

Revised Supplementary Information to the Revision 2 Major Project Impact Statement

River Derwent Marine Conservation Area

Background

The New Bridgewater Bridge Project (the Project) will provide a new river crossing for motor vehicles, pedestrians and cyclists between the Brooker Highway and Midland Highway, with connections to the Lyell Highway and other surrounding roads. The Project is a key infrastructure project to support the Hobart and Tasmanian economy and will provide a safe and efficient crossing over the Derwent River (as part of the National Land Transport Network) for the freight and passenger network. The new bridge will replace the existing bridge which is at the end of its serviceable design life.

The strategic drivers, project objectives and project description for the Project are described in the Executive Summary and Volume 1 of the Major Project Impact Statement (MPIS).

The Major Project

The Project will be assessed through the Major Projects process under the *Land Use Planning and Approvals Act 1993* (LUPAA).

The Minister for Planning considered a Major Project Proposal, lodged by the Department of State Growth on 3 November 2020, and declared the New Bridgewater Bridge a Major Project on 23 December 2020. This declaration included the Project Land on which the Project is to be situated (see Major Project Impact Statement Figure 1-1). The Project Land is traversed by the River Derwent Marine Conservation Area and thus triggers the requirements for approval by the Tasmanian Parks and Wildlife Service (PWS). This approval process is not incorporated into the assessment under LUPAA and thus a separate assessment is required.

The MPIS has been prepared by the Department of State Growth in response to the Assessment Criteria issued by the Tasmanian Planning Commission, on behalf of the Development Assessment Panel (the Panel). The Project team has been asked by PWS to provide Supplementary Information in addition to the MPIS for the PWS EIA assessment of the Project.

The MPIS was originally submitted to the Development Assessment Panel on 20 August 2021, with a revised version of the MPIS submitted to the panel in mid November in response to requests for information. This Supplementary Information aims to avoid duplication of information contained in the MPIS and as such will refer to relevant sections including technical reports contained in the MPIS and its appendices.

Project Land

As described in the MPIS (refer sections 3.1 and 3.1.1 of the MPIS), the approval for the New Bridgewater Bridge will be provided only for an area defined as the Project Land.

The Project Land is an area of land that was included in the Minister's declaration (refer figure 1-1 of the MPIS), and is outlined in the figure, below.

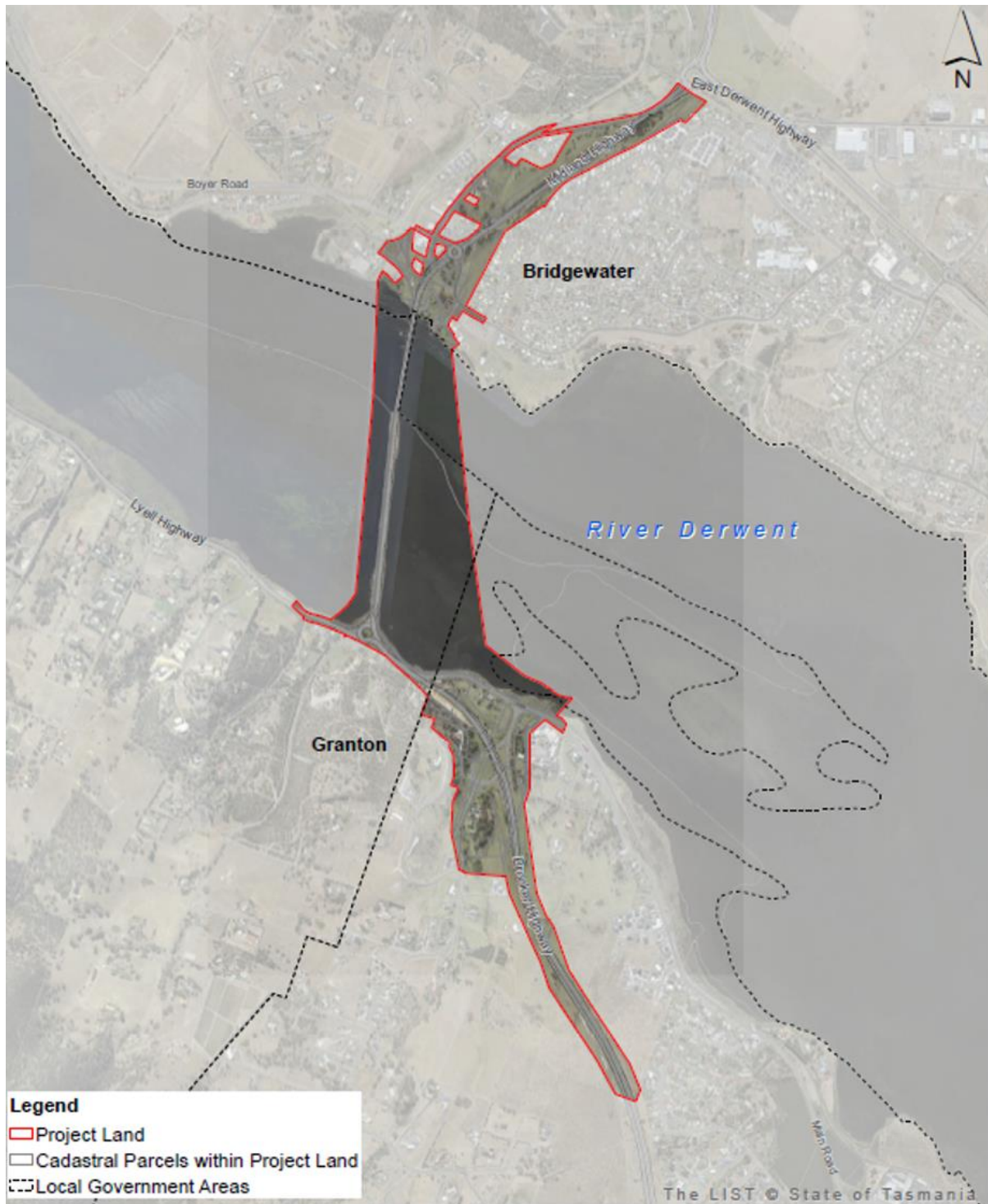


Figure 1 The Project Land

Any works to be undertaken outside of the Project Land would be subject to a separate approvals process.

