

Submarine Construction Yard Environmental Impact Statement

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Overview

PAE recognises the scale and the significance of the proposed Osborne Submarine Construction Yard (SCY) development and its role in delivering on the initiatives of the AUKUS agreement.

At its Ordinary Council Meeting on 12 November 2024, Council adopted a Decision Making Framework for AUKUS to guide its strategic and operational input into the AUKUS development. This Framework, which aligns with the City Vision 2024-34 goals and objectives, has been used to inform Council's submission on the Environmental Impact Statement (EIS). Specifically, the submission seeks to minimise negative environmental and community outcomes and advocate for environmental and community (including economic development) benefits from those aspects of the development that are captured within the EIS.

One of Council's overarching concerns with regards to the EIS is that the report fails to encompass the impacts that AUKUS will have on existing residents. This includes the potential to displace existing communities due to land value increases, and to compound any social disadvantage.

If key impacts of the development are not adequately addressed and mitigated, such as traffic volumes, noise and air quality, the quality of life will be reduced. It is important to ensure that development of the Osborne SCY does not compound any existing socio-economic disadvantages and health inequities as a matter of priority.

Council is also concerned regarding the rigour of some of the evidence base used for identifying the significant effects and impacts of the Osborne SCY. Given the scale of the project, Council considers that a dependency on desktop studies over primary data collection calls into question some of the assumptions and conclusions made throughout the report.

As a result of the unusually long development timeframes for the Osborne SCY, with the Osborne SCY not expecting to reach its peak operating capacity for another 20-30 years, and the current stage of the development, much of the documentation in the EIS is reliant upon more conceptual design detail than may normally be desirable. Although Council understands the rationale for this, there is some concern with the degree of further assessment still required based on the number of further management plans still to be prepared, subject to finalisation of design detail. This reinforces the importance of monitoring future compliance throughout the construction and operation of the Osborne SCY to ensure that identified development outcomes are delivered as envisaged.

Similarly, there is a level of reliance on the Lefevre Peninsula Masterplan process to manage impacts upon the wider peninsula as a result of the development, including the identification of mitigation measures. As a result, there is a central need to ensure that any key off site upgrades identified as a part of the masterplanning process are able to be financed and undertaken. This could include sea wall, road intersection upgrades, public transport upgrades, acoustic walls in certain locations, funding/upgrades to parks in the area, off sets

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negotiated due to loss of mangroves and any loss of public access to the Port River, possible off-site upgrades to stormwater infrastructure, and any upgrades necessary to other services as raised by relevant agencies.

Whilst not directly related to the assessment, Council is also keen to receive further clarity on the following:

- Timeframes for the scheduling of the development i.e. what is happening when and where for community awareness purposes.
- Confirmation of who the 'relevant authorities' are, as referenced throughout the EIS.
- Confirmation of what the various 'approvals', 'safeguards', 'licences' and 'permits' are, as referenced throughout the EIS.

Recommendation 1

Due to the interconnections between the EIS/Development Assessment and the Lefevre Peninsula Masterplan and the high level of dependency on the Masterplan that is articulated in the EIS, Council recommends that the final approval of both the EIS/DA and the Masterplan are postponed until they are ready to be approved in conjunction.

Structure of PAE Submission

For ease of reference and convenience, the structure of Council's submission follows the structure and order of the EIS contents and the Identified Significant Effects and Impacts of the EIS.

2.3. Development Site

This section of the EIS states that the Port River channel dredging *"for the operations of the development, including navigational channel, swing basis and ongoing maintenance, was confirmed as being excluded from assessment within the EIS scope"*. The merits of this exclusion are questionable given there may be a future requirement to dredge parts of the channel to support AUKUS related activities beyond those specified in the EIS.

Recommendation 2

That the EIS should include relevant sections of the Port River channel that may require future dredging to support AUKUS related activities and subsequent Dredge Management Plans are prepared in accordance with the requirements under relevant legislation.

The EIS and Infrastructure Masterplan identify Area 3 of the site to *"be the focus of the nuclear licence for the development site, as the nuclear powered propulsion system is expected to be stored and fitted to the submarines within this Area"*. Table 2.4 cites that the finished floor levels (FFL) for Area 3 will be in the order of 5.0 AHD. While it is accepted this FFL may be required for flood mitigation purposes, its impacts on the river's edge, the

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stormwater drainage reserve to the south and Mutton Cove need sensitive design to mitigate any negative impacts on this stormwater infrastructure and the abutting environmentally sensitive areas and systems.

Recommendation 3

That the edge treatments for Area 3 in particular, and also Areas 1 and 2 need to minimise any negative environmental impacts on the surrounding environments. This includes appropriate sediment controls, buffering and vegetations for management of batters etc.

This section also lacks any detailed information on the truck movements for the bulk earth movements required for the construction of these sites (including preloading).

Recommendation 4

Further consideration is given to bulk earth truck movements and impacts on the road network, traffic flow and local communities.

3.4. Nuclear Regulation and Licensing Legislation and Agreements

While the EIS notes that only low level waste will be generated at the site and will be permanently stored offsite, and that the site design does not cater for the storage of medium or high level waste, on 12 November 2024 Council resolved as follows:

- to oppose the storage or disposal of radioactive waste in the AUKUS facilities at Osborne Naval Shipyard; and
- that any applications for licencing for the management, storage or disposal of radioactive waste at the AUKUS operations at the Osborne Naval Shipyard should be subject to comprehensive community engagement.

