       58 $1999$ 1262       65 $1999$ 1262       65 $1999$ 1262       65 $1999$ 143       143 $1996$ 2043       143 $1997$ 2119       76 $2000$ 2347       76 $2001$ 2423       76 $2002$ 2564       140 $2005$ 2985       140 $2006$ 3125       140 $200$	1971	0	0
1974       0       0         1975       0       0         1976       0       0         1977       0       0         1978       0       0         1979       0       0         1980       0       0         1981       0       0         1982       0       0         1983       0       0         1984       0       0         1985       0       0         1986       1022       1022         1987       1077       55         1988       1136       58         19990       1262       65         19991       1330       68         1992       1473       143         1994       1758       143         1995       1901       143         1996       2043       143         1997       2119       76         2000       2347       76         2001       2423       76         2002       2564       140         2005       2985       140         2006       3125       140	1972	0	0
19750019760019770019780019790019800019810019830019840019850019850019861022102219871077551988113658198911976119901262651991133068199214731431993161514319941758143199519011431996204314319972119761998219576199922717620012423762001243776200124341402005298514020063125140200732651402006312514020113826141201239671412013410714020144247140201543881412016452814020174668140201848081402019551014120164528140201746681402018480814020155500 <td< td=""><td>1973</td><td>0</td><td>0</td></td<>	1973	0	0
1976         0         0           1977         0         0           1978         0         0           1979         0         0           1980         0         0           1981         0         0           1982         0         0           1983         0         0           1984         0         0           1985         0         0           1986         1022         1022           1987         1077         55           1988         1136         58           1990         1262         65           1991         1330         68           1992         1473         143           1993         1615         143           1994         1758         143           1995         1901         143           1995         2195         76           1998         2195         76           2000         2347         76           2001         2423         76           2002         2564         140           2005         2985         140	1975	0	0
197700 $1978$ 00 $1980$ 00 $1981$ 00 $1982$ 00 $1983$ 00 $1984$ 00 $1985$ 00 $1986$ 10221022 $1987$ 107755 $1988$ 113658 $1999$ 126265 $1999$ 126368 $1992$ 1473143 $1993$ 1615143 $1994$ 1758143 $1995$ 1901143 $1996$ 2043143 $1997$ 211976 $1998$ 219576 $2000$ 234776 $2001$ 242376 $2002$ 2564140 $2004$ 2844140 $2005$ 2985140 $2006$ 3125140 $2006$ 3125140 $2006$ 3545139 $2010$ 3686141 $2011$ 3826140 $2015$ 4388141 $2016$ 4528140 $2017$ 4668140 $2018$ 4808140 $2017$ 4668140 $2018$ 4808140 $2017$ 4668140 $2018$ 4808140 $2017$ 4668140 $2018$ 4808140 $2019$ 4949141 $2020$ 50399140 $2021$ 52	1976	0	0
197800 $1979$ 00 $1980$ 00 $1981$ 00 $1982$ 00 $1983$ 00 $1984$ 00 $1985$ 00 $1986$ $1022$ $1022$ $1987$ $1077$ 55 $1988$ $1136$ 58 $1999$ $1262$ 65 $1991$ $1330$ 68 $1992$ $1473$ $143$ $1993$ $1615$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2006$ $3255$ $140$ $2006$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ <	1977	0	0
1979000 $1981$ 00 $1982$ 00 $1983$ 00 $1984$ 00 $1984$ 00 $1985$ 00 $1986$ $1022$ $1022$ $1987$ $1077$ 55 $1988$ $1136$ 58 $1989$ $1197$ 61 $1990$ $1262$ 65 $1991$ $1330$ 68 $1992$ $1473$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2011$ $3826$ $140$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2021$ $529$ $140$ $2022$ $5369$ $14$	1978	0	0
1980001981001982001983001984001985001986102210221987107755198811365819891197611990126265199113306819921473143199316151431995190114319951901143199620431431997211976199821957620002347762001242376200225641402003270414020042844140200529851402006312514020073265140201036861412011382614020134107140201442471402015438814120164528140201746681402018489814020195931141202050891402021522914020225369140203355101412045650140205593114120659311412024565014020	1979	0	0
10010019820019830019840019850019861022102219871077551988113658199912626519901262651991133068199214731431993161514319941758143199519011431996204314319972119761998219576200023477620012423762002256414020052985140200631251402007326514020083406141200935451392010368614120113826140201225641402013410714020144247140201543881412016452814020174668140201848081402019508914020215291402022536914020235510141202050891402021522140202253691402023551014120245650140 <trr< td=""><td>1980</td><td>0</td><td>0</td></trr<>	1980	0	0
19830019840019850019861022102219871077551988113658198911976119901262651991133068199214731431994175814319951901143199620431431997211976199821957620002347762001242376200225641402005298514020063125140200732651402008340614120103686141201138261402015438814120164528140201543881412016452814020174668140201848081402019494914120205089140202152291402023551014120245650140202557901402024565014020255790140202659311412027607114020235510141202456501402025579014020265931141 </td <td>1982</td> <td>0</td> <td>0</td>	1982	0	0
1984001985001986102219871077551988113658198911976119901262651991133068199214731431993161514319941758143199519011431996204314319972119762000234776200124237620022564140200327041402004284414020052985140200631251402007326514020083406141201138261402012396714120134107140201442471402015438814120164528140201746681402018480814020195291402021529140202253691402023551014120245650140202557901402026593114120276071140202862121412031663202033663202034663202035663202	1983	0	0
1985000 $1986$ $1022$ $1022$ $1987$ $1077$ $55$ $1988$ $1136$ $58$ $1989$ $1197$ $61$ $1990$ $1262$ $65$ $1991$ $1330$ $68$ $1992$ $1473$ $143$ $1993$ $1615$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $2000$ $2347$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2006$ $3255$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3667$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $5259$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $5350$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ <	1984	0	0
1986 $1022$ $1022$ $1987$ $1077$ $55$ $1988$ $1136$ $58$ $1989$ $1197$ $61$ $1990$ $1262$ $65$ $1991$ $1330$ $68$ $1992$ $1473$ $143$ $1993$ $1615$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $1998$ $2195$ $76$ $1999$ $2271$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3825$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $140$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5689$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ <td>1985</td> <td>0</td> <td>0</td>	1985	0	0
1987 $1077$ $55$ $1988$ $1136$ $58$ $1990$ $1262$ $65$ $1991$ $1330$ $68$ $1992$ $1473$ $143$ $1993$ $1615$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $1998$ $2195$ $76$ $1998$ $2195$ $76$ $2000$ $2347$ $76$ $2000$ $2347$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2006$ $3255$ $140$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $140$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $5510$ $141$ $2022$ $5369$ $140$ $2025$ $5790$ $140$ $2025$ $5790$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2027$ $6071$ $140$ $2028$ $6212$ <td>1986</td> <td>1022</td> <td>1022</td>	1986	1022	1022
1500 $1190$ $58$ $1990$ $1262$ $65$ $1991$ $1330$ $68$ $1992$ $1473$ $143$ $1993$ $1615$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $1998$ $2195$ $76$ $1999$ $2271$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2019$ $5190$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2027$ $6071$ $140$ $2028$ $6212$ $141$ $2029$ $6351$ </td <td>1987</td> <td>1077</td> <td>55</td>	1987	1077	55
1500 $1177$ $01$ $1990$ $1262$ $65$ $1991$ $1330$ $68$ $1992$ $1473$ $143$ $1993$ $1615$ $143$ $1994$ $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $1998$ $2195$ $76$ $1999$ $2271$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2024$ $5650$ $140$ $2025$ $5931$ $141$ $2026$ $5931$ </td <td>1788</td> <td>1130</td> <td>58 61</td>	1788	1130	58 61
19911330681992147314319931615143199417581431995190114319962043143199721197619982195762000234776200124237620022564140200327041402004284414020052985140200631251402007326514020083406141200935451392010368614120134107140201543881412015438814120164528140201746681402018480814020195999140202152991402023551014120245650140202557901402026593114120276071140202862121412029635113920306492141203166320203566320203666320203666320	1990	1262	65
1992 $1473$ $143$ 1993161514319941758143199519011431996204314319972119761998219576200023477620012423762002256414020032704140200428441402005298514020063125140200732651402008340614120093545139201036861412011382614020123967141201341071402014424714020154388141201645281402017466814020184808140201952914020215229140202253691402023551014120245650140202557901402026593114120296351139203064921412029635113920306492141203166320203366320203466320203566320203666320	1991	1330	68
199316151431994175814319951901143199620431431997211976199821957619992271762000234776200124237620022564140200327041402004284414020052985140200631251402007326514020083406141201036861412011382614020123967141201341071402014424714020154388141201645281402017466814020184808140201955101412020589140202152291402022536914020235510141202456501402025579014020265931141202760711402028621214120306492141203166320203366320203466320203566320203666320	1992	1473	143
1994 $1758$ $143$ $1995$ $1901$ $143$ $1996$ $2043$ $143$ $1997$ $2119$ $76$ $1998$ $2195$ $76$ $2000$ $2347$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $589$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2029$ $6351$ $139$ $2030$ $6492$ $141$ $2033$ $6632$ $0$ $2034$ $6632$ $0$ $2035$ $6632$ $0$	1993	1615	143
199519011431996 $2043$ 1431997 $2119$ $76$ 1998 $2195$ $76$ 2000 $2347$ $76$ 2001 $2423$ $76$ 2002 $2564$ 1402003 $2704$ 1402004 $2844$ 1402005 $2985$ 1402006 $3125$ 1402007 $3265$ 1402008 $3406$ 1412009 $3545$ 1392010 $3886$ 1412011 $3826$ 1402012 $3967$ 141201341071402014 $4247$ 1402015 $4388$ 1412016 $4528$ 1402017 $4668$ 1402018 $4808$ 1402019 $4949$ 1412020 $5089$ 1402021 $5229$ 1402022 $5369$ 1402023 $5510$ 1412024 $5650$ 1402025 $5790$ 1402026 $5931$ 1412027 $6071$ 1402028 $6212$ 1412030 $6492$ 1412031 $6632$ 02033 $6632$ 02034 $6632$ 02035 $6632$ 02036 $6632$ 0	1994	1758	143
1996 $2043$ $143$ 1997 $2119$ $76$ 1998 $2195$ $76$ 2000 $2347$ $76$ 2001 $2423$ $76$ 2002 $2564$ $140$ 2003 $2704$ $140$ 2004 $2844$ $140$ 2005 $2985$ $140$ 2006 $3125$ $140$ 2008 $3406$ $141$ 2009 $3545$ $139$ 2010 $3686$ $141$ 2011 $3826$ $140$ 2012 $3967$ $141$ 2013 $4107$ $140$ 2014 $4247$ $140$ 2015 $4388$ $141$ 2016 $4528$ $140$ 2017 $4668$ $140$ 2018 $4808$ $140$ 2019 $5089$ $140$ 2021 $5229$ $140$ 2021 $5229$ $140$ 2022 $5650$ $140$ 2023 $5510$ $141$ 2024 $5650$ $140$ 2025 $5790$ $140$ 2026 $5931$ $141$ 2027 $6071$ $140$ 2028 $6212$ $141$ 2030 $6492$ $141$ 2031 $6632$ $0$ 2033 $6632$ $0$ 2034 $6632$ $0$ 2035 $6632$ $0$ 2036 $6632$ $0$	1995	1901	143
1998 $2195$ $76$ $1999$ $2271$ $76$ $2000$ $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2007$ $3265$ $140$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2027$ $6071$ $140$ $2028$ $6212$ $141$ $2031$ $6632$ $0$ $2033$ $6632$ $0$ $2034$ $6632$ $0$ $2035$ $6632$ $0$ $2036$ $6632$ $0$	1990	2043	145
19992271762000 $2347$ 762001 $2423$ 762002 $2564$ 1402003 $2704$ 1402004 $2844$ 1402005 $2985$ 1402006 $3125$ 1402007 $3265$ 1402008 $3406$ 1412009 $3545$ 1392010 $3686$ 1412011 $3826$ 1402012 $3967$ 141201341071402014 $4247$ 1402015 $4388$ 1412016 $4528$ 1402017 $4668$ 1402018 $4808$ 1402019 $529$ 1402021 $5229$ 1402025 $5790$ 1402026 $5931$ 1412027 $6071$ 1402028 $6212$ 1412029 $6351$ 1392030 $6492$ 1412031 $6632$ 02033 $6632$ 02034 $6632$ 02035 $6632$ 02036 $6632$ 0	1997	2119	76
2000 $2347$ $76$ $2001$ $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2027$ $6071$ $140$ $2028$ $6212$ $141$ $2030$ $6492$ $141$ $2031$ $6632$ $0$ $2033$ $6632$ $0$ $2034$ $6632$ $0$ $2036$ $6632$ $0$	1999	2271	76
2001 $2423$ $76$ $2002$ $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2029$ $6351$ $139$ $2030$ $6492$ $141$ $2031$ $6632$ $0$ $2032$ $6632$ $0$ $2034$ $6632$ $0$ $2036$ $6632$ $0$	2000	2347	76
2002 $2564$ $140$ $2003$ $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2012$ $3967$ $141$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2025$ $5790$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2027$ $60711$ $140$ $2028$ $6212$ $141$ $2030$ $6492$ $141$ $2031$ $6632$ $0$ $2034$ $6632$ $0$ $2034$ $6632$ $0$ $2036$ $6632$ $0$	2001	2423	76
2003 $2704$ $140$ $2004$ $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2017$ $4668$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2029$ $6351$ $139$ $2030$ $6492$ $141$ $2031$ $6632$ $0$ $2033$ $6632$ $0$ $2034$ $6632$ $0$ $2035$ $6632$ $0$ $2036$ $6632$ $0$	2002	2564	140
2004 $2844$ $140$ $2005$ $2985$ $140$ $2006$ $3125$ $140$ $2007$ $3265$ $140$ $2008$ $3406$ $141$ $2009$ $3545$ $139$ $2010$ $3686$ $141$ $2011$ $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2017$ $4668$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5359$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2027$ $6071$ $140$ $2028$ $6212$ $141$ $2030$ $6492$ $141$ $2031$ $6632$ $0$ $2033$ $6632$ $0$ $2034$ $6632$ $0$ $2035$ $6632$ $0$ $2036$ $6632$ $0$	2003	2704	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2004	2844	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2005	3125	140
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2007	3265	140
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2008	3406	141
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2009	3545	139
2011 $3826$ $140$ $2012$ $3967$ $141$ $2013$ $4107$ $140$ $2014$ $4247$ $140$ $2015$ $4388$ $141$ $2016$ $4528$ $140$ $2017$ $4668$ $140$ $2018$ $4808$ $140$ $2019$ $4949$ $141$ $2020$ $5089$ $140$ $2021$ $5229$ $140$ $2022$ $5369$ $140$ $2023$ $5510$ $141$ $2024$ $5650$ $140$ $2025$ $5790$ $140$ $2026$ $5931$ $141$ $2026$ $5931$ $141$ $2026$ $5931$ $141$ $2027$ $6071$ $140$ $2028$ $6212$ $141$ $2030$ $6492$ $141$ $2031$ $6632$ $0$ $2033$ $6632$ $0$ $2034$ $6632$ $0$ $2035$ $6632$ $0$ $2036$ $6632$ $0$	2010	3686	141
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2011	3826	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2012	3967 4107	141
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2013	4107 4247	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2015	4388	141
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2016	4528	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2017	4668	140
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2018	4808	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2019	4949	141
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2020	5089	140
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2021	5369	140
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2022	5510	141
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2024	5650	140
2026         5931         141           2027         6071         140           2028         6212         141           2029         6351         139           2030         6492         141           2031         6632         140           2032         6632         0           2033         6632         0           2034         6632         0           2035         6632         0           2036         6632         0	2025	5790	140
$\begin{array}{cccccccc} 2027 & 6071 & 140 \\ 2028 & 6212 & 141 \\ 2029 & 6351 & 139 \\ 2030 & 6492 & 141 \\ 2031 & 6632 & 140 \\ 2032 & 6632 & 0 \\ 2033 & 6632 & 0 \\ 2034 & 6632 & 0 \\ 2035 & 6632 & 0 \\ 2036 & 6632 & 0 \\ \end{array}$	2026	5931	141
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2027	6071	140
2029         0031         139           2030         6492         141           2031         6632         140           2032         6632         0           2033         6632         0           2034         6632         0           2035         6632         0           2036         6632         0	2028	6212 6351	141
2031         6632         140           2032         6632         0           2033         6632         0           2034         6632         0           2035         6632         0           2036         6632         0	2029	6492	139
2032         6632         0           2033         6632         0           2034         6632         0           2035         6632         0           2036         6632         0	2030	6632	140
2033         6632         0           2034         6632         0           2035         6632         0           2036         6632         0	2032	6632	0
2034         6632         0           2035         6632         0           2036         6632         0	2033	6632	0
2035         6632         0           2036         6632         0	2034	6632	0
2030 0032 0	2035	6632	0
	2036	0032	U

