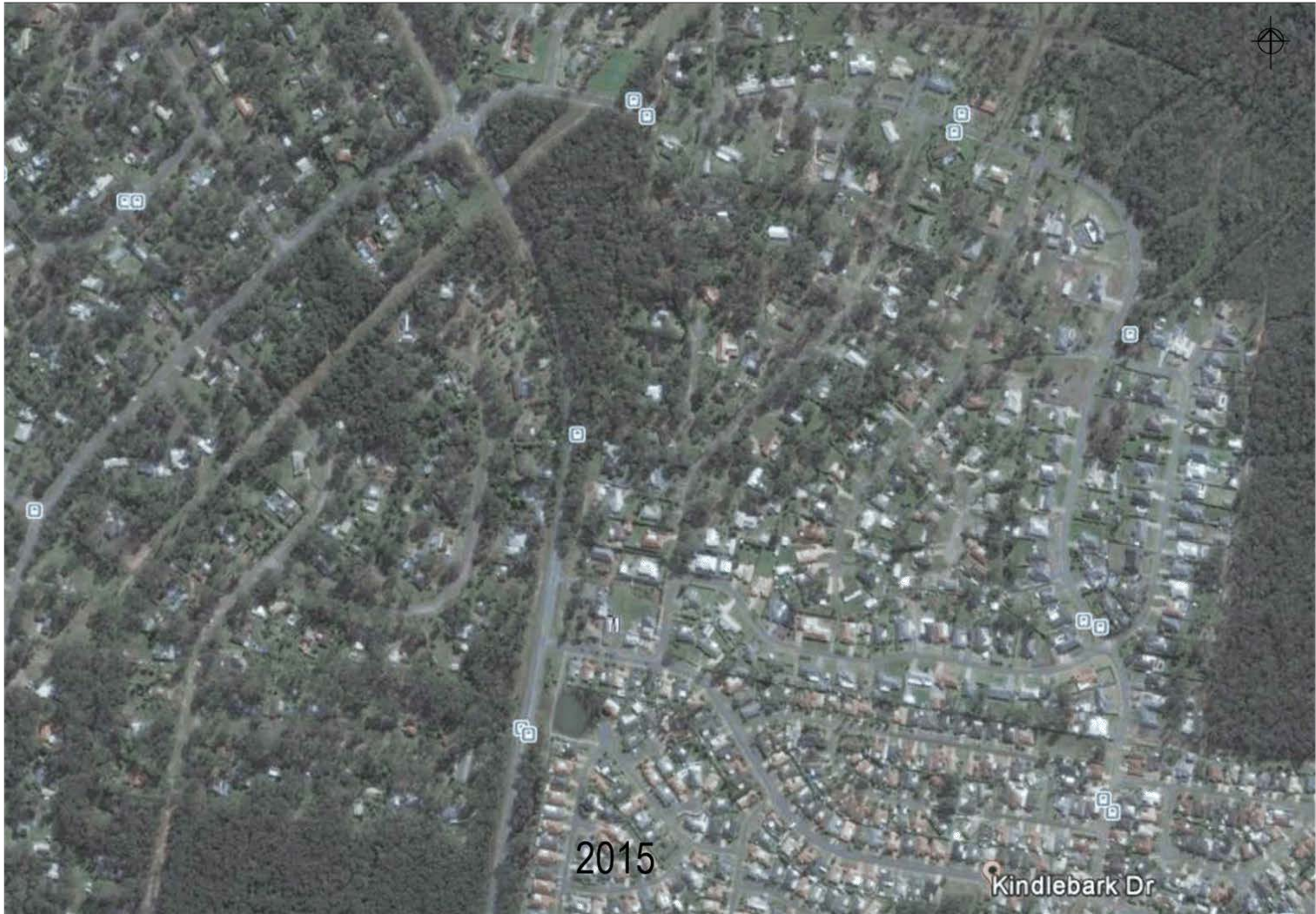




2010







LEGEND:
 ◆ BH1 - APPROXIMATE LOCATION OF GROUNDWATER BORES

SITE PLAN
 R/S

Rev.	By	Date	Description	Des'd
A	JG	24.11.15	ORIGINAL ISSUE	JG

FORUM CONSULTING engineers

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Client	MACLYN PROPERTIES PTY LTD		
Project	GROUNDWATER BORE SEARCH VARIOUS LOTS, KINDLEBARK DRIVE, MEDOWIE		
Approved by	B.E. WIE (Aust) CPtng	Drawing No.	51558-SIT/2 of 1
		Revision	A
		Sheet	A3

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

17/03/1980: LOT 185 FERODALE RD VILLAGE OF MEDOWIE

*** End of GW011961 ***

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ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

**NSW Office of Water
Work Summary**

GW011962

Licence: 20BL005009

Licence Status: CONVERTED

Authorised Purpose(s): RECREATION (GROUNDWATER)
Intended Purpose(s): RECREATION (GROUNDWATER)

Work Type: Well
Work Status: Supply Obtained
Construct.Method: Hand Dug
Owner Type: Local Govt

Commenced Date: Final Depth: 1.20 m
Completion Date: 01/01/1956 Drilled Depth: 1.20 m

Contractor Name:
Driller:
Assistant Driller:

Property: MEDOWIE CRICKET FIELD 36 Standing Water Level 1.200
FERODALE ROAD MEDOWIE (m):
2318 NSW
GWMA: -
GW Zone: - **Salinity Description:**
Yield (L/s): 0.150

Site Details

Site Chosen By:

County **Parish** **Cadastre**
Form A: GLOUC GLOUC.040 178
Licensed: GLOUCESTER STOWELL Whole Lot
22//1021843

Region: 20 - Hunter **CMA Map:** 9232-1S
River Basin: 210 - HUNTER RIVER **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6376798.0 **Latitude:** 32°44'29.3"S
Elevation (Unknown): **Easting:** 393144.0 **Longitude:** 151°51'34.1"E
Source:

GS Map: - **MGA Zone:** 0 **Coordinate** GD ,ACC.MAP
Source:

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Nil	0.00	0.00	1829			

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)

Geologists Log

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

17/03/1980: LOT 185 FERODALE RD VILLAGE OF MEDOWIE
30/10/2009: Updated details as per existing data.

*** End of GW011962 ***

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ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

NSW Office of Water
Work Summary

GW011963

Licence: 20BL005010

Licence Status: CONVERTED

Authorised Purpose(s): STOCK,IRRIGATION,DOMESTIC
Intended Purpose(s): IRRIGATION

Work Type: Well
Work Status:
Construct.Method: Hand Dug
Owner Type: Private

Commenced Date:
Completion Date: 01/01/1956

Final Depth: 2.40 m
Drilled Depth:

Contractor Name:
Driller:
Assistant Driller:

Property: N/A 36 FERODALE ROAD
MEDOWIE 2318 ACT
GWMA: 024 - MISCELLANEOUS
FRACTURED ROCK OF THE
BARWON REGION
GW Zone: -

Standing Water Level
(m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

County
Form A: GLOUC
Licensed: GLOUCESTER
Parish
GLOUC.040
STOWELL
Cadastre
178
Whole Lot
22/1021843

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:

CMA Map: 9232-1S
Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation (Unknown)
Source:

Northing: 6376768.0
Easting: 393274.0

Latitude: 32°44'30.3"S
Longitude: 151°51'39.1"E

GS Map: -

MGA Zone: 0

Coordinate GD.,ACC.MAP
Source:

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Nil	0.00	0.00	1829			

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
-------------	-----------	------------------	----------------------	---------------------	----------

Remarks

01/11/1983: LOT 185 FERODALE RD MEDOWIE

*** End of GW011963 ***

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ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

NSW Office of Water Work Summary

GW022498

Licence: 20BL015239

Licence Status: ABANDONED

Authorised Purpose(s): STOCK,IRRIGATION
Intended Purpose(s): NOT KNOWN

Work Type: Other
Work Status:
Construct.Method:
Owner Type: Private

Commenced Date:
Completion Date: 01/02/1965

Final Depth: 6.10 m
Drilled Depth: 6.10 m

Contractor Name:
Driller:
Assistant Driller:

Property: N/A 733 MEDOWIE ROAD
MEDOWIE 2318 NSW
GWMA: 024 - MISCELLANEOUS
FRACTURED ROCK OF THE
BARWON REGION
GW Zone: -

Standing Water Level (m):
Salinity Description: 501-1000 ppm
Yield (L/s):

Site Details

Site Chosen By:

County	Parish	Cadastre
Form A: GLOUC	GLOUC.040	178
Licensed: GLOUCESTER	STOWELL	Whole Lot 199//17437

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:

CMA Map: 9232-1S
Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation (Unknown)
Source:

Northing: 6376677.0
Easting: 393379.0

Latitude: 32°44'33.3"S
Longitude: 151°51'43.1"E

GS Map: -

MGA Zone: 0

Coordinate GD.,ACC.MAP
Source:

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Nil	0.00	6.10	457			

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
3.70	6.10	2.40	Unconsolidated	3.70		0.63			

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	3.66	3.66	Soil Black Peaty	Soil	
3.66	3.81	0.15	Clay Sandy Water Supply	Clay	
3.81	6.10	2.29	Soil Black Water Supply	Soil	

Remarks

13/08/1980: 4 HOLES IN SQUARE 13.7M APART TOTAL SALINITY IS 530 PPM

*** End of GW022498 ***

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26 November 2015
Ref: 51558



Photograph 1

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie



26 November 2015
Ref: 51558



Photograph 2

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie





Photograph 3

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie



26 November 2015
Ref: 51558



Photograph 4

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie



26 November 2015
Ref: 51558



Photograph 5

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie





Photograph 6

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie



26 November 2015
Ref: 51558



Photograph 7

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie



26 November 2015
Ref: 51558



Photograph 8

Preliminary Contaminated Site Investigation
Various lots, Kindlebark Drive, Medowie



**ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE,
MEDOWIE.**

**Attachment 12: Post-Gateway – Traffic Impact Statement (Better Transport
Futures, 2016)**



BETTER TRANSPORT FUTURES
MARK WAUGH



Rezoning Application at Kindlebark Drive Medowie NSW

Untapped Planning

Traffic Impact Statement
January 2016



Mark Waugh Pty Ltd

ABN 67 106 169 180

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Document History and Status

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FINAL	Rev03	Untapped Planning	1	13/01/16	M Waugh

Printed: 13 January 2016
Last Saved: 13 January 2016
File Name: C:\Users\Mark.Waugh\Documents\WORK\PROJECTS\BTF201656 Kindlebark Drive Medowie\REPORT\BTF201656 Kindlebark Drive Medowie Rev03 (FINAL).Docx
Author: Mark Waugh
Name of Organisation: Matthew Middleby C/- Untapped Planning
Name of Project: Rezoning Application at Kindlebark Drive, Medowie
Name of Document: Rezoning Traffic Assessment
Document Version: FINAL
Project Number: BTF201656

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ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



1 Introduction

Better Transport Futures has been commissioned by Untapped Planning on behalf of Matthew Middleby to prepare a Traffic Assessment Report Impact Statement for a Rezoning Application at Kindlebark Drive, Medowie. The subject land is part of the Port Stephens LEP 2013 and draft DCP 2013. The proposal seeks to rezone land from R5 Large Lot Residential to R2 Low Density Residential under the Port Stephens Local Environmental Plan 2013 along with additional permitted uses for a portion of the site to facilitate the use of the existing winery. The proposed site layout is included as **Appendix A** to this report.

