BEACHES LINK TUNNEL: -

SACRIFICING A PRECIOUS ENVIRONMENT FOR MORE TRAFFIC.

This EIS Submission is firmly *against* the current Beaches Link project proposal (with suggestions for change to prevent biodiversity loss if it proceeds).

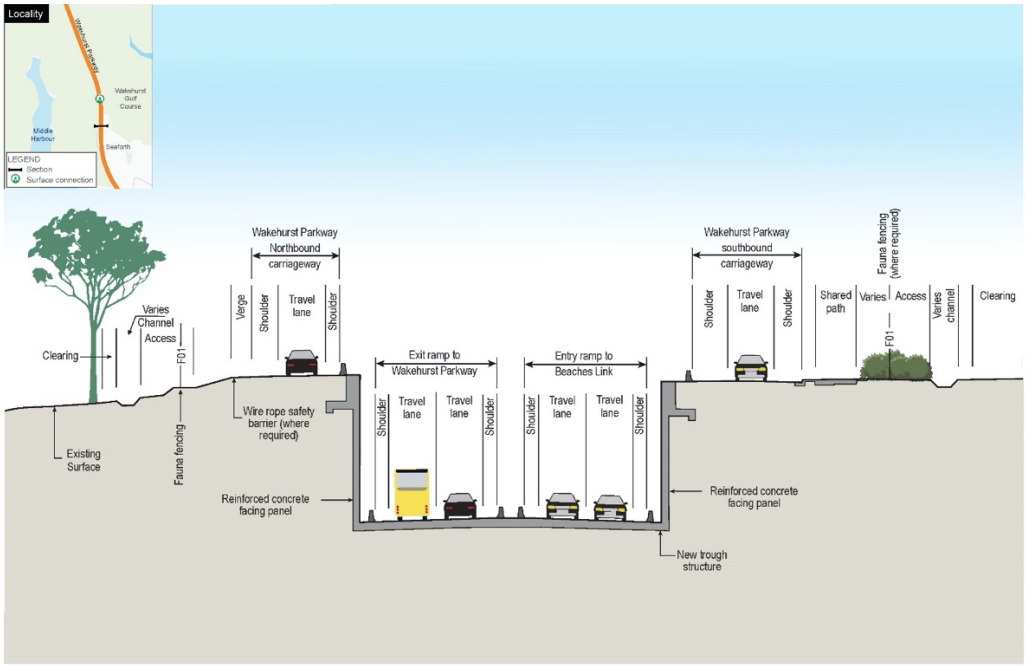
Drive along Wakehurst parkway (between Seaforth and Frenchs Forest) with Garigal National Park on one side and Manly Warringah War Memorial Park on the other. You'd be safe to think this area of outstanding natural beauty would be protected in perpetuity, right? WRONG.

It turns out that Roads and Maritime Services owns an 80-metre-wide corridor through this area and guess what? They want to massively widen and realign this road as part of the Beaches link tunnel proposal and build motorway facilities, ventilation outlets and four large "water quality control" basins here too.

The Rocky features along the current roadside will be jack-hammered or blown up with explosives then unceremoniously *dumped into the park's bushland causing more damage. These rocky areas were identified as being habitat for threatened species such as the Rosenberg Goanna and the Large-eared Pied Bat. (*Appendix S p188)

The gap between the two parks is currently around 12m to 15m in the southern section this will increase to **40** metres as the road is widened and realigned.

This is massive infrastructure in a recognised sensitive environment: -



And would include: -

- Tunnel ventilation systems
- A motorway control centre
- Tunnel support facilities.

- Fire and life safety systems
- Tunnel drainage and wastewater treatment plant
- Lighting
- Signage, CCTV and other traffic control systems
- Tolling infrastructure

- Emergency breakdown bays
- Electrical substations (discussed in Section 5.2.9).

Manly Dam wall was built in 1892 to provide a water supply for the small settlement of Manly. To safeguard the newly created reservoir from pollution, its surrounding water catchment was consequently strictly protected. Our society inherited a pristine bushland sanctuary, rich in Aboriginal heritage and glorious enough to be declared a War Memorial Park to honour our veterans (circa 1920). Manly Warringah War Memorial Park holds particular significance in remembering fallen service personnel from the First and Second World Wars, as well as being of significance to past and present-day members of the Defence forces. It is the only war memorial to be created by conserving natural bushland.
Northern Beaches Council is currently nominating the park for National Heritage listing, such are its heritage and environmental values. It was gazetted as a "State Park" on 7th April 2017 to, (ironically), provide it with a higher level of protection.

