NEW SYDNEY FISH MARKET

SSD DA 8925 STAGE 2 DA MAIN WORKS SECTION 4.55(1A) MODIFICATION 4 PLANNING REPORT

Prepared for

Infrastructure NSW

By
BBC Consulting Planners

April 2021

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Table of Contents

APPENDICES (provided separately)

Abbreviations

AHD	Australian Height Datum
AS	Australian Standard
BDAR	Biodiversity Development Assessment Report
CEMP	Construction Environmental Management Plan.
CIV	Capital Investment Value
Cumulative impacts	Impacts that, when considered together, have different and/or more substantial impacts than a single impact assessment considered alone.
DPIE	NSW Department of Planning, Industry and Environment
Drainage	Natural or artificial means for the interception and removal of surface or subsurface water.
EIS	Environmental Impact Statement
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA	NSW Environment Protection Authority
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
ESA	Environmental Site Assessment
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
GA NSW	Government Architect NSW
GFA	Gross Floor Area (as defined in the Standard Instrument—Principal Local Environmental Plan)
INSW	Infrastructure NSW
LEPs	Local environmental plans
LGA	Local government area
NSFM	New Sydney Fish Market
PASS	Potential Acid Sulfate Soil
PCA	Principal Certifying Authority
RAP	Remediation Action Plan
RL	Reduced Level
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy. A state level environmental planning instrument
SSD	State Significant Development
TfNSW	Transport for NSW

STATEMENT OF VALIDITY

Name:	Dan Brindle
Qualifications:	BEcon; DipAgEcon; MSc (Urban and Regional Planning); MPIA
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I declare that I have prepared the contents of this Planning Report and to best of my knowledge:

- it has been prepared in accordance with the requirements of the Environmental Planning and Assessment Regulation 2000;
- it contains all available information that is relevant to the environmental assessment of the development to which this Planning Report relates; and
- the information contained in this report is neither false nor misleading.

Dan Brindle
Director
BBC Consulting Planners

26 April 2021

1. INTRODUCTION

1.1 General

This planning report has been prepared on behalf of Infrastructure NSW, ("the Applicant"), in relation to an application to modify the consent to SSD 8925 approved by the Minister for Planning and Public Places on 12 June 2020 for the construction, use and operation of a new Sydney Fish Market at Blackwattle Bay.

The Applicant seeks to modify these consents in accordance with the provisions of Section 4.55(1A) of the Environmental Planning and Assessment Act 1979 ("the EP&A Act").

In response to new information regarding sea bed levels that became apparent after the demolition of the wharves, a change in the volume of sediment requiring re-distribution to level the seabed under the basement has been identified leading to an increase in the extent of sediment that requires reprofiling within the site footprint.

1.2 Consent sought to be modified

The consent sought to be modified is the consent to SSD 8925 approved by the Minister for Planning and Public Places on 12 June 2020 ("the main works consent"). The approved development is described as:

> *Stage 2 Development application for the construction, use and operation of a new Sydney Fish Market, including:*
>
> - *A three-storey (4 levels) building with a GFA of 26,751m2 comprising:*
> - *Wholesale services, product storage and processing*
> - *Retail, business and office premises*
> - *Multi-function spaces for events and functions*
> - *Staff amenities and end-of-trip facilities*
> - *Outdoor seating areas*
> - *Basement car park.*
> - *New public domain, including a foreshore promenade and landscaping*
> - *Marina*
> - *Pedestrian, cycle and road access*
> - *Upgrade works to Bridge Road and intersections with Wattle Street and Wentworth Park Road*
> - *Provision of services, site level adjustments and stormwater management*
> - *Subdivision of land.*

1.3 Land to which the Section 4.55(1A) application relates

The land to which this Section 4.55(1A) application relates is located at 1A, 1B and 1C Bridge Road, Glebe and comprises:

Lots	Description
Lots 3 - 5 in DP 1064339	Land containing the existing wharves at the head of Blackwattle Bay
Part of Lot 107 in DP 1076596	Comprising the waters of Blackwattle Bay
Part of Lot 1 in DP835794	Land containing an existing SFM wharf, a former wharf (since demolished) and foreshore seating forming part of the existing SFM
Part of Lot 3 in DP1018801	Land to the west of the site being land adjacent to the existing waterfront promenade along the edge of the school site.
Part of Bridge Road	Works are also proposed to Bridge Road where it adjoins Lots 3 - 5 in DP 1064339 and at its intersections with Wattle Street and Wentworth Park Road.

This is the same land as the land to which the main works consent relates.

