

that these recommendations are based on the detailed consideration of the relevant policies contained in the various CMPs which apply to the site.

The Department also supports the recommendations made by Council, Heritage Council and the CSPC for Public Domain Guidelines to be prepared to guide the future development of the site and to ensure a coordinated and consistent design response throughout the WBAP and its integration with the existing fabric and uses within Walsh Bay.

Accordingly, the Department supports the conclusions and recommendations in the HIA and is satisfied that the recommendations will ensure that the future detailed design for the WBAP will respect the heritage significance of the precinct and fabric of Walsh Bay. The Department recommends relevant future environmental assessment requirements to address the key recommendation in the HIA and for all future applications to demonstrate compliance with the recommendations in the HIA.

5.4 Events

The anticipated nature and scope of events proposed in the concept proposal for the WBAP are detailed in **Table 3** below.

The proposal is supported by a Draft Events Operational Plan of Management which establishes a broad framework for the operation and management of the WBAP. The Department has recommended that the Draft Events Operational Plan of Management be finalised in consultation with the Walsh Bay Working Group to ensure that it is tailored to meet local conditions.

Table 3: Proposed events- WBAP

Events Category	Scope of Events	Examples
Category 1: Major Events	- Up to 10,000 people - Maximum of 4 times per year - Must not occur over more than one day	New Year's Eve Australia Day
Category 2: Arts and Cultural Festivals	- Up to 7,500 people moving through the site at any one time - Can occur on consecutive days - Maximum of 6 times a year	Sydney Writer's Festival Corroboree Vivid Biennale Kaldor Projects
Category 3: Community Events	- Up to 5,000 people - No limit on number of community events held in a year - Can occur over consecutive days	ACO Christmas Gala Arts organisation open days Community markets City of Sydney Art and About Tropfest live site
Category 4: Private Events	- Up to 1,000 people - No limit on the number of private events	Commercial launches Exhibition openings Private functions Conferences, expos & the like

In this regard, the final Events Operational Plan of Management will then provide a guiding document for the management of the WBAP with more detailed operational management requirements being provided in subsequent event specific management plans. To ensure that the further assessment of potential impacts resulting from the broad range of events anticipated at Walsh Bay are fully considered, the Department recommends that a detailed Draft Event Management Plan (Draft EMP) be submitted for each future event development application. Specifically, the Department has recommended that draft EMP be prepared in consultation with the NSW Police, the RMS, Transport for NSW and the City of Sydney and that it is to comprehensively addresses the following matters:

- operational transport, traffic and access (pedestrian) management including the use of integrated ticketing and shuttle bus systems when events are being held at the site;
- noise management, including reactive noise management measures and noise monitoring;

- security and staff management;
- lighting management;
- emergency management and incident response protocols;
- alcohol and food management;
- occupational health and safety;
- infrastructure and services management;
- operational waste management;
- water management; and
- community consultation and complaints management.

The Department is satisfied that the Draft EMPs will provide the consent authority with additional information to better regulate the use of the precinct (if required) and furthermore, will enable issues raised in public submissions in relation to impacts on the viability and amenity of neighbouring premises to be further considered.

The potential noise and traffic impacts associated with the proposed events are considered in **Section 5.5** and **Section 5.6**, respectively below.

5.5 Noise Impacts

A number of submissions (public and agency) have raised concerns in relation to potential noise impacts likely to result from the operation of the WBAP. These noise impacts are associated with proposed indoor and outdoor use of the WBAP. The application is supported by a Noise and Vibration Assessment Report (NVAR) prepared by WSP.

In response to the submissions and in particular, concerns raised by the EPA, Council and the Department in relation to the nature and frequency of outdoor events, the applicant submitted a Draft Events Operational Noise Management Plan (Draft EONMP) with their RtS which establishes noise criteria for noise emissions from events and outlines mitigation measures to control noise impacts in order to comply with the noise criteria. The nearest sensitive noise receivers have been identified as:

- R1- residential apartment in in Pier 6/7 approximately 80 metres from Wharf 4/5;
- R2- residential terrace houses in Pottinger Street approximately 50 metres from Pier 2/3;
- R3- the Sebel Pier One Hotel approximately 67 metres from Pier 2/3;
- R4- residential apartment in McMahon's Point approximately 540 metres from the site;
- R5- residential dwellings at McMahon's Point approximately 624 metres from the site;
- C1- commercial premises (café/restaurant) in Sebel Pier One Hotel approximately 67 metres from the site; and
- C2- commercial premises (shops/café) in Hickson Road approximately 25 metres from Wharf 4/5.

The outcomes of this modelling and predicted impacts from the indoor and outdoor uses are considered separately below.

Indoor

The source of indoor noise resulting from WBAP are associated with the existing site operation (i.e. existing uses such as studio and workshop spaces within Wharf 4/5, existing plant and equipment and occasional function/events at Pier 2/3) and new noise sources (i.e. including new rehearsal and performance spaces in Pier 2/3, new plant and associated uses within the commercial spaces).

The results of the computer modelling included in the NVAR are presented in **Table 4** below, and the NVAR concludes that the predicted noise levels do not exceed the daytime INP 2000 requirements.

During the evening and night-time periods, the INP 2000 requirements would be exceeded by 2-12 dBA for receivers R1 and R3 only (with windows open), as highlighted in red in **Table 4**. This is predicted to occur during events/performances. Accordingly, the NVAR recommends that a management strategy be implemented to ensure that windows are closed to improve compliance with the INP 2000.