River Derwent Marine Conservation Area

The Project Land includes part of the River Derwent Marine Conservation Area (MCA), a large aquatic conservation area spanning the River Derwent from New Norfolk, downstream to Dogshear Point in Claremont (refer to Figure 3-4 of the MPIS, reproduced below).

The River Derwent MCA is 1,643 hectares in size and was established as a conservation area in February 1941.

Marine conservation areas are declared under the *Nature Conservation Act 2002* (NCA), which sets out the values and purposes of each reserve class. They are managed under the *National Parks and Reserves Management Act 2002* (NPRMA), which sets out the management objectives for each reserve class.

The upper reaches of the River Derwent MCA (from Bridgewater Bridge to New Norfolk) are also mapped as a nationally important wetland, as identified on the Directory of Important Wetlands in Australia.

Due to its reservation status, any works in or impacting upon the River Derwent MCA require assessment and approval by PWS. Additionally, any land reclamation that results in a permanent reduction in the physical footprint of the River Derwent MCA may require the excising of the relevant parcel from the conservation area.

DPIPWE / Parks and Wildlife Service Land

The Project Land includes river foreshore parcels managed by DPIPWE (Tasmanian Parks and Wildlife Service (refer to Figure 3 below from the New Bridgewater Bridge Major Projects Proposal).

The Marine Conservation Area and DPIPWE parcels identified in Figure 3 are managed by the PWS.

