CANOBOLAS CONSERVATION ALLIANCE
Postal: PO Box 369, Orange, NSW 2800
Email: savemtcanobolassca@gmail.com

NPWS Draft Cycling Strategy

Public Submission

Canobolas Conservation Alliance

Preamble

The Canobolas Conservation Alliance (CCA) is a group of concerned local citizens and environmental groups in the vicinity of Mt Canobolas, near Orange, in central NSW. Our core purpose is to protect the conservation function and values of the Mt Canobolas State Conservation Area (SCA), an area of 1672ha surrounding the summit of Gaanha-bula Mt Canobolas, administered by NPWS. This SCA is currently under threat from a development proposal from the nearby Orange City Council (OCC) to create a dedicated mountain biking precinct, which would include over 70km of new tracks within the SCA itself.

Executive Summary

This submission on the Draft NPWS Cycling Strategy (3 Documents) is based on our experiences and research into the realities of mountain bike track creation and usage. We recognise the need to have a formal Strategy on cycling in the Reserve system, especially under the pressure of a huge proliferation of illegal track construction in many Reserves and urban parklands.

NPWS is a statutory body with the primary function to conserve and protect the environmental and heritage values of the national reserve system in NSW. Core principles outlined in the NPW Act (1974) outline this priority, as well as allowing appropriate visitor activities as long as the core conservation values are maintained. The reserve system has been created for the reason of protecting these values, especially as much of the NSW landscape has been developed and permanently changes. It should not be disturbed further.

We recognise that in some instances, family-friendly, level mountain biking tracks can enhance the enjoyment of natural environments for some people. This is particularly important for disabled or wheelchair-bound visitors who would gain from having dedicated tracks for slow-moving wheeled vehicles. We don't however agree with the view that high energy, high speed technical gravity runs meet the statutory obligations of NPWS under the NPW Act. By definition this is pandering to the sporting elements of cycling, not the use of cycles to gain access to and appreciate the environment.

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Cycling is a legitimate and popular sport that does have some place in Parks on roads, management trails and existing mountain bike tracks. We believe that the sport of cycling in the reserve system, particularly mountain biking, requires greater control than is outlined in the draft documents. Much needed compliance action by NPWS is required, rather than acquiescence to illegal track creators and users.

We have significant concerns about the Strategy which are summarised here:

The Strategy:

- Ignores the fact that cycling, especially mountain biking, is a sport and is enjoyed largely as a sport, not as a method to gain appreciation of nature.
- Erroneously conflates road biking and mountain biking, which have different equipment, different riding styles and different impacts on the environment.
- Seems not to recognise the damage caused by all tracks and especially mountain bike tracks, including ignoring scientific literature that indicates these impacts.
- Aims to reward illegal track creation by incorporating some of these tracks into 'sanctioned' track networks. Illegal tracks should be closed, removed and rehabilitated.
- Largely ignores the reality of illegal track diversions, even in 'sanctioned' track networks.
- Allows for cycling 'events' which in the case of mountain biking would cause considerably more damage than individual slow speed runs. Trampling by spectators at these events would cause even more damage and is not addressed by the Strategy. While road biking events along paved roads in Parks may be acceptable, mountain biking events that promote speed through the bush would seem to be at odds with the statutory obligations of NPWS.
- Makes too many assumptions about the need or advisability of mountain biking in Parks. Even its own market research does not indicate an overwhelming need for more tracks to add to the 30,000km of currently available trails.
- Ignores the impact of a significant increase in new ecological boundaries (and consequent fragmentation) from new track creation.
- Largely ignores the impact of mountain biking on other users of the Reserve System.
- Largely ignores the light and noise impact of track usage.
- Presents implementation guidelines that are inadequate and designed to enable mountain bike track creation rather than prioritise core statutory obligations to conserve and protect natural environment and heritage values.
- Uses the weaker REF as the core environmental impact assessment rather than full, detailed EIA.

- Assumes minimal buffers around significant sites are sufficient protection for these sites. This ignores the broader landscape and habitat value of entire parks or park regions. There is barely a mention of Aboriginal cultural values being impacted by new tracks and track usage.
- Relies too heavily on self-regulation by mountain bikers to contain the environmental and heritage impact of their sport. This is incredibly naïve, and previous attempts at this have failed. While many members of the mountain biking community are willing to achieve a balanced blend of mountain biking experiences in Parks, they cannot control some of the more extreme users who disregard the rules. They do not have a good 'track' record on this, as is evidenced by the proliferation of illegal tracks in Parks, especially in peri-urban settings. Even 'gold standard' locations like Glenrock SCA (mentioned in the Strategy) are poorly managed and are degrading.
- Seems to assume that future NPWS funding will be sufficient to maintain new track networks and to ensure compliance to track creation and usage rules. This ignores the reality that NPWS barely has enough resources now to maintain its core statutory obligations.
- Largely ignores the role of climate change on the increased vulnerability of Reserve areas and species within. Parks are fast becoming the last refuges for many vulnerable species and maintaining environmental protection standards will be an ever-increasing battle for NPWS over coming decades. Why would it consider any form of new development style now?

Further conclusions and recommendations appear at the end of this submission, however we would recommend in the first instance that there be a **complete moratorium on the development of any new tracks in NSW for mountain biking purposes, until detailed scientific studies are done to outline the direct and indirect impact of new track creation. This is particularly important now due to the spectre of impending climate change. We would further recommend that NPWS initiate a program of complete removal and rehabilitation of all illegal tracks within Reserve areas. The Strategy, Implementation Guidelines and Policy require a considerable re-think and re-write in order for them to adhere to the primary statutory obligations of NPWS.**

The Strategy

Intent of the Strategy

The primary intent of the strategy appears to be to allow cycling as a further form of access to reserve areas in response to a perceived increase in public interest in the sport. This assumption is intrinsic to the 7 objectives of the Strategy, which all assume cycling is an acceptable activity in reserve areas. It appears to be a Strategy written by mountain bikers

for mountain bikers, not one written by a statutory conservation agency for the people of NSW.

While the Strategy commendably mentions the conservation imperative of NPWS, there is, in fact, no legislated requirement for NPWS to allow any particular activity within its managed lands. The nebulous "visitor experiences" is used to explain cycling activities within reserve areas, without due consideration of whether cycling in reserves (especially off road cycling) is a reasonable activity at all, or is supported by the majority of the NSW population. This is an erroneous assumption.

As detailed in the Strategy, there are over 30,000 km of management trails in reserve areas that already cater for cycling. Why is there a need to provide more "cycling experiences" for a relatively small visitor group (only 5% of the visitors to NSW NPs). The 95% of visitors to NPs who aren't there to ride must also be considered, especially any negative experiences due to cycling activity.

There seems to be little recognition in the Strategy that cycling (esp. mountain biking) is a sport, not a passive recreational activity. The cycling market overview (Strategy Consultation Draft p.7) clearly shows that only 9% of cyclists do so for "Being outdoors in nature". The majority of other reasons focus on the sporting aspects rather than enjoyment of nature. Therefore this Strategy appears to be catering only for approx. 0.45% (0.09 x 5%) of the NSW visitors to NPs to access natural areas via a 'cycling experience'. The other 99.55% of visitations are not addressed by this Strategy.

The conflation of road and mountain biking in the Strategy is flawed, as they are two very different sports with quite different impacts on the environment. Road cycling is only ever able to be carried out on paved or graded roads, which would presumably be in reserve areas for other purposes (eg. public roads or management trails). Mountain biking uses very different bike types that are optimised for off-road experiences, usually along single-tracks designed to negotiate difficult terrain. The sport is geared towards allowing deep penetration into natural areas for the prime purpose of negotiating natural terrain features such as rocks, jumps, logs and water courses. By definition, mountain bike tracks will have a greater impact on the natural environment than road biking on already established access roads.

The Strategy also claims to provide some certainty about the location and maintenance of mountain bike tracks within reserve areas, especially given the proliferation of illegal track construction in many peri-urban reserves (eg. Royal NP, Glenrock SCA). In effect it appears to be aimed at formalising some illegal tracks while closing others. Given the fact that unsanctioned track creation is illegal, the Strategy is itself an exhibition of the failure of NPWS to properly manage reserve areas, particularly in peri-urban settings. While we recognise that the pressures from mountain bike enthusiasts are great and NPWS resources are limited, the Strategy represents a capitulation to a single user group with little apparent

regard for conservation values. If the activity were shooting or off-track 4WDing the public would expect that NPWS prosecute wrongdoers, as per its statutory obligations. Why is illegal mountain bike track creation not treated in the same way?

The primary reason for illegal track construction in peri-urban areas is not to access and enjoy the conservation values of the reserves, but is overwhelmingly to enjoy the sport, especially technical gravity traverses involving jumps, terrain features and the feeling of speed. The strategy appears to be pandering to the latter, while largely ignoring the impact of this activity on the former.

While the Strategy recognises the increased popularity of the sport of cycling there is no apparent consideration of the increased risk of injuries and deaths as a result of the activity. Kreisfeld R & Harrison JE (2019) show that there has been a 4.3% per annum increase in off-road cycling related hospitalisations in the 5 years prior to 2016, in line with increases in cycling usage. Hospitalisations usually involved bone fractures in the minimum instance. Almost by definition, injuries sustained along a track within a NP will require a higher level of retrieval effort than within an urban area. If the injury is life-threatening, urgent retrieval activities (eg. removal of vegetation, helicopter and vehicle access, etc.) may have a greater chance of causing damage to the environment in the vicinity of the injured person. If the injury is caused by a NPWS-built feature, there is considerable risk of litigation against the Service. Has the Strategy considered this possibility?

Mountain bike tracks cause damage

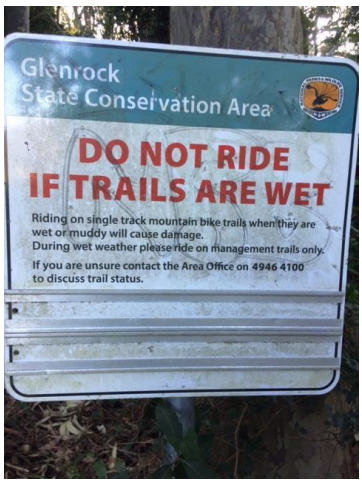
The Strategy exhibits little recognition of the damage done by mountain bike track construction and usage. All tracks through natural areas cause some form of damage to the environment (Havlick et al, 2016; Pickering et al 2010a;b). Track impacts in general include soil erosion, compaction, changed hydrology, track widening/deepening, dislodgement of rocks, and exposure of roots and bedrock. There can be damage to plants including reduction in vegetation height, width and biomass, changes in species composition, and the spread of weeds and plant pathogens (Pickering et al 2010a). All components of habitat within a functioning ecological community are at risk of disturbance from track creation. A permanent trail, whether for walking, riding or vehicular access may become a boundary or barrier for ground-dwelling species, a conduit for water erosion and weeds (Weiss et al, 2016), an access point for predators and noise and light pollution (Steven et al, 2011). Tracks increase the level of ecological fragmentation within natural areas (Ballantyne et al, 2014a,b). There is a long history of informal track creation around permanent tracks, especially in muddy areas or where impediments such as fallen branches exist (Davies & Newsome 2009; Pickering et al 2010b; Ballantyne et al, 2014a,b). Track construction for any purpose therefore should be kept to a minimum in designated reserve areas in order to satisfy the prime conservation principles of the NPW Act.

The post-construction impact of tracks is usually determined by traffic flow and type, as well as ongoing maintenance standards. High traffic flow areas eg. in popular areas such as Blue Mts and Royal NP must be regularly maintained to a high standard to limit ongoing damage and impact. Less well-travelled tracks in other NPs and SCAs require less regular maintenance however traffic flows need to be monitored, and some permanent damage is inevitable.