Table 4: Predicted Noise at noise sensitive receivers resulting from indoor activities (Source: WSP)

Receiver	Building	INP2000 Noise Emissions Criteria (dB LAeq)			Results (dB LAeq)	
		Day	Evening	Night	Windows open	Windows closed
R1	Residential Apartments- Pier 6/7	57	52	44	56	46
R3	Residential Hotel- Sebel Pier One	57	52	51	56	46

Having considered the results of the modelling, the Department concurs with the recommendations in the NVAR that a management strategy for the future use of the Pier 2/3 and Wharf 4/5 will suitably address the minor noise exceedances anticipated during the evening and night-time periods. The Department also noted with respect to Pier 2/3, that it is proposed to incorporate sound (and thermal) attenuation to minimise internal sound transfer. In this regard, the concept design for the auditorium proposes a separate space within the broader volume of the Pier and therefore, the incorporation of requisite acoustic attenuation devices can be installed with minimal impact to the heritage fabric of the Pier. In combination, these measures are likely to further reduce the external noise impacts detailed in **Table 4** above.

In order to ensure that noise impacts resulting from the future adaption and use of the existing structures within the WBAP is fully considered and relevantly addressed in the design development of the proposal, the Department recommends a future environmental assessment requirement for all future development applications to be accompanied by an acoustic impact assessment. This will provide an opportunity for appropriate noise mitigation measures to be considered. The Department has also recommended that the Draft Operational Events Management Plan be amended to include relevant noise management strategies for the events and performances to be held within the adapted structures and that a Complaints Management Strategy be prepared.

Outdoor

The key outdoor noise source will result from the use of the new waterfront square from the range of predicted events as detailed in **Table 3** above. The acoustic modelling in the NVAR has applied the use of the intrusive noise criterion specified in INP 2000. INP 2000 specifies that the L_{Aeq} should not exceed the background noise level by more than 5dBA. The applicable noise management criteria and the maximum predicted noise levels are illustrated in **Table 5**.

Table 5: Predicted noise emissions (Source: WSP)

Receiver	Building	Intrusive Criteria (RBL +5dB), dB			Maximum Predicted Noise Level dB LAeq, 15 min			
		Day	Evening	Night	Category 1 Events	Category 2 Events	Category 3 Events	Category 4 Events
R1	Residential Apartments- Pier 6/7	57	52	50	67	53	51	49
R2	Residential Terrace Houses	65	60	58	74	55	51	>40
R3	Residential Hotel- Pier One	65	60	58	78	50	49	46

Receiver	Building	Intrusive Criteria (RBL +5dB), dB			Maximum Predicted Noise Level dB LAeq, 15 min			
		Day	Evening	Night	Category 1 Events	Category 2 Events	Category 3 Events	Category 4 Events
R4	Residential Apartments-McMahons Point	54	55	47	65	42	>40	>40
R5	Residential-McMahons Point	54	55	47	65	42	>40	>40

Table 5 illustrates that the maximum predicted noise levels for all sensitive receivers during category 1 events will be exceeded (as highlighted in red in **Table 5**). WSP also predicts further exceedances for Category 2 and 3 events for residential apartments at Pier 6/7 during the evening/night time and night time, respectively.

In order to minimise noise impacts to surrounding sensitive receivers, the EONMP includes a series of operational noise control measures and event noise control targets to apply to all surrounding noise sensitive receivers. The noise control targets are presented in **Table 6** below and the noise mitigation techniques proposed to achieve the noise control targets, and which have been formulated to respond specifically to the event types, are presented in **Table 7** below.

Table 6: Event noise control targets (Source: WSP)

Event Type	Event Noise Control Targets
Category 1: Major Events	The following noise limits apply at all surrounding noise sensitive receptors: - A-weighted average sound pressure level (LAeq,T) ≥ 70 dB - A-weighted maximum sound pressure level (LAmax) ≥ 80 dB - C-weighted maximum sound pressure level (LCmax) ≥ 100 dB An exceedance of these noise limits during a single 5-minute period of the first 15 minutes of the performance of each new separate band or act will not be taken as a breach.
Category 2: Arts and Cultural Events	The following noise limits apply at all surrounding noise sensitive receptors: A-weighted average sound pressure level (LAeq,T) ≤ Background noise level (LA90,T)+10dBA
Category 3: Community Events	The following noise limits apply at all surrounding noise sensitive receptors: A-weighted average sound pressure level (LAeq,T) ≤ Background noise level (LA90,T)+5dBA
Category 4: Private Events	The following noise limits apply at all surrounding noise sensitive receptors: A-weighted average sound pressure level (LAeq,T) ≤ Background noise level (LA90,T)+5dBA

Table 7: Possible Mitigation Measures (Source: WSP)

Event Type	Proposed Mitigation Measures
Category 1 & 2 Events	- Provide a 'house' front-of-house (FOH) sound reinforcement system. - Ensure audio signal compressors are installed. - Use directive FOH speaker system (steered line-arrays or similar). - For events on the temporary floating stage, consider the use of shore located relay speakers as opposed to large FOH system located on the floating stage. - Provide a sound level meter / monitor in the mixing desk position.
Category 3 & 4 Events	- Provide portable active 12" – 15" Public Address style loudspeaker systems for use in events which are limited to the produce sound pressure levels not exceeding 80 dBA @3m. - Ensure that event layouts and zoning do not place loud activities or sound reinforcement systems in close proximity to the entry / exit points. This is particularly relevant for the entry / exits points facing Pier 1 and Pier 6/7.