The intent of the overall project is seen as providing a positive contribution to the ongoing redevelopment of the Medowie village as part of the Hunter Region.

This report presents the findings of our traffic impact assessment of the transport issues associated with the rezoning proposal and has been prepared to accompany the rezoning application to Port Stephens Council.

It is structured as follows:

- **Chapter 2** outlines the existing situation in the vicinity of the subject site, including discussions on any other planned growth known within the vicinity and any known road network improvements.
- **Chapter 3** describes the access and traffic requirements of the proposal, its internal movement characteristics
- **Chapter 4** summarises the findings of this impact assessment
- **Chapter 5** provides an overall summary and conclusion to the assessment.

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

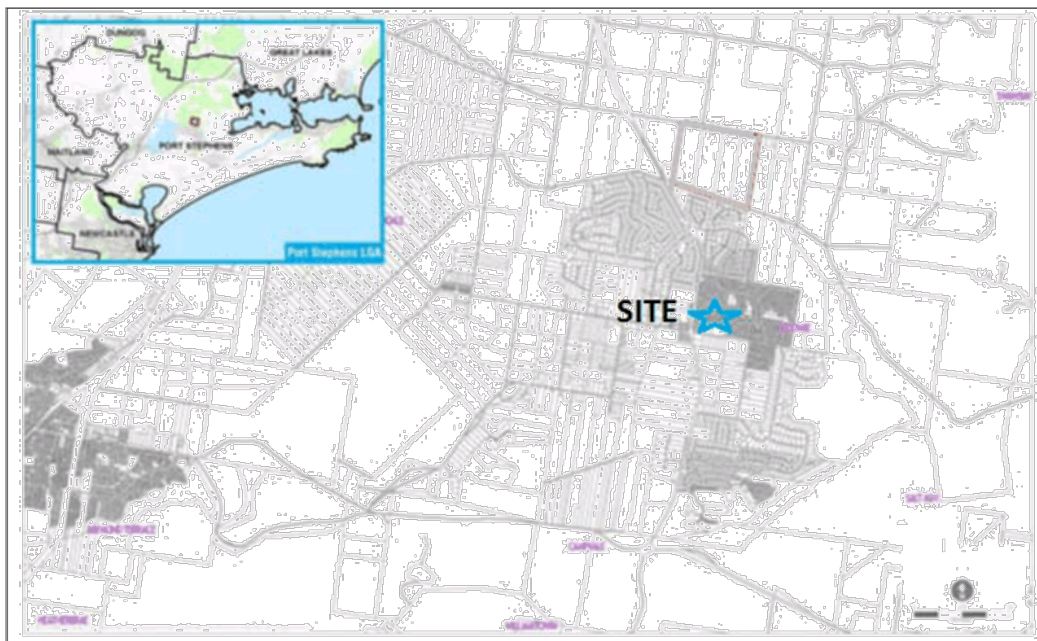


2 Existing Situation

2.1 Site Location

The site is located on a parcel of land east of Medowie Road and to the north of Kindlebark Drive in the existing Medowie township. It is located approximately 1 km north of the town centre, and covers an area in the order of 3500 m². The site has road frontage to Medowie Road, Kindlebark Drive and Heritage Avenue. The land surrounding the site is existing residential development.

The locality is illustrated in Figure 2-1 below.



Source: Base image adapted from Port Stephens DCP 2013

Figure 2-1 Site Location

Medowie Town Centre is located about 1 km to the south of the site. As a local town centre it is experiencing some growth, in line with the continued development of the town of Medowie. The township has a range of local facilities including a number of schools.

The Medowie Strategy was adopted by Council in March 2009. It seeks to guide development, consolidate the facilities in Medowie and increase the resident population, whilst other initiatives seek to improve employment opportunities in the broader area. The subject land is an approved part of the Medowie Strategy as R5 Large Lot Residential use.

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



2.2 Local Road System

2.2.1 Existing Road Hierarchy

Medowie Road

Medowie Road connects with the Pacific Highway to the north of the subject site. The Pacific Highway is a State Road (H10) and provides the main north-south route along the eastern coast of Australia north of Newcastle. As such it is an important road link that carries a significant volume of traffic. It is the main arterial route through the area with Roads and Maritime Services (RMS) as the consent authority for this road.

Port Stephens Council has recently completed the Medowie Traffic and Transport Study (URaP -TTW 2012). This study designates Medowie Road as a sub-arterial road in the areas hierarchy. It is a regional main road and a designation as either sub arterial or trunk collector road is appropriate for its functional role for the area. Port Stephens Council is the road authority for all roads in the area with the exception of the Pacific Highway.



Photo 1 Photo Plate 1 Medowie Road - looking south towards Kindlebark Drive

Kindlebark Drive

Kindlebark Drive is a local road serving the residential area to the east of Medowie Road. It is built to a collector road standard, with a dual carriageway entry statement immediately east of Medowie Road, then an 11 metre single carriageway, with kerb and gutter drainage.

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Photo 2 Photo Plate 2 – Kindlebark Drive immediately east of Medowie road



Photo 3 Photo Plate 3 – Kindlebark Drive looking west towards Heritage Avenue

Heritage Avenue

Heritage Avenue is a local street built to a pavement width of approximately 7.5 metres as far as its intersection with Sassini Crescent. It then narrows to a width of approximately 6 metres

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Photo 4 Photo Plate 3 – Heritage Avenue at Sassin Cres looking south towards Kindlebark Drive

2.3 Road Network Characteristics

Pacific Highway

Pacific Highway (H10) in the vicinity of Medowie provides a dual carriageway configuration to rural highway standard. It has a posted speed limit of 100 km/h on this stretch north of Raymond Terrace, to take account of the series of at grade intersections with the local road system on this stretch of highway. Further north past the Buckets Way intersection the speed limit increases to 110 km/h, where the access controls and road environment provide a consistently higher standard. The Pacific Highway is part of the national highway system and carries a high proportion of interstate traffic between Sydney and Brisbane.

The Pacific Highway is the main north-south road along the coast of northern NSW. RMS is progressively extending the dual carriageways northwards as part of the Pacific Highway program being funded by the State and Federal Governments. Most recently the bypass of Bulahdelah was completed in 2014.

The Pacific Highway forms a higher speed link into Newcastle from areas to the north of Medowie which limits the popularity of Medowie Road as a through road. The intersection of the Pacific Highway with Medowie Road is a seagull island layout with full turning lanes.

Medowie Road

Medowie Road (Road No 518) is a regional main road through the town of Medowie. It provides the most northerly connection from the Pacific Highway through Medowie to Richardson Road and Nelson Bay Road, connecting to the Port Stephens Peninsula. It is also the most direct route from the north to Williamtown and the Newcastle Airport.

Medowie Road is a two lane two way road in the vicinity of the subject site. It has two traffic lanes marked as 3.5 metres wide but has an overall seal width of 9metres. It has a further 1m of unsealed shoulder on each side of the road. The posted speed limit in the vicinity of Kindlebark Drive is 50kph. Kindlebark Drive is situated between the existing roundabouts at the intersection of Kirrang and Federation Drive with Medowie Road to the north, and the intersection of Ferodale Road and Medowie Road to the south, the main access to the Medowie town centre. Medowie Road has no footways in the vicinity of the subject site.

This section of Medowie Road is not proposed to provide an additional access under the Medowie Strategy. Sight distances along Medowie Road in both directions from the Kindlebark Drive intersection are very good.

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Photo 5 - North view along Medowie Rd, from the intersection with Kindlebark Drive



Photo 6 - Visibility from Kindlebark Drive, southwards along Medowie Road

2.4 Existing Traffic Flows

Traffic volume data was collected from Council records. Available traffic data for Medowie Road includes:

North of Kirrang Drive	- 2495 vehicles per day two-way.
North of Ferodale Road	- 6489 vehicles per day two-way
South of Ferodale Road	- 9238 vehicles per day two-way.
North of Richardson Road	- 10373 vehicles per day two-way

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.

These levels of traffic reflect the busier section of Medowie Road to the south of the subject site, where local traffic forms a large proportion of the vehicles using the road to access the Medowie town Centre.

A site visit was conducted on 7th and 8th December 2015, to observe the road environment and traffic operations in the vicinity of the subject site.

In order to provide up to date traffic movements, flows were monitored at the intersection of Medowie Road and Kindlebark Drive, and Also Kindlebark Drive and Heritage Avenue (AM only) The surveys were conducted at the Medowie Road intersections during a morning (AM) and afternoon (PM) to confirm the peak hour flows periods.

Results of the traffic survey monitoring are included as **Attachment B** to this report.

As part of the site visit observations were made of the existing conditions on the surrounding road network, taking particular notice of safety and traffic movement issues:

- A. Weather conditions were generally fine.
- B. Traffic Management - AM and PM traffic flows were observed on Medowie Road at its intersection with Kindle Bark Drive. Observations confirmed:
 - a. Through flows on Medowie Road were the dominant traffic movements.
 - b. Through traffic movements at the Kindlebark Drive intersection were in the order of 180 (178) vehicles (2 way) in the AM peak hour (8:05 - 9:05), and 300 (318) vehicles (2 way) in the PM peak hour (16:30-17:30).
 - c. Traffic Flows into and out of Kindlebark Drive were 200 (208) in the AM peak hour (8:05 - 9:05) and 250 (257) in the PM peak hour (16:30 - 17:30)
 - e. The observed traffic flows were quite low, and below the free flow thresholds for intersection performance defined in the AustRoads Guidelines.
 - f. There are bus stops serving regular route buses on Medowie Road to the south of Kindlebark Drive.
- C. Road conditions
 - a. The pavement width of Medowie Road in the vicinity of the subject site is approximately 9 metres, including sealed shoulders. The pavement is widened to approx. 13 metres to accommodate turn lanes at the Kindlebark Drive intersection.
 - b. The junction of Medowie Road with Kindlebark Drive is built with an Austroads CHR right turn treatment, and an Auxiliary Left turn lane treatment.
 - c. The road width and condition is considered satisfactory for existing 2 way sub-arterial road operations.
 - d. Sight distances at the Kindlebark Drive intersection are considered acceptable for the existing road conditions.
 - e. The posted speed limit on Medowie Road in the vicinity of the Kindlebark Drive intersection is 50 kph.
- D. Kindlebark Drive intersection
 - a. Existing layout is a CHR /AUL priority controlled intersection.
 - b. The general standard is consistent with an urban collector road.

