

## ITEM 2

## SUBMISSION TO TfNSW - PROPOSED BULLI AND THIRROUL TRAFFIC MANAGEMENT OPTIONS

The northern suburbs of Wollongong, including Bulli and Thirroul have seen increasing levels of densification and tourism which have contributed to traffic growth, resulting in congestion and the emergence of road safety concerns. Transport for NSW (TfNSW) has developed the 'Bulli and Thirroul Traffic Improvement Proposals' to address ongoing traffic congestion issues along the Princes Highway at Bulli and Lawrence Hargrave Drive at Thirroul.

This report seeks endorsement of a submission to TfNSW, regarding the 'Bulli and Thirroul Traffic Improvement Proposals' to ensure TfNSW investigates alternatives which include:

- Major infrastructure including the bypass alternative and development of the roundabout at the intersection of Memorial Drive and Princes Highway;
- Recognition of 'place' for Bulli and Thirroul;
- Active transport and public transport options; and
- A commitment to the development of a comprehensive network solution for the entire northern suburbs, including the villages from Bulli to Helensburgh.

### RECOMMENDATION

Delegation be issued to the General Manager to finalise the attached draft submission for the Transport for NSW 'Bulli and Thirroul Traffic Improvement Proposals'.

### REPORT AUTHORISATIONS

Report of: Trish McClure, Manager Infrastructure Strategy + Planning  
Authorised by: Joanne Page, Director Infrastructure + Works - Connectivity Assets + Liveable City (Acting)

### ATTACHMENTS

- 1 Thirroul Preferred Proposal
- 2 Thirroul Alternative Proposal
- 3 Bulli Proposal
- 4 Submission - Bulli and Thirroul Traffic Improvement Proposals

### BACKGROUND

Lawrence Hargrave Drive, Thirroul, and Princes Highway, Bulli, are important road network corridors in the northern suburbs of the Illawarra. Due to the constrained nature of these corridors, lack of alternative routes and ongoing traffic growth, they are subject to considerable congestion during peak periods and on weekends. In addition to a through traffic function, they access the village centres of Bulli and Thirroul, the adjoining businesses and surrounding communities. Both Lawrence Hargrave Drive and the Princes Highway are State Roads that are managed by Transport for NSW (TfNSW).

During 2016 TfNSW commissioned consultants to undertake traffic modelling to assess the current and future operational performance of Princes Highway Bulli and Lawrence Hargrave Drive Thirroul. Subsequently, TfNSW carried out consultation with key stakeholders, businesses and the community in 2019 in relation to transport issues along these two road corridors.

TfNSW have developed preferred options for both Bulli and Thirroul, based on the initial traffic modelling and feedback received from the community with the aims of improving safety, traffic flow and easing congestion. The options are currently on public exhibition, which closes on 30th July 2021. Given the importance of these road corridors and the potential benefits and impacts of the proposed changes, Council has reviewed the exhibited material and proposes to make a formal submission to TfNSW

(Attachment 4). This report seeks Council's consideration and endorsement of the submission prior to forwarding to TfNSW.

## PROPOSAL

The options put forward by TfNSW are generally for road allocation changes to the existing road formation, through modifications to kerbside parking, travel lane arrangements, intersections and turning movements. They are based on efficiency benefits for general traffic movement, where modelling has indicated improvements to travel time along these corridors.

Opportunities and concerns with respect to the project are found comprehensively in the submission provided in Attachment 4.

Key concerns and strategic themes raised in the submission are:

- Recognition of "place" for Bulli and Thirroul;
- Public transport and active transport services strategy that includes multi-modal transport options
- Consideration of major infrastructure including the bypass alternative and development of the roundabout at the intersection of Memorial Drive and Princes Highway
- Land use planning considerations
- Development of a comprehensive network solution for the entire northern suburbs, including the villages from Bulli to Helensburgh
- Recognition of the northern suburbs of Wollongong as a key destination for tourism, particularly from western and southern Sydney
- Improvements to engagement with key stakeholders and the community.

## THIRROUL

A preferred option and alternative option have been developed by TfNSW for Lawrence Hargrave Drive, Thirroul, between Princes Highway in the south and Mary Street in the north.

### **Preferred option – continuous travel lane (see Attachment 1)**

Summary:

- Creates a single continuous travel lane by separating out right turns into dedicated turning bay;
- Results in the permanent loss of 65 kerbside parking spaces, 33 of which are in the main shopping precinct between Phillip and Arthur Streets
- Modelling shows that the total Vehicle Hours Travelled (VHT) would be 17%, 38% and 54% lower in morning, afternoon and Saturday peaks respectively
- Modelling shows that the travel time reduction is greater for southbound movement than northbound, as shown in the table below.

### **Alternative option – additional weekday clearways (see Attachment 2).**

Summary:

- Creates two travel lanes capacity by installing weekday southbound clearway 6:30am-9:30am and northbound clearway 3pm-6pm
- Results in the loss of 38 kerbside spaces in the morning and 73 spaces in the afternoon peaks (including 27 spaces in morning and 34 spaces in afternoon in the shopping precinct)
- Modelling shows that the total Vehicle Hours Travelled (VHT) would be 32%, 45% and 37% lower in morning, afternoon and Saturday peaks respectively
- Modelling shows that the travel time reduction is higher for southbound than northbound traffic, as shown in the table below.