#### Existing Assets

Catchment Hastings Point sewer

Year of Calculation

2006

Mandes         Mandes         Magent         Montes         Montes<	Asset Type		Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value	Calendar Year
Marcos         Angret         South 3	Manholes		Manhole			Augment	30/06/1986	\$804,600	100%	\$804,600	1986
Munica         Appunt         Monitog         Table         101           Coard Pros         Appunt         1001192         Table         1001192 <td></td> <td></td> <td>Manhole</td> <td></td> <td></td> <td>Augment</td> <td>30/06/1988</td> <td>\$9,000</td> <td>100%</td> <td>\$9,000</td> <td>1988</td>			Manhole			Augment	30/06/1988	\$9,000	100%	\$9,000	1988
Disol, Pest         250m         August         August         1000         \$1.45.38         1000         \$1.45.38         1000           226m         August         1071968         \$5.43.38         1000         \$1.45.38         1000           226m         August         1071968         \$5.93.00         0.000         \$5.03.00         1071968           Book Flag Mais         150m         August         1071988         \$5.90.00         0.000         \$5.00.00         1071988           Book Flag Mais         150m         August         1071988         \$5.00.00         10.000         \$5.00.00         10.000         \$5.00.00         10.000         \$5.00.00         10.000         \$5.00.00         10.000         \$5.00.00         10.000         \$5.00.00         10.000         \$5.00.00			Manhole			Augment	30/06/1992	\$20,800	100%	\$20,800	1992
Some Range (main and second	Gravity Pipes		225mm			Augment	1/07/1986	\$1,543,363	100%	\$1,543,363	1986
John         Appril         Junge         Particle         Partite         Particle         Parti			300mm			Augment	1/07/1986	\$422,186	100%	\$422,186	1986
22mm         Agence         0071980         012,020         000,         012,020         000,         012,020         000,         012,020         000,         012,020         000,         012,020			375mm			Augment	1/07/1986	\$433,823	100%	\$433,823	1986
Solum         Agent         Only 202         19,202         19,203<			225mm			Augment	1/07/1988	\$32,992	100%	\$32,992	1988
Beam Rang More         100m         Agence         1007/883         552:600         135.         621:500         163           200m         Agence         507/163         1007/883         105:6         105:7         105:8         100           200m         Agence         507/163         101/83         105:5         105:5         105:1         105:5         105:1         105:5			300mm			Augment	1/07/1992	\$18,208	100%	\$18,208	1992
Hotom         Augent         107/183         101.0	Sewer Rising Mains		100mm			Augment	1/07/1983	\$222,840	13%	\$27,855	1983
			150mm			Augment	1/07/1983	\$224,808	13%	\$28,101	1983
Americal         Ame			200mm			Augment	5/07/1983	\$410,381	13%	\$51,298	1983
WP         Wom         Augent         2707/193         193.04         195.         32.21         195.           2260         Augent         2007/193         83.04         155.         52.28         183.           2260         Augent         2007/193         83.14.04         155.         52.28         183.           2007         Augent         107702         83.14.04         155.04         155.04         155.04         155.04         155.04         155.04         155.04         155.04         155.00			225mm			Augment	20/07/1983	\$1,084,336	13%	\$135,542	1983
Bit Part (1)         Part (2)			2500mm			Augment	24/07/1903	\$4,149	13%	\$3.821	1983
Sever Purg Station         Augrent         107/1961         191.848         195.         12.428         199.           250mm         Augrent         107/2001         80.181         105.         92.727         200.           250mm         Augrent         107/2003         80.518         100%         85.137         100%         85.137         100%         85.1478         100%         85.1478         100%         85.1478         100%         85.1478         100%         85.1478         100%			375mm			Augment	29/07/1983	\$9,910	13%	\$1,221	1983
Base Purp Source         Base Purp Source<			225mm			Augment	1/07/1996	\$19,456	13%	\$2,432	1996
Solom         Augret         107/201         \$20.16         00%         \$32.16         00%         \$32.16         00%         \$32.16         00%         \$32.16         00%         \$32.12         00%         \$32.22			225mm			Augment	1/07/2000	\$60,618	13%	\$7.577	2000
<ul> <li></li></ul>			300mm			Augment	1/07/2001	\$29,149	100%	\$29,149	2001
150mm         Augent         107/2003         \$155.05         10%         \$155.05         2007           2007m         Augent         107/2004         \$851.27         50%         \$282.17         201           375mm         Augent         107/2004         \$871.287         50%         \$358.86         00%         \$358.86			200mm			Augment	1/07/2002	\$1,136	100%	\$1,136	2002
Best Purp Same         August 107/2003         \$12:217         100%         \$12:2217         200           300mm         August 107/2005         \$17:78         300         300         300           200mm         August 107/2005         \$17:78         100%         \$15:78         300           37:5mm         August 107/2005         \$17:78         100%         \$17:78         300           100mm         August 107/2005         \$11:78:80         100%         \$17:78         300           100mm         August 107/2005         \$11:78:80         100%         \$17:78         300           100mm         August 107/2005         \$11:75:80         100%         \$17:78         300           100mm         August 107/2006         \$11:85:00         \$15:85         10%         \$15:85         300           300mm         August 107/2006         \$11:85:00         \$10:85:00         \$10:85:00         \$10:85:00         300         300           WP         \$75:79         \$10:30         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:00         \$10:30:			150mm			Augment	1/07/2003	\$155,903	100%	\$155,903	2003
Some         August         107/2031         881/208         20/1         841/208         20/1           200mm         August         107/2006         581/72.00         59/5			250mm			Augment	1/07/2003	\$32,517	100%	\$32,517	2003
Johan         Agenati         10/2020         52/2.57         0.05         202.62/91         0.01           276m         Aggneti         10/2020         \$1/2.98         100%         \$2/3.54         20.05           375m         Aggneti         10/2020         \$1/2.98         100%         \$1/2.98         20.05           150mn         Aggneti         10/2020         \$1/2.98         100%         \$1/2.98         20.05           250mn         Aggneti         10/2020         \$1/2.98         100%         \$1/3.73         20.05           250mn         Aggneti         10/2020         \$1/8.85         100%         \$1/8.85         20.05         \$1/8.85 </td <td></td> <td></td> <td>300mm</td> <td></td> <td></td> <td>Augment</td> <td>1/07/2004</td> <td>\$875,206</td> <td>50%</td> <td>\$437,603</td> <td>2004</td>			300mm			Augment	1/07/2004	\$875,206	50%	\$437,603	2004
Offen         Aggent         10//2003         \$12/.08         100%         \$12/.08 <t< td=""><td></td><td></td><td>375mm</td><td></td><td></td><td>Augment</td><td>1/07/2004</td><td>\$512,537</td><td>50%</td><td>\$256,269</td><td>2004</td></t<>			375mm			Augment	1/07/2004	\$512,537	50%	\$256,269	2004
Jordini         Augenti         Jorizado         1917,580         JOX         JOX <thjox< th="">         JOX         JOX</thjox<>			200mm			Augment	1/07/2005	\$75,779	100%	\$/5,//9	2005
Magnet         Adjunts         Adjunts <th< td=""><td></td><td></td><td>3/3/////</td><td></td><td></td><td>Augment</td><td>1/07/2005</td><td>\$147,000 \$1,712,009</td><td>100%</td><td>\$73,943</td><td>2005</td></th<>			3/3/////			Augment	1/07/2005	\$147,000 \$1,712,009	100%	\$73,943	2005
Homm         Augment         1/07/2006         51,876         100%, 100%,         51,876         100%, 200         51,876         100%, 200         51,876         200           200         200         Augment         1/07/2006         55,467         200         51,885         2006, 2006         51,885         2006, 2006         51,885         2006, 2006         51,985         2006, 2006         51,982         100%, 21,985         51,985         2006, 2006         51,982         100%, 21,992         51,985         2006, 2006         51,982         100%, 21,992         51,985         2006, 2006         51,982         100%, 21,992         2006, 2006         2006, 2006         2006, 2006         2006, 2006         2006, 2006         2006, 2006         2006, 2006         2006, 2006         2006, 2006         2006, 2006, 2006         2006, 2006, 2006         2006, 2006, 2006         2006, 2006, 2006, 2006         2006,			37500			Augment	1/07/2003	\$1,712,550	100 %	\$1,712,990	2005
Z00mm         Aggneti         107/2006         \$248.627         100%         \$268.627         2006           220mm         Aggneti         107/2006         \$37.367         100%         \$37.367         2006           975em         Aggneti         107/2006         \$507.469         2006         2007.459         2006           Sever Punp Stations         SPS 5001         Aggneti         30062206         \$513.9227         100%         \$582.25         100%         \$582.25         2006			150mm			Augment	1/07/2006	\$1,876	100%	\$1,876	2000
Zohm         Aggneti         107/2006         \$7,479         100%         \$7,479         200%           WP         Vanue         Aggneti         107/2006         \$13.85         100%         \$13.85         200%           Sever Purg Station         Aggneti         300562006         \$13.2271         100%         \$57.550.277         200%           Sever Purg Station         Aggneti         300562006         \$13.2271         200%         \$50.500.206         20%         \$50.500.206         20%         \$50.500.206         20%         \$50.500.206         20%         \$50.500.206         20%         \$50.500.206         20%         \$50.500.206         100%         \$51.37.561         20%         \$50.500.206         3006/01983         \$50.500.500.506         40.3006/01983         \$50.500.500.500.500.500.500.500.500.500.			200mm			Augment	1/07/2006	\$464,627	100%	\$464,627	2006
Admin         Adjent         100/2000         53/200         100/x         52/200         00/x         52/200         50/x         52/200			225mm			Augment	1/07/2006	\$7,379	100%	\$7,379	2006
WIP         Various         Augment         3006/2006         \$139.277         100%         \$139.279         3006           Sever Purp, Stations         SPS 5001         Augment         3006/2006         \$1994.080         22%         \$595.000         2006           Sever Purp, Stations         SPS 5001         Augment         3006/2006         \$1994.080         \$506.376         \$506.376         \$206.376         \$200.576         \$306.225         2006         \$306.225         \$50%         \$137.3561         2001           SPS 5005         Augment         3006/2006         \$22.80.286         \$60%, \$13.373.561         2001           SPS 5006         Augment         3006/1833         \$116.544         \$00%, \$400.442         1183.3           SPS 5006         Augment         3006/1833         \$116.544         \$0%, \$400.442         1183.3           SPS 5010         Augment         3006/1833         \$242.40         \$306.357%         \$323.270         19%.         \$337.352         2006           SPS 5011         Augment         3006/1933         \$242.40         357.55         \$335.760         198.30         \$375.352         2005.557.55         \$383.790         198.30         \$375.551.56         \$352.32         2005.557.55         \$325.575.55			300mm			Augment	1/07/2006	\$1,885	100%	\$1,885	2006
Sever Punp Stations         Image: Sever Punp Stations         Sevever Punp Stations         Sever Punp Stati		WIP	375mm Various			Augment	30/06/2006	\$130,227	100%	\$307,429	2006
WP         SPS 5001         Augment         S00/06/20/6         S88.225         100%         S88.225         20%           SPS 5005         Augment         300/07/19/83         S87.256         100%         S88.226         20%           SPS 5005         Augment         300/07/19/83         S87.256         60%         \$137.3561         201           SPS 5006         Augment         300/07/19/83         \$37.752         50%         \$40.442         1983           SPS 5009         Augment         300/07/19/83         \$37.855         50%         \$22.49.266         60%         \$27.757         50%         \$20.44.67         1983           SPS 5009         Augment         300/07/1983         \$24.82.40         13%         \$31.55         1989           SPS 5010         Augment         300/07/1983         \$24.92.40         13%         \$31.55         1983           SPS 5011         Augment         300/07/1983         \$24.92.40         13%         \$31.55         1983           SPS 5010         Augment         300/07/1983         \$24.92.40         13%         \$31.55         1983           SPS 5011         Augment         300/07/1983         \$24.92.40         13%         \$31.55         1983	Sewer Pump Stations	vvii	SPS 5001			Augment	30/06/2006	\$1 994 088	26%	\$509.600	2006
Severage Treatment Plant         SPS 5003         Augment         30006/1983         \$950.07         50%         \$\$30.039         1983           SPS 5006         Augment         30006/1983         \$\$377.352         50%         \$\$188.676         1993           SPS 5006         Augment         30006/1983         \$\$17.352         50%         \$\$188.676         1993           SPS 5008         Augment         30006/1983         \$\$15.094         50%         \$\$224.167         1993           SPS 5008         Augment         30006/1983         \$\$41.5702         50%         \$\$224.167         1993           SPS 5010         Augment         30006/1983         \$\$74.524         50%         \$\$21.416         1993           SPS 5011         Augment         30006/1983         \$\$74.526         50%         \$\$31.55         1993           WP         SPS 5028         Augment         3006/1983         \$\$17.526         50%         \$\$35.232         1990           Severage Treatment Plant         Bull D         Augment         1971/178         \$\$12.200         50%         \$\$14.050         1981           Bull D         Augment         1771/1984         \$\$27.000         50%         \$\$14.050.00         1994	Contra any Clautino	WIP	SPS 5001			Augment	30/06/2006	\$86,225	100%	\$86,225	2006
SPS 5006         Augment         3006/2001         \$2,289,288         60%,         \$1,373,561         2001           SPS 5006         Augment         300001983         \$373,562         50%,         \$186,676         1983           SPS 5008         Augment         300001983         \$311,964         50%,         \$207,552         1993           SPS 5009         Augment         300001989         \$415,702         50%,         \$224,167         1993           SPS 5010         Augment         300001989         \$424,240         13%,         \$311,555         1993           SPS 5011         Augment         300001685         \$244,240         13%,         \$311,555         1993           Severage Treatment Plant         BUID         Augment         191/2107B         \$32,250         50%,         \$263,257         1983           Severage Treatment Plant         BUID         Augment         191/2107B         \$32,520         50%,         \$163,275         1984           Sludge Handing         Augment         191/2107B         \$32,520         50%,         \$163,025         1984           BUID         Augment         191/2107B         \$2,520         50%,         \$160,000         1994           BUID			SPS 5003			Augment	30/06/1983	\$660,878	50%	\$330,439	1983
