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Name	SECRETARY	
Organisation	BETTER PLANNING NETWORK INC.	
	DRAFT GREENER PLACES DESIGN GUIDE	SPECIFIC COMMENT OR SUGGESTION
Page or section no	Section title	
	Who should use this guide	Easy to understand, no further information needed
	Where can this information be applied	Easy to understand, no further information needed
1.0	OPEN SPACE FOR RECREATION	<p>Information is clear but could better reflect contemporary understanding and practices about the value of incorporating open space for recreation into urban planning solutions</p> <p>The information is helpful and easy to understand but an overarching statement about the compelling economic and social value of investing in open space for recreation would inspire governments, planners and most importantly developers.</p> <p>For example, below is an excerpt from an article about how the best urban parks in the United States have transformed their cities:</p> <p><i>In their rebirth, city parks are being transformed into powerful economic and health generators and as keys to environmental resilience. Next-generation parks are driving a better future by attracting businesses and new citizens to these areas, improving the tax base, encouraging investment, mitigating storms and anchoring communities.</i></p>

		<p><i>Each of these leaders hails their parks as having transformed their cities and revitalized their communities. To them, parks are not luxuries, but wise investments in the future, drawing new citizens and businesses downtown, providing close to home access to nature and strengthening neighbourhood cohesion, offering vibrant cultural settings and relaxation, all while helping to solve the profound societal challenges of public health, economic development and environmental resiliency.</i></p> <p>A 2016 PBS documentary, 10 Parks That Changed America offered the following important insights:</p> <ul style="list-style-type: none">● American cities know they need good parks to compete● Taxpayers are happy to fund parks because they know how much they do for their communities● Empty nesters moving to inner city areas are looking for some of the green space they had in the suburbs and urban family dwellers want more greenspace for their children● The momentum for new parks, in part revitalised by a vocal dog owners' movement, is so great that showcase parks like the High Line in Manhattan aren't being built at the expense of neighborhood parks● Projects like the \$US150 million High Line have generated \$US2 billion in new investments <p>The Guide should also include relevant excerpts from the recent DPIE survey of Sydneysiders' attitudes about outdoor recreation space, The Greater Sydney Outdoors Study. For example, it showed that Sydneysiders would like to see :</p> <ul style="list-style-type: none">● More high quality, open spaces supported by good facilities● More opportunities for swimming and water-based activities in the local area● Larger open spaces, to provide greater opportunity for diverse, outdoor recreation activities● Open spaces that assist in building a greater sense of community
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1.1	What is open space for recreation	<p>The definition of public open space and private open space is straightforward but not enough emphasis is placed on helping both planners and the public understand their interrelationship:</p> <ul style="list-style-type: none"> • Public open space has become increasingly important in recent years because the average block size has shrunk so much that little room is left for gardens or trees in private open spaces. This is particularly true for new residential developments in greenfield areas (link takes you to a typical image). In fact, the Minister for Planning and Public Spaces, Rob Stokes, recently acknowledged that "too often the environment has been an afterthought in urban planning." • The inclusion of more text and images showing just how badly Sydney has in the past managed both suburban sprawl and urban redevelopment will send a powerful message that the DPIE is serious about changing course. <p><i>This guide addresses the provision of public open spaces that support outdoor recreation, sport, and exercise. This includes formal sport, self-directed endurance activities, appreciation of nature, socialising, picnicking, walking, and informal group activities, etc.</i></p> <ul style="list-style-type: none"> • Unfortunately, the above description suggests a hierarchy in the order of activities that is perhaps not intended? Some kind of statement emphasising the importance of a good balance of spaces for different outdoor activities would be helpful here. It should be noted that the Greater Sydney Outdoors Study found that "walking, hiking, jogging or running" were the most popular outdoor activities.

		<ul style="list-style-type: none"> Numerous examples exist of how poorly planned increases in urban density in established areas are increasing competition for outdoor space. Local Banksia residents, for example, are upset that Bayside Council is replacing the playing field in Gardiner Park with synthetic turf to satisfy the needs of the local football teams. It means that other sports will not be able to use the field and the field will no longer be friendly to families and pet owners when not in use.
1.2	Planning for recreation opportunities	<p><i>With increasing densities and declining land supply, the typical approach of setting aside a quantum of land as part of every development is no longer effective. With urban infill, brownfield development, and higher density development, urban growth is no longer about low-density sprawl and no longer comes with additional land to be apportioned to residential, commercial, and community uses.</i></p> <p>This above statement reflects a failure on the part of government and developers to appreciate the economic, social and health benefits of incorporating sufficient outdoor recreation areas. It also, unfortunately, lowers expectations about what can and should be achieved.</p> <p>The guide should emphasise that this type of approach is no longer acceptable and is not best practice. If the government can compulsorily acquire new land for roads and metro stations, then surely land can be acquired for parks and other outdoor recreation areas when urban renewal projects are proposed.</p> <p>Further, the Government should not tie increases in funding for outdoor recreation space to commitments to increase urban density over and above what has already been approved in LEPs and strategic planning documents:</p> <ul style="list-style-type: none"> The recently announced NSW Public Spaces Legacy Program, for example acknowledges that “the COVID-19 period has demonstrated access to quality open and public space is central to community and individual health and can be a driver of economic performance.” Yet, in order for NSW councils to be eligible for the funding for projects that deliver new or upgraded public and open spaces, they “must further commit to delivering

		<p>on housing and jobs growth, by: – for metropolitan councils, exhibiting updated local environmental plans to incorporate housing or employment supply for at least 6-10 years, by 30 June 2021.”</p> <ul style="list-style-type: none"> Typically, the Government has also relied on Special Infrastructure Contributions from developers and/or Voluntary Planning Agreements to fund new or enhanced outdoor recreation space. This approach either slows down the delivery of new parks or ties funding to a council’s commitment to vary or abandon planning controls in favour of developer demands for more density.
1.3	Strategies for providing open space for recreation	<p><u>1. Improve the provision and diversity of open space for recreation.</u> <i>The public open space network should include a broad range of spaces and settings including formal parks, undeveloped spaces, natural areas, buffers, linear systems, riparian and waterfront areas, sports fields and gardens within public institutions, and undeveloped land around public infrastructure.</i></p> <ul style="list-style-type: none"> Consultation with the community is very important for developing the right mix of open space. Residents at Bingara Gorge in Wollondilly, for example, have been waiting for six years for a dog-friendly park: Mrs Walker said the reason she and her husband moved to Bingara Gorge was because she was told there would be a dog park. "We thought that was great but that was back in 2013 and the dog park is still not here." Greenfield developers are typically allowed to build in stages and often vital infrastructure like outdoor recreation space is moved to the later stages of the development when it should be created first or even before developers are allowed to buy up the land. Australia’s developer-driven approach to the design of new housing estates on greenfield land has led to some very mixed, but typically, poor results. Parks can also be used to creatively disguise or manage other essential infrastructure needs. Atlanta’s Historic Fourth Ward Park, for example, was inspired by the neighborhood residents of one of the poorest areas of the

