




GLEN INNES SEVERN COUNCIL
Development Service Plan
Glen Innes and Deepwater Water and Sewerage

RESOLUTION NUMBER: 22.05/13

MEETING: 23 May 2013

Refer to attached document.


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GLEN INNES SEVERN COUNCIL

Development Service Plan

**Glen Innes and Deepwater
Water and Sewerage**

**Adopted by Council 22 June 2004
Revised 22 November 2007
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Development Service Plan for Glen Innes and Deepwater

Summary

This DSP covers water supply and sewerage developer charges for developments located in the service areas of Glen Innes and Deepwater. Where a development is located outside the service area, specific Council approval is required to extend the services to that particular allotment and these charges will then apply (in addition to the cost of extending the services).

This DSP has been prepared in accordance with the *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (2002) issued by the Minister for Land and Water Conservation, pursuant to section 306(3) of the *Water Management Act 2000* and Equivalent Tenements are calculated using guidelines issued by the Water Directorate in January 2005.

The area covered by this DSP, and the existing and proposed works serving the area are shown on the plans in section 2.

The timing and expenditures for works servicing the area covered by this DSP are shown in section 4.

Standards of Service to be provided in the DSP are summarised in section 5.

The water supply and sewerage developer charges for the area covered by this DSP have been calculated as follows:

	Capital Charge (2013/14 \$ per ET)	Reduction Amount (2013/14 \$ per ET)	Calculated Developer Charge (2013/14 \$ per ET)	Adopted Developer Charge (2013/14 \$ per ET)
Glen Innes Water Supply	5566	2847	2719	2,719
Glen Innes Sewerage	4722	1870	2852	2,852
Deepwater Water Supply	2588	1292	1296	1,296
Deepwater Sewerage	2508	2486	22	0

Developer charges relating to this DSP will be reviewed after a period of 5-6 years.

In the period between any review, developer charges will be adjusted annually on the basis of movements in the CPI for Sydney for the most recent 12 month period ending in December.

The developer shall be responsible for the full cost of the design and construction of water supply and sewerage reticulation works within subdivisions, together with any cost of extension of the network required to connect the subdivision to existing reticulation services.

Equivalent tenement data are provided in section 10.

1. Introduction

Section 64 of the *Local Government Act 1993* enables a local government council to levy developer charges for water supply, sewerage and stormwater. This derives from a cross-reference in that Act to section 306 of the *Water Management Act 2000*.

A Development Servicing Plan (DSP) is a document, which details the water supply and sewerage developer charges to be levied on development areas utilising council's water supply and sewerage infrastructure.

This DSP covers water supply and sewerage developer charges in regard to the service areas of Glen Innes and Deepwater, serviced by Glen Innes Severn Council.

This DSP has been prepared in accordance with the *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (2002) issued by the Minister for Land and Water Conservation, pursuant to section 306(3) of the *Water Management Act 2000*. Equivalent Tenements (ET's) are calculated using guidelines issued by the Water Directorate in January 2005.

This DSP supersedes any other requirements related to water supply or sewerage developer charges for the area covered by this DSP. This DSP takes precedence over any of Council's codes or policies where there are any inconsistencies relating to water supply and sewerage developer charges.

2. Administration

Service Area Name	Glen Innes Water
Service Area	The area covered by this service area is shown on Plan 1 (Glen Innes water service area)
Service Area Boundaries	The basis for defining the service area boundaries is as follows: Water – area covered by Glen Innes Water Supply

Service Area Name	Glen Innes Sewer
Service Area	The area covered by this service area is shown Plan 2 (Glen Innes sewerage service area)
Service Area Boundaries	The basis for defining the service area boundaries is as follows: Sewer – area serviced by Glen Innes Sewerage Service

Service Area Name	Deepwater Water
Service Area	The area covered by this service area is shown on Plan 3 (Deepwater water service area)
Service Area Boundaries	The basis for defining the service area boundaries is as follows: Water – area covered by Deepwater Water Supply

Service Area Name	Deepwater Sewer
Service Area	The area covered by this service area is shown on Plan 4 (Deepwater sewerage service area)
Service Area Boundaries	The basis for defining the service area boundaries is as follows: Sewer – area serviced by Deepwater Sewerage Service

Payment of Developer Charges

Developer charges under this version of the plan are payable on development applications lodged from 1st July, 2013. Note that all existing allotments within the service areas are credited with 1 ET water and 1 ET sewer entitlement as a minimum, or that amount for which previous developer charges have been paid with respect to the relevant parcel.