Recommendation 5

That the storage of any radioactive/nuclear waste at the site is prohibited and any applications for nuclear licensing is subject to comprehensive community engagement.

4.10.1 Major Accidents or Disasters

In Table 4.9 (pg. 80) the EIS discounts flooding risks as a natural disaster and furthermore discounts climate change as being relevant to development infrastructure. This is contrary to the assessments undertaken since 2005 that have identified the Lefevre Peninsula in its northern reaches as highly exposed and vulnerable to future (2030 – 2100) coastal inundation due to the compounding impacts of sea level rise and land subsidence. Lack of mitigation (including resilient infrastructure investments) increases the potential for future disasters due to flooding. The most recent study, *Enabling Resilient Infrastructure in Port Adelaide*, published by the CSIRO in 2022 clearly demonstrates this as a critical issue that requires consideration in the EIS.

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See the full report here: [Case study – Port Adelaide Enfield – Enabling Resilience Investment](#)

DEW, in partnership with Flinders Port, ANI and Council have recently updated the hydrological modelling for coastal inundation. The modelling will inform future risk assessments and infrastructure investments. It will also be made publicly available on the State Government's Flood Viewer.

Recommendation 6

That the EIS should be amended to consider the future risks of coastal inundation and mitigations (resilient infrastructure) required to reduce these risks of a natural disaster.

Local, Regional and State Economies

The forecasted impact on the Australian industry and workforce as a result of AUKUS will result in significant impacts to the employment and labour force through the construction and operation of the Osborne SCY. Whilst most of these impacts will be of overall benefit to the economy, risks in relation to labour shortages and effects on accommodation demand and supply chains etc will need to be addressed through the expansion of the State's economic capacity. Council makes the following specific comments in relation to the construction and operational phases of the development:

Construction phase:

- Council acknowledges the risks and labour force impacts during the construction phase where there will be competition for the same workers as other construction projects. Council would support an emphasis on training and contracting the unemployed or disengaged local members of the community as a way to contribute to a reduction in labour shortages.
- Local procurement in the construction phases of the development should be used where possible.
- Avenues for increased private investment in hotel accommodation to underpin the expected increases in business related visitation should be encouraged.
- Linkages between the construction site and Port Adelaide Centre to encourage workers into the centre should be optimised.

Operational phase:

- Council supports increased training of youth and the unemployed for future workforce needs and to maximise employment opportunities for the community.
- The establishment of training centres and support services in the Port Adelaide Centre to support reinvigoration and activation of the centre is encouraged.
- Access to river and tourism assets should be maintained at all times for tourism and recreation use e.g. Port Adelaide Passenger Terminal and river access for water-based tourism operators.

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- Council supports the facilitation and development of employment lands in Gillman/Dry Creek for new/expanding businesses, while ensuring the flood and water quality management functions of the basin and Magazine Creek and Range wetlands are not compromised.
- Council would support increased government investment in the Port Adelaide Centre to catalyse private investment.

Recommendation 7

That the opportunities to stimulate the local and regional economy, including local employment and training opportunities, as identified above, are prioritised and addressed in the site's development.

Air Quality

The EIS notes that the Air Quality Management Plan (AQMP) will document specific infrastructure, strategies and procedures embedded during detailed design for controlling air pollutants during operation that need to be maintained and monitored once operational. Council understands that this will be subject to an EPA licence, however our residents already have concerns about the air quality on the Peninsula and any additional factors that will exacerbate this need to be suitably controlled. Council would like assurances that this will be suitably monitored and a high level of communication will be put in place for Council and the community to be kept informed and pathways for action established where necessary.

The cumulative impact of increased traffic on air quality over time also needs to be considered and, as a result, Council disagrees with the decision to scope out operational transport emissions from the EIS for the development.

It is noted that Section 7.5.1 of the EIA Report references the Victoria Road Air Quality Monitoring Study published in 2022 by Council and the EPA. Section 7.4.3 of the EIA Report notes that the air quality assessment was based on an initial concept and that additional modelling will be undertaken once detailed design progresses to confirm assumptions, conclusions and mitigation measures required. It will be important that a mechanism be established to ensure and enable a proper further assessment and consultation at this later stage.

Recommendation 8

Council and the community are consulted on the proposed Air Quality Management Plan ('AQMP') and its incorporation into the Operational Environmental Management Plan ('OEMP') for the development.

Transport and Traffic

A key concern relates to the identification of the road network capacity in the area to be exceeded and therefore the central importance of the necessary upgrades to be identified and financed.

The range of mitigation options suggested are reasonable but the notion that the slow growth of the coming problem (5 -15 years) will leave plenty of time to sort out the mitigation measures assumes that those mitigation measures will be sufficient. However, that is unknown and options for more significant interventions, consistent with Council's previous commentary on the GARP and State Government Transport Strategy, need to be considered and their potential planned for. This should include the feasibility of a new road freight route, including a new bridge crossing north of the existing bridges over the Port River and the reservation of land or a corridor for this route. This requires planning now and cannot be put off to future years as land and infrastructure costs increase and the resultant traffic issues have significantly worsened.

The report focuses on the AM peak for the modelling of the 2021 and 2041 years where there is less overlap between the traditional AM peak demand and the ANI precinct. Council would also like to see the assessment document the modelling for the PM peak.