Time Period and Travel Time **	Modelled reduction in travel time	
	TfNSW Preferred option	TfNSW Alternative option
AM peak: Northbound travel time is 210 seconds Southbound is 312 seconds	Nrth bound – 40seconds Sth bound –100seconds	Nrth bound – 40seconds Sth bound –120seconds
PM peak: Northbound travel time is 258 seconds Southbound is 366 seconds	Nrth bound – 80seconds Sth bound –180seconds	Nrth bound – 90seconds Sth bound –180seconds
Saturday peak Northbound travel time is 330 seconds Southbound is 522 seconds	Nrth bound – 120seconds Sth bound – 320seconds	Nrth bound – 120seconds Sth bound –180seconds

\*\* Travel time is measured between Hewitts Avenue in the south to Mary Street in the north (1.5km)

## BULLI

A preferred option has been developed by TfNSW for Princes Highway Bulli, from Memorial Drive in the south to Point Street in the north includes the following:

- Additional clearway restrictions of 6:30am-9:30am northbound and 3pm-6pm southbound for weekdays and 11am-1pm southbound for Saturdays and Public Holidays
- Changes to Railway Street, Station Street and railway car park including additional parking, one-way loop arrangement and reduced speed limit
- Removal of parking from south side of Park Road
- Banned right turns into and out of Station Street at Princes Highway
- Dedicated right turn arrow at Park Road traffic lights
- Princes Highway / Memorial Drive roundabout upgrade
- Additional right turn lanes at Grevillea Park Road and Point Street
- Loss of kerbside parking on Princes Highway offset by additional 20 spaces in Railway Street/Station Street precinct
- TfNSW will investigate offset parking through changes to public car parks and in side streets
- Modelling shows that the total Vehicle Hours Travelled (VHT) within a peak period would be 21%, 26% and 5% lower in morning, afternoon and Saturday peaks respectively, as shown in the table below:

Time Period and Travel Time **	Modelled reduction in travel time
AM peak Northbound travel time is 180 seconds Southbound is 432 seconds	Nrth bound – 35 seconds Sth bound – 210 seconds
PM peak Northbound travel time is 192 seconds Southbound is 372 seconds	Nrth bound – 35 seconds Sth bound – 220 seconds
Saturday peak Northbound travel time is 150 seconds Southbound is 192 seconds	Nrth bound – 10 seconds Sth bound – 20 seconds

\*\* travel time is measured between Hewitts Avenue in the south to Mary Street in the north (1.5km)

The proposed submission to TfNSW (Attachment 4) aims to highlight aspects of concern for Council as well as opportunities for further planning and collaboration with TfNSW to achieve the best possible transport outcome for these northern suburbs.

### CONSULTATION AND COMMUNICATION

Council sees value with such a high-profile community concern to allow time for face-to-face engagement with Transport for NSW, residential and business owners directly affected. At the 28 June 2021 Council Meeting, Council resolved to request TfNSW to:

- Extend the consultation period on the proposed traffic management options for Bulli and Thirroul to 3 September 2021.
- Identify other options for traffic management for community feedback.

At the time of writing this report, a response had not been received from the Minister regarding the request for an extension to the community consultation period and consideration of alternate options.

The Northern suburbs Round table working group, formed in February 2021 provides an opportunity to ensure improved collaboration between Council and TfNSW when considering services in this area.

### PLANNING AND POLICY IMPACT

This report contributes to the delivery of Our Wollongong 2028 Goal 6 “We have sustainable, accessible and affordable transport”. It specifically delivers on the following:

Community Strategic Plan	Delivery Program 2018-2022	Operational Plan 2021-22
Strategy	4 Year Action	Operational Plan Actions
6.1.3 Effective and integrated regional transport, with a focus on road, bus, rail and freight movement (including the port of Port Kembla)	6.1.3.1 Plan and implement an integrated and sustainable transport network	Council to work with key agencies and partners to progress the provision of an effective and integrated regional transport network

### SUSTAINABILITY IMPLICATIONS

Whilst there are no direct costs for Council in relation to the TfNSW proposals, the associated impacts of the removal of kerbside parking in the village centres has the potential to impact business viability, liveability and sustainability of the centres.

The traffic analysis undertaken for the project and the outcomes that would be delivered if implemented are benefitting general traffic movement. There has been no analysis of multi-modal options including bus servicing improvements which is a more sustainable approach given the constraints of the road corridors and limited ability for further capacity improvements. Council has highlighted these matters in its submission and will continue to liaise with TfNSW to encourage the development of a more holistic, sustainable transport solution for the northern suburbs.

### RISK MANAGEMENT

The current TfNSW Bulli-Thirroul work appears to be aimed at the short-medium term and it carries a risk that overarching long-term plan for the area be delayed or not given a similar priority. Our submission will request a commitment from TfNSW for funding, development and implementation of long-term options.

We have highlighted in the submission to TfNSW potential risks associated with the exhibited proposals, including economic and social risks. Council will work with TfNSW following their consideration of the community feedback, to address any risks based on the traffic improvement plans as they develop.

### FINANCIAL IMPLICATIONS

There may be indirect financial implications for Council in relation to the forwarding of a submission to TfNSW for the proposed Bulli-Thirroul Traffic Improvements project.