Mountain biking is a high impact sport. It is not a passive form of recreation like walking as it uses equipment and extra power to transmit a person along a track. Speeds can be up to approx. 15-20km/hr on downhill single track, but speeds up to 52km/hr have been quoted in mountain biking literature (Refs available). Extra lateral energy into the soil surface is expended on corners and over terrain features. This and hard braking (skidding) promotes the removal of the track surface by treaded tyres which are optimised to penetrate and grip the soil surface. Mountain bikers describe the sport as “shredding”. While a single use of a track may not seem to cause much damage, multiple use over time leads to track degradation via widening (Evju et al 2021) and deepening (Salesa and Cerda, 2020).

Compaction of track surfaces, especially when wet, promotes poor water infiltration and ultimately exacerbates water flow along the tracks. If tracks are not well designed and maintained this leads to erosion (Salesa and Cerda, 2020). All tracks cause erosion and greater damage is caused by mountain biking than hiking (Salesa and Cerda, 2020; Evju et al, 2021). In their comprehensive review of global track erosion literature Salesa and Cerda (2020) state “reported world soil losses from tracks ranged from 6.1 Mg $ha^{-1}y^{-1}$ to 2090 Mg $ha^{-1}y^{-1}$, all of which are not sustainable”.

Glenrock SCA



There are very few dedicated off-road mountain bike tracks within reserve areas in NSW. One such is in the peri-urban Glenrock SCA in Newcastle where approximately 33km of dedicated track exists. The majority of these tracks were originally illegally created, but

subsequent action by NPWS formalised the tracks in conjunction with neighbouring mountain biking groups. It is considered by many to be the "gold standard" for track management within reserve areas. However, despite assurances that these tracks would be 'sustainable', the tracks are now in a shocking state of repair. Photos taken in late 2021 indicate high levels of erosion (Figure 1), deepening (Figure 2) and widening (Figure 3) of tracks, and further illegal track creation (Figure 4). Exposure of roots is common (Figure 5). Rock features created as jumps are now bypassed by deeply eroded illegal track diversions (Figure 6).

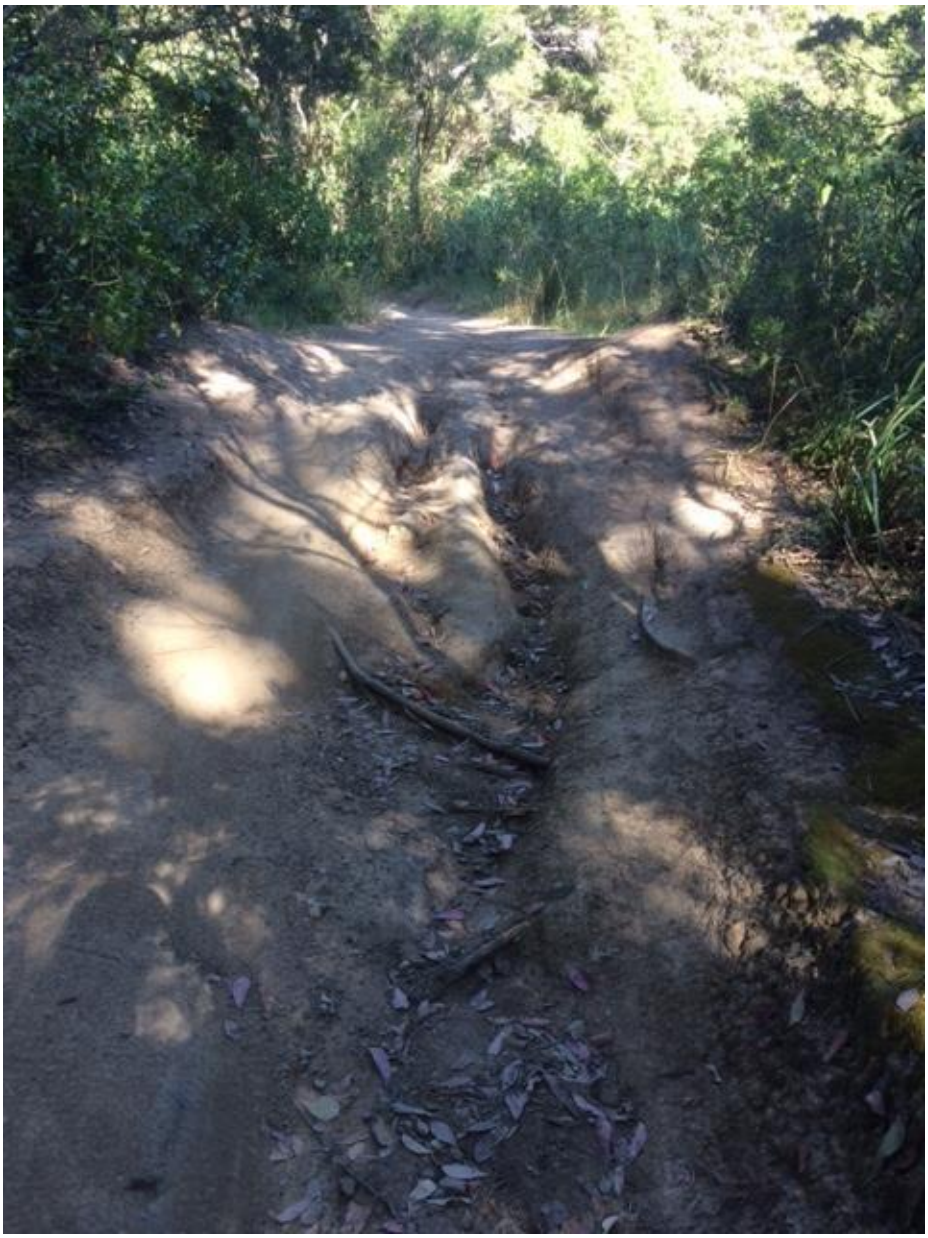


Figure 1 Soil erosion along mountain bike track, Glenrock SCA (Photo: A. Harte). Note the widened track due to diversion around the central rill.

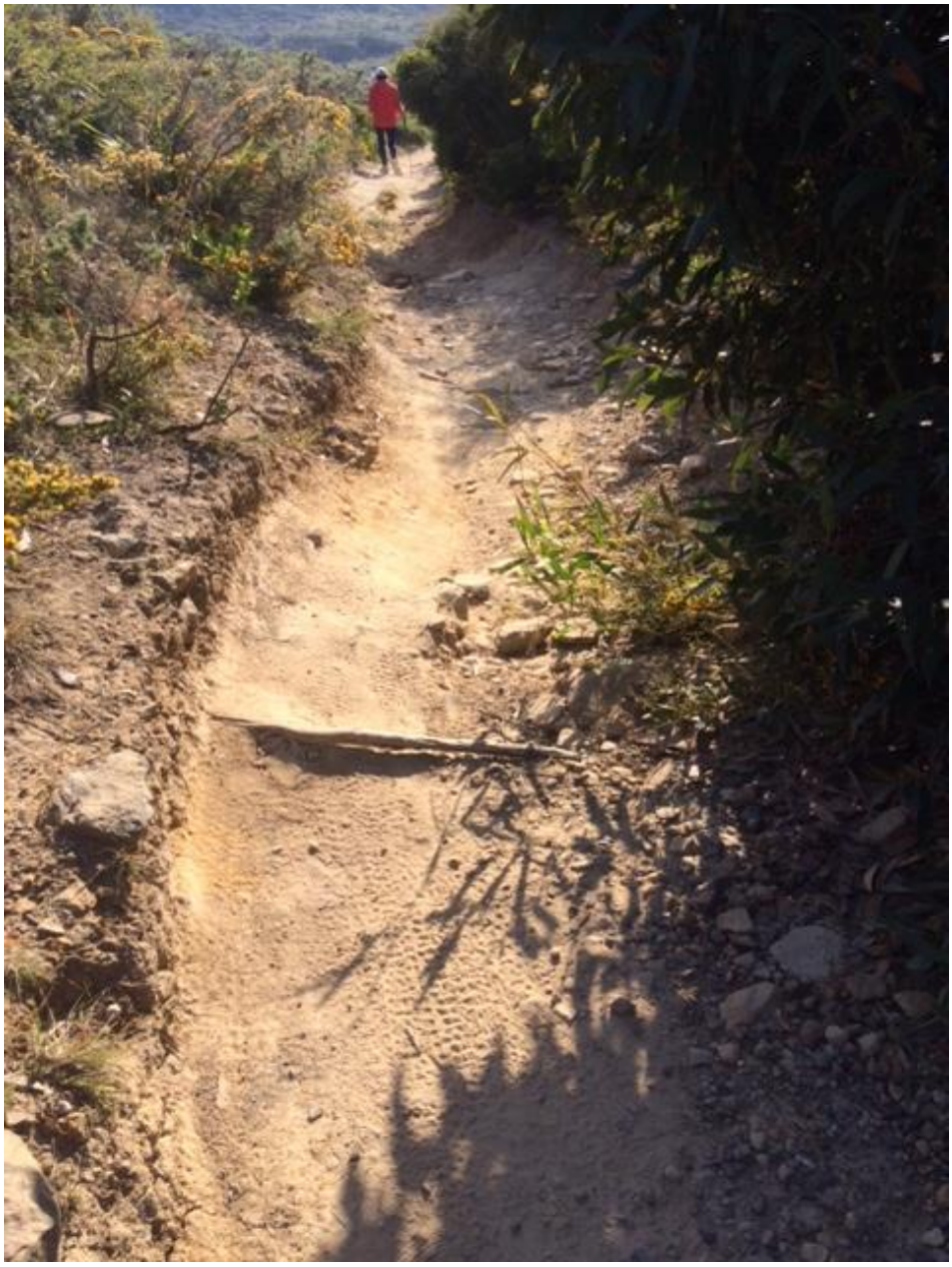


Figure 2 Deeply incised mountain bike track, Glenrock SCA (Photo: A. Harte). Note the removal of the protective cover of organic topsoil and subsequent deep penetration into vulnerable subsoil layers.