Council has recently undertaken community engagement with the communities of Largs Bay and Largs North through a Local Area Traffic Management scheme, which focuses on the local road network between Military Road and Victoria Road. Through this community engagement, a high level of concern was raised regarding access to Victoria Road under traffic existing conditions. Changes in travel behaviour to avoid uncontrolled right turns onto Victoria Road from a side road or travelling through the local road network to access the signalised intersection at Wells Street already occurs. Future mitigation options need to not only consider the future capacity of the arterial road network but also accessibility from side roads, which is a concern of the community under baseline conditions.

The Project Benefits Summary in Section 1.5.6 specifies a social benefit from the development project as *"it may be anticipated that the revitalisation will result in better infrastructure such as upgraded roads, public transportation"*. This is not yet apparent at present.

Additional traffic related concerns of Council, from a noise perspective, are summarised in the 'Noise and Vibration' Section below.

Section 9.4.2 of the EIS references the future provision of a Construction Traffic Management Plan (CTMP) to be prepared in consultation with statutory agencies prior to the commencement of construction. It is essential that Council be further consulted in relation to this Plan well in advance of commencement of construction. It is of some concern that the EIS states that the assessment has not yet given consideration to the impacts to freight and passenger rail, maritime and air transport operations, shipping, recreational and other maritime/water vessel access during construction.

Recommendation 9

Consistent with Council's previous commentary on the GARP and State Government Transport Strategy, the feasibility of a new road freight route, including a new bridge crossing north of the existing bridges over the Port River and the reservation of land or a corridor for this route should be planned for.

Recommendation 10

Council should be consulted in the preparation of the proposed Construction Traffic Management Plan.

Noise and Vibration

It is positive that Section 8.7.2 of the EIS Report advises that the modelling undertaken shows that the noise levels from continuous, simultaneous operation of all facilities at the development site, during operation, in combination with the existing ONS, are predicted to comply with the relevant Noise EPP criteria.

It is considered important that an appropriate mechanism be established to ensure and enable a proper further review by the qualified acoustic consultant, and a proper further assessment and consultation of the outcomes of this review, at the later more detailed design stage so as to ensure confirmation of sufficient alignment with the assumptions, conclusions and mitigation measures presently incorporated and reported on.

The report states that significant noise effects will be experienced by nearby residential properties, schools, playgrounds and businesses during the daytime on a short-term temporary basis, which would be expected for the type of work proposed. Council would like to see how this will be mitigated and appropriately conditioned through the EPA (SA) licence to mitigate the noise impact as far as is reasonably practicable. It is recommended that hours and times of operation are restricted, including dredging activities in the Port River.

The Noise and Vibration Technical Report states that:

"Given the "Low" level of assessment certainty associated with the 5% design status of the facility, it is recommended that an updated noise model/impact assessment be prepared once the design progresses further."

Council therefore requests further information be provided once the design progresses.

Road Traffic Noise – The Noise and Vibration Technical Report states that the Lefevre Peninsula Masterplan will provide clear guidance as to the future investment in necessary infrastructure, including transport and that through the involvement of DIT and other stakeholders, it is anticipated that potential impacts from traffic can be minimised.

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However, Council is concerned to see the predicted noise level increases associated with road traffic over time. Section 8.7.3 of the EIS Report states that, if unmitigated, the traffic noise impacts projected for the year 2041 would be direct, adverse, and permanent. It is concerning that in the event of no mitigation measures being undertaken, potential significant effects are identified for residential and school/playground receptors. Potential measures noted that may assist to reduce noise levels include adoption of vehicle fleet electrification, advances in tyre technology, and changes in traffic patterns (e.g. use of public or semi-public transport). The report also advises it is not possible to quantify, with any certainty at this stage, how mitigation measures would prevent, reduce or offset the significant adverse effects identified. Council requests assurances from State and Federal Government that transport in the area will be given appropriate consideration and funding, with a focus on reducing the impact to air quality and noise from the development and preventing background creep.

Traffic Noise will be the most significant ongoing noise issue. Mitigation will be difficult and attenuation through continued acoustic fencing on residential properties abutting Victoria Rd (as deployed for other heavy vehicle routes) needs to be planned for.

While the noise modelling suggests that noise from the submarine construction itself will not be significant, the layout of the buildings in Area 1 and 2 should nevertheless provide opportunities for noise attenuation mechanisms (e.g. fences, walls or mounds) to be provided if required (i.e. retrospectively). This would require some separation distance from the western boundaries of the sites.

Clarification should be provided as to whether a 'Local Nuisance Exemption' under the Local Nuisance and Litter Control Act would be applied for with Council prior to commencement of construction (e.g. for any out of hours construction activity that may be intended or any other exemptions that may be sought). It is noted that this Act is not mentioned in the 'State Based Legislation' summarised in Sections 3.4 & 3.5 of the EIS. It is however referenced in the 'Air Quality' Section 7.3. Is this because it is instead intended that any such aspects would be further assessed into the future wholly under the umbrella of any conditions of planning and development consent associated with the EIA?

In light of the significant concerns from a road traffic noise perspective it is considered that approval for the development would not be appropriate without, and until, a formal infrastructure implementation plan and development contract and bond arrangement has been negotiated and put in place with the relevant stakeholders (including pertaining to necessary off site upgrades, which would also first require appropriate consultation with relevant landowners, stakeholders and the community). It is understood that the Lefevre Peninsula Masterplan process currently in place also provides an avenue to pursue such measures moving forward.

Recommendation 11

That Council is consulted on the Construction Noise and Vibration Management Plan (CNVMP). Council would like assurances that this will be suitably monitored and a high

level of communication will be put in place for Council and the community to be kept informed and pathways established for liaison and action where necessary.

