

# Gunnedah Shire Council

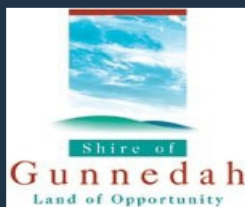
## Section 64

### Developer Services Plan

#### Stormwater



April  
2013



# Executive summary

This Development Servicing Plan (DSP) covers stormwater developer charges for development areas within the Gunnedah Local Government Area (LGA).

This Development Servicing Plan 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*.

The area covered by this DSP is shown in Figure 1.

The DSP areas and the existing and proposed works serving these areas are shown in more detail on the plans in Section 2.

Standards of service to be provided in the DSP areas are summarised in Section 5.4.

The stormwater developer charges for the areas covered by this DSP have been calculated as follows:

Area	Developer Charge (\$ per ET)
North Gunnedah	\$8,942
South Gunnedah	\$2,259

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

In the period between any reviews, developer charges will be adjusted annually on the basis of the movements in the CPI for Sydney, excluding the impact of GST.

The developer shall be responsible for the full cost of the stormwater design and construction of reticulation works to and within subdivisions.

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Appendix A - (Schedules)

# 1. Introduction

## 1.1 Purpose and background

The purpose of this Development Servicing Plan (DSP) is to determine what contribution should be made for stormwater infrastructure servicing proposed development within the Gunnedah Shire Council.

Section 64 of the *Local Government Act 1993* enables a local government authority to levy developer charges for water supply, sewerage and stormwater.

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 (now administered by the Department of Planning and Infrastructure), pursuant to section 306 (3) of the *Water Management Act 2000*.

A DSP is a document that details the developer charges to be levied on development areas utilising Gunnedah Shire Council's (GSC) stormwater infrastructure.

This DSP covers stormwater supply developer charges in regard to development areas served by GSC.

This DSP supersedes any other requirements related to stormwater developer charges for the area covered by the DSP. This DSP takes precedence over any of GSC's Codes or Policies where there are any inconsistencies relating to water supply and/or sewerage developer charges.

## 1.2 What are Developer Charges?

The *Water Management Act 2000* provides authority for GSC to levy charges on development that will make use of the services provided by GSC. These charges are titled Developer Charges and are the means by which GSC recovers part of the cost of providing water and water related infrastructure.

## 1.3 What is a Development Servicing Plan (DSP)?

A DSP has been prepared for each defined DSP area. As well as including the developer charge calculations for that area, each DSP contains information regarding the extent of the geographical area covered by the system, estimates of future capital expenditure and operating costs, demographic assumptions and land use planning information within the system.

## 2. Administration

### 2.1 Name of Development Servicing Plan

This DSP is known as the Gunnedah Shire Council Stormwater Development Servicing Plan.

### 2.2 Land to Which This Plan Applies

This DSP applies to all land within the Gunnedah LGA that is within the existing and proposed service areas of the urban areas of Gunnedah, as illustrated in Figure 1.

This policy applies to all land within the identified DSP catchment areas of GSC, which are serviced or are proposed to be serviced by stormwater services. The catchment areas covered by this DSP are summarised in Table 1 and are shown in Figure 2 and Figure 3.