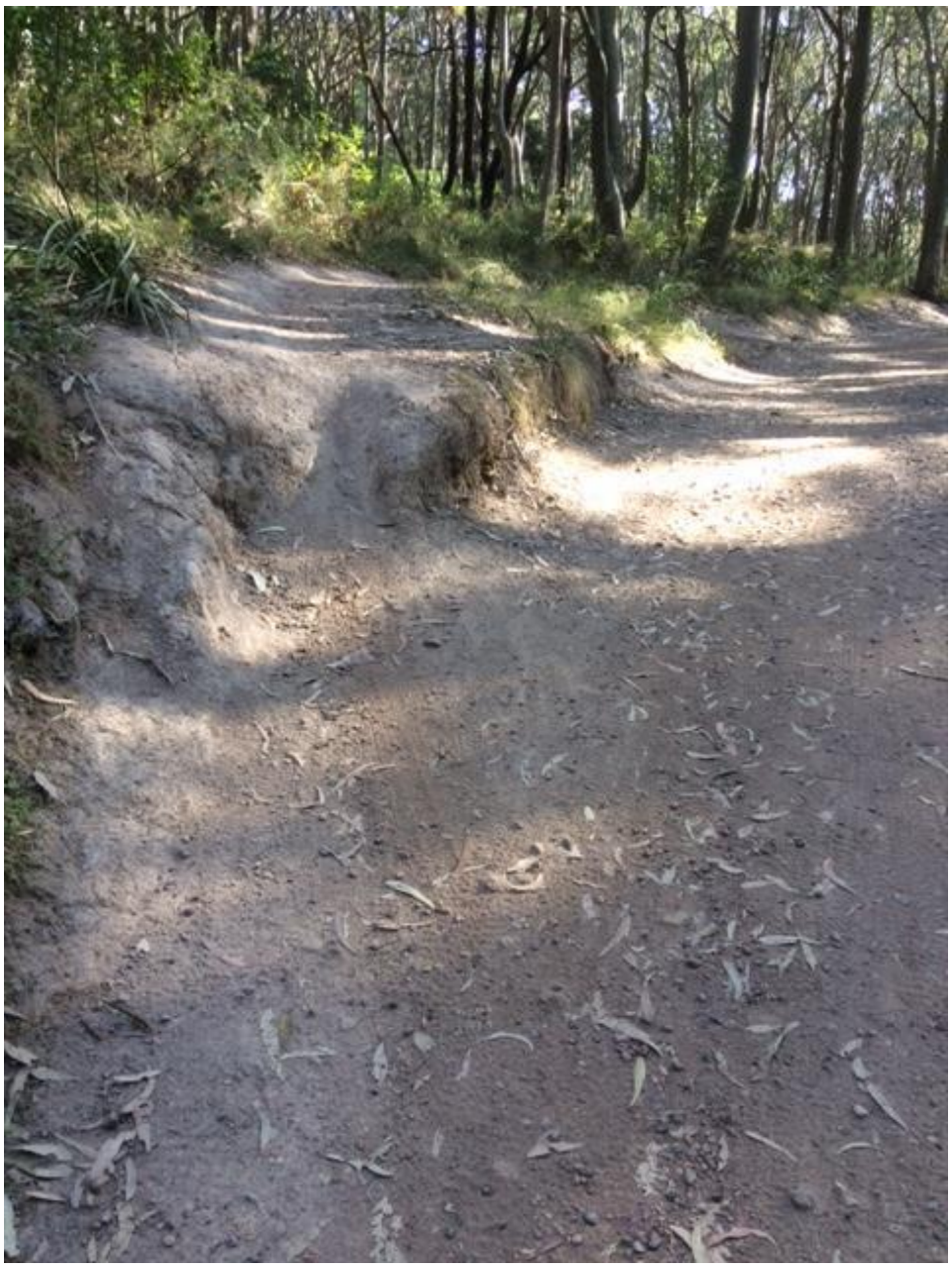


Figure 3 Illegal track diversion, Glenrock SCA (Photo: A. Harte). Note the wide main track and new diversion aimed at creating a jump feature.

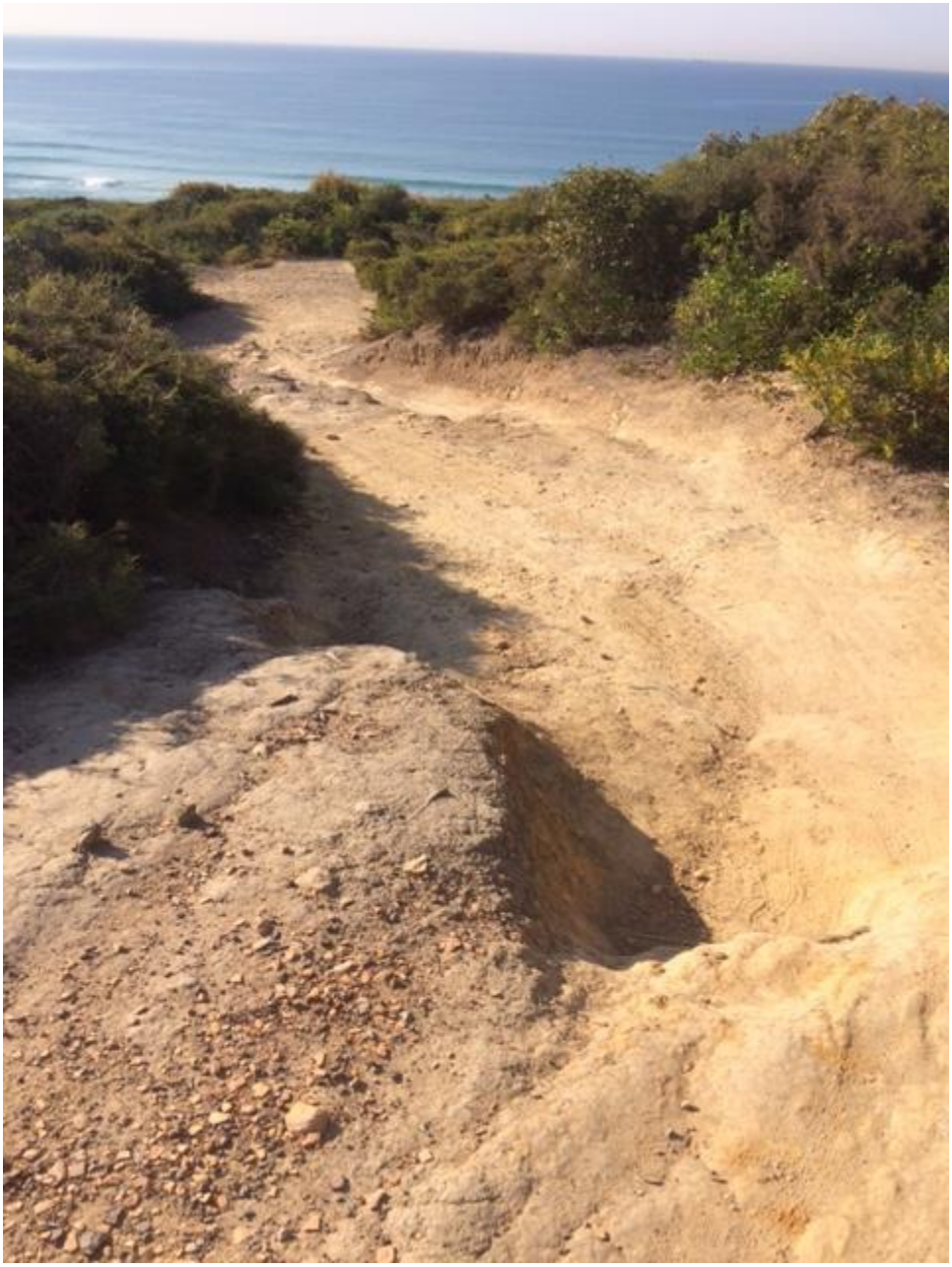


Figure 4 Lateral and vertical soil erosion on mountain bike track, Glenrock SCA (photo: A. Harte). A dedicated single track here has been widened as a consequence of the combination of vulnerable heathland soils and track diversions. This area is not adequately maintained and is actively eroding.

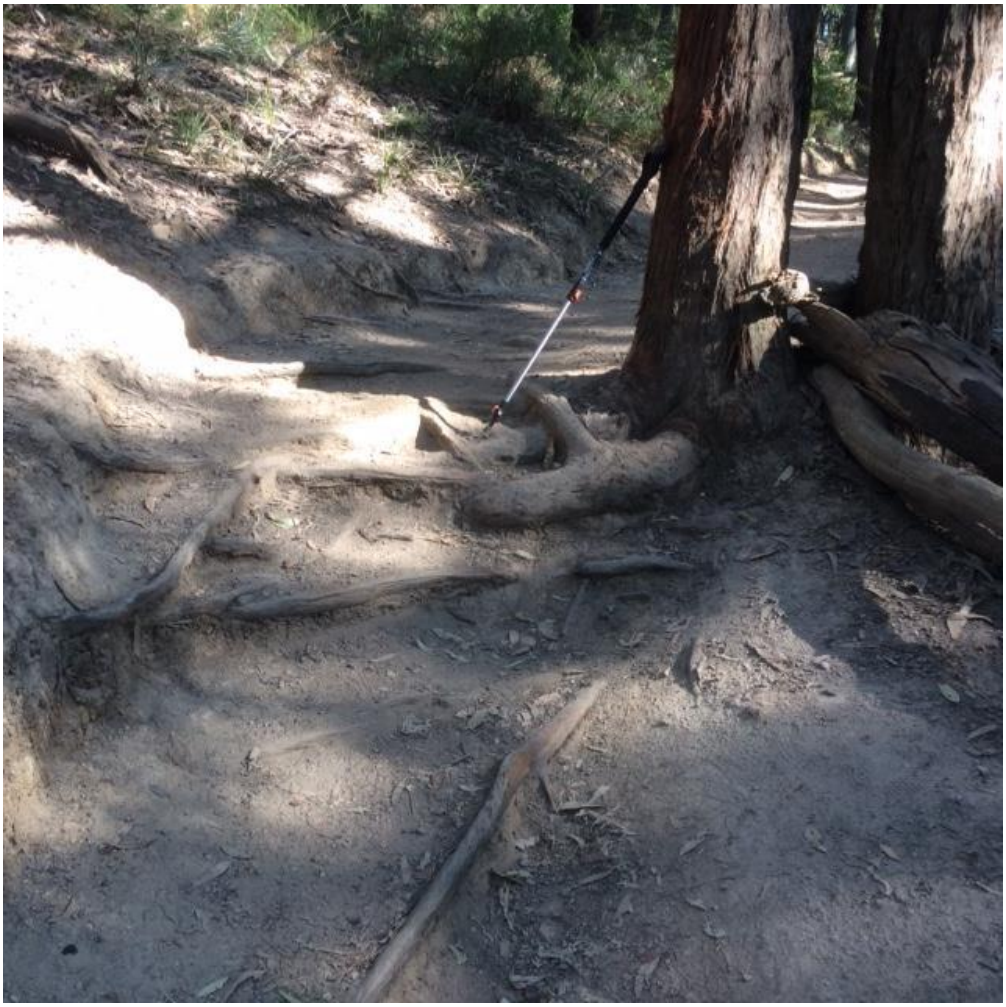


Figure 5 Eroded single track, Glenrock SCA (Photo: A. Harte). Note the deep and wide track and exposed roots.