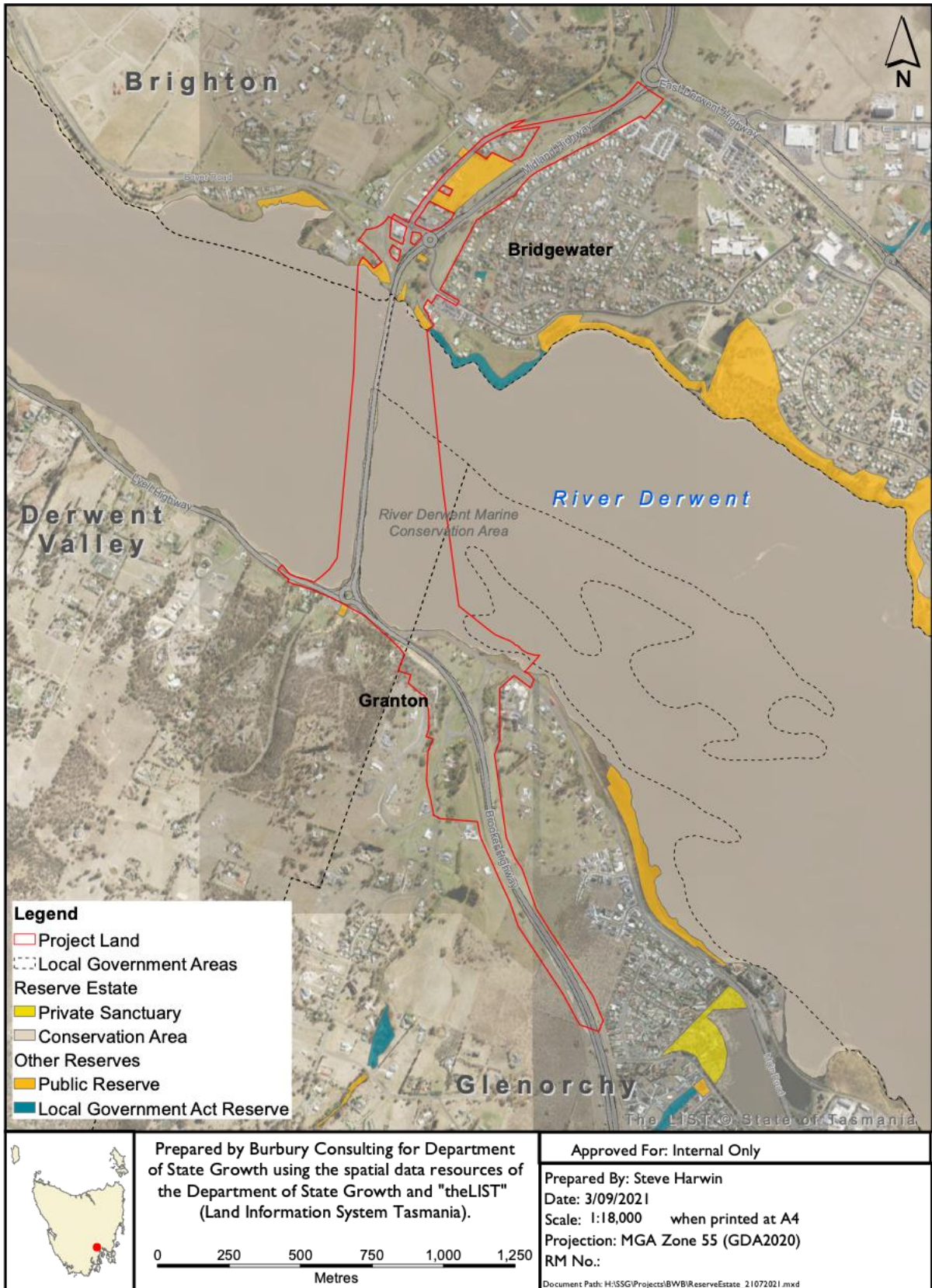


Figure 2 Reserves and conservation areas

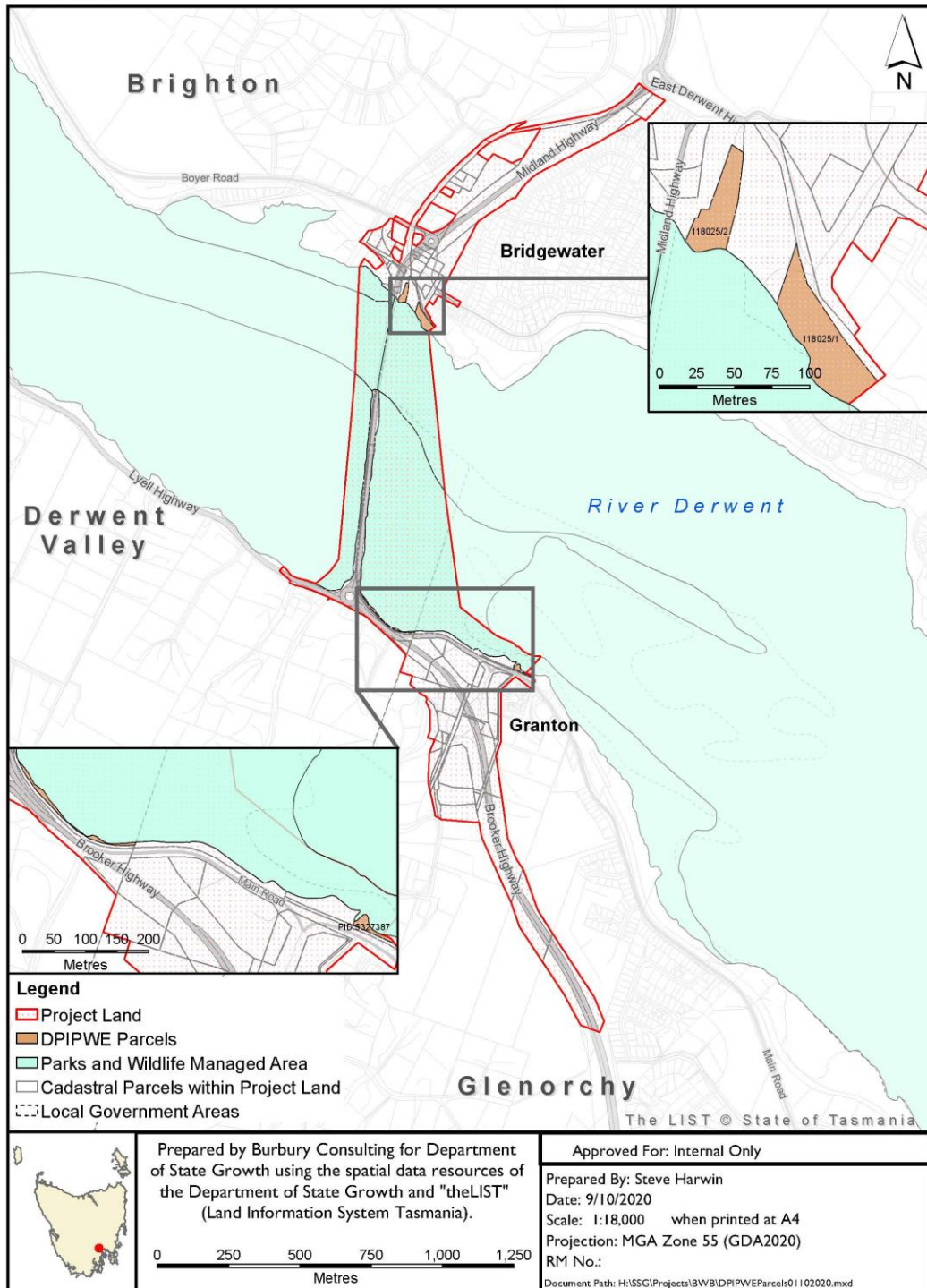


Figure 3 DPIPWE and Parks and Wildlife Land

Assessment requirements

The assessment requirements set out by PWS relate specifically to the River Derwent Marine Conservation Area (MCA), its listing as part of the NCA, and its management under the NPRMA.

Schedule 1 of the NPRMA sets out the objectives for management of the conservation area classes, while Schedule 1 of the NCA outlines the purpose of reservation.

These elements need to be addressed as part of this supplementary information as they are not directly addressed in the MPIS (although may be addressed in part).

In addition, PWS have identified three other components to be addressed¹.

- Natural values, in particular non-listed natural values (as opposed to only listed values, such as listed vegetation communities, flora and fauna).
- Social / recreational impacts and values.
- Any revocation or amendment to a conservation boundary.

These requirements are set out in further detail, below.

Objectives for management of a conservation area

The management objectives (as per Schedule 1 of the NPRMA) for the conservation area class are outlined, below.

“(a) to conserve natural biological diversity;

(b) to conserve geological diversity;

(c) to preserve the quality of water and protect catchments;

(d) to conserve sites or areas of cultural significance;

(e) to provide for the controlled use of natural resources including special species timber harvesting, and including as an adjunct to utilisation of marine resources;

(f) to provide for exploration activities and utilisation of mineral resources;

(g) to provide for the taking, on an ecologically sustainable basis, of designated game species for commercial or private purposes, or both;

(h) to provide for other commercial or industrial uses of coastal areas;

(i) to encourage education based on the purposes of reservation and the natural or cultural values of the conservation area, or both;

(j) to encourage research, particularly that which furthers the purposes of reservation;

(k) to protect the conservation area against, and rehabilitate the conservation area following, adverse impacts such as those of fire, introduced species, diseases and soil erosion on the conservation area’s natural and cultural values and on assets within and adjacent to the conservation area;

(l) to encourage appropriate tourism, recreational use and enjoyment (including private uses) consistent with the conservation of the conservation area’s natural and cultural values;

¹ As advised by Dr Alice Morris, 20 July 2021, by email to the Project Team

(m) to encourage cooperative management programs with Aboriginal people in areas of significance to them in a manner consistent with the purposes of reservation and the other management objectives.”

