

MARSDEN PARK INDUSTRIAL PRECINCT SERVICING PLAN

JULY 2014 TO JUNE 2019

Update at February 2015

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1

1. Introduction

The Marsden Park Industrial Precinct (MPIP) Servicing Plan for 2014-2019 sets out the plan for infrastructure (water, sewer and electrical) to service the Precinct over the next five years.

Developers within the precinct will continue to be responsible for the funding and construction of reticulation services for their developments and will fall under the provisioning and funding mechanisms also set out in the Sydney Water Precinct Acceleration Protocol Funding Guidelines. For ease of reference, this Precinct Servicing Plan should be read in conjunction with Sydney Water and Endeavour Energy current commercial terms for accelerated precincts and the current version of SWC Growth Servicing Plan. This Precinct Servicing Plan for Marsden Park Industrial seeks to identify the areas of responsibility between the infrastructure provided by the accelerated precinct proponent; Marsden Park Developments Pty Ltd and developer reticulation.

The proposed staging plan of the proponent is shown on the attached maps together with the lead in infrastructure which will serve the Precinct. This infrastructure is being delivered in the most reasonable and efficient manner and hence access to these services may be limited by natural topographical catchment boundaries and proximity to existing infrastructure. Development outside these catchments or in areas remote in advance of the servicing strategy is subject to the process outlined in the accelerating the servicing of land appendix A.

2

2. Planned Infrastructure

Ultimate Potable Water Servicing Strategy

The ultimate servicing strategy for the MPIP and the surrounding precincts will be in line with Sydney Waters current North West Growth Centre servicing strategy. This strategy is currently under review and has not been finalised for release but may include:

- Recondition and recommission the existing Mt Druitt Surface Reservoir;
- Construct a DN600 delivery main connecting from Mt Druitt to the Marsden Park Industrial and Residential precincts;

The ultimate servicing strategy is indicated (in part) on Map 4.1.

Ultimate Sewer Servicing Strategy

The ultimate servicing strategy for the MPIP and the surrounding precincts will be in line with Sydney Water's current North West Growth Centre servicing strategy. This strategy is currently under review but may include:

- Extension and upgrades to existing sewer carriers, in particular the Schofields Carrier
- Construction of new gravity sewers draining two primary catchments in the Marsden Park Employment Precinct to proposed pump stations. These pump stations are currently identified as SP 'F' and SP 1173. SP 'F' drains the western Marsden Park Employment Catchment and is being delivered by the Marsden Park Residential Development Proponent. SP 1173 has been recently relocated adjacent to Bells Creek and drains the Eastern catchment.
- Upgrading and construction of Sewerage Pump Stations on the gravity sewer carrier route as required
- Upgrades to Riverstone Sewerage Treatment Plant.

The ultimate wastewater strategy is indicated (in part) on Map 4.2.

Ultimate Electricity Supply Strategy

The ultimate proposed North West Sector electrical supply extends the 132KV transmission network from the Schofields Zone Substation east on Schofields Road, north on Junction west on Albans across the rail at Bridge Street then west on Grange Avenue. This line is part aerial along Grange before resuming underground and proceeding south on Richmond Road and then into the Marsden Park Industrial Precinct to a proposed Zone Substation located on Hollinsworth Road (refer also Map 4.3). Transmission lines from this Zone substation will also extend north from this substation generally following the Transgrid Easement to a new zone substation located in the Marsden Park Residential Precinct.

The proposed zone substation located in Hollinsworth Road provides supply for the Marsden Park Industrial precinct and surrounding development and existing uses. The completed zone substation is expected to be delivered in 2020.

Development and Infrastructure Staging

Package 1 and 2 Works

Water Infrastructure

Package 1 works which extend the potable water distribution network from Hassell Grove north along Richmond Road to Hollinsworth Road was completed in 2014. These works involved the extension of a 450mm dia supply main in the Richmond Road corridor.

Package 2 works extending this main from Townson Road to Grange Ave in the Richmond Road corridor will be constructed concurrently with the stage 2 upgrade of Richmond Road between Townson Road and Grange Avenue. These works are currently under construction and are expected to be complete in Q4 2015.

