Queanbeyan-Palerang Regional Council

Palerang Community Development Servicing Plan for Water Supply

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QPRC

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Executive Summary

Developer Charges are an integral part of the fair pricing of water supply and sewerage services. They are up-front charges levied on developers to recover part of the infrastructure costs incurred in servicing new developments or changes to existing development. Section 64 of the Local Government Act, 1993 enables a local government council to levy developer charges for water supply, sewerage and stormwater services.

This document covers the Development Servicing Plans (DSPs) for water supply service areas of the Palerang Community of Queanbeyan-Palerang Regional Council (QPRC). The maps of the development service areas for water supply are shown in Appendix A. For the areas serviced by the Captains Flat water supply scheme, Council's IWCM strategy identified negligible growth, hence has not been included in the DSP.

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

The existing water supply assets serving the Palerang Community and the timing and expenditures for assets planned for the next 10-years are presented in Section 4. The levels of service to be provided in the DSP areas are summarised in Section 5.

The water supply developer charges for the area covered by this DSP have been determined in 2019/20 dollars and are as follows:

Water DSP Name	Service area covered	Calculated Developer Charge ($ per ET)	Adopted Developer Charge ($ per ET)
Water DSP Area 1	Bungendore-Greenfield Developments	18,919	18,919
Water DSP Area 2	Bungendore and Braidwood	8,029	8,029

The developer charges calculated in these DSPs will be reviewed after eight years, unless required otherwise. In the period between any reviews, the developer charges will be indexed annually on the basis of movements in the consumer price index (CPI) for Sydney, excluding the impact of GST.

The DSPs have been adopted by Council after public exhibition on *[insert date]* and the adopted developer charges are effective from *[insert date]*.

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

The background documents for the water supply DSP are provided in Appendix B. The electronic copy of these documents containing all the critical data and calculation models behind the DSP will be made available on request.

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1 Introduction

The developer charges are up-front charges levied by urban water utilities to recover part of the infrastructure costs incurred in servicing new developments or additions or changes to the existing developments.

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 developer charges to be levied on developments utilising a water utility's water supply, sewerage and stormwater infrastructure.

The aims and objectives of this DSP are to:

- Provide an overall administrative framework under which specific water assets may be co-ordinated and constructed
- Ensure that adequate water infrastructure is provided for as part of the new development
- Provide a comprehensive strategy for the assessment, collection, expenditure accounting and review of contributions on an equitable basis
- Ensure that the existing community is not burdened by the provision of water infrastructure as a result of future development
- Enable Council to be both publicly and financially accountable in its assessment and administration of the Development Servicing Plans.

This DSP covers water supply developer charges for the service areas of the Palerang Community of Queanbeyan-Palerang Regional Council (QPRC). The maps of water supply DSP areas serviced by Palerang Community of QPRC are shown in Appendix A.

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.

Once adopted, this DSP supersedes any other requirements related to water supply developer charges for the development areas covered by the DSP. The DSP takes precedence over any of Council's codes or policies where there are any inconsistencies relating to water supply developer charges.

The developer charges should be indexed based on movements in the consumer price index (CPI) for Sydney, excluding the impact of GST. The developer charges calculated in this DSP will be reviewed after eight years.

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

2 Administration

2.1 DSP areas and names

The Palerang Community of QPRC operates and manages three reticulated water supply systems to serve townships within the former Palerang Local Government Area (LGA).

This DSP is applicable to all land within the DSP areas which is serviced by the water infrastructure in the Palerang Community of QPRC. The DSP names and areas covered are presented in Table 2-1.

Table 2-1: DSP Names and Areas Covered

DSP Details		Schemes covered	Area covered
WDSP 1	Water Supply DSP Area 1	Bungendore-Greenfield Developments	The maps of the water supply DSP areas covered in this document are shown in Appendix A.
WDSP 2	Water Supply DSP Area 2	Bungendore	
		Braidwood	

2.2 DSP boundaries

The DSP area boundaries are based on the existing and future developments to be served by Council's water supply services for the Palerang Community. Regarding the new developments outside the water supply DSP areas boundaries, Council may:

- apply the developer charges adopted by this Plan to the new development, or
- prepare a new DSP for the new development.

2.3 Application of developer charges

Developer charges will be levied on all land and new developments within the DSP areas. Council will assess the demand for service in terms of equivalent tenements (ET) and will levy developer charges proportional to the number of ETs. The developer charges will also apply to re-developments (i.e. alterations, additions or change of use for an existing development) on the basis of resulting increase in the ET for the services.

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

2.4 Effective commencement date for this DSP

This DSP has been adopted by QPRC on *[insert date]* and will be effective from *[insert date]*. Charges will be levied pursuant to this DSP, as a condition of development consent granted on or after the day this DSP comes into effect.

2.5 Timing and payment of developer charges

The developer charges will be determined and levied in accordance with the provisions of this DSP 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 109c 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.

The timing of payment of developer charges to the Council is as follows:

- subdivision – prior to the release of the linen plan or approved engineering plans, whichever occurs first;
- dwellings and other buildings – prior to the issue of construction certificate
- other developments – prior to the issuing of a notice of commencement of work, should the proposed development not involve any construction.

Other arrangements for payment are at Council's discretion and depend upon the circumstances of the contributor or the development.

Due to the general consistency of subdivisions and dwellings within the Palerang Community no discount rates apply, and the basic charge as set out in the Development Servicing Plans will apply unless special circumstances can be established to the satisfaction of Council.

Payment of a developer charge is a precondition to the granting of a Compliance Certificate, which must be obtained in order to complete a development. A Compliance Certificate will not be issued until the developer charge payment has been received.

2.6 Method of payment

Developer charges must be made in the form of monetary payments to Council. The development consents will contain the conditions specifying the developer charges amount payable at the time when the consent is issued. A note will be attached to the consent condition which will advise that the developer charges 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 developer charge is actually paid to Council.

Developers may seek Council's agreement and approval on payment deferment. Where the applicant can demonstrate that the settlement of the contribution as set out by the Council is unreasonable in the circumstances of the case, the Council may accept deferred or periodic settlement. 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 and shall not be the subject of any expiry date,
- Council is to be the custodian of the original Bank Guarantee, and
- The maximum time frame granted for deferment is six 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.

Upon Council's approval, the charges will be recorded as a debt against the property and payable at a rate applicable at the time of payment.

