

Appendix E – Prescribed Tidal Works Code Responses

Coastal Protection and Management Regulation 2017 - Code for assessable development that is prescribed tidal works

Performance outcome	Acceptable outcome	Response
<p>1.1 Prescribed tidal works in a canal are compatible with their location, having regard to the following—</p> <ul style="list-style-type: none"> a) the character and amenity of the works' immediate surroundings and the locality within which the works are located; b) if the relevant planning scheme states the desired character or amenity for the works' immediate surroundings or the locality within which the works are located—the stated desired character or amenity. 	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), prescribed tidal works do not extend past the side boundary or extended side boundary of the lot connected to the works; b) subject to paragraph (c)— <ul style="list-style-type: none"> i) for prescribed tidal works for a private purpose—the works are not roofed; or ii) for prescribed tidal works for a non-private purpose—the works are not roofed unless they are the main access to land; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b); d) any other relevant planning scheme standard that is not inconsistent with the standards mentioned in paragraphs (a) to (c). 	<p>Not applicable.</p> <p>The proposed works are not located within a canal as defined under the <i>Coastal Protection and Management Act 1995</i>.</p>
Character and amenity (generally)—prescribed tidal works not in a canal		
<p>2.1 Prescribed tidal works not in a canal are compatible with their location, having regard to the following—</p> <ul style="list-style-type: none"> a) the character and amenity of the works' immediate surroundings and the locality within which the works are located; 	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph(d), prescribed tidal works do not extend past the side boundary or extended side boundary of the lot connected to the works; 	<p>Complies with the acceptable outcome.</p> <p>The proposed prescribed tidal works are for a revetment wall not located in a canal and are located along Captain Cook Highway – a road asset under the control of TMR and fronting State Coastal Land. The works are in response to damages caused by</p>

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<p>b) if the relevant planning scheme states the desired character or amenity for the works' immediate surroundings or the locality within which the works are located—the stated desired character or amenity.</p>	<p>b) subject to paragraph (d), prescribed tidal works are the only works of their type along the edge of the tidal water fronting the lot connected to the works;</p> <p>c) subject to paragraph (d)</p> <p>i) for prescribed tidal works for a private purpose—the works are not roofed; or</p> <p>ii) for prescribed tidal works for a non-private purpose—the works are not roofed unless they are the main access to land;</p> <p>d) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a), (b) or (c)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a), (b) or (c);</p> <p>e) any other relevant planning scheme standard that is not inconsistent with the standards mentioned in paragraphs (a) to (d).</p>	<p>wave overtopping from Cyclone Jasper undermining the road and causing ongoing erosive pressures to the site. The current state of the site is an undermined and damaged road, whereby the proposed works would be for a public purpose and restore the character and amenity of the site to be compatible with the surrounding locations and area.</p>
Character and amenity (height, scale and size)		
<p>3.1 Prescribed tidal works are of a height, scale and size to ensure the works are compatible with the character and amenity of their location, having regard to the following—</p> <p>a) the height, scale and size of the natural features of the works' immediate surroundings and the locality within which the works are located;</p> <p>b) the height, scale and size of the existing buildings or other structures in the works' immediate surroundings and the locality within which the works are located;</p> <p>c) if the relevant planning scheme states the desired height, scale or size of buildings or</p>	<p>The height, scale and size of the prescribed tidal works is consistent with each relevant planning scheme standard.</p>	<p>Complies with the acceptable outcome.</p> <p>The Douglas Shire Council Planning Scheme does not specify the height, scale, and size of coastal structures which are prescribed tidal works. The proposed works have been designed to follow the natural grading slope of the beach profile as much as practical, with the inclusion of topsoil fill and rock fill to support rock armouring. The design of the revetment wall does not impose on the height, character or amenity of the Pebbly Beach foreshore.</p> <p>The proposed works have been designed to occupy the minimum footprint necessary to achieve the</p>

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<p>other structures in the works' immediate surroundings or the locality within</p> <p>d) which the works are located—the stated desired height, scale or size.</p>		<p>project objectives and design requirements. This includes reducing overall impacts to coastal processes, beach width loss, retaining trees where possible and ensuring road lanes may remain open as to not disturb the existing purpose of the road asset.</p>
Character and amenity (materials and colours)		
<p>4.1 The materials used for, and the colours of, prescribed tidal works are compatible with the character and amenity of the works' location, having regard to the following—</p> <p>a) the natural features of the works' immediate surroundings and the locality within which the works are located;</p> <p>b) the existing buildings or other structures in the works' immediate surroundings and the locality within which the works are located;</p> <p>c) if the relevant planning scheme states the desired materials to be used for, or desired colours of, buildings or other structures in the works' immediate surroundings or the locality within which the works are located—the stated desired materials or colours.</p>	<p>The materials used for, and colours of, the prescribed tidal works are consistent with each relevant planning scheme standard.</p>	<p>Complies with the acceptable outcome.</p> <p>The Douglas Shire Council Planning Scheme does not specify the materials to be used for prescribed tidal works. The proposed works have been designed to achieve the project objectives and design requirements using material commonly used for the construction of coastal protection works.</p> <p>These materials include:</p> <ul style="list-style-type: none"> • Natural rock and, • Geotextile fabric (permeable fabrics, made from either polypropylene or polyester)
Lighting		

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5.1 Lighting, other than an aid to navigation, for prescribed tidal works is installed in a way to ensure the security and safe use of the works without causing significant adverse effects on the amenity of the locality within which the works are located.

The lighting for the prescribed tidal works, other than an aid to navigation, is consistent with the following standards—

- a) subject to paragraph (c), lighting for prescribed tidal works is hooded and directed downwards;
- b) subject to paragraph (c), each lighting standard, to the extent relevant;
- c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent the standard is more stringent than the standard mentioned in paragraph (a) or (b);
- d) any other relevant planning scheme standard that is not inconsistent with the standards mentioned in paragraphs (a), (b) and (c).

Not applicable.

The prescribed tidal works does not require lighting to function for their intended purpose.

Signage

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<p>6.1 A sign erected or otherwise placed in position for prescribed tidal works, other than a sign erected or placed for safety reasons or under an Act—</p> <ul style="list-style-type: none"> a) is compatible with the character and amenity of the works' immediate surroundings and the locality within which the works are located; and b) is not a dominant feature of the works unless the dominance is for safety reasons. 	<p>A sign erected or otherwise placed in position for prescribed tidal works, other than a sign erected or placed for safety reasons or under an Act, is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), a sign erected or placed in position for identifying prescribed tidal works, or the owner of the works, is the only sign erected or placed in position for identifying the works or owner; b) subject to paragraph (c), a sign erected or otherwise placed in position for prescribed tidal works is integrated into the design and construction of the works; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b); d) any other relevant planning scheme standard that is not inconsistent with the standards mentioned in paragraphs (a), (b) and (c). 	<p>Complies with the prescribed outcome.</p> <p>The prescribed tidal works does not require signage under other legislation. However, TMR will erect safety signage as required.</p> <p>Any signage required as part of the proposed works will be compatible with the character and amenity of the works' immediate surroundings and is not a dominant feature of the works. Signage would be used to inform the public of the works associated with public access.</p>
<p>Earthwork, vegetation and rehabilitation</p>		
<p>7.1 Excavation and filling for prescribed tidal works—</p> <ul style="list-style-type: none"> a) is carried out only to the extent reasonably necessary for the works; and b) does not have a significant adverse effect on— <ul style="list-style-type: none"> i) the natural features, including the banks, of the tidal water in the works' immediate surroundings; or ii) the level of the surface of the land under the tidal water in the works' immediate 	<p>The earthwork and filling for the prescribed tidal works is consistent with each relevant planning scheme standard.</p>	<p>Complies with the acceptable outcome.</p> <p>The Douglas Shire Council Planning Scheme does not specify limits for excavation or filling associated with prescribed tidal works but does specify for operational works that <i>'all filling and excavation work does not create a detrimental impact on the slope stability, erosion potential or visual amenity of the site or the surrounding area'</i>. The proposed works have therefore been designed to ensure no detrimental impacts on the slope, stability, erosion or</p>