3. Demographic and Land Use Planning Information

3.1 Growth projections

Population growth projections for the 30 year planning period have been derived from data provided by the Australian Bureau of Statistics, combined with observed rates of new water connections. Growth projections for population and number of Equivalent Tenements (ET's) are shown in the table below. These projections are from the present year to 2043, which is a 30 year planning horizon.

The water and sewer areas for Glen Innes share a common population, and the same can be said for Deepwater. Therefore the growth rate for Glen Innes water is the same

as for Glen Innes Sewer, likewise Deepwater water and sewer share a common base. Growth rates for Deepwater are not available from the ABS due to the small population. Local data suggests that Deepwater population is in decline, however the same growth rate has been adopted as Glen Innes for safety.

The assumed number of Equivalent Persons per Equivalent Tenement are also shown.

Table 1 – Growth Projections for the area covered by Glenn Innes Service Area

Year	Population	Number of ET's	EP / ET
2013	6211	2484	2.5
2014	6249	2500	2.5
2015	6288	2515	2.5
2016	6327	2531	2.5
2017	6366	2547	2.5
2018	6406	2562	2.5
2019	6445	2578	2.5
2020	6485	2594	2.5
2021	6526	2610	2.5
2022	6566	2626	2.5
2023	6607	2643	2.5
2024	6648	2659	2.5
2025	6689	2675	2.5
2026	6730	2692	2.5
2027	6772	2709	2.5
2028	6814	2726	2.5
2029	6856	2742	2.5
2030	6898	2759	2.5
2031	6941	2776	2.5
2032	6984	2794	2.5
2033	7027	2811	2.5
2034	7071	2828	2.5
2035	7115	2846	2.5
2036	7159	2864	2.5
2037	7203	2881	2.5
2038	7248	2899	2.5
2039	7293	2917	2.5
2040	7338	2935	2.5
2041	7383	2953	2.5
2042	7429	2972	2.5
2043	7475	2990	2.5

Assumed growth rate from 2011 data census = 0.6%

3.2 Land Use Information

This DSP should be read in conjunction with the Glen Innes Local Environment Plan.

4. Water Supply and Sewerage Infrastructure

The existing and proposed water supply headworks covered by this DSP are outlined in the table on page 7.

The existing and proposed sewerage headworks covered by this DSP are outlined in the table on page 7.

Developer charges relating to subdivision development are payable prior to release of subdivision certificate, and developer charges relating to construction activities are payable prior to release of construction certificate, unless otherwise stated in the development approval conditions.

5. Standards of Service

System design and operation are based on providing the following standards of service.

5.1 Water Supply

- Treated water to 2010 NHMRC/ARMCANZ *Australian Drinking Water Guidelines* 100% of the time.
- Minimum water pressure of 12 metres at the property boundary whilst conveying a minimum of 6 litres per minute under normal conditions.
- Water quality complaints of less than 10 per 1000 connected properties per annum
- Nil unplanned interruptions greater than 6 hours
- Nil programmed interruptions greater than 12 hours
- Water restrictions applying for not greater than 10% of the time on average.

5.2 Sewerage

- Sewage effluent meeting Environment Protection Authority 90 Percentile Limits (BOD, SS, Total N, NH₃N, Oil and Grease, Total P, Faecal coliforms).
- All sewer chokes removed and service restored within 8 hours
- Sewer overflows to the environment less than 5 per 100km of mains per year.
- Odour complaints less than 1 per 1000 properties.

6. Design Parameters

6.1 Water Supply

Investigations and design of water supply system components is based on the *Water Supply Investigation Manual* (1986). This manual was prepared by NSW Public Works.

Planned capital works on the water supply during the planning period includes continued augmentation of the Glen Innes Aggregates Off-Stream Storage Facility to provide additional storage capacity.

6.2 Sewerage

Investigations and design of sewerage system components is based on the *Manual of Practice: Sewer Design* (1984) and the *Manual of Practice: Sewage Pump Station Design* (1986). These manuals were prepared by NSW Public Works.

7. Calculated Developer Charges

7.1 Summary

The developer charges for the area covered by this DSP are as follows:

	Capital Charge (2013/14 \$ per ET)	Reduction Amount (2013/14 \$ per ET)	Calculated Developer Charge (2013/14 \$ per ET)	Adopted Developer Charge (2013/14 \$ per ET)
Glen Innes Water Supply	5566	2847	2719	2,719
Glen Innes Sewerage	4722	1870	2852	2,852
Deepwater Water Supply	2588	1292	1296	1,296
Deepwater Sewerage	2508	2486	22	0

7.1.1 Capital Charge

The capital charges for the area served by this DSP have been calculated as follows below.

