

Beaches Link and Gore Hill Freeway Connection

Chapter 25 Sustainability

***Overall approach to sustainability through design, construction and operation of the project;**

****Identifies management measures relating to sustainability.**

*****Avoiding or minimising impacts has been a key consideration throughout the design and development process.**

A conservative approach has generally been used in the assessments, with potential impacts presented before implementation of environmental management measures.

Table 25-1 Secretary's environmental assessment requirements – sustainability

<p>1.The assessment of the sustainability of the project in accordance with the ISCA <i>Infrastructure Sustainability Rating Tool</i> is discussed in Section 25.2. A Sustainability Management Plan would be developed during further design development. The Sustainability Management Plan would detail measures to meet the sustainability objectives and targets.</p>	<p>The project was given a general approach and it shows the lack of commitment by aiming to achieve only “excellent” rate (version 1) instead of aiming to the highest rate of the ISCA rating scheme. The sustainability plan <i>would be</i> developed and <i>would</i> detail measures which we need to know now in order to ensure the project in fact will be able to achieve the ISCA rating and results desired by the community.</p>
<p>2.Discussion of the sustainability framework and relevant legislation, policies and guidelines is provided in Table 25-2. The sustainable use of water and energy resources is discussed in Chapter 24 (Resource use and waste management).</p>	
<p>25.1 Overview</p>	
<p>Sustainable development refers to “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987).</p>	<p>This statement is being misused and it is also being generalised, as this project will be the enabler of more developments around the areas in which it would be constructed. It is not meeting the needs of the present as such. Community needs a more efficient public transport routes and options, notwithstanding the fact the project will compromise the ability of future generations to have access to a cleaner air, noise pollution due to induced traffic, the decline on their health and lifestyle due to the destruction of the natural environment.</p>

	<p>In addition to the above, this is a failing action in contradiction to the reviewed recommendations on the national environment laws, this means the government is accepting the decline of our precious landmarks and complacent with the extinction of threatened animals, plants, ecosystems and the right of a healthy environment for the current and future generations.</p>
<p>The Infrastructure Sustainability Council of Australia provides a definition specific to sustainable infrastructure development, being that which is “designed, constructed and operated to optimise environmental, social and economic outcomes over the long term” (Infrastructure Sustainability Council of Australia, 2016c).</p>	<p>It is quite clear the project does not meet the above-mentioned sustainability principal as this project is indeed a step back to social-economic and environmental sustainability. Communities, corporations and governments should be finding solutions to minimise the need of cars and ways of sustaining a more viable economic growth. A simple and current example was during COVID-19, where the traffic has been minimal as more people were working from home. During this period there was also substantial decrease on air pollution and noise. Hence, this project is not the ideal solution for the future of our sustainable economic growth.</p>
<ul style="list-style-type: none"> • The sustainability framework that has been developed for the project, including the application of the Infrastructure Sustainability Council of Australia’s Infrastructure Sustainability rating scheme to the project Beaches Link and Gore Hill Freeway Connection Environmental impact statement 25-2 	<p>All statements made by the project are the same and it repeats itself throughout this paperwork. Community needs more clarity.</p>
<ul style="list-style-type: none"> • Legislation and policies relevant to the project 	<p>A policy that allows freshwater streams, which are vital for the health of the population and the environment, to be encroached to its limit by developments which will have a despicable and irreversible impact on the fresh water stream.</p> <p>Covering up creeks is a crime against our wildlife and flora, the creek is a vital source of water and covering it will hide the imminent pollution and degradation happening below such.</p>
<ul style="list-style-type: none"> • Application of the principles of ecologically sustainable development to the project 	<p>Principles may have been applied however, level of compromise and details of application of those principles are clear on this project.</p>
<p>25.2 Beaches Link and Gore Hill Freeway Connection sustainability framework</p>	