Purposes of reservation of a conservation area

The purposes of reservation (as per Schedule 1 of the NCA) for the conservation area class are outlined, below.

“The protection and maintenance of the natural and cultural values of the area of land and the sustainable use of the natural resources of that area of land including special species timber harvesting”

Natural values (threatened and non-threatened species)

PWS have identified that an important part of the assessment will be to identify and assess natural values for:

- threatened ecological communities, threatened species and Matters of National Environmental Significance as listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA)
- non-threatened but significant species and communities.

The MPIS predominantly focusses on listed species and communities, including those listed under the *Tasmanian Threatened Species Act 1995* (TSA), the EPBCA and the NCA. However, information on non-threatened species has also been gathered and presented in the MPIS and attached reports as documented in this supplement.

Social (recreational) values

A further requirement from PWS is to address the social and recreational values of the Reserve, including a range of specific elements as outlined below².

- (a) Involve and identify targeted stakeholder consultation.*
- (b) Document the existing public use and infrastructure and how the proposal may impact on this use and infrastructure.*
- (c) Identify any indirect impacts associated with changes in use of the Reserve resulting from change in Bridge design (e.g., greater number of vessels using the River Derwent, larger vessels, displacement of other reserve users).*
- (d) Address how the development (including construction) provides for safe navigation of vessels and use of marine infrastructure (e.g., existing Bridgewater boat ramp and jetty, the movement of vessels, the impact on navigation aids, measure to minimise any adverse impacts).*
- (e) Identify the potential impact on existing reserve users and any recreational opportunities (both direct impacts on recreational infrastructure and indirect impacts on existing reserve users).*

The assessment will need to address the potential impacts beyond direct impacts on nearby boat ramps and jetties.

Revocation and/or amendment of conservation area boundary

The submission needs to address the need for any revocation of Reserved Land that may be required.

² As advised by Dr Alice Morris, 20 July 2021, by email to the Project Team

Chosen design

The 'chosen design' is included in the MPIS at Appendix AA, and is discussed in Section 3.6 of the MPIS. Generally, the assessments completed have not considered the 'chosen design' except where stated; heritage, visual impacts, traffic impacts (partially), public open space and siting and scale form those exceptions.

It should also be noted that for specific topics, a comparison between the assessment undertaken and the 'chosen design' are included (refer Appendix BB of the MPIS). Of note to PWS will be the review of the 'Dredging and Reclamation' topic (Section 4.6 of the MPIS), where the proposed areas of reclaim outlined in the chosen design differ from that of the assessment undertaken.

The southern reclamation area, in particular, was modelled hydrodynamically as a larger area and was assessed as such within the MPIS. The 'chosen design' presents a smaller footprint and the memorandums within Appendix BB of the MPIS identify that the impact will be less as a result³.

Response to requirements

Objectives and purpose

The MPIS sets out the Project's strategic drivers and project objectives, which demonstrate the economic and social benefit to Southern Tasmania and the State more broadly.

Whilst the Project's high-level objectives have a different focus to the management objectives and purpose of the River Derwent MCA, the project has been developed to minimise impacts to the environmental, cultural, heritage and community values of the Project Land and the conservation area in particular.

The MPIS and its appendices provide a detailed account of how natural, cultural and social values will be impacted, managed and monitored. Table 1 and Table 2 of this document draw upon that information to provide a summary analysis of how the Project has been designed to ensure it does not compromise the objectives and purpose of the conservation area.

The MPIS also makes commitment to a suite of management plans which will be developed by the contractor in response to the final design. These plans will be submitted to the relevant regulators, including PWS, for approval prior to construction commencement. Such plans will include weed and hygiene management (including management of marine pests and diseases), noise and vibration management (including marine noise), soil and water management, acid sulfate soil management, waste management, aquatic construction, and revegetation.

Additionally, the Major Project process requires that the project is not in contravention of a State Policy. Section 4.1.2 of the MPIS, including Tables 4.3 – 4.12 provides comments against a range of policy outcomes that align with River Derwent MCA objectives for management and the purpose of the reservation.

Of relevance to the MCA are the Tasmanian State Coastal Policy 1996 and the State Policy on Water Quality Management 1997, which similarly require protection of natural and cultural values in the coastal zone and protection and sustainable development of surface and groundwater resources (both of which apply to the Derwent River). Section 4.1.2 of the MPIS addresses each relevant policy

³ It should be noted that in terms of loss of threatened aquatic flora species (e.g. *Ruppia megacarpa*), the smaller area of the reclaim was used to calculate the area of potential loss as outlined in the MPIS.

outcome and concludes that the Project will not contravene any requirement or obligation of a State Policy.

The information below relates specifically to the part of the project occurring within the MCA (namely the aquatic component), with the MPIS also providing a broader analysis of impacts across the terrestrial parts of the site, which lie outside of the conservation area.