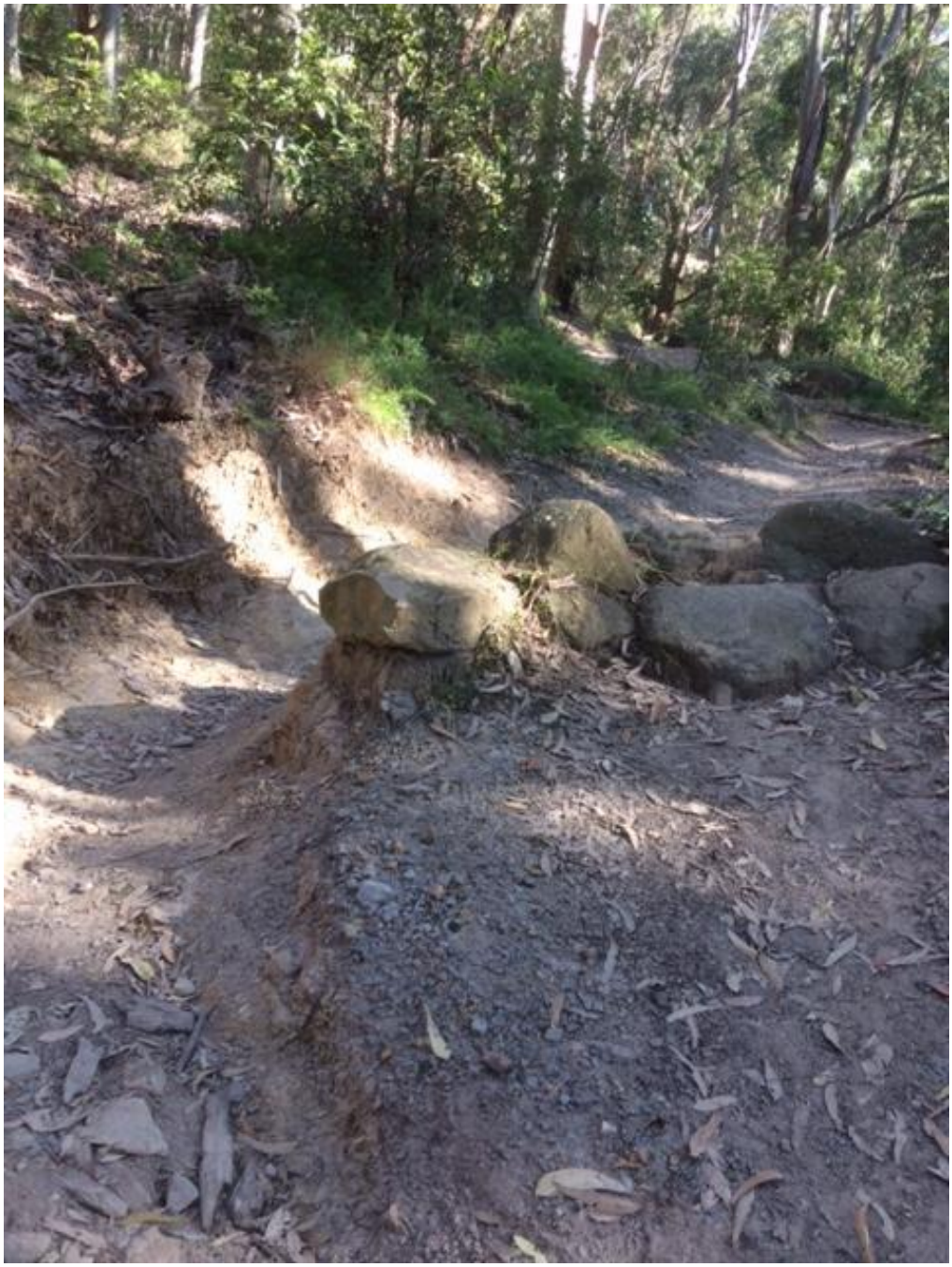


Figure 6 Illegal track diversion and subsequent erosion, Glenrock SCA. (Photo: A. Harte). Note the rock jump feature created by NPWS along a stretch of single-track. This has been bypassed by the diversion, which has subsequently eroded well below the level of the original soil surface

Videos of riders venturing off the main formed tracks are publicly available. The many jumps and terrain features in the park attest to the fact that the primary purpose of cyclists in this park is the enjoyment of the technical aspects of the sport, not the conservation values of the reserve. In many locations, anastomosing illegal track diversions have widened tracks and removed protective groundcover across wider areas of the terrain (Figure 7). Attempts to rehabilitate some areas have largely failed (Figure 8).

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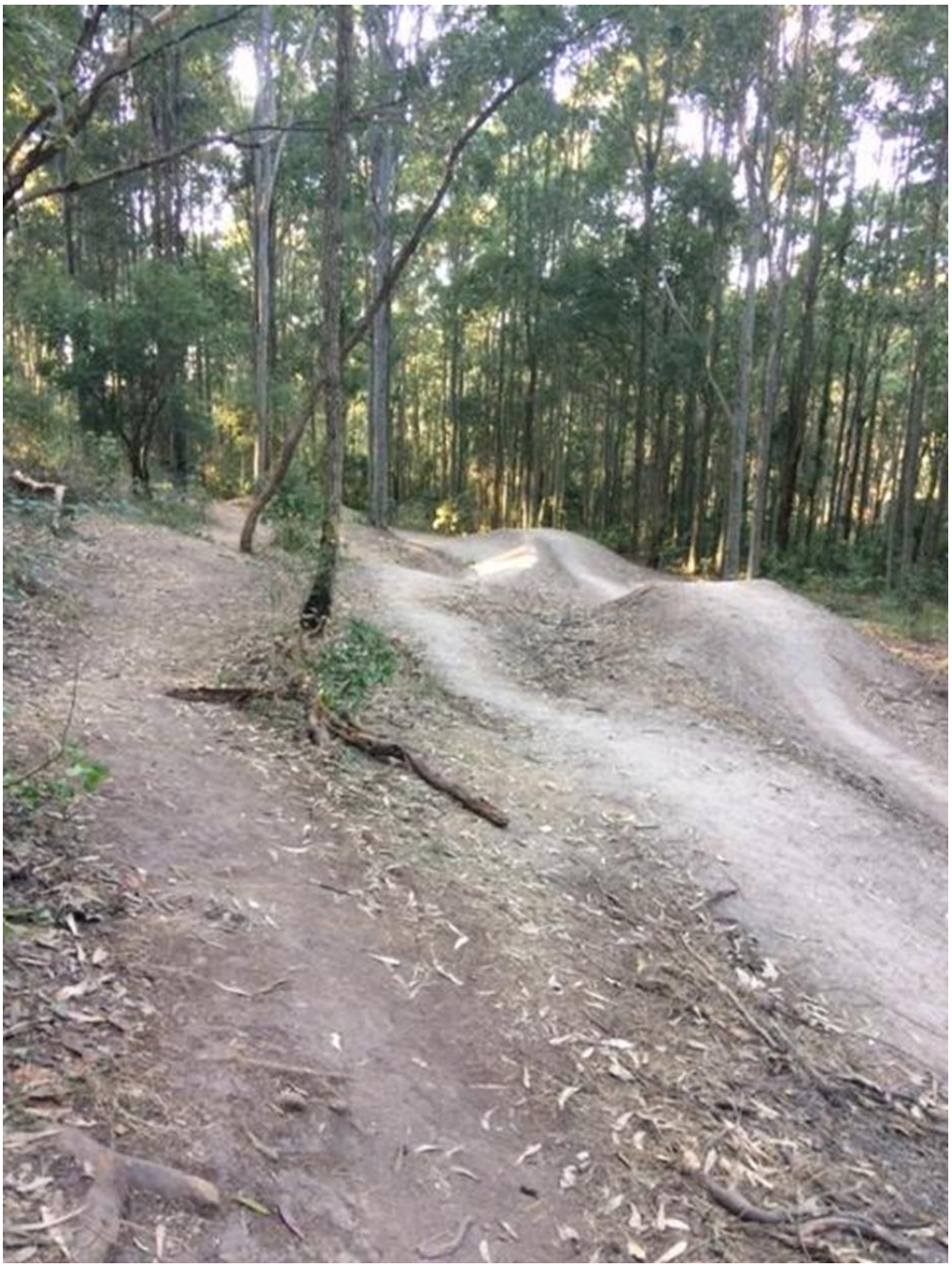

Figure 7 Multiple tracks surrounding original single-track, Glenrock SCA (Photo: A. Harte). Note jump features and anastomosing tracks providing different options for riding. Note the new illegal track on the left, and the very wide area of barren ground

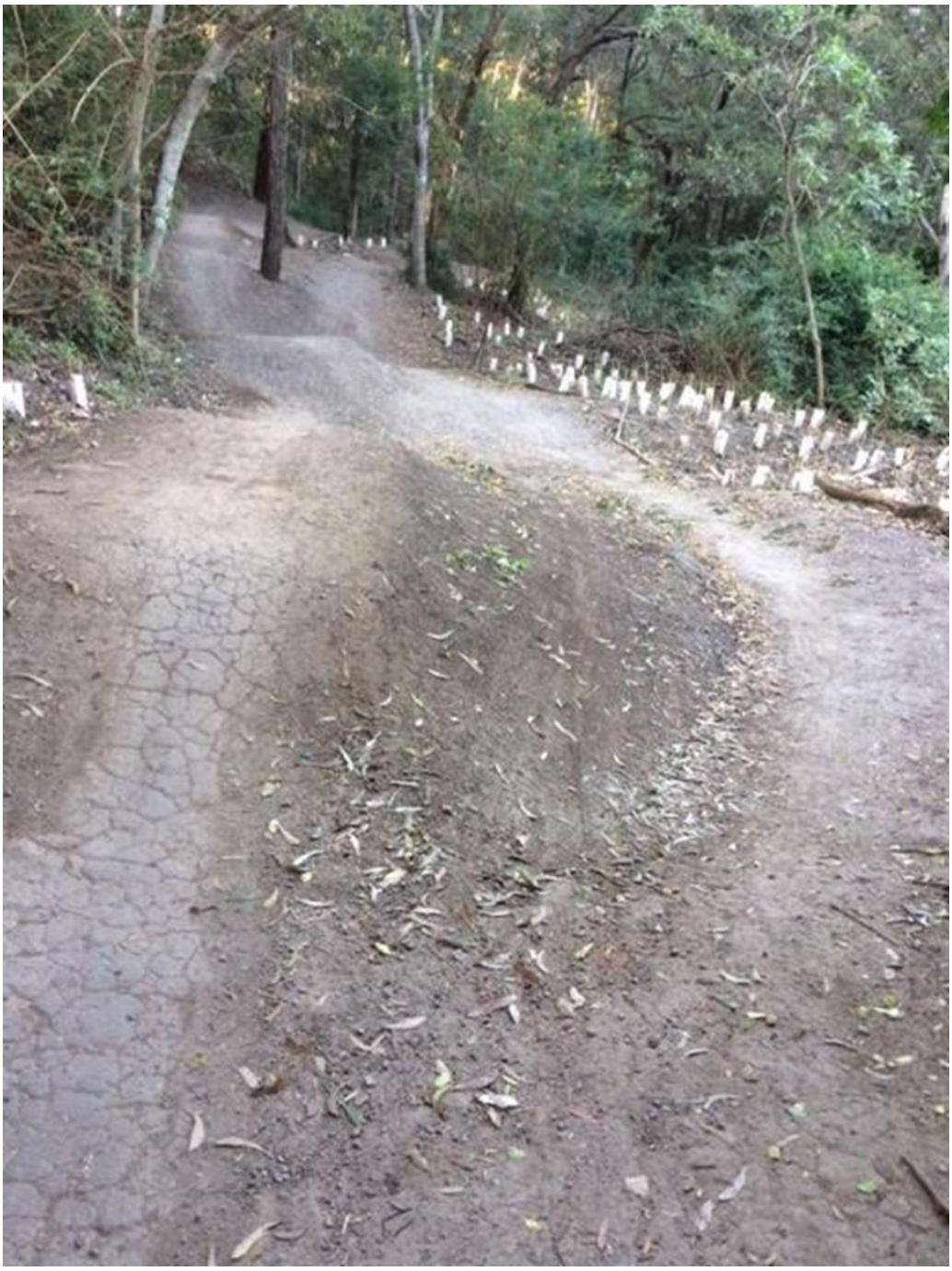

Figure 8 Attempts at rehabilitation along a widened section of single-track, Glenrock SCA (Photo: A. Harte). Note there are now two parallel tracks instead of the original single-track. Most plants in this rehab area were found to be dead. Note also the wide area of compacted and barren ground.

In concluding this section, it is important to note that Glenrock SCA, one of the few dedicated mountain biking networks in NSW Reserves which involve a partnership between NPWS and local riders, does not meet any acceptable standard of maintenance and conservation. Should this model be advocated for other Parks in NSW (as per the Strategy) one can assume that similar levels of degradation of Park values would follow. All good intentions aside, NPWS has an obligation to permanently maintain Park values, and this Strategy provides no surety that this would occur with respect to mountain biking.