<p>The sustainability framework has been prepared to ensure that sustainability is embedded in project planning, design, construction and operation. The sustainability framework provides the overarching vision, objectives, targets and implementation approaches for the project.</p>	<p>Implementation approaches seems backwards and are not taking in consideration the real future benefits for the community surrounding the project nor the real necessity and alternatives to resolve the current needs.</p>
<p>Figure 25-1 Framework</p>	
<p>Sustainability and Infrastructure SRCMP Clearly defined actions to achieve sustainability objectives and targets and address the infrastructure sustainability rating scheme credits</p>	<p>It is not clearly stated on this project how the offset credit will be implemented, when this offset will start to take place, where and who will be responsible to maintain it.</p>
<p>Environmental Assessment and approval doct. Assessment of environmental impacts and identification of measures to minimise adverse impacts</p>	<p>More developments will follow surrounding the tunnel areas and although this may not be the responsibility of this project, it needs to be accounted for accurately. This will bring more housing, businesses therefore more cars which will defeat the purpose of this tunnel which is less traffic and rat racing. This means project contradicts its own statement related to avoiding its impacts.</p> <p>On Chapter 18 Flooding, it again demonstrates the lack of commitment in ensuring the mitigation of assessed risks related to floodwater. This again shows the long-term negative effects community and environment will have to cope with. The increased risk of soil contamination and erosion, hazard traffic conditions and the possibly the inability of using the road needs further is increased with the current issue of temperature rise and climate change.</p>
<p>Infrastructure Sustainability rating Achievement of an “excellent” Design and As built infrastructure sustainability rating from the ISCA</p>	<p>Not very clear how this will be achieved. Why isn’t the aim of a higher standard such as other projects. This project also contradicts the government initiative for green canopy.</p>
<p>Communication Sustainability ambitions, commitments and objectives communicated widely and transparently including through the stakeholder engagement process.</p>	<p>Project needs clarification so community can consult and be aware land being used is not already earmarked for protection and/or in public hands as offsets. Notwithstanding we need to be sure these areas are protected in perpetuity, such as the existence of this tunnel and not treated as another low value, regenerated area, with</p>

	<p>relatively young tress, as it is already doing so with vital patches around the project. This is worrying and we could say that if the above are not being addressed appropriately and therefore, this could happen again to these new areas which were meant to be for the offset.</p> <p>It is imperative clarity and transparency are shown to the community in the project paperwork for accountability and action. We have too many recent examples such as with the new western Sydney airport project and the NB Hospital.</p> <p>Throughout the whole document, the commitments and actions are very vague and repetitive.</p>
<p>The <i>Environmental Planning and Assessment Act 1979</i> facilitates ecologically sustainable development in NSW by integrating relevant economic, environmental and social considerations in decision making about environmental planning and assessment. As an object of the Act, ecologically sustainable development must be incorporated in the planning of the project (refer to Section 25.3).</p>	<p>This once again is understated as too many areas with ecological importance will be irreversibly impacted such as Burnt Bridge Creek which will become a drain and with its flow reduced by 96%, affecting the survival of native fauna and flora and the lifestyle of locals who use the area, the protected bat colony located in Balgowlah which there is no real solution to this as these can't or shouldn't be "relocated".</p>
<p><i>Transport Environment and Sustainability Policy</i> (Transport for NSW, 2020c) The <i>Transport Environment and Sustainability Policy</i> outlines the commitment of Transport for NSW and key transport agencies to deliver transport projects and services in a manner that balances economic, environmental and social issues.</p>	<p>There are no immediate neither short term solutions to the current transport issues we face in this area. This tunnel will take over 10 years to be built and it will not only disrupt the life of all locals but will also not bring an effective long-term benefit to the future living standards of the local population.</p> <p>If the main reason for this project is to connect people, we need a solution which will benefit majority of the population, particularly to those on a lower income. We need a project which takes a real consideration on current cost of living and commuting.</p> <p>The residents of the Northern Beaches need better public infrastructure and not added costs to their work commute or to commute to other areas of Sydney.</p>
<p><i>Environmental Sustainability Strategy 2019-23</i> (Roads and Maritime Services, 2019)The <i>Environmental Sustainability Strategy 2019-2023</i> (Roads and Maritime Services, 2019) aligns with the <i>Transport</i></p>	<p>With the location and sizes of the tunnel's chimneys, they are set to become the ugliest landmark of the areas they will be built. This can be proven by looking at other recent projects.</p>