Sewer Infrastructure

Package 1 works involving the construction of lead in sewer reticulation within the industrial precinct and the provision of a managed pump out facility is complete. Upgrades to the facility are planning as development within the catchment progresses.

Package 2 works including the provision of sewerage pump station SP1173 has been delayed with the relocation of this station to Bells Creek. This pump station is now scheduled to be completed in Q3 2017. This pump station will transfer flows to the Schofields Carrier and thence to Riverstone Treatment Plant. A plan which details the package 2 works is shown on Map 4.5.

Package 3 works will involve the connection and transfer of flows from the western employment precinct to SP 'F' and thence to the SWC network.

Recycled Water

No work proposed in this Precinct Servicing Plan period.

Electrical Infrastructure

Package 1 works extends a HV feeder from Schofields zone substation west along Schofields Road to Railway Terrace. The HV feeder crosses the rail in the vicinity of the commuter car park via existing underground ducts. This main then extends north on Bridge, west on Argowan and then west on Grange Avenue. From Grange Avenue the main heads south on Carnarvon before it terminates in South Street. This extension of the HV network to the western side of the rail line improves supply in the network facilitating the demand of proposed industrial and bulky goods developments in the Marsden Park Industrial Precinct. These Package 1 works were completed in December 2014. A plan of the route of the package 1 works is shown on Map 4.6

Package 2 works extend the Endeavour network from South Street into the Precinct from the North. This HV extension is dependent upon upgrades to the Endeavour network including the commissioning of the Marsden Park Residential Zone substation. The current program for the completion of the Marsden Park Residential Zone is December 2015.

Package 3 provides for the extension of the transmission line feeder from Schofields (on its ultimate alignment) to a portable zone substation to be located on Hollinsworth Road. This portable zone substation is expected to have a capacity of 15MVA and is currently anticipated to be commissioned in early 2016.

Demand beyond 15MVA will initiate the construction of the ultimate zone substation and extension of the transmission network to Marsden Park residential.

Funding of Infrastructure Works

Trunk Infrastructure

Should a developer with land within the MPIP wish to accelerate the servicing of land ahead of this Precinct Servicing Plan it can approach the proponent and the supply authority to construct the relevant lead in infrastructure in accordance with the ultimate servicing strategy. The developer will be responsible for the construction of the trunk infrastructure to the authority requirements. Reimbursement for the reasonable and efficient costs of this infrastructure will be available in accordance with the principles outlined in the commercial terms for PAP developments as issued by the relevant service authority. The process for a developer that wishes to accelerate the servicing of their land is shown in Appendix B.

Reticulation Infrastructure

Developers will be responsible for the funding and delivery of all reticulation works, (including recycled water schemes regulated by the Independent Pricing and Review Tribunal) as part of the normal compliance certificate process. These works are expected to be handed over to the relevant authority at no cost.

3. The Precinct Servicing Plan

Works Update

Since the 2013 – 2017 Precinct Servicing report, the first stages of Marsden Park Development Pty Ltd's works have been completed including:

- The completion of the trunk 450mm water main from Hassell Grove to Townson Road. This main improves water supply pressure and capacity within the development precinct. This main has been forward funded by the proponent Marsden Park Developments;
- Lead in gravity sewer to the proposed pump station location has been completed. An interim pump out at this location will provide service until the pump station (SP1173) comes online (expected August 2017);
- The HV feeder extension from the Endeavour network at Schofields Zone Substation to South Street has been completed and commissioned, and
- Water, sewer and electrical reticulation for the first stage 4 subdivision stages of the Marsden Park Industrial Precinct are completed. Work has commenced on the next 2 subdivision development stages.

Upcoming major infrastructure works include upgrades to the sewer management system, 132KV conduit installation and Stage 1 Zone Substation commencement on site.

Explanation of Maps

The maps in section 4 show where the proponent is delivering services to accommodate industrial development. Map 4.1 (sewer) shows the existing Sydney Water network in the vicinity of the site (as well as the ultimate servicing strategy).

Corresponding map 4.4 (sewer) shows the proposed first stage of development for the Sydney Business Park (the proponents first stage of infrastructure servicing).

The maps show each Stage of Water and Sewer construction in more detail. For development areas where the proponent is planning to deliver services within five years, the approximate area serviced by the delivered infrastructure is shaded yellow. Depending on the location and size of the development, some lead in works may need to be delivered by other developers within this catchment.