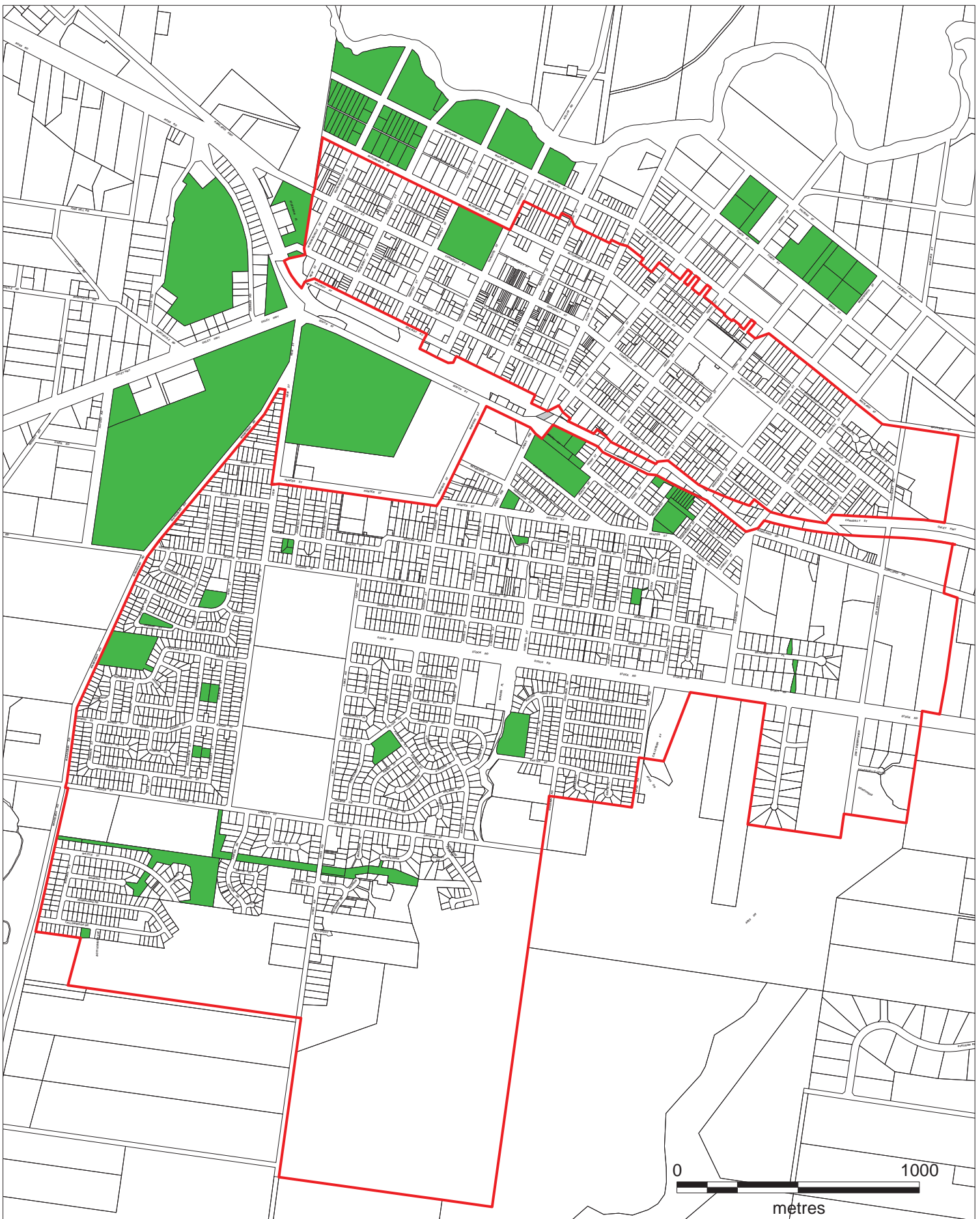
**Table 1 Description of DSP Areas**

DSP Area	Description
North Gunnedah	<p>North Gunnedah is the urban area of the township of Gunnedah located north of the railway line. This area comprises a mixture of land uses including the Gunnedah commercial and retail area, and residential areas.</p> <p>Future development in this area will be primarily commercial and retail growth.</p>
South Gunnedah	<p>South Gunnedah is the urban area of the township of Gunnedah located south of the railway line. This area comprises mainly residential areas. Most of the residential growth of Gunnedah will occur in the South Gunnedah area.</p>




### 2.3 Date of Commencement of Plan

GSC adopted this DSP on 19 December 2012. The DSP came into effect on 17 January 2013. The DSP was amended on 30 April 2013.

This DSP will apply to all development applications determined on or after the date the Plan came into effect.



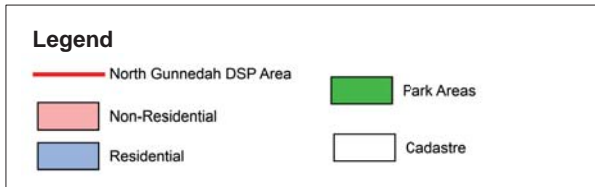
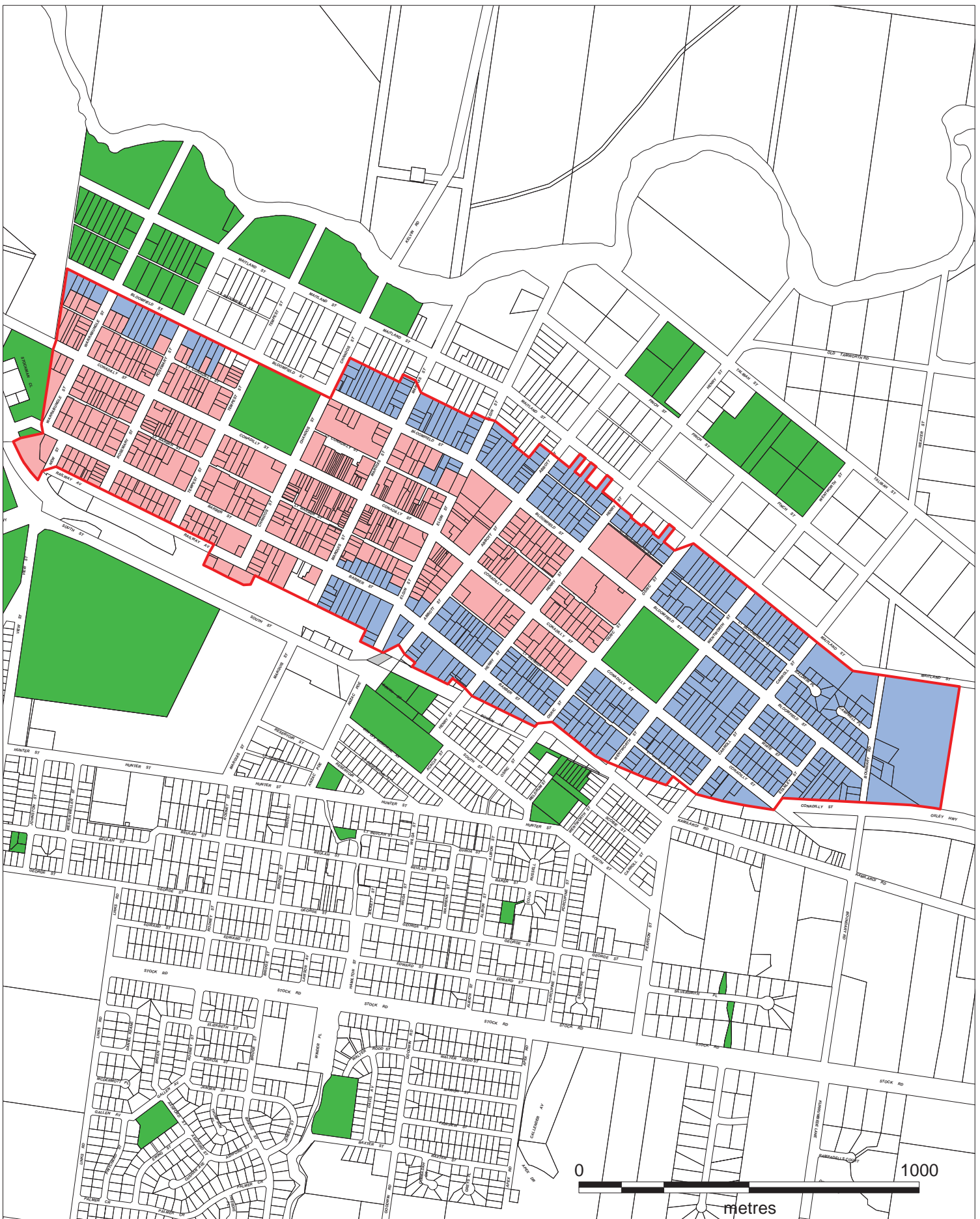
**Legend**

