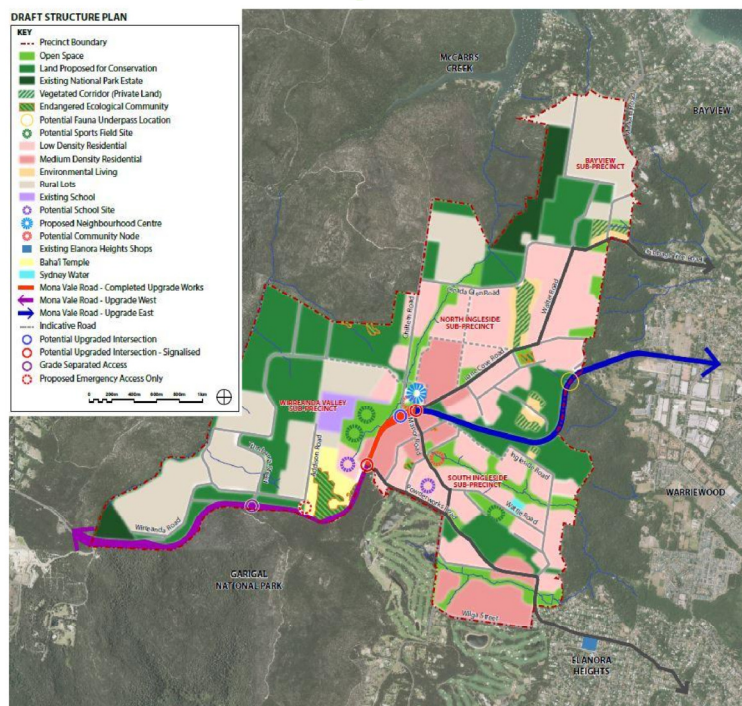


## Scope

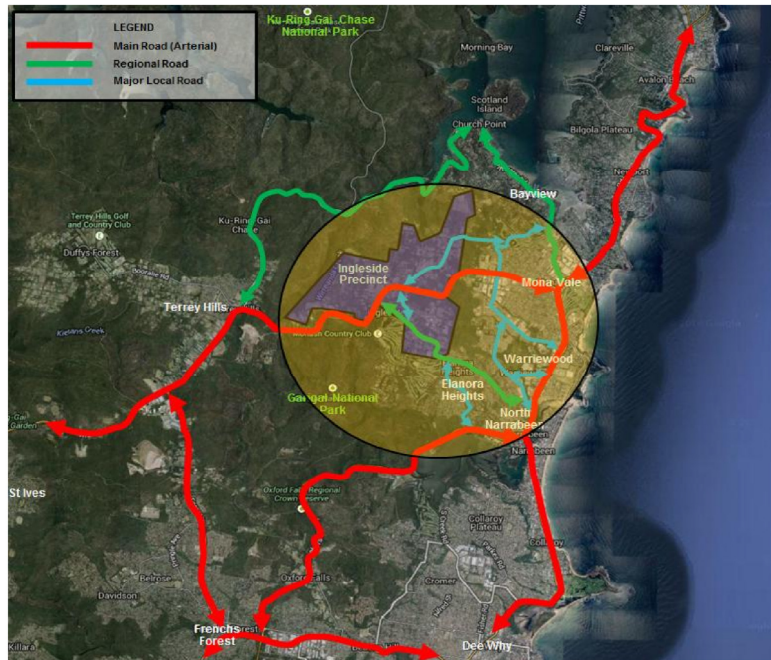
This presentation to the ICRG provides a summary of the completed *Draft Ingleside Transport and Traffic Assessment* for the proposed rezoning of the Ingleside Precinct. Key tasks associated with this work include:

- An assessment of the performance of the road network under future year traffic conditions with the proposed Ingleside development (for the year 2036)
- A summary of the impacts of the proposed Ingleside development and associated transport infrastructure requirements
  - Road network
  - Bus Network
  - Active Travel Network

## Draft Structure Plan For Ingleside



## Study Area



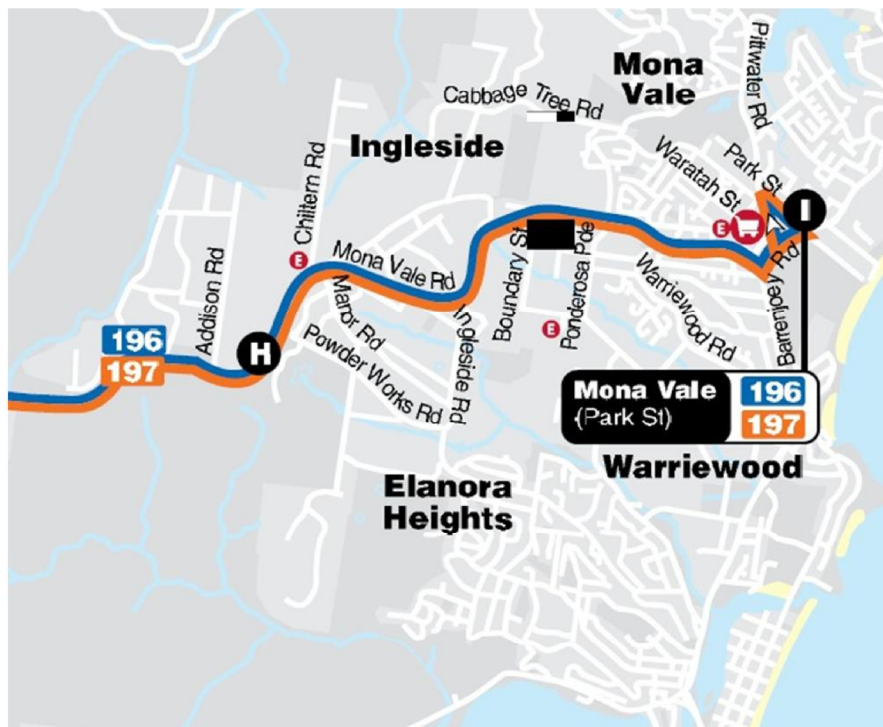
Ingleside Transport Study

Page 5

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Existing Bus Routes (Forest Coach Lines)