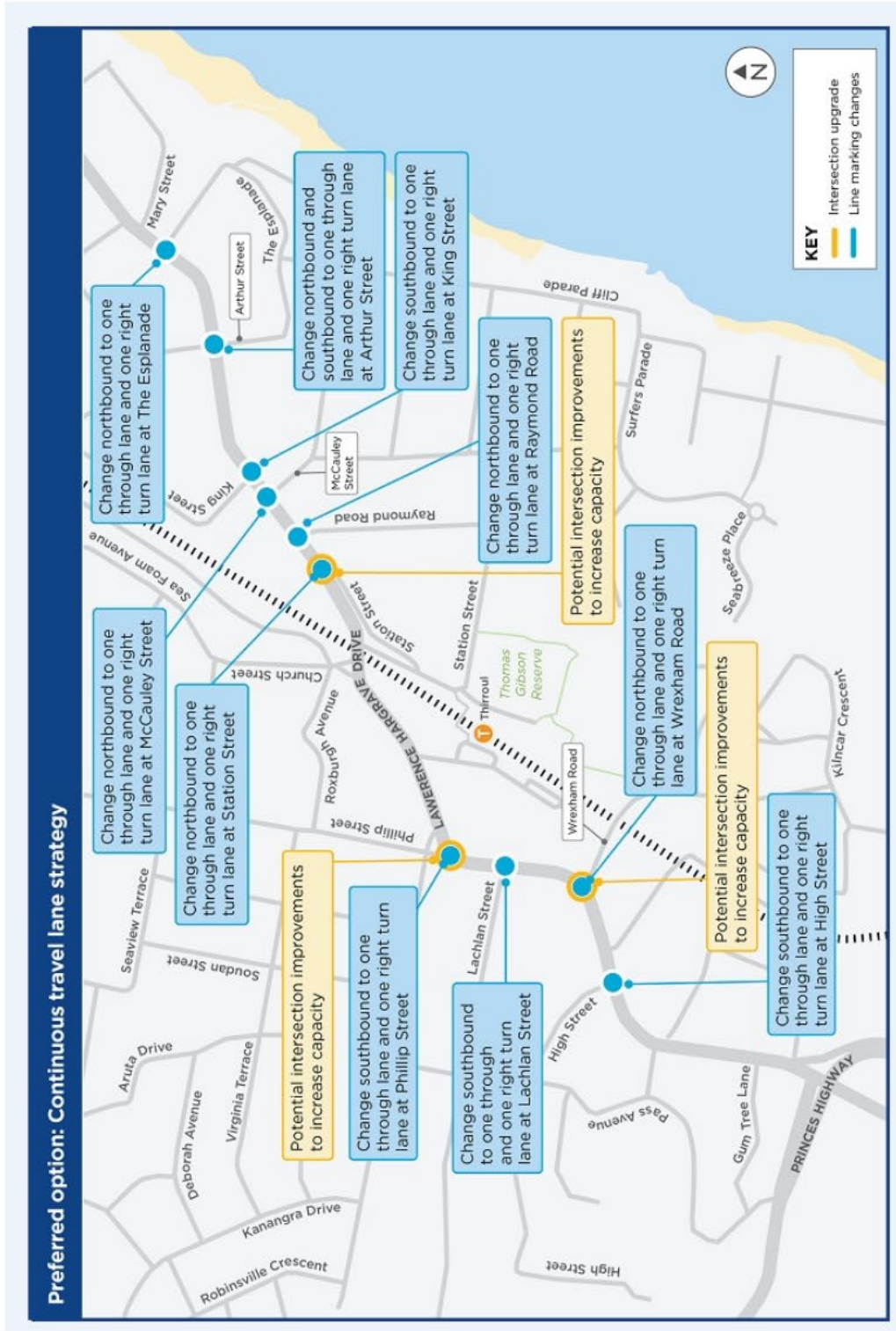
These indirect financial implications could be as a result of Council having to respond to potential requests from residents, after the scheme is implemented, to manage parking and traffic impacts on the side streets.

The Bulli Proposal includes the modification of local streets and there is no clear commitment as to how these modifications will be funded, implemented and maintained.

## CONCLUSION

The ongoing traffic congestion issues in Bulli, Thirroul and the northern suburbs more widely are acknowledged. It is hoped that Council's submission in combination with wider community feedback will help to inform further transport strategy development for the Princes Hwy and Lawrence Hargrave Drive in Bulli and Thirroul.