2.7 Exemptions from developer charges

Crown Developments:

Under Section 306 (4) and (5) of the Water Management Act 2000, the Minister for Planning may decide in regard to developer charges levied on Crown Developments.

Crown developments for essential community services (education, health, community amenities, and law and order) are exempt from general developer charges. Council may charge these developments only for that portion of the direct connection cost (e.g. for a lead-in main) relating to Crown development.

Other Developments:

The contributions set out in this DSP apply to all forms of development within the Palerang Community of QPRC, except for the following:

a. Erection of a single dwelling house on an existing vacant allotment of land

b. Alterations or additions to a single dwelling house where such alterations do not create additional dwellings

c. Subdivision of land that does not create any additional allotments

2.8 Out of sequence development

Council plans infrastructure development in accordance to a desired sequence of development. If a developer wishes to proceed with a development which is not in the same sequence, provided that there are no other constraints to the development, Council may approve the construction of the essential assets ahead of time. In such cases, the assets will be sized by the Council in accordance with the requirements of the DSP and the full capital cost would initially be met by this developer.

If the asset funded by this developer will serve other future development, the developer could be reimbursed when the Council collects developer charges from the future development. The Council and the developer will enter into an agreement stating how the developer will be reimbursed in the future.

It is recommended that prospective developers seek further advice from Council on out of sequence developments.

2.9 “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 is 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.

It should be noted 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 broadacre 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 the 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.

2.10 Indexation

The developer charges should be indexed on the basis of movements in the consumer price index (CPI) for Sydney, excluding the impact of GST.

2.11 Dispute resolution

Council will adopt a transparent and consultative process for determining developer charges for a development. In case of disputes:

- If the dispute is regarding how the Council has calculated the developer charge for a development:
  - The developer may lodge a formal complaint to the Council and the General Manager of the Council will review or cause it to be reviewed
  - If not satisfied with the General Manager's response, the developer may refer the complaint to the NSW Ombudsman as the Council is currently not a member of the Energy & Water Ombudsman NSW (EWON)

- If the dispute is regarding the interpretation of the 2016 Developer Charges Guidelines:
  - The developer may refer the complaint to DPIE Water, which will respond to the complaint
  - If warranted, DPIE Water may refer the matter to an expert technical panel, which will include representatives from DPIE Water, IPART, the NSW Water Directorate, the Council and the development industry, and a developer charges expert for responding to the complaint
- If the developer is still dissatisfied, may request the matter to be reviewed by way of arbitration by an arbitrator, who is to be appointed by agreement between the developer and the Council, in accordance with the Commercial Arbitration Act, 2010. Costs of arbitration are to be borne equally by the developer and the Council. The decision of the arbitrator is binding on both the developer and the Council.

3 Demographics, Growth Projections and Land Use

3.1 Existing services

The Palerang Community of QPRC provides water supply services to Bungendore (Bungendore and Elmslea Estate), Braidwood and Captains Flat (Captains Flat Village and Beverly Hills) within the former Palerang LGA. A summary of the water supply services is shown in Table 3-1.

Table 3-1: Palerang Community water supply services

Town / Village	Water Supply Scheme
Bungendore	Bungendore and Currandooly
Braidwood	Braidwood
Captains Flat	Captains Flat
Majors Creek	Roof rainwater and/or groundwater bores (privately owned)
Nerriga	Roof rainwater and/or groundwater bores (privately owned)
Araluen	Roof rainwater and/or groundwater bores (privately owned)
Wamboin	Roof rainwater and/or groundwater bores (privately owned)
Carwoola	Roof rainwater and/or groundwater bores (privately owned)

The historical population for the urban centres is presented in Table 3-2 (ABS Census Quickstats data, 2018). Council's IWCM Strategy considered a number of population studies to develop a future population growth strategy and adopted a population and tenement growth forecasts for service planning. For the areas serviced by the Captains Flat water supply scheme, the Strategy identified negligible growth, hence has not been included in the DSP.

Table 3-2: Historical urban centre population of serviced areas

Area	2001	2006	2011	2016
Bungendore	1,685	2,183	2,754	3,317
Braidwood	996	1,108	1,158	1,273
Captains Flat	419	447	436	449

3.2 Growth Projections for the Service Areas

To apportion the cost of providing water supply services within the Council's DSP areas, the demand in each DSP area is required. The demand in each DSP area is determined in terms of equivalent tenements (ETs). An ET is the annual demand a detached residential dwelling will place on water supply infrastructure in terms of water supplied.

For the purpose of the Development Servicing Plans, the tenement growth forecasts by the IWCM strategy based on water demand analysis were further reviewed in light of actual growth observed in the existing serviced areas and the greenfield release areas earmarked to accommodate growth. Accordingly, the timing of growth adopted in the IWCM has been adjusted to be consistent with the observed growth on ground and used for the calculation of developer charges.

The estimated equivalent tenements (ET) growth forecasts for the water supply service areas used in the determination of developer charges are presented in Table 3-3.

3.3 Land use information

Information provided in this Plan should be considered in conjunction with Local Environmental Plan, Developer Control Plans (DCPs) and other planning instruments used by QPRC.

Table 3-3: Palerang Community water supply DSP area estimated ET projections

Financial Year	Bungendore	Braidwood	Bungendore-Greenfield	Total ET
1995/96	591	670	0	**1,262**
2019/20	1,383	805	81	**2,269**
2020/21	1,458	812	158	**2,428**
2021/22	1,468	819	230	**2,516**
2022/23	1,477	825	295	**2,597**
2023/24	1,487	832	351	**2,670**
2024/25	1,496	839	474	**2,809**
2025/26	1,506	846	595	**2,947**
2026/27	1,516	853	714	**3,083**
2027/28	1,526	860	831	**3,217**
2028/29	1,536	867	1,045	**3,448**
2029/30	1,545	875	1,156	**3,576**
2030/31	1,556	882	1,264	**3,701**
2031/32	1,563	889	1,368	**3,820**
2032/33	1,569	897	1,468	**3,933**
2033/34	1,575	905	1,564	**4,043**
2034/35	1,581	912	1,658	**4,151**
2035/36	1,587	920	1,750	**4,256**
2036/37	1,593	928	1,837	**4,358**
2037/38	1,599	936	1,920	**4,455**
2038/39	1,605	944	1,999	**4,548**
2039/40	1,611	952	2,073	**4,637**
2040/41	1,618	960	2,144	**4,722**
2041/42	1,624	969	2,210	**4,803**
2042/43	1,631	977	2,273	**4,880**
2043/44	1,637	986	2,331	**4,954**
2044/45	1,644	994	2,386	**5,024**
2045/46	1,649	1,003	2,437	**5,090**
2046/47	1,655	1,012	2,485	**5,152**
2047/48	1,660	1,021	2,530	**5,211**
2048/49	1,666	1,030	2,573	**5,269**
2049/50	1,671	1,039	2,617	**5,327**

4 Infrastructure

4.1 Water supply system overview

The Palerang Community Water Supply systems currently provide drinking water to Bungendore (Bungendore and Elmslea Estate), Braidwood and Captains Flat (Captains Flat Village and Beverly Hills).

