RE: Submission - Julius Avenue Data Centre Proposal

To Whom It May Concern,

I am writing to formally lodge my submission in response to the proposed Julius Avenue Data Centre development. As a long-term resident in the area and a regular user of Lane Cove National Park, I am deeply concerned about the environmental, cultural, and community impacts of this project.

The proposal involves large-scale vegetation clearing, extensive diesel generator infrastructure, and proximity to ecologically sensitive bushland and heritage sites. In my view, the Environmental Impact Statement (EIS) fails to adequately justify the project's need, assess its cumulative impacts, or propose enforceable mitigation measures.

My submission outlines specific concerns across biodiversity, air quality, noise, cultural heritage, and planning justification. For each issue, I have included "Matters Raised" and "Comments/Requests" to assist the Department in its assessment.

I respectfully urge the Department to reject the proposal in its current form and require a significantly revised application that prioritizes ecological preservation, strategic planning alignment, and genuine community engagement.

Thank you for considering my submission.

1. Biodiversity Loss

Matters Raised:	**Comments/Requests:**
• Only one BAM-accredited assessor was involved in technical review—not in fieldwork. The primary surveyors appear to lack formal botanical or zoological accreditation and have limited experience (1–7 years). This raises concerns about misidentification of cryptic or seasonal species and incomplete habitat assessments for species credit species. • Removal of 1.2 ha of Sydney Coastal Enriched Sandstone Forest (PCT 3592), a critically endangered ecological community is disproportionate, ecologically unjustifiable, and inconsistent with the principles of biodiversity conservation and strategic land use planning. • This represents 1.5% of the total extent in Ryde LGA (80 ha). • Permanent loss of remnant bushland adjacent to Lane Cove National Park. The removal of remnant bushland in this context represents a permanent and irreversible impact on regional ecological integrity. • The BDAR lacks seasonal coverage, targeted fauna surveys, and rigorous fieldwork. • Assumed presence of threatened species without verification, including Rhizanthella slateri and Powerful Owl habitat. • Despite assumed presence of seven threatened fauna species (e.g. Large-eared Pied Bat, Little Bent-	• The Department should require the proponent to revise the proposal to avoid clearing of PCT 3592. • A revised BDAR should be submitted with targeted seasonal surveys and local stewardship offsets. It should include targeted seasonal surveys, BAM-accredited fieldwork, and species-specific detection methods. • The development footprint should be redesigned to preserve high-retention-value trees and habitat corridors. • Offset strategy must include local stewardship and connectivity gains—not just credit retirement.

winged Bat), no targeted surveys were conducted. This contradicts BAM 2020 guidance and DPIE's Threatened Bat Survey Guide (2021), which recommends ultrasonic detection, Harp trapping and seasonal roost inspections. • Surveys were conducted in March and May, missing peak flowering periods for species like Hibbertia spanantha and Darwinia biflora. This undermines detectability and BAM 2020's emphasis on optimal seasonal timing.	

2. Overdevelopment and Weak Project Justification

Matters Raised:	**Comments/Requests:**
• The EIS fails to present a compelling or evidence-based justification for the proposed data centre. While it references general themes such as cybersecurity, adaptability, and employment, it lacks the specificity and rigour expected. • Phrases like "secure, adaptable, and sustainable" are aspirational but unsupported by measurable targets or comparative analysis. • The mention of "reduced travel time" and "improved work-life balance" lacks context—these benefits are not clearly linked to the facility's function or location. • No quantified market demand or strategic alignment with regional planning. • Generic claims about cybersecurity and employment lack evidence.	• The Department should require a revised "Project Need" section with quantified demand, strategic fit, and infrastructure gap analysis. • Cumulative impact of data centre clustering should be assessed. • Alternative locations with lower ecological sensitivity should be considered.

• 12 existing/proposed data centres within 2.5 km radius already saturate the area. • The "Project Need" section does not acknowledge the environmental costs of the development—particularly the scale of diesel backup systems, bushland interface, and emissions.	

3. Landscape Design and Bushland Interface

Matters Raised:	**Comments/Requests:**
• The proposed landscape plan development shows walking tracks throughout the remanent bushland • Proposed walking tracks and ornamental landscaping within remnant bushland contradict ecological best practice. • No detailed bushland interface strategy or assessment of impacts on the Great North Walk. • Removal of 188 trees, including mature Sydney Red Gums and Blackbutts. • Removal of mature canopy trees with limited retention strategy. • Fragmentation of habitat: Introducing formal tracks and landscaping elements disrupts native vegetation continuity, affecting fauna movement and plant regeneration. • Edge effects: Artificial boundaries and increased human access promote weed invasion, soil compaction, and altered microclimates.	• The Department should require a revised landscape plan prioritizing passive access controls and restoration-focused management. • A Tree Protection Plan (TPP) and bushland interface strategy should be submitted prior to approval. • Impacts on the Great North Walk should be assessed and mitigated.