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Page 6

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Existing Bus Routes (Sydney Buses)



Ingleside Transport Study

Page 7

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Improvements to Bus Services

- **Mona Vale Road**
  - Additional services including:
    - Approximately one bus service every 5 during peak hours in 2021
    - Further service enhancements by 2036
  - Improved stopping facilities
  - Enhanced access to the Sydney CBD, Macquarie Park, Gordon, St Ives and Mona Vale
- **Ingleside precinct**
  - New / upgraded bus stops on local roads
  - Provision of bus capable collector roads throughout North and South Ingleside
  - Buses entering Wirreanda Valley directly via new slip roads (as part of the Mona Vale Road upgrade)
  - Enhanced local services through Ingleside, including the potential to re-route existing services through Ingleside via either:
    - Route 182 extension / re-routing through Ingleside
    - Route 185 extension / re-routing through Ingleside

Transport and Traffic Assessment

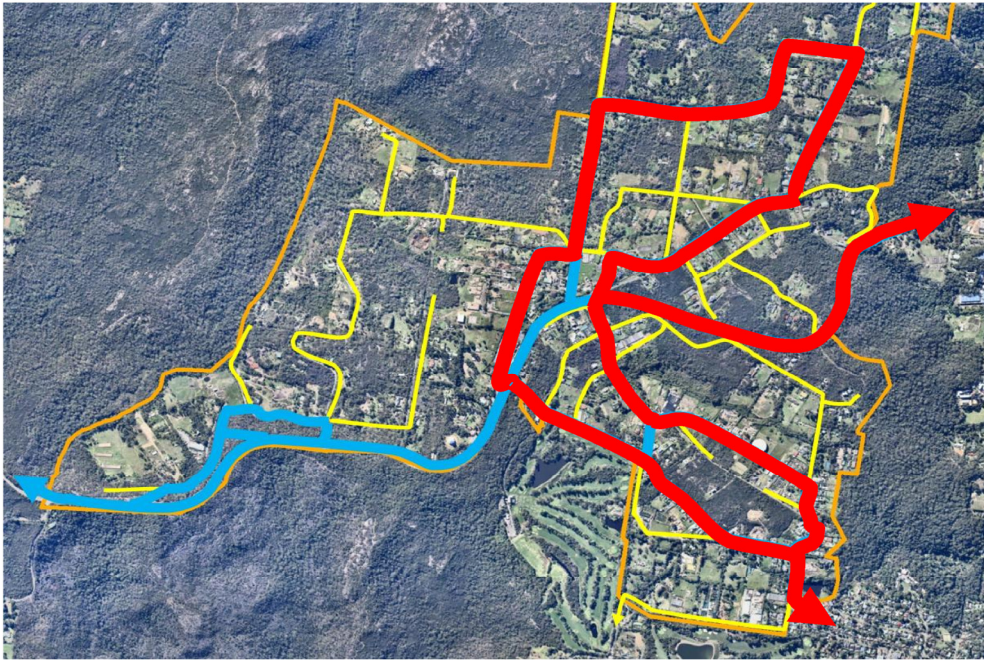
Page 8

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Version: 1, Version Date: 07/07/2015



## Proposed Bus Capable Routes



Ingleside Transport Study

Page 9

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Improvements to Active Travel

- Monavale Road
  - Utility path connecting Terrey Hills to Monavale
  - Wide shoulder on Monavale Road
- Ingleside precinct
  - Improved access within / across the precinct for both commuter and leisure cyclists through:
    - Off-road shared paths (green corridors)\*
    - Off-road shared paths (collector roads)
  - Improved crossing of major roads through traffic calming\*\*

\* Development will be subject to local topographic and / or ecological constraints