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2.5 Existing Traffic Capacity

The Level of Service criteria for urban road conditions is defined in the RMS "Guide to Traffic Generating Development" and is reproduced overleaf for reference as **Table 1**. The observed traffic flows and lane configurations confirm the existing service levels summarised in **Table 2**.

Table 1 Urban road peak hour flows per direction

Level of Service	One lane (vehicles / hour)	Two lanes (vehicles per hour)
A	200	900
B	380	1400
C	600	1800
D	900	2200
E	1400	2800

Source: Guide to Traffic Generating Developments, RTA October 2002

Table 2 Observed flow levels and level of service

Road		AM Observed Volume	AM LoS	PM Observed Volume	PM LoS
	Location	vph		vph	
Medowie Road NB	N of Kindlebark Dr	141	A	217	B
Medowie Road SB	N of Kindlebark Dr	206	B	157	A
Medowie Road NB	S of Kindlebark Dr	139	A	318	B
Medowie Road SB	S of Kindlebark Dr	278	B	201	B
Kindlebark Dr EB	E of Medowie Rd	67	A	157	A
Kindlebark Dr WB	E of Medowie Rd	141	A	100	A
Heritage Avenue NB	N of Kindlebark Dr	16	A	Not Counted	-
Heritage Avenue SB	N of Kindlebark Dr	37	A	Not Counted	-

Notes: 1. LoS – Level of Service

Based on the site observations it can be seen that traffic flows in the vicinity if the subject site are operating at satisfactory Levels of Service, LoS 'A' or 'B' on the local road system, which is considered very good operating conditions, with little or minimal delays experienced by drivers I the traffic stream.

Considering the above data and assessing intersection capacity based on approach lane capacity the existing number of approach lanes (one in each direction) is considered satisfactory

2.6 Existing Pedestrian, Cyclist and Public Transport Facilities

There are existing pedestrian / cyclist facilities on Medowie Road to the south of Kindlebark Drive. These connect with the bus stops on Medowie Road and are linked back into the residential area to the east of Medowie Road.

Public transport services in the Medowie area are provided through Comfort Delgro Cabcharge (CDC) operating as Hunter Valley Buses. Bus Route 136 links Medowie from Raymond Terrace to Stockton via Fern Bay and the Newcastle Airport whilst Route 137 connects to Raymond Terrace and Lemon Tree Passage. In this area Route 136 uses Federation Drive, Part of Kindlebark Drive (to the east) and Medowie Road south of Federation Drive. The bus stops are a short (100 metre) walk from the subject site along Medowie Road.

The location of these existing services in relation to the subject site is shown in **Appendix B**

In addition to the local route services, five school buses service the area providing a connection to local schools and schools in Raymond Terrace. These were observed using both Kindlebark Drive and Heritage Avenue.

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



2.7 Planned Development

2.7.1 Other Developments

The subject site is the only development consideration in the Kindlebark Drive area at this time. It represents a form of in-fill development.

2.7.2 Traffic and Transport Planning Considerations

Council has recently considered the provision of traffic and transport facilities as part of its development of a Medowie Local Area Contributions Plan – Traffic and Transport. The following features of the plan are relevant to the subject site on Medowie Road and have been considered as part of the traffic impact assessment of the subject site.

Table 1 – S94 Works directly in the vicinity of the Kindlebark Drive development

Project	Location	Description	Comment
4	Medowie Road	Pedestrian and cycle way – Boundary Road to Kirrang Drive – Off-road shared path on west side to future residential area. Investigate possible alternate route – Boundary road to Federation Drive via Settlers Close/Overland Avenue/Explorers Close.	Recommend consideration of the URaP alternate route been investigated. It could significantly reduce costs.
5	Medowie Road	Pedestrian and cycle way – Federation Close to Kindlebark Drive – off-road shared path on east side	This benefits a wider area in Medowie than just Kindlebark Road precinct.
6	Medowie Road	Road network – North of Kindlebark Drive – Gateway treatment and change in speed zone from 70km/h to 50km/h	
8	Medowie Road	Road network – At Kindlebark Drive – roundabout intersection	
23	Medowie Road	Pedestrian and cycleway – South of Kindlebark Drive (at existing bus stops) – Upgrade pedestrian refuge island to current standards	

Source: Extract from Port Stephens Council Medowie Section 94 Plan Summary Sheet released for public exhibition, March 2015

The proposed introduction of a gateway treatment on Medowie Road to the north of Kirrang Drive, with reduction in speed limit from 100 kph to 70 kph is considered as appropriate to reinforce the changing road environment as vehicles enter the Medowie urban area. Similarly the implementation of 50kph local speed limits with share the road signs and logos is considered a worthwhile safety initiative in low volume applications such as for the subject site.

The consideration of pedestrian and cyclist facilities is discussed in Section 3.5 of this report.

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



3 Proposed Rezoning

3.1 The Proposal

Untapped Planning is currently working on a site rezoning application covering;

- Lot 10, DP 1154803; 142 Kindlebark Drive, Medowie
- Lot 61, DP 1106425; 1A Heritage Avenue, Medowie
- Lot 1, DP 270731; Middleby Grove, Medowie
- Lot 2, DP 270731; 140A Kindlebark Drive, Medowie
- Lot 3, DP 270731; 140 Kindlebark Drive, Medowie
- Lot 4, DP 270731; 1/1 Heritage Avenue, Medowie
- Lot 5, DP 270731; 2/1 Heritage Avenue, Medowie
- Lot 6, DP 270731; 140B Kindlebark Drive, Medowie

The project entails the rezoning of the consolidated site from R5 Large Lot Residential to R2 Low Density Residential under the Port Stephens Local Environmental Plan 2013 along with additional permitted uses for a portion of the site to facilitate the use of the existing winery as proposed;

- Restaurant / Function Centre of 758 m²
- hotel / motel accommodation of 25 beds
- existing winery with small bar & cellar door
- commercial GFA of 500 m²

We understand that the development is now at the Gateway Stage.

3.2 Staging

The subject site is likely to be developed in stages. Any road network requirements would be upgraded in stages to match access needs.

3.3 Potential Development Traffic

3.3.1 Trip Generation Rates

Previous traffic generation rates published by the NSW RMS assumed peak hour flow factors for a variety of development uses, based on data that is now anything up to 40 years old. (RTA Guide to Traffic Generating Development (GtTGD), NSW RMS, October 2002).

Updated generation rates were published by the NSW RMS in August 2013 for a number of categories of traffic generating development. These included some of the more common types of land use such as residential, office, bulky goods and shopping centres.

An example of the changes in peak hour generation rate is the low density residential rate which has dropped from 0.85 trips to 0.78 (PM) or 0.71(AM) in regional areas.

For the purposes of this assessment the older more conservative GtTGD 2002 rates have been applied.

Table 2 below summarises the existing and planned traffic generates from the subject site development proposal

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Table 2 Development Trip Generation

Land use	Existing Area	Trip Rate	No Peak Trips	Proposed Area	Trip Rate	Additional Peak Trips
• Restaurant / Function Centre	293 m ²	5 / 100 m ² GFA	15	758 m ²	5 / 100 m ² GFA	24
• hotel / motel accommodation	Nil	0.4 / unit	Nil	25 beds	0.4 / unit	10
• winery, small bar, cellar door	Unchanged			unchanged		
• commercial premises	Nil	2 / 100 m ² GFA	Nil	500 m ²	2 / 100 m ² GFA	10
TOTALS			15			44

Note: Rates applied from RTA Guide to traffic Generating Development October 2002

The net effect of the proposed rezoning in terms of potential increased traffic generation is only of the order of 44 vph in the peak period.

3.3.2 Traffic Distribution and Assignment

It is considered that the traffic to and from the development would be heavily biased to the south, either contained within Medowie or travelling on to locations such as Raymond Terrace or Newcastle. For the purposes of this assessment, the following trip distribution has been assumed:

- South via Medowie Road – 90%
- North via Medowie Road – 10%

This directional split could vary, dependent upon new development in the area (Karuah for example) over the timeframe of the regional strategy (up to 25 years).

For the purpose of this assessment the following assumptions have been made in relation to trip distribution and assignment:

Peak Directional Split:

- 80% out AM, 20% in AM
- 80% in PM, 20% out PM

Peak Assignment

- 10 % N (Karuah and beyond)
- 90% S (Medowie and beyond)

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



3.3.3 Future Development Traffic Flows

The future possible total development flows based on this distribution are presented in **Figure 3-1** below:

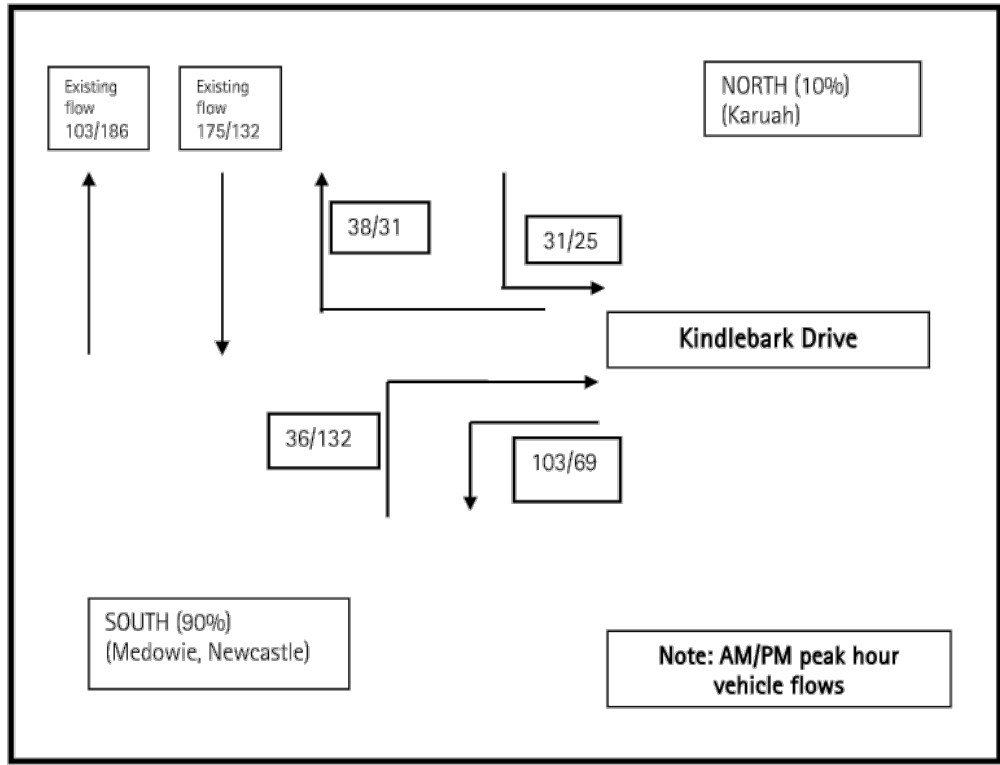


Figure 3-1 Potential Future Flows. Medowie Rd/Kindlebark Rd

3.4 Parking

The derivation of parking requirements for the subject development has been considered at this preliminary (rezoning) stage against Port Stephens Council SC Development Control Plan requirements, RTA Guide to Traffic Generating Development (GtTGD) rates. While the basic information of requirements can be drawn from these known sources there are some additional factors that provide justification for variations in parking supply rates, especially when the development being considered includes a variety of land uses in the one precinct.