• Loss of remnant character: Remnant bushland is valuable precisely because it is unmodified. Imposing garden-style interventions erodes its authenticity and ecological function. • Contradiction of conservation goals: The design prioritizes amenity over preservation, which is inappropriate adjacent to Lane Cove National Park and The Great North Walk. • While the palette includes native species, there is no commitment to local provenance or ecological restoration standards. • There is no long-term plan for survival rates of planted trees and weed management in restoration zones • Maintenance of boardwalks and public spaces	

4. Dangerous Goods and Generator Risk

Matters Raised:	**Comments/Requests:**
• Proposal includes 73 diesel generators and 1.27 million litres of diesel fuel. • To put this in perspective, each CAT C175-20 at full load is roughly equivalent to approximately 20 highway articulated trucks running at 90 km/h • EPL exemption is unjustified given proximity to Lane Cove National Park and scale of installation. • No Preliminary Hazard Analysis or enforceable runtime limits.	• The Department should require an EPL under the Protection of the Environment Operations Act 1997. The Protection of the Environment Operations Act 1997 allows for licensing based on environmental risk, not just quantity. The proximity to Lane Cove National Park and nearby residents would be strong factors that increase environmental risk and therefore strengthen the case for licensing.

• Fire risk, spill potential, and air quality impacts are underplayed. • Spill Risk: The proximity to bushland and potential stormwater pathways increases the risk of environmental contamination in the event of a fuel spill or tank failure. The proponent should provide details of bunding, stormwater shut off valves, first flush systems, tanker unloading spill controls, fuel management and spill containment plans, and leak detection systems. • Fire Hazard: Large volumes of diesel stored onsite may elevate fire risk, particularly during extreme weather events or bushfire conditions. • Air Quality: Diesel combustion contributes to NOx and PM2.5 emissions, which may impact local air quality during generator testing or emergency operation. • Emergency Response: The EIS should clarify contingency measures, including fire suppression systems, spill containment protocols, and coordination with emergency services.	• A full Preliminary Hazard Analysis should be submitted. • Runtime limits and emergency use protocols must be enforceable via consent conditions. • Spill containment, bunding, and leak detection systems should be detailed.

5. Air Quality and Cooling Towers

Matters Raised:	**Comments/Requests:**
• Cooling towers may release biocides and drift droplets into adjacent bushland. • No vegetation impact assessment or drift modelling provided.	• The Department should require drift modelling and vegetation impact assessment. • Details of cooling towers should include in the proposal. These should be best available technology to minimize environmental impacts.

• NOx emissions from CAT C175-20 generators are extremely high (2890.8 mg/Nm^3). • Cooling towers emit small droplets ("drift") that carry whatever is dissolved or suspended in the circulating water — including biocides — into the ambient air and downwind surface deposition. https://www.engr.colostate.edu/~meroney/PapersPDF/CEP03-04-6.pdf • https://spxcooling.com/pdf/TR-024.pdf • Oxidising biocides (e.g., chlorine, bromine) are non-selective and pose direct acute toxicity risks to aquatic organisms if they reach surface waters; non-oxidising biocides (QACs, isothiazolones, DBNPA, glutaraldehyde etc.) have varied ecotoxicity and persistence profiles. UK Marine Protected AreasPower Engineering • Recent experimental and toxicity studies show many commonly used cooling-water biocides can cause DNA/oxidative/membrane stress in microorganisms and can be toxic to aquatic biota at low concentrations.https://www.sciencedirect.com/science/article/pii/S1382668923000984 • Mitigation approaches include drift reduction (better eliminators), switching to lower-risk/non-toxic alternatives, non-chemical treatments, and stricter monitoring of blowdown and ambient deposition.	• Biocide selection protocols should prioritize low-AOX or biodegradable alternatives. • Alternative engines and emission control systems should be considered.

6. Noise and Vibration Impacts

Matters Raised:	Comments/Requests:
• No assessment of impacts on Powerful Owls or other threatened fauna. • NVIA lacks cumulative noise modelling and psychoacoustic impact assessment. • Sensitive receptors within Lane Cove National Park not adequately considered. • Continuous hums and tonal noises may cause stress even below regulatory thresholds. • The NVIA does not assess cumulative impacts from multiple data centers and infrastructure in the Lane Cove West Business Estate. • The NVIA recommends standard acoustic treatments but does not commit to active noise cancellation, low-noise equipment, variable-speed fans, or acoustic enclosures, or real-time monitoring.	• The NVIA should be revised to include cumulative noise impacts, low-frequency analysis (10–160 Hz), and sensitive receptor mapping. • Mitigation should include real-time monitoring, low-noise equipment, and acoustic enclosures. • Powerful Owl habitat should be protected through noise-sensitive design and operational limits. • Noise monitoring locations are concentrated near residential zones but do not include receptors within Lane Cove National Park, despite its ecological and recreational sensitivity. The park should be treated as a sensitive receptor

7. Aboriginal Cultural Heritage

Matters Raised:	Comments/Requests:
• ACHAR does not assess cultural landscape impacts or intangible heritage values. • Limited survey coverage and no vibration modelling near registered sites. • No co-design or engagement with Traditional Custodians. • AHIMS site 45-6-1854 is located approximately 20m south of the study area. The proposed six-storey	• The Department should require a revised ACHAR with cultural landscape assessment, oral histories, and co-design processes. • Buffer zones and vegetation retention near heritage sites should be specified. • Vibration thresholds and indirect impact mitigation should be included.

data center and generator gantry may visually dominate the shelter's setting, yet no modelling of visual or sensory impacts is provided. • The report recommends retaining vegetation near site 45-6-1854 but does not specify buffer dimensions, species, or management protocols. • Only a small area of SU2 the least disturbed and most likely to retain heritage values was surveyed. This undermines confidence in the conclusion that the area has "low sensitivity."	• Potential impacts from stormwater runoff, erosion, lighting, and noise should be assessed, based on proximity to sensitive heritage and ecological zones.