2. REQUESTED MODIFICATION

2.1 Reason for the modification

Works undertaken in accordance with the consent to SSD 8924 approved by the Minister for Planning and Public Places on 12 June 2020 ("the concept and early works consent") included the demolition existing wharves, structures, utilities and services. The demolition of the former Hanson wharf toward the western end of the site enabled a more accurate estimate of the underlying sediment profile. Recent bathymetric survey undertaken after the demolition of wharf structures allowed a more accurate estimate of sea bed levels. Assessed quantities of marine sediment under the Hansen Concrete Batching Plant area was not possible prior to demolition due to inaccessibility. Now that the demolition of the Hansen wharves and structures has been completed, the subsurface conditions have revealed an unexpected quantity of material that will require re-distribution to level the seabed prior to construction of the basement.

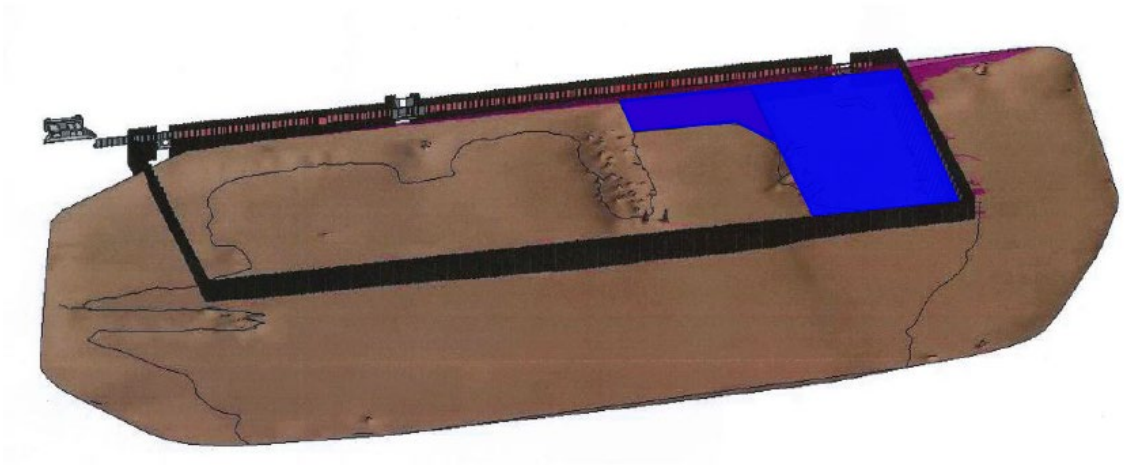
At the time the SSDA was lodged, it was anticipated that approximately 55 m^3 of sediment/silt will require to be relocated to facilitate continued use of the existing stormwater culverts and allow for the construction of the basement. In addition, it is anticipated that approximately 470 m^3 of existing rock revetment will also require removal within the zone along the base of the sea wall.

The SSDA noted inherent uncertainties associated with available survey information and the potential for movement of sediment/silt within the building footprint between the survey period and commencement of works. Thus the reported volumes requiring removal were considered preliminary estimates and contingency allowed should additional material required removal to achieve the drainage/construction objectives. Such contingencies were considered in the preparation of the Acid Sulfate Soils Management Plan and the Remediation Action Plan accompanying the development application.

2.2 Scope of soil/sediment disturbance

It is anticipated that approximately 12,500 m^3 of sediment material in the basement footprint primarily under the former Hanson wharf may require movement as reprofiling to facilitate construction of the basement and ensure maintenance of culvert infrastructure performance and removal of existing rock revetment sections.

The location of the former Hanson Wharf additional sediment to be reprofiled is shown in the following diagram.



The methodology for carrying out this reprofiling remains the same as originally envisaged and is explained in more detail in the report prepared by Senversa contained in **Appendix 1** as follows:

Establishment

The cofferdam for the project is installed only after the main building piling works are complete and is in line with the construction management plan previously provided with the SSD. This is to ensure all associated piling plant leaves the site and is not entrapped inside the cofferdam. It is also not possible to trap the barges inside the cofferdam due to the current grid system utilized for the piling works (there is no room to store a piling barge inside the cofferdam). Therefore it is on the same note, that it is not practical to have large profiling barges inside the cofferdam after it is closed. Due to the volume of works required for sediment redistribution, the works need to be conducted prior to the installation of the cofferdam and piling works, but within the confines of the site that is governed by the larger silt curtain. This position is contemplated within the contractor's silt curtain set out.

Typical Machinery

The Seabed profiling works will be carried out by profiling barge using associated machinery. A nonpropelled split hopper barge will also be moored alongside the profiling barge and has a capacity to store up to 1200m^3 of material. The material moved by the profiling barge (referred to as profile/cut) will firstly be loaded into the split hopper barge from the work area. The hopper barge is then used to transport the material to the relocated area on site (referred to as the disposal cell). Refer to Figure 1 for an image showing the profiling barge adjacent to the hopper barge.

Figure 1. Machinery proposed

The profiling barge will operate within a moon pool arrangement with a short silt curtain attached to it. The moon pool generally serves as a barrier, delineating the operational area of the excavator whilst also creating an exclusion zone for other floating plant. It also serves as a containment area for localised turbidity and in the unlikely event of an in-water oil spill. Refer to Figure 1 and 2 for associated images. This moon pool acts as the sites second line of silt curtain (double curtain), with the site governed by a larger aforementioned site wide silt curtain.