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surroundings or any foreshore near the works.		visual amenity occurs and to occupy the minimum footprint necessary to achieve the project objectives and design requirements. The works will involve excavation and 300mm of topsoil and rock fill at a diameter of at least 20cm ($D_{50} = 200\text{mm}$).
7.2 The location and construction of prescribed tidal works ensures vegetation is cleared or disturbed only to the extent reasonably necessary for the works.	<p>Vegetation on land affected by the prescribed tidal works is dealt with in a way consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), the clearing or disturbance of vegetation for a purpose associated with the construction of prescribed tidal works, including, for example, parking for construction or workers' vehicles or stockpiling of construction materials— <ul style="list-style-type: none"> i) is avoided; or ii) if the clearing or disturbance of vegetation for a purpose associated with the construction of the works cannot be avoided—the clearing or disturbance is limited to the smallest area of land reasonably necessary for the purpose; b) any other relevant planning scheme standard that is not inconsistent with the standard mentioned in paragraph (a) 	<p>Complies with the acceptable outcome.</p> <p>The clearing of vegetation for the construction of the proposed works is limited to the extent reasonably necessary to facilitate the works. There has been a concerted effort to minimise the impact of the structure on the existing vegetation with the rock revetment wall sited in front of the embankment with a crest at 4 m AHD (at least 1 m below the road level). This level was assessed using detailed assessment of wave run-up and overtopping impacts during extreme events and will offer protection to current and future road works constructed behind the foreshore. This crest level will preserve a significant number of the mature terrestrial trees and involve the removal of vegetation only where required.</p> <p>Despite this, all vegetation reasonably necessary along the length of the rock revetment wall (with a base below 4 m AHD) will be lost to protect the road asset from extreme coastal events and preserve coastal processes at Pebbly Beach.</p>
7.3 After the construction of prescribed tidal works, any land damaged or destabilised by, and any vegetation damaged, destroyed or removed by, the construction of the works is rehabilitated.	<p>Land or vegetation affected by the prescribed tidal works is dealt with in a way consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b)— 	<p>Complies with the acceptable outcome.</p> <p>TMR are in the process of preparing an EMP(C) for the construction of the works and ensure</p>

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	<ul style="list-style-type: none"> i) land surfaces damaged or destabilised by the prescribed tidal works are restored and stabilised; and ii) vegetation damaged, destroyed or removed by prescribed tidal works is replaced with native vegetation for the locality within which the works are located, to the extent it is reasonably practicable to replace the vegetation with native vegetation; <p>b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a);</p> <p>c) any other relevant planning scheme standard that is not inconsistent with the standards mentioned in paragraphs (a) and (b).</p>	<p>environmental management measures are designed to avoid or mitigate impacts to vegetation during construction. The construction contractor must submit a construction environmental management plan for approval prior to the commencement of works.</p> <p>To accommodate the proposed revetment construction, all vegetation that is located on the mid to lower slope area of the road embankment will be required to be removed. Replanting and rehabilitation is proposed, in the form of locally sourced seed of native vegetation reflective of the current species at the site, to allow vegetation planting that will assist to reinstate amenity and replace some marine values for vegetation over hanging HAT.</p>
Public access- Availability		
8.1 Prescribed tidal works do not have a significant adverse effect on the availability of public access to, along or across State coastal land.	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), prescribed tidal works do not involve the erection or placement of any physical barrier preventing existing public access to, along or across State coastal land near the works; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a); c) any other relevant planning scheme standard that is not inconsistent with the standards mentioned in paragraphs (a) and (b). 	<p>Complies with the performance outcome.</p> <p>The proposed works will enhance public amenity of the area and access to State Coast Land. The existing conditions are not safe for the public access or for traffic along the Captain Cook Highway. The proposed works will improve public safety, in particular the provision of dedicated public access stairs.</p> <p>Access to Pebbly Beach and adjacent areas will not be impacted by the footprint of the rock revetment wall, and in operational phase will provide safe access from the road to the foreshore (State coastal land).</p>

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		Therefore, the proposed works do not have a significant adverse effect on the availability of public access to, along or across State coastal land.
Public access- Safety		
9.1 The location and design of prescribed tidal works does not adversely affect the safety of members of the public accessing State coastal land.	Public access to State coastal land near the prescribed tidal works is consistent with each relevant planning scheme standard.	<p>Complies with the acceptable outcome.</p> <p>The proposed works will enhance public amenity of the area and access to State Coast Land. The existing conditions are not safe for the public access or for traffic along the Captain Cook Highway.</p> <p>The Douglas Shire Council Planning Scheme states that development located in the Coastal Management District should minimise loss of access to State coastal land, maintain public access to State coastal land and avoids private marina development attaching to non-tidal State coastal land. The proposed works are designed so that public access along the foreshore is not adversely affected and is improved for the operational stage. This includes access stairs located at specific locations along the revetment wall.</p>
Navigable access to, or egress from, lots that adjoin, or are in the immediate surroundings of, a lot connected to prescribed tidal works		

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<p>10.1 Prescribed tidal works that are for a private purpose do not adversely affect navigable access to, or navigable egress from, any lot that adjoins, or is in the immediate surroundings of, a lot connected to prescribed tidal works</p>	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), prescribed tidal works— <ul style="list-style-type: none"> i) for a lot connected to the works for which there is a water allocation area —are not constructed outside the water allocation area; and ii) for a lot connected to works for which there is no water allocation area —are no closer than 1.5m to that lot's side boundary or extended side boundary; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are for a public purpose.</p>
<p>Infrastructure, including, access, parking, sewerage and water services</p>		
<p>11.1 Prescribed tidal works have appropriate infrastructure, including, in particular, road access, parking facilities, sewerage services and water services, having regard to the following—</p> <ul style="list-style-type: none"> a) the nature and scale of the works; b) the number of people that may be on or at the works at any given time; c) the number of vehicles that may be on or moored at the works at any given time; d) the protection of any foreshores near the works and the vegetation and marine plants on the foreshores. 	<p>The infrastructure for prescribed tidal works is consistent with each relevant planning scheme standard.</p>	<p>Complies with the acceptable outcome.</p> <p>Where appropriate the proposed works have been designed to allow for public access, road access, parking and relevant services as per the Douglas Shire Council Planning Scheme.</p> <p>The parking area to the north will be maintained with earth fill and the overall visual impact is also reduced.</p> <p>The existing conditions are not safe for road access or traffic. The proposed works address this issue and will restore safe road access along the section of Captain Cook Highway.</p>
<p>Design, construction and safety—all prescribed tidal works</p>		

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<p>12.1 Prescribed tidal works are designed and constructed in a way to ensure they are structurally sound, having regard to the following—</p> <ul style="list-style-type: none"> a) relevant engineering standards; b) the location of the works; c) the purpose for which the works are to be used; d) the impact of flooding, storm tide, overtopping by waves, projected sea level rise, tidal influences and hydrodynamic forces; e) the design life of the works; f) the dead load of the works and the intended live load for the works; g) the impact of hydrostatic pressures on the works; h) the stability of individual components of the works, including, for example, boulders, concrete blocks or sandbags. 	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), each Australian Standard relevant to the design or construction of structures, to the extent requirements stated in the Standard apply to the design or construction of prescribed tidal works; b) subject to paragraph (c), the projected sea level rise is factored into the design and construction of the prescribed tidal works; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b). 	<p>Complies with the performance and acceptable outcomes.</p> <p>The design of the works has been certified by an RPEQ coastal engineer. The design follows national and international design guidelines: AS 4997, AS 2758.6, AS 1170, AS 4678, AS 1428.1, AS1726, Coastal Engineering Manual, Rock Manual, EuroTop Manual.</p> <p>The design is fit for purpose and the location as site specific conditions: wind climate, storm tide, wave climate, water levels (sea level rise) and sediment transport were considered.</p>
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<p>12.2 Prescribed tidal works do not adversely affect the structural integrity of any existing revetment or seawall or another existing structure.</p>	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph, prescribed tidal works, including any abutment, piling or other structure connected with the works— <ul style="list-style-type: none"> i) do not place an additional load on any existing revetment or seawall or another existing structure; or ii) can be structurally supported by an existing revetment or seawall or another existing structure; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Complies with the performance outcome.</p> <p>The proposed works will not adversely affect the structural integrity of any existing structures. Existing structures at the site have been noted in this planning report (refer Section 2.2.3) and considered during the design phases to either tie into the proposed design or left untouched (i.e., culverts along Captain Cook Highway).</p>
<p>12.3 Prescribed tidal works are designed and constructed in a way to ensure they do not adversely affect the stability of the bed and banks of tidal water.</p>	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), prescribed tidal works do not cause, by changing the flow of water, the removal of, or disturbance to, the sediment on the bed and banks of tidal water; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Complies with the performance outcome.</p> <p>The design of the proposed works has been informed by a geotechnical investigation (AECOM, 2024) and will not adversely affect the stability of the bed and banks of tidal water.</p>