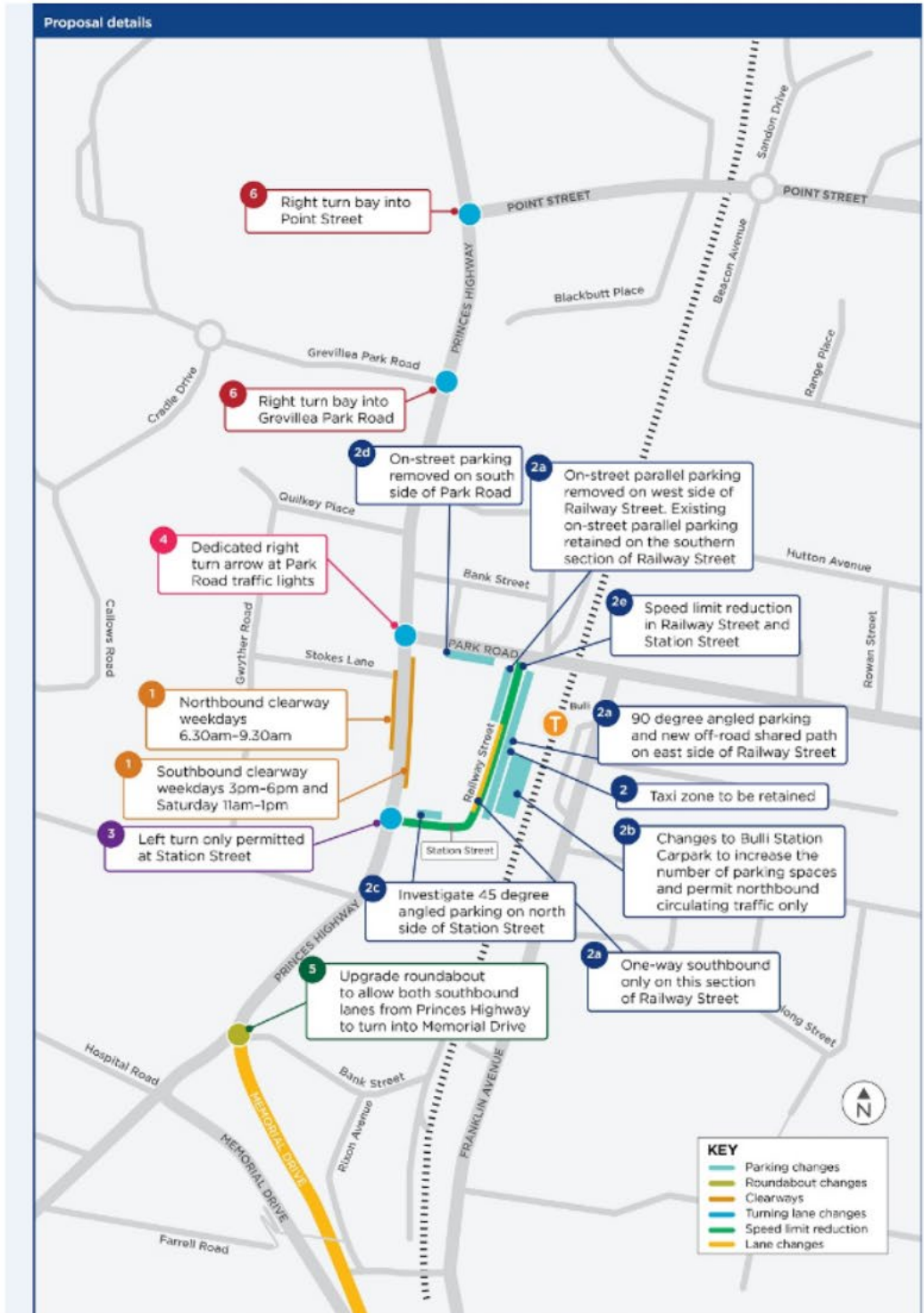
Thirroul Preferred Proposal



Thirroul Alternative Proposal



Bulli Proposal





## **Bulli & Thirroul Traffic Improvements Project – Wollongong City Council Submission**

We thank you the opportunity to provide feedback with respect to the Bulli and Thirroul traffic improvements project. Council recognises the objective of the proposal is to improve road safety and ease traffic congestion along 3.5kms of the Princes Highway, Bulli and Lawrence Hargrave Drive (LHD), Thirroul.

### **Summary:**

Council has significant concerns that this proposal will not achieve the desired outcome which is narrowly focussed on a single corridor and the two most southern towns of the Northern suburbs of Wollongong. Council holds the view that the proposal will in fact be detrimental to the lifestyle and economy of Bulli and Thirroul and will have irreversible impact to them as key destinations within the Wollongong Local Government Area.

Key concerns and strategic themes raised in the submission are:

- Engagement
- Longer term network strategy
- Movement and Place – The recognition of ‘place’
- Services Strategy
- Land Use Planning
- Infrastructure for now and the future
- Economic Assessment and Visitor and Tourist demand
- Active transport integration
- Modelling for Bulli and Thirroul

Council is requesting that alternate options be considered that would recognise and protect those centres as important ‘places’ for people. The alternate options that have not been explored by the proposal that should be considered include:

- A Public Transport Services strategy that includes multi-modal transport options for the area and is supported by funded Active transport links
- Investment in the Memorial Drive extension from Hospital Road to Bulli Pass.

The Northern suburbs of Wollongong extends from Helensburgh in the north through to Bulli in the south and encompasses a transport network that includes local, regional and state roads, along with a train service and active transport links. The entire Northern suburbs are a key destination for visitors and is home to 25,000 people. Council is strongly advocating for resources to be allocated for further planning and delivery of traffic and transport solutions for the entire Northern suburbs area. The network solution must include the length and breadth of the area, to deliver connected journeys for residents and visitors alike.

Consideration of major infrastructure is required to address the objective of this project, including the bypass alternative and development of the roundabout at the intersection of Memorial Drive and the Princes Highway. We note the corridor for the bypass extension from Memorial Drive to Bulli Pass has been secured, but not included or referred to in the proposal.

Council recognises some key minor works in the proposals that can deliver immediate benefits to moving people in and around Bulli and Thirroul as they have some positive traffic benefits and limited impacts on the community and place, being:

- The changes to the Princes Highway and Memorial Drive roundabout, Bulli.
- Right turn lanes at key intersections to improve traffic flow.
- Intersection improvements/changes to traffic signals including provision for active transport integration, such as bike boxes, that are in line with current active transport standards.

