

APPENDIX A: RESPONSE TO SUBMISSIONS

	Department of Planning and Environment (5/8/17)	WPG Response
1	<p>Design Excellence</p> <p>Provide further consideration of how the building/s exhibit design excellence in accordance with the specific requirements of Schedule 3, Part 23, clause 30(2) of <i>State Environmental Planning Policy (State Significant Precincts) 2005</i>.</p>	<p><u>Siting and design of the buildings:</u></p> <p>The orientation and form of the buildings is a direct response to the careful positioning of the major component of the proposal, being the surfing lagoon. Instead of clumping the buildings in one area, they have been wrapped and splayed to provide a curvaceous built form around the shoreline, which constitutes the longest edge of the lagoon (and the premium spectator area). This curved built form design strengthens the facility's visual amenity and operational coherence by maximising site activation, connecting guest and service areas, and effectively reducing the need for unsightly fences or barricades.</p> <p><u>Materiality and detail:</u></p> <p>The materials selected convey a sense of down-to-earth simplicity and integrity. "Cosmetic" finishes will be avoided wherever possible. Where timber is used, the natural look and feel of the wood will be focus features. Where concrete is used, it will be left unpainted, to weather naturally, like much of the concrete in the surrounding existing landscape features. Clear and translucent polycarbonate sheeting will be used selectively to facilitate natural lighting of internal spaces without compromising privacy. White painted custom orb sheeting (being a simple and efficient method of enclosure) will provide a clean contrast against the site's thick tree and foliage backdrop.</p> <p><u>Sustainable design principles:</u></p> <p>High quality natural lighting and ventilation are fundamental to achieving a high standard of building performance, utility efficiency, visual privacy, and in delivering a premium user-experience year-round. Accordingly, these elements have been primary considerations (and will continue to be) in the design approach to the built forms. Windows are generally always operable. Openings are generally always protected by awnings. Circulation between different building functions is protected by generous covered awnings. Water saving fittings and fixtures have necessarily been incorporated, as have LED lights. The desire to celebrate material simplicity and integrity reduces the need for paints, carpets, plastics and other "cosmetic" finishes.</p>
2	<p>Contamination</p>	<p>The Detailed Site Investigation concluded that the identified asbestos impacted material poses a potential risk to human health, but only through the construction phase of the project. It did not conclude that any</p>

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	<p>Provide further documents certifying the site would be made suitable for its proposed use, including a Remedial Action Plan.</p> <p>This is required because:</p> <ul style="list-style-type: none"> The Site Investigation concludes the site will be suitable for its proposed use if remediation is undertaken, or if asbestos is managed in accordance with a Construction Environment Management Plan (CEMP). the CEMP outlines the method for management as capping the asbestos on select areas of the site. Consolidation and isolation of contamination by containment with a barrier is a form of remediation as identified in the <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i> (Cth). 	<p>risk to human health was posed by any asbestos impacted material for users of the current land use, or the proposed land use. As such, a CEMP (only) was recommended and has been prepared in accordance with that recommendation.</p> <p>Notwithstanding this, in light of the specific request of the DP&E, the Proponent has commissioned a Remediation Action Plan (RAP) to be prepared. The RAP will be drafted in accordance with:</p> <ul style="list-style-type: none"> Section 105 of the <i>Contaminated Land Management Act 1997</i> (NSW); <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i> (Cth) (NEPM, as amended 2013); and <i>State Environment Planning Policy No 55-Remediation of Land</i> (SEPP 55). <p>The previously prepared CEMP now forms part of the RAP. The RAP (together with the CEMP) describes a process for identification and management of potential asbestos impacted material. Potential asbestos impacted soils, whether left in-situ as residual impact from excavated areas or buried at depth as managed deposits will be capped with a warning marked geofabric barrier (as described in Section 4.3.2 of the RAP).</p> <p>Please note that the Proposal results in no change in sensitivity of the land use or rezoning, and therefore does not trigger any statutory requirement for a Site-B Audit Statement.</p> <p>However, to ensure works are undertaken in accordance with the RAP and relevant guidelines, the Proponent commits to engaging an Occupational Hygienist, certified as a full member of the Australian Institute of Occupational Hygienists Incorporated, consistent with Workcover NSW's "<i>Managing asbestos in or on soil</i>" guide (March 2014).</p>
3	<p>Building Parameters</p> <ul style="list-style-type: none"> Provide clarification of the approximate width, length and height (expressed as above ground level and RL) of the pier and wave generator structures noting inconsistencies in EIS and accompanying architectural plans. 	<p>Please refer to the updated architectural drawings for correct dimensions and as the priority document in respect of any inconsistencies.</p> <p>The approximate width and length of the wave generator is shown on plan DA13A. RLs are shown in plans DA21 to 25 inclusive.</p>
4	<p>Structural Details and Safety</p> <p>a) Provide details demonstrating the proposal will comply with the Building Code of Australia.</p>	<p>a) Please refer to the Preliminary NCC BCA Report prepared by CODE in Attachment 5 demonstrating compliance with the Building Code of Australia.</p>

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<p>b) Provide further details of the lagoon liner (fill layers and components) and liner thickness.</p> <p>c) Demonstrate how the recommendations of the Geotech Report have been incorporated into the detailed design of the development to prevent liner malfunctions.</p> <p>d) Provide further details as to how the design of the lagoon and wave generator ensure patrons could not contact moving mechanical parts.</p>	<p>b) Consistent with the outcomes of the Proponent's geotechnical investigations, ground improvement through High Energy Impact Compaction (HEIC) will be undertaken following the conclusion of bulk earthwork activities. The HEIC will be used to provide a uniform, stiff soil "raft", in a specific bathymetry conducive to creating high quality waves. Exact fill layers, components and liner thicknesses are subject to detailed design, but the preliminary design of the lagoon comprises a 150mm clean granular material, overlaid with a Geosynthetic Clay Liner (GCL), finished by a 2.5mm thick High-Density Polyethylene (HDPE) membrane, which is bright white in colour and is comprised of recycled plastic materials.</p> <p>The proposed inclusion of a GCL provides a secondary containment barrier below the HDPE membrane, and is above and beyond standard practice for most landfill leachate liners and mining tailings dams (which typically have a design life of >100 years). The GCL and the HDPE membrane have been selected for their excellent liquid containment properties (hydraulic conductivity in the order of 3×10^{-11}), tensile strengths (far exceeding any potential hydrostatic loads), puncture and tear resistance, self-healing properties, elongation and UV stability. The detailed design of the liner solution will be informed by the site's specific geotechnical condition and will be prepared by qualified structural and geotechnical engineers.</p> <p>The walls of the surf lagoon will be designed in accordance with <i>Australian Standard 3735-2001: Concrete structures for retaining liquids</i>.</p> <p>c) A comprehensive geotechnical testing regime was undertaken to ensure the project's buildability and cost could be managed. A first phase of physical intrusive investigations comprising Cone Penetration Tests was supplemented with geophysical methods to characterize the site and develop a virtual 3D model of ground conditions. Industry leading experts were engaged to review the results and provide a ground improvement works plan that has been used to inform the structural design of the key elements of the project, including the lagoon. Typical HDPE liners are sensitive to tensile loading from differential settlement. Maximum settlement analysis for the final loads were modelled across the site and were shown to be, without intervention, only a potential problem in the north-west corner of the site. A number of potential solutions were considered in the ground improvement works plan, with HEIC shown to provide the required results. As a precautionary measure, a secondary GCL has been proposed for reinforcement, providing added support in elongation and tensile properties. Prior to the installation of the liner, post HEIC geotechnical validation testing will be undertaken to ensure any potential subsidence issues have been adequately addressed.</p>
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		<p>d) The moving parts of the wave generator are completely housed within a steel framed pier structure (as shown in the architectural drawings provided). Covering and wrapped around the pier structure is a steel mesh that allows wave energy to pass through unimpeded, whilst providing a physical barrier to prevent any human contact with moving parts. The mesh spacing is small enough to prevent even small hands and feet from being inserted through the gaps. The mesh is manufactured with high quality wire. The average carbon content of the wire guarantees a minimum tensile strength of 1,000 N/mm², provides a high tensile strength, and means it is resistant to deformation. Steel mesh of this quality is typically used to enclose high security sites, including airports, prisons, and race courses.</p> <p>The mesh has been subject to extensive field tests and successfully used in other commercially operating surf parks in the world for up to three years without fault.</p>
5	<p>Signage</p> <p>a) Provide details including dimensions, materials and finishes of all signage noting inconsistencies between the EIS (states 4 signs proposed) and Landscape Plan (indicates up to 7 signs proposed).</p>	<p>Please refer to the updated Landscape Masterplan (page 1) which now provides for entry signage at the corner of Hill Road and Holker Busway. Consistent with the EIS, four entry signage locations are proposed (comprising a total of 5 signs).</p> <p>Pages 2 and 5 of the Landscape Masterplan describe the entry sign materials and finishes, consisting of “corten steel, timber or raw materials such as sculptural landscape elements including granite boulders”.</p> <p>Page 5 of the Landscape Masterplan shows some indicative examples, describing the scale and materiality of the proposed signage.</p>
6	<p>Hours of Operation</p> <p>a) Clarify the hours of construction sought for approval.</p> <p>b) Clarify the maximum hours of operation sought for approval (e.g. 6pm to 10pm all days, and until 12 midnight on Fridays and Saturdays for food and drink premises).</p>	<p>a) Hours of construction: 7am-5pm, Monday to Saturday (with potential impacts of major events to be managed in consultation with Sydney Olympic Park Authority (SOPA)).</p> <p>b) Hours for operation: Seasonal, depending on demand -</p> <ul style="list-style-type: none"> • Peak season – 6am to 10pm during weekdays and on Sundays. Open to midnight on Fridays and Saturdays. • Off-peak season – 9am to 6pm during weekdays and on Sundays. Open to midnight on Fridays and Saturdays (dependent on demand).