Table 1 Response to Objectives for Conservation Areas from Schedule 1 of the National Parks and Reserves Management Act 2002

Objective		Response
(a)	to conserve natural biological diversity	<p>The Project will have some localised impact on aquatic biological values. These direct and unavoidable impacts will be limited to the bridge and the reclamation area footprints and the immediate surrounds of these locations during construction, and potentially some areas of shading, which could experience reduced biological diversity post construction.</p> <p>Outside of these direct impacts, however, biological diversity in the aquatic environment will be protected through construction controls, focused particularly on the management of sediment disturbance and transportation.</p> <p>The MPIS sets out the biological values of the site, the potential for direct and indirect impact, mitigation measures and controls and a suite of monitoring measures and adaptive management.</p> <p>Key MPIS Sections: 5.1.3, 5.5.1, 5.5.2, 5.5.3</p>
(b)	to conserve geological diversity	<p>The project site falls within the Lower Derwent River Estuarine Delta and Flood Plain geosite.</p> <p>A geoheritage impact assessment was commissioned to assess the potential for impact to this site. The assessment found the potential for impact to this site to be low, given the relatively small footprint of the bridge works in comparison to the large size of the geosite, and the results of hydrodynamic modelling, which showed only localised changes in sediment distribution as a result of the project.</p> <p>Key MPIS Section: 4.9</p>
(c)	to preserve the quality of water and protect catchments	<p>The construction phase of the project has the potential to impact the quality of water in the River Derwent through sediment disturbance and runoff from terrestrial work areas.</p> <p>Construction water quality impacts have been assessed in detail in the MPIS and the associated specialist studies. Construction controls will be applied in the terrestrial environs to ensure no movement of sediment laden or contaminated runoff enters the River Derwent.</p> <p>Within the aquatic environs, the key construction controls will be full containment of extracted sediments and removal offsite, suitable management measures to avoid leaks or spills of fuels or other chemicals, and work practices to minimise sediment disturbance. A monitoring and adaptive management program will be put in place to measure and control water quality impacts during construction.</p> <p>Suitable stormwater retention will be included in the final design such that once operational, the bridge will not pose any long-term water quality risk to the River Derwent.</p> <p>With suitable stormwater design and construction controls in place, the water quality of the conservation area will be protected.</p> <p>Key MPIS Sections: 5.1.3, 5.1.4 and 5.1.5</p>

Objective	Response
<p>(d) to conserve sites or areas of cultural significance</p>	<p>Cultural heritage assessments, both European historic heritage and Aboriginal heritage, were undertaken for the Project and are included as an attachment to the MPIS.</p> <p>There were no Aboriginal cultural heritage sites identified within the aquatic environs of the Project Land (the area overlapping with the MCA).</p> <p>The existing Bridgewater Bridge including the convict built causeway and ruins are listed on the Tasmanian Heritage Register as a single 'place' and occur in part within the MCA (the causeway listing is based on the CPR Plan which overlaps to a small degree with the MCA boundary).</p> <p>The existing bridge, which forms part of the listing of the 'place', is proposed to be demolished. Archival recording has been undertaken for the bridge and it is anticipated that the project may present opportunities for interpretation of the cultural values of the place, once further design details are known.</p> <p>The causeway is to be retained. The project is unlikely to involve works to the causeway (other than to facilitate demolition of the existing bridge). The 1874 and 1893 abutment structures and bridge caissons will not be demolished but works on or connecting to the causeway may result in direct impacts to all values inherent in the fabric of the historic road and rail bridge infrastructure.</p> <p>A suite of management measures as outlined in the MPIS will be put in place to manage cultural heritage values throughout construction and minimise and avoid impacts to the causeway and abutments. With these measures in place, archival recording and historic heritage interpretation, the cultural significance within the MCA will be protected and/or recognised.</p> <p>Key MPIS Section: 5.5.4 and 5.4</p>
<p>(e) to provide for the controlled use of natural resources including special species timber harvesting, and including as an adjunct to utilisation of marine resources</p>	<p>The project includes the potential to extract water from the River Derwent to be used in the piling process. Water extracted would be used in a 'closed loop' system in the drilling process. A packaged water treatment plant is proposed to treat the water before it would be discharged back into the river in a controlled fashion. Any water returned to the river will be consistent with water quality criteria set out in the Major Project Impact Statement and the Approval Conditions.</p> <p>As the Major Projects process does not include (as a project associated act) the <i>Water Management Act 1999</i>, a separate application for the extraction of water, and the granting of a licence by DPIPWE would be required prior to water extraction occurring. Obtainment of this license will be the responsibility of the contractor.</p> <p>Other than the proposed water extraction, the project does not propose to use any natural resources from within the conservation area and does not pose any impediment to present or future use of natural resources from the conservation area by others.</p> <p>It is noted that recreational fishing, and potential for impact to recreational fish species, has been considered as part of the aquatic impact assessment. No measurable impacts to recreational species are expected if suitable construction methods and controls are in place. Short term reduction in recreational vessel access to the site during active construction work is expected to maintain safety.</p>

Objective		Response
(f)	to provide for exploration activities and utilisation of mineral resources	The project does not propose any mineral exploration or extraction within the conservation area, nor does it prevent future exploration or extraction by others.
(g)	to provide for the taking, on an ecologically sustainable basis, of designated game species for commercial or private purposes, or both	The project does not propose any harvesting of game species and does not prejudice any future game harvesting by others. It is noted that all waterbird species have been considered in the aquatic and natural values impact assessment work and the project does not pose any long-term risk to water bird populations, including potential game species. Pre-clearance surveys will be undertaken to check for nesting birds and associated eggs or chicks, with exclusion zones applied where possible and a pre-clearance protocol established (and submitted to the regulator for approval) for nest removal in the event avoidance is not possible.
(h)	to provide for other commercial or industrial uses of coastal areas	The project does not propose commercial or industrial use of coastal areas. As a replacement asset in a similar alignment to the existing bridge, the project does not prejudice any future commercial or industrial use of coastal areas by others. The project will improve access for vehicle freight movements across the River Derwent. The removal of the navigation restriction on the river creates opportunities for improved usage of the coastal area.
(i)	to encourage education based on the purposes of reservation and the natural or cultural values of the conservation area, or both	The project does not create any impediment to this objective and although not the primary focus, may provide opportunities for public interpretation and education related to the natural and cultural values of the site. Subject to the level of impact and determination of the regulator, impacts to wetland species may be offset through indirect measures which support wetland conservation, interpretation, and education.
(j)	to encourage research, particularly that which furthers the purposes of reservation	In developing the MPIS, aquatic investigations have been undertaken in the conservation area (aquatic ecology, sediment sampling, hydrodynamic studies), the results of which are included in the MPIS and can be shared with PWS and other parties such as the Derwent Estuary Program as appropriate.
(k)	to protect the conservation area against, and rehabilitate the conservation area following, adverse impacts such as those of fire, introduced species, diseases and soil erosion on the conservation area's natural and cultural values and on assets within and adjacent to the conservation area	The MPIS sets out a variety of control measures to protect the conservation area and its values from impacts such as water quality decline, coastal erosion and introduced weeds, pests and diseases. The MPIS makes commitment to a suite of management plans that will be submitted to the relevant regulators, for approval prior to construction commencement to provide further details on the measures that will be put in place to protect natural values. These plans include the CEMP, a weed and hygiene management (including marine pest and diseases), soil and water management, and aquatic construction. Key MPIS Sections: 4.4, 5.5.1, and 5.5.3
(l)	to encourage appropriate tourism, recreational use and enjoyment (including private uses) consistent with the conservation of the conservation area's natural and cultural values	The new Bridgewater Bridge has been designed to improve pedestrian and bicycle access across the River Derwent, facilitating social connection and recreational use of the area moving forward. The design will also provide space for pedestrian access beneath the bridge on the northern shore in Bridgewater, which may assist in the activation of this foreshore area.