Visual Amenity

While the general ‘industrial’ character of this area of the peninsula is acknowledged, it also includes a mix of characters with views beyond just industry that include natural open spaces and green corridors (Mutton Cove, Falie Reserve, Biodiversity Park, Lady Ruthven Park and North Haven Golf Course). These types of character and views should not be discounted but given more consideration in the planning and design of the buildings, roads and other infrastructure.

Within the EIS, visitors and users of the local roads, Port River, and Mutton Cove, have been considered ‘Low’ or ‘very low’ sensitivity receptors to any visual landscape change. The report states that:

“People travelling along the local road network, including drivers and passengers, typically experience environments only briefly while in motion. Their focus is often on the road and safety rather than surrounding scenery, reducing the impact of visual changes. The constantly changing nature of views from vehicles—due to speed, traffic conditions, and landscape variability—means that any visual amenity is often perceived as fleeting, lessening its significance, as such these users are considered to be of ‘Very Low’ sensitivity.”

To state that any changes from the development will have little to no impact on these users is considered subjective and may be challenged in the community.

Recommendation 12

Council would encourage ANI to consider how the visual amenity, especially landscaping, could be enhanced and greatly improved for the key user groups through this development and not simply more of the same.

Biosecurity

Section 11.6.1 of the EIS Report advises that a Biosecurity Management Plan (BMP) and a Dredge Management Plan (DMP) will be prepared in association with the development of the CEMP and OEMP. Section 11.6.2 advises that all relevant permits and licences relating to biosecurity will be obtained. The further review and approval of these documents by the relevant agencies and the subsequent monitoring regimes to be implemented will be of importance.

Marine Flora and Fauna

In relation to Mutton Cove and precinct development interface:

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- We recommend that ANI and DEW work in partnership to invest not only in sea level rise infrastructure protection planning but holistically consider Mutton Cove integration with the proposed development, including environmental protection opportunities for marine flora and fauna.
- Utilising living coastal infrastructure treatments within and on the river boundary of Mutton Cove to provide opportunities for enhancing marine habitats and adapting to sea level rise.
- Seagrass, mangroves and samphire species contribute to a healthy intertidal ecosystem in the Port River and are found at Mutton Cove. Mitigation measures to ensure no negative impact on these species and Mutton Cove as a whole-of-site need to be thoroughly considered and in consultation with knowledgeable saltmarsh experts.
- Council would appreciate updates from the early stages of planning in relation to marine habitats to allow complete transparency on this matter to help inform other community stakeholders of progress.

Terrestrial Flora and Fauna

While Council recognises that the land to be used for this development is highly modified, there remain several important land parcels adjacent to the site that may become impacted or isolated as a result to the Osborne SCY, thereby reducing their integrity and ecosystem value. Opportunities throughout the project phases to enhance and/or restore adjacent marine and terrestrial habitats and ecosystems to facilitate increased protections for local flora and fauna should be explored. Specifically:

In relation to Faile Reserve Open Space and conservation zone:

- The construction of a linkage road through Faile Reserve will include removal of at least 1,000 seedlings of indigenous species planted in June 2022. It is not clear to Council if or how this loss of plants/species will be offset somewhere else in the development precinct but this should be accounted for as the design progresses.
- There are numerous opportunities across the development site, particularly in Area 1, for better outcomes related to improved native flora habitat and increased tree canopy for shading and cooling and flood prevention. A redesign of the car park to be multi-storey would allow for significantly more space and native flora landscaping opportunities, which would complement and enhance existing native vegetation on the directly adjacent Biodiversity Park.

In relation to potential impacts on existing tree canopy:

- A “No Net Loss” policy position of Green Canopy is the recommended approach when considering landscape redesign changes within the Mitigation Management Plan “reserve matters”.

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- Where the proposed development impacts upon existing trees, particularly on road verges, will these be removed and replanted? How will the loss of these trees be offset by the development? At present there are numerous trees recently planted along Mersey Road North and Council would like to see the retention and maintenance of these trees if possible.
- Council would appreciate updates from the early stages of planning in relation to biodiversity and green canopy to allow complete transparency on this matter to help inform other community stakeholders of progress.

Recommendation 13

Council and the community are consulted on the development of the Construction Environmental Management Plan (CEMP) (or equivalent) to better understand and help strengthen the mitigation measures that will be put in place to mitigate potential impacts to marine and terrestrial flora and fauna throughout the construction phase and into operation.

Climate Change Adaptation

Recent tree canopy cover and urban heat mapping undertaken by DEW / Green Adelaide on behalf of metropolitan Adelaide Councils shows that the Lefevre Peninsula is one of the hottest locations with lowest tree canopy in Adelaide. As such, all building designs, car parks and landscaping should include measures to reduce urban heat and where possible limit the amount of impermeable, heat absorbing materials and surfaces.

In relation to 18.5 section of EIS Baseline conditions and sensitive Receptors (pg. 308):

- From the initial outcomes of the recently designed and developed car park to the south of Area 1b of the Osborne Shipyard, it appears that there has been minimal thought into the integration of WSUD principles within this large footprint.
- Council strongly recommends that the permanent car park design and development for Area 1b considers design improvements to not only treat stormwater quality but also consider WSUD as well as shading and landscaping elements. For example, zones could be provided throughout the car park where WSUD can be cooperated to help support tree and shrub growth and allow for greater surface water permeability and provide green corridors for shade considering future warmer climate projections. It might also be worth considering cool car park surface treatments to assist in reducing local heat island effects. These treatments could be considered within the development of the Mitigation Management Plan.