Further to the above, WSP recommends:

- external noise monitoring at surrounding noise sensitive receivers be undertaken during events to assess compliance with the established noise control targets in accordance with a proposed methodology;
- community consultation and engagement be undertaken for all events; and
- a complaints management procedure be implemented.

The Department notes that a number of Category 1 and Category 2 events already occur on an annual basis around Sydney Harbour (i.e. New Year's Eve, Australia Day and Vivid) and that noise levels associated with these events warrant flexible management approach, particularly with respect to City-wide events. With this in mind, the Department has considered the EONMP in detail and concludes that it provides a sound basis for the management of external events for each event category. Whilst in operation, it is likely that there will be noise exceedances at a number of sensitive residential receivers, particularly during Category 1 events and potentially Category 2 events, the Department concludes that these exceedances can be minimised through the implementation of appropriate mitigation measures which can be tailored to the nature and scope of the specific event. The Department also considers that possible mitigation measures (refer **Table 7** above) in conjunction with the noise monitoring and the implementation of ongoing reactive noise management measures will assist in reducing noise impacts to the broader community during the staging of outdoor events. Further, the Department considers community consultation to be an important component of the overall management of events and supports the recommendations made by WSP.

The Department also notes that the EPA has advised that noise impacts likely to arise from the operational phase of WBAP can be largely averted by responsible environmental management practices. The EPA suggests that such practices would include feasible and reasonable noise avoidance and minimisation and effective control on the type, number, time of occurrence and duration of outdoor events.

In order to ensure that the noise management policies and noise control targets within the EONMP provide an appropriate framework for the ongoing operation of WBAP, the Department has recommended that the EONMP be reviewed and finalised in consultation with the EPA and Council. The Department also recommends that future application/s include a noise impact assessment (including performance based modelling) which demonstrate compliance with the EONMP. It is also noted that each external event will require the preparation of an Events Management Plan which is tailored specifically to the event and will enable feasible and achievable noise mitigation measures to be devised and implemented.

Other noise Impacts

The Department is satisfied that additional noise impacts resulting from the installation of plant and equipment can be addressed during the future environmental assessment phase of the project. The EPA has advised that all mechanical plant and equipment should be designed, installed and operated to meet INP criteria. Accordingly, the Department has recommended a future environmental assessment requirement to address this matter.

5.6 Transport and Traffic

Transport

The proposal is supported by a Traffic Management and Accessibility Plan (TMAP) prepared by GTA Consultants. The TMAP identifies that while Walsh Bay is currently under-serviced by public transport, the site is currently serviced by a number of bus routes and is located approximately 1.3km from Circular Quay Station. There is also a ferry berth on the eastern side of Pier 2/3, public ferry wharves at Circular Quay, and a bus terminal in close proximity at Millers Point.

The TMAP identifies that a number of transport strategies are in place which could result in improvements to the accessibility of Walsh Bay in the future, including the Harbour Village North Public Domain Study prepared by Council which identifies that improved pedestrian connections, wayfinding signage and public transport are critical to supporting the ongoing development of the precinct.

Further to the above, the Department also understands that the frequency of bus services to Barangaroo will increase significantly in line with the initiatives included in the Sydney City Centre Access Strategy (SCCAS) and that these services will terminate at Walsh Bay. It is estimated that the service is likely to increase to 6-12 buses per hour during the off-peak with greater frequencies during the network peak hours, with services operating between the Eastern Suburbs, Barangaroo and Walsh Bay (including to service Wynyard and Town Hall). New bus stops are also planned to be constructed in Hickson Road in the vicinity of the site and therefore, accessibility to the WBAP will be significantly improved.

Existing Situation

The TMAP advises that the site currently attracts approximately 1,300 and 2,000 people across a typical weekday and Saturday, respectively. The transport demands generated by existing operations at Walsh Bay (although not quantified in the TMAP) are absorbed by the existing on-street parking, neighbouring parking stations and public transport (bus and rail). A significant number of staff, performers, visitors and audiences also walk to the site from neighbouring areas. A small portion of the people cycle to the site.

The Proposal

The TMAP estimates that the typical daily population within the WBAP (including staff, performers, visitors and audiences) will increase to 3,489 people on a typical weekday and 3,700 people on a typical Saturday. During event mode, the proposal anticipates that up to an additional 1,000 people (Category 4 events) to 10,000 people (Category 1 events) may attend the site.

The application proposes a high mode share target for public transport (combined bus, rail and ferry) of 73% and 78% during typical daily operations (i.e. non-event mode, when staff/performers/visitors/audiences visit the site) and in event mode respectively. The combined mode share for pedestrians and bicycles during typical daily operations and in event mode is proposed at 18% and 17% respectively. Given the limited supply of nearby parking, a very low mode share for cars and taxis of 5% and 4% during typical daily operations and 2% and 3% for event mode respectively is proposed.

