SUBMISSION TO NSW DEPARTMENT OF PLANNING & ENVIRONMENT ON INGLESIDE DRAFT STRATEGY AND DRAFT TECHNICAL STUDIES

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SUSTAINABLE URBAN DESIGN AND PLANNING

Comments on the Draft Structure Plan

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SUSTAINABLE URBAN DESIGN & PLANNING

EXECUTIVE SUMMARY

Introduction

While a lot of work has gone into developing the draft Structure Plan, we do not believe that the Plan is informed by rudimentary ecological land planning principles and consequently fails on many levels.

From an ecological perspective, there are clear principles that apply to any urban design or planning project, arising from the following questions:

- What is the carrying capacity of the land? How many people can it sustainably support?
- Will the development result in a loss of trees?
- Will the development cause damage and pollution to waterways?
- Will the development add to car dependence?
- Will the development contribute to greenhouse gas emissions?

These questions do not appear to have been asked in the formulation of the draft Structure Plan and we suggest that had they been asked the following principles may have emerged:

That there be:

1 no additional water demand
2 no additional electricity demand
3 no additional stormwater issues
4 no loss of existing native vegetation
5 no additional air pollution
6 no additional traffic generation
7 minor amount of treated sewerage to Warriewood Sewerage Treatment Plant

Social, economic and environmental factors will play a part in the project's ability to adhere to these principles and achieve the sustainable outcomes set out in the project documents.

Discussion

One of the troubling consequences arising from not addressing these questions is that the masterplanning is not informed by a guiding set of ecological principles.

Development, Biodiversity and Land Use Outcomes were established before any significant research into the ability of the land to support the proposed development had been established, resulting in an arbitrary division of land into the following area categories:

40% for development
30% for conservation and
30% to remain the same.

A yield in dwelling numbers is derived from the standard-practice rate of 12 to 13 dw/ha.

There is no analysis of the ability of the land to manage this scale of development. The draft infrastructure reports claim the ability to provide services to the development on a Business-as-Usual basis, with no alternatives proposed and this will continue the environmentally costly extension of utilities.

We submit that, apart from the fundamental flaw referred to above, there are a number of other major problems with the urban design and planning of the precinct:

1 Mona Vale Rd/Lane Cove Rd/ Manor Rd intersection

Mona Vale Rd is proposed to be widened to four lanes for the full length of the road between the Samuel St. roundabout and Lane Cove Rd, and the Bahai Temple and Kimbriki Tip turnoff.

This upgrade will increase traffic numbers until they catch up with current congestion levels and it places a major highway through the centre of a new suburb.

The solution presented is for one point of exit to and from Mona Vale Rd for north and south Ingleside which is already overloaded.

The result of this will be that pedestrians wanting to gain access from south to north Ingleside and vice versa will have to do this via a pedestrian crossing, use of which will regularly stop traffic in both directions. This will cause added pollution, frustrated drivers and danger to pedestrians. This is surely not sustainable.

We note the number of children who will use this intersection to get from north to south etc.

Recommendation

We recommend the construction of an overpass or underpass for pedestrians at this intersection to alleviate this unsustainable activity. It may be considered that a grade separated vehicle crossing would be an advantage as well.

A sketch design of such a crossing is found at the Appendix on p11.

2 Location of Neighbourhood Centre

The location of the Neighbourhood Centre is positioned directly in the path of the vehicular access point to North Ingleside, the extension of Manor Rd.

We view this as a difficult and unsafe arrangement with fast moving traffic being directed through a small shopping precinct, to be then faced with a right hand turn to exit the precinct. Through traffic, which will likely be the majority of north-south traffic through this intersection causing congestion and pollution, will make the Neighbourhood Centre an unpleasant place to be

Recommendation

We recommend that the Neighbourhood Centre be moved further away from Mona Vale Rd and away from the through traffic route of Lane Cove Rd as proposed in the Draft Structure Plan.