Council has previously sought a change to the engagement strategy and an extension to the timing of the community consultation phase, without response. Nevertheless, Council would welcome ongoing transparent consultation regarding the proposals to facilitate the better understanding of: the 'place' and character of these towns; community needs; the social and economic profile; how the decline in pedestrian road safety will be addressed as well as gaining an understanding how TfNSW is planning to alter the configuration and use of local streets.

Council has also received a number of representations regarding the proposal and it is apparent that robust engagement with key stakeholders and the community is required to allow time for face-to-face engagement. The objective of this engagement is to ensure that the proposal can be developed to meet the broader strategic traffic and transport needs and fits with the long-term vision for the area.

#### **Strategic Context**

The Northern suburbs of Wollongong exist in a long conurbation, topographically challenged by the escarpment in the west and the ocean in the east. The Transport network is serviced by a single spine that traverses the centre of the Northern suburbs, which is feed by numerous collector roads that support access to and from the villages and towns. The Northern suburbs has a complimentary rail spine that is under serviced for both intra and inter regional trips. The current proposal focuses on a small southern section of the Northern suburbs, being Bulli - Thirroul.

Situated in the Northern suburbs of the Wollongong Local Government Area (LGA), Bulli and Thirroul are the two largest towns between Corrimal and Helensburgh. Bulli has the larger retail supermarket, while Thirroul has the benefit of being a commuter station. The 2 centres serve an estimated local population of 15,900. In addition, the centres serve the convenience needs of visitors and tourists.

Council has commenced the preparation of the Retail and Business Centres Study which is reviewing the role and function of all retail centres in the LGA. The centres need to cater for retail, business, residential, community and recreational uses.

The demand on these 'places' will continue to increase as the population increases. By 2036, it is forecasted that the centres will serve an estimated population of 16,200.

In 2020 Council exhibited the draft Housing and Affordable Housing Options Paper which noted that centres could provide greater housing opportunities in the future. The draft Options Paper also highlighted the infrastructure constraints of the area north of Bulli. The transport constraints, infrastructure servicing limitations and steep topography limits residential development potential. Despite the constraints, the increasing property prices show the high demand to move into the area. Having purchased highly valued property, the existing and future residents expect an equivalent transport system.

There is a large influx of visitors and tourists welcomed to the area during weekends and holidays, during the summer months.

Despite all the constraints and desired direction of these 'places', these centres must balance all components of retail, business, residential, community and recreational uses.

#### **Council involvement**

Council at its meeting 28<sup>th</sup> June 2021 voted to request that the consultation of this project be extended until Friday 3 September 2021. Council sees value with such a high-profile community concern to allow time for face-to-face engagement with Transport for NSW, residential and business owners directly affected. Council officers also had meetings with TfNSW in May and June and suggested an extension of the time frame and a more personal and localised approach to consultation.

Council has received comments on the proposal from community indicating a high level of interest and concerns with the proposal. We have encouraged community members to provide a submission to TfNSW directly. Council supports a collaborative approach and sharing of knowledge and has previously formerly requested traffic and transport strategies and data that were used to inform the project to enable a better appreciation of the solutions proposed. Unfortunately, this information, has in the main not been forthcoming.

#### **Key Concerns**

##### Engagement

Council sees value in demonstrating to the community how the 2019 community consultation influenced the preferred proposals modelled in 2016. Project webpages states *"The proposed options have been developed following feedback from businesses, community members, key stakeholders and visitors during community consultation in late 2019."*

As previously mentioned; time to allow for face-to-face engagement will provide greater benefit to the project to ensure shared aims and objectives of the project are enhanced.

There are wider transport issues identified within Northern suburbs and Council is concerned that there has been little engagement & collaboration with Council to date in this regard. These issues include vacation/staycation & tourism impacts, parking/network guidance, public transport services planning, travel demand management, communications/promotional strategy etc. We are also concerned that this project seems to be undertaken in isolation from these important influences.

It is stated that TfNSW will 'work with Council' in the future, we hope to encourage collaborative engagement with Council throughout the process to ensure that this does not occur post implementation of the changes. However, it is noted that the project proposals for both towns include the change in use of on street parking on local roads, and in the case of Bulli the change in configuration of the local street network in Bulli. These aspects of the project have not been raised with Council formerly and have not been considered through normal Council process or committees.

It is acknowledged that a high level "Northern Suburbs Round Table" group has been established; however, there are no terms of reference, confirmation of scope or tangible action items stemming from this group. A TfNSW/Wollongong City Council working group has also commenced, however Council involvement to date has been limited to viewing the current Bulli-Thirroul proposals only.

Under a more collaborative model Council could have informed the project and identified significant community concerns. Intersections that have a history of concern in the Bulli-Thirroul area are not

addressed by the proposal include, and not limited to: Henley Road (pedestrian and public transport access safety) and Phillip Street (Traffic Control Signal (TCS) configuration and traffic management). Council is well positioned to provide TfNSW with community correspondence and project history with respect to key intersections of concern to the community.