Given the proposal for the WBAP is based on sustainable transport modes, the application proposes the following:

- Bicycle Parking: an additional 25 secure parking spaces will be required to cater for staff and performer demands;
- Pedestrian network: improved wayfinding and repeater signage to encourage pedestrian access to WBAP from the CBD and Wynyard and Circular Quay transport hubs. Opportunities for improved pedestrian access including improvements to the pedestrian environment should be considered;
- Public Transport: A high reliance of rail and bus usage, including to take advantage for short term improvements in services to the area which will align with the staged opening of Barangaroo to the public;
- Servicing: new loading facilities to be provided on the Pier 2/3;
- Taxis: additional facilities be provided in Hickson Road;
- Green Travel Plan: that Green Travel Plans be prepared to promote the use of active and sustainable transport modes; and
- Transport Management Plans: Detailed Plans be prepared for events.

Traffic Impacts

The TMAP estimates that peak hour traffic generation (6.00 pm to 7.00 pm) for typical daily operations (non-event mode) is likely to be in the order of 120 cars and furthermore, that the peak demand will not coincide with the road network peak hours (i.e. 5.00 pm to 6.00 pm). Based on this traffic generation, the TMAP advises that the additional traffic generated by the WBAP can be accommodated by the local road network, taking into consideration road network improvements/upgrades which will be delivered to accommodate the Barangaroo development.

In response to issues raised by TfNSW, the TMAP also confirms that traffic impacts from the operation of the Overseas Passenger Terminal are typically concentrated between 7.00 am and 5.30 pm and therefore, the proposal will have minimal impact.

The TMAP proposes that the future peak transport demands from the special events will vary from those estimated during the typical daily operations. In this regard, it is proposed that each event will be subject to detailed Transport Management Plan (TMP) to be prepared in consultation with TfNSW, Council and NSW Police. The TMPs would prioritise the use of public transport, including the use of special shuttle buses to service the site.

There are a number of existing Category 1 events (up to 10,000 people) and Category 2 events (up to 7,500) which currently take place on the site that are subject to event specific TMPs, including New Year's Eve, Sydney Writers Festival and Vivid. It is submitted that these TMPs detail the transport management measures implemented for these events, which can be readily accommodated by the existing transport network and broader City event strategies. On this basis, the GTA Consultants advise that the transport network will be capable of accommodating the future range of Category 3 and 4 events which anticipate maximum attendance of 5,00 people and 1,000 people respectively.

Car parking

As stated above, the proposal does not include the provision of any additional car parking at Walsh Bay. Notwithstanding this, the TMAP anticipates that the proposal will generate a demand for additional car parking, with peak car parking demands in the order of up to 64-84 spaces during typical Saturday and weekday operations.

The TMAP advises that the anticipated low demand for parking can be accommodated by utilising existing on-street parking and a number of commercial parking stations in the vicinity of the site.

Department's comments

The Department acknowledges that it is inevitable that the proposal for the WBAP will result in an increase in visitations to the precinct both during typical daily operations and when events are taking place. The Department also acknowledges that the site is highly constrained in terms of its ability to accommodate any additional car parking. Therefore, the Department supports the proposal for the WBAP which is highly dependent on the use of various modes of public transport and pedestrian and bicycle access, noting that this approach aligns with Council's LEP and TfNSW strategies to promote sustainable transport.

A number of submissions have raised concerns regarding the lack of parking on the site and subsequent impact on the availability of parking in the area. The Department notes that whilst it is difficult to accurately predict and dictate travel behaviour, it is satisfied that management measures can be implemented to target high dependence on public transport use and to limit car usage. Furthermore, the Department acknowledges that Walsh Bay will benefit from improved accessibility (cycle and pedestrian) resulting from the development of improved cycle and pedestrian networks to Barangaroo.

The Department notes that the anticipated traffic impacts likely to result from the proposed periodic and infrequent scheduling of Category 1 and Category 2 events at the site (maximum of 4 and 6 times a year respectively) will be managed through the preparation of event specific TMPs. Furthermore, the Department is satisfied that such events already operate in the precinct and through the development of well-considered TMPs, the transport demands for the events can be appropriately addressed, managed and the traffic impacts minimised.

The establishment of the Walsh Bay Working Group will also provide an appropriate forum for resolution of any traffic and transport issues which arise during the design development and operation of the WBAP, including any issues raised by TfNSW and Council. Furthermore, traffic impacts resulting from each future development application will be subject to detailed consideration and assessment. On this basis, the Department supports the proposal on transport and traffic grounds and concludes that through the further detailed assessment of the future applications and the preparation of TMP for events, that the traffic impacts from the WBAP can be reasonably mitigated. The Department notes that both TfNSW and Council have not objected to the proposal on traffic grounds.

The Department also supports the recommendations in the TMAP for the preparation of Green Travel Plan and a Transport Access Guide as a way to encourage the use of sustainable transport use. Appropriate future environmental assessment requirements have been recommended to address these matters.

The Department acknowledges that the proposal will result in a significant increase in pedestrians accessing the site and is cognisant that wayfinding and public domain improvements to the local area (including those outlined in the Harbour Village North Public Domain Study and the SCCAS) are required to improve accessibility, site legibility and quality of the environment. Accordingly, the Department has recommended that the applicant consult with Council and TfNSW to ensure that the proposal appropriately integrates with the planned upgrades in the precinct (i.e. including in relation to CBD wayfinding). A future environmental assessment requirement has been recommended to address this matter.

The Department notes that matters in relation to pedestrian management can be addressed in the Traffic Management Plan proposed to be prepared for each events.

5.7 Marine Impacts

Design of Waterfront Square

The application is supported by a Maritime Facilities Report (MF Report) prepared by Royal Haskoning DHV which includes an assessment of the water levels at Walsh Bay and potential impacts to the proposed waterfront square and steps which form a key component of the new public domain.