We note that a 'Climate Review Report' (Appendix 1.8) has been prepared to identify the climatic hazards that are predicted to impact the Strategic Impact Area and surrounding region.

Recommendation 14

That an assessment of the physical and transition risks of climate change for the site during both construction and operation stages is completed (including risk mitigation options).

Greenhouse Gas Emissions

We note that a 'Defence Net Zero Strategy' has been recently released and that this project will closely align with the aims and priorities of this strategy.

Council has also noted that there will be consideration given to procurement and use of low embodied carbon materials for construction to mitigate Scope 3 emissions. A project of this scale and size will help to 'shift the dial' on availability and cost of low embodied carbon materials that could then be of benefit to Council and other construction businesses wanting to reduce their greenhouse gas emissions and deliver on net zero commitments.

Waste Management

The selected approach is in alignment with the State's objectives for reducing landfill waste and improving resource recovery, while also addressing the challenges of accurately forecasting waste generation rates and streams.

Given the scale of this project, it presents a significant opportunity to advance South Australia's circular economy. Council considers that there is a significant opportunity for this project to be a leader in the local circular economy.

In partnership with the City of Charles Sturt, PAE has established the Central Adelaide Waste and Recycling Authority (CAWRA). CAWRA is a regional subsidiary jointly owned by both Councils. The Authority is currently consulting on the development of a regional waste strategy titled "Going Circular to 2030," with eight key theme areas.

The future preparation of a Waste Minimisation and Management Plan (WMMP), a Construction Waste Management Plan, and an Operational Waste Management Plan will provide a structured framework for managing waste throughout the project's life.

The success of the waste management practices will hinge upon implementation and monitoring during construction and operational phases. Ongoing reviews and adjustments will be necessary to meet, and ideally exceed, the waste management targets.

Recommendation 15

Given the scale of this project, it presents a significant opportunity to advance South Australia's circular economy and for this project to be a leader in the local circular economy.

Flooding

See above comments and recommendations under section 4.10.1 and the imperative to consider flood risk (coastal inundation) and disaster resilience planning and infrastructure investment. This is something that is not well considered and assessed in the current EIS.

Site and Groundwater Contamination (inc. 'Soils, Landform and Geology')

Council would like clarification on the extent of any potential site and groundwater contamination and how these risks will be managed. This may include identifying any past land uses that may have contributed to contamination, assessing the level and spread of contaminants, and detailing how sampling and testing will be conducted in accordance with EPA requirements. Information on the specific remediation strategies that will be implemented if contamination is identified should also be included.

It is also important to consider potential impacts on stormwater infiltration, groundwater recharge, and broader hydrological processes within the area. Council would like to highlight that the Lefevre Peninsula Stormwater Management Plan contains valuable information regarding land subsidence, topography, and other relevant geological studies for the area. This existing body of research can be referenced to support further studies and investigations as part of the project's assessment.

Coastal and Marine

Council recommends that a suitably qualified coast and marine expert is engaged to identify any coastal risks and hazards (e.g. erosion, sea level rise, etc.) and significant coastal or marine features or habitats.

Council would appreciate updates from the early stages of reporting in relation to the Coastal and Marine environment to allow complete transparency on this matter to help inform other community stakeholders of progress.

Further consideration should be given to dredging and potential spoil disposal locations at an earlier stage.

Recommendation 16

In relation to the proposed development of a Marine and Coastal Environmental Management Plan (MCEMP), the report should assess the impacts of the proposed operations of the development and document the environmental protection controls and measures to be implemented and monitored. The report should address impacts on marine organisms from development activities (including noise, vibration, and water quality).

Surface Water and Groundwater

Given the high volumes of water that will be required during the construction and operation of this site and current constraints on water availability in South Australia, consideration to water security will be required including:

- Modelling water future demand (potable and non-potable) for the site.
- Identifying current and future water supplies to meet the water demand, particularly when taking expected decreases in precipitation and other climate change projections for this region into account.
- Utilising water sensitive design throughout to retain as much water on site for use in buildings and to support any vegetation plantings thereby reducing the need to bring water to the site.

This section of the EIS does not explicitly reference the Adelaide Dolphin Sanctuary or its extent along the adjacent Port Adelaide River. Section 21.3 'Guiding Legislation and Policy' should be updated to reference the State Government 'Adelaide Dolphin Sanctuary Act 2005'. The objectives of this Act are relevant, including with respect to water quality:

"water quality within the Port Adelaide River estuary and Barker Inlet should be improved to a level that sustains the ecological processes, environmental values and productive capacity of the Port Adelaide River estuary and Barker inlet."

It is observed that the Stormwater Management Plan Report accompanying the EIS Report does reference the existence of the Adelaide Dolphin Sanctuary in Sections 2.4.3 and 5.1.

A general observation of the EIS is that it has not adequately addressed impacts on the Port River as a key environmental feature and important part of the economic system and identity of place. While the below comments relate to the environmental aspects of this, the role of the River, and its living ecology and history, needs substantially more consideration in the EIS and subsequent planning. Council has long advocated for improved governance for the river and the wider estuary system, with an aim to protect and restore the river's water quality and ecological habitats. This will also have resultant social and economic benefits.

Council is aware of community advocacy in this regard, including:

- the work of the Estuary Care Foundation (now Friends of Port River) and its vision for the river – [Estuary Care Foundation SA – Devoted to the protection of the ecology and shorelines of South Australia's Port River and Barker Inlet](#)
- collaborations between local environment groups, researchers and non government organisations calling for Conservation and Restoration Plan for Port River & Barker Inlet Estuary.

