

**TAMWORTH REGIONAL COUNCIL  
DEVELOPMENT SERVICING PLAN FOR  
STORMWATER – WARWICK AND BYLONG RD  
SEPTEMBER 2018**



## Summary

This Development Servicing Plan (DSP) covers stormwater developer charges in regard to the Warwick and Bylong Road development area serviced by Tamworth Regional Council. Water and sewerage developer charges are covered under a separate DSP.

This DSP has been prepared in accordance with the 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act, 2000*.

The area covered by each DSP, and the proposed works serving the area, are shown on Plan A in Section 12.

The timing and expenditure for works serving the area covered by the DSP are shown in Section 4.

Levels of service to be provided in each DSP area are summarised in Section 5.

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

DSP Name	Developer Charge (\$ per ET)	Cross-subsidy: resulting increase in the Typical Residential Bill
Warwick and Bylong Road	\$11,783	0%

Developer charges relating to this DSP will be reviewed after a period of 4 to 8 years.

In the period between any review, 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 design and construction of stormwater reticulation works within subdivisions.

Background information containing all the critical data including calculation models behind each DSP is available on request.

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# 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) details the water supply, sewerage and/or stormwater developer charges to be levied on development areas utilising a water utility's water supply, sewerage and/or stormwater infrastructure.

This DSP covers stormwater developer charges in regard to the Warwick and Bylong Road development area served by Tamworth Regional Council (TRC). Sections 7, 13 and 14 comprise the background information. A separate DSP has been prepared to cover water and sewerage developer charges.

This DSP has been prepared in accordance with the 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act, 2000*.

This DSP document supersedes any other requirements related to stormwater 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 stormwater developer charges.

## 2 Administration

### 2.1 DSP Name and Area Covered

DSP Name	Area Covered
<b>Warwick and Bylong Rd</b>	The area covered by this DSP is shown on Plan A. The basis for defining the DSP boundary is an area serviced by a separate stormwater scheme

### 2.2 Payment of Developer Charges

Developer charges will be determined and levied in accordance with the provisions of this DSP document at the time of considering an application for a compliance certificate under Section 305 of the *Water Management Act 2000* or a construction certificate under section 109 of the *Environmental Planning and Assessment Act 1979* or at the time of issuing a notice or other form of written advice, e.g. Under the *SEPP (Exempt and Complying Development Codes) 2008*. The time limit for payment of developer charges will be included in the notice of determination or will be advised to the developer by a separate notice. The amount of any developer charges not paid within the specified time limit will lapse. Any subsequent determination of developer charges will be made in accordance with Council's then current DSP.

### 2.3 Dispute Resolution

Disputes will be resolved in accordance with Section 2.9 of the Guidelines. TRC is not a member of the Electricity and Water Ombudsman (EWON).

### 3 Demographic and Land Use Planning Information

#### 3.1 Growth Projections

Growth projections for all development areas in the TRC LGA were compiled by forecast id., the number of stormwater ETs expected in the DSP area are shown in Table 3-1. These projections are from the present year to 2047/48 i.e. a 30-year planning horizon.

Table 3-1 Growth Projections

Year	Number of ETs	Number of new ETs
2018/19	2	2
2019/20	7	5
2020/21	12	5
2021/22	17	5
2022/23	22	5
2023/24	27	5
2024/25	32	5
2025/26	37	5
2026/27	42	5
2027/28	47	5
2028/29	52	5
2029/30	57	5
2030/31	62	5
2031/32	67	5
2032/33	72	5
2033/34	77	5
2034/35	82	5
2035/36	87	5
2036/37	92	5
2037/38	97	5
2038/39	102	5
2039/40	107	5
2040/41	112	5
2041/42	117	5
2042/43	122	5
2043/44	127	5
2044/45	136	9
2045/46	146	10
2046/47	156	10
2047/48	166	10

## 3.2 Land Use Information

This DSP document should be read in conjunction with the Tamworth Regional Local Environmental Plan (LEP) 2010.