The design concept for the waterfront square and associated steps proposes that the structures be set down at a level below that of the pier aprons so as not to detract from their existing form and scale. Whilst this design approach is supported on heritage grounds, it would mean that the waterfront steps are likely to be subject to water inundation associated with wave wash and tidal fluctuations. The submission from the RMS and a public submission has also identified this matter as a potential safety issue.

The MF Report makes a number of recommendations in relation to future design considerations for the waterfront square and associated steps, specifically to ensure that adequate safety measures are incorporated into the design to mitigate the impacts of wave wash and tidal fluctuation. The Department supports the recommendations in the MF Report and accordingly, these have been included as future environmental assessment requirements.

In relation to the construction works associated with the new waterfront square and waterfront stairs, an assessment of these potential impacts are considered in a Marine and Groundwater Assessment Report (MGWA Report) prepared by Jacobs SKM and submitted with the application.

The Department notes that the findings and recommendations of the MGWA Report are based on a detailed literary review only and that no specific marine investigations were undertaken to support its findings. In summary, the MGWA Report concludes that:

- the project footprint does not directly impact threatened species, populations or communities;
- no sensitive habitats are known to occur in the area and riparian vegetation does not exist; and
- the largest risk from the construction of the project is to water quality. In respect to this matter, the MGWA Report advises that these impacts can be managed through appropriate mitigation measures.

In line with the above conclusion, the MGWA Report recommends a series of mitigation measures to address water quality, ecology, sediment and groundwater management.

Further to the above, the MGWA Report has identified the potential for the project to result in the spread of *Caulperpa taxifolia* (a type of invasive algae) as a result of the construction. The MGWA Report recommends that the DPI be consulted regarding any necessary controls and mitigation measures.

As detailed in **Section 4** of this report, DPI has raised no objection to the proposal, subject to the mitigation measures for water quality and ecology being implemented in accordance with the recommendations in the MGWA Report. The Department concurs with the recommendations of DPI and recommends a series of future assessment requirements relevant to future development application stages.

Groundwater

DPI (refer **Section 4.2.1** above) has identified that the proposal has the potential to impact on groundwater. DPI has advised that if ground water is intercepted or taken, then authorisation may be required from the Office Of Water under Part 5 of the *Water Act 1912*. Accordingly, DPI has requested that it is be consulted in relation to the further site investigations, including to be provided with a copy of the Site Assessment Report for consideration.

MGWA Report has advised that ground water is unlikely to be impacted by the proposal. However, it recommends that a detailed site assessment and sampling regime of the local groundwater resource be undertaken and if required, a Groundwater Environmental Management Plan be prepared.

The applicant has raised no objection to future consultation the DPI in relation to this matter. Accordingly, the Department recommends a relevant future assessment requirements to address this matter and furthermore, for all investigations to be completed prior to the submission of the first development application.

5.8 Contamination

The proposal is supported by a Phase 1 Environmental Site Assessment (Phase 1 ESA) prepared by JBS&G. In regard to contamination, the Phase 1 ESA advises that:

- limited soil testing undertaken in 1996 encountered a 1 metre thick layer of fill in this area which was analysed as containing low concentrations of TPH's, PAH's, OCP's and heavy metals. These conditions suggest that whilst the presence of contaminated fill in the surrounding area has been widely documented, the potential for contamination in fill material on the site is low;

- with respect to contamination in the sediment in the seabed, review of current studies has indicated that impacts present in sediment across the Sydney Harbour area include heavy metals, PAHs, TPH, OCPs and PCBs. These impacts would be expected within the seabed portion of the site, however the impacts are considered not to be attributable to the current use of the site; and
- seawater in the vicinity of the site is likely to be impacted with heavy metals and bacterial contaminants however, this is consistent within impacts across the entire Sydney Harbour and are considered not to be attributed to the current use of the site.

The EPA has advised that although the site does not appear to be extensively filled and marine sediment may or may not be disturbed as a result of the project, further site investigations are required to establish the potential for contamination at the site. It is also recommended that a Site Audit Statement be prepared to certify that the site is suitable for the proposed use having regard to the provisions of the *Contaminated Land Management Act 1997*.

The applicant has submitted further advice prepared by JBS&G which outlines a limited soil and sediment sampling program for the site to be implemented prior to the commencement of construction works. The advice from JBS&G also proposes that the test results from the sampling inform the CFEMP and an environmental monitoring program to be implemented during construction.

In consideration of the above, the Department is reasonably satisfied that although the seabed is likely to be contaminated (as is typical of Sydney Harbour locations), that the seabed does not need to be remediated given the limited amount of works proposed (i.e. noting that these works will be largely limited to pile replacement works and installation of new piles to support the waterfront square) and that a suitable remediation strategy can be developed to minimise the risk of exposure to any contamination during construction. The Department is also satisfied that the risk to public health or safety from contamination on the site is minimal and can be suitably addressed through the site testing and monitoring program proposed by JBS& G (which can be prepared and submitted with the first future development application).

The Department therefore concludes pursuant to Clause 7 of SEPP 55, that the site is suitable for the proposed development and a future environmental assessment requirement is recommended to require the following to be completed prior to the lodgement of the first development application:

- completion of the soil and preliminary sediment sampling program outlined in the advice from JBS&G dated 28 April 2015;
- incorporation of the environmental monitoring program into the Construction Framework Environmental Management Plan;
- that the Phase 1 Environmental Site Assessment prepared by JBS&G dated 23 June 2014 be updated to include the results of the marine sediment testing; and
- that a Site Audit Statement from a NSW EPA accredited Site Auditor be obtained certifying that the site is suitable for the proposed use.