#### [Longer term network strategy](#)

The current TfNSW Bulli-Thirroul work appears to be aimed at the short-medium term, as a minimum investment, 'sweat the asset approach' and does not appear to be a first stage in developing a more holistic traffic network and transport services solution to provide improved access and amenity for the Northern suburbs of Wollongong. This concern with a short-medium term approach was highlighted to the TfNSW staff from the community, during the live Q&A session on 15 July 2021. Council also identified the need for an overarching long-term plan for the area. With a clear long-term strategy, in which some of the current proposals could be considered phase one would build confidence in the community and not be detrimental to achieving this ultimate goal.

#### [Movement and Place – The recognition of 'place'](#)

There appears to be a lack of the application of NSW Government's "Movement and Place" framework embedded in the objectives or development of this proposal. The use of modelling for the proposals from 2016, post the creation of the "Movement & Place" framework, indicates a lack of cognisance of the framework within the development process of the projects. The projects proposed appear to be highly aligned to creating a "vehicular movement" corridor along what is classified as a state road, and as such is better aligned to the former State Governments approach to functional road management, where the objective of the Princes Hwy and Lawrence Hargrave Dr was seen to be car, not people carriers, and adjacent places had limited access and cross or pedestrian movement capability.

The movement function of the corridor is being upgraded at the expense of clear 'place' aspects (less parking, fewer pedestrian crossing points, pedestrian amenity impacts). These 'place' aspects are critical to the effective functionality of these two expanding town centres.

There is no evidence of how the proposals were developed in the context of the NSW Government's Road User Space Allocation Policy (2021) which aims to ensure that TfNSW allocates road user space based on the movement and place vision of a corridor or network.

Specifically, it highlights that a *network vision* needs to be established up-front, with the allocation of road user space being developed based on consideration of all road users in the order of:

1. walking
2. cycling
3. public transport
4. freight and deliveries
5. point to point transport
6. general traffic

It would appear that this project is inconsistent with a number of NSW Government policy framework, focussing on point to point transport and general traffic and would benefit from including all modes and aspects of these documents, resources and approach.

The project must have a greater emphasis on 'places' whilst also creating an efficient and connected movement corridor for all modes of transport.

#### Services Strategy

TfNSW has a stated strategic objective that is to create a seamless multi modal journey, to take people where they want to go which relies on two primary aspects:

- Network solutions across all tiers of road functionality
- Multi-modal planning, including public and active transport.

The project is heavily focussed on a single arterial road and proposes significant changes to local roads with no public or active transport explicitly included in the plans.

*More trains more services* (MTMS) timing or scope was not given as part of this consultation process. This initiative could affect proposals significantly in Bulli and Thirroul Station Precincts when and if changes include service frequency and express service stops. Such changes would influence parking demand in significant parts of the current proposal, i.e. Bulli Train Station car park, that have been allocated to offset the loss of customer and community convenient parking on the main road. It is unclear how the plans for future bus and train services have been integrated into this project. It is vital that a public transport services plan is intrinsic to the solution to alleviate congestion whilst preserving "place" in Wollongong's Northern suburbs. The Program MTMS is recognised as the flagship to alter services in the region, however whenever sought direct communication regarding the MTMS plan there has been no available service plans and the discussion reverts to Sydney based unspecified enabling infrastructure. Short- and long-term public transport planning strategy must directly inform the Bulli-Thirroul proposals for both intra and inter-regional trips.

Within the Bulli proposal there are substantial car park changes proposed within adjacent local roads and this appears to be in the absence of any overarching upgrade plans for the station precinct. Should future plans for services to the station increase these proposed 'off-set' parking provisions will be lost.

There has also been a lack of consultation with Council regarding how the local streets will be reconfigured and what active transport links are proposed to connect rear parking to the townships of Bulli and Thirroul.

No information has been provided on whether trip types, origins and destinations were investigated and whether they informed the approach. For example, if most peak hour trips are commuter trips to Wollongong/Sydney, better public transport services to/from Wollongong should be pursued prior to traffic flow enhancements to encourage sustainable transport use.

Bus priority, services or supporting infrastructure has not featured in the proposal. Council asks that this multi-modal transport services plans and supporting infrastructure including bus stop interchanges and wayfinding be factored into the proposals; for now, and into the future.

#### Land Use Planning

The proposals do not appear to account for changes in land use planning in the area. This important consideration should be identified upfront to ensure that residents and business land owners within the project area understand how their submissions have influence the design of all options.

#### Infrastructure for now and the future

The potential extension of Memorial Dr to Bulli Pass, would result in significant change to transport demand through Bulli Town Centres. It is considered important to provide Council, the community

and business owners a commitment to & possible timing of these future works. The current proposal has a direct impact at the completion of the proposed changes and the potential to change the way the centre functions and develops over time.

#### [Economic Assessment and Visitor and Tourist demand](#)

TfNSW business case model requires the consideration of social, economic and amenity impacts and benefits. It is understood that for a project to be funded to the stage of development these factors would have been evaluated and included in the Business Case for the project. Council is interested in accessing this evaluation for the current proposal. As it stands, and based on the data made available the economic assessment underpinning the selection of preferred options is based purely on vehicle travel and not considered the economic impacts to businesses in Bulli & Thirroul been factored into the development of solutions?