There are three water treatment plants in the system: Bungendore WTP, Braidwood WTP and Captains Flat WTP, which supply treated water to an estimated serviced total population of over 5,700.

The current Bungendore Water Supply Scheme consists of the original Bungendore water supply scheme and the recently commissioned supplementary water supply scheme at Currandooly. The original Bungendore water supply scheme consists of four bores located around the town, a WTP and a collection tank. The supplementary Currandooly Scheme consists of a bore, a WTP and a clear water transfer system to the town.

The Braidwood Water Supply Scheme is supplied with water sourced from an off-stream storage dam filled from the Shoalhaven River which is fed by a raw water pump station and a submerged rising main to Braidwood WTP. Water from the WTP is then stored in three service reservoirs before being supplied directly to the town.

The Captains Flat Water Supply Scheme sources water from a dam on the Molonglo River. It consists of an intake at the dam and a booster pump piped to Captain Flats WTP. As no growth is forecast within this scheme service area, it is not included in the DSP.

4.2 Existing water supply assets

Existing water supply assets servicing the Palerang Community DSP areas and their current MEERA costs as valued and maintained by the Council have been included in the capital charges calculation.

The current replacement cost (CRC) for the existing water supply assets in Bungendore and Braidwood is $32.78 Million (2019/20 $). In accordance with the 2016 NSW Developer Charges Guidelines, all existing water supply assets servicing the Palerang Community are included in the capital charge calculations except for the following:

- assets aged 30 years and older as of 2020
- assets which are unlikely to be fully utilised over the planning horizon for calculating developer charges
- reticulation assets, which are typically paid for directly by developers
- gifted assets, which were built by developers and later transferred to Council

The CRC of water supply assets in Bungendore and Braidwood included for the calculation of capital charge is $21.15 Million (2019/20 $).

Details of the existing assets servicing the areas covered by the water supply DSP with additional water supply DSP background documents are included in Appendix B. A summary of the existing assets and their current replacement costs for included and excluded assets is shown in Table 4-1.

Table 4-1: Summary of existing water supply assets in Bungendore and Braidwood

Service Area	Asset Type	Current Replacement Cost (2019/20 $)	Excluded Assets (2019/20 $)	Included Assets (2019/20 $)
Braidwood	Network	4,958,373	3,438,518	1,519,855
	Pump Station	255,070	68,629	186,441
	Reservoir	3,271,301	3,271,301	0
	Treatment	3,471,712	0	3,471,712
Braidwood Total		**11,956,456**	**6,778,448**	**5,178,008**
Bungendore	Network	7,669,106	1,969,019	5,700,087
Bungendore Total		**7,669,106**	**1,969,019**	**5,700,087**
Bungendore Assets shared with Greenfield Developments	Trunk Mains	1,722,857	356,933	1,365,924
	Pump Station	1,988,974	282,521	1,706,452
	Reservoir	2,812,153	1,813,688	998,465
	Treatment	6,631,586	428,929	6,202,657
Shared Assets Total		**13,155,570**	**2,882,072**	**10,273,498**
Grand Total		**32,781,132**	**11,629,539**	**21,151,593**

4.3 Future water supply assets and renewals

Where DSP areas are expected to make use of future assets, the capital cost of these assets are included in the capital charges calculations. In accordance with the Developer Charges Guidelines 2016, the estimated costs of capital works (including contingencies) planned for the next 10 years as adopted by the Council and documented in the Total Asset Management Plan of the Council's IWCM Strategy, 2019, have been further reviewed to be consistent with the Council's adopted Delivery Program 2018-21 and included for the calculation of capital charges.

The Palerang Community water supply capital works program comprises of works for growth, improved standards and renewals. The capital works required for Council to provide water supply to the existing service areas and the new development areas are summarised in Table 4-2 and detailed in Appendix B.

Table 4-2: Water supply future capital works

Water supply capital works program	10-year capex total 2019/20 ($'000)
New/ Upgrade Works	24,614
Renewals	4,425
Total	**29,040**

(Source: Based on the adopted Palerang Community IWCM Strategy, 2019)

The timing and expenditure for the 10-year water supply capital works covered by the DSP is shown in Figure 4-1. Details of the 10-year water supply capital works program are presented in Figure 4-2.