SPS 5006         Augment         3006/1983         5377.322         60%         \$18.8.676         1983           SPS 5008         Augment         3006/1999         \$415,702         50%         \$207.851         1999           SPS 5009         Augment         3006/1999         \$416,702         50%         \$224,8167         1983           SPS 5010         Augment         3006/1993         \$224,926         50%         \$234,167         1983           SPS 5011         Augment         3006/1993         \$224,926         50%         \$236,739         1983           SPS 5014         Augment         3006/1990         \$1,476,546         20%         \$229,309         1983           Severage Treatment Plant         Bull.D         Augment         1912/1978         \$12,276         50%         \$1,450,502         1983           Severage Treatment Plant         Bull.D         Augment         1912/1978         \$12,276         50%         \$1,450,502         1981           Severage Treatment Plant         Bull.D         Augment         1912/1978         \$12,276         50%         \$1,450,502         1981           Severage Treatment Plant         Bull.D         Augment         1912/1978         \$12,276         50%         \$1,4			SPS 5005			Augment	30/06/2001	\$2,289,268	60%	\$1,373,561	2001
SPS 5008         Augment         3006/1930         \$818,864         50%         \$40,404.82         1983           SPS 5008         Augment         3006/1930         \$416,702         \$50%         \$223,4167         1983           SPS 5010         Augment         3006/1933         \$726,757         \$50%         \$233,476         1983           SPS 5011         Augment         3006/1933         \$249,240         13%         \$331,155         1983           SPS 5014         Augment         3006/1930         \$249,240         13%         \$353,232         100%           VIP         SPS 5014         Augment         3006/1903         \$32,650         \$50%         \$35,522         2006           Sewerage Treatment Plant         BUILD         Augment         137,127894         \$32,500         50%         \$1,465,000         1981           Stord per farstment Plant         BUILD         Augment         171,127894         \$2,000,000         50%         \$1,625         1981           BUILD         Augment         Augment         171,127894         \$2,000,000         50%         \$1,625         1981           BUILD         Augment         171,217894         \$1,000,00         50%         \$1,620,00         1990			SPS 5006			Augment	30/06/1983	\$377,352	50%	\$188,676	1983
SPS 5008         Augment         3006/1999         \$415,702         50%         \$207,851         1999           SPS 5010         Augment         3006/1983         \$727,579         50%         \$234,167         1983           SPS 5011         Augment         3006/1983         \$272,579         50%         \$263,708         1983           SPS 5011         Augment         3006/1983         \$272,579         50%         \$263,208         1993           Severage Teatment Plant         Bull.D         Augment         3006/1983         \$12,520         50%         \$253,203         1993           Severage Treatment Plant         Bull.D         Augment         191/1978         \$12,500         50%         \$53,252         2066           Stotage Inclusion         Augment         191/1978         \$12,500         50%         \$13,650         1981           Stotage Inclusion         Augment         171/1984         \$21,500         50%         \$13,650         1981           General         Augment         171/21984         \$12,0000         50%         \$13,600         1981           General         Augment         171/21984         \$12,0000         50%         \$14,0000         1980         1981         1993			SPS 5008			Augment	30/06/1983	\$818,964	50%	\$409,482	1983
Severage Treatment Plant         Sep 5009         Augment         30066/1883         \$246,333         50%         \$224,167         1983           WIP         SPS 5010         Augment         30066/1883         \$224,240         13%         \$311,55         1983           SPS 5014         Augment         30066/1883         \$224,240         13%         \$311,55         1983           Severage Treatment Plant         BUILD         Augment         30066/1983         \$224,240         13%         \$352,322         2006           Severage Treatment Plant         BUILD         Augment         1912/1776         \$12,276)         50%         \$53,522         2006           Severage Treatment Plant         BUILD         Augment         1912/1776         \$12,276)         50%         \$53,522         2006           BUILD         Augment         1712/1984         \$2,8000         50%         \$16,25         1981           BUILD         Augment         1712/1984         \$2,000         50%         \$16,20         1984           IDEAT 1         Augment         1712/1984         \$2,000         50%         \$10,000         1994           IDEAT 1         Augment         1712/1984         \$12,0000         50%         \$10,000<			SPS 5008			Augment	30/06/1999	\$415,702	50%	\$207,851	1999
SPS 5010         Augment         30006/1983         \$727.579         50%         \$383,790         1983           SPS 5011         Augment         30006/1993         \$242,240         13%         \$311,55         1983           SPS 5014         Augment         30006/1993         \$14,765,46         20%         \$225,308         1990           Severage Treatment Plant         BUILD         Augment         1912/1978         \$12,750         50%         \$1,85,232         2006           Severage Treatment Plant         BUILD         Augment         1912/1978         \$12,750         50%         \$1,46,55         1981           Studge Handling         Augment         11712/1984         \$2,260,00         50%         \$1,40,500         1984           BUILD         Augment         1712/1984         \$2,200         50%         \$1,40,500         1984           IDEAT 1         Augment         1712/1984         \$1,200,000         50%         \$1,40,500         1984           BUILD         Augment         1712/1984         \$1,200,000         50%         \$1,40,000         1990           BUILD         Augment         1712/1984         \$1,200,000         50%         \$1,40,000         1990           BUILD			SPS 5009			Augment	30/06/1983	\$468,333	50%	\$234,167	1983
SHS 5011         Augment         3000r1983         5249.240         1%5         531,155         1983           WIP         SPS 5014         Augment         3006/1990         \$1,476.546         2295.308         1990           Sewerage Treatment Plant         BUILD         Augment         19/12/1981         \$12,750         60%         \$65,375         1978           Studge Handling         Augment         19/12/1984         \$23,000         50%         \$1,625         1981           BUILD         Augment         17/12/1984         \$22,000         50%         \$1,625         1981           Generation         Augment         17/12/1984         \$22,000         50%         \$1,625         1984           BUILD         Augment         17/12/1984         \$1,200,000         50%         \$1,625         1984           IDEAT 1         Augment         16/12/1984         \$1,200,000         50%         \$10,000         1984           BUILD         Augment         16/12/1980         \$20,000         50%         \$140,000         1980           BUILD         Augment         16/12/1980         \$20,000         50%         \$140,000         2000           IDEAT 2         Augment         16/12/1980			SPS 5010			Augment	30/06/1983	\$727,579	50%	\$363,790	1983
MP         SP-S 30:14         Adgment         Soluce 300         Salue 70,200         Sa			SPS 5011			Augment	30/06/1983	\$249,240	13%	\$31,155	1983
Sewerage Treatment Plant         BUILD         Augment         19/12/1978         \$12,22         100/16         \$40,202         2000           Gewerage Treatment Plant         BUILD         Augment         19/12/1978         \$12,250         50%         \$14,05,000         1978           BUILD         Augment         18/12/1981         \$32,250         50%         \$14,05,000         1984           BUILD         Augment         17/12/1984         \$2,200,00         50%         \$14,05,000         1984           BUILD         Augment         17/12/1984         \$2,200,00         50%         \$35,250         1984           BUILD         Augment         17/12/1984         \$1,200,000         50%         \$500,000         1984           BUILD         Augment         16/12/1990         \$22,000         50%         \$10,000         1990           BUILD         Augment         16/12/1990         \$22,000         50%         \$14,00,000         1990           INET WORKS         Augment         13/12/2000         \$588,000         50%         \$14,000         1990           IDEAT 1         Augment         Augment         13/12/2000         \$59%         \$14,000         2000           IDEAT 2         Aug			SPS 5014			Augment	30/06/3006	\$1,470,540 \$25,222	20%	\$295,309	2006
BUILD         Augment         18/12/1981         \$3,250         50%         \$1,625         1981           Sludge Handling         Augment         17/12/1984         \$2,810,000         50%         \$1,405,000         1984           BUILD         Augment         17/12/1984         \$2,000         50%         \$1,405,000         1984           CHEMICAL         Augment         17/12/1984         \$2,000         50%         \$1,502         1984           DIEAT 1         Augment         17/12/1984         \$1,200,000         50%         \$600,000         1984           IDEAT 2         Augment         Augment         16/12/1990         \$2,000         50%         \$1000         1990           BUILD         Augment         16/12/1990         \$2,000         50%         \$1000         1990           BUILD         Augment         16/12/1990         \$2,000         50%         \$1000         1990           IDEAT 1         Augment         13/12/200         \$88,000         50%         \$1000         1990           IDEAT 2         Augment         13/12/2003         \$10,300         50%         \$31,600         2000           BUILD         Augment         13/12/2003         \$10,300	Sewerage Treatment Plan	nt	BUILD			Augment	19/12/1978	\$12,750	50%	\$6.375	1978
Sludge Handling         Augment         17/12/1984         \$22,810,000         50%         \$1,405,000         1984           BULD         Augment         17/12/1984         \$700,500         50%         \$320,250         1984           OLEAT1         Augment         17/12/1984         \$25,000         50%         \$12,500         1984           IDEAT1         Augment         17/12/1984         \$12,00,000         50%         \$600,000         1984           AMMENITES         Augment         17/12/1984         \$12,00,000         50%         \$600,000         1984           BULD         Augment         16/12/1990         \$2,000         50%         \$10,000         1990           BULD         Augment         16/12/1990         \$2,000         50%         \$140,000         1990           IDEAT1         Augment         13/12/2000         \$683,000         50%         \$140,000         1990           IDEAT2         Augment         13/12/2000         \$683,000         50%         \$140,000         2000           BULD         Augment         13/12/2000         \$583,000         50%         \$140,000         2004         \$291,500         2004         \$291,500         2004         \$291,500         2004	Contrago riodantent ria		BUILD			Augment	18/12/1981	\$3,250	50%	\$1.625	1981
BUILD         Augment         17/12/1984         \$700,500         50%         \$352,250         1984           CHEMICAL         Augment         17/12/1984         \$250,000         50%         \$122,500         1984           IDEAT 1         Augment         17/12/1984         \$1200,000         50%         \$500,000         1984           IDEAT 2         Augment         17/12/1984         \$1200,000         50%         \$600,000         1984           MMMENTIES         Augment         16/12/1990         \$2,000         50%         \$10,000         1990           BUILD         Augment         16/12/1990         \$2,000         50%         \$10,000         1990           IDEAT 1         Augment         16/12/1990         \$2,000         50%         \$140,000         1990           IDEAT 2         Augment         13/12/2000         \$688,000         50%         \$249,000         2000           BUILD         Augment         13/12/2001         \$688,000         50%         \$31,000         2003           General         Augment         13/12/2004         \$2,700,000         50%         \$31,000         2004           SUdge Handling         Augment         12/12/2004         \$20,000         50			Sludge Handling			Augment	17/12/1984	\$2,810,000	50%	\$1,405,000	1984
CHEMICAL         Augment         17/12/1984         \$25,000         50%         \$12,500         1984.           IDEAT 1         Augment         17/12/1984         \$1,200,000         50%         \$600,000         1984.           IDEAT 2         Augment         17/12/1984         \$1,200,000         50%         \$600,000         1984.           AMMENTIES         Augment         16/12/1980         \$2,000         50%         \$10,000         1990.           BULD         Augment         16/12/1980         \$2,000         50%         \$10,000         1990.           IDEAT 1         Augment         16/12/1980         \$20,000         50%         \$140,000         2000.           IDEAT 2         Augment         13/12/2000         \$683,000         50%         \$291,500         2000.           BULD         Augment         13/12/2000         \$583,000         50%         \$315,000         2000.           General         Augment         12/12/204         \$27,00,00         50%         \$315,000         2004.           SUdape Handling         Augment         12/12/204         \$24,000         50%         \$33,500         2004.           EFFLUENT OUTFALL SPIS         Augment         12/12/204         \$24,0			BUILD			Augment	17/12/1984	\$700,500	50%	\$350,250	1984
IDEAT 1         Augment         17/12/1984         \$1,200,000         50%         \$600,000         1984           AMMENITES         Augment         17/12/1984         \$1,200,000         50%         \$600,000         1984           AMMENITES         Augment         16/12/1990         \$20,000         50%         \$10,000         1990           BULD         Augment         16/12/1990         \$20,000         50%         \$140,000         1990           IDEAT 1         Augment         16/12/1990         \$280,000         50%         \$140,000         2000           IDEAT 2         Augment         19/12/2000         \$883,000         50%         \$291,500         2000           IDEAT 2         Augment         13/12/2004         \$27,0000         50%         \$291,500         2000           BULD         Augment         13/12/2004         \$27,0000         50%         \$38,000         2004           General         Augment         12/12/2044         \$27,0000         50%         \$38,000         2004           Sludge Handling         Augment         12/12/2004         \$18,000         50%         \$1,40,000         2004           INLET WORKS         Augment         12/12/2004         \$280,000			CHEMICAL			Augment	17/12/1984	\$25,000	50%	\$12,500	1984
IDEAT 2         Augment         17/2/1984         \$1,200,000         50%         \$600,000         1984           AMMENTRES         Augment         16/12/1990         \$2,000         50%         \$10,000         1990           BUILD         Augment         16/12/1990         \$2,000         50%         \$10,000         1990           IDEAT 1         Augment         16/12/1990         \$2,000         50%         \$140,000         1990           IDEAT 1         Augment         13/12/2000         \$688,000         50%         \$349,000         2000           BUILD         Augment         13/12/2003         \$103,200         50%         \$31,80,000         2000           General         Augment         12/12/2004         \$2,700,000         50%         \$359,500         2004           Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$39,550         2004           Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$1247,500         2004           OUTFALL FILTER         Augment         12/12/2044         \$249,000         50%         \$1247,500         2004           SUPANATANTSES         Augment         12/12/2044			IDEAT 1			Augment	17/12/1984	\$1,200,000	50%	\$600,000	1984