<p><i>Environment and Sustainability Policy</i> and outlines specific focus areas for integrating sustainability into Transport for NSW road projects and services.</p>	<p>How can this tunnel be larger than the major Harbour Tunnel infrastructure? Will we re-build the entire peninsula to accommodate the number of cars these planners are hoping to bring?</p> <p>It also seems clear that even with major road infrastructures, traffic will not improve as people will drive more therefore, increasing the number of cars. What we need is far better alternatives to incentivise the population to use a greener and more efficient alternative than using their cars.</p>
<p><i>Sustainable Design Guidelines</i> version 4.0 (Transport for NSW, 2017) The Transport for NSW <i>Sustainable Design Guidelines version 4.0</i> are aimed at embedding sustainability initiatives across seven key themes, into the planning, design, construction, operations and maintenance of infrastructure projects. The Secretary's environmental assessment requirements for the project reference the <i>Sustainable Design Guidelines version 4.0</i> as the current guidelines to be considered as part of the preparation of this environmental impact statement.</p>	<p>Why would such small area need this extremely wide, destructive and expensive tunnel when not even a metro or a light rail station was able to make way to this area? Why there aren't any suggestions of incorporating more to this tunnel usage making it a multi-purpose use? Will there be yet another major project to then build more and destroy more on its surrounding areas, when we could surely have done a better design? How is this project a sustainable design when today, we don't have enough car or road space for the current residents, but the aim of this tunnel is to bring more traffic?</p> <p>With regards to recycling and sustainability on the operations, we need more than just office materials being acquired and disposed of in a sustainable way, we need the major polluting parts of this project, the purchasing of raw materials and the construction methods, to be innovative and as clean as possible.</p>
<p>25.2.2 Sustainability vision and policy The sustainability framework establishes the sustainability vision and policy for the project (refer to Figure 25-2). The sustainability vision and policy set the overall direction for implementing sustainability initiatives during the delivery of the project. The vision and policy reflect and align with NSW Government legislation and policies and Transport for NSW's strategic sustainability policy (refer to</p>	<p>We need more clarification and opportunities to know which companies will be involved on this project and their vision. Will contractors be chosen based on their sustainability standards? Our community can't be reliant on vague words of affirmation.</p> <p>One of our major parks is already being pushed to its limit, one development which will destroy an area of Manly Dam and now another area is added to the list as this project proceeds.</p>

Section 25.2.1). The policy acknowledges the need to deliver services and infrastructure that benefit the community and minimise negative environmental, social and economic impacts while maximising positive outcomes. The vision and policy may continue to be refined as the project progresses.	<p>We can't look at this project by itself, all projects happening concurrently needs to be looked at as one.</p> <p>More areas could be, will be or were already destroyed.</p> <p>Where will the community see the offset for all those environmental credits?</p> <p>And where will all those bike tracks, walking tracks and recreational areas be placed without taking even more bushland?</p>
Vision and Commitments of the project (Page 58 - Figure 25-2 Beaches Link and Gore Hill Freeway Connection sustainability vision and Policy)	
Objective & Target Themes (Table 25-4)	
<p>Maximise sustainability knowledge and awareness.</p> <ul style="list-style-type: none"> -Sustainability commitments (including procurement commitments) - Sharing of sustainability outcomes with the community/stakeholders and industry -Sustainability awareness training. 	<p>-It is not clearly stated on this document. A vary vague idea was jotted down but no concrete plans and definition of what will be used and done.</p> <p>-Project should have a much better stakeholder communication. This should not be only with internal stakeholder, but also with the community as they will be the ones affected for years to come.</p> <p>No outcomes or concrete plans has been shared so far on this EIS.</p>
<p>Minimise energy use and greenhouse gas emissions.</p> <ul style="list-style-type: none"> -Embodied energy within construction materials -Construction greenhouse gas emissions -Operational greenhouse gas emissions -Energy efficient lighting. 	
<p>Optimise resource efficiency and waste management.</p> <ul style="list-style-type: none"> -Resource recovery of virgin excavated natural material -Reuse of topsoil -Diversion of office waste from landfill -Resource recovery of concrete and reclaimed asphalt -Encapsulation of contaminated material on site where appropriate -Cementitious substitution materials -Recycled content in road base 	<p>-Encapsulation of Contaminated Material- No effective plans were demonstrated to contain contaminated material at these very sensitive locations. The community should not be burdened with more contaminated soil and water. This has happened enough in our generation.</p>