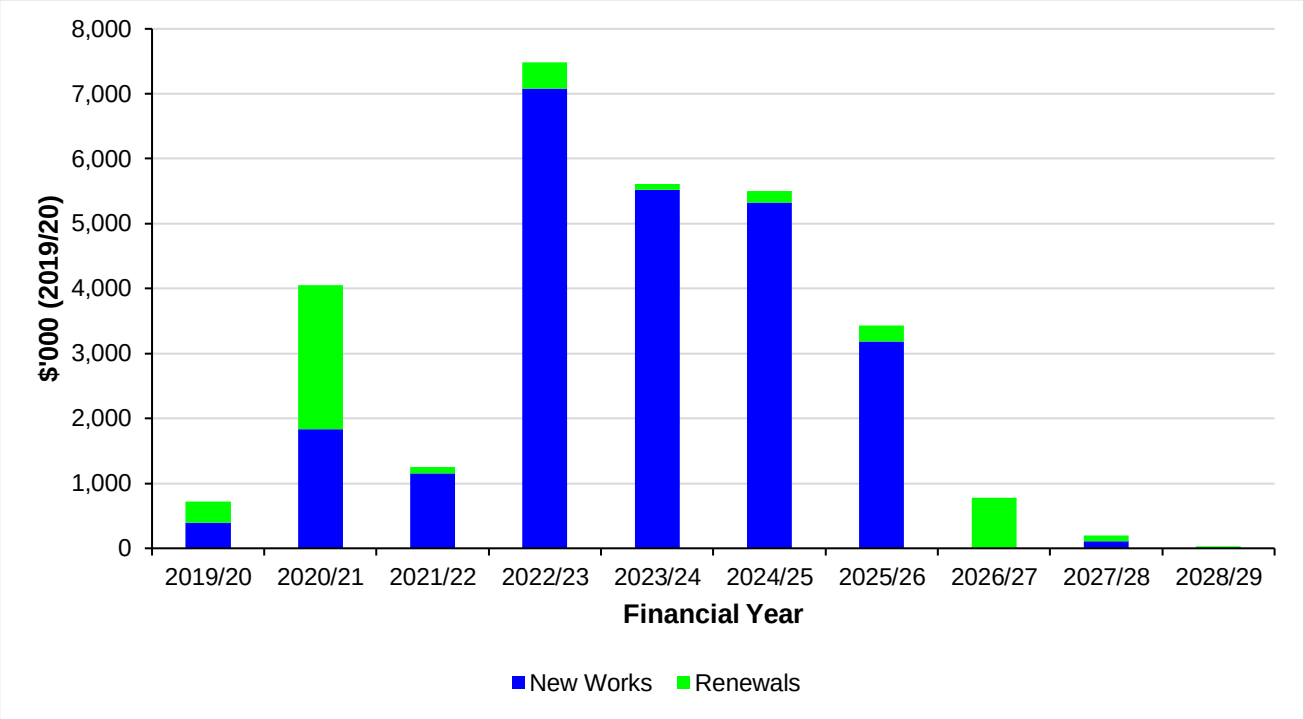


Figure 4-1: Timing of 10-year water supply capital works program

Timing of works and expenditure are to be reviewed and updated when required. Capital cost for growth planned within the next 10 years is included while the reticulation is excluded in the capital charges calculation in this DSP. The Developer Charges Guidelines for Water Supply, Sewerage and Stormwater (2016) recommend that capital works for renewals and for improving standards of service be excluded from the capital charges calculation.

Water reticulation

Reticulation is defined as the local pipes providing water supply to individual properties. Reticulation assets are excluded from the calculation of developer charges as the developers are responsible for the full cost of the design and construction of water supply reticulation works within subdivisions. However, LWUs may calculate a reticulation supplement which would be payable by developers that have not provided the reticulation assets.

WATER - 10-Year Capital Works Program

Current Year 2019 /20

CAPITAL WORKS IN 2019/20 ($'000)

ITEMS	ILOS	GROWTH	RENEW	Total	1 2019/20	2 2020/21	3 2021/22	4 2022/23	5 2023/24	6 2024/25	7 2025/26	8 2026/27	9 2027/28	10 2028/29
A - NEW WORKS - BACKLOG														
	100%			**0**										
B - NEW WORKS - GROWTH														
B'dore WTP Upgrade (2 Mld) - LF Belt Bores - Stage1		100%		**11,807**				6,807	5000					
B'dore WTP Upgrade (Addl. 2 Mld) - LF Belt Bores - Stage2		100%		**0**										
Private works, connections, extensions		100%		**516**	52	52	52	52	52	52	52	52	52	52
New Meters and Connections		100%		**206**	21	21	21	21	21	21	21	21	21	21
Network development for Greenfield - Bores, mains and reservoirs		100%		**10,334**		1,000	1,154			5,000	3,180			
Council's Capital Proj Mgmt Charge		100%		**502**	3	3	3	275	203	3	3	3	3	3
C - NEW WORKS - SERVICE IMPROVEMENT / OTHER														
Bungendore - Water Bores	100%			**508**		508								
Dams (Component) upgrade	100%			**0**										
Braidwood W.T.P. - Improvements	100%			**310**					310					
Bungendore W.T.P. - Improvements	100%			**722**	155	258				310				
Captains Flat W.T.P. - Improvements	100%			**0**										
Pump Station - (Component) upgrade - Braidwood	100%			**0**										
Reservoirs - (Component) upgrade	100%			**0**										
Telemetry System upgrade	100%			**103**									103	
Council's Capital Proj Mgmt Charge	100%			**65**	6	31			12	12			4	
E - ASSET / COMPONENT RENEWAL														
Based on Asset Register														
Dams (Captains Flat)			100%	**258**							258			
Water Treatment Plants - Bungendore M&E			100%	**722**								722		
Pump Stations			100%	**392**	10	10	10	10	10	155	155	10	10	10
Replace Cap Flat Steel Reservoir			100%	**0**										
Water Mains			100%	**457**		457								
Service Connections			100%	**310**	62		62		62		62		62	
Captains Flat Dam 10 yearly post stressing lift off test			100%	**124**			124							
Replace Braidwood rising main			100%	**1,651**		1,651								
Paint Days Hill reservoir			100%	**361**				361						
Turallo Reservoirs retaining wall and leak repair			100%	**206**	206									
Establish Hydraulic model (all three schemes)	100%			**108**	77	31								
Replace membranes Captains Flat WTP			100%	**144**			72							72
Chemical storage shed Captains Flat WTP			100%	**206**	206									
Water loss studies	100%			**155**	155									
Water Meters			100%	**310**	31	31	31	31	31	31	31	31	31	31
Telemetry System			100%	**103**	10	10	10	10	10	10	10	10	10	10
Council's Capital Proj Mgmt Charge			100%	**222**	**30**	**88**	**12**	**17**	**5**	**8**	**21**	**31**	**5**	**5**
GRAND TOTAL				**30,804**	**1,025**	**4,151**	**1,551**	**7,584**	**5,715**	**5,601**	**3,792**	**880**	**301**	**204**

Figure 4-2: 10-year water supply capital works program for Palerang Community

5 Levels of service

Water supply system design capacity and operation are based on providing the adopted levels of service (LOS). The LOS for the water supply services adopted following consultation with the Project Reference Group including community representatives as part of the development of the Palerang Community IWCM strategy 2019 are shown in Table 5-1.