Objective		Response
		<p>During the construction phase there will be some limitation on public access to the River Derwent within the work site, including access to the existing boat ramp and navigation of the river through what will be an established construction site. This is an unavoidable safety requirement of the Project that will be limited to the construction phase.</p> <p>Once operational the new crossing will improve pedestrian and cycle access over the river and will maintain and enhance public access points to the river, including a commitment to reinstate the public boat ramp and jetty on the northern shore unless otherwise agreed with Brighton Council. The project will improve public access up and down the river by guaranteeing passage of vessels north of the bridge site. This will be through either the removal of the existing 'lift span' bridge, or, if the removal of the bridge is not approved, through lifting and locking the existing 'lift span' at a height of at least 16.2m, allowing vessels unimpeded passage underneath.</p> <p>Key MPIS Sections: 4.12, Appendix U</p> <p>Also refer 'chosen design' in Appendix AA of the MPIS, and in particular the proposed landscape plans and the general arrangements indicating shared path extents.</p>
(m)	to encourage cooperative management programs with Aboriginal people in areas of significance to them in a manner consistent with the purposes of reservation and the other management objectives	<p>As part of the cultural heritage assessment for the Project, engagement with Aboriginal Heritage Tasmania was undertaken in accordance with standard practices and resulted in the development of the Aboriginal Heritage Report and Aboriginal Heritage Management Plan.</p> <p>Key MPIS Section: 5.5.4, Appendix Y</p>

Table 2 Response to Purpose of the Conservation Area reserve class under the Nature Conservation Act 2002

Purpose	Response
The protection and maintenance of the natural and cultural values of the area of land and the sustainable use of the natural resources of that area of land including special species timber harvesting.	<p>As set out in Table 1, the project has been designed, and will be constructed, in such a manner as to reduce the potential impact to natural, cultural and social values of the site and particularly the conservation area. Even with mitigation measures in place, some residual impact will be experienced, including a relatively small area of direct loss of aquatic habitat (under the bridge and reclamation area footprint). Through the MPIS process, the Project Team will work with the regulator to implement offset actions for this residual loss where appropriate.</p> <p>The construction phase poses potential indirect impact to natural values, particularly through sediment disturbance in the aquatic environment, that will be carefully managed through construction controls, monitoring and adaptive management.</p> <p>The Project poses a very localised impact on the Lower Derwent River Estuarine Delta and Flood Plain geosite, which has been assessed by a qualified geomorphologist as low impact.</p> <p>There are no known Aboriginal heritage sites within the aquatic environs of the Project Land and construction phase management measures will be in place to address the risk of unanticipated</p>

Purpose	Response
	<p>discovery. Some historic heritage values will be impacted as described in the MPIS, however appropriate construction management measures will be put in place to avoid and manage unwanted impacts and as required by the MPIS process, archival recording and interpretation of values proposed to be demolished or impacted will be undertaken. Archival recording has already been undertaken of the existing Bridgewater Bridge.</p> <p>The construction phase will result in temporary and localised access restrictions for recreational vessels within the site, however once complete the Project will offer long term connectivity for bicycle and pedestrian access across the new bridge.</p> <p>The Project does not pose any future impediment to the use of the conservation area for natural resource or game species harvesting.</p>

Natural values (threatened and non-threatened species)

The MPIS and its appendices provide a comprehensive analysis of the ecological values of the site, potential for impact, management and mitigation measures, residual impacts and offset considerations. Whilst the MPIS focuses primarily on listed species and communities it also gives consideration to non-listed species (particularly waterbirds) and ecological threats (e.g. weeds and marine pests).

Section 5.5 of the MPIS summarises the assessment of ecological values undertaken by two specialist consultants.

- North Barker Ecosystem Services (NBES) undertook an assessment of terrestrial and sub aquatic ecological values as reported in the Bridgewater Bridge Replacement Natural Values Assessment, provided in full as Appendix H to the MPIS.
- Marine Solutions (MS) undertook an assessment of aquatic ecological values as reported in New Bridgewater Bridge – Aquatic Impact Assessment, provided in full in Appendix G to the MPIS.

These assessments included reviews of reports, databases and ecological field surveys spanning all seasons to identify relevant flora and fauna values.

Key listed ecological values identified within the Project Land and of relevance to the aquatic environs of the marine conservation area are outlined, below.