## 4 Stormwater Infrastructure

To facilitate future development in the Warwick and Bylong Road development area a flow path will need to be formalised with an open channel. Piped drainage is required along Warwick Road and a detention basin will need to be constructed.

### 4.1 Existing Capital Costs

There are no existing assets servicing the development area.

### 4.2 Future Capital Works Program

The timing and expenditure for stormwater capital works servicing the area covered by this DSP document are shown in Section 13.

### 4.3 Reticulation Works

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



## 5 Levels of Service

System design and operation are based on providing the following levels of service (LOS). Typical levels of service are outlined below.

The LOS that apply to TRC's stormwater schemes are the targets that Council aims to meet. Achieving the target LOS is Council's primary objective however they are not intended as a formal customer contract. Council's current LOS for the Tamworth urban area are outlined in Table 5-1.

Community consultation for this plan will be undertaken via the public exhibition period.

*Table 5-1 Levels of Service for Stormwater Management for Warwick and Bylong Road Scheme*

Description	Unit	Target LOS
<b>Community Levels of service</b>		
Provide safe drainage system free from preventable hazards	Number of injuries or properties damaged	0
<b>Technical Levels of Service</b>		
Stormwater conveyance capacity – Major drainage system	Average Recurrence Interval	1 in 100 years
Stormwater conveyance capacity – Minor drainage system	Average Recurrence Interval	1 in 5 years
Carry out routine maintenance as scheduled years 1-10 post construction	Number / annum	1
Carry out routine maintenance as scheduled years +10 post construction	Number / annum	2
Ensure access and reduced flooding etc. by pre-planning maintenance	Number of issues per year	0
Provide stormwater services in a cost-effective manner	% budget overrun	No budget overrun
Provide clear safety signage	Number of defects per annum	0

## 6 Design Parameters

Investigation and design of stormwater system components is based on the Tamworth Regional Council Engineering Design Guidelines for Subdivisions and Developments. The following technical reports relate to the system components in this DSP document:

- Warwick Road Stormwater Servicing Strategy (TRC, Final Draft, 2018)

# 7 Developer Charges Calculation

## 7.1 Summary

The developer charges for the area covered by this DSP document area are provided in Table 7-1.

*Table 7-1 Summary of Proposed Stormwater Developer Charges*

DSP Area	Capital Charge (\$ per ET)	Reduction Amount (\$ per ET)	Calculated Maximum Developer Charge (\$ per ET)	Adopted Developer Charge (\$ per ET)
Warwick and Bylong Road	12,064	281	11,783	11,783

These amounts have been calculated on the basis of the information presented in the following sections (Sections 7.2 to 7.7).

## 7.2 Service Areas

The stormwater service areas and the basis of determining the service areas are summarised in Table 7-2.

*Table 7-2 Basis of Determining Service Areas*

Service Area	Basis of Determining the Service Area
Warwick and Bylong Road	Area serviced by a separate stormwater system

## 7.3 Equivalent Tenements (ETs)

The 2016 guidelines do not include a methodology for the calculation of stormwater ETs. In order to determine the number of stormwater ET for current year and 2047 for input into the capital charge calculations, it was assumed that one ET represents the equivalent runoff from a single, detached residential dwelling with an average impervious area of 350m<sup>2</sup>. Only residential subdivision is proposed within DSP Area. The DSP area will include 166 residential dwellings, the lot size does not affect the calculation.

Should it be necessary to calculate the number of ET for non-residential property it should be calculated based on the impervious area, where 350m<sup>2</sup> impervious area represents one ET. All new properties and properties with increase in impervious area are liable for payment of developer charges for stormwater.

ET projections for the DSP area are shown in Table 3-1.

## 7.4 Capital Charge

The capital charge for each service area covered by this DSP document has been calculated using the Net Present Value (NPV) spreadsheet method.