\*\* Subject to detailed design

Transport and Traffic Assessment

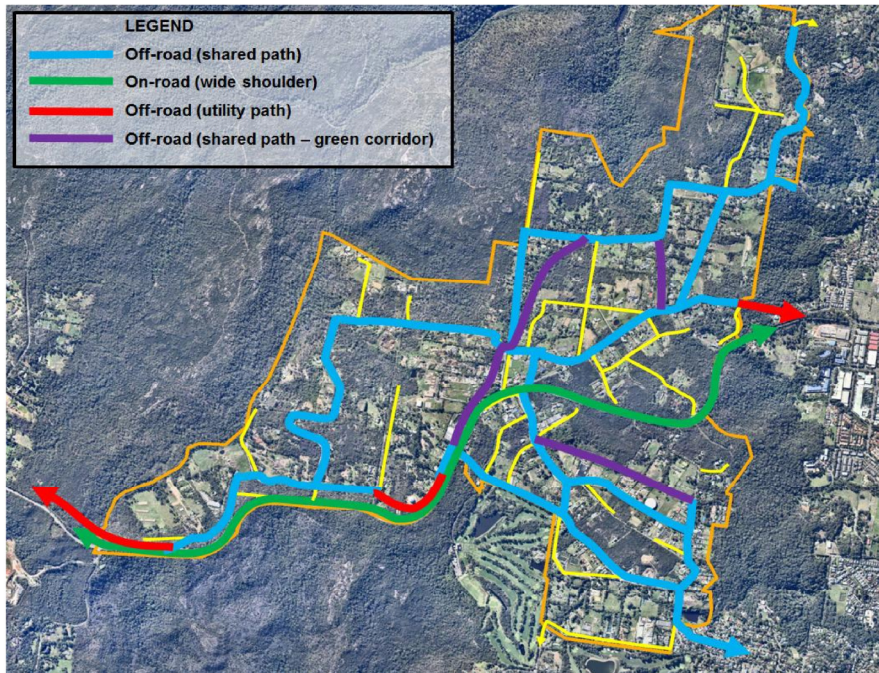
Page 10

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015



## Proposed Active Travel Network



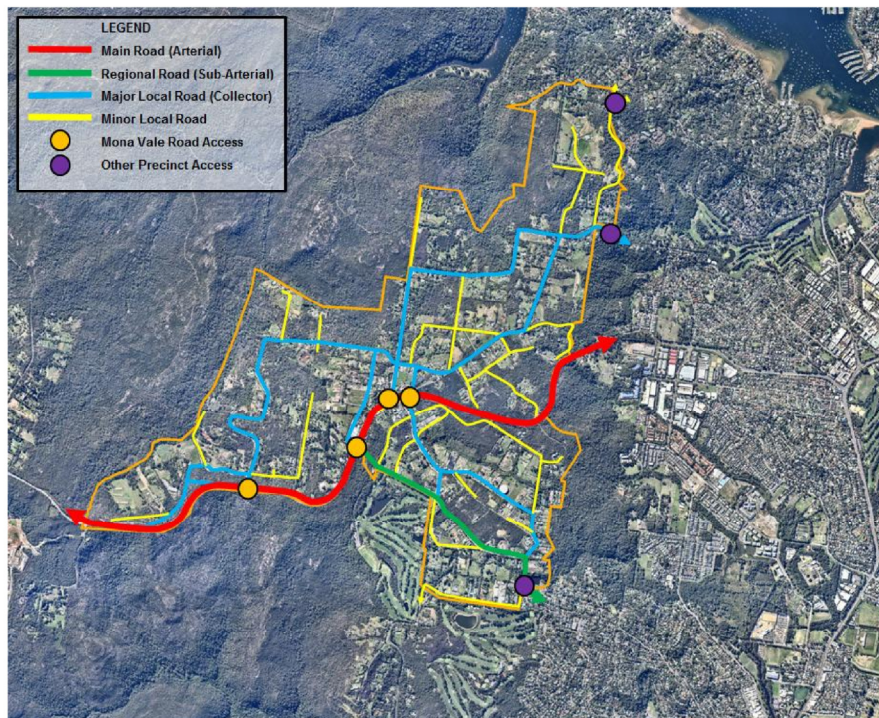
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Page 11

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Road Network and Precinct Access



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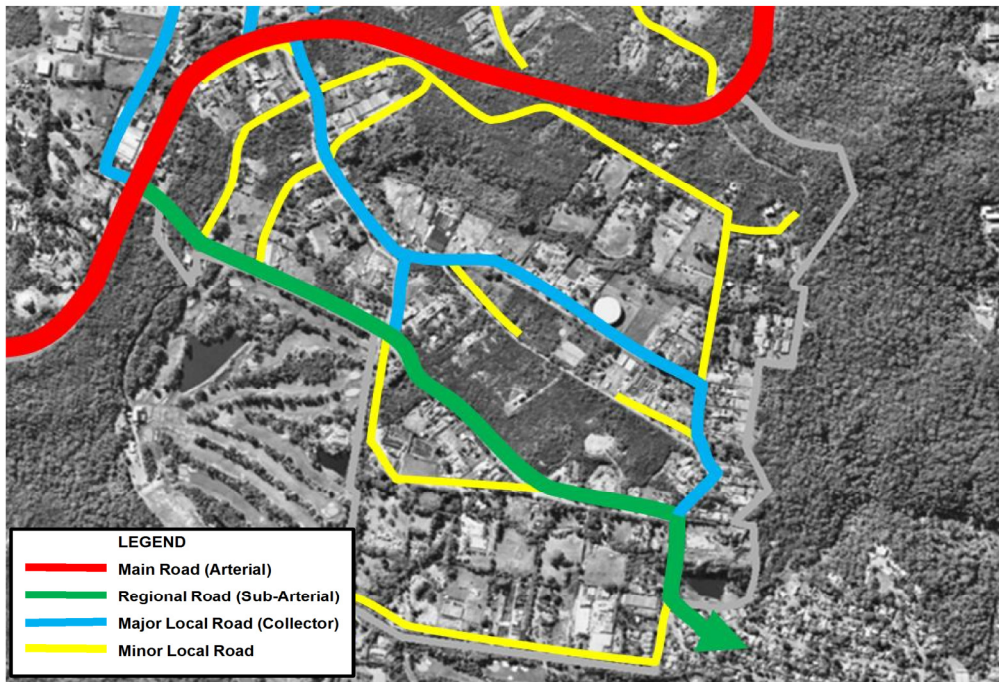
Page 12