5.9 Other Matters

Outdoor structures

The submission from Heritage Council and the Council identified the need for guidelines or a strategy to ensure that the future use of the private and public spaces are cohesive and controlled in a manner whereby leased areas do not adversely impact on the public access/use and furthermore, that future furniture and structures (i.e. umbrellas, awning etc) associated with such uses are controlled. The Department concurs with these comments and recommends that these matter be addressed as part of the Urban Design Guidelines to be prepared by the applicant.

ESD: The proposal includes an Sustainability Framework Report prepared by ARUP. The framework includes seven key principles or initiatives for achieving a high level of environmental sustainability in the development. These key principles relate to: energy efficiency, reduction in potable water, sustainable materials, user comfort and well being, sustainable transport, sustainable operation, and social and community engagement.

The Department concludes that the Sustainability Framework Report provides a sound basis for incorporating ESD initiatives into the future development of the WBAP and accordingly, recommends that each future development application be required to demonstrate compliance with Sustainability Framework Report.

Seawater based air conditioning plant

The proposal for the WBAP includes the potential for the use of a harbour heat rejection system (alternative to the conventional cooling system) which may be installed below the deck level of Pier 2/3. The Department is satisfied that design and future operation of such a system is more appropriately addressed at the detailed design stage of the project. The EPA has recommended a condition to ensure that the potential environmental impacts are fully considered, including the risk of thermal pollution of waters and the use of antifoulants.

Construction Impacts

As detailed above, the proposal does not seek approval for any construction works. Furthermore, the applicant has advised that the staging and scope of future applications has not been determined at this stage. This being the case, it is relevant that matters relating to potential construction environmental impacts be fully considered at the future environmental assessment stages of the development. Accordingly, the Department has recommended that the applicant prepare and submit a detailed overarching Construction Framework Environmental Management Plan with the first development application.

Further to the above, the Department has recommended that sub-plans be prepared for each subsequent application to specifically address the following requirements:

- demolition and construction waste management;
- construction-related noise and vibration;
- dust control;
- marine and ground water management;
- construction runoff and sediment control; and
- acid sulphate soil management.

The preparation of the above sub-plans will enable issues raised by the EPA (as outlined in Section 4.2.1 of this report) to be addressed in detail including in relation to the management of acid sulphate soil (ASS), and potential acid sulphate soils (PASS), waste management and construction noise.

Subject to the above, the Department is satisfied that the CFEMP and the sub-plans will provides a suitable framework for managing the construction works associated with the future development of the Walsh Bay Arts Precinct. Detailed consideration of the specific construction related impacts of the project, as well as mitigation and management measures to offset potential impacts can also be considered in the assessment of future development applications.

The Department concurs with the recommendation of the EPA and has included a future environmental assessment requirement to address this matter.

6. CONCLUSION AND RECOMMENDATION

6.1 Conclusion

The Department has assessed the merits of the State significant development application for a concept proposal to develop Walsh Bay as an arts and cultural precinct. The Department considers that the proposal aligns with key State and local strategies which seek the expansion and integration of cultural and arts pursuits around Sydney Harbour and appropriately builds on the existing arts and cultural facilities at Walsh Bay.

The proposal, as supplemented by additional information submitted with the RtS, has enabled the detailed consideration of the key environmental impacts likely to result from the WBAP. Additionally, the draft Operational Plan of Management submitted with the RtS has provided sufficient framework for the future operation and management of the precinct, noting that future event specific management plans and traffic management plans will need to be prepared and will be subject to further consideration and assessment by the consent authority.

The Department recommends that a Walsh Bay Working Group be established to assist with the design resolution of the proposal, and that the working group be consulted in relation to the preparation of the urban design guidelines, and the finalisation of the Operational Plan of Management and Operational Event Noise Management Plan which are recommended to be completed prior to the lodgement of the first development application. The Department also recommends that an Interpretation Plan (moveable heritage), a community consultation strategy and complaints management system be prepared prior the lodgement of the first development application. These overarching documents will establish a clear framework for the future development of the precinct.

The Department also recommends a series of future environmental assessment requirements to guide the ongoing design development and operation of the proposal. These requirements have been informed by the applicant's comprehensive Heritage Impact Assessment and submissions received from agencies, Council and the CSPC. In this regard, the Department concludes that potential impacts raised in submissions (construction and operational) can be adequately addressed by recommended conditions obligating the detailed consideration of these environmental impacts at future application stages. Specifically, future environmental assessment requirements have been recommended to address the following:

- design and heritage resolution of the proposal;
- archival recording;
- archaeological assessment and preparation of a management plan;
- marine assessment;
- the preparation of a public domain plan, noise impact assessment, transport management and accessibility plan, and events management plan with all future applications;
- contamination management; and
- construction management.

Overall, the Department concludes that the concept proposal for the WBAP has the potential to deliver a quality urban design outcome which is sensitively designed to respond to its heritage context. The improvements to the public domain including the new waterfront square is a key component of the overall proposal and is integral to the diversity of cultural programs anticipated for the WBAP and the delivery of the State strategy to enhance cultural and creative arts opportunities at Walsh Bay.

