

**DEVELOPMENT SERVICING PLAN
FOR
GUYRA SHIRE COUNCIL
WATER SUPPLY**



**ADOPTED: 21 / 03 /16
EFFECTIVE: 21 / 03 /16**

DECEMBER 2015

This is a development servicing plan which has been prepared in accordance with Section 64 of the Local Government Act, 1993, and Section 306 of the Water Management Act, 2000.

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GUYRA SHIRE COUNCIL
DEVELOPMENT SERVICING PLAN (DSP) - WATER SUPPLY

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DEVELOPMENT SERVICING PLAN - WATER SUPPLY

Summary

This Development Servicing Plan (DSP) covers water supply developer charges (DC) for the Guyra Shire Council. This relates to assets such as transfer mains and storage reservoirs.

This DSP has been prepared with consideration to *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (2002). These are the final relevant guidelines, managed by the Department of Primary Industries Water (previously NSW Office of Water).

This DSP aims to:

1. Allow Council to require an equitable monetary contribution for the provision of water supply infrastructure to meet the demands generated by development.
2. Facilitate the future provision of a water supply to the Guyra Shire Council area which meets the required levels of service with regard to flows, pressure, water quantity and the frequency of restrictions.
3. Set out the schedule and programme of proposed works to meet increasing demands for a "town water" supply generated by development.
4. Detail the contribution rates and Guyra Shire Council's payment policies.

To enable this, a future demand estimate of water supply for the Council has been undertaken. The demand estimate is the basis used for determining the infrastructure required to meet the need generated by future development.

DC are applicable for existing and proposed works which serve future development. Section 3 details the existing works and proposed works schedule for water supply infrastructure to meet the expected demand.

The calculated DC, based on full cost recovery, is \$12,316. Council has the option of setting a lower charge, and this has been resolved to be \$8,621 (30% subsidy to encourage development) for a three year period.

Charges are indexed each year as required until recalculated again.

Adopted Developer Charge for 2015/16 is \$8,621 per ET

General Notes

Developer charges calculations relating to this DSP will be reviewed after a period of five to six years, or when any significant changes occur in proposed works, growth projections or standards.

In the period between any reviews, developer charges will be revised on 1 July each year on the basis of movements in the Consumer Price Index (CPI) for Sydney, in the preceding 12 months to December, excluding the impact of GST.

There are a number of payment methods for DC and works-in-kind contributions are allowable subject to certain conditions. The developer shall be responsible for the full

cost of the design and construction of water supply reticulation works within subdivisions.

1. Introduction

1.1 Legislation

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*.

This DSP has been prepared in accordance with the *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater (2002)*, managed by DWE, pursuant to Section 306 (3) of the *Water Management Act 2000*.

1.2 Purpose of the DSP

The purpose of the DSP is to achieve the following objectives:

1. Allow Guyra Shire Council to require an equitable monetary contribution for the provision of water supply infrastructure to meet the demands generated by new development on headworks and distribution works.
2. Facilitate the provision of a water supply to the Guyra Shire Council area which meets the required levels of service with regard to flows, pressure, water quantity and the frequency of restrictions.
3. Identify the existing relevant works and set out a schedule and programme of proposed works to meet increasing demands for a “town water” supply generated by development.
4. Detail the contribution rates and Guyra Shire Council’s payment policies.

The water supply system for which Guyra Shire Council seeks to levy DC includes “minor” headworks and distribution works. Reticulation is provided by developers as part of the subdivision/development works.

1.3 Land to Which the DSP Applies

This DSP applies to all land in Guyra Shire Council area that is within the water benefit areas and is to be connected to the water supply system as a result of development. This includes connection of land with existing residences and/or non-residential buildings if water DC have not been paid previously; and may be in addition to costs for shared, special extension of system outside the general water benefit area. Maps of water supply areas can be found in Appendix 3. It applies to the Guyra township only – Tingha has been excluded because Tingha sources its treated water from Inverell Shire Council.