The variations that can be considered relate to the following factors:

1. Floor space versus Patronage Factors – Historic surveys have quantified parking demands on the basis of a floor area occupied by the activity, usually expressed as a parking rate relative to Gross Floor Area (GFA) Alternatively some facilities are best represented by way of patronage figures, sometimes expressed as no of seats in say a restaurant, or patrons for stand up style function facilities. The different factors have been applied where appropriate in the sensitivity analysis.
2. RTA GtTGD **Occupancy Factors** –In the case of the traffic and parking generating characteristics of land uses such as restaurants, casual accommodation such as hotels and serviced apartments, and tourist facilities, the RTA Guide considers it is NOT advisable to assume 100% occupancy when assessing traffic and parking generation. It concludes that ideally the 85 percentile (85%) occupancy should be used. This sensitivity analysis has adopted this recommended RTA (RMS) approach for the following land uses:
 - a. Restaurant/ Function Centre

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



b. Hotel / Short Stay Accommodation

An Occupancy Factor of 85% is generally applied where appropriate (RTA 2002)

3. **Cross Use or Linked Trips** – cross use of facilities occurs when a development has multiple land uses of mixed nature, such as proposed for the subject development. These include such uses as office facilities linked to the winery as well as short stay accommodation café, restaurant and function facility. Cross use can also occur where there is accommodation associated with other site uses. For example the function room / restaurant nearby any form of residential or short stay accommodation is likely to generate walking trips, and no additional parking (as the vehicle will stay garaged in the one place).

The scale of potential discounts will vary depending on the final development mix resulting from the projects design development phase prior to a development application being finalised.

The potential parking provision that these varying factors yield when applied across the uses proposed in the rezoning application is in the order of 25 spaces. This of course depends on the level of cross use, and final mix of uses planned and approved for the site. With a total site area of 3500 m² there is sufficient room available for parking. Allowing an average 30 m² per space for parking and access aisles this would require in the order of 750 m² of site area for 25 on grade spaces.

The overall conclusion in relation to parking provision is that there is sufficient room on site to cater for parking, there is flexibility in terms of the design development, and there is also considerable potential for cross use of accommodation and other site uses such as the dining/café/function allocations. Also allowing for accepted occupancy rates below full capacity suggests that a lower parking allocation than Council's non-discounted supply will be appropriate for this mixed use development.

3.5 Site Access Concepts

3.5.1 Proposed Site Access

The site access and internal layout proposes to retain both the Medowie Road and Kindlebark Road access points to the site. This is considered the best overall arrangement, allowing right turns to be accommodated through the adjacent intersection of Medowie Road and Kindlebark Drive.

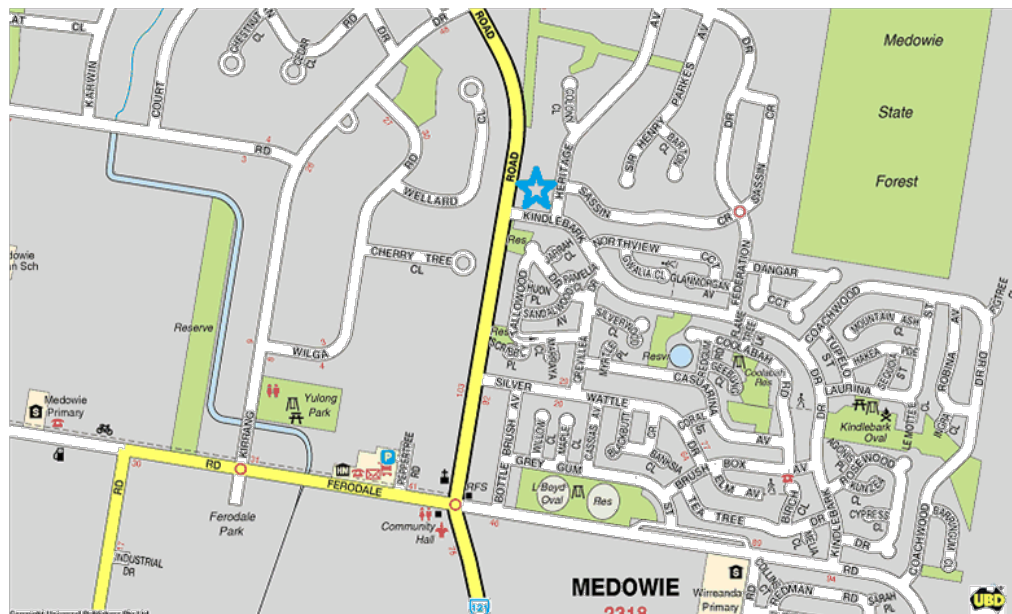


Figure 3-2 Site Location

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



The internal road layout and alignment will be developed to provide an environment that encourages low speed vehicle movement, improving overall safety and enhancing the environmental amenity for the residents.

The proposal will be able to make use of all street frontages to disperse traffic flows in the most efficient manner.

3.5.2 Intersection Concepts

It is understood that the adjacent intersection of Medowie Road and Kindlebark Drive is planned to be upgraded as part of the Medowie s95 contributions plan, to cater for the area wide effects of the growth in the township of Medowie.

The key issue of relevance to this rezoning application is the extent to which the traffic volumes allowed for in past analysis will be changed, and what if any impacts that will have on the plans for adjacent road upgrading.

This issue is discussed further in Section 4 of this report.

3.6 Pedestrian and Cyclist Access

3.6.1 Off-site Connections

Current pedestrian and cyclist facilities in the vicinity of the site are limited. There are currently footpaths on Medowie Road connecting to the nearby bus stop facilities, around 100 metres from the subject site south along Medowie Road.

Council has considered the provision of pedestrian and cyclist facilities as part of its recent development of the Medowie Local Area Contributions Plan – Traffic and Transport. The plan is based on the Medowie Traffic and Transport Study (URaP –TTW 20012). The plan is currently on exhibition, and has not been formerly adopted by Council at the time of preparing this assessment.

However the draft plan includes pedestrian and cycling features that are relevant to the subject site on Medowie Road. The Medowie Traffic and Transport Study quotes the Austroads and RTA Bicycle guides as the basis for justifying the extent of pedestrian and cycling infrastructure proposed for the Medowie area.

The draft contribution plan as it relates to pedestrian and cycling facilities in the vicinity of Kindlebark Drive is justified in part on the basis of:

"Provision of off-road shared paths within footways along major routes leading to the town centre and joining with major attractors such as schools."

This directly affects the Kindlebark Drive area, in that it proposes an off road pedestrian / cycle path from Kirrang Drive to Ferodale Road at a considerable cost.

Of note is the studies recommendation included in the plan summary to:

"Investigate possible alternate route – Boundary road to Federation Drive via Settlers Close/Overland Avenue/Explorers Close."

This could ultimately affect the pedestrian route south to the town centre if the same principal of using local streets rather than building off road paths were to be applied.

It is recommended that the Medowie Traffic and Transport Study recommendation to *"Investigate possible alternate route – Boundary Road to Federation Drive via Settlers Close/Overland Avenue/Explorers Close."* And its implications on routes south be actioned prior to finalising any pedestrian and cycling facilities on Medowie Road.

3.7 Public Transport

Public transport services are limited to the existing urban area, with the closest service running along Medowie Road (See Appendix B).

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4 Traffic Impact Assessment

4.1 Intersection Operations

A key factor in the planning of any new development is access and the capacity of the surrounding road system. The proposed development provides for two access points to each of Kindlebark Drive and Medowie Road in the vicinity of the existing intersection of Kindlebark Drive with Medowie Road. The scale of development and its resulting traffic flows are quite low, and are not expected to impact on the existing form of this intersection.

Observations on site of existing conditions show that there are essentially low levels of delay for existing traffic movements along Medowie Road at its intersection with Kindlebark Drive. Vehicles entering or exiting the side roads also experience minimal delay, mostly only geometric delay caused by drivers having to slow down and negotiate the intersection.

Figure 4-1 drawn from Austroads Guide to Traffic Management Part 3 Traffic Studies and Analysis provides advice on intersection operation where traffic flows are relatively low. Where these limits are not met, traffic effectively operates under free flow conditions.

Type of road	Light cross and turning volumes maximum design hour volumes vehicles per hour (two way)		
Two-lane major road Cross road	400 250	500 200	650 100
Four-lane major road Cross road	1000 100	1500 50	2000 25

Figure 4-1 Intersection volumes below which capacity analysis is unnecessary

Source: Austroads Guide to Traffic Management Part 3 Traffic Studies and Analysis

It can be seen that for the existing traffic flows at the Medowie Road / Kindlebark Drive intersection these limits are not met and capacity analysis is unnecessary.

Future potential Kindlebark Drive / Medowie Road Intersection Operations

Taking the existing development into account, and allowing for the additional land uses proposed as part of the rezoning application, the resulting additional flows that would affect Medowie Road and Kindlebark Drive would be potentially in the order of 44 vehicles in the peak hour.

In terms of the performance of the **Kindlebark Drive / Medowie Road Intersection** this level of additional flow through the intersection represents an increase in flow of around 7% to 9% with total flows still less than 650 vehicles.