- Presence of listed flora, *Ruppia megacarpa* (large fruit seatassel), within the project footprint and likely to be impacted.
- Presence of saline aquatic herbland (AHS), saline sedgeland and rushland (ARS) and freshwater aquatic sedgeland and rushland (ASF) within the project footprint and some areas likely to be impacted.
- Likely use of the site by listed fauna including the Australasian bittern, Great crested grebe and Australian grayling, with some potential for impact.

The reports, and relevant sections of the MPIS, provide a comprehensive assessment of potential impact and need for consideration of these impacts under relevant state and federal legislation.

These assessments conclude that, although some EPBCA species and communities are found within (or likely to occur within or nearby) the project site, the extent of predicted impact is not expected to trigger the need for approval under the EPBCA. Nonetheless, the Project Team have been in

discussions with the Australian Government and will be submitting an EPBCA referral (with the presumption of a non-controlled action) for completeness.

The MPIS and associated reports also provide consideration of non-listed ecological values and ecological threats including weeds and marine pests. Of particular relevance the reports consider:

- the potential for other aquatic species of conservation significance to occur within or downstream of the site and the possibility of impact on these species (including through sediment disturbance and underwater noise)
- the use of the site by waterbirds of all types and the potential for short and long-term impacts to these species
- establishment of a baseline understanding of roadkill in the area (listed and non-listed species) and the possibility of the project affecting roadkill rates (positively or negatively)
- consideration of the potential for some impact to recreationally important fish species that occur in the vicinity, including brown trout, black bream, flathead, and Australian salmon.

A full summary of ecological values identified (including listed and non-listed species) with a full plant species list from the NBES corridor surveys are provided in Appendix A of Appendix H of the MPIS, noting that not all these species occur within the defined Project Land.

Details of all ecological values, the potential for impact, management and mitigation, residual impact and consideration of offsets is provided in Section 5.5 of the MPIS (with a focus here on listed species) and in the attached specialist reports as Appendix G and H of the MPIS (with a broader and more detailed consideration of non-listed values provided in these reports).

As stated previously, the MPIS includes a commitment that a full suite of management plans will be prepared and submitted to the relevant regulators prior to construction commencement for approval, documenting how ecological values will be protected throughout the construction program.

Social (recreational) values

The MPIS and its appendices (specifically the Recreational Impact Assessment, Appendix U of the MPIS) provide a detailed overview of the recreational impacts expected from the Project.

The information below relates specifically to the part of the project occurring within the conservation area, with the MPIS providing a broader analysis of impacts across the terrestrial parts of the site, which lie outside of the conservation area.

Table 3 Response to social (recreational) requirements

Item		Response
(a)	Involve and identify targeted stakeholder consultation	<p>During the investigations and planning phase of the Project, consultation and engagement has been undertaken with a wide range of stakeholders, including those with environmental and recreational interests.</p> <p>Targeted stakeholder consultation was also undertaken in development of the Recreational Impact Assessment (Appendix U of the MPIS).</p> <p>Public consultation on the Reference Design also occurred, including the use of Social Pinpoint to obtain feedback from the public on the released Reference Design.</p> <p>The Project has undertaken progressive discussions with Councils, EPA, DPIPW (including PWS), and Heritage</p>

Item		Response
		Tasmania in particular as project planning and design has progressed. Key MPIS Sections: Appendix U
(b)	Document the existing public use and infrastructure and how the proposal may impact on this use and infrastructure	Existing uses are summarised in Table 2.1 and 2.2 of the Recreational Impact Statement, Appendix U to the MPIS. These include boating and sailing, fishing, swimming, canoeing/kayaking, rowing and jet skiing. Impacts to these uses are summarised in Appendix U to the MPIS. Key MPIS Sections: 3.4.1, 4, 4.12.1 and Appendix U
(c)	Identify any indirect impacts associated with changes in use of the Reserve resulting from change in Bridge design (e.g. greater number of vessels using the River Derwent, larger vessels, displacement of other reserve users)	Impacts are expected to be limited to the short-term construction period as opposed to any longer-term impacts. This is outlined within the MPIS, and explored further, below. Key MPIS Sections: 4.12.1
(d)	Address how the development (including construction) provides for safe navigation of vessels and use of marine infrastructure (e.g., existing Bridgewater boat ramp and jetty, the movement of vessels, the impact on navigation aids, measure to minimise any adverse impacts)	This is covered comprehensively in the MPIS and is supported by the separate Marine Safety Assessment which is Appendix D of the MPIS. Key MPIS Sections: 4.12.1 and Appendix D
(e)	Identify the potential impact on existing reserve users and any recreational opportunities (both direct impacts on recreational infrastructure and indirect impacts on existing reserve users)	As with item (b), this has been explored as part of the Recreational Impact Assessment. Potential benefits and opportunities are explored further, below. Key MPIS Sections: Appendix U

Impact assessment

Section 3.1 of the Recreational Impact Statement (Appendix U of the MPIS) identifies the potential impacts and benefits of the proposed works for river based recreational activities.

The potential impacts identified are outlined below. Note that these are all temporary impacts.

- Closure or limited access by vessels and other watercraft on the River Derwent during bridge construction period.
- Limited access by swimmers undertaking the Derwent River Big Swim events.

- Loss of access to the existing local boat ramp (alternative boat ramp facilities exist up and down stream).
- Loss of amenity, particularly during construction.

The impacts of these are further discussed within the MPIS and the Recreational Impact Assessment.

Boat ramp

The Project will require a range of in-water construction techniques to facilitate the construction of the new bridge.

The land on the Bridgewater foreshore at Nielsen Esplanade will be used as a construction laydown area, and construction access to the waterway will be required for the duration of the Project.

Further, the alignment of the 'chosen design' crosses directly over the existing boat ramp.

Development will require the closure and removal of the existing boat ramp and jetty for the life of the Project. Keeping the boat ramp and jetty accessible to the public during the Project would present a major safety hazard to the community and the project construction team.