1.4 Calculation Guidelines

This DSP has been prepared with consideration given to *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater (2002)*. These were the latest relevant guidelines from the DPI, at the time of DC calculation, and are based on recommendations of the Independent Pricing and Regulatory Tribunal (IPART)

1.5 Date From Which This DSP Comes Into Effect

This DSP was adopted by Guyra Shire Council on/.../2016 and came into effect on/.../2016

Charges will be levied pursuant to this DSP, as a condition of development consent to applications lodged on or after the day this DSP came into effect.

1.6 Relationship Between The DSP and other Existing Policies or Plans

A number of environmental planning instruments apply to the development of land to which this DSP relates. They include State Environmental Planning Policies.

A full listing of State Environmental Planning Policies applying to Guyra Shire Council is attached to this DSP as Appendix No. 1. Various other Guyra Shire Council Development Servicing Plans are also relevant, as listed in Appendix 2.

This DSP supersedes any other requirements related to water supply DC for the area covered by this DSP. This DSP takes precedence over any of Guyra Shire Council's codes or policies where there are any inconsistencies relating to water supply developer charges. (The term "Developer Contributions" may formerly have been used to refer to Developer Charges.)

1.7 Assets Relevant to the DSP

The purpose of the DSP is that new development should pay for assets from which they benefit. Headworks and distribution works are provided by Guyra Shire Council and paid for through developer charges. Reticulation works are provided by the developer. Asset categories are defined as follows:

1.7.1 Headworks

For the purposes of this DSP headworks are defined as dams, water treatment plants and major pumping stations.

1.7.2 Distribution Works

Distribution works are primarily defined as trunk mains and service reservoirs, and also include minor pump stations.

1.7.2 Reticulation

Reticulation generally consists of all the internal distribution pipes within the subdivision or which specifically serve that subdivision. In some instances, Guyra Shire Council is the developer.

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

Plans of water supply infrastructure are in Appendix 3.

2. Methodology

2.1 Calculation Method for Developer Charges

2.1.1 General Methodology

In its most simplistic description, the calculation determines the equivalent cost of one brand new set of assets to serve development as if those assets could be constructed now. Practically, however, water infrastructure consists of an on-going progression of old and new assets with complex interconnection. Water assets may be constructed many years ahead of full capacity to reflect cost effective and practical staging of works.

Only headworks and distribution works have been taken into account in the DC calculation. The construction of any reticulation pipework required will be the responsibility of the developer.

The methodology used was developed with consideration given to the latest (final) guidelines, managed by DWE, *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (2002). The NPV of Annual Charges Method was used and this is based on the following general equation, as recommended by the Independent Pricing and Regulatory Tribunal (IPART).

$$\text{Developer charge} = \text{Capital charge} - \text{Reduction amount.}$$

The **capital charge** is the cost of beneficial assets plus a return on investment, which reflects the cost incurred by Council by providing the assets ahead of development.

The **reduction amount** is the present value of those capital works costs included in the total capital charge which may be deemed to be already included in annual charges. This value has been adopted as 50% (allowable because there are less than 2,000 assessments).

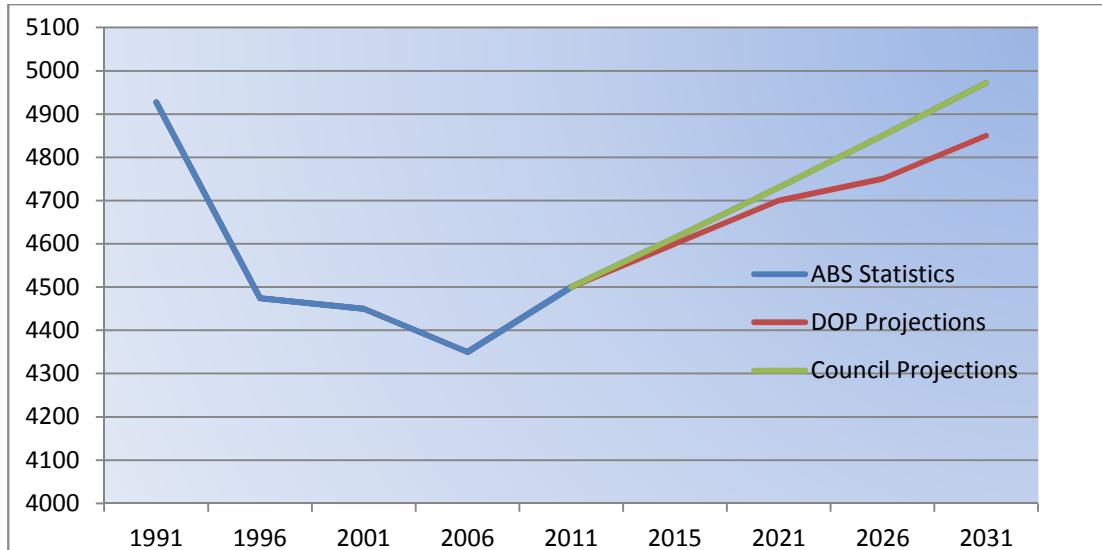
The calculated DC is based on full cost recovery.