3 Medium Density Housing bordering Mona Vale Rd

We view this as extremely unfortunate and if pursued will result in unsightly and costly acoustic barriers for the full length of the townhouse footprint, which is more than half the Mona Vale Rd frontage, and health issues for residents. These barriers would be likely to be 3.6m high and would cast deep shadows on the residential properties which are trying to maximise their solar exposure opportunities.

Recommendation

We recommend larger setbacks with landscaped mounds providing the acoustic separation whilst enabling wildlife easy access. Wildlife protection elements will be required in this proposal.

4 Internal road network

In north Ingleside in particular, the internal road network appears to be derived from the existing rectilinear network of roads, at the expense of the existing contours.

The existing east-west road network does afford the ability to maximise building orientation for passive solar design, however as designed it does not acknowledge the existing contours by basically placing a grid over the area with very little ecological rationale.

Recommendation

We recommend that the internal road network more closely follow the topography which will require fewer retaining walls and culverts.

5 Wildlife connectivity corridors and buffer zones

The Biodiversity report has 20 solid recommendations for improving the biodiversity outcomes from the development, which would require relocation of some areas designated for residential use to enable connectivity between existing stands of native vegetation.

We point out that while at least two of the upland swamps are protected, there are insufficient buffer zones around these elements to ensure their long term health which would be impacted by the residential development close by. The existence of a third upland swamp needs confirmation

Recommendation

We recommend that increased wildlife corridors and buffer zones be provided to enable the unhindered movement of wildlife and offer protection to rare landscapes.

6 Demonstration Sustainable Dwelling

We have supported the design and construction of a demonstration sustainable dwelling where prospective home buyers would find relevant information about sustainable design, building and living.

The proposal was made by Sustainable Ingleside in 2015 to the then General Manager of Pittwater Council who was very supportive of the proposal and offered to find land within the Ingleside precinct for the project.

The CRC for Low Carbon Living has also taken the project on board and offered to assist in the development of this educational facility.

Recommendation

We recommend that a demonstration sustainable dwelling be developed in the precinct to assist in the dissemination of knowledge and ideas about sustainable building and living.

7 Increased density to minimise development footprint

To minimise the loss of existing native vegetation we recommend that the density of development be increased in certain areas where appropriate to enable the building of 3-5 storey apartments.

Recommendation

We recommend that increased densities be permitted to minimise loss of vegetation.

RECOMMENDATIONS

We summarise the above recommendations for the following actions be taken to strengthen the ecological foundations of the development:

1 Grade separate the Mona Vale Rd/Manor Rd/Lane Cove Rd intersection with pedestrian access not hindered by crossing a main road
2 Relocate the Neighbourhood Centre so it is not directly on the through traffic route from Mona Vale Rd
3 Provide a reasonable separation between Mona Vale Rd and medium density housing using landscaped mounds which allow wildlife movement
4 Run the internal road network wherever possible respecting the existing contours
5 Provide more generous wildlife corridors and wider buffers to endangered ecological zones
6 Design and development of a demonstration sustainable building as an educational facility for prospective home buyers
7 Increasing density to reduce development footprint

BACKGROUND

Masterplan

We submit that the community engagement process from which was derived the Indicative Plan (the masterplan) was flawed because it was not founded on an ecological basis from the outset.

We believe that plans showing the existing native vegetation should have been provided as an underlay to the mud-map exercise which generated the options that were later adopted as the Indicative Plan, which later evolved into the Structure Plan.

Without this initial guidance, the community was duped into believing that they had open slather to lay out the precinct with no regard for sensitive existing features and elements.

We submit that the masterplan requires major revisions to explore other alternatives to the layout that has been presented, which has the flaws detailed in this submission.