<ul style="list-style-type: none"> -Recycling of other waste and wastewater -Recycled paper use -Avoidance of single use kitchen items. 	
<p>Maximise resilience to climate change Impacts.</p> <ul style="list-style-type: none"> -Climate change risk mitigation and/or adaptation measures. 	<p>How are we mitigating climate change risks when the construction of this tunnel itself is a major contributor to our climate crisis? Adaptation measures? What are they? Why does the community need to adapt instead of having realistic problem solving measures and projects?</p>
<p>Enhance liveability of local Communities.</p> <ul style="list-style-type: none"> -Heritage values -Community benefit initiatives -Public open space -Urban design 	<p>-Urban Design- The design of the tunnel will permanently change the visual amenities and the lifestyle of the entire community and greatly impact the natural environment.</p> <p>The unnecessary large roads and tunnel (larger than harbour tunnel), the tall chimneys (unfiltered air) and the “temporary” urban elements during the construction (which period are not stated in this EIS Table 22.3) are very questionable elements of this project.</p> <p>-Community benefit initiatives- So far, the only clearly stated benefit on this document is improved delivery routes for freight. This tunnel will cost the tax payers (therefore the community) millions of dollars, which then, this same community will have to pay a high price tolls to be able to “benefit” from the so called improved road system.</p> <p>It is obvious this will not benefit the less privileged community members who do not possess a motor vehicle, having to still find their way through the broken public transport available and neither to those on lower income which would not be able to bear the costs of using a tolled road system.</p> <p>Possibility of improved bus routes is mentioned multiple times, however, there are no concrete plans about it and besides, as stated before, a toll road can’t be the only justification for fixing a broken public transport system.</p> <p>As stated on chapter 9.1.3 Sydney’s Bus Future, would create opportunities however, those opportunities are not concrete. There are currently ways and cheaper opportunities for dealing with public issues.</p>

	<p>Besides, the project of demands does not take in consideration future changes in the work/lifestyle our society is going through. Projected increased demand seems inaccurate as governments and corporations should be looking at a more decentralised approach.</p> <p>-Public open space - The increased number of open spaces which is yet another unclear statement. Over 15 hectares of land would be bulldozed, and even more being degraded as a result. There should be more clarity as to how will these open spaces look like, where will they be and how much of the native bushland will be restored.</p> <p>We need to ensure native plants would be used in every single area of the project open space plan. There are numerous examples of landscape projects throughout Sydney where non-natives, cheap plants (a lot of times succulents) are being planted as a cheap solution. How will this be monitored?</p> <p>The destruction of Aboriginal heritage, increased traffic and noise pollution and water contamination runoffs are facts being taken lightly by this project assessment.</p>
<p>Maximise employment and training opportunities for young people, Aboriginal and Torres Strait Islanders, disadvantaged groups, long term unemployed and people who live along the project's alignment.</p> <ul style="list-style-type: none"> -Apprenticeships -Training and development -Workforce participation. 	<p>There are many other ways of employing and empowering community growth.</p> <p>This project may be creating a few opportunities for people working on it however, the same will cause a lot of local businesses to shut and relocate, meaning a lot of jobs will be lost and these businesses heavily affected (point 21.5.5).</p>
<p>Efficiently manage water.</p> <ul style="list-style-type: none"> -Water use during construction -Water use during operation -Use of non-potable water. 	
<p>Minimise pollution generated by the Project.</p> <ul style="list-style-type: none"> -Air quality -Noise and vibration -Water quality -Reporting and tracking of environmental 	<p>-Air quality- Emissions during and after the construction of this tunnel will deplete air quality in the area.</p>