2.2 Tenement and Demand Estimates

Most types of development will increase the demand on the water supply system. Water supply assets may directly or indirectly benefit a development by allowing increased demand to be met. Growth of equivalent tenements (ET) is based on population growth as shown in the table below.

Guyra	2015	2020	2025	2030	2035	2040	2045	2050	2055
Residential	920	943	967	991	1017	1042	1068	1095	1123
Rural	0	0	0	0	0	0	0	0	0
Non res.	98	100	103	106	108	111	114	117	120
Total No	1018	1044	1070	1097	1125	1153	1182	1212	1243
Total ET's	1192	1222	1253	1248	1317	1350	1384	1419	1455

A growth rate of 0.5% per annum has been adopted.



Population versus Year

For residential subdivisions, the increased demand is directly related to the number of additional tenements created.

Equivalent tenements (ET's) vary depending on the type of development, for example, 1 bedroom units are equivalent to 0.4 ET's.

The increased demands generated by other types of development (including non-residential) need to be assessed in terms of additional equivalent tenements. The number of additional equivalent tenements is calculated in accordance with the NSW Water Directorate publication *Section 64 Determinations of Equivalent Tenements Guidelines (2009)*.

Planned development of the water supply system is based on these long-term growth projections.

DC pay for the provision of system capacity to suit new development. New development may be served by a combination of existing and/or new works.

2.3 Works Covered by This DSP

The existing and proposed works covered by this DSP are itemised in Appendix 4. All Guyra Shire Council's headworks and distribution works, subject to DC Guidelines, are shown on these tables (for the township of Guyra).

2.4 Cost Estimates

"Current replacement" cost estimates of the existing and proposed works are based on unit rates for construction published in the *NSW Reference Rates for Valuation of Existing Water Supply, Sewerage and Stormwater Assets* by NSW Department of Land and Water Conservation, managed by DPI. These cost estimates are shown in Appendix 4.

3. Levels of Service and Design Parameters

3.1 Levels of Service

System design and operation are based on providing the following Potable Water Supply Levels of Service to Guyra Shire Council:

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target
AVAILABILITY OF SERVICE			
Normal Quantity Available:			
Domestic Peak day	L/tenement/day	4000	4000
Domestic Annual	kL/tenement/yr	175	175
Total Annual Average Consumption	ML/yr	275	700*
Total Peak Daily Consumption	kL/day	1450	2000
Peak/Average consumption	%	193	150
Fire Fighting:			
Compliance with the Water Supply Investigation Manual* (AS 2419.1 classifications 2,3,4.& 9 with floor area less than 1000 m ²)	% urban area served	100%	100%
Pressure:			
- Min. pressure when delivering 0.1L/sec	Metres head	30	30
- Max. static pressure	Metres head	90	90
Consumption Restrictions in Droughts:			
- Level of restriction applied through a repeat of the worst drought on record	Restriction as % of normal usage	0	20
- Average duration of restrictions	Months/ 10 years	0	<6
- Average frequency of restrictions	No./ 10 yr period	0	1
Supply Interruptions to Consumers			
Planned (95% of time):			
- Notice given to domestic customers	Days	1	5
- Notice given to commercial customers	Days	1	7
- Notice given to major industrial customers	Days	1	7*
- Maximum duration	Hours/event	6	6
- Frequency	No./year per customer	1	1
Unplanned:			