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		(Please note, the duration of the “Peak season” is determined by reference to seasonal trends, typically where the average maximum air temperatures is 25°C or greater. This may change year to year).
7	<p>Noise and Vibration</p> <ul style="list-style-type: none"> a) Clarify whether the operational noise modelling considers noise from the restaurant and alfresco bar area and any music intended to be played outdoors, including public address systems and detail appropriate management and mitigation measures (e.g. no outdoor or music PA announcements after 10pm). b) Provide a table (using Appendix 2 from the noise assessment) detailing the predicted operational noise levels at nearby sensitive receivers (residential, recreation etc) including the location (address) of the receivers. c) Provide further details of the operational noise sources and levels expected during the night (10 pm to 7 am) at nearby receivers and demonstrate compliance with the relevant EPA criteria. d) Model the anticipated construction noise and vibration impacts of the proposed development at the nearest sensitive receivers and detail appropriate mitigation and management measures. 	<ul style="list-style-type: none"> a) Section 6.1 of the Acoustic Report assumed a worst-case scenario where patron and music noise were modelled as outdoor (unprotected) sources for the entire patron area and built forms, respectively. The Sound Power Levels are sufficient to accommodate public address systems. The Proponent notes that as the model concluded there are no significant noise or vibration impacts to any nearby sensitive receptors, no specific mitigation measures are required or have been contemplated. Any events, outside of normal operating conditions will require a Noise Management Plan to ensure that the prescribed noise criteria in Table 8 of the revised Acoustic Report are complied with (in monitoring and mitigation measures). b) Predicted Operational Noise Levels: <ul style="list-style-type: none"> i. Residential Receptors (medium density homes on Blaxland Ave): 40-44dBA ii. Recreational Receptor: Sydney Olympic Park Archery Centre (Bennelong Pkwy): 36-40dBA., iii. Recreational Receptor: BMX Track (P5 Carpark): 48-52 dBA. c) The worst-case scenario operational source noise levels are described in Table 18 of the revised Acoustic Report. The predicted noise level at the closest sensitive receptors is described in Point B above and is compliant with the “evening period” accepted criteria. Noise generated from the facility during non-operational periods (during the night) are expected to come from maintenance staff, lagoon cleaning and the 24 hour a day operation of the water treatment plant (all of which will be significantly less than the worst cast operational noise generated). d) Construction noise is dependent on the construction methodology used, the type of plant required for the construction activities, and the quantity of plant deployed at any one time. <p>These are detailed issues that will need to be addressed once a lead contractor has been engaged and the construction methodology and resourcing model is determined. The Proponent considers that providing a settled construction noise model before that time is unlikely to represent, or have any</p>

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		<p>relation to, real outcomes.</p> <p>Accordingly, it is appropriate that an “outcomes based” construction model be adopted to ensure all construction works comply with the NSW EPA <i>Interim Construction Noise Guideline 2015 (ICNG)</i> and the NSW EPA <i>Industrial Noise Policy 1999</i>.</p> <p>Notwithstanding this, as a specific request has been made by the DP&E for a construction noise model, please see attached the updated Acoustic Report which confirms that, in a worst-case scenario, with an unlikely number of operating equipment (Table 21), noise emissions are expected to comply with the relevant criteria. Please refer to the Noise Contour Maps for both Early Works and Construction Works in Appendix 2 of the revised Acoustic Report.</p> <p>Please note the closest residents approximately 390 metres away. Based on the results of these models, construction noise is not expected to be a significant issue requiring management. Notwithstanding, once a construction methodology is known, the nominated contractor will need to develop and implement a Noise & Vibration Management Plan and monitor their works, consistent with the noise and vibration criteria of the revised Acoustic Report.</p>
8	<p>Hazards and Risk</p> <ul style="list-style-type: none"> Provide clarification on the type, quantities and management of chemicals to be stored on site. 	<p>The Proposal is not considered to be a type of industry category that falls within SEPP 33 nor is it listed as an industry that is potentially offensive.</p> <p>The water treatment process requires that:</p> <ol style="list-style-type: none"> 1,040 litres of sodium hypochlorite solution (NaClO) (representing 1m³ in volume) will be stored on site at all times. The NaClO will be added progressively to the water treatment system at differing rates through the year dependent upon sunlight and water evaporation rates. As NaClO has a limited effective life span (approximately 6 weeks), the solution will not be stored in any larger volumes on site for extended periods. 1,040 litres of pH adjusting acid coagulant be stored in a bunded area on site, separate from the sodium hypochlorite. <p>Chemicals will be stored in an Intermediate Bulk Container in a sheltered, sealed and bunded yard, designed to capture and retain 150% of the volume (protected from rainfall). Chemicals storage will meet respective Australian Standards.</p>

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		<p>Screening of the materials proposed to be stored on the premises has been undertaken in accordance with SEPP33:</p> <table><tr><th>Material</th><th>DG Class</th><th>QTY (tonne)</th><th>Screening Method</th><th>Threshold</th><th>Notes</th></tr><tr><td>Sodium hypochlorite</td><td>8II</td><td>1.04</td><td>Table 3</td><td>25 tonne</td><td>UNDER threshold</td></tr><tr><td>Acid coagulant</td><td>8II</td><td>1.04</td><td>Table 3</td><td>25 tonne</td><td>UNDER threshold</td></tr></table> <p>Based on this information, the proposed development is not considered to be potentially hazardous.</p> <p>In addition, minor quantities (<20 litre quantities) of heavy greases and commercial cleaning products (not relevant to the water treatment plant) will be stored in the sealed and covered workshop adjoining the service yard. These materials are unlikely to warrant screening.</p> <p>The water treatment plant is located directly adjacent to the service yard, accessible from Holker Busway. Both areas have controlled access, and there is no direct access to the service yard or water treatment plant by patrons or the public. The water treatment plant is set back a minimum of 12 metres from the fence line to Hill Road reserve.</p>	Material	DG Class	QTY (tonne)	Screening Method	Threshold	Notes	Sodium hypochlorite	8II	1.04	Table 3	25 tonne	UNDER threshold	Acid coagulant	8II	1.04	Table 3	25 tonne	UNDER threshold
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9	<p>Parking</p> <p>a) Address the parking issues raised by RMS and public submissions in detail.</p> <p>b) Clarify the arrangements for using adjacent overflow parking (in Pods A and C) for the proposed facility in the event the Pod B car park is full.</p> <p>c) Provide details of proposed bicycle parking numbers in accordance with the relevant guidelines.</p>	<p>a) Please see the response to comments provided by RMS and others below.</p> <p>b) Given the surf lagoon has a maximum capacity of 84 surfers per hour, it has been modelled that the allowed 159 car bays (including 4 disabled bays) will be sufficient for normal operating conditions. If the parking provided for the facility becomes full, patrons will be able to park in the approximate 1,713 residual paid parking bays of Pod A and Pod C (which largely remain empty, except during infrequent major events at Sydney Olympic Park). Access to Pod A and Pod C is only likely to be required in the instance where an event is being held at the proposed surf facility and higher public attendances are expected. In such a case, events will be coordinated with SOPA to ensure potential conflicts are managed.</p> <p>c) As per car parking controls, the proposed site is located outside of the <i>SOP Master Plan 2030</i> area and is not covered by other guidelines or plans. Furthermore, the <i>SOP Master Plan 2030</i> does not set</p>																		

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		<p>on-site bicycle parking requirements for recreational land uses, such as the proposed development.</p> <p>Notwithstanding this, the Proponent has considered the need for bicycle parking having regard to likely demand and current available bicycle access and parking facilities. The proposed development will provide for a minimum of 10 formal bicycle parking spaces on the forecourt, with informal areas available inside for patrons. Additional bicycle parking spaces will be provided within the service yard for staff. There are also existing bicycle parking facilities adjacent to the Holker Street bus stops, which is immediately adjacent to the proposed site.</p> <p>In summary, the proposed bicycle parking arrangements are considered appropriate for the proposed recreational use of the site.</p>
10	<p>Light Spill</p> <ul style="list-style-type: none"> • Provide assessment of potential impacts of lighting and light spill (if any) on nearby residences. 	<p>Light spill modelling has been undertaken (see attached Gerard Lighting plans) showing:</p> <ol style="list-style-type: none"> Existing street lights; Proposed flood lights; and, Combined street and flood lights. <p>The proposed sports lighting is modelled to provide a 0.3lux increase to the western most extent of the Hill Road/Holker Busway, approximately 90 metres west of the proposed development. This is deemed insignificant. The attached plans show the modelled extent of impact.</p> <p>Lighting design and modelling has concluded there is no potential measurable impact to the closest residences given the nearest residences are approximately 390 metres west of the proposed development and the Proposal is separated by stands of mature trees. This is further demonstrated by the negligible impact shown at the corner of Hill Road and Holker Busway in the lighting models attached (before and after the Proposal).</p>
11	<p>Sustainability</p> <p>a) Commit to adopting the recommendations of the Sustainability Assessment given the water and energy demands of the proposal. Outline and commit to a long-term strategy for reducing the energy and water demands of the</p>	<p>a) As recommended by the Sustainability Assessment, the Proponent commits to:</p> <ol style="list-style-type: none"> ensuring best practice thermal performance materials are used wherever practicable; installing up to a 100kW solar PV array (to assist in offsetting power demand of the amenity

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	<p>development.</p> <p>b) Provide detailed justification if it is not proposed to install infrastructure on-site necessary to treat non-potable water to a quality that is suitable for lagoon top up.</p> <p>c) Provide detailed justification for not using recycled water from SOPA's Wastewater Reclamation and Management Scheme (WRAMS) or another service provider.</p>	<p>buildings);</p> <p>iii. implementing non-potable sources of water for irrigation and where practicable, depending on availability, for flushing of toilets;</p> <p>iv. further investigating the availability and viability of recycled and non-potable water supplies as they become available (as it has for another project at Melbourne).</p> <p>v. further investigating alternative power supplies working toward carbon neutrality by 2025 (as it has been able to do with the procurement of hydro-electricity for another project in Melbourne). Beyond the Commonwealth's Green Power scheme, Sydney's power market currently does not offer viable renewable energy options.</p> <p>b) The design includes the installation of rainwater tanks that harvest stormwater from rooftops. Water collected via these means are likely to be fully utilised for irrigation and toilet flushing, however, the Proponent will commit to making any residual water available for top up of the lagoon.</p> <p>c) Recycled water provided by the WRAMs system was considered at length by the Proponent. SOPA subsequently advised that there is no spare capacity for WRAMs recycled water to be provided to the surf lagoon. Further, a review of the water quality shows highly variable conditions with bacterial counts exceeding acceptable risk criteria for human health. While water treatment plants can be designed to disinfect water, the highly variable conditions make it cost prohibitive and such treatment plants require much larger footprints than what has been currently allowed for at the development site.</p> <p>Further, new pricing arrangements announced by Sydney Water and the Independent Pricing and Regulatory Tribunal are proposing to make recycled water more expensive than scheme potable water. Such an outcome makes the potential supply of recycled water to the site cost prohibitive compared with the alternative of utilising scheme water.</p>
12	<p>Lagoon Water</p> <p>a) Provide details of scenarios requiring emergency lagoon water discharge and the anticipated frequency of such events.</p> <p>b) Appendix 6 of the Integrated Water Management Plan (IWMP) states the capability of the water treatment plant</p>	<p>a) A risk management assessment undertaken of all potential faults, hazards, repairs and maintenance does not require the emptying of the lagoon. In almost all circumstances, lagoon repairs can be undertaken underwater. All modelled biological hazards either do not pose a risk to the large water body, or they can be treated by the Water Treatment Plant. Longer term maintenance programs (scheduled for every 5 years) may warrant resurfacing of the surf lagoon and emptying the lagoon</p>