The wider economy of the region is highly reliant on tourism and visitors. Peak traffic demand days around public holidays and summer weekend days result in high levels of congestion along Lawrence Hargrave Drive, Thirroul and the Princes Highway, Bulli, bringing the network to a standstill as it operates at Level of Service - F. The traffic assessment within the proposal does not account for this severe congestion which is seasonal but evident from October to April and coincides with the economic peak for the area. Council has over the last 8 months requested greater collaboration with TfNSW to not only manage on road traffic, but also to develop a joint communication strategy that will extend to the peak originating visitor areas in Western and Southern Sydney as well as an enhanced train services plan to better meet this peak demand. Council would appreciate the opportunity to work more closely with local staff on any of these strategies or alternatives.

#### [Active transport integration](#)

The proposals indicate an improvement in traffic efficiency along the Princes Hwy/Lawrence Hargrave Dr corridor. In the absence of any attractive, convenient & prioritised alternative transport options, this increased efficiency is likely to encourage more private vehicle travel, essentially perpetuating an unsustainable outcome.

Council would like to see the incorporation of cycle amenity along the corridor and in particular where changes are proposed to traffic control signals are proposed or lane reconfiguration.

The road corridor must include provision for active transport and integrate successfully with all proposed changes to intersections.

Furthermore, the options are focussed on delivering greater throughput of vehicles creating ostensibly a four-lane road through sections of the community centres of Bulli and Thirroul. A consequence of the proposals will be the reduction in pedestrian safety and amenity with reduced crossing opportunities.

#### [Modelling for Bulli and Thirroul](#)

The modelling reports, lack a scenario where no clearways were included. As a result, the benefit provided by the new clearways where other measures are in place is unknown.

The future modelling is based on a car driver approach (ie 3-step models) and does not include any other modes such as public transport. It is understood that TfNSW is using an updated Emme model (SSTM) for analysis of its projects. It is considered that this type of modelling that includes all transport modes would be beneficial for projects such as this, to investigate possible public transport interventions as an alternative or supplement to purely traffic efficiency improvements.

### **Thirroul - Continuous through lane design comments**

- This proposal reduces the number of formal crossing points for pedestrians.
- Informal crossings likely to occur on proposed chevroned areas which may be unsafe for pedestrians given continuous high flow traffic lane proposed. It will be difficult for pedestrians to find adequate gaps in traffic.
- No facilities are proposed for cyclists.
- There may be opportunities to provide refuge crossings at various locations for pedestrians that are currently shown as painted medians. These crossing facilities are particularly important if parking is being removed along the LHD and visitors need to park in side streets.
- It is unclear why the existing pedestrian refuge north of King St needs to be impacted – there appears to be some space to run the northbound lane further west as it currently does to accommodate the central refuge island.
- Information lacking on proposed bus route adjustment where lane goes through existing bus stops (may result in reduction in public transport servicing/accessibility)
- This option affects pedestrian amenity where parking lanes are replaced by travel lanes. Car parking provides a buffer between moving vehicles and footpaths. Removal of this parking will make pedestrians feel less safe on the footpath and will generally make the footpaths less attractive for pedestrian use. The removal of the buffer will also impact amenity and the comfort of pedestrians who frequent these businesses which is an important factor for 'place'.
- The car parking losses are shown in the consultation material as being 5 spaces on LHD between Phillip St and Railway Pde. However, in the modelling report, the preferred option was selected based on the 'Layout 2' upgrade of Phillip St/LHD intersection that required the permanent loss of 8 car parking spaces on the west side of the road (refer Fig 5.8 of report). There is an inconsistency here – does the planned upgrade still require the loss of the 8 spaces on the west side of the road?
- How have the lengths of the right turn bays been developed? The modelling report identifies the right turn pockets of between 30-50m length but there is no evidence of whether these lengths are appropriate as provided. It is assumed they were observed to perform adequately through Aimsun, however more detailed intersection modelling may indicate different requirements. There is a risk that any required lengthening would further impact kerbside parking and business viability.

### **Thirroul Clearway Option Design Comments**

- The travel time reductions table provided showed a significant time reduction for Thirroul on Saturdays without the inclusion of clearways. This suggests that the same treatments without clearways could provide benefits. Modelling scenarios should be assessed that quantify benefits of applying the clearways during weekday peaks.
- Information is needed on why kerbside parking was removed permanently (not just clearway) in central Thirroul. These parking space removals will significantly affect business viability. Peak period modelling would not have assessed benefits of this change outside of peak times.
- How were the proposed clearway hours determined? The model only considers the peak hour, but what is being proposed is for a longer period – are the nominated periods based on traffic count profiles?

- A significant pedestrian safety hazard is introduced with the multilane modification of the Hewitts Avenue roundabout. Pedestrians crossing LHD will need to cross two lanes of high flow traffic.
- This option affects pedestrian amenity where parking lanes are replaced by travel lanes. Car parking provides a buffer between moving vehicles and footpaths. Removal of this parking will make pedestrians feel less safe on the footpath and will generally make the footpaths less attractive for pedestrian use.