Figure 2. Typical moonpool arrangement

As an additional measure for minimising plume during the sediment redistribution process, a silt curtain will also be installed to the perimeter of the hopper barge for when the sediment material is released / relocated.

General Methodology

Due to the high level of sediment found on the site inhibiting draft requirements of the barges, the

barges will work from either East to West or West to East as is required for follow on building works.

The existing sediments are generally highest closest to land and at the existing Hansen wharf most likely due to their long term use as functional concrete batching plants throughout their history. The works will intend for those sediments to be distributed evenly into the deeper areas of the site, at all times within the confines of the overall site silt curtain (but prior to cofferdam installation). As sufficient draft is required for the working vessels to access the highest areas, the sediment distribution process will commence from the area's most seaward points. As the required draft conditions are activated progressively, the vessels will then be able to progress closer towards the land to complete the profiling works.

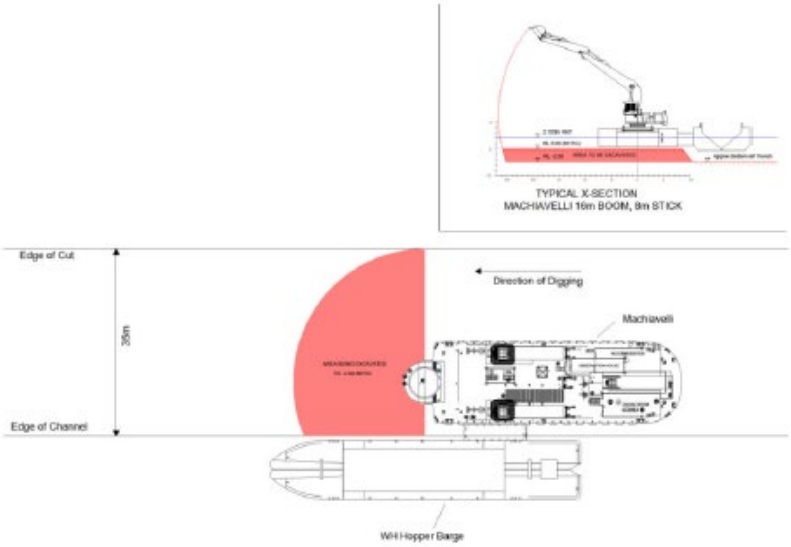


Figure 3. Typical working zone arrangement

Material will be kept saturated by the profiling works to avoid any drying of PASS material. The material will remain wet inside the hopper barge (the material is already saturated from leaving the water), and each loaded barge of material will be relocated from hopper (which will be outside of water, on a barge) and re-placed below the water surface to a deeper area of the site within 12- hours. Typically, the barge / hopper will be emptied of material at the end of each working day and any material found in the barge at end of the working day will be resubmerged into the water. The walkways of the hopper barge are generally washed down at the end of a typical disposal using a bucket with local marine water

Material in the hopper stays saturated for extensive periods due to the hopper slowly sinking as the material is loaded in. As the water ingresses into the hopper sediments are further saturated.

Generally the bottom three quarters of the hopper barge are saturated in this process. The top quarter of the barge is continually saturated with wet material as each sediment load is added. The sediments are placed systematically across the barge accordingly. In the event of mechanical failure there is a manual release feature for the hopper barge.

The loaded draft of the barge is between 3-4m, and the deepest pockets of the site are in the region of -7CD (refer bathymetric survey). This implies the sediments are falling on average 2m but up to 3-4m. The bottom of the barge is very close to the seabed during the disposal which further minimises the fall time of the sediment and the expected plume. This is positive mitigation as opposed to extensive disposals found in other deeper areas of Sydney Harbour which are generally in excess of 10-20 meters.

A progressive disposal plan would be established prior to commencement of works, and this would be supported by hydrographic survey. The volumes are distributed to the basement footprint and profiled to the extent of the cofferdam footprint.

Assistance Vessels

The profiling barge will feature spuds for added stability during the works, however each of the barges are also fitted with stern thrusters which assist the tugs boats adjacent in the overall positioning of the barges. The preferred method of connection between the tug and barge when transiting will be via hip tow. All tugs will be fitted with heavy duty towing winches so that barges can be retrieved to the tug quickly and safely.

Figure 4. Hip Tow zone arrangement

At the completion of the re-profiling, if any levelling off of sediment is required to the seabed, a smaller vessel with a sweep bar may be used. The depth and profile of the sweep bar can be adjusted to suit the final levelling off activity. An example of this vessel is noted in Figure 5.

Figure 5. Vessel with sweep bar example.

Monitoring and Adaptive Management

Monitoring buoys will be implemented outside of the proposed silt profiling zone, and provide realtime data to the profiling team and in accordance with the tiered trigger levels. A baseline would be established prior to works commencing and following completion of the works.