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	<p>will be compromised during large rainfall events which presents a risk to the downstream environment and users of the wave pool from poor quality water. Provide details of proposed contingency measures to manage /mitigate these impacts.</p>	<p>water. The ability to empty the lagoon is a design function that will rarely be required, but is essential nonetheless (as is seen with the design of aquatic facilities and water theme parks). Section 5.6 of the IWMP addresses “circumstantial discharge” in further detail.</p> <p>b) At the time of drafting the Water Treatment Monitoring Plan (Appendix 6 of the IWMP), the Water Treatment Engineer did not recognise that the surf lagoon has a volume balance that must be maintained (within 100 millimetres of height in tolerance). Any significance rain events outside of the operating tolerance will be drained via the lagoon overflow; meaning that there is no significant net change in the lagoon’s volume and no additional pressure on the Water Treatment Plant. Further, the redundant additional capacity of the Water Treatment Plan (approximately 100 cubic metres of water per hour) is significantly more than any large rainfall event, so this does not represent an issue of particular consequence</p> <p>In any case, the basis of design for the Water Treatment Plant ensures all water meets the specified <i>ANZEC Marine and Fresh Water Quality Guidelines</i> (2000) before discharge. The Operational Management Plan (which will be finalised prior to receiving the Certificate of Occupation) will detail the measures and controls governing how and when the facility drains to the surrounding stormwater drainage system.</p>
13	<p>Groundwater</p> <ul style="list-style-type: none"> Provide an assessment of the anticipated impacts of the project on groundwater quality and hydrology. 	<p>Groundwater is intersected between 4m and 7m below the surface of the site. Given this is deeper than any proposed excavation, it is not expected that the Proposal will intercept groundwater or in any way impact groundwater quality.</p> <p>The existing site currently operates as a sealed, bituminised car park, built out of engineered fill with minimal areas that allow infiltration of stormwater. The Proposal, with a sealed lagoon and extensive paved areas, only introduces a relatively small area of permeable surface treatments to the east of the facility as compared to the current land use. Consistent with Table 3 in the IWMP, no notable impacts to groundwater quality or flow are anticipated as a result of the Proposal.</p> <p>Regarding hydrology, the IWMP provides a comprehensive assessment of potential impacts, pre-and post-development. Further specific comments (should there be any) are welcomed.</p>
14	<p>Stormwater</p> <p>a) Confirm the proposed stormwater management system</p>	

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	<p>would ensure water quality meets the pollutant load reduction targets outlined in <i>Stormwater Management and Water Sensitive Urban Design Policy</i>.</p> <p>b) Confirm water quantity volume reduction targets and peak flow reduction targets would be in accordance with <i>Stormwater Management and Water Sensitive Urban Design Policy</i>.</p>	<p>a,b) The proposed stormwater quality management system has been designed using MUSIC modelling software to achieve the targets outlined in SOPA's <i>Stormwater Management and Water Sensitive Urban Design Policy</i> (2016). This includes the water quantity volume and peak flow reduction targets. All water quality reduction targets are met by the proposed design, with the discharge volume being reduced by 37%, and the peak discharge flows reduced by between 39% and 47% for the various ARI's.</p> <p>As such, the Proponent confirms that the measures proposed in the IWMP will meet or exceed the Water Quality and Quantity Targets in Attachment 1 of SOPA's <i>Stormwater Management and Water Sensitive Urban Design Policy</i> (2016).</p>
15	<p>SOPA DRP Comments Addressed</p> <p>The table in Section 5.7.2 of the EIS summaries the DRP comments but does not describe in detail how the design was specifically amended in response to the comments.</p>	<p>Please note that the Proponent received no instructive comments from the DRP (refer to DRP advice note attached).</p> <p>The comments received centred on the following issues, and were used as inputs to inform the architectural design and technical reports:</p> <ul style="list-style-type: none"> • <u>Public Domain Interfaces</u> – Comments noted. No negative visual impacts to the external realm are expected. Please refer to Visual Impact Assessment attached. Regarding “non-car transport”, the entire facility has been orientated to address the Holker Busway bus station (and proposed Parramatta light rail station). • <u>Landscape architectural</u> – These comments will be addressed in due course through detailed design. • <u>Sustainable Design</u> – The IWMP (Urbaqua) and the sustainability review undertaken on power and water consumption (Kinesis) was written in response to the issues raised and addresses them in detail. • <u>Buildability</u> – Noted. <p>Recommendations provided by SOPA's DRP were either incorporated into the architectural design or are relevant to the detailed design phase of the Proposal.</p>
16	GFA	

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Confirm the combined GFA of all buildings on site and the total site area (noting some inconsistencies on this in the EIS).	Please refer to the updated Architectural Drawings (page 11) noting the GFA of all buildings, being 1,669sqm and the total site area being 36,766sqm.
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Revised Plans, Reports and Documentation

1. Design Excellence

Provide supplementary advice from your architects / design consultants to address Point 1.

Response: Please see updated architectural plans in **Attachments 1 and 2.**

2. Contamination

Provide a Remedial Action Plan (**RAP**) accompanied by a Site B Audit Statement prepared by an EPA-accredited site auditor.

Response: Please see the RAP in **Attachment 3** and the amended CEMP in **Attachment 4**. The requirement for a Site B Audit Statement is addressed in Section 2 in the table above.

3. Building Parameters

Update the architectural plans to address Point 3.

Response: Please see updated architectural plans in **Attachment 1.**

4. Structural Details

Provide a Building Code of Australia (**BCA**) Report demonstrating the proposal would be capable of complying with the BCA.

Response: Please see the Preliminary NCC BCA Report Compliance Report prepared by CODE in **Attachment 5.**

5. Signage

Provide signage plans/ strategy and an updated Landscape Plan where required.

Response: Please see Section 5 in the table above and the updated Landscape Masterplan in **Attachment 6.**

6. Noise and Vibration

Provide an updated noise and vibration impact assessment to address Points 6 and 7.

Response: Please see the Construction Noise Model in the revised Acoustic Report (Wood and Grieve) in Attachment 7 and refer to Sections 6 and 7 in the table above.

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7. Hazards and Risk

Provide a State Environmental Planning Policy No. 33 - Hazardous and Offensive Development risk screening of the proposed development.

Response: Please see Section 8 in the table above.

8. Parking

Provide an updated traffic and parking impact assessment to address Point 9.

Response: Please see Section 9 in the table above.

9. Light Spill

Provide the Lighting Plan prepared by Gerard Lighting (2017) referred to in the EIS documentation.

Response: Please see the lighting plans in **Attachment 8a, 8b and 8c.**

10. Lagoon Water, Groundwater and Stormwater

Provide an updated Integrated Water Management Plan and/or supplementary advice from your water quality/ management consultant to address Points 12 to 14.

Response: Please see refer to the comments provided in Sections 12, 13 and 14 in the table above.

APPENDIX B: RESPONSE TO SYDNEY OLYMPIC PARK AUTHORITY SUBMISSION (5/9/17)

	Sydney Olympic Park Authority (5/9/17)	Proponent Response
1	<p>Parklands Plan of Management</p> <ul style="list-style-type: none"> Under the <i>Sydney Olympic Park Authority Act 2001</i> (NSW) (SOPA Act), a Parklands Approval Permit is required for the development to proceed. The applicant should be advised that this permit can be applied for following determination of the application, when final consent conditions are known. 	Noted.
2	<p>Ancillary activities</p> <ul style="list-style-type: none"> The EIS flags the potential for ancillary activities at the facility, including private and corporate functions and art/ music/ film events. In addition, special surf league and surf competition events are proposed to be held several times a year. The Authority seeks further information with relation to these ancillary activities, in particular the expected frequency of events, duration of events (start/ finish times) and any likely impacts, such as additional noise, traffic and increased lighting. 	<p>The average operating occupancy of the facility in peak season is forecast to be 400 patrons, plus 46 staff members on site at any one time. In addition to normal operations, the facility will host small, medium and large events. Depending on the size and nature of the event, normal admission may be restricted in priority to the scheduled event.</p> <p>“Small” Events</p> <p>As part of usual business activity, the facility will host regular Small Events (classified as a total of <500 patrons on the premises at any one time), including a wide variety of private functions, including for local school groups and sporting clubs, tour groups and corporate meetings, presentations, team building events and “off-sites”. Having regard to the facility’s size, capacity and services, the Proponent envisages being able to accommodate several Small Events concurrently without disrupting other guests, or creating any additional noise, traffic or lighting impacts. Small Events will be held at the facility during normal business hours.</p> <p>“Medium” and “Large” Events</p> <p>On a less frequent basis (i.e. monthly, quarterly or annually), the Proponent expects to host larger public events of a more regional or State significance. Such events may include art exhibitions, cultural fairs, food festivals, and surfing competitions. In keeping with Sydney Olympic Park’s</p>

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	<p>reputation as a world-class destination for major sporting and cultural events, the Proponent intends to partner with:</p> <ul style="list-style-type: none">• other tenants and operators within Sydney Olympic Park;• SOPA;• relevant private and public organisations (e.g. Surfing NSW, Sport NSW, Surf Life Saving NSW) and charities; and• other relevant authorities and community groups, <p>to develop Medium and Large events that are of high-quality and offer high levels of engagement.</p> <p>Medium Events (classified as between 500-1,000 patrons on the premises at any one time) will require event specific parking, facility, noise, risk, traffic, security and health and safety management plans.</p> <p>Large Events (>1,000 patrons on the premises at any one time) at the Facility will require (in addition):</p> <ul style="list-style-type: none">• event specific parking, facility, noise, risk, traffic, security and health and safety management plans• coordination and programming with SOPA to ensure any potential conflicts are managed. <p>Save for exceptional circumstances, the Proponent envisages Large Events will also be held at the Facility during normal business hours. Any infrequent Large Events will:</p> <ul style="list-style-type: none">• comply with applicable statutory regulations and the relevant noise criteria prescribed in the Acoustic Report with the exception of a special permit exemption being granted; and• to maximise positive public outcomes, including guest enjoyment, tourism expenditure, media coverage and efficient use of public infrastructure. <p>With respect to noise, Noise Management Plans will be developed for Medium and Large Events to ensure appropriate monitoring and mitigation measures are employed so that the relevant noise criteria as prescribed in the Acoustic Report are complied with (and potential impacts to sensitive</p>
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		<p>receptors are appropriately managed). This is not expected to be a significant issue given normal operational conditions were shown to have no significant impact and the distance of the nearest residence is approximately 390 metres away.</p> <p>Please note that the Preliminary NCC BCA Report by CODE in Attachment 5 calculates the built features (including the surf lagoon) as being able to accommodate 940 people (subject to appropriate sanitary facilities being provided). This calculation excludes the 7,200sqm of external landscaped areas that will also be available to accommodate events.</p>
3	<p>Fauna management during construction</p> <ul style="list-style-type: none"> The Authority has reviewed the proposal and notes that the proposal is within close proximity to habitat for endangered fauna species such as the Green and Golden Bell Frog. The Authority has included recommended conditions at Attachment A for inclusion to protect these species during the removal of the existing swales should consent be granted. 	<p>Noted.</p> <p>Consistent with the Flora and Fauna assessment, potential direct onsite impacts to fauna are limited to the removal of drainage swales in the car park. The Proponent commits to ensuring a suitably licensed and experienced ecologist is used to rescue and relocate lizards and amphibians immediately prior to decommissioning the swales. Indirect offsite impacts (through stormwater runoff, sedimentation, etc.) will be managed through the appropriate implementation of the CEMP in the IWMP and the management recommendations made in the Flora and Fauna assessment.</p>
4	<p>Water Cycle Management</p> <ul style="list-style-type: none"> Generally, the Water Cycle Management Plan complies with the Authority's water policy requirements. Given the sensitivity of the locality, the Authority has provided a recommended condition that the Construction Sediment and Erosion Plan be submitted to the Authority for approval. 	<p>Noted.</p>
5	<p>Pest fauna management during facility operation</p> <ul style="list-style-type: none"> The Authority recommends that an operating plan be prepared to identify pest fauna management measures to be applied during the operation of the facility. Pest fauna species include waterbirds, scavenging ibis and biting insects. 	<p>The Authority prescribed an Operational Plan as a requirement of the Agreement for Lease. This is required to be provided to the Authority at least 6 months before Practical Completion. Pest fauna will be addressed in the Operational Plan.</p>

