MBRA SSUBMISSION for EIS 26 February 2023

SUMMARY

Travel time between Medlow Bath and Hartley is predicted to reduce by just 9 minutes when the tunnel is finally completed in the 2030s. The possible destruction of fragile ecosystems, impact on threatened species, impacts of increased large freight vehicles on lives and environment for the saving of just 9 minutes, cannot be justified.

This project must be paused and reviewed and other alternatives carefully considered. This Duplication affects every person and village in the Blue Mountains. This is not an urban environment where the effects may not be as greatly noticed. This is a World Heritage Area about to lose that status and along with that much that those who live in the Blue Mountains value. A major highway, a duplicated surface road and a tunnel with multiple environmental impacts has no place in the Blue Mountains and we request the Government to look at an alternative which does not traverse the Blue Mountains with multiple villages, school zones and lives.

When developing this project Transport for NSW did not consider the development of Rail as a means of improving the movement of freight to the Central West; and for passenger travel. This is an essential component of an integrated transport system which responds to Climate Change and is a true plan for the future. We request that Transport for NSW reinstate the hourly train service to Lithgow to respond to current and future needs.

Environment

- Catchment
    - This site is wholly within the Blackheath Special Catchment area, which protects Greaves Creek Dam on Greaves Creek, and Lake Medlow on Adams Creek. Residents living between Medlow Bath and Mt Victoria depend on these dams for their water supply.
    - The Blackheath construction site will be located right at the headwaters for Greaves Creek which flows through the Walls Cave Aboriginal Area, into Lake Greaves, on into the Greater Blue Mountains World Heritage Area, through the iconic Grand Canyon into Govetts Creek and then into the Grose River. These are areas in the World Heritage Area and will threaten its status.
    - Roadheaders or special rock excavators will be used to dig a 250m tunnel from Soldiers Pinch to meet the eastbound tunnel. Top portion of this tunnel would be lined, bottom half would not and any groundwater would be drained into main tunnel water system. The risk of this water entering fragile ecosystems is of great concern.
    - Lining for the TBM tunnels would consist of precast concrete segments, transported by truck to Little Hartley site from cement factory that will need to be

built for this purpose. (Ch 5, Fig 5-12). This type of industry in a rural area and at the edge of National Park and World Heritage Area is of great concern.
    - TfNSW state that leaching of cement from the tunnel will change the pH of ground water and could affect the downstream swamps and endangered vegetation communities. The protection of these areas is crucial.

- Swamps
  The threat of sedimentation (and weeds) entering the Blackheath Special Catchment Area and the downstream World Heritage Area from both the initial clearing of the site and the 9 years of road widening and portal/tunnel construction is very real. Current water flow through the catchment area helps feed hanging swamps which are nationally endangered and which are home to a unique range of fauna including the endangered Giant Dragonfly and endangered Blue Mountains Water Skink.

- Aquifers
  Will the 11km tunnel be deep enough to avoid the aquifers?
  It does not appear so because cut and cover tunnels will be dug by Roadheader machines for about 250m at each tunnel portal in Little Hartley to where Tunnel Boring Machines (TBMs) can begin digging the two tunnels, as well as at the Blackheath end of the tunnels near Evans Lookout Road. (Ch 5, 5.4.2) These shallow trenches will be "covered" but will still intercept shallow aquifers feeding the hanging swamps that are the habitats of endangered flora and fauna. The impact of shallower tunnels on the aquifers, hanging swamps and creeks and waterfalls is unknown. Inflow into Greaves Creek is predicted to be reduced by up to 15-17% due to the tunnel portal diggings.

- Air quality
    - Two main types of ventilation systems are being considered for the tunnels, one using fans and vehicle flow to expel vehicle emissions out the tunnel portal; the other using a 10m high ventilation outlet stack at end of each tunnel. The tunnel portal ventilation system will use 55,000 kWh/day of electricity, while the latter will use 73,000kWh/day more of electricity per day, but emissions are somewhat lower. In this Climate Change Emergency, this is not a plan for the future. Exhaust coming out of tunnel portals will negatively impact residents living nearby which is not acknowledged.
    - The effects of fine particulates on photosynthesis of vegetation are not well understood; and there is not currently an established criteria for assessment of ecological receptors with regards to PM2.5 concentrations.
    - The dispersion model uses regional meteorological data to predict the direction of travel and degree of dispersion for a pollutant from the point of emission. The study used less than 12 months of data from only one (of 3 possible) sites to 'model' the outcome: '*As such no significant air quality impacts are predicted for the project for the ventilation outlet option.'* Blackheath and Soldiers Pinch construction sites are considered to have a high sensitivity to dust due to their proximity to the Blue Mountains National Park which is regarded as a highly

sensitive ecological receptor due to its World Heritage and National Heritage listings.
    - Slightly higher annual average Nitrogen Dioxide (NO2) concentrations are generally predicted for the portal and ventilation stack emissions. NO2 lowers the pH of water and soil, making it more acidic. The Blue Mountains environment is fragile. This is not a city. We cannot risk this damage.
    - A mitigation measure for dust is locating and managing dust generating stockpiles away from sensitive human and ecological receptors. The 5000 cubic metre spoil pile at Evans Lookout Rd adjoins residences, National Park, and water catchment. And it will not be covered.