The successful operation of the WBAP will require well managed access to the site, reliance on public transport services and the future operation of the precinct to be managed to mitigate

environmental impacts. The Department is satisfied that these matters can be resolved in detail as part of the assessment of future development applications for the precinct.

All statutory requirements relating to the proposal have been met, and the Department concludes the application is in the public interest and should be approved, subject to the conditions detailed in this report.

6.2 Recommendation

It is recommended that the Executive Director, Infrastructure and Industry Assessments, as delegate of the Minister for Planning:

- a) **Consider** the recommendations of this report for the construction of Stage 1A public domain works at Barangaroo South; and
- b) **Approve** the State significant development application, SSD 6069, under section 89E of the EP&A Act, having considered matters in accordance with (a) above and **sign** the attached development consent at **Tag A**.

Prepared by: Sara Roach
(Contract Planner)

Endorsed by:



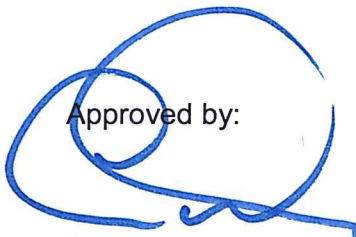
20/5/15

Cameron Sargent
Team Leader
Key Site Assessments



Ben Lusher
Acting Director
Key Site Assessments

Approved by:



21.5.15

Chris Wilson
Executive Director
Infrastructure and Industry Assessments

APPENDIX A RELEVANT SUPPORTING INFORMATION

The supporting documents and supporting information to this assessment report can be found on the Department of Planning and Environment's website as follows.

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6069

APPENDIX B CONCEPT DESIGN REPORT (INFORMATION ONLY)

The Secretary's Environmental Assessment Requirements can be found on the Department of Planning and Environment's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6069

APPENDIX C SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The Secretary's Environmental Assessment Requirements can be found on the Department of Planning and Environment's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6069

APPENDIX D CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S)

The environmental planning instrument (EPI) relevant to the proposal are:

- *State Environmental Planning Policy (State and Regional Development) 2011*;
- *State Environmental Planning Policy (Major Development) 2005*;
- *State Environmental Planning Policy No 55 – Remediation of Land*;
- *Sydney Regional Environmental Plan No.19- Walsh Bay*; and
- *Sydney Regional Environmental Plan (Sydney Harbour Catchment)2005*.

These EPI's are considered separately below.

State Environmental Planning Policy (State and Regional Development) 2011

The aims of this SEPP are to identify State significant development and State significant infrastructure and provide the necessary functions to joint regional planning panels to determine development applications.

The proposal is a State significant development pursuant to section 89C of *Environmental Planning and Assessment Act 1979* (EP&A Act) as it is a type of development identified in Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011 (ie.a cultural facility) and has a capital investment value of more than \$30 million in accordance with Clause 13(1). Therefore, the Minister for Planning and Infrastructure is the consent authority.

State Environmental Planning Policy (Major Development) 2005 (MD SEPP)

The aims of the MD SEPP are to facilitate the redevelopment of important sites for the benefit of the State and provide for the development of major sites for a public purpose.

Clause 12(1) of the MD SEPP appoints the City of Sydney as the consent authority for development, except where development is declared to be State significant development in accordance with Part 4, Division 4.1 of the Act.

There are no other provisions in the MD SEPP which are relevant to the proposal.

State Environmental Planning Policy No.55 – Remediation of Land

SEPP 55 aims to provide a State wide approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying:

- Under what circumstances consent is required;
- The relevant considerations for consent to carry out remediation work; and
- That remediation works undertaken meet certain standards and notification requirements.

Clause 7 of the SEPP prevents a consent authority from issuing development consent unless it has considered:

- Whether the subject site is contaminated;
- Whether a contaminated site is suitable for its proposed use in its current state, or will be suitable following remediation; and
- Whether it is satisfied that the site will be remediated before the land is used for the purpose proposed under the application.

The applicant has submitted a Phase 1 Environmental Site Assessment Report and further advice prepared by JBS&G which outlines a limited soil and sediment sampling program for the site to be implemented prior to the commencement of construction works. The advice from JBS&G proposes that the test results from the sampling inform the CFEMP and an environmental monitoring program to be implemented during construction.

In consideration of the above, the Department is reasonably satisfied that although the seabed is likely to be contaminated (as is typical of Sydney Harbour locations), that the seabed does not need to be remediated and that a suitable remediation strategy can be developed to minimise the risk of exposure to any contamination during construction. The Department therefore concludes pursuant to Clause 7 of SEPP 55, that the site is suitable for the proposed development and a future environmental assessment requirement is recommended to require the following:

- (a) completion of the soil and preliminary sediment sampling program outlined in the advice from JBS&G dated 28 April 2015;
- (b) incorporation of the environmental monitoring program into the Construction Framework Environmental Management Plan;
- (c) updating of the Phase 1 Environmental Site Assessment prepared by JBS&G dated 23 June 2014 to include the results of the marine sediment testing; and
- (d) that a Site Audit Statement from a NSW EPA accredited Site Auditor be obtained certifying that the site is suitable for the proposed use.

Sydney Regional Environmental Plan No.19- Walsh Bay (Walsh Bay REP)

Considerations of relevant clauses in the Walsh Bay REP are addressed in **Table 1** below.