Table 5-1: Palerang Community of QPRC's water supply levels of service

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Target	Current Performance assessed by Council
Pressure			
Minimum pressure when delivering 0.15 L/s/tenement PID	Metres Head	12	Bungendore - 12 Braidwood - 40
Minimum pressure when delivering 0.10 L/s/tenement with firefighting capability	Metres Head	Positive residual head throughout network	Bungendore - 12 Braidwood - 12
Max. static pressure	Metres head	90	90
Fire-Fighting			
Compliance with The Water Supply Investigation Manual	% area served	95	100
Supply Interruptions to Consumers:			
Planned (95% of time):			
Notice given to domestic customers	Working Days	1	1
Notice given to commercial customers	Working Days	2	3
Notice given to industrial customers	Working Days	2	3
Maximum duration of interruption	Hours	8	2
Total number of interruptions	No./year/1000 tenements	8	5
Unplanned:			
Maximum duration	Hours	6	3
Total number of interruptions	No./year/1000 tenements	10	8
Response Times (Defined as time to have staff on-site to rectify problem) Supply Failure: Note: Times apply for 95% of occasions			
All Customers:			
During working hours	Hours	1	1
Out of working hours	Hours	2	2
Minor Problems & General Inquiries:			
Oral inquiry	Working Days	2	2

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Target	Current Performance assessed by Council
Written inquiry	Working Days	10	15
Service Provided			
Time to provide an individual connection to water supply in serviced area (90% of times)	Working days	5	5
Water Quality			
Number of boil water alerts	No./year	0	0
Taste/odour complaints	No./year	0	0

6 Design parameters

6.1 Water supply

Investigation and design of water supply system components are based on the following technical documentations:

- Queanbeyan-Palerang Regional Council's levels of service (Refer to Section 5)
- Water Supply Investigation Manual, NSW Public Works (1986)
- WSAA water supply code of Australia – WSA 03 2002
- TAM and Financial Plans of Palerang Community IWCM Strategy, 2019

7 Developer charges calculation methodology

7.1 Developer charge concept

The developer charges calculation methodology is based on the net present value (NPV) approach with a view to fully recover the capital cost invested for servicing a development area. The investment is recovered as the up-front developer charges and the net income over time from the annual bills/ charges.

The calculation of developer charges is a two-step process. First, the capital charge is calculated as the present value of the capital cost of assets required over time to service the development area. The capital charge will include the capital cost component that will be recovered through annual bills, which needs to be reduced from the calculated capital charge. Hence, the second step is to calculate the reduction amount, which is the present value of the expected annual charges over time to be paid by the development in excess of operation, maintenance and administration (OMA) costs i.e. net income from annual bills.

The developer charge per equivalent tenement is defined as the capital charge less the reduction amount.

Developer Charge ($/ET) = Capital Charge ($/ET) – Reduction Amount ($/ET)

7.2 Capital charge

The calculated capital charge represents the efficient capital cost of assets used in providing water supply services in the DSP areas. This includes the cost of both existing and future assets per equivalent tenement (ET) to be used to service the DSP areas.

Generally, the capacity of a water supply asset would not be fully utilised until some years after construction of the asset. The calculation takes into account the time to full take-up of the capacity of an asset over the planning horizon (30 years).

The Return on Investment (ROI) is based on the cost of early investment and the recovery of the investment over time. The annual payments have to provide a return of investment to reflect the discounting of future payments.

In accordance with IPART's Determination 9, 2000, the ROI is calculated using the discount rates in Table 7-1.

Table 7-1: Discount rates used in capital charge calculation

Assets	Discount rate
For Pre-1996 assets	3% pa
For Post-1996 assets	5% pa

7.3 Exemption

The assets groups included and excluded from the capital charges calculations are shown in Table 7-2

Table 7-2: Assets included and excluded in capital charges calculations

Group	Capital charge calculation inclusion
Existing assets	Assets less than 30 years old at the commencement of this Plan are included
Future assets (new works)	Assets planned within the next 10 years as adopted by Council are included
Future assets (renewals)	Assets planned for renewal within the next 10 years are included, if replacing assets older than 30 years
Reticulation (existing and future)	Reticulation assets are excluded from the calculation of developer chargers
Assets for out-of-sequence development	Excluded if the developer is required to meet the full cost of such assets
Developer provided assets	Excluded unless the developer is reimbursed fully or partially

7.4 Reduction amount

The reduction amount is the amount by which the capital charge is reduced to arrive at the developer charge. The reduction amount represents the portion of the efficient cost of assets LWUs expect to recover from the new developments as part of their future annual bills for the service provision in the DSP areas.

Council has adopted the NPV of annual bills method to calculate the reduction amount. The reduction amount has been calculated using the NPV for 30 years of the future net income from the annual charge (annual bills less OMA cost) per PV of new ETs.

8 Water supply developer charges

8.1 Water supply capital charges

The water supply service areas and the basis of determining the service areas are as follows:

Table 8-1: Water supply service areas

Name of service area	Basis for determining the service area
Bungendore	Separate small town
Braidwood	Separate small town
Bungendore – Greenfield Developments	New development area of over 500 lots

For the areas serviced by the Captains Flat water supply scheme, Council's IWCM strategy identified negligible growth, hence has not been included.

The details of the calculation of capital charge for the service area covered by this DSP are presented in Appendix B. The calculated water supply capital charges for the three service areas of the Palerang Community are presented in Table 8-2.

Table 8-2: Water supply capital charge for service areas

Water Supply Service Area	Capital charge for EXISTING assets 2019/20 ($ per ET)	Capital charge for FUTURE assets 2019/20 ($ per ET)	Capital charge 2019/20 ($ per ET)
Bungendore-Greenfield Developments	5,546	16,127	21,673
Bungendore	4,380	7,049	11,429
Braidwood	7,636	1,797	9,433

8.2 DSP areas

When the capital charges for two or more service areas are within 30%, they can be agglomerated into a single DSP area. Capital charge for Bungendore Greenfield Developments is the highest calculated and is not within 30% of any of the other two service areas. Hence, it has been considered as a separate DSP area (WDSP Area 1). The capital charges for Bungendore and Braidwood towns are within 30% of each other, hence have been agglomerated into a single DSP area (WDSP Area 2). A summary of the weighted average capital charges for the service areas after their agglomeration into DSP areas is presented in Table 8-3.

Table 8-3: Agglomeration of water supply service areas

Water supply Service Area	Capital charge 2019/20 ($ per ET)	Percentage of highest capital charge DSP Area 1	Percentage of highest capital charge DSP Area 2	Agglomerated DSP area	Weighted average capital charge 2019/20 ($ per ET)
Bungendore-Greenfield Developments	21,673	100%		Water Supply DSP Area 1	21,673
Bungendore	11,429	53%	100%	Water Supply DSP Area 2	10,782
Braidwood	9,433		83%		

8.3 Reduction amount calculation

The reduction amount has been calculated using NPV of annual bill method on a utility-wide basis as Council has adopted a uniform tariff structure. The details of reduction amount calculation are presented in Appendix B and a summary is shown in Table 8-4.