Recommendation 17

That the EIS and subsequent planning considers impacts on and mitigation measures that ensure the protection and restoration of the Port River and Barker Inlet system.

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Sections 3.6 'Future development areas' and 7.1.2.4 'External areas' of the Stormwater Management Plan Report advise that it has been assumed that future development areas to the west of Pelican Point Road would drain west, away from the NPSCY and towards Outer Harbor wharf, so as not to contribute to or overload the proposed NPSCY drainage system. As mentioned in the Report, more extensive stormwater basins were originally intended to the east of Pelican Point Road to service these future development areas (as per Figure 7 in the SMP) however they were never fully constructed and would not therefore have the capacity to service these future development areas. Further consideration should be given as to how future development would be designed in such a manner factoring in this constraint as identified.

Section 6.0 'Existing conditions' of the SMP includes several assumptions about how properties presently drain. This should be further reviewed to ensure such assumptions are correct.

It is noted that Section 7.5.2 'Treatment solutions' of the SMP references stormwater runoff treatment methods that could be incorporated including natural water sensitive urban design measures and including mechanical devices such as proprietary products like filtration systems, oil/water separators and gross pollutant traps (GPTs). The modelling undertaken has suggested a hybrid treatment train that incorporates both natural solutions and mechanical devices.

It is particularly concerning that Section 8.3 'Water Quality' references relevant pollutant reduction targets however also advises "*it may be deemed not viable to achieve these*".

If such targets were not to be satisfied, this would certainly not, with reference to the report conclusion, "*adhere with best practices for stormwater management in Australia and along Lefevre Peninsula*" and would potentially result in "significant adverse impacts." The report should be updated to remove reference to the possibility of these targets not being satisfied.

The SMP provided with the EIS is high level only and indicative only, based on limited information and numerous assumptions. The EIS places great emphasis on a suitable final detailed Stormwater Management Plan being prepared.

Recommendation 18

It is essential that Council be consulted prior to any approval of the final detailed Stormwater Management Plan and that a robust approval process be put in place in relation to this, which also involves Council.

Sustainable Use of Resources

Opportunities exist to achieve increased community benefits and sustainable use of resources, through:

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- Procurement that is informed by Circular Economy principles, including to minimise unnecessary consumption and waste generation and 'design for recycling'.
- Procurement of recycled materials, including those generated through the region's recycling programs.

See above comments and recommendations relevant to the local circular economy.

Hazards/Dangerous Substances/Nuclear Propulsion Systems

The EIS refers to Hazard analysis and proposed mitigation as being satisfied by ensuring compliance with existing Dangerous substances and ARPANSA legislation. The impact of a high consequence safety failure at one of the surrounding Major Hazard Facilities, or sites storing dangerous substances in quantities slightly less than required for MHF classification, and the potential for a cumulative hazard incident, needs to be carefully considered and may have an impact on the layout of the SCY sites and the location of activities occurring within those sites.

Land Tenure, Protected Areas and Land Use

The EIS response needs to provide greater consideration of the relationship of the development to residential development in the Lefevre Peninsula generally and more specifically, to the residential areas in closest proximity to the future development, particularly the residential areas in North Haven and Osborne. It should include reference to the long-standing peninsula wide issues of residential and industrial land use compatibility conflicts, and the various existing mechanisms that have been employed through legislation, zoning and industry practise to try to mitigate these conflicts. These mechanisms include on site design, off site overlays applied to surrounding land e.g. air and noise emissions overlays, and operator led community liaison and mitigation actions. The EIS should consider the case for such mechanisms to be applied to the SCY project.

Further to the south of the SCY site, over 500 existing residential zoned properties lie within a Significant Interface Management Overlay. The practical effect of this Overlay is to prevent further densification of these properties based on potential hazard risk. The extent of actual hazard risk remains unclear but the overlay remains in place based on the precautionary principle. The EIS response should consider the SCY's contribution to hazard risk on the Peninsula, the potential application of the precautionary principle until the additional hazard risk posed by the SCY is properly quantified and what mitigation measures should be applied. This should include consideration of whether the Significant Interface Management Overlay or some other residential density limiting mechanisms should be applied to residential areas. This will provide an important input to the Lefevre Peninsula master planning project currently underway.

The SCY response should specifically address existing and proposed future public access to the Port Adelaide River, open space and conservation areas such as Mutton Cove. This

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should include access to the river channel for recreational craft and confirmation of any impacts and restrictions for watercraft traversing the river channel as a result of security upgrades at the Osborne SCY. Compensatory mechanisms to support new or enhanced access opportunities in other locations, including off site, should be explored where existing access to the river, open space or conservation areas will be removed or reduced. This will contribute to efforts to help secure the project's social licence.

Recommendation 19

That matters relevant to the interface management, hazard management, public open space and recreational river access and navigation raised above are addressed in the EIS, subsequent planning and the development of the site.

Aboriginal Cultural Heritage

It is noted that the Aboriginal Heritage Assessment cannot be made public but that the proposed CEMP will outline specific strategies and procedures for:

- ensuring construction personnel are aware of the possibility of encountering unknown Aboriginal heritage sites and,
- that all required processes are undertaken should a site be encountered and documented in a site discovery procedure.