		<p>city. Rather than adding costly traditional sewer tunnels, the blighted industrial lowland was reimagined as a sustainable green space surrounding a functional stormwater retention pond. The pond is the centerpiece of the new park, which includes walking trails, urban plazas, native plants, and an amphitheater. “Historic Fourth Ward Park has been a harbinger of development and revitalization, providing the cornerstone for a sustainable, high-density, and high-quality urban transformation, along with an outstanding design solution for a serious sewer overflow problem.”</p> <ul style="list-style-type: none"> • Sydney Park, on the site of a former brick pit and rubbish tip, has shown the possibilities of this type of development here. It recently won the Jury Award in the Architecture + Water category of the 2020 Architizer A+ Awards, in New York. <p><u>2. Understand the demands on existing open space, and plan for open space in new and growing communities</u> <i>While effective use of existing parks and other open space areas is encouraged, all parks have a capacity. New demand for open space from increased density or new housing development can impact existing functioning parks. Planning should account for the capacity of an existing asset and set limits on its ability to accommodate new demand.</i> An excellent point, which can't be overemphasised.</p> <p><u>3. Improve the quality of open space for better parks and facilities</u></p> <ul style="list-style-type: none"> • Don't forget the importance of creating beauty. Public artist Jenny Turpin, of Turpin + Crawford, who designed the water features of the Sydney Park, including the cascades and the channels of terracotta – harking back to the products of the old brickworks on the site, highlights the importance of aesthetics: “It was about creating a beautiful amenity in the park and telling people in a poetic way what’s actually happening,” she said. “The artwork teases nature and gravity and creates little perches for the birds to sit on and bathe from. • Community consultation is key for making sure “enhancements” to existing parks are properly considered. In the densely populated
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		<p>Woollahra municipality, for example, residents objected to a proposal to transform some of the passive green recreational space of Rushcutters Bay Park into a skate park for teenagers. Already this park is home to multiple outdoor recreational facilities, eg. sporting field, tennis court and sailing clubs.</p> <p><u>4. Link to the network of green infrastructure</u></p> <ul style="list-style-type: none"> • Sydney’s older suburbs typically have wide footpaths that support lawns, plantings and big canopy trees. For residents, walking the streets with their dog can be a very pleasant experience and the street trees provide shade and habitat for the area’s birds and wildlife. This type of streetscape planning should be encouraged in new greenfield developments. <p><u>6. Encourage physical activity by providing better parks and better amenity</u></p> <ul style="list-style-type: none"> • Great idea. <p><u>7. Provide open space that is multifunctional and fit for purpose</u></p> <ul style="list-style-type: none"> • Yes, but as mentioned previously, the importance of reserving a lot of public open space for passive recreation cannot be overemphasized. The Greater Sydney Outdoors Study found that 85% of Sydneysiders walk, jog, hike or run and 77% relax in open spaces. Sixty four percent enjoy gathering in open spaces for barbeques and picnics. <p><u>8. Design versatile, flexible spaces</u></p> <p>Obviously, planners need to pay attention to how parks are being used and appreciated by the community. The <u>Project for Public Spaces</u> offers the following excellent advice: <i>In the design process, every choice counts when it comes to inclusion in a public space, but that doesn’t mean that we can expect every choice to be perfect right away. The best way to avoid these pitfalls of bad design is to invest in a robust <u>community process</u> that includes “<u>Lighter, Quicker, Cheaper</u>” design experiments, and in ongoing public space management to ensure that design and programming both continuously evolve in response to community needs.</i></p> <p><u>9. Consider life-cycle costs, management, and maintenance</u></p>
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1.4	Criteria and Performance indicators	
	Accessibility and connectivity	<p>District open spaces Typically service catchments of less than one local government area (LGA), or several neighbourhoods, but can service a catchment spanning across two LGAs. The planning assumption is that users will be prepared to drive up to 30 minutes to access district open spaces in urban areas. Sporting facilities mostly operate at district level.</p> <p>Regional/metropolitan open spaces Serve whole cities, metropolitan districts, or one or more LGAs; or a regional centre and multiple towns and villages in non-metropolitan areas. Users will be prepared to drive significant distances to access regional open spaces and recreation facilities. Regional open spaces can be managed by State agencies, trusts, local governments, and other public bodies.</p> <p>Do the above planning assumptions make sense and are they best practice?</p> <p>As the Sydney Morning Herald reported, <u>traffic on Sydney’s roads is the busiest on</u></p>

		<p><u>Saturdays and the main reason is parents ferrying their children to and from sporting activities:</u></p> <ul style="list-style-type: none"> ● <i>Traffic on Sydney roads can run slower on weekends than during peak hour, but some areas feel the pinch more than others. Lamyra Sadi, from Rose Bay, says Saturday mornings are worse than weekday peak hour. Mrs Sadi has hauled her children across Sydney to sports fields for 12 years.</i> ● If Sydney's population is still projected to grow by around 1.7 million over the next 15 - 20 years, then more thought needs to be put into building sporting grounds and facilities throughout Sydney. If necessary, land should be specifically required for sporting grounds and facilities instead of repurposing valuable passive green space. ● The above observations were reinforced by The Greater Sydney Outdoors Study. It found that: <ul style="list-style-type: none"> ● Preferred recreation activities are not always ● accessible within a reasonable distance, causing large travel times or an acceptance that these recreation opportunities are not available. ● Getting there: A high number of people use the car to get to outdoor recreation areas, even when they prefer to be able to get there by foot. This can be due to a lack of pathway networks, or the distance required to travel. ● Both location and the ability to get there impact the time it takes to participate in any form of activity.
	<p>Distribution</p>	<p><i>The ability of residents to gain access to public open space within an easy walk from home, workplaces, and schools is an important factor for quality of life. The geographic distribution of open space is a key access and equity issue for the community.</i></p> <p>The above statement is powerful. In light of the Covid-19 pandemic and the impact</p>