Explanation of Table

The table shows Electricity, Water and Sewer services are available to a limited site area in stage 1.1 and 1.2. These services can meet allocated demands based on known development approvals. This first stage of servicing has been facilitated by Package 1 and 2 works that have been funded and constructed by the proponent.

Where the proponent anticipates delivering trunk infrastructure to service further development precincts or areas within the next five years, the program of the works and the anticipated timeframes for this work are described and listed.

These include:

- When detailed planning is scheduled to commence – detailed planning entails the determination of route options for carriers, asset sizing, locations of reservoirs and sewage pumping stations, construction methods, environmental assessment and communications with stakeholders
- When planning approval is anticipated to be obtained under the Environmental Planning and Assessment Act
- The anticipated delivery date of trunk infrastructure that will service the precinct or site
- The committed delivery date – the proponents anticipated date for the commitment to funding the delivery of trunk works

Demand analysis

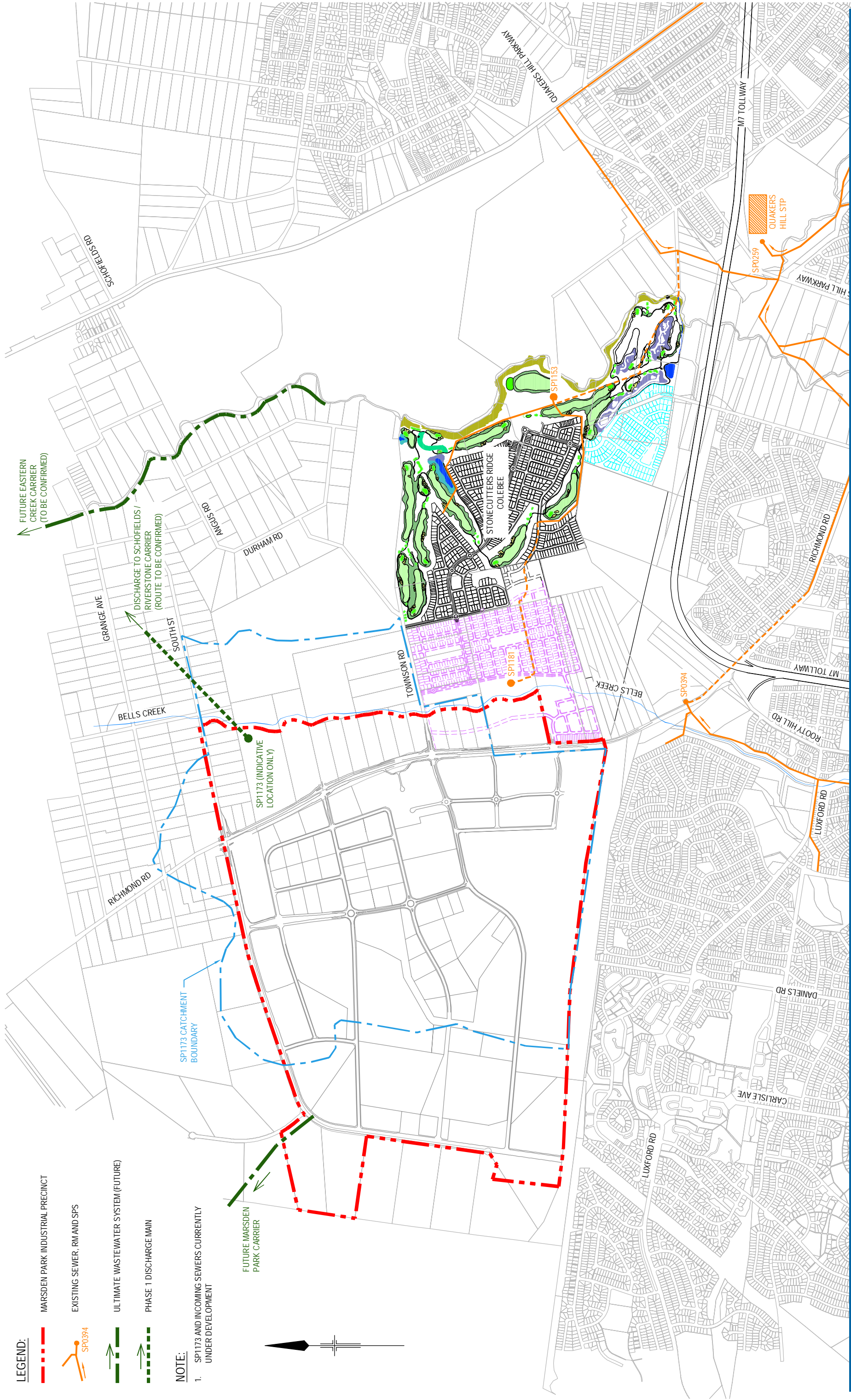
Each year the proponent will calculate the number of connections to the network within MPIP and will compare this data to projected connections and flows. This data will be used to assist