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<p>12.4 Prescribed tidal works are designed and constructed using materials suitable for marine environments, having regard to their ability to resist the following—</p> <ul style="list-style-type: none"> a) attack by marine organisms; b) corrosion; c) deterioration or breakage resulting from exposure to environmental conditions including, for example, the following— <ul style="list-style-type: none"> i) abrasion; ii) immersion in seawater; iii) wave action. 	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), each Australian Standard relevant to the materials that should be used, or the measures that should be taken to treat materials used, for structures, to the extent the requirements stated in the Standard apply to structures located in a marine environment; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Complies with the acceptable outcome.</p> <p>The technical specification requires the use of armour rock and other construction materials that are suitable for a marine environment. The only materials bring used are rock and geofabric layer (BIDIM A64 – compliant with AS9001), both which are suitable for the marine environment</p>
<p>12.5 Prescribed tidal works are designed and constructed in a way to ensure they do not adversely affect the operation or maintenance of any existing stormwater outlet.</p>	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), vessels moored at prescribed tidal works do not impede the discharge of stormwater; b) subject to paragraph (c), prescribed tidal works do not restrict access to any stormwater outlet; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b). 	<p>Complies with the acceptable outcome.</p> <p>The design of the revetment wall retains the existing stormwater drainage (i.e. culverts) located within the works area.</p>
<p>12.6 Prescribed tidal works are designed and constructed in a way to ensure they do not adversely affect the water quality of tidal water, including, in particular, as a result of—</p> <ul style="list-style-type: none"> a) release, into the tidal water, of materials used in the construction of the works; or 	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), each Australian Standard relevant to the design or construction of structures under, within or over tidal water, to the extent the requirements stated in the Standard are directed at maintaining the water quality of tidal water; 	<p>Complies with the acceptable outcome.</p> <p>TMR are in the process of developing an EMP(C) for the construction of the works and ensure environmental management measures are designed to avoid or mitigate impacts to water quality, disturbance to the bed or banks or exposure to acid sulphate soils during construction. The construction</p>

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<ul style="list-style-type: none"> b) disturbance to the sediment on the bed and banks of the tidal water; or c) exposure to acid sulphate soils. 	<ul style="list-style-type: none"> b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>contractor must submit a construction environmental management plan for approval prior to the commencement of works.</p> <p>Standard measures will be undertaken during construction such as works outside of high tide, and storage of chemicals and fuels (and refuelling) as far as practical from tidal areas to avoid release into tidal water. Standard erosion and sediment control practices will be followed, and if required, in accordance with an Erosion and Sediment Control Plan and Acid Sulphate Soil Management Plan.</p> <p>No adverse impacts to the water quality of tidal water will occur during the operational phase.</p>
<p>12.7 Prescribed tidal works are designed and constructed in a way to ensure they are safe for persons using the works.</p>	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (d), each Australian Standard relevant to the design or construction of structures, the materials that should be used, or the measures that should be taken to treat materials used, for structures, to the extent the requirements stated in the Standard are directed at ensuring any surface of prescribed tidal works on which a person may stand or walk is— <ul style="list-style-type: none"> i) not slippery; and ii) does not have any feature that may cause the person to trip or fall; b) subject to paragraph (d), any part of prescribed tidal works that is unsafe for persons using the works is surrounded by adequate barriers to deter persons from entering the part; c) subject to paragraph (d), each Australian Standard relevant to the design or construction 	<p>Complies with the acceptable outcome.</p> <p>A safety in design assessment has been undertaken in support of the detailed design of the proposed works. The safety in design assessment has been provided in the Basis of Design report attached in Appendix K (Royal HaskoningDHV, 2024b).</p>

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	<p>of structures, to the extent the requirements stated in the Standard are directed at ensuring prescribed tidal works provide safety ladders or other design features for the safety of a person who falls off the works into water;</p> <p>d) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a), (b) or (c)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a), (b) or (c).</p>	
<p>12.8 Appropriate measures are taken for prescribed tidal works for a non-private purpose to ensure an unsupportable live load is not applied to the works by persons or vehicles.</p>	<p>The design and construction of the prescribed tidal works is consistent with the following standards—</p> <p>a) subject to paragraph (b), prescribed tidal works have erected or placed in position on or near the works, a sign that—</p> <ul style="list-style-type: none"> i) is visible at all times; and ii) states the maximum live load that may be applied to the works, in terms of the maximum number of persons that may be on the works at any given time or the maximum number of vehicles of a particular type that may be on or moored at the works at any given time; <p>b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a).</p>	<p>Complies with the performance and acceptable outcomes.</p> <p>The proposed works have been designed for the anticipated live loads.</p>

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<p>12.9 Prescribed tidal works, other than a prescribed deck for a private purpose, are designed and constructed in a way to ensure the use of tidal water in a canal for a non-maritime purpose is minimised.</p>	<p>The design and construction of the prescribed deck is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), a prescribed deck does not extend more than 3m from the waterfront boundary of the lot connected to the deck; b) subject to paragraph (c), a prescribed deck is at least 3m inside of the side boundary or extended side boundary of the lot connected to the deck; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b). 	<p>Not applicable.</p> <p>The works are not within a canal.</p>
<p>Design, construction and safety—boat ramps and slipways for private purpose</p>		
<p>13.1 Prescribed tidal works that are a boat ramp or slipway for a private purpose are designed and constructed in a way to ensure they are structurally sound while also ensuring the safe movement of vehicles or persons between the boat ramp or slipway and the surface of the land on which the boat ramp or slipway is located.</p>	<p>The design and construction of the boat ramp or slipway is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), the walls at the edge of the boat ramp or slipway penetrate into the earth at least 600mm below the surface of the land on which the boat ramp or slipway is located; b) subject to paragraph (c), the surface of the boat ramp or slipway is no more than 200mm above the surface of the land on which it is located; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b). 	<p>Not applicable.</p> <p>The works are not a boat ramp or slipway for a private purpose.</p>

Project related

<p>13.2 Prescribed tidal works that are a boat ramp or slipway for a private purpose are designed and constructed in a way to ensure the safe movement of vehicles or persons over the boat ramp or slipway.</p>	<p>The design and construction of the boat ramp or slipway is consistent with the following standards—</p> <ul style="list-style-type: none"> i. subject to paragraph (d), the upper surface of a boat ramp or slipway has a width of— <ul style="list-style-type: none"> i) for a boat ramp or slipway with vehicle access—no less than 3.6m; or ii) for a boat ramp or slipway without vehicle access—no less than 3.0m; b) subject to paragraph (d), the whole upper surface of a boat ramp or slipway is treated to prevent it from becoming slippery by using any of the following methods— <ul style="list-style-type: none"> i) forming grooves over the surface, as close as possible to 40mm wide, 20mm deep and 150mm apart, and at an angle as close as possible to 70° to the centre-line of the boat ramp or slipway; ii) covering the surface with a substance ordinarily used on slippery surfaces to prevent skidding; iii) making, through a physical act, the surface coarse before it sets, including, for example, by raking the surface; c) subject to paragraph (d), the upper surface of a boat ramp or slipway for which a winch is not used to hoist or haul vessels onto the boat ramp or slipway is at a gradient of not steeper than— <ul style="list-style-type: none"> i) if the surface is treated by using a method mentioned in paragraph (b)(i) or —1:7; or ii) otherwise—1:10; d) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a), (b) or (c)—the relevant planning scheme standard, to the extent it is more 	<p>Not applicable.</p> <p>The works are not a boat ramp or slipway for a private purpose.</p>
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Project related

	stringent than the standard mentioned in paragraph (a), (b) or (c).	
Design, construction and safety- bridges		
14.1 Prescribed tidal works that are a bridge do not adversely affect existing public use of tidal water, including, for example, use of the tidal water for canoeing, swimming or other recreational activities.	<p>The design and construction of the bridge is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), the clearance levels under a bridge are high enough to allow continued public use of tidal water over which it is constructed; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a bridge.</p>
Design, construction and safety—prescribed decks		
15.1 Prescribed tidal works that are a prescribed deck and for a private purpose are designed and constructed in a way to ensure the deck is able to support its intended loads, having regard to its relevant loading matters.	<p>The design and construction of the prescribed deck is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the prescribed deck— <ul style="list-style-type: none"> i) AS/NZS 1170.0; ii) AS/NZS 1170.1; iii) AS/NZS 1170.2; iv) AS 4997; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme 	<p>Not applicable.</p> <p>The works are not a deck.</p>