Manly Dam Reservoir is the last unpolluted lake in Sydney where it is still safe to swim. Its catchment is especially sensitive because it exists within an urban environment and its waterways are already under stress from encroachment.

Water quality is at a tipping point for recreational users, with Council having to install a giant submerged propeller to oxygenate the reservoir. Huge scale earthworks and excavations on a high elevation site with steep inclines will

pose a massive and unreasonable risk to the environmental health of this treasured sanctuary.

Most (but not all) of the environmental damage will be done on the Manly Warringah War Memorial Park (Manly Dam) side of the construction and **here is a run-down of the impacts: -**

Construction of the Beaches link project would involve the loss of 20.92 hectares of threatened species habitat, most of it along this stretch of road (That's 39 football fields). This includes the removal of nearly 1.5 hectares of Duffys Forest Endangered Ecological Community-*some of the rarest vegetation on the planet*.
This is listed as a SERIOUS AND IRREVERSIBLE IMPACT (page 207 of Appendix S).
In recent times significant areas of Duffys Forest EEC have already been lost for the nearby Madison Way housing estate, The Belrose Super Centre, school expansions, The Northern Beaches Hospital and for the Mona Vale Road widening. Duffys Forest Ecological Community (DFEC) is listed as an endangered ecological community on schedule 1 part 3 of the NSW Threatened Species Conservation Act 1995 (TSC Act). It is likely to become extinct unless the factors threatening its survival, primarily urban and industrial development, cease to operate.

https://www.environment.nsw.gov.au/resources/nature/EECinfoDuffysForestEcologicalCommunity.pdf

The entire project would involve the estimated loss of 3,500 plus trees well over 2,000 of these would be along this stretch of road-including many rare and ancient species. Earth moving and excavation would also degrade up to another 50 metres of bushland adjoining the road through "edge effect" … negative impacts which include opening up the parks to weed invasions and pathogens.
The below short David Suzuki video describes how every tree (in 2013) was valued at $161,000 in eco system services over a 50-year life cycle. (many of the trees to be cut down are also of important natural heritage and scenic value). The calculation in this case therefore is 3,500 x $161,000 = **$56,350,000 loss to the community.**

https://www.youtube.com/watch?v=I-qRNJp47CA

Land clearing of wildlife habitat is one of the key drivers of extinction with a projected 9 out of 10 animals to be displaced from their habitats by 2050. The Beaches Tunnel project would be part of this catastrophe for nature: -

https://thenewdaily.com.au/life/science/environment/2020/12/22/land-clearing-habitat-destruction/

Clearing of forest will occur at the headwaters of steep gullies and fragile creeks that feed Manly Dam Reservoir. The EIS states that "There is the potential for impacts on aquatic biodiversity due to reduced water quality during operation due to the presence of sensitive receiving environments" (Chap 19 p 67)

In other words, the pristine waters of *Manly Creek (Curl Curl Creek), home to the only population of
Climbing Galaxias Fish in Sydney) is under threat from pollution as is Manly Dam itself. This population was estimated by the Australian Museum to have existed here for 60 million years plus and is an ancient Gondwanan relic. *Manly Creek is identified as being a Type 1 Key fish habitat and first order waterway (NSW DPI, 2013)

Manly Creek and Manly Dam currently tick every box in regards to being a healthy aquatic eco system, having visual amenity and being a primary contact recreation site- yet in Chapter 17 of the EIS it is identified as being one of the waterways most at risk from the construction-including from earthwork stockpiles. Surely this is too valuable a community asset to be put in jeopardy from a polluting road system. The ephemeral water courses along Wakehurst Parkway are also important breeding habitats for the threatened Red Crown Toadlet. The report states that "There is potential for indirect impacts to groundwater ecosystems".

Appendix S page 288 says that "construction activities could result in soil erosion, siltation, increased levels of turbidity, changed Ph levels in waterways, accidental fuel and chemical spills, contaminated run off into Manly Dam and associated creeks with increased sediment loads and nutrients"
[Numerous reports of pollution and negative impacts on waterways, have been lodged with Northern Beaches Council catchment team as a result of the current Mona Vale Road expansion]

Biodiversity surveys have been done for flora and fauna (although not aquatic fauna) yet strangely the impact on humans that swim in Manly Dam has **not** been assessed!

FLOOD EVENTS!