- Threatened species
    - Greater Gliders: A number of mature trees with hollows (20) will be cleared for the tunnel portals and the work site at Blackheath near GWH and Evans Lookout Rd, and these tree hollows will be saved, stored somewhere and then tied up into the new trees TfNSW will plant after the tunnel work is finished. As these trees will not be mature for at least 20 years the threat on this endangered species is very real. This is not a plan which will save or protect this endangered species.
    - Large Eared Pied Bat is also a Threatened Species affected by the Project.
    - Gang Gang Cockatoos are threatened and endangered. Little is known about them. They forage in this area.
    - A further 8 species are likely to have their habitat affected. Our world cannot risk further extinctions.

- Blackheath Construction site (corner of Evans Lookout Rd and GWH)
    - The worksite will extend across 23 hectares and will back on to 9 homes.
    - Worksite will be operational for 9 years and will include some permanent buildings for tunnel infrastructure.
    - All vegetation will be cleared and the land will be levelled at the start of the Katoomba to Blackheath Duplication and used for that, and then for the Blackheath tunnel construction.
    - During construction there will be truck and light vehicle movements up to 260 times per hour or 790 movements per day (est.).
    - Blackheath worksite will have parking for about 100 vehicles, including construction vehicles; but construction workers may choose to use available on-street parking which may impact on-street parking for nearby residents and visitors.
    - Plans for this site have changed from the East Section Review of Environmental Factors (REF) Submissions Report (Oct 2022) to release of EIS (Jan 2023). However, the EIS states it has already been 'assessed and approved' as part of the REF.
    - The planned road/shared trail is now wider and paved and will be used by vehicles. The number is unclear and also the impact on Coachhouse Lane residents.

Trucks

- The introduction of 26/30/36m trucks affects the whole of the Great Western Highway (GWH) 'Freight Corridor' in what is currently the only local road for many villages. TfNSW states that the GWH Duplication is about giving local roads back to locals. This is clearly not happening. A 36m truck is 2.5 times longer than a 40 seater bus, and these trucks when loaded can weigh between 84-91 tonnes. Many Blue Mountains Villages will have these trucks driving right through their centre.
- There has been no consultation with any of the Blue Mountains residents about the introduction of these 36m trucks. Only 26m and 30m trucks have been mentioned in the REF's to date. This is an example of TfNSW misleading the public as the REF Submission Reports were released less than 5 months ago.
- What is the impact of trucks of this size in the Tunnel for all road users?
- What issues have been assessed for 26/30/36m Trucks using the GWH through other mountains villages such as Blaxland, Faulconbridge and Wentworth Falls and Medlow Bath where the highway is narrow?
- What other impacts from these larger trucks are expected and have they been assessed?
- A full assessment of the introduction of 36m trucks, as well as community and stakeholder consultation throughout the Mountains is needed immediately about this proposed change.
- A 30% increase in freight through the Blue Mountains poses significant (high) impact for road users including residents and tourists. What Socio-economic studies have assessed this?
- The Cumulative Impacts of the introduction of 26/30/36m trucks has not been assessed in any of the REF's. There must be a pause on all construction while these are assessed, as this is a requirement of the division of the GWH Duplication into 4 separate projects.

Vibration impacts

- Tunnel Boring Machines (TBMs) dig tunnels 24/7 at rate of about 70-90m/week with the deepest point being about 200m below Mt Victoria.
- However, the tunnel would only be 25m below ground at Evans Lookout Rd and at Hartley.
- The TBM will take 5 to 6 days to pass below a single business or residence . It has been stated that while residents in the nearby area can expect to experience vibration impacts, no damage is predicted. What studies have assessed these vibration impacts? What comparisons are there with tunnels through sandstone in other areas, such as, where blocks of flats have collapsed during the construction of a tunnel?
- The roadheader machines are constructing the 90-120 cross tunnels for safety routes. Could we have some confirmation of the noise impact of construction for these?
- 'Effective noise mitigation and management measures would need to be developed by the contractor to minimise the potential noise (Great Western Highway Blackheath to Little Hartley), impacts from these works'. When will these be developed? What are they?