The expected flow combinations are such that they are still below the Austroads free flow thresholds, and so again the intersection of **Kindlebark Drive / Medowie Road Intersection** would continue to operate well, and with minimal delays under priority control.

The Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads 2009) provides guidance on the warrants for various auxiliary lane treatments at intersections. Figure 2 below illustrates the principles for a design speed of less than 100 kph. The posted speed limit on Medowie Road and Kindlebark Drive is 50 kph. The warrants relate turn treatments to a combination of major road traffic volume and turning volumes.

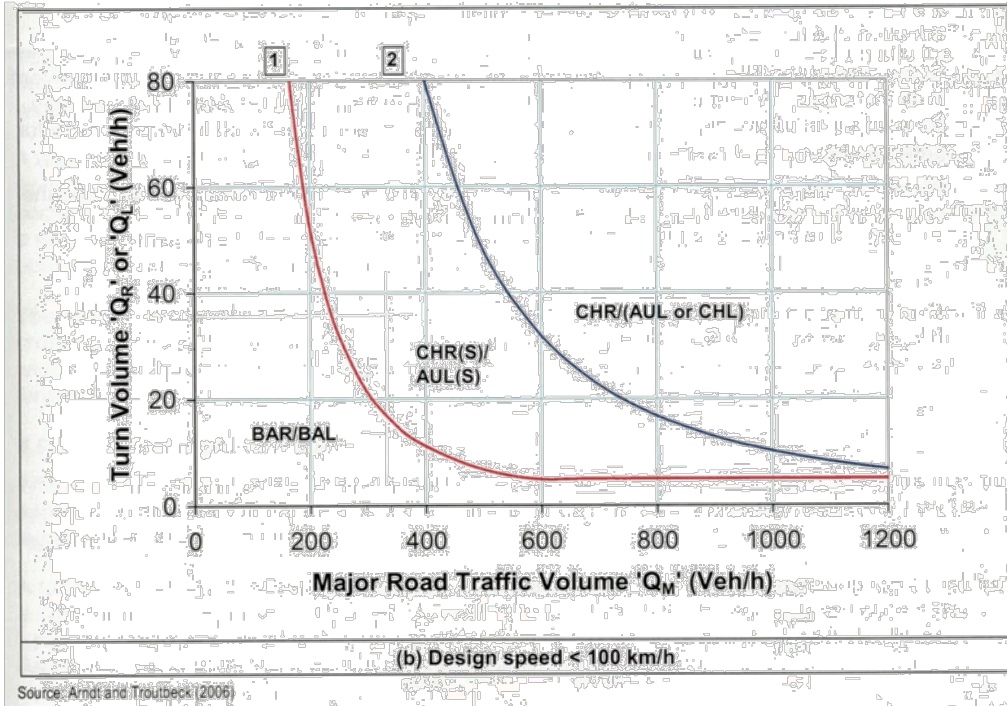


Figure 2 Warrants for turn treatments on major roads at Unsignalised intersections
(Design Speed < 100kph)

Source: Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads 2009)

The dominant turning movements for the traffic flows on Medowie Road and Kindlebark Drive are the northbound right turn into Kindlebark Drive from Medowie Road, and the westbound left turn from into Kindlebark Drive into Medowie Road.

Based on the total flow levels on Medowie Road in the order of 500 to 575 in the AM and PM peaks, this suggests the existing CHannelised Right Turn Treatment (CHR) will still be the appropriate level of intersection treatment for the northbound right turn in Medowie Road turning into Kindlebark Drive. Given that effectively free flow capacity conditions will exist as described above, the existing length of turning lane storage will remain satisfactory.

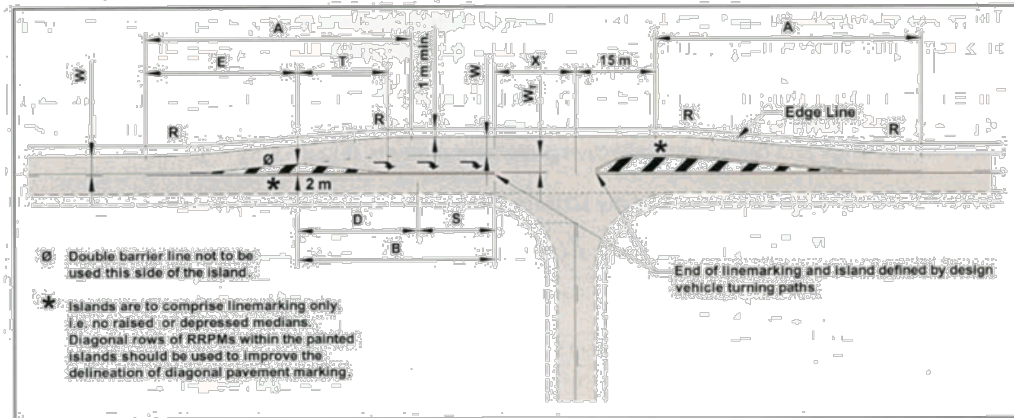
The left turn from Kindlebark Drive has sufficient capacity as the minor leg of a priority junction such that auxiliary lane treatment is not considered necessary. There is sufficient width for both left and right turning vehicles to have separate queues.

Figure 3 illustrates the basic concepts for the right turn treatment.

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GUIDE TO ROAD DESIGN PART 4A UNSIGNALISED AND SIGNALISED INTERSECTIONS



Note: The dimensions of the treatment are defined below and values of A, D, R and T are shown in Table 7.1

- W = Nominal through lane width (m) (including widening for curves). For a new intersection on an existing road, the width is to be in accordance with the current link strategy.
- W₁ = Nominal width of turn lane (m), including widening for curves based on the design turning vehicle = 3.0 m minimum
- B = Total length of auxiliary lane, including taper, diverge/deceleration and storage (m)
- E = Distance from start of taper to 2.0 m width (m) and is given by:

$$E = 2 \left(\frac{A}{W_1} \right)$$
- T = Taper length (m) and is given by:

$$T = \frac{0.33 \times V \times W_1}{3.6}$$
- S = Storage length to cater for one design turning vehicle (m)
- V = Design speed of major road approach (km/h)
- X = Distance based on design vehicle turning path, typically 10-15 m

Source: QDMR (2006)

Figure 7.6: Channelised right-turn treatment with a short turn slot [CHR(S)] two-lane rural road

Figure 3 Channelised right turn treatment with a short turn slot [CHR(S)] two lane rural standard road
 Source: Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads 2009)

4.2 Impact on s94 Intersection Concepts

The long term upgrade considerations for the Kindlebark Drive / Medowie Road Intersection are for roundabout control, as part of the Medowie s94 contributions plan.

It can be seen that the overall development potential and subsequent changes in traffic generation and impacts on the surrounding road network of the proposed rezoning are minimal, and will be easily able to be catered for on the road network adjacent to the subject site.

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5 Summary and Conclusion

5.1 Summary

The following summary is provided of the rezoning proposal for the subject site at Kindlebark Drive Medowie. The proposed site rezoning includes;

- Lot 10, DP 1154803; 142 Kindlebark Drive, Medowie
- Lot 61, DP 1106425; 1A Heritage Avenue, Medowie
- Lot 1, DP 270731; Middleby Grove, Medowie
- Lot 2, DP 270731; 140A Kindlebark Drive, Medowie
- Lot 3, DP 270731; 140 Kindlebark Drive, Medowie
- Lot 4, DP 270731; 1/1 Heritage Avenue, Medowie
- Lot 5, DP 270731; 2/1 Heritage Avenue, Medowie
- Lot 6, DP 270731; 140B Kindlebark Drive, Medowie

The project entails the rezoning of the consolidated site from R5 Large Lot Residential to R2 Low Density Residential under the Port Stephens Local Environmental Plan 2013 along with additional permitted uses for a portion of the site to facilitate the use of the existing winery as proposed;

- Restaurant / Function Centre of 758 m²
- hotel / motel accommodation of 25 beds
- existing winery with small bar & cellar door
- commercial GFA of 500 m²

Existing traffic flows along Medowie Road in the vicinity of the site are low (in the order of 500 vph south of Kindlebark Drive, well within acceptable capacity limits for a two lane two way road.

Council's Medowie Traffic and Transport Study forecast future flows on Medowie Road in the vicinity of the subject site at a peak of around 600 vph two way (and this includes the subject site traffic flows). This will remain well within the capacity of the existing road.

The development is planned to have access from both Kindlebark Drive and Medowie Road

Whilst the additional traffic generated by the development will increase the daily traffic flows on Medowie Road and Kindlebark Drive the forecast level of traffic, even allowing for 10 year growth in background traffic levels, is still well within the capacity of both roads.

No specific capacity improvements are warranted for Medowie Road or Kindlebark Drive as a result of the subject rezoning proposal.

Parking supply has been considered taking anticipated cross use of the mixed use facilities planned on site. The site has sufficient room and there is flexibility available in the design development phase to accommodate the necessary parking based on appropriate occupancy and cross use principles. These principles should be ratified at the Development Application stage of design development.

Assessment of the proposed single access to the site has highlighted that the intersection of Kindlebark Drive and Medowie Road will continue to operate well under priority control. The forecast level of traffic movements is such that operations are at or near to free flow conditions, with minimal delays predicted.

Consideration of the warrants for auxiliary lanes indicates that the northbound Channelised Right turn (CHR(S)) auxiliary lane, and a southbound Auxiliary Left (AUL) lane are still appropriate.

Council's plans for developer contributions in Medowie for Traffic and Transport include features relevant to the subject site:

- Upgraded intersection control at Kindlebark Drive, to roundabout control.
- Pedestrian & cycle way - Federation Close to Kindlebark Drive - off-road shared path on east side
- Investigation of alternate pedestrian and cycling route options as nominated in the Medowie Traffic and Transport Study is recommended prior to confirming facilities for pedestrians and cyclists.

The subject site does not impact on these plans.

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5.2 Conclusion

Based on the traffic impact assessment conducted into the rezoning application of the subject site, and subject to the recommendations contained herein, it is concluded that the proposed rezoning application at Kindlebark Drive Medowie is able to be accommodated on the existing road network based on traffic planning and engineering considerations.

The proposed rezoning will not have a major impact upon the local road network, existing or planned, and with the planned upgrade to the Medowie Road / Kindlebark Drive intersection will be easily catered for at good levels of service into the future.