Adm/ENITIES         Augment         16/12/1990         \$20,000         50%         \$10,000         1990           BULD         Augment         16/12/1990         \$20,000         50%         \$10,000         1990           INLET WORKS         Augment         16/12/1990         \$220,000         50%         \$140,000         1990           IDEAT 1         Augment         16/12/1990         \$280,000         50%         \$140,000         2000           IDEAT 2         Augment         13/12/2000         \$583,000         50%         \$291,500         2000           BULD         Augment         13/12/2001         \$103,200         \$50%         \$319,000         2000           General         Augment         12/12/2004         \$27,00,000         \$5%         \$39,900         2004           Sludge Handling         Augment         12/12/2004         \$187,500         \$5%         \$33,750         2004         2044           EFFLUENT OUTFALL SPS         Augment         12/12/2004         \$24,900,00         \$5%         \$140,000         2004           RE PUMPS         Augment         12/12/2004         \$24,95,000         \$5%         \$140,000         2004         \$320,000         2004         \$320,000         2			IDEAT 2			Augment	17/12/1984	\$1,200,000	50%	\$600,000	1984
BUILD         Augment         16/12/1990         \$2,000         50%         \$1,000         1990           INLET WORKS         Augment         16/12/1990         \$2,000         50%         \$140,000         1990           IDEAT 1         Augment         13/12/2000         \$689,000         50%         \$349,000         2000           IDEAT 2         Augment         13/12/2000         \$583,000         50%         \$291,500         2000           BUILD         Augment         13/12/2004         \$2,700,000         50%         \$13,30,000         2004           CHEMICAL         Augment         12/12/204         \$2,700,000         50%         \$39,350         2004           Sludge Handling         Augment         12/12/204         \$187,500         50%         \$140,000         2004           Sludge Handling         Augment         12/12/204         \$245,000         50%         \$140,000         2004           UTFALL FILTER         Augment         12/12/204         \$245,000         50%         \$140,000         2004           OUTFALL FILTER         Augment         12/12/204         \$249,000         50%         \$149,000         2004           STORM RETURN SPS         Augment         12/12/204			AMMENITIES			Augment	16/12/1990	\$20,000	50%	\$10,000	1990
INLET WORKS         Augment         16/12/1990         \$220,000         30%         \$140,000         1990           IDEAT 1         Augment         13/12/2000         \$680,00         50%         \$234,000         2000           IDEAT 2         Augment         13/12/2000         \$583,000         50%         \$239,500         2000           BUILD         Augment         13/12/2000         \$583,000         50%         \$21,500         2000           General         Augment         12/12/204         \$27,00,000         50%         \$33,500         2004           Sludge Handling         Augment         12/12/204         \$17,500         50%         \$33,550         2004           Sludge Handling         Augment         12/12/204         \$187,500         50%         \$140,000         2004           INLET WORKS         Augment         12/12/204         \$24,9000         50%         \$124,7500         2004           OUTFALL FILTER         Augment         12/12/204         \$24,9000         50%         \$124,7500         2004           STORM FETUR SPS         Augment         12/12/204         \$24,0000         50%         \$14,000         2004           SUPANATANT SPS         Augment         12/12/204			BUILD			Augment	16/12/1990	\$2,000	50%	\$1,000	1990
IDEAT 1         Augment         13/12/2000         3050,000         50%         \$291,000         2000           BULD         Augment         13/12/2000         \$508,000         50%         \$291,000         2000           BULD         Augment         13/12/2000         \$508,000         50%         \$291,000         2000           General         Augment         12/12/2004         \$270,000         50%         \$39,500         2004           CHEMICAL         Augment         12/12/2004         \$187,500         50%         \$39,500         2004           Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$39,500         2004           UIFFLUENT OUTFALL SPS         Augment         12/12/2004         \$280,000         50%         \$140,000         2004           OUTFALL FITER         Augment         12/12/2004         \$240,000         50%         \$14,000         2004           RE PUMPS         Augment         12/12/2004         \$24,0000         50%         \$14,500         2004           STORM RETURN SPS         Augment         12/12/2004         \$28,0000         50%         \$14,500         2004           SUPANATAT SPS         Augment         12/12/2004			INLET WORKS			Augment	12/12/1990	\$280,000	50%	\$140,000	2000
BUILD         Augment         13/12/2004         \$50%         \$51,600         2005           General         Augment         13/12/2004         \$2,70,000         50%         \$1,80,000         2004           General         Augment         12/12/2004         \$2,70,000         50%         \$13,80,000         2004           CHEMICAL         Augment         12/12/2004         \$2,70,000         50%         \$39,500         2004           Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$39,550         2004           EFFLUENT OUTFALL SPS         Augment         12/12/2004         \$240,000         50%         \$140,000         2004           OUTFALL FITER         Augment         12/12/2004         \$249,000         50%         \$124,7500         2004           OUTFALL FITER         Augment         12/12/2004         \$249,000         50%         \$124,500         2004           SUPANTANTSPS         Augment         12/12/2004         \$28,000         50%         \$14,000         2004           STORM FETURN SPS         Augment         12/12/2004         \$280,000         50%         \$140,000         2004           SUPANATANT SPS         Augment         12/12/2004			IDEAT 1			Augment	13/12/2000	\$583,000	50%	\$345,000	2000
General         Augment         12/12/2004         \$2,700,000         50%         \$1,350,000         2004           CHEMICAL         Augment         12/12/2004         \$2,700,000         50%         \$1,350,000         2004           Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$239,500         2004           EFFLUENT OUTFALL SPS         Augment         12/12/2004         \$187,500         50%         \$93,750         2004           INLET WORKS         Augment         12/12/2004         \$248,000         50%         \$1,247,500         2004           OUTFALL SPS         Augment         12/12/2004         \$248,000         50%         \$1,247,500         2004           OUTFALL SPS         Augment         12/12/2004         \$249,000         50%         \$1,247,500         2004           RE PUMPS         Augment         12/12/2004         \$240,000         50%         \$1,447,600         2004           SITE SPS         Augment         12/12/2004         \$240,000         50%         \$14,500         2004         \$200,000         50%         \$14,000         2004         \$212,0104         \$235,000         50%         \$14,000         2004         \$200,000         50%         \$1			BUILD			Augment	13/12/2003	\$103,200	50%	\$51.600	2003
CHEMICAL         Augment         12/12/2004         \$79,000         50%         \$39,500         2004           Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$39,500         2004           EFFLUENT OUTFALL SPS         Augment         12/12/2004         \$280,000         50%         \$14,000         2004           INLET WORKS         Augment         12/12/2004         \$280,000         50%         \$1247,500         2004           OUTFALL FILTER         Augment         12/12/2004         \$24,95,000         50%         \$12,000         2004           RE PUMPS         Augment         12/12/2004         \$24,95,000         50%         \$12,000         2004           STE SPS         Augment         12/12/2004         \$28,0000         50%         \$14,500         2004           STORM RETURN SPS         Augment         12/12/2004         \$28,0000         50%         \$14,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$14,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$335,000         50%         \$130,000         2004         30,000         2004         \$35,000 <t< td=""><td></td><td></td><td>General</td><td></td><td></td><td>Augment</td><td>12/12/2004</td><td>\$2,700,000</td><td>50%</td><td>\$1,350,000</td><td>2004</td></t<>			General			Augment	12/12/2004	\$2,700,000	50%	\$1,350,000	2004
Sludge Handling         Augment         12/12/2004         \$187,500         50%         \$193,750         2004           EFFLUENT OUTFALL SPS         Augment         12/12/2004         \$28,000         50%         \$142,000         2004           INLET WORKS         Augment         12/12/2004         \$24,95,000         50%         \$12,47,500         2004           OUTFALL FILTER         Augment         12/12/2004         \$24,95,000         50%         \$12,427,500         2004           RE PUMPS         Augment         12/12/2004         \$24,9000         50%         \$14,4000         2004           STORM FETURS SPS         Augment         12/12/2004         \$26,0000         50%         \$140,000         2004           STORM FETURS SPS         Augment         12/12/2004         \$280,000         50%         \$140,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           WIP         Various         Augment         12/12/2004         \$355,000         50%         \$130,000         2004           WIP			CHEMICAL			Augment	12/12/2004	\$79,000	50%	\$39,500	2004
EFFLUENT QUTFAIL SPS         Augment         12/12/2004         \$280,000         50%         \$14,000         2004           INLET WORKS         Augment         12/12/2004         \$2,495,000         50%         \$1,247,500         2004           OUTFAIL FILTER         Augment         12/12/2004         \$2,495,000         50%         \$12,47,500         2004           RE PUMPS         Augment         12/12/2004         \$640,000         50%         \$320,000         2004           SITE SPS         Augment         12/12/2004         \$280,000         50%         \$14,500         2004           STORM RETURN SPS         Augment         12/12/2004         \$280,000         50%         \$14,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$380,000         50%         \$130,000         2004           WIP         Various         Augment         12/12/2004         \$380,000         50%         \$375,000         2004           WIP         Various         Augment         30/06/2004         \$58,763         100%         \$88,763         2006	1		Sludge Handling			Augment	12/12/2004	\$187,500	50%	\$93,750	2004
INLET WORKS         Augment         12/12/2004         \$2,495,000         50%         \$1247,500         2004           OUTFALL FILTER         Augment         12/12/2004         \$640,000         50%         \$320,000         2004           RE PUMPS         Augment         12/12/2004         \$29,000         50%         \$14,500         2004           STORM RETURN SPS         Augment         12/12/2004         \$28,000         50%         \$14,000         2004           STORM RETURN SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$335,000         50%         \$137,500         2004           WIP         Various         Augment         12/12/2004         \$350,000         50%         \$375,000         2004           WIP         Various         Augment         30/06/2004         \$58,763         100%         \$58,763         2006			EFFLUENT OUTFALL SPS			Augment	12/12/2004	\$280,000	50%	\$140,000	2004
OUTFALL FILTER         Augment         12/12/2004         \$640,000         50%         \$320,000         2004           RE PUMPS         Augment         12/12/2004         \$28,000         50%         \$14,500         2004           SITE SPS         Augment         12/12/2004         \$280,000         50%         \$14,000         2004           STORM RETURN SPS         Augment         12/12/2004         \$280,000         50%         \$140,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$167,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$330,000         50%         \$167,500         2004           SWITCHBOARDS         Augment         12/12/2004         \$350,000         50%         \$375,000         2004           WIP         Various         Augment         12/12/2004         \$750,000         50%         \$375,000         2004			INLET WORKS			Augment	12/12/2004	\$2,495,000	50%	\$1,247,500	2004
RE PUMPS         Augment         12/12/204         \$29,000         50%         \$14,500         2004           SITE SPS         Augment         12/12/204         \$280,000         50%         \$14,500         2004           STORM RETURN SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$380,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$350,000         50%         \$316,500         2004           WIP         Various         Augment         12/12/2004         \$350,000         50%         \$375,000         2004           WIP         Various         Augment         30/06/2004         \$58,763         100%         \$58,763         2006			OUTFALL FILTER			Augment	12/12/2004	\$640,000	50%	\$320,000	2004
Sill SPS         Augment         12/12/2004         \$220,000         50%         \$140,000         2004           STORM FETURS SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$280,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$335,000         50%         \$167,500         2004           WIP         Various         Augment         12/12/2004         \$375,000         50%         \$375,000         2004           WIP         Various         Augment         30/06/2006         \$68,763         100%         \$68,763         2006			RE PUMPS			Augment	12/12/2004	\$29,000	50%	\$14,500	2004
STOCKIN RETURNI SPS         Augment         12/12/2004         \$250,000         50%         \$130,000         2004           SUPANATANT SPS         Augment         12/12/2004         \$335,000         50%         \$167,500         2004           SWITCHBOARDS         Augment         12/12/2004         \$355,000         50%         \$375,000         2004           WIP         Various         Augment         12/12/2004         \$358,763         100%         \$88,763         2006           Stylesystem			SITE SPS			Augment	12/12/2004	\$280,000	50%	\$140,000	2004
Surriverset         Augment         1/2/12/2004         3535,000         50%         \$157,500         2004           SWITCHBORDS         Augment         1/2/12/2004         \$750,000         50%         \$375,000         2004           WIP         Various         Augment         30/06/2006         \$\$68,763         100%         \$\$87,650         2004           Statistics         Statistics         \$\$19,111924         \$\$19,111924         \$\$19,411924			STURIN RETURN SPS			Augment	12/12/2004	\$250,000 \$225,000	50%	\$130,000	2004
WIP         Various         Programmerk         12/12/2004         of rot/000         30/36         2004           WIP         Various         Augment         30/06/2006         \$\$68,763         100%         \$\$68,763         2006           Statistics         \$\$53,588,938         \$\$19,411,924         \$\$30,000         \$\$19,411,924         \$\$19,411,924         \$\$19,411,924			SWITCHBOARDS			Augment	12/12/2004	\$335,000 \$750,000	50%	\$167,500 \$375,000	2004
		WIP	Various			Augment	30/06/2006	\$68,763	100%	\$68,763	2004
	L							\$35,358,938		\$19,411,924	