		<p>of climate change, ensuring easy and equitable access to open recreation space should be the top priority. Two powerful examples below explain why:</p> <ul style="list-style-type: none"> • Just last week, the press reported that “more than half of all Melburnians do not live within easy walking distance of quality public open space, a major challenge given the current ban on driving to local parks. Apparently, separate research shows that 340,000 Melburnians have little or no parkland at all within their permitted five-kilometre radius. A similar situation likely exists in Sydney. • In Richmond, Virginia, to escape the heat, Sparkle Veronica Taylor, a 40-year-old Gilpin resident, often walks with her two young boys more than a half-hour across Richmond to a tree-lined park in a wealthier neighborhood. Her local playground lacks shade, leaving the gyms and slides to bake in the sun. The trek is gruelling in summer temperatures that regularly soar past 95 degrees, but it’s worth it to find a cooler play area, she said.
	<p>Size and shape</p>	<p><i>Open space should be of the dimensions required to be fit for its intended purposes and reflect its urban density context. In higher density areas, size is important to ensure there is sufficient area of open space to accommodate demand.</i></p> <ul style="list-style-type: none"> • The inclusion of minimum sizes for local parks in high, medium and low density areas in this section of the guide is useful. But the size of parks should also be considered in relation to the scale of the surrounding buildings. High rises, for example, can cast shadows and/or create wind tunnels on the public spaces below. Bigger areas would mitigate this effect to some extent. • Mark Skiba, a member of the Australian Institute of Landscape Architect's advocacy committee, said that in areas where high rise residential apartment buildings are going up even more green infrastructure is required to ensure liveability and amenity –eg large parks and natural landscapes, and quality public streets and urban spaces – adding to

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		features in apartments like communal rooftop and private balconies.
	Quantity	<p><i>Quantity is also about capacity, and the community's expectation is that public open space for recreation will have enough area for everyone, and that overcrowding and overuse will not diminish the quality of the experience and the condition of the space. Investing in increasing capacity can be just as effective as investing in new land and is an alternative response that increases the quantity of opportunity.</i></p> <p>While this statement is correct, repurposing parks for multiple activities can ruin their aesthetics and reduce opportunities for quiet passive recreation. Not sure how investing in increasing capacity vs acquiring more land can be achieved without sacrificing passive green recreational space.</p>
	Quality	<p><i>Quality is a key driver of both appreciation and use of public open space. Numerous studies have identified that people are far more likely to be active and engage with the outdoors and natural spaces if they have access to clean, well-maintained, shaded, and visually appealing spaces and pathways.</i></p> <p>This is excellent advice but quality can't compensate for quantity, especially in areas that are experiencing significant increases in urban density. As previously mentioned, the competition for space spoils its amenity for everyone, and especially for passive recreational users.</p>
	Diversity	<ul style="list-style-type: none"> • Consultation with the local community is very important, especially for designing spaces that appeal to different ethnic communities, age demographics etc. • For example, when municipal employees and <u>urban designers working on Toronto's Leitchcroft Park took a closer look into the public space vision of locals</u>, it was <u>clear that South Asian community members were dissatisfied with the space</u>. Locals wanted benches to be replaced with "social," <u>movable seating</u>, and hoped for more shaded areas and water features. "To be nimble in design choices, and to maintain a mindset of deep

		listening, is to ensure that a space is always a place of genuine cultural exchange.”
1.5	Understanding Recreation types	
1.6	Planning for different urban setting	Separate and clarify greening for people, environment or amenity
	Typical urban settings	
	Brownfield site and redevelopment areas	<p><i>Land is often constrained in redevelopment areas and brownfield sites, and there is usually existing public open space that can be considered as part of the supply to meet the desired range of recreation opportunities. Like any land use, a given site can only support a particular level of activity before additional land is needed. The capacity of different spaces to accommodate recreation uses needs to be assessed to determine whether an existing park can meet new demand. When an existing park is at capacity, this should act as a trigger to find new open space, either through conversion of another use, new multiple-use opportunities, or the acquisition of new land. The existing supply of open space may include formal parks, buffer lands, linear systems, bushland areas and a range of other public land. However, it is important not to overestimate the capacity of an existing asset (i.e. the population that a single park can service). For example, a park which already services a neighbourhood of 3000 residents may not be able to service a future population of a further 3000 just because it is within 400 or 500m of the new development.</i></p> <ul style="list-style-type: none"> • The above is excellent advice, but it seems to have been ignored in the redevelopment of Sydney’s brownfield sites. Green Square, for example, which includes the suburbs of Alexandria and Zetland, will accommodate 61,000 people by 2030, living in 30,500 new homes. While the redevelopment project has committed significant new funds for parks, the small scale of these parks means that residents are still over-reliant on the Centennial and Moore Park Parklands, which already serves one of the most densely populated areas in Sydney. • Several years ago, the Government proposed the rezoning of most of the R2 low residential zones along the Sydenham to Bankstown rail corridor in order to accommodate a massive increase in density. Little to no additional green spaces were included in the preliminary designs causing a huge

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		<p>community uproar. At the time the plans were released, Professor Bill Randolph, the director of the University of NSW’s City Futures Research Centre, said “the redevelopment along the Bankstown rail line presents a new and highly disruptive renewal challenge. Without careful coordination, appropriate resourcing and targeted interventions, the renewal of this vibrant, but vulnerable, community could result in an <i>unprecedented process of social displacement and exclusion and the creation of dismal high-density dormitory suburbs feeding the CBD.</i>”</p> <ul style="list-style-type: none"> • Sydney can’t afford to keep making the same mistakes. The Guide should emphasise that outdoor recreation strategies for brownfield or “urban renewal” sites should be the first and most important priority, with land being set aside for this purpose before any rezoning changes are made. This will ensure that new land does not become prohibitively expensive to acquire and green space can be properly accommodated.
	General capacity measures	
	Greenfield areas	<ul style="list-style-type: none"> • Sydney has an appalling history of planning its greenfield areas, so the advice in this section of the guide is welcome. As mentioned above, the Government relies too much on developers to drive the planning and development of these sites. Because the development is built in stages, promised infrastructure is often not delivered or the developers apply for more density in order to compensate for infrastructure costs. • Residents of Bingara Gorge near Wilton, for example, said the developer had misled them when they bought in early on the expectation that the development would be limited to 1,165 new dwellings, not the 1,800 new dwellings that the developer later applied for. The developer argued that “a maximum of 1800 lots would improve the economic and social sustainability of Bingara Gorge while retaining 200 hectares of green space and amenities.”
1.7	Fit for purpose	
2.0	URBAN TREE CANOPY	This section lacks the level of detail and information of the Bushland and Waterways section. More information needs to be provided, particularly in the 2.6