"The concentration of flow at discrete locations along the widened section of the Wakehurst Parkway has the potential to increase peak flows, and hence flow velocities and the duration of inundation, in a number of receiving drainage lines which run to the east of the road corridor. Conversely, in a number of different receiving drainage lines which run to the east of the road corridor, the upgrade of the Wakehurst Parkway also has the potential to decrease peak flows."

There is no analysis of the scouring and increased water velocity of the discharge of the constructed water quality ponds. The four water quality control ponds, one on the west side of Wakehurst parkway and 3 on the East side, will create yet another adverse impact on bushland and are likely to flood and overflow during peak rain events causing additional harm to sensitive water catchments. (They will also require an extensive amount of ongoing maintenance to be effective)

The runoff capacity at Aquatic Reserve is limited and designed for current flooding events. In the even of heavy rain events, storm water could run over the edge of the reserve and down the hill into Manly Dam Reserve, leading to increased scouring and siltation of Manly Dam and Manly Creek.

The below image portrays what happened after 2018 land clearing at Manly Vale Public School (also on a steep hillside). Huge volumes of siltation subsequently ended up in Manly Creek after heavy rain events.

Ironically Council has been trying to reduce hard surfaces in water catchments for decades

The Sydney Water site at Kirkwood Avenue, Bantry Bay was saved by the community from a housing development in 2015 and promised to be returned intact to the adjoining War Memorial Park by Mike Baird (Premier of NSW). This very site is now earmarked to become a temporary construction support site with all rare biodiversity cleared.

Appendix S page 187 states that "Impact to sensitive areas have been minimised by optimising the location and layout of temporary construction support sites". The polar opposite is happening here in an area which has the most biodiversity to lose !!

In 2018 Sydney Water Commissioned a Biodiversity Assessment of this 1.65-hectare area. The site is habitat for a wide range of species, including five (5) threatened species. A total of twenty-nine (28) native fauna species were detected during the current survey. Five (5) threatened fauna were detected and potentially detected in this survey. They are the *Chalinolobus dwyeri* Large-eared pied bat, *Miniopterus australis* Little Bent-wing bat, *Miniopterus schreibersii oceanensis* *Eastern Bent-winged bat, and *Pteropus poliocephalus* Grey-headed Flying Fox. The *Cercartetus nanus* Eastern Pygmy-possum was probably recorded on site by a motion camera. Dense bushland connects to the North and East boundaries.

(*The Eastern Bent-winged bat, listed in the above assessment, was not even identified in the Beaches Tunnel EIS which casts doubt on its reporting standards).

A total of eighty-five (65) native plant species were recorded during the flora survey. 0.46ha is already occupied by infrastructure.

The remaining 1.19ha of bushland is in good condition. In the north-west corner of the site there is a canopy of *Allocasuarina littoralis* Black She-oak and dense scrub layer of *Banksia* spp. that provides foraging and nesting habitat for *Pseudocheirus peregrinus* Common Ring-tailed possum. It may also provide habitat for the *Cercartetus nanus* Eastern Pygmy-possum. Canopy trees may provide some sheltering resources for threatened birds such as *Ninox strenua* Powerful Owl. While *Allocasuarina littoralis* Black She-oak may provide foraging habitat for - *Calyptorhynchus lathami* Glossy Black Cockatoo.

This is an identified haven for small birds such asThe Golden Whistler, Musk Lorikeet, Superb Fairy Wren, Spotted Pardalote, Eastern Whipbird, Grey Fantail and the Red Wattlebird.

The site-specific environmental controls included “the retention and protection of the native flora and the protection of habitat for native fauna”.

A channel will even be formed at the eastern edge of this site impacting more bushland and directing drainage water down towards a golf course dam. This area is at an elevation of 100m above sea -level, so there would be nothing to stop a flow of earthwork siltation and sediment flowing downhill during heavy rain events.

Key activities for this bushland site include “clearing, grubbing, topsoil stripping and bulk earthworks” (Chap 6 p75) Hardly conducive to “avoiding sensitive environments and community locations where possible”. “The site would be rehabilitated and revegetated as soon as practicable after construction completion and land that is surplus to Sydney Water’s operational requirements would be transferred to the Manly Dam Reserve. This would add about 4000 square metres of new public space to the Manly Dam Reserve”. Chap 5 page 51-

But this is after all the biodiversity has been destroyed which is just wrong!! And it was earmarked to be returned intact several years ago!!