It is recommended that a detailed Cultural Heritage Management Plan (CHMP) is prepared by appropriate experts to provide a management framework for mitigating the potential impacts of the development on any unknown Aboriginal heritage sites, objects and remains for the life of the project. This should include a clear methodology for:

- engaging with the local Kurna community through the PAE Aboriginal Advisory Panel (The PAE - Yitpi Yartapuultiku Project showcased a good working example).
- heritage supervision requirements (monitoring and inspection of earthworks – the PAE Yitpi Yartapuultiku Project implemented local Kurna Members in Cultural Monitoring on site, during excavation in partnership with Australian Heritage Services, encouraging local involvement).
- cultural awareness training, communication protocols and reporting procedures.
- managing unexpected discoveries.

The CHMP should be designed to reduce the overall heritage impacts for the development and include consistent processes that can be applied to all locations with surface level and below ground construction impacts for the duration of works.

Recommendation 20

That a detailed Cultural Heritage Management Plan (CHMP) is prepared by appropriate experts to provide a management framework for mitigating the potential impacts of the

development on any unknown Aboriginal heritage sites, objects and remains for the life of the project.

Community Wellbeing/Social Impact Assessment

Council has concerns with several aspects of the Social Impact Assessment. The Social Impact Assessment does not address key indicators of disadvantage in the study area, which would be likely to have relevance to the way the development impacts on the local residents. For example, the high proportion of social housing is not mentioned. The study area has a higher rate of social housing (7.5%) than Greater Adelaide (5.5%), but it is particularly important that there is a concentration of social housing (10.6%) in the northern part of the study area, where there could be more intense impacts from the development.

Council considers that the health impact analysis in the Social Impact Assessment is inadequate due to poor data selection as well as analysis that lacks rigour. Specifically, there are existing health inequities in the resident population that the report should have identified. Data is readily available from the 2021 Census for the prevalence of chronic health conditions in the study area. Table 27 in the Social Impact Assessment report includes data from across the City of PAE for asthma, lung conditions, mental health conditions and cancer, and concludes:

“The rate of health conditions is quite similar between the City of Port Adelaide Enfield and Greater Adelaide. The City of Port Adelaide Enfield has slightly lower rates of asthma, mental health conditions, and cancer compared to Greater Adelaide. Lung conditions are slightly more prevalent in the City of Port Adelaide Enfield.”

When the 2021 Census data for these conditions in the study area is analysed, the conclusions are quite different. Residents in the study area actually have significantly higher rates of almost all chronic health conditions than Greater Adelaide. The two tables below present this data.

Long term health conditions			
North Haven - Osborne - Taperoo - Persons (Usual residence)		2021	
Long-term health conditions	Number	%	Greater Adelaide %
Arthritis	1,428	13.2	9.5
Asthma	1,192	11.0	8.7
Cancer (including remission)	440	4.1	3.1
Dementia (including Alzheimer's)	75	0.7	1.0
Diabetes	780	7.2	5.4
Heart disease	629	5.8	4.4
Kidney disease	121	1.1	0.9
Lung condition	279	2.6	1.8
Mental health condition	1,196	11.1	9.8

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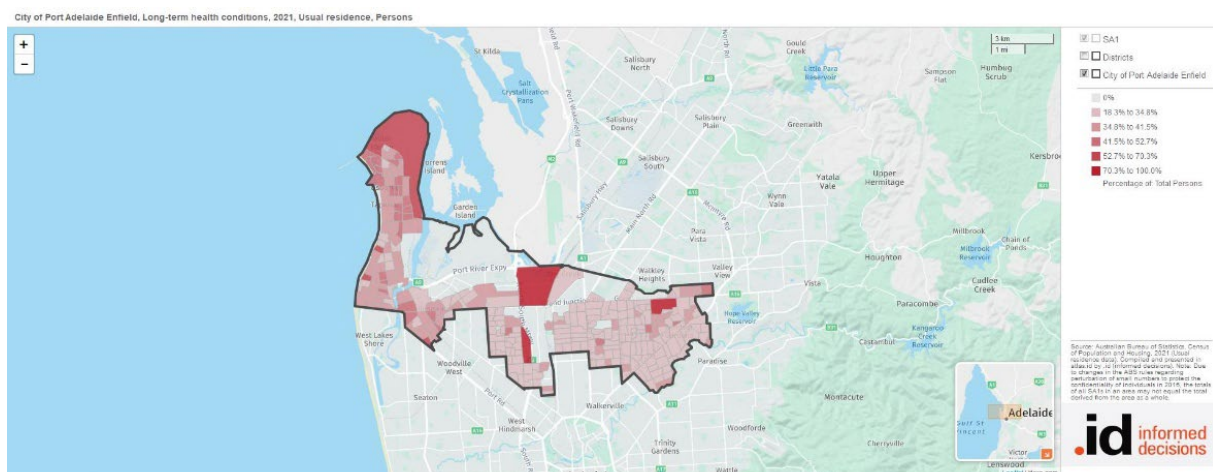
Stroke	157	1.5	1.0
Other long-term health condition	977	9.0	8.9

Long term health conditions

Largs Bay - Largs North and District - Persons (Usual residence)		2021	
Long-term health conditions	Number	%	Greater Adelaide %
Arthritis	1,780	11.4	9.5
Asthma	1,557	10.0	8.7
Cancer (including remission)	546	3.5	3.1
Dementia (including Alzheimer's)	241	1.5	1.0
Diabetes	854	5.5	5.4
Heart disease	773	4.9	4.4
Kidney disease	145	0.9	0.9
Lung condition	409	2.6	1.8
Mental health condition	1,861	11.9	9.8
Stroke	205	1.3	1.0
Other long-term health condition	1,611	10.3	8.9

Source: Australian Bureau of Statistics, [Census of Population and Housing 2021](#). Compiled and presented by [.id](#) (informed decisions).