-  DSP Area
-  Park Areas
-  Cadastre



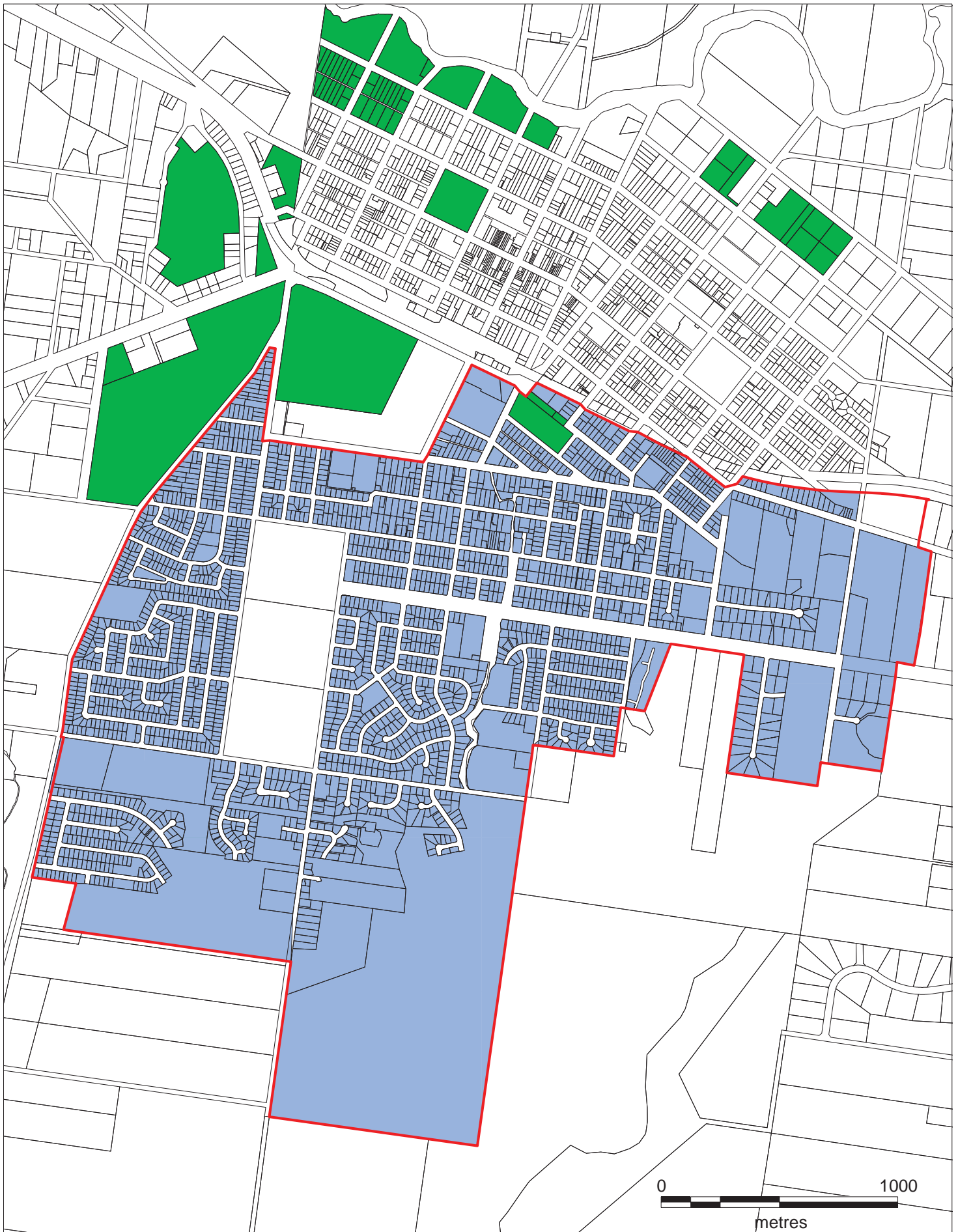
**FIGURE 1**  
Development Service Plans  
DSP Area

01 February 2013  
Revision B



**FIGURE 2**  
 Development Service Plans  
 North Gunnedah DSP Area  
 01 February 2013  
 Revision B





**Legend**

 South Gunnedah DSP Area	 Residential
 Cadastre	 Park Areas



**FIGURE 3**  
 Development Service Plans  
 South Gunnedah DSP Area  
 01 February 2013  
 Revision B

## 3. Operation

### 3.1 How will the DSP be applied?

In determining a development application, GSC may impose a condition of consent requiring payment of a monetary contribution in accordance with the provisions of this DSP, known as a developer charge.