Catchment	Hastings Point sewer							
Year of Calculation		2006	ſ		Cut-off Year	2036	I	
Tear of Calculation		2000			cur on real	2050	ļ	
AREA	PROJECT			ASSET	CONSTRUCTION	ASSET	CPI RECOVERABLE COST	
Hastings Point	SPS Hastings Pt	Land Acquisition		Augment	2008	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition Land Acquisition		Augment	2009 2010	\$10,000 \$10,000	\$10,000 \$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2011	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition		Augment	2012 2013	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2014	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2015	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2017	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2013	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition		Augment	2020	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2022	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition		Augment	2023 2024	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2025	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition Land Acquisition		Augment	2026	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2028	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition Land Acquisition		Augment	2029 2030	\$10,000 \$10,000	\$10,000 \$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2031	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition		Augment	2032	\$10,000	\$10,000	
	SPS Hastings Pt	Land Acquisition		Augment	2034	\$10,000	\$10,000	
	SPS Hastings Pt SPS Hastings Pt	Land Acquisition		Augment	2035	\$10,000	\$10,000	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2007	\$5,000	\$5,000	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2003	\$5,000	\$5,000	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2010	\$5,000	\$5,000	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2012	\$5,000	\$5,000	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment Augment	2013 2014	\$5,000 \$5,000	\$5,000 \$5.000	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2015	\$5,000	\$5,000	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2016 2017	\$5,000	\$5,000	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2018	\$5,160	\$5,160	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2019	\$5,489	\$5,489	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2021	\$5,656	\$5,656	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2022	\$6,000	\$6,000	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2024	\$6,175	\$6,175	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2026	\$6,532	\$6,532	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2027 2028	\$6,714 \$6,899	\$6,714	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2029	\$7,085	\$7,085	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2030 2031	\$7,274 \$7,465	\$7,274 \$7,465	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2032	\$7,658	\$7,658	
	SPS Hastings Pt SPS Hastings Pt	Mechanical Upgrade Mechanical Upgrade		Augment	2033 2034	\$7,853 \$8,050	\$7,853 \$8,050	
	SPS Hastings Pt	Mechanical Upgrade		Augment	2035	\$8,250	\$8,250	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade		Augment	2036	\$5,000	\$5,000	
	SPS Hastings Pt	Electrical Upgrade		Augment	2008	\$5,000	\$5,000	
	SPS Hastings Pt	Electrical Upgrade		Augment	2009	\$5,000	\$5,000	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment	2011 2012	\$5,000	\$5,000	
	SPS Hastings Pt	Electrical Upgrade		Augment	2012	\$5,000	\$5,000	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment Augment	2014 2015	\$5,000	\$5,000	
	SPS Hastings Pt	Electrical Upgrade		Augment	2016	\$5,000	\$5,000	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment	2017 2018	\$5,000	\$5,000	
	SPS Hastings Pt	Electrical Upgrade		Augment	2019	\$5,270	\$5,270	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment	2020	\$5,545	\$5,545	
	SPS Hastings Pt	Electrical Upgrade		Augment	2022	\$5,683	\$5,683	
	SPS Hastings Pt	Electrical Upgrade		Augment	2023	\$5,963	\$5,963	
	SPS Hastings Pt	Electrical Upgrade		Augment	2025	\$6,104	\$6,104	
	SPS Hastings Pt	Electrical Upgrade		Augment	2027	\$6,388	1 \$6,388	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment Augment	2028 2029	\$6,531 \$6,674	\$6,531 1 \$6.674	
	SPS Hastings Pt	Electrical Upgrade		Augment	2030	\$6,818	\$6,818	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment	2031 2032	\$6,962 \$7,106	\$6,962 \$7,106	
	SPS Hastings Pt	Electrical Upgrade		Augment	2033	\$7,251	\$7,251	
	SPS Hastings Pt SPS Hastings Pt	Electrical Upgrade Electrical Upgrade		Augment	2034	\$7,541	\$7,541	
	SPS Hastings Pt SPS 5004 Tamarind Avenue	Electrical Upgrade Mechanical Upgrade		Augment	2036	\$7,687	\$7,687	
	SPS 5005 Creek Street	Odour & Septicity Control		Augment	2008	\$50,000	\$50,000	
	SPS 5010 Philip Street	Mechanical Upgrade		Augment	2007	\$60,000	\$60,000	
	SPS 5014 Overall Drive	Mechanical Upgrade		Augment	2007 2009	\$100,000	\$100,000	
	SPS 5016 Cudgera Avenue (Koala Beach) By Developer SPS 5028 Coast Rd Nth Pottsville	Mechanical Upgrade SPS New		Augment	2007	\$5,000	\$5,000	
	SRM Hastings Pt	Land Acquisition		Augment	2007	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition		Augment	2008	\$2,000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2010	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition Land Acquisition		Augment	2011 2012	\$2,000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2013	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition		Augment	2014 2015	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition		Augment	2016	\$2,000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2017 2018	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition		Augment	2019	\$2,000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2020	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition		Augment	2022	\$2,000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2024	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition Land Acquisition		Augment Augment	2025 2026	\$2,000 \$2.000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2027	\$2,000	\$2,000	
	SRM Hastings Pt SRM Hastings Pt	Land Acquisition Land Acquisition		Augment Augment	2028 2029	\$2,000 \$2,000	1 \$2,000 \$2.000	
	SRM Hastings Pt	Land Acquisition		Augment	2030	\$2,000	1 \$2,000	
	SKM Hastings Pt SRM Hastings Pt	Land Acquisition Land Acquisition		Augment	2031 2032	\$2,000	1 \$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2033	\$2,000	\$2,000	
	SRM Hastings Pt	Land Acquisition		Augment	2034 2035	\$2,000	\$2,000	
	CDM Hardin Dr	T and A contribution		Augment	20.26	\$2.000	\$2,000	
Catchment	Hastings Point sewer		]					
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Year of Calculation		2006	]		Cut-off Year	2036	]	
AREA	PROJECT			ASSET	CONSTRUCTION	ASSET	CPI	RECOVERABLE
	Hastings Pt	SRM New		Augment	2008	\$10,000		\$10,000
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2009 2010 2011	\$10,000 \$10,300		\$10,300
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2011 2012 2012	\$10,927		\$10,000
	Hastings Pt	SRM New SRM New		Augment	2013	\$11,592		\$11,592
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2015 2016	\$12,298		\$12,298
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2017 2018	\$13,010		\$12,000 \$13,010
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2019 2020	\$13,352 \$13,699		\$13,352 \$13,699
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2021 2022	\$14,049 \$14,401		\$14,049 \$14,401
	Hastings Pt Hastings Pt	SRM New SRM New		Augment Augment	2023 2024	\$14,752 \$15,107		\$14,752 \$15,107
	Hastings Pt Hastings Pt	SRM New SRM New		Augment Augment	2025 2026	\$15,464 \$15,823		\$15,464 \$15,823
	Hastings Pt Hastings Pt	SRM New SRM New		Augment Augment	2027 2028	\$16,182 \$16,545		\$16,182 \$16,545
	Hastings Pt Hastings Pt	SRM New SRM New		Augment Augment	2029 2030	\$16,909 \$17,272		\$16,909 \$17,272
	Hastings Pt Hastings Pt	SRM New SRM New		Augment Augment	2031 2032	\$17,637 \$18,004		\$17,637 \$18,004
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2033 2034	\$18,372 \$18,738		\$18,372 \$18,738
	Hastings Pt Hastings Pt	SRM New SRM New		Augment	2035 2036	\$19,105 \$19,474		\$19,105 \$19,474
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment	2008 2009	\$4,000 \$4,000		\$4,000 \$4,000
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2010 2011	\$4,120 \$4,244		\$4,120 \$4,244
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2012 2013	\$4,370 \$4,501		\$4,370 \$4,501
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2014 2015	\$4,636 \$4,776		\$4,636 \$4,776
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2016 2017	\$4,919 \$5,067		\$4,919 \$5,067
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment	2018 2019	\$5,203 \$5,341		\$5,203 \$5,341
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2020 2021	\$5,479 \$5,619		\$5,479 \$5,619
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2022 2023	\$5,759 \$5,901		\$5,759 \$5,901
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2024 2025	\$6,043 \$6,185		\$6,043 \$6,185
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2026 2027	\$6,329 \$6,473		\$6,329 \$6,473
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment Augment	2028 2029	\$6,618 \$6,763		\$6,618 \$6,763
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment	2030 2031	\$6,909 \$7,055		\$6,909 \$7,055
	Hastings Pt Hastings Pt	SRM Upgrade SRM Upgrade		Augment	2032 2033	\$7,201 \$7,348		\$7,348
	Hastngs Pt Hastngs Pt	SRM Upgrade SRM Upgrade		Augment	2034 2035	\$7,495 \$7,642		\$7,495 \$7,642
	Hastings Pt SRM 5005 Creek Street	SRM Upgrade SRM Upgrade		Augment	2036	\$7,789 \$835,000		\$7,789 \$835,000
	SRM 5008 Kajungra Street SRM 5014 Overall Drive SRM 5014 Coverall Drive	SRM New SRM Upgrade		Augment	2007 2009	\$401,000		\$401,000
	SRM 5070 Caugera Avenue (Roata Beach) SRM 5028 Coast Rd Nth Pottsville Hartinger Pt	SRM New Gravity Sawar Unamda		Augment	2007 2007	\$25,000		\$25,000
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment	2008 2009 2010	\$5,000		\$5,000
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment	2011 2012	\$5,000		\$5,000
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment	2013 2014	\$5,000 \$5,000		\$5,000 \$5,000
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2015 2016	\$5,000 \$5,000		\$5,000 \$5,000
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2017 2018	\$5,000 \$5,160		\$5,000 \$5,160
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2019 2020	\$5,323 \$5,489		\$5,323 \$5,489
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2021 2022	\$5,656 \$5,827		\$5,656 \$5,827
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2023 2024	\$6,000 \$6,175		\$6,000 \$6,175
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2025 2026	\$6,352 \$6,532		\$6,352 \$6,532
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2027 2028	\$6,714 \$6,899		\$6,714 \$6,899
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2029 2030	\$7,085 \$7,274		\$7,085 \$7,274
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment Augment	2031 2032	\$7,465 \$7,658		\$7,465 \$7,658
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment	2033 2034	\$7,853 \$8,050		\$7,853 \$8,050
	Hastings Pt Hastings Pt	Gravity Sewer Upgrade Gravity Sewer Upgrade		Augment	2035 2036	\$8,250 \$8,451		\$8,250 \$8,451
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2008 2009	\$5,000 \$5,000		\$5,000 \$5,000
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2010 2011	\$5,000 \$5,000		\$5,000 \$5,000
	Hastings Pt Hastings Pt Unstings Dt	Gravity Sewer New Gravity Sewer New		Augment	2012 2013	\$5,000		\$5,000
	rasungs Pt Hastings Pt Unstings D	Gravity Sewer New Gravity Sewer New Gravity Sewer New		Augment	2014 2015	\$5,000		\$5,000 \$5,000
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2016	\$5,000		\$5,000
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2018 2019	\$5,323		\$5,323
	rasungs Pt Hastings Pt Lustings Dt	Gravity Sewer New		Augment	2020 2021	\$5,489		\$5,656
	Hastngs Pt Hastngs Pt	Gravity Sewer New Gravity Sewer New		Augment	2022 2023	\$5,827 \$6,000		\$5,827 \$6,000
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New Gravity Sewer New		Augment	2024 2025 2026	\$6,352		\$6,352
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2020 2027 2028	\$6,714 \$6,899		\$6,714
	Hastings Pt Hastings Pt	Gravity Sewer New		Augment	2029	\$7,085	1	\$7,085
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		 Augment	2030 2031 2032	\$7,465	1	\$7,465
	Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2032 2033 2034	\$7,853	1	\$7,853
	Hastings Pt Hastings Pt	Gravity Sewer New Gravity Sewer New		Augment	2035	\$8,250	1	\$8,250 \$8.451
	Data call sites Hastings Pt Hastings Point STP	Gravity Sewer New General		Augment	2007 2008	\$10,000 \$400.000		\$10,000
	Hastings Point STP Hastings Point STP	General General		Augment	2018 2023	\$480,000 \$480,000		\$480,000 \$480.000
	Hastings Point STP Hastings Point STP	Construction Construction		 Augment Augment	2017 2018	\$2,000,000 \$8,000,000		\$2,000,000 \$8,000,000
	Hastings Point STP Hastings Point STP	Construction Dune disposal system		 Augment Augment	2019 2007	\$8,000,000 \$100,000		\$8,000,000 \$100,000
		· · · · ·		 	Total	\$21,804,693		\$21,804,693