Glenwood State Forest

The Orange Mountain Biking Club have in recent years begun track creation in the Glenwood State Forest, adjacent to Mt Canobolas SCA. While we believe this is a more suitable location for mountain bike tracks, these tracks provide a good example of what to expect during the construction phase of mountain bike developments, especially in steep lands. It is worth noting the scale of disturbance when tracks are built in steep areas of native forest, even following internationally accepted guidelines. Figure 9 shows club members building a section of track, which clearly shows deeply cut soils, exposed roots and removed boulders. This is not a minimal level of disturbance. In very steep sections, switchbacks are used as climbing tracks. These effectively modify vegetation and soils of entire hillslopes (Figure 10). Banks and berms are created to increase speed and stability on corners, and there is no consideration in the Strategy for how these are constructed, including where materials are taken from to build them.

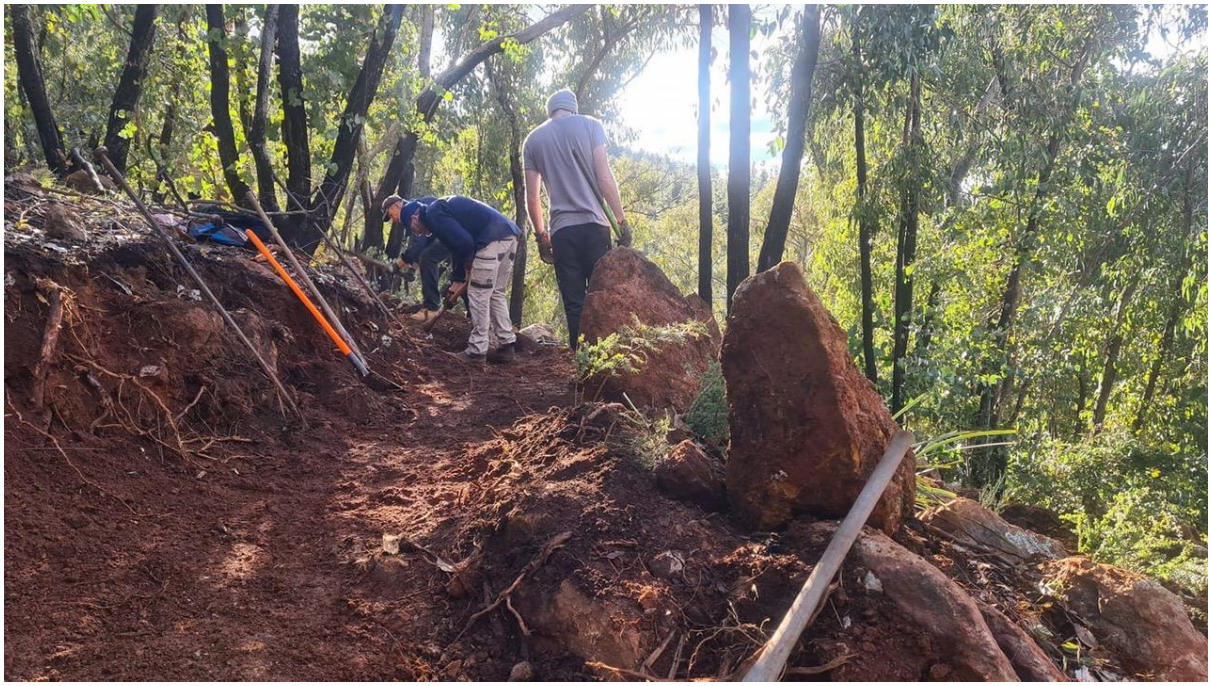

Figure 9 Mountain Bike Club members constructing track in Glenwood State Forest. (photo obtained from Club Facebook page). Note the wide area of disturbance, deep cut, exposed roots and displaced boulders.

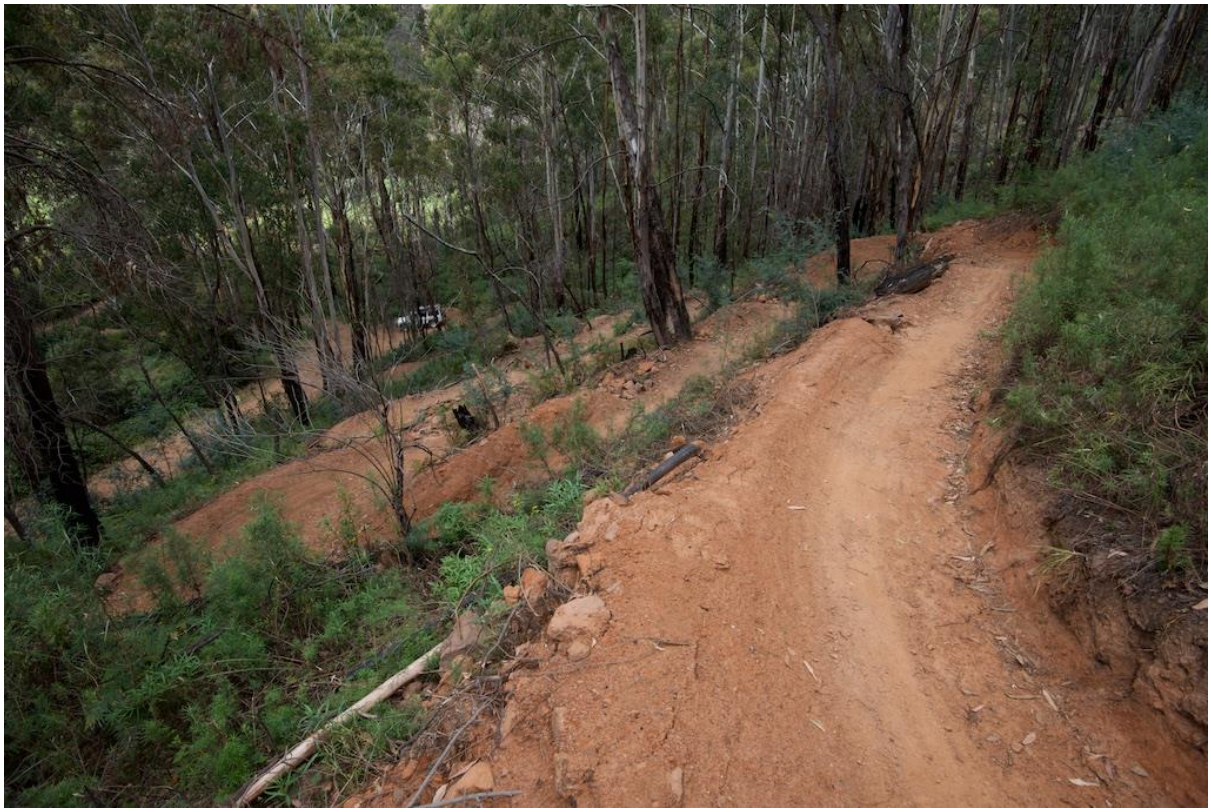

Figure 10 New climbing track, Glenwood State Forest (Photo: H. Berndt). Note the vehicle at the bottom of the slope, for scale. These switchbacks effectively change the vegetation, soils and hydrology of a whole slope. High banks on bends allow for higher speed and rider stability, however they must be built up using surrounding soil, further expanding the area of impact.

Climate change

The Intergovernmental Panel on Climate Change (IPCC), has for many decades monitored the processes leading to anthropogenic climate change. The latest (6th) IPCC Assessment Report (IPCC, 2021) highlights that Australian land areas have "warmed by around 1.4°C between 1910 and 2020 (*very high confidence*), and annual temperature changes have emerged above natural variability in all land regions (*high confidence*)". Furthermore, temperatures are projected to increase substantially over the coming decades, regardless of global mitigation efforts to reduce greenhouse gas emissions. SE Australia is projected to be subject to a wide range of changed climatic conditions, including increased aridity (especially in cooler months), increased rainfall intensity (especially in warmer months), heightened risk and severity of fire, longer fire seasons, and agricultural and ecological drought (IPCC, 2021). These changes have already been experienced in recent decades and will continue to occur at a rate unprecedented in the historical and geological record. In short, all native species and natural areas will be experiencing variability and long-term rates of change that put them at increased risk of disruption and potential damaging impact. Extinctions, especially of vulnerable species in isolated or critical locations, are likely.

Increased soil erosion, poor or fluctuating groundcover and heightened bushfire risks are all modelled outcomes of impending climate change.

Australia's National Parks and other reserve types are critical to the survival of most of our native species. Climate change enhances and intensifies this importance. The combination of trending and more variable climates make it more difficult for NP managers to maintain sustainability of Park environments. Visitation pressures compound that difficulty. At a time when NPs are at their most vulnerable, we question why NPWS would consider increasing the level of disturbance in reserves, and especially via track types that are known to be damaging and unsustainable. The Strategy is meant to be "consistent with the National Parks and Wildlife Act, 1974" and processes and procedures for sustainable management are supposed "to ensure the conservation of the natural and cultural heritage" (a statutory obligation). However scant regard is given to the impacts of current and projected future climates on these obligations.

Track Maintenance

The Strategy and Guidelines do not satisfactorily deal with the issue of ongoing maintenance of biking tracks. There are many examples of mountain bike tracks in NSW (and globally) that are degraded due to inadequate maintenance. Even NPWS-managed tracks suffer from inadequate maintenance and compliance (eg. Glenrock SCA above). Costs for maintenance of kilometres of track can amount to millions of dollars over many years. This Strategy seems to rely heavily on self-reporting by mountain bikers to inform NPWS staff of maintenance issues. This is dangerous and a further abrogation of their responsibility to have adequate systems in place to maintain public assets. All assets, whether they be building or trails, must have reasonable and safe maintenance standards, and sufficient resourcing to ensure these standards. This Strategy either assumes these resources would always exist (unrealistic), or relies on users to comply with nebulous rules and codes of conduct.

Alternatives

There is no specific requirement for NPWS to cater for sporting activities, especially those that have a known impact on conservation values. Other areas such as commercial forests are more suitable locations for mountain biking, especially if the purpose is to cater for events or skills-based biking eg. downhill single-track. The majority of well-known mountain biking locations in Australia (including Bright in Victoria and Derby in Tasmania) are within commercial forests or on reclaimed mining land. This continues a trend advocated by mountain bikers themselves to promote the use of commercial forests to add a potential extra income stream to commercial forestry operations (eg. Hardiman and Burgin, 2013).

The focus for NPWS should be on the conservation values of the reserve estate. This is especially so in the light of impending environmental pressures from climate change, peri-

urban development and other landuse conflicts. “Appropriate visitor experiences” should focus on the education and enjoyment of the core conservation values of reserves, not on the provision of sporting facilities. These are better placed in locations where ecological and cultural values are not compromised, such as commercial forests, reclaimed mining areas and urban parklands.

Issues Specific to the Strategy Consultation Draft Objectives

Objective 1

“Section 2A of the National Parks and Wildlife Act 1974 (NPW Act) outlines the 4 key objects of the Act, that the management of our parks must be in accordance with. These are:

a. *the conservation of nature,*
b. *the conservation of objects, places or features (including biological diversity) of cultural value within the landscape*
c. *fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation*
d. *providing for the management of land reserved under this Act in accordance with the management principles applicable for each type of reservation”*

Nowhere does the Act say that NPWS must cater for a sport. The intent of the principles is that any visitation activities within reserve areas quite specifically must reflect the conservation values of the reserve and improve public appreciation of them. The intent is clear – the prime focus is the reserve, not the activity. The construction of a series of elite level downhill cycling tracks (such as that proposed by Orange City Council in Mount Canobolas SCA), are clearly at odds with the key objects of the Act. Tracks may be permissible in some limited reserves if the clear intent is to promote the appreciation of the park and its conservation values, not for sport.