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015



## Proposed Road Hierarchy – South Ingleside



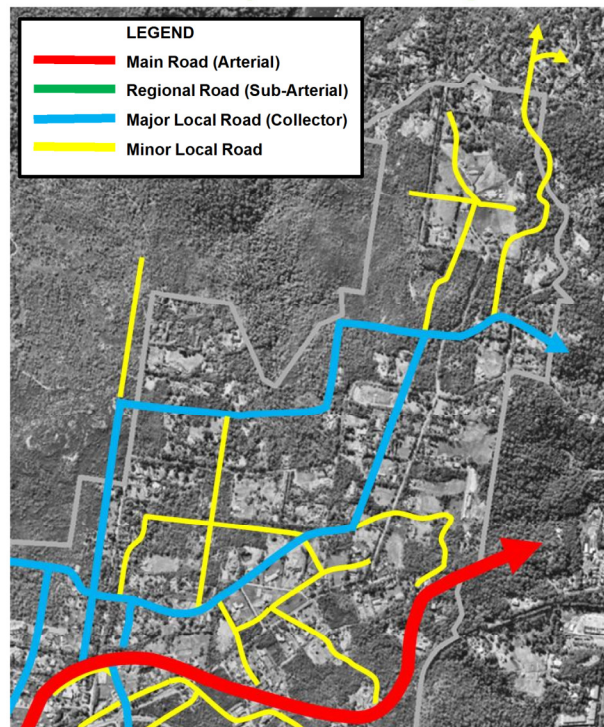
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Page 13

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Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Proposed Road Hierarchy – North Ingleside



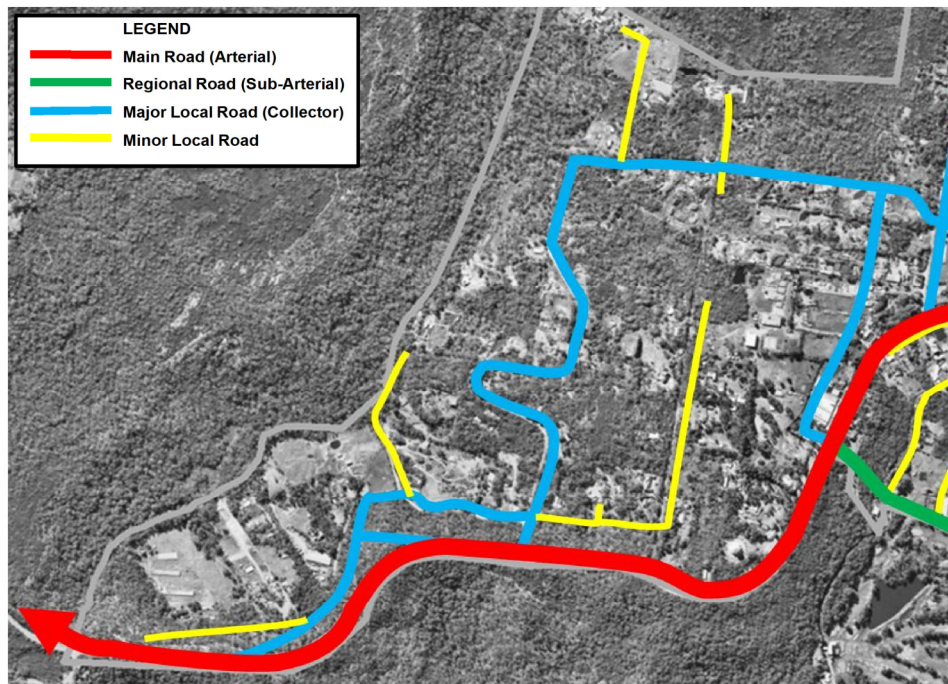
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Page 14

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Proposed Road Hierarchy – Wirreanda Valley



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Page 15

AECOM

Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Traffic Modelling Assumptions

- Modelling based on the CUBE strategic traffic model developed as part of the Mona Vale Road Upgrade REF study undertaken for RMS
- Peak hours modelled
  - AM peak hour – 8:00am to 9:00am
  - PM peak hour – 4:30pm to 5:30pm

**Base year 2021** – in line with the estimated completion of the Full Mona Vale Road Upgrade (includes some development and background traffic growth);

**Future year 2036 (no Ingleside development)** – no development of Ingleside beyond 2021 (includes background traffic growth and traffic calming measures applied to Powderworks Road);

**Future year 2036 (with Ingleside development)** – full development of Ingleside (includes background traffic growth and traffic calming measures applied to Powderworks Road).