# **DEVELOPER CHARGES MODEL**

Murwillumbah sewer

### Calculation of Capital Cost

Catchment

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :

Murwillumbah sewer

3%
7%
7%

Existing Assets (Pre 1996)							
Year	Recoupable	Annual ET					
	Capital	Take-up					
	Expenditure						
	(MEERA \$)	(ET)					
1996	12,363,869	2006					
1997		0					
1998		0					
1999		0					
2000		0					
2001		0					
2002		74					
2003		74					
2004		74					
2005		73					
2006		74					
2007		73					
2008		74					
2009		74					
2010		74					
2011		73					
2012		74					
2013		74					
2014		73					
2015		75					
2016		74					
2017		73					
2018		74					
2019		74					
2020		74					
2021		73					
2022		74					
2023		74					
2024		73					
2025		75					
2026		74					
2027		74					
2028		73					
2029		74					
2030		74					
2031		73					
2032		74					
2033		74					
2034		74					
2035		74					
2036		74					
	NDV CHADGE (CET)	3665					
	INF V CHARGE (\$/E1)	2002					

Year	Recoupable Capital Expenditure	Annual El Take-up
	(\$)	(ET)
	(\$)	(11)
1006	1 144 278	2006
1997	0	2000
1997	202 228	0
1990	4 540 812	0
2000	6.088.526	0
2000	285 761	0
2001	525 624	74
2002	112 330	74
2003	292 679	74
2005	0	73
2006	755 991	74
2000	0	73
2007	0	74
2000	0	74
2009	0	74
2010	0	73
2011	0	74
2012	0	74
2013	0	74
2014	0	75
2015	0	73
2010	0	74
2017	0	73
2010	0	74
2017	0	74
2020	0	74
2021	0	74
2022	0	74
2023	0	73
2024	0	75
2025	0	74
2020	0	74
2028	0	73
2020	0	74
2030	0	74
2031	0	73
2032	0	74
2032	0	74
2033	0	74
2034	0	74
2035	0	74
	NDU CULLDCE (C/CT)	4102

Year	Recoupable Capital Expenditure	Annual E Take-up
	(\$)	(ET)
1996	0	2006
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	74
2003	0	74
2004	0	74
2005	0	73
2006	0	74
2007	543,500	73
2008	751.000	74
2000	1 317 000	74
2009	1,517,000	74
2010	0	73
2012	0	74
2012	0	74
2013	0	74
2014	0	75
2015	0	73
2010	0	74
2017	0	75
2018	0	74
2019	0	74
2020	0	74
2021	0	73
2022	0	74
2023	0	74
2024	0	73
2025	0	75
2026	0	74
2027	0	74
2028	0	73
2029	0	74
2030	0	74
2031	0	73
2032	0	74
2033	0	74
2034	0	74
2035	0	74
2036	0	74
		L

TOTAL NPV CAPITAL WORKS CHARGE per ET

\$8,192

# Demand Profile

Catchment

Murwillumbah sewer

Vear Total		Annual Demand			
i cui	Demand	Increase			
	(ET)	(ET)			
1070	1101				
1970	1181	259			
1972	1528	88			
1973	1621	93			
1974	1720	99			
1975	1825	105			
1976	1936	111			
1977	1986	50			
1978	2037	51			
1979	2090	55			
1981	2199	55			
1982	2244	45			
1983	2291	46			
1984	2338	47			
1985	2386	48			
1986	2435	49			
1987	2007 2706	132			
1989	2853	139			
1990	3008	155			
1991	3171	163			
1992	3174	3			
1993	3177	3			
1994	3180	3			
1995	3184	4			
1990	3187	-4			
1998	3180	-3			
1999	3176	-4			
2000	3173	-3			
2001	3169	-4			
2002	3243	74			
2003	3317	74			
2004	3464	74			
2005	3538	74			
2007	3611	73			
2008	3685	74			
2009	3759	74			
2010	3833	74			
2011	3906	73			
2012	3980 4054	74 74			
2013	4127	73			
2015	4202	75			
2016	4276	74			
2017	4349	73			
2018	4423	74			
2019	4497	74			
2020	4571 4644	74 73			
2022	4718	74			
2023	4792	74			
2024	4865	73			
2025	4940	75			
2026	5014	74			
2027	5088	74			
2028	5235	75 74			
2029	5309	74			
2031	5382	73			
2032	5456	74			
2033	5530	74			
2034	5604	74			
2035	5678	74			
2026	5750	74			

#### Existing Assets

Murwillumbah sewer 1 Catchment Year of Calculation 2006 Calendar Year 1957 1957 Asset Type Description Sub System Asset ID Asset Status % Recoverable 100% Date Commissione 30/06/1957 Manholes Manhole Augment \$29,800 \$1,512,000 30/06/1937 30/06/1960 30/06/1965 30/06/1972 30/06/1976 30/06/1978 \$1,512,000 100% Manhole Manhole Augment \$63,000 \$125,400 \$45,000 \$348,600 \$63,00 \$125,40 \$45,00 \$348,60 Augment 100% 1965 1972 Manhole Manhole Manhole Augment 1976 1978 1985 Augment Augment 100% 100% Manhole Manhole Augment Augment 30/06/1985 30/06/1996 \$15,000 \$100,000 100% 100% \$15,000 \$100,000 1996 30/06/1990 30/06/1998 30/06/2000 30/06/2001 24/06/1985 1/07/1957 1/07/1960 1/07/1960 \$100,000 \$9,000 \$29,800 \$11,800 \$9,000 \$87,984 \$55,116 \$2,012,262 \$2002,2002 \$9,000 \$29,800 \$11,800 \$9,000 \$87,984 \$55,116 012,262 Manhole Manhole Manhole 225mm 150mm 300mm 325mm 225mm 225mm 225mm 225mm 225mm Augment Augment 1998 2000 Augment Augment Augment Augment Augment Augment Augment Augment Augment 2001 1985 1957 1957 Gravity Pipes 1957 1957 1957 1957 1/07/196 1/07/196 1/07/196 1/07/196 \$882,696 \$262,435 \$789,469 \$122,132 \$603,525 \$74,744 \$883,816 \$13,678 \$374,125 \$12,313 \$10,016 \$882,696 \$262,435 \$789,469 \$122,132 \$603,525 \$74,744 \$883,816 \$13,678 \$374,125 \$12,313 \$10,016 196 1/07/1972 1/07/1972 1/07/1978 1/07/1978 Augment Augment Augment Augment 100% 100% 100% 1972 1976 1978 1985 Augment 1/07/1996 1/07/1999 1/07/2000 100% 100% 525mm 1996 150mm Augment 199 100% 225mm Augment 2000 2000 1/07/2000 1/07/2006 1/07/1962 5/07/1962 1/07/1975 \$51,210 \$42,500 \$7,958 \$36,512 \$30,614 \$51,210 \$42,500 \$63,662 \$36,512 \$244,915 \$229,919 \$361,550 \$273,289 \$70,893 \$789,666 \$303,026 \$540,111 100% 100% 13% 100% 13% 13% 13% 13% 13% 50% 100% 300mm 225mm 150mm 150mm 200mm 250mm 250mm 250mm 250mm 250mm Augment 2006 1962 1962 1975 1975 1975 1977 1977 1977 1985 1985 1996 Sewer Rising Mains 3/07/197! 3/07/197! 8/07/197! 1/07/1977 3/07/1977 1/07/1985 3/07/1985 1/07/1996 \$30,014 \$28,740 \$45,194 \$34,161 \$8,862 \$98,707 \$151,511 \$540,111 \$540,117 \$173,631 \$24,647 \$36,461 1/07/1998 3/07/1998 1/07/2001 \$173,63 100% 50% 50% 250mm 200mm \$49,29 \$72,92 1998 2001 100% 13% 100% 50% 13% 100% 5470,624 \$470,624 \$58,192 \$121,765 \$209,760 \$122,765 \$209,780 \$2,042 \$485,891 \$45,269 \$495,891 \$1,052,346 \$1,058,075,102 \$1,058,075 \$1,058,075 \$1,058,075 \$275,42 \$41,755 \$277,42 \$7,855 \$335,445 \$335,445 \$335,455 \$ \$470,624 \$8,524 \$121,765 \$104,890 \$204 200mm Augment Augment 1/07/2002 2002 150mm 2004 Augment Augment Augment Augment Augment Augment Augment Augment 3/07/2004 20/07/200 1/07/2006 3/07/2006 5/07/2006 7/07/2006 13/07/200 2004 2004 2006 2006 250mm 100mm 100mm 150mm 150mm 300mm \$2,042 \$2,042 \$12,318 \$27,135 \$495,891 \$168,038 \$787,462 \$315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3315,022 \$3326,865 \$322,492 \$334,422 \$7,855 \$49,433 13% 50% 100% 2006 2006 2006 2006 30/06/200 30/06/196 30/06/196 30/06/196 30/06/196 30/06/196 30/06/197 30/06/197 30/06/197 30/06/197 30/06/197 30/06/197 30/06/197 30/06/197 Various SPS 1001 SPS 1002 SPS 1003 SPS 1003 SPS 1004 SPS 1005 SPS 1005 SPS 1007 SPS 1017 SPS 1017 SPS 1017 SPS 1017 SPS 1017 SPS 1019 SPS ewer Pump Stations 34% 31% 9% 15% Augment 1962 1962 1962 50% 1962 9% 29% 17% 13% 100% 13% 1962 1970 1975 2006 1975 1975 1975 1977 1977 WIP \$393,430 \$851,076 \$778,541 \$616,113 \$201,311 \$313,554 \$194,635 \$77,014 \$25,164 37% 25% Augment 13% 13% Augment 30/06/1977 30/06/1977 30/06/1976 20/12/1974 20/12/1974 20/12/1974 19/12/1979 18/19/10/292 \$285,796 \$329,081 \$413,752 \$24,000 \$30,000 \$35,725 \$41,135 \$130,036 \$12,000 \$15,000 Augment 13% 13% 1977 1977 1996 1974 1974 1974 Augment Augment Augment Augment Augment Augment 31% 50% 50% 50% 50% Sewerage Treatment Plant \$300,00 \$1,000,00 \$150,00 \$500,00 General BUILDINGS 1974 1979 \$14 \$7,47 BUILDINGS BUILDINGS BUILDINGS ludge Handling IDEAT 1 IDEAT 2 \$14 \$4 \$90 \$60 \$50 Augment Augment 18/12/1983 17/12/1985 50% 50% \$7,35 \$2,25 1983 1985 17/12/1985 16/12/1991 15/12/1994 15/12/1994 17/12/1995 Augment 50% 50% 50% 50% 645,0 630,0 \$50. \$50. \$50. IDEAT 1 IDEAT 1 Studge Handling Bull\_DINGS BUILDINGS Effluent Outfall BUILDINGS Chemical Dosing IDEAT 1 IDEAT 2 Effluent Outfall General NUTCHBOARDS Studge Handling General SWITCHBOARDS Effluent Outfall SWITCHBOARDS BULLDINGS 15/12/1994 17/12/1995 14/12/1999 14/12/1999 14/12/1999 13/12/2000 13/12/2000 13/12/2000 13/12/2000 13/12/2000 13/12/2000 \$25,00 \$185,05 \$30,00 \$4,507,50 \$370 50% \$370,100 \$60,000 \$9,015,000 \$150,000 \$175,000 \$3,153,000 \$3,305,500 \$850,000 \$1,490,000 \$1,637,500 \$325,000 50% 50% 50% 50% 50% 50% 50% \$75,000 \$87,500 \$1,576,500 \$1,652,750 \$425,000 \$745,000 \$818,750 Augment 2000 Augment Augment Augment Augment Augment Augment Augment Augment 13/12/2000 13/12/2000 13/12/2000 13/12/2001 13/12/2002 13/12/2002 13/12/2002 \$395,000 \$395,000 \$450,000 \$450,000 \$100,000 \$10,000 \$10,000 \$13,660 \$197,50 \$197,50 \$419,500 \$225,000 \$12,500 \$50,000 \$50,000 \$50,000 \$50,000 \$50,000 \$50,000 50% 50% 50% 50% 50% 50% 2000 2000 2001 2001 2002 2002 2002 BUILDINGS \$211,000 \$115,000 \$10,616,348 Effluent Outfall Sludge Handling 13/12/200 12/12/200 50% \$105,500 \$57,500 \$26,511,200