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		Recommendations section. Specific Development Controls should be recommended as in the B&W section.
2.1	What is urban tree canopy	<p>The target audience for this document is "government and professional organisations". It is considered that the document is too simplistic for professionals and reads more like a school text. There is insufficient information provided on the benefits of the urban tree canopy with generalised statements being made about the benefits including important issues such as improvement of air quality and reducing urban temperatures. Additional information is required to provide clarity rather than just referencing overseas publications. The relevant information should have been collated from those publications and included in the Greener Places Design Guide. This is essential information for government and professionals to be able to generate public support for this initiative.</p> <p>The information provided is mainly from overseas research, particularly from the US. Mention is made of "establishing 100 million matures trees around residences". However Sydney is one of the few global cities that has mature trees within its suburban areas within private gardens. More focus must be made on preserving that canopy cover. Australian data must be provided which would be much more beneficial to NSW planners. Australia data on the impacts of the urban heat island effect are available and should be included for clarity. Likewise Australian data on energy savings should be included. These links would be useful https://www.greater.sydney/dashboard/city-its-landscape https://wsroc.com.au/projects/project-turn-down-the-heat https://www.greater.sydney/dashboard/resilient-city</p>
2.2	Improving the approach	<p>The statement "As more and more people live in high-density environments with no back yards" is so generalised as to be of almost no use to planners and professionals. This does not reflect current practices where the high density environments are being centred around transport nodes, not in the low density suburban areas. Certainly the statement could not be applied to many suburban and regional areas. A much more fine-grain analysis must be provided for clarity and to remove ambiguity. Targets should be not just established per Local Government Area, but also within areas of different character across an LGA, such as canopy targets for low, medium and high density, as well as for industrial and business zonings. The approach could be further improved by implementing targets for tree retention vs tree planting.</p>

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2.3	Strategies	<p>1. Even though the title of point 1 of this sub-section is "Protect, maintain, and enhance the existing urban tree canopy" there is no strategy to protect the existing urban tree canopy. It is all based on improvement not protection and maintenance. Specific strategies must be included to protect the EXISTING canopy. It is not made clear is any part at all of the "Urban Tree Canopy" section of the Draft Greener Places and Design Guide, not even in this "Strategies" section, what strategies State and Local Governments propose to implement to "protect and maintain". There is no information provided on the current practices used to facilitate this, nor is there any information on how to attain this in the future. More information is required to provide clarification.</p> <p>2. Again, no strategies are provided to "create an interconnected urban tree canopy across NSW", even though this sections is headed "Strategies". This section should not just be the WHY these strategies need to be undertaken, but also HOW to create this interconnected urban tree canopy.</p> <p>3. Unfortunately Greater Sydney and NSW is NOT a leader in urban tree canopy issues. There has been more than a decade of legislations and regulations that have allowed the urban and regional tree canopy to be decimated. NSW is now playing catch-up trying to plant millions of trees in public places at an enormous cost to the community. During that decade people have grown unreasonably fearful of trees. This section needs more information as to HOW the State and Local Government will increase the public profile of the benefits of the urban tree canopy, to reverse a decade of negativity around trees.</p>
2.4	What is the optimal canopy cover level	<p>The City of Sydney target of 22% increase shows the inequities of basing targets on the total LGA canopy coverage. The suburban areas have more potential for increase than the higher density areas, yet arguably the higher density areas need a larger percentage increase.</p> <p>The paragraph discussing the requirement to "provide adequate resources to maintain a healthy urban tree canopy" shows that the focus of almost the whole "Urban Tree Canopy" section of the Draft GPDG is on trees on public lands. BY FAR THE GREATEST AREA OF URBAN TREE CANOPY COVERAGE IS IN PRIVATE GARDENS. Yet this document consistently fails to provide information,</p>

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		<p>clarity, strategies, targets or improvements for the protection and maintenance of the main source of the urban tree canopy, private gardens. This is a major failure in this document and must be rectified to provide clarity and remove ambiguity.</p> <p>There is no information provided on the percentage of tree canopy cover that is contained in private gardens in the suburban areas. This is important information to include for planners to be able to determine whether stronger policies are needed to ensure that existing mature canopy is not lost at a rate that cannot be replenished by tree planting in public spaces. There must be much more focus on the trees on private lands.</p> <p>Current policies such as the change from Council Tree Preservation Orders to the SEPP (Vegetation in Non-Rural Areas 2017) as well as the much-misused RFS 10/50 Clearing Code are decimating the mature urban tree canopy on private lands. There is little point in basing an increase in tree canopy coverage (mainly on public land) by a certain date when the loss of existing canopy under the current policies will outstrip the area of canopy increase on public land.</p>
2.5	Indicative targets	<p>It is helpful that information is provided for Councils as to optimal canopy cover for each zoning type but these should be mandatory within the Strategic Plans, LEP and DCP, rather than indicative targets.</p> <p>It is likely in higher density zones that there will need to be a greater focus on tree canopy in public areas. Additional information on percentage of canopy coverage in public vs private land will help inform how to achieve targets. The use of aerial imagery is great - it would be even better informed by separation of % of trees on public vs private land.</p> <p>Target timeframes will allow for trees planted now to reach semi-maturity but it would be impossible to plant the number of trees within the next few years to meet an ever receding target with tree loss on private land at current unsustainable levels.</p> <p>As an example one Sydney LGA alone had been losing 15,000 to 20,000 trees per year. It set a target, which it has met, of planting 25,000 trees on public land in 2 years. The cost to do that was well over \$1 million dollars, paid for by ratepayers.</p>

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		<p>Even with that outlay, in just 2 years it would still have had a net loss of 15,000 trees. It cannot catch up let alone set new reachable targets.</p> <ul style="list-style-type: none"> • The new Greener Places SEPP should include clauses that protect all tree species (except those listed under the <i>Biosecurity Act 2015</i> and any locally invasive species) of a height greater than 3 metres and require permits for tree removal on private land where removal is not required for development • The SEPP should include appropriate species replacement requirements in accordance with specified multiplier ratios and proportional to the size of trees being removed, for trees removed for development. Where it is determined by the consent authority, whether it be a Council, Private Certifier or Planning Panel, that the required number of replacement trees are more than can be planted on the site, the surplus must be planted on public land with the costs payable by the developer. Offset costs can be nominated in Council Rates & Charges - one Council currently charges \$1,190 per 20m² of canopy removed • Accurate vegetation mapping must be mandatory for all councils • Fine grain targets must be set within each LGA for each Zone.
2.6	Recommendations for urban tree canopy	<p>This sub-section is far too generalised and provides insufficient detail. There is no comparison between the Recommendations in "Bushland and Waterways" and those in this section. Bushland and Waterway provides the level of prescriptive recommendations that are needed in the Urban Tree Canopy recommendations. There is a distinct lack of clarity and information in this section.</p>
	Protect, maintain and enhance the existing urban canopy	<ul style="list-style-type: none"> • Inclusion of targets in regional plans is excellent but these must be supported by inclusion of the targets in the standardised provisions of the LEPs for each LGA. • Much more information is needed in this sub-section on "Protect, maintain, and enhance the existing urban tree canopy" for both State and Local Government with regard to strategies for protection and maintenance of the existing canopy. • Targets established by State and Local Government must not include National Parks (see 3.2 below) • The new Design and Place SEPP which this feedback will inform should include provisions that infill development of medium and high density housing provides for under-grounding of powerlines on the street in front of each