“We will assess, close and rehabilitate (where resources allow) unauthorised tracks if they are deemed to be in inappropriate areas, inconsistent with park values, or are outside of an authorised track network”.

This seems to accept illegal tracks as a nuisance rather than something that needs to be stamped out altogether via appropriate legal instruments. Closure of all unauthorised tracks should take high priority, and NPWS should increase its monitoring and compliance capability to ensure that illegal track creators and users are prosecuted under the Act. The tone of the entire Strategy seems to be to accept illegal track creation as a *fait accompli*, but to do so is an abrogation of the Service’s statutory obligations (outlined above). Under the Strategy illegal tracks will be removed or rehabilitated “where resources allow”. Surely available resources should be put to this rehabilitation rather than the creation of new tracks?

Objective 2

"The cycling community utilise protected areas to maintain their connection to nature. In this way, cycling experiences contribute to fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation".

This is an acceptable reason for walking tracks where it is possible for visitors to passively connect with the park's values. In limited locations, it may be possible to allow level tracks for visitors to explore parks and their natural assets on bikes, provided the prime activity is the exploration rather than the sporting element of cycling. It is important that large networks of tracks fragmenting natural areas should be forbidden. Similarly allowing park tracks to be used for elite level competition is not in line with this objective. There should be further consideration of the impact of mountain biking on the rights of other users to 'connect with nature'.

Objective 3

"There is evidence that many Australians are missing out on opportunities to connect with nature".

Any mountain biker wishing to access parks for their sport are also likely to be physically able to use the available walking tracks to 'connect with nature'. There is no "missed opportunity" here. It's a decision on the part of the user to either visit or not. If the reason is lack of mountain bike tracks, then clearly the 'connection with nature' element is not important to them. If the NPWS want to enhance Australian's connection with nature they should focus on doing this for the majority of the population who do not cycle and who use reserves for passive recreational activities.

Objective 6 *Promote nature tourism and enhance the visitor economy*

True nature tourism is completely at odds with large scale infrastructure, national and international competitions etc. Thrill-seekers and competitors are looking for elevation and gradient. They are not admiring the flora and fauna and it's absurd to try and link the two. Large mountain bike parks should NOT be constructed in national parks and reserves. NPWS would do better to enhance the experience of the other 95% of Park visitors who aren't there to ride bikes.

Objective 7 *Provide effective management and resourcing*

"We will develop a consistent and firm approach to non-compliant activities and work with user groups to develop a self-regulating culture of stewardship for the parks they enjoy".

This approach is completely unrealistic. If the government can't afford to close and rehabilitate unauthorised tracks, how does one suppose the cycling fraternity will be able to do this. Self-regulation will not work. Please refer to the section on Glenrock SCA to see the likely outcome of such a partnership between NPWS and mountain bikers. It doesn't work, and this Strategy seems to suggest that resources would become available to ensure that it did. Once constructed and used, mountain bike tracks are only as good as the maintenance standard and regular attention. Promoting a partnership with outside users to maintain the tracks is incredibly dangerous, especially if the tracks coincide with known vulnerable species and ecological communities. The Precautionary Principle, which underlies most environmental legislation globally, should inform NPWS in this instance. Where there is a reasonable chance for damage to occur (eg. loss of habitat, species extinction), then the prudent option is not to make the change in the first place.

PRIORITY ACTIONS

1.2 *Close unauthorised cycling infrastructure considered to be inconsistent with the strategic track network design for the park and remediate the park environment as resources allow*

It is against the Objectives of the Act to accept illegal track infrastructure at all. NPWS should close ALL unauthorised cycling infrastructure. Otherwise NPWS will be rewarding illegal activities and exposes the Service to litigation for failure to meet its statutory obligations.

4.1 *Assess new and unauthorised tracks in accordance with Section 3 of the strategy implementation guidelines. This will be applied equally to all proposals on park.*

Assess for what purpose? Unauthorised tracks must be closed for reasons stated above.

6.1 *Consider opportunities to offer leases under the NPW Act for cycling infrastructure as they are proposed on an individual basis.* ***6.2*** *Use our events consent framework and the Parks Eco Pass commercial tour operator licence process to assess the use of park cycling infrastructure for commercial events and tours, and suitable locations that may be promoted for this purpose.* ***6.3*** *Identify and prioritise the development and funding of local, regional and nationally significant cycling experiences using the factors for consideration outlined in Table 2 of this strategy.*

If cycling occurs in the parks, it should be managed by the Service. Once it is licensed out to tour operators, there will be a loss of control. Commercial events should not be held in parks, unless on paved roads in controlled circumstances. They are quite contrary to the objects of the NPW Act.

7.3 *Ensure all new tracks or any unauthorised tracks considered for inclusion into a track network are fully costed for the lifespan of the infrastructure.*

The words 'or any unauthorised tracks considered for inclusion' should be removed for reasons stated above. The use of the word "lifespan" suggests that the track may be temporary (in which case why cause the damage in the first place?). How will the Service cost the damage to the environment and to Aboriginal cultural heritage by these tracks? Even temporary tracks would permanently disturb and/or remove Aboriginal artefacts, and impact on intangible values. How can this be acceptable?

7.5 *Seek opportunities to offset some of the costs of maintaining on-park cycling experiences, including through cycling hubs, partnerships, sponsorship, user-pay systems and commercial licensing of experiences.*

Surely it would be better to encourage cycling experiences outside parks to avoid the high cost of maintenance, rather than resorting to licensing etc. to try and recoup the costs of an activity which has only marginal relevance to the core purpose of NPWS? This outsourcing idea is an abrogation of the responsibilities of the service to the public of NSW. While some cost recovery is acceptable, **the Service is a statutory public body that exists to protect the conservation and heritage values of the reserve system**. It is not a purveyor of public lands for private purposes.

7.8 *Seek to reduce the level of inappropriate use of tracks and reduce the creation of unauthorised tracks through consistent signage, community engagement and compliance programs*

This type of language is providing encouragement to those engaged in illegal activity. The language needs to be much firmer and clearly indicate that illegal activity would be met with the full force of the law. "Community engagement" should include non-bike riders too.

Table 2 *Factors for consideration when prioritising the development of possible on-park cycling experiences*

The factors should first and foremost relate to the conservation significance of the reserve under consideration. But that aspect is not clearly mentioned in the table, despite being one of the major objects of the Act. The Permissibility and Suitability aspects are only quick checks of a) which Park is being considered, and b) the PoM for that Park. There is no more detailed or balanced environmental assessment being done here. The following EIA is just a REF, which is a weak and inadequate instrument to constrain development.

Issues Specific to the Guidelines for Implementation

Box 1 *Management Trails*

Management trails (approx. 30,000kms of them) already cater for the majority of mountain bikers needs and provide sufficient access to reserve areas to allow 'connection to nature' experiences. There is little need for any further development of biking tracks in most reserves.

1.2 *Adaptive cycling experiences on park*

We support the provision of wheelchair access to parks. 'All terrain' wheelchair specific tracks that allow better access to nature experiences is supported as long as appropriate environmental assessments are done and they are regularly maintained to a high standard.

1.3 *Commercial cycling experiences on park*

We do not support any further expansion of commercially operated cycling experiences in parks, other than those making use of the management trail network. No off-road tracks should be used for events or for commercial purposes, as these lead to further degradation of the tracks and trampling of track margins by spectators. It is not the role of NPWS to provide lands for these purposes, which are better catered for in other tenures where ecological and cultural heritage values are already compromised. Mountain biking 'events' do not satisfy the core obligations outlined in the Act, as they are primarily aimed at the sporting elements of the activity, not 'connection to nature'.

1.4 *Impacts of unauthorised tracks in our parks*

This is the first mention anywhere in these documents of the impacts of track creation and usage. The list of impacts should be heeded by NPWS as they attempt to increase tracks in reserve areas. All tracks cause damage (see above) and poorly designed and maintained tracks exacerbate this.

This section notes the illegality of unauthorised track creation, yet the response to this is to "*engage with stakeholders*…." rather than prosecute them for degrading the National Park estate. This section also states *"Unauthorised tracks can be managed and reduced by proactively establishing cycling networks that meet both environmental and user requirements, and through establishing processes by which NPWS can prioritise and rehabilitate unauthorised tracks"*. This is akin to rewarding them for their wrongdoing. The Strategy says little about compliance or regulation throughout its three documents.

***1.5** Community involvement*

This is only useful if NPWS actually listens to the community, who may in fact not want a network of mountain bike tracks in their local reserve. There are many reasons for this, including the degradation of the natural environment, impacts on other users, potential safety issues, and lack of certainty around maintenance. This Strategy seems to assume that the 'community' accepts mountain bike tracks in reserves. Many do not. In our local SCA (Mt Canobolas), the change of PoM to allow 'consideration' of the Mt Canobolas Mountain Biking precinct proposal was opposed by a considerable majority of the over 600 public submissions on the Draft. The NPWS RAC and State Advisory Committee also opposed inclusion of the proposal in the PoM, and yet it was not removed from the PoM (GIPA application). How can the 'community' be assured that NPWS has the interests of the majority at heart.

The experiences at Glenrock SCA (see above) show the failure of the community partnership model in the provision and maintenance of environmental and cultural values in that park. We do not wish to see that model outcome expanded across the rest of the NSW reserve estate.

***2.1** Proposals from external parties (and **3.1** What experiences we provide)*

"NPWS will seek to support a number of highly technical trails and gravity experiences in a range of parks in New South Wales"

The question should be asked – "Why?". Why do NPWS feel that they need to supply conservation land for this purpose? It is in direct contradiction to the stated reason in the Policy to provide more 'opportunities to connect with nature'. Building networks of 'technical and gravity experiences' causes damage, in direct conflict with the guiding principles of the Act. So why do it? There are ample alternative sites outside the reserve estate for this style of mountain bike track and activity.

***2.2** Commercial opportunities in parks*

As previously mentioned, commercial activities in reserves should focus entirely on the conservation values of the parks. Parks Eco Passes for commercial educational purposes are examples of suitable commercial activities in parks. While some occasional sporting events are permissible in Parks (which require detailed Sustainability assessment via the Sustainability Assessment Criteria for Visitor Use and Tourism in New South Wales National Parks), there is no provision in the NPW Act for NPWS to allow construction of permanent tracks for this purpose.
We oppose the expansion of commercial mountain bike parks within reserve areas, as these would be at odds with the conservation imperative of our National Park estate.

***2.5** Cycling Events*

"A pillar of the NSW Government's NSW Visitor Economy Strategy 2030 (Destination NSW, 2021) is to invest in world-class events, including regional and local events that attract local or interstate visitors and help to define the local character of a town or region. This includes an action to activate government-owned assets, including NPWS parks, with compelling new event content."

This is an inappropriate and mistaken conflation of the NSW Govt strategy to improve visitor experiences and to increase world class events. Nowhere in this Visitor Economy Strategy is the concept of National Parks hosting such events, nor being 'activated' for mountain biking events.

Mountain biking events, especially those that involve elite level technical skills and high speed, do not have conservation or appreciation of nature as their highest priority. These are sporting events where skill and competition are valued most. High speed on technical gravity runs causes damage to the track surface, and spectator location and activity can lead to trampling of track margins.

We believe that mountain biking events are more appropriate outside of reserve areas where their impact may be tolerated.

***2.7.2** Plans of management (PoM)*

Our experience with PoMs has not given us confidence that the NSW Govt is willing to listen to and act on the majority views of the public (see above). Under the NPW Act, PoMs are designed to reflect the specific circumstances of the reserve, including natural features, conservation values, vulnerabilities and public usage and wishes. In all cases the conservation principles override every other consideration, including the wishes of any particular user group. In our case, by far the majority of submissions to the draft PoM opposed inclusion of mountain bike tracks in it, yet these were apparently ignored by the Minister, to support one potential user group, and clearly ignoring concerns about conservation value.