in demand planning. Any changes in infrastructure planning as a result of this review will be communicated in the form of an addendum to the most recent Precinct Servicing Plan.

Development proposing to connect to the trunk infrastructure must provide data on water demand and sewer generation. Early stages of infrastructure delivery have been based on a water demand of 33 kL/net ha/day and sewerage generation of 40 EP/ha. Demands outside this range will require further modelling and analysis to determine if they can be met.

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4. Maps



LEGEND:

MARSDEN PARK INDUSTRIAL PRECINCT

EXISTING SEWER, RM AND SPS

ULTIMATE WASTE WATER SYSTEM (FUTURE)

PHASE 1 DISCHARGE MAIN

NOTE:

1. SP1173 AND INCOMING SEWERS CURRENTLY UNDER DEVELOPMENT



MARSDEN PARK INDUSTRIAL AND
SURROUNDING PRECINCTS
PRECINCT SERVICING PLAN
ULTIMATE WASTEWATER
SERVICING STRATEGY

Job Number 21-19069

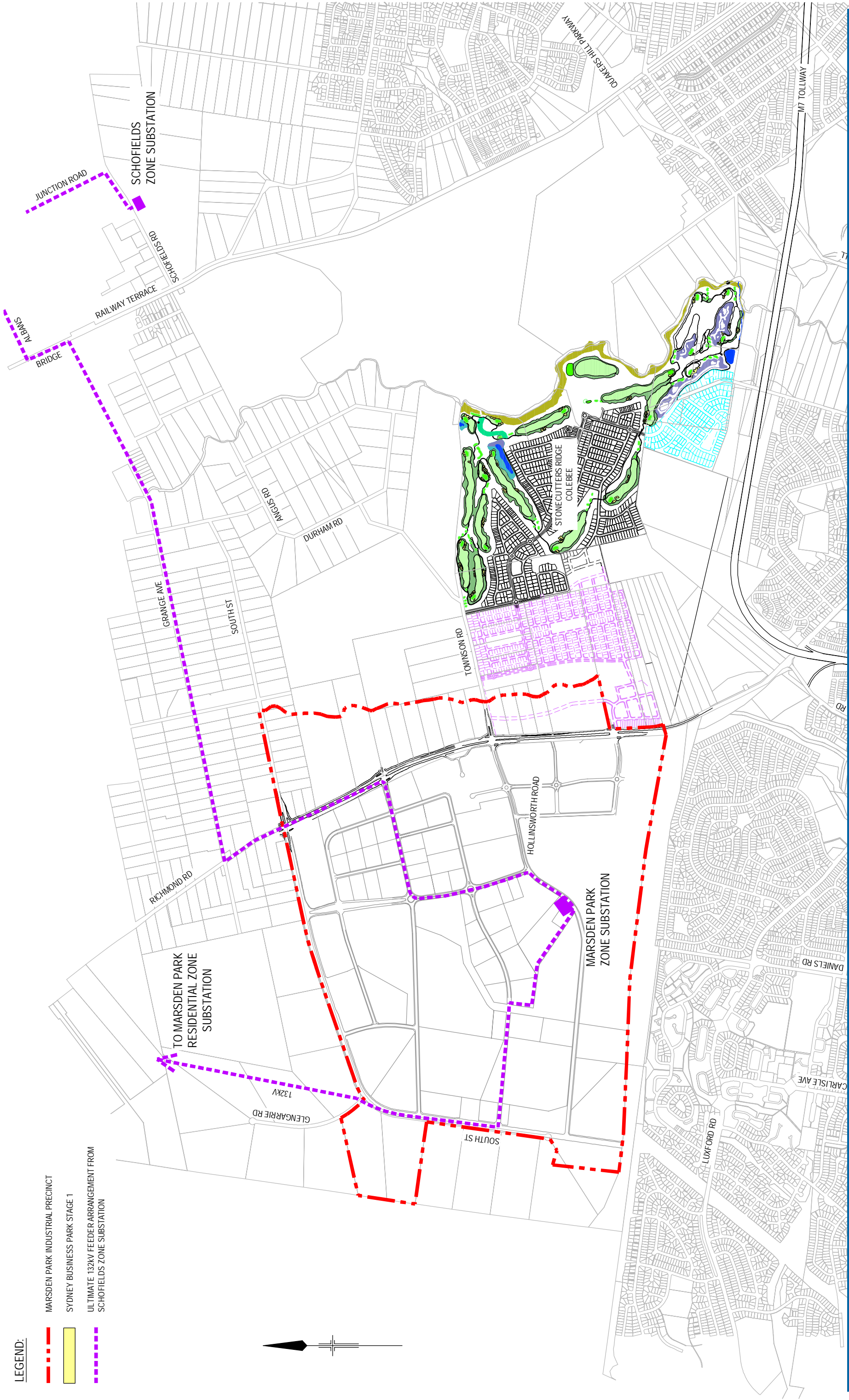
Revision D

Date March 2015

Figure 01

LEGEND:

- MARSDEN PARK INDUSTRIAL PRECINCT
- SYDNEY BUSINESS PARK STAGE 1
- ULTIMATE 132KV FEEDER ARRANGEMENT FROM SCHOFIELD'S ZONE SUBSTATION