Project related

	standard, to the extent it is more stringent than the standard mentioned in paragraph (a).	
15.2 Prescribed tidal works that are a prescribed deck and for a non-private purpose are designed and constructed in a way to ensure the deck is able to support its intended loads, having regard to its relevant loading matters.	<p>The design or construction of the prescribed deck is consistent with the following standards—</p> <p>a) subject to paragraph (b), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of a prescribed deck—</p> <ul style="list-style-type: none"> i) AS/NZS 1170.0; ii) AS/NZS 1170.1; iii) AS/NZS 1170.2; iv) AS 1170.4; v) AS 4997; <p>b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a).</p>	<p>Not applicable.</p> <p>The works are not a deck.</p>

Project related

<p>15.3 Prescribed tidal works that are a prescribed deck do not prevent or hinder remedial work being undertaken on any bank of tidal water or for any existing revetment or seawall or another existing structure.</p>	<p>The design and construction of the prescribed deck is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), a prescribed deck either <ul style="list-style-type: none"> i) can be easily dismantled and reassembled; or ii) does not restrict the movement of machinery ordinarily used for remedial work to any bank of tidal water or any existing revetment or seawall or other existing structure; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a deck.</p>
<p>Design, construction and safety—jetties and piers</p>		
<p>16.1 Prescribed tidal works that are a jetty or pier are designed and constructed in a way to ensure the jetty or pier is able to support its intended loads, having regard to its relevant loading matters.</p>	<p>The design and construction of the jetty or pier is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the jetty or pier— <ul style="list-style-type: none"> i) AS/NZS 1170.0; ii) AS/NZS 1170.1; iii) AS/NZS 1170.2; (iv) AS 1170.4; iv) AS 4997; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a jetty or pier.</p>

Project related

<p>16.2 Prescribed tidal works that are a jetty or a pier are designed and constructed in a way to ensure the jetty or pier remains above the water at highest astronomical tide.</p>	<p>The design and construction of the jetty or pier is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), either— <ul style="list-style-type: none"> i) the level of the deck of the jetty or pier is at least 300mm above the water at highest astronomical tide; or ii) piles or other markers indicate the presence of the jetty or pier when the jetty or pier is less than 300mm above the water at highest astronomical tide; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a jetty or pier.</p>
<p>16.3 Prescribed tidal works that are a jetty or pier and for a private purpose and are on State tidal land are designed and constructed in a way to ensure the jetty or pier is of a size suitable for the use of a vessel while still minimising the amount of tidal water occupied by the jetty or pier.</p>	<p>The design and construction of the jetty or pier is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b)— <ul style="list-style-type: none"> i) all parts of the deck of the jetty or pier have a width of at least 900mm and not more than 3m; and ii) all parts of the jetty or pier are within a water allocation area for the lot connected to the jetty or pier; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a jetty or pier.</p>
<p>Design, construction and safety—pipelines and other underground services</p>		

Project related

<p>17.1 The design and construction of prescribed tidal works that are a pipeline or another underground service ensures vessels anchoring near the works can not interfere with, or damage, the works.</p>	<p>The design and construction of the pipeline or underground service is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b)— <ul style="list-style-type: none"> i) for a pipeline that is gas or liquid petroleum pipeline—AS/NZS 2885 to the extent requirements stated in the Standard apply to the design or construction of the pipeline; or ii) for another pipeline or other underground service—the pipeline or service is installed at least 1.2m below the surface of land, after it is installed. b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a pipeline or another underground service.</p>
<p>Design, construction and safety—pontoons</p>		
<p>18.1 Prescribed tidal works that are a pontoon and not used only for rowing, are designed and constructed in a way to ensure the pontoon is able to support its intended loads, having regard to its relevant loading matters.</p>	<p>The design and construction of the pontoon is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the pontoon— <ul style="list-style-type: none"> i) AS/NZS 1170.0; ii) AS/NZS 1170.1; iii) AS/NZS 1170.2; iv) AS 1170.4; v) AS 3962; vi) AS 4997; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme 	<p>Not applicable.</p> <p>The works are not a pontoon.</p>

Project related

	standard, to the extent it is more stringent than the standard mentioned in paragraph (a).	
18.2 Prescribed tidal works that are a pontoon and used only for rowing are designed and constructed in a way to ensure— (a) the pontoon is able to support its intended loads, having regard to its relevant loading matters; and (b) the pontoon is safe for persons using the pontoon to launch and retrieve rowing vessels.	<p>The design and construction of the pontoon is consistent with the following standards—</p> <p>a) subject to paragraph (b)—</p> <p>i) for a pontoon constructed within a marina— AS 3962 to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the pontoon; or</p> <p>ii) for a pontoon not constructed within a marina— (A) the access walkway of a pontoon used only for rowing is able to support at least a live load of 3.0kPa; and (B) the flotation unit of a pontoon used only for rowing is able to support at least a live load of 1.5kPa; and (C) at least 75mm of the height of the pontoon's flotation unit will remain above the surface of the water over which it is constructed if a distributed live load is applied to half of the surface of the pontoon's flotation unit and all of the surface of the pontoon's access walkway;</p> <p>b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a).</p>	<p>Not applicable.</p> <p>The works are not a pontoon.</p>

Project related

<p>18.3 Prescribed tidal works that are a pontoon are designed and constructed in a way to ensure any load applied to the pontoon by a person or thing on the pontoon does not cause the pontoon to tip over or tilt to a degree causing the person or thing to fall off the pontoon.</p>	<p>The design and construction of the pontoon is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b)— <ul style="list-style-type: none"> i) for a pontoon constructed within a marina— AS 3962 to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the pontoon; or ii) for a pontoon not constructed within a marina— (A) the pontoon’s access walkway extends at least 500mm onto the pontoon’s flotation unit; and (B) for a pontoon used only for rowing—at least 75mm of the height of the pontoon’s flotation unit remains above the water over which it is constructed if a distributed live load is applied to half of the surface of the pontoon’s flotation unit and all of the surface of the pontoon’s access walkways; and (C) for a pontoon other than a pontoon mentioned in sub-subparagraph (B)—the top surface of the pontoon’s flotation unit remains above the water over which it is constructed if a distributed live load of 1.5kPa is applied to half of the surface of the pontoon’s flotation unit and all of the surface of the pontoon’s access walkways; and (D) the whole base of the pontoon’s flotation unit remains in contact with the water over which it is constructed at all times and tilts no more than 15° at any time; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme 	<p>Not applicable.</p> <p>The works are not a pontoon.</p>
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Project related

	standard, to the extent it is more stringent than the standard mentioned in paragraph (a).	
18.4 Prescribed tidal works that are a pontoon are designed and constructed in a way to ensure the pontoon's flotation unit will— (a) rise and fall to allow for a change in tidal water levels, including a change caused by a flood or storm tide; and (b) not be separated from the lot to which the pontoon is connected because of— (i) a change in tidal water levels mentioned in paragraph (a); or (ii) the flow of tidal water around the pontoon, including tidal water affected by a flood or storm tide.	<p>The design and construction of the pontoon is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), the pontoon's flotation unit is— <ul style="list-style-type: none"> i) attached, through the pontoon's system for mooring the unit, to concrete anchors in the bank landward of the pontoon; or ii) moored by piles; b) subject to paragraph (c), if a tidal water level change resulting from a flood or storm tide with an AEP of 1% would cause a pontoon's flotation unit to detach from the system for mooring the unit— <ul style="list-style-type: none"> i) the standard applying under paragraph (a); and ii) the pontoon's flotation unit is restrained with a tethering system so that it can withstand the effects of the event; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more 	<p>Not applicable.</p> <p>The works are not a pontoon.</p>

Project related

	stringent than the standard mentioned in paragraph (a) or (b).	
18.5 Prescribed tidal works that are a pontoon identifies the lot to which the pontoon is connected.	<p>The design and construction of the pontoon is consistent with the following standards—</p> <ul style="list-style-type: none"> a) a label that identifies the lot to which the pontoon is connected is written or stamped on, or fixed to, the outside of the pontoon's flotation unit; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a pontoon.</p>

Project related

18.6 Prescribed tidal works that are a pontoon permanently used for the fuelling of, or the storage of fuel for, vessels are designed and constructed in a way to ensure— (a) the pontoon is able to support its intended loads, having regard to its relevant loading matters; and (b) the pontoon is safe for persons using the pontoon.