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target
- Maximum duration	Hours/event	8	8
- Frequency	No./year per 1000 connections	2	1
RESPONSE TIMES (Defined as time to have staff on-site to commence rectification after notification of problem)			
Normal Supply Failure:			
Priority 1: (Failure to maintain continuity or quality of supply to a large number of customers or to a critical user at a critical time)			
All Customers:			
- During working hours	Minutes	30	30
- Out of working hours	Minutes	60	60
Priority 2: (Failure to maintain continuity or quality of supply to a small number of customers or to a non-critical user at a non-critical time)			
All Customers:			
- During working hours	Minutes	30	30
- Out of working hours	Minutes	60	60
Priority 3: (Failure to maintain continuity or quality of supply to a single customer)			
All Customers:			
- During working hours	Minutes	30	30
- Out of working hours	Minutes	60	60
Customer Complains:			
- Personal/ Oral	Working Days	2	2
- Written	Working Days	10	5
Note: Times apply for 95% of occasions			
Service Provision:			
Time to provide a domestic individual connection to water supply in serviced area (95% of times)	Working days	5	5
WATER QUALITY (Potable Water) (Should meet Drinking Water Quality Guidelines of Australia, NHMRC&AWRCM 1996)			

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target
Microbiological Parameters:			
Total coliforms	CFU/100ml	<10	<1
E-coliform	CFU/100ml	<1	<1
Sampling frequency	Samples/month	12	12
Physico-chemical Parameters:			
pH	Unit		6.5 – 8.5
Colour	HU		<15
Turbidity	NTU		< 5.0
Fluoride	mg/L		0.5 – 1.5
Free available chlorine (WTP)	mg/L		<3.0
Free available chlorine (Reticulation)	mg/L		0.5 – 3.0
Iron	mg/L		< 0.3
Manganese	mg/L		< 0.1
Sampling frequency	Samples/year		
Percentage Compliance with 1996 NHMRC / AWRCM Australian Drinking Water Quality Guidelines:			
Physical parameters	%	100	100
Chemical parameters	%	100	100
Total coliforms	%	99	100
Faecal coliform	%	100	100

* - To work with tomato farms/ industries and depends on seasonality of new commercial developments

Note: The Levels of Service are the targets, which Council aims to meet; they are not intended as a formal customer contract.

3.2 System Capacity

The system capacity is based on the following:

- Headworks – secure yield of water sources of 390 Ml/yr and average annual demand of 181kl per residential property;
- Water treatment plant – design capacity of 6 Ml per day;
- Reservoirs – capacity of 3.4Ml and peak day demand of 4,000 L/ET/day;
- Distribution system – projected number of tenements served at the end of the design horizon (30 years).

3.3 Design Parameters

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

Technical reports relating to the system components in the DSP are included in Section 5, References.

4. Developer Charges

4.1 Headworks and Distribution Works

The calculated DC is tabulated below. This is based on full cost recovery.

Calculated Developer Charges are currently based on Guyra assets only:

The calculated DC, based on full cost recovery, is \$12,316 per ET. Council has resolved to decrease this figure to \$8,621 per ET (30% subsidy to encourage development for a three year period).

Charges are indexed each year as required until recalculated again.

Adopted Developer Charge for 2015/16 is \$8,621 per ET

4.2 Reticulation

Guyra Shire Council does not charge a monetary charge for the construction of reticulation pipework. Developers are responsible for the provision of these works. These may be handed over to Guyra Shire Council upon completion of the development.

4.3 Payment of Developer Charges

5.3.1 Timing of Payments

Subject to clauses 5.3.2 and 5.3.3 the timing for payments of developer charges is as follows:

For <u>complying development</u>	Following the issuing of a complying development certificate and prior to the commencement of work (whether or not the certificate is issued by Council or an accredited certifier).
For <u>other development</u>	Prior to the release of the Construction Certificate or the issuing of a Notice of Commencement of Work should the proposed development not involve construction.
For <u>subdivision</u>	Prior to the release of the Linen Plan.

4.3.2 Method of Payment

Developer charges must be made in the form of monetary payments to Guyra Shire Council. Development consents requiring the payment of a DC will contain a condition specifying the amount payable in monetary terms at the time the consent is issued. A note will be attached to the consent condition which will advise that the DC will be at the rate which applies at the time of payment. That is the rate may increase, through indexation or replacement of this DSP with a new one, from the time the condition appears on the notice of development consent until the time the DC is actually paid to Council.