Under the NPV spreadsheet method, the capital cost of relevant assets and projected ETs served in a service area are entered into a spreadsheet. The Present Value (PV) of capital cost and the PV of new ETs are calculated, and the capital charge per ET is the PV of the capital cost divided by the PV of the ETs. A 5% discount rate was applied to future assets, in accordance with the DPI guidelines.

Calculation details for PV of ETs and PV of capital costs for each service area are shown in Section 14. The summary of the capital charge calculations is shown in Table 7-3.

Table 7-3 Capital Charge Calculation

Service Area	PV of New ETs @ 5%	PV of capital cost for future assets @ 5% (\$)	Capital charge per ET (\$)
Warwick and Bylong Road	83	997,195.75	12,064

## 7.5 DSP Area

As there is only one service area agglomeration is not required.

## 7.6 Reduction Amount

TRC has adopted the NPV of Annual Bills method to calculate the Reduction Amount. This method involves calculation of the PV of the future net income, which is the difference between the revenue from annual bills, and annual operation, maintenance and administration (OMA) cost, projected for new development over the next 30 years. This is divided by the PV of the new ETs over 30 years to give the reduction amount. The OMA costs for stormwater are included in Council's rates, in addition to this Council charges a Stormwater Levy to all customers on land that is subject to a stormwater management plan. The charge raises income for the works identified in the stormwater management plan to be undertaken.

The reduction amount calculations are shown in Table 7-4.

Table 7-4 Calculation of the Reduction Amount

Net income = Stormwater Levy per property = \$25 per ET

Year	Total Ets	New Ets per year	PV (New Ets)	Net Income from New Ets	PV (Net Income) from new Ets over 30 years @ 5%	Reduction Amount
2018/19	2	2	<b>83</b>	\$50	<b>\$23,232</b>	<b>\$281</b>
2019/20	7	5		\$175		
2020/21	12	5		\$300		
2021/22	17	5		\$425		
2022/23	22	5		\$550		
2023/24	27	5		\$675		
2024/25	32	5		\$800		
2025/26	37	5		\$925		
2026/27	42	5		\$1,050		
2027/28	47	5		\$1,175		
2028/29	52	5		\$1,300		
2029/30	57	5		\$1,425		
2030/31	62	5		\$1,550		
2031/32	67	5		\$1,675		
2032/33	72	5		\$1,800		
2033/34	77	5		\$1,925		
2034/35	82	5		\$2,050		
2035/36	87	5		\$2,175		
2036/37	92	5		\$2,300		

Year	Total Ets	New Ets per year	PV (New Ets)	Net Income from New Ets	PV (Net Income) from new Ets over 30 years @ 5%	Reduction Amount
2037/38	97	5		\$2,425		
2038/39	102	5		\$2,550		
2039/40	107	5		\$2,675		
2040/41	112	5		\$2,800		
2041/42	117	5		\$2,925		
2042/43	122	5		\$3,050		
2043/44	127	5		\$3,175		
2044/45	136	9		\$3,400		
2045/46	146	10		\$3,650		
2046/47	156	10		\$3,900		
2047/48	166	10		\$4,150		

## 7.7 Cross-Subsidy

The cross-subsidy is the difference (%) between the annual bill with the calculated maximum developer charge and the proposed lower developer charge.

LWUs may elect to cap the developer charges for small villages in order to maintain affordability and to avoid 'stranded' assets in such villages. LWUs may also cap other developer charges to maintain affordability, subject to adopting a commercial developer charge which recovers a significant proportion of the capital cost of the infrastructure. TRC has decided not to apply a cross subsidy.

## 8 Reviewing/ Updating of Developer Charges

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 reviewed by Council after a period of 4 to 8 years.

## 9 Background Document

Background information containing all the critical data including calculation models behind each DSP is available from Council on request. The contact details are:

Brendan Moran

Ph: (02) 6767 5006

The background documents include all the other studies that have been used as a source.