There are a number of positive urban design elements in the plan which work towards the precinct's liveability, such as:

- Connections to public transport, streets and open space
- Acknowledgment of the heritage characteristics of the precinct
- Neighbourhoods are clustered to support activity centres
- A mix of complementary uses is supported
- A mix of housing types is supported
- Connection to public transport is encourage
- Walking and cycling is encouraged

- Activity centres are appropriately sized
- Extensive parklands are proposed for recreation and conservation
- Opportunities are provided for businesses to be established and to thrive

OPPORTUNITES

We are of the view that the following opportunities exist to enhance the sustainability outcomes for the urban design and planning at Ingleside by applying the above recommendations:

- Improvement in the movement of people walking and cycling in and around the precinct
- Improvement in the amenity of the Neighbourhood Centre
- Improvement in the health and wellbeing of residents
- Improvement in the internal road network
- Improvement in the movement of wildlife and protection for EECs
- Improvement in the Mona Vale Rd/Lane Cove Rd intersection

SUMMARY

It is our view that along with the Urban Design and Planning issues raised above, achieving the highest standards of sustainability, functionality and innovation will include the following:

- Zero carbon development
- Recognition of the precinct area's bioregion characteristics
- Creation of a biophilic environment to encourage human/nature connection
- Road layout sympathetic to the topography and solar orientation
- Reduction in car dependency and encouraging walking and cycling
- Provide adequate Public Transport options
- Pedestrian friendly streets
- Installation of renewable energy generation with distributed energy, micro grids, battery storage, local ownership
- Electric vehicle charging stations
- Landscaping and surfaces to minimise the heat-island effect
- Community gardens for food and social interaction
- Incorporation of an experimental housing zone, with incentives such as no controls on lot size, set-backs or FSR, to be developed by design/build teams
- Inclusion of an 'enterprise zone' with space for activities usually relegated to industrial zones, such as gyms, health practitioners, therapists, yoga studios

References

Structure Plan	Cox Architecture
Design with Nature	Ian L McHarg
Biophilic Cities Are Sustainable, Resilient Cities	Timothy Beatley and Peter Newman
Googong Township	Mirvac/CIC
Living Building Communities	Living Building Institute
White Gum Valley Development in Perth	One Planet Living
The WELL Building Standard	International WELL Building Institute
Ingleside Precinct Water Cycle Management and Flooding Assessment	Cardno
On Site Effluent Assessment for Subdivision	SMEC
Autonomous Servicing (Environment Design Guide)	Brenda and Robert Vale

APPENDIX

Ingleside Mona Vale Road Bypass Proposal

Prepared by Conrad Grayson of Sync Studio Landscape Architects

Ingleside (Old Mona Vale Road) Bypass Proposal

CURRENT RMS MONA VALE ROAD PROJECTS
A. Mona Vale Rd (east) = $ 90mil. (3.2km)

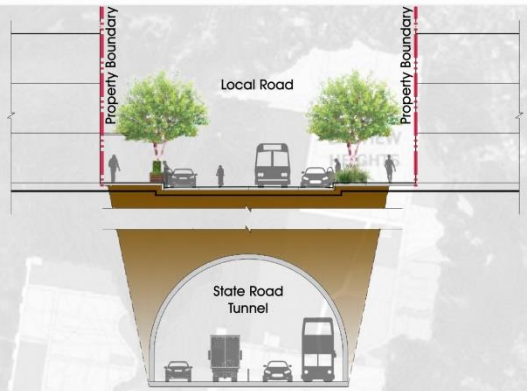
B. Mona Vale Rd (west) = $ not available (3.4km)

INGLESIDE BYPASS PROPOSAL
Option 1: Cut & cover = $150-200mil.(1.6km)
Option 2: Tunnel = $200-250mil (1.6km)