The deferral of payment of contributions is only permissible subject to formal resolution by Council prior to this occurring. Any request should provide detailed reasons and should agreement be granted, deferral will be subject to the following requirements:

-
- The applicant is to arrange for a Bank Guarantee to be prepared to the value of contributions payable as agreed to by Council (this is to include indexation where applicable),
 - The Bank Guarantee is to be made in favour of Council,
 - Council is to be the custodian of the original Bank Guarantee, and
 - The maximum time frame granted for deferment is (6) months. Should the contributions not be paid by this time, Council will exercise its right under the agreement to call in the Bank Guarantee without notice. Should the approved deferment overlap into the following financial year, then the contribution(s) payable will be subject to indexation.

Council does not permit the payment of contributions in instalments, rather opting for the preparation of a Bank Guarantee in lieu of payment of contributions.

4.3.3 Works in Kind Contributions

Upon written request, Council will consider an offer by the applicant to make a contribution by way of “works in kind” provided that:

- (a) The proposed work satisfies the demands for the kind of public amenities and facilities for which the contribution is sought,
- (b) The proposed work will not prejudice the timing or the manner of the provision of the amenity or facility for which the contribution was required,
- (c) The value of the work is at least equal to the value of the contribution assessed in accordance with this plan and that this value is adequately documented,
- (d) Agreement has been reached as to the standard of work to be undertaken, and
- (e) Where the difference of the value of the work in kind is less than the contribution assessed in accordance with this plan, the balance shall be made by way of monetary contribution.

As part of the Council’s decision making process, a request would only be considered provided the applicant was agreeable to all of the following stipulations:

- An agreement between the applicant and Council on the cost of the works (and value of the work in kind) which is to be determined by reference to satisfactory plans, breakdown of costs, review of audited statements and accounts or similar submitted by the applicant. There would be no indexing of the value of the work in kind or credits so granted.
- The number of credits for a particular type of contribution will be determined by dividing the agreed value of the proposed work by the rate applying to that contribution at the time of the agreement. The credits so agreed will be progressively reduced as the development proceeds. The agreed works schedule may specify those works that may be considered as works in kind.
- An agreed 12 month Defects Liability Period for the cost of the agreed work.
- An agreed standard of workmanship.
- An agreed timetable for the inspection of the works.
- An agreed program for the completion of works.

-
- Submission of an itemised statement of costs (including all receipts) of the completed works. Where the final cost of the works is less than the initial agreed cost of works, the balance is to be paid to Council as a monetary contribution. The costs of works are to also include a breakdown of all labour costs.

Please note that Council will not acknowledge any costs incurred associated with the agreement of Works in Kind as part of above itemised statement.

The decision to accept settlement of a contribution by way of a work in kind is at the sole discretion of Council and will require a Council resolution prior to implementation.

It is Council's preference that for broad acre release areas that Council accepts works in kind and that these are to be fully constructed prior to the release of the Linen Plan or at such time as identified in a "written agreement" between Council and the developer.

Should works in kind that have been agreed to by Council be later withdrawn by the applicant for any reason, then the applicant will be liable for the payment of contributions in accordance with the conditions of development consent or complying development certificate plus any indexations that may have occurred since the approval date.

4.4 Staged Subdivision/Development

In the event of a staged subdivision or development, Guyra Shire Council will accept the staged payment of developer charges as specified above, ie prior to the release of the linen plan for each stage of subdivision and prior to the release of any building approval for a particular stage of a development.

Deferred payment of DC other than in accordance with Guyra Shire Council's requirements for Staged Subdivision and Development, is not permitted by Guyra Shire Council.

4.5 DC Waiver

Guyra Shire Council may waive DC ordinarily attributable to subdivision and development, where the proponent demonstrates to Guyra Shire Council's satisfaction, that it is a non-profit and charitable organisation, which by virtue of carrying out such development, is considered by the Guyra Shire Council to be making a significant and positive contribution to the community.

4.6 Reviewing and Revising of Developer Charges

Developer charges calculations relating to this DSP will be reviewed after a period of five to six years, or when any significant changes occur in proposed works, growth projections or standards.