Table 8-4: Summary of Reduction Amount Calculation

Discount rate, p.a.	5%
Annual water charge, 2019/20 ($/ET)	962
Annual water OMA, 2019/20 ($/ET)	744
Estimated net operating income ($/ET)	218
PV of new ETs over 30 years	1,826
PV of net income over 30 years ($)	5,028,677
Reduction Amount, 2019/20 ($/ET)	2,754

8.4 Water supply developer charge

The developer charge is the capital charge less the reduction amount. The capital charges, the reduction amount and the calculated water supply developer charges for the agglomerated DSP areas in 2019/20 dollars are presented below in Table 8-5.

Table 8-5: Water supply developer charge

Water supply DSP area	Service area covered	Weighted average capital charges 2019/20 ($ per ET)	Reduction amount 2019/20 ($ per ET)	Calculated developer charge 2019/20 ($ per ET)
Water Supply DSP Area 1	Bungendore-Greenfield Developments	21,673	2,754	18,919
Water Supply DSP Area 2	Bungendore Braidwood	10,782	2,754	8,029

8.5 Water supply cross-subsidy

The calculated developer charges are the maximum that may be levied by a water utility. Council proposes to adopt the calculated developer charges for the water supply DSP areas, hence, no cross-subsidy is involved.

9 Reviewing / updating of calculated developer charges

Developer charges are to be reviewed by Council every eight years. After adoption of the DSP document, the developer charges should be adjusted 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.

If there is a major change such as the need for significant capital works that had not been included in the existing DSP, Council may carry out a review in less than four years, subject to DPIE Water's approval.

10 Background documents

The references used for the development of this DSP are contained in the following documents:

- Developer Charges Guidelines for Water Supply, Sewerage and Stormwater 2016, DPIE Water
- NSW Water and Sewerage Strategic Business Planning Guidelines, DPIE Water, July 2011
- Palerang Community IWCM Strategy, 2019

The background information of the water supply developer charges calculations is included in Appendix B. The background information contains details on asset commission dates, asset size, capacity and MEERA values of existing assets. They also include the details of calculations of the capital charges, reduction amount and the developer charges.

11 Other DSPs and related contribution plans

Council's other related contribution plans include:

- Palerang Community Sewerage Development Servicing Plan
- Palerang Community Development Control Plan
- Palerang Community Section 94B Contributions Plans

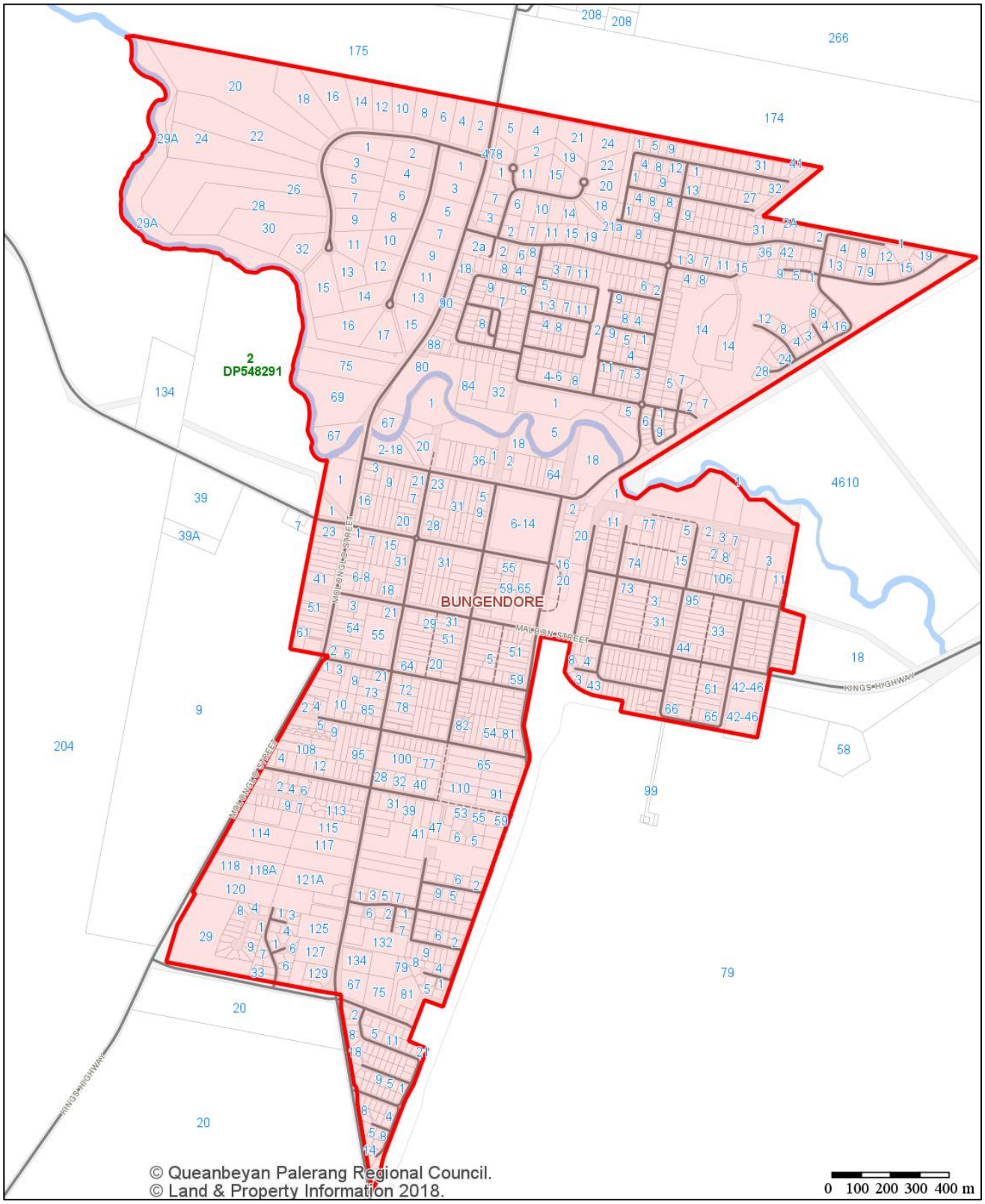
Glossary

Glossary of Terms	
Annual bill	Local Water Utility's annual water bill for an annual demand of 1 ET
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
Annual demand	The total water demand over a year. Used to size headworks components
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)
CPI	Consumer price index (All Groups)
CRC	Current replacement cost
Developer charge	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
DPIE Water	Department of Planning, Industry and Environment - Water
DSP	Development Servicing Plan
DSP area	That is 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
LGA	Local Government Area
LWU	Local water utility (NSW). Excludes Sydney Water Corporation, Hunter Water Corporation, Gosford Council, Wyong Council, Essential Water and Fish River Water Supply
MEERA	Modern Equivalent Engineering Replacement Asset
Net income	Annual bill minus OMA cost per ET
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