Ingleside Transport Study

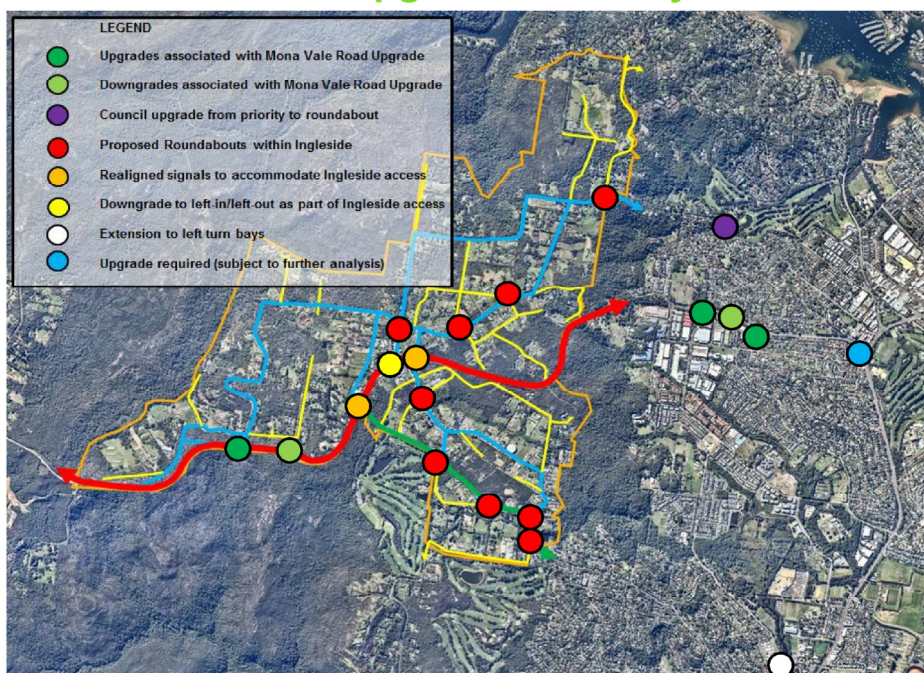
Page 16

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Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015



## Ingleside Intersection Upgrade Summary



Ingleside Transport Study

Page 17

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Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Intersection Performance Summary

	Base	No Ingleside Development	With Ingleside Development
Mona Vale Rd/ Powderworks Rd	LoS B	LoS B	LoS B
Mona Vale Rd/ Lane Cove Rd/ Manor Rd	LoS A	LoS B	LoS B
Mona Vale Rd/ Samuel St/ Ponderosa Pde	LoS C	LoS C	LoS C
Mona Vale Rd/ Pittwater Rd	LoS C	LoS D	LoS F
Powderworks Rd/ Wattle Rd	LoS A	LoS A	LoS A
Powderworks Rd/ Ingleside Rd	LoS A	LoS A	LoS A
Powderworks Rd/ Garden St	LoS B	LoS B	LoS C*
Garden St/ Pittwater Rd	LoS B	LoS B	LoS B
Cabbage Tree Rd/ Walter Rd	LoS A	LoS A	LoS A
Cabbage Tree Rd/ Samuel St	LoS A	LoS A	LoS A

### Notes:

1. LoS is based on worst performing peak hour
2. LoS is based on mitigation where indicated (\*)

Ingleside Transport Study

Page 18

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Document Set ID: 5165769  
Version: 1, Version Date: 07/07/2015

## Summary of Transport Infrastructure Provision

- **Private Car**
  - Intersection improvements at Powderworks Road / Garden Street
  - Intersection improvements at Mona Vale Road / Pittwater Road
  - Provision of roundabouts within the Ingleside precinct
  - Adjustment to precinct accesses from Mona Vale Road
- **Public Transport**
  - Enhanced bus services along Mona Vale Road
  - Enhance local services through Ingleside
  - Improved stopping facilities along Mona Vale Road
  - New / upgraded bus stops on other local roads
- **Active Travel**
  - Utility path along Mona Vale Road
  - Off-road shared paths (green corridors)
  - Off-road shared paths (collector roads)
  - Improve crossing of major roads through traffic calming



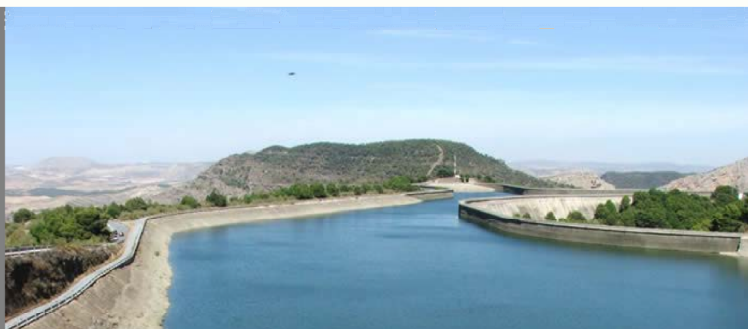
Thank You



### Ingleside Infrastructure Delivery Plan

Presentation to Ingleside Community  
Reference Group

July 2015



Document Set ID: 5165772  
Version: 1, Version Date: 07/07/2015



## Infrastructure Delivery Plan Objectives

1. Identify existing utility infrastructure
2. Engage with utility providers to understand network capacity
3. Develop high order servicing strategies
4. Demonstrate capacity to service potential development

**Note:** The IDP is reliant upon traditional suppliers of infrastructure. However, developers and land owners have the capacity to seek alternative servicing arrangements as part of the Development Application process.