If a component of a system (eg. treatment works) has excess capacity then the required capacity in year 2043 has been adopted as the system capacity, and the capital cost of the item has been reduced on a pro rata basis.

This philosophy ensures that developers are not paying for any excess system capacity that may have been built in to the system at augmentation.

Area 1: Glen Innes Water Supply

Component	Year Commissioned	Effective year of Commissioning for ROI*	Capital Cost (2012/13) (\$m)	Capacity (ET's)	Capital Cost per ET (2012/13)	Year when capacity taken up	Take-up period (years)	Return on Investment Factor	Capital Charge per ET (2012/13\$)
	(1)	(2)	(3)	(4)	(5)=(3)/(4)	(6)	(7)=(6)-(2)+1	(8)	(9)=(5)x(8)
Pre-1996 Works									
Treatment Works	1983	1995/96	5.83	2990	1949	2043	30	1.5	2923
Pump station	1983	1995/96	0.49	2990	165	2043	30	1.5	248
Rising Main Beardy	1979	1995/96	1.07	2990	359	2043	30	1.5	538
Post-1996 Works									
PAC treatment	2001	2001/02	0.05	2990	18	2043	30	2.3	42
Off Stream Storage	2012	2011/2012	2.20	2990	735	2043	30	2.3	1692
Red Range Rd Bore	2012	2012/2013	0.08	2990	28	2043	30	2.3	63
Rising Main Red Range Rd Bore	2012	2012/2013	0.03	2990	9	2043	30	2.3	21
Pressure mgt	2007	2006/07	0.05	2990	17	2043	30	2.3	38
TOTAL									5566

Area 2: Glen Innes Sewer

Component	Year Commissioned	Effective year of Commissioning for ROI*	Capital Cost (2012/13) (\$m)	Capacity (ET's)	Capital Cost per ET (2012/13)	Year when capacity taken up	Take-up period (years)	Return on Investment Factor	Capital Charge per ET (2012/13\$)
	(1)	(2)	(3)	(4)	(5)=(3)/(4)	(6)	(7)=(6)-(2)+1	(8)	(9)=(5)x(8)
Post-1996 Works									
Treatment Plant	2007	2006/2007	6.40	3200	2000	2043	30	2.3	4600
Pump Stations	2007	2006/2007	0.13	3200	41	2043	30	2.3	93
Rising Mains	2007	2006/2007	0.04	3200	13	2043	30	2.3	29
TOTAL									4722

Area 3: Deepwater Water Supply

Component	Year Commissioned	Effective year of Commissioning for ROI*	Capital Cost (2012/13) (\$m)	Capacity (ET's)	Capital Cost per ET (2012/13)	Year when capacity taken up	Take-up period (years)	Return on Investment Factor	Capital Charge per ET (2012/13\$)
	(1)	(2)	(3)	(4)	(5)=(3)/(4)	(6)	(7)=(6)-(2)+1	(8)	(9)=(5)x(8)
Pre-1996 Works									
Deepwater Weir	1983	1995/96	0.047	171	272	2043	30	1.5	408
Pump station	1983	1995/96	0.054	171	318	2043	30	1.5	477
Rising Main	1968	1995/96	0.027	171	159	2043	30	1.5	239
Post-1996 Works									
Treatment Works	2012	2011/2012	0.109	171	637	2043	30	2.3	1464
TOTAL									2588

Area 4: Deepwater Sewer

Component	Year Commissioned	Effective year of Commissioning for ROI*	Capital Cost (2012/13) (\$m)	Capacity (ET's)	Capital Cost per ET (2012/13)	Year when capacity taken up	Take-up period (years)	Return on Investment Factor	Capital Charge per ET (2012/13\$)
	(1)	(2)	(3)	(4)	(5)=(3)/(4)	(6)	(7)=(6)-(2)+1	(8)	(9)=(5)x(8)
Post-1996 Works									
Treatment Plant	1985	1984/1985	0.125	171	731	2043	30	1.5	1096
Pump Stations	1985	1984/1985	0.1	171	585	2043	30	1.5	877
Rising Mains	1985	1984/1985	0.05	171	292	2043	30	1.5	439
TOTAL									2412

7.1.2 Reduction Amount

Council has adopted the NPV Method to calculate the reduction amount. The rationale behind this method is that in the long-term, developer charges should cover the capital charge for serving a development area less the present value (discount rate of 7%) of projected renewal expenditure per property over the next 30 years. This is because the capital charge is based on the capital cost of new assets and would therefore not require significant expenditure on renewals. A reduction equivalent to the renewals expenditure is therefore provided.

