

Oxley Priority Development Area Infrastructure Plan Background Report

June 2023



**Queensland
Government**

Copyright

This publication is protected by the *Copyright Act 1968*.

Licence



This work, except as identified below, is licensed by the Department of State Development under a Creative Commons Attribution-No Derivative Works (CC BY-ND) 4.0 Australia licence. To view a copy of this licence, visit: <http://creativecommons.org.au/>

You are free to copy and communicate this publication, as long as you attribute it as follows:

© State of Queensland, Department of State Development, Tourism and Innovation, June 2023.

Third party material that is not licensed under a Creative Commons licence is referenced within this document. All content not licensed under a Creative Commons licence is all rights reserved. Please contact the Department of State Development, Tourism and Innovation / the copyright owner if you wish to use this material.



The Queensland Government is committed to providing accessible services to Queenslanders of all cultural and linguistic backgrounds. If you have difficulty understanding this publication and need a translator, please call the Translating and Interpreting Service (TIS National) on 13 14 50 and ask them to contact the Queensland Department of State Development, Tourism and Innovation on 07 3452 7100

Disclaimer

While every care has been taken in preparing this publication, to the extent permitted by law, the State of Queensland accepts no responsibility and disclaims all liability (including without limitation, liability in negligence) for all expenses, losses (including direct and indirect loss), damages and costs incurred as a result of decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing.

Any references to legislation are not an interpretation of the law. They are to be used as a guide only. The information in this publication is general and does not take into account individual circumstances or situations. Where appropriate, independent legal advice should be sought.

Copies of this publication are available on our website at www.edq.qld.gov.au and further copies are available upon request to:

Economic Development Queensland
Department of State Development, Tourism and Innovation
GPO Box 2202, Brisbane Queensland 4002.
1 William Street Brisbane Qld 4000 (Australia)

Phone: 13 QGOV (13 7468)
Email: edq@dsdmip.qld.gov.au
Web: www.edq.qld.gov.au

Contents

1	Preliminary	4
1.1	Economic Development Act.....	4
1.2	Purpose of Infrastructure Planning Background Report (IPBR)	4
2	Growth projections	5
2.1	Introduction.....	5
2.2	Growth projection years.....	5
2.3	Potential development capacity.....	5
2.4	Development constraints	5
2.5	Growth rates	5
2.6	Growth projection summary	5
3	Demand projections	7
4	Desired standard of service	10
4.1	Water supply	10
4.2	Sewerage.....	10
4.3	Stormwater	10
4.4	Transport.....	10
4.5	Parks and community facilities	10
5	Infrastructure planning	11
5.1	Planning horizon.....	11
5.2	Water supply	11
5.3	Sewerage.....	11
5.4	Stormwater	11
5.5	Transport.....	12
5.6	Parks and community facilities	12
6	Infrastructure costs.....	14
6.1	Cost of land.....	14
6.2	Cost of works	14
6.3	On-cost allowance	14
6.4	Contingency allowance	15
7	Development charges	16
7.1	Funding trunk infrastructure.....	16
7.2	Funding non-trunk infrastructure and other infrastructure	18
	Appendix A – Oxley PDA boundary map	19
	Appendix B – Concept plan	20
	Appendix C – Oxley Parkside stormwater management plan (version 1).....	21
	Appendix D – Traffic engineering report	22
	Appendix E – Site services investigation and preliminary design report.....	23
	Appendix F – Technical note costing recreation park in Oxley PDA	24

1 Preliminary

1.1 Economic Development Act

The Oxley Priority Development Area (PDA) was declared on 10 August 2018 under the *Economic Development Act 2012* (the ED Act)¹. The PDA comprises approximately 19 hectares of land bound by Cliveden Avenue to the north, bushland to the west, existing residential dwellings on Blackheath Road to the east and Seventeen Mile Rocks Road to the south. A map of the PDA is Appendix A.

The Oxley PDA Development Scheme (the development scheme) is applicable to all land within the boundaries of the PDA as well as to development outside the PDA if that development is declared to be PDA-associated development. The development scheme became effective on 9 August 2019.