The condition of development consent will outline the developer charge amount payable in monetary terms at the time the consent is issued. However, conditions of consent shall advise that the developer contributions will be at a rate which applies at the time of payment (ie. the rate may increase from time of issue of the development consent through indexation or through the replacement or review of this DSP).

The developer charge is the cost per Equivalent Tenement (ET) for the relevant stormwater infrastructure. An ET is the equivalent demand or loading from a standard residential dwelling.

The developer charge payable for connection to the respective stormwater system is thus:

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

In order to assess the developer charge applicable to a specific development, it is necessary to assess the demand/loading (in ET terms) that the proposed development would place on the relevant stormwater system.

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 is illustrated in the following example:

#### **Example A**

The developer charge for a stormwater system is determined to be \$2,000/ET. Council receives an application to connect a proposed subdivision, which will create an additional 15 residential lots.

The developer charge for stormwater is:  $15 \text{ ET} \times \$2,000/\text{ET} = \$30,000$

Total Section 64 developer charge is \$30,000

The process of assessing the demand or loading of a potential development can be more complex if the development contains non-residential elements. 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 non-residential development.

The process of determining a developer charge for a non-residential development, using these guidelines is illustrated in the following example:

### Example B

The developer charge for a stormwater system is determined to be \$6,000/ET. Council receives an application to connect a proposed office building to the stormwater system.

The proposed office building will be a single storey building with a floor area of 800 m<sup>2</sup> and sealed car park of 100 m<sup>2</sup>. The assessed stormwater loading for a non-residential precinct is 1 ET/450m<sup>2</sup> impervious area. Hence the assessed stormwater loading for the office building is 2 ET.

The developer charge for stormwater is: 2 ET x \$6,000/ET = \$12,000

Total Section 64 developer charge is \$12,000

GSC recognises that the guidelines are general and cannot practically be applied to all development applications. Some developments will not 'fit' a category in the guidelines. Also data required to assess the demands/loadings will not always be available at the time of application.

For this reason GSC accepts that a proportion of applications will be assessed on individual merit. GSC will determine a demand/loading for the development using the best available data. GS retains discretion to assess an application on its merits.

If a developer disagrees with GSC's assessment, it is the responsibility of the developer to demonstrate that there is an alternate assessment.

### 3.2 Reviewing/Updating of Calculated Developer Charges

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

In the period between any review, developer charges will be adjusted on 1 July each year on the basis of movements in the CPI for Sydney, in the preceding 12 months to December, excluding the impact of GST.

Developer charges will be those charges determined by GSC from time to time and will be published in GSC's Annual Fees and Charges.

### 3.3 Minor Drainage Works

The developer shall be responsible for the full cost of the design and construction of stormwater drainage works from GSC's existing trunk drainage system, to and within subdivisions.

### 3.4 Payment for Developer Charges

Section 64 of the *Local Government Act 1993* authorises GSC to issue Certificates of Compliance under Section 306 of the *Water Management Act 2000*. Section 64 of the *Local Government Act 1993* also authorises GSC to impose preconditions to the issuing of Certificates of Compliance.

As a precondition to the issuing of a Certificate of Compliance for stormwater, GSC requires the payment of developer charges as prescribed by this DSP.

As a condition of development consent, GSC can require that a Certificate of Compliance under Division 5 of Part 2 of Chapter 6 of the *Water Management Act 2000* must be obtained prior to

the issue of a Subdivision, Construction or Occupation Certificate for a particular development. Table 2 outlines when a Compliance Certificate must generally be obtained for certain types of development which will likely be imposed in a condition of consent issued under Section 80A of the *Environmental Planning and Assessment Act 1979*.

**Table 2 Payment of developer charges**

Circumstance	Payment of Developer Charges
Development involving subdivision only.	Prior to the release of the first subdivision certificate (linen plan) or strata certificate.
Other development that requires a construction certificate.	Prior to the release of the construction certificate.
For development applications involving both subdivision and building works.	Payment is to be made before the release of construction certificate or subdivision certificate whichever occurs first.
Other development not requiring the issuing of a construction certificate.	Prior to the issuing of the first occupation certificate or commencement of the use, whichever occurs first.

### 3.5 Transitional Provisions

A development application which has been submitted prior to the adoption of this DSP, but not determined, shall be determined in accordance with the provisions of this DSP, which was effective at the date of determination of the application.

Further, a development application determined prior to the adoption of this DSP, may be charged an appropriate levy in accordance with this DSP and the conditions of the development consent.

### 3.6 Deferred Payments

GSC's policy concerning deferred payments is that deferred payment may be permitted in the following circumstances:

- a. the deferred payment of the developer charges will not, in the opinion of the GSC, prejudice the timing or the manner of the provision of stormwater infrastructure included in the works program; and
- b. other circumstances considered reasonable by GSC.