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6	<p>Traffic</p> <p>a) The EIS refers to Holker Busway as an entry and exit point for service and also staff vehicles. The Authority has already had discussions with the applicant with regard to this issue and has agreed that permits can be supplied for a limited number of service vehicles to use Holker Busway. However, staff parking must be contained within the general parking area. The applicant was also advised that service vehicles may be restricted during major events, including the 'bump in' and 'bump out' periods. These limitations would be enforced in any permit conditions.</p> <p>b) With regard to construction traffic, the applicant should be made aware that restrictions to truck movements and road closures may occur during major events and as such the traffic management plan within the CEMP should be updated to reflect this.</p>	<p>a) Noted. The Proponent maintains that the seven allocated "staff" bays in the service yard are required and play an important operational function, given the immediate proximity to the workshop and office. It is not appropriate for key administration and operations staff to park offsite. The seven designated bays create no significant issues the function of Holker Busway. Access to the service yard will be controlled to a limited number of permits as discussed. It is suggested that these arrangements be addressed through relevant conditions of consent.</p> <p>b) Noted. It is suggested that these arrangements be addressed through relevant conditions of consent.</p>
7	<p>Remediated Lands</p> <ul style="list-style-type: none"> The Authority notes that 'Area B excavation' in the south west portion of the site will be located on remediated lands. While this landfill is not regulated by the NSW EPA and therefore does not require EPA approval to undertake the works, the management of waste material needs to be addressed. As such, the Authority has recommended the inclusion of a Groundwater and Leachate sub plan in the CEMP to be submitted to the Authority for approval. 	<p>The inference made stems from an incorrectly drafted plan on page 48 of the CEMP, which has now been corrected and updated. Please note that the lease boundary and all excavation works associated with the Proposal are outside of the managed, remediated lands. Further, no leachable contaminants were identified in the Detailed Site Investigation and no groundwater will be intercepted as part of the physical works. In addition, an overarching Remediation Action Plan has been provided.</p>
8	<p>Lighting</p> <p>a) It is noted that sports lighting poles are proposed to be installed around the lagoon. Given the close proximity to endangered fauna species, the Authority supports the recommendations of the Applied Ecology (24 February 2017) fauna report with regard to directing all lighting downward and using energy efficient lamps</p>	<p>a) Noted. It is worth noting that the lighting design and spill assessment completed by Gerard Lighting (refer to the three plans attached) specifies modern LED fixtures with full cut off fittings. These types of fittings are regularly used around airports in order to comply with the Civil Aviation Safety Authority's standards (considered as being the strictest guidelines for directional luminaires. i.e. zero upward light and spill control).</p>

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	<p>and by ensuring that all outdoor security and display lighting is fitted with quality shielded flood lights and energy efficient lamps which are directed at the target area only.</p> <p>b) The Authority has provided additional recommended conditions with regard to lighting as it should be noted that Australian Standard AS 4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting does not address ecological impacts of artificial night lighting, it is concerned only with human impacts. The Authority considers it is not sufficient to require the applicant to only comply with this standard.</p>	<p>b) In the absence of any specific guidelines or available literature regarding the determination of ecological impacts, the <i>Australian Standards 4282:1997</i> were used by the Proponent to control “nuisance light” and ensure best industry practice is employed. From a quantitative perspective, it is worth noting that AS 4282 allows up to 10lux at the boundary of any house under the highest control levels (control Level 1). The proposed design achieves this.</p> <p>The light spill assessment (see plans attached) forecasts no significant increase in lux levels to the areas of native vegetation, north east of Hill Road. The design demonstrates excellent glare control as the design has no adverse impact upon road users of Hill Road (as seen in the Light Impact Models).</p>
9	<p>Construction Environmental Management Plan</p> <ul style="list-style-type: none"> The Authority has reviewed the CEMP and provides the following comments: 	
9a	<p><u>Emergency</u></p> <ul style="list-style-type: none"> It is noted that the draft CEMP refers to Department of Environment and Conservation staff in response to an emergency. The relevant reference should be Environment Protection Authority (EPA). The Authority should also be made aware of any environmental incidents. 	<p>Noted. The CEMP has been amended.</p>
9b	<p><u>Sediment and Erosion Control</u></p> <ul style="list-style-type: none"> In relation to asbestos stockpiles, these should be secured to restrict access and have appropriate signage. Stockpiles should be kept moist to prevent the generation of dust and be bunded to prevent runoff. These measures should be included as they represent best practice in managing asbestos wastes. The draft Sediment and Erosion Control Plan indicates that all erosion and sediment controls will be checked by the Project Supervisor twice weekly or immediately after rain events to ensure 	<p>Noted. The CEMP has been amended as recommended.</p>

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	<p>they are maintained in a fully functional condition. However, as a minimum, inspection should also occur immediately before predicted rain events.</p> <ul style="list-style-type: none"> Following rain events, the controls should not only be inspected, but all necessary work required to re-instate them should be undertaken immediately. 	
9c	<p><u>Remediated Lands</u></p> <p>a) Based on the drawings in the draft CEMP the smaller excavation area (Area 8 excavation) in the south west portion of the site will be located on the remediated lands. This landfill is not regulated by the NSW EPA and therefore does not require EPA approval to undertake works.</p> <p>b) The CEMP will need to address management of contaminated wastes, PASS/ ASS which may be present and leachate. Any groundwater encountered in the area of the remediated landfills is classified as liquid waste (leachate) and must be managed as such and cannot be discharge to receiving waters.</p> <p>c) Leachate must be captured and contained and managed in a way that keeps it separated from stormwater or other runoff from the site to minimise generation. It must be tankered off site for disposal to a facility that can lawfully receive liquid waste.</p> <p>d) The potential for landfill gas is likely to be low, but should also be noted in the CEMP, particularly in the areas of deeper excavation and the excavation in the south west on the Haslam's Reach Remediated Landfill</p> <p>e) The potential presence of PASS / ASS should be considered, and relevant information incorporated into the CEMP with a commitment to prepare and implement a PASS/ASS Management</p>	<p>a) Noted. The CEMP has been amended.</p> <p>b) Please note, consistent with the Detailed Site Investigation, no leachable contaminants were identified. With regards to the generation of ASS/PASS leachate, the CEMP has been updated to ensure any potential materials are covered immediately.</p> <p>c) Noted. No contaminated leachate will enter stormwater or runoff. As described above, no leachable contaminants were identified in the Detailed Site Investigation. Any ASS/PASS material will be covered immediately upon excavation.</p> <p>d) A Remediation Action Plan has subsequently been developed and provides for a Contingency Action Plan for potential Hazardous ground gases (page 16 of Attachment 3).</p> <p>e) Noted – the CEMP has been updated accordingly (page 31).</p>

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	Plan if required.	
9d	<p><u>Waste Management</u></p> <p>a) All waste sent off site must be classified in accordance with the NSW EPA Waste Classification Guidelines and disposed of at a facility that can lawfully receive that waste.</p> <p>b) All weighbridge docket and waste classification reports are retained and made available to the Authority if requested.</p>	<p>a) Noted – section 4.12 of the CEMP has been updated accordingly.</p> <p>b) Noted – section 4.12 of the CEMP has been updated accordingly.</p>

APPENDIX C: RESPONSE TO HERITAGE COUNCIL OF NSW (6/8/17)

	Heritage Council of NSW (6/8/17)	Proponent Response
1	Unexpected Historical Archeological Relics <ul style="list-style-type: none"> The applicant must ensure that if unexpected archaeological deposits or relics not identified and considered in the supporting documents for this approval are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery. 	The Proponent will develop an <i>Unexpected Finds Protocol</i> for implementation by contractors to ensure any deposits or relics uncovered results in works in the area being paused or ceased, and the Heritage Council of NSW is notified.
2	Aboriginal Objects <ul style="list-style-type: none"> Should any Aboriginal 'objects' be uncovered by the work, excavation or disturbance of the area is to stop immediately and the Office of Environment and Heritage is to be informed in accordance with Section 89A of the <i>National Parks and Wildlife Act 1974</i> (as amended). Works affecting Aboriginal 'objects' on the site must not continue until the Office of Environment and Heritage has been informed. Aboriginal 'objects' must be managed in accordance with the <i>National Parks and Wildlife Act 1974</i>. 	The proponent will develop an Unexpected Finds Protocol for implementation by contractors to ensure any deposits or relics uncovered results in works in the area being paused or ceased, and the Office of Environment and Heritage is notified.

APPENDIX D: RESPONSE TO DEPARTMENT OF PRIMARY INDUSTRIES (5/9/17)

	Department of Primary Industries (5/9/17)	Proponent Response
1	<p>Licensing requirements</p> <ul style="list-style-type: none"> a) A Water Access License may be required for any groundwater or surface water extraction for project water supply. b) Groundwater extraction for temporary dewatering may require a license under Part 5 of the <i>Water Act 1912</i>, and details on the expected volume and duration of dewatering should be provided to DPI Water prior to extraction occurring. 	<ul style="list-style-type: none"> a) No abstraction of groundwater is proposed, but the requirements are noted. b) Groundwater is not expected to be intercepted during construction, but the requirements are noted.
2	<p>Discharge of water from the surf lagoon</p> <ul style="list-style-type: none"> • The Water Treatment Monitoring Plan (Appendix 6 of Appendix 6) indicates that if Salmonella and Enterococci exceeds > 1000 counts the recommended action is to drain the surf pond (page 7 of 7). The Plan should clarify where the water is to be drained to and whether this is considered to be an emergency as: <ul style="list-style-type: none"> ○ Appendix 6 states “wastewater from the lagoon treatment process will be discharged to sewer” but it also states “emergency discharge of lagoon water will be via an existing drainage system discharging to the Nuwi wetland” (table 3, page 11). ○ Appendix 10 states “no wastewater discharge to the environment”, “all lagoon wastewater will be discharged via the sewer” (point 1) and “lagoon water discharge via the existing drainage system to the Nuwi wetland” (point 2, page 64) and the emergency lagoon discharge point will be via an existing stormwater outlet to Nuwi wetland (page 64). 	<p>In the interests of providing further clarity, and consistent with the existing IWMP:</p> <ul style="list-style-type: none"> • Backwash waste water from the Water Treatment Plant will be discharged to sewer; and • In “circumstantial events” and in the case of large rainfall events that exceed the operating volume of the lagoon (overflow), lagoon water will be discharged to the existing drainage system (that connects to the Nuwi Wetlands). Any lagoon discharge will be required to meet the relevant <i>ANZECC Marine and Fresh Water Guidelines 2000</i> (including with respect to any microbiological analytes).