Catchment	Murwillumb	ah sewer							
Year of Calculation		2006				Cut-off Year	2036	Ι	
AREA	PROJECT	PIPE SIZE	PIPE LENGTH	ASSET TYPE	ASSET STATUS	CONSTRUCTION DATE	ASSET COST	СРІ	RECOVERABLE COST
Murwillumbah	SPS 1002 River Street	Building Works			Augment	2008	\$100,000	1	\$100,000
	SPS 1002 River Street	Mechanical Upgrade			Augment	2008	\$80,000	1	\$80,000
	SPS 1002 River Street	Electrical Upgrade			Augment	2008	\$30,000		\$30,000
	SPS 1005 Tweed Valley Way Buchanan St	Mechanical Upgrade			Augment	2007	\$3,500	1	\$3,500
	SPS 1005 Tweed Valley Way Buchanan St	Electrical Upgrade			Augment	2009	\$20,000		\$20,000
	SPS 1010 Lundberg Drive (West)	Electrical Upgrade			Augment	2007	\$15,000		\$15,000
	SRM 1002 River Street (West End)	SRM New			Augment	2007	\$325,000		\$325,000
	SRM 1005 Tweed Valley Way Buchanan St	SRM New			Augment	2009	\$277,000		\$277,000
	SRM 1010 Lundberg Drive (West) 150mm	SRM Upgrade			Augment	2007	\$200,000		\$200,000
	SRM 1023 North Arm Road	SRM New			Augment	2008	\$541,000	1	\$541,000
	O'Connor Drive	Gravity Sewer New			Augment	2009	\$20,000	1	\$20,000
	Kielvale STP and Scheme	Investigation & Design			Augment	2009	\$1,000,000		\$1,000,000
	1					Total	\$2,611,500		\$2,611,500



## **DEVELOPER CHARGES MODEL**

Tumblegum sewer

Year : 2006

### Calculation of Capital Cost

Catchment

Year of Calculation

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :



xisung As	ssets (Fre 1990)	Existing			Existing Assets (Post 1990)				
Year	Recoupable Capital	Annual ET Take-up	Ye	ar	Recoupable Capital	Annual ET Take-up			
	(MEEDA \$)	(FT)			Expenditure	(FT)			
	(MEEKA \$)	(E1)			(\$)	(E1)			
1006	308 447	147	19	96	474 375	147			
1997	500,447	0	19	97	-,-,5/5	0			
1008		Ő	19	08	1 100	Ő			
1000		0	10	00	1,100	0			
2000		0	20	00	0	0			
2000		0	20	01	0	0			
2001		2	20	02	0	2			
2002		2	20	02	0	2			
2003		1	20	04	0	1			
2004		2	20	04	0	2			
2005		2	20	05	0	2			
2000		2	20	00	0	2			
2007		1	20	07	0	1			
2008		2	20	00	0	2			
2009		2	20	10	0	2			
2010		2	20	10	0	2			
2011		1	20	12	0	1			
2012		1	20	12	0	1			
2013		2	20	15	0	2			
2014		2	20	14	0	2			
2013		2	20	15	0	2			
2010		1	20	10	0	1			
2017		2	20	17	0	2			
2018		2	20	18	0	2			
2019		3	20	19	0	3			
2020		0	20	20	0	0			
2021		0	20	21	0	0			
2022		0	20.	22	0	0			
2023		0	20	23	0	0			
2024		0	20.	24	0	0			
2025		0	20.	25	0	0			
2026		0	20	26	0	0			
2027		0	20	27	0	0			
2028		0	20.	28	0	0			
2029		0	20	29	0	0			
2030		0	20	30	0	0			
2031		0	20	51	0	0			
2032		0	20	52	0	0			
2033		0	20	33	0	0			
2034		0	20	34	0	0			
2035		0	20	35	0	0			
2026		0	20	36	0	0			
2050		-			-				

Tumblegum sewer

2006

TOTAL NPV CAPITAL WORKS CHARGE per ET

Year	Recoupable	Annual ET
	Capital	таке-ир
	Expenditure	(FT)
	(\$)	(E1)
1007	0	147
1996	0	147
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	2
2003	0	2
2004	0	1
2005	U	2
2006	U	2
2007	0	3
2008	0	1
2009	0	2
2010	0	2
2011	0	2
2012	0	1
2013	0	3
2014	0	2
2015	0	2
2016	0	1
2017	0	2
2018	0	2
2019	0	3
2020	0	0
2021	0	0
2022	0	0
2023	U	0
2024	0	0
2025	U	0
2026	0	0
2027	0	0
2028	U	0
2029	U	0
2030	U	0
2031	U	0
2032	U	0
2033	0	0
2054	U	0
2035	U	0
2036	U	0
	NEW CHARGE IT TH	1

Future Assets

\$4,773

## Demand Profile

Catchment

Tumblegum sewer

Year	Total	Annual Demand			
	Demand	Increase			
	(ET)	(ET)			
1970	0				
1970	0	0			
1972	0	0			
1973	0	0			
1974	0	0			
1975	0	0			
1976	0	0			
1977	0	0			
1978	0	0			
1979	0	0			
1981	0	0			
1982	0	0			
1983	0	0			
1984	0	0			
1985	0	0			
1986	0	0			
1987	0	0			
1988	0	0			
1989	0	0			
1990	0	0			
1992	0	Ő			
1993	0	0			
1994	0	0			
1995	0	0			
1996	147	147			
1997	145	-2			
1998	143	-2			
1999	142	-1			
2000	140	-2			
2001	138	-2 2			
2002	142	2			
2004	143	1			
2005	145	2			
2006	147	2			
2007	150	3			
2008	151	1			
2009	153	2			
2010	155	2			
2011	157	2			
2012	161	3			
2013	163	2			
2015	165	2			
2016	166	1			
2017	168	2			
2018	170	2			
2019	173	3			
2020	173	0			
2021	1/3	0			
2022	173	0			
2023	173	0			
2025	173	0			
2026	173	0			
2027	173	0			
2028	173	0			
2029	173	0			
2030	173	0			
2031	1/3	0			
2032	1/3	0			
2033	173	0			
2035	173	Ő			
2036	173	0			
		- -			

## Existing Assets

Catchment	Tumblegum sewer	]							
Year of Calculation				2004	]				
Asset Type	Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value	Calendar Year
Sewer Rising Mains	150mm			Augment	1995	\$281,645	50%	\$140,823	1995
Sewer Pump Stations	SPS 6001			Augment	1995	\$1,340,997	13%	\$167,625	1995
Sewerage Treatment Plant	IDEAT 1			Augment	1996	\$461,000	25%	\$115,250	1996
	Chemical Dosing			Augment	1996	\$67,000	25%	\$16,750	1996
	Effluent			Augment	1996	\$282,000	25%	\$70,500	1996
	Genaral			Augment	1996	\$525,500	25%	\$131,375	1996
	Sludge Disposal			Augment	1996	\$500,000	25%	\$125,000	1996
	UV Sys			Augment	1996	\$62,000	25%	\$15,500	1996
	UV Sys			Augment	1998	\$4,400	25%	\$1,100	1998
						\$3,524,542		\$783,922	

Catchment	Tumblegum se	wer	]						
Year of Calculation	]	2006	]			Cut-off Year	2036	[	
AREA	PROJECT	PIPE SIZE	PIPE LENGTH	ASSET TYPE	ASSET STATUS	CONSTRUCTION DATE	ASSET COST	CPI	RECOVERABLE COST
					Augment		\$0		\$0
					Augment		\$0		\$0
					Augment		\$0		\$0
						Total	\$0		\$0



# **DEVELOPER CHARGES MODEL**

Tyalgum sewer

Year : 2006

### Calculation of Capital Cost

Catchment

Year of Calculation

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :

Tyalgum sewer

2006



Year	Recoupable	Annual ET
	Capital	таке-ир
	(MEEPA \$)	( <b>FT</b> )
	(MEEKA \$)	(E1)
1007	(00.004	01
1990	098,004	91
1997		0
1998		0
2000		0
2000		0
2001		3
2002		3
2003		2
2004		3
2005		3
2000		2
2008		3
2009		3
2010		3
2011		2
2012		3
2012		3
2013		2
2015		3
2016		2
2017		4
2018		2
2019		3
2020		2
2021		2
2022		4
2023		2
2024		3
2025		3
2026		3
2027		2
2028		3
2029		3
2030		2
2031		2
2032		0
2033		0
		5100
	NPV CHARGE (\$/ET)	5123

(ear	Recoupable Capital Expenditure	Annual ET Take-up
	(\$)	(ET)
1996	10,500	91
997	0	0
1998	78,750	0
1999	0	0
2000	0	0
2001	20,375	0
2002	0	3
003	0	3
004	0	2
2005	0	5
2006	0	3
2007	0	2
0000	0	3
010	0	3
011	0	2
012	0	3
013	0	3
2014	õ	2
015	0	3
016	0	2
017	0	4
2018	0	2
019	0	3
020	0	2
2021	0	2
2022	0	4
2023	0	2
2024	0	3
2025	0	3
2026	0	3
2027	0	2
2028	0	3
029	0	3
2030	0	2
022	0	2
032	0	0
0.00	U	U

Year	Recoupable Capital Expenditure	Annual ET Take-up
	(\$)	(ET)
	(+)	()
1996	0	91
1997	0	0
1998	0	0
1999	0	0
2000	õ	Ő
2001	0	0
2002	0	3
2003	0	3
2004	0	2
2005	0	3
2006	õ	3
2007	0	2
2008	õ	3
2009	0	3
2010	0	3
2011	0	2
2012	0	3
2013	0	3
2014	0	2
2015	0	3
2016	0	2
2017	0	4
2018	0	2
2019	0	3
2020	0	2
2021	0	2
2022	0	4
2023	0	2
2024	0	3
2025	0	3
2026	0	3
2027	0	2
2028	0	3
2029	0	3
2030	0	2
2031	0	2
2032	0	0
2033	0	0

NPV CHARGE (\$/ET

TOTAL NPV CAPITAL WORKS CHARGE per ET

\$5,939

## Demand Profile

Catchment

Tyalgum sewer

Year	Total	Annual Demand
	Demand	Increase
	(ET)	(ET)
1970	0	
1971	0	0
1972	0	0
1973	0	0
1974	0	0
1975	0	0
1976	0	0
1978	0	0
1979	0	0
1980	0	0
1981	0	0
1982	0	0
1983	0	0
1984	0	0
1986	0	0
1987	0	0
1988	0	0
1989	0	0
1990	0	0
1991	84	84
1992	85	1
1993	87	2
1995	88	1
1996	91	2
1997	87	-4
1998	84	-3
1999	80	-4
2000	77	-3
2001	13 76	-4
2002	70	3
2004	81	2
2005	84	3
2006	87	3
2007	89	2
2008	92 95	3
2009	95 98	3 3
2010	100	2
2012	103	3
2013	106	3
2014	108	2
2015	111	3
2016	113	2
2017 2018	11/ 110	4
2019	122	3
2020	124	2
2021	126	2
2022	130	4
2023	132	2
2024	135	3
2025	130	3
2020	143	2
2028	146	3
2029	149	3
2030	151	2
2031	153	2
2032	153	0
2000	133	U

## Existing Assets

Catchment

Tyalgum sewer

#### Year of Calculation

2006 Asset ID MEERA Value % Recoverable Recoverable MEERA Value Calendar Year Asset Type Description Sub System Asset Status Date Commissioned #N/A Manholes Manhole Augment 1905 \$63,000 100% \$63,000 225mm 1989 \$136,852 100% \$136,852 1989 Gravity Pipes Augment Sewer Rising Mains 100mm 1988 \$214,952 50% \$107,476 1988 Augment Sewer Pump Stations SPS 7001 Augment 1988 \$303,609 13% \$37,951 1988 Sewerage Treatment Plant General Augment 1967 \$8,800 25% \$2,200 1967 General Augment 1971 \$13,500 25% \$3,375 1971 1988 Effulent 1988 \$125,000 25% \$31,250 Augment \$812,000 \$203,000 IDEAT 1988 25% Augment 1988 IRRIGATION \$280,000 \$70,000 1988 25% Augment 1988 SWITCHBOARDS \$12,500 Augment 1988 \$50,000 25% 1988 \$18,750 Sludge Augment 1988 \$75,000 25% 1988 IDEAT 1 Augment 1991 \$3,000 25% \$750 1991 IRRIGATION 1991 \$6,000 25% \$1,500 Augment 1991 IDEAT 1 Augment 1994 \$40,000 25% \$10,000 1994 IDEAT 1 \$15,000 \$3,750 Augment 1996 25% 1996 IRRIGATION \$500 Augment 1996 \$2,000 25% 1996 SWITCHBOARDS Augment 1996 \$25,000 25% \$6,250 1996 General Augment 1998 \$315,000 25% \$78,750 1998 IDEAT 1 Augment 2001 \$30,000 25% \$7,500 2001 SWITCHBOARDS Augment 2001 \$51,500 25% \$12,875 2001 \$2,570,213 \$808,229

Catchment	Tyalgun	n sewer	]						
Year of Calculation	[	2006	]			Cut-off Year	2031		
AREA	PROJECT	PIPE SIZE	PIPE LENGTH	ASSET TYPE	ASSET STATUS	CONSTRUCTION DATE	ASSET COST	CPI	RECOVERABLE COST
					Augment		\$0		\$0
					Augment		\$0		\$0
					Augment		\$0		\$0
						Total	\$0		\$0