If GSC does decide to accept a deferred payment, this may be on such conditions as the GSC considers reasonable and will ordinarily require the applicant to provide a bank guarantee for the full amount of the development charge or the outstanding balance on condition that:

- a. The lodgement of an irrevocable bank guarantee without an end date for the amount of the development charge plus an additional 13-month simple interest amount, calculated at the Reserve Bank's Policy Interest Rate (Target Cash Rate) plus 1%, as at the date of the GSC's approval of the deferred payment.

- b. The maximum period of deferral, is the sooner of 12-months from the date of the deferral, the date of the issuing of an occupation certificate for building work, or the date of the issuing of a subdivision certificate.
- c. The bank guarantee provides for the bank to unconditionally pay the guaranteed sum to GSC if GSC so demands in writing not earlier than the date mentioned in paragraph b.
- d. The bank must pay the guaranteed sum without reference to the applicant or landowner or other person who provided the guarantee, and without regard to any dispute, controversy, issue or other matter relating to the development consent or the carrying out of development or the qualification of the GSC to make the demand.
- e. The bank's obligations are discharged when payment to GSC is made in accordance with this guarantee or when GSC notifies the bank in writing that the guarantee is no longer required.
- f. Where the bank guarantee has been deposited with GSC, the guarantee shall not be cancelled until such time as the original contribution and accrued interest are paid. In this regard, appropriate arrangements must be made with the GSC for the repayment of interest on the outstanding amount, from the date on which payment was due until that date on which payment is made as secured by the guarantee.

### **3.7 Refunds**

GSC does not anticipate that refunds of developer charges will be made unless the developer charges have been paid in respect of a development consent that has lapsed and the funds have not been allocated/ expended on the projects identified in the DSP's work schedule.

### **3.8 Works in Kind**

GSC may accept an offer by the applicant to provide an "in-kind" contribution (i.e. the applicant completes part or all of the work/s identified in the plan) or through provision of another material public benefit in lieu of the applicant satisfying its obligations under this plan.

GSC may accept such alternatives in the following circumstances:

- a. The value of the works to be undertaken are at least equal to the value of the developer charges that would otherwise be required under this plan; and
- b. The standard of the works is to GSC's full satisfaction; and
- c. The provision of the material public benefit will not prejudice the timing or the manner of the provision of public facilities included in the works program; and
- d. other as deemed appropriate.

The value of the works to be substituted must be provided by the applicant at the time of the request and must be independently certified by a Quantity Surveyor who is registered with the Australian Institute of Quantity Surveyors or a person who can demonstrate equivalent qualifications/experience.

GSC will require the applicant to enter into a written agreement for the provision of the works.

Acceptance of any such alternative is at the sole discretion of GSC. GSC may review the valuation of works or land to be dedicated, and may seek the services of an independent person to verify their value. In these cases, all costs and expenses borne by the GSC in determining the value of the works or land will be paid for by the applicant.

Please refer to GSC's Development Contributions and Development Service Charges Assessment Policy, which outlines how to apply for a works-in-kind agreement and GSC's Works-In-Kind Policy.

### 3.9 Calculation of Charges

Charges are based on the existing provision, extension and augmentation of assets required or likely to be required to provide services to a development area. Charges have been estimated based on Modern Engineering Equivalent Replacement Assets (MEERA) with standard unit rates developed by GSC as part of their Asset Management System.

In addition to the replacement cost, there are additional costs associated with stormwater upgrade works including investigations, design, project management and contingencies. GSC's previous experience with stormwater upgrade works suggest that the following allowances are appropriate and necessary to ensure the full cost of upgrades are allowed for.

The DSP guidelines recommend the inclusion of these costs as part of asset valuation (DLWC, 2002).

**Table 3 On-costs in addition to construction cost**

Item	Council
Survey, investigation and design	10%
Public consultation	2%
Utility adjustment (often required for new works, or upgrades)	18%
Site establishment	15%
Project Management	10%
Contingencies	10%
<b>Adjustment factor</b>	<b>1.65</b>

The methodology for the calculation of the charge is based on a balance between simplicity for administrative and management purposes and accuracy to represent the real impact.

Impervious surface is used as the standard measure for stormwater impact. This is an accurate approximation of the relative impact of a development. An Equivalent Tenement (ET) is adopted as the basic unit for determining charges. An ET is considered to be a standard 900sqm residential block with an impervious surface area of 450sqm. Developments are considered in two ways:

1. Single lot residential development. In this case charges are based on the number of lots.
2. Dual occupancy, medium density, commercial or industrial development. In this case charges are based on impervious surface area.

Where calculations are not residential lot-based, developers may apply the impervious % listed in Table 4, or provide detailed calculations of impervious area.

**Table 4 Impervious area per DSP Zone**

Land Use Zoning	Impervious %
Residential	NA
Commercial & Industrial	90

*Normal residential and rural residential development for Lots between 450 and 20,000sqm.*

The development charge will be the number of lots multiplied by the development charge per lot. Larger lots may have more impervious surface than smaller lots, however, this is assumed to be offset by the lack of direct connections of impervious surface to the stormwater system.

*Medium density development (strata) and Commercial and Industrial development*

The development charge will be the total impervious surface area divided by the average impervious area associated with a residential development (450sqm). This will include any privately owned areas. Public roads created as part of the development are excluded for the purposes of this calculation.

*'Brownfield' development*

For developments that involve a change in land use, e.g. redevelopment from residential to dual occupancy, or residential to medium density, the developer charge will be the difference in impervious surface area based on the number of existing lots or existing impervious area and the future impervious area then divided by the average impervious area associated with a residential development (450sqm).