While this Strategy must acknowledge and adhere to gazetted PoMs, their creation and subsequent public scrutiny is not a process that is seemingly secure nor adhering to the core conservation principles of the NPW Act.

***2.7.3** Volunteer programs*

"NPWS have established and will continue to develop volunteer programs that encourage stakeholders to connect with our parks. For example, in Glenrock State Conservation Area in

the Hunter region, volunteers assist with maintaining tracks and disseminating information about track closures and safety issues."

Please see section above on the failure of this arrangement in Glenrock SCA. Reliance on volunteer groups to maintain and manage mountain bike tracks in reserves is dangerous and self-serving. Many users will not have experience in track maintenance, safety issues, nor an understanding of the impacts of their activity on the environment. They are more likely to prioritise their activity over all other concerns. It is naïve in the extreme to expect that the "culture of stewardship" being promoted will extend beyond the maintenance of the sport, not the maintenance of the natural environment.

***Box 2**. Changes to cycling access*

"Mountain bike tracks in parks are often closed during and after wet weather. Wet tracks are more susceptible to erosion than dry tracks and some tracks may be more dangerous to ride in wet weather"

This statement is an admission that tracks erode and that their use causes damage. There are no apparent guidelines for when a track is dry enough to ride on. All biking activity causes damage to the track by displacement of soil particles, compaction and creation of rills that exacerbate erosion. Wet tracks are more susceptible to this damage. Muddy sections are often bypassed by riders, further widening the track.

"Closures will be communicated on the NPWS website and may be communicated through on-park signage, where appropriate"

Reliance on users checking the NPWS website is an inadequate method to communicate closure. Temporary closure of tracks with signage is better however without compliance checks it is still reliant on the visitor to comply. Can NPWS be certain that they can supply a risk-free environment for all users at all times? While NPWS claims no liability in such circumstances, surely closure of tracks is an admission of increased risk? Who determines this threshold?

When tracks are considered for closure, how is this done and who monitors compliance of the closure? Due to the active nature of biking, presumably the threshold 'wetness' for closure would be lower than for a walking track. What guidelines exist to determine this? Will a NPWS officer walk the entire length of track to determine if sections are "wet" enough to enforce closure? Is this an added management burden for NPWS? In some high-altitude locations eg. Mt Canobolas SCA, tracks are almost always moist due to high rainfall and low evaporation throughout the year. Tracks in this location would be vulnerable at most times of the year and therefore track closures would be common. Monitoring track closures would be a constant management burden for NPWS staff in this location, in order to maintain their statutory obligation to protect the Park.

3.3 *Minor adjustments to tracks and trails*

This section effectively gives *carte blanche* to the proliferation of new tracks to augment or renew old track networks. While the reasons given for track adjustments are seemingly valid, the reality is that old, worn out tracks often need re-alignment to make them safer. If safety is the criterion used to re-align the track, then the overall impact over time is an expansion of the original footprint of the track.

The Assessment Process

3.4 *Process to assess and enable cycling experiences on park*

A. Permissibility
This is just the obligatory step to determine whether tracks are allowed within the tenure. This mainly refers to wilderness areas and Nature Reserves which have the highest level of protection. We would submit that more categories should be considered, including known and suspected areas of habitat for Assets of Intergenerational Significance (AIS); Areas of Outstanding Biodiversity Value (AOBV), under the Biodiversity Conservation Act 2016; and areas of cultural and spiritual significance, including declared Aboriginal Places, AHIMS sites and nearby Potential Archaeological Deposits (PADs).

B. Suitability
"Undertaking a suitability assessment ensures that only those proposals that are capable of meeting NPWS environmental and park management objectives are progressed for more detailed consideration (see Figure 2)."

Figure 2 is a supposed "Environmental Impact Assessment" and yet it appears more like an enabling process. When a track is deemed 'unsuitable' in the first step the options to "amend or prepare a new PoM", etc. are listed in order to enable the proposal. There is no sense here that 'unsuitable' means the proposal should be rejected at this step. Our experience is that a PoM that doesn't permit a network of tracks is just seen as a temporary 'roadblock' that is surmountable with a subsequent change of PoM. The process outlined in this Strategy confirms this.

The Suitability assessment also refers to the Sustainability Assessment Criteria for Visitor Use and Tourism in New South Wales National Parks, and makes use of site assessment and landscape assessment criteria that are largely designed for singular built structures, not linear developments like mountain bike tracks. Tracks, by definition, penetrate deeper into often rarely visited locations and as such have considerably longer margins and edge effects. Many kilometres of track can add up

to many hectares of permanently disturbed ground, often on steep slopes where further erosion and degradation is probable.

New assessment criteria need to be created, based on the latest scientific evidence on a) damage done to the landscape (soils, geology, vegetation, cultural objects and values) by mountain bike track creation, especially in steep topography; b) impacts of long term intended usage on the track itself, track margins, habitats and habitat fragmentation, wildlife interactions, edge effects, transmission of weeds, seeds, and pathogens, fire ignition etc.

The EIA Pathway, as outlined in Figure 2 in most instances relies on a Review of Environmental Factors (REF), rather than a detailed EIA. At no stage in the process is a detailed EIA mandatory for the creation of new networks of tracks in conservation areas. An REF is an inadequate summation of potential environmental impacts rather than a scientific study of actual potential impacts, which would in some instances require study over many seasons and years. Given the conservation obligations of NPWS, why would it open itself to criticism and potential litigation for not providing a process that aims to protect the environment in the first instance?

C. Plan of management

(*See previous comments on PoMs*).
This section also details how PoMs can be amended to enable mountain bike tracks and appears to also accept and support illegal track creation (eg. *"indicating areas or zones within which tracks and trails may be constructed, or unauthorised tracks may be considered for inclusion into a track network"*). If a PoM does not allow an activity then it should be adhered to rather than amended. This Strategy's support of a 'turn a blind eye' approach, followed by active legislative change to allow the activity will be seen as a precedent for greater access for other activities that are currently banned or controlled, such as off-road 4WD-ing, grazing and recreational shooting in reserves.

The steps to determine permissibility and suitability thus far in the process are <u>weak</u> and too easily amended to allow track creation.

D. Multi-criteria assessment (MCA) of tracks

This next step outlines the placement of tracks within a Park, provided it is previously deemed 'permissible'. The MCA appears to take account of areas of particular significance, however this is treating a Park as a concatenation of individual bundles of 'value' (environmental or cultural), without consideration of the whole. The broader values of a Park may be the intangible Aboriginal cultural

understanding of the whole landscape, or the likely habitats of existing or future migrating species.

Mountain bike tracks are linear developments that penetrate deeply into natural areas. Placing buffers around known sites of environmental or cultural significance often misses the point of the listing. The broader landscape may hold value too, especially as seen through the eyes of local Aboriginal people. Habitat fragmentation is a primary concern for proposals that include a network of intersecting tracks and climbing sections containing switchbacks.

E. Environmental impact assessments

As mentioned, the only EIA process outlined here is an assessment of permissibility (is it legal?), suitability (does the PoM allow it – if not amend the PoM), and a REF (basically a summary of possible impacts). This is not a suitable level of environmental and cultural assessment for developments that have obvious long-term effects on the environment and is not consistent with the statutory obligations of the NPWS to protect and conserve the national reserve estate.

The Construction Process

4.1.1 *Mountain bike track design guidelines*

We support best management practice in the construction of all infrastructure within Parks. It should be noted however that the well-meaning Australian Mountain Bike Trail Guidelines (MTBA 2019) are written by mountain bikers to highlight the needs of mountain bikers. While the aim is to ensure quality tracks and experiences, and to minimise impacts, the Guidelines are not necessarily written by soil scientists, ecologists, engineers or First Nation representatives. Recent global scientific assessment of tracks (eg. Salesa and Cerda, 2020) show that all mountain tracks are unsustainable with respect to soil erosion, largely regardless of construction techniques and quality. The fact remains that all tracks are disturbed ground, and conduits for water, weeds and pathogens. All tracks involve the removal of vegetation, topsoil and rocks, often exposing more erodible subsoils. Compaction and deepening of tracks promotes creation of rills along tracks, allowing more concentrated flow. Repeated usage of tracks compounds this erosive effect. Well used tracks such as at Thredbo have undergone repeated rejuvenation and repair to maintain the mountain biking experience (see entry for Thredbo on Trailforks website). This would have included re-construction of eroded track surfaces, banks and berms.

Box 4*. Technical track features*

As previously noted in this submission, NPWS should not be in the business of building sporting parks for visitors. This is in direct conflict with the statutory obligations of the

Service, under the NPW Act. The construction and use of technical mountain biking facilities should be banned from Parks altogether, as their inclusion can only be to promote the sporting elements of the activity, not appreciation of the conservation values of the reserve.

Management of cycling experiences

5.1 *Visitor safety*

"NPWS has no liability for harm suffered from obvious risks of dangerous recreational activities (that is, those which involve a 'significant risk of physical harm')."

This section seems to be saying "yes we will allow and support a dangerous and risky sporting activity, but take no responsibility for any harm caused". This is a dangerous stance to take and will undoubtedly be challenged in the courts in the future, especially if there is severe injury or death as a result of poorly maintained mountain bike tracks within a reserve. NPWS will open itself up to considerable litigation to test all elements of its obligations to the public, especially those related to safety. Most Parks have areas that would be considered naturally dangerous (eg. cliffs, creeks and rivers, caves), however these would fit the "obvious risk" category and are generally avoidable. However this Strategy is promoting a known dangerous activity with known adverse outcomes. The act of supporting the activity could be considered (legally) as supporting or contributing to the harm. Has the NPWS considered the ramifications of this?

The Strategy seems to rely heavily on personal responsibility and adherence to a 'code of conduct' to ensure visitor safety. It is naïve to expect all mountain bikers to adhere to these nebulous rules. The proliferation of illegal tracks in reserves over the last decade is a good indication of how some in this particular sporting group have adhered to the rules.

5.2 *Managing cycling tracks in our parks*

"Tracks that are not adequately constructed and maintained or are used inappropriately can result in erosion. For example, impacts of sliding and braking on wet or poorly designed tracks can loosen track surfaces, displace soil down slope, create ruts, berms or cupped tracks and cause water erosion problems. Professionally built tracks, when used and managed appropriately, can minimise these impacts comparable to that of a walker (Pickering et al. 2010)"

All tracks cause erosion, regardless of quality of construction (Salesa and Cerda, 2020). Yes, professionally built tracks can mitigate, but not remove this impact. Pickering et al (2010a), referenced here, is an older paper that compared hiking, mountain biking and horse riding. They state:

> *Impacts include damage to existing trails, soil erosion, compaction and nutrification, changes in hydrology, trail widening, exposure of roots, rocks and bedrock. There can*

> *be damage to plants including reduction in vegetation height and biomass, changes in species composition, creation of informal trails and the spread of weeds and plant pathogens. Due to differences in evolutionary history, impacts on soil and vegetation can be greater in Australia than in the USA.* (Pickering et al. 2010a)

This paper is often used by mountain biking proponents to claim that mountain biking impact is no worse than hiking. However Pickering et al (2010a) specifically highlight the experimental deficiencies of previous research where comparisons were made, and concluded that considerably more comparative research was needed to elucidate the true impacts of each activity. They stated: *"For mountain biking it is hard to assess relative impacts as there is little research, particularly using quantitative experimental methods and more realistic riding styles"* (Pickering et al. 2010a). The Strategy's use of this paper to somehow equate mountain biking impacts with hiking is deliberately deceptive.