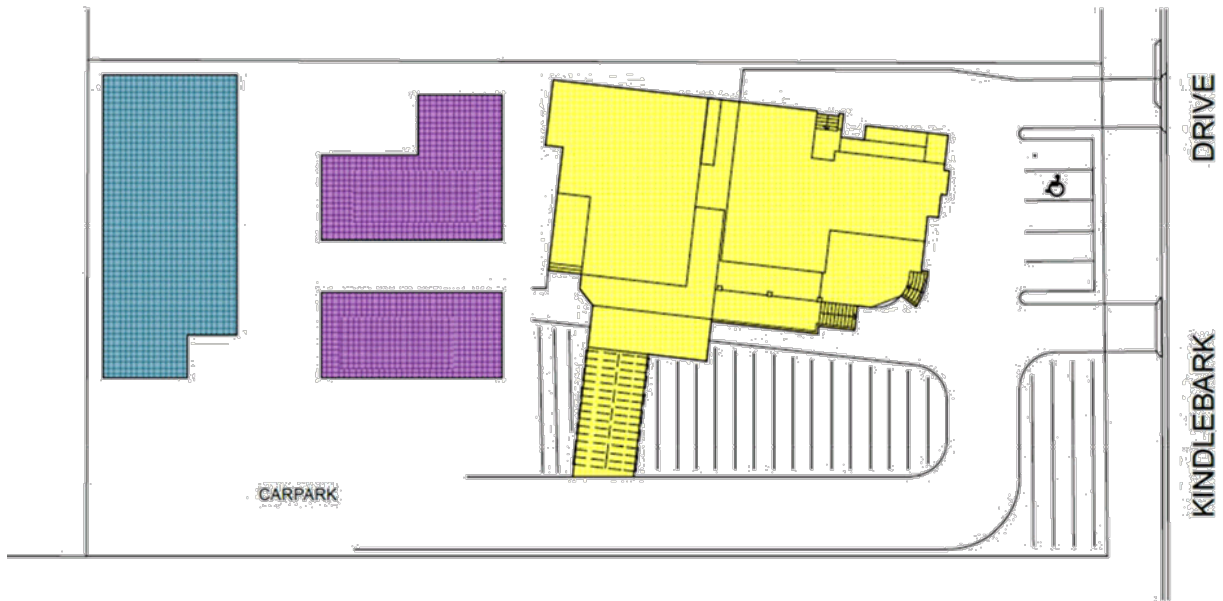
It is therefore recommended the rezoning application be supported on traffic planning and engineering grounds.

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Appendix A. Preliminary Site Concept Plan

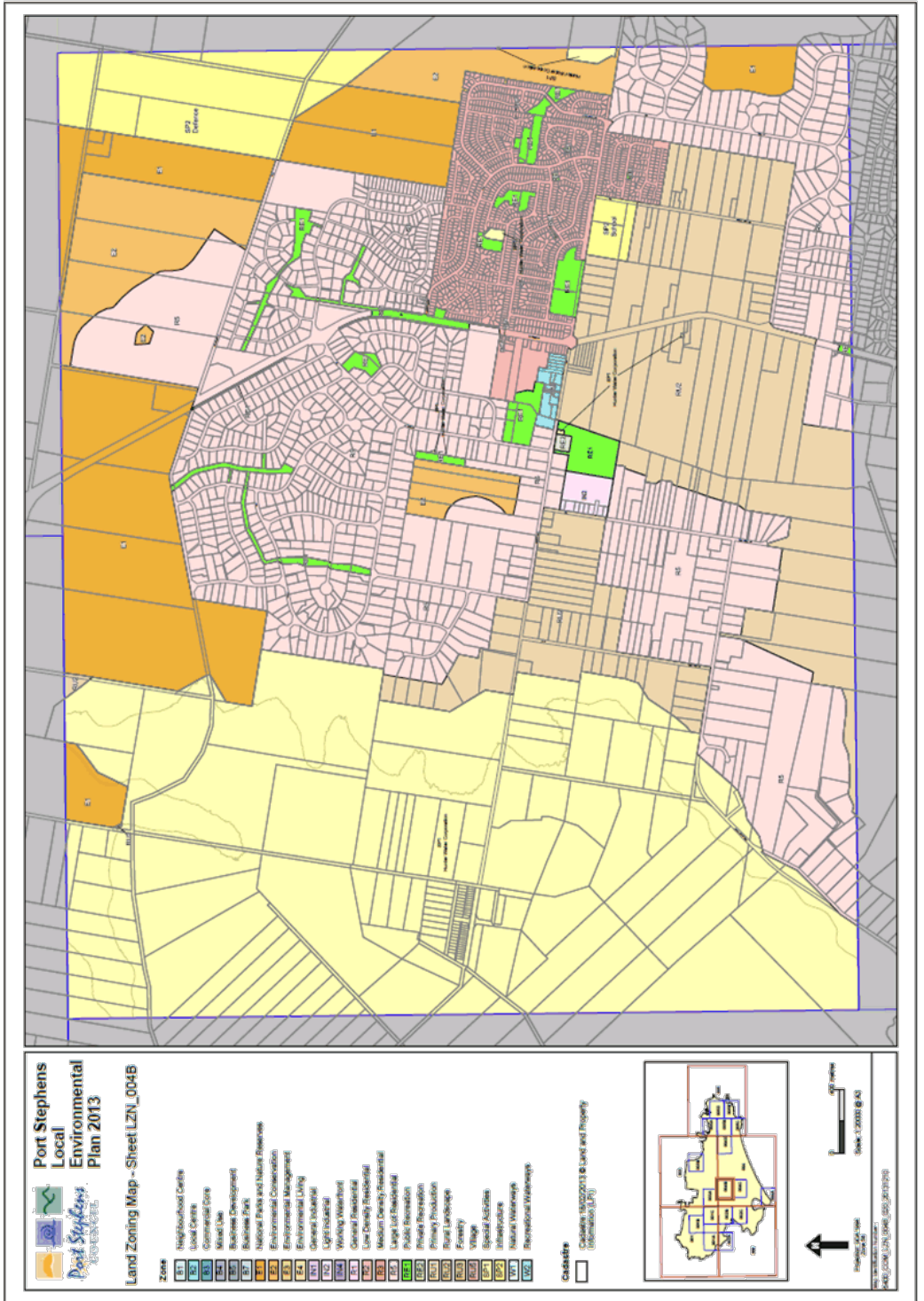
-  TOURIST & VISITOR ACCOMODATION
-  ANCILLARY COMMERCIAL AREA
-  EXISTING & PROPOSED FOOD & DRINK PREMISES/
FUNCTION CENTRE & BOUTIQUE WINERY



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Appendix B. PSC LEP 2013 Land Zoning Map



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Appendix C. CBC Medowie Bus Routes

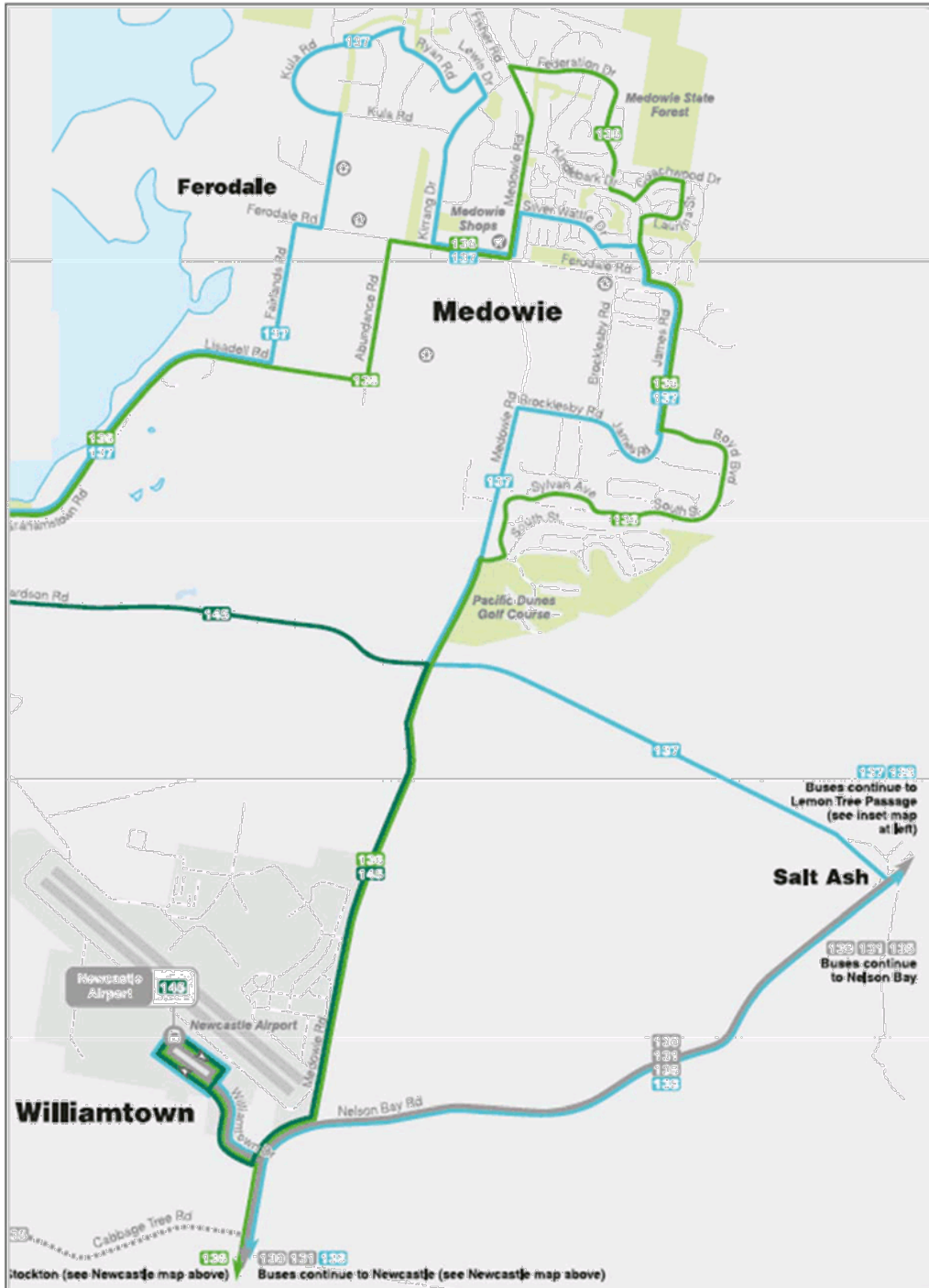


Figure C -1 Existing Bus Routes (Effective January 2015)

Source: Adapted from <http://www.cdabus.com.au/ignitionSuite/uploads/docs/Maitland%20&%20Raymond%20Terrace%20Region%20Map%20Effective%2027%20January%202015.pdf>