#### **Thirroul Potential Parking Offset Options for Investigation**

- Master planning exercises have low probability of completion within a relevant timeframe and should therefore not be nominated as a parking offset in this project. It is noted the consultation material states that the parking offsets will be in place prior to construction, however the feasibility and planning for these offset locations is yet to be commenced.
- Parking formalisation projects do not add to supply within the town centres and hence do not address key concerns that parking loss will affect business viability
- WF Jackson Park provides the only open space in the core of the town centre and should be retained

#### **Thirroul general comments**

- Council is concerned that TfNSW may be considering using local roads as a 'relief valve' for through traffic movements. During peak times, there is evidence that some back roads are already being used as a rat run to bypass congestion along Lawrence Hargrave Dr. Council is investigating traffic calming options in these roads and it is not considered appropriate to rely on these roads for through traffic.
- The FAQ information provided as part of the engagement material only highlights the MTMS program under the 'public transport' item. Whilst it is acknowledged that the proposals will improve travel times for general traffic including buses, it is concerning that there is no information provided indicating how buses could be *prioritised* along this corridor, &/or improved service scheduling introduced.
- Both preferred and alternative options will increase average traffic speed and involve additional sections of 4-lane moving traffic. This increases difficulty for pedestrian and cyclist crossing of LHD and reduces the road environment safety. Given that TfNSW is proposing side street parking offset locations, motorists will be forced to cross LHD more often to access businesses and services. This needs to be considered when looking at the spatial location of potential offset parking sites and additional safe crossing points provided. This will at least help to ensure that pedestrian accessibility is not diminished as a result of increased traffic efficiency in our town centres.

#### **Bulli Proposal**

- Information is limited on what alternatives to the extra clearways proposal for Bulli were considered/modelled. For example, does shifting the bus zone to beside Stokes Lane to enhance approach capacity to Park Road provide benefit?
- The parking removal on Park Road will affect local businesses significantly particularly with proposed additional clearways on the Princes Highway. With only one crash recorded in the last 20 years west of Railway Street strong justification should be provided for this change.



- Proposed angle parking spaces in Railway Street are too remote to support businesses on the Princes Highway. Walk distances from parking to the east side of the Princes Highway are around 150-200m and this parking is only likely to be used by southbound motorists at best. Walk distances to the west side are significantly greater.
- There is no parking identified that could conveniently cater for northbound motorists with the introduction of the AM peak clearway. It is not likely they would utilise the angled parking provided in Railway St. Potential options for parking on the west side of the highway (ie off Gwyther Ave/Stokes Lane) would need to be investigated as part of the proposal.
- As part of any offset parking strategy, TfNSW would need to develop a parking wayfinding plan such that parking opportunities are clear to the Princes Hwy traffic.
- Has TfNSW undertaken any parking surveys along the Princes Hwy through the Bulli township that shows how the parking is used, length of stay etc? This information would be required to understand parking demands and the likely success or otherwise of offset parking locations.
- The one-way section on Railway Street requires eastbound traffic in Station Street to drive through the car park to leave the precinct essentially relocating a road network link to inside the railway station car park, which is on Rail Corporation owned land.
- If the Wollongong to Sydney express service were to have Bulli included as a stop as part of the more trains more services or some other railway improvement program, Railway Street could see large commuter parking demand further eroding parking availability for businesses on the Princes Highway.
- Is there a longer term plan for Bulli Station as part of the MTMS or other strategies? It is not ideal if the substantial railway car park and Railway St remodelling works are done in isolation without considering the future functionality and requirements for the railway station.
- The modelling only considers the weekday AM/PM and Sat peak periods. The report identifies that, under the preferred scenario, the Princes Hwy southbound delay increases at Point St due to the new signal arrangements. This increased delay in combination with southbound kerbside parking (Park Rd to Station St) during 9:30am – 3pm weekdays, will likely result in worse performance than currently exists.
- The proposal will increase average traffic speed and involve additional sections of 4-lane moving traffic. This increases difficulty for pedestrian and cyclist crossing of the Princes Hwy. Given that TfNSW is proposing side street parking offset locations, motorists will be forced to cross the Princes Hwy more often to access businesses and services. This needs to be considered when looking at the spatial location of potential offset parking sites and additional safe crossing points provided. This will at least help to ensure that pedestrian accessibility is not diminished as a result of increased traffic efficiency in our town centres.
- What has been assumed for pedestrian crossing demand on the highway and will the changed phasing arrangements at the Princes Hwy/Park Rd reduce pedestrian LOS? Will corresponding signal phasing modifications be required at the Princes Hwy/Organs Rd as a result for coordination reasons and how will this affect pedestrian LOS at this location? This is important as these are the only two dedicated pedestrian crossing locations in the Bulli Town Centre and they are 250m apart.
- The proposed one-way section along Railway St is not ideal, as businesses with rear access to this road including the Vet may be tempted to short-cut by exiting against the one-way direction to go north, rather than going around through the car park.

- The railway St modifications include a shared path along the east side of the road, however it is unclear how this would connect back into the wider shared path network particularly at the southern end at Station St.
- Given the modelled benefits and 'value for money' of the roundabout upgrade at the Princes Hwy/ Memorial Drive (ie southbound lane allocations), it is considered that this should be given priority for immediate upgrade by TfNSW regardless of the outcome of the wider proposal for the Princes Hwy Bulli.
- Has consideration been given to modelling the Princes Hwy/Station St signals with no right turn permitted from the Princes Hwy? This would maintain peak northbound efficiency but importantly allow for additional safe pedestrian access across the Princes Hwy as well as cater for the right turn out of Station St, which would reduce the reliance on Park Rd for this right turn to head north. It appears that the modelling undertaken for Scenario 5 (signals at Station St) did not take into account any resulting redistribution of traffic from Park Rd to Station St (refer p.60 of modelling report).