[NB..this area was already in the Reserve before Sydney Water requisitioned it]

*(*A REFERENCE AS TO WHY THIS SPECIFIC SITE WAS CHOSEN IS IN THE END OF THIS SUBMISSION. PLEASE RECONSIDER A LESS DESTRUCTIVE ALTERNATIVE.

A ventilation outlet along Wakehurst Parkway will produce emissions so great that it will even “Have the potential to effect prescribed airspace”. There would be increases in the PM2.5 concentration along Wakehurst Parkway and a large increase in traffic (about 140 per cent) as a result of the project. However, the section of Wakehurst Parkway that is affected crosses bushland, so all the toxic air quality would be released in to the very area that people go to for bush walks, biking and leisure activity- An area that comprises Sydney’s so called “Green Lungs”!! The unfiltered stack will be on a ridgetop above a natural basin which the bad air quality (complete with a range of toxins) will settle into!!

The EIS for both the Western Harbour and Beaches Link tunnels put future pollution levels at more than double the maximum PM2.5 limits across the route-any amount of PM2.5 does harm according to the W.H.O.

A new shared user pedestrian/bike path would also cut through and damage sensitive bushland adjoining MWWMP (map Chap5 page 14) Including Duffys Forest EEC to the west of Warringah Aquatic Centre. (map Chap 5 p 16)

THE RMS maps in Chapter 5 omits the entirety of Aquatic Reserve from Manly Warringah War Memorial Park. This is totally incorrect and maybe explains why there seems to be less heed to the environmental harm that will be caused by building a shared path through bushland.

Wakehurst Parkway south (BL12), Wakehurst Parkway east (BL13) and Wakehurst Parkway north (BL14) construction support sites have a “high risk of dust settlement, human health and ecological impacts as a result of earthworks, construction and track-out activities”. (Chap 12 p22)

COASTAL UPLAND SWAMPS

There are two identified Coastal Upland Swamps in Garigal National Park on the Western side of Wakehurst Parkway. These are listed as a “Threatened Ecological Community” In Chapter 19 of the EIS it says that the extent of groundwater dependence is **UNKNOWN.** And that the swamps ***may*** be impacted. Yet it goes on to say that the project would **not** have a significant impact. How can this be so?? As a Threatened Ecological Community this should be referred to the Australian Minister for the Environment.

PRECAUTIONARY PRINCIPLE?

This is just one of a series of cases in the report where the Precautionary principal has not been adopted and there seems to be a “She’ll be right” mentality. Premier Gladys Berejiklian is a firm advocate of the precautionary principle when addressing the Covid 19 scenario. Sadly, in environmental considerations (including this EIS) it seems to be sadly lacking.

ABORIGINAL HERITAGE.

The Bantry Bay Aboriginal Engraving site is highly significant. Chap 15 p 25 says “There is the potential for changes to the visual setting and the surrounding landscape due to tree removal. A huge new road will encroach into the site’s ambience. Yet the risk of impact is described as “negligible”.

https://www.abc.net.au/news/2018-12-17/beaches-link-tollway-threatens-to-destroy-ancient-aboriginal-art/10624752

https://www.sbs.com.au/nitv/article/2018/12/17/aboriginal-heritage-may-be-destroyed-if-new-toll-road-goes-ahead

Pages 183 and 187 of Appendix S say “The majority of the project avoids surface impacts to the terrestrial biodiversity values by tunnelling”. Yet p182 says “Wakehurst Parkway is where the most biodiversity impacts occur. SO WHY END THE TUNNEL EXACTLY IN THE VERY PLACE WHERE THE MOST BIODIVERSITY EXISTS?? This is totally hypocritical!

Just like in most destructive projects in NSW the proponents are legally allowed to “offset” the loss of threatened species and endangered ecological communities by simply purchasing what’s known as “Biobanking” credits. This supposedly protects another area to make up the for the loss. It sounds ok on paper but, in reality, this is a deeply flawed system established to facilitate development in sensitive environments.

For example, this project will destroy habitat for six identified threatened fauna species in or next to the construction footprint. (plus, an additional threatened species that has been omitted [The Eastern Bent-winged Bat]- see page 9 of this submission).
They are the Grey headed Flying Fox, Rosenberg's Goanna, The Powerful Owl, large Bent-winged bat, The Little Bent-winged bat and the Large-eared Pied bat. Six other threatened species are deemed highly likely to occur in the construction footprint including the Eastern Pygmy Possum and the Red Crowned Toadlet. There is also a threatened flora species next to Wakehurst Parkway-The Magenta Lilly Pilly (Syzigium Paniculatum) that will be destroyed. The total number of eco system and threatened species credits required will be 4411. So a government can just buy its way out of driving extinctions.