More recently, in their review of track erosion in mountainous areas, Salesa and Cerda (2020) highlight that all tracks, regardless of usage type, cause unsustainable erosion.

Maintenance of all trail and track types is critical to reduce their long-term impact. Maintenance not only refers to direct repair of existing tracks, but also to monitoring of track usage and hindering illegal track diversions. Ballantyne et al (2014a,b) highlight the impact of illegal diversions (anastomosing) of tracks in peri-urban settings where there is a high local visitation pressure, including loss and fragmentation of forest remnants.

Monitoring and maintenance of all trails and tracks within Parks will be the responsibility of NPWS, regardless of the initial source of the development. If the development is private (as is the case for Mt Canobolas SCA, albeit using public money), as the owner and manager of the Parks estate NPWS will have to foot the bill for ongoing maintenance and management. The costs involved, especially to meet statutory obligations, could be prohibitive.

5.2.1 *Closure and rehabilitation of unauthorised tracks*

Closure should be the default option for all unauthorised tracks. Failure to do so is an abrogation of the statutory obligations of NPWS.

5.2.2 *Decommissioning of authorised tracks*

This section recognises that due to changes in circumstances there may be a need to de-commission tracks. Circumstances include changes in visitor expectations and travel patterns. While some form of flexibility is required in Park management to reflect and adjust to visitor expectations, the key elements of Park management - especially the conservation imperatives - must take precedence in any decision to make changes to park infrastructure to cater for the latest whim of the population. Mountain biking is a sport that may wax and

wane in popularity and therefore over-catering for it now may lead to unacceptable environmental damage for little long-term gain. Most mountain biking experiences are part of a suite of visitor experiences that are governed to a large extent by social and tourism drivers. One argument used by mountain biking developers is a need to quickly create a 'destination' that gets ahead of a tourism saturation point ie. when there are too many alternatives and visitation is spread too thinly for the development to be commercially viable. It is precarious, and we believe that the conservation values of Parks could suffer if too many tracks are created for a fickle market.

5.2.3 *Compliance programs*

Compliance programs are only as good as the system behind them, the will to prosecute, and the personnel on the ground to ensure compliance. These are factors that are in short supply at the moment, as evidenced by the proliferation of illegal track construction in Parks over the last decade and more. What is worse is that this Strategy intends to reward illegal track makers by incorporation of some of their tracks into an authorised network. This will not deter others from continuing to create illegal tracks in other areas, or from creating diversions within a sanctioned network (see section on Glenrock SCA above).

It is incredibly naïve to believe that mountain biking groups will provide stewardship of the environmental and cultural heritage values at the expense of their sport. Self-regulation does not work.

5.3 *Maintenance*

Again, it is astoundingly naïve to expect successful management of mountain biking tracks via a method of user-reporting to NPWS about track maintenance issues. While there may be initial interest from local clubs, there is no guarantee that this would continue long-term, nor would all users be aware of the request or be bothered to report maintenance concerns. Responsibility for ongoing maintenance of all tracks and tracks in reserves belongs with NPWS and therefore they should be resourced sufficiently to do this job effectively. This Strategy seems to suggest that users can provide some of this job for free (eg. "*NPWS seeks the cooperation of all riders to advise the relevant NPWS Area office in a timely manner about the state of tracks, creation of new unauthorised tracks, signage and other infrastructure through regular reporting of issues*".). Incredibly naïve, and in fact potentially dangerous if maintenance failures lead to injury or death of riders, or adverse environmental outcomes.

***5.3.6** Funding*

"NPWS will seek opportunities to offset some of the costs of maintaining mountain biking facilities through 'user-pay' systems, community partnerships and commercial events and tours where appropriate."

How will these 'user pays' systems operate? Will there be gate charges at all Parks where mountain bike tracks are built? There will be a community backlash if this occurs, especially if the Park has long been free for all users. Why should the costs of one activity for one user group be spread across all other users?

Issues Specific to Mt Canobolas SCA

Gaanha-bula Mt Canobolas is a high elevation extinct volcano (summit 1397m ASL) of Miocene age. Its elevation and insular physiography have preserved montane and sub-alpine conditions unique to central NSW. To date there are over 1000 known species of flora and fauna, several new to science and not yet fully described (R. Medd *pers comm*; Medd and Bower, 2019). There are currently 10 known endemic species (more likely), 2 Endangered and 2 Critically Endangered Ecological Communities (including the *Xanthoparmelia* Lichen Community, the only protected lichen community in Australia). It is a lichen hotspot (over 100 species recorded) and has over 40 species of ground orchids (two endemic). The SCA supports 16 recorded threatened species, including the Giles Mintbush (*Prostanthera gilesii*) which has been listed as an Asset of Intergenerational Significance (AIS). One fifth of the species in the SCA are at the limits of their geographical range, some being disjunct populations likely to represent unique genetic variants. The entire SCA has been nominated as an Area of Outstanding Biodiversity Value (AOBV) under the NSW Biodiversity Conservation Act (2016) (Medd and Bower, 2018).

Gaanha-bula Mt Canobolas is a recognised cultural centre for the Wiradjuri nation. Summit areas are known men's initiation sites, and the entire volcanic complex is part of a dreaming story linking it with nearby Wahluu Mt Panorama (Bathurst) and Guhanal wanyi Mt Macquarie (near Carcoar). Since the 2018 wildfires, many aboriginal artefacts have been exposed across the SCA, including many tool types and lithologies never previously recorded there. There are now approximately 35 recorded sites of tangible artefact locations in the NSW AHIMS database, incorporating many thousands of individual artefacts. These suggest a long history of occupation and central importance to surrounding tribes, and support long-held spiritual values and stories of the Wiradjuri people. The SCA is the last surviving remnant of relatively undisturbed culturally significant land in the Orange region.

Over the last 7 years the nearby Orange City Council (OCC), as developer, has promoted the creation of a dedicated mountain biking precinct centred on Mt Canobolas SCA. A previous

iteration of a track design had 63km of track within the SCA itself and a further 60km in adjoining State Forests. Despite overwhelming community opposition to the tracks within the SCA (GIPA application) a change was made to the SCA PoM to allow "consideration" of the proposal. This opened the door for OCC to further investigate the proposal, culminating in a recent submission to the State Planning Dept as a State Significant Development, (SSD-34122745) with over 70km of new track earmarked for the SCA. If this were to proceed, we believe the primary conservation purpose of the SCA would be permanently compromised, and the mountain would effectively be given over to a single sporting group at the expense of all other users and the environment. Direct impacts on endemic and listed threatened species and communities would occur, as well as fragmentation of limited habitats within the SCA. Known Aboriginal cultural heritage would similarly be impacted directly (tangible artefacts) and indirectly (intangible cultural history and site significance). No amount of 'buffering' would be adequate to place any of these tracks without having some form of impact.

The Strategy, and especially the Guidelines for Implementation, provide little protection for Mt Canobolas SCA. Given the likely high cost of track creation in such a steep location, developers have chosen to approach the State Govt via the State Significant Development (SSD) avenue, essentially taking the decision to proceed out of the hands of NPWS. However under current legislation, as the manager of the land NPWS would be required to maintain the tracks and take on the burden of any adverse situation such as fragmentation of habitats, loss of species or litigation from injured riders. Maintenance costs would be borne by the Service, not the developer. The Strategy does not consider this eventuality, which is likely to be a common approach by mountain bike track developers in the future (due to the high costs of development). How does the Strategy address the overriding powers of SSDs and the Planning Dept in such matters? How will conservation values enshrined in the NPW Act be maintained when the authority to develop is removed from NPWS?

If NPWS were to promote track creation in Mt Canobolas SCA via the Guidelines for Implementation the following could occur:

- The development would be deemed Permissible (SCA), and Suitable (modified PoM).
- Any environmental impact assessment would be via an REF rather than a detailed environmental assessment. This would be reliant on published scientific reports and database records (ie. a desktop study) rather than actual measurements on site over many seasons or years. This is not a sufficient method to assess the environmental impact of this development in this vulnerable location.
- New scientific work since the recent fire has increased the number of recorded species to over 1000, with more likely. Some of these are new to science and are therefore not yet fully described, nor entered on to threatened species lists.
- Most endemic and listed threatened species in Mt Canobolas SCA are ground dwelling and would be the most at risk of direct impact from track creation and subsequent usage.

- The Strategy would possibly allow a linear development around known areas of high significance despite the knowledge that the survival of many species was at risk due to contracting habitats and greater disturbance overall.
- Fragmentation of what is a small, remnant sub-alpine area would be exacerbated.
- Increased visitor penetration into new areas would promote weeds, seeds and pathogens
- Increased erosion from ground disturbance on what are very steep slopes and erodible soils
- Aboriginal cultural heritage would be directly removed, and intangible values disregarded by what is an overwhelming development.
- Other users of the SCA would be disadvantaged, as quiet areas for passive recreation would be significantly reduced.
- Safety of other users would be impaired where walking tracks and biking tracks coincide.

Conclusions and Recommendations

Based on our experiences and research we wish to highlight and recommend the following:

1. The primary consideration of the Cycling Policy, Strategy and Implementation Guidelines should be to abide by the objectives and statutory obligations of the NPW Act (1974).
2. Dedicated mountain bike tracks within natural areas are in direct conflict with the statutory conservation obligation of the Service because of their higher impact on the environment than walking tracks (which also have impacts).
3. In the light of climate change and ongoing track maintenance demands, no track in steeper, mountainous terrain is sustainable (Salesa and Cerda, 2020) especially with respect to soil erosion. The scientific consensus is that “sustainable” mountain bike track creation and use is simply not possible in areas managed for conservation.
4. Cumulative impacts of track creation and likely usage pattern seem to be ignored by the Strategy.
5. There is no recognition within the Strategy of the increased likelihood of adverse wildlife interactions from mountain biking in reserves. Mobile wildlife can generally avoid walkers in most situations, however speeding mountain bikes present a greater challenge.
6. We recommend that all ‘cycling experiences’ within NPs and SCAs be limited to public roads and management trails only.
7. We recommend that no cycling ‘events’ be allowed within reserve areas. This is especially important in the case of mountain biking, where trampling of track margins is likely to be exacerbated by spectators and high speed degrades tracks.
8. While occasional, level, family-friendly tracks may enhance the “visitor experience” in some limited locations, any track creation that specifically promotes the elite

sporting aspects of mountain biking should be banned from reserves. These include long downhill tracks on steep slopes, constructed or natural terrain features used for jumps or 'tricks', and climbing tracks using many switchbacks.

9. Elite sports-based tracks are better located where ecological and cultural values are low (including reclaimed mining areas and commercial forests) and where interactions with wildlife can be reduced.
10. Detailed environmental and cultural assessment rather than Reviews of Environmental Factors should be the minimum requirement for all developments within reserve areas, including track creation.
11. Any real threat of extinction of a species should immediately curtail any development proposal, including track creation.
12. Sustainability criteria need to consider the multiple impacts on the environment of climate change and the development proposal (ie. emergent risks).
13. We recommend that there be a moratorium on new track creation in NPWS managed lands until more detailed assessment of the environmental impact of these tracks is done, especially in the light of current and impending climate change. Now is not the time to be adding more disturbance to already vulnerable reserves.

In conclusion we believe that the Strategy, as outlined by the 3 documents, needs a significant re-think and re-write. It purports to represent the wishes of the NSW community, however it makes too many assumptions about the perceived benefit of mountain biking in Reserves. It is clearly written to appease a single user group without full consideration of all users of Reserves and all environmental and cultural heritage implications of the activity.

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