APPENDIX E: RESPONSE TO ENVIRONMENTAL PROTECTION AUTHORITY SUBMISSION (5/9/17)

	Environmental Protection Authority (5/9/17)	Proponent Response
1	<p>On the basis on the information provided, the proposal does not constitute a Scheduled Activity under Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).</p> <p>The EPA does not consider that the proposal will require an Environment Protection Licence under the POEO Act.</p> <p>Accordingly, the EPA has no comments regarding the current proposal.</p>	<p>Noted.</p>

APPENDIX F: RESPONSE TO ROADS and MARITIME SERVICES SUBMISSION (5/9/17)

	Roads and Maritime Services (5/9/17) (paraphrased)	Proponent Response
1	<p>Concept of widening Hill Road</p> <p>a) Hill Road is currently subject to a number of investigations to determine future requirements for a transport corridor. The widening of the southern section of Hill Road between the M4 and John Ian Wing Parade is being investigated as part of the M4 Off-Ramp project.</p> <p>b) The preferred design for these schemes indicate that road widening would be required on the eastern side of Hill Road.</p> <p>c) It is requested that the Applicant consults with Roads and Maritime regarding the above, prior to determination of the Development Application.</p>	<p>a) Noted. The Proponent has no objections to the widening of Hill Road on the condition that it does not adversely affect the Proponent's development in any respect.</p> <p>b) The site is zoned for "Parks and Recreation". SOPA sought Expressions of Interest by way of a public tender, and the Minister for Sport announced the Proponent as being the successful proponent in April 2016. Subsequently, a long-term ground lease over the subject site was executed and the Proponent intends to develop and operate on the subject site. Under the Proponent's proposal, no widening of the eastern side of Hill Road can be accommodated.</p> <p>c) The Proponent, through senior officers of SOPA, has previously sought information from Roads and Maritime Services regarding the above. No information was provided to SOPA or the proponent during the EIS process.</p>
2	<p>Loss of Car Parking</p> <p>a) The proposal results in the loss of bus, truck, trailer and car parking areas used for major events within the Sydney Olympic Park (SOP) Precinct. Compounded with the significant development uplift proposed in the recent SOP Master Plan 2030, Roads and Maritime is concerned that the proposal would adversely impact the ability of SOP in managing the parking impacts of major events.</p> <p>b) The loss of 678 car parking spaces without any appropriate mitigation measures would likely result in the displacement of car parking to surrounding on-street areas during major events. An assessment should be undertaken to determine the adequacy of the SOP car parking areas to satisfy the parking demands generated by major events for a 'with development' scenario and 'without development' scenario. This assessment should also examine the likely</p>	<p>a) SOPA (the land manager) released the subject site by way of public tender, partly due to it being regularly utilised. Further comments on this matter should be directed to SOPA.</p> <p>b) As described above, any comments on this matter should be directed to Sydney Olympic Park. The Proponent understands that this the subject site by way of public tender, partly due to it being regularly utilised.</p>

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	impacts on the surrounding on-street parking areas (such as Newington) as a result of this development, particularly during major events.	
3	<p>Service Vehicle Access Management</p> <p>a) The Applicant should provide further information regarding the proposed access management via the Holker Street Busway for service vehicles and staff parking. This would include providing information on the signage requirements and enforcement procedures to prevent the use of the busway for general traffic. This shall be at no cost to Roads and Maritime.</p>	<p>As discussed in the Proponent's response to SOPA's comments (Item No. 6 above), the Holker Busway access is to be used only by service and staff vehicles with the permission of SOPA.</p> <p>Following further discussions with RMS, SOPA has advised that permits can be supplied for a limited number of service and staff vehicles to use Holker Busway. Given the limited number of service and staff vehicles that will use the Holker Street access, and the fact that the access will occur at similar times throughout the week, the issuing of permits through SOPA is manageable.</p> <p>As per the architectural drawings and the Traffic Impact Assessment, only seven staff bays are proposed for the Service Yard and are required (and must be retained) for administrative and operational purposes, given their proximity to the facility workshop and office. All other staff will be required to access car parking facilities via the normal patron car park access (via Hill Road).</p> <p>The Proponent understands that service vehicle access may be restricted to some extent during major events, including during 'bump in' and 'bump out' periods. These limitations would be noted in any conditions attaching to permits issued by SOPA.</p> <p>It is suggested that these arrangements be addressed through relevant conditions of consent.</p>
4	<p>Swept Path Analysis: longest vehicle</p> <p>a) Swept path analysis of the longest vehicle entering and exiting from the service access along the car park access road (northern end of the site) should be provided. All vehicles using this access must be able to enter and exit in a forward direction. Furthermore, all vehicles are to wholly be contained before required to stop.</p>	<p>Noted. Appendix A of the Traffic Impact Assessment Report included vehicle swept paths of the largest vehicle anticipated to require access the site via the Holker Street access. These swept paths demonstrated that service vehicles can enter and exit the site in a forward direction and will not be required to stop until they are wholly contained within the site.</p>
5	Swept Path: Ambulances	

APPENDIX F: RESPONSE TO ROADS and MARITIME SERVICES SUBMISSION (5/9/17)

	<p>a) Swept path analysis of ambulance vehicles entering and exiting the subject site from the car park access should be provided. It is unclear as to whether the existing car park access could accommodate emergency ambulance vehicle movements.</p>	<p>Figure 5.1 of the Traffic Impact Assessment shows the two ambulance access points. The existing (and proposed) car park has been designed to accommodate ambulance vehicle access. The existing gates at the car park access are a minimum of 3.0 metres wide with a straight approach and as such are wide enough to accommodate an ambulance (or fire truck). Aisle widths within the car park are designed to accommodate two-way flow and thus would be more than adequate to accommodate emergency vehicles accessing the site in an emergency situation.</p>
6	<p>Design to be in accordance with AS2890</p> <p>a) The layout of the proposed car parking areas associated with the subject development (including, driveways, grades, turn paths, sight distance requirements in relation to landscaping and/or fencing, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1 2004, AS2890.6 2009 and AS 2890.2 2002 for heavy vehicle usage.</p>	<p>Noted. The car park layout has been set out to comply with <i>Australian Standards 2890: 2009 Parking Facilities</i> requirements. It is expected that a condition of consent requiring compliance with AS2890 will be included as part of an approval, and as such will be addressed through the detailed design phase for Construction Certification.</p>
7	<p>Bicycle and End of Trip Facilities</p> <p>a) Bicycle parking associated with the subject development should be in accordance with AS 2890.3 (Bicycle Parking Facilities). Consideration should also be given to providing end-of-trip facilities to support and encourage active transport to the subject development.</p>	<p>Noted. Extensive changerooms and showers form part of the Proposal.</p>
8	<p>Car Park Access</p> <p>a) Having regard for proposed reduction in the number of car parking spaces, the Applicant should consider reducing the number of entry/exit lanes at the existing car park access to/from the car park access road to simplify vehicle movements, thus restricting conflict points, improving network safety and efficiency.</p>	<p>Noted. This will be considered by the land manager, SOPA.</p>
9	<p>Travel Plan</p>	

APPENDIX F: RESPONSE TO ROADS and MARITIME SERVICES SUBMISSION (5/9/17)

	<p>a) The Applicant should be conditioned to prepare a Travel Plan, prior to issuance of the occupation certificate, which includes (but not limited to) the following:</p> <ul style="list-style-type: none">i. details of proposed travel demand management measures to encourage the use of non-car travel modes to the site; andii. detailed plans of how the Surf Park operators will coordinate and manage parking and access for customers during various major events within SOP.	<p>Noted. The Proponent supports the proposed second stage of the Parramatta Light Rail as a key strategy to servicing the ongoing operation of the Proposal.</p> <p>The Proponent will continue to work with SOPA in managing impacts to operations through major events.</p>
10	<p>Construction Pedestrian Traffic Management Plan</p> <p>a) The applicant should be conditioned to prepare a Construction Pedestrian Traffic Management Plan (CPTMP) detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to SOPA and Council for approval prior to the issue of a Construction Certificate.</p>	<p>Noted.</p>

APPENDIX G: RESPONSE TO TRANSPORT FOR NSW SUBMISSION (14/9/17)

	Transport for NSW (14/9/17)	Proponent Response
1	Loss of Car Parking <ul style="list-style-type: none"> The proposal results in the loss of bus, truck, trailer and car parking areas used for major events within the Sydney Olympic Park (SOP) Precinct. The loss of some 678 car parking spaces is likely to result in the displacement of car parking to surrounding on-street areas. An assessment should be undertaken to determine the likely impacts on the surrounding on street parking areas (such as Newington) as a result of this development, particularly during major events. 	<p>It is the Proponent's understanding that the land manager, SOPA, released the subject site by way of public tender, partly due to it being not regularly utilised or necessary for major events.</p> <p>Given this, the conclusion that the loss of the car parking spaces is likely to result in displacement of car parking on surrounding on-street areas appears to be erroneous.</p>
2	Public Transport Demand <ul style="list-style-type: none"> TfNSW actively monitors public transport usage across the network and advises that demand for additional bus services can be expected in response to residential, commercial and recreational development within SOP and Wentworth Point. Additional services are allocated to the network on a priority basis. 	<p>Noted.</p> <p>The Proponent supports the proposed second stage of the Parramatta Light Rail as a key strategy to servicing the ongoing operation of the Proposal. Given the Proposal has strong links to youth, competitive sport, recreation, tourism and events, maintaining and enhancing the existing links to public transport is a well understood requirement for Proposal's operation.</p> <p>The Proponent intends to work with Transport for NSW to develop appropriate and efficient bus service delivery.</p>
3	Parramatta Light Rail <ul style="list-style-type: none"> Planning work for Stage 2 of the Parramatta Light Rail is being developed in collaboration with Sydney Metro West. An extension from Carlingford to Epping is also being investigated. The route and alignment of this future light rail service cannot be confirmed at this stage. 	<p>Noted.</p> <p>The proposed alignment of Stage 2 of the Parramatta Light Rail was a key factor for the Proponent selecting the subject site. Having strong links to public transport is a key requirement for the Proposal's successful operation.</p>

APPENDIX H: RESPONSE TO SYDNEY WATER SUBMISSION (26/9/17)

	Sydney Water (26/9/17)	Proponent Response
1	<p>Note</p> <ul style="list-style-type: none"> The proposed development can be serviced by our existing water and wastewater systems within Sydney Olympic Park. However, we anticipate that amplifications would be required over the next five years to support growth within the wider GOP area. 	Noted.
2	<p>Sydney Water Servicing</p> <ul style="list-style-type: none"> A Section 73 Compliance Certificate under the <i>Sydney Water Act 1994</i> must be obtained from Sydney Water prior to development commencement. It is recommended that the Council includes this requirement as a Condition of the DA approval. The proponent is advised to make an early application for the certificate, as there may be water and wastewater pipes to be built that can take some time. This can also impact on other services and buildings, driveways or landscape designs. 	Noted.
3	<p>Building Plan Approval</p> <ul style="list-style-type: none"> The developer must have the building plans stamped and approved before any construction is commenced. Approval is needed because construction/building works may affect Sydney Water's assets (e.g. Water, sewer and stormwater mains). 	Noted.