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		<p>development. This can be done on a pole-to-pole basis so there is limited impact on development costs and no cost impact on Ausgrid or local councils. This type of greater level of detail should be included in the document for clarity.</p> <ul style="list-style-type: none"> • All new medium and high density housing developments should be required to include timed watering systems preferably utilising recycled water systems • Succession planning should not assume that a mature tree canopy needs to be replaced with new plantings, rather encourage new plantings within senescing stands of trees. • VIRTUALLY NO COUNCIL PROSECUTES ILLEGAL TREE REMOVAL. More information needs to be provided as to what tree protection regulations will be permitted over and above the proposed standardised LEP & DCP provisions. 1.4 states "Strengthen tree protection regulations" - the State Govt must provide a baseline standardized LEP & DCP that protects the mature urban tree canopy. More information is needed on how to strengthen conformance to regulations - currently it is prohibitively expensive for any Council to prosecute illegal tree removals and fines are too low. • Most Sydney councils have already completed their Local Strategic Planning Statements. The next review is several years away. Information should be provided as to an easy mechanism for including these targets and canopy priority plantings into the LSPS.
	<p>Create an interconnected urban tree canopy across NSW</p>	<ul style="list-style-type: none"> • Information is insufficient for application and clarity • Best practice targets need to be clarified with required minimums • The Crown lands review which prioritises economic growth is at odds with increasing urban tree canopy cover on State managed urban Crown lands. This sort of conflict between policies must be identified, rectified and clarified. • Development of valuation tools for urban tree benefits has already been done in many countries including the USA. Providing this information in this document would be beneficial. • The State government policies and guidelines must provide much stronger mechanisms to protect, enhance and achieve an effective urban tree canopy. Information should be provided in this document as to which policies will be applicable.

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		<ul style="list-style-type: none"> • The revised LEP and DCP provisions are crucial to facilitating an effective interconnected urban tree canopy. The removal of standardised LEP Clause 5.9 has allowed some local councils to remove virtually all protections for their urban tree canopy. While there have been advantages in lower council administrative costs for issuing tree permits, it has resulted in the loss of large amounts of the urban tree canopy. The new LEP & DCP provisions should be included in this document for easy access. • A new clause should be included in standardised LEP provisions for urban and peri-urban tree canopy that contains the equivalent sub-clauses that were in the standardised LEP until October 2016 (See Appendix 1 at the end of this submission). Sufficient setbacks are needed as well as areas for deep soil planting. Minimums should be provided in this document for clarity. • The SEPP should include replenishment requirements in accordance with specified species and multiplier ratios, for trees removed for development, not just in the LEPs & DCPs
	<p>Build knowledge and awareness of urban tree canopy across State and local government and the community</p>	<ul style="list-style-type: none"> • It cannot be repeated often enough, the success or failure of the Urban Tree Canopy strategy will succeed or fail based on the standardised LEP and DCP provisions. If these provisions are weak, this strategy will fail. Detailed information should have been provided in this document for comment. Recommended DCP provisions are included in Appendix 2 of this submission. • Any standardised LEP provisions should include the mandatory application of urban tree canopy targets. The provisions must be clear that areas of National Parks and bush reserves cannot be included in the targets. The residents of Miranda in the Sutherland Shire for instance, do not benefit from amelioration of heat island and poor air quality, or heating and cooling savings, by having the Royal National Park in their Local Government Area. Likewise the residents of Thornleigh do not directly benefit from the trees in the Berowra Valley National Park. • "Encouraging" councils, agencies and infrastructure and service providers is unlikely to be successful without either financial incentives or mandatory conditions with enforced penalties. Details of how the State Govt intends to encourage these agencies needs to be provided for clarity. • There will be insufficient information provided if the State Govt simply

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		<p>"outlines" information resources. The State Govt should provide the definitive research and data on the roles and benefits of urban tree canopy for clarity, both for professional and community audiences. These benefits must specify not just the environmental but also economic, cultural, heritage and social benefits. These resources can then be distributed to appropriate organisations according to the level of information included in the resource.</p>
	BUSHLAND AND WATERWAYS	<p>Bushland and Waterways contains much clearer information than the Urban Tree Canopy section, with the attention to the level of detail that is necessary in a document such as this.</p>
3.1	What do we mean by urban habitat	<ul style="list-style-type: none"> • Good information provided on the various areas of habitat. However for clarity it is recommended that the first group listed are provided in order of habitat density ie Core, Transition, Corridor, Urban. • The description of Urban bushland is clear, particularly good that it has included regenerated and degraded areas so that it is not assumed that only pristine bushland is worthy of consideration. Again good information on Urban habitat. The inclusion of non-native species is helpful but additional information on non-native species also supporting wildlife would be helpful and less ambiguous. Urban waterways should also include dams in Metropolitan rural areas as well as stormwater channels. • It is also suggested that "asset protection zone" be removed from the Transition area. The reason being that APZs require minimal tree canopy coverage (<15% for Inner Protection Areas and <30% for Outer Protection Areas) as well as minimal shrub and ground-cover coverage. Transition areas are not usually suitable for APZs due to the amount of vegetation removal needed. • Cycleways can also be problematic in Transition areas - local government reports provide evidence of significant impacts on bushland from bike tracks (Appendix 3). These cycleways are more suited to some but not all Connection Zones (riparian zones are not suitable for bike tracks). • The sub-section titled "The importance of urban bushland and waterways" should be separated from the third paragraph in that section as it is ambiguous going from urban bushland to built-up urban systems in the one section. A simple underlined start to that paragraph, such as "Urban

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		biodiversity", would provide more clarity.
3.2	Planning for connectivity	Some further information on the findings of the 2008 Conference would provide more clarity for councils and professionals alike on why the ratification by Australia is important
3.3	Introducing strategic urban biodiversity frameworks	<ul style="list-style-type: none"> • It is unclear whether it is being suggested that a SUBF could or would replace local existing Plans of Management for local parks and reserves. While they can inform the substance of PoMs, they should not be used to replace PoMs which are very specific to each local park or reserve. This must be clarified. • It is also unclear whether a SUBF should incorporate the Recommendations at the end of the Bushland and Waterways section. It would make sense for the SUBF to do so but it is unclear whether that is the intention of a SUBF. It is insufficient information to just say "Councils seeking additional guidance to prepare a SUBF are encouraged to contact GANSW". This document should better inform that process. • This sub-section recommends that maps identifying core, transition and habitat connection areas can be incorporated into LEPs. It should be clarified whether DPIE will support the inclusion of such mapping into an LEP by way of a Planning Proposal. • Again there should be a simple mechanism provided for including SUBFs into an LSPS when most councils have already just revised their LSPS at the behest of the State Govt.
3.4	Strategies for urban bushland and waterways	<ol style="list-style-type: none"> 1. Greater clarification of "remnant" ecosystems is needed. Identify that these include regenerating and degraded ecosystems. 2. LGAs on Sydney's suburban fringe, from the Northern Beaches to the Hills District, the Blue Mts, down through Campbelltown to Wilton, all have large areas of urban bushland in their metropolitan rural areas. There are significant areas of disturbed ecosystems in these areas. For a lot of the private land holdings in these areas, restoration includes replanting but this function is not included in this subsection. Revegetation must be included for clarity of purpose. Avenue plantings in and outside country towns offer good opportunities for ecosystems 3. to 5. are all clear and descriptive
3.5	Recommendations for urban bushland and waterways	Amended LEP & DCP standardised provisions must provide the flexibility to permit the outcomes of the SUBF to be reflected in any LEP amendments. The