Table 1: Consideration of Walsh Bay REP

Walsh Bay REP	Provision	Department Comment / Assessment	Complies
Part 2 General restrictions on development of land			
11 Zones indicated on the map	For the purposes of this plan, land to which this plan applies shall be within a zone specified hereunder if the land is shown on the map in the manner specified hereunder in relation to that zone: Zone 1—Walsh Bay Conservation Zone—edged black and marked Zone 1. Zone 2—Walsh Bay Waterway Zone—edged black and marked Zone 2.	Noted. The subject land is both on land identified as Zone 1 and Zone 2.	
Zone 1 Walsh Bay Conservation Zone	1 Objectives of zone The objectives of this zone are: (a) to allow an appropriate range of uses to encourage the adaptive re-use of existing structures while not required for commercial port uses, (b) to ensure that development is consistent with the heritage significance, the scale, the built form and the materials of existing structures in the zone and adjoining areas, (c) to ensure that development is compatible with and does to detract from the financial,	The proposal is considered to be consistent with the objectives of the zone for the following reasons: - The proposed use is permitted in the zone with consent and is consistent with state regional and local policies, as detailed in section 3.8 of this report. It is therefore, considered to constitute an appropriate use of the existing structures. - Heritage and built form	YES

	commercial and retail functions of the existing city central business district and the Sydney Cove Redevelopment Area, and (d) to ensure that development is compatible with and does not adversely impact on the residential amenity and function of the adjoining areas. 2 Without development consent Nil. 3 Only with development consent Any purpose other than a purpose included in item 2 or 4. 4 Prohibited Bus depots, bus stations, car repair stations, gas holders, generating works, helipads, heliports, industries (other than home industries and light industries), institutions, junk yards, liquid fuel depots, marinas, mines, roadside stalls, road transport terminals, sawmills.	consideration are addressed in Section 5.3 of the report. Environmental assessment requirements are recommended for future development applications, to ensure that the future design detail for elements of the proposal (including the waterfront square) are sympathetic with the neighbouring heritage items including their form, scale and materiality. - The use does not detract from the financial, commercial or retail functions of the CBD or Sydney Cove and will complement neighbouring cultural venues which form part of the cultural ribbon. - Environmental assessment requirements are recommended for future development application, to ensure potential adverse impacts to neighbouring residential premises are adequately addressed. Refer to detailed discussion in section 5.0 of the report. - The proposed uses are not prohibited and therefore, are permissible in Zone 1 with consent.	
Zone 2 Walsh Bay Waterway Zone	1 Objectives of zone The objectives of this zone are: (a) to control the use of the waterway between the wharves to ensure that any activities associated with any development are compatible with the commercial shipping and navigational requirements in Sydney Harbour, (b) to ensure that the Harbour and Harbour foreshore is recognised as a community asset, and (c) to limit mooring facilities for private vessels used by the lessees and tenants of property in Zone 1. 2 Without development consent Aids to navigation, maintenance dredging, maintenance of mooring facilities, mooring of vessels owned by the Maritime Services Board. 3 Only with development consent Boating or waterway access stairs, dredging, emergency vehicle	The proposal is considered to be consistent with the objectives of the zone for the following reasons: - The proposal has no impact on commercial shipping or navigational requirements of Sydney Harbour. - The proposed Walsh Bay Arts precinct will promote/encourage public access to the foreshore in recognition that it is an important community asset and will be an integral part of the cultural ribbon. - Mooring facilities do not form part of the application. The elements of the proposal which fall within Zone 2 are generally defined as waterway access stairs and public walkways and are permissible in the zone with consent.	YES

	accessways, floating restaurants or entertainment facilities, flora and fauna enclosures, mooring facilities, mooring of fishing and charter vessels, pontoons, public walkways, utility installations (other than gas holders and generating works). 4 Prohibited Any purpose other than a purpose included in item 2 or 3.		
Part 3 Special provisions			
13 Walsh Bay Conservation Zone	(1) A person shall not, in respect of the Walsh Bay Conservation Zone: (a) demolish or alter a building or work within the Zone, (b) damage or move a relic, including excavation for the purpose of exposing or removing a relic, within the Zone, (c) damage or despoil a place within the Zone, (d) erect a building on or subdivide land within the Zone, or (e) damage any tree within the Zone, except with the consent of the consent authority. (2) The consent authority shall not grant consent to an application under subclause (1) unless it has taken into consideration the extent to which the carrying out of the proposed development would affect the heritage significance of the Walsh Bay Conservation Zone.	(1) Noted. (2) The proposal is considered to provide a sympathetic response for the adaptive reuse of the wharf structures. Refer to detailed discussion in Section 5.0 of the report.	
14 Advertising of applications	(1) Except as provided by subclause (2), the provisions of sections 84, 85, 86, 87 (1) and 90 of the Act apply to and in respect of: (a) the demolition of a building or work within the Walsh Bay Conservation Zone, and (b) development for any purpose, in the same way as those provisions apply to and in respect of designated development.	(1) The application has been advertised in accordance with the requirements of section 89F of the Act, as relevant to State significant development applications. Refer to Section 4.1 of the report.	
15 Development control code	(1) If the consent authority considers it necessary or desirable to provide more detailed provisions than are contained in this plan in respect of a part or parts of the land to which this plan applies, the consent authority may, in accordance with this clause, prepare or cause to be prepared a development control code.	(1) No Development Control Code has been prepared for the site. The current proposal is not considered to warrant the preparation of such a Plan.	
16 Matters for	In determining a development application, the consent authority shall take into consideration:	(a) Refer to discussion in Section 4.0 of the report.	