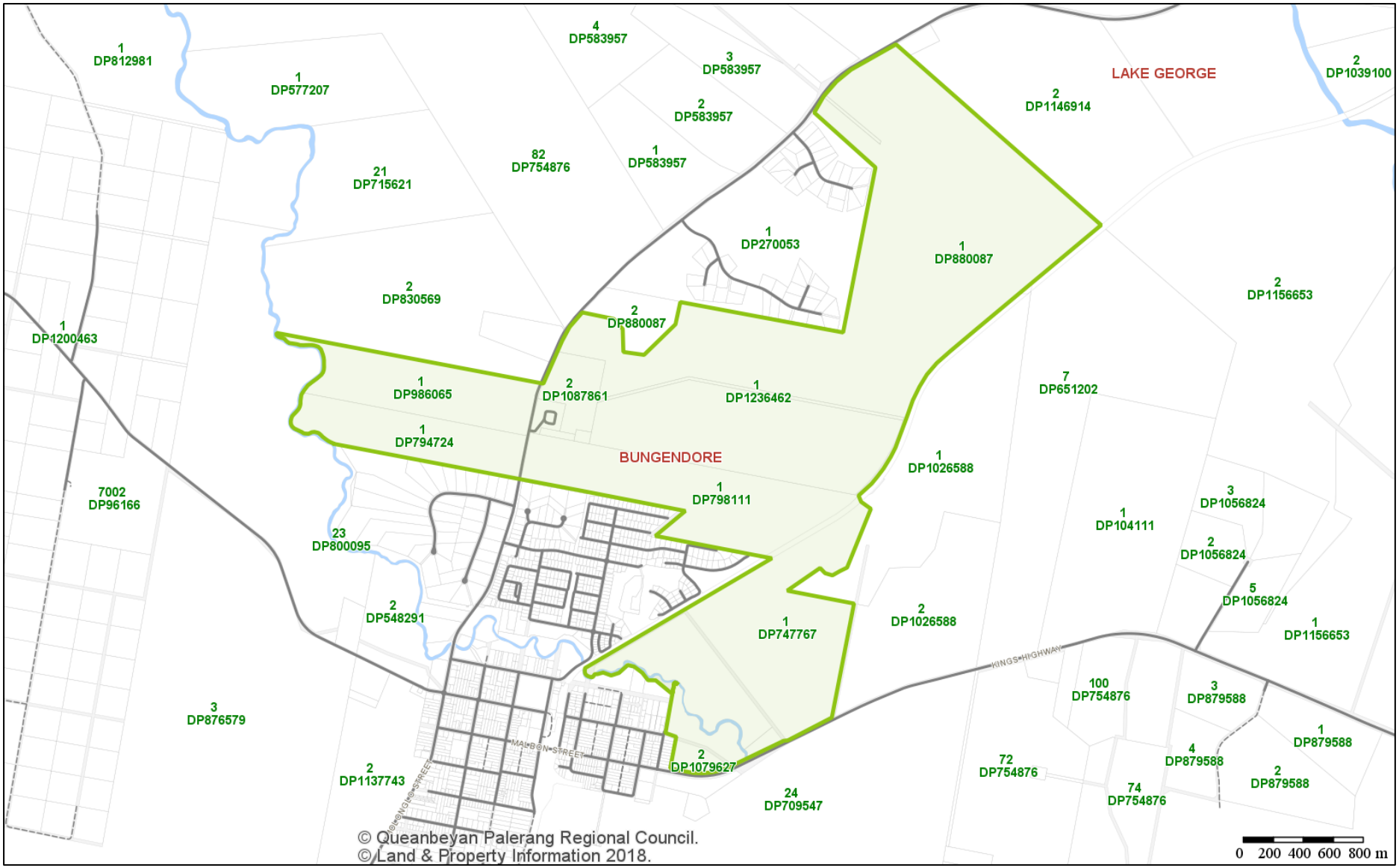
Glossary of Terms	
Palerang Community	Those water supply serviced areas associated with the former Palerang LGA.
Post-1996 asset	An asset that was commissioned by a LWU on or after 1 January 1996 or that is yet to be commissioned
Pre-1996 asset	An asset that was commissioned by a LWU before 1 January 1996
PV	Present value. The current value of future money or ETs
QPRC	Queanbeyan-Palerang Regional Council
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
Reticulation assets	Reticulation is defined as the local pipes connecting water supply service for individual properties. Reticulation assets are excluded from the calculation of developer charges as the developers are responsible for the full cost of the design and construction of water supply reticulation works within subdivisions
ROI	Return on investment. Represents the income that is, or could be, generated by investing money
Service area	An area serviced by a separate water supply system, 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 system and is the bill paid by a residential customer using the utility's average annual residential water supplied per connected property
WTP	Water treatment plant