incidents.	<p>-Noise and Vibration- Community will need to tolerate noise disturbances higher than the recommended levels for over 8 years.</p> <p>-Water quality- Studies shows the water on the Harbour floor stores highly contaminated sediments with toxic substances, the construction of the tunnel will not only disturb the topsoil but also add to its pollution and contamination through soil runoff, storm water and others.</p> <p>Another worrying fact is the contamination of our precious ground water and water catchments. The project shows geological faults lines runs along sensitive areas such as the Manly Dam.</p> <p>Not to forget the visual pollution all the community will endure throughout the construction of the tunnel as well as the permanent changes of the urban design and minimised bushland.</p>
<p>Minimise impacts on biodiversity.</p> <p>-Ecological value and biodiversity.</p>	<p>Minimising is not completely avoiding the imminent impacts of the degradation and clearing of these important areas. Yet again, there are no clear explanation and proposal of how this will be achieved, and it is not stated at all on point 28.2.</p> <p>Removal of about 15.4 hectares of native vegetation and native revegetation is unacceptable, specially in such rare and important areas located on the community. It is abhorrent to this the revegetated area is treat as not important when so much time, work and money was invested on it and not withstanding the fact there was a purpose on doing so.</p>
<p>Maximise sustainable procurement.</p> <p>-Sustainability and social aspects selection criteria</p> <p>-Labour practices</p> <p>-Procurement of sustainable timber.</p>	<p>How will these “sustainable” be implemented, tracked and audited and which body will be responsible for such?</p> <p>There are no clear statements of hoe this will be achieved.</p>
25.2.4 Integration and implementation of sustainability framework	

<p>25.3 Ecologically sustainable development</p> <p>Ecologically sustainable development is defined under the <i>Protection of the Environment Administration Act 1991</i> (NSW) and includes four principles:</p> <ul style="list-style-type: none"> -The precautionary principle -Intergenerational equity -Conservation of biological diversity and ecological integrity -Improved valuation and pricing of environmental resources. <p>(refer to chapter 28 and table 25-5)</p>	<p>This project goes against the principal of conservation and ecological integrity. Constructions along sensitive creeks and lakes should not be allowed specially with the HIGH contaminated risk areas. According to except page 59 Table 16-13 of the Geology Soils and Groundwater, ground water will affect many of our indispensable ecosystems such as Manly Dam, Flat Rock, Bates Creek and others.</p> <p>The list of fauna and flora being affected is endless and it includes endangered species such as ancient fish climbing galaxias and pigmy possums.</p>
<p>Table 25-5 Application of the principles of ecologically sustainable development to the project</p>	
<p><u>Principle</u> -Precautionary principle If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.</p> <p><u>Application to the Project</u> - Sustainability workshops and meetings held during design development with planning and design teams to develop draft sustainability targets and objectives for the project.</p>	<p>-Concrete decisions and positive outcome of these workshops was not clearly outlined throughout this plan.</p> <p>There are no proposals for effective ways of completely avoiding and mitigating the risks posed to the community and the environment.</p>
<p><u>Principle</u> -Intergenerational equity The present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.</p> <p><u>Application to the Project</u> - Project designed to meet with needs of both current and future generations with a design life of 100 years.</p> <p><u>Application to the Project</u> Support for Sydney's long term economic growth through improved motorway access and</p>	<p>Needles to say, this statement shows how this project does not fit to the ecological sustainable principles.</p> <p>-100 years seems a long time, however as mentioned previously, future generations may not need a 6 lanes tunnel, future generations may have a decentralized and fairer economy, future generations should have access to greener options than motor vehicles, future generations need multi purposed projects and future generations needs a stronger protection and conservation of the very few ecosystems left specially in our urban environment.</p>

connections across Sydney's Global Economic Corridor, particularly the strategic centres of Sydney CBD and North Sydney and the Northern Beaches, with improved connection to Macquarie Park and north-west Sydney.

Application to the Project-

Contribution to improving the capacity, functionality and safety of the road network servicing the Northern Beaches for motorists, buses and freight.

Application to the Project -

Contribution to the increased resilience of the road network servicing the Northern Beaches through the provision of an additional crossing of Middle Harbour.

Application to the Project -

Reduction of operational greenhouse gas emissions on Sydney's road network when compared to the project not being built.

Application to the Project -

The mainline tunnel ventilation system has been designed for coordinated operation with the adjacent and connecting Western Harbour Tunnel and Warringah Freeway Upgrade project. The tunnel ventilation would meet the in-tunnel air quality criteria and would be operated in accordance with licensing requirements.

-As discussed previously, the tunnel is not the only applicable solution, let alone the solution for a sustainable economic growth.