In the period between any reviews, developer charges will be revised on 1 July each year on the basis of movements in the Consumer Price Index (CPI) for Sydney, in the preceding 12 months to December, excluding the impact of GST.

5. References

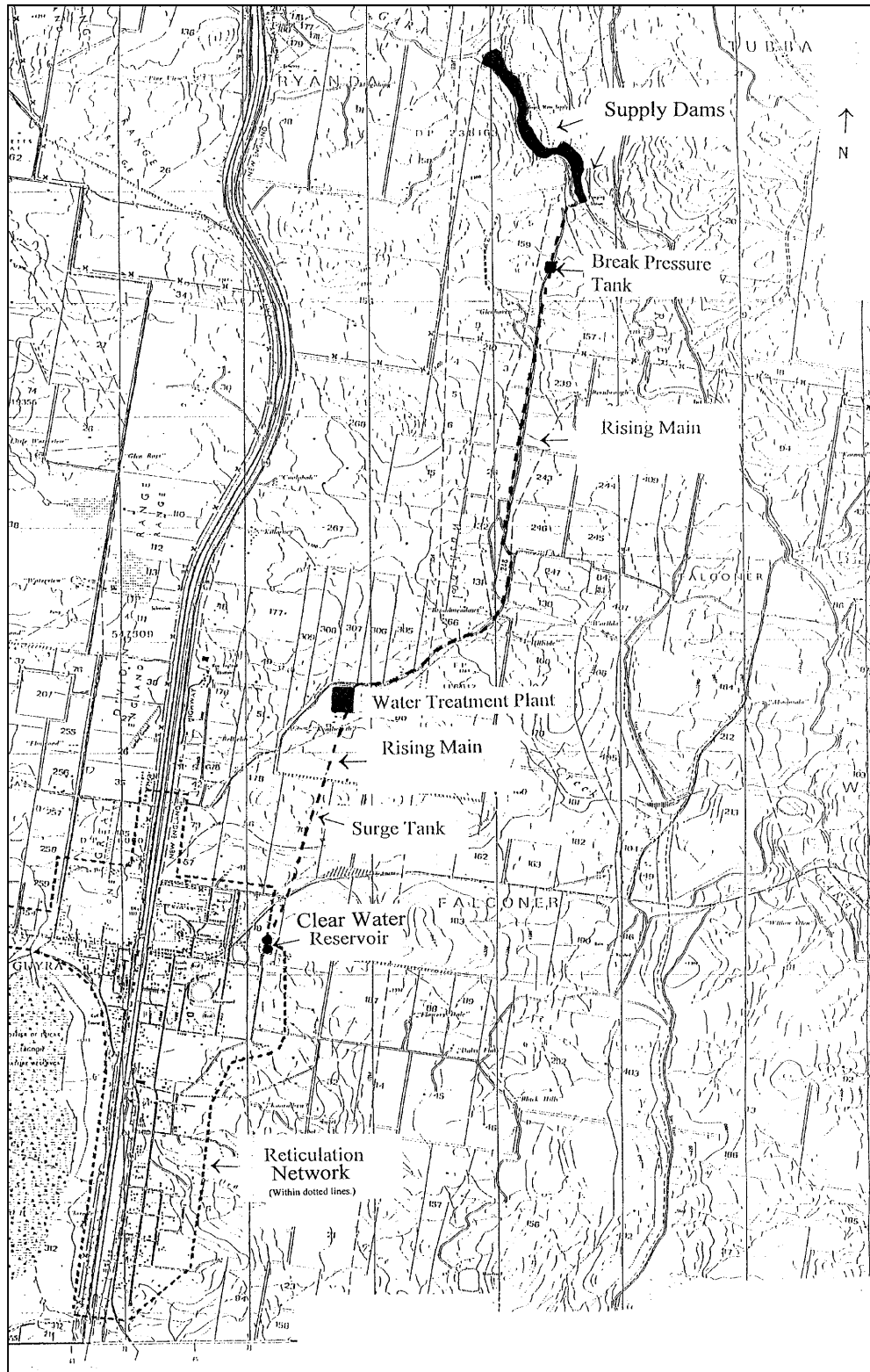
Department of Water and Energy, *Guidelines - Developer Charges for Water Supply, Sewerage and Stormwater* (2002)