Adaptive management monitoring during the sediment profiling works, will be managed in response to results of visual turbidity and from turbidity buoys. An environmental assistant will monitor and collect data during the works. The visual turbidity data will be collected at various locations. There would be a previously established five tiered trigger system to manage these events. The triggers nominated will provide a basis for informing the profiler operator that alterations may need to be implemented throughout the works. At the last stage of the tiered approach, complete cease of the works is implemented to reduce the turbidity at the point of exceedance. This tiered approach is further developed in detail in associated planning and risk workshops prior to commencement of works.

There are three primary contingency methods to avoid sediments oxidising throughout the methodology;

> *1) The sediments will not be exposed for longer than 12 hours and always redispersed prior to end of day works.*
>
> *2) There is a manual release on the hopper barge if required due to mechanical failure*
>
> *3) In the event the manual release does not work (fails), a pump system and sprinkler drawing on the seawater could be applied to mitigate this risk temporarily until repairs are made.*

4) If points #1-#3 have failed for any reason, a local storage of lime in bulker bags sufficient to treat an entire hopper load can be applied. A crane on board the barge would assist to spread this evenly. It is reiterated this event is a last measure and unlikely to occur.

Pre-established risk workshops, methodology reviews and overall planning workshops are conducted prior to commencement of works to work through the proposed methodology, and adopt an adaptive regime to respond to any events that may occur. Further modified strategies can be formulated in the workshop development stage.

2.3 Management strategies

The *Acid Sulfate Soil Management Plan* prepared by JBS&G dated 4 April 2019 accompanying the SSDA included strategies for managing sediment adjustment. These strategies have been revised in response to the additional sediment reprofiling. The revised *Acid Sulfate Soil Management Plan* dated 26 April 2021 is contained in **Appendix 2**.

2.4 Revisions to construction staging

Appendix 3 presents a revised Construction Staging Report allowing for the reprofiling work and improvements to the overall construction staging given that a builder has now been appointed.

2.5 Changes to conditions

Condition C58 is to be amended to refer to the updated *Acid Sulfate Soil Management Plan* dated 26 April 2021.

2.6 Prescribed requirements

The prescribed requirements for a Section 4.55(1A) application are set out in Clauses 115(1) and 115(1A) of the *Environmental Planning and Assessment Regulation 2000*. The Section 4.55 applications accompanied by this Planning Report have been lodged via the NSW Planning Portal and are accompanied by relevant documentation as specified on the NSW Planning Portal.

3. CONSIDERATION OF RELEVANT PROVISIONS OF SECTION 4.55(1A)

Section 4.55(1A) of the EP&A Act states as follows:

> *"A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:*
>
> *(a) it is satisfied that the proposed modification is of minimal environmental impact, and*
>
> *(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and*
>
> *(c) it has notified the application in accordance with:*
>
> *(i) the regulations, if the regulations so require, or*
>
> *(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
>
> *(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.*
>
> *Subsections (1), (2) and (5) do not apply to such a modification."*

3.1 Minimal environmental impact

In relation to **Section 4.55(1A)(a),** the proposed modification are considered to have a minimal environmental impact. This is because:

- The additional sediment to be reprofiled has similar characteristics to the previously assessed sediment and is potential acid sulfate soil;
- The potential for additional sediment requiring relocation was envisaged in the DA and assessed in the EIS accompanying the SSDA;
- Essentially the same methods will be use to reprofile the sediment;
- The modifications result in no additional impacts in areas such as marine ecology, marine archaeology, traffic, air quality or on the appearance of the development or operation of the new Sydney Fish Market;
- Additional management strategies are proposed to manage sediment reprofiling and potential acid sulfate soils disturbance.

3.2 Substantially the same development

In relation to **Section 4.55(1A)(b)**, the consent authority can be satisfied that the development as modified in accordance with these applications will be substantially the same development as that for which the consents were originally granted. The development remains the new Sydney Fish Market with no change to the design, bulk scale or nature of the development. Access, loading and parking arrangements remain the same and there is no change to the nature of activities undertaken on the site. There is no change to the external appearance or materials or design.

Having regard to the details and nature of the changes it is concluded that the development as modified remains materially the same. The consent as modified is for substantially the same development as the development for which the consent was originally granted.

In relation to **Section 4.55(1A)(c)**, any required notification would be undertaken.

In relation to **Section 4.55(1A)(d)**, should the Department choose to notify the application and invite submissions, any relevant submissions made will need to be considered in determining this application.

3.3 Environmental Assessment

Section 4.55(3) states as follows:

> *"(3) In determining an application for modification of a consent under this section, the consent authority must take into consideration such of the matters referred to in section 4.15 (1) as are of relevance to the development the subject of the application. The consent authority must also take into consideration the reasons given by the consent authority for the grant of the consent that is sought to be modified."*

Section 4 assesses the environmental impacts of the requested modification having regard to the key Secretary's environmental assessment requirements. The following summarises this assessment addressing the relevant heads of consideration under Section 4.15(1) of the *Environmental Planning and Assessment Act 1979*.