0 200 400 600m
SCALE 1:20,000 AT ORIGINAL SIZE

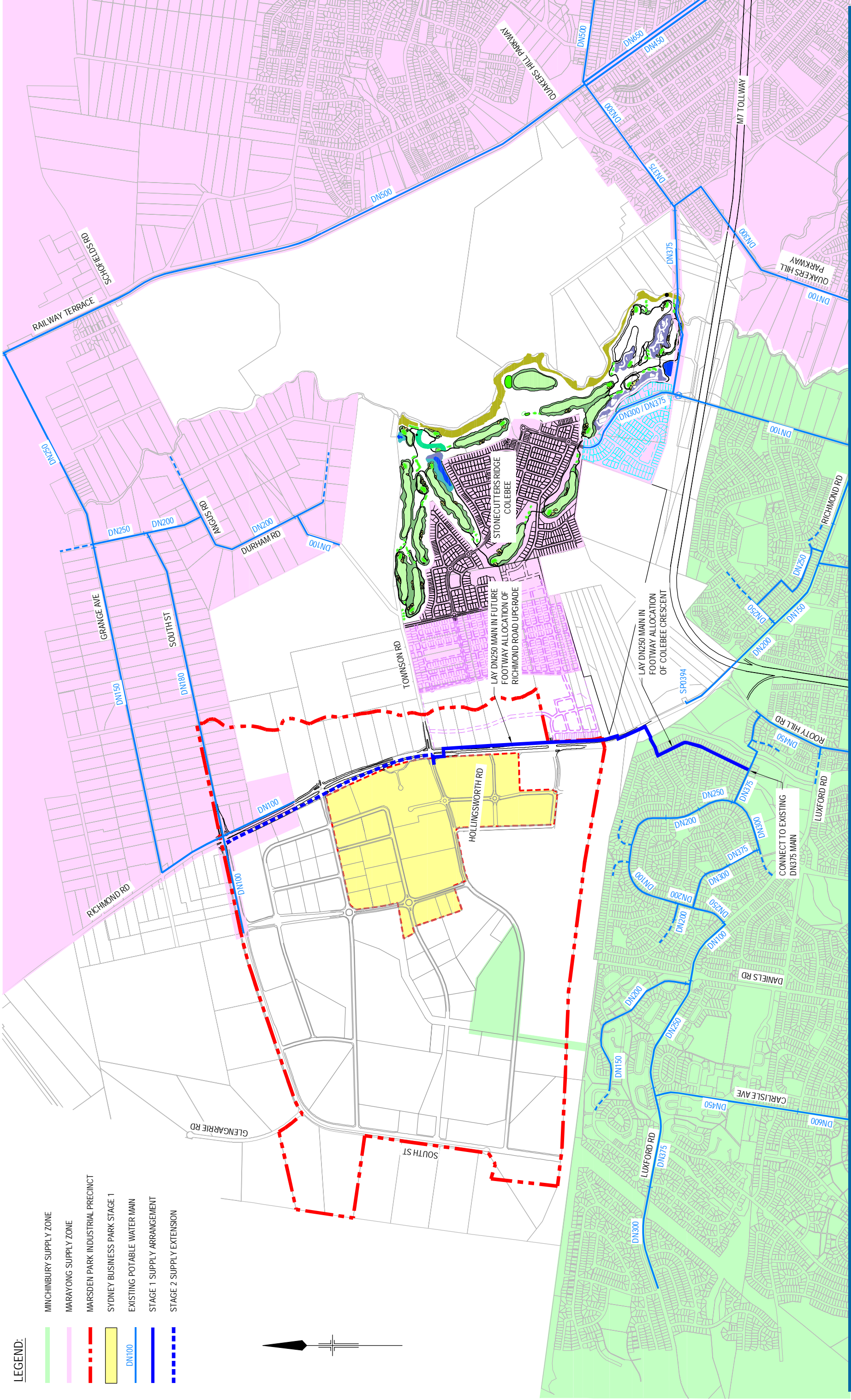


MARSDEN PARK INDUSTRIAL AND
SURROUNDING PRECINCTS
PRECINCT SERVICING PLAN
ULTIMATE ELECTRICITY
SERVICING STRATEGY

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Revision D
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Figure 02

LEGEND:

- MINCHINBURY SUPPLY ZONE
- MARAYONG SUPPLY ZONE
- MARSDEN PARK INDUSTRIAL PRECINCT
- SYDNEY BUSINESS PARK STAGE 1
- EXISTING POTABLE WATER MAIN
- STAGE 1 SUPPLY ARRANGEMENT
- STAGE 2 SUPPLY EXTENSION