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Version: 1, Version Date: 07/07/2015







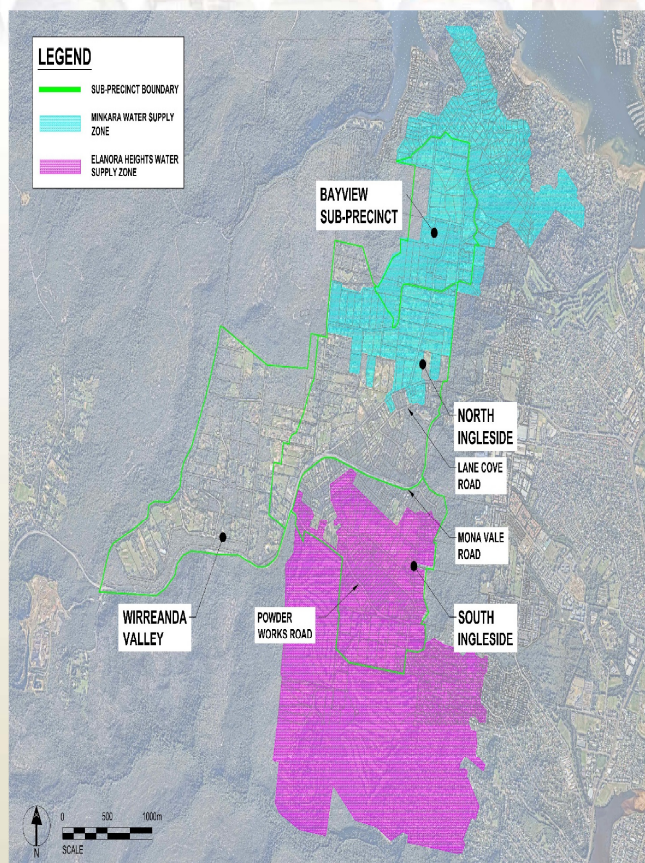
## Existing Infrastructure Mapping

- Potable water
- Wastewater
- Electricity
- Gas

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Version: 1, Version Date: 07/07/2015



### Existing Potable Water Supply Zones



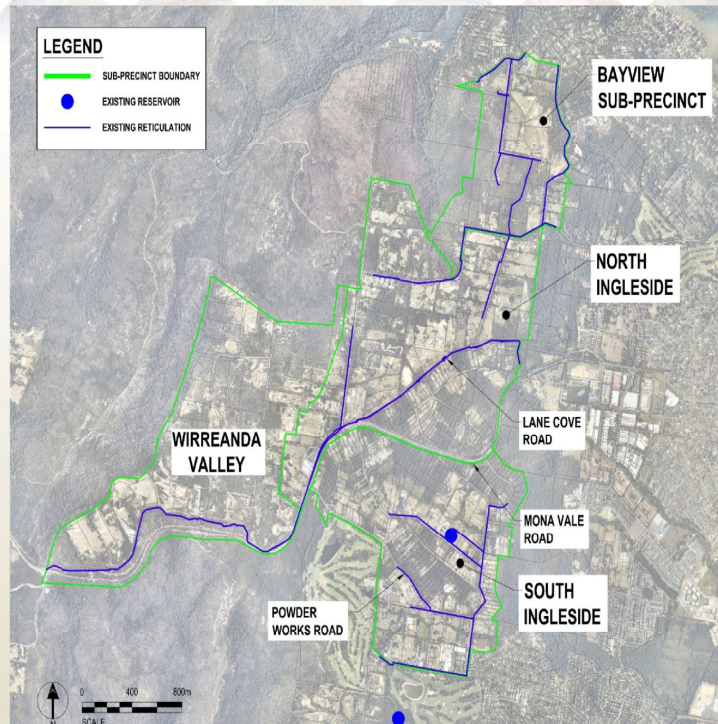
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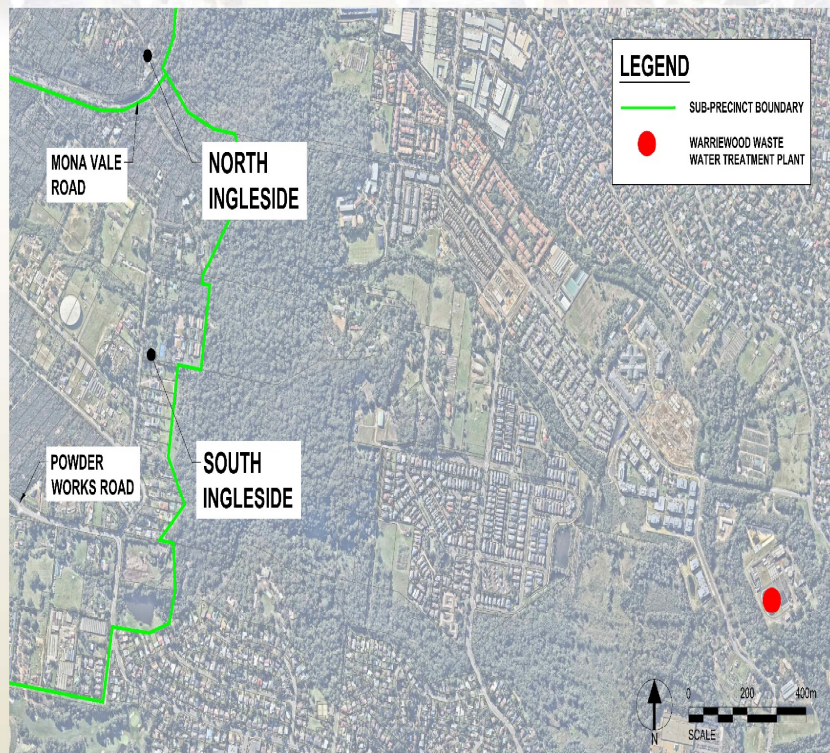
## Existing Potable Water Infrastructure Mapping