3.3.1 Section 4.15(1)(a) – Statutory Planning Considerations

Section 4.15(1)(a) of the EP&A Act requires the consent authority to take into consideration:

"(a) the provisions of:

(i) any environmental planning instrument, and

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

(iii) any development control plan, and

(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and

(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and

(v) (Repealed),

that apply to the land to which the development application relates"

The requested modification does not alter the Minister's findings of the development subject to the consent in relation to the assessment against relevant environmental planning instruments. The development remains permissible and consistent with all relevant planning instruments to the extent assessed in the EIS accompanying the development application and the *New Sydney Fish Market State Significant Development Assessment SSD 8924 and SSD 8925* dated June 2020 prepared by DPIE ("the DPIE assessment report").

3.3.2 Section 4.15(1)(b) – Environmental, Social and Economic Impacts

Section 4.15(1)(b) requires the consent authority to consider:

"(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality"

These matters are discussed in Section 4 below. The modification does not change the likely impacts of the development as assessed in EISs accompanying the development applications and the DPIE assessment report.

3.3.3 Section 4.15(1)(c) – The Suitability of the Site

Section 4.15(1)(c) requires the consent authority to consider:

"(c) the suitability of the site for the development"

The modification does not change the suitability of the site for the proposed development and development outcomes will be unchanged by the requested modification. The modified development is entirely consistent with the objectives of the EP&A Act to encourage the orderly and efficient use of land.

3.3.4 Section 4.15(1)(d) – Submissions

Section 4.15(1)(d) requires the consent authority to consider:

"(d) any submissions made in accordance with this Act or the regulations"

Any relevant submissions to this application will need to be considered accordingly.

3.3.5 Section 4.15(1)(d) – The Public Interest

Section 4.15(1)(e) requires the consent authority to consider:

"(e) the public interest"

The public interest is best served by the requested modification that represent positive improvements, are reasonable and appropriate, and that do not create any significant adverse impacts on the environment or the neighbourhood. The proposal is therefore in the public interest.

4. ENVIRONMENTAL ASSESSMENT

4.1 Statutory and strategic context

4.1.1 Statutory planning context

Section 4.15(1)(a) of the EP&A Act outlines the statutory planning matters to be considered in determining an application. Consideration has been given to these matters in relation to the modification including the relevant provisions of the EP&A Act and environmental planning instruments under that Act. These include:

- Environmental Planning and Assessment Act 1979 including the objects of this Act;
- Environmental Planning and Assessment Regulation 2000;
- Biodiversity Conservation Act 2016;
- Environment Protection and Biodiversity Conservation Act 1999;
- State Environmental Planning Policy (State and Regional Development) 2011;
- State Environmental Planning Policy (State Significant Precincts) 2005;
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy No 33 – Hazardous and Offensive Development;
- State Environmental Planning Policy 55 – Remediation of Land;
- State Environmental Planning Policy No. 64 – Advertising and Signage;
- Sydney Regional Environmental Plan No 26—City West;
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- Sydney Harbour Foreshores and Waterways Area Development Control Plan 2005;
- Sydney Local Environmental Plan 2012;
- Draft State Environmental Planning Policy – Environment;
- Other changes to State environmental planning policies.

The consents as modified do not alter the permissibility of the development which remains permissible with consent. The development remains State significant development.

The consistency of the development with these Acts, Regulations and environmental planning instruments was considered in the determination of SSD 8925. The proposed modification does not change the findings of this assessment.

4.1.2 Strategic planning framework

The development as modified remains consistent with the strategic planning framework established for the site. The proposal remain consistent with the objectives of the State government strategic planning policies and guidelines Greater Sydney Region Plan and the Eastern City District Plan. The modification does not alter the reasons for granting the consents including that the project is consistent with NSW Government policies and strategic direction of the Bays Precinct.

Consideration has been given to the *Pyrmont Peninsula Place Strategy* dated December 2020. This strategy recognises the site of the new Sydney Fish Market and acknowledges its role in revitalising Blackwattle Bay and transforming the peninsula building in its unique character and appeal. This includes its contribution to the foreshore walk from the new Sydney Fish Market to Walsh Bay. The modification is consistent with the role of the new Sydney Fish Market as envisaged in the *Pyrmont Peninsula Place Strategy*.

4.2 Amenity

The modification has no additional impacts on amenity in terms of overshadowing, privacy or external lighting impacts.

4.3 Transport, traffic parking and access

The proposed modification has no impacts on the operation of the new Sydney Fish Market. Construction methodology remains essentially the same with no significant change to construction traffic movement.

4.4 Maritime navigation

The proposed modification does not alter the findings of the *Navigational Impact Assessment* submitted with the applications or the consideration of impacts in the DPIE assessment report. No change to mitigation measures are required. Condition B5 and D25 require the preparation of Vessel Traffic Management Plans for construction and operation of the new Sydney Fish Market in accordance with the recommendations of the NIA.