The design and construction of the pontoon is consistent with the following standards—

- a) subject to paragraph (c), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the pontoon—
 - i) AS/NZS 1170.0;
 - ii) AS/NZS 1170.1;
 - iii) AS/NZS 1170.2;
 - iv) AS 1170.4;
 - v) AS 4997;
- b) subject to paragraph (c), AS 3962 to the extent requirements stated in the Standard apply to a pontoon permanently used for the fuelling of, or the storage of fuel;
- c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b).

Not applicable.

The works are not a pontoon.

Design, construction and safety—revetments and seawalls

Project related

<p>19.1 Prescribed tidal works that are a revetment or seawall, are designed and constructed in a way to ensure the revetment or seawall is able to support its intended loads, having regard to its relevant loading matters and its intended design life.</p>	<p>The design and construction of the revetment or seawall is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (c), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the revetment or seawall— <ul style="list-style-type: none"> i) AS/NZS 1170.0; ii) AS/NZS 1170.1; iii) AS/NZS 1170.2; iv) AS 1170.4; v) AS 4997; b) subject to paragraph (c), AS 4678 to the extent requirements stated in the Standard apply to earth-retaining structures; c) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a) or (b)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a) or (b). 	<p>Complies with the performance and acceptable outcomes.</p> <p>Where applicable the design has been prepared in accordance with the listed Australian standards in the acceptable outcomes.</p>
<p>19.2 Prescribed tidal works that are a revetment or seawall, are designed and constructed in a way to ensure the revetment or seawall can withstand—</p> <ul style="list-style-type: none"> a) any tendency of overturning or sliding; and b) any other effects of waves or changes in water levels on the revetment or seawall. 	<p>The design and construction of the revetment or seawall is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (d), a revetment or seawall is able to withstand the effect of waves, or a combination of waves and water levels, resulting from a storm event with an AEP of 2%, factoring in projected sea level rise; b) subject to paragraph (d), each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the revetment or seawall— <ul style="list-style-type: none"> i) AS/NZS 1170.0; ii) AS/NZS 1170.1; 	<p>Complies with the performance and acceptable outcomes.</p> <p>The design has been prepared in accordance with the listed Australian standards in the acceptable outcomes.</p> <p>The structure has considered water levels and wave conditions (refer Section 0) and is designed to sustain up to 5% damage in a 200-year ARI event, balancing stability with cost-effectiveness. It is also capable of withstanding a 20-year ARI event with no damage.</p>

Project related

	<ul style="list-style-type: none"> iii) AS/NZS 1170.2; iv) AS 1170.4; v) AS 4997 d) subject to paragraph (d), AS 4678 to the extent requirements stated in the Standard apply to earth-retaining structures; e) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a), (b) or (c)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a), (b) or (c). 	<p>The design parameters are provided in Section 3.4 of this report and more comprehensively in the Basis of Design report (RHDHV, 2024).</p>
<p>19.3 Prescribed tidal works that are a revetment or seawall are designed and constructed to protect the revetment or seawall from erosion at the base of the revetment or seawall.</p>	<p>The design and construction of the revetment or seawall is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (d), a revetment or seawall provides for a sub-layer or enough filter material to prevent erosion of the land under the revetment or seawall; b) subject to paragraph (d), the bottom edge of the base of a revetment or seawall will withstand undermining by scour; c) subject to paragraph (d), AS 2758 to the extent requirements stated in the Standard apply to the sizing and grading of filter layers and armour materials; d) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a), (b) or (c)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a), (b) or (c). 	<p>Complies with the performance and acceptable outcomes.</p> <p>The proposed works include a toe to accommodate scour at the base of the revetment wall. The toe elevation has been designed at 0.35 m AHD but may extend as low as 0 m AHD. This variation has been addressed by applying a conservative sea-level rise (SLR) allowance.</p> <p>The design parameters are provided in Section 3.4 of this report and more comprehensively in the Basis of Design report (RHDHV, 2024).</p>

Project related

<p>19.4 Prescribed tidal works that are a revetment or seawall are not adversely affected by hydrostatic pressure.</p>	<p>The design and construction of the revetment or seawall is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b), AS 4678 to the extent requirements stated in the Standard apply to hydrostatic pressure for earth-retaining structures; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Complies with the performance and acceptable outcomes.</p> <p>The revetment wall is a porous structure and allows for flow of water through the structure and would not result in increased hydrostatic pressure behind the structure.</p>
<p>Design, construction and safety—wharves</p>		
<p>20.1 Prescribed tidal works that are a wharf are designed and constructed in a way to ensure it is able to support its intended loads, having regard to its relevant loading matters.</p>	<p>The design and construction of the wharf is consistent with the following standards—</p> <ul style="list-style-type: none"> a) subject to paragraph (b)— <ul style="list-style-type: none"> i) for a wharf constructed within a marina—AS 3962 to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the wharf; or ii) for a wharf not constructed within a marina—each of the following Australian Standards to the extent requirements stated in the Standard apply to relevant loading matters for the design or construction of the wharf— (A) AS/NZS 1170.0; (B) AS/NZS 1170.1; (C) AS/NZS 1170.2; (D) AS 1170.4; (E) AS 4997; b) if a relevant planning scheme standard is more stringent than the standard mentioned in paragraph (a)—the relevant planning scheme standard, to the extent it is more stringent than the standard mentioned in paragraph (a). 	<p>Not applicable.</p> <p>The works are not a wharf.</p>

Appendix F – State Development Assessment Provisions – State Code Responses

State Code 7: Maritime safety

Table 7.1: Operational work

Performance outcomes	Acceptable outcomes	Response
Visibility		
PO1 Lighting does not distract attention away from, or otherwise reduce the effectiveness of, aids to navigation .	AO1.1 Lights are shielded to prevent glare or reflection. AND AO1.2 Development does not include flood lighting, flashing lights, flickering lights, or lights coloured green, blue or red.	Complies with performance and acceptable outcomes (PO1, AO1.1 and AO1.2). The proposed works does not include flood lighting, flashing lights, flickering lights, or lights coloured green, blue or red.
PO2 Development is designed and constructed to be visible to mariners, to avoid the risk of collision.	No acceptable outcome is prescribed.	Complies with performance outcomes. The proposed works have been designed to be visible to mariners and avoids the risk of collision.
Aids to navigation		
PO3 Development does not interfere with the operation of aids to navigation .	AO3.1 Development does not destabilise aids to navigation, including ground tackle. AND AO3.2 Development does not obstruct sight lines to aids to navigation . AND AO3.3 Development keeps sight lines of any aids to navigation which cross the land clear of obstructions. AND	Complies with performance and acceptable outcomes (PO3, AO3.1, AO3.2, AO3.3, AO3.4 and AO3.5). The proposed works do not obstruct, destabilise, or interfere with the sight lines or operation of aids to navigation. The proposed works do not interfere with existing access to aids to navigation for maintenance purposes or result in electrical or electro-magnetic emissions that impede the operations of aids to navigation.