The Development Charges and Offsets Plan (DCOP) provides guidance on infrastructure matters by stating the development charges applicable to development within the PDA, identifying any trunk infrastructure within the water supply, sewerage, stormwater, transport, parks and community facilities networks made necessary by development of the PDA as well as matters relevant to calculating a credit, offset or refund for the provision of trunk infrastructure.

1.2 Purpose of Infrastructure Planning Background Report (IPBR)

This IPBR will assist users of the development scheme and the DCOP by documenting information relevant to:

- the infrastructure planning undertaken for the Oxley PDA
- the determination of development charges for the Oxley PDA.

¹ See section 8 of the ED Act.

2 Growth projections

2.1 Introduction

The projections of future residential and non-residential growth in the Oxley PDA provide a consistent basis for the planning of infrastructure to service the PDA. The following section is a summary of the growth projections prepared for the PDA.

2.2 Growth projection years

The Oxley growth projections were prepared for:

- the base date 2019 and the following projection years:
 - 2021
 - 2026

2.3 Potential development capacity

The development capacity proposed to be achieved within the PDA is shown in a concept plan prepared for the PDA by Place Design Group (Appendix B).

The concept plan was prepared having regard to the land use and built form requirements of the development scheme.

The concept plan anticipates a mix of residential dwellings, retirement living, childcare and community facilities.

Assumptions about the timing of development shown in the concept plan have been prepared by the Minister for Economic Development Queensland (MEDQ) having regard to the proposed staging of the project.

2.4 Development constraints

The concept plan for the PDA has been prepared taking into consideration known development constraints that may limit the potential yield of the site. The key constraints are flooding and steep land vegetation of conservation significance. These constraints have been addressed by the concept plan. All other constraints are capable of being mitigated and did not impact the potential development yield of the PDA.

2.5 Growth rates

The rate of growth for residential and non-residential development in the PDA was determined by the MEDQ having confirmed the proposed staging of the project. It has been assumed that the PDA will be fully developed by 2026.

2.6 Growth projection summary

The growth projections for the PDA are summarised in Table 1 and Table 2.

Table 1 - Residential dwellings and non-residential floor space projections

Column 1 Description	Column 2 Projections by year		
	2019 (base date)	2021	2026
Detached dwellings	0	41	87
Retirement facility	0	150	150
Over 50's Retirement facility	0	77	77
Educational facility – high school (m2 GFA)	7431	0	0
Educational facility – childcare (m2 GFA)	524	680	680

Table 2 - Population and employment projections

Column 1 Description	Column 2 Projections by year		
	2019 (base date)	2021	2026
Population	0	515	637
Employment	80	6	6

3 Demand projections

Growth projections are converted into demand projections to enable infrastructure planning to be undertaken.

Networks express demand using different demand units. The demand units used by each local network in the PDA are as follows:

- for the water supply network, equivalent persons (EP)
- for the sewerage network, equivalent persons (EP)
- for the stormwater quantity network, impervious area expressed in hectares (Imp Ha)
- for the transport network, trips per day (trips)
- for the parks and community facilities network, equivalent persons (EP).

The demand generation rates used by each network to convert growth projections into demand are stated in Table 3.

The demand projections for each network are stated in Table 4.

Table 3 - Demand generation rates

Column 1 Development scheme zone / area	Column 2 Demand generation rate for an infrastructure network						
	Water supply network (EP)	Sewerage network (EP)	Stormwater quantity network (Imp Ha / Ha dev area)			Transport network (vpd/dwelling or vpd/m2 GFA)	Parks and community facilities network (EP)
			2019	2021	2026		
Detached dwellings	2.65	2.65	0.21	0.33	0.56	9	2.65
Retirement facility	1.79	1.79				2.5	1.79
Educational facility – high school (m2 GFA)	0.0113	0.0113				0.2	0
Educational facility – childcare (m2 GFA)	0.0113	0.0113				1	0
Source	South East Queensland Water Supply and Sewerage Design and Construction Code (SEQ Code)	South East Queensland Water Supply and Sewerage Design and Construction Code (SEQ Code)	Calculated impervious fraction for developable area of site based on existing development (2019) and proposed concept plan			Preliminary Traffic Impact Assessment TTM, June 2018	Rates calculated using an occupancy rate of 2.65 and 1.79 persons per dwelling