The annual bill has been calculated for each service area by dividing the budgeted revenue in Council's Operational Plan for the area by the number of current ET's.

The OMA cost has been calculated for each service area by dividing the budgeted expenses in Council's Operational Plan for the area by the number of current ET's. Depreciation and interest charges have not been included in OMA costs.

Area 1: Glen Innes Water

Renewals- No renewals are planned for non-reticulation assets

Upgrades – No upgrades are planned for assets

Net Debt – The water fund is currently carrying a loan amount of \$2,727,000 against the Glen Innes Aggregates Off Stream Storage facility.

Summary: reduction amount for water = \$2,847.per ET

			Annual Water Charges (A)	607.14	\$ per ET		
			Annual Water OMA Cost (B)	339.02	\$ per ET		
			Future operating profits ('C)	268.114	\$ per ET		
Year	Total ETs	New ETs per year (0.6% growth assumed)	PV (New ETs) (over 30 years @ 7%)	Cumulative New ETs	Net Operating Results for New ETs (\$'000)	PV (future operating profits) from new ETs over 30 years @ 7% (\$'000)	Reduction Amount (\$ per ET)
	(1)	(2) = (1) _i - (1) _{i-1}	(3) = PV of (2)	(4)	(5) = (4) * ('C)	(6) = PV of (5)	(7) = (6) / (3)
2011/12	2,454						
2012/13	2,469	15	207	15	4	591	2,847
2013/14	2,484	15		30	8		
2014/15	2,498	15		44	12		
2015/16	2,513	15		59	16		
2016/17	2,529	15		75	20		
2017/18	2,544	15		90	24		
2018/19	2,559	15		105	28		
2019/20	2,574	15		120	32		
2020/21	2,590	15		136	36		
2021/22	2,605	16		151	41		
2022/23	2,621	16		167	45		
2023/24	2,637	16		183	49		
2024/25	2,652	16		198	53		
2025/26	2,668	16		214	57		

2026/27	2,684	16		230	62		
2027/28	2,700	16		246	66		
2028/29	2,717	16		263	70		
2029/30	2,733	16		279	75		
2030/31	2,749	16		295	79		
2031/32	2,766	16		312	84		
2032/33	2,782	17		328	88		
2033/34	2,799	17		345	93		
2034/35	2,816	17		362	97		
2035/36	2,833	17		379	102		
2036/37	2,850	17		396	106		
2037/38	2,867	17		413	111		
2038/39	2,884	17		430	115		
2039/40	2,901	17		447	120		
2040/41	2,919	17		465	125		
2041/42	2,936	17		482	129		
2042/43	2,954	17		500	134		

Area 2: Glen Innes Sewer

Renewals - No renewals are planned for non-reticulation assets

Upgrades - No renewals are planned for non-reticulation assets

Net Debt – The sewer fund currently has a debt of \$2.227M against the Glen Innes sewer treatment works.

Summary: reduction amount for sewer = \$1,870 per ET

			Annual Sewerage Charges (A)	438.90	\$ per ET		
			Annual Sewerage OMA Cost (B)	262.79	\$ per ET		
			Future operating profits ('C)	176.109	\$ per ET		
Year	Total ETs	New ETs per year (0.6% growth assumed)	PV (New ETs) (over 30 years @ 7%)	Cumulative New ETs	Net Operating Results for New ETs (\$'000)	PV (future operating profits) from new ETs over 30 years @ 7% (\$'000)	Reduction Amount (\$ per ET)
	(1)	(2) = (1) _i - (1) _{i-1}	(3) = PV of (2)	(4)	(5) = (4) * ('C)	(6) = PV of (5)	(7) = (6) / (3)
2011/12	2,454						
2012/13	2,469	15	207	15	3	388	1,870
2013/14	2,484	15		30	5		
2014/15	2,498	15		44	8		
2015/16	2,513	15		59	10		
2016/17	2,529	15		75	13		
2017/18	2,544	15		90	16		
2018/19	2,559	15		105	18		
2019/20	2,574	15		120	21		
2020/21	2,590	15		136	24		
2021/22	2,605	16		151	27		
2022/23	2,621	16		167	29		
2023/24	2,637	16		183	32		
2024/25	2,652	16		198	35		
2025/26				214			