4.5 Biodiversity

Eco logical Australia have reviewed and assessed the impacts of the proposed modification, particularly the increase in the volume of sediment required to be spread within the works area (**Appendix 4**). Eco logical Australia conclude:

> *ELA has reviewed the design modification and confirms that the original Marine Ecology Assessment remains current for:*
>
> - *mitigation recommendations (Section 5.6)*
> - *habitat opportunities (Section 5.7).*
>
> *The conclusion (Section 6) is also generally valid in terms of overall 'net loss' of KFH. The original assessment calculated a total loss of 40,658 m^2 of type 3 KFH and <1 m^2 of type 2 KFH (three mangrove seedlings); and the structure would result in a total gain of 3994 m^2 hard substrate (type 3 KFH), falling short of no 'net loss' of KFH. ELA has*

not recalculated the spatial impacts and gains for the modification 4, as the relatively minor design changes would not substantially alter the result, or the before and after habitat values of the bay.

The increase in sediment redistribution is insignificant because the basement would be elevated directly over that sediment, regardless of how much is moved around. Mitigation measures in regard to sediment and water quality would be the same, scaled to suit the volume handled.

The habitat opportunities presented in Section 5.7 would improve the connectiveness of habitat types around the bay. The nature of the design modification does not prohibit any of those opportunities from occurring.

Overall, with respect to the small change relative to the large development footprint, SSD-8925-Mod 4: Sediment Redistribution is reasonably consistent with the Marine Ecology Assessment and has minimal environmental impact compared to what has already been assessed.

The proposed modifications do not alter the findings of the *Biodiversity Development Assessment Report* accompanying the development applications or the consideration of biodiversity impacts in the DPIE assessment report. No offsets are required under the *Biodiversity Conservation Act 2016*.

Consequently, in accordance with Section 7.17(c) of the *Biodiversity Conservation Act 2016*, The DPIE and the Minister for Planning can be satisfied that the modification will not increase the impact on biodiversity values and therefore a further biodiversity development assessment report is not required.

4.6 Heritage and archaeology

4.6.1 Cultural heritage assessment

Consideration has been given to the implications of the changes to the configuration of the basement and the additional sediment reprofiling on elements of indigenous and non-indigenous heritage. The modifications have no additional environmental impacts beyond those already considered in the determination of SSD 8925. Condition B101 of the consent require the implementation of the recommendations of the Aboriginal Cultural Heritage Assessment (ACHA), prepared by Artefact, dated July 2017 and updated last on 27 August 2019, as relevant to the site and Development. This shall include an Aboriginal Heritage Interpretation Plan and unexpected finds protocol.

4.6.2 Marine archaeology assessment

Comber Consultants have considered the impacts of the change to the extent of sediment redistribution (**Appendix 5**) and conclude as follows:

- *The increase in seabed disturbance through sediment redistribution has the potential for additional impacts on archaeological deposits which date back to the early industrial development at the head of Blackwattle Bay from 1886.*

- *To mitigate impacts, the following adjustments to the archaeological testing program are recommended:*
    - *Two additional archaeological test trenches should be placed in the area that lay beneath the Hanson Concrete Dispatching Plant wharf. This is an area where new piling will be taking place for the Western Plaza.*
    - *The proposed placement of the test trenches on the eastern side of the new Sydney Fish Market be revised to enable testing in the area to be occupied by the Eastern Plaza.*

  The recommended revised test trench plan is shown in the attached overlays where the trenches have been placed over a georeferenced 1908 map of the area (Figure 1). This map shows the relationship of the test trenches to the 1886 shoreline, the 1908 industries at the wharves, the construction area of the new Sydney Fish Market and also the basement area.

The revised test trench plan can be incorporated into the consent by a modification to the condition C27 in the following terms or similar terms:

> *C27. The Applicant must ensure that all the mitigation measures and archaeological test excavation strategy outlined in the Maritime Heritage Impact Assessment prepared by Comber Consultants* ***as amended by the letter from Comber Consultants dated 16 April 2021*** *are implemented throughout construction works.*

4.7 Flooding

It is not envisaged that the proposed Modification 4 will have any further adverse civil or flooding environmental impacts.

4.8 Contamination management

JBS&G Australia Pty Ltd (JBS&G) has previously been engaged by Infrastructure NSW to complete an Environmental Site Assessment, Remedial Action Plan and Acid Sulfate Soil Management Plan for the site.