## 10 Other DSPs and Related Contribution Plans

This DSP supersedes all other DSPs and Development Contribution Plans previously prepared by Council. This DSP should be read in conjunction with the following DSP:

- Tamworth Regional Council, Development Servicing Plan for Sewerage, 2018
- Tamworth Regional Council, Development Servicing Plan for Water, 2018

The related Section 94 contributions plans prepared by Council are:

- Tamworth Regional Council Section 94 (Direct) Contributions Plan 2013
- Tamworth Regional Council Section 94A (Indirect) Contributions Plan 2013
- Arcadia Section.7.11 Development Contributions Plan 2018

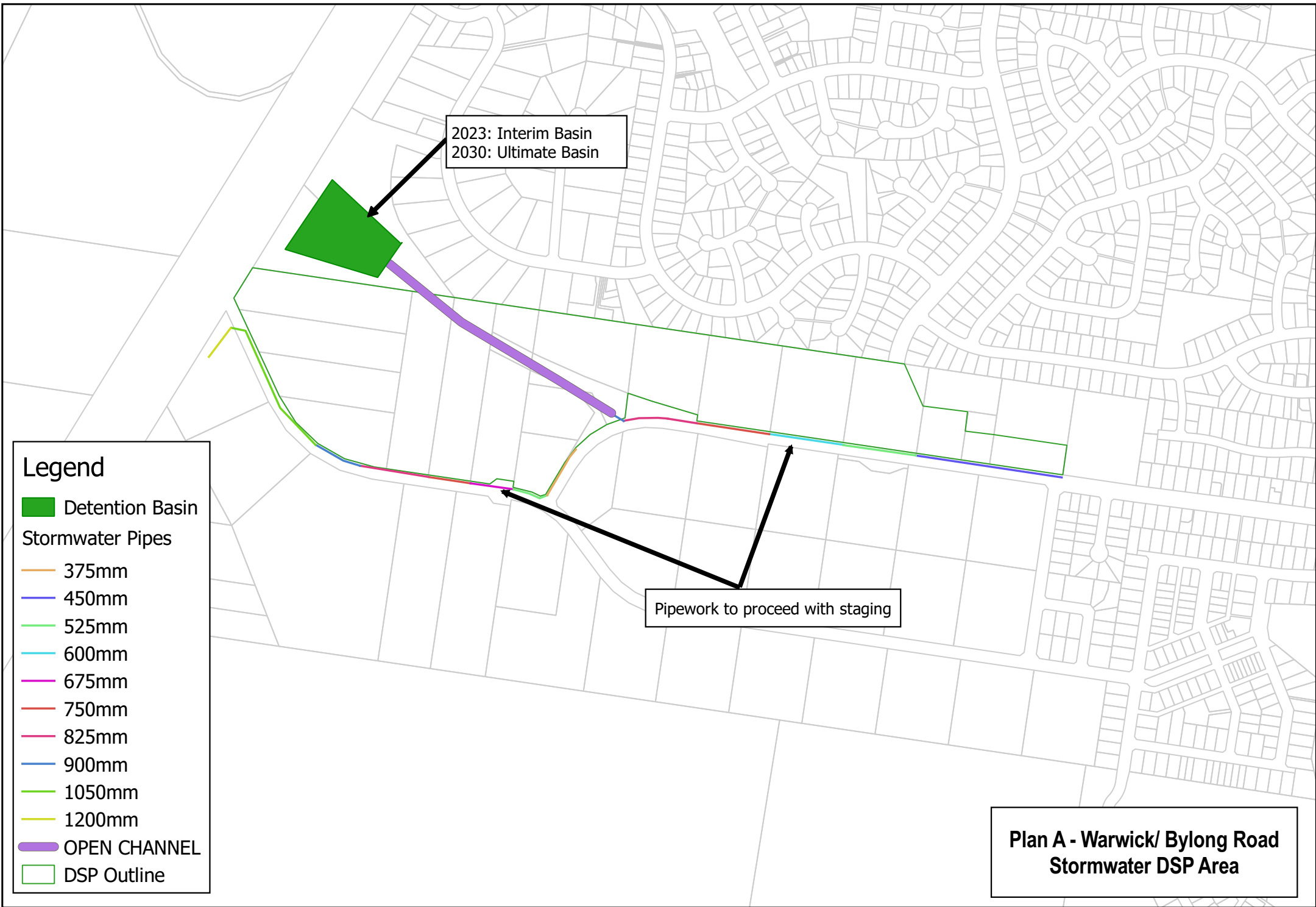


## 11 Glossary

Asset	An asset (or part of an asset) including land and headworks assets that directly provides, or will provide, the developer services to developments within the DSP area for which the Developer Charge is payable
Capital Cost	The Present Value (MEERA basis) of all expenditure on assets used to service the development.
Capital Charge	Capital cost of assets per ET adjusted for commercial return on investment (ROI).
CP	Section 94 Contributions Plan.
CPI	Consumer price index.
Developer Charge (DC)	Charge levied on developers to recover part of the capital cost incurred in providing infrastructure to new development.
Development Area	See DSP area.
Discount Rate	The rate used to calculate the present value of money arising in the future.
DSP	Development Servicing Plan
DSP area	That part of a water utility's area covered by a particular Development Servicing Plan. Also referred to as Development Area.
ET	Equivalent tenement. The annual demand a detached residential dwelling will place on the infrastructure in terms of the water consumption or sewage discharge.
GST	Goods and services tax.
IPART	The NSW Independent Pricing and Regulatory Tribunal.