Table 4 - Demand projection rates

Existing and projected demand for the water supply network

Column 1 Service catchment	Column 2 Existing and projected demand (EP)		
	2019 (base date)	2021	2026
Oxley PDA	90	384	487

Existing and projected demand for the sewerage network

Column 1 Service catchment	Column 2 Existing and projected demand (EP)		
	2019 (base date)	2021	2026
Oxley PDA	90	384	487

Existing and projected demand for the transport network

Column 1 Service catchment	Column 2 Existing and projected demand (Trips)		
	2019 (base date)	2021	2026
Oxley PDA	2010	1344	1695

Existing and projected demand for the parks and community facilities network

Column 1 Service catchment	Column 2 Existing and projected demand (EP)		
	2019 (base date)	2021	2026
Oxley PDA	0	377	481

Existing and projected demand for the stormwater network

Column 1 Service catchment	Column 2 Existing and projected demand (Imp Ha)		
	2019 (base date)	2021	2026
Oxley PDA	23	36.8	62.3

4 Desired standard of service

4.1 Water supply

Planning for the water supply network has been undertaken in accordance with the design standards for the water supply network stated in the South East Queensland Design and Construction Code.

4.2 Sewerage

Planning for the sewerage network has been undertaken in accordance with the design standards for the sewer supply network stated in the South East Queensland Design and Construction Code.

4.3 Stormwater

Planning for the stormwater network has been undertaken in accordance with the design standards for the stormwater network stated in the Oxley Parkside Stormwater Management Plan (Version 1) prepared for the site by DesignFlow dated February 2020 (Appendix C).

4.4 Transport

Planning for the transport network has been undertaken in accordance with the design standards for the transport network stated in the Traffic Engineering Report prepared for the site by TTM Group on behalf of on behalf of Economic Development Queensland dated 20 January 2020 (Appendix D).

4.5 Parks and community facilities

Planning for the parks and community facilities network has been undertaken in accordance with the design standards prescribed by the MEDQ.

5 Infrastructure planning

5.1 Planning horizon

Infrastructure planning for the Oxley PDA was undertaken using a planning horizon of 2026. This horizon was chosen to align with the time period within which the PDA is expected to be fully developed.

5.2 Water supply

Planning of water supply infrastructure to service development within the PDA is documented in the following report:

- Site Services Investigation and Preliminary Design Report, for the proposed Oxley secondary college redevelopment – 53 Seventeen Mile Rocks Road, Oxley, Bornhorst & Ward, May 2018 (Appendix E).

It has been determined that:

- the existing external water supply network has capacity to service the Oxley PDA and that no augmentations are required to the external network
- internal water supply reticulation mains that connect the development to the existing water supply network will be required.

A determination of whether the identified infrastructure is trunk or non-trunk infrastructure is provided in Table 5.

5.3 Sewerage

Planning of sewerage infrastructure to service development within the PDA is documented in the:

- Site Services Investigation and Preliminary Design Report, for the proposed Oxley secondary college redevelopment – 53 Seventeen Mile Rocks Road, Oxley, Bornhorst & Ward, May 2018 (Appendix E).

It has been determined that:

- the existing external sewerage network has capacity to service the Oxley PDA and that no augmentations are required to the external network
- internal sewerage reticulation mains that connect the development to the existing sewerage network will be required.

A determination of whether the identified infrastructure is trunk or non-trunk infrastructure is provided in Table 5.

5.4 Stormwater

Planning of stormwater infrastructure to service development within the PDA is documented in the:

- Oxley Parkside Stormwater Management Plan (Version 1), DesignFlow, February 2020 (Appendix C).