Here are links to some of the problems with Biobanking: -

https://theconversation.com/biodiversity-offsets-could-be-locking-in-species-decline-14177

In some cases, the same biobanking site has been revealed to have been used several times for different developments! The below linked article, by Rachel Walmsley of the Environmental Defenders Office, describes Biobanking as "The Political Endorsement of Extinction"
https://www.edonsw.org.au/political_endorsement_of_extinction

“Biobanking” is not leading to improved environmental outcomes, it is endorsing local extinctions and rubber-stamping biodiversity destruction.

Modern infrastructure projects should surely protect and retain threatened eco systems and sensitive environments- not use them as collateral damage. An Australian Conservation Foundation report 2020 called “The Extinction

Crisis in Australia’s Cities and Towns” says this: -
While our national parks and wilderness areas are essential for protecting biodiversity, our cities and towns also provide critical habitat for threatened species.
In fact, 25% of Australia’s nationally listed threatened plants and 46% of threatened animals can be found in our urban areas.

Between 2000 and 2017, at least 20,212 hectares of forested habitat for nationally listed threatened species has been destroyed in Australia’s cities and towns. In the last 300 years, 85% of the world’s wetland areas have been destroyed. Last year more than 3 billion Australian animals were killed by bushfires. Are we really in a position now to purposefully destroy more threatened species habitat?

Whilst 64 nations around the globe pledge to reverse biodiversity loss by 2030, the NSW government is still clearing koala habitat, approving new coal mines and even permitting the destruction of our water catchments.

This project is yet another example of archaic planning which will sacrifice biodiversity for bitumen. Which century are we living in???
https://electrek.co/2020/09/28/64-countries-pledge-to-reverse-biodiversity-loss-by-2030/

On our current trajectory, Sydney will be too hot to live in within decades). If the environment collapses so will our economies.
https://www.abc.net.au/news/science/2021-01-24/heatwaves-sydney-uninhabitable-climate-change-urban-planning/12993580

That's why projects should follow Biodiversity Sensitive Urban Design (BSUD) methodologies.

Over a 20-year period The Community has transformed the Mermaid Pool on nearby Manly Creek (on the other eastern side of Manly Dam) from a rubbish dump to an urban bushland oasis, removing weeds, planting endemic species and improving water quality. All this work will have been futile if the catchment upstream is degraded. Chapter 17 p15 of the EIS says that "Immediately downstream of the dam the creek is polluted and heavily infested with weeds" This is an affront to all the work that has been carried out!!

https://thegreenmanly.blogspot.com/2013/09/how-to-revive-mermaid.html

TRANSPORT SOLUTIONS.

Deloitte has identified the trends in transportation. Building mega new road networks doesn't appear to be one of them.

https://www2.deloitte.com/us/en/insights/industry/public-sector/transportation-trends.html

Around the world forward-thinking cities are using new public transport technologies, not turning to Los Angeles style road networks that create *additional* volumes of traffic, air pollution, biodiversity loss and impacts on water quality. Is endless population growth the driver of this project? The Northern Beaches Local Housing Strategy (currently on review) projects a population increase of nearly 23,000 people by 2036 (all within a finite space).

https://yoursay.northernbeaches.nsw.gov.au/local-housing-strategy?utm_source=northernbeaches.nsw.gov.au&utm_medium=301&utm_campaign=Website

Despite this…new rapid bus corridors and changes in commuting habits seem to have been effective in reducing traffic.

Traffic data from RMS monitors on major roads into the Northern Beaches show no increase in traffic over the past decade. Predicted increases in traffic are only explicable by turning Frenchs Forest into a huge development zone. But this would surely be served better by fast public transport connected to the metro at Chatswood.

“After the construction phase, heavy industry will be encouraged into the Northern Beaches due to greater access for large articulated trucks (i.e. B-doubles and other higher mass limit vehicles)” (Chap 21.5.5)
Construction traffic modelling in Chapter 8 shows that existing roads can handle all the construction traffic with no problem (That’s 1700 extra truck and ute movements a day every day for 3-4 years just to Balgowlah). So why do we even need a tunnel??