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		<p>Recommendations in this sub-section are EXCELLENT. They are wide-ranging and prescriptive. Specific additional comments are made by point number for each sub-section below.</p>
	<p>Protect and conserve ecological values</p>	<p>1. A timeline for the State Government to implement this would provide clarification</p> <p>4. A description of how the place-based targets would be qualified and quantified would be helpful</p> <p>5. Clarification needed. The Critically Endangered Ecological Communities must have thresholds of zero for size and condition. If they are CEEC then any further loss would be a serious and irreversible impact.</p> <p>6. Clarification needed. Would these triggers be incorporated into the Greener Places SEPP? That would be the most immediate and effective mechanism.</p> <p>7. If minimising edge effects is a requirement, it must be incorporated into the standardised LEP provisions, not the DCP provisions. More information needed.</p> <p>10. Currently the AS 4970 Protection of Trees on Development Sites has provisions for protecting tree root systems. However the law is unclear when it comes to trees adjoining excavation sites, with councils usually foisting responsibility onto the neighbours to take civil action, which is costly and difficult against developers. If the State Govt wants to develop controls that put the onus onto councils and developers to protect neighbouring tree root systems, it would be welcomed by those neighbours that are unfairly impacted by this ambiguity. It would also ensure these matters do not have to reach the courts.</p> <p>Similarly there are enormous problems experienced by downstream properties when onsite stormwater detention tanks are installed. When these overflow the impact on downstream/downhill properties is significant. Insurance companies will not cover against damage from stormwater systems that have been approved (badly) by councils. In West Ryde a number of years ago the local council finally banned onsite detention tanks due to the large areas of flooding in heavy prolonged rainfall, due to the proliferation of this stormwater management system</p>

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		<p>over many years. Providing clarity of responsibility would assist a lot of homeowners. Development controls are ineffective when ignored or are incorrectly applied by developers/councils. State Govt direction is needed for local councils and developers alike.</p>
	<p>Restore disturbed ecosystems to enhance ecological values</p>	<p>1. Excellent 2. Excellent 3. Excellent 4. Excellent Four of the strongest and most useful Government recommendations seen in a long time.</p>
	<p>Create new ecosystems</p>	<p>1. Excellent 2. Must not be traded off against provision of 3. on development sites. 4. In new land release areas, wider footpath/road verges would facilitate multiple use for pedestrians/bikes/habitat corridors. This would need to be managed so as to not impose unreasonable additional costs on home buyers or cause inappropriate urban sprawl. The same applies to the Metropolitan rural areas. Ideas for updated footpath designs would be useful to include for clarification. 5. Where stormwater enters bushland from streets or development sites adjacent to bushland, it should be mandatory for local councils/developers to use littertraps and create wetlands to minimise impacts on waterways. Clarification of responsibility needed.</p>
	<p>Connect people to nature</p>	<p>1. Care must be taken with bike and walking tracks in core, transitional and corridor bushland (see Appendix 3 below)</p> <p>2. There was a fantastic community program developed by one Sydney Council, whereby residents workshopped maps of their local area, drawing where gaps in urban tree canopy linkages could be filled, based on their local knowledge. Such a simple idea. This sort of information could and should be produced and documented to inform the NSW green infrastructure design framework within and outside the Greater Sydney Region.</p> <p>3. Development assessment must not trade off one habitat for another. Developers</p>

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		<p>want to remove deep soil planting in exchange for 'green roof' gardens. However 'green roof' gardens do not provide the opportunity for canopy trees so these trade-offs must not be encouraged.</p>
	<p>Connect urban habitats</p>	<p>1. to 6. are all excellent, clear, prescriptive and unambiguous. However the LEP controls must not be any weaker than current controls (Appendix 4)</p> <p>7. This will fall down at the point of collaboration with the community. Both State and Local Govt are notorious for obtaining community input and promptly ignoring it. It must be clarified how the community will be given effective input.</p> <p>8. Biodiversity Offsetting does not protect, restore and enhance ecological connectivity. It trades one valuable ecological asset off against the destruction of another. THIS RECOMMENDATION MUST BE DELETED.</p> <p>9. & 10. Community input has not even been included in these points. It has been shown time and again that the broader community has access to a much larger knowledge base than industry groups that by their very nature have to be self-focused. The COMMUNITY must be given a far greater input into these recommendations. Of particular concern is the idea that industry groups would develop incentive mechanisms for themselves. There is no clarity about this idea.</p> <p>11. Great. However both minimum standards and best practice targets should be developed.</p> <p>12. Further information would be helpful for clarity.</p>
<p>3.6</p>	<p>Planning considerations for improving urban habitat and connectivity</p>	<p><u>Natural values</u> - more information should be provided regarding the core areas of bushland in the Metropolitan rural areas. For instance, in many cases the size of the linking green corridors between large core areas are accommodated by a series of small corridors that added together provide the wider corridor needed to disperse the greater amounts of biodiversity. This sub-section should not be too city-centric. Likewise the same applies to the natural attributes, this heading should include rural lots as well as private gardens. It is good that the ecological sensitivity of the core area is included, particularly clarifying that this includes threatened or locally rare species.</p>