Project related

Performance outcomes	Acceptable outcomes	Response
	<p>AO3.4 Development does not interfere with existing access to aids to navigation for maintenance purposes.</p> <p>AND</p> <p>AO3.5 Development does not result in electrical or electro-magnetic emissions that impede the operation of aids to navigation.</p>	
Protection of navigable waterways		
PO4 Development does not obstruct the safe movement of vessels in a navigable waterway .	No acceptable outcome is prescribed.	<p>Complies with performance outcomes.</p> <p>The proposed works have been designed to enhance access to the area and does not obstruct the safe movement of vessels in a navigable waterway.</p>

State Code 8: Coastal Development and Tidal Works

Table 8.1: All Development

Performance outcomes	Response
Development in the erosion prone area	
<p>PO1 Development is only permitted in the erosion prone area where it:</p> <ol style="list-style-type: none"> is one of the following types of development: <ol style="list-style-type: none"> coastal-dependent development; or temporary, readily relocatable or able to be abandoned; or essential community infrastructure; or redevelopment of an existing permanent building or structure that cannot be relocated or abandoned; and cannot feasibly be located elsewhere; or is located landward of: <ol style="list-style-type: none"> a fit for purpose revetment; or a proposed revetment that is consistent with: <ol style="list-style-type: none"> an agreement with a local government; or the alignment of adjacent lawful revetments; or is on a lot less than 2000m² where a coastal building line is present. 	<p>Complies with PO1.</p> <p>The proposed works in the erosion prone area are coastal-dependent development and essential works to respond to damages and erosive pressures. The proposed works also cannot be feasibly located outside the erosion prone area given the nature of damages to the road asset backing the Pebbly beach foreshore.</p> <p>The objective of these works is to provide safe formalised access to Pebbly Beach by addressing the significant damages to the road asset due to Cyclone Jasper. Given the development is a response to wave overtopping caused by Cyclone Jasper in a coastal zone, it has a functional requirement to be located on tidal land and cannot feasibly be located elsewhere.</p>
<p>PO2 Development (other than coastal protection work) in the erosion prone area:</p> <ol style="list-style-type: none"> does not adversely impact coastal processes; and ensures that the protective function of landforms and vegetation is maintained. <p>Note: In considering reconfiguring a lot applications, the State may require land in the erosion prone area to be surrendered to the State for coastal management purposes under the <i>Coastal Protection and Management Act 1995</i>.</p> <p>Where the planning chief executive receives a copy of a land surrender requirement or proposed land surrender notice under the <i>Coastal Protection and Management Act 1995</i>, this must be considered in assessing the application.</p>	<p>Not applicable.</p> <p>The application is coastal protection works.</p>
<p>PO3 Development is sited, designed and constructed to limit the risk of impacts of coastal erosion to an acceptable level by:</p> <ol style="list-style-type: none"> locating development outside the erosion prone area; or mitigating or otherwise accommodating the risks posed by coastal erosion. 	<p>Complies with PO3.</p> <p>The proposed works are located within the erosion prone area. The works are considered coastal protection works, and by nature is addressing and mitigating risks posed by coastal erosion.</p>

Performance outcomes	Response
	<p>Given the development is a response to wave overtopping caused by Cyclone Jasper in a coastal zone, it has a functional requirement to be located on tidal land and cannot feasibly be located elsewhere. The proposed works have been located as far landward as practical, taking into account the potential impacts to coastal processes and loss of beach width. The preferred option of a wider continuous rock revetment wall accommodates the least impact to coastal processes at Pebbly Beach and placement of pebbles once construction has concluded allows the beach profile to naturally form.</p> <p>Considering the do-nothing scenario, the most appropriate response to reducing coastal erosion at the site is to undertake the propose works in the form of coastal protection works that aim to reduce erosion at the site.</p>
PO4 Development in the erosion prone area does not significantly increase the risk or impacts to people and property from coastal erosion .	<p>Complies with PO4.</p> <p>The coastal protection works have been designed to reduce the risk of coastal hazards (i.e., beach erosion) and by their nature do not significantly increase the risk or impacts to people and property from coastal erosion. The wide continuous revetment wall has been designed to protect the foreshore from further erosion and protect the road asset backing the foreshore under a robust 200-year ARI event.</p> <p>While no risks or impacts are expected to people or property, TMR will inform residents within a 300-600m distance of the proposed works to ensure they are aware of ongoing works.</p>
PO5 Development (other than coastal protection work) in the erosion prone area does not directly or indirectly increase the severity of coastal erosion either on or off the site.	<p>Not applicable.</p> <p>The application is for coastal protection works.</p>
PO6 In erosion prone areas where a coastal building line is present, building work is located landward of the coastal building line unless coastal protection work has been constructed to protect the development.	<p>Not applicable.</p> <p>The application does not involve building works seaward of a coastal building line.</p>
Artificial waterways	
PO7 Development of artificial waterways , canals and dry-land marinas conserves coastal resources by:	Not applicable.
1. ensuring changes to water flows, water levels and sediment movement do not adversely impact the natural waterway to which it is connected;	The application does not include development of an artificial waterway.

Performance outcomes	Response
2. demonstrating appropriate storage, treatment and disposal of dredged material for the life of the development.	
Coastal protection work	
PO8 Works for beach nourishment minimises adverse impacts on coastal processes .	Not applicable. The application does not include beach nourishment works.
PO9 Works for beach nourishment do not increase the severity of erosion on adjacent land.	Not applicable. The application does not include beach nourishment works.
PO10 Erosion control structures (excluding revetments) are only constructed where there is an imminent threat to significant buildings or infrastructure , and there is no feasible option for either: 1. beach nourishment ; or 2. relocation or abandonment of structures.	Not applicable. This application is for a revetment.
PO11 Erosion control structures (revetments only) are only constructed where: 1. there is an imminent threat to significant buildings or infrastructure , and there is no feasible option for either: a. beach nourishment ; or b. relocation or abandonment of structures; or 2. the development: a. is in a consistent alignment with adjacent lawful revetments ; or b. is consistent with an agreement with a local government that a revetment is appropriate in the proposed location.	Complies with PO11. The proposed works are designed to protect existing road assets, nearby potential infrastructure and public access under imminent threat from erosion. Due to the nature of the road asset there is no viable option to relocate or abandon the structures. The development has been proposed by TMR and thus is appropriate for the proposed location as Captain Cook Highway is a state controlled road under control of TMR. Additionally, to meet the intended design objectives, the rock revetment wall proposed is the most feasible solution. The alignment of the structure has been based on the location of the road asset to be protected and the natural beach profile. Beach nourishment is not feasible at the site due to the geomorphology and the special nature of this shoreline (pebbly foreshore) which is an important feature of this section of beach to the local public and tourists. Beach nourishment would be required as an ongoing exercise every 5 to 10 years and cover the pebbles, taking away the uniqueness of this section of coastline – therefore rendering it not feasible for this section of the coastline.
PO12 Erosion control structures minimise interference with coastal processes and reduce the severity of erosion on adjacent land.	Complies with PO12. The proposed works are located as far landward as possible and occupy the smallest footprint practical in order to minimise interference with coastal

Performance outcomes	Response
	processes while achieving the required level of protection from design storm conditions.
Water quality	
PO13 Development: <ol style="list-style-type: none"> 1. maintains or enhances environmental values of receiving waters; 2. achieves the water quality objectives of Queensland waters; 3. avoids the release of prescribed water contaminants to tidal waters. 	<p>Complies with PO13.</p> <p>The development will maintain environmental values of waters in the area and has been designed to avoid releases of contaminants to local waters, thereby achieving Queensland water quality objectives. Upon completion of the works, the proposed works is not expected to adversely impact water quality in the area.</p> <p>TMR are in the process of preparing an EMP(C) for the construction of the works and ensure environmental management measures are designed to avoid or mitigate impacts to receiving waters during construction. The construction contractor must submit a construction environmental management plan for approval prior to the commencement of works.</p>
Public use of and access to State coastal land	
PO14 Development maintains or enhances public use of and access to and along State coastal land (except where this is contrary to the protection of coastal resources or public safety).	<p>Complies with PO14</p> <p>The proposed works will enhance public amenity of the area and access to State Coast Land. The existing conditions are not safe for the public access or for traffic along the Captain Cook Highway. The proposed works will improve public safety, in particular the provision of dedicated public access stairs.</p> <p>Access to Pebbly Beach and adjacent areas will not be impacted by the footprint of the rock revetment wall, and in operational phase will provide safe access from the road to the foreshore (State coastal land).</p>
PO15 Private marine development does not reduce public use of and access to State coastal land and ensures that works: <ol style="list-style-type: none"> 1. are used for marine access purposes only; 2. minimise the use of State coastal land; 3. are designed to accommodate the berthing of one vessel only per waterfront residence; 	<p>Not applicable.</p> <p>The application does not include private marine development.</p>