### **3.10 Developments Outside the Development Servicing Areas**

Development areas outside the identified DSP Areas, which have no detailed DSP (and require stormwater services), will be subject to a separate DSP. The developer shall be responsible for the preparation cost of this DSP.

## 4. Population Growth Projections

The population projections undertaken by GSC, as detailed in the Gunnedah Shire Council Section 94 Car Parking and Rural Roads Contribution Plan (2012) estimates the future population utilising a low, medium and high scenario. The scenarios are based on growth opportunities within the LGA. For full details please refer to the Section 94 Contributions Plan.

**Table 5 Population Projections (Estimate)**

Year	Low Scenario Population (No.)	Medium Scenario Population (No.)	High Scenario Population (No.)
1976	12658	12658	12658
1981	13173	13173	13173
1986	13426	13426	13426
1991	13331	13331	13331
1996	12,819	12,819	12,819
2001	11,846	11,846	11,846
2006	11,520	11,520	11,520
2011	12,066	12,066	12,066
2016	13,572	13,690	13,821
2021	14,060	14,306	14,581
2026	14,566	14,949	15,383
2031	15,091	15,622	16,229
2036	15,634	16,325	17,121
Increase from 2011 to 2036	<b>3,568</b>	<b>4,259</b>	<b>5,055</b>



## **5. Existing Stormwater Infrastructure and Assets Valuation**

### **5.1 Existing Stormwater Infrastructure**

Stormwater drainage has been defined as piped drainage systems, open drains, constructed wetlands, detention basins, gross pollutant traps, etc. Each existing asset is identified in GSC's Asset Management Plan, with size, year installed and dimensions.

### **5.2 Valuation of Existing Assets**

#### **5.2.1 What is a MEERA value?**

When valued on the basis of MEERA, an asset is valued as if it had been constructed at the time of the valuation, in accordance with modern engineering practice, and by adopting the most economically viable technologies available at the time.

A MEERA asset does not have to be constructed of the same material or even include the same components as the original asset being valued, as long as the MEERA asset provides the same level of service as the existing asset.

#### **5.2.2 MEERA Rates**

MEERA values have been derived for all assets identified in the Stormwater Management Plan.

### **5.3 Valuation of Future Assets**

The estimated value of future assets has been derived from industry unit rates, extrapolation of quotes for previous similar work, and budget quotes.

All future assets have been valued at 2012/2013 dollars. On-costs, as described in Table 3 have been applied to the estimates.

### **5.4 Standards of Service**

The stormwater system design and operation for the two DSP areas is based on the provision of the levels of service outlined in the Gunnedah Stormwater Asset Management Plan, May 2011.

## 6. Calculated Developer Charges

### 6.1 Summary

The developer charges for both catchments are as follows:

**Table 6 Developer Charges**

DSP	Capital Charge (\$ per ET)	Reduction Amount (\$ per ET)	Calculated Developer Charge (\$ per ET)	Adopted Developer Charge (\$ per ET)
North Gunnedah	\$9,822	\$880	\$8,942	\$8,942
South Gunnedah	\$2,568	\$370	\$2,198	\$2,259

### 6.2 Capital Charge

The Capital Works Plan is included as Schedule 5 for each area in Appendix A.

### 6.3 Reduction Amount

GSC has adopted the Direct NPV method to calculate the Reduction Amount. The rationale for this method is that in the long term, developer charges should cover the capital charge for serving a development area less the present value of projected renewals expenditure per property over the next 20 years. The reduction includes allowances for the expenditure to bring the asset to the desired level of service, and part of debts serviced by annual charges.

GSC has not identified any significant renewal works for the next 20 years.

# Appendices

# Appendix A- (Schedules)

**Schedule 2  
Growth Projections**

Projections of assessments from 2012 to 2032 are shown.  
 One of these sheets is provided for each DSP sub-area defined in Schedule 1.  
 Backlog assessments are added to residential assessments.  
 "Residential assessments" includes both pensioner and non-pensioner assessments.

No. ETs per residential assessment	1.00	(aggregate conversion factor)
No. ETs per rural residential assessment	0.00	(aggregate conversion factor)
No. ETs per non-residential assessment	2.00	(aggregate conversion factor)

Name of DSP Area: *Gunnedah North*

Year	New Assessments in year			Assessments at end of year			Backlog works (included in [1], [2] and [3]) [7]	Pensioners (included in [4] and [5]) [8]	Residential ETs [9]	Rural Residential ETs [10]	Non-residential ETs [11]	Total ETs [12]
	Urban Residential [1]	Rural Residential [2]	Non-residential [3]	Residential [4]	Rural Residential [5]	Non-residential [6]						
2012	0	0	0	490	0	480		0	490	0	960	1450
2013	0	0	2	490	0	482	0	0	490	0	964	1454
2014	0	0	3	490	0	485	0	0	490	0	970	1460
2015	0	0	3	490	0	488	0	0	490	0	976	1466
2016	0	0	3	490	0	491	0	0	490	0	982	1472
2017	0	0	3	490	0	494	0	0	490	0	988	1478
2018	0	0	3	490	0	497	0	0	490	0	994	1484
2019	0	0	3	490	0	500	0	0	490	0	1000	1490
2020	0	0	3	490	0	503	0	0	490	0	1006	1496
2021	0	0	3	490	0	506	0	0	490	0	1012	1502
2022	0	0	3	490	0	509	0	0	490	0	1018	1508
2023	0	0	3	490	0	512	0	0	490	0	1024	1514
2024	0	0	3	490	0	515	0	0	490	0	1030	1520
2025	0	0	3	490	0	518	0	0	490	0	1036	1526
2026	0	0	3	490	0	521	0	0	490	0	1042	1532
2027	0	0	3	490	0	524	0	0	490	0	1048	1538
2028	0	0	3	490	0	527	0	0	490	0	1054	1544
2029	0	0	3	490	0	530	0	0	490	0	1060	1550
2030	0	0	3	490	0	533	0	0	490	0	1066	1556
2031	0	0	3	490	0	536	0	0	490	0	1072	1562
2032	0	0	3	490	0	539	0	0	490	0	1078	1568