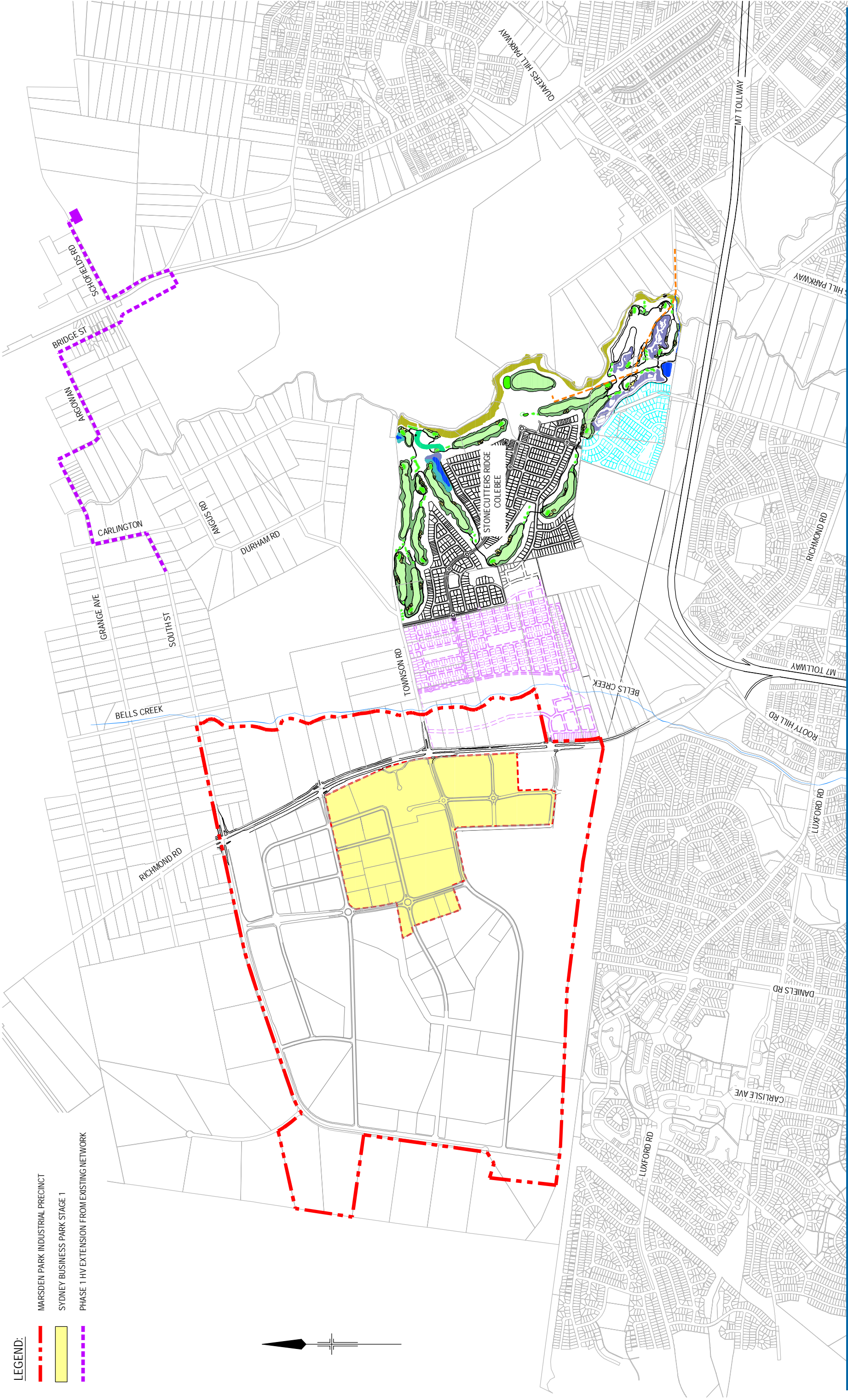


MARSDEN PARK INDUSTRIAL AND
SURROUNDING PRECINCTS
PRECINCT SERVICING PLAN
**PACKAGE 1 POTABLE WATER
SERVICING STRATEGY**

Job Number 21-19069
Revision D
Date March 2015
Figure 03

LEGEND:

- MARSDEN PARK INDUSTRIAL PRECINCT
- SYDNEY BUSINESS PARK STAGE 1
- PHASE 1 HV EXTENSION FROM EXISTING NETWORK



JOB NUMBER 21-19069
REVISION D
DATE March 2015
FIGURE 04

MARSDEN PARK INDUSTRIAL AND
SURROUNDING PRECINCTS
PRECINCT SERVICING PLAN
PACKAGE 1 ELECTRICITY
SERVICING WORKS

LEGEND:

MARSDEN PARK INDUSTRIAL PRECINCT



NATURAL DRAINAGE
CATCHMENT BOUNDARY



1.3

1.1

1.2

2.2

2.1

2.3

3.2

3.1



SCALE 1:20,000 AT ORIGINAL SIZE



MARSDEN PARK INDUSTRIAL AND
SURROUNDING PRECINCTS
PRECINCT SERVICING PLAN

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Figure 05

SERVICING STAGE AREAS

5

5. Tables

6

6. Appendices

Appendix

Appendix A. Funding principles of developer delivered major infrastructure

Appendix B. Process for accelerating servicing of land



A

Appendix A. Funding principles of developer delivered major infrastructure

Planning status of developer's proposed works	Marsden Park's timing of proposed works	Developer's timing of proposed works	Funding Arrangements
1. On Marsden Park Developments (the proponents) 5-year Precinct Servicing Plan (PSP)	→ Within 5-years	→ In line with PSP	→ No Commercial Agreement → Marsden Park Developments funds and constructs works as planned in PSP
2. On Marsden Park Developments PSP	→ Within 5-year PSP	→ Earlier than PSP timing	→ Commercial agreement → Developer funds and constructs works, transfers to Service Authority → Repayment in accordance with Service Authority commercial agreement
3. Not on Marsden Park Developments PSP but on government MDP as a PAP	→ Beyond 5 year PSP	→ Anytime	→ Developer funds and constructs works, transfers to Service Authority → Commercial agreement for transfer and operation of assets → Repayment in accordance with Service Authority commercial agreement

B

Appendix B. Process for accelerating servicing of land