Following demolition, sediment deposits beneath the wharf footprint additional to those anticipated during project planning were identified. JBS&G were engaged to undertake further site characterisation to enable decision making with regard to requirements for management, potentially including relocation/removal of the sediment to enable construction of the new Sydney Fish Market (**Appendix 6**). In addition, consideration has also been given to the requirements for characterisation of sediment at the site in accordance with the requirements of both the Acid Sulfate Soil Management Plan and the Remedial Action Plan to inform appropriate management procedures during the proposed construction works. The following summarises the outcomes of this additional assessment:

- *The data obtained is considered reliable to meet the objectives of the assessment.*
- *Sediment sampling was conducted within the envelope of additional sediment identified beneath the former Hanson Wharf footprint in order to appropriately characterise the*

additional sediments for the identified COPCs and PASS characteristics at a sampling density consistent with EPA (1995) and the ASSMP (JBS&G 2019).

- *The materials were observed to be largely consistent (visually) across each sampling location to the maximum depth of the investigation (2.2 m) to an average depth of 0.9 m. The materials comprised of gravelly, clayey silt (mud), with varying levels of inclusions that included coal, ash, organic material, sea shells and metal fragments.*
- *Representative samples of the materials were analysed for a range of identified potential contaminants of concern including heavy metals, PAHs, TRH, BTEX, VOCs, OCP/PCBs, TBT and asbestos. As consistent with the balance of the site and wider Blackwattle Bay area, elevated heavy metals, PAHs and TRH were reported in sediments across the extent of the investigation footprint. The impacts of these compounds are considered to be comparable to, and/or less than the corresponding impacts from historical investigations completed over the balance of the site. There were no reported detections of VOCs (including BTEX), OCPs or PCBs within the materials assessed herein. In addition, there no unacceptable risks identified with respect to the reported concentrations of TBT and asbestos. As such, it is considered that there were no identified impacts within the sediments assessed herein that would preclude the materials from been retained on-site.*
- *Based on the results of the investigation, all sediments encountered as part of this investigation comprise of PASS and require appropriate management and treatment during future works that result in their disturbance.*
- *Should the materials be disposed off-site, it is anticipated that the materials will be classified as General Solid Waste (GSW) or Restricted Solid Waste (RSW) potentially mixed with Special (asbestos) Waste owing to the trace levels of asbestos reported at SFM01 0-1, SFM04 0-0.4 and SFM07 0-1.*

  The materials classified as RSW are represented by samples SFM01 1.0-1.1, SFM07 1.5-1.6 and SFM13 1.0-1.1 in which the reported total lead concentrations are above the SCC1 threshold value.

  Based on the observation of ash and coal within the sediments, it is considered that the General Approval of the Immobilisation of Contaminants in Waste (EPA 1999) may be applied for PAH impacts within the materials, where TCLP analysis identified that these compounds are non-leachable and immobilised within the ash/coal matrices.

  Given the reported organotin concentrations identified in sediment samples, liaison with the NSW EPA will be required to finalise waste classifications for off-site disposal of fill material.

  Further, noting that all sediments assessed herein comprise Potential Acid Sulfate Soils (PASS), the materials will require to be disposed of in accordance with the NSW Waste Classification Guidelines, Part 4 Acid Sulfate Soils (EPA 2014b).
- *In summary, based on assessment of the current data, if it is proposed to remove the excess sediment material from the site, the following would be required to finalise a waste classification in accordance with EPA requirements:*
    - *Stabilisation of the material's PASS characteristics, as per the advice provided in the ASSMP (JBS&G 2019);*

- *Characterisation on a batch basis of chemical contaminants identified to be associated with the material, including heavy metals, PAHs, TRH, TBT and asbestos, with consideration of the coal/ash inclusions in the material with regard to the EPA (1995) immobilisation order. Based on the current data set, it is anticipated material may fall within GSW or RSW categories with the potential to be mixed with Special (asbestos) waste;*
- *Liaison with NSW EPA where TBT concentrations are detected in samples to confirm classification/disposal requirements under the CCO (1989); and*
- *Preparation of a final waste classification report for submission to the proposed licensed waste facility to confirm approval to dispose of the material, prior to commencement of transportation.*

- *Based on the results and findings of this assessment, it is considered that the sediment materials assessed herein are suitable for on-site retention within the framework outlined in the RAP (JBS&G 2020). Notwithstanding, further assessment of sediments at depth may be required, should the excavation depth (to facilitate the construction of the new Sydney Fish Market building) within the investigation footprint extend beyond the depths reached as part of this investigation.*

The implementation of conditions B92 to B95 of the consent will ensure contamination issues are appropriately managed.

4.9 Acid sulfate soil management

The additional investigations undertaken by JBS&G in **Appendix 6** included acid sulfate soil screening. This investigation found that all sediments encountered as part of this investigation comprise potential acid sulfate soils, as consistent with sediments in the wider development footprint and reported in the Acid Sulfate Soils Management Plan referred to in the consent.