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Version: 1, Version Date: 07/07/2015



## Existing Wastewater Infrastructure Mapping



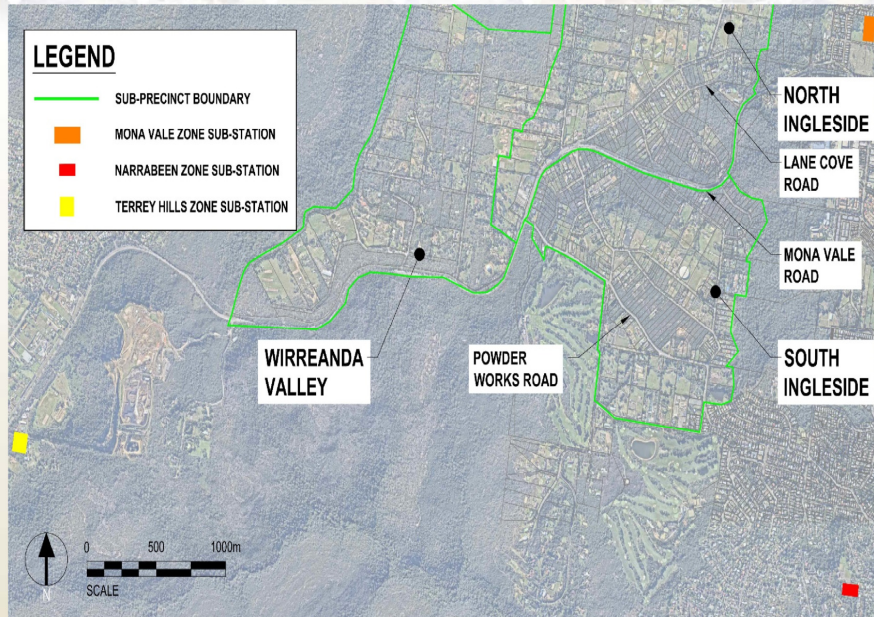
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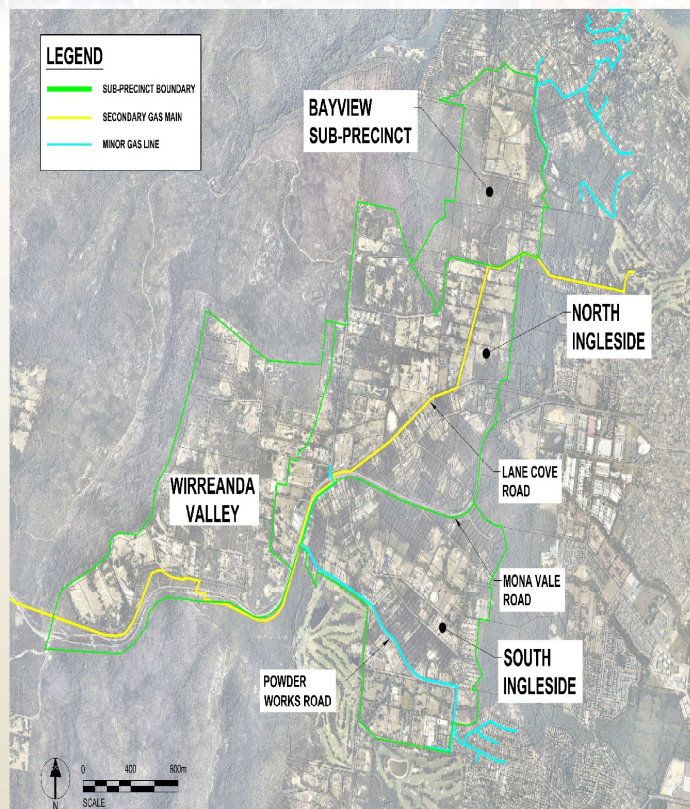
## Existing Electricity Infrastructure Mapping



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Version: 1, Version Date: 07/07/2015



## Existing Gas Infrastructure Mapping



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Version: 1, Version Date: 07/07/2015







## Network Capacity

- Potable Water
- Wastewater
- Electricity
- Gas
- Telecommunications

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Version: 1, Version Date: 07/07/2015



## Lead-in Infrastructure Requirements

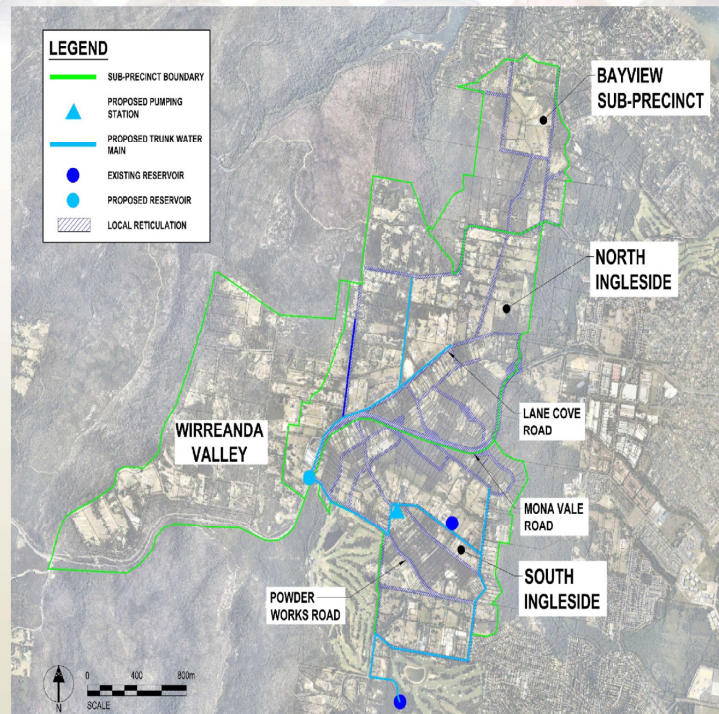
- Potable Water
- Wastewater
- Electricity