-Again, doubtful functionality.

-Same statements are being repeated throughout this paper. So, with that I repeat that these will be toll roads which will force locals to pay for its use in order to get the benefits. This also apply for those people less fortunate, still being disadvantaged by the tunnel construction.

-The improved capacity will not minimize rat racing, will bring more cars and trucks to the area causing more congestion. There will be a lack of car space for locals as well as future visitors. There are areas which has already significant bottle neck and the tunnel will not service those areas, therefore, it will contribute to aggravating the traffic.

-How will this tunnel help reduce gas emissions? This statement is an absurdity. More cars are meant to drive through the tunnel therefore more air and noise pollution notwithstanding the amount of power, resources and carbon in order to build considering the 7+ years of construction plus operation and maintenance of such.

-I does not mean ventilation criteria is good, in fact, its proven there are no efficient air filtering on any of the tunnel systems.

**Conservation of biological diversity and ecological integrity
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should be a fundamental
consideration of the project.**

Application to the Project -Through this process, consideration was given to avoiding and minimising biodiversity impacts by way of locating project elements away from areas of biodiversity value as

-These areas are sensitive areas where volunteers took years of work to recover and maintain.

-The impacts of this project is extreme and in a moment that we are where scientist found at least 19 ecosystems collapsing, also due to land clearing, is not making out fight against climate change any easier.

- Are these going to be offset by just planting a few shrubs and opening a lot of open spaces????

<p>far as practicable. Where this was not possible, project elements were situated in areas with lower biodiversity values.</p> <p><u>Application to the Project</u> -The design of the project within the preferred corridor was then refined and assessed with the aim of further identifying, avoiding, minimising and mitigating impacts. The construction methodology has also been developed to avoid and minimise adverse impacts on biodiversity .</p> <p><u>Application to the Project</u> -The project would require the removal of native vegetation and potential fauna habitat. Detailed terrestrial and marine biodiversity assessments were carried out for the project to identify potential impacts on biodiversity and to provide a range of mitigation measures to further avoid and minimise potential impacts.</p> <p><u>Application to the Project</u>- Residual biodiversity impacts would be offset in accordance with the requirements of the <i>Biodiversity Conservation Act 2016</i> and relevant guidelines. The offsets required for the project were calculated using the BAM Calculator. A total of 391 ecosystem credits and 1099 species credits are required to offset the direct impacts of the project. An additional 50 ecosystem credits may be required to offset indirect impacts; these would be in addition to BAM credit obligations and are at the discretion of the Minister for Planning and Public Spaces.</p>	<p>We need to be aware of conditions of the new land. Has it been examined for contamination? Was this land already promised for conservation prior to this project?</p> <p>This is sensitive and essential information community should be communicated about as a matter of transparency, there are already recent cases where the land where offset could not be created on another area of the tunnels (west/M8) due to unsuitability.</p>
<p>Improved valuation and pricing of environmental resources</p> <p>Environmental factors should be included in the valuation of assets and services.</p>	<p>- We need to be aware of conditions of the new land. Has it been examined for contamination? Was this land already promised for conservation prior to this project?</p> <p>This is sensitive and essential information community should be communicated about as a matter of transparency, there are already recent cases where the land where offset could not be created on another area of the tunnels (west/M8) due to unsuitability.</p>
<p>25.4 Environmental management measures</p> <p>Table 25-6 Environmental management measures – sustainability</p>	

<p>Project sustainability objectives and targets will be finalised during further design development, informed by the requirements of the project planning approval.</p>	<p>How can the community have their say on something that is not even finalised or clearly and openly communicated and discussed? does it mean we won't really know what the plans and strategies truly are until after project starts?</p> <p>And how will the community be involved if, at any point in time during the project, there are variations on these strategies, targets, objectives and design?</p> <p>Since once this goes ahead, it will be all about money and making sure the project is done?</p>
<p>Activities to implement the sustainability framework, including requirements from the Infrastructure Sustainability rating scheme, will be implemented through a Sustainability Management Plan. The management plan will detail measures to meet the sustainability objectives and targets as well as achieving 'Design' and 'As Built' ratings of Excellent under the Infrastructure Sustainability Council of Australia (ISCA) rating scheme.</p>	