# **DEVELOPER CHARGES MODEL**

Uki sewer

Year : 2006

### Calculation of Capital Cost

Catchment

Year of Calculation

#### Assumptions

 $\label{eq:constructed} DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :$ 

Uki sewer

NPV CHARGE (\$/ET)

5564

2006



Future Assets

Year

Recoupable Capital Expenditure

(\$)

NPV CHARGE (\$/E

Annual ET Take-up

(ET)

 $\begin{array}{c}
 0 \\
 0 \\
 0 \\
 0 \\
 0 \\
 0 \\
 0 \\
 115 \\
 2 \\
 2 \\
 2 \\
 2
 \end{array}$ 

lear	Recoupable	Annual ET
	Capital	Take-up
	Expenditure	
	(MEERA \$)	(ET)
1006	0	0
1997	0	0
1998		ő
999		ő
2000		ő
2001		0
2002		Ő
2003		Ő
2004		115
2005		2
2006		2
2007		2
2008		2
2009		2
2010		3
2011		2
2012		2
2013		2
2014		3
2015		2
2016		2
2017		2
2018		3
2019		3
2020		2
2021		2
2022		2
2023		2
2024		3
2025		2
2026		2
2027		2
2028		2
2029		4
2030		0
2031		0
2032		0
2033		0
		1

Year	Recoupable	Annual ET
	Capital	таке-ир
	Expenditure	(FT)
	(\$)	(E1)
1006	0	0
1990	0	0
1008	0	0
1998	0	0
2000	0	0
2000	0	0
2001	1 815	0
2002	490 935	0
2003	256 300	115
2005	0	2
2005	0	2
2007	0	2
2008	õ	2
2009	0	2
2010	0	3
2011	0	2
2012	0	2
2013	0	2
2014	0	3
2015	0	2
2016	0	2
2017	0	2
2018	0	3
2019	0	3
2020	0	2
2021	0	2
2022	0	2
2023	0	2
2024	0	3
2025	0	2
2026	0	2
2027	0	2
2028	0	2
2029	0	4
2030	0	0
2031	0	0
2032	0	0
.055	0	0

TOTAL N	PV CA	PITAL	WORKS	CHARGE	ner	ET
TOTALIN	1,00	IIIAL	11 OKIND	CHARGE	per	

\$5,564

# Demand Profile

Catchment

Uki sewer

Year	Total	Annual Demand
	Demand	Increase
	(ET)	(ET)
1970	0	
1971	0	0
1972	0	0
1973	0	0
1974	0	0
1975	0	0
1976	0	0
1977	0	0
1978	0	0
1979	0	0
1980	0	0
1982	0	0
1983	0	0
1984	0	0
1985	0	0
1986	0	0
1987	0	0
1988	0	0
1989	0	0
1990	0	0
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	115	115
2005	117	2
2006	119	2
2007	121	2
2008	125	2
2010	128	3
2011	130	2
2012	132	2
2013	134	2
2014	137	3
2015	139	2
2016	141	2
2017	143	2
2018	146	3
2019	149	3
2020	151	2
2021	155	2
2022	155	2
2023	160	3
2025	162	2
2026	164	2
2027	166	2
2028	168	2
2029	172	4
2030	172	0
2031	172	0
2032	172	0
2033	172	0
1		

## Existing Assets

Catchment	Uki sewer	]							
Year of Calculation				2006	]				
Asset Type	Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value	Calendar Year
Sewer Rising Mains	63mm			Augment	2004	\$36,338	13%	\$4,542	2004
	100mm			Augment	2004	\$125,400	13%	\$15,675	2004
	150mm			Augment	2004	\$690,760	13%	\$86,345	2004
Sewer Pump Stations	SPS 8001			Augment	2004	\$516,109	13%	\$64,514	2004
	SPS 8002			Augment	2004	\$454,036	13%	\$56,755	2004
	SPS 8003			Augment	2004	\$223,340	13%	\$27,918	2004
Sewerage Treatment Plant	General			Augment	2002	\$7,260	25%	\$1,815	2002
	Bioreator			Augment	2003	\$1,095,000	25%	\$273,750	2003
	Effluent			Augment	2003	\$242,000	25%	\$60,500	2003
	General			Augment	2003	\$391,740	25%	\$97,935	2003
	Inlet			Augment	2003	\$85,000	25%	\$21,250	2003
	SWITCHBOARDS			Augment	2003	\$150,000	25%	\$37,500	2003
	General			Augment	2004	\$2,210	25%	\$553	2004
						\$4,019,193		\$749,050	

Catchment	Uki sewer								
Year of Calculation		2006				Cut-off Year	2031		
AREA	PROJECT	PIPE SIZE	PIPE LENGTH	ASSET TYPE	ASSET STATUS	CONSTRUCTION DATE	ASSET COST	CPI	RECOVERABLE COST
					Augment		\$0	1	\$0
					Augment		\$0	1	\$0
					Augment		\$0	1	\$0
						Total	\$0		\$0



# **DEVELOPER CHARGES MODEL**

Burringbar sewer

### Calculation of Capital Cost

Catchment

#### Assumptions

DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED BEFORE 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR ASSETS CONSTRUCTED ON OR AFTER 1 JANUARY 1996 : DISCOUNT RATE (pa) FOR PROPOSED FUTURE ASSETS :

Burringbar sewer



Existing A	Assets (Pre 1996)	
Year	Recoupable	Annual ET
	Capital	Take-up
	Expenditure	(1970)
	(MEERA \$)	(ET)
1996	0	0
1997		0
1998		0
1999		0
2000		0
2001		0
2002		0
2003		0
2004		0
2005		0
2006		0
2007		0
2008		0
2009		153
2010		2
2011		2
2012		1
2013		3
2014		2
2015		2
2016		1
2017		2
2018		2
2019		3
2020		1
2021		2
2022		2
2023		1
2024		3
2025		2
2026		2
2027		1
2028		2
2029		2
2030		0
2031		0
2032		0
2033		0
	MDV CUADCE (\$/ET)	0

Year	Recoupable Capital Expenditure	Annual ET Take-up
	(\$)	(ET)
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	134,675	0
2007	0	0
2008	0	0
2009	0	153
2010	0	2
2011	0	2
2012	0	1
2013	0	3
2014	0	2
2015	0	2
2016	0	1
2017	0	2
2018	0	2
2019	0	3
2020	0	1
2021	0	2
2022	0	2
2023	0	1
2024	0	3
2025	0	2
2026	0	2
2027	0	1
2028	0	2
2029	0	2
2030	0	0
2031	0	0
2032	0	0
2033	0	0
	NDV CHADGE (\$/ET)	052

Year	Recoupable Capital Expenditure	Annual E Take-up			
	(\$)	(ET)			
1996	0	0			
1997	0	0			
1998	0	0			
1999	0	0			
2000	0	0			
2001	0	0			
2002	0	0			
2003	0	0			
2004	0	0			
2005	0	0			
2006	0	0			
2007	0	0			
2008	500,000	0			
2009	1,000,000	153			
2010	4,620,000	2			
2011	0	2			
2012	0	1			
2013	0	3			
2014	0	2			
2015	0	2			
2016	0	1			
2017	0	2			
2018	0	2			
2019	0	3			
2020	0	1			
2021	0	2			
2022	0	2			
2023	0	1			
2024	0	3			
2025	0	2			
2026	0	2			
2027	0	1			
2028	0	2			
2029	0	2			
2030	0	0			
2031	0	0			
2032	0	0			
2033	0	0			
	NPV CHARGE (\$/ET)	33787			

TOTAL NPV CAPITAL WORKS CHARGE per ET

\$34,740

## Demand Profile

Catchment

Burringbar sewer

Vear	Total	Annual Demand						
i cai	Demand	Increase						
	(ET)	(ET)						
1970	0							
1970	0	0						
1972	0	0						
1973	0	0						
1974	0	0						
1975	0	0						
1976	0	0						
1977	0	0						
1978	0	0						
1979	0	0						
1980	0	0						
1982	0	0						
1983	0	0						
1984	0	0						
1985	0	0						
1986	0	0						
1987	0	0						
1988	0	0						
1989	0	0						
1990	0	0						
1991	0	0						
1992	0	0						
1993	0	0						
1994	0	0						
1996	0	0						
1997	0	0						
1998	0	0						
1999	0	0						
2000	0	0						
2001	0	0						
2002	0	0						
2003	0	0						
2004	0	0						
2005	0	0						
2000	0	0						
2008	0	0						
2009	153	153						
2010	155	2						
2011	157	2						
2012	158	1						
2013	161	3						
2014	163	2						
2015	165	2						
2010	100	1						
2017 2018	108	2						
2019	173	3						
2020	174	1						
2021	176	2						
2022	178	2						
2023	179	1						
2024	182	3						
2025	184	2						
2026	186	2						
2027	187	1						
2028	189	2						
2029	191	2						
2050	191	0						
2032	191	0						
2033	191	0						
2000		Ĭ						

## Existing Assets

Catchment

Burringbar sewer

Asset Type	Description	Sub System	Asset ID	Asset Status	Date Commissioned	MEERA Value	% Recoverable	Recoverable MEERA Value	Calendar Year
				Augment	30/06/1995	\$0		\$0	1995
				Augment	30/06/1996	\$0		\$0	1996
				Augment	30/06/1997	\$0		\$0	1997
				Augment	30/06/1998	\$0		\$0	1998
				Augment	1/01/1999	\$0		\$0	1999
				Augment	1/01/2000	\$0		\$0	2000
				Augment	1/01/2001	\$0		\$0	2001
				Augment	1/01/2002	\$0		\$0	2002
				Augment	1/12/2003	\$0		\$0	2003
				Augment	1/03/2004	\$0		\$0	2004
				Augment	30/06/2005	\$0		\$0	2005
				Augment	30/06/2006	\$134,675		\$134,675	2006
						\$134,675		\$134,675	

Catchment Burringbar sewer

AREA	PROJECT	PIPE	PIPE	ASSET	ASSET	CONSTRUCTION	ASSET	CPI	RECOVERABLE
		SIZE	LENGTH	TYPE	STATUS	DATE	COST		COST
					Augment	2008	\$500,000		\$500,000
					Augment	2009	\$1,000,000		\$1,000,000
					Augment	2010	\$4,620,000		\$4,620,000
						Total	\$6,120,000		\$6,120,000

Appendix D – Reduction Amount Calculation

#### Sewer Reduction Amount

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Incremental Demand (ET)	970	987	996	1013	1020	1035	1048	1056	1071	1076	1087	1098	1108	1114	1118
Cum. Total Demand (ET)	28,518	29,505	30,501	31,514	32,534	33,569	34,617	35,673	36,744	37,820	38,907	40,005	41,113	42,227	43,345
Total Income (\$)	16,193,718	16,745,686	17,307,852	17,877,131	18,452,876	19,002,165	19,591,489	20,119,279	20,698,319	21,305,964	21,918,350	22,536,772	23,158,642	23,786,978	24,417,901
Total Cost (\$)	10,503,074	10,516,100	10,946,772	11,274,967	11,612,981	11,961,405	12,320,238	12,689,803	13,070,405	13,462,368	13,882,686	14,684,621	15,372,713	16,081,081	16,729,873
Income per ET	568	568	567	567	567	566	566	564	563	563	563	563	563	563	563
Cost per ET	368	356	359	358	357	356	356	356	356	356	357	367	374	381	386
Income	550,960	560,616	564,732	574,371	578,340	585,810	593,168	595,584	602,973	605,788	611,981	618,174	623,804	627,182	629,434
Cost	356,960	351,372	357,564	362,654	364,140	368,460	373,088	375,936	381,276	383,056	388,059	402,966	414,392	424,434	431,548
Surplus/ET	200	212	208	209	210	210	210	208	207	207	206	196	189	182	177
Cum. Surplus for Incremental Demand	193,564	401,959	609,674	821,898	1,036,343	1,253,424	1,473,556	1,693,489	1,915,829	2,138,980	2,363,489	2,579,005	2,788,838	2,992,132	3,190,431

NPV Operating Profit(Loss) per ET

\$2,056

#### Sewer Reduction Amount

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Incremental Demand (ET)	1130	1134	1143	1150	1154	1156	1164	1168	1170	1174	1177	1179	1181	1185	1183
Cum. Total Demand (ET)	44,475	45,609	46,752	47,902	49,056	50,212	51,376	52,544	53,714	54,888	56,065	57,244	58,425	59,610	60,793
Total Income (\$)	25,053,868	25,693,498	26,337,008	26,984,183	27,633,728	28,285,860	28,941,440	29,599,392	30,258,636	30,920,683	31,583,232	32,247,506	32,912,211	33,579,287	34,246,147
Total Cost (\$)	17,398,857	18,088,492	18,799,253	19,531,626	20,286,100	21,063,185	21,863,408	22,687,294	23,535,382	24,408,241	25,306,429	26,230,538	27,181,163	28,158,930	29,164,456
Income per ET	563	563	563	563	563	563	563	563	563	563	563	563	563	563	563
Cost per ET	391	397	402	408	414	419	426	432	438	445	451	458	465	472	480
Income	636,190	638,442	643,509	647,450	649,702	650,828	655,332	657,584	658,710	660,962	662,651	663,777	664,903	667,155	666,029
Cost	441,830	450,198	459,486	469,200	477,756	484,364	495,864	504,576	512,460	522,430	530,827	539,982	549,165	559,320	567,840
Surplus/ET	172	166	161	155	149	144	137	131	125	118	112	105	98	91	83
Cum. Surplus for Incremental Demand	3,384,927	3,574,010	3,758,296	3,937,213	4,110,059	4,276,338	4,436,703	4,590,353	4,736,802	4,876,097	5,007,874	5,131,799	5,247,643	5,355,395	5,454,282