- How will you ensure that the contractor will adhere to noise management and what oversight will TfNSW have on the measures the contractor develops?
- The EIS predicts a 2dB increase from construction traffic. I assume this is just the movement of construction workers vehicles, not the actual noise generated by construction machinery. If this is so, surely a whole of project EIS to predict increased noise and vibration along all of the Blue Mountains GWH (BMGWH) is necessary. The 24/7 increase in traffic volume by 2030/2040, particularly heavy transport vehicles, would be significantly more than that produced by construction workers vehicles. Therefore, much more than a mere 2dB!. After all, the aim of this project is to allow a massive increase in vehicle movements through the whole of the Blue Mountains.
- Further, with the significant increase in heavy vehicle traffic along the entire BMGWH, will there be any upgrading of regulations regarding (or enhanced monitoring of) compression brake noise? This is already a significant noise disturbance at all times for Medlow Bath residents. Also, have you taken into consideration compression brake noise from trucks entering the tunnel at Evans Lookout Road as this will also be downhill? This effect is recognised in Ch. 11.4.2: 'Maximum noise levels are generally caused by truck engine braking events due to changes in gradient, and/or the presence of intersections,'
- What is the impact of increased noise and vibration over the entire stretch of the BMGWH on wildlife?
- *'In the 2040 'without project' night-time scenario, it is predicted that 35 per cent of vehicles using the Great Western Highway, west of Evans Lookout Road are heavy vehicles, whereas the heavy vehicle percentages drops to 19 per cent in the 2040 'with project' scenario west of the Blackheath Interchange on the existing Great Western Highway alignment. In the 2040 'without project' night-time scenario, it is predicted that 1,507 vehicles would use the Great Western Highway west of Evans Lookout Road, whereas the number of vehicles drops to 663 in the 2040 'with project' scenario west of the Blackheath Interchange on the Old Great Western Highway. Given that a substantial proportion of traffic would use the proposed road tunnels there would be a significant reduction in the number of maximum noise events that would affect residential receivers located close to the existing Great Western Highway, between the two tunnel portals at Blackheath and Little Hartley.'*

  This is all very well, and obvious as the tunnel will take away traffic through Blackheath and Mt Vic, but the issue remains that the expected increase in vehicle movements, particularly heavy vehicle movements, <u>is above ground east of Evans Lookout Road for the entire BMGWH section</u> and increased noise and vibration needs to be assessed for all areas impacted.
- Many of the properties below the Blackheath tunnel section are old and 'frail' – what measures are in place to assure residents that blasting will not adversely affect their homes?

Dust and Silicosis

- The SMH (21/02/2023) tells us that our sandstone contains up to 90% silica (a dust carcinogenic to humans) and that some tunnel construction workers have silicosis. What happens to the dust created from tunnel construction, not just for the safety of workers but also for those who live in the tunnel surrounds? There is no mention of these serious safety issues in the EIS or in statements by the Minister or Deputy Premier.

Dangerous Goods in Tunnels

- Despite years of talk there has still been no Government decision about whether Dangerous Goods can be transported through tunnels. So, will they still be going along the surface road through villages? The EIS is silent about this.
  Where is the safety assessment of 36m trucks carrying dangerous goods travelling through the Blue Mountains on surface roads?

Waste Management

- The tunnel project will generate approx. 7.8 million tonnes of spoil. Excess spoil that cannot be reused must be transported offsite by truck to locations 15-40 km away from Little Hartley. Smaller volumes of spoil from Soldiers Pinch will be trucked west through Mt Victoria for removal. (Ch5, 5.5). These large numbers of truck movements will greatly impact the residents of Hartley and the Blue Mountains.
- An uncovered tunnel spoil pile will be created at the Blackheath Construction Site in the catchment – up to **5000 cubic metres** in size. Why won't TfNSW provide a sound shed over the Blackheath spoil pile to reduce potential downstream sedimentation, and reduce noise from machinery affecting neighbouring houses?
- Trucks hauling tunnel portal spoil and the cement casing pieces used to line the main tunnels will operate **24 hours a day 7 days a week. The visual amenity and liveability of Blue Mountains villages and Hartley will be greatly impacted.**

Social impacts

- There will be a 23 hectare construction site in Blackheath behind nine homes and across the road from other homes and an accommodation establishment. Why can't TfNSW move this site a few hundred metres away from these homes and create a buffer zone to lessen the impact on the lives of these residents for the 9 years that this site will be used for construction? Permanent buildings on this site will continue to impact for decades.
- ***Will the 11km tunnel deliver a prompt easing of traffic congestion?***

No, duplication of the highway through Medlow Bath will cause at least two years of traffic disruption and congestion. Duplication of the highway between Katoomba and Blackheath will then also provide several years of painful traffic chaos. Then, with the additional traffic around the Construction Site at the entrance to Blackheath, it will be more than 10 years of traffic torment suffered by any tourists who venture into the Upper Blue Mountains. The lack of a bypass of Medlow Bath will just move the current congestion further along the Highway.