Performance outcomes	Response
4. do not interfere with access between navigable waterways and adjacent properties.	
<p>PO16 Development does not reduce public use of and access to State coastal land and ensures that erosion control structures, intended to protect a freehold or leasehold (not State land) premises, are wholly located within the lot:</p> <ol style="list-style-type: none"> except where impeded by significant buildings or infrastructure that cannot be removed or relocated; or for revetments the development is: <ol style="list-style-type: none"> in a consistent alignment with adjacent lawful revetments; or consistent with an agreement with a local government that a revetment is appropriate in the proposed location. 	<p>Complies with PO16.</p> <p>The proposed works are located on road reserve (state-controlled road) under the control of TMR (who proposed the works) and is to be undertaken on state coastal land on Pebbly Beach foreshore.</p> <p>The proposed works incorporate public access infrastructure in the form of access stairs and does not reduce public use and access to State coastal land. The access stairs provide improved access of the public to coastal waters.</p>
Matters of state environmental significance	
<p>PO17 Development is designed and sited to:</p> <ol style="list-style-type: none"> avoid impacts on matters of state environmental significance; or minimise and mitigate impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible; and provide an offset if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable significant residual impact on a matter of state environmental significance. <p>Statutory note: For Brisbane core port land, an offset may only be applied to development on land identified as E1 Conservation/Buffer, E2 Open Space or Buffer/Investigation in the Brisbane Port LUP precinct plan.</p>	<p>Complies with PO17.</p> <p>Marine plants are identified on site and are a MSES, the impacts to these values are addressed in Module 11 where an offset is required for the impact of 834m². The impacts have been reduced through design parameters to ensure the smallest footprint possible while still meeting design objectives (refer to Section 1.). Any other relevant MSES values have been responded to in this report and are not impacted significantly.</p>

Table 8.2: All operational work

Performance outcomes	Response
Private marine development	
<p>PO18 Private marine development is designed and constructed to maintain existing waterway banks in their natural state and not require:</p> <ol style="list-style-type: none"> coastal protection work; shoreline or riverbank hardening; 	<p>Not applicable.</p> <p>The application does not involve private marina development.</p>

Performance outcomes	Response
3. dredging for marine access purposes.	
Disposal of solid waste or dredged material from artificial waterways	
PO19 Solid waste from land and dredged material from artificial waterways is not disposed of in tidal water unless it is for beneficial reuse .	Not applicable. The application does not include dredging.
Disposal of dredged material other than from artificial waterways	
PO20 Dredged material is returned to tidal water where the material is needed to maintain coastal processes and sediment volume.	Not applicable. The application does not include dredging.
PO21 Where the dredged material is not needed to maintain coastal processes and sediment volume, the quantity of dredged material disposed to tidal water is minimised through beneficial reuse or disposal on land.	Not applicable. The application does not include dredging.
All dredging and any disposal of dredged material in tidal water	
PO22 Dredging or disposal of dredged material in tidal waters does not adversely impact on coastal processes and coastal resources .	Not applicable. The application does not include dredging.
Reclamation	
PO23 Development does not involve reclamation of land below tidal water , other than for the purposes of: <ol style="list-style-type: none"> coastal-dependent development, public marine development or essential community infrastructure; or strategic ports, priority ports, boat harbours or strategic airports and aviation facilities, in accordance with a statutory land use plan or master plan; or coastal protection work or work necessary to protect coastal resources or coastal processes. 	Not applicable. The application does not include reclamation. It is acknowledged that some cut and fill will be required to regularise the alignment of the revetment wall.

Table 8.3: Operational work for tidal works which is not assessed by local government

Performance outcomes	Acceptable outcomes	Response
PO24 Tidal works are sited and designed to operate safely during and following a defined storm tide event .	AO24.1 Tidal work is designed and located in accordance with the Guideline: Building and	Not applicable.

Project related

Performance outcomes	Acceptable outcomes	Response
	engineering standards for tidal works, Department of Environment and Heritage Protection, 2017.	<p>Douglas Shire Council is the assessment manager for the development application and will assess the applications against the “Code for assessable development that is prescribed tidal works” in the <i>Coastal Protection and Management Regulation 2017</i> (refer Appendix E).</p> <p>The revetment wall and access stairs have also been designed and certified by an RPEQ to be in accordance with the Guideline: Building and engineering standards for tidal works, Department of Environment and Heritage Protection, 2017.</p>

State Code 11: Removal, Destruction, or damage of marine plants

Table 11.1: Operational works

Performance outcomes	Acceptable outcomes	Response
All development - Impacts to marine plants		
PO1 The design, construction and maintenance of the development does not result in adverse impacts to marine plants and fish habitat.	No acceptable outcome is prescribed.	<p>Complies with PO1.</p> <p>If erosive pressures at the site continues there is an imminent threat to the road asset (Captain Cook Highway), public access to the beach and road traffic. Construction of a rock revetment wall is considered the only feasible option for the site to reach the intended design outcomes. Previous information provided has identified a number of marine plant species such as individual mature trees (river mangroves) which will remain untouched and preserved at the site. However, an area of 834m² will be permanently impact and the appropriate financial offset will be paid. The impacts to marine plants have been reduced through design changes to ensure the smallest footprint possible while still meeting design requirements.</p> <p>Works within the amber waterway will be in accordance with the waterway barrier works accepted development requirements.</p> <p>No further impacts to marine plants or fish habitats associated with the works will occur once construction has completed.</p>

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PO2 Development is designed, constructed and maintained to avoid and minimise impacts on matters of state environmental significance.	No acceptable outcome is prescribed.	<p>Complies with PO2.</p> <p>The clearing of native vegetation and marine plants for the construction of the proposed works is limited to the extent reasonably necessary to facilitate the works and meet design requirements. The required crest level (4 m AHD) was assessed using detailed assessment of wave run-up and overtopping impacts during extreme events and will offer protection to current and future road works constructed behind the foreshore. Due to these stringent design parameters, marine plants at 4 m AHD and within the project footprint must be cleared.</p> <p>Considering the works are in response to damages from Cyclone Jasper, the location of the works is also unavoidable. While it is impossible to avoid impacts to marine plants, sites for replanting and rehabilitation have been allowed for under current design conditions.</p>
<p>PO3 Where development impacts on matters of state environmental significance, development mitigates impacts and provides an offset for any acceptable significant residual impact on matters of state environmental significance.</p> <p>Statutory note: For Brisbane core port land, an offset may only be applied to development on land identified as E1 Conservation/Buffer, E2 Open Space or Buffer/Investigation in the Brisbane Port LUP precinct plan.</p>	No acceptable outcome is prescribed.	<p>Complies with PO3.</p> <p>There will be a significant residual impact to marine plants as part of the proposed works. The impact to marine plants was measured to be 834m² and an offset is required to be paid.</p>
All development in general		
PO4 Aspects of development are only permitted on tidal land where there is a functional	No acceptable outcome is prescribed.	Complies with PO4.

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requirement and the development cannot be feasibly located elsewhere. Ancillary elements (such as rest rooms and offices) are to be located outside of tidal land.		<p>Any temporary site offices, ancillary works or stockpiling locations will not be on tidal land and located above HAT. A section of land across from the site in Pebbly Beach Drive (not on tidal land) has been identified as the provisional site compound area.</p> <p>The rock revetment wall has been designed for its intended purpose and to occupy the smallest footprint feasibly possible to adhere to design objectives, reduce impact on coastal processes and preserve as much of the natural beach width as possible.</p>
PO5 The development does not result in adverse impacts on fish movement or fragmentation of fish habitats.	No acceptable outcome is prescribed.	<p>Complies with PO5.</p> <p>The proposed works will not impact on fish movement as they are linear infrastructure at or above HAT and will not cause fragmentation of habitats for the same reasons. The rock revetment wall will not separate any areas of water from the main body of water, nor will it act as a barrier for fish passage.</p>
PO6 The design, construction and maintenance of the development does not result in adverse impacts on fisheries resources.	No acceptable outcome is prescribed.	<p>Complies with PO6.</p> <p>The proposed works will not impact on fish energy reserves, nor will they trap fish. The works area for the proposed coastal protection works has been located to avoid impacts to fisheries resources.</p> <p>Additionally, the proposed works will have no impact on water quality and will not introduce toxic substances.</p>
PO7 The development is designed, constructed and maintained to encourage fish habitats and fisheries resource values to naturally regenerate.	No acceptable outcome is prescribed.	<p>Complies with PO7.</p> <p>The proposed works have been designed to encourage fish habitats and fisheries resource values to naturally regenerate. A rock revetment wall is</p>