The Project has undertaken monitoring around the usage of the boat ramp and jetty, which has identified that they receive limited community use (refer Section 4.12.1.2 of the MPIS). Given this, and the proximity of other boat ramps in the area, a temporary replacement during the Project is not considered necessary.

The Project has committed, at the end of the works, to reinstate a jetty and boat ramp within this portion of foreshore land, of an equivalent or superior standard and functionality as existing, unless agreed otherwise by Brighton Council and PWS. Section 4.12.1.2 of the MPIS expands on values and impact assessment of the boat ramp, as well as management and mitigation measures.

Amenity

An expected impact on reserve users in the vicinity of the new Bridgewater Bridge include reduced visual amenity during construction, noise from construction activities, possible odour from the disturbance of sediments, increased water turbidity at different times particularly downstream of the immediate works zone (noting that recreational users will be excluded from the construction zone), some dust, and periodic traffic delays during construction surrounding and over the existing bridge.

All of these matters have been addressed as part of relevant sections of the MPIS.

Indirect impacts

The new bridge will occupy more of the conservation area than is occupied by the existing crossing (being located wholly over the water as opposed to using the existing causeway), however the extent of impact to recreational users is expected to be limited to the direct impacts during construction.

The relatively small loss of natural values in the context of the overall conservation area is not expected to contribute to any reduction in recreational use as the area will still retain its natural attraction (as outlined in the assessment of the impacts to the objectives and purpose of the reserve area).

One indirect impact of the new bridge could be associated with the removal of navigation restriction on the existing navigation pathway. While the bridge will accommodate larger vessels, the development itself is not expected to increase vessel size, however the removal of the restriction

may see an increase in recreational or commercial vessel using the crossing. This is primarily seen as a benefit, however it is noted that overuse could strain other more sensitive uses of the area. However, overuse is not expected given the relatively modest numbers of vessels using this section of the River Derwent.

Expected benefits

Following the completion of the project, two benefits have been identified for water based recreational use, namely greater accessibility for future river based recreational activities at all times due to removal of navigation restrictions on the existing navigation pathway and the upgrade of the local boat ramp infrastructure following completion of the Project.

Accessibility

The new bridge will provide a minimum water clearance of 16.2 metres AHD and a navigation width of 45 metres through the navigation channel to enable passage of vessels consistent with the existing Bowen Bridge located downriver.

This will allow access of vessels at all times of the day to vessels that meet that air draft restriction.

Discussions with yacht and motorboat clubs indicated this would be a major benefit for users as compared with the current situation of using the existing bridge lift span.

The new design, while allowing for the passage of larger vessels, does not directly cause an increase in movements, however it is possible that a greater number of vessels will travel upstream with the old lift span no longer a constraint to access. It is unlikely that this will displace other smaller vessels, given smaller craft will have great access under a wider length of the new bridge once the existing bridge is removed and the wider navigation channel is provided.

The new works will also include the installation of new navigational markers, with a wider span and overall increased visibility improving safety for vessels approaching the New Bridgewater Bridge.

Boat ramp

The details regarding the reinstatement of a jetty and boat ramp within this portion of foreshore land following construction are yet to be developed and will be discussed and agreed with Brighton Council and PWS, representing their community and key stakeholders.

However it is expected that a boat ramp of similar or better amenity will be provided at an agreed location that will benefit recreational users.

Land based impacts and benefits

Section 3.2 of the Recreational Impact Assessment also identifies potential impacts and benefits of the proposed works for land based recreational activities - recreational walking, bike riding, play/picnic, bird observing and nature studies.

These impacts and benefits are relevant to the River Derwent Marine Conservation Area as they largely occur around the foreshore of the river and/or because of the natural values of the river environment.

The potential impact of the project on usage around the river is the limitation on public foreshore access on the northern shore during construction period. Whilst there is no existing formally developed or constructed foreshore trails, there are informal tracks indicating the foreshore is being used.

The Project will provide the opportunity for developing a foreshore trail which connects beneath the new bridge on the northern shore. The expected increased foreshore and bridge accessibility will increase opportunities for recreation, bird watching, observing the view scapes of the river and environmental interpretation. Section 4.13 of the MPIS expands on public open space matters.

Consultation with Birdlife Tasmania has indicated support for potential to enhance observation, interpretation and education of the waterbirds that frequent this section of the River Derwent MCA. Any wetland restoration areas could include information and interpretation and complement Goulds Lagoon Sanctuary to the south. Section 5.5.2.2 of the MPIS provided recommendations for projects with wetland offset values and includes wetland interpretation opportunities and waterbird monitoring and habitat management.

The Recreational Impact Assessment recommends engagement with the key stakeholders and recreational users continue regarding the opportunities to improve recreational access, facilities and experiences during the construction period and following the completion of the Project. It is expected that this will occur during and following the Project.

Revocation and/or amendment of conservation area boundary

It is the Project's view that there will likely be a need for revocation and/or amendment to the existing River Derwent Marine Conservation Area boundary to deal with the following matters.

- The new Bridgewater Bridge may include areas of reclaimed land at the northern and southern shores (directly associated with the bridge sub-structure) that will be left in place following construction.
 - Reclaimed land would no longer be consistent the purpose of the reservation and therefore could be deemed to no longer form part of the River Derwent Marine Conservation Area and thus be excised from the Conservation Area
- The ongoing maintenance and operation of the new bridge may be unnecessarily constrained if the River Derwent Marine Conservation Area remains in place through the new crossing alignment.
 - Past works at areas such as the existing bridge have required assessment by PWS and the submission of a Reserve Activity Assessment.

As part of this submission, the Project is not proposing to formalise any changes to the Conservation Area boundary, but rather to flag that they may be required and that they will be addressed once the design is finalised.