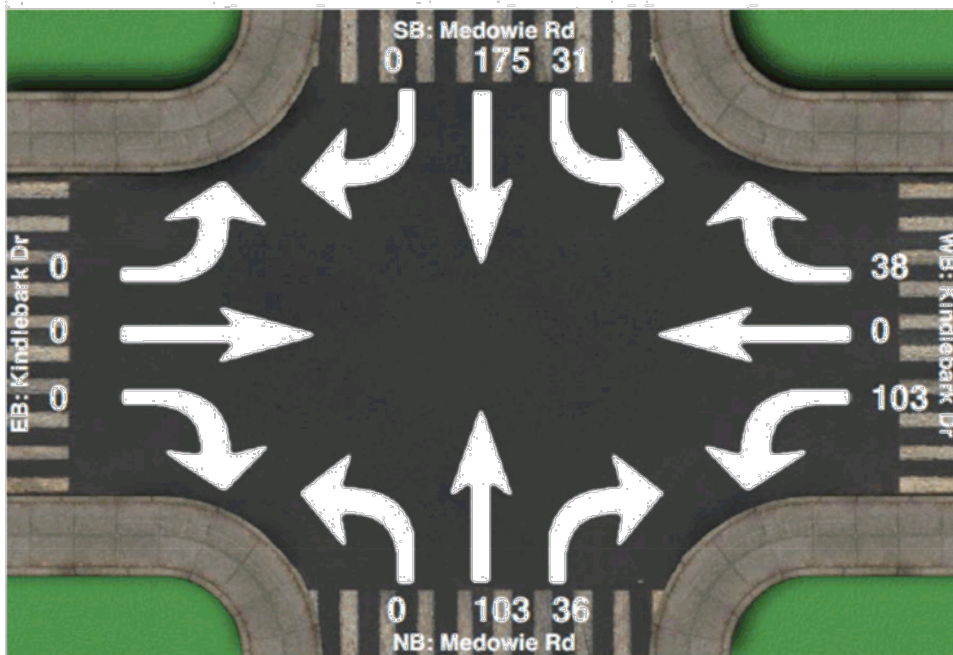
ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Appendix D. Traffic Survey Summary Results

Intersection Peak Hour

Location: Medowie Rd at Kindlebark Dr, Medowie
 GPS Coordinates: Lat=32.926057, Lon=151.699376
 Date: 2015-11-26
 Day of week: Thursday
 Weather:
 Analyst: JW



Intersection Peak Hour

08:05 - 09:05

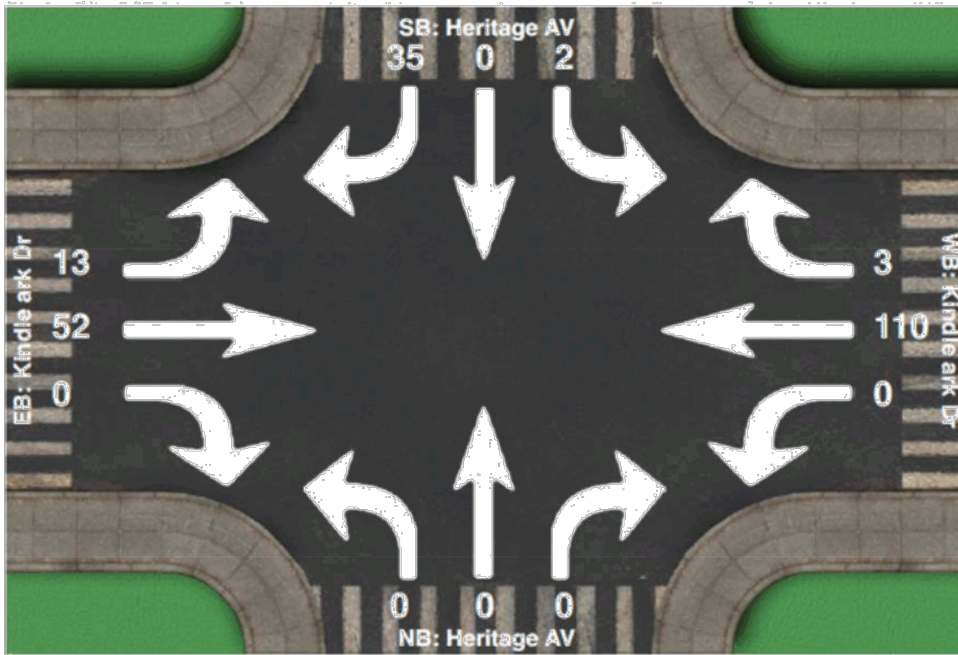
	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	31	175	0	103	0	38	0	103	36	0	0	0	486
Factor	0.43	0.63	0.00	0.78	0.00	0.53	0.00	0.61	0.50	0.00	0.00	0.00	0.74
Approach Factor	0.66			0.69			0.64			0.00			

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Intersection Peak Hour

Location: Heritage AV at Kindlerark Dr, Medowie
 GPS Coordinates:
 Date: 2015-11-26
 Day of week: Thursday
 Weather:
 Analyst: JMW



Intersection Peak Hour

08:05 - 09:05

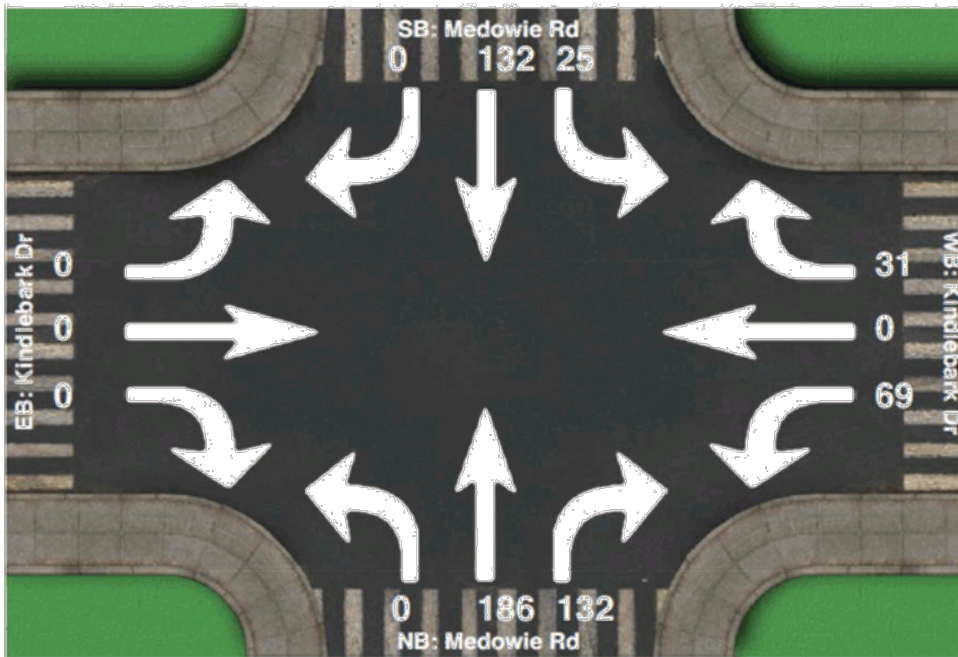
	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	2	0	35	0	110	3	0	0	0	13	52	0	215
Factor	0.08	0.00	0.36	0.00	0.61	0.25	0.00	0.00	0.00	0.36	0.48	0.00	0.69
Approach Factor	0.39			0.63			0.00			0.54			

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Intersection Peak Hour

Location: Medowie Rd at Kindlebark Dr, Medowie
 GPS Coordinates: Lat=32.926057, Lon=151.699376
 Date: 2015-11-26
 Day of week: Thursday
 Weather:
 Analyst: JW



Intersection Peak Hour

15:40 - 16:40

	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	25	132	0	69	0	31	0	186	132	0	0	0	575
Factor	0.35	0.69	0.00	0.64	0.00	0.52	0.00	0.82	0.69	0.00	0.00	0.00	0.84
Approach Factor	0.73			0.63			0.83			0.00			

Attachment 13: Public Authority Submissions

ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



NSW RURAL FIRE SERVICE



The General Manager
Port Stephens Council
PO Box 42
RAYMOND TERRACE NSW 2324

Your reference: PSC 2014-00920
Our reference: LEP/0102
16 May 2016

Attention: Jessica Franklin

Dear Sir/Madam,

Planning Instrument for Planning Proposal - Rezone and Allow Additional Permitted Uses At Kindlebark Drive and Heritage Avenue Medowie

Reference is made to Council's correspondence dated 14 April 2016 seeking comments in relation to the above planning proposal which seeks to allow for the future development of land for residential, commercial purposes and possibly Special Fire Protection Purposes.

The New South Wales Rural Fire Service has reviewed the proposal and raises no objections subject to a requirement that the future subdivision of the land complies with *Planning for Bush Fire Protection 2006*. This includes, but is not limited to:

- Provision of Asset Protection Zones (APZs) within the proposed lots in accordance with Table A2.4 and possibly Table A2.6;
- Access to be provided in accordance with the design specifications set out in section 4.1.3; and,
- Services to be provided in accordance with section 4.1.3.

If you have any queries regarding this advice, please contact Josh Calandra, Development Assessment and Planning Officer, on 1300 NSW RFS.

Yours sincerely,

Jason Maslen
Team Leader, Development Assessment and Planning
Planning and Environment Services (East)

Postal address
NSW Rural Fire Service
Records Management
Locked Bag 17
GRANVILLE NSW 2141

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ITEM 3 - ATTACHMENT 1 PLANNING PROPOSAL - KINDLEBARK DRIVE, MEDOWIE.



Hunter Water Corporation
ABN 46 228 513 446

PO Box 5171
HRMC NSW 2310
36 Honeysuckle Drive
NEWCASTLE NSW 2300
1300 657 657 (T)
(02) 4979 9468 (F)
enquiries@hunterwater.com.au
hunterwater.com.au

9 May 2016

Ref: 2016-423/2.004
HW2016-491.001

General Manager
Port Stephens Council
PO Box 42
Raymond Terrace NSW 2324

Attention: Jessica Franklin

Dear Jessica,

PLANNING PROPOSAL - REZONING AND ADDITIONAL USES AT KINDLEBARK DRIVE AND HERITAGE AVENUE, MEDOWIE - PSC2014-00920

Thank you for your letter of 14 April 2016 seeking Hunter Water's comments on the planning proposal involving rezoning of the lots listed below from R5 (Large Lot Residential) to R2 (Low Density Residential) to create approximately 15 residential allotments:

- Lot 10 DP 1154803, 142 Kindlebark Drive;
- Lot 3 DP 270731, 140 Kindlebark Drive;
- Lot 2 DP 270731, 140A Kindlebark Drive;
- Lot 6 DP 270731, 140B Kindlebark Drive;
- Lot 1 DP270731, 140C Kindlebark Drive;
- Lot 61 DP1106425, 1A Heritage Avenue;
- Lot 4 DP270731, 1/1 Heritage Avenue; and
- Lot 5 DP 270731, 2/1 Heritage Avenue.