It is Council's view that the data selected for the health section of the population profile is misleading because residents in other parts of the City of PAE have fewer chronic health conditions, as shown in the following map of long-term health conditions (2021 Census).



The Social Impact Assessment overlooks the existing health inequities that should have been included in the impact analysis. Compounding this, the study area has higher rates of low-income households, social housing and other indicators of disadvantage, as well as poorer access to medical services. These determinants of health could be contributing to health

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inequities, with potential implications for the way that additional noise, vibration, air quality issues, construction and traffic impact on the health and wellbeing of existing residents.

The larger proportion of Aboriginal and Torres Strait islander people in the study area should explicitly be addressed regarding health impacts. First Nations people comprise 3.3% of the population, compared to 1.7% in Greater Adelaide. There may be further unequal impacts on these community members that should be addressed in the Social Impact Assessment. Council requests that the health impacts of the proposal be assessed more explicitly in the report. The methodology described in section 7.1 makes it difficult to identify how the potential health impacts have been considered.

The Social Impact Assessment includes an age profile of the study area but does not include any analysis of the implications for the proposal. The existing population of the study area is older than the population of Greater Adelaide, with notably high proportions of people aged 50-74 years. When it comes to people aged 80 years and over, however, the proportion is lower than Greater Adelaide. This could reflect that residents have poorer health (reducing longevity) or that the housing options for aging in place and nursing home accommodation are unavailable. Both of these could explain the age structure trend described above. The housing tenure data for 'other tenure type' is also low at 1.5% compared to Greater Adelaide 2.5%, and this category includes nursing homes. This could present an area of opportunity for addressing existing and future housing needs of older residents of the study area, including the new residents who are part of the workforce who will also age over time.

Noting that there is considerable Commonwealth investment in the SCY, in an area where there are existing communities and established residential and employment areas, it is recommended that a percentage of this investment in either a community facility, (new or existing), community green/open space (recreation) or community service is warranted. The community can benefit from an investment in public realm spaces or places that in turn creates community cohesion and social connection.

In 2022, Council completed social infrastructure analysis for the City to inform a Social Infrastructure Plan (currently in development). The Social Infrastructure Review was undertaken on the basis of four districts, and the study area was included in the 'Western/Port District'. The analysis found that for the resident population of 40,225 people (2016) there was already a shortfall of key social infrastructure such as library and community centre floor space, and that this shortfall would increase with projected population growth to 2031. These calculations did not include impacts that could be anticipated from an additional workforce of 4,000 - 5,500 people during the construction and operational period of the development, or the additional residential population that it could create.

The workers who are employed at the SCY may live in the nearby short term accommodation options – consideration needs to be given to this population cohort about how they spend their leisure time outside of the SYC. This has implications for a range of community, recreation and sports facilities and open space.

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The proposed development will potentially exacerbate existing pressures on Council i.e. on provided social infrastructure as well as a number of community services and facilities provided by other levels of government, the private sector or not for profit organisations. Notably, there is already a shortfall of medical and health services for the current resident population. The Social Impact Assessment lists schools and early childhood services but there is no analysis presented of their capacity to meet demand arising from the development.

Council has assumed that there will be employment targets for Aboriginal / First Nations people within the contracts of supply, initial construction of the SCY and ongoing manufacture of the submarines.

Council would like to see all publicly available documentation written in plain English to make this accessible for those who have low levels of literacy (ability to read and write) and those who have English as a second language. Documentation may be perceived as onerous to read and technical in nature.

Council is concerned that the potential for negative impacts of gentrification have been minimised in the Social Impact Assessment. The report acknowledges that community composition will change as a result of the development and concludes that this will produce a net positive benefit. However, there could be serious consequences for low-income households if they are displaced, given the challenges with finding alternative affordable accommodation. These implications include higher housing and transport costs, reduced availability of household income for health, education, utilities and other essentials.

Recommendation 21

That opportunities for investment in local and District social infrastructure as outlined in this submission are prioritised.

Recommendation 22

That a new health impact analysis be undertaken with consideration of data about chronic health conditions from the 2021 Census.

Urban Design and Place-making

Feedback on aspects of urban design and placemaking impacts other than the comment below, have been made in other sections in this submission.

Landscaping, particularly tree planting, should be a fundamental feature of the consideration of Urban Design and Placemaking. The EIS response focuses on the impact of the SCY development on existing landscapes but needs to place more emphasis on the goals and opportunities for future landscaping.

Recommendation 23

While the EIS response commits to general amenity planting, more detailed goals and objectives should be provided to guide future design development and help reduce the likelihood of treeless, unsightly and hot development outcomes such as that evidenced via the recently developed large car park to the south of Area 1b in the SCY project (ref Figure 18.1 pg. 308).

Heritage Places and Areas

The proposal of Osborne being the preferred site for developing the SCY is creating contemporary history. Therefore, consideration needs to be given to the lodgment of any documentation to the Local History Collection at the PAE Libraries.

Documentation for inclusion to the local history collection should include any documents that have been made publicly available, especially those documents that have been utilised as part of community consultation and engagement – noting that many reports are classified as confidential in nature. It is critical that PAE Libraries capture and retain documentation for future reference and research.