It has been determined that:

- development of the PDA will increase the impervious area of the site and will therefore increase the current amount of stormwater runoff
- new pipe infrastructure and open channels within the site to convey stormwater runoff to the lawful point of discharge are required
- to achieve the water quality objectives of the State Planning Policy, a 300m² sediment pond and 700m² bioretention basin are required
- to provide flood detention, a flood detention basin integrated into the northern portion of the site will be required.

A determination of whether the identified infrastructure is trunk or non-trunk infrastructure is provided in Table 5.

5.5 Transport

Planning of transport infrastructure to service development within the PDA is documented in the:

- Traffic Engineering Report – Oxley Priority Development Area at 53 Seventeen Mile Rocks Road, Oxley QLD, TTM Group, 20 January 2020 (Appendix D)

It has been determined that:

- an upgrade to the Seventeen Mile Roads Road/Kingsgate Street/existing service road intersection is required prior to 2026
- new internal roads and an upgrade to the existing pedestrian link to Blackheath Road are required.

A determination of whether the identified infrastructure is trunk or non-trunk infrastructure is provided in Table 5.

5.6 Parks and community facilities

The concept plan prepared for the PDA by Place Design Group (Appendix B) proposes the creation of a public recreation park within stage 2 of the development. A technical note that refers to the Brisbane City Council City Plan 2014 Local Government Infrastructure Plan Extrinsic Material and Desired Standards of Service to establish a park type, hierarchy and embellishment costs has been prepared (Appendix F).

The concept plan also proposes a number of public open space reserves that are primarily for conservation and drainage purposes and a public pocket park in Stage 2 of the development.

A determination of whether the identified infrastructure is trunk or non-trunk infrastructure is provided in Table 5.

Table 5 - Infrastructure funding determination

Infrastructure network	Infrastructure details	Trunk/non-trunk	Funding source
Transport (roads, intersections, pedestrian and cycle paths)	Seventeen Mile Rocks Road/Kingsgate Street/existing service road intersection upgrade.	Trunk	Development charges
	Blackheath Road pedestrian link upgrade.	Non-trunk	Developer
	Internal local access roads.	Non-trunk	Developer
Stormwater (quantity and quality)	Overland flow channel near the western property boundary.	Non-trunk	Developer
	300 m2 sediment pond.	Non-trunk	Developer
	700 m2 bioretention basin.	Non-trunk	Developer
	Flood detention basin integrated into the northern portion of the site.	Non-trunk	Developer
Parks and open space	Public recreation park (Stage 2).	Trunk	Development charges
	Public recreation pocket park (Stage 2)	Non-trunk	Developer
	Public recreation – pathways, pedestrian bridge, public art, way finding and rehabilitation	Trunk	Development charges
Water supply	Internal water reticulation network.	Non-trunk	Developer
Sewerage	Internal sewerage reticulation network	Non-trunk	Developer
Electricity and gas		Non-trunk	Developer
Telecommunications		Non-trunk	Developer

6 Infrastructure costs

6.1 Cost of land

No additional future infrastructure (land) is proposed to be acquired for the Oxley PDA.

It is proposed that the former school ovals within the Oxley PDA be rejuvenated as a recreation space. The site is identified as being in a waterway corridor and Local Government Infrastructure Plan extrinsic material establishes that land within waterway corridors is assumed to be undevelopable, irrespective of zoning and therefore assessed at \$10 per square metre based on the broadly estimated site area of the affected land. Approximately 22,300 square metres have been identified as being suitable as a General Recreation park, and as per established methodology, is therefore valued at \$223,000.

6.2 Cost of works

The cost of future trunk infrastructure (works) for each network is stated in Table 6 - Cost of future trunk infrastructure (works).

Table 6 - Cost of future trunk infrastructure (works)

Column 1 Network	Column 2 Report
Water supply	No future trunk infrastructure has been identified.
Sewerage	No future trunk infrastructure has been identified.
Stormwater	No future trunk infrastructure has been identified.
Transport	Future trunk infrastructure has been costed by Economic Development Queensland.
Parks and land for community facilities	Future trunk infrastructure has been costed by Economic Development Queensland.