Appendix A DSP service areas

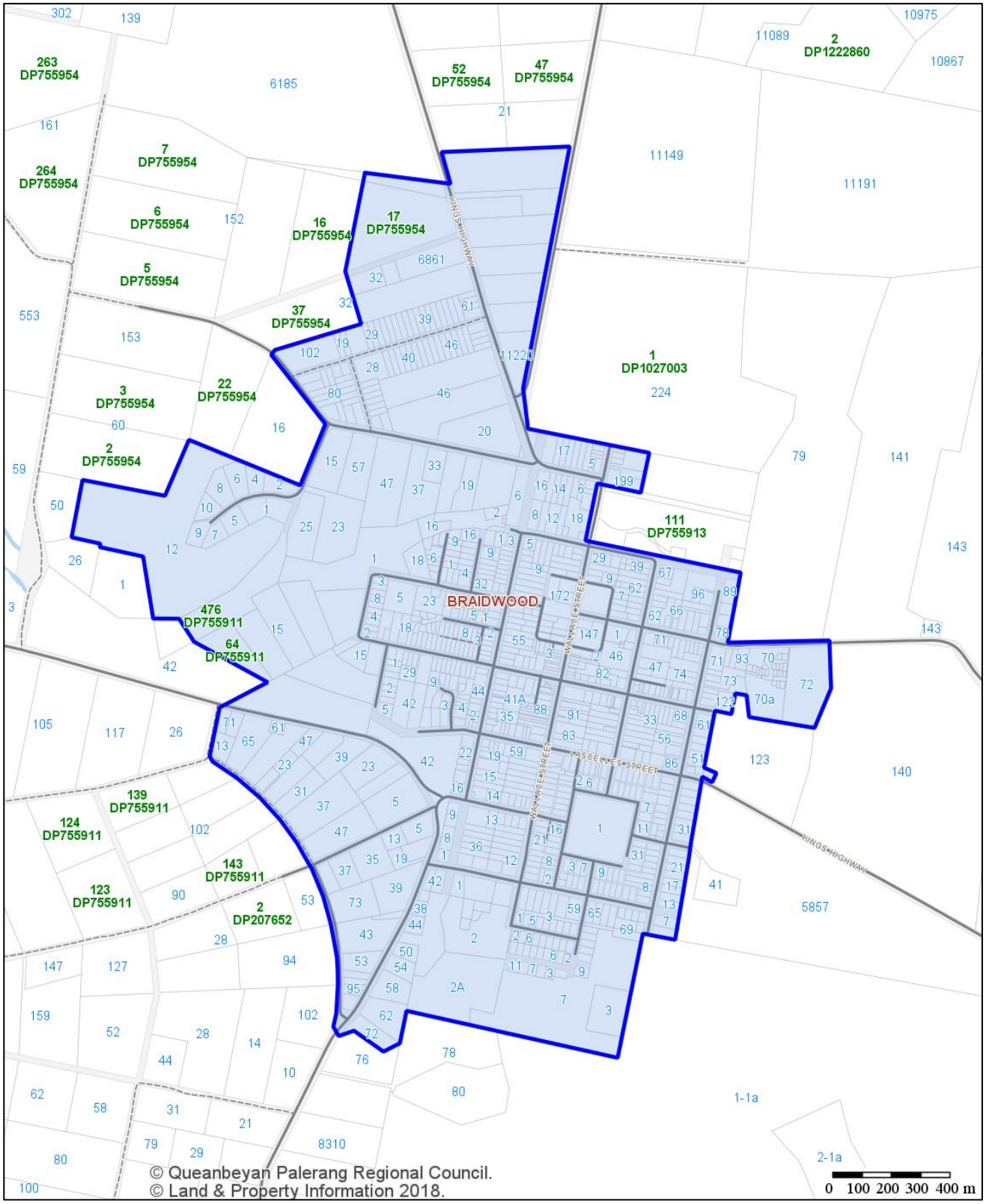
A.1 Bungendore water supply scheme service area (WDSP 2-Part 1)



A.2 Bungendore - Greenfield developments service area (WDSP 1)



A.3 Braidwood water supply scheme service area (WDSP 2-Part 2)



Appendix B Water supply DSP background document

Appendix C Outline of Legislation

Local Government Act 1993

The power for local government councils to levy developer charges for water supply, sewerage and stormwater derives from Section 64 of the *Local Government Act 1993* by means of a cross-reference in that Act to the relevant provisions of the *Water Management Act 2000*.

Section 64 of the *Local Government Act* states that:

> Division 5 of Part 2 of Chapter 6 of the *Water Management Act 2000* applies to a council exercising functions under this Division in the same way as it applies to a water supply authority exercising functions under that Act.

Environmental Planning and Assessment Act 1979

Prior to the introduction of the *Local Government Act* in 1993, councils used the provisions of Section 94 of the Environmental Planning and Assessment Act 1979 to obtain developer contributions for water supply and sewerage services. As part of the *Local Government (Consequential Provisions) Act 1993*, amendment was made to the Environmental Planning and Assessment Act so that Section 94 no longer applied for water supply and sewerage services.

However, Councils can levy developer charges for stormwater under either *Local Government Act* or *Water Management Act.*

Water Management Act 2000

Section 305 (1) and (2) of the *Water Management Act* states that:

> 1) A person may apply to a water supply authority for a certificate of compliance for development carried out, or proposed to be carried out, within the water supply authority's area.
>
> 2) as a pre-condition to granting a certificate of compliance for development, a water supply authority may, by notice in writing served on the applicant, require the applicant to do either or both of the following:
>
> a) to pay a specified amount to the Authority by way of contribution towards the cost of such water management works as are specified in the notice, being existing works or projected works, or both,
>
> b) to construct water management works to serve the development.

Section 305 (3) of the *Water Management Act* states that:

> 3) In calculating an amount for the purposes of subsection (2) (a):
>
> a) the value of existing water management works and the estimated cost of projected water management works may be taken into consideration, and
>
> b) the amount of any government subsidy or similar payment is not to be deducted from the relevant value or cost of the water management works, and
>
> c) consideration is to be given to any guidelines issued for the time being for the purposes of this section by the Minister.

In 2011, the Minister for Primary Industries became responsible for non-metropolitan NSW town water services. The Minister is responsible for the issue of guidelines for water utilities on the calculation of water supply, sewerage and stormwater developer charges.

Note: Use of moneys raised from developer charges is discussed in Section 2.7 on page 10 of the guidelines.

Local Government (Savings and Transitional) Regulation 1993

The *Local Government (Savings and Transitional) Regulation 1993* covers the matter of developer contributions which had previously been obtained by councils under the *Environmental Planning and Assessment Act* as follows:

> 9) Any monetary contribution held by a council immediately before the commencement of this Regulation, being a contribution arising from a condition:
>
> (a) that was imposed under section 94 of the *Environmental Planning and Assessment Act 1979*; and
>
> (b) that specifies that the contribution is to be applied towards providing specified water or sewerage services or towards providing water or sewerage services generally, is to be applied towards the construction of works within the meaning of Division 2 of Part 3 of the *Water Supply Authorities Act 1987*, or towards the repayment of money borrowed for the construction of such works, and is not to be applied towards any other purpose.

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