		<p><u>Design</u> - Development controls - excellent that these controls are included. However if they are only at DCP level there is not the legislative weight of a planning instrument to make them "controls". It should be clarified whether the State Govt will permit additional LEP controls, possibly by way of additional mapping types, to encompass minimum landscape area, tree and native vegetation preservation controls and landscape preservation controls.</p> <p>Urban design - these design features are not being seen in new land release areas. State Govt must clarify and stipulate these controls in new precincts.</p> <p>Landscape design - all excellent but state govt should provide more detailed information where available.</p> <p>Buildings - could include additional information on biodiversity-friendly anti-birdstrike glass into the list of construction materials. Data from the US regarding loss of birdlife to glass strike on high rise building shows extremely high rate of loss. Simple measure such as non-reflective glass, fritted glass, smart glass and one-way night glass can be effective.</p> <p>Movement of species - should include additional information on simple aerial cables from one side of the road to the other, where powerlines are underground or are too far apart, which provides across-road access for arboreal mammals.</p> <p><u>Community and partnerships</u> - please also include additional information of reducing the use of rodenticides, they are a major cause of loss of apex bird species such as the threatened Powerful Owls.</p> <p><u>Connecting People</u> - The community will feel more engaged with this strategy if they are given more real input into programs and initiatives.</p> <p><u>Community Will</u> - This has to be implemented in the first instance at State Govt level. More information should be provided as to how the State Govt intends to promote benefits over community concerns about human-nature conflicts and limits to development potential.</p>
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		<p><u>Priority Projects</u> - the list of priority projects in district plans is very limited. Further information should be provided on how local priority projects can be identified by the community - rehabilitation of watercourses, catchments, biodiversity corridors</p> <p><u>Funding</u> - Comprehensive, clear list. More funding for NP&WS should be included</p>
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APPENDIX 1 - Standardized LEP provisions

Clause xxx Preservation of trees or vegetation in urban and urban/rural areas

- (1) The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.
- (2) This clause applies to species or kinds of trees or other vegetation that are prescribed for the purposes of this clause by a development control plan made by the Council.
- Note. A development control plan may prescribe the trees or other vegetation to which this clause applies by reference to species, size, location or other manner.
- (3) A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by:
- (a) development consent, or
 - (b) a permit granted by the Council, or
- (4) The refusal by the Council to grant a permit to a person who has duly applied for the grant of the permit is taken for the purposes of the Act to be a refusal by the Council to grant consent for the carrying out of the activity for which a permit was sought.
- (5) This clause does not apply to a tree or other vegetation that the Council is satisfied is dying or dead and is not required as the habitat of native fauna.
- (6) This clause does not apply to a tree or other vegetation that the Council is satisfied is a risk to human life or property.
- (7) A permit under this clause cannot allow any ringbarking, cutting down, topping, lopping, removal, injuring or destruction of a tree or other vegetation:
- (a) that is or forms part of a heritage item or that is within a heritage conservation area, or
 - (b) that is or forms part of an Aboriginal object or that is within an Aboriginal place of heritage significance,
- unless the Council is satisfied that the proposed activity:
- (c) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area, and
 - (d) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area.

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Note. As a consequence of this subclause, the activities concerned will require development consent. The heritage provisions of clause 5.10 will be applicable to any such consent.

(8) This clause does not apply to or in respect of:

(a) the clearing of native vegetation:

(i) that is authorised by a development consent or property vegetation plan under the *Biodiversity Conservation Act 2016* or

(ii) that is otherwise permitted under Division 2 or 3 of Part 3 of that Act, or

(b) the clearing of vegetation on State protected land (within the meaning the *Biodiversity Conservation Act 2016*) that is authorised by a development consent under the provisions of the *Biodiversity Conservation Act 2016* as continued in force by that clause, or

(c) trees or other vegetation within a State forest, or land reserved from sale as a timber or forest reserve under the *Forestry Act 1916*, or

(d) action required or authorised to be done by or under the *Electricity Supply Act 1995*, the *Roads Act 1993* or the *Surveying and Spatial Information Act 2002*, or

(e) plants declared to be noxious weeds under the *Biosecurity Act 2015*.

Note. Permissibility may be a matter that is determined by or under any of these Acts.

APPENDIX 2 - Standardized DCP provisions

Clause xxxxx Tree and Vegetation Preservation

This section is made in accordance with State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 (the Vegetation SEPP) and prescribes the trees and vegetation to which the Vegetation SEPP and/or Clause 5.10 of the LEP applies and the applicable approval process.

Clause xxxxx Tree Preservation

Prescribed Trees

a. The prescribed trees that are protected by the Vegetation SEPP and/or Clause xxxxx of the LEP and this Section of the DCP includes:

...trees except exempt tree species in xxxxx Shire, as listed in Table 1B.6 (a) or subject to the Biodiversity Offset Scheme,

...all trees on land within a heritage conservation area described within the LEP, and

...all trees on land comprising heritage items listed within the LEP.

b. To damage or remove any tree protected under this DCP is prohibited without the written consent of Council, except in accordance with the exemptions prescribed in this part (under the heading 'Exempt Tree Work').

c. For the purposes of this section:

...**Arborist (Project and Consulting)** must have obtained through training and completed Australian Qualification Framework (AQF) Level 5, Diploma of Arboriculture.

...**A tree** is defined as a long lived woody perennial plant with one or relatively few main stems with the potential to grow to a height greater than 3 metres.

...**Biodiversity Offset Scheme (BOS)** means a scheme enacted by the *Biodiversity Conservation Act 2016*, *Biodiversity Conservation Regulation 2017* and *Local Land Services Amendment Act 2016*. The BOS includes a Sensitive Biodiversity Values (SBV) Map and Area Threshold, either which trigger an alternative approval framework for the clearing of native vegetation. The SBV Map can be viewed on the OEH website and the SBV Area Thresholds are included as notes at the end of this section.

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„„**Native vegetation** has the same meaning as in Part 5A of the *Local Land Services Act 2013*, with the exclusion of 60B(4) for the purposes of including marine vegetation in the definition of native vegetation.

„„**Damage** means to impair the value or usefulness, or weaken the health or the normal function of a tree or vegetation.

„„**Remove** means to cut down, knock down, kill, lop or destroy.

„„**Prune** means to selectively remove branches.

„„**Tree Protection Zone** means the area above or below ground at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree.

Exempt Tree Work

d. The following exemptions to this part apply as set out below:

- i. The removal of a tree deemed by Council in writing and shown by recorded photographic evidence to be dead and is not required as the habitat of native fauna.
- ii. The removal of species listed under the NSW *Biosecurity Act 2015*.
- iii. Pruning of a tree by less than 10% of the foliage area in accordance with Australian Standard *Australian Standard AS 4373 Pruning of Amenity Trees AS 4373-2007* not more than once annually.
- iv. The removal of or pruning of a tree where the base of the trunk of the tree at ground level is located within 3 metres of the foundation of an approved building (excluding detached garages, carports and other buildings ancillary to a dwelling house).
- v. The removal of a tree less than 3 metres in height not located within native vegetation.
- vi. Trees deemed by Council in writing and shown by recorded photographic evidence or written evidence provided by a qualified Arborist (AQF.5) as an imminent risk to human life or is likely to cause substantial damage to property in the near future.
- vii. The removal of or pruning to a tree located on Council owned or managed land provided the works are undertaken by Council or Council authorized agents.

e. The exemptions at (d) above do not apply to:

- populations or ecological communities listed in Schedule 1 and 2 of the *Biodiversity Conservation Act 2016* and protected matters listed under the *Commonwealth EPBC Act 1999*, or
- work that is contrary to a development consent that requires trees to be retained, or
- any work to a tree that is or forms part of a heritage item or heritage conservation area, requires approval from the Council pursuant to the provisions of Clause 10(3) of the Vegetation SEPP and/or Clause 5.10 of the *LEP*.
- land located within 50 metres of and including land that contains native vegetation which is habitat or potential habitat for species, populations or ecological communities listed in Schedule 1 and 2 of the *Biodiversity Conservation Act 2016* and protected matters listed under the *Commonwealth EPBC Act*
- land located within 50 metres of and including land that contains native vegetation which is habitat or potential habitat for species, populations or ecological communities listed in Schedule 1 and 2 of the *Biodiversity Conservation Act 2016* and protected matters listed under the *Commonwealth EPBC Act 1999*

Lands mapped as Biodiversity on the LEP Terrestrial Biodiversity Map

f. The exemptions at (d) above do not apply:

- i. Pruning of a tree which is habitat or potential habitat for species, populations or ecological communities listed in Schedule 1 and 2 of the *Biodiversity Conservation Act 2016* and protected matters listed under the *Commonwealth EPBC Act*, by less than 10% of the foliage area in accordance with Australian Standard *Australian Standard AS 4373 Pruning of Amenity Trees AS 4373-2007* not more than once annually.
- ii. The removal of or pruning of a tree where the base of the trunk of the tree at ground level is located within 3 metres of the foundation of an approved building (excluding detached garages, carports and other buildings ancillary to a dwelling house).
- iii. The removal of a tree less than 3 metres in height not located within native vegetation.

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Lodging an Application for Tree Work

- g. An application is required to be completed and forwarded to Council for all work to protected trees where an exemption does not apply. Table 1B.6(b) below identifies what type of application is required to be completed for work to trees.
- h. Where works to trees is required as part of other works for which development consent is required, the works will be assessed as part of the Development Application.
- i. For the purpose of Table 1B.6(b), a *Tree Protection Zone* is defined as the area within:
 - 9 metres of a tree with a diameter at breast height of 800mm or greater,
 - 7 metres of a tree with a diameter at breast height of between 400mm and 800mm, and
 - 4 metres of a tree with a diameter at breast height of 400mm or less.

Consideration of an Application for Tree Work

- j. The removal of, or work to, trees should be consistent with the applicable provisions of the Vegetation SEPP, LEP and DCP.
- k. Trees will be assessed using arboricultural, ecological and industry accepted safety evaluation methods to determine the safe useful life expectancy of the trees. Accordingly, any application for removal must demonstrate that the removal of the tree is appropriate based on an assessment of the safe useful life and risk to human life or property using industry relevant risk assessment such as Tree Risk Assessment Qualification (TRAQ) or Qualified Tree Risk Assessment (QTRA).
- l. Where trees are to be retained, the provisions of *Australian Standard AS 4970 Protection of Trees on Development Sites* must be applied.
- m. All tree pruning work must be carried out in accordance with *Australian Standard AS 4373 Pruning of Amenity Trees*.
- n. Any tree approved to be removed from a site should be replaced with a tree of like habit and indigenous to Hornsby Shire, planted as near as practicable to the location of the removed tree, grown to maturity and replaced if the planting fails to survive and thrive in accordance with Council's Green Offsets Code.

Notes:

- Works on land identified as "Biodiversity" on the LEP Terrestrial Biodiversity Map should have regard to Section ~~xxxxx~~ Biodiversity of this DCP.
- Works involving heritage items and heritage conservation areas should also have regard to Part 9 Heritage of this DCP.
- Section 12 of the Vegetation SEPP provides that the applicant for a permit may appeal to the Land and Environment Court against refusal by a Council to grant a permit. Any such appeal is to be made within 3 months of the date on which the applicant is notified of the decision or within 3 months after the Council is taken to have refused the application (whichever is later).
- The Biodiversity Offset Scheme (BOS) includes a Sensitive Biodiversity Values (SBV) Map and Area Threshold. If either criteria is met then the offsets scheme must be applied unless it is subject to a listed exemption.
- The SBV Map has been prepared as part of the BOS and may be viewed on the OEH website www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap
- The Biodiversity Conservation Regulation 2017 sets out the following SBV Area Thresholds:

Minimum lot size	Proposed area of clearing
Less than 1 hectare	0.25 hectares
Less than 2 hectares	0.5 hectares
2 to 39 hectares	0.5 hectare
40 to 999 hectares	1 hectare
1000 hectares or more	2 hectares

APPENDIX 3 - IMPACT OF BIKE TRACKS - LOCAL COUNCIL REPORT 2020

half has been restored and now experiences high levels of visitation. The mountain bike and pedestrian tracks have been shown to have significant impacts within bushland areas, effectively increasing the critical distances of edge effects into bushland. The impacts include:

- increased soil erosion and sedimentation
- vegetation clearing and reduced ground layer biomass
- unforeseen extent of impact due to creation of informal tracks
- increased risk of introduction of domestic pets and/or predators to site
- increased noise levels
- increased introduction and spread of pathogens e.g. *Phytophthora cinnamomi*

Mountain bike tracks have also been shown to introduce more severe impacts including:

- damage from the construction of unauthorised tracks and jumps
- increased erosion from rutting, skidding and wheel spin
- increased native fauna flight initiation distances and escape behaviour

Night access into sensitive areas by both pedestrians and bikes using head torches is known to impact successful breeding and raising of young by *Ninox strenua* Powerful Owl.

The cumulative impact of regular switchbacks on steep terrain and exclusive separate pedestrian, vehicle and bike tracks can physically cover a substantial area of vegetation clearing multiplying the effect significantly. Careful consideration is required during any potential design to ensure these elements are designed to reduce any impact.

APPENDIX 4 - MINIMUM LEP CONTROLS FOR BIODIVERSITY

6.4 (Terrestrial) Biodiversity

- (1) The objective of this clause is to maintain terrestrial biodiversity by—
 - (a) protecting native fauna and flora, and
 - (b) protecting the ecological processes necessary for their continued existence, and
 - (c) encouraging the conservation and recovery of native fauna and flora and their habitats.
- (2) This clause applies to land identified as “Significant vegetation” and “Connectivity between significant vegetation” on the [\(Terrestrial\) Biodiversity Map](#).
- (3) Before determining a development application for development on land to which this clause applies, the consent authority must consider—
 - (a) whether the development—
 - (i) is likely to have any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and
 - (ii) is likely to have any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and
 - (iii) has any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and
 - (iv) is likely to have any adverse impact on the habitat elements providing connectivity on the land.
 - (b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.
- (4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that—
 - (a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or
 - (b) if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or
 - (c) if that impact cannot be minimised—the development will be managed to mitigate that impact.