"The problem, of course, with any new motorway is the problem of induced demand. Building more roads to relieve traffic is like buying bigger trousers to lose weight," Rob Stokes.

ADDITIONAL ENVIRONMENTAL IMPACTS OF THE BEACHES LINK.

As well as causing serious damage to bushland adjoining Manly Warringah War Memorial State Park and Garigal National Park, the Beaches Link project will involve…

Building a road through Balgowlah Golf Course and degrading that environment, threatening a colony of Grey Headed Flying Foxes and realigning Burnt Bridge Creek. Maximum flows of Burn Bridge Creek would be reduced by 96% after 100 years of operation (Chap 17 p57)

A section of Middle Harbour would be dredged and 6 barge loads of material a day would be dumped at sea (Chap 1 p 12) This will involve the disturbance of toxic sludge.

https://www.smh.com.au/national/nsw/i-m-outraged-secrecy-over-plan-to-dig-up-sydney-harbour-s-toxic-sludge-20200317-p54awm.html

Other sensitive environments will be destroyed along the route (Such as at Flat Rock Gully, Cammeray).

CLIMATE CHANGE

Putting more traffic onto the roads is surely a regressive step as our society tries to addresses a Climate Emergency. Chapter 28 of the EIS details that the construction phase is estimated to represent 0.6% of NSW's carbon emissions. That is a lot for one project. Then there are ongoing greenhouse gas emissions associated with ventilation, wastewater treatment etc. Operational electricity consumption is projected to INCREASE over time as there is an associated increase in traffic volumes.

CONCLUSION

The Save Manly Dam Catchment Committee is **against the** Beaches Link project because the concept uses antiquated and destructive solutions to solve a transport problem. (see the below SMH article)
https://tinyurl.com/y57fzkw3

However, if the tunnel was built for public transport only (as is the case in Brisbane) then all the harmful ancillary road infrastructure would not be required.
Establishing a public transport corridor from Dee Why to Chatswood would also alleviate congestion.

Alternatively, the tunnel could be extended from Seaforth to Warringah Road at Frenchs Forest.so that the delicate environment of Garigal National Park and Manly Warringah War Memorial Park (including the Sydney Water site at North Balgowlah) is not seriously harmed.
One feature of Sydney sandstone is that it is water impermeable at depth and probably noise/vibration etc impermeable, which means a deep underground tunnel would have minimal environmental impacts except where it links with the surface (portals, water crossings, pollution chimneys, access roads, service centres etc).
This might be more expensive but money would be saved in road construction, underpasses, bridges, water quality ponds, biobanking credits etc whilst priceless biodiversity would be protected. It would also lessen the steep road gradient.

The currently chosen Portal B option on Wakehurst Parkway mentions that it “avoided impacts on Garigal National Park and Manly Dam Reserve” (which was, seemingly, an important consideration for planners) …but in reality, the impacts are immense.

Clearing threatened species habitat would contribute to the Extinction crisis already happening in Australia which led to a Senate inquiry in 2019

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Faunalextinction2019

P.S. If the Wakehurst Parkway road expansion is approved the next challenge will be to prevent similar destruction traversing bushland, including Garigal NP, between Warringah Road and Narrabeen Lagoon. A focus on public transport is a sensible alternative to reduce congestion and save the bush.

This short video encapsulates the harm that will occur to the Manly Dam catchment:-
https://animoto.com/play/1I5rvxNZ3wd3NFPVfn7DqA

Save Manly Dam Catchment Committee

https://www.facebook.com/SaveManlyDamBushland

Additional Reference for Seaforth Construction Site Background (see p8- 11 of this submission).

Chapter 4 page 85.

1. ***Wakehurst Parkway tunnel temporary construction support site***

   Initial planning for this temporary construction support site was associated with the initial preferred connection to and from the Wakehurst Parkway at portal location option A (refer to Section 4.5.4) with the temporary construction support site located at Seaforth Oval overflow carpark area on the western side of the Wakehurst Parkway.

   Further community consultation and design development determined the selection of portal location option B as the preferred location of the tunnel portal and connections to and from the Wakehurst Parkway (refer to Section 4.5.4). A preferred temporary construction support site location was then selected on Sydney Water property on Kirkwood Street on the eastern side of the Wakehurst Parkway.

   The eastern option was identified as the preferred location for this temporary construction support site, as it:

- Avoids impact to the operation of Seaforth Oval

- Minimises potential impacts on the nearby community precinct
- Uses land owned by the NSW Government