LGSA	Local Government and Shires Associations.
LWU	Local water utility (NSW). Excludes Sydney Water Corporation, Hunter Water Corporation, Gosford Council, Wyong Council, Essential Water and Fish River Water Supply.
Net income	Equal to the Stormwater Levy per property
NOW	NSW Office of Water
NPV	Net present value means the difference between the Present Value of a revenue stream and the Present Value of a cost stream.
OMA	Operation, maintenance and administration (cost).
Operating cost	In relation to a DSP is the operation, maintenance and administration cost (excluding depreciation and interest) of a LWU in providing Customer services to a DSP area.
Periodic bills	The periodic bills (generally quarterly) levied by a LWU in accordance with their annual operational plan.
PV	Present value. The current value of future money or ETs.
Real Terms	The value of a variable adjusted for inflation by a CPI adjustment

Reduction Amount	The amount by which the capital charge is reduced to arrive at the developer charge. This amount reflects the capital contribution that will be paid by the occupier of a development as part of future annual bills.
Service Area	An area serviced by a separate stormwater system, water supply system, an area served by a separate STW, a separate small town or village, or a new development of over 500 ETs.
TRB	Typical residential bill, which is the principal indicator of the overall cost of a water supply or sewerage system and is the bill paid by a residential customer using the utility's average annual residential water supplied per connected property.
TRC	Tamworth Regional Council

## 12 Plans



2023: Interim Basin  
2030: Ultimate Basin

### Legend

- Detention Basin
- Stormwater Pipes
  - 375mm
  - 450mm
  - 525mm
  - 600mm
  - 675mm
  - 750mm
  - 825mm
  - 900mm
  - 1050mm
  - 1200mm
  - OPEN CHANNEL
- DSP Outline