- *Will the 11km tunnel promote tourism?*
  No, with ten years or more of traffic chaos, tourist visitation is predicted to drop dramatically. Fortunately, tourist infrastructure will supposedly be supported by the spending of those employed in the construction. I wonder how many of them will appreciate our deluxe accommodation facilities, our quality dining establishments, our scenic vistas, our peaceful lookouts, our cute villages and our clean air? Will they become our target customers?

Tunnel Construction

Due to water needed during tunnel construction, a 14km underground water pipeline, 500mm in diameter, is being considered from Lithgow to Little Hartley, taking about 18 months to construct. Pumping stations will possibly be needed along pipeline. Water may even need to be trucked to Little Hartley before pipeline completion. (Ch5, 5.5.6). In this era of Climate Emergency this is a use of precious resources which our world cannot afford.

Travel time savings

Travel time between Medlow Bath and Hartley is predicted to reduce by just 9 minutes when the tunnel is finally completed in the 2030s. The possible destruction of fragile ecosystems, impact on threatened species, impacts of increased large freight vehicles on lives and environment for the saving of just 9 minutes, cannot be justified. This project must be paused and reviewed and other alternatives carefully considered.

EPBC (Environment, Protection, Biodiversity and Conservation) Act

The Project requires approval by the Federal Gov under the EPBC Act if it is likely to have Significant Impact on matters of National Environmental Significance, including World Heritage. In which case it becomes a 'controlled action' under the Federal Gov legislation and requires the proponent to provide further information and do further assessment.

- In the Summary of the EIS it states: *At the time of finalisation of this EIS there has been no decision by DCCEEW on whether the project is a controlled action or not. If the project is not determined a controlled action, Transport is not required to provide a separate assessment of the project under a Commonwealth approval pathway. If the project is determined a controlled action, Transport will need to prepare a draft environmental assessment under the EPBC Act to assess the project under additional requirements as required.*

- In Chapter 1, 1.5 it states: *An assessment of the project's potential impacts on Commonwealth matters of national environmental significance (MNES) (as discussed in Chapters 12 (Biodiversity) and 17 (Non-Aboriginal heritage)) has found that the project's impacts on MNES would not be significant. Notwithstanding, Transport has referred the project to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) to confirm that approval under that Act would not be required. At the time of finalisation of this EIS there has been no decision by DCCEEW on whether the project is a controlled action or not.*

- Why was this EIS issued before a decision was made?

- In an area where the construction of this tunnel potentially impacts drinking water catchment, safety and World Heritage status, why was the approval of DCCEEW not received before the release of the EIS?

All project EIS

Because so many of the above issues relate to areas beyond this EIS, a single study (Full Project EIS from Katoomba to Lithgow) of the whole GWH Duplication Project is needed to ensure that the interconnected and wider environment is fully considered and addressed. Issues that deserve further consideration include:

- The effect of the planned increase in the size of trucks passing through all villages across the Blue Mountains;
- No study has been done of the option of improving freight on rail to alleviate truck numbers on the GWH;
- The negative impacts on the natural environment of the World Heritage Area (downstream beyond the narrow (1500mm) corridor covered by the EIS);
- The predicted reduction of inflow into the drinking water catchments and into the World Heritage Area;
- The predicted change in pH of the water flowing into the catchment and World Heritage area;
- The increased risk of disturbance to shallow aquifers near Evans Lookout Road and Little Hartley, at the tunnel portals, feeding the endangered peat swamp vegetation communities;
- The negative effects on the iconic downstream tourist attractions (eg. the Grand Canyon);
- The negative effects on Threatened and Endangered Species;
- The negative effect of the ongoing construction on local heritage attractions and tourist industry;
- The uncertainty of the effects upon air quality in the villages and National Park;
- The lack of information on measures to ensure the safety of tunnel workers;

- The lack of information on how dangerous goods will be transported through the Upper Blue Mountains;
- The lack of decision as to whether the project is a 'Controlled Project';
- The 'less than best' plan requiring very significant Federal Investment.