NSW Water Directorate Section 64 Determination of Equivalent Tenement Guidelines (2009)

NSW Department of Primary Industries - NSW Reference Rates Manual – Valuation of water supply, sewerage and stormwater assets (2014)

APPENDIX No. 1 - Plan Of Water Supply Scheme

Figure 1 – Map of Guyra Water Supply Scheme



APPENDIX No. 2 – Capital Charge Calculation

Asset Details	Capital cost \$,000	Year dollars	Cost 2015 \$,000	Year Commissioned	Effective year (for ROI)	Capacity MI	Capacity ET's	Capital cost per ET	Year of full uptake	Discount rate	ROI Factor	Capital charge \$/ET
Existing Water Sources												
Dam No 1				1957	1996	90						
Dam No 2				1967	1996	375						
Total			\$2,660			465	1,154	\$2,305	2016	3	1.00	\$2,305
Dam upgrade	\$7,500	2015	\$7,500	2018	2018	1,035	2234	\$3,357	2045	7	2.26	\$7,584
Existing Treatment												
mechanical	\$1,238	2014	\$1,256	1982	1996		1512	\$831	2045	3	1.49	\$1,234
electrical	\$1,238	2014	\$1,256	1982	1996		1512	\$831	2045	3	1.49	\$1,234
Process	\$1,238	2014	\$1,256	1982	1996	6.05 / day	1512	\$831	2045	3	1.49	\$1,234
Civil works	\$5,807	2014	\$5,984	1982	1996		1512	\$3,897	2045	3	1.49	\$5,791
Fluoride dosing	\$110	2014	\$112	2007	2007		1512	\$74	2045	7	2.26	\$167
Upgrade polyelectrolyte	\$50	2013	\$52	2016	2016		1512	\$34	2045	7	2.26	\$78
Power surge protection	\$10	2013	\$10	2016	2016		1512	\$7	2045	7	2.26	\$16
Dam 1 OHS improvements	\$20	2013	\$21	2016	2016		1512	\$14	2045	7	2.26	\$31
Treatment Total	\$9,710		\$9,858					\$6,518				\$9,785

Existing Transfer System	Capital cost \$,000	Year dollars	Cost 2015 \$,000	Year Commissioned	Effective year (for ROI)	Capacity MI	Capacity ET's	Capital cost per ET	Year of full uptake	Discount rate	ROI Factor	Capital charge \$/ET
Raw Water Pump Station	\$370	2014	\$376	1982	1996	6.05 / day	1512	\$248	2045	3	1.49	\$369
Pump Station	\$262	2014	\$266	1982	1996		1512	\$176	2045	3	1.49	\$261
300 mm suction main	\$13	2014	\$13	1982	1996		1512	\$8	2045	3	1.49	\$12
200 mm rising main	\$133	2014	\$135	1982	1996		1512	\$89	2045	3	1.49	\$133
225 mm rising main	\$154	2014	\$156	1982	1996		1512	\$103	2045	3	1.49	\$154
200 mm trunk main	\$855	2014	\$868	1982	1996		1512	\$574	2045	3	1.49	\$853
225 mm trunk main	\$990	2014	\$1,005	1982	1996		1512	\$664	2045	3	1.49	\$987
200 mm rising main	\$475	2014	\$482	1982	1996		1512	\$319	2045	3	1.49	\$474
Total for Transfer sys	\$3,252		\$3,300					\$2,182				\$3,242
Existing storage												
Georges Cl 0.9MI	\$495	2014	\$502	1982	1996		1512					
Georges Cl 2.5MI	\$1,225	2014	\$1,243	1922	1996		1512					
Total storage	\$1,720		\$1,746					\$1,154	2045	3	1.49	\$1,715

Grand Total Calculated Capital Charge per ET = \$24,632

Reduction Amount (50%) = \$12,316

Calculated Developer Charge = \$12,316 per ET

Notes: Existing infrastructure shown in black, **proposed capital works shown in red**

Dam upgrade is one option currently being considered in conjunction with alternative option of a pipeline from Malpas Dam.

Whilst favoured option has not been determined at this time, costs of both options are similar.