The planning proposal also seeks additional permitted uses on Lot 10 DP 1154803, 142 Kindlebark Drive to support the existing boutique winery. The additional proposed uses include accommodation, function centre, small bar, shops and takeaway food outlets. Hunter Water understands that the non-residential uses within Lot 10 DP 1154803 will be small in scale so as not to detract from businesses in the town centre.

General information on water and sewer issues relevant to the proposal is included in this correspondence. This information is based on Hunter Water's knowledge of its system performance and other potential development in the area at the present time.

This advice is not a commitment by Hunter Water and may be subject to significant change prior to the development proceeding. General information on the provision of Hunter Water funded and delivered infrastructure may also be provided. This advice may also change substantially due to a range of factors. In particular, you should note that water and sewer systems are dynamic by nature and, as such, capacity availability and system performance varies over time.

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As a consequence, the advice provided herein regarding servicing availability is indicative only. A detailed analysis of available capacity will be undertaken upon lodgement of a Notice of Formal Requirements.

If the rezoning is approved and you proceed with a development application, you will need to lodge a further application with Hunter Water to then determine the formal requirements that shall apply. Hunter Water will then issue a **Notice of Formal Requirements**. You will need to comply with each of the requirements in this Notice for the issue of a Section 50 Compliance Certificate for the specific development.

The development is estimated to place an additional 15 Equivalent Tenements (ET) on the water supply and wastewater systems. As a result of this analysis, the following information is offered.

Water Supply

The development site has frontage to a 200mm UPVC water main in Medowie Road. There is currently sufficient capacity available in this main to serve the proposed development, however, you should note that capacity availability and system performance varies over time. A detailed analysis will be undertaken upon lodgement of an application for a **Notice of Formal Requirements**.

Wastewater Transportation

The nearest point of connection to the existing sewer system is to manhole J4387 as shown in **Figure 1**. The developer should confirm by field survey the ability of all land within the development site to drain to this point. There is currently sufficient capacity available in this main to serve the proposed development. However, as noted elsewhere in this correspondence, capacity availability and system performance varies over time. A detailed analysis will be undertaken upon lodgement of a **Notice of Formal Requirements**.

Water Resources

As noted in the proposal, the majority of the development site falls within Hunter Water's Grahamstown Dam Drinking Water Special Area as gazetted in the *Hunter Water Regulation 2015* (as shown in **Figure 2**). The site falls entirely within the Campvale Canal catchment, which drains to Grahamstown Dam. This dam supplies approximately 40% of drinking water to the Lower Hunter. The Special Area requires appropriate management to protect the drinking water source from adverse impacts from development and activities, and to prevent inappropriate development.

Hunter Water expects that all development in drinking water catchments will demonstrate Neutral or Beneficial Effect on Water Quality (NorBE). A development is considered to demonstrate NorBE if the development:

- (a) has no identifiable potential impact on water quality, or
- (b) will contain any water quality impact on the development site and prevent it from reaching any watercourse, waterbody or drainage depression on the site, or
- (c) will transfer any water quality impact outside the site where it is treated and disposed of to standards approved by the consent authority.

Further details are provided in Hunter Water's "*Protecting our Drinking Water Catchments: Guidelines for developments in the drinking water catchments*", a copy of which is available on Hunter Water's web site at [Guidelines for Development in the Drinking Water Catchments](#).

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The proposal indicates that stormwater and drainage issues associated with development of the site will be investigated at the Development Application (DA) stage. Assuming that stormwater from the site will not be discharged to a location outside of the Campvale Canal catchment, Hunter Water expects the DA to clearly demonstrate how the stormwater and drainage systems will meet NorBE. The proponent will need to demonstrate that pollutant loads expected after the site is developed will not be greater than the current pollutant loads from the site.

Given the scale of the proposed development, it is preferable for stormwater to be managed through a site-wide stormwater management plan rather than for individual developments to manage stormwater independently.

Financial Contribution

A reimbursement contribution may be required towards the cost of any water and sewer infrastructure that is constructed by a third party developer and utilised to serve this development. Reimbursements cannot be determined until the connection points are defined. You will be advised of any reimbursements after the design plans are assessed and the connection points are approved.

Environmental Assessment

Please note that a Review of Environmental Factors will be required for any works external to a particular development site, or where the service design includes infrastructure or activities that may have environmental impacts that would not have been specifically addressed in the consent authorities assessment and determination of the proposed development. Examples may be the construction of new or augmented water and sewer pump stations, sewer vents, trunk mains, reservoirs, development in a Wastewater Treatment Plant buffer zone, or development in a water reserve. Furthermore, a Controlled Activity Approval will be required from the NSW Office of Water for any excavation within 40m of a water body or should groundwater be present.

Prior to commencement of environmental assessment please contact the Hunter Water Developer Services Group to confirm the scope and need for such an assessment. It is recommended to meet and agree these matters prior to the developer engaging the services of a design or environmental consultant. In addition, please refer to the Hunter Water Review of Environmental Factors Guidance Notes, located in the Building & Development section of the Hunter Water website. The document provides the minimum requirements and an example template for the preparation of a REF.

If you require further advice or clarification regarding the submission, or questions regarding the application of NorBE, please don't hesitate to contact me on (02) 4979 9545.

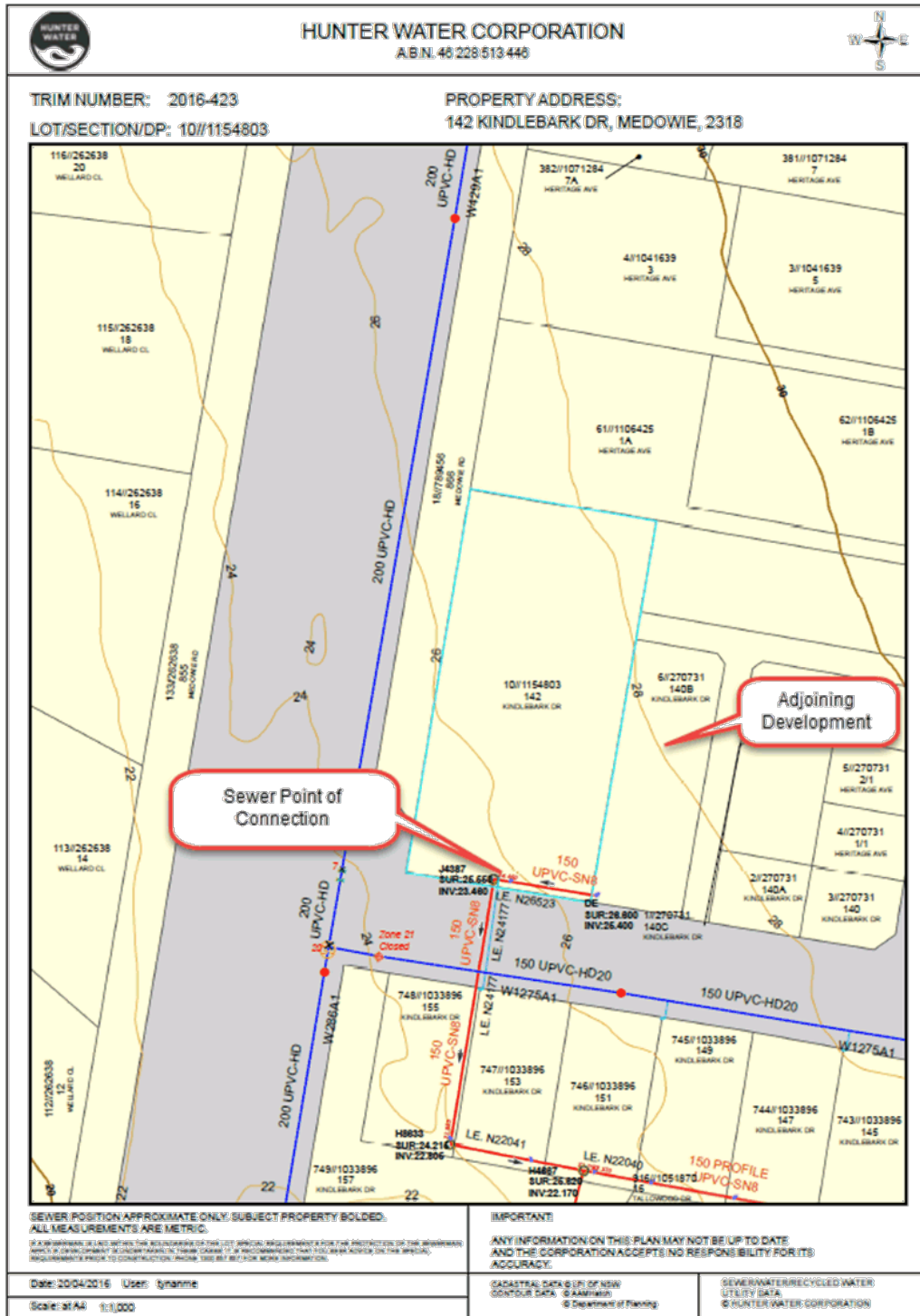
Hunter Water has no objections to the rezoning proposal, but the developer will have to continue to liaise with Hunter Water to ensure that the site is effectively serviced.

Yours faithfully

Malcolm Withers
Senior Development Services Engineer

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Figure 1 – Sewer Point of Connection and Adjoining Development



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Figure 2 - Grahamstown Dam Catchment and Special Area Boundaries



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MEDOWIE.



Mr Wayne Wallis
General Manager
Port Stephens Council
PO Box 42
Raymond Terrace NSW 2324

Our ref: 15/ 11885
Your ref: PSC2014-00920

Attention: Ms Jessica Franklin

Dear Mr Wallis

Planning Proposal PP_2015_PORTS_006_00 – s.117 Direction consistency

I refer to your Council's correspondence regarding the Planning Proposal for Pioneer Ridge Boutique Winery in Medowie (PP_2015_PORTS_006_00) and consistency with s.117 Direction 6.3 Site Specific Provisions.

I have determined as delegate of the Secretary that the Planning Proposal's inconsistency with s.117 Direction 6.3 Site Specific Provisions is of minor significance.

Should you have any questions regarding this matter, please contact Mr Ben Holmes of the Department's Hunter office on 4904 2709.

Yours sincerely

22/8/2016
Monica Gibson
Director Regions, Hunter and Central Coast
Planning Services