APPENDIX I: RESPONSE TO CITY OF PARRAMATTA (8/9/17)

	City of Parramatta (8/9/17)	Proponent Response
1	<p>Introductory Comments</p> <p>The proposal is consistent with the objectives of the SOPA to enhance the Park's status as the home for major sporting events entertainment and recreational activities. It is also broadly consistent with Council's draft Social Infrastructure Strategy in that the proposal would provide regional recreational benefits, adding diversity and a strong point of difference from other offerings currently available within the LGA and Greater Western Sydney.</p> <p>Furthermore, the City of Parramatta Council welcomes the opportunities that the Open water surf sports lagoon presents and would like to provide the following comments and concerns.</p>	Noted.
2	<p>Design of the Public Plaza Entry and Car Park Facilities</p> <p>a) Permeable pavement is recommended as the ground cover treatment in the entry plaza and the design should exhibit a higher level of integration with the public domain and public bus access.</p> <p>b) Car park facilities need to incorporate clearly defined pedestrian access paths, directional signage and balanced lighting to offer pedestrian safety whilst minimising light spill on the surrounding natural environment as per AS4282: 1997 (Control of Obtrusive Effects of Outdoor Lighting).</p> <p>c) Staff parking is to be provided within the general car park, rather than having the additional small 7 space car park at the service entrance. As the use of the busway to access these 7 parking spaces could conflict with the future Light Rail initiative.</p> <p>d) Given the regional scale of the facility many patrons are still expected to use cars and the parking availability offered may be insufficient in this context.</p>	<p>a) Noted. These features will be considered through the detailed design phase of the Proposal.</p> <p>b) Noted. The facility intends to be of a high standard and will have the appropriate standards considered through the detailed design phase of the Proposal.</p> <p>c) As previously described, and as per the Architectural Drawings and Traffic Impact Assessment, only seven staff bays are proposed for the Service Yard and are required (and must be retained) for administrative and operational purposes, given their proximity to the facility workshop and office. All other staff will be required to access car parking facilities via the normal patron car park access (via Hill Road). This limited number of low frequency bays will have no material impact on the function of Holker Busway. Further to recent discussions with SOPA, all entries to this service yard will be managed via SOPA issued permits.</p> <p>d) Maximum car parking requirements were considered in the Traffic Impact Assessment and concluded that there is more than sufficient parking provided in the residual bays immediately south, with abundant overflow parking provided in the areas adjacent (i.e. P5 Car Park, Pods A and C). It is noted that the P5 car park was developed to cater for major events.</p>

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3	<p>Landscaping and Biodiversity Conservation</p> <p>a) The shade offered by tree planting is insufficient in the zone 1 car park, the eastern boundary lagoon deck area, the children's play area and the activity nodes used for layout and seating of patrons on the site.</p> <p>b) Screen planting is encouraged on the site boundary to cover the unsightliness of the proposed plant room and southern public carpark.</p> <p>Consideration should also be made for the retention of existing mature trees and vegetation to the perimeter boundaries of the site, supplemented with additional planting. This is in accordance with the Flora and Fauna Assessment to provide screening and scale to the built form whilst strengthening locally endemic plant communities namely the Sydney Turpentine Ironbark Rainforest. The identified buffer zones include the 10m eastern and 20m northern boundaries.</p> <p>A recommendation is made to engage an AQF Level 5 Consulting Arborist to provide advice as to suitable locations for large tree replanting and an Existing Tree Management Plan outlining tree protection measures in accordance with AS4970-2009 (<i>Protection of Trees on Development Sites</i>). The consultant is to supervise the retention of trees in a site management capacity during demolition and construction.</p> <p>c) An experienced ecologist is to be engaged to undertake pre-removal inspections and relocation of reptiles and other native fauna prior to and during decommissioning of gabion drainage swales. This advice should be incorporated into the formal preparation and implementation of a Flora and Fauna Management Plan as part of the CEMP to minimise and manage the impact on species, including but not limited to:</p> <p>i. Fauna inspection and relocation prior to and during drainage</p>	<p>a) Zone 1 is a delineated clay capped containment cell managing contaminated material that was deposited during the construction of the car park for the Sydney Olympic Games. The area is outside of the leasehold boundary, and consequently the Proponent will not be building structures or planting additional trees within Zone 1. Further, any development activities within this zone may jeopardise the integrity of this containment cell.</p> <p>b) The other comments regarding landscaping are noted and will be considered through the detailed design phase of the Proposal. The Proponent is committed to creating a high quality external realm. Please refer to the Visual Impact Assessment attached, demonstrating minimal visual impacts to Hill Road. Minimal impact will occur to existing vegetation and no replanting of existing trees is considered necessary.</p> <p>c) Regarding fauna relocation, the Proponent commits to the management provisions in the Flora and Fauna Impact Assessment report.</p>
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	<p>swale removal;</p> <p>ii. Green and Golden Bell Frog monitoring and management, etc.</p>	
4	<p>Environmental Outcomes</p> <p>Design features are encouraged to reduce water evaporation, attain a Green Star Rating and comply with NCC Section J energy use standards. Further support documentation is recommended in the inclusion of a Climate Change Adaptation Plan and an alternative reuse strategy in the case of the facility potentially becoming economically unviable. For the detailed response in relation to this section please refer to attachment A Section 2.1 below.</p>	<p>Please note Section 5.9 of the EIS and the appended ESD Report described measures that will be employed to minimise energy and water consumption. With regards to sustainable development, the Proponent, as a condition of lease, has committed to the following Ecologically Sustainable Development (ESD) Principles with SOPA based on the four pillars of ESD as defined by the <i>Local Government Act 1993</i> (NSW):</p> <ul style="list-style-type: none"> • The precautionary approach; • Intergenerational equity; • Biodiversity conservation; and • Environmental value pricing. <p>Specifically, the Developer will implement the following key ESD Principles in the development, which are aligned with the elements of <i>ecosystems, waste, energy, materials, water and people</i>:</p> <p>Ecosystems:</p> <ul style="list-style-type: none"> • Where possible, integrating the form of the project into the surrounding environment with minimal impact to surrounding landforms and natural values; • Ensuring construction impacts do not present an unacceptable impact to surrounding natural values; • Ensuring the operations of the project do not present an unacceptable impact to natural values; and • Install and maintain quality landscaping that incorporates flora species that are endemic and sympathetic to the surrounds. <p>Waste:</p> <ul style="list-style-type: none"> • Where appropriate, encouraging the onsite reuse or management of contaminated material over the offsite transport and disposal; • Encouraging the recycling and reuse of construction and demolition materials and reducing waste sent to landfill; • Minimisation of on-site pollution during the construction phase; and

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		<ul style="list-style-type: none"> • Encouraging the reuse and recycling of products during the operational phase of the project life. <p>Energy:</p> <ul style="list-style-type: none"> • Incorporate climate responsive design in amenities; • Where feasible, utilise renewable sources of energy to support operations; • Encourage the use of energy efficient appliances, plant, lighting and HVAC systems; and • Promote the use and implementation of demand and behavioural management devices and programs through operations. <p>Materials:</p> <ul style="list-style-type: none"> • Where practicable, incorporate civil work, built form, and landscaping materials from environmentally responsible sources. <p>Water:</p> <ul style="list-style-type: none"> • Reduce water consumption and minimise discharge to sewer through high efficiency water treatment plant; • Continue to investigate and where practicable, adopt alternative renewable sources of water for the surf lagoon; • Use drought tolerant species to reduce irrigation demand for project landscaping; • Implement Water Sensitive Urban Design as a key design objective for hardscapes interfacing softscapes; and • Specify low water consumption fixtures in all wet areas and amenities; <p>People:</p> <ul style="list-style-type: none"> • Provide facilities that are considered to be a public asset, increasing the social capital of Sydney Olympic Park; • Promote public transport, and active transport options to guests; • Promote healthy, active living through surfing and surfing related activities; • Provide opportunities for local youth employment through both construction and operations; • Develop and implement environmental awareness programs through operations and collaborative with other suitable programs and organisations; and • Encourage social cohesion through the creation and fostering of new community groups and events. <p>The Proponent has a long-term lease for the site. Should the business become economically unviable, the redevelopment of the site to an alternative use is a matter for SOPA to consider.</p>
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5	<p>Traffic Impacts</p> <p>The statement of environmental effects, on page 35, indicates that the Sydney Olympic Park railway station is approximately 1 kilometre away from the site. This is well beyond acceptable walking distances, which then identifies alternative methods of transportation as being far more viable. Therefore, it is pivotal that the development will integrate well with future light rail infrastructure and the existing pedestrian and bicycle networks.</p> <p>Resolution of the following is required, via condition if necessary:</p> <p>a) Pedestrian Access</p> <p>Ensure the footpath along the eastern edge of Hill Road is kept clear during all construction (including construction fences and footings). It will also be important to ensure that the proposed facility is well-connected to the existing pedestrian and cycling network.</p> <p>b) Bicycle Parking</p> <p>There is sufficient guest bike parking at the front, however no secure long-term staff bike parking is provided. Generally, this is a rate of 10% of staff. Based on 47 staff this is 5 bike parking spots in a secure undercover location within the 'staff only' area of the building.</p>	<p>a) Pedestrian Access - Noted.</p> <p>b) Bicycle Parking - Noted. There will be sufficient room for staff bicycle parking in the area adjoining the service yard and office/administration area.</p>
6	<p>Social Outcomes</p> <p>The cost of use to access the facility is not discussed in this application. Given that many communities within the Western Sydney region face economic disadvantage, a pricing mechanism should be secured to ensure that the facility is also a benefit to local communities.</p> <p>Additional recreational offerings at the site, including a toddler pool, adventure playground, mini half pipe skate ramp, and climbing wall should be further clarified and secured.</p>	<p>The Proponent respectfully advises that the facility's proposed pricing is commercially sensitive, has not been finalised, and is not relevant to the Development Application.</p> <p>However, as previously discussed with the Respondent, the Proponent is keen to work with the City of Parramatta's social and economic teams to ensure the facility is well utilised by the local community, school groups, and the region's numerous community and sporting organisations. Further, the Proponent is committed to developing and implementing programmes that engage with under-privileged and persons with disabilities.</p>