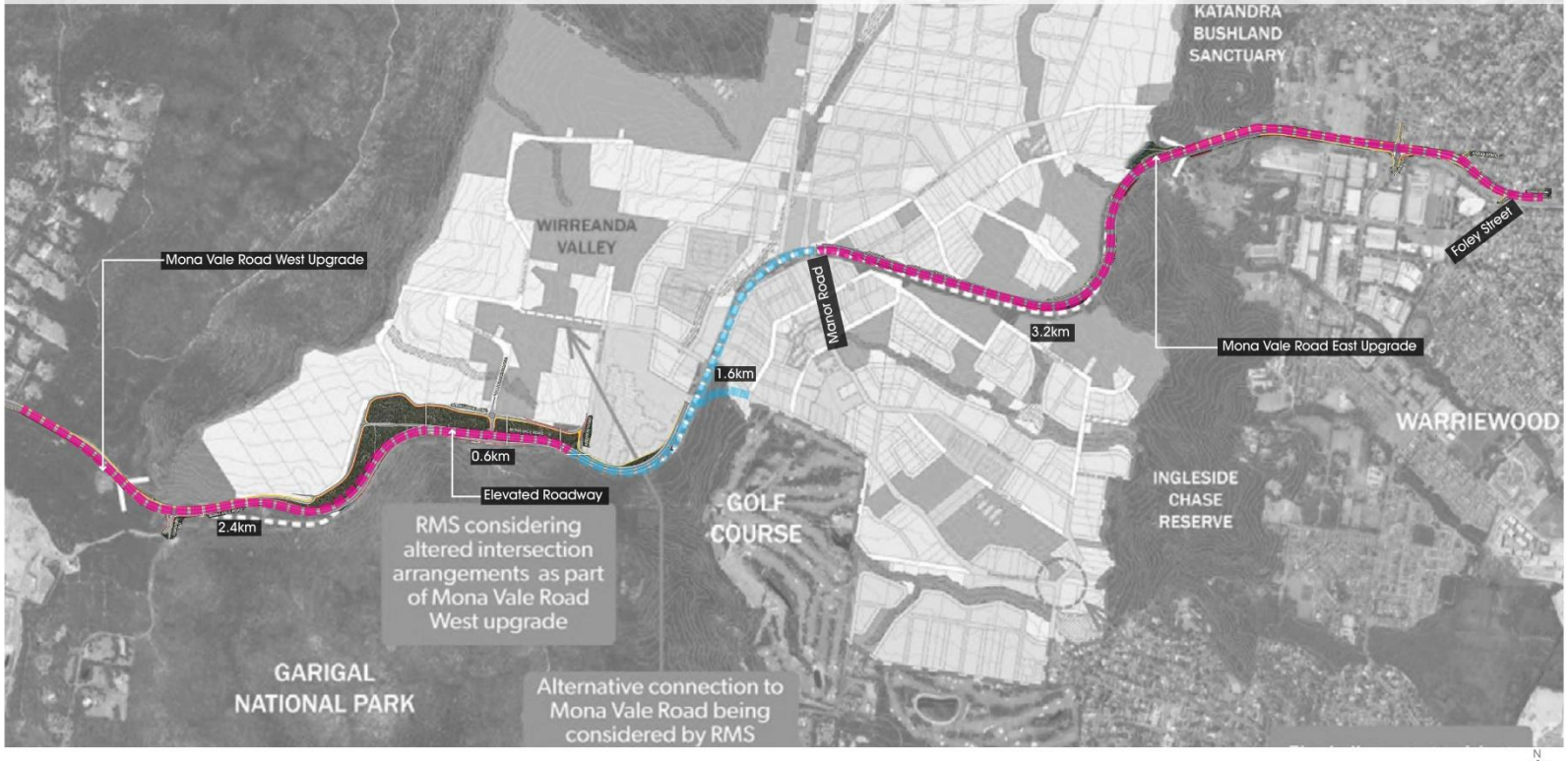
PRIMARY BENEFITS OF BYPASS PROPOSAL
1. Old Mona Vale Road becomes "village main street' with 2 lanes + parallel parking both sides.
2. Improved connectivity between Ingleside north and south; wildlife corridors, bicycle, pedestrian. (walkability & livability).
3. Reduction of 'on-street' road infrastructure and setback requirements.

LEGEND
- Ingleside Bypass Proposal
  Option 1: Cut & cover
  Option 2: Tunnel
- Current RMS Mona Vale Road PROJECTS (east & west)

1 Proposed Ingleside Centre Bypass - Option 1 (cut & cover)



2 Proposed Ingleside Centre Bypass Option 2 (tunnel)



3 Structure Plan Over Aerial Photograph

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Prepared by Sym Studio for presentation to GBCA Urban Design Review Panel

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