## Schedule 2 Growth Projections

Projections of assessments from 2012 to 2032 are shown.

One of these sheets is provided for each DSP sub-area defined in Schedule 1.

Backlog assessments are added to residential assessments.

"Residential assessments" includes both pensioner and non-pensioner assessments.

No. ETs per residential assessment	1.00	(aggregate conversion factor)
No. ETs per rural residential assessment	0.00	(aggregate conversion factor)
No. ETs per non-residential assessment	2.00	(aggregate conversion factor)

Name of DSP Area: *Gunnedah South*

Year	New Assessments in year			Assessments at end of year			Backlog works (included in [1], [2] and [3]) [7]	Pensioners (included in [4] and [5]) [8]	Residential ETs [9]	Rural Residential ETs [10]	Non-residential ETs [11]	Total ETs [12]
	Urban Residential [1]	Rural Residential [2]	Non-residential [3]	Residential [4]	Rural Residential [5]	Non-residential [6]						
2012	55	0	0	2551	0	115		0	2551	0	230	2781
2013	65	0	0	2616	0	115	0	0	2616	0	230	2846
2014	65	0	0	2681	0	115	0	0	2681	0	230	2911
2015	65	0	0	2746	0	115	0	0	2746	0	230	2976
2016	65	0	0	2811	0	115	0	0	2811	0	230	3041
2017	65	0	0	2876	0	115	0	0	2876	0	230	3106
2018	65	0	0	2941	0	115	0	0	2941	0	230	3171
2019	65	0	0	3006	0	115	0	0	3006	0	230	3236
2020	65	0	0	3071	0	115	0	0	3071	0	230	3301
2021	65	0	0	3136	0	115	0	0	3136	0	230	3366
2022	65	0	0	3201	0	115	0	0	3201	0	230	3431
2023	65	0	0	3266	0	115	0	0	3266	0	230	3496
2024	65	0	0	3331	0	115	0	0	3331	0	230	3561
2025	65	0	0	3396	0	115	0	0	3396	0	230	3626
2026	65	0	0	3461	0	115	0	0	3461	0	230	3691
2027	65	0	0	3526	0	115	0	0	3526	0	230	3756
2028	65	0	0	3591	0	115	0	0	3591	0	230	3821
2029	65	0	0	3656	0	115	0	0	3656	0	230	3886
2030	65	0	0	3721	0	115	0	0	3721	0	230	3951
2031	65	0	0	3786	0	115	0	0	3786	0	230	4016
2032	65	0	0	3851	0	115	0	0	3851	0	230	4081







**Schedule 4**  
**Levels of Service - Stormwater**

Description	Unit	Existing Level of Service	Long Term Target
<b>New Development and Drainage Systems</b>			
<b>Minor System Drainage- Roads</b>			
Rural	ARI (years)	Varies	10
Rural Residential	ARI (years)	Varies	10
Urban Residential	ARI (years)	Varies	10
Commercial	ARI (years)	Varies	10
Industrial	ARI (years)	Varies	10
<b>Major System Drainage</b>	ARI (years)	Varies	100
<b>Water Quality</b>			
In accordance with the Gunnedah Shire Council Engineering Guidelines for Subdivisions and Developments.			Full compliance
In accordance with the Gunnedah Shire Council Urban Stormwater Management Plan.			Full compliance
<b>Maintenance</b>			
Cleaning of piped drainage system within urban areas	Frequency (years)	Reactive	Programmed
Abbreviations: ARI – Average Recurrence Interval			





**Table 2 - Calculation of Developer Charges using the Direct NPV Method  
Gunnedah Shire Council - Stormwater for DSP Area B - Gunnedah North**