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	<p>The closest residential properties, located 400m west of the development site, have not been adequately consulted.</p> <p>Further information is required in relation to the following:</p> <p><u>Page 23:</u> That further detail or scope be provided in relation to the potential for benefits to disadvantaged communities articulated in the EIS on page 23.</p> <p><u>Page 26:</u> Provide further detail on other recreational infrastructure to be included in addition to the wave pool.</p> <p><u>Page 57:</u> In the Management Priorities section of the EIS, under Priorities for Sports and Recreation Parks, reference is made to the proposal delivering on the priority of “improve the quality and availability of sports fields...” Clarity is requested as to what sports fields are being provided as part of the proposal.</p>	<p>If the City of Parramatta wishes to make funding available to the Proponent so that the Proponent can offer subsidised pricing to the City of Parramatta’s residents and ratepayers (in a similar manner to the subsidies provided to aquatic centres), the Proponent would be happy to discuss this.</p> <p>Given the current planning stage of the Proposal, the recreational offerings are adequately described by the Landscape Masterplan and will be further defined through the detailed design phase of the Proposal. The Proponent respectfully notes that this Proposal results in a significant improvement upon existing amenities.</p> <p>Regarding consultation of the closest residents (approximately 400 metres away), the Proponent undertook a comprehensive process to consider all relevant stakeholders requiring consultation. The SEARs identified a number of key stakeholders to be consulted and the Proponent sought feedback from a number of NSW Government agencies on whether or not nearby residents should be consulted. As there are no identified adverse impacts to the closest residents regarding any of the assessed factors, it was concluded that no consultation was required.</p> <p>Further, regarding requests for further information:</p> <p><u>Page 23:</u> The Proponent previously went to significant effort to arrange a meeting on 1 February 2017 to discuss such initiatives with the City of Parramatta. The Proponent would welcome the opportunity to discuss the proposed initiatives with the City further.</p> <p><u>Page 26:</u> Further detail will be provided regarding other recreational infrastructure to be included in addition to the surf lagoon.</p> <p><u>Page 57:</u> SOPA’s priority to “improve the quality and availability of sports fields” is a written Management Priority of SOPA’s Parkland Management Principles and Guidelines for land designated as parklands (including the subject site). The Proponent advises that a surf sports lagoon is simply a different type of sports field (being suitable for surf sports, rather than field based sports), and is therefore consistent with, and assists in facilitating, SOPA’s priority.</p>
7	<p>Public Health</p> <p>Further detail of all food preparation/service areas are to be provided that indicate compliance with <i>Australian Standards</i> AS4674 (Food premises fit-out), Food Standards Code 3.2.3 (Food Premises and Equipment) and mechanical ventilation standard</p>	<p>Noted. The architectural plans provided have been designed to ensure the size, layout and function of the site sufficiently accommodates the Proposal. Internal fit out and kitchen facilities are issues that will be addressed through the detailed design phase (as per the normal design development process).</p>

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<p>AS1668.</p> <p>Additional clarification is to be provided from NSW Health advising whether the facility is determined to be a <i>Public Swimming Pool</i> in determining required water treatment methods. As the treatment system specification currently relies upon the NHMRC and ANZECC water treatment guidelines associated with a lake or natural waterway, a strategy must be prepared to adequately manage the potential issue of the local endemic duck species using the artificial lagoon whilst the facility is not in operation.</p>	<p>The term “public swimming pool” is defined in section 34 of the <i>Public Health Act 2010</i> as being a “swimming pool to which the public is admitted [in various circumstances].” The term “swimming pool” is further defined in the same section of the Act as “any structure that is used or is intended to be used for human bathing, swimming or diving..”</p> <p>The surf lagoon will be used exclusively for surf sporting activities only, and will not be used for bathing, swimming or diving. Accordingly, the surf lagoon is not a “swimming pool” as defined and therefore the relevant provisions of the <i>Public Health Act 2010</i> and its associated regulations applicable to public swimming pools do not apply to the surf lagoon.</p> <p>There is accepted precedent for this interpretation in the case of the Cable Ski Park situated in Penrith, which is a direct analogue to the surf lagoon.</p> <p>The Proponent also notes that the risk exposure profile of the surf lagoon and other similar recreational water bodies (including the Cable Ski Park in Penrith) is very different to that of a Public Swimming Pool. For instance, the relatively low number of participants (being a maximum of 84 people per hour) combined with the relative high to the volume of water in the lagoon (approximately 22.6ML, or 270,000 litres per user) means contaminant loading is minimal. To put that into context, the surf lagoon holds approximately 10x the water volume of an Olympic sized public swimming pool and accommodates a similar volume of users. This has a direct implication on the appropriate water turnover rate for the lagoon relative to a public swimming pool.</p> <p>In addition, due to the continuous nature of the surfing wave action, the water in the lagoon is highly oxygenated and completely mixed, with no areas of the lagoon able to be categorised as still water (where bacterial and algal growth can otherwise occur). The lagoon is also relatively shallow (with an average maximum depth of approximately 1.0m), meaning that UV light from the sun has a significant sanitising effect on biological and chemical contaminants that may be present in the water body. Further, a minimum guest age of 6 years will be prescribed for access to the surf lagoon. This means that the risk of faecal contamination (which is usually associated with infants in public swimming pools, and is a significant risk factor is attempted to be addressed through water treatment plant design) is practically eliminated. Public swimming pools are also used by elderly or frail guests who may exhibit a heightened risk profile in terms of exposure to waterborne bacteria and pathogens. Given the intense physical nature of surf sports, it is extremely unlikely that such guests will frequent the facility and therefore the design and operation of the water treatment system for the surf lagoon</p>
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	<p>need not specifically cater to that type of guest risk profile, whereas a public swimming pools must do so.</p> <p>Finally, once the wave generator ceases operation in the evening, sediments within the water column will settle to the lagoon floor the entire area of which will be vacuumed with high volume, GPS controlled vacuum cleaners and the walls scrubbed each evening. This is a highly efficient method for removing contaminants from the water body, rather than relying simply on arbitrary water turnover rates.</p> <p>The scale and nature of the operation of the surf lagoon, together with the type of guests that will use the lagoon, and the manner in which the lagoon will be used, are very different to that of public swimming pools. As a consequence, the risk exposure profiles for public swimming pools and therefore the water treatment methodologies required to address those risk profiles, are not necessarily applicable to the surf lagoon. Even if they were, the nature of the surf lagoon would mean that such methodologies would fail the “reasonably practical” test as contained in the <i>NSW Public Swimming Pool and Spa Pool Advisory Document</i>, 2013.</p> <p>The two most widely recognised guidelines concerning water quality and risk management in recreational water bodies in Australia are:</p> <ol style="list-style-type: none"> 1. the World Health Organisation’s <i>Guidelines for Safe Recreational Water Environments, Volume 2: Swimming Pools and Similar Environments</i> (2006); and 2. the Australian Government’s National Health and Medical Research Council’s (NHMRC) <i>Guidelines for Managing Risks in Recreational Water</i> (2008). <p>These guidelines provide established, recognised frameworks for operational water quality targets that have informed the design objectives of the proposed water treatment plant. Consistent with the guidelines, a purpose-built treatment facility and an ongoing management regime will be designed in accordance with the prescribed targets, supported by a comprehensive risk assessment analysis which considers potential hazards and exposure pathways. The guidelines are the documents that typically apply to water bodies with similar human health exposure scenarios to the facility, such as cable water ski parks, recreational swimming lakes/water bodies, and surfing beaches.</p> <p>That said, the water quality objectives of NSW Health’s <i>Public Swimming Pool and Spa Pool Advisory Document</i> have also been used (where applicable) to inform the design of the water treatment plant (to which the Proponent has retained an appropriately qualified and highly experienced industrial</p>
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		<p>chemist/water quality engineer). A critical element to ensuring that water quality is pre-emptively maintained to a high standard, is the Water Quality Management Plan (discussed in the IWMP, provided as Attachment 6 of the EIS). The Proponent recognises the importance of working with the City of Parramatta to ensure the Water Quality Management Plan is appropriately implemented. The Proponent proposes to provide the Water Quality Management Plan to the City of Parramatta for review prior to the issue of a Certificate of Occupancy.</p> <p>With regards to duck mitigation outside of operating hours, a programmed wave up to 2.0 metres in height moving periodically through the lagoon has been proven to be effective in dissipating the interest of ducks and other wading birds. In addition, lagoon cleaning staff will be on site from closing time in the evenings to the time the facility re-opens the following morning, and these staff will be able to address the presence of any ducks.</p>
8	<p>Next Steps</p> <p>The Council would like the opportunity to comment on further stages associated with the detailed design development of the site.</p> <p>It is requested that this letter be provided to the proponent to help inform the detailed design of the facility and that the recommendations made will be addressed in the applicant's response to submissions. The Council would also welcome the opportunity to offer input on any conditions that the Department is considering in relation to any future consent.</p>	Noted.

DETAILED Comments

Environmental Outcomes

Council's Environmental Outcomes team have reviewed the EIS and considered the potential positive and negative environmental impacts of the proposal.

Section/Issue	Comment	Proponent Response
Overall	Overall, the proposal represents a positive approach to environmental impacts and is generally supported.	Noted.

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Section 3.2	<p>“Treatment system specification” – the EIS recommends using NHMRC and ANZECC guidelines for working out what level of treatment should be applied to the pool. The guidelines are for natural waterways and lakes, and as such are not relevant to this facility, which should use the relevant swimming pool legislation and guidelines instead.</p>	<p>Please refer to the response provided in Section 7 above.</p> <p>Please note that the NHMRC <i>Guidelines for Managing Risk in Recreational Water</i> are not restricted to natural waterbodies, but are more relevant to the type of use and potential risk exposure scenarios presented by a range of recreational water bodies (including man-made water bodies) (please refer to the definitions within the guideline).</p> <p>These guidelines are the Australia wide adopted standard for man-made recreational water bodies, including cable water ski parks (such as the Cable Wake Park in Penrith).</p>
P. 63 of EIS	<p>It is suggested that the use of a product such as WaterSavr be considered, which could potentially reduce water evaporation losses - see http://www.flexiblesolutions.com/products/watersavr/</p>	<p>This product is only suitable for still water bodies, and is therefore unsuitable for a turbulent surf lagoon such as the Proposal.</p>
Green Star rating	<p>Council concurs with the Kinesis consultant’s view that while Green Star might bring some rounding out of environmental design responsiveness, it is not going to be a prime driver for performance lift. It is recommended that SOPA seek a Green Star rating.</p>	<p>Noted.</p> <p>As described in Section 4 above, the Proponent has committed to a comprehensive set of ESD Principles as part of its lease with SOPA. Compliance with these Principles will need to be demonstrated by the Proponent through each phase of approval of the Proposal.</p>
Energy use (Refer to Table Below)	<p>It is essential that wherever section J of the NCC applies, the proponent exceeds section J minimum performance standards. This relates especially to:</p> <ul style="list-style-type: none"> • insulation standards • energy smart glazing • lighting (watts per square metre of indoor illuminated areas) • water heating for domestic water supply (showers, taps, kitchens) • Efficiency of HVAC appliances <p>With a history of ‘gaming’ of NCC Section J modelling tools,</p>	<p>Noted.</p> <p>The Proponent notes that as indicated in the Kinesis Energy Analysis, the buildings and lighting of the Proposal only equate to approximately 11% of forecast energy requirements of the facility.</p> <p>It is a reasonable expectation that the requirements of the NCC performance standards and the specific features described by the Respondent will be a benchmark that is easily addressed through delivery of the ESD Principles (described in Section 4 above), as contracted to by the Proponent via the lease of the Site. Further, Section J of the NCC is now specifically addressed in the Preliminary NCC BCA report in Attachment 5.</p>

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	<p>we seek DPE/SOPA support of the use of recent templates that the Better Buildings Partnership and the City of Sydney have developed and that UTS are already applying to new development within their jurisdiction.</p> <p>Council recommends that to increase confidence in exceedance against the very modest NCC performance standards, that these templates be referred to in the consent conditions.</p>	
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Open Water Surf Sports Lagoon Facility Sydney Olympic Park - P5 (Pod B) Car Park Hill Road, Sydney Olympic Park

NCC Section J - Checklist to Ensure Exceedance

Compliance with *NCC Section J Energy Efficiency* minimum standards (via Deemed to Satisfy or JV3 Verification pathways) is mandatory across Australia. However, Section J is not a demanding performance standard. Further, it is common for industry-leading designs for energy efficiency to be 'modelled out' of designs via the JV3 compliance pathway.