Condition C57 and C58 deal with acid sulfate soils:

> *C57. The Applicant must ensure that any acid sufate soil (ASS) and potential acid sulfate soil (PASS) excavated or other disturbed during construction is managed in accordance with the Acid Sulfate Soils Manual 1988 (NSW Acid Sulfate Soil Management Advisory Committee and the EPA's Waste Classification Guidelines 2014 (Part 4: Acid Sulfate Soils).*
>
> *C58. All recommendations contained in the Acid Sulfate Soils Management Plan prepared by JBS & G Australia Pty Ltd dated 4 April 2019 must be implemented throughout the works.*

These measures apply equally to the additional sediments to be relocated as part of the profiling work. The Acid Sulfate Soils Management Plan referred to in the consent has been amended generally in the following manner:

- make reference to the additional investigations referred to above;
- provide a more detailed description of the sediment adjustment works;
- identify additional management measures to be implemented during works;

- recommend additional monitoring during the sediment adjustment process; and
- identify appropriate contingency measures to be implemented.

JBS&G advise that: *The final methodology to be implemented will require optimisation / adaptive management based on the results of environmental monitoring to demonstrate the works are not causing or have the potential to cause environmental impact. A small scale site trial of the proposed methodology should be completed prior to the commencement of the general reprofiling sediment adjustment activities such that it can be demonstrated that the proposal is practical and meets the objectives of this ASSMP, or alternatively management measures will require adjustment until such can be demonstrated at which point the reprofiling works may commencement.*

JBS&G conclude:

> *Where existing and future assessment data identifies the presence of ASS/PASS materials that may be disturbed during construction activities, the measures identified in this acid sulfate soil management plan (ASSMP) provide appropriate procedures to manage the risks associated with the proposed activities. If successfully implemented, these measures will minimise the environmental risks associated with disturbance of the PASS materials.*

4.10 Impacts on water quality

The proposed modifications do not alter the findings of the water quality impacts assessment accompanying the development applications or the consideration of these impacts in the DPIE assessment report. It is considered that measures proposed to be implemented as part of the consent would be sufficient to ensure that any additional siltation or disturbance during the sediment reprofiling would enable siltation to be managed. This includes condition C30 requiring the use of silt curtains which states:

> *C30. The Applicant must ensure silt curtains are installed throughout the duration of the works to minimise disturbance and mobilisation of sediments and contaminants in the seabed of Blackwattle Bay. The silt curtains must be installed and maintained throughout the duration of works. The silt curtain must extend from the surface of the water to the seabed and ensure that all attachment points for the silt curtains are firmly anchored to avoid gaps and release of contaminants.*

4.11 Noise and vibration impacts

The proposed modification does not alter the findings of the noise and vibration impacts assessment accompanying the development applications or the consideration of these impacts in the DPIE assessment report. The modification has no additional environmental impacts beyond those already considered in the determination of SSD 8925.

4.12 Air Quality and odour impacts

SLR Consulting Australia Pty Ltd prepared a *Construction Air Quality and Dust Management Plan – SSD 8925* for the works (SLR reference, 610.30264-R01-v0.1.docx, February 2021), commissioned by Multiplex and as required by the conditions of the consent.

SLR have undertaken an assessment of the potential implications of the proposed increase in sediment re-distribution on off-site air quality (**Appendix 7**). SLR conclude as follows:

> *In order to reprofile the seabed, sediment may be temporarily lifted out of the water column, stored in a bin, and then redistributed back under the water within 24 hours. This is consistent with the mitigation measures listed above from the Construction Air Quality and Dust Management Plan to limit the potential for any off-site odour impacts.*
>
> *There would also be no dust created from the sediment leaving the water column because it would remain saturated at all times.*
>
> *Based on the above, no changes to the conclusions of the Air Quality Impact assessment, or to the mitigation measures included in the Construction Air Quality and Dust Management Plan are identified as being required as a result of proposed SSDA Modification 4. The additional activities associated with the redistribution of the sediment are not expected to lead to a significant change in air quality impacts for the Project.*

The proposed modifications do not alter the findings of the air quality assessment accompanying the development applications or the consideration of air quality in the DPIE assessment report. The modifications have no additional environmental impacts beyond those already considered in the determination of SSD 8925.

4.13 Ecologically sustainable development

The proposed modifications do not change the ESD initiatives incorporated into the proposed developments or the compliance with the principles of ecologically sustainable development ad defined in the EP&A Act.

4.14 General environmental risk assessment

The proposed modifications do not alter the findings of the assessment of environmental risk accompanying the development applications or the consideration of such risks in the DPIE assessment report. Additional management measures are proposed to manage potential acid sulfate soils during the sediment reprofiling works.

5. CONCLUSION

The expected impacts of the modification to the consent to SSD 8925 have been identified and assessed as part of this Planning Report. The modification relates to additional sediment reprofiling works. It is concluded that:

- The development as modified will remain substantially the same as the development that was originally approved;
- Additional management procedures have been identified to ensure that the potential environmental impacts associated with disturbance of ASS/PASS during the proposed construction works can be appropriately managed;
- Based on the findings of this report and supporting studies, the modification has been assessed to be of minimal environmental impact;

It is considered that the development as modified is in the public interest and the approval of the modification applications is warranted.