<b>Base Data</b>																						
Capital charge per ET	(2012/13\$)	9,822																				
	Year	2012/13																				
	Debt at end of 2011/12 (\$'000)	-	include borrowings and overdraft																			
	Cash and investments at end of 2011/12 (\$'000)	-	include all cash and investments, including sinking fund etc.																			
	Net debt (\$'000)	-																				
	Discount rate for future works	7%																				
<b>Assessments at year end</b>																						
	Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
	Residential (including backlog works)	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490
	Rural Residential	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Non-residential	960	964	970	976	982	988	994	1,000	1,006	1,012	1,018	1,024	1,030	1,036	1,042	1,048	1,054	1,060	1,066	1,072	1,078
	ET per Residential assessment	1.00																				
	ET per Rural Residential assessment	-																				
	ET per non-residential assessment	2.00																				
	Capacity for future customers (ET)	-																				
<b>Capital works</b>																						
	Base year	2012/13																				
	Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Renewals (2012/13\$'000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Inflation from Base year to Year 1 (%)	0.00%																				
	Capital Works for Improved Standards (2012/13\$'000)	75	177	38	0	0	183	333	0	0	430	430	391	360	260	450	277	450	341	450	115	
	Government Grant on Works for Improved standards (2012/13\$'000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Inflation from 2012/13 to 2012/13 (%)	0.00%																				
	Last year of the program	2016/17																				
<b>PV of ET</b>																						
	Total equivalent tenements (ET)	2,410	2,418	2,430	2,442	2,454	2,466	2,478	2,490	2,502	2,514	2,526	2,538	2,550	2,562	2,574	2,586	2,598	2,610	2,622	2,634	2,646
	Growth (ET)	8	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	PV of 20 years of growth (ET)	126																				
	PV ETs	2,536																				
<b>PV of renewal works</b>																						
	Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	Renewals (\$'000) in 2012/13\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PV of 50 year of renewals at discount rate of 7% pa	0																				
	<b>PV Renewals per ET (\$)</b>	0																				
<b>PV of Works for Improved Standards to existing population</b>																						
	Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	Works for Improved Standards (\$'000) in 2012/13\$ after Government grant	75	177	38	0	0	183	333	0	0	430	430	391	360	260	450	277	450	341	450	115	
	PV of works for Improved Standards at discount rate of 7% pa	2,232																				
	<b>PV Standards per ET (\$)</b>	880																				
<b>The Reduction Amount is the greater of</b>																						
(1)	PV Renewals per ET + PV Standards per ET	880																				
(2)	Capital Charge - $\{[N/(N-F)] * [Capital Charge - PV Renewals per ET - PV Standards per ET - Net Debt per ET]\}$	880																				
Where:	Capital Charge =	9,822																				
	N - PV of present and future ETs =	2,536																				
	F - Capacity for future customers =	0																				
	Net debt per ET	0																				
<b>Developer Charge Calculation</b>																						
	Reduction Amount is therefore	\$880	say	\$880																		
	Developer Charge for 2012/13 in 2012/13\$	9,822																				
	less Capital Charge	\$880																				
	less Reduction amount	\$880																				
	<b>Developer Charge</b>	<b>\$8,942</b>																				

**Table 1 - Calculation of Developer Charges using the Direct NPV Method  
Gunnedah Shire Council - Stormwater for DSP Area A - Gunnedah South**

Base Data		(2012/13\$)	2,739																				
Capital charge per ET	Year 1	2012/13																					
	Debt at end of 2011/12 (\$'000)	-		include borrowings and overdraft																			
	Cash and investments at end of 2011/12 (\$'000)	-		include all cash and investments, including sinking fund etc.																			
	Net debt (\$'000)	-																					
	Discount rate for future works	7%																					
Assessments at year end		Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Residential (including backlog works)	2,551	2,616	2,681	2,746	2,811	2,876	2,941	3,006	3,071	3,136	3,201	3,266	3,331	3,396	3,461	3,526	3,591	3,656	3,721	3,786	3,851	
	Rural Residential	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Non-residential	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	
	ET per Residential assessment	1.00																					
	ET per Rural Residential assessment	0.00																					
	ET per non-residential assessment	2.00																					
	Capacity for future customers (ET)	-																					
Capital works		Base year	2012/13																				
	Year	2012/13																					
	Inflation from Base year to Year 1 (%)	0.00%																					
	Capital Works for Improved Standards (2012/13\$'000)	90	0	0	475	80	0	159	457	444	68	125	125	120	120	130	130	120	120	120	120	90	
	Government Grant on Works for Improved standards (2012/13\$'000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Inflation from 2012/13 to 2012/13 (%)	0.00%																					
	Last year of the program	2016/17																					
PV of ET		Total equivalent tenements (ET)	2,781	2,846	2,911	2,976	3,041	3,106	3,171	3,236	3,301	3,366	3,431	3,496	3,561	3,626	3,691	3,756	3,821	3,886	3,951	4,016	4,081
	Growth (ET)	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
	PV of 20 years of growth (ET)	737																					
	PV ETs	3,518																					
PV of renewal works		Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	Renewals (\$'000) in 2012/13\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	PV of 50 year of renewals at discount rate of 7% pa	0																					
	PV Renewals per ET (\$)	0																					
PV of Works for Improved Standards to existing population		Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	Works for Improved Standards (\$'000) in 2012/13\$ after Government grant	90	0	0	475	80	0	159	457	444	68	125	125	120	120	130	130	120	120	120	120	90	
	PV of works for Improved Standards at discount rate of 7% pa	1,687																					
	PV Standards per ET (\$)	480																					
The Reduction Amount is the greater of		(1)	PV Renewals per ET + PV Standards per ET	480																			
	(2)	Capital Charge - [(N/(N-F)) * [Capital Charge - PV Renewals per ET - PV Standards per ET - Net Debt per ET]]	480																				
Where:		Capital Charge =	2,739																				
	N - PV of present and future ETs =	3,518																					
	F - Capacity for future customers =	0																					
	Net debt per ET =	0																					
Developer Charge Calculation		Reduction Amount is therefore	\$480	say	\$480																		
	Developer Charge for 2012/13 in 2012/13\$	Capital Charge	\$2,739																				
	less	Reduction amount	\$480																				
	<b>Developer Charge</b>	<b>\$2,259</b>																					

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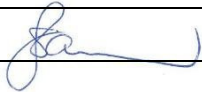
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