To ensure the facility delivers strong environmental performance, the Proponent will demonstrate how its design will exceed the minimum standards of NCC Section J. Project mechanical engineering and/or ESD consultants will readily confirm that the design solutions promoted below can be accommodated within building design detailed at the DA stage.

The design principles prescribed in column 2 below demonstrate how the Proponent is able to *demonstrably exceed* the minimum standards set by NCC Section J.

Column 3 of the table below demonstrates the Proponent's commitments to include best practice energy efficient design into the development, and is to be completed at DA stage.

Table 1: NCC Energy Efficiency Expectations and Responses Schedule

Section of NCC Section J	Design for energy efficiency	Proponent's commitments (note: succinct design solution) (Comment where appropriate)
	There will be <u>no trade-off</u> between building envelope components and building services in achieving NCC compliance	Noted. Please refer to Section 7.9 of Preliminary NCC BCA Report in Attachment 5 .
J 1.3, J 1.5 - Walls, Ceilings,	Confirmation that <u>thermal breaks</u> for roofs, ceilings and walls are incorporated wherever they would be required under NCC Deemed to Satisfy compliance pathway	Noted. This is a matter for consideration during detailed design.

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<i>Roofs</i>		
<i>J 1.6 Building Fabric</i>	Where <u>basement insulation</u> between occupied (e.g. retail, office, residential) and non- occupied spaces (e.g. car-parking, storage areas) would be required under NCC DTS pathway, this is not to be traded away under NCC Verification pathway	Noted. No basement is proposed.
<i>J 6 Artificial Lighting</i>	Confirmation that illumination power density standards in NCC Section J Table J6.2a will be exceeded (i.e. lower maximum illumination power density values, on average, (W/m2) across the proposal than prescribed by NCC)	Noted. This is a matter for consideration during detailed design.
<i>J 7 Heated water supply</i>	Confirmation as to how the proposal will constrain the use of high greenhouse gas intensity sources of energy for water \heating. Solar, heat-pump, co-generation, heat reclamation or geothermal solutions are strongly preferred	Noted. This is acknowledged in Section 7.9 of Preliminary NCC BCA Report in Attachment 5.

ATTACHMENT J: PUBLIC SUBMISSIONS

	Royal Agricultural Society NSW (15/8/17) (paraphrased)	Proponent Response
1	<ul style="list-style-type: none"> Comments about the proposed use not being “Highest and best use” with a more suitable location being recommended (no specific type). 	<p>It is not a relevant planning consideration that another proposal might provide a better outcome, or to second guess what could be achieved. Notwithstanding this, the site is zoned for “Parks and Recreation” and the proposed use is an appropriate and high order use within the constraints of the current zoning for a site currently considered not required for Sydney Olympic Park’s existing parking requirements.</p> <p>To consider an alternative land use that falls outside of the “Parks and Recreation” zoning would require an amendment to the SOP Act, which is unlikely to be supported by local political groups. As discussed in the EIS, the Proposal will result in year-round consistent activation, brings land-use diversity, increases amenity, and results in numerous positive social and economic outcomes.</p> <p>The Proposal provides better utilisation of the investment made into existing assets and infrastructure than one-off annual events.</p>
2	<ul style="list-style-type: none"> Lack of consultation by the Proponent 	<p>Prior to lodgement of the EIS, the Proponent engaged with the Department of Planning and Environment and SOPA to determine all stakeholders requiring consultation. The respondent was offered an opportunity to provide comments as per the statutory Public Exhibition Period.</p>
3	<ul style="list-style-type: none"> Section 5.3.2 clause 25 – Transport states ‘In addition, Olympic Park Railway Station is within walking distance being approximately 1km to the south of the site’. The proponent should be aware that during the approximate 40 days of the annual SRES due to road closures the walking distance to the station would be considerably longer than 1km. 	<p>Noted.</p>
	<ul style="list-style-type: none"> Currently the RAS fully utilises the proposed development site P5B for parking of vehicles related to the operation of the SRES and the loss of this capability will have a significant effect on the SRES and on public parking for it as the RAS will now seek to utilise P5A rendering it unavailable for public parking. The RAS is extremely concerned regarding the continued reduction of available ‘event’ parking spaces at SOP both through their respective removal to facilitate alternate uses such as this 	<p>The Proponent understands that SOPA identified the subject site as not being necessary for existing parking requirements prior to releasing the site through a Public Tender process. As a tenant, RAS would be aware that SOPA, as the land manager, is responsible for coordinating events and spatial demand requirements of different users within Sydney Olympic Park. The Proponent will continue to work with SOPA to ensure impacts to the facility’s operations are minimised during major events such as the SRES.</p>

ATTACHMENT J: PUBLIC SUBMISSIONS

	EIS proposes, but also through site densification leading to permanent car space requirements reducing available stock for events. This is inconsistent with the State Government's stated desire to maintain SOP as Sydney's pre-eminent event precinct and is exacerbated by the lack of certainty and continued speculation over vital infrastructure projects such as Parramatta Light Rail and Metro West that could provide transport alternatives.	
4	<ul style="list-style-type: none"> Statement in the EIS 5.3.2 Clause 24 – Major events capability 'The proposed development is remote from the SOP Town Centre and does not impact on the management of crowd movements and transport services to and within the precinct' is completely inaccurate and clearly the current SRES use has not been considered or investigated in relation to this statement. 	The facility's potential impacts to the SOP Town Centre are comprehensively addressed by the Traffic and Parking Assessment (provided as Attachment 4 in the EIS). RMS guidelines for modelling potential impacts generally advocate modelling for standard conditions, not one-off (annual) events.
5	<ul style="list-style-type: none"> Could we respectfully request that the proponent detail what it considers these 'other more sustainable transport options' to be as 20 years into our tenure at SOP we have not yet identified them. 	<p>The Proponent respectfully advises the Respondent that the Proponent:</p> <ul style="list-style-type: none"> will work with Transport for NSW to optimise existing services and public transport links; will advocate for the near-term development of Stage 2 of the Parramatta Light Rail; and is developing and encourages sustainable transport options through its service offerings (i.e. discounts for using public transport, providing charter bus services for groups, working with new modes of transport as disruptive technologies emerge).
6	<ul style="list-style-type: none"> The RAS is concerned that, should construction of the proposed Wave Pool be undertaken during the time period of a SRES that the proponent must have in place a suitable construction traffic management plan and other procedures required to ensure the RAS can still access and utilise the remainder of the P5 car park complex without interference or hindrance to its operations. 	Noted. A Traffic Management Plan is a standard requirement for construction of projects of this nature.
7	<ul style="list-style-type: none"> The RAS has reviewed the CEMP and suggests that pedestrian and bicycle access should be maintained at all times along the existing footpath to the South of P5B so access can be achieved between car 	Noted.

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	<p>parks, the BMX and archery facilities can be accessed from Holker Street and pedestrians/cyclist can access Holker Street and the Holker Street Bridge from P5C to walk/cycle South to the SOP Town Centre.</p>	
8	<ul style="list-style-type: none"> Section 5.20.1 Construction Traffic and Parking states that Section 4.9 of the EIS and Appendix B of the CEMP (Attachment 9 of the EIS) prepared by InSite Remediation Services contains the Traffic Management Plan, however there is no Section 4.9 in the EIS and Appendix B and Section C of Attachment 9 are both missing from the CEMP. We assume this has already been identified by the consent authority as the EIS cannot be fully considered without them and we'd be appreciative if they could they be provided separately for our review. 	<p>Section 5.20.1 of the EIS states "Section 4.9 of the CEMP" (not the "EIS"). Please refer to Section 4.9 of the CEMP as stated.</p> <p>Further, both Appendix B and Appendix C of the CEMP were both contained in the document and attached overleaf of the cover pages.</p>
9	<p>The RAS would be pleased to meet with the consent authority and the proponent to be able to discuss the likely impacts of the SRES and other events to the proposed development.</p>	<p>Noted.</p>

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	Public Submissions Received (x3) (5/9/17)	Proponent Response
1	<p>(Name withheld) , of Newington NSW, made the following submission on the project: URBN SURF - Open Water Surf Sports Lagoon Facility, Sydney Olympic Park</p> <p>Supports this project</p> <p>“ I am supportive of the park contributing to the local community and providing another physical activity option. I do request that the lighting of the surf park be orientated and shielded so that there is minimal disturbance to the residents of the Newington suburb.. I also request that appropriate sound shielding by the use of vegetation such as shrubs and mature tree (or other physical means) be required as part of the development to maintain the general amenity for Newington residents, especially during the summer months with the later open hours.</p>	Noted.
2	<p>Alex de Jesus , of Newington NSW, made the following submission on the project: URBN SURF - Open Water Surf Sports Lagoon Facility, Sydney Olympic Park</p> <p>Supports this project</p> <p>“ Fantastic, Great News for all of us, is an amazing project that is going to boost the sport in this Area of Sydney, will generate a great number of jobs, will bring Life, Colour and Brightness instead of a dark asphalt unused " land spot". Well done to all involved in this project. Can't wait to get in the water and learn how to surf... Alex de Jesus</p>	Noted.

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3	<p>(Name withheld) , of Silverwater NSW, made the following submission on the project: URBN SURF - Open Water Surf Sports Lagoon Facility, Sydney Olympic Park</p> <p>Objects to this project</p> <p>“ Why does the traffic impact report have no consideration of potential impact on Newington residents in terms of parking on local streets or ingress/egress implications for both Newington and Wentworth Point residents travelling in and out on the sole access road (Hill Rd).</p> <p>Whilst it might not impact in 'low peak' event times the impact on local parking, ability to get out of the suburb and the increase in drivers using the shared (pedestrian/cycle/car) Newington streets as a shortcut from Silverwater Rd is significant when major events are staged.</p> <p>Whilst on it's own this one development might be 'reported' as having minimal impact it is the cumulative effect of all the 'minimal impact' developments, high rise construction and influx of residents (all of whom have cars) and that has had and continues to have a major impact on the 'green belt'.</p> <p>Hoping people will use public transport does not mean they do and the routes available are limited in destinations and often delayed due to access through SOPA and the near vicinity (DFO in particular)</p> <p>I do not believe the infrastructure is not in place nor properly planned to support the developments currently underway and should be addressed before further attractions are added.</p>	<p>The Traffic Impact Assessment concluded there would be no significant impacts to the traffic volumes on Hill Road, and expected volumes are well within the existing design capacity for the road. The Traffic Impact Assessment modelled worst case operating conditions (excluding major events) and undertook peak traffic surveys as part of the assessment.</p> <p>As noted in the Traffic Impact Assessment and in accordance with SOPA's Major Event Management procedures, consultation between SOPA and the Proponent would occur prior to major events being held, with specific traffic management measures developed for, and implemented during, such events.</p>
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END.