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Version: 1, Version Date: 07/07/2015





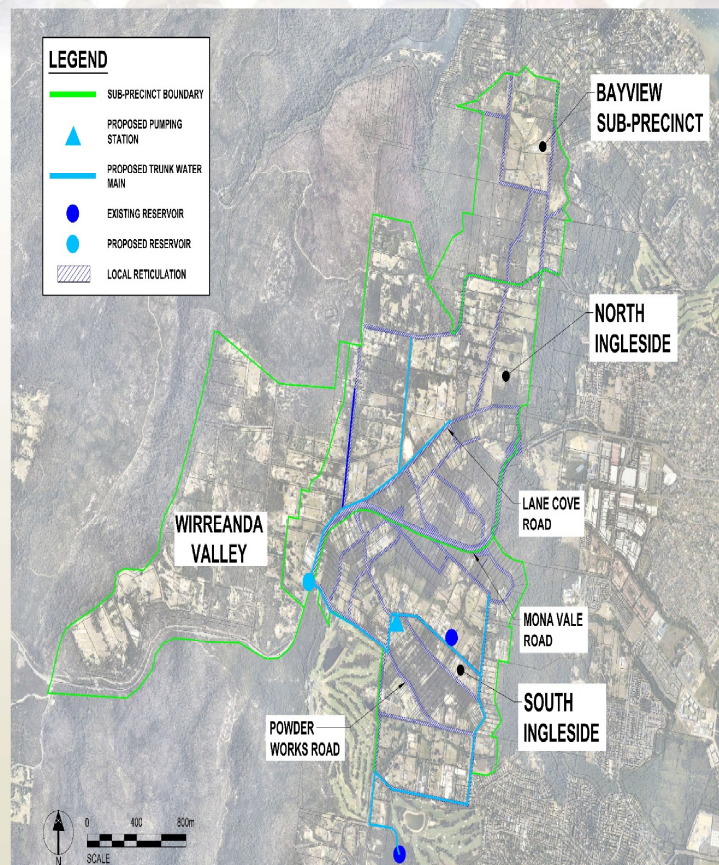
## Preliminary Potable Water Servicing Strategy



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## Preliminary Potable Water Servicing Strategy



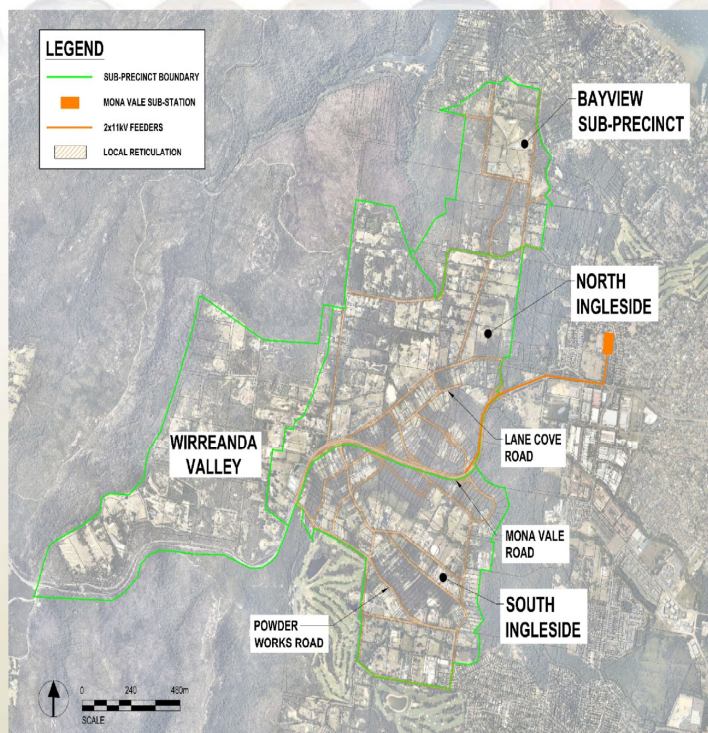
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## Preliminary Electrical Servicing Strategy



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Version: 1, Version Date: 07/07/2015



## Lead-in Infrastructure Costs

Service	Sub-Precinct	Opinion of Probable Costs (Excluding GST)
Potable Water	North Ingleside	\$16,300,000
	South Ingleside	\$3,200,000
	Total	\$19,500,000
Wastewater	North Ingleside	\$12,400,000
	South Ingleside	\$10,100,000
	Total	\$22,500,000
Electricity	North Ingleside	\$14,400,000
	South Ingleside	\$15,700,000
	Total	\$30,100,000

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Version: 1, Version Date: 07/07/2015