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		<p>naturally a porous structure that promotes natural regeneration of habitat or species to use crevices.</p> <p>Areas for replanting and rehabilitation have been identified to encourage fish habitats to return. Adjacent areas not proposed for rehabilitation or replanting will be allowed to revegetate naturally. It is expected that marine plant species and communities of similar composition to existing conditions will colonise and revegetate at the new structure upon completion of construction works.</p>
<p>PO8 Development likely to cause drainage or disturbance to acid sulfate soils, prevents the release of contaminants and impacts on fisheries resources and fish habitats.</p>	<p>No acceptable outcome is prescribed.</p>	<p>Complies with PO8.</p> <p>The proposed works are designed to reduce erosion and prevent the potential release of any contaminants into the marine environment. The structures were also designed to not introduce toxic substances or potential contaminants.</p> <p>The geotechnical investigation undertaken by AECOM (2024) recorded no actual acid sulphate soils and no potential acid sulphate soils. The structure have all been designed to consider these results and will not disturb acid sulphate soils. If acid sulphate soils are disturbed or removed due to construction works, works will be conducted in accordance with an acid sulphate soils management plan.</p>
<p>PO9 The development maintains or restores drainage patterns, the extent and timing of tidal and freshwater inundation.</p>	<p><i>For bridges:</i></p> <p>AO9.1 Bridges are designed with abutments above the highest astronomical tide.</p> <p>AND</p>	<p>Complies with PO9.</p> <p>The proposed works maintain current conditions and do not alter drainage or inundation patterns.</p>

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	<p><i>For water, sewer or stormwater infrastructure:</i></p> <p>AO9.2 Infrastructure is placed below the existing natural substrate surface level, and natural substrate, surface levels and habitat condition and values are reinstated.</p> <p><i>For any other development, no acceptable outcome is prescribed.</i></p>	
PO10 The design, construction and maintenance of the development maintains natural erosion and accretion processes.	No acceptable outcome is prescribed.	<p>Complies with PO10.</p> <p>The proposed works are designed to decrease the erosion risk at the site, and potential impacts to natural coastal processes were heavily considered throughout the design of the revetment wall. A Coastal Processes report was prepared by Royal HaskoningDHV (2024) and is provided in Appendix G. In summary, the coastal processes assessment concluded that the proposed rock revetment wall will not exacerbate coastal erosion and that the coastal processes will continue unimpeded.</p> <p>During construction, standard erosion and sediment control measures will be deployed to reduce impacts of erosion.</p>
PO11 The development is designed, constructed and maintained so that it does not increase the risk of scour or erosion of waterway bed or banks.	No acceptable outcome is prescribed.	<p>Complies with PO11.</p> <p>The coastal protection works have been designed, so that it does not increase the risk of scour or erosion of waterway bed or banks. The rock revetment wall has been located as far landward as practical to protect the road asset from overtopping waves, potential damage and further erosion and includes a</p>

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		a toe to accommodate scour at the base of the revetment wall. The toe elevation has been designed at 0.35 m AHD but may extend as low as 0 m AHD.
PO12 The development is designed, constructed and maintained so that it does not increase the risk of shoreline or foreshore erosion.	No acceptable outcome is prescribed.	<p>Complies with PO12.</p> <p>The purpose of the proposed works is to provide protection to the road asset (Captain Cook Highway) and address the foreshore erosion that occurred due to the extreme cyclone event at Pebbly Beach. The revetment wall has been designed to address erosion risk and associated threat to public safety due to the erosion and damages at the site.</p> <p>As such, the works do not increase the risk of shoreline or foreshore erosion as the purpose is to reduce erosion and provide a solution to the current issues at the site.</p>
PO13 Development does not have an adverse impact on public use of or access to tidal land and waterways.	<p><i>For development for a material change of use or reconfiguration of a lot:</i></p> <p>AO13.1 Tidal land and fish habitats are separated from development and are available for public use.</p> <p><i>For any other development, no acceptable outcome is prescribed.</i></p>	<p>Complies with PO13.</p> <p>The existing conditions are not safe for the public use of or access to tidal land, and the works were proposed to address the damages associated with direct access to Pebbly Beach. The proposed works will also improve public safety, in particular the provision of dedicated public access stairs.</p> <p>In the operational phase, the works will provide safe access from the road to tidal land. Therefore, the proposed works do not have a significant adverse effect on the availability of public access to tidal land and waterways.</p>

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PO14 Development does not adversely impact on community access to fisheries resources and fish habitats including recreational and indigenous fishing access.	AO14.1 The development does not alter existing infrastructure or existing community access arrangements.	Complies with PO14. The proposed works do not adversely impact on the communities' access to fisheries resources, including indigenous fishing access. Public access stairs to be provided as part of the project will improve access to tidal water, fisheries resources, and fish habitats.
PO15 Development does not adversely impact on commercial fishing access and linkages between a commercial fishery and infrastructure, services and facilities.	No acceptable outcome is prescribed.	Not applicable. The works will have no impact on commercial fishing activities.
Erosion control structures and beach replenishment		
PO16 Removal, destruction or damage to marine plants as a result of erosion control structures or beach replenishment only occurs where there is an immediate and significant threat of erosion to: <ul style="list-style-type: none"> the use of the land for its existing or approved purpose; infrastructure, structures or buildings are not expendable or not able to be relocated. 	No acceptable outcome is prescribed.	Complies with PO16. The footprint of the works is located entirely along the road corridor and foreshore of Pebbly Beach, and its existing land use is under a significant threat of erosion due to damages from Cyclone Jasper. The Captain Cook Highway was undermined due to overtopping waves, and the erosive pressures and damage must be addressed in the form of an erosion control structure - a continuous rock revetment wall. For the rock revetment wall to be built under design conditions that protect Captain Cook Highway in a 200-year ARI storm event, a permanent impact of 834m ² to marine plants is required.
PO17 The area that the beach replenishment is to be carried out on is a high-energy, sandy sediment shoreline with biological communities adapted to mobile sediments.	No acceptable outcome is prescribed.	Not Applicable. The proposed works do not include beach nourishment.

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PO18 Erosion control structures including beach replenishment does not create terrestrial land unless they form an integral part of the erosion control design.	No acceptable outcome is prescribed.	Complies with PO18. The proposed works do not include beach nourishment, and the rock revetment wall is aligned along the existing erosion scarp and as a result no land is created.
PO19 The beach replenishment work is undertaken in a way that minimises the frequency of any ongoing replenishment requirements.	AO19.1 Beach replenishment will not require maintenance more often than every two years. AND AO19.2 A source of replenishment material for future maintenance is identified and secured.	Not Applicable. The proposed works do not include beach nourishment.
PO20 Erosion control structures are located as far landward as possible to reduce adverse impacts to tidal land and marine plants.	No acceptable outcome is prescribed.	Complies with PO20. Given the development is a response to wave overtopping caused by Cyclone Jasper in a coastal zone, it has a functional requirement to be located on tidal land and cannot feasibly be located elsewhere. The proposed works have been located as far landward as practical taking into account the impact to marine plants caused by the works.
Dredging		
PO21 Disposal of dredge spoil does not cause adverse impacts on marine plants.	No acceptable outcome is prescribed.	Not Applicable. The proposed works do not include dredging.
Temporary works		
PO22 Temporary works are designed, constructed and maintained to be in place for the shortest possible time or are undertaken for a specified period.	No acceptable outcome is prescribed.	Complies with PO22. Any temporary works required to facilitate the construction of the structures will be in place only during the construction period and will be removed at the completion of the construction phase.

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PO23 A temporary structure is in place for a specified period and is designed to be completely removed and fish habitat is restored to pre-existing or improved condition on completion.	No acceptable outcome is prescribed.	Complies with PO23. Any temporary works required to facilitate the construction of the coastal protection works will be completely removed at the completion of the project. This will likely consist of site fencing and access pathways to establish the works area.
Restoration		
PO24 Restoration works do not result in: substitution of fish habitats, adverse impacts to the condition of fish habitats or fisheries productivity.	No acceptable outcome is prescribed.	Complies with PO24. Any restoration undertaken at the site will be consistent with existing conditions. Restoration plans do no substitute fish habitats or cause adverse impacts to the condition of fish habitats or fisheries activity.
PO25 Marine plants to be used for revegetation purposes have local provenance.	No acceptable outcome is prescribed.	Complies with PO25. As discussed above in Section 4.1 , it was important for the preferred design option to reinstate area for replanting and retain as many trees as possible. The continuous wider revetment wall allows sufficient area for replanting, and plans are attached below in Appendix H . Any revegetation works will be undertaken with plants sourced from locally sourced stock and be consistent with existing natural plant communities.