	2,668	16			38		
2026/27	2,684	16		230	41		
2027/28	2,700	16		246	43		
2028/29	2,717	16		263	46		
2029/30	2,733	16		279	49		
2030/31	2,749	16		295	52		
2031/32	2,766	16		312	55		
2032/33	2,782	17		328	58		
2033/34	2,799	17		345	61		
2034/35	2,816	17		362	64		
2035/36	2,833	17		379	67		
2036/37	2,850	17		396	70		
2037/38	2,867	17		413	73		
2038/39	2,884	17		430	76		
2039/40	2,901	17		447	79		
2040/41	2,919	17		465	82		
2041/42	2,936	17		482	85		
2042/43	2,954	17		500	88		

Area 3: Deepwater Water

Renewals- No renewals are planned for non-reticulation assets

Upgrades – No upgrades are planned for assets

Net Debt – No debt is held against Deepwater assets.

Summary: reduction amount for water = \$1292 per ET

			Annual Water Charges (A)	492.159	\$ per ET		
			Annual Water OMA Cost (B)	370.455	\$ per ET		
			Future operating profits (C)	121.705	\$ per ET		
Year	Total ETs	New ETs per year (0.6% growth assumed)	PV (New ETs) (over 30 years @ 7%)	Cumulative New ETs	Net Operating Results for New ETs (\$'000)	PV (future operating profits) from new ETs over 30 years @ 7% (\$'000)	Reduction Amount (\$ per ET)
	(1)	(2) = (1) _i - (1) _{i-1}	(3) = PV of (2)	(4)	(5) = (4) * (C)	(6) = PV of (5)	(7) = (6) / (3)
2011/12	142						
2012/13	143	1	12	1	0	16	1,292
2013/14	144	1		2	0		
2014/15	145	1		3	0		
2015/16	145	1		3	0		
2016/17	146	1		4	1		
2017/18	147	1		5	1		
2018/19	148	1		6	1		
2019/20	149	1		7	1		
2020/21	150	1		8	1		
2021/22	151	1		9	1		
2022/23	152	1		10	1		
2023/24	153	1		11	1		
2024/25	153	1		11	1		
2025/26	154	1		12	2		
2026/27				13			

	155	1			2		
2027/28	156	1		14	2		
2028/29	157	1		15	2		
2029/30	158	1		16	2		
2030/31	159	1		17	2		
2031/32	160	1		18	2		
2032/33	161	1		19	2		
2033/34	162	1		20	2		
2034/35	163	1		21	3		
2035/36	164	1		22	3		
2036/37	165	1		23	3		
2037/38	166	1		24	3		
2038/39	167	1		25	3		
2039/40	168	1		26	3		
2040/41	169	1		27	3		
2041/42	170	1		28	3		
2042/43	171	1		29	4		

Area 4: Deepwater Sewer

Renewals - No renewals are planned for non-reticulation assets

Upgrades - No renewals are planned for non-reticulation assets

Net Debt – nil

Summary: reduction amount for sewer = \$2486 per ET

Note: The reduction amount for Deepwater Sewer is greater than the capital charge, therefore no head works charge applies.

			Annual Sewerage Charges (A)	315.959	\$ per ET		
			Annual Sewerage OMA Cost (B)	81.8182	\$ per ET		
			Future operating profits (C)	234.141	\$ per ET		
Year	Total ETs	New ETs per year (0.6% growth assumed)	PV (New ETs) (over 30 years @ 7%)	Cumulative New ETs	Net Operating Results for New ETs (\$'000)	PV (future operating profits from new ETs over 30 years @ 7% (\$'000)	Reduction Amount (\$ per ET)
	(1)	(2) = (1) _i - (1) _{i-1}	(3) = PV of (2)	(4)	(5) = (4) * (C)	(6) = PV of (5)	(7) = (6) / (3)
2011/12	142						
2012/13	143	1	12	1	0	30	2,486
2013/14	144	1		2	0		
2014/15	145	1		3	1		
2015/16	145	1		3	1		
2016/17	146	1		4	1		
2017/18	147	1		5	1		
2018/19	148	1		6	1		
2019/20	149	1		7	2		
2020/21	150	1		8	2		
2021/22	151	1		9	2		
2022/23	152	1		10	2		