Pipework to proceed with staging

**Plan A - Warwick/ Bylong Road  
Stormwater DSP Area**

## 13 Future Capital Works Program

Section 13 - Future Capital Works

Year	Subdivision Stage	Survey, Design and Consultants	Pipes	Pits & Headwalls	Basin & Channels	Property Acquisition
2018	1A	\$36,000	\$57,983	\$8,889	\$0	\$100,000
2019			\$0	\$0	\$0	\$0
2020	1B		\$59,104	\$5,926	\$0	\$0
2021			\$0	\$0	\$0	\$0
2022	2		\$0	\$0	\$108,912	\$0
2023			\$0	\$0	\$0	\$0
2024			\$0	\$0	\$0	\$0
2025			\$0	\$0	\$0	\$0
2026	3		\$207,661	\$16,524	\$0	\$0
2027			\$0	\$0	\$0	\$0
2028			\$0	\$0	\$0	\$0
2029	Ultimate Basin		\$17,557	\$4,308	\$239,628	\$0
2030	4		\$61,395	\$8,889	\$40,475	\$0
2031			\$0	\$0	\$0	\$0
2032			\$0	\$0	\$0	\$0
2033			\$0	\$0	\$0	\$0
2034	5		\$137,778	\$12,764	\$0	\$0
2035			\$0	\$0	\$0	\$0
2036			\$0	\$0	\$0	\$0
2037			\$0	\$0	\$0	\$0
2038	6		\$374,434	\$23,704	\$0	\$0
2039			\$0	\$0	\$0	\$0
2040			\$0	\$0	\$0	\$0
2041			\$0	\$0	\$0	\$0
2042	7		\$105,136	\$5,926	\$0	\$0
2043			\$0	\$0	\$0	\$0
2044			\$0	\$0	\$0	\$0
2045			\$0	\$0	\$0	\$0
2046	8		\$87,036	\$14,815	\$0	\$0
2047			\$0	\$0	\$0	\$0

## 14 Calculation of the Capital Charge

Section 14 - Capital Charge Calculation

Year Number	Year	Estimated Capital Expenditure	PV Factor	PV of Capital Expenditure (@5%)	Number of New Ets	PV of New Ets
1	2018/19	\$202,872	1.00	\$202,872	2	2
2	2019/20	\$0	0.95	\$0	5	5
3	2020/21	\$65,030	0.91	\$58,984	5	5
4	2021/22	\$0	0.86	\$0	5	4
5	2022/23	\$108,912	0.82	\$89,602	5	4
6	2023/24	\$0	0.78	\$0	5	4
7	2024/25	\$0	0.75	\$0	5	4
8	2025/26	\$0	0.71	\$0	5	4
9	2026/27	\$224,185	0.68	\$151,737	5	3
10	2027/28	\$0	0.64	\$0	5	3
11	2028/29	\$0	0.61	\$0	5	3
12	2029/30	\$261,493	0.58	\$152,889	5	3
13	2030/31	\$110,758	0.56	\$61,674	5	3
14	2031/32	\$0	0.53	\$0	5	3
15	2032/33	\$0	0.51	\$0	5	3
16	2033/34	\$0	0.48	\$0	5	2
17	2034/35	\$150,541	0.46	\$68,965	5	2
18	2035/36	\$0	0.44	\$0	5	2
19	2036/37	\$0	0.42	\$0	5	2
20	2037/38	\$0	0.40	\$0	5	2
21	2038/39	\$398,137	0.38	\$150,054	5	2
22	2039/40	\$0	0.36	\$0	5	2
23	2040/41	\$0	0.34	\$0	5	2
24	2041/42	\$0	0.33	\$0	5	2
25	2042/43	\$111,062	0.31	\$34,437	5	2
26	2043/44	\$0	0.30	\$0	5	1
27	2044/45	\$0	0.28	\$0	9	3
28	2045/46	\$0	0.27	\$0	10	3
29	2046/47	\$101,851	0.26	\$25,981	10	3
30	2047/48	\$0	0.24	\$0	10	2
<b>TOTAL</b>		<b>\$ 1,734,841</b>		<b>\$ 997,195.75</b>	<b>166</b>	<b>82.66</b>

Capital Charge	\$ 12,063.86
Reduction Amount	\$ 281.05
Developer Charge	\$ 11,782.80



## Report Details

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**Status** FINAL

## Document Status

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A	Draft	Naomi Schipanksi	Client Review	12/07/18
B	Final Draft	Naomi Schipanksi	Client Review	18/07/18
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