6.3 On-cost allowance

On-costs represent the owner's project costs and may include:

- survey for the work
- geotechnical investigations for the work
- strategic planning
- detailed design for the work
- project management, procurement and contract administration
- environmental investigations for the work
- portable long service leave payment for a construction contract for the work.

The on-costs allowances that have been applied to infrastructure costs in the PDA are stated in Table 7.

Table 7 - On-cost allowance

Network	On-costs allowance
Water supply	No future trunk infrastructure has been identified.
Sewerage	No future trunk infrastructure has been identified.
Stormwater	No future trunk infrastructure has been identified.
Transport	20%
Parks and community facilities	10%

6.4 Contingency allowance

A contingency allowance is included in the cost of future infrastructure works to deal with known risks. The contingency allowance typically reduces in accordance with the level of planning undertaken for the infrastructure item. The level of contingency allowance applied for infrastructure works in each network are stated in Table 8.

Table 8 - Contingency allowance

Network	Contingency allowance
Water supply	No future trunk infrastructure has been identified.
Sewerage	No future trunk infrastructure has been identified.
Stormwater	No future trunk infrastructure has been identified.
Transport	10%
Parks and land for community facilities	10%

7 Development charges

Development charges are imposed on development in the PDA to fund trunk infrastructure and other services which have been provided or are planned to be provided to service the PDA. The following charges types make up a development charge and apply to development in the PDA.

- Infrastructure charges

The infrastructure charges for the Oxley PDA are those currently levied by Brisbane City Council and Queensland Urban Utilities for the Brisbane local government area.

7.1 Funding trunk infrastructure

Infrastructure charges imposed on development within the Oxley PDA will fund the provision of trunk infrastructure made necessary by development of the Oxley PDA. Trunk infrastructure is identified in Table 9 - Schedule of works.

Table 9 - Schedule of Works

DCOP ID	Map no.	Infrastructure type	Infrastructure description	Estimated timing	Land cost	Works base cost	Works on-costs	Works contingency	Total works cost ¹	Estimated cost ²
RD01	2	Intersection	Seventeen Mile Rocks Road/Kingsgate Street/existing service road intersection upgrade.	2023	N/A	\$1,602,860	\$471,429	\$282,858	\$2,357,147	\$2,357,147

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2019/20).

Schedule of future trunk infrastructure works - Parks and community facilities

DCOP ID	Map no.	Infrastructure type	Infrastructure description	Estimated timing	Land cost	Works base cost	Works on-costs	Works contingency	Total works cost ¹	Estimated cost ²
P1	2	Public recreation park	Public recreation park – Stage 1b and Stage 2	2021	\$223,000	\$1,391,626	\$139,163	\$153,079	\$1,683,868	\$1,906,868
P2	2	Public recreation	Pathways and Rehabilitation	2026		\$666,667	\$66,667	\$66,667	\$800,000	\$800,000

Notes:

1 – The total works cost is the sum of the following: construction cost, construction on costs and construction contingency.

2 – The estimated cost is the sum of the following: land cost and total works cost. This is expressed in current cost terms as at the base date (FY 2019/20).

7.2 Funding non-trunk infrastructure and other infrastructure

Non-trunk infrastructure and other infrastructure that is made necessary by development of the Oxley PDA will be delivered and/or funded by parties undertaking development. Non-trunk infrastructure and other infrastructure is identified in Table 5 - Infrastructure funding determination.

Appendix A – Oxley PDA boundary map

Appendix B – Concept plan

Appendix C – Oxley Parkside stormwater management plan (version 1)

Appendix D – Traffic engineering report

Appendix E – Site services investigation and preliminary design report

Appendix F – Technical note costing recreation park in Oxley PDA

More information

Further information can be obtained from EDQ via:

- website: www.edq.qld.gov.au/cip
